



August 19, 2024

Mr. Cody Vantrease  
Regional Project Manager  
The Kroger Co.  
40393 Grand River Avenue  
Novi, Michigan 48375

**RE: Asbestos Survey Report  
Kroger Store D-442 Renovation  
17447 Haggerty Road  
Northville, Michigan  
Project No. 343-681.0001**

Dear Mr. Vantrease:

Civil & Environmental Consultants, Inc. (CEC) was retained by The Kroger Co. (Kroger) to conduct an asbestos-containing material (ACM) survey at the Kroger Store D-442 Renovation in Northville, Michigan (subject property). The survey was conducted in accordance with CEC Proposal No. 343-681.0001, and authorized via Kroger Purchase Order No. 1307820, dated July 1, 2024. CEC understands that this asbestos survey was requested due to planned renovation of the subject property structure.

CEC's subcontractor, Micro Air Inc. (Micro Air), conducted the survey on July 18, 2024. The survey was conducted in general accordance with The Kroger Co., Asbestos-Containing Materials Scope of Work and Report Requirements (dated January 2022), the USEPA Asbestos National Emissions Standard for Hazardous Air Pollutants (NESHAP; 40 CFR Part 61, Subpart M) and the sample collection protocols established in EPA regulation 40 CFR 763, the Asbestos Hazard Emergency Response Act (AHERA). The Micro Air report is attached and must be read in its entirety for a comprehensive understanding of the findings of the survey and recommendations.

## **PROJECT INFORMATION**

The building was constructed in 1997, and encompasses approximately 64,658 square-feet under roof. The building was constructed on a concrete slab foundation supporting concrete block and brick exterior walls, with metal roof joists and a corrugated metal roof deck. Interior finishes consists of wallboard and concrete block walls. Ceilings were suspended acoustical ceiling tiles or exposed roof joists. Floors were vinyl or ceramic tile, or concrete. The roofing system consisted of a rubber membrane over isocyanate panels, asphaltic-based built-up roof, asphaltic flashings, asphalt shingles, and associated sealants.

The subject property consisted of Kroger Store D-442 and asphalt parking lot. The Kroger Store consisted of a grocery sales area, department preparation areas, pharmacy, office area, pick up area, recycling center, and a warehouse. Mezzanine areas consist of an office area.

## **FIELD ACTIVITIES**

CEC's subcontractor, Micro Air Inc. (Micro Air), utilizing a Michigan-licensed asbestos inspector, conducted the survey. The survey was limited to accessible areas and destructive sampling (e.g., breaking into wall voids) was not conducted.

Survey activities began with a visual inspection of interior and exterior (including roofs) areas of the subject property to identify homogeneous areas of suspect asbestos-containing materials (ACM). A homogeneous area (HA) consists of building materials that appear similar throughout in terms of color, texture and consideration of date of installation or application.

Based on the findings of the visual inspection, bulk samples of suspect ACM were collected in general accordance with AHERA sample collection protocols. Bulk samples were collected of the following suspect materials: exterior finishing system, asphalt roofing shingles and underlayment, roofing felts under rubber membrane roofing, seam sealant on rubber membrane roofing, caulk at roof penetrations, brick mortar and expansion joint, window/door frame caulk, window glazing, poured flooring, clay floor tile grout, ceramic wall tile grout, carpet tile mastic, stainless steel sink insulation, vinyl stair tread adhesive, bare concrete flooring, freezer/cooler wall panel gasket, plastic wall panel adhesive, drywall and joint compound, 2' x 4' drop acoustical ceiling tile (three patterns), vinyl base molding and adhesive, woodgrain linoleum flooring and adhesive, 12" x 24" vinyl floor tile and mastic (two patterns), and 12" x 12" vinyl floor tile and mastic.

Bulk samples were submitted under chain of custody to a laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for analysis by polarized light microscopy (PLM) with dispersion staining techniques per EPA's Method for the Determination of Asbestos in Bulk Building Materials (600/R-93-116).

## **PREVIOUS SURVEYS**

Kroger provided a prior asbestos survey report for the building titled *Asbestos Hazard Survey, Kroger Store D-442 Renovation, 17447 Haggerty Road, Northville, Michigan*, dated November 18, 2015, and prepared by Amec Foster Wheeler Environment & Infrastructure, Inc. (AFW). The report summarized a survey conducted in October 2015. A total of 123 bulk samples were collected and submitted for analysis. Asbestos was not identified in submitted samples. Information presented in the prior report is incorporated into this survey where appropriate. A copy of the AFW report is attached.

## **REGULATORY OVERVIEW**

The State of Michigan Department of Environmental Quality (MDEQ), Air Division enforces the USEPA Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61, Subpart M). The Asbestos NESHAP regulates asbestos fiber emissions, asbestos waste disposal practices, and requires the identification and classification according to friability of existing ACM prior to demolition or renovation activity.

Asbestos abatement notifications for all demolition and renovation activities involving the removal or disturbance of RACM and non-friable ACMs should be submitted to the Michigan Department of Environmental Quality (MDEQ) and LARA at least 10-working days prior to the commencement of project activities. If remodeling/renovation efforts include repair, removal or replacement of “load bearing” structural members, this is considered demolition and a 10-day notification to the local municipal agency may be required.

## **FINDINGS**

One hundred nineteen bulk samples of suspect ACMs were collected during the inspection and submitted to an accredited laboratory for analysis by PLM. Asbestos was not identified in the samples collected and analyzed.

## **RECOMMENDATIONS**

Based on the results of this asbestos survey, CEC does not recommend additional inspection or assessment activities for the subject property building. However, suspect materials, other than those identified during this asbestos survey may exist within the building. Should suspect materials other than those which were identified during this survey be uncovered during demolition/renovation, those materials should be assumed asbestos-containing until sampling and analysis can confirm or deny asbestos content.

## GENERAL COMMENTS

This report has been prepared for the exclusive use and reliance of The Kroger Co. and its subsidiaries and affiliates and its authorized representatives (Users), who may solely rely upon the conclusions presented herein. Reliance on this Asbestos Survey by the Users and all authorized parties will be subject to the terms, conditions and limitations stated in the Professional Services and Consulting Agreement (PSCA) signed by Civil & Environmental Consultants, Inc. and the Kroger Co. General Offices (G.O.) on June 20, 2019. The use or reliance by a third party is not permitted without the specific written permission of both the CEC and Kroger. ***This report is not a bidding document.*** Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. CEC does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied is made.

CEC appreciates the opportunity to serve The Kroger Co. on this project. Please call us if we can be of any further assistance.


Sincerely,

**Civil & Environmental Consultants, Inc.**



Bryan N. Gatlin

Senior Environmental Scientist



Deborah J. Blankenship, RG, PG, CPG

Principal

### Attachment

Micro Air Renovation Asbestos Inspection Report, August 8, 2024

Amec Foster Wheeler Asbestos Hazard Survey, November 18, 2015

cc: Cliff Brown, The Kroger Co.  
Garett Foley, The Kroger Co.  
Marty Cristo, The Kroger Co.  
Stephanie Barlow, The Kroger Co.  
Brett Smollen, The Kroger Co.



---

## **ATTACHMENT**

---

**2024**

**NESHAP Renovation Asbestos Survey Report**

**For**

**Existing Kroger Store D-442  
17447 Haggerty Road  
Northville, Michigan 48168**

Prepared For:

**Civil & Environmental Consultants, Inc.**

3000 Little Hills Expressway, Suite 102

St. Charles, MO 63301

Attn: Ms. Deborah J. Blankenship, P.G., R.G., Principal

Prepared By:



**Micro Air, Inc.**

6320 La Pas Trail

Indianapolis, Indiana 46268

## **TABLE OF CONTENTS**

- 1) Asbestos Survey Report
- 2) Photographs
- 3) Asbestos Bulk Sample Location Drawing
- 4) Asbestos Bulk Sample Report/Chain of Custody
- 5) Certifications

**TAB 1**

**ASBESTOS SURVEY REPORT**



6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566

E-MAIL: [microair@microair.com](mailto:microair@microair.com)  
WEB SITE: <http://www.microair.com>

Indoor Air Quality  
Catastrophe Services  
Microbiology  
Asbestos Surveys  
Air Monitoring  
Industrial Hygiene  
Epidemiology  
Radon Testing  
Water Testing  
Lead Testing

August 8<sup>th</sup>, 2024

Ms. Deborah J. Blankenship, P.G., Principal  
Civil & Environmental Consultants, Inc.  
3000 Little Hills Expressway; Suite 102  
Saint Charles, MO 63301

**RE: Renovation Asbestos Inspection  
Existing Kroger Store D-442  
17447 Haggerty Road  
Northville, Michigan 48168  
Micro Air, Inc. Job #20-19903-D**

Dear Ms. Blankenship:

Micro Air, Inc. was contracted by Civil & Environmental Consultants, Inc. to conduct an asbestos inspection of the existing Kroger Store D-442 located at 17447 Haggerty Road in Northville, Michigan. Mr. Donald G. French of Micro Air, Inc. (State of Michigan asbestos inspector accreditation number A11834, Exp. Date: 02/10/2025) conducted the inspection on July 18<sup>th</sup>, 2024. The survey was conducted in order to accommodate renovation of the existing Kroger Store at the site. **The inspection was conducted as a supplement to a previous asbestos inspection of the retail space conducted in November 2015 by Micro Air, Inc. No asbestos-containing materials were identified within the retail space during the previous inspection.**

All survey work was conducted following guidelines established under the EPA National Emission Standard for Asbestos (40 CFR 61 Subpart M) and the EPA "Asbestos Hazard Emergency Response Act (AHERA)" (40 CFR 763 subpart E). Re-sampling of the roofing systems was conducted during the course of this survey per the request of Civil & Environmental Consultants, Inc.

All bulk samples collected during the inspection were submitted to Micro Air, Inc.'s laboratory located at 6320 La Pas Trail in Indianapolis, Indiana for analysis. All bulk samples were analyzed utilizing the EPA approved Polarized Light Microscopy method (EPA Method/600/R-93/116). Following is a synopsis of the findings of the survey:

**Existing Kroger Store D-442  
17447 Haggerty Road  
Northville, Michigan 48168**

Information provided by the Northville Township Assessor's Office indicated that the retail space was constructed in 1997. The building contains approximately 64,658 square feet of floor space. The building has been remodeled since the original construction date. The retail space is constructed of brick and exterior finishing system, brick supports, drywall soffits, aluminum doors and window system and concrete block walls with structural steel supporting a corrugated metal deck. A gravel covered rubber membrane roof has been installed over an isocyanate roofing board with asphalt roofing tar at roof penetrations and an asphalt shingle roof over the eastern mezzanine area.

Interior finishes consists of drywall interior walls, drop acoustical tile ceilings and carpet tile, vinyl floor tile and ceramic tile applied over poured concrete floors. Non-suspect fiberglass insulation and bare metal was identified at the HVAC ductwork. Domestic water and refrigerant lines throughout the building are insulated with non-suspect armaflex or fiberglass insulation and zeston fittings. The building is heated and cooled by rooftop gas units with supplemental electric cooling.

**The following potential, asbestos-containing materials were identified at the Kroger retail space and sampled for asbestos content during the inspection:**

1. Exterior finishing system
2. Asphalt roofing shingles and underlayment
3. Roofing felts under rubber membrane roofing
4. Seam sealant on rubber membrane roofing
5. Caulk at roof penetrations
6. Brick mortar and expansion joint
7. Concrete block mortar and expansion joint
8. Window/door frame caulk
9. Window glazing
10. Poured flooring
11. Clay floor tile grout
12. Ceramic wall tile grout
13. Carpet tile mastic
14. Stainless steel sink insulation
15. Vinyl stair tread adhesive
16. Bare concrete flooring
17. Freezer/cooler wall panel gasket
18. Plastic wall panel adhesive
19. Interior and perimeter drywall and associated joint compound
20. 2' x 4' Drop acoustical ceiling tile (three patterns)
21. Vinyl base molding and adhesive

- 22. Woodgrain linoleum flooring and adhesive
- 23. 12" x 24" Vinyl floor tile and mastic (two patterns)
- 24. 12" x 12" Vinyl floor tile and mastic

**The results of laboratory analysis indicated no asbestos present within the existing Kroger Store D-442 located at 17447 Haggerty Road in Northville, Michigan.**

Enclosed is a copy of the laboratory bulk sample reports/chain of custody logs, bulk sample location drawings, photographs of materials sampled and inspector/laboratory certifications.

Thank you for the opportunity to provide our asbestos related services. If you have any questions concerning this report or need additional information, please do not hesitate to contact me.

Respectfully submitted,



Donald G. French  
Asbestos Inspector  
Micro Air, Inc.

**TAB 2**

**PHOTOGRAPHS**





**Existing Kroger Store D-442**  
17447 Haggerty Road  
Northville, Michigan 48168

**Exterior Photo**



**Existing Kroger Store D-442**  
Exterior Upper Level  
**Exterior Finishing System**

**No Asbestos Detected**



**Existing Kroger Store D-442**  
Roof – East Side  
**Asphalt Roofing Shingles and Underlayment**  
**No Asbestos Detected**

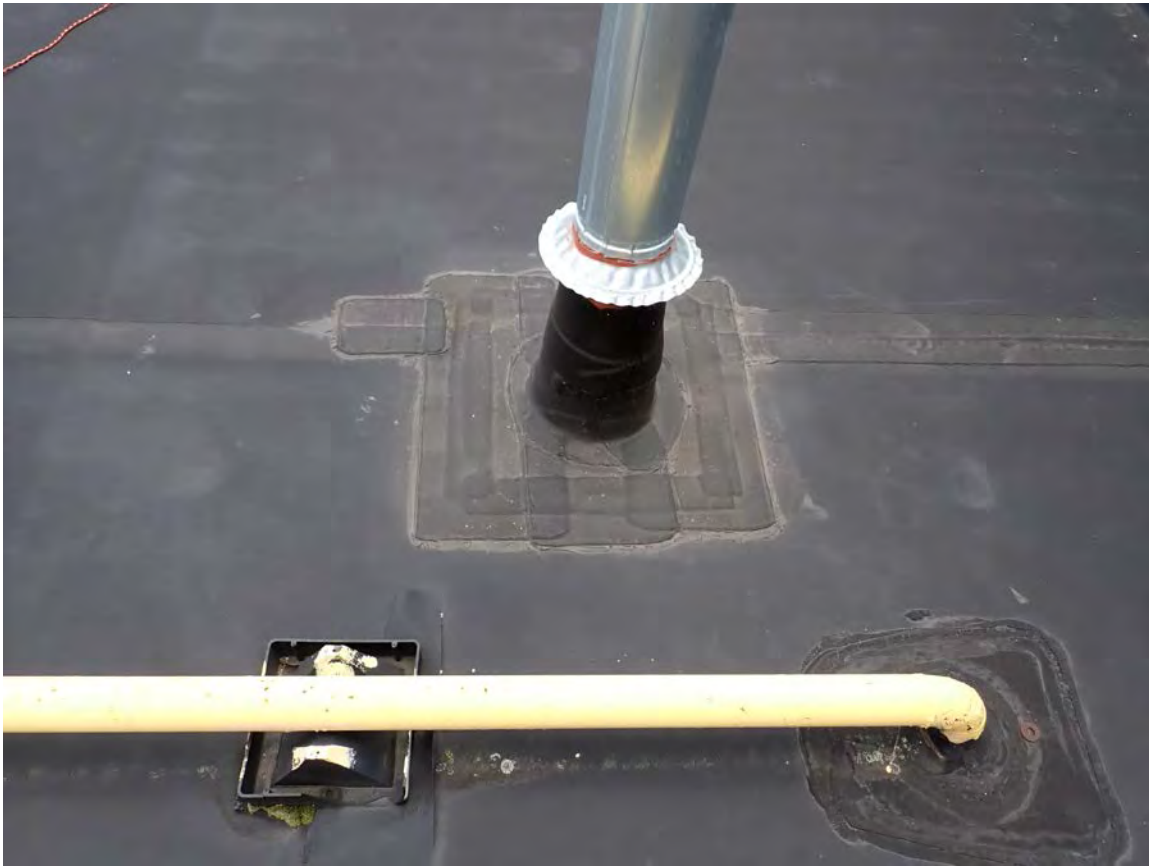




**Existing Kroger Store D-442**  
Main Roof  
**Roofing Felt under Rubber Membrane Roof**  
**No Asbestos Detected**



**Existing Kroger Store D-442**  
Main Roof  
**Rubber Membrane Roof Seam Caulk**  
**No Asbestos Detected**



**Existing Kroger Store D-442**

**Main Roof**

**Roof Penetration Caulk**

**No Asbestos Detected**



**Existing Kroger Store D-442**  
Exterior  
**Brick Mortar and Expansion Joint**

**No Asbestos Detected**





**Existing Kroger Store D-442  
Warehouse  
Concrete Block Mortar and Expansion Joint  
  
No Asbestos Detected**





**Existing Kroger Store D-442**  
Exterior Windows and Doors, Mezzanine  
**Window/Door Frame Caulk and Window Glazing Material**

**No Asbestos Detected**



**Existing Kroger Store D-442**  
Recycling Center, Food Prep Areas  
**Poured Flooring**

**No Asbestos Detected**



**Existing Kroger Store D-442**  
Meat Prep Area and Vestibules  
**Clay Floor Tile Grout**

**No Asbestos Detected**





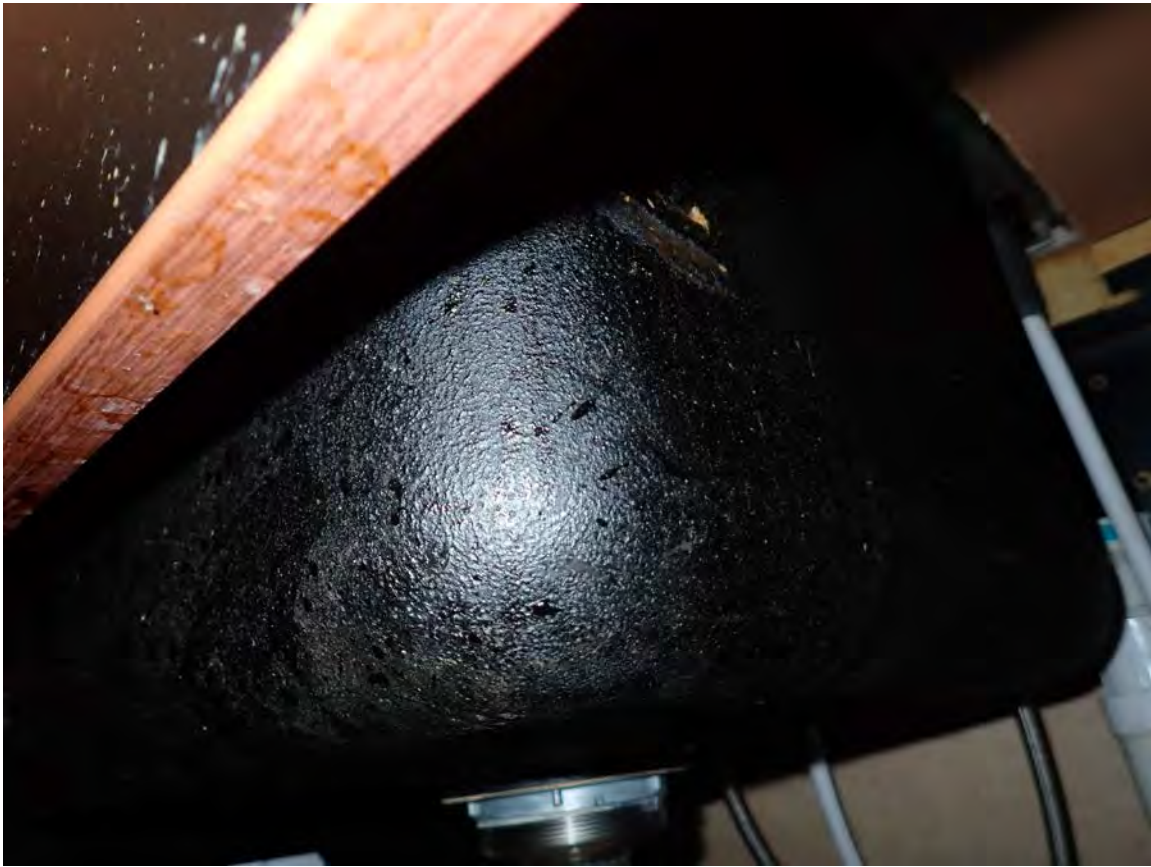
**Existing Kroger Store D-442**  
Food Prep Areas and Restrooms  
**Ceramic Wall Tile Grout**

**No Asbestos Detected**



**Existing Kroger Store D-442**  
Pharmacy, Office Areas, and Customer Care  
**Carpet Tile Mastic**

**No Asbestos Detected**



**Existing Kroger Store D-442**  
Floral and Pharmacy Sinks  
**Stainless Steel Sink Insulation**

**No Asbestos Detected**



**Existing Kroger Store D-442**  
Mezzanine North and South Stairs  
**Vinyl Stair Tread Adhesive**

**No Asbestos Detected**





**Existing Kroger Store D-442**

**Warehouse and Dock**

**Bare Concrete Flooring**

**No Asbestos Detected**





**Existing Kroger Store D-442**  
Freezers and Coolers  
**Freezer/Cooler Panel Insulation and Seam Putty**

**No Asbestos Detected**



**Existing Kroger Store D-442**  
Store Lower Walls  
**Plastic Wall Panel Adhesive**

**No Asbestos Detected**



**Existing Kroger Store D-442**  
Interior and Perimeter Walls  
**Drywall and Associated Joint Compound**

**No Asbestos Detected**



**Existing Kroger Store D-442**  
Recycling, Pharmacy, Restroom Hall  
**2' x 4' Acoustical Ceiling Tile (birdtrack pattern)**

**No Asbestos Detected**





**Existing Kroger Store D-442**  
Office Areas  
**2' x 4' Acoustical Ceiling Tile (pinhole pattern)**  
**No Asbestos Detected**



**Existing Kroger Store D-442**  
Food Prep Areas  
**2' x 4' Acoustical Ceiling Tile (drywall pattern)**  
**No Asbestos Detected**



**Existing Kroger Store D-442**  
Throughout Store Floor and Mezzanine  
**Vinyl Base Molding and Adhesive**

**No Asbestos Detected**



**Existing Kroger Store D-442**  
Produce, Adult Beverage, Vestibules, and Mezzanine  
**Woodgrain Linoleum and Adhesive**

**No Asbestos Detected**





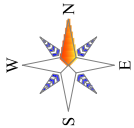
**Existing Kroger Store D-442**  
Store Floor  
**12" x 24" Tan and Brown Floor Tile and Mastic**  
**No Asbestos Detected**



**Existing Kroger Store D-442**  
ECR  
**12" x 12" White Scale Pattern Floor Tile and Mastic**  
**No Asbestos Detected**

**TAB 3**

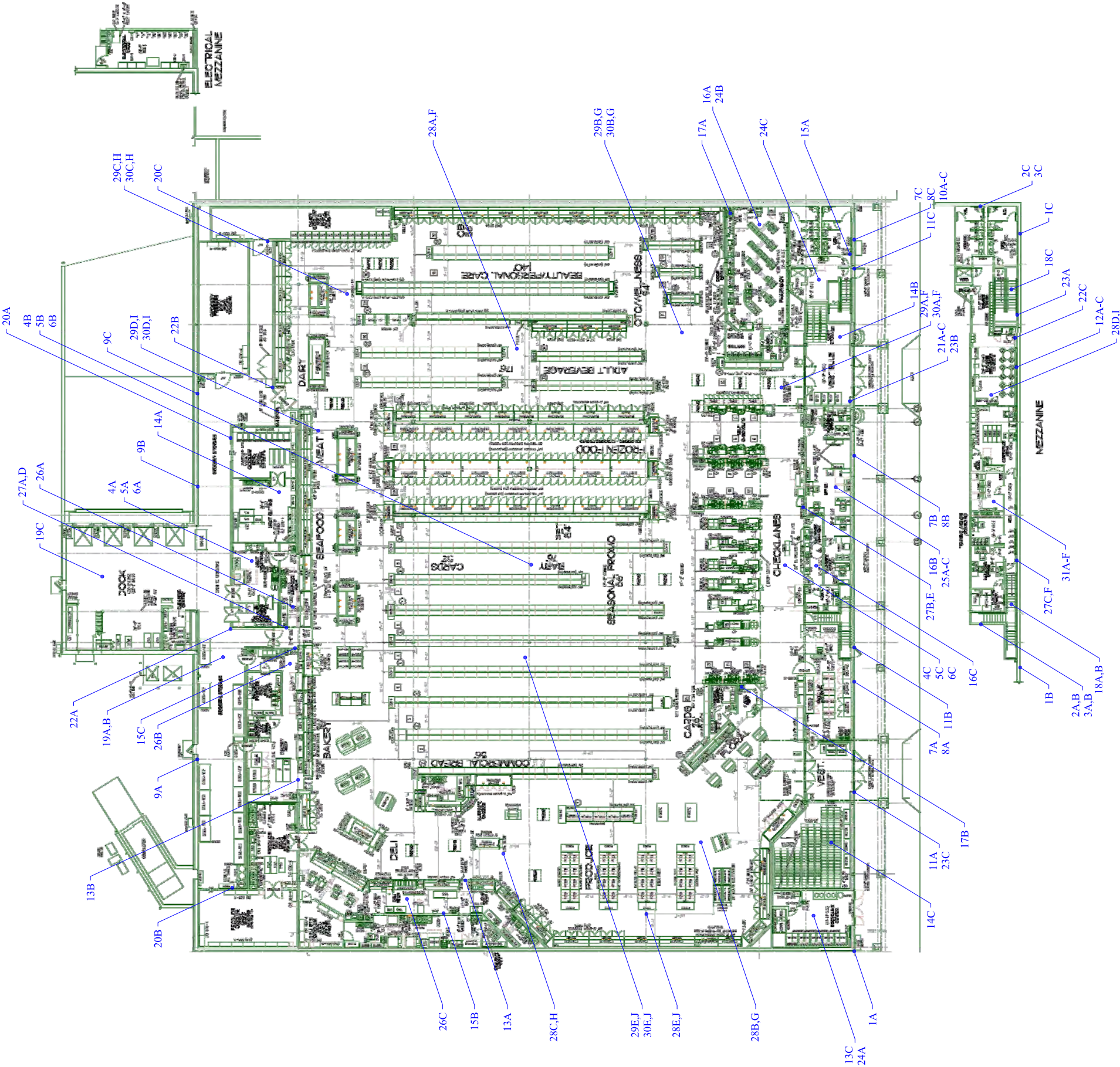
**ASBESTOS BULK SAMPLE LOCATION DRAWING**



Date: July 2024  
Scale: None  
Project Mgr.: A.E.B.  
Drawn By: D.G.F.  
Checked By: A.E.B.

Micro Air, Inc.  
6320 La Pas Trail  
Indianapolis, Indiana 46268  
(317) 293-1533

Existing Kroger Store D-442  
17447 Haggerty Road  
Northville, Michigan 48168  
Asbestos Bulk Sample Location Drawing  
Drawing #: 20-19903-D SLD



**TAB 4**

**ASBESTOS BULK SAMPLE REPORT/CHAIN OF CUSTODY**





**micro air inc.**

6320 La Pas Trail, Indianapolis, IN 46268 \* Phone: (317) 293-1533 \* lab@microair.com \* www.microair.com

August 6, 2024

Civil & Environmental Consultants  
Deborah Blankenship  
3000 Little Hills Expressway  
Suite 102  
St. Charles, MO 63301

**Polarized Light Microscopy (PLM) Bulk Sample Results**

Project Name: Kroger Store D-442  
Project Number: 20-19903-D

Location: 17447 Haggerty Rd. - Northville, MI  
Date Received: July 22, 2024

Enclosed please find the results of samples analyzed by the Micro Air, Inc. laboratory.

Samples were analyzed by 40 CFR Part 763 Appendix E to Subpart E - Interim Method for the Determination of Asbestos in Bulk Insulation Samples using Polarized Light Microscopy (PLM) with Dispersion Staining. Where appropriate, analytical procedures outlined in the EPA Method/600/R-93/116, Method for the Determination of Asbestos in Bulk Building Materials (July 1993) may also be used during analysis. All samples may be heated to release fibrous material.

Samples are considered asbestos-containing material (ACM), as defined by the EPA, when asbestos is found in greater than 1% of the sample. Sample percentages are calculated using comparative visual estimation (CVES). Asbestos regulations and EPA methods state that distinct layers must be analyzed and reported separately. If composite analysis is requested and performed on multi-layered samples, the sample is considered ACM if any quantity of asbestos is found. This report should not be used to imply product or service endorsement by NVLAP, NIST, or any agency of the U.S. Government.

Disclaimer: PLM results of non-friable organic bound (NOB) materials, such as floor tiles and roofing materials, can be inconclusive due to analytical difficulties in standard bulk sample analysis techniques. If desired, results can be confirmed with transmission electron microscopy (TEM) to ensure that asbestos has not been missed during PLM analysis.

This report may not be reproduced, except in full, without written approval from Micro Air, Inc. These results only relate to the items tested and are only as accurate as the sampling information submitted by the customer (e.g. air volumes). Samples are received in good condition unless otherwise noted.

Please consult your Project Manager, Donald French, with any questions regarding these results.

Analyzed By:

Darren A. Parsons

Authorized By:

Betsie L. McAfee  
Technical Manager

Client: Civil & Environmental Consultants  
Report Date: 8/6/2024  
Lab Number: 186111

Project Number: 20-19903-D  
Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description                      | Asbestos Present? | Color  | Homogeneous | Sample Composition |   |
|-----------|------------------|----------------|---------------|---|-------------------|--------|-------------|--------------------|---|
|           |                  |                |               |   |                   |        |             | Asbestos           | Non-Asbestos                                  |
| 001       | 1A               | 7/18/2024      | 7/30/2024     | EFS; Exterior - East Side               | NO                | W-G-BL | NO          | N/A                | Cellulose 30%<br>Fiberglass 10%<br>Binder 60% |
| 002       | 1B               | 7/18/2024      | 7/30/2024     | EFS; Exterior - East Side               | NO                | W-G-BL | NO          | N/A                | Cellulose 25%<br>Fiberglass 10%<br>Binder 65% |
| 003       | 1C               | 7/18/2024      | 7/30/2024     | EFS; Exterior - East Side               | NO                | W-G-BL | NO          | N/A                | Cellulose 30%<br>Fiberglass 10%<br>Binder 60% |
| 004       | 2A               | 7/18/2024      | 7/30/2024     | Asphalt Roof Shingles; Roof - East Side | NO                | B      | NO          | N/A                | Cellulose <1%<br>Fiberglass 10%<br>Binder 90% |
| 005       | 2B               | 7/18/2024      | 7/30/2024     | Asphalt Roof Shingles; Roof - East Side | NO                | B      | NO          | N/A                | Cellulose 2%<br>Fiberglass 10%<br>Binder 88%  |
| 006       | 2C               | 7/18/2024      | 7/30/2024     | Asphalt Roof Shingles; Roof - East Side | NO                | B      | NO          | N/A                | Cellulose <1%<br>Fiberglass 10%<br>Binder 90% |
| 007       | 3A               | 7/18/2024      | 7/30/2024     | Shingle Underlayment; Roof on East Side | NO                | B      | YES         | N/A                | Fiberglass 30%<br>Binder 70%                  |

Client: Civil & Environmental Consultants  
Report Date: 8/6/2024  
Lab Number: 186111

Project Number: 20-19903-D  
Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |   |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|---|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                                  |
| 008       | 3B               | 7/18/2024      | 7/30/2024     | Shingle Underlayment; Roof on East Side                      | NO                | B     | YES         | N/A                | Cellulose <1%<br>Fiberglass 15%<br>Binder 85% |
| 009       | 3C               | 7/18/2024      | 7/30/2024     | Shingle Underlayment; Roof on East Side                      | NO                | B     | YES         | N/A                | Cellulose <1%<br>Fiberglass 25%<br>Binder 75% |
| 010       | 4A               | 7/18/2024      | 7/30/2024     | Roof Felt Under Rubber Membrane;<br>Roof - West Side, Center | NO                | B-O   | NO          | N/A                | Cellulose 20%<br>Fiberglass 60%<br>Binder 20% |
| 011       | 4B               | 7/18/2024      | 7/30/2024     | Roof Felt Under Rubber Membrane;<br>Roof - Middle of Roof    | NO                | B-O   | NO          | N/A                | Cellulose 40%<br>Fiberglass 40%<br>Binder 20% |
| 012       | 4C               | 7/18/2024      | 7/30/2024     | Roof Felt Under Rubber Membrane;<br>Roof - East Side, Center | NO                | B-O   | NO          | N/A                | Cellulose 30%<br>Fiberglass 40%<br>Binder 30% |
| 013       | 5A               | 7/18/2024      | 7/31/2024     | Seam Sealant on Rubber Membrane;<br>Roof - West Side, Center | NO                | B     | YES         | N/A                | Cellulose <1%<br>Binder 100%                  |
| 014       | 5B               | 7/18/2024      | 7/31/2024     | Seam Sealant on Rubber Membrane;<br>Roof - Middle of Roof    | NO                | B     | YES         | N/A                | Binder 100%                                   |

Client: Civil & Environmental Consultants  
 Report Date: 8/6/2024  
 Lab Number: 186111

Project Number: 20-19903-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |                              |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|------------------------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                 |
| 015       | 5C               | 7/18/2024      | 7/31/2024     | Seam Sealant on Rubber Membrane;<br>Roof - East Side, Center | NO                | B     | YES         | N/A                | Binder 100%                  |
| 016       | 6A               | 7/18/2024      | 7/31/2024     | Roof Penetration Caulk; Roof - West<br>Side, Center          | NO                | B     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 017       | 6B               | 7/18/2024      | 7/31/2024     | Roof Penetration Caulk; Roof - Middle of<br>Roof             | NO                | B     | YES         | N/A                | Binder 100%                  |
| 018       | 6C               | 7/18/2024      | 7/31/2024     | Roof Penetration Caulk; Roof - East Side,<br>Center          | NO                | B     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 019       | 7A               | 7/18/2024      | 7/31/2024     | Brick Mortar; Exterior - East Side                           | NO                | G     | YES         | N/A                | Binder 100%                  |
| 020       | 7B               | 7/18/2024      | 7/31/2024     | Brick Mortar; Exterior - East Side                           | NO                | G     | YES         | N/A                | Binder 100%                  |
| 021       | 7C               | 7/18/2024      | 7/31/2024     | Brick Mortar; Exterior - East Side                           | NO                | G     | YES         | N/A                | Binder 100%                  |

Client: Civil & Environmental Consultants  
Report Date: 8/6/2024  
Lab Number: 186111

Project Number: 20-19903-D  
Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description                                   | Asbestos Present? | Color | Homogeneous | Sample Composition |              |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|--------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos |
| 022       | 8A               | 7/18/2024      | 7/31/2024     | Brick Expansion Joint Caulk; Exterior - East Side    | NO                | R     | YES         | N/A                | Binder 100%  |
| 023       | 8B               | 7/18/2024      | 7/31/2024     | Brick Expansion Joint Caulk; Exterior - East Side    | NO                | R     | YES         | N/A                | Binder 100%  |
| 024       | 8C               | 7/18/2024      | 7/31/2024     | Brick Expansion Joint Caulk; Exterior - East Side    | NO                | R     | YES         | N/A                | Binder 100%  |
| 025       | 9A               | 7/18/2024      | 7/31/2024     | Concrete Block Mortar; Warehouse - South End         | NO                | G     | YES         | N/A                | Binder 100%  |
| 026       | 9B               | 7/18/2024      | 7/31/2024     | Concrete Block Mortar; Warehouse - Middle            | NO                | R-W-G | YES         | N/A                | Binder 100%  |
| 027       | 9C               | 7/18/2024      | 7/31/2024     | Concrete Block Mortar; Warehouse - North End         | NO                | G     | YES         | N/A                | Binder 100%  |
| 028       | 10A              | 7/18/2024      | 7/31/2024     | Concrete Block Expansion Joint; Exterior - East Side | NO                | BR    | YES         | N/A                | Binder 100%  |



Client: Civil & Environmental Consultants  
Report Date: 8/6/2024  
Lab Number: 186111

Project Number: 20-19903-D  
Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description                                      | Asbestos Present? | Color | Homogeneous | Sample Composition |              |
|-----------|------------------|----------------|---------------|---|-------------------|-------|-------------|--------------------|--------------|
|           |                  |                |               |   |                   |       |             | Asbestos           | Non-Asbestos |
| 029       | 10B              | 7/18/2024      | 7/31/2024     | Concrete Block Expansion Joint;<br>Exterior - East Side | NO                | BR    | YES         | N/A                | Binder 100%  |
| 030       | 10C              | 7/18/2024      | 7/31/2024     | Concrete Block Expansion Joint;<br>Exterior - East Side | NO                | BR    | YES         | N/A                | Binder 100%  |
| 031       | 11A              | 7/18/2024      | 7/31/2024     | Window/ Door Frame Caulk; Exterior -<br>East Side       | NO                | R     | YES         | N/A                | Binder 100%  |
| 032       | 11B              | 7/18/2024      | 7/31/2024     | Window/ Door Frame Caulk; Exterior -<br>East Side       | NO                | R     | YES         | N/A                | Binder 100%  |
| 033       | 11C              | 7/18/2024      | 7/31/2024     | Window/ Door Frame Caulk; Exterior -<br>East Side       | NO                | BR    | YES         | N/A                | Binder 100%  |
| 034       | 12A              | 7/18/2024      | 7/31/2024     | Window Glazing; Mezzanine - Break<br>Room               | NO                | B     | YES         | N/A                | Binder 100%  |
| 035       | 12B              | 7/18/2024      | 7/31/2024     | Window Glazing; Mezzanine - Break<br>Room               | NO                | B     | YES         | N/A                | Binder 100%  |

Client: Civil & Environmental Consultants  
Report Date: 8/6/2024  
Lab Number: 186111

Project Number: 20-19903-D  
Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description                     | Asbestos Present? | Color | Homogeneous | Sample Composition |              |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|--------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos |
| 036       | 12C              | 7/18/2024      | 7/31/2024     | Window Glazing; Mezzanine - Break Room | NO                | B     | YES         | N/A                | Binder 100%  |
| 037       | 13A              | 7/18/2024      | 7/31/2024     | Poured Flooring; Cafe                  | NO                | G     | YES         | N/A                | Binder 100%  |
| 038       | 13B              | 7/18/2024      | 7/31/2024     | Poured Flooring; Bakery                | NO                | G-B   | YES         | N/A                | Binder 100%  |
| 039       | 13C              | 7/18/2024      | 7/31/2024     | Poured Flooring; Recycling             | NO                | G-W   | YES         | N/A                | Binder 100%  |
| 040       | 14A              | 7/18/2024      | 7/31/2024     | Clay Floor Tile Grout; Meat Prep       | NO                | B     | YES         | N/A                | Binder 100%  |
| 041       | 14B              | 7/18/2024      | 7/31/2024     | Clay Floor Tile Grout; North Vestibule | NO                | B     | YES         | N/A                | Binder 100%  |
| 042       | 14C              | 7/18/2024      | 7/31/2024     | Clay Floor Tile Grout; South Vestibule | NO                | B     | YES         | N/A                | Binder 100%  |

Client: Civil & Environmental Consultants  
 Report Date: 8/6/2024  
 Lab Number: 186111

Project Number: 20-19903-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description                             | Asbestos Present? | Color | Homogeneous | Sample Composition |  |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|--|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                                   |
| 043       | 15A              | 7/18/2024      | 7/31/2024     | Ceramic Wall Tile Grout; Public Men's Restroom | NO                | T     | YES         | N/A                | Binder 100%                                    |
| 044       | 15B              | 7/18/2024      | 7/31/2024     | Ceramic Wall Tile Grout; Deli                  | NO                | T     | YES         | N/A                | Binder 100%                                    |
| 045       | 15C              | 7/18/2024      | 7/31/2024     | Ceramic Wall Tile Grout; Bakery                | NO                | T     | YES         | N/A                | Binder 100%                                    |
| 046       | 16A              | 7/18/2024      | 7/31/2024     | Carpet Tile Mastic; Pharmacy                   | NO                | GR    | YES         | N/A                | Cellulose <1%<br>Synthetics <1%<br>Binder 100% |
| 047       | 16B              | 7/18/2024      | 7/31/2024     | Carpet Tile Mastic; Offices                    | NO                | GR    | YES         | N/A                | Cellulose <1%<br>Synthetics <1%<br>Binder 100% |
| 048       | 16C              | 7/18/2024      | 7/31/2024     | Carpet Tile Mastic; Customer Service           | NO                | GR    | YES         | N/A                | Cellulose <1%<br>Synthetics <1%<br>Binder 100% |
| 049       | 17A              | 7/18/2024      | 7/31/2024     | Stainless Steel Sink Insulation; Pharmacy Sink | NO                | B     | YES         | N/A                | Binder 100%                                    |

Client: Civil & Environmental Consultants  
 Report Date: 8/6/2024  
 Lab Number: 186111

Project Number: 20-19903-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description                             | Asbestos Present? | Color | Homogeneous | Sample Composition |              |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|--------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos |
| 050       | 17B              | 7/18/2024      | 7/31/2024     | Stainless Steel Sink Insulation; Floral Sink   | NO                | B     | YES         | N/A                | Binder 100%  |
| 051       | 18A              | 7/18/2024      | 7/31/2024     | Stair Tread Adhesive; Mezzanine - South Stairs | NO                | T     | YES         | N/A                | Binder 100%  |
| 052       | 18B              | 7/18/2024      | 7/31/2024     | Stair Tread Adhesive; Mezzanine - South Stairs | NO                | T     | YES         | N/A                | Binder 100%  |
| 053       | 18C              | 7/18/2024      | 7/31/2024     | Stair Tread Adhesive; Mezzanine - North Stairs | NO                | T     | YES         | N/A                | Binder 100%  |
| 054       | 19A              | 7/18/2024      | 8/2/2024      | Bare Concrete; Warehouse                       | NO                | G     | YES         | N/A                | Binder 100%  |
| 055       | 19B              | 7/18/2024      | 8/2/2024      | Bare Concrete; Warehouse                       | NO                | G     | YES         | N/A                | Binder 100%  |
| 056       | 19C              | 7/18/2024      | 8/2/2024      | Bare Concrete; Dock                            | NO                | G     | YES         | N/A                | Binder 100%  |

Client: Civil & Environmental Consultants  
Report Date: 8/6/2024  
Lab Number: 186111

Project Number: 20-19903-D  
Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description  | Asbestos Present? | Color | Homogeneous | Sample Composition |                              |
|-----------|------------------|----------------|---------------|---|-------------------|-------|-------------|--------------------|------------------------------|
|           |                  |                |               |   |                   |       |             | Asbestos           | Non-Asbestos                 |
| 057       | 20A              | 7/18/2024      | 8/2/2024      | Cooler/ Freezer Panel Gasket; Meat Cooler                             | NO                | G     | YES         | N/A                | Binder 100%                  |
| 058       | 20B              | 7/18/2024      | 8/2/2024      | Cooler/ Freezer Panel Gasket; Produce Cooler                          | NO                | G     | YES         | N/A                | Binder 100%                  |
| 059       | 20C              | 7/18/2024      | 8/2/2024      | Cooler/ Freezer Panel Gasket; Dairy Cooler                            | NO                | G     | YES         | N/A                | Binder 100%                  |
| 060       | 21A              | 7/18/2024      | 8/2/2024      | Plastic Wall Panel Adhesive; North Vestibule                          | NO                | G-BR  | YES         | N/A                | Binder 100%                  |
| 061       | 21B              | 7/18/2024      | 8/2/2024      | Plastic Wall Panel Adhesive; North Vestibule                          | NO                | G     | YES         | N/A                | Cellulose 2%<br>Binder 98%   |
| 062       | 21C              | 7/18/2024      | 8/2/2024      | Plastic Wall Panel Adhesive; North Vestibule                          | NO                | G-T   | YES         | N/A                | Cellulose 3%<br>Binder 97%   |
| 063       | 22A              | 7/18/2024      | 8/2/2024      | Interior Drywall and Associated Joint Compound; Warehouse - South End | NO                | W     | YES         | N/A                | Cellulose <1%<br>Binder 100% |



Client: Civil & Environmental Consultants  
 Report Date: 8/6/2024  
 Lab Number: 186111

Project Number: 20-19903-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |  |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|--|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                                 |
| 064       | 22B              | 7/18/2024      | 8/2/2024      | Interior Drywall and Associated Joint Compound; Warehouse - North End      | NO                | BR-W  | YES         | N/A                | Cellulose 20%<br>Binder 80%                  |
| 065       | 22C              | 7/18/2024      | 8/2/2024      | Interior Drywall and Associated Joint Compound; Mezzanine                  | NO                | BR-W  | YES         | N/A                | Cellulose 10%<br>Binder 90%                  |
| 066       | 23A              | 7/18/2024      | 8/2/2024      | Perimeter Drywall and Associated Joint Compound; North Mezzanine Stairwell | NO                | BR-W  | YES         | N/A                | Cellulose <1%<br>Binder 100%                 |
| 067       | 23B              | 7/18/2024      | 8/6/2024      | Perimeter Drywall and Associated Joint Compound; North Vestibule           | NO                | W-BR  | NO          | N/A                | Cellulose <1%<br>Binder 100%                 |
| 068       | 23C              | 7/18/2024      | 8/6/2024      | Perimeter Drywall and Associated Joint Compound; South Vestibule           | NO                | BR-W  | NO          | N/A                | Cellulose 2%<br>Binder 98%                   |
| 069       | 24A              | 7/18/2024      | 8/6/2024      | 2' x 4' Birdtrack Pattern Ceiling Tile; Recycling                          | NO                | G-W   | YES         | N/A                | Cellulose 85%<br>Fiberglass 5%<br>Binder 10% |
| 070       | 24B              | 7/18/2024      | 8/6/2024      | 2' x 4' Birdtrack Pattern Ceiling Tile; Pharmacy                           | NO                | G-W   | YES         | N/A                | Cellulose 85%<br>Fiberglass 5%<br>Binder 10% |

Client: Civil & Environmental Consultants  
 Report Date: 8/6/2024  
 Lab Number: 186111

Project Number: 20-19903-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description                                       | Asbestos Present? | Color | Homogeneous | Sample Composition |   |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|---|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                                  |
| 071       | 24C              | 7/18/2024      | 8/6/2024      | 2' x 4' Birdtrack Pattern Ceiling Tile;<br>Restroom Hall | NO                | T-W   | YES         | N/A                | Cellulose 85%<br>Fiberglass 5%<br>Binder 10%  |
| 072       | 25A              | 7/18/2024      | 8/6/2024      | 2' x 4' Pinhole Pattern Ceiling Tile; Office             | NO                | G-W   | YES         | N/A                | Cellulose 85%<br>Fiberglass <1%<br>Binder 15% |
| 073       | 25B              | 7/18/2024      | 8/6/2024      | 2' x 4' Pinhole Pattern Ceiling Tile; Office             | NO                | T-W   | YES         | N/A                | Cellulose 85%<br>Fiberglass <1%<br>Binder 15% |
| 074       | 25C              | 7/18/2024      | 8/6/2024      | 2' x 4' Pinhole Pattern Ceiling Tile; Office             | NO                | G-W   | YES         | N/A                | Cellulose 85%<br>Fiberglass <1%<br>Binder 15% |
| 075       | 26A              | 7/18/2024      | 8/6/2024      | 2' x 4' Drywall Pattern Ceiling Tile; Fish -<br>Meat     | NO                | BR-W  | NO          | N/A                | Cellulose 40%<br>Binder 60%                   |
| 076       | 26B              | 7/18/2024      | 8/6/2024      | 2' x 4' Drywall Pattern Ceiling Tile;<br>Bakery          | NO                | BR-W  | NO          | N/A                | Cellulose 40%<br>Binder 60%                   |
| 077       | 26C              | 7/18/2024      | 8/6/2024      | 2' x 4' Drywall Pattern Ceiling Tile; Deli               | NO                | T-W   | NO          | N/A                | Cellulose 40%<br>Binder 60%                   |

Client: Civil & Environmental Consultants  
 Report Date: 8/6/2024  
 Lab Number: 186111

Project Number: 20-19903-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description  | Asbestos Present? | Color | Homogeneous | Sample Composition |                              |
|-----------|------------------|----------------|---------------|---|-------------------|-------|-------------|--------------------|------------------------------|
|           |                  |                |               |   |                   |       |             | Asbestos           | Non-Asbestos                 |
| 078       | 27A              | 7/18/2024      | 8/6/2024      | Vinyl Base Molding; Store Floor at Warehouse - Southwest Entry          | NO                | B     | YES         | N/A                | Binder 100%                  |
| 079       | 27B              | 7/18/2024      | 8/6/2024      | Vinyl Base Molding; Store Floor - East Side                             | NO                | BR    | YES         | N/A                | Binder 100%                  |
| 080       | 27C              | 7/18/2024      | 8/6/2024      | Vinyl Base Molding; South Mezzanine Stairwell                           | NO                | BR    | YES         | N/A                | Binder 100%                  |
| 081       | 27D              | 7/18/2024      | 8/6/2024      | Vinyl Base Molding Adhesive; Store Floor at Warehouse - Southwest Entry | NO                | W     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 082       | 27E              | 7/18/2024      | 8/6/2024      | Vinyl Base Molding Adhesive; Store Floor - East Side                    | NO                | T     | YES         | N/A                | Cellulose 2%<br>Binder 98%   |
| 083       | 27F              | 7/18/2024      | 8/6/2024      | Vinyl Base Molding Adhesive; South Mezzanine Stairwell                  | NO                | T     | YES         | N/A                | Cellulose 2%<br>Binder 98%   |
| 084       | 28A              | 7/18/2024      | 8/6/2024      | Woodgrain Linoleum Flooring; Store Floor - East End of Aisle 14         | NO                | G-BR  | YES         | N/A                | Binder 100%                  |

Client: Civil & Environmental Consultants  
 Report Date: 8/6/2024  
 Lab Number: 186111

Project Number: 20-19903-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |                              |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|------------------------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                 |
| 085       | 28B              | 7/18/2024      | 8/6/2024      | Woodgrain Linoleum Flooring; Produce by Floral                           | NO                | G-BR  | YES         | N/A                | Binder 100%                  |
| 086       | 28C              | 7/18/2024      | 8/6/2024      | Woodgrain Linoleum Flooring; Produce by Sushi                            | NO                | G-BR  | YES         | N/A                | Binder 100%                  |
| 087       | 28D              | 7/18/2024      | 8/6/2024      | Woodgrain Linoleum Flooring; Mezzanine Break Room                        | NO                | G     | YES         | N/A                | Binder 100%                  |
| 088       | 28E              | 7/18/2024      | 8/6/2024      | Woodgrain Linoleum Flooring; Produce - South Side                        | NO                | G-B   | YES         | N/A                | Binder 100%                  |
| 089       | 28F              | 7/18/2024      | 8/6/2024      | Woodgrain Linoleum Flooring Adhesive; Store Floor - East End of Aisle 14 | NO                | W     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 090       | 28G              | 7/18/2024      | 8/6/2024      | Woodgrain Linoleum Flooring Adhesive; Produce by Floral                  | NO                | W     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 091       | 28H              | 7/18/2024      | 8/6/2024      | Woodgrain Linoleum Flooring Adhesive; Produce by Sushi                   | NO                | W     | YES         | N/A                | Cellulose <1%<br>Binder 100% |

Client: Civil & Environmental Consultants  
 Report Date: 8/6/2024  
 Lab Number: 186111

Project Number: 20-19903-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description  | Asbestos Present? | Color | Homogeneous | Sample Composition |                              |
|-----------|------------------|----------------|---------------|---|-------------------|-------|-------------|--------------------|------------------------------|
|           |                  |                |               |   |                   |       |             | Asbestos           | Non-Asbestos                 |
| 092       | 28I              | 7/18/2024      | 8/6/2024      | Woodgrain Linoleum Flooring Adhesive; Mezzanine Break Room  | NO                | CLEAR | YES         | N/A                | Binder 100%                  |
| 093       | 28J              | 7/18/2024      | 8/6/2024      | Woodgrain Linoleum Flooring Adhesive; Produce - South Side  | NO                | T     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 094       | 29A              | 7/18/2024      | 8/6/2024      | 12" x 24" Tan Floor Tile; Store Floor - by North Vestibule  | NO                | T-G   | YES         | N/A                | Binder 100%                  |
| 095       | 29B              | 7/18/2024      | 8/6/2024      | 12" x 24" Tan Floor Tile; Store Floor - by Pharmacy         | NO                | T-G   | YES         | N/A                | Binder 100%                  |
| 096       | 29C              | 7/18/2024      | 8/6/2024      | 12" x 24" Tan Floor Tile; Store Floor - at Northwest Corner | NO                | T-G   | YES         | N/A                | Binder 100%                  |
| 097       | 29D              | 7/18/2024      | 8/6/2024      | 12" x 24" Tan Floor Tile; Store Floor - by Meats            | NO                | T-G   | YES         | N/A                | Binder 100%                  |
| 098       | 29E              | 7/18/2024      | 8/6/2024      | 12" x 24" Tan Floor Tile; Store Floor - Middle of Aisle 5   | NO                | T-G   | YES         | N/A                | Binder 100%                  |

Client: Civil & Environmental Consultants  
 Report Date: 8/6/2024  
 Lab Number: 186111

Project Number: 20-19903-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |                              |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|------------------------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                 |
| 099       | 29F              | 7/18/2024      | 8/6/2024      | 12" x 24" Tan Floor Tile Mastic; Store Floor - by North Vestibule  | NO                | G     | YES         | N/A                | Binder 100%                  |
| 100       | 29G              | 7/18/2024      | 8/6/2024      | 12" x 24" Tan Floor Tile Mastic; Store Floor - by Pharmacy         | NO                | W     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 101       | 29H              | 7/18/2024      | 8/6/2024      | 12" x 24" Tan Floor Tile Mastic; Store Floor - at Northwest Corner | NO                | G     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 102       | 29I              | 7/18/2024      | 8/6/2024      | 12" x 24" Tan Floor Tile Mastic; Store Floor - by Meats            | NO                | W     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 103       | 29J              | 7/18/2024      | 8/6/2024      | 12" x 24" Tan Floor Tile Mastic; Store Floor - Middle of Aisle 5   | NO                | G     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 104       | 30A              | 7/18/2024      | 8/6/2024      | 12" x 24" Brown Floor Tile; Store Floor - by North Vestibule       | NO                | BR    | YES         | N/A                | Binder 100%                  |
| 105       | 30B              | 7/18/2024      | 8/6/2024      | 12" x 24" Brown Floor Tile; Store Floor - by Pharmacy              | NO                | BR    | YES         | N/A                | Binder 100%                  |



Client: Civil & Environmental Consultants  
 Report Date: 8/6/2024  
 Lab Number: 186111

Project Number: 20-19903-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |                              |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|------------------------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                 |
| 106       | 30C              | 7/18/2024      | 8/6/2024      | 12" x 24" Brown Floor Tile; Store Floor - at Northwest Corner        | NO                | BR-T  | YES         | N/A                | Binder 100%                  |
| 107       | 30D              | 7/18/2024      | 8/6/2024      | 12" x 24" Brown Floor Tile; Store Floor - by Meats                   | NO                | BR-T  | YES         | N/A                | Binder 100%                  |
| 108       | 30E              | 7/18/2024      | 8/6/2024      | 12" x 24" Brown Floor Tile; Store Floor - Middle of Aisle 5          | NO                | T     | YES         | N/A                | Binder 100%                  |
| 109       | 30F              | 7/18/2024      | 8/6/2024      | 12" x 24" Brown Floor Tile Mastic; Store Floor - by North Vestibule  | NO                | W     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 110       | 30G              | 7/18/2024      | 8/6/2024      | 12" x 24" Brown Floor Tile Mastic; Store Floor - by Pharmacy         | NO                | G     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 111       | 30H              | 7/18/2024      | 8/6/2024      | 12" x 24" Brown Floor Tile Mastic; Store Floor - at Northwest Corner | NO                | G-W   | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 112       | 30I              | 7/18/2024      | 8/6/2024      | 12" x 24" Brown Floor Tile Mastic; Store Floor - by Meats            | NO                | T     | YES         | N/A                | Cellulose <1%<br>Binder 100% |

Client: Civil & Environmental Consultants  
Report Date: 8/6/2024  
Lab Number: 186111

Project Number: 20-19903-D  
Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Rd. - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |                              |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|------------------------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                 |
| 113       | 30J              | 7/18/2024      | 8/6/2024      | 12" x 24" Brown Floor Tile Mastic; Store Floor - Middle of Aisle 5 | NO                | T     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 114       | 31A              | 7/18/2024      | 8/6/2024      | 12" x 12" White Scale Pattern Floor Tile; ECR Room                 | NO                | W     | YES         | N/A                | Binder 100%                  |
| 115       | 31B              | 7/18/2024      | 8/6/2024      | 12" x 12" White Scale Pattern Floor Tile; ECR Room                 | NO                | W     | YES         | N/A                | Binder 100%                  |
| 116       | 31C              | 7/18/2024      | 8/6/2024      | 12" x 12" White Scale Pattern Floor Tile; ECR Room                 | NO                | W     | YES         | N/A                | Binder 100%                  |
| 117       | 31D              | 7/18/2024      | 8/6/2024      | 12" x 12" White Scale Pattern Floor Tile Mastic; ECR Room          | NO                | O     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 118       | 31E              | 7/18/2024      | 8/6/2024      | 12" x 12" White Scale Pattern Floor Tile Mastic; ECR Room          | NO                | O     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 119       | 31F              | 7/18/2024      | 8/6/2024      | 12" x 12" White Scale Pattern Floor Tile Mastic; ECR Room          | NO                | O     | YES         | N/A                | Cellulose <1%<br>Binder 100% |

Client: Civil & Environmental Consultants

Project Number: 20-19903-D

Report Date: 8/6/2024

Project Name: Kroger Store D-442

Lab Number: 186111

Color: B-Black, BL-Blue, BR-Brown, CL-Clear, GL-Gold, G-Gray, GR-Green, O-Orange, P-Pink, PR-Purple, R-Red, S-Silver, T-Tan, W-White, Y-Yellow

Betsie L. McAfee has reviewed this final report and has taken overall technical responsibility for the data.

micro air inc.



6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566

E-MAIL: microair@microair.com  
WEB SITE: www.microair.com

186111

## DAILY BULK SAMPLE LOG

TECHNICIAN Don French DATE 7-18-24 JOB # 20-19903-D

LOCATION Kroger Store D-442 PAGE 1 OF 7

| SAMPLE NUMBER | SAMPLE LOCATION         | MATERIAL CONDITION | PHOTO NUMBER | SAMPLE DESCRIPTION   |
|---------------|-------------------------|--------------------|--------------|----------------------|
| -001 1A       | Exterior East Side      |                    |              | EFS                  |
| -002 B        | " " "                   |                    |              | ↓                    |
| -003 C        | " " "                   |                    |              |                      |
| -004 2A       | Roof on East Side       |                    |              | Asphalt Roof         |
| -005 B        | " " " "                 |                    |              | Shingles             |
| -006 C        | " " " "                 |                    |              | ↓                    |
| -007 3A       | Roof on East side       |                    |              | Shingle Underlayment |
| -008 B        | " " " "                 |                    |              | ↓                    |
| -009 C        | " " " "                 |                    |              |                      |
| -010 4A       | Roof - West Side Center |                    |              | Roof Felt under      |
| -011 B        | " - Middle of Roof      |                    |              | Rubber Membrane      |
| -012 C        | " - East Side Center    |                    |              | ↓                    |
| -013 5A       | Roof - West side Center |                    |              | Seam Sealer on       |
| -014 B        | " - Middle of Roof      |                    |              | Rubber Membrane      |
| -015 C        | " - East Side Center    |                    |              | ↓                    |
| -016 6A       | Roof - West side Center |                    |              | Roof Penetration     |
| -017 B        | " - Middle of Roof      |                    |              | Caulk                |
| -018 C        | " - East Side Center    |                    |              | ↓                    |

White - Office

Yellow - Laboratory

### CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

7/22/24  
8:54AM

18

**micro air inc.**6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566E-MAIL: microair@microair.com  
WEB SITE: www.microair.com**DAILY BULK SAMPLE LOG**TECHNICIAN Don French DATE 7-18-24 JOB # 20-19903-BLOCATION Kroger Store D-442 PAGE 2 OF 7

| SAMPLE NUMBER | SAMPLE LOCATION        | MATERIAL CONDITION | PHOTO NUMBER | SAMPLE DESCRIPTION             |
|---------------|------------------------|--------------------|--------------|--------------------------------|
| -019<br>7A    | Exterior - E side      |                    |              | Brick Mortar                   |
| -020<br>B     | ↓                      |                    |              | ↓                              |
| -021<br>C     |                        |                    |              |                                |
| -022<br>8A    | Exterior - E side      |                    |              | Brick Expansion Joint Caulk    |
| -023<br>B     | ↓                      |                    |              | ↓                              |
| -024<br>C     |                        |                    |              |                                |
| -025<br>9A    | Warehouse - S end      |                    |              | Concrete Block Mortar          |
| -026<br>B     | " - N side             |                    |              |                                |
| -027<br>C     | " - end                |                    |              | ↓                              |
| -028<br>10A   | Exterior - E side      |                    |              | Concrete Block Expansion Joint |
| -029<br>B     | ↓                      |                    |              | ↓                              |
| -030<br>C     |                        |                    |              |                                |
| -031<br>11A   | Exterior - E side      |                    |              | Window/Door Frame Caulk        |
| -032<br>B     |                        |                    |              | ↓                              |
| -033<br>C     |                        |                    |              |                                |
| -034<br>12A   | Mezzanine - Break Room |                    |              | Window Glazing                 |
| -035<br>B     | ↓                      |                    |              | ↓                              |
| -036<br>C     |                        |                    |              |                                |

White - Office

Yellow - Laboratory

## CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

18





**micro air inc.**

6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566

E-MAIL: microair@microair.com  
WEB SITE: www.microair.com

186111

## DAILY BULK SAMPLE LOG

TECHNICIAN Don French DATE 7-18-24 JOB # 20-19903-3  
LOCATION Kroger Store D-442 PAGE 3 OF 7

|      | SAMPLE NUMBER | SAMPLE LOCATION       | MATERIAL CONDITION | PHOTO NUMBER | SAMPLE DESCRIPTION              |
|------|---------------|-----------------------|--------------------|--------------|---------------------------------|
| -037 | 13A           | Cafe                  |                    |              | Poured Flooring                 |
| -038 | B             | Bakery                |                    |              |                                 |
| -039 | C             | Recycling             |                    |              | ↓                               |
| -040 | 14A           | Meat Prep             |                    |              | Clay Floor Tile Grout           |
| -041 | B             | N Vest. Hall          |                    |              |                                 |
| -042 | C             | S Vest. Hall          |                    |              | ↓                               |
| -043 | 15A           | Public Men's Restroom |                    |              | Ceramic Wall Tile Grout         |
| -044 | B             | Deli                  |                    |              |                                 |
| -045 | C             | Bakery                |                    |              | ↓                               |
| -046 | 16A           | Pharmacy              |                    |              | Carpet Tile Mastic              |
| -047 | B             | Offices               |                    |              |                                 |
| -048 | C             | Customer Service      |                    |              | ↓                               |
| -049 | 17A           | Pharmacy Sink         |                    |              | Stainless Steel Sunk Insulation |
| -050 | B             | Floral Sink           |                    |              |                                 |
| -051 | 18A           | Mezzanine - S Stairs  |                    |              | Stair Tread Adhesive            |
| -052 | B             | " - S Stairs          |                    |              |                                 |
| -053 | C             | " - N Stairs          |                    |              | ↓                               |
|      |               |                       |                    |              |                                 |
|      |               |                       |                    |              |                                 |
|      |               |                       |                    |              |                                 |

White - Office

Yellow - Laboratory

### CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

Don French 7-18-24

D. French 7/22/24  
8:54 AM



micro air inc.



6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566

E-MAIL: microair@microair.com  
WEB SITE: www.microair.com

## DAILY BULK SAMPLE LOG

TECHNICIAN

Don French

DATE

7-18-24

JOB #

20-19903-D

LOCATION

Kroger Store D-442

PAGE

4

OF

7

|      | SAMPLE NUMBER | SAMPLE LOCATION        | MATERIAL CONDITION | PHOTO NUMBER | SAMPLE DESCRIPTION |
|------|---------------|------------------------|--------------------|--------------|--------------------|
| -054 | 19A           | Warehouse              |                    |              | Bare Concrete      |
| -055 | B             | "                      |                    |              |                    |
| -056 | C             | Dock                   |                    |              | ↓                  |
| -057 | 20A           | Meat Cooler            |                    |              | Cooler/Freezer     |
| -058 | B             | Produce Cooler         |                    |              | Panel Gasket       |
| -059 | C             | Dairy Cooler           |                    |              | ↓                  |
| -060 | 21A           | N Vestibule            |                    |              | Plastic Wall       |
| -061 | B             | ↓                      |                    |              | Panel Adhesive     |
| -062 | C             | ↓                      |                    |              | ↓                  |
| -063 | 22A           | Warehouse - S end      |                    |              | Interior Drywall   |
| -064 | B             | " N end                |                    |              | & Associated       |
| -065 | C             | Mezzanine              |                    |              | Joint Compound     |
| -066 | 23A           | N Mezzanine Steel wall |                    |              | Perimeter Drywall  |
| -067 | B             | N Vestibule            |                    |              | & Associated       |
| -068 | C             | S Vestibule            |                    |              | Joint Compound     |
| -069 | 24A           | Recycling              |                    |              | 2'x4' ceiling Tite |
| -070 | B             | Pharmacy               |                    |              | Brinack Pattern    |
| -071 | C             | Restroom Hall          |                    |              | ↓                  |

White - Office

Yellow - Laboratory

### CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

7/22/24  
8:54AM



6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566  
E-MAIL: microair@microair.com  
WEB SITE: www.microair.com

186111

## DAILY BULK SAMPLE LOG

TECHNICIAN Don French DATE 7-18-24 JOB # 20-19903-2  
LOCATION Kroger Store D-442 PAGE 5 OF 7

|      | SAMPLE NUMBER | SAMPLE LOCATION                    | MATERIAL CONDITION | PHOTO NUMBER | SAMPLE DESCRIPTION                 |
|------|---------------|------------------------------------|--------------------|--------------|------------------------------------|
| -072 | 25A           | Office                             |                    |              | 2'x4' Ceiling Tile Pinhole Pattern |
| -073 | B             | ↓                                  |                    |              |                                    |
| -074 | C             | ↓                                  |                    |              | ↓                                  |
| -075 | 26A           | Fish - Meat                        |                    |              | 2'x4' Ceiling tile Drywall Pattern |
| -076 | B             | Bakery                             |                    |              |                                    |
| -077 | E             | Deli                               |                    |              | ↓                                  |
| -078 | 27A           | Store Floor (a) Warehouse SW Entry |                    |              | Vinyl Base Molding                 |
| -079 | B             | " " @ E Side                       |                    |              | ↓                                  |
| -080 | C             | S Mezzanine Stairwell              |                    |              | Adhesive on                        |
| -081 | D             | ↓                                  |                    |              | Above                              |
| -082 | E             |                                    |                    |              |                                    |
| -083 | F             | ↓                                  |                    |              |                                    |
| -084 | 28A           | Store Floor - E end of Aisle 14    |                    |              | Woodgrain Linedoleum Flooring      |
| -085 | B             | Produce by Floral                  |                    |              |                                    |
| -086 | C             | Produce by Sushi                   |                    |              | ↓                                  |
| -087 | D             | Mezzanine Break Room               |                    |              |                                    |
| -088 | E             | Produce - S side                   |                    |              | Adhesive on Above                  |
| -089 | F             | ↓                                  |                    |              |                                    |
| -090 | G             |                                    |                    |              |                                    |
| -091 | H             |                                    |                    |              |                                    |
| -092 | I             |                                    |                    |              | ↓                                  |
| -093 | J             |                                    |                    |              |                                    |

White - Office

Yellow - Laboratory

### CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

22





6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566  
E-MAIL: microair@microair.com  
WEB SITE: www.microair.com

186111

## DAILY BULK SAMPLE LOG

TECHNICIAN Don French DATE 7-18-24 JOB # 20-19903-D  
LOCATION Kroger Store D-412 PAGE 6 OF 7

| SAMPLE NUMBER | SAMPLE LOCATION              | MATERIAL CONDITION | PHOTO NUMBER | SAMPLE DESCRIPTION     |
|---------------|------------------------------|--------------------|--------------|------------------------|
| -094 29A      | Store Floor - by N Vestibule |                    |              | 12x24 Floor Tile Tan   |
| -095 B        | " " - by Pharmacy            |                    |              |                        |
| -096 C        | " " - @ NW Corner            |                    |              |                        |
| -097 D        | " " - by Masts               |                    |              |                        |
| -098 E        | " " - Middle of Aisle 5      |                    |              |                        |
| -099 F        |                              |                    |              | Mastic on Above        |
| -100 G        |                              |                    |              |                        |
| -101 H        |                              |                    |              |                        |
| -102 I        |                              |                    |              |                        |
| -103 J        |                              |                    |              |                        |
| -104 30A      | Store Floor - by N Vestibule |                    |              | 12x24 Floor Tile Brown |
| -105 B        | " " - by Pharmacy            |                    |              |                        |
| -106 C        | " " - @ NW Corner            |                    |              |                        |
| -107 D        | " " - by Masts               |                    |              |                        |
| -108 E        | " " - Middle of Aisle 5      |                    |              |                        |
| -109 F        |                              |                    |              | Mastic on Above        |
| -110 G        |                              |                    |              |                        |
| -111 H        |                              |                    |              |                        |
| -112 I        |                              |                    |              |                        |
| -113 J        |                              |                    |              |                        |
|               |                              |                    |              |                        |
|               |                              |                    |              |                        |
|               |                              |                    |              |                        |

White - Office

Yellow - Laboratory

### CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

Don French 7-18-24  
NAME DATE

DATE

NAME

DATE

D. French 7/22/24  
8:54 AM



E-MAIL: [microair@microair.com](mailto:microair@microair.com)  
WEB SITE: [www.microair.com](http://www.microair.com)

186111

# DAILY BULK SAMPLE LOG

TECHNICIAN Don French DATE 7-18-21 JOB # 20-19903-1

LOCATION Roger Store D-492 PAGE 7 OF 7

[illegible]**White – Office**

### Yellow – Laboratory

**CHAIN OF CUSTODY CHRONICLE:**

COLLECTED BY:

**CUSTODY TRANSFERRED TO:**

RECEIVED IN LABORATORY BY:

NAME \_\_\_\_\_

DATE \_\_\_\_\_

NAME \_\_\_\_\_

DATE \_\_\_\_\_

NAME \_\_\_\_\_

DATE \_\_\_\_\_

6

**TAB 5**  
**CERTIFICATIONS**



6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566

E-MAIL: [microair@microair.com](mailto:microair@microair.com)  
WEB SITE: [www.microair.com](http://www.microair.com)

Indoor Air Quality  
Catastrophe Services  
Microbiology  
Asbestos Surveys  
Air Monitoring  
Industrial Hygiene  
Epidemiology  
Radon Testing  
Water Testing  
Lead Testing

**State of Michigan**  
Department of Labor and Economic Opportunity  
Michigan Occupational Safety & Health Administration - Asbestos Program

**Asbestos Inspector**

  
**Donald G. French**  
6320 LaPas Trail  
Indianapolis, IN 46268

  
DOB: 07/16/1960

**Accreditation Number**  
**A11834**

**Expiration Date**  
**02/10/2025**

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1988, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered. **169302**



**United States Department of Commerce  
National Institute of Standards and Technology**



---

**Certificate of Accreditation to ISO/IEC 17025:2017**

---

**NVLAP LAB CODE: 101221-0**

**Micro Air, Inc.**  
Indianapolis, IN

*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 Communique dated January 2009).*

---

2024-04-01 through 2025-03-31

*Effective Dates*



*For the National Voluntary Laboratory Accreditation Program*

A handwritten signature in blue ink, reading "Tasha S. Laman". The signature is written over a horizontal line.

**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017**

**Micro Air, Inc.**  
6320 La Pas Trail  
Indianapolis, IN 46268-4104  
Ms. Betsie L. McAfee  
Phone: 317-293-1533 Fax: 317-290-3569  
Email: [bmcafee@microair.com](mailto:bmcafee@microair.com)  
<http://www.microair.com>

**ASBESTOS FIBER ANALYSIS**

**NVLAP LAB CODE 101221-0**

**Bulk Asbestos Analysis**

| <b><u>Code</u></b> | <b><u>Description</u></b>  |
|--------------------|--|
| 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  |



*For the National Voluntary Laboratory Accreditation Program*

November 18, 2015



Mr. Adam Crane  
Construction Manager  
The Kroger Co.  
40393 Grand River Avenue  
Novi, MI 48377

**RE: Asbestos Hazard Survey  
Kroger Store D-442 Renovation  
17447 Haggerty Road  
Northville, Michigan  
Project No. 242415253**

Dear Mr. Crane:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) was retained by The Kroger Co. (Kroger) to conduct an asbestos-containing material (ACM) survey at Kroger Store D-442 located at 17447 Haggerty Road, Northville, Michigan (subject property). The survey was conducted in accordance with an Amec Foster Wheeler proposal dated August 31, 2015 and was authorized by Kroger Purchase Order DO1498016 dated September 24, 2015. Amec Foster Wheeler understands that this asbestos survey was requested due to planned renovation of the Kroger Store.

Amec Foster Wheeler's subcontractor, Micro Air Inc. (Micro Air), conducted the survey on October 22, 2015. The survey was conducted in general accordance with the sample collection protocols established in EPA regulation 40 CFR 763, the Asbestos Hazard Emergency Response Act (AHERA). The Micro Air report is attached and must be read in its entirety for a comprehensive understanding of the findings of the survey, recommendations, and estimated abatement costs.

## **PROJECT INFORMATION**

The subject property identified as Kroger Store D-442. The Kroger Store consisted of a grocery sales area, department preparation areas, pharmacy, office area, a warehouse, and a Chase Bank Branch. Mezzanine areas consisted of an office area and employee break room and locker room area, and mechanical area.

The Kroger Store was constructed in 1997 and encompassed approximately 64,658 square feet under roof. The single-story structure was constructed on a concrete slab foundation supporting concrete block and brick exterior walls and a corrugated metal roof deck. The roofing system consisted of a non-suspect isocyanate roofing board covered with a rubber membrane, and architectural roofing shingles. The building was heated and cooled by rooftop package units with supplemental natural gas radiant units in the loading dock areas.

Interior walls were drywall or exposed concrete block. Ceilings were suspended acoustical ceiling panels, drywall or exposed roof decking. Floors were finished concrete, vinyl tile, ceramic tile or carpet.

## **SURVEY ACTIVITIES**

Amec Foster Wheeler's subcontractor, Micro Air Inc. (Micro Air), utilizing a Michigan-licensed asbestos inspector, conducted the survey. The survey was limited to accessible areas and destructive sampling (e.g., breaking into wall voids) was not conducted.

Survey activities began with a visual inspection of interior and exterior (including roofs) areas of the subject property to identify homogeneous areas of suspect asbestos-containing materials (ACM). A homogeneous area (HA) consists of building materials that appear similar throughout in terms of color, texture and consideration of date of installation or application.

Based on the findings of the visual inspection, bulk samples of suspect ACM were collected in general accordance with AHERA sample collection protocols. Bulk samples were collected of the following suspect materials: roof cement on seams of rubber roof, asphalt roofing shingles, roof cement on asphalt shingles, exterior finish system, concrete block mortar, brick mortar, expansion joint caulk, drywall and associated joint compound, window/door caulk, 2' x 4' acoustical ceiling tiles, sink insulation, carpet mastic, cove base and mastic, vinyl stair tread and mastic, and 12" x 12" vinyl floor tile and mastic.

Bulk samples were submitted under chain of custody to a laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for analysis by polarized light microscopy (PLM) with dispersion staining techniques per EPA's Method for the Determination of Asbestos in Bulk Building Materials (600/R-93-116).

## **FINDINGS**

One hundred twenty-three (123) bulk samples of suspect ACMs were collected during the inspection and submitted to an accredited laboratory for analysis by PLM. Laboratory analysis did not identify asbestos in the bulk samples collected and analyzed.

It should be noted that suspect materials, other than those identified during this asbestos survey may exist within the building. Should suspect materials other than those which were identified during this survey be uncovered during the demolition/renovation process, those materials should be assumed asbestos-containing until sampling and analysis can confirm or deny asbestos content.

## **GENERAL COMMENTS**

This report has been prepared for the exclusive use and reliance of The Kroger Co. and its subsidiaries and affiliates and its authorized representatives (Users), who may solely rely upon the conclusions presented herein. Reliance on this Asbestos Survey by the Users and all authorized parties will be subject to the terms, conditions and limitations stated in the Master Service Agreement (MSA) No. 3268 signed



by Amec Foster Wheeler and the Kroger Co. General Offices (G.O.) on June 12, 2008. The use or reliance by a third party was not permitted without the specific written permission of both the Amec Foster Wheeler and Kroger. *This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary.*

Amec Foster Wheeler appreciates the opportunity to serve The Kroger Co. on this project. Please call us if we can be of any further assistance.

Sincerely,

**Amec Foster Wheeler Environment & Infrastructure, Inc.**

A handwritten signature in blue ink that reads "Deborah J. Blankenship".

Deborah J. Blankenship, RG, PG, CPG  
Associate Geologist/Project Manager

A handwritten signature in blue ink that reads "Kevin S. Arnold".

Kevin S. Arnold  
Senior Environmental Scientist

Attachment

Micro Air - Renovation Asbestos Inspection Report

Cc: Keith Oliver, The Kroger Co.  
Breana Trauger, The Kroger Co.  
Brett Smollen, The Kroger Co.



**ATTACHMENT**



**2015**

**Renovation Asbestos Inspection**

**Of**

**Existing Kroger Store D-442**  
**17447 Haggerty Road**  
**Northville, Michigan 48168**

Prepared For:

**AMEC Foster Wheeler**  
15933 Clayton Road, Suite 215  
Ballwin, MO 63011  
Attn: Ms. Deborah Blankenship, RG

Prepared By:



**Micro Air, Inc.**  
6320 La Pas Trail  
Indianapolis, Indiana 46268

## **TABLE OF CONTENTS**

- 1) Asbestos Survey Report
- 2) Photographs
- 3) Asbestos Bulk Sample Location Drawing
- 4) Asbestos Bulk Sample Report/Chain of Custody
- 5) Certifications

**TAB 1**

**ASBESTOS SURVEY REPORT**



6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566

E-MAIL: [microair@microair.com](mailto:microair@microair.com)  
WEB SITE: <http://www.microair.com>

Indoor Air Quality  
Catastrophe Services  
Microbiology  
Asbestos Surveys  
Air Monitoring  
Industrial Hygiene  
Epidemiology  
Radon Testing  
Water Testing  
Lead Testing

November 16<sup>th</sup>, 2015

Ms. Deborah J. Blankenship, RG  
AMEC Foster Wheeler  
15933 Clayton Road, Suite 215  
Ballwin, MO 63011

**RE: Renovation Asbestos Inspection  
Existing Kroger Store D-442  
17447 Haggerty Road  
Northville, Michigan 48168  
Micro Air, Inc. Job #20-13966-D**

Dear Ms. Blankenship:

Micro Air, Inc. was contracted to conduct an asbestos inspection of the existing Kroger Store D-442 located at 17447 Haggerty Road in Northville, Michigan. Mr. Donald G. French of Micro Air, Inc. (State of Michigan asbestos inspector accreditation number A11834, Exp. Date: 01/28/2016) conducted the inspection on October 22<sup>nd</sup>, 2015. The survey was conducted in order to accommodate renovation of the existing retail space. All survey work was conducted following guidelines established under the EPA National Emission Standard for Asbestos (40 CFR 61 Subpart M) and the EPA "Asbestos Hazard Emergency Response Act (AHERA)" (40 CFR 763 Subpart E). **It is the understanding of Micro Air, Inc. that the existing retail space is slated for renovation.** All bulk samples collected during the inspection were submitted to Micro Air, Inc.'s laboratory for analysis. All bulk samples were analyzed utilizing the EPA approved Polarized Light Microscopy method. Following is a synopsis of the findings of the survey:

**Existing Kroger Store D-442  
17447 Haggerty Road  
Northville, Michigan 48168**

Information provided by the AMEC Foster Wheeler indicated that the retail space was constructed in 1997. The building contains approximately 64,658 square feet of floor space. The building has been remodeled since the original construction date. The retail space is constructed of brick and exterior finishing system, brick supports, drywall soffits, aluminum doors and window system with limestone and concrete block walls and structural steel supporting a corrugated metal deck. A non-suspect, rubber membrane roof has been installed over isocyanate roofing board and an asphalt shingle roof over the front awning. Interior finishes consists of drywall interior walls, drop acoustical tile ceilings and carpet tile, vinyl floor tile and ceramic tile applied over poured concrete floors. Non-suspect fiberglass insulation and bare metal was identified at the HVAC ductwork. Domestic water and refrigerant lines throughout the building are insulated with non-suspect armaflex or fiberglass insulation and zeston fittings. The building is heated and cooled by rooftop gas units with supplemental electric cooling.

**The following potential, asbestos-containing materials were identified at the retail space and sampled for asbestos content:**

1. Roof cement at seams of rubber membrane roof
2. Asphalt roofing shingles
3. Roof cement on shingle roof
4. Exterior finishing system
5. Concrete block / brick mortar
6. Expansion joint caulk
7. Drywall and associated joint compound
8. Window/door caulk
9. 2' x 4' drop ceiling tile (four patterns)
10. Sink insulation
11. Carpet tile mastic
12. Vinyl cove base molding and mastic (four colors)
13. Vinyl stair tread and mastic
14. 12" x 12" vinyl floor tile and mastic (eight patterns)

**The results of laboratory analysis indicated no asbestos present within the existing Kroger Store D-442 located at 17447 Haggerty Road in Northville, Michigan.**

Enclosed is a copy of the laboratory bulk sample report/chain of custody log, bulk sample location drawing, photographs of materials sampled and inspector/laboratory certifications.

Thank you for the opportunity to provide our asbestos related services. If you have any questions concerning this report or need additional information, please do not hesitate to contact me.

Respectfully Submitted,



Donald G. French  
Asbestos Inspector  
Micro Air, Inc.

**TAB 2**

**PHOTOGRAPHS**



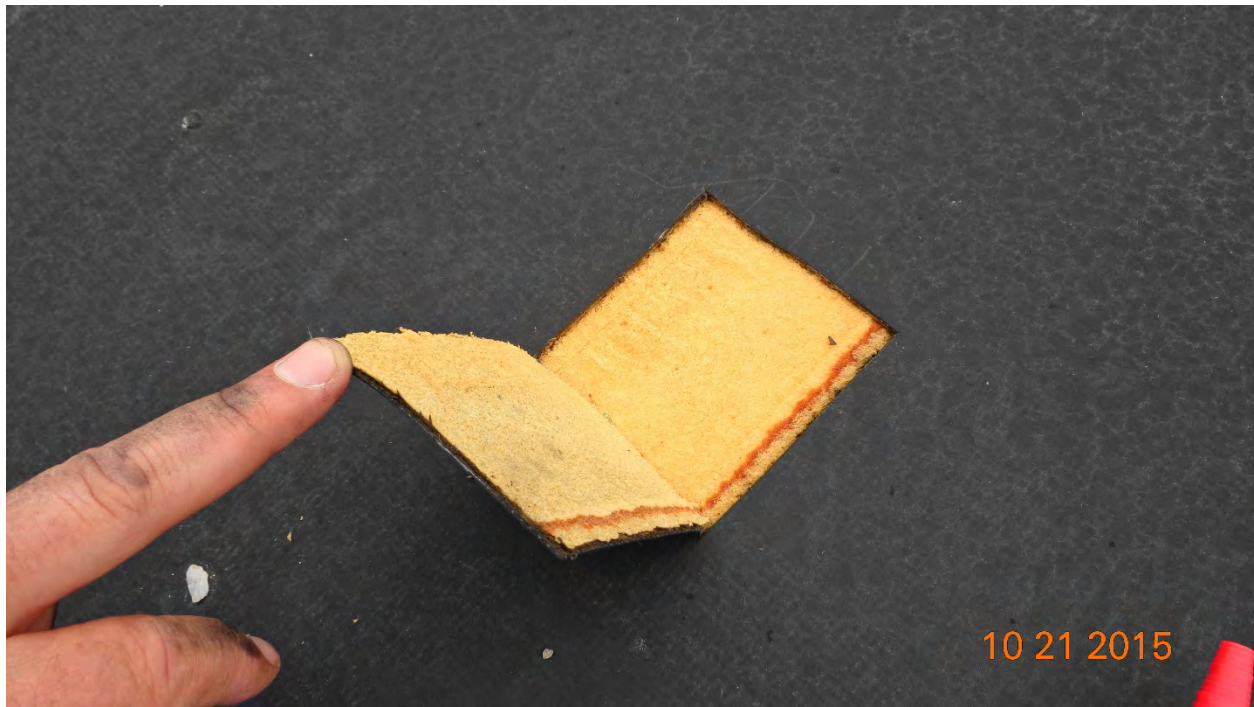
Existing Kroger Store D-442

17447 Haggerty Road

Northville, Michigan

**Exterior Photo**





Existing Kroger Store D-442

Roof

**Non-Suspect Isocyanate Roofing Board Beneath Rubber Membrane**



Existing Kroger Store D-442

Roof

Roof Cement at Rubber Membrane Roof

**No Asbestos Detected**



Existing Kroger Store D-442

Roof-North End

Asphalt Roof Shingles

**No Asbestos Detected**



Existing Kroger Store D-442

Roof-North End

Caulk at Asphalt Roof Shingles

**No Asbestos Detected**





Existing Kroger Store D-442

Ground Floor-Pharmacy

Stainless Steel Sink Insulation

**No Asbestos Detected**



Existing Kroger Store D-442

Ground Floor-Bank Area

Carpet Mastic

12" x 12" Grey Speck Pattern Floor Tile and Mastic

**No Asbestos Detected**





Existing Kroger Store D-442

Ground Floor-Pharmacy

Carpet Mastic

**No Asbestos Detected**



Existing Kroger Store D-442

Ground Floor-Pharmacy

2' x 4' Birdtrack Pattern Ceiling Tile

**No Asbestos Detected**



Existing Kroger Store D-442

Ground Floor-South Entry

2' x 4' Pinhole Pattern Ceiling Tile

**No Asbestos Detected**





Existing Kroger Store D-442

Ground Floor-Main Sales Area

2' x 4' Pinhole Pattern Ceiling Tile

**No Asbestos Detected**

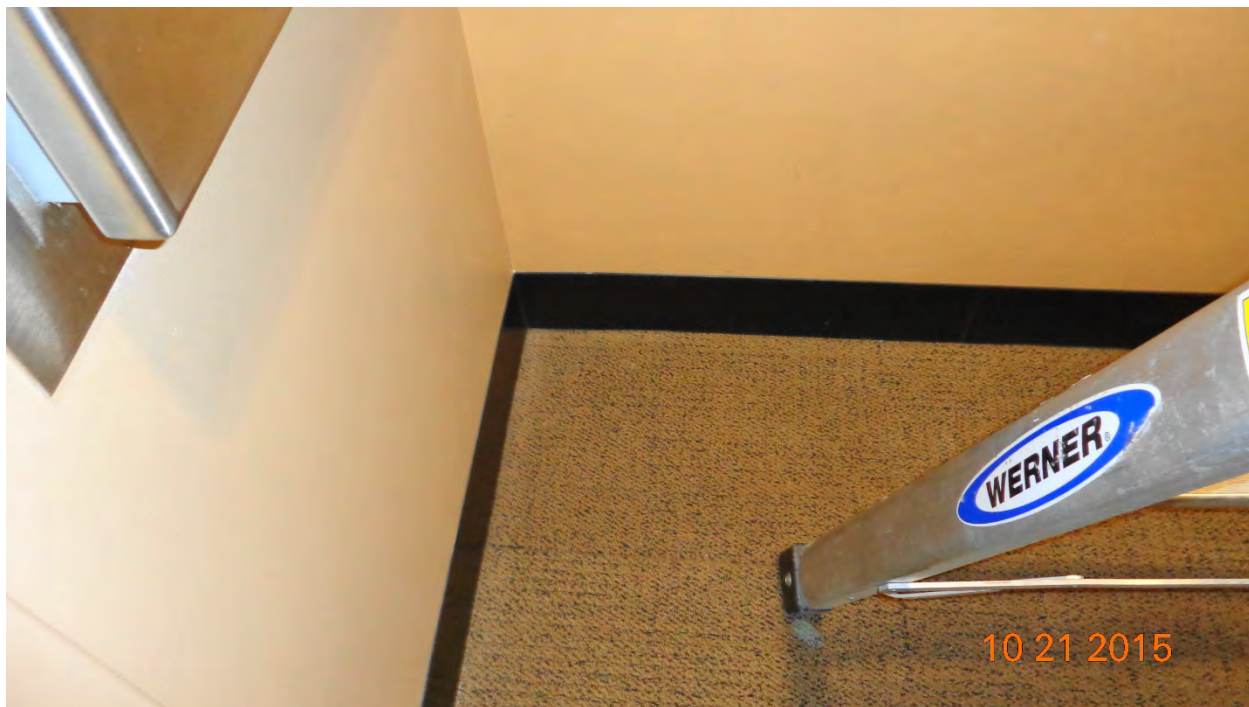


Existing Kroger Store D-442

Ground Floor-Bank Area

2' x 2' Textured Pattern Ceiling Tile

**No Asbestos Detected**



Existing Kroger Store D-442

Ground Floor-Bank Area

Black Cove Base Molding and Mastic

**No Asbestos Detected**





Existing Kroger Store D-442

Exterior-South End

Exterior Finishing System

**No Asbestos Detected**



Existing Kroger Store D-442

Exterior-East End

Brick Mortar

**No Asbestos Detected**



Existing Kroger Store D-442

Exterior-South End

Door/Window Caulk

**No Asbestos Detected**



Existing Kroger Store D-442

Ground Floor-Vestibule

Drywall and Associated Joint Compound

**No Asbestos Detected**





Existing Kroger Store D-442

Ground Floor-Warehouse Area

Concrete Block Mortar

**No Asbestos Detected**



Existing Kroger Store D-442

Ground Floor-Warehouse Area

Concrete Block Expansion Joint

**No Asbestos Detected**





Existing Kroger Store D-442

Ground Floor-Dock Area

Drywall and Associated Joint Compound

**No Asbestos Detected**



Existing Kroger Store D-442

Ground Floor-Meat Department

2' x 4' Smooth Pattern Ceiling Tile

**No Asbestos Detected**



Existing Kroger Store D-442

Ground Floor-Main Sales Area

Brown Cove Base Molding and Mastic

**No Asbestos Detected**



Existing Kroger Store D-442

Mezzanine-Stairwell

Stair Treads and Adhesive

**No Asbestos Detected**



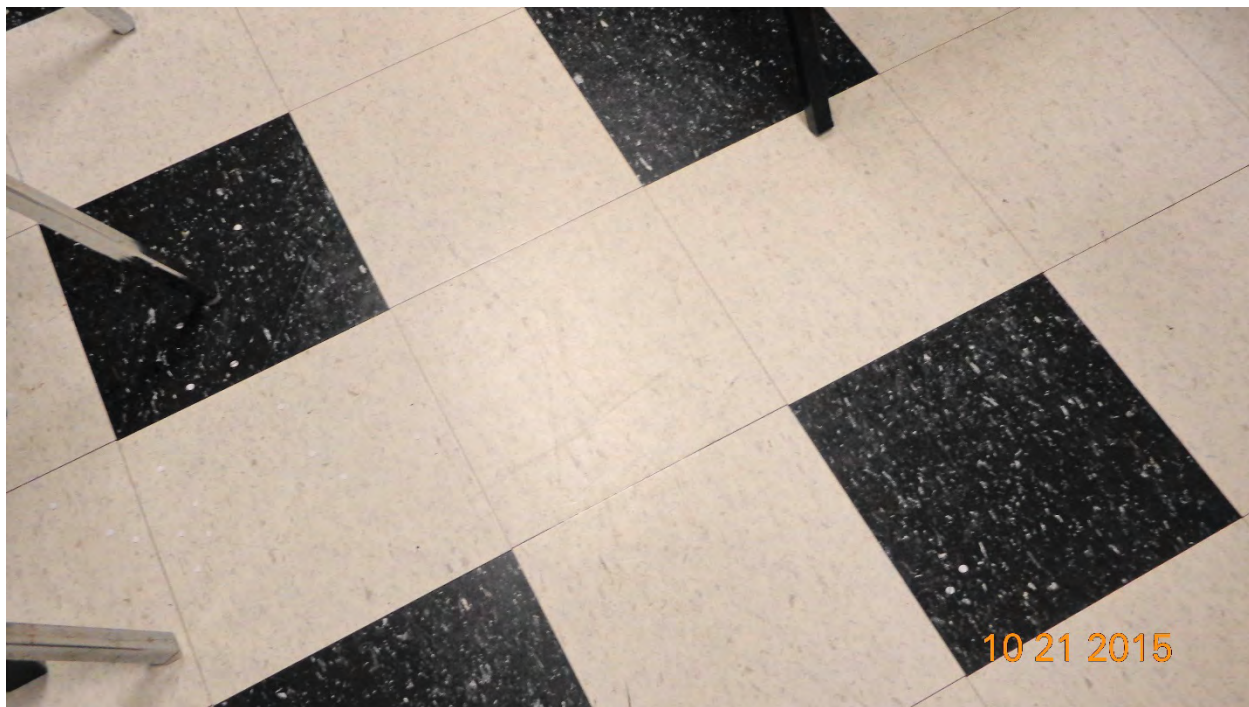


Existing Kroger Store D-442

Mezzanine-Hallway

Grey Cove Base Molding and Mastic

**No Asbestos Detected**



Existing Kroger Store D-442

Mezzanine-Offices

12" X 12" Grey Scale Pattern Floor Tile and Mastic

12" x 12" Black Scale Pattern Floor Tile and Mastic

**No Asbestos Detected**





Existing Kroger Store D-442

Mezzanine-Hallway

Black Cove Base Molding and Mastic

**No Asbestos Detected**



Existing Kroger Store D-442

Ground Floor-Produce Area

12" x 12" White with Dot Pattern Floor Tile and Mastic

12" x 12" Grey with Dot Pattern Floor Tile and Mastic

**No Asbestos Detected**



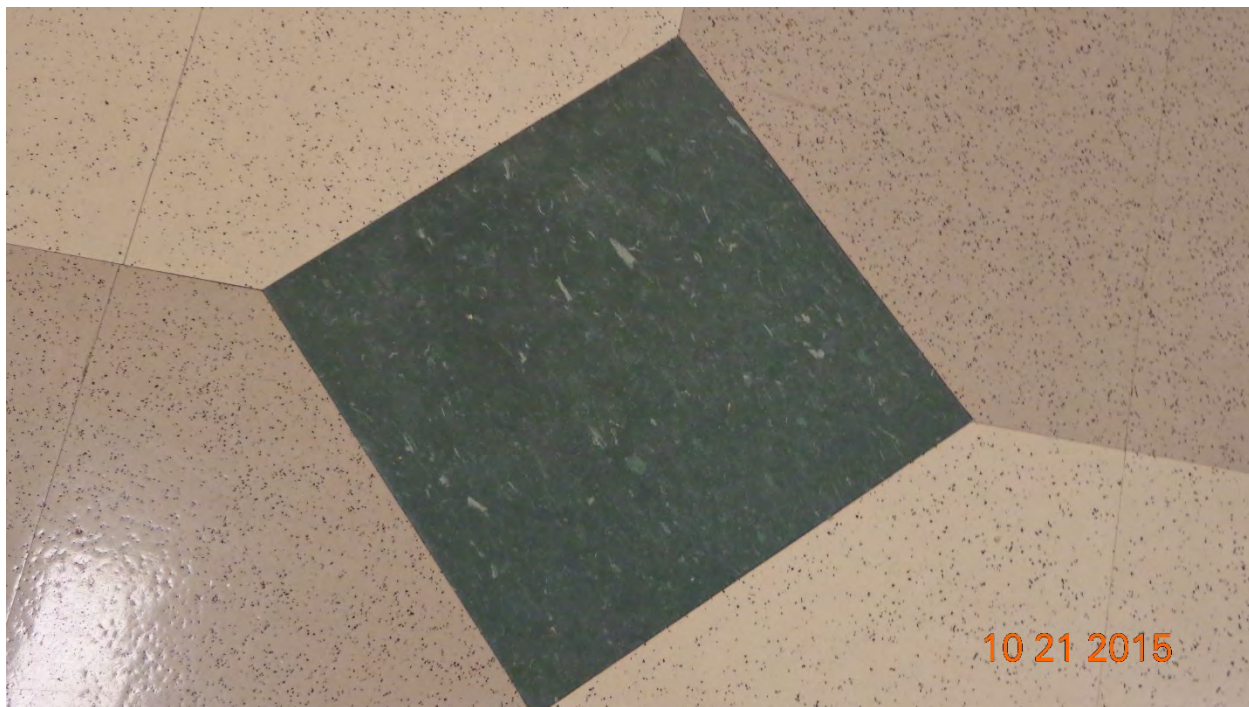
Existing Kroger Store D-442

Ground Floor-Produce Area

12" x 12" Brown Scale Pattern Floor Tile and Mastic

**No Asbestos Detected**





Existing Kroger Store D-442

Ground Floor-Produce Area

12" x 12" Green Scale Pattern Floor Tile and Mastic

**No Asbestos Detected**



Existing Kroger Store D-442

Ground Floor-Produce Area

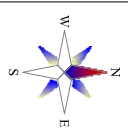
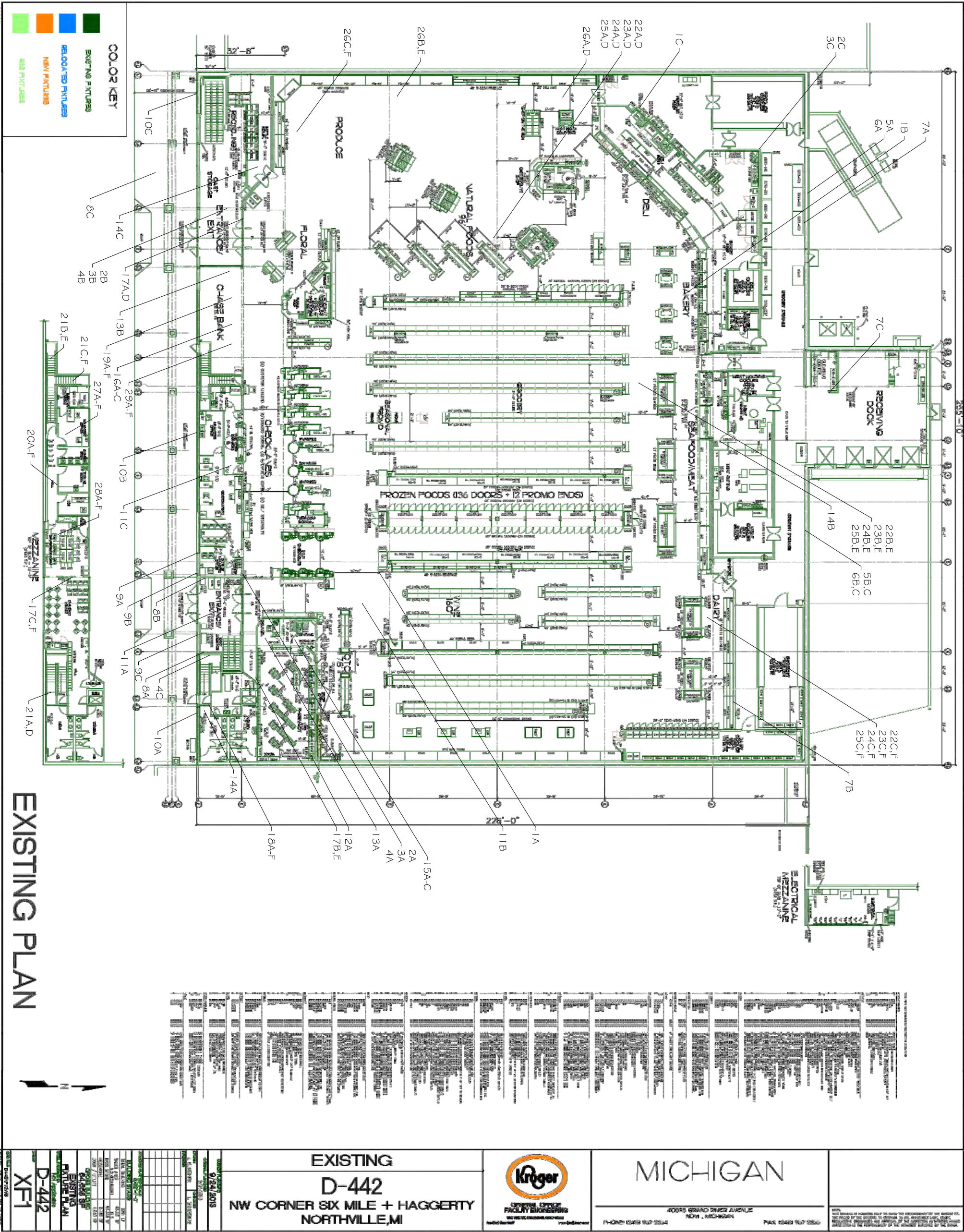
12" x 12" Orange Speck Pattern Floor Tile and Mastic

**No Asbestos Detected**



**TAB 3**

**ASBESTOS BULK SAMPLE LOCATION DRAWING**



Date: November 2015  
Scale: None  
Project Mgr.: A.E.B.  
Drawn By: D.G.F.  
Checked By: A.E.B.

Micro Air, Inc.  
6320 La Pas Trail  
Indianapolis, Indiana 46268  
(317) 293-1533

Kroger Store D-442  
17447 Haggerty Road  
Northville, Michigan 48168  
Asbestos Bulk Sample Location Drawing  
Drawing #: 20-13966-D

**TAB 4**

**ASBESTOS BULK SAMPLE REPORT/CHAIN OF CUSTODY**



6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3569  
E-MAIL: [microair@microair.com](mailto:microair@microair.com)  
WEB SITE: [www.microair.com](http://www.microair.com)

Indoor Air Quality  
Catastrophe Services  
Microbiology  
Asbestos Surveys  
Air Monitoring  
Industrial Hygiene  
Epidemiology  
Radon Testing  
Water Testing  
Lead Testing

November 12, 2015

AMEC Foster Wheeler  
Deborah Blankenship  
15933 Clayton Rd., Ste. 215  
Ballwin, MO 63011

**RE: Polarized Light Microscopy (PLM) Bulk Sample Results**

Project Name: Kroger Store D-442  
Project Number: 20-13966-D

Location: 17447 Haggerty Road - Northville, MI  
Date Received: October 26, 2015

Dear Ms. Blankenship:

Enclosed is(are) the result(s) of the analysis performed on the sample(s) received by Micro Air, Inc.

**Method of Analysis:**

Polarized Light Microscopy (PLM) with Dispersion Staining using EPA-600-M4-82-020 & EPA Method/600/R-93/116 (1993). All samples may be heated to release fibrous material.

Negative PLM results of non-friable organic bound (NOB) materials, such as floor tiles and roofing materials, can be inconclusive due to analytical difficulties in standard bulk sample analysis techniques. If desired, negative results can be confirmed with transmission electron microscopy (TEM) to ensure that asbestos has not been missed during PLM analysis.

Asbestos regulations and EPA methods state that distinct layers must be analyzed and reported separately. If composite analysis is requested and performed on multi-layered samples, the sample is considered asbestos containing material (ACM) if any quantity of asbestos is found.

This report may not be reproduced, except in full, without written approval from Micro Air, Inc., and only relates to the items tested. This report should not be used to imply product or service endorsement by NVLAP or any agency of the U.S. Government.

If you have any questions concerning this report please do not hesitate to contact us.

Sincerely,

Betsie L. Trammell  
Technical Manager





## micro air, inc.

6320 La Pas Trail  
Indianapolis, IN 46268  
Telephone: (317) 293-1533  
Fax: (317) 290-3566  
e-mail: microair@microair.com  
Website: www.microair.com

Client: AMEC Foster Wheeler  
Project Number: 20-13966-D  
Project Name: Kroger Store D-442  
Report Date: 11/12/2015  
Lab Number: 90534  
Date Received: 10/26/2015



### Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description                            | Asbestos Present? | Color | Homogeneous | Sample Composition |   |
|-----------|------------------|----------------|---------------|---|-------------------|-------|-------------|--------------------|---|
|           |                  |                |               |   |                   |       |             | Asbestos           | Non-Asbestos                                  |
| 001       | 442-1A           | 10/21/2015     | 11/10/2015    | Roof Cement at Rubber Roof - Roof - SE Corner | NO                | B     | YES         | N/A                | Cellulose 2%<br>Binder 98%                    |
| 002       | 442-1B           | 10/21/2015     | 11/10/2015    | Roof Cement at Rubber Roof - Roof - NW Corner | NO                | B     | YES         | N/A                | Cellulose 2%<br>Binder 98%                    |
| 003       | 442-1C           | 10/21/2015     | 11/10/2015    | Roof Cement at Rubber Roof - Roof - West Side | NO                | B     | YES         | N/A                | Cellulose <1%<br>Binder 100%                  |
| 004       | 442-2A           | 10/21/2015     | 11/10/2015    | Asphalt Roof Shingle - Roof - SE Corner       | NO                | B-G-R | NO          | N/A                | Cellulose <1%<br>Fiberglass 15%<br>Binder 85% |
| 005       | 442-2B           | 10/21/2015     | 11/10/2015    | Asphalt Roof Shingle - Roof - SW Corner       | NO                | B-G-R | NO          | N/A                | Cellulose 3%<br>Fiberglass 15%<br>Binder 82%  |



Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description  | Asbestos Present? | Color  | Homogeneous | Sample Composition |  |
|-----------|------------------|----------------|---------------|---|-------------------|--------|-------------|--------------------|--|
|           |                  |                |               |   |                   |        |             | Asbestos           | Non-Asbestos                                     |
| 006       | 442-2C           | 10/21/2015     | 11/10/2015    | Asphalt Roof Shingle - Roof - NW Corner                   | NO                | B-G-R  | NO          | N/A                | Cellulose 5%<br>Fiberglass 20%<br>Binder 75%     |
| 007       | 442-3A           | 10/21/2015     | 11/10/2015    | Roof Cement on Asphalt Roof Shingle -<br>Roof - SE Corner | NO                | W-T-B  | NO          | N/A                | Cellulose <1%<br>Binder 100%                     |
| 008       | 442-3B           | 10/21/2015     | 11/10/2015    | Roof Cement on Asphalt Roof Shingle -<br>Roof - SW Corner | NO                | G-W    | NO          | N/A                | Cellulose <1%<br>Binder 100%                     |
| 009       | 442-3C           | 10/21/2015     | 11/10/2015    | Roof Cement on Asphalt Roof Shingle -<br>Roof - NW Corner | NO                | G-W    | NO          | N/A                | Cellulose <1%<br>Binder 100%                     |
| 010       | 442-4A           | 10/21/2015     | 11/10/2015    | EFS - Roof - SE Corner                                    | NO                | G-BL-W | NO          | N/A                | Fiberglass 25%<br>Other Fibers 10%<br>Binder 65% |
| 011       | 442-4B           | 10/21/2015     | 11/10/2015    | EFS - Roof - SW Corner                                    | NO                | G-BL-W | NO          | N/A                | Fiberglass 25%<br>Other Fibers 5%<br>Binder 70%  |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description                                   | Asbestos Present? | Color  | Homogeneous | Sample Composition |   |
|-----------|------------------|----------------|---------------|--|-------------------|--------|-------------|--------------------|---|
|           |                  |                |               |  |                   |        |             | Asbestos           | Non-Asbestos                                    |
| 012       | 442-4C           | 10/21/2015     | 11/10/2015    | EFS - Roof - SE Corner                               | NO                | W-BL-G | NO          | N/A                | Fiberglass 25%<br>Other Fibers 5%<br>Binder 70% |
| 013       | 442-5A           | 10/21/2015     | 11/10/2015    | Concrete Block Mortar - Warehouse - N. Wall          | NO                | G      | YES         | N/A                | Cellulose <1%<br>Binder 100%                    |
| 014       | 442-5B           | 10/21/2015     | 11/10/2015    | Concrete Block Mortar - Warehouse - N. Wall          | NO                | G      | YES         | N/A                | Cellulose <1%<br>Binder 100%                    |
| 015       | 442-5C           | 10/21/2015     | 11/10/2015    | Concrete Block Mortar - Warehouse - N. Wall          | NO                | G      | YES         | N/A                | Cellulose <1%<br>Binder 100%                    |
| 016       | 442-6A           | 10/21/2015     | 11/10/2015    | Concrete Block Expansion Joint - Warehouse - N. Wall | NO                | W      | YES         | N/A                | Binder 100%                                     |
| 017       | 442-6B           | 10/21/2015     | 11/10/2015    | Concrete Block Expansion Joint - Warehouse - N. Wall | NO                | W      | YES         | N/A                | Binder 100%                                     |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition<br>Asbestos      Non-Asbestos       |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--|
| 018       | 442-6C           | 10/21/2015     | 11/10/2015    | Concrete Block Expansion Joint - Warehouse - N. Wall                       | NO                | W     | YES         | N/A      Binder 100%                                   |
| 019       | 442-7A           | 10/21/2015     | 11/10/2015    | Interior Drywall & Associated Joint Compound - Warehouse - W. End, N. Wall | NO                | W-T   | YES         | N/A      Cellulose 15%<br>Fiberglass <1%<br>Binder 85% |
| 020       | 442-7B           | 10/21/2015     | 11/10/2015    | Interior Drywall & Associated Joint Compound - Warehouse - E. End, N. Wall | NO                | W-T   | YES         | N/A      Cellulose 15%<br>Fiberglass <1%<br>Binder 85% |
| 021       | 442-7C           | 10/21/2015     | 11/10/2015    | Interior Drywall & Associated Joint Compound - Dock Cleaning Center        | NO                | W-T   | YES         | N/A      Cellulose 15%<br>Fiberglass <1%<br>Binder 85% |
| 022       | 442-8A           | 10/21/2015     | 11/10/2015    | Perimeter Drywall & Associated Joint Compound - Entry - E. Wall            | NO                | W-T   | YES         | N/A      Cellulose 15%<br>Fiberglass <1%<br>Binder 85% |
| 023       | 442-8B           | 10/21/2015     | 11/10/2015    | Perimeter Drywall & Associated Joint Compound - Entry - W. Wall            | NO                | W-T   | YES         | N/A      Cellulose 15%<br>Fiberglass <1%<br>Binder 85% |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description                                      | Asbestos Present? | Color | Homogeneous | Sample Composition |   |
|-----------|------------------|----------------|---------------|---|-------------------|-------|-------------|--------------------|---|
|           |                  |                |               |   |                   |       |             | Asbestos           | Non-Asbestos                                  |
| 024       | 442-8C           | 10/21/2015     | 11/10/2015    | Perimeter Drywall & Associated Joint Compound - Soffitt | NO                | W-T   | NO          | N/A                | Cellulose 10%<br>Fiberglass <1%<br>Binder 90% |
| 025       | 442-9A           | 10/21/2015     | 11/10/2015    | Window & Door Frame Caulk - Entry - S. Window Wall      | NO                | B     | YES         | N/A                | Synthetics 20%<br>Binder 80%                  |
| 026       | 442-9B           | 10/21/2015     | 11/10/2015    | Window & Door Frame Caulk - Entry - S. Window Wall      | NO                | B     | YES         | N/A                | Synthetics 20%<br>Binder 80%                  |
| 027       | 442-9C           | 10/21/2015     | 11/10/2015    | Window & Door Frame Caulk - Entry - S. Window Wall      | NO                | B     | YES         | N/A                | Cellulose <1%<br>Synthetics 20%<br>Binder 80% |
| 028       | 442-10A          | 10/21/2015     | 11/10/2015    | Brick Mortar - S. Side Exterior - E. End                | NO                | G     | YES         | N/A                | Cellulose <1%<br>Binder 100%                  |
| 029       | 442-10B          | 10/21/2015     | 11/10/2015    | Brick Mortar - S. Side Exterior - Middle                | NO                | G     | YES         | N/A                | Cellulose <1%<br>Binder 100%                  |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |   |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|---|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                                  |
| 030       | 442-10C          | 10/21/2015     | 11/10/2015    | Brick Mortar - S. Side Exterior - W. End                       | NO                | G-B   | NO          | N/A                | Cellulose <1%<br>Binder 100%                  |
| 031       | 442-11A          | 10/21/2015     | 11/10/2015    | 2'x4' Rough with Pinhole Pattern Ceiling Tile - S. Entry Foyer | NO                | T-W   | YES         | N/A                | Cellulose 55%<br>Fiberglass 10%<br>Binder 35% |
| 032       | 442-11B          | 10/21/2015     | 11/10/2015    | 2'x4' Rough with Pinhole Pattern Ceiling Tile - Store Floor    | NO                | T-W   | YES         | N/A                | Cellulose 55%<br>Fiberglass 10%<br>Binder 35% |
| 033       | 442-11C          | 10/21/2015     | 11/10/2015    | 2'x4' Rough with Pinhole Pattern Ceiling Tile - Guest Care     | NO                | T-W   | YES         | N/A                | Cellulose 55%<br>Fiberglass 10%<br>Binder 35% |
| 034       | 442-12A          | 10/21/2015     | 11/10/2015    | Sink Insulation - Pharmacy                                     | NO                | B     | YES         | N/A                | Cellulose <1%<br>Binder 100%                  |
| 035       | 442-13A          | 10/21/2015     | 11/10/2015    | Carpet Tile Mastic - Pharmacy                                  | NO                | G     | NO          | N/A                | Synthetics <1%<br>Binder 100%                 |



Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description                                | Asbestos Present? | Color | Homogeneous | Sample Composition |   |
|-----------|------------------|----------------|---------------|---|-------------------|-------|-------------|--------------------|---|
|           |                  |                |               |   |                   |       |             | Asbestos           | Non-Asbestos                                  |
| 036       | 442-13B          | 10/21/2015     | 11/10/2015    | Carpet Tile Mastic - CHASE Bank                   | NO                | W     | YES         | N/A                | Cellulose <1%<br>Synthetics 2%<br>Binder 98%  |
| 037       | 442-14A          | 10/21/2015     | 11/10/2015    | 2'x4' Flat Pattern Ceiling Tile - Men's Restroom  | NO                | W-BR  | YES         | N/A                | Cellulose 15%<br>Fiberglass 2%<br>Binder 83%  |
| 038       | 442-14B          | 10/21/2015     | 11/10/2015    | 2'x4' Flat Pattern Ceiling Tile - Meat Department | NO                | W-BR  | YES         | N/A                | Cellulose 15%<br>Fiberglass 2%<br>Binder 83%  |
| 039       | 442-14C          | 10/21/2015     | 11/10/2015    | 2'x4' Flat Pattern Ceiling Tile - SW Storage Room | NO                | W-BR  | YES         | N/A                | Cellulose 15%<br>Fiberglass 2%<br>Binder 83%  |
| 040       | 442-15A          | 10/21/2015     | 11/10/2015    | 2'x4' Bird Track Pattern Ceiling Tile - Pharmacy  | NO                | T-W   | YES         | N/A                | Cellulose 35%<br>Fiberglass 30%<br>Binder 35% |
| 041       | 442-15B          | 10/21/2015     | 11/10/2015    | 2'x4' Bird Track Pattern Ceiling Tile - Pharmacy  | NO                | T-W   | YES         | N/A                | Cellulose 35%<br>Fiberglass 30%<br>Binder 35% |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description                                       | Asbestos Present? | Color | Homogeneous | Sample Composition |   |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|---|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                                  |
| 042       | 442-15C          | 10/21/2015     | 11/10/2015    | 2'x4' Bird Track Pattern Ceiling Tile - Pharmacy         | NO                | T-W   | YES         | N/A                | Cellulose 35%<br>Fiberglass 30%<br>Binder 35% |
| 043       | 442-16A          | 10/21/2015     | 11/10/2015    | 2'x2' Textured Pattern Ceiling Tile - CHASE Bank Area    | NO                | Y-W   | YES         | N/A                | Cellulose <1%<br>Fiberglass 80%<br>Binder 20% |
| 044       | 442-16B          | 10/21/2015     | 11/10/2015    | 2'x2' Textured Pattern Ceiling Tile - CHASE Bank Area    | NO                | Y-W   | YES         | N/A                | Cellulose <1%<br>Fiberglass 80%<br>Binder 20% |
| 045       | 442-16C          | 10/21/2015     | 11/10/2015    | 2'x2' Textured Pattern Ceiling Tile - CHASE Bank Area    | NO                | Y-W   | YES         | N/A                | Cellulose <1%<br>Fiberglass 80%<br>Binder 20% |
| 046       | 442-17A          | 10/21/2015     | 11/10/2015    | 4" Brown Vinyl Cove Base Molding - Store Floor - SW End  | NO                | BR    | YES         | N/A                | Binder 100%                                   |
| 047       | 442-17B          | 10/21/2015     | 11/10/2015    | 4" Brown Vinyl Cove Base Molding - Store Floor - SE Hall | NO                | BR    | YES         | N/A                | Binder 100%                                   |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description  | Asbestos Present? | Color | Homogeneous | Sample Composition |              |
|-----------|------------------|----------------|---------------|---|-------------------|-------|-------------|--------------------|--------------|
|           |                  |                |               |   |                   |       |             | Asbestos           | Non-Asbestos |
| 048       | 442-17C          | 10/21/2015     | 11/10/2015    | 4" Brown Vinyl Cove Base Molding - Mezzanine Dining Area          | NO                | BR    | YES         | N/A                | Binder 100%  |
| 049       | 442-17D          | 10/21/2015     | 11/10/2015    | 4" Brown Vinyl Cove Base Molding Adhesive - Store Floor - SW End  | NO                | Y     | YES         | N/A                | Binder 100%  |
| 050       | 442-17E          | 10/21/2015     | 11/10/2015    | 4" Brown Vinyl Cove Base Molding Adhesive - Store Floor - SE Hall | NO                | Y     | YES         | N/A                | Binder 100%  |
| 051       | 442-17F          | 10/21/2015     | 11/10/2015    | 4" Brown Vinyl Cove Base Molding Adhesive - Mezzanine Dining Area | NO                | Y     | YES         | N/A                | Binder 100%  |
| 052       | 442-18A          | 10/21/2015     | 11/10/2015    | 6" Black Vinyl Cove Base Molding - Stair Landing to Mezzanine     | NO                | B     | YES         | N/A                | Binder 100%  |
| 053       | 442-18B          | 10/21/2015     | 11/10/2015    | 6" Black Vinyl Cove Base Molding - Stair Landing to Mezzanine     | NO                | B     | YES         | N/A                | Binder 100%  |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |              |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|--------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos |
| 054       | 442-18C          | 10/21/2015     | 11/10/2015    | 6" Black Vinyl Cove Base Molding - Stair Landing to Mezzanine          | NO                | B     | YES         | N/A                | Binder 100%  |
| 055       | 442-18D          | 10/21/2015     | 11/10/2015    | 6" Black Vinyl Cove Base Molding Adhesive - Stair Landing to Mezzanine | NO                | Y     | YES         | N/A                | Binder 100%  |
| 056       | 442-18E          | 10/21/2015     | 11/10/2015    | 6" Black Vinyl Cove Base Molding Adhesive - Stair Landing to Mezzanine | NO                | Y     | YES         | N/A                | Binder 100%  |
| 057       | 442-18F          | 10/21/2015     | 11/10/2015    | 6" Black Vinyl Cove Base Molding Adhesive - Stair Landing to Mezzanine | NO                | Y     | YES         | N/A                | Binder 100%  |
| 058       | 442-19A          | 10/21/2015     | 11/10/2015    | 4" Black Vinyl Cove Base Molding - CHASE Bank Area                     | NO                | B-G   | YES         | N/A                | Binder 100%  |
| 059       | 442-19B          | 10/21/2015     | 11/10/2015    | 4" Black Vinyl Cove Base Molding - CHASE Bank Area                     | NO                | B-G   | YES         | N/A                | Binder 100%  |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description  | Asbestos Present? | Color | Homogeneous | Sample Composition |              |
|-----------|------------------|----------------|---------------|---|-------------------|-------|-------------|--------------------|--------------|
|           |                  |                |               |   |                   |       |             | Asbestos           | Non-Asbestos |
| 060       | 442-19C          | 10/21/2015     | 11/10/2015    | 4" Black Vinyl Cove Base Molding - CHASE Bank Area          | NO                | B-G   | YES         | N/A                | Binder 100%  |
| 061       | 442-19D          | 10/21/2015     | 11/10/2015    | 4" Black Vinyl Cove Base Molding Adhesive - CHASE Bank Area | NO                | Y     | YES         | N/A                | Binder 100%  |
| 062       | 442-19E          | 10/21/2015     | 11/10/2015    | 4" Black Vinyl Cove Base Molding Adhesive - CHASE Bank Area | NO                | Y     | YES         | N/A                | Binder 100%  |
| 063       | 442-19F          | 10/2/2015      | 11/10/2015    | 4" Black Vinyl Cove Base Molding Adhesive - CHASE Bank Area | NO                | Y     | YES         | N/A                | Binder 100%  |
| 064       | 442-20A          | 10/21/2015     | 11/10/2015    | 4" Grey Vinyl Cove Base Molding - Mezzanine Hallway         | NO                | G     | YES         | N/A                | Binder 100%  |
| 065       | 442-20B          | 10/21/2015     | 11/10/2015    | 4" Grey Vinyl Cove Base Molding - Mezzanine Hallway         | NO                | G     | YES         | N/A                | Binder 100%  |



Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |              |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|--------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos |
| 066       | 442-20C          | 10/21/2015     | 11/10/2015    | 4" Grey Vinyl Cove Base Molding - Mezzanine Hallway          | NO                | G     | YES         | N/A                | Binder 100%  |
| 067       | 442-20D          | 10/21/2015     | 11/10/2015    | 4" Grey Vinyl Cove Base Molding Adhesive - Mezzanine Hallway | NO                | Y     | YES         | N/A                | Binder 100%  |
| 068       | 442-20E          | 10/21/2015     | 11/10/2015    | 4" Grey Vinyl Cove Base Molding Adhesive - Mezzanine Hallway | NO                | Y     | YES         | N/A                | Binder 100%  |
| 069       | 442-20F          | 10/21/2015     | 11/10/2015    | 4" Grey Vinyl Cove Base Molding Adhesive - Mezzanine Hallway | NO                | Y     | YES         | N/A                | Binder 100%  |
| 070       | 442-21A          | 10/21/2015     | 11/10/2015    | Brown Stair Tread - Mezzanine - E. Stair                     | NO                | BR    | YES         | N/A                | Binder 100%  |
| 071       | 442-21B          | 10/21/2015     | 11/10/2015    | Brown Stair Tread - Mezzanine - W. Stair                     | NO                | BR    | YES         | N/A                | Binder 100%  |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |              |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|--------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos |
| 072       | 442-21C          | 10/21/2015     | 11/10/2015    | Brown Stair Tread - Mezzanine - W. Stair                                     | NO                | BR    | YES         | N/A                | Binder 100%  |
| 073       | 442-21D          | 10/21/2015     | 11/10/2015    | Brown Stair Tread Adhesive - Mezzanine - E. Stair                            | NO                | Y     | YES         | N/A                | Binder 100%  |
| 074       | 442-21E          | 10/21/2015     | 11/10/2015    | Brown Stair Tread Adhesive - Mezzanine - W. Stair                            | NO                | Y-BR  | YES         | N/A                | Binder 100%  |
| 075       | 442-21F          | 10/21/2015     | 11/10/2015    | Brown Stair Tread Adhesive - Mezzanine - W. Stair                            | NO                | Y-BR  | YES         | N/A                | Binder 100%  |
| 076       | 442-22A          | 10/21/2015     | 11/10/2015    | 12" x 12" White with Dot Pattern Floor Tile - Store Floor - Produce          | NO                | W-B   | YES         | N/A                | Binder 100%  |
| 077       | 442-22B          | 10/21/2015     | 11/10/2015    | 12" x 12" White with Dot Pattern Floor Tile - Store Floor - N End of Aisle 3 | NO                | W-B   | YES         | N/A                | Binder 100%  |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description  | Asbestos Present? | Color | Homogeneous | Sample Composition |  |
|-----------|------------------|----------------|---------------|---|-------------------|-------|-------------|--------------------|--|
|           |                  |                |               |   |                   |       |             | Asbestos           | Non-Asbestos                                   |
| 078       | 442-22C          | 10/21/2015     | 11/10/2015    | 12" x 12" White with Dot Pattern Floor Tile - Store Floor - Lunch Meat Area         | NO                | W-B   | YES         | N/A                | Binder 100%                                    |
| 079       | 442-22D          | 10/21/2015     | 11/11/2015    | 12" x 12" White with Dot Pattern Floor Tile Mastic - Store Floor - Produce          | NO                | B-Y   | NO          | N/A                | Cellulose <1%<br>Fiberglass <1%<br>Binder 100% |
| 080       | 442-22E          | 10/21/2015     | 11/11/2015    | 12" x 12" White with Dot Pattern Floor Tile Mastic - Store Floor - N End of Aisle 3 | NO                | B     | NO          | N/A                | Binder 100%                                    |
| 081       | 442-22F          | 10/21/2015     | 11/11/2015    | 12" x 12" White with Dot Pattern Floor Tile Mastic - Store Floor - Lunch Meat Area  | NO                | Y-B   | NO          | N/A                | Cellulose 2%<br>Synthetics <1%<br>Binder 98%   |
| 082       | 442-23A          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey with Dot Pattern Floor Tile - Store Floor - Produce                  | NO                | T-B   | YES         | N/A                | Binder 100%                                    |
| 083       | 442-23B          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey with Dot Pattern Floor Tile - Store Floor - N End of Aisle 3         | NO                | T-B   | YES         | N/A                | Binder 100%                                    |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |                            |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|----------------------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos               |
| 084       | 442-23C          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey with Dot Pattern Floor Tile - Store Floor - Lunch Meat Area         | NO                | T-B   | YES         | N/A                | Binder 100%                |
| 085       | 442-23D          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey with Dot Pattern Floor Tile Mastic - Store Floor - Produce          | NO                | Y-B   | NO          | N/A                | Cellulose 2%<br>Binder 98% |
| 086       | 442-23E          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey with Dot Pattern Floor Tile Mastic - Store Floor - N End of Aisle 3 | NO                | Y-B   | YES         | N/A                | Binder 100%                |
| 087       | 442-23F          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey with Dot Pattern Floor Tile Mastic - Store Floor - Lunch Meat Area  | NO                | Y-B   | NO          | N/A                | Binder 100%                |
| 088       | 442-24A          | 10/21/2015     | 11/11/2015    | 12" x 12" Brown Scale Pattern Floor Tile - Store Floor - Produce                   | NO                | BR    | YES         | N/A                | Binder 100%                |
| 089       | 442-24B          | 10/21/2015     | 11/11/2015    | 12" x 12" Brown Scale Pattern Floor Tile - Store Floor - N End of Aisle 3          | NO                | BR    | YES         | N/A                | Binder 100%                |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |  |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|--|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                                   |
| 090       | 442-24C          | 10/21/2015     | 11/11/2015    | 12" x 12" Brown Scale Pattern Floor Tile - Store Floor - Lunch Meat Area         | NO                | BR    | YES         | N/A                | Binder 100%                                    |
| 091       | 442-24D          | 10/21/2015     | 11/11/2015    | 12" x 12" Brown Scale Pattern Floor Tile Mastic - Store Floor - Produce          | NO                | B-Y   | YES         | N/A                | Cellulose <1%<br>Synthetics <1%<br>Binder 100% |
| 092       | 442-24E          | 10/21/2015     | 11/11/2015    | 12" x 12" Brown Scale Pattern Floor Tile Mastic - Store Floor - N End of Aisle 3 | NO                | Y     | NO          | N/A                | Cellulose <1%<br>Binder 100%                   |
| 093       | 442-24F          | 10/21/2015     | 11/11/2015    | 12" x 12" Brown Scale Pattern Floor Tile Mastic - Store Floor - Lunch Meat Area  | NO                | Y     | NO          | N/A                | Cellulose <1%<br>Binder 100%                   |
| 094       | 442-25A          | 10/21/2015     | 11/11/2015    | 12" x 12" Green Scale Pattern Floor Tile - Store Floor - Produce                 | NO                | GR    | YES         | N/A                | Binder 100%                                    |
| 095       | 442-25B          | 10/21/2015     | 11/11/2015    | 12" x 12" Green Scale Pattern Floor Tile - Store Floor - N End of Aisle 3        | NO                | GR    | YES         | N/A                | Binder 100%                                    |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color   | Homogeneous | Sample Composition |                              |
|-----------|------------------|----------------|---------------|--|-------------------|---------|-------------|--------------------|------------------------------|
|           |                  |                |               |  |                   |         |             | Asbestos           | Non-Asbestos                 |
| 096       | 442-25C          | 10/21/2015     | 11/11/2015    | 12" x 12" Green Scale Pattern Floor Tile - Store Floor - Lunch Meat Area         | NO                | GR      | YES         | N/A                | Binder 100%                  |
| 097       | 442-25D          | 10/21/2015     | 11/11/2015    | 12" x 12" Green Scale Pattern Floor Tile Mastic - Store Floor - Produce          | NO                | Y       | NO          | N/A                | Cellulose 2%<br>Binder 98%   |
| 098       | 442-25E          | 10/21/2015     | 11/11/2015    | 12" x 12" Green Scale Pattern Floor Tile Mastic - Store Floor - N End of Aisle 3 | NO                | Y-B     | NO          | N/A                | Cellulose <1%<br>Binder 100% |
| 099       | 442-25F          | 10/21/2015     | 11/11/2015    | 12" x 12" Green Scale Pattern Floor Tile Mastic - Store Floor - Lunch Meat Area  | NO                | Y-B     | NO          | N/A                | Cellulose 2%<br>Binder 98%   |
| 100       | 442-26A          | 10/21/2015     | 11/11/2015    | 12" x 12" Orange Speck Pattern Floor Tile - Produce Dept. - W. Edge              | NO                | G-T-B-W | NO          | N/A                | Cellulose <1%<br>Binder 100% |
| 101       | 442-26B          | 10/21/2015     | 11/11/2015    | 12" x 12" Orange Speck Pattern Floor Tile - Produce Dept. - W. Edge              | NO                | W-B-T   | NO          | N/A                | Cellulose 2%<br>Binder 98%   |



Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color   | Homogeneous | Sample Composition |  |
|-----------|------------------|----------------|---------------|--|-------------------|---------|-------------|--------------------|--|
|           |                  |                |               |  |                   |         |             | Asbestos           | Non-Asbestos   |
| 102       | 442-26C          | 10/21/2015     | 11/11/2015    | 12" x 12" Orange Speck Pattern Floor Tile - Produce Dept. - S. Edge        | NO                | G-B-T-W | NO          | N/A                | Cellulose <1%<br>Binder 100%                                   |
| 103       | 442-26D          | 10/21/2015     | 11/11/2015    | 12" x 12" Orange Speck Pattern Floor Tile Mastic - Produce Dept. - W. Edge | NO                | T       | YES         | N/A                | Cellulose 3%<br>Binder 97%                                     |
| 104       | 442-26E          | 10/21/2015     | 11/11/2015    | 12" x 12" Orange Speck Pattern Floor Tile Mastic - Produce Dept. - W. Edge | NO                | T       | YES         | N/A                | Cellulose 3%<br>Binder 97%                                     |
| 105       | 442-26F          | 10/21/2015     | 11/11/2015    | 12" x 12" Orange Speck Pattern Floor Tile Mastic - Produce Dept. - S. Edge | NO                | T       | YES         | N/A                | Cellulose 3%<br>Fiberglass <1%<br>Synthetics <1%<br>Binder 97% |
| 106       | 442-27A          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey Scale Pattern Floor Tile - Mezzanine - Office Area          | NO                | G       | YES         | N/A                | Cellulose <1%<br>Binder 100%                                   |
| 107       | 442-27B          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey Scale Pattern Floor Tile - Mezzanine - Office Area          | NO                | G       | YES         | N/A                | Cellulose <1%<br>Binder 100%                                   |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |  |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|--|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                                   |
| 108       | 442-27C          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey Scale Pattern Floor Tile - Mezzanine - Office Area        | NO                | G     | YES         | N/A                | Cellulose 3%<br>Other Fibers <1%<br>Binder 97% |
| 109       | 442-27D          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey Scale Pattern Floor Tile Mastic - Mezzanine - Office Area | NO                | O     | YES         | N/A                | Cellulose 3%<br>Synthetics 3%<br>Binder 94%    |
| 110       | 442-27E          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey Scale Pattern Floor Tile Mastic - Mezzanine - Office Area | NO                | O     | YES         | N/A                | Cellulose 4%<br>Binder 96%                     |
| 111       | 442-27F          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey Scale Pattern Floor Tile Mastic - Mezzanine - Office Area | NO                | O     | YES         | N/A                | Cellulose 5%<br>Binder 95%                     |
| 112       | 442-28A          | 10/21/2015     | 11/11/2015    | 12" x 12" Black Scale Pattern Floor Tile - Mezzanine - Work Area         | NO                | B-T   | NO          | N/A                | Cellulose <1%<br>Binder 100%                   |
| 113       | 442-28B          | 10/21/2015     | 11/11/2015    | 12" x 12" Black Scale Pattern Floor Tile - Mezzanine - Work Area         | NO                | B-W   | NO          | N/A                | Cellulose <1%<br>Binder 100%                   |

Client: AMEC Foster Wheeler  
 Report Date: 11/12/2015  
 Lab Number: 90534

Project Number: 20-13966-D  
 Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description  | Asbestos Present? | Color | Homogeneous | Sample Composition |  |
|-----------|------------------|----------------|---------------|---|-------------------|-------|-------------|--------------------|--|
|           |                  |                |               |   |                   |       |             | Asbestos           | Non-Asbestos                                 |
| 114       | 442-28C          | 10/21/2015     | 11/11/2015    | 12" x 12" Black Scale Pattern Floor Tile - Mezzanine - Work Area        | NO                | B     | NO          | N/A                | Cellulose <1%<br>Binder 100%                 |
| 115       | 442-28D          | 10/21/2015     | 11/11/2015    | 12" x 12" Black Scale Pattern Floor Tile Mastic - Mezzanine - Work Area | NO                | B-T   | YES         | N/A                | Cellulose 3%<br>Binder 97%                   |
| 116       | 442-28E          | 10/21/2015     | 11/11/2015    | 12" x 12" Black Scale Pattern Floor Tile Mastic - Mezzanine - Work Area | NO                | T-W   | NO          | N/A                | Cellulose 3%<br>Synthetics <1%<br>Binder 97% |
| 117       | 442-28F          | 10/21/2015     | 11/11/2015    | 12" x 12" Black Scale Pattern Floor Tile Mastic - Mezzanine - Work Area | NO                | T-R   | YES         | N/A                | Cellulose 2%<br>Fiberglass <1%<br>Binder 98% |
| 118       | 442-29A          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey Speck Pattern Floor Tile - CHASE Bank Area               | NO                | W-G-B | NO          | N/A                | Cellulose <1%<br>Binder 100%                 |
| 119       | 442-29B          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey Speck Pattern Floor Tile - CHASE Bank Area               | NO                | B-G-W | NO          | N/A                | Cellulose <1%<br>Binder 100%                 |

Client: AMEC Foster Wheeler  
Report Date: 11/12/2015  
Lab Number: 90534

Project Number: 20-13966-D  
Project Name: Kroger Store D-442

## Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 17447 Haggerty Road - Northville, MI

| Sample ID | Client Sample ID | Date Collected | Date Analyzed | Sample Description   | Asbestos Present? | Color | Homogeneous | Sample Composition |                              |
|-----------|------------------|----------------|---------------|--|-------------------|-------|-------------|--------------------|------------------------------|
|           |                  |                |               |  |                   |       |             | Asbestos           | Non-Asbestos                 |
| 120       | 442-29C          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey Speck Pattern Floor Tile - CHASE Bank Area        | NO                | B-G-W | NO          | N/A                | Cellulose <1%<br>Binder 100% |
| 121       | 442-29D          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey Speck Pattern Floor Tile Mastic - CHASE Bank Area | NO                | O     | YES         | N/A                | Cellulose <1%<br>Binder 100% |
| 122       | 442-29E          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey Speck Pattern Floor Tile Mastic - CHASE Bank Area | NO                | O     | YES         | N/A                | Cellulose 2%<br>Binder 98%   |
| 123       | 442-29F          | 10/21/2015     | 11/11/2015    | 12" x 12" Grey Speck Pattern Floor Tile Mastic - CHASE Bank Area | NO                | O     | YES         | N/A                | Cellulose 2%<br>Binder 98%   |

A concentration of greater than one (1) percent of any type of asbestos means a sample meets the EPA definition of an asbestos-containing material

Color: B-Black, BL-Blue, BR-Brown, GL-Gold, G-Gray, GR-Green, O-Orange, P-Pink, PR-Purple, R-Red, S-Silver, T-Tan, W-White, Y-Yellow

Betsie L. Trammell has reviewed this final report and has taken overall technical responsibility for the data.

Sample(s) received in good condition and acceptable.

Analyst: Deanna French & Darren Parsons

Analytical Method: EPA Method 600-M4-82-020 & EPA Method 600-R-93-116 (1993)



6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566  
E-MAIL: microair@microair.com  
WEB SITE: www.microair.com

90534

## DAILY BULK SAMPLE LOG

TECHNICIAN Donald G. French DATE 10/21/15 JOB # 20-13966-D

LOCATION Kroger Store D-442, Northville, MI PAGE 1 OF 6

| SAMPLE NUMBER | SAMPLE LOCATION           | MATERIAL CONDITION | PHOTO NUMBER | SAMPLE DESCRIPTION |
|---------------|---------------------------|--------------------|--------------|--------------------|
| -001          | 442-1A Roof - SE Corner   |                    | 3            | Roof Cement        |
| -002          | B ↓ - NW Corner           |                    | ↓            | at Rubber Roof     |
| -003          | C ↓ - West side           |                    | ↓            | ↓                  |
| -004          | 442-2A Roof - SE Corner   |                    | 4            | Asphalt Shingle    |
| -005          | B ↓ - SW Corner           |                    | ↓            | Roofing            |
| -006          | C ↓ - NW Corner           |                    | ↓            | ↓                  |
| -007          | 442-3A Roof - SE Corner   |                    | 5            | Roof Cement        |
| -008          | B ↓ - SW Corner           |                    | ↓            | on Asphalt Shingle |
| -009          | C ↓ - NW Corner           |                    | ↓            | Roof               |
| -010          | 442-4A Roof - SE Corner   |                    | 14           | EFS                |
| -011          | B ↓ - SW Corner           |                    | ↓            | ↓                  |
| -012          | C ↓ - SE Corner           |                    | ↓            | ↓                  |
| -013          | 442-5A Warehouse - N Wall |                    | 18           | Concrete Block     |
| -014          | B ↓ - ↓                   |                    | ↓            | Mortar             |
| -015          | C <del>Duck</del> ↓ - ↓   |                    | ↓            | ↓                  |
| -016          | 442-6A Warehouse - N Wall |                    | 19           | Concrete Block     |
| -017          | B <del>Duck</del> ↓ - ↓   |                    | ↓            | Expansion Joint    |
| -018          | C <del>Duck</del> ↓ - ↓   |                    | ↓            | ↓                  |

White - Office

Yellow - Laboratory

### CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

Donald G. French 10/21/15  
NAME DATE

NAME

DATE

[Signature] 10-26-15  
NAME DATE





6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566  
E-MAIL: microair@microair.com  
WEB SITE: www.microair.com

90534

## DAILY BULK SAMPLE LOG

TECHNICIAN Donald G. French DATE 10/21/15 JOB # 20-13966-D

LOCATION Kroger Store D-442, Northville, MI PAGE 2 OF 6

| SAMPLE NUMBER | SAMPLE LOCATION                              | MATERIAL CONDITION | PHOTO NUMBER | SAMPLE DESCRIPTION        |
|---------------|--|--------------------|--------------|---------------------------|
| -019          | 442-7A Warehouse - West, N Wall              |                    | 20           | Interior                  |
| -020          | B " E end, N Wall                            |                    | ↓            | Drywall +                 |
| -021          | C Dock Clearing Center                       |                    | ↓            | Associated Joint Compound |
| -022          | 8A Entry - E Wall                            |                    | 17           | Perimeter Drywall         |
| -023          | B " - W Wall                                 |                    | ↓            | ↑                         |
| -024          | C <del>↓</del> <del>Wall</del> Soffit        |                    | ↓            | Associated Joint Compound |
| -025          | 9A Entry - S Window Wall                     |                    | 16           | Window + Door Frame       |
| -026          | B  |                    | ↓            | Caulk                     |
| -027          | C  |                    | ↓            | ↓                         |
| -028          | 10A S side Exterior - E End                  |                    | 15           | Brick                     |
| -029          | B ↓ - Middle                                 |                    | ↓            | Mortar                    |
| -030          | C ↓ - W End                                  |                    | ↓            | ↓                         |
| -031          | 11A S Entry Foyer                            |                    | 10           | 2'x4' Ceiling Tile        |
| -032          | B Stone Floor                                |                    | ↓            | rough with pinhole        |
| -033          | C Guest Cone                                 |                    | ↓            | Pattern                   |
| -034          | 12A Pharmacy                                 |                    | 6            | sink Insulation           |
|               | B <del>↓</del>                               |                    |              |                           |
|               | C <del>2nd Floor Maintenance Work Room</del> |                    |              |                           |

White - Office

Yellow - Laboratory

### CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

Donald G. French 10/21/15

[Signature] 10/26/15

NAME

DATE

NAME

DATE

NAME

DATE



90534



6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566

E-MAIL: microair@microair.com  
WEB SITE: www.microair.com

## DAILY BULK SAMPLE LOG

TECHNICIAN Donald G. French DATE 10/21/15 JOB # 20-1396C-D

LOCATION Kroger Store D-442, Northville, MI PAGE 3 OF 6

| SAMPLE NUMBER | SAMPLE LOCATION       | MATERIAL CONDITION | PHOTO NUMBER | SAMPLE DESCRIPTION |
|---------------|-----------------------|--------------------|--------------|--------------------|
| -035 442-13A  | Pharmacy              |                    | 8            | Carpet Tile        |
| -036 B        | CHASE Bank            |                    | 7            | Mastic             |
| -037 14A      | Men's Restroom        |                    | 21           | 2'x4' Ceiling Tile |
| -038 B        | Meat Department       |                    | 22           | Flat Pattern       |
| -039 C        | SW Storage Room       |                    | ↓            | ↓                  |
| -040 15A      | Pharmacy              |                    | 9            | 2'x4' Ceiling Tile |
| -041 B        | ↓                     |                    | ↓            | Bird Track Pattern |
| -042 C        | ↓                     |                    | ↓            | ↓                  |
| -043 16A      | CHASE Bank Area       |                    | 12           | 2'x2' Ceiling Tile |
| -044 B        | ↓                     |                    | ↓            | Textured Pattern   |
| -045 C        | ↓                     |                    | ↓            | ↓                  |
| -046 17A      | Store Floor - SW End  |                    | 23           | 4" Brown Vinyl     |
| -047 B        | " " - SE Hall         |                    | ↓            | Core Base Molding  |
| -048 C        | Mezzanine Dining Area |                    | ↓            | ↓                  |
| -049 D        | ↓                     |                    | ↓            | Adhesive           |
| -050 E        | ↓                     |                    | ↓            | on                 |
| -051 F        | ↓                     |                    | ↓            | Above              |
|               |                       |                    |              |                    |
|               |                       |                    |              |                    |
|               |                       |                    |              |                    |
|               |                       |                    |              |                    |

White - Office

Yellow - Laboratory

### CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

Donald G. French 10/21/15

[Signature] 10/26/15

NAME

DATE

NAME

DATE

NAME

DATE





6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566

E-MAIL: microair@microair.com  
WEB SITE: www.microair.com

## DAILY BULK SAMPLE LOG

TECHNICIAN Donald G. French DATE 10/21/15 JOB # 20-13966-D

LOCATION Kroger Store D-442, Northville, MI PAGE 4 OF 6

| SAMPLE NUMBER | SAMPLE LOCATION            | MATERIAL CONDITION | PHOTO NUMBER | SAMPLE DESCRIPTION               |
|---------------|----------------------------|--------------------|--------------|----------------------------------|
| -052 442-18A  | Stair Landing to Mezzanine |                    | 28           | 6" Black Vinyl Core Base Molding |
| -053 B        | ↓                          |                    | ↓            | ↓                                |
| -054 C        | ↓                          |                    | ↓            | Adhesive                         |
| -055 D        | ↓                          |                    | ↓            | on                               |
| -056 E        | ↓                          |                    | ↓            | Above                            |
| -057 F        | ↓                          |                    | ↓            |                                  |
| -058 19A      | CHASE Bank Area            |                    | 13           | 4" Black Vinyl Core Base Molding |
| -059 B        | ↓                          |                    | ↓            | ↓                                |
| -060 C        | ↓                          |                    | ↓            | Adhesive                         |
| -061 D        | ↓                          |                    | ↓            | on                               |
| -062 E        | ↓                          |                    | ↓            | Above                            |
| -063 F        | ↓                          |                    | ↓            |                                  |
| -064 20A      | Mezzanine Hallway          |                    | 26           | 4" Grey Vinyl Core Base Molding  |
| -065 B        | ↓                          |                    | ↓            | ↓                                |
| -066 C        | ↓                          |                    | ↓            | Adhesive                         |
| -067 D        | ↓                          |                    | ↓            | on                               |
| -068 E        | ↓                          |                    | ↓            | Above                            |
| -069 F        | ↓                          |                    | ↓            |                                  |
| -070 21A      | Mezzanine - E Stair        |                    | 24           | Stair Tread                      |
| -071 B        | " - W Stair                |                    | 25           | Brown                            |
| -072 C        | " - W Stair                |                    | ↓            | ↓                                |
| -073 D        | ↓                          |                    | ↓            | Adhesive                         |
| -074 E        | ↓                          |                    | ↓            | on                               |
| -075 F        | ↓                          |                    | ↓            | Above                            |

White - Office

Yellow - Laboratory

### CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

90534





6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566

E-MAIL: microair@microair.com  
WEB SITE: www.microair.com

## DAILY BULK SAMPLE LOG

TECHNICIAN Donald G. French DATE 10/21/15 JOB # 20-13966-D

LOCATION Kroger Store D-442, Northville, MI PAGE 5 OF 6

| SAMPLE NUMBER | SAMPLE LOCATION       | MATERIAL CONDITION | PHOTO NUMBER | SAMPLE DESCRIPTION   |
|---------------|-----------------------|--------------------|--------------|----------------------|
| -076 442-22A  | Store Floor - Produce |                    | 29           | 12"x12" Floor Tile   |
| -077 B        | - N End of Isle 3     |                    | ↓            | White w. Dot Pattern |
| -078 C        | - Lunch Meat Area     |                    | ↓            | ↓                    |
| -079 D        | -                     |                    | ↓            | Mastic               |
| -080 E        | -                     |                    | ↓            | on                   |
| -081 F        | -                     |                    | ↓            | Above                |
| -082 23A      | Store Floor - Produce |                    | 30           | 12"x12" Floor Tile   |
| -083 B        | - N End of Isle 3     |                    | ↓            | Grey w. Dot Pattern  |
| -084 C        | - Lunch Meat Area     |                    | ↓            | ↓                    |
| -085 D        | -                     |                    | ↓            | Mastic               |
| -086 E        | -                     |                    | ↓            | on                   |
| -087 F        | -                     |                    | ↓            | Above                |
| -088 24A      | Store Floor - Produce |                    | 31           | 12"x12" Floor Tile   |
| -089 B        | - N End of Isle 3     |                    | ↓            | Brown Scale Pattern  |
| -090 C        | - Lunch Meat Area     |                    | ↓            | ↓                    |
| -091 D        | -                     |                    | ↓            | Mastic               |
| -092 E        | -                     |                    | ↓            | on                   |
| -093 F        | -                     |                    | ↓            | Above                |
| -094 25A      | Store Floor - Produce |                    | 32           | 12"x12" Floor Tile   |
| -095 B        | - N End of Isle 3     |                    | ↓            | Green Scale Pattern  |
| -096 C        | - Lunch Meat Area     |                    | ↓            | ↓                    |
| -097 D        | -                     |                    | ↓            | Mastic               |
| -098 E        | -                     |                    | ↓            | on                   |
| -099 F        | -                     |                    | ↓            | Above                |

White - Office

Yellow - Laboratory

### CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

Donald G. French 10/21/15  
NAME DATE

NAME

DATE

Asst. Lab. Dir. 10/26/15  
NAME DATE





6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268  
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566  
E-MAIL: microair@microair.com  
WEB SITE: www.microair.com

90534

## DAILY BULK SAMPLE LOG

TECHNICIAN Donald G. French DATE 10/21/15 JOB # 20-13966-D

LOCATION Kroger Store J-442, Northville, MI PAGE 6 OF 6

| SAMPLE NUMBER | SAMPLE LOCATION                    | MATERIAL CONDITION | PHOTO NUMBER | SAMPLE DESCRIPTION   |
|---------------|------------------------------------|--------------------|--------------|----------------------|
| 442-26A       | Produce Department - W Edge        |                    | 33           | 12"x12" Floor Tile   |
| B             | - W Edge                           |                    |              | Orange Speck Pattern |
| C             | - S Edge                           |                    |              | ↓                    |
| D             | -                                  |                    |              | Mastic               |
| E             | -                                  |                    |              | on                   |
| F             | -                                  |                    | ✓            | Above                |
| 27A           | Mezzanine - <del>Office</del> Area |                    | 27           | 12"x12" Floor Tile   |
| B             |                                    |                    |              | Grey Scale Pattern   |
| C             |                                    |                    |              | ↓                    |
| D             |                                    |                    |              | mastic               |
| E             |                                    |                    |              | on                   |
| F             |                                    |                    | ✓            | Above                |
| 28A           | Mezzanine - Work Area              |                    | 27           | 12"x12" Floor Tile   |
| B             |                                    |                    |              | Black Scale Pattern  |
| C             |                                    |                    |              | ↓                    |
| D             |                                    |                    |              | Mastic               |
| E             |                                    |                    |              | on                   |
| F             |                                    |                    | ✓            | Above                |
| 29A           | CHASE Bank Area                    |                    | 7            | 12"x12" Floor Tile   |
| B             |                                    |                    |              | Grey Speck Pattern   |
| C             |                                    |                    |              | ↓                    |
| D             |                                    |                    |              | Mastic               |
| E             |                                    |                    |              | on                   |
| F             |                                    |                    | ✓            | Above                |

White - Office

Yellow - Laboratory

### CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

Donald G. French 10/21/15  
NAME DATE

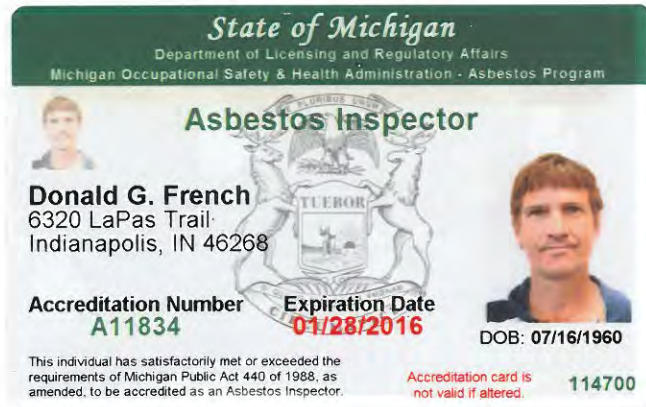
NAME

DATE

Bill Bell 10-26-15  
NAME DATE

DATE

**TAB 5**  
**CERTIFICATIONS**



Donald G. French

Donald G. French  
6320 LaPas Trail  
Indianapolis, IN 46268

Inspector

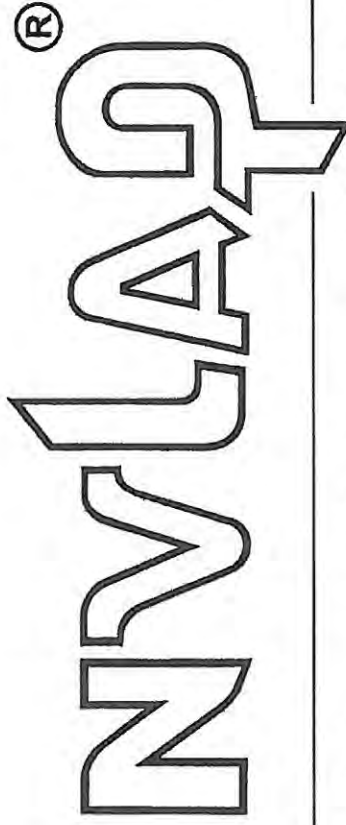
A11834

01/28/2016

114700



United States Department of Commerce  
National Institute of Standards and Technology



---

## Certificate of Accreditation to ISO/IEC 17025:2005

---

NVLAP LAB CODE: 101221-0

**Micro Air, Inc.**  
Indianapolis, IN

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

### **BULK ASBESTOS FIBER ANALYSIS**

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
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 dated January 2009).*

2015-04-01 through 2016-03-31

*Effective dates*



A handwritten signature in dark ink, appearing to read "Michael R. M. L. D.", is written over a horizontal line.

*For the National Institute of Standards and Technology*



**National Voluntary  
Laboratory Accreditation Program**



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

**Micro Air, Inc.**  
6320 La Pas Trail  
Indianapolis, IN 46268-4104  
Ms. Betsie L. Trammell  
Phone: 317-293-1533 Fax: 317-290-3569  
E-Mail: [btrammell@microair.com](mailto:btrammell@microair.com)  
URL: <http://www.microair.com>

**BULK ASBESTOS FIBER ANALYSIS (PLM)**

**NVLAP LAB CODE 101221-0**

***NVLAP Code    Designation / Description***

|        |  |
|--------|--|
| 18/A01 | EPA 600/M4-82-020: Interim Method for 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          |

2015-04-01 through 2016-03-31

*Effective dates*

*For the National Institute of Standards and Technology*