

PRE-DEMOLITION ASBESTOS SURVEY



240281, MCDONALD'S, BOONVILLE, MO

490 AMERICANA
BOONVILLE, MISSOURI 65233

ECS PROJECT NO. 53:5554-A

FOR: MCDONALD'S USA, LLC

JUNE 25, 2025





June 25, 2025

Debra Lyster
McDonald's USA, LLC
490 Americana
Boonville, Missouri 65233
Debra.Lster@us.mcd.com

ECS Project No. 53:5554-A

Reference: Pre-Demolition Asbestos Survey, 240281, McDonald's, Boonville, MO, 490 Americana, Boonville, Missouri

Dear Ms. Lyster:

ECS Midwest, LLC (ECS) is pleased to provide McDonald's USA, LLC with the results of the above referenced Pre-Demolition Asbestos Survey performed at 240281, McDonald's, Boonville, MO located at 490 Americana in Boonville, Missouri. This report summarizes our observations, analytical results, findings, and recommendations related to the work performed. The work described in this report was performed by ECS in general accordance with the Scope of Services described in ECS Proposal Number 53:8396 and the terms and conditions of the agreement authorizing those services.

ECS appreciates this opportunity to provide McDonald's USA, LLC with our services. If we can be of further assistance to you, please do not hesitate to contact us.

Sincerely,

ECS Midwest, LLC

Karen Fuhrmann
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EXECUTIVE SUMMARY

The subject property is improved with a McDonald's Restaurant located at 490 Americana in Boonville, Cooper County, Missouri. The 5,060± square foot restaurant building was reportedly constructed in 1986. At the time of our survey, the building was in operation and proposed for demolition.

On May 30, 2025, Ms. Karen Fuhrmann, a Missouri licensed inspector (Inspector No. 7118030422MOII22408), performed the asbestos assessment. A total of 39 bulk samples from 13 homogeneous areas were submitted to the laboratory of which 53 layers were analyzed. Bulk samples were submitted to EMSL Analytical, Inc. in Cinnaminson, New Jersey for analysis via Polarized Light Microscopy (PLM) in accordance with the current EPA-600 methodology.

Based on the laboratory analysis of the bulk samples collected during the survey, none of the materials were reported to contain asbestos above the regulatory limit of 1%.

Due to inaccessibility or the destructive means that asbestos sampling requires, unseen ACMs may remain within the building hidden behind inaccessible areas that include, but are not limited to, sub-grade walls, structural members, topping slabs, sub-grade sealants, flooring located below underlayments, areas behind exterior walls, pipe trenches, and subsurface utilities, etc.

If suspect materials are discovered during construction activities, they should be presumed to contain asbestos and be treated as ACMs or be sampled immediately upon discovery and prior to disturbance for asbestos content by an accredited or certified asbestos inspector in accordance with 29 Code of Federal Regulations (CFR) 1926.1101 and the State of Missouri.

ECS was unable to sample the the original roofing system that is suspected to underlie the outer membrane system; therefore, the underlying roofing materials are considered Assumed ACM. ECS recommends this material be sampled prior to demolition of the building.

The executive summary is an integral portion of this report, however, ECS recommends the report be read in its entirety.

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1.0 SITE DESCRIPTION

The subject property is located at 490 Americana in Boonville, Cooper County, Missouri. The property is improved with a 5,060± square foot single-story McDonald's restaurant. The building was reportedly constructed in 1986. At the time of our survey, the was in operation and proposed for demolition.

The building construction includes concrete masonry unit (CMU) exterior and load-bearing walls with wood framed secondary walls. The flooring throughout the building is finished with various porcelain or quarry tiles. Ceilings are finished with a 2-foot by 2-foot suspended tile system in the Front of House areas, 2-foot by 4-foot fire resistant suspended tile system in the Back of House areas, and drywall in the restrooms. Wall finishes include drywall and various porcelain tile applications. Fiberglass reinforced plastic (FRP) overlays drywall in much of the Kitchen and Wash areas, as well as in the Janitor's Closet. The building's exterior finishing includes brick with decorative exterior insulation and finish system (EIFS) across all but the lower approximately 4 feet of brick. The roof is finished with a membrane system over wood sheathing that is believed to overlay the original roofing system. It should be noted that the that underlying original roof could not be accessed at the time of the survey due to the destructive means that would be required; therefore, the roof should be sampled at a futured date prior to the building demolition.

2.0 PURPOSE

The purpose of the Pre-Demolition Asbestos Survey was to identify asbestos-containing materials (ACMs) which may require special handling and/or disposal prior to the proposed demolition activities. The identification of ACMs may require trained labor, regulated work practices, and special disposal.

3.0 METHODOLOGY

ECS performed the authorized Scope of Services in general accordance with our proposal, standard industry practices, and methods specified by regulations for the identification of ACMs.

3.1 Asbestos-Containing Materials

The asbestos survey was performed by Ms. Karen Fuhrmann (Missouri Inspector No. 7118030422MOII22408). A copy of Ms. Fuhrmann's license if provided in Appendix IV. The sampling was conducted in general accordance with the U.S. Environmental Protection Agency (USEPA) requirements as defined in the National Emissions Standard for Hazardous Air Pollutants (NESHAP) guidelines. Random sampling was performed on accessible interior and exterior areas of the building.

ECS first assessed the building areas to determine homogenous materials, which are groups of materials installed at the same general time period and are uniform in color and texture. Each homogenous material was classified in one of the following three (3) categories:

- Suspected to contain asbestos and requiring sample collection;
- Not suspected to contain asbestos and no samples required; and
- Assumed to contain asbestos.

ECS collected a total of 39 samples of materials suspected to contain asbestos and delivered them to EMSL Analytical, Inc. in Cinnaminson, New Jersey, a National Voluntary Laboratory Accreditation Program (NVLAP) Accredited Laboratory (Certification No. 101048-0), for analyses by polarized light microscopy (PLM). PLM samples were analyzed using the U.S. Environmental Protection Agency's Test Methods: *Methods for the Determination of Asbestos in Bulk Residence Materials* (EPA 600/R-93/116, July 1993) as the method reference. Material layering resulted in the analysis of 53 samples.

Analysis was performed by using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the laboratory technician visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample.

Asbestos containing materials as defined by the EPA and the State of Missouri as materials with an asbestos concentration of greater than 1 percent (>1%).

4.0 RESULTS

The following is a summary of laboratory results, findings and observations. Photographs of sampled materials are provided within [Appendix II](#). A copy of the analytical laboratory report is provided within [Appendix III](#).

4.1 Asbestos Sampling

In total, 39 bulk samples from 13 homogeneous areas were submitted to the laboratory, of which 53 layers were analyzed.

Asbestos Bulk Sample Locations and Analysis Results

Sample ID	Material Description	Sample Location	Analytical Results	Category	Estimated Quantity
01-01 to 01-03	Drywall Matrix 1) Drywall 2) Joint compound	Throughout	All layers - ND	N/A	N/A
02-04 to 02-06	Ceiling tile, 2'x2', textured	Front of House	ND	N/A	N/A
03-07 to 03-09	Ceiling tile, fire resistant	Back of House	ND	N/A	N/A

Sample ID	Material Description	Sample Location	Analytical Results	Category	Estimated Quantity
04-10 to 04-12	FRP mastic, tan	Back of House, Front of House - Janitor's Closet	ND	N/A	N/A
05-13 to 05-15	Grout, black	Front of House - floor & lower 4' on walls, Restroom walls & floor, Breakroom walls	ND	N/A	N/A
06-16 to 06-18	1) Grout, black-brown #2 2) Mortar (in sample 17 only)	Back of House - floor	All layers - ND	N/A	N/A
07-19 to 07-21	Grout, white	Back of House - wall tile	ND	N/A	N/A
08-22 to 08-24	Caulk, white	Back of House - interior door frames & FRP seams	ND	N/A	N/A
09-25 to 09-27	EIES 1) Cementitious finish 2) Insulation	Exterior	All layers - ND	N/A	N/A
10-28 to 10-30	Caulk, black-red	Exterior - windows	ND	N/A	N/A
11-31 to 11-33	Caulk gray	Exterior - on cooler roof	ND	N/A	N/A

Sample ID	Material Description	Sample Location	Analytical Results	Category	Estimated Quantity
12-34 to 12-36	1) Caulk, white #2 2) Tar (in sample 34 only)	Roof penetrations	All layers - ND	N/A	N/A
13-37 to 13-39	<u>Roofing Matrix</u> 1) Membrane, white/black 2) Insulation, brown	Roof	All layers - ND	N/A	N/A
ASSUMED ACM					
Not sampled (due to inaccessibility)	Original roofing system (composition unknown)	Roof - beneath surface membrane and sheathing			5,000± SF

Table Notes

Highlighted and bold = Asbestos detected at concentration >1%

ND=Asbestos Not Detected

N/A=Not Applicable (as asbestos was not detected)

* = Estimated quantities of ACM. Abatement contractor to determine exact quantities of all confirmed or presumed asbestos containing materials

4.2 Suspect or Assumed Asbestos-Containing Materials

Due to the inaccessibility or the destructive means that asbestos sampling requires, additional suspect ACMs may remain within the building hidden behind inaccessible areas that include, but are not limited to, sub-grade walls, structural members, topping slabs, sub-grade sealants, flooring located below underlayments, areas behind exterior walls, pipe trenches, and subsurface utilities, etc. These areas were deemed inaccessible and were not assessed.

Additionally, the 5,000± square feet membrane system (membrane over wood sheathing) is believed to overlay the original roofing system. The underlying original roofing materials were not accessible at the time of the survey due to the need for destructive methods to access the materials. Therefore, the underlying roofing materials should be sampled and analyzed for asbestos prior to the proposed demolition.

If materials not identified in the table in Section 4.1 are discovered during construction activities, they should be presumed to contain asbestos and be treated as ACMs or be sampled immediately upon discovery and prior to disturbance for asbestos content by a certified asbestos inspector in accordance with 29 CFR 1926.1101 and the State of Missouri.

5.0 RECOMMENDATIONS AND REGULATORY REQUIREMENTS

Based on our understanding of the purpose of the Pre-Demolition Asbestos Survey, the results of laboratory analysis, and our findings and observations, ECS presents the following recommendations.

5.1 Asbestos-Containing Materials

None of the bulk samples submitted to EMSL Analytical, Inc. were reported to contain detectable concentrations of asbestos. If additional suspect asbestos-containing materials are uncovered which were not accessible during this sampling event, it is recommended that these materials be sampled or tested immediately upon discovery for asbestos content by an asbestos inspector in accordance with 29 CFR 1926.1101.

ECS was unable to sample the the original roofing system that is suspected to underlie the outer membrane system; therefore, the underlying roofing materials are considered Assumed ACM. ECS recommends this material be sampled prior to demolition of the building.

If suspect asbestos-containing materials are uncovered during future renovation, which were not accessible during this survey or were outside of the survey area, it is recommended that these materials be sampled immediately upon discovery for asbestos content by a licensed asbestos inspector and submitted to an accredited laboratory for analytical interpretation or assumed to be asbestos containing. Our recommendations are based on the guidelines presented in USEPA, State of Missouri, and OSHA asbestos regulations.

6.0 LIMITATIONS

The conclusions and recommendations presented within this report are based upon a reasonable level of assessment within normal bounds and standards of professional practice for a site in this particular geographic setting. ECS is not responsible or liable for the discovery and elimination of hazards that may potentially cause damage, accidents, or injuries.

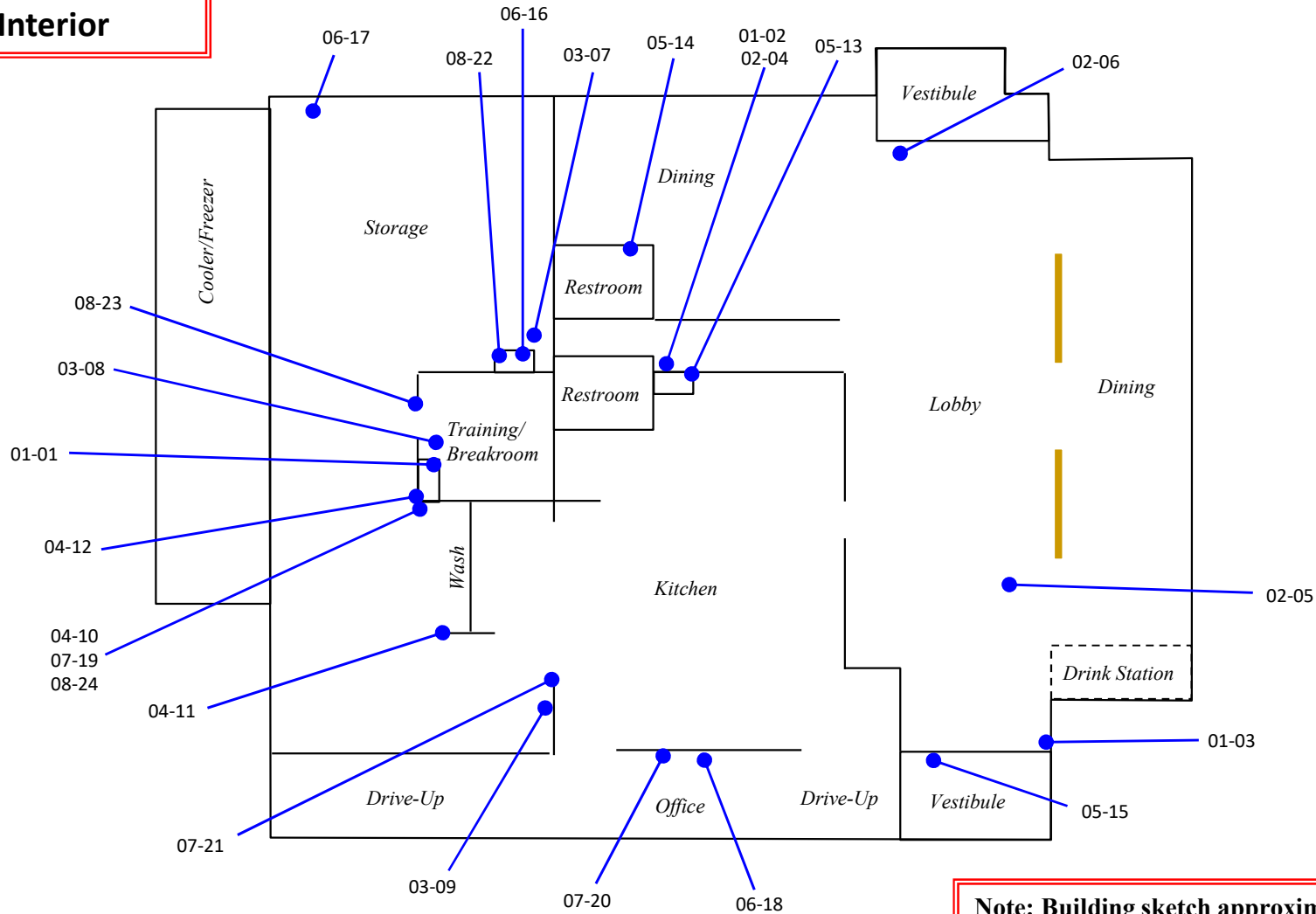
The observations, conclusions, and recommendations pertaining to environmental conditions at the subject site are necessarily limited to conditions observed, and/or materials reviewed at the time this study was undertaken. No warranty, expressed or implied, is made with regard to the conclusions and recommendations presented within this report. This report is provided for the exclusive use of the client. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties without the written consent of ECS and the client.

During this study, samples were submitted for analysis at an accredited laboratory via polarized light microscopy. As with any similar survey of this nature, actual conditions exist only at the precise locations from which samples were collected. Certain inferences are based on the results of this sampling and related testing to form a professional opinion of conditions in areas beyond those from which the samples were collected. No warranty, expressed or implied, is made.

Our recommendations are in part based on federal, state, and local regulations and guidelines. ECS does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, state, or federal public agencies, any conditions at the site that may present a potential danger to public health, safety, or the environment. Under this scope of services, ECS assumes no responsibility regarding any response actions initiated as a result of these findings. General compliance with regulations and response actions are the sole responsibility of the Client and should be conducted in accordance with local, state, and/or federal requirements.

Appendix I: Figures

Interior



Note: Building sketch approximates significant areas. Not all features are depicted.

Legend: ● ### Sample Location (Non-ACM) = Non-Detect (ND)
 ● ### Sample Location (ACM) = >1% Asbestos

● ### Sample Location (Non-ACM) = Trace to ≤ 1% Asbestos

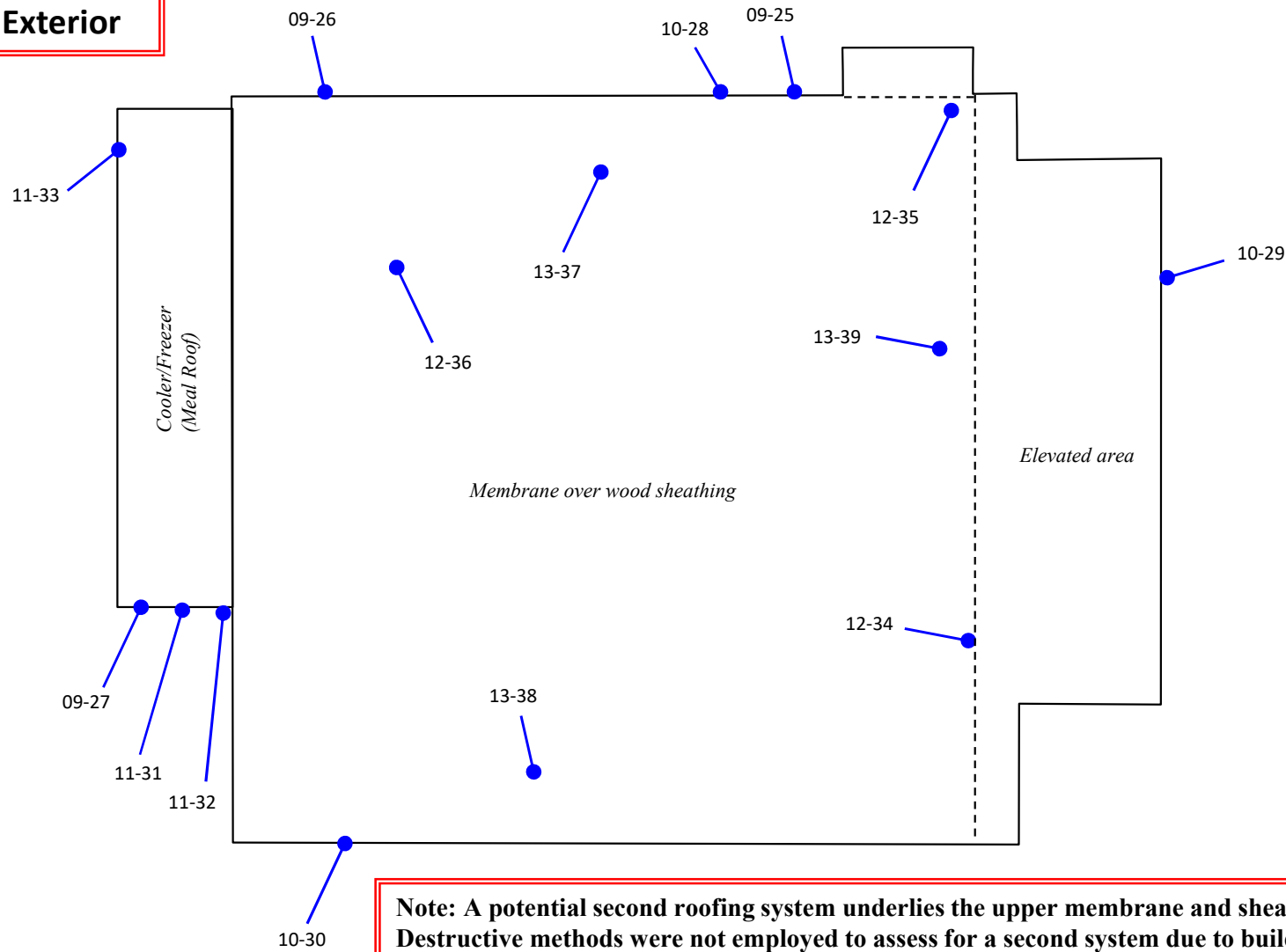
AN
 Not to scale

240281 - McDonald's
 490 Americana
 Boonville, Missouri



Asbestos Sample Location Diagram
 ECS Project 53:5554-A
 Sampled: May 30, 2025

Roof & Exterior



Note: A potential second roofing system underlies the upper membrane and sheathing. Destructive methods were not employed to assess for a second system due to building occupancy.

Legend: ●-### Sample Location (Non-ACM) = Non-Detect (ND)
 ●-### Sample Location (ACM) = >1% Asbestos

●-### Sample Location (Non-ACM) = Trace to ≤ 1% Asbestos

AN
Not to scale

240281 - McDonald's
 490 Americana
 Boonville, Missouri



Asbestos Sample Location Diagram
 ECS Project 53:5554-A
 Sampled: May 30, 2025

Appendix II: Site Photographs



1 - HA-01: Non-ACM drywall and joint compound



2 - HA-02: Non-ACM 2-ft by 2-ft textured ceiling tiles



3 - HA-03: Non-ACM 2-ft by 4-ft fire resistant ceiling tile



4 - HA-04: Non-ACM FRP mastic



5 - HA-05: Non-ACM gray-black grout in FOH



6 - HA-06: Non-ACM black tile grout in BOH



7 - HA-07: Non-ACM white tile grout



8 - HA-08: Non-ACM white caulk around BOH interior door frames and at FRP panel seams



9 - HA-09: Non-ACM EIFS exterior building finish



10 - HA-10: Non-ACM black caulk surrounding window exteriors



11 - HA-11: Non-ACM light gray caulk on cooler roof



12 - HA-12: Non-ACM white caulk on roof penetrations



13 - HA-13: Non-ACM membrane roofing system (may be overlaying an inaccessible roofing layer)

Appendix III: Asbestos Bulk Sample Results



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

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EMSL Order: 042511140

Customer ID: ECSL23

Customer PO: 53:5554-A

Project ID:

Attention: Karen Fuhrmann

ECS

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Springfield, IL 62703

Phone: (217) 500-1235

Fax:

Received Date: 06/09/2025 8:50 AM

Analysis Date: 06/10/2025 - 06/12/2025

Collected Date: 05/30/2025

Project: Boonville / 5554-A

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
01-01-Drywall 042511140-0001	Drywall Matrix	Peach Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
01-01-Joint Compound 042511140-0001A	Drywall Matrix	White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
01-02-Drywall 042511140-0002	Drywall Matrix	Peach Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
01-02-Joint Compound 042511140-0002A	Drywall Matrix	White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
01-03-Drywall 042511140-0003	Drywall Matrix	Peach Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
01-03-Joint Compound 042511140-0003A	Drywall Matrix	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
02-04 042511140-0004	2x2 Ceiling Tile	Gray/White Fibrous Homogeneous	25% Cellulose 20% Min. Wool	55% Non-fibrous (Other)	None Detected
02-05 042511140-0005	2x2 Ceiling Tile	Gray/White Fibrous Homogeneous	25% Cellulose 20% Min. Wool	55% Non-fibrous (Other)	None Detected
02-06 042511140-0006	2x2 Ceiling Tile	Gray/White Fibrous Homogeneous	50% Cellulose 40% Min. Wool	10% Non-fibrous (Other)	None Detected
03-07 042511140-0007	Ceiling Tile (Fire Resist.)	Brown/White Fibrous Homogeneous	5% Cellulose 5% Glass	90% Non-fibrous (Other)	None Detected
03-08 042511140-0008	Ceiling Tile (Fire Resist.)	Brown/White Fibrous Homogeneous	5% Cellulose 5% Glass	90% Non-fibrous (Other)	None Detected
03-09 042511140-0009	Ceiling Tile (Fire Resist.)	Brown/White Fibrous Homogeneous	10% Cellulose 2% Glass	88% Non-fibrous (Other)	None Detected
04-10 042511140-0010	FRP Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
04-11 042511140-0011	FRP Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
04-12 042511140-0012	FRP Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
05-13 042511140-0013	Black Grout	Black Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected

Initial report from: 06/12/2025 11:31:49



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

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EMSL Order: 042511140

Customer ID: ECSL23

Customer PO: 53:5554-A

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
05-14 042511140-0014	Black Grout	Black Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
05-15 042511140-0015	Black Grout	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06-16-Grout 042511140-0016	Black #2 Grout	Black Fibrous Homogeneous	4% Cellulose	96% Non-fibrous (Other)	None Detected
06-16-Grout 2 042511140-0016A	Black #2 Grout	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06-17-Grout 042511140-0017	Black #2 Grout	Black Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
06-17-Grout 2 042511140-0017A	Black #2 Grout	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06-17-Mortar 042511140-0017B	#2 Mortar	Brown/Purple Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
06-18-Grout 042511140-0018	Black #2 Grout	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
06-18-Grout 2 042511140-0018A	Black #2 Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
07-19 042511140-0019	White Grout	White Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
07-20 042511140-0020	White Grout	White Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
07-21 042511140-0021	White Grout	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
08-22 042511140-0022	White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
08-23 042511140-0023	White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
08-24 042511140-0024	White Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
09-25-Cementitious Material 042511140-0025	EIFS	Gray/Red/Blue Fibrous Homogeneous	20% Glass	80% Non-fibrous (Other)	None Detected
09-25-Styrofoam 042511140-0025A	EIFS	White Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
09-26-Cementitious Material 042511140-0026	EIFS	Gray/Red/Blue Fibrous Homogeneous	20% Glass	80% Non-fibrous (Other)	None Detected

Initial report from: 06/12/2025 11:31:49



EMSL Analytical, Inc.

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EMSL Order: 042511140

Customer ID: ECSL23

Customer PO: 53:5554-A

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
09-26-Styrofoam <i>042511140-0026A</i>	EIFS	White Non-Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
09-27-Cementitious Material <i>042511140-0027</i>	EIFS	Gray/Red/Blue Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
09-27-Styrofoam <i>042511140-0027A</i>	EIFS	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-28 <i>042511140-0028</i>	Black Caulk	Red/Black Non-Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
10-29 <i>042511140-0029</i>	Black Caulk	Black Non-Fibrous Homogeneous	75% Cellulose	25% Non-fibrous (Other)	None Detected
10-30 <i>042511140-0030</i>	Black Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-31 <i>042511140-0031</i>	Gray Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-32 <i>042511140-0032</i>	Gray Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
11-33 <i>042511140-0033</i>	Gray Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-34-Caulk <i>042511140-0034</i>	White #2 Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-34-Tar <i>042511140-0034A</i>	#2 Tar	Black Non-Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (Other)	None Detected
12-35 <i>042511140-0035</i>	White #2 Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12-36 <i>042511140-0036</i>	White #2 Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13-37-Rubber Membrane <i>042511140-0037</i>	Roofing	White/Black Fibrous Homogeneous	10% Synthetic	90% Non-fibrous (Other)	None Detected
13-37-Insulation <i>042511140-0037A</i>	Roofing	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
13-38-Rubber Membrane <i>042511140-0038</i>	Roofing	White/Black Fibrous Homogeneous	10% Synthetic	90% Non-fibrous (Other)	None Detected
13-38-Insulation <i>042511140-0038A</i>	Roofing	Brown Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
13-39-Rubber Membrane <i>042511140-0039</i>	Roofing	White/Black Fibrous Homogeneous	10% Synthetic	90% Non-fibrous (Other)	None Detected

Initial report from: 06/12/2025 11:31:49



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<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 042511140

Customer ID: ECSL23

Customer PO: 53:5554-A

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
13-39-Insulation	Roofing	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected

042511140-0039A

Analyst(s)

Brett Teixeira (17)

Lindsey Van Dusen (36)

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA LAP, LLC-IHLAP Lab 100194, PA ID# 68-00367, LA #04127

Initial report from: 06/12/2025 11:31:49



Asbestos Bulk Building Materials - Chain of Custody

EMSL Analytical, Inc.

EMSL Order Number / Lab Use Only

042511140

PHONE:
EMAIL:EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Customer Information	Customer ID:	ECSL23	Billing Information	Billing ID:	ECS63
	Company Name:	ECS Midwest, LLC		Company Name:	ECS Midwest, LLC
	Contact Name:	Karen Fuhrmann		Billing Contact:	Cathleen Fulmer
	Street Address:	3695 S 6th St Frontage Rd, Ste C		Street Address:	1575 Barclay Blvd
	City, State, Zip:	Springfield, IL 62703		Country:	
	Phone:	847-279-0366 / 217-500-1235		City, State, Zip:	Buffalo Grove, IL 60089
Email(s) for Report:	kfuhrmann@ecslimited.com	Email(s) for Invoice:	cfulmer@ecslimited.com		

Project Information				
Project Name/No:	Boonville / 5554-A		Purchase Order:	53:5554-A
EMSL LIMS Project ID:		US State where samples collected:	MO	State of Connecticut (CT) must select project location:
(If applicable, EMSL will provide)				☐ Commercial (Taxable) ☐ Residential (Non-Taxable)
Sampled By Name:	K Fuhrmann	Sampled By Signature:		
		Date Sampled:	5/30/25	No. of Samples in Shipment
				40
Turn-Around-Time (TAT)				
☐ 3 Hour	☐ 6 Hour	☐ 24 Hour	☐ 32 Hour	☒ 48 Hour
☐ 72 Hour	☐ 96 Hour	☐ 1 Week	☐ 2 Week	
Please call ahead for large projects and/or turnaround times 6 Hours or Less. 32 Hour TAT available for select tests only, samples must be submitted by 11:30am.				

PLM - Bulk (reporting limit) ☒ PLM EPA 600/R-93/116 (<1%) ☐ PLM EPA NOB (<1%) ☐ POINT COUNT ☐ 400 (<0.25%) ☐ 1,000 (<0.1%) ☐ POINT COUNT w/ GRAVIMETRIC ☐ 400 (<0.25%) ☐ 1,000 (<0.1%) ☐ NIOSH 9002 (<1%) ☐ NYS 198.1 (Friable - NY) ☐ NYS 198.6 NOB (Non-Friable - NY) ☐ NYS 198.8 (Vermiculite SM-V)	Test Selection TEM - Bulk ☐ TEM EPA NOB ☐ NYS NOB 198.4 (Non-Friable - NY) ☐ TEM EPA 600/R-93/116 w Milling Prep (0.1%) Other Tests (please specify) ☒ Positive Stop - Clearly Identified Homogeneous Areas (HA)
--	--

Sample Number	HA Number	Sample Location	Material Description
01-01 to 01-03			Dry wall matrix
02-04 to 02-06			Ceiling tile, 2x2
03-07 to 03-09			Ceiling tile, Fire resistant
04-10 to 04-12			FRP mastic
05-13 to 05-15			Grout, black
06-16 to 06-18			Grout, black #2
07-19 to 07-21			Grout, white
08-22 to 08-24			Caulk, white
09-25 to 09-27			EIFS
10-28 to 10-30			Caulk, black

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

DO NOT Composite Drywall matrix & other multi-layer samples

Method of Shipment:	Fed Ex	Sample Condition Upon Receipt:	
Relinquished by:	K Fuhrmann	Date/Time:	6/15/25 1830
Relinquished by:		Date/Time:	
Received by:	Angie O'Neil	Date/Time:	6/15/25 850
Received by:		Date/Time:	

Controlled Document - Asbestos Bulk R7 9/14/2021

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

EMSL Order Number / Lab Use Only

049511140

EMAIL:

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

RECEIVED
EMST
CINNAMINSON, N.J.
2025 JUN -9 A 9:15

Controlled Document - Asbestos Bulk R7 09/14/2021

☐ **AGREE TO ELECTRONIC SIGNATURE** (By checking, I consent to signing this Chain of Custody document by electronic signature.)

Page 2 of 2

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 101048-0

EMSL Analytical, Inc.

Cinnaminson, NJ

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

Asbestos Fiber Analysis

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué on ISO/IEC 17025).*

2024-07-01 through 2025-06-30

Effective Dates



A handwritten signature in blue ink, reading "Dana S. Laman".

For the National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Ms. Samantha Rundstrom
Phone: 856-303-2577
Email: srundstrom@emsl.com
<http://www.emsl.com>

ASBESTOS FIBER ANALYSIS

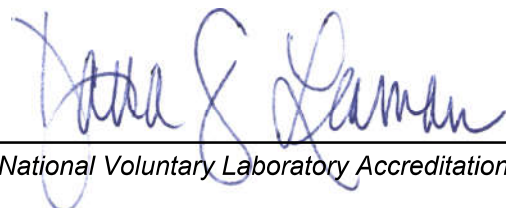
NVLAP LAB CODE 101048-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.



For the National Voluntary Laboratory Accreditation Program

Appendix IV: Certifications/ Licenses

CERTIFICATION NUMBER:
7118011025MOIR22408

THIS CERTIFIES
Karen L Fuhrmann
HAS COMPLETED THE CERTIFICATION
REQUIREMENTS FOR
Inspector



APPROVED: 02/19/2025

EXPIRES: 01/10/2026

TRAINING DATE: 01/10/2025


Director of Air Pollution Control Program



**ASBESTOS
PROFESSIONAL
LICENSE**

ID NUMBER
100 - 10926

ISSUED
4/25/2024

EXPIRES
05/15/2025

KAREN L FUHRMANN
6120 CHICKEN BRISTLE ROAD
ROCHESTER, IL 62563

Environmental Health



Indiana Dept. of Environmental Management

Karen L. Fuhrmann

Asbestos Inspector License #: 19A014286

Effective: 11/12/2024
Birth Date: 02/27/1963
Height: 5-07
Weight: 180

Expiration: 11/12/2025
Gender: F
Eye Color: Hazel
Hair Color: Gray

KAREN FUHRMANN

DOB: **02-27-1963**

Issued: **03-20-2025**



This person is licensed to perform
asbestos work in the State of Iowa. ID
card is intended for official use only and
must be present on jobsite.

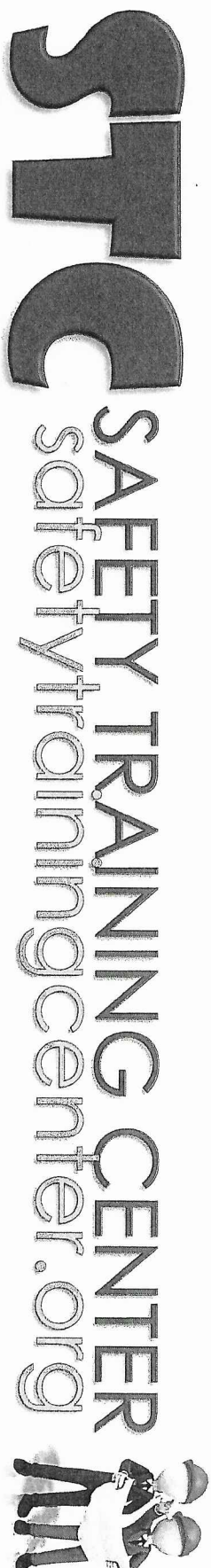
State of Nebraska

Department of Health and Human Services
Division of Public Health

Karen Lea Fuhrmann
Asbestos Inspector

License #: 1473
Status: Active

Expiration: 02/16/2026



2200 Vandalia Street, Collinsville, IL 62234 * Phone: 618-855-8764

Environmental and Occupational Safety & Health Training

Does hereby certify

Karen Fuhrmann

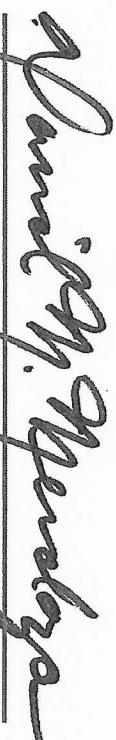
1575 Barclay Blvd, Buffalo Grove, IL 60089



*Has successfully completed and passed the course examination with at least
70% for re-accreditation under AHERA (Title II)*

Asbestos Building Inspector Refresher

Class Date: 01/10/2025
Examination Date: 01/10/2025
STC Certificate Number: STC-20250110-003991ABIR
Certification Expiration: 01/10/2026


David M. Mendoza – President/Training Director
Certified Environmental Specialist
OSHA Authorized Instructor