



May 9, 2023

Mr. Garrett Foley
Regional Construction Manager
The Kroger Co.
40393 Grand River Avenue
Novi, Michigan 48375

**RE: Asbestos Survey Report
Kroger Store D-406 Renovation
1200 East Bristol Road
Burton, Michigan
Project No. 193-448.0002**

Dear Mr. Foley:

Civil & Environmental Consultants, Inc. (CEC) was retained by The Kroger Co. (Kroger) to conduct an asbestos-containing material (ACM) survey at Kroger Store D-406 Renovation in Burton, Michigan (subject property). The survey was conducted in accordance with CEC Proposal No. 193-448.0002, and authorized via Kroger Purchase Order No. 833991, dated March 3, 2023. 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 April 12, 2023. 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 1975 and encompasses approximately 54,346 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 carpet, vinyl or ceramic tile, or concrete. The roofing system consisted of a ballasted rubber membrane over isocyanate panels and associated sealants.

The subject property consisted of Kroger Store D-406. The Kroger Store consisted of a grocery sales area, department preparation areas, pharmacy, office area, and a warehouse. Mezzanine areas consist of an office area and a mechanical area. Additional tenants within the Kroger Store included Starbucks.

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, brick mortar, brick expansion joint, concrete block mortar, concrete block expansion joint, exterior wall foundation joint caulk, window/door frame caulk, window glazing, drywall and joint compound, clay floor tile grout, ceramic wall tile grout, plastic wall adhesive, vinyl base molding and adhesive, 2' x 4' drop acoustic ceiling tile (three patterns), 12" x 12" vinyl floor tile and mastic (three patterns), woodgrain pattern linoleum flooring and adhesive, carpet tile mastic, poured flooring, adhesive on vinyl stair treads, seam sealant on HVAC ductwork, gasket material on cooler/freezer walls, bare concrete slab, stainless steel sink insulation, black floor tile mastic under carpet tile, seam sealant on rubber membrane roof, asphalt sealant on roof penetrations, roofing felts under rubber membrane roof, and asphalt shingles and underlayment.

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 Survey Report, Kroger Store D-406 Renovation, 1200 East Bristol Road, Burton, Michigan*, dated April 5, 2019, and prepared by Wood Environment & Infrastructure Solutions, Inc (Wood). The report summarized a survey conducted in March 2019. A total of 91 bulk samples were collected and submitted for analysis. Asbestos was identified in black vinyl floor tile mastic located under several patterns of 12" x 12" vinyl floor tile and in a 12" x 12" brown mottled vinyl flooring in the mezzanine locker room. Information presented in the prior report is incorporated into this survey where appropriate. A copy of the Wood 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 twenty-six 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 Survey Report, dated May 5, 2023

Wood Asbestos Survey Report, dated April 5, 2019

cc: Cliff Brown, The Kroger Co.
Marty Cristo, The Kroger Co.
Peg Chandler, The Kroger Co.
Stephanie Barlow, The Kroger Co.
Brett Smollen, The Kroger Co.

ATTACHMENT

2023

NESHAP Renovation Asbestos Survey Report

For

**Existing Kroger Store D-406
1200 East Bristol Road
Burton, Michigan 48529**

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
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

May 5th, 2023

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-406
1200 East Bristol Road
Burton, Michigan 48529
Micro Air, Inc. Job #20-19110-D**

Dear Ms. Blankenship:

Micro Air, Inc. was contracted by Civil & Environmental Consultants, Inc. to conduct an asbestos inspection of the Kroger Store D-406 located at 1200 East Bristol Road in Burton, Michigan. Mr. Donald G. French of Micro Air, Inc. (State of Michigan asbestos inspector accreditation number A11834, Exp. Date: 02/18/2024) conducted the inspection on April 12th, 2023. The survey was conducted in order to accommodate renovation of the existing Kroger Store at the site.

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). **Sampling of the roofing system was conducted during the course of the 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-406
1200 East Bristol Road
Burton, Michigan 48529**

According to the City of Burton Assessor's Office the building was constructed in 1975 and contains approximately 54,346 square feet of floor space. Dates of interior renovations are unknown. The retail space is constructed of concrete block and brick with exterior finishing system fascia, aluminum door and window system, concrete block walls and structural steel supporting a corrugated metal roof deck. Rubber membrane and asphalt shingle roofing systems were identified at the site.

Interior finishes consist of drywall interior walls, drop acoustical tile ceilings and carpet, sheet flooring, vinyl floor tile and ceramic tile applied over poured concrete floors. An administrative office and mechanical room were identified on the mezzanine level of the store. An office area and ECR room, break room, pharmacy, click-list, credit union, and a Starbucks were identified on the ground level of the store.

Domestic water and refrigerant lines throughout the building are insulated with either non-suspect armaflex or fiberglass insulation. Non-suspect wood and foam were identified at interior cooler walls throughout the building. The building is heated 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 during the inspection:

1. Exterior finishing system
2. Brick mortar
3. Brick expansion joint
4. Concrete block mortar
5. Concrete block expansion joint
6. Exterior wall foundation joint caulk
7. Window/door frame caulk
8. Window glazing
9. Perimeter drywall and associated joint compound
10. Interior drywall and associated joint compound
11. Clay floor tile grout
12. Ceramic wall tile grout
13. Plastic wall adhesive
14. Vinyl base molding and adhesive
15. 2' x 4' drop acoustical ceiling tile (three patterns)
16. 12" x 12" vinyl floor tile and mastic (three patterns)
17. Woodgrain pattern linoleum flooring and adhesive
18. Carpet tile mastic
19. Poured flooring
20. Adhesive on vinyl stair treads

21. Seam sealant on HVAC ductwork
22. Gasket material on cooler/freezer walls
23. Bare concrete slab
24. Stainless steel sink insulation
25. Black floor tile mastic under carpet tile
26. Seam sealant on rubber membrane roof
27. Asphalt sealant on roof penetrations
28. Roofing felts under rubber membrane roof
29. Asphalt roofing shingles and underlayment

The results of laboratory analysis indicated no asbestos-containing materials present within the Kroger Store D-406 located at 1200 East Bristol Road in Burton, 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-406

1200 East Bristol Road

Burton, Michigan 48529

Exterior Photo



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

EFS

Exterior East Side Upper Wall

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Brick Mortar and Expansion Joint

Exterior Fascia

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Concrete Block Mortar and Expansion Joint

Loading Dock and Warehouse Areas

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Foundation Joint Caulk

Exterior Perimeter at Base of Walls

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Window/Door Frame Caulk

Exterior – East Side

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Window Glazing

Exterior – South Side

No Asbestos Detected



Existing Kroger Store D-406

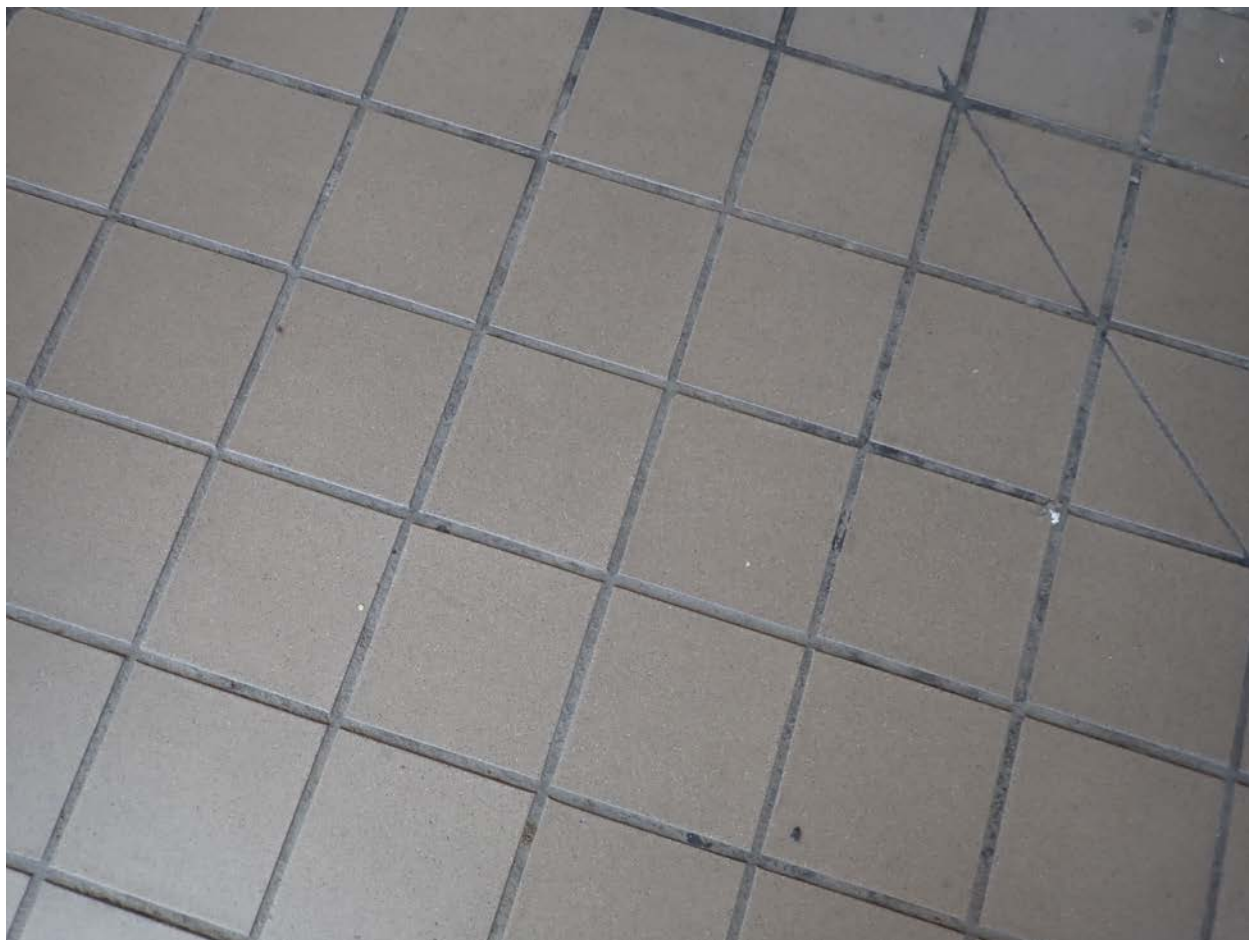
1200 East Bristol Road

Burton, Michigan 48529

Perimeter and Interior Drywall and Associated Joint Compound

Exterior Soffit, Interior and Perimeter Walls

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Clay Floor Tile Grout

Vestibule and Food Prep Areas

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Ceramic Wall Tile Grout

Restrooms and Food Prep Areas

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Adhesive on Plastic Wall Covering

Lower Perimeter Walls of Store Floor

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Brown Vinyl Base Molding and Adhesive

Store Floor

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

2' x 4' Square Pattern Ceiling Tile

Vestibule

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

2' x 4' Pinhole Pattern Ceiling Tile

Pharmacy, Click List, Office, Recycling

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

2' x 4' Drywall Pattern Ceiling Tile

Warehouse, Restrooms, Food Prep Areas

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

12" x 12" Cream Scale Pattern Floor Tiles and Mastics

Store Floor

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

12" x 12" White Scale Pattern Floor Tiles and Mastics

Pharmacy Waiting, Customer Service Areas, Break Room (Bottom Layer)

No Asbestos Detected



Existing Kroger Store D-406

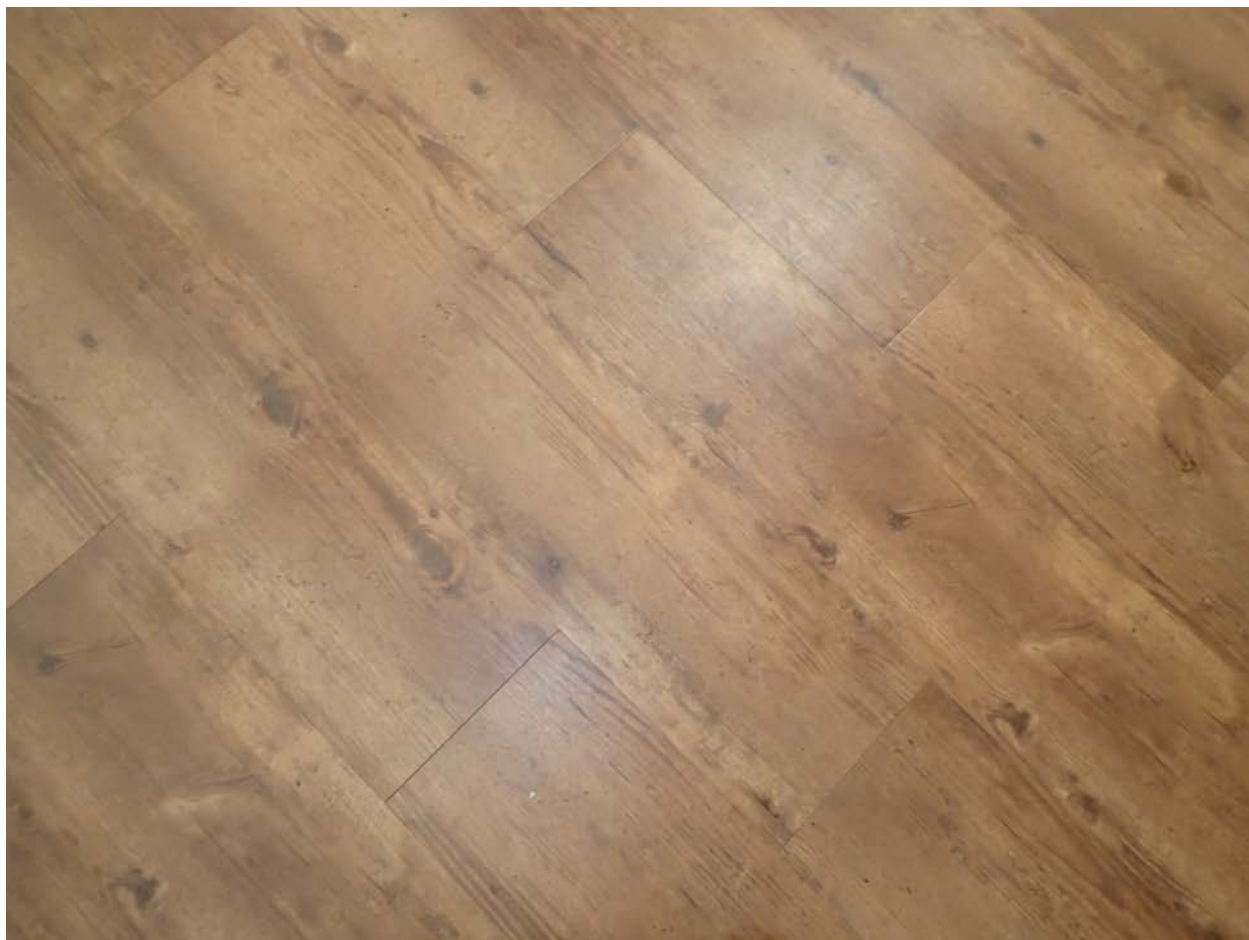
1200 East Bristol Road

Burton, Michigan 48529

12" x 12" White with Black Dot Pattern Floor Tiles and Mastics

Vestibule Edge

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Woodgrain Linoleum Flooring and Adhesive

Vestibules

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Carpet Tile Mastic

Office, Pharmacy, Customer Service Areas

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Poured Flooring

Recycling and Food Prep Areas

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Vinyl Stair Tread Adhesive

East Mezzanine Stairs

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Seam Sealant on HVAC Ductwork

Warehouse

No Asbestos Detected



Existing Kroger Store D-406

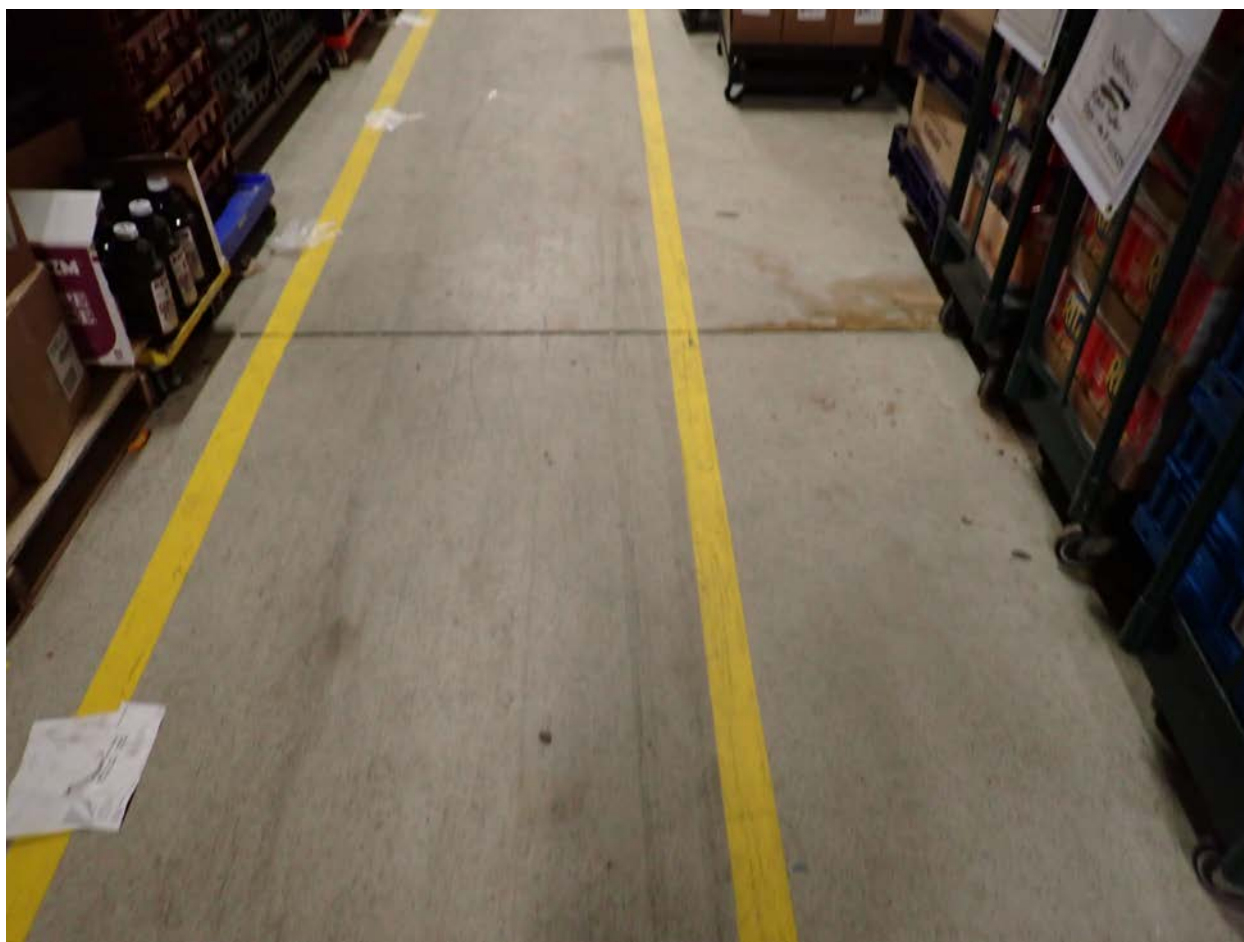
1200 East Bristol Road

Burton, Michigan 48529

Gasket at Cooler Walls

Metal Coolers / Freezers

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Bare Concrete Slab Flooring

Throughout

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Stainless Steel Sink Insulation

Break Room

No Asbestos Detected

NO PHOTO

Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Black Mastic under Carpet Tile

Northeast Office and Pharmacy

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Seam Sealant on Rubber Membrane Roof

Roof

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Asphalt Sealant on Roof Penetrations

Roof

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

Roofing Felts under Rubber Membrane Roof

Roof

No Asbestos Detected



Existing Kroger Store D-406

1200 East Bristol Road

Burton, Michigan 48529

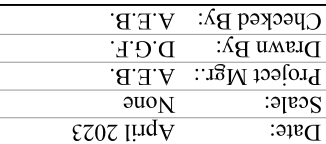
Asphalt Roofing Shingles and Underlayment

East Side Awning Roof

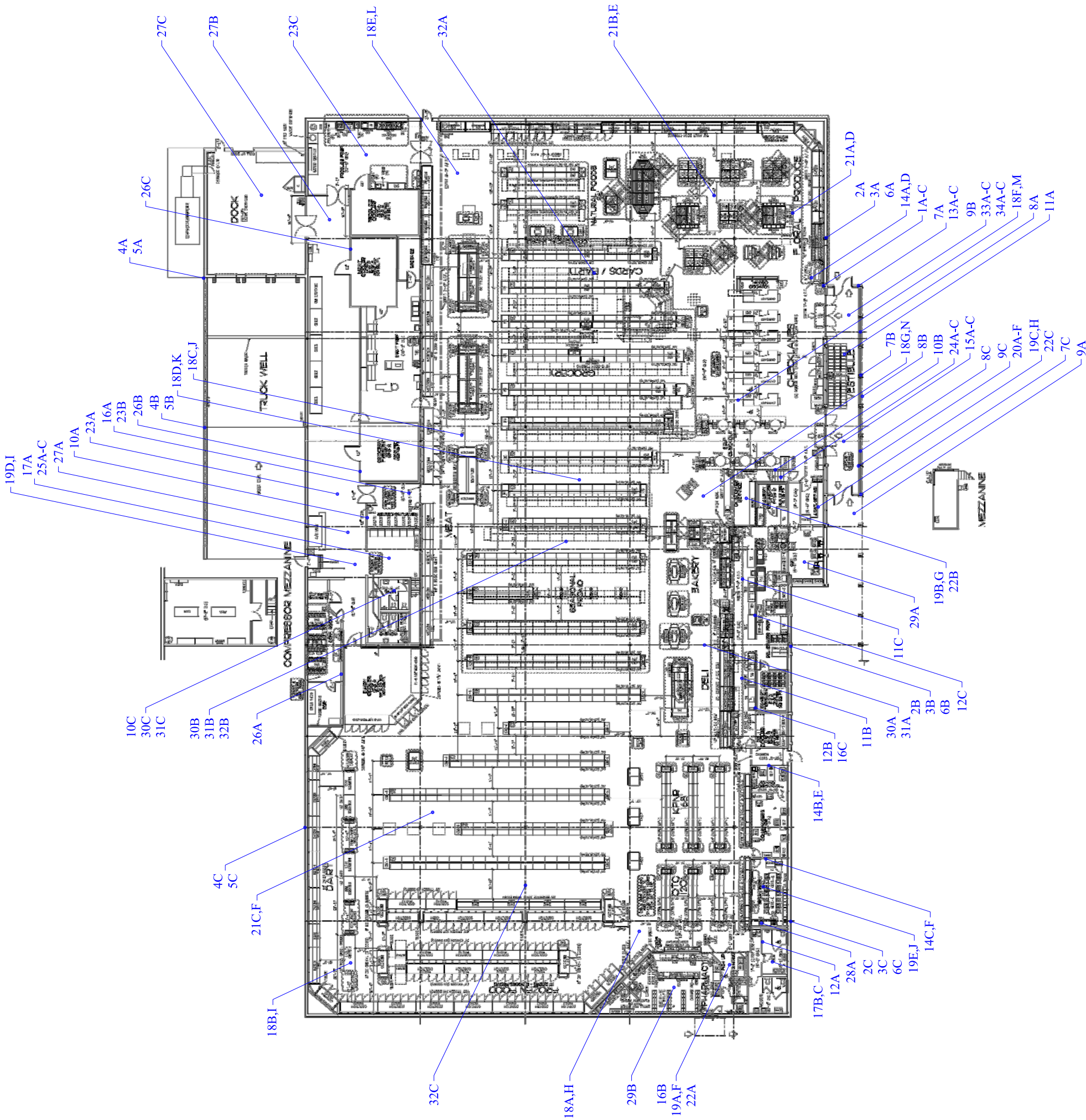
No Asbestos Detected

TAB 3

ASBESTOS BULK SAMPLE LOCATION DRAWING



Existing Kroger Store D-406	1200 East Bristol Road	Burton, Michigan 48529	Asbestos Bulk Sample Location Drawing	Drawing #: 20-19110-D SLD
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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

May 2, 2023

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

Polarized Light Microscopy (PLM) Bulk Sample Results

Project Name:	Existing Kroger Store D-406	Location:	1200 E. Bristol Rd. - Burton, MI
Project Number:	20-19110-D	Date Received:	April 19, 2023

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: 5/2/2023
Lab Number: 167343

Project Number: 20-19110-D
Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
001	1A	4/12/2023	4/26/2023	EFS; Exterior - E. Side, Upper Wall	NO	T-BL	NO	N/A	Fiberglass 15% Binder 85%
002	1B	4/12/2023	4/26/2023	EFS; Exterior - E. Side, Upper Wall	NO	T-BL	NO	N/A	Fiberglass 15% Binder 85%
003	1C	4/12/2023	4/26/2023	EFS; Exterior - E. Side, Upper Wall	NO	T-BL	NO	N/A	Fiberglass 15% Binder 85%
004	2A	4/12/2023	4/26/2023	Brick Mortar; Exterior - E. Side, North	NO	G	YES	N/A	Cellulose <1% Binder 100%
005	2B	4/12/2023	4/26/2023	Brick Mortar; Exterior - E. Side, Center	NO	G	YES	N/A	Binder 100%
006	2C	4/12/2023	4/26/2023	Brick Mortar; Exterior - E. Side, South	NO	G	YES	N/A	Cellulose <1% Binder 100%
007	3A	4/12/2023	4/26/2023	Brick Expansion Joint; Exterior - E. Side, North	NO	G	YES	N/A	Binder 100%

Client: Civil & Environmental Consultants
Report Date: 5/2/2023
Lab Number: 167343

Project Number: 20-19110-D
Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
008	3B	4/12/2023	4/26/2023	Brick Expansion Joint; Exterior - E. Side, Center	NO	G	YES	N/A	Cellulose <1% Binder 100%
009	3C	4/12/2023	4/26/2023	Brick Expansion Joint; Exterior - E. Side, South	NO	G	YES	N/A	Cellulose <1% Binder 100%
010	4A	4/12/2023	4/26/2023	Concrete Block Mortar; Exterior - W. Side, North	NO	G	YES	N/A	Binder 100%
011	4B	4/12/2023	4/26/2023	Concrete Block Mortar; Exterior - W. Side, Center	NO	G	YES	N/A	Binder 100%
012	4C	4/12/2023	4/26/2023	Concrete Block Mortar; Exterior - W. Side, South	NO	G	YES	N/A	Binder 100%
013	5A	4/12/2023	4/26/2023	Concrete Block Expansion Joint; Exterior - W. Side, North	NO	T	YES	N/A	Binder 100%
014	5B	4/12/2023	4/26/2023	Concrete Block Expansion Joint; Exterior - W. Side, Center	NO	T	YES	N/A	Binder 100%

Client: Civil & Environmental Consultants
Report Date: 5/2/2023
Lab Number: 167343

Project Number: 20-19110-D
Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
015	5C	4/12/2023	4/26/2023	Concrete Block Expansion Joint; Exterior - W. Side, South	NO	T	YES	N/A	Binder 100%
016	6A	4/12/2023	4/26/2023	Foundation Joint Caulk; Exterior - E. Side, North	NO	G	YES	N/A	Binder 100%
017	6B	4/12/2023	4/26/2023	Foundation Joint Caulk; Exterior - E. Side, Center	N/A	N/A	N/A	NOT ANALYZED	QUANTITY NON SUFFICIENT
018	6C	4/12/2023	4/26/2023	Foundation Joint Caulk; Exterior - E. Side, South	NO	T	YES	N/A	Binder 100%
019	7A	4/12/2023	4/26/2023	Window/Door Frame Caulk; Exterior - E. Side, North Door Frame	NO	B	YES	N/A	Cellulose <1% Binder 100%
020	7B	4/12/2023	4/26/2023	Window/Door Frame Caulk; Exterior - E. Side, Center Window Frame	NO	B	YES	N/A	Cellulose <1% Binder 100%
021	7C	4/12/2023	4/26/2023	Window/Door Frame Caulk; Exterior - E. Side, South Window Frame	NO	B	YES	N/A	Cellulose <1% Binder 100%

Client: Civil & Environmental Consultants
 Report Date: 5/2/2023
 Lab Number: 167343

Project Number: 20-19110-D
 Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
022	8A	4/12/2023	4/26/2023	Window Glazing; Exterior - E. Side, North	NO	B	YES	N/A	Cellulose <1% Binder 100%
023	8B	4/12/2023	4/26/2023	Window Glazing; Exterior - E. Side, Center	NO	B	YES	N/A	Cellulose <1% Binder 100%
024	8C	4/12/2023	4/26/2023	Window Glazing; Exterior - E. Side, South	NO	B	YES	N/A	Cellulose <1% Binder 100%
025	9A	4/12/2023	4/26/2023	Perimeter Drywall & Assoc. Joint Compound; Exterior - S. Soffitt	NO	W	NO	N/A	Cellulose 2% Fiberglass <1% Binder 98%
026	9B	4/12/2023	4/26/2023	Perimeter Drywall & Assoc. Joint Compound; Exterior - N. Soffitt	NO	W	NO	N/A	Cellulose 2% Fiberglass <1% Binder 98%
027	9C	4/12/2023	4/26/2023	Perimeter Drywall & Assoc. Joint Compound; Vestibule - E. Wall	NO	W	NO	N/A	Cellulose <1% Fiberglass <1% Binder 100%
028	10A	4/12/2023	4/26/2023	Interior Drywall & Assoc. Joint Compound; Store Floor at Recycling Hall	NO	W	NO	N/A	Cellulose 2% Binder 98%

Client: Civil & Environmental Consultants
Report Date: 5/2/2023
Lab Number: 167343

Project Number: 20-19110-D
Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
029	10B	4/12/2023	4/26/2023	Interior Drywall & Assoc. Joint Compound; Customer Services Wall	NO	W	NO	N/A	Cellulose 2% Binder 98%
030	10C	4/12/2023	4/26/2023	Interior Drywall & Assoc. Joint Compound; Restroom Ceiling	NO	W	NO	N/A	Cellulose 2% Binder 98%
031	11A	4/12/2023	4/26/2023	Clay Tile Grout; Vestibule	NO	G	YES	N/A	Cellulose <1% Binder 100%
032	11B	4/12/2023	4/26/2023	Clay Tile Grout; Deli	NO	G	YES	N/A	Cellulose <1% Binder 100%
033	11C	4/12/2023	4/26/2023	Clay Tile Grout; Bakery	NO	G	YES	N/A	Cellulose <1% Binder 100%
034	12A	4/12/2023	4/26/2023	Ceramic Tile Grout; East Restroom	NO	G	YES	N/A	Cellulose <1% Binder 100%
035	12B	4/12/2023	4/26/2023	Ceramic Tile Grout; Deli	NO	T	YES	N/A	Cellulose <1% Binder 100%

Client: Civil & Environmental Consultants
Report Date: 5/2/2023
Lab Number: 167343

Project Number: 20-19110-D
Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
036	12C	4/12/2023	4/26/2023	Ceramic Tile Grout; Bakery	NO	T	YES	N/A	Cellulose <1% Binder 100%
037	13A	4/12/2023	4/26/2023	Plastic Wall Adhesive; Vestibule	NO	Y	YES	N/A	Binder 100%
038	13B	4/12/2023	4/26/2023	Plastic Wall Adhesive; Vestibule	NO	Y	YES	N/A	Binder 100%
039	13C	4/12/2023	4/26/2023	Plastic Wall Adhesive; Vestibule	NO	Y	YES	N/A	Cellulose <1% Binder 100%
040	14A	4/12/2023	4/26/2023	4" Vinyl Base Molding; Store Floor - E. Side	NO	B	YES	N/A	Binder 100%
041	14B	4/12/2023	4/26/2023	4" Vinyl Base Molding; Admin Hallway	NO	B	YES	N/A	Binder 100%
042	14C	4/12/2023	4/26/2023	4" Vinyl Base Molding; Break Room	NO	B	YES	N/A	Binder 100%

Client: Civil & Environmental Consultants
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Project Number: 20-19110-D
 Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
043	14D	4/12/2023	4/26/2023	4" Vinyl Base Molding Mastic; Store Floor - E. Side	NO	Y	YES	N/A	Cellulose <1% Binder 100%
044	14E	4/12/2023	4/26/2023	4" Vinyl Base Molding Mastic; Admin Hallway	NO	Y	YES	N/A	Cellulose <1% Binder 100%
045	14F	4/12/2023	4/26/2023	4" Vinyl Base Molding Mastic; Break Room	NO	Y	YES	N/A	Cellulose <1% Binder 100%
046	15A	4/12/2023	4/26/2023	2' x 4' (2' x 2') Pattern Ceiling Tile; Vestibule	NO	T-W	YES	N/A	Cellulose 92% Fiberglass 3% Binder 5%
047	15B	4/12/2023	4/26/2023	2' x 4' (2' x 2') Pattern Ceiling Tile; Vestibule	NO	T-W	YES	N/A	Cellulose 92% Fiberglass 3% Binder 5%
048	15C	4/12/2023	4/26/2023	2' x 4' (2' x 2') Pattern Ceiling Tile; Vestibule	NO	T-W	YES	N/A	Cellulose 92% Fiberglass 3% Binder 5%
049	16A	4/12/2023	4/26/2023	2' x 4' Pinhole Pattern Ceiling Tile; Recycling	NO	T-W	YES	N/A	Cellulose 90% Fiberglass 3% Binder 7%

Client: Civil & Environmental Consultants
 Report Date: 5/2/2023
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Project Number: 20-19110-D
 Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
050	16B	4/12/2023	4/26/2023	2' x 4' Pinhole Pattern Ceiling Tile; Pharmacy	NO	T-W	YES	N/A	Cellulose 88% Fiberglass 2% Binder 10%
051	16C	4/12/2023	4/26/2023	2' x 4' Pinhole Pattern Ceiling Tile; Click List	NO	T-W	YES	N/A	Cellulose 80% Binder 20%
052	17A	4/12/2023	4/26/2023	2' x 4' Drywall Pattern Ceiling Tile; Warehouse by Stair	NO	W	YES	N/A	Cellulose 2% Binder 98%
053	17B	4/12/2023	4/26/2023	2' x 4' Drywall Pattern Ceiling Tile; Men's Restroom	NO	W	YES	N/A	Cellulose 2% Binder 98%
054	17C	4/12/2023	4/26/2023	2' x 4' Drywall Pattern Ceiling Tile; Men's Restroom	NO	W	YES	N/A	Cellulose 2% Binder 98%
055	18A	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile; Store Floor - SE Corner	NO	T	YES	N/A	Binder 100%
056	18B	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile; Store Floor - SW Corner	NO	T	YES	N/A	Binder 100%

Client: Civil & Environmental Consultants
 Report Date: 5/2/2023
 Lab Number: 167343

Project Number: 20-19110-D
 Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
057	18C	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile; Store Floor - W. Side by Lunch Meat	NO	T	YES	N/A	Binder 100%
058	18D	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile; Store Floor - Middle of Aisle 12	NO	T	YES	N/A	Binder 100%
059	18E	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile; Store Floor - NW Corner	NO	T	YES	N/A	Binder 100%
060	18F	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile; Store Floor - E. Side by Check Lanes	NO	T	YES	N/A	Binder 100%
061	18G	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile; Store Floor - E. Side by Customer Care	NO	T	YES	N/A	Binder 100%
062	18H	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile Mastic; Store Floor - SE Corner	NO	BR	YES	N/A	Cellulose 2% Binder 98%
063	18I	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile Mastic; Store Floor - SW Corner	NO	BR	YES	N/A	Cellulose 2% Binder 98%

Client: Civil & Environmental Consultants
 Report Date: 5/2/2023
 Lab Number: 167343

Project Number: 20-19110-D
 Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
064	18J	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile Mastic; Store Floor - W. Side by Lunch Meat	NO	T	YES	N/A	Cellulose <1% Binder 100%
065	18K	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile Mastic; Store Floor - Middle of Aisle 12	NO	T	YES	N/A	Cellulose <1% Binder 100%
066	18L	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile Mastic; Store Floor - NW Corner	NO	T	YES	N/A	Cellulose <1% Binder 100%
067	18M	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile Mastic; Store Floor - E. Side by Check Lanes	NO	G	YES	N/A	Cellulose <1% Binder 100%
068	18N	4/12/2023	5/1/2023	12" x 12" Cream Scale Pattern Floor Tile Mastic; Store Floor - E. Side by Customer Care	NO	O	YES	N/A	Cellulose <1% Binder 100%
069	19A	4/12/2023	5/1/2023	12" x 12" White Scale Pattern Floor Tile; Pharmacy Waiting	NO	W	YES	N/A	Binder 100%
070	19B	4/12/2023	5/1/2023	12" x 12" White Scale Pattern Floor Tile; Customer Services	NO	W	YES	N/A	Binder 100%

Client: Civil & Environmental Consultants
 Report Date: 5/2/2023
 Lab Number: 167343

Project Number: 20-19110-D
 Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
071	19C	4/12/2023	5/1/2023	12" x 12" White Scale Pattern Floor Tile; Acct. Office	NO	W	YES	N/A	Binder 100%
072	19D	4/12/2023	5/1/2023	12" x 12" White Scale Pattern Floor Tile; Warehouse Restroom Hall	NO	W	YES	N/A	Binder 100%
073	19E	4/12/2023	5/1/2023	12" x 12" White Scale Pattern Floor Tile; Break Room (Bottom Layer)	NO	W	YES	N/A	Binder 100%
074	19F	4/12/2023	5/1/2023	12" x 12" White Scale Pattern Floor Tile Mastic; Pharmacy Waiting	NO	O	YES	N/A	Binder 100%
075	19G	4/12/2023	5/1/2023	12" x 12" White Scale Pattern Floor Tile Mastic; Customer Services	NO	Y	YES	N/A	Cellulose <1% Binder 100%
076	19H	4/12/2023	5/1/2023	12" x 12" White Scale Pattern Floor Tile Mastic; Acct. Office	NO	Y	YES	N/A	Cellulose <1% Binder 100%
077	19I	4/12/2023	5/1/2023	12" x 12" White Scale Pattern Floor Tile Mastic; Warehouse Restroom Hall	NO	B-O	YES	N/A	Cellulose 2% Binder 98%

Client: Civil & Environmental Consultants
 Report Date: 5/2/2023
 Lab Number: 167343

Project Number: 20-19110-D
 Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
078	19J	4/12/2023	5/1/2023	12" x 12" White Scale Pattern Floor Tile Mastic; Break Room (Bottom Layer)	NO	B-O	YES	N/A	Cellulose <1% Binder 100%
079	20A	4/12/2023	5/1/2023	12" x 12" White w/ Black Dots Floor Tile; Vestibule Edge	NO	W	YES	N/A	Binder 100%
080	20B	4/12/2023	5/1/2023	12" x 12" White w/ Black Dots Floor Tile; Vestibule Edge	NO	G	YES	N/A	Binder 100%
081	20C	4/12/2023	5/1/2023	12" x 12" White w/ Black Dots Floor Tile; Vestibule Edge	NO	G	YES	N/A	Binder 100%
082	20D	4/12/2023	5/1/2023	12" x 12" White w/ Black Dots Floor Tile Mastic; Vestibule Edge	NO	B	YES	N/A	Cellulose 2% Binder 98%
083	20E	4/12/2023	5/1/2023	12" x 12" White w/ Black Dots Floor Tile Mastic; Vestibule Edge	NO	BR	YES	N/A	Cellulose <1% Binder 100%
084	20F	4/12/2023	5/1/2023	12" x 12" White w/ Black Dots Floor Tile Mastic; Vestibule Edge	NO	O	YES	N/A	Cellulose <1% Binder 100%

Client: Civil & Environmental Consultants
 Report Date: 5/2/2023
 Lab Number: 167343

Project Number: 20-19110-D
 Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
085	21A	4/12/2023	5/1/2023	Woodgrain Linoleum Flooring; Produce by Floral	NO	BR-B	YES	N/A	Binder 100%
086	21B	4/12/2023	5/1/2023	Woodgrain Linoleum Flooring; Produce	NO	BR-B	YES	N/A	Binder 100%
087	21C	4/12/2023	5/1/2023	Woodgrain Linoleum Flooring; Wine Aisle #22	NO	BR-B	YES	N/A	Binder 100%
088	21D	4/12/2023	5/1/2023	Woodgrain Linoleum Flooring Mastic; Produce by Floral	NO	BR	YES	N/A	Cellulose <1% Binder 100%
089	21E	4/12/2023	5/1/2023	Woodgrain Linoleum Flooring Mastic; Produce	NO	T	YES	N/A	Cellulose <1% Binder 100%
090	21F	4/12/2023	5/1/2023	Woodgrain Linoleum Flooring Mastic; Wine Aisle #22	NO	T	YES	N/A	Cellulose <1% Binder 100%
091	22A	4/12/2023	5/1/2023	Carpet Tile Mastic; Pharmacy Waiting	NO	T	YES	N/A	Cellulose <1% Binder 100%

Client: Civil & Environmental Consultants
 Report Date: 5/2/2023
 Lab Number: 167343

Project Number: 20-19110-D
 Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
092	22B	4/12/2023	5/1/2023	Carpet Tile Mastic; Customer Services	NO	T	YES	N/A	Cellulose <1% Synthetics <1% Binder 100%
093	22C	4/12/2023	5/1/2023	Carpet Tile Mastic; Acct. Office	NO	G	YES	N/A	Cellulose <1% Synthetics <1% Binder 100%
094	23A	4/12/2023	5/1/2023	Poured Flooring; Warehouse by Recycling	NO	R	YES	N/A	Binder 100%
095	23B	4/12/2023	5/1/2023	Poured Flooring; Recycling	NO	R	YES	N/A	Binder 100%
096	23C	4/12/2023	5/1/2023	Poured Flooring; Produce Prep	NO	R	YES	N/A	Binder 100%
097	24A	4/12/2023	5/1/2023	Stair Tread Mastic; Mezzanine Stair	NO	BR	YES	N/A	Cellulose 10% Binder 90%
098	24B	4/12/2023	5/1/2023	Stair Tread Mastic; Mezzanine Stair	NO	BR	YES	N/A	Cellulose 10% Binder 90%

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Report Date: 5/2/2023
Lab Number: 167343

Project Number: 20-19110-D
Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
099	24C	4/12/2023	5/1/2023	Stair Tread Mastic; Mezzanine Stair	NO	BR	YES	N/A	Cellulose 10% Binder 90%
100	25A	4/12/2023	4/26/2023	Seam Sealant on HVAC Ducts; Warehouse by Stairs	NO	G	YES	N/A	Cellulose <1% Binder 100%
101	25B	4/12/2023	4/26/2023	Seam Sealant on HVAC Ducts; Warehouse by Stairs	NO	G	YES	N/A	Cellulose <1% Binder 100%
102	25C	4/12/2023	4/26/2023	Seam Sealant on HVAC Ducts; Warehouse by Stairs	NO	G	YES	N/A	Cellulose <1% Binder 100%
103	26A	4/12/2023	4/26/2023	Cooler/Freezer Panel Gasket; Dairy Cooler	NO	Y	YES	N/A	Binder 100%
104	26B	4/12/2023	4/26/2023	Cooler/Freezer Panel Gasket; Grocery Freezer	NO	Y	YES	N/A	Binder 100%
105	26C	4/12/2023	4/26/2023	Cooler/Freezer Panel Gasket; Meat Cooler	NO	Y	YES	N/A	Binder 100%

Client: Civil & Environmental Consultants
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Project Number: 20-19110-D
 Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
106	27A	4/12/2023	4/26/2023	Bare Concrete Flooring; Warehouse - S. End	NO	G	YES	N/A	Binder 100%
107	27B	4/12/2023	4/26/2023	Bare Concrete Flooring; Warehouse - N. End	NO	G	YES	N/A	Binder 100%
108	27C	4/12/2023	4/26/2023	Bare Concrete Flooring; Truck Dock	NO	G	YES	N/A	Binder 100%
109	28A	4/12/2023	4/26/2023	Stainless Steel Sink Insulation; Break Room	NO	W	YES	N/A	Cellulose 80% Binder 20%
110	29A	4/12/2023	4/26/2023	Mastic under Carpet Tile; East Office	NO	GR-Y	YES	N/A	Cellulose <1% Binder 100%
111	29B	4/12/2023	4/26/2023	Mastic under Carpet Tile; Pharmacy	NO	GR-Y	YES	N/A	Cellulose <1% Synthetics <1% Binder 100%
112	30A	4/12/2023	4/26/2023	Seam Sealant on Rubber Membrane Roof; Roof - E. Side	NO	B	YES	N/A	Binder 100%

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 Lab Number: 167343

Project Number: 20-19110-D
 Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
113	30B	4/12/2023	4/26/2023	Seam Sealant on Rubber Membrane Roof; Roof - Center	NO	B	YES	N/A	Cellulose <1% Binder 100%
114	30C	4/12/2023	4/26/2023	Seam Sealant on Rubber Membrane Roof; Roof - W. Side	NO	B	YES	N/A	Binder 100%
115	31A	4/12/2023	4/26/2023	Sealant on Roof Penetrations; Roof - E. Side	NO	B	YES	N/A	Binder 100%
116	31B	4/12/2023	4/26/2023	Sealant on Roof Penetrations; Roof - Center	NO	B	YES	N/A	Binder 100%
117	31C	4/12/2023	4/26/2023	Sealant on Roof Penetrations; Roof - W. Side	NO	B	YES	N/A	Binder 100%
118	32A	4/12/2023	5/1/2023	Roofing Felts under Rubber Membrane Roof; Roof - N. Side	NO	BR-W	NO	N/A	Cellulose 45% Binder 55%
119	32B	4/12/2023	5/1/2023	Roofing Felts under Rubber Membrane Roof; Roof - Center	NO	BR-W	NO	N/A	Cellulose 55% Binder 45%

Client: Civil & Environmental Consultants
Report Date: 5/2/2023
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Project Number: 20-19110-D
Project Name: Existing Kroger Store D-406

Polarized Light Microscopy (PLM) Bulk Sample Results

Location: 1200 E. Bristol Rd. - Burton, MI

Sample ID	Client Sample ID	Date Collected	Date Analyzed	Sample Description	Asbestos Present?	Color	Homogeneous	Sample Composition	
								Asbestos	Non-Asbestos
120	32C	4/12/2023	5/1/2023	Roofing Felts under Rubber Membrane Roof; Roof - S. Side	NO	BR-W	NO	N/A	Cellulose 45% Binder 55%
121	33A	4/12/2023	5/1/2023	Asphalt Roofing Shingles; Roof - E. Side Awning	NO	B	YES	N/A	Fiberglass 15% Binder 85%
122	33B	4/12/2023	5/1/2023	Asphalt Roofing Shingles; Roof - E. Side Awning	NO	BR-W	NO	N/A	Cellulose <1% Fiberglass 20% Binder 80%
123	33C	4/12/2023	5/1/2023	Asphalt Roofing Shingles; Roof - E. Side Awning	NO	BR-W	NO	N/A	Cellulose <1% Fiberglass 15% Binder 85%
124	34A	4/12/2023	5/1/2023	Roof Underlayment; Roof - E. Side Awning	NO	B	YES	N/A	Fiberglass 20% Binder 80%
125	34B	4/12/2023	5/1/2023	Roof Underlayment; Roof - E. Side Awning	NO	B	YES	N/A	Cellulose <1% Fiberglass 20% Binder 80%
126	34C	4/12/2023	5/1/2023	Roof Underlayment; Roof - E. Side Awning	NO	B	YES	N/A	Cellulose <1% Fiberglass 25% Binder 75%

Client: Civil & Environmental Consultants

Project Number: 20-19110-D

Report Date: 5/2/2023

Project Name: Existing Kroger Store D-406

Lab Number: 167343

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.

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167343

DAILY BULK SAMPLE LOGTECHNICIAN Donald G French DATE 4-12-23 JOB # 20-19110-DLOCATION Kroger Store D-406, 1200 E Bristol Rd, Burton, MI PAGE 1 OF 7

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL CONDITION	PHOTO NUMBER	SAMPLE DESCRIPTION
-001 -002 -003 1 A	Exterior - East side upper wall			EFS
B	↓			↓
C				
-004 -005 -006 2 A	Exterior - E side - North			Brick Mortar
B	↓ - Center			↓
C	↓ - South			
-007 -008 -009 3 A	Exterior - E side - North			Brick Expansion Joint
B	↓ - Center			↓
C	↓ - South			
-010 -011 -012 4 A	Exterior W side - North			Concrete Block Mortar
B	↓ - Center			↓
C	↓ - South			
-013 -014 -015 5 A	Exterior W side - North			Concrete Block Expansion Joint
B	↓ - Center			↓
C	↓ - South			
-016 -017 -018 6 A	Exterior E side - North			Foundation Joint Caulk
B	↓ - Center			↓
C	↓ - South			

White - Office

Yellow - Laboratory

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

micro air inc.6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268
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DAILY BULK SAMPLE LOGTECHNICIAN Donald G French DATE 4-12-23 JOB # 20-19110-DLOCATION Kroger Store D-406 PAGE 2 OF 7

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL CONDITION	PHOTO NUMBER	SAMPLE DESCRIPTION
019 020 021	7 A Exterior, E side - North Door Frame	Frame		Window/Door Frame
	B - Center Window Frame			Caulk
	C - South Window Frame			↓
022 023 024	8 A Exterior, E side - North			Window Glazing
	B - Center			↓
	C - South			↓
025 026 027	9 A Exterior S Sffit			Perimeter Drywall
	B " " "			& Associated
	C Vestibule E Wall			Joint Compound
028 029 030	10 A Store Floor @ Recycling Hall			Interior Drywall
	B Customer Services Wall			& Associated
	C Restroom Ceiling			Joint Compound
031 032 033	11 A Vestibule			Clay Tile Grout
	B Deli			↓
	C Bakery			↓
034 035 036	12 A East Restroom			Ceramic Tile Grout
	B Deli			↓
	C Bakery			↓

White - Office

Yellow - Laboratory

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

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

167343

DAILY BULK SAMPLE LOG

TECHNICIAN Donald G French DATE 4-12-23 JOB # 20-19110-D

LOCATION Kroger Store D-406 PAGE 3 OF 7

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL CONDITION	PHOTO NUMBER	SAMPLE DESCRIPTION
037 13A	Vestibule			Plastic Wall
038 B	↓			Adhesive
039 C	↓			↓
040 14A	Store Floor - East Side			4" Vinyl Base
041 B	Admin Hallway			Molding
042 C	Break Room			↓
043 D	↓			Adhesive
044 E	↓			on
045 F	↓			Above
046 15A	Vestibule			2'x4' Ceiling Tile
047 B	↓			(2x2 Pattern)
048 C	↓			↓
049 16A	Recycling			2'x4' Ceiling Tile
050 B	Pharmacy			(Pinhole Pattern)
051 C	Clie List			↓
052 17A	Warehouse by Stair			2'x4' Ceiling Tile
053 B	Mens Restroom			(Drywall Pattern)
054 C	" "			↓

White - Office

Yellow - Laboratory

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

Donald G French 4-12-23
NAME DATE

NAME DATE

Bm
NAME DATE

micro air inc.

6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268
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E-MAIL: microair@microair.com
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167343

DAILY BULK SAMPLE LOG

TECHNICIAN Donell G. French DATE 4-12-23 JOB # 20-19110-D

LOCATION Kroger Store D-406 PAGE 4 OF 7

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL CONDITION	PHOTO NUMBER	SAMPLE DESCRIPTION
18 A	Store Floor - SE Corner			12"x12" Floor Tile
B	" " - SW Corner			(Cream Scale Pattern)
C	" " - W side by Lunch Nest			
D	" " - Middle of Aisle 12			
E	" " - NW Corner			
F	" " - E side by Check lanes			
G	" " - E side by Customer Care			
H				Mastic on Above
I				
J				
K				
L				
M				
N				
19 A	Pharmacy Waiting			12"x12" Floor Tile
B	Customer Screens			(White Scale Pattern)
C	ApCT Office			
D	Warehouse Restroom Hall			
E	Break Room (Bottom Layer)			
F				Mastic on Above
G				
H				
I				
J				

White - Office

Yellow - Laboratory

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

micro air inc.

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DAILY BULK SAMPLE LOG

TECHNICIAN Donald G French DATE 4-12-23 JOB # 20-19110-D

LOCATION Kroger Store D-406 PAGE 5 OF 7

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL CONDITION	PHOTO NUMBER	SAMPLE DESCRIPTION
079 20 A	Vestibule Edge			12"x12" Floor Tile
080 B				(White w. Black Dots)
081 C				
082 D				Mastic
083 E				on
084 F				Above
085 21 A	Produce by Floral			Woodgrain
086 B	Produce			Linoleum Flooring
087 C	Wine Aisle #22			
088 D				Mastic
089 E				on
090 F				Above
091 22 A	Pharmacy Waiting			Carpet Tile
092 B	Customer Service			Mastic
093 C	ACCT Office			
094 23 A	Warehouse by Recycling			Poured Flooring
095 B	Recycling			
096 C	Produce Prep			
097 24 A	Mezzanine Stair			Stair Tread
098 B				Mastic
099 C				

White - Office

Yellow - Laboratory

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

micro air inc.6320 LA PAS TRAIL, INDIANAPOLIS, INDIANA 46268
TELEPHONE: (317) 293-1533 FAX: (317) 290-3566E-MAIL: microair@microair.com
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DAILY BULK SAMPLE LOGTECHNICIAN Donell G French DATE 4-12-23 JOB # 20-19110-DLOCATION Kroger Store D-406 PAGE 6 OF 7

	SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL CONDITION	PHOTO NUMBER	SAMPLE DESCRIPTION
-100	25A	Warehouse id by Stairs			Seam Sealant on
-101	B				HVAC Ducts
-102	C	↓			↓
-103	26A	Dairy Cooler			Cooler/Freezer
-104	B	Grocery Freezer			Panel Gasket
-105	C	Meat Cooler			↓
-106	27A	Warehouse - S end			Bare Concrete
-107	B	" - N end			Flooring
-108	C	Truck Dock			↓
-109	28A	Break Room			Stainless Steel
					Sink Insulation
-110	29A	East Office			Mastic under
-111	B	Pharmacy			Carpet Tile
-112	30A	Roof - E side			Seam Sealant on
-113	B	" - Center			Rubber Membrane
-114	C	" - W side			Roof
-115	31A	Roof - E side			Sealant on Roof
-116	B	" - Center			Penetrations
-117	C	" - W side			↓

White - Office

Yellow - Laboratory

CHAIN OF CUSTODY CHRONICLE:

COLLECTED BY:

CUSTODY TRANSFERRED TO:

RECEIVED IN LABORATORY BY:

NAME

DATE

NAME

DATE

NAME

DATE

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

167343

TECHNICIAN Donald G French DATE 4-12-23 JOB # 20-19110-D

LOCATION Kroger Store D-406 PAGE 7 OF 7

118
 119
 120
 121
 122
 123
 124
 125
 126

Yellow – Laboratory

COLLECTED BY:

RECEIVED IN LABORATORY BY:

DATE _____

TAB 5
CERTIFICATIONS

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



Accreditation Number
A11834

Expiration Date
02/10/2024

 **DOB: 07/16/1960**

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

163359

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).*

2023-04-01 through 2024-03-31

Effective Dates




For the National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

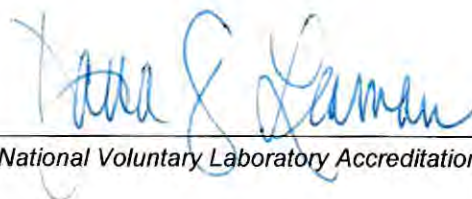
Micro Air, Inc.
6320 La Pas Trail
Indianapolis, IN 46268-4104
Ms. Betsie L. McAfee
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ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101221-0

Bulk Asbestos Analysis

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



For the National Voluntary Laboratory Accreditation Program



**ASBESTOS SURVEY REPORT
Kroger Store D-406 Renovation
1200 East Bristol Road
Burton, Michigan**

**Wood Environment & Infrastructure Solutions, Inc.
15933 Clayton Road, Suite 215
Ballwin, MO 63011
www.woodplc.com**

Wood Project No. 242419038

April 5, 2019



April 5, 2019

Mr. William Ortiz
Regional Construction Manager
The Kroger Co.
40393 Grand River Avenue
Novi, Michigan 40393

RE: **Asbestos Survey Report
Kroger Store D-406 Renovation
1200 East Bristol Road
Burton, Michigan
Project No. 242419038**

Dear Mr. Ortiz:

Wood Environment & Infrastructure Solutions, Inc., (Wood) is pleased to present this Asbestos Survey Report for the above-referenced project. The asbestos survey was conducted in accordance with a Wood proposal dated February 5, 2019, and authorized via Kroger Purchase Order DO2964179, dated February 22, 2019. Wood conducted the asbestos survey on March 12, 2019.

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

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.

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

Kevin S. Arnold
Sr. Environmental Scientist

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

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

cc: Keith Oliver, The Kroger Co.
Marty Cristo, The Kroger Co.
Peg Chandler, The Kroger Co.
Brett Smollen, The Kroger Co.



TABLE OF CONTENTS

Page

EXECUTIVE SUMMARY.....	1
1.0 INTRODUCTION.....	2
1.1 Reliance.....	2
2.0 SUBJECT PROPERTY DESCRIPTION.....	2
3.0 FIELD ACTIVITIES.....	3
3.1 Visual Assessment.....	3
3.2 Bulk Sample Collection.....	3
3.3 Sample Analysis.....	4
3.4 Building Plans or Prior Reports.....	5
4.0 REGULATORY OVERVIEW.....	5
5.0 FINDINGS AND RECOMMENDATIONS.....	5
5.1 Findings.....	6
5.2 Recommendations.....	7
6.0 GENERAL COMMENTS.....	7

FIGURES

Figure 1: Asbestos Sample Location Map

APPENDICES

APPENDIX A: Photographic Documentation
APPENDIX B: Asbestos Survey Sample Summary
APPENDIX C: Confirmed Asbestos-Containing Materials
APPENDIX D: Laboratory Analytical Report
APPENDIX E: Inspector Certification

EXECUTIVE SUMMARY

Wood Environment & Infrastructure Solutions, Inc., (Wood) was retained by The Kroger Co. to conduct an asbestos survey for the Kroger Store D-406 Renovation located at 1200 East Bristol Road, Burton, Michigan. The asbestos survey was conducted in accordance with Wood's proposal dated February 5, 2019. Details are not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of this survey.

The subject property consisted of Kroger Store D-406. Ninety-one bulk samples of suspect asbestos-containing materials (ACMs) were collected during the inspection and submitted to an accredited laboratory for analysis by polarized light microscopy (PLM). Laboratory analysis of the bulk samples identified asbestos in the following materials (see Appendix C):

- 12" x 12" Vinyl floor tile mastic
- 12" x 12" Brown mottled vinyl floor tile
- Carpet mastic (less than 1%)

The 12" x 12" vinyl floor tile and mastic are considered Category I non-friable ACM and may not need to be removed and disposed, provided the material is not subjected to burning, drilling, sanding, grinding, cutting, or abrading, and/or potentially crushed or pulverized during renovation or demolition activities.

The carpet mastic is less than one percent asbestos, is considered non-asbestos containing, and is exempt from current State of Michigan asbestos abatement regulations. The mastic is presumably remaining from the original 1975 construction and is co-mingled with the non-asbestos mastic used to install the carpet. However, the carpet mastic and renovation or demolition activities disturbing the material would need to comply with the OSHA Construction Standard (29 CFR 1926.1101) which regulates workplace exposure to asbestos.

Wood recommends that asbestos removal, regardless of quantity or NESHAP Classification, be conducted by a State of Michigan-licensed asbestos abatement contractor prior to demolition or renovation activities that would disturb the materials. 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 demolition or renovation, those materials should be assumed asbestos-containing until sampling and analysis can confirm or deny asbestos content.

1.0 INTRODUCTION

Wood Environmental & Infrastructure, Inc. (Wood) was retained by The Kroger Co. to conduct an asbestos survey for the Kroger Store D-406 Renovation located at 1200 East Bristol Road, Burton, Michigan. The survey was conducted in general accordance with Wood's proposal dated February 5, 2019 and "The Kroger Co., Asbestos-Containing Materials Scope of Work and Report Requirements," dated April 2018 (Kroger Scope of Work) and authorized via Kroger Purchase Order DO2964179, dated February 22, 2019. Wood understands that this asbestos survey was requested due to planned renovation of the subject property.

1.1 Reliance

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 report 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 Wood Environmental & Infrastructure Solutions, Inc. (formerly, Amec Foster Wheeler Environment & Infrastructure) and the Kroger Co. General Offices (G.O.) on June 12, 2008.

2.0 SUBJECT PROPERTY DESCRIPTION

The subject property consisted of Kroger Store D-406. The building was constructed in 1975, and encompassed approximately 54,346 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 consisted of drywall, and concrete block walls. Ceilings were suspended acoustical ceiling tiles or exposed roof joists. Floors were carpet, vinyl or ceramic tile, or concrete. The roofing system consisted of a ballasted rubber membrane over isocyanate panels, and associated sealants.

The building was heated and cooled by forced-air roof top package units, with radiant natural-gas heating units in the loading dock. Ductwork throughout the building was uninsulated. Domestic water lines and refrigerant lines were insulated with non-suspect Armaflex insulation.

The Kroger Store consisted of a grocery sales area, department preparation areas, pharmacy, office area, and a warehouse. Mezzanine areas consist of an employee locker room and a mechanical room. Additional tenants within the Kroger Store included Midwest Bank and Starbucks.

3.0 FIELD ACTIVITIES

The survey was conducted by State of Michigan-licensed asbestos inspector, Mr. Kevin S. Arnold of Wood on March 12, 2019. Mr. Arnold was not escorted during the survey. 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). Inspector certification is contained in Appendix D. A summary of the survey activities is provided in the following subsections.

3.1 Visual Assessment

Survey activities began with a visual inspection of interior and exterior of each building and/or tenant suite to identify, document the location, condition and approximate quantities of suspect asbestos-containing materials (ACMs). Suspect ACMs were grouped into homogeneous areas. A homogeneous area consists of building materials that appear similar throughout in terms of color, texture and consideration of date of installation or application. Building materials identified as concrete, glass, wood, masonry, metal, rubber or silicone are not considered suspect ACM and, therefore, were not sampled. Also, if information was available to indicate a material did not contain asbestos (i.e., product label), the material was not sampled. Photographs of identified and/or assumed suspect ACMs are provided in Appendix A.

The inspection was limited to accessible areas. Destructive sampling (e.g., breaking into wall voids) was not conducted. At the request of Mr. Ortiz of Kroger, the roofing system was not included as part of this survey.

Wood did not observe additional flooring layers unless mentioned in this report; however, as Wood could not assess beneath all floor covering in all areas, there may be isolated areas of additional suspect material present beneath existing flooring. Although reasonable effort was made to survey accessible suspect materials, additional suspect but un-sampled materials could be located in walls, in voids or in other concealed areas (e.g., locked doors, inaccessible attics).

3.2 Bulk Sample Collection

Based on the findings of the visual inspection, bulk samples of suspect ACM were collected in general accordance with AHERA sample collection protocols. Each homogeneous area was categorized as: surfacing material (Surfacing), thermal system insulation (TSI), or miscellaneous material (Miscellaneous). Under AHERA the minimum number of bulk samples collected per category include:

- Surfacing
 - Less than 1,000 square feet: 3 samples
 - Between 1,000 and 5,000 square feet: 5 samples
 - Greater than 5,000 square feet: 7 samples
- Thermal System Insulation: 3 samples (less than 6 liner or square feet of a patch)
- Miscellaneous Material: in a manner sufficient to determine whether the material is ACM or not ACM. Typically, Wood collected 3 samples

Samples were collected from random locations, if possible, for each suspect homogeneous material identified. Samples were placed in sealable containers, labeled with unique sample numbers, using an indelible marker. Due to safety issues, suspect ACMs identified on electrical and mechanical equipment or systems, or confined spaces were not sampled as part of this survey.

Sample collection likely resulted in some isolated damage to building materials. However, damage was limited to the extent necessary for sample collection. If possible, Wood repaired sample locations, but did not return building materials to the original finish.

Ninety-one bulk samples of ACMs were collected during the inspection. Some bulk samples collected included multiple layers (e.g., floor tile and mastic). Bulk samples were collected of the following suspect materials: drywall/joint compound, 2' x 4' acoustical ceiling tile, 12" x 12" vinyl floor tile and mastic, stair tread mastic, carpet mastic, cove base and mastic, poured flooring, quarry tile grout/thin set, ceramic wall and floor tile grout/thin set, wall panel adhesive, duct sealant, door and window caulk, and concrete slab.

A floor plan depicting approximate sample locations is presented as Figure 1, Asbestos Sample Location Map. An Asbestos Survey Sample Summary table with material descriptions, sample numbers, homogeneous area number, and sample location is contained in Appendix B. A summary of confirmed and/or assumed ACMs with laboratory results, general locations and estimated quantities is contained in Appendix C.

3.3 Sample Analysis

Bulk samples were submitted under chain of custody to EMSL Analytical, Inc. (EMSL) in Indianapolis, Indiana, 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). The percentage of asbestos, where

applicable, was established by microscopic visual estimation. EMSL is an accredited National Voluntary Laboratory Accreditation Program (NVLAP Accreditation No. 200188-0) laboratory. Laboratory analytical reports are contained in Appendix D.

3.4 Building Plans or Prior Reports

Kroger did not provide prior asbestos survey reports or an Operation and Maintenance Program for the subject property for review. Further, no as-built plans, construction plans, or material schedules were available for review.

4.0 REGULATORY OVERVIEW

The State of Michigan Department of Environmental Quality (MDEQ), Air Division enforces the USEPA Asbestos National Emission Standards for Hazardous Air Pollutants (NESAHP, 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.

The Asbestos NESHAP regulation defines ACM as a material containing more than 1% asbestos. Friable ACM as any material containing more than 1% asbestos that, when dry, may be crumbled, pulverized or reduced to powder by hand pressure. Non-friable materials when dry, cannot be may be crumbled, pulverized or reduced to powder by hand pressure. Category I non-friable ACMs are exclusively asbestos-containing packings, gaskets, resilient floor coverings, resilient floor covering mastics and asphalt roofing products that contain more than 1% asbestos. Category II non-friable ACMs are all other non-friable materials other than Category I non-friable ACM that contain more than 1% asbestos.

Friable ACM along with Category I and Category II non-friable ACM which is in poor condition and has become friable or which will be subjected to drilling, sanding, grinding, cutting or abrading and could be crushed or pulverized during anticipated renovation or renovation activities are considered regulated ACM (RACM). RACM must be removed prior to renovation or demolition activities which will disturb the asbestos-containing materials.

The Occupational Safety and Health Administration (OSHA) asbestos standard for construction (29 CFR 1926.1101) regulates workplace exposure to asbestos. The OSHA standard requires that employee

exposures to airborne asbestos fibers be maintained below 0.1 fiber per cubic centimeter of air (0.1 f/cc) as an eight hour-time weighted average (TWA) and not exceed 1.0 fibers per cubic centimeter of air (1. f/cc) over a 30-minute time period, the excursion limit. The TWA and excursion limit together are known as the OSHA permissible exposure limits or PELs. The OSHA standard classifies construction and maintenance activities which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work.

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.

5.0 FINDINGS AND RECOMMENDATIONS

5.1 Findings

Wood conducted an asbestos survey of the Kroger Store D-406 Renovation located at 1200 East Bristol Road, Burton, Michigan. The subject property consisted of Kroger Store D-406. Ninety-one bulk samples of suspect ACMs were collected during the inspection and submitted to an accredited laboratory for analysis by PLM. Laboratory analysis of the bulk samples identified asbestos in the following materials (see Appendix C):

- 12" x 12" Vinyl floor tile mastic
- 12" x 12" Brown mottled vinyl floor tile
- Carpet mastic (less than 1%)

The 12" x 12" vinyl floor tile mastic is beneath non-asbestos-containing floor tiles and mastic throughout the Grocery Sales Floor, Produce, Floral, Pharmacy-Over the Counter, Bakery/Deli, and Front End/CheckLanes. The mastic may possibly be located beneath carpet in the Office area, Pharmacy, and Conference Room. The mastic presumably was from the original 1975 construction. The floor tiles and mastics are considered a Category I non-friable ACMs in good condition.

The 12" x 12" brown mottled floor tile is located in the Mezzanine Locker Room. The material is considered a Category I non-friable ACM in fair condition.

The carpet mastic is located in the Conference Room beneath carpet and non-asbestos adhesive. The carpet mastic is less than one percent asbestos and, the carpet mastic is considered non-asbestos containing, and is exempt from current State of Michigan asbestos abatement regulations. The mastic is presumably remaining from the original 1975 construction and is co-mingled with the non-asbestos mastic used to install the carpet. However, the carpet mastic and renovation or demolition activities disturbing the material would need to comply with the OSHA Construction Standard (29 CFR 1926.1101), which regulates workplace exposure to asbestos.

5.2 Recommendations

Based on the results of this survey, ACMs were identified in the subject property building(s). Category I non-friable ACM may not need to be removed and disposed, provided the material is not subjected to burning, drilling, sanding, grinding, cutting, or abrading, and/or potentially crushed or pulverized during renovation or demolition activities. Identified ACMs classified as Category I non-friable include the following:

- 12" x 12" Vinyl floor tile mastic
- 12" x 12" Brown mottled vinyl floor tile

Wood recommends that asbestos removal, regardless of quantity or NESHAP Classification, be conducted by a State of Michigan-licensed asbestos abatement contractor prior to demolition or renovation activities that would disturb the materials. Further, suspect materials, other than those identified during this asbestos survey may exist within the building(s). Should suspect materials other than those which were identified during this survey be uncovered during demolition or renovation, those materials should be assumed asbestos-containing until sampling and analysis can confirm or deny asbestos content.

6.0 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 Wood and



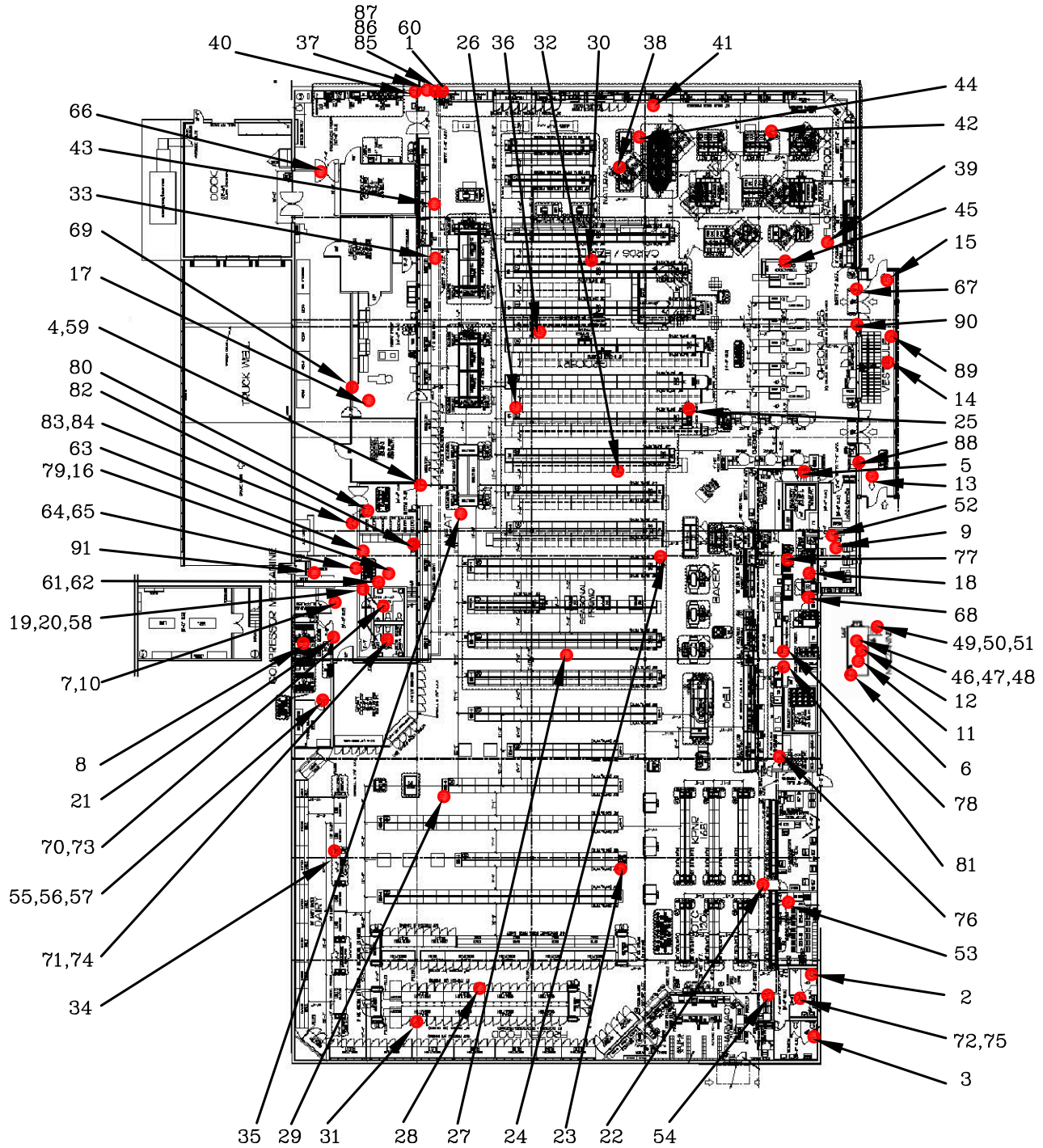
the Kroger Co. General Offices (G.O.) on June 12, 2008. The use or reliance by a third party is not permitted without the specific written permission of both the Wood and Kroger.

This asbestos survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our survey of the subject property building(s). The information contained in this report is relevant to the date on which this survey was performed, and should not be relied upon to represent conditions at a later date.

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. Wood 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.

FIGURES

Figure 1: Asbestos Sample Location Map



ASBESTOS SAMPLE LOCATION MAP
KROGER STORE D-406 RENOVATION
1200 EAST BRISTOL ROAD
BURTON, MICHIGAN

FIGURE 1

APPROX. SCALE:
PER BAR
SCALE

REVISION:

wood.

ENVIRONMENT &
INFRASTRUCTURE
SOLUTIONS, INC.

15933 CLAYTON ROAD
SUITE 215
BALLWIN, MO 63011

REFERENCE MAP

DRAWN BY:

DATE DRAWN:

PROJECT NO.

D-406 FIXTURE PLAN

D.BLANKENSHIP

4//19

242419038



APPENDIX A
Photographic Documentation

Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038

wood.

Photo No. 1

Description:

View of subject property
from the east.



Photo No. 2

Description:

View of the CheckLanes.



Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038

wood.

Photo No. 3

Description:

View of the Warehouse.



Photo No. 4

Description:

View of the Produce area.
Note Homogeneous Area
(HA)-1, perimeter
drywall/joint compound in
the background.



Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038



Photo No. 5

Description:

HA-2, interior drywall/joint compound.



Photo No. 6

Description:

View HA-3, 2' x 4' fissure
acoustical ceiling tile.



Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038



Photo No. 7

Description:

View of HA-4, 2' x 4' large
fissure acoustical ceiling
tile.



Photo No. 8

Description:

View of HA-5, split fissure
acoustical ceiling tile.



**Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038**



Photo No. 9

Description:

View of HA-7, 12" x 12"
gray vinyl floor tile and
mastic.



Photo No. 10

Description:

View of HA-8, 12" x 12"
white vinyl floor tile and
asbestos-containing mastic.



**Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038**



Photo No. 11

Description:

View of HA-9, 12" x 12"
green vinyl floor tile and
asbestos-containing mastic.



Photo No. 12

Description:

View of HA-10, 12" x 12"
peach vinyl floor tile &
asbestos-containing mastic.



**Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038**



Photo No. 13

Description:

View of HA-11, 12" x 12"
off-white vinyl floor tile and
mastic.



Photo No. 14

Description:

View of HA-12, 12" x 12"
black vinyl floor tile and
asbestos-containing mastic.



Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038



Photo No. 15

Description:

View of HA-12, 12" x 12"
light green vinyl floor tile
and mastic.

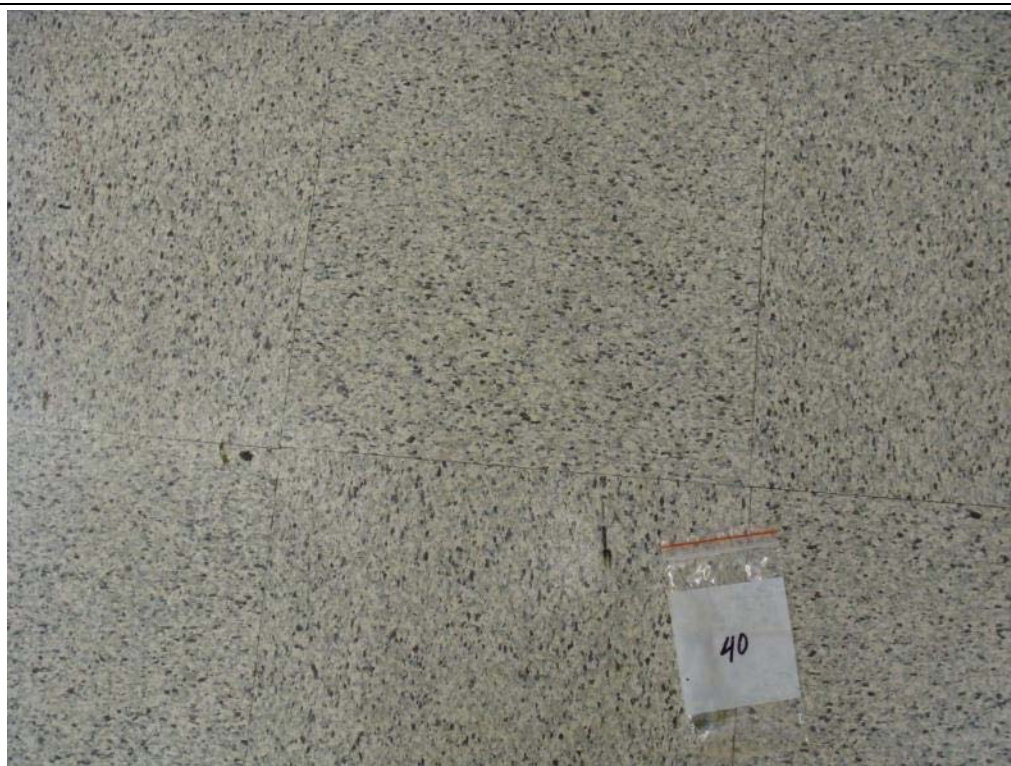


Photo No. 16

Description:

View of HA-14, 12" x 12"
light brown vinyl floor tile
and asbestos-containing
mastic.



Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038

wood.

Photo No. 17

Description:

View of HA-15, asbestos-containing 12" x 12" brown mottled vinyl floor tile and mastic.

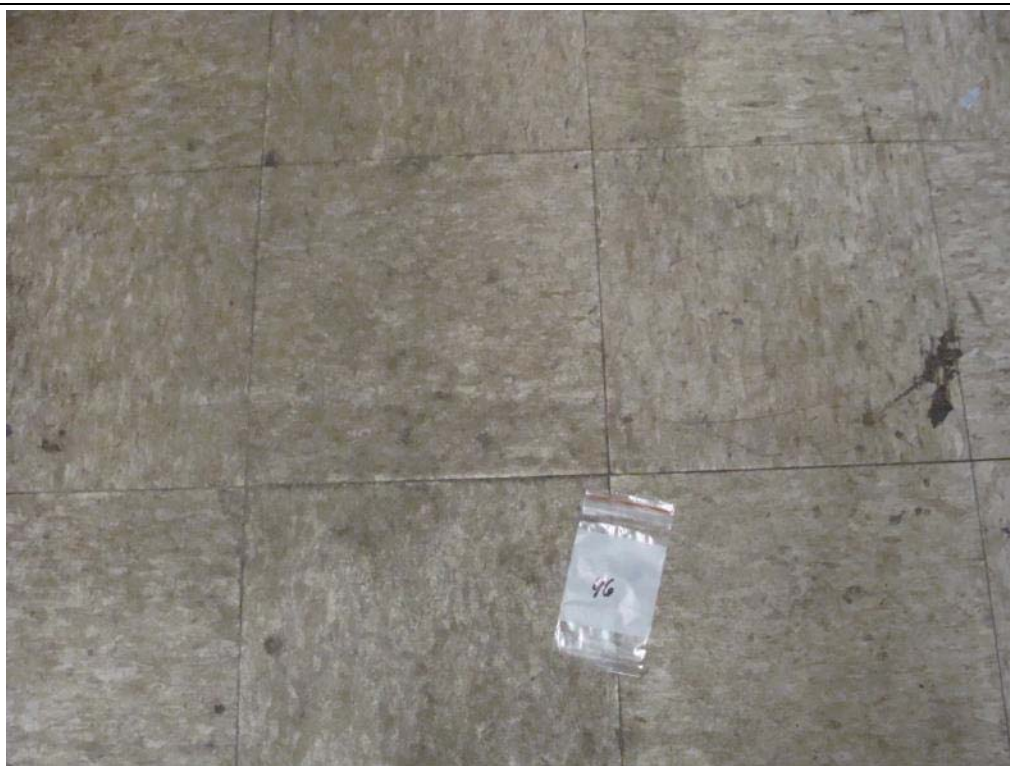


Photo No. 18

Description:

View of HA-16, black stair tread and mastic.



Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038



Photo No. 19

Description:

View of HA-17, carpet mastic. Note a sample from the conference room exhibited less than 1% asbestos.



Photo No. 20

Description:

View of HA-18, black cove base and mastic.



**Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038**



Photo No. 21

Description:

View of HA-18, brown cove
base and mastic.



Photo No. 22

Description:

View of HA-20, brown
poured flooring.



Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038



Photo No. 23

Description:

View of HA-21, red poured
flooring.



Photo No. 24

Description:

View of HA-22, quarry tile
grout/thin set.



Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038



Photo No. 25

Description:

View of HA-23, large
ceramic floor tile grout/thin
set.

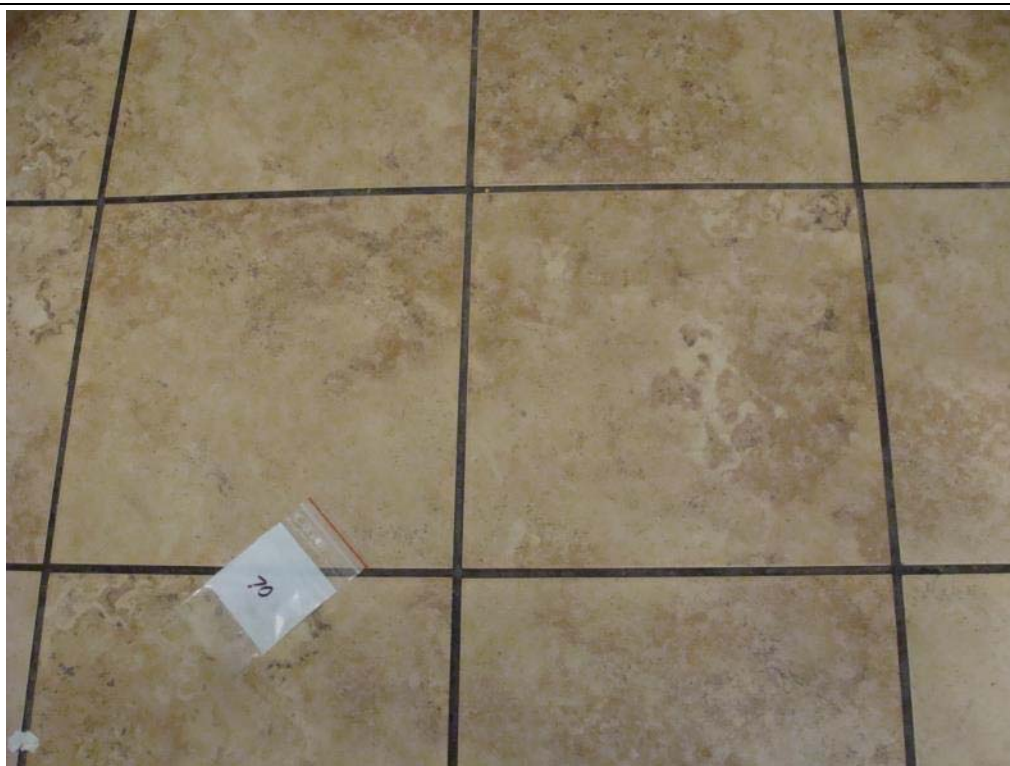


Photo No. 26

Description:

View of HA-24, large
ceramic wall tile grout/thin
set.



Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038

wood.

Photo No. 27

Description:

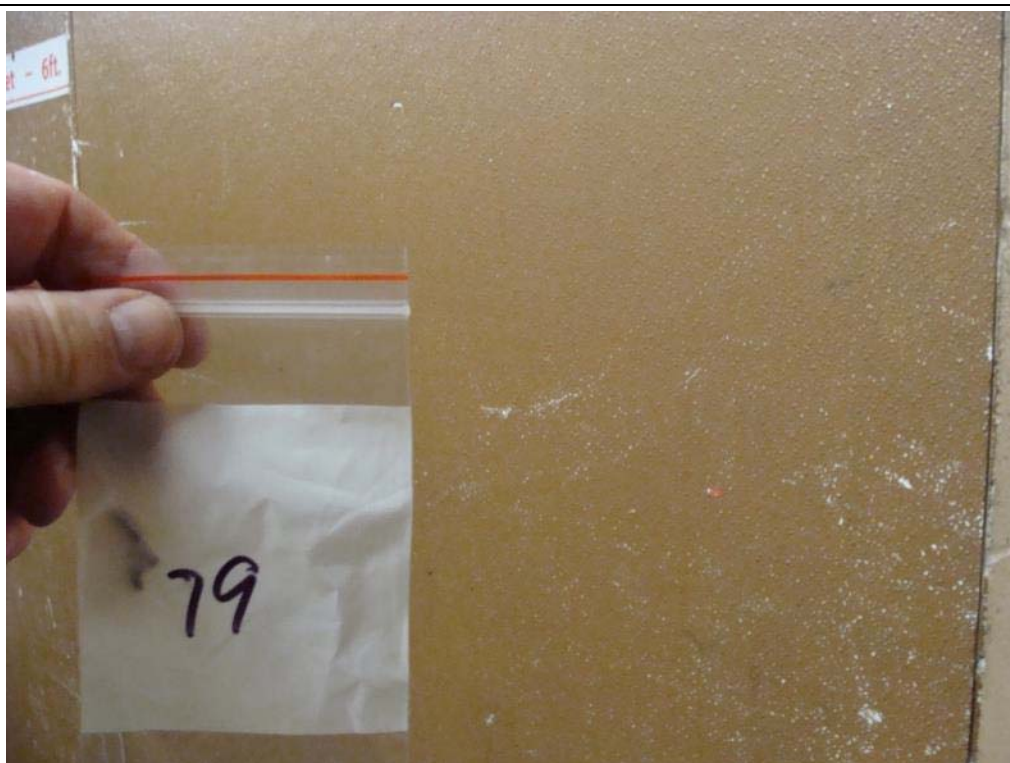
View of HA-25, small
ceramic wall tile grout/thin
set.



Photo No. 28

Description:

View of HA-26, wall panel
adhesive.



Photographic Documentation
Kroger Store D-406 Renovation
Burton, Michigan
Project No. 242419038

wood.

Photo No. 29

Description:

View of HA-27, duct sealant.

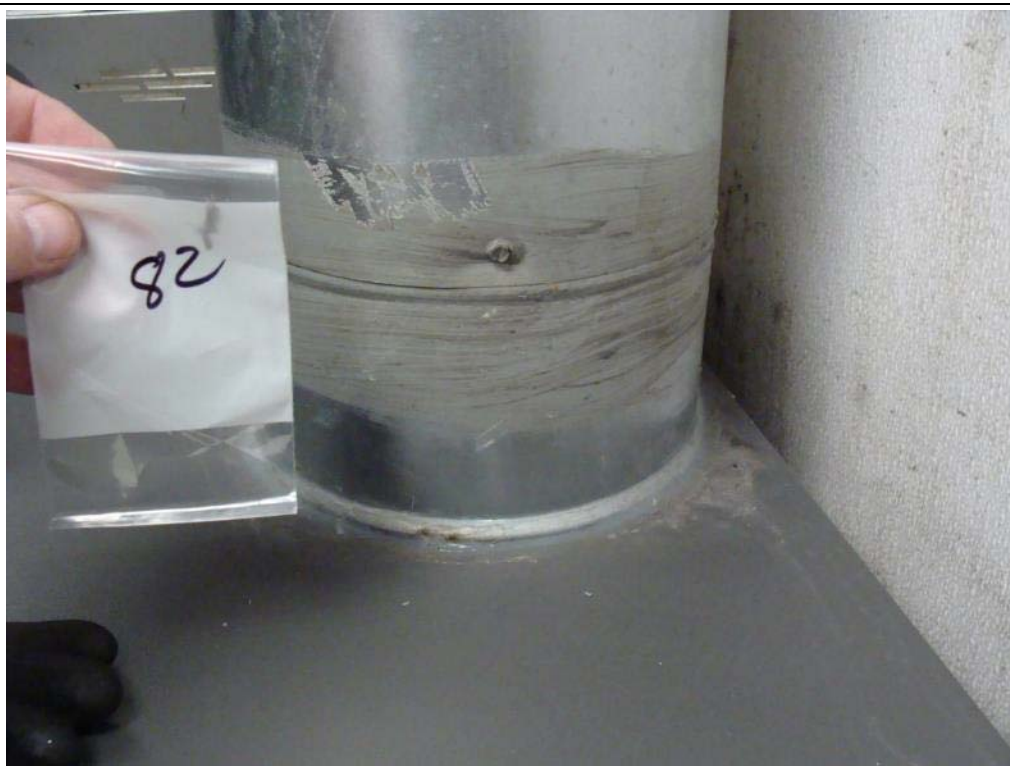
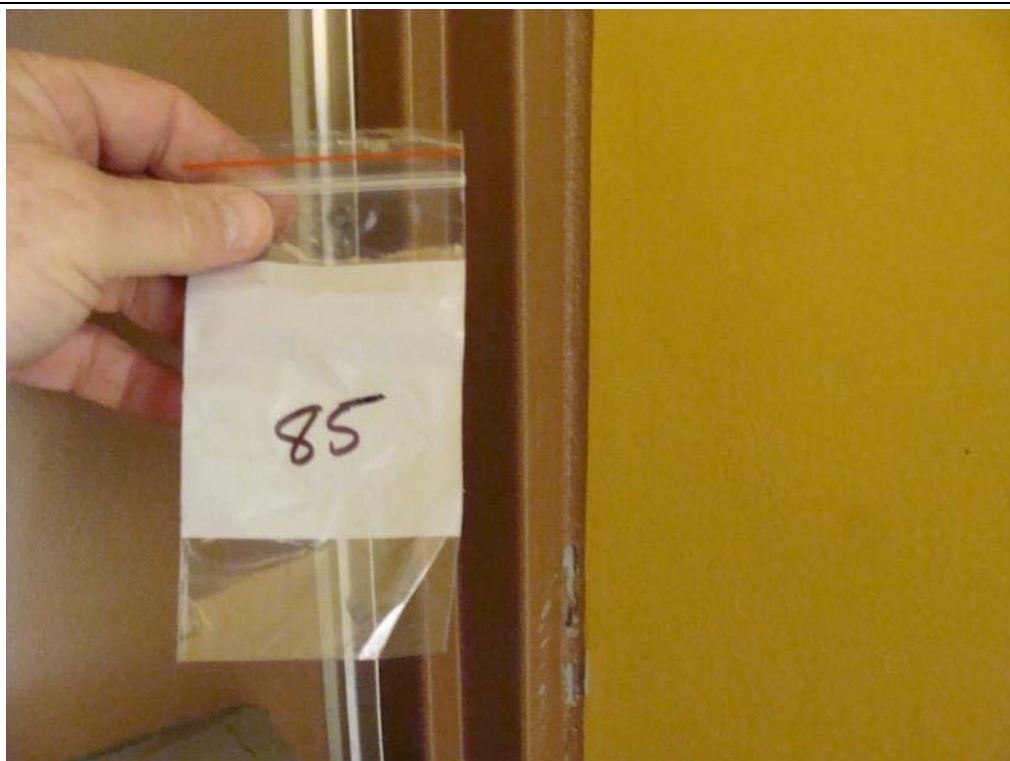


Photo No. 30

Description:

View of HA-28, door caulk.



Photographic Documentation
Kroger Store D-406 Renovation
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wood.

Photo No. 31

Description:

View of HA-29, black
window/door caulk.

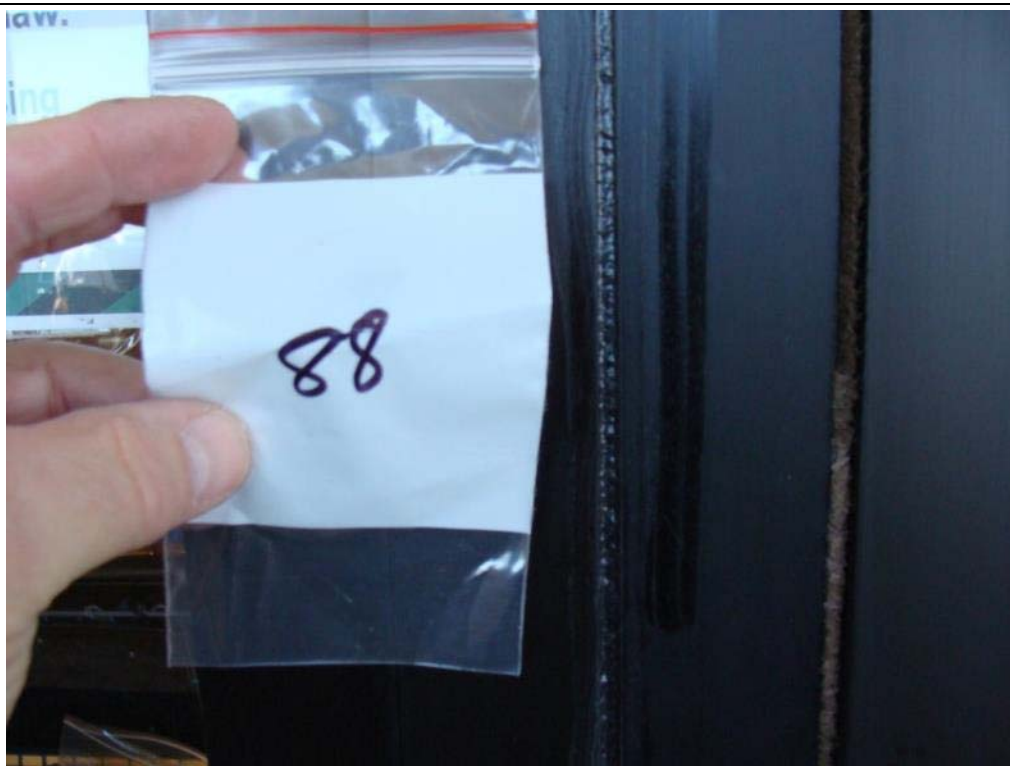


Photo No. 32

Description:

View of HA-30, concrete
slab.





APPENDIX B
Asbestos Survey Sample Summary



ASBESTOS SURVEY SAMPLE SUMMARY Kroger Store D-406 Renovation Wood Project No. 242419038			
HA	Sample No.	Description	Sample Location
1	1	Drywall/joint compound, perimeter	Grocery Sales, Baked Goods
	2		Public Men's Restroom
	3		Public Women's Restroom
2	4	Drywall/joint compound, interior	Grocery Sales by Recycle Center
	5		Stairwell to Mezzanine Locker Room
	6		Mezzanine Locker Room
3	7	2' x 4' Fissure acoustical ceiling tile	Hallway to Break Room
	8		Break Room
	9		Conference Room
4	10	2' x 4' Large fissure acoustical ceiling tile	Hallway to Break Room
	11		Mezzanine Locker Room
	12		Mezzanine Locker Room
5	13	2' x 4' Split fissure acoustical ceiling tile	Vestibule
	14		Vestibule
	15		Vestibule
6	16	2' x 4' Gypsum acoustical ceiling tile	Recycle Center Storage
	17		Meat Department
	18		Bakery Department
7	19	12" x 12" Gray vinyl floor tile & mastic	Hallway to Employee Restrooms
	20		Hallway to Employee Restrooms
	21		Break Room
8	22	12" x 12 White vinyl floor tile & mastic	Over the Counter sales
	23		Aisle 21
	24		Aisle 12
	25		Aisle 8
	26		Aisle 8
	27		Aisle 15
9	28	12" x 12" Green vinyl floor tile & mastic	Aisle 23
	29		Aisle 19
	30		Aisle 4
10	31	12" x 12" Peach vinyl floor tile & mastic	Aisle 24
	32		Aisle 10
	33		Meat sales
11	34	12" x 12" Off-white vinyl floor tile & mastic	Dairy sales
	35		Meat sales
	36		Aisle 6
12	37	12" x 12" Black vinyl floor tile & mastic	Aisle 1
	38		Produce
	39		Floral
13	40	12" x 12" Light green vinyl floor tile & mastic	Aisle 1
	41		Produce
	42		Produce
14	43	12" x 12" Light brown vinyl floor tile & mastic	Aisle 1
	44		Produce
	45		Produce

ASBESTOS SURVEY SAMPLE SUMMARY Kroger Store D-406 Renovation Wood Project No. 242419038			
HA	Sample No.	Description	Sample Location
15	46	12" x 12" Brown mottled vinyl floor tile & mastic	Mezzanine Locker Room
	47		Mezzanine Locker Room
	48		Mezzanine Locker Room
16	49	Black stair tread & mastic	Mezzanine Locker Room stairwell
	50		Mezzanine Locker Room stairwell
	51		Mezzanine Locker Room stairwell
17	52	Carpet mastic	Conference Room
	53		Office area
	54		Pharmacy
18	55	Black cove base & mastic	Break Room
	56		Break Room
	57		Break Room
19	58	Brown cove base & mastic	Hallway to Employee Restrooms
	59		Grocery Sales
	60		Grocery Sales
20	61	Brown poured flooring	Recycle Center Storage
	62		Recycle Center Storage
	63		Recycle Center
21	64	Red poured flooring	Recycle Center Storage
	65		Recycle Center Storage
	66		Produce Preparation
22	67	Quarry tile grout/thin set	Vestibule
	68		Bakery Department
	69		Meat Department
23	70	Large ceramic floor tile grout/thin set	Employee Men's Restroom
	71		Employee Women's Restroom
	72		Public Men's Restroom
24	73	Large ceramic wall tile grout/thin set	Employee Men's Restroom
	74		Employee Women's Restroom
	75		Public Men's Restroom
25	76	Small ceramic wall tile grout/thin set	Bakery/Deli Departments
	77		Bakery/Deli Departments
	78		Bakery/Deli Departments
26	79	Wall panel adhesive	Recycle Center Storage
	80		Recycle Center
	81		Bakery/Deli Department
27	82	Duct sealant	Recycle Center Storage
	83		Warehouse
	84		Warehouse
28	85	Door caulk	Grocery Sales, Baked Goods exit door
	86		Grocery Sales, Baked Goods exit door
	87		Grocery Sales, Baked Goods exit door
29	88	Black window/door caulk	Vestibule
	89		Vestibule
	90		Vestibule



ASBESTOS SURVEY SAMPLE SUMMARY			
Kroger Store D-406 Renovation			
Wood Project No. 242419038			
HA	Sample No.	Description	Sample Location
30	91	Concrete slab	Warehouse



APPENDIX C
Confirmed Asbestos-Containing Materials

CONFIRMED ASBESTOS-CONTAINING MATERIALS Kroger Store D-406 Renovation Wood Project No. 242419038						
HA	Description	Material Location	Percent/Type Asbestos	NESHAP	Condition	Estimated Quantity
8, 9, 10, 11, 12, & 14	12" x 12" vinyl floor tile mastic	Grocery Sales Floor, Produce, Floral, Pharmacy-Over the Counter, Bakery/Deli, and Front End/CheckLanes	Mastic: 038-107% C ¹ Tile: ND	Category I	Good	39,500 SF
15	12" x 12" Brown mottled vinyl flooring	Mezzanine Locker Room	Mastic: ND Tile: 0.9-1.3% C ¹	Category I	Fair	200 SF
--	Carpet mastic	Conference Room	Mastic: >1% C	n/a	n/a	n/a

ND = None Detected

C = Chrysotile

SF = Square feet

n/a = Not applicable

1 = Analysis Polarized Light Microscopy (PLM) - Point Count Performed by EPA 600/R-93/116 Method with Gravimetric Reduction and 400 Point Count



APPENDIX D
Laboratory Reports



EMSL Analytical, Inc.

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<http://www.EMSL.com> / indianapolislabs@emsl.com

EMSL Order: 161904626

Customer ID: AMECMM25

Customer PO: C012608778

Project ID:

Attention: Kevin Arnold

Wood Env. & Infrastructure Solutions

15933 Clayton Road

Suite 215

Ballwin, MO 63011

Project: Kroger D406 / 19038

Phone: (636) 200-5137

Fax:

Received Date: 03/15/2019 8:45 AM

Analysis Date: 03/21/2019 - 03/22/2019

Collected Date:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1-Drywall <small>161904626-0001</small>	Drywall/Joint Compound, Perimeter	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
1-Joint Compound <small>161904626-0001A</small> <i>Inseparable paint / coating layer included in analysis</i>	Drywall/Joint Compound, Perimeter	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
2-Drywall <small>161904626-0002</small>	Drywall/Joint Compound, Perimeter	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
2-Joint Compound <small>161904626-0002A</small> <i>Inseparable paint / coating layer included in analysis</i>	Drywall/Joint Compound, Perimeter	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
3-Drywall <small>161904626-0003</small>	Drywall/Joint Compound, Perimeter	White Non-Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected
3-Joint Compound <small>161904626-0003A</small>	Drywall/Joint Compound, Perimeter	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-Drywall <small>161904626-0004</small>	Drywall/Joint Compound, Interior	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
4-Joint Compound <small>161904626-0004A</small>	Drywall/Joint Compound, Interior	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
4-Composite <small>161904626-0004B</small> <i>This is a composite result of wallboard, jt. compound, and tape</i>	Drywall/Joint Compound, Interior	Brown/White Fibrous Heterogeneous	20% Cellulose	60% Gypsum 20% Non-fibrous (Other)	<1% Chrysotile
5 <small>161904626-0005</small> <i>Drywall only</i>	Drywall/Joint Compound, Interior	Brown/White Fibrous Heterogeneous	20% Cellulose	70% Gypsum 10% Non-fibrous (Other)	None Detected
6-Drywall <small>161904626-0006</small>	Drywall/Joint Compound, Interior	White Non-Fibrous Homogeneous	10% Cellulose	70% Gypsum 20% Non-fibrous (Other)	None Detected
6-Joint Compound <small>161904626-0006A</small> <i>Paint layer included in analysis</i>	Drywall/Joint Compound, Interior	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
6-Composite <small>161904626-0006B</small> <i>This is a composite result of wallboard, jt. compound, and tape</i>	Drywall/Joint Compound, Interior	White Non-Fibrous Heterogeneous	15% Cellulose	60% Gypsum 25% Non-fibrous (Other)	<1% Chrysotile
7 <small>161904626-0007</small>	2x4 Fissure ACT	Gray/White Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected

Initial report from: 03/22/2019 15:31:31



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EMSL Order: 161904626

Customer ID: AMECMM25

Customer PO: C012608778

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
8 161904626-0008	2x4 Fissure ACT	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
9 161904626-0009	2x4 Fissure ACT	Gray/Tan/White Fibrous Homogeneous	60% Cellulose 15% Min. Wool	10% Perlite 15% Non-fibrous (Other)	None Detected
10 161904626-0010	2x4 Large Fissure ACT	Gray/White Fibrous Homogeneous	70% Cellulose 10% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
11 161904626-0011	2x4 Large Fissure ACT	Gray/White Fibrous Homogeneous	70% Cellulose 10% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
12 161904626-0012	2x4 Large Fissure ACT	Gray/White Fibrous Homogeneous	60% Cellulose 15% Min. Wool	10% Perlite 15% Non-fibrous (Other)	None Detected
13 161904626-0013	2x4 Split Fissure ACT	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
14 161904626-0014	2x4 Split Fissure ACT	Gray/White Fibrous Homogeneous	60% Cellulose 20% Min. Wool	15% Perlite 5% Non-fibrous (Other)	None Detected
15 161904626-0015	2x4 Split Fissure ACT	Gray/Tan/White Fibrous Homogeneous	65% Cellulose 20% Min. Wool	10% Perlite 5% Non-fibrous (Other)	None Detected
16 161904626-0016	2x4 Gypsum ACT	Brown/White Fibrous Heterogeneous	20% Cellulose 2% Glass	65% Gypsum 2% Mica 11% Non-fibrous (Other)	None Detected
17 161904626-0017	2x4 Gypsum ACT	Brown/White Fibrous Heterogeneous	20% Cellulose 2% Glass	65% Gypsum 2% Mica 11% Non-fibrous (Other)	None Detected
18 161904626-0018	2x4 Gypsum ACT	White Fibrous Homogeneous	15% Cellulose 2% Glass	60% Gypsum 3% Mica 20% Non-fibrous (Other)	None Detected
19-Floor Tile 161904626-0019	12x12 Gray VFT & Mastic	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
19-Mastic 161904626-0019A	12x12 Gray VFT & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-Floor Tile 161904626-0020	12x12 Gray VFT & Mastic	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-Mastic 161904626-0020A	12x12 Gray VFT & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-Floor Tile 161904626-0021	12x12 Gray VFT & Mastic	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-Mastic 161904626-0021A	12x12 Gray VFT & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22 161904626-0022 Insufficient mastic	12x12 White VFT & Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
23-Floor Tile 161904626-0023	12x12 White VFT & Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
23-Mastic 161904626-0023A	12x12 White VFT & Mastic	Black/Yellow Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
24-Floor Tile 161904626-0024	12x12 White VFT & Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
24-Mastic 161904626-0024A	12x12 White VFT & Mastic	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
25-Floor Tile 161904626-0025	12x12 White VFT & Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
25-Mastic 161904626-0025A	12x12 White VFT & Mastic	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
26-Floor Tile 161904626-0026	12x12 White VFT & Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
26-Mastic 161904626-0026A	12x12 White VFT & Mastic	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
27-Floor Tile 161904626-0027	12x12 White VFT & Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
27-Mastic 161904626-0027A	12x12 White VFT & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28-Floor Tile 161904626-0028	12x12 Green VFT & Mastic	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
28-Mastic 161904626-0028A	12x12 Green VFT & Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29-Floor Tile 161904626-0029	12x12 Green VFT & Mastic	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
29-Mastic 161904626-0029A	12x12 Green VFT & Mastic	Gray/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
30-Floor Tile 161904626-0030	12x12 Green VFT & Mastic	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
30-Mastic 161904626-0030A	12x12 Green VFT & Mastic	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
31 161904626-0031 Insufficient mastic	12x12 Peach VFT & Mastic	Peach Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
32-Floor Tile 161904626-0032	12x12 Peach VFT & Mastic	Peach Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
32-Mastic <i>161904626-0032A</i>	12x12 Peach VFT & Mastic	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
33-Floor Tile <i>161904626-0033</i>	12x12 Peach VFT & Mastic	Peach Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
33-Mastic <i>161904626-0033A</i>	12x12 Peach VFT & Mastic	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
34-Floor Tile <i>161904626-0034</i>	12x12 Off-White VFT & Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
34-Mastic <i>161904626-0034A</i>	12x12 Off-White VFT & Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35-Floor Tile <i>161904626-0035</i>	12x12 Off-White VFT & Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
35-Mastic <i>161904626-0035A</i>	12x12 Off-White VFT & Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
36-Floor Tile <i>161904626-0036</i>	12x12 Off-White VFT & Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
36-Mastic <i>161904626-0036A</i>	12x12 Off-White VFT & Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
37-Floor Tile <i>161904626-0037</i>	12x12 Black VFT & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
37-Mastic <i>161904626-0037A</i>	12x12 Black VFT & Mastic	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
38 <i>161904626-0038</i> <i>Insufficient mastic</i>	12x12 Black VFT & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
39-Floor Tile <i>161904626-0039</i>	12x12 Black VFT & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
39-Mastic <i>161904626-0039A</i>	12x12 Black VFT & Mastic	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
40-Floor Tile <i>161904626-0040</i>	12x12 Lt. Green VFT & Mastic	White/Black/Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
40-Mastic <i>161904626-0040A</i>	12x12 Lt. Green VFT & Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
41-Floor Tile <i>161904626-0041</i>	12x12 Lt. Green VFT & Mastic	White/Black/Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
41-Mastic <i>161904626-0041A</i>	12x12 Lt. Green VFT & Mastic	Gray/Black/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 03/22/2019 15:31:31



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Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
42-Floor Tile 161904626-0042	12x12 Lt. Green VFT & Mastic	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
42-Mastic 161904626-0042A	12x12 Lt. Green VFT & Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
43-Floor Tile 161904626-0043	12x12 Lt. Brown VFT & Mastic	Brown/Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
43-Mastic 161904626-0043A	12x12 Lt. Brown VFT & Mastic	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
44-Floor Tile 161904626-0044	12x12 Lt. Brown VFT & Mastic	Brown/Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
44-Mastic 161904626-0044A	12x12 Lt. Brown VFT & Mastic	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
45-Floor Tile 161904626-0045	12x12 Lt. Brown VFT & Mastic	Brown/Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
45-Mastic 161904626-0045A	12x12 Lt. Brown VFT & Mastic	Black Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
46-Floor Tile 161904626-0046	12x12 Brown Mottled VFT & Mastic	Brown/Gray Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
46-Mastic 161904626-0046A	12x12 Brown Mottled VFT & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
47-Floor Tile 161904626-0047	12x12 Brown Mottled VFT & Mastic	Brown/Gray Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
47-Mastic 161904626-0047A	12x12 Brown Mottled VFT & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
48-Floor Tile 161904626-0048	12x12 Brown Mottled VFT & Mastic	Brown Non-Fibrous Homogeneous		98% Non-fibrous (Other)	2% Chrysotile
48-Mastic 161904626-0048A	12x12 Brown Mottled VFT & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
49 161904626-0049	Black Stair Tread & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
50 161904626-0050	Black Stair Tread & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
51 161904626-0051	Black Stair Tread & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
52 161904626-0052	Carpet Mastic	Black/Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
53 161904626-0053	Carpet Mastic	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 03/22/2019 15:31:31



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<http://www.EMSL.com> / indianapolislab@emsl.com

EMSL Order: 161904626

Customer ID: AMECMM25

Customer PO: C012608778

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
54 161904626-0054	Carpet Mastic	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
55-Cove Base 161904626-0055	Black Cove Base & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
55-Mastic 161904626-0055A	Black Cove Base & Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
56-Cove Base 161904626-0056	Black Cove Base & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
56-Mastic 161904626-0056A	Black Cove Base & Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
57-Cove Base 161904626-0057	Black Cove Base & Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
57-Mastic 161904626-0057A	Black Cove Base & Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
58-Cove Base 161904626-0058	Brown Cove Base & Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
58-Mastic 161904626-0058A	Brown Cove Base & Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
59-Cove Base 161904626-0059	Brown Cove Base & Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
59-Mastic 161904626-0059A	Brown Cove Base & Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
60-Cove Base 161904626-0060	Brown Cove Base & Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
60-Mastic 161904626-0060A	Brown Cove Base & Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
61 161904626-0061	Brown Poured Flooring	Red Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
62 161904626-0062	Brown Poured Flooring	Red Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
63 161904626-0063	Brown Poured Flooring	Red Non-Fibrous Homogeneous		15% Quartz 85% Non-fibrous (Other)	None Detected
64 161904626-0064	Red Poured Flooring	Red Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
65 161904626-0065	Red Poured Flooring	Red Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
66 161904626-0066	Red Poured Flooring	Brown Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected

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EMSL Order: 161904626

Customer ID: AMECMM25

Customer PO: C012608778

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos % Type
			% Fibrous	% Non-Fibrous	
67 161904626-0067	Quarry Tile Grout/Thinset	Brown Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
68 161904626-0068	Quarry Tile Grout/Thinset	Brown Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
69 161904626-0069	Quarry Tile Grout/Thinset	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
70 161904626-0070	Large Ceramic Floor Grout/Mastic	Brown Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
71 161904626-0071	Large Ceramic Floor Grout/Mastic	Brown Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
72 161904626-0072	Large Ceramic Floor Grout/Mastic	Brown Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
73 161904626-0073	Large Ceramic Wall Tile Grout/Mastic	Brown Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
74 161904626-0074	Large Ceramic Wall Tile Grout/Mastic	Brown Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
75 161904626-0075	Large Ceramic Wall Tile Grout/Mastic	Brown Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected
76 161904626-0076	Small Ceramic Wall Tile Grout/Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
77 161904626-0077	Small Ceramic Wall Tile Grout/Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
78 161904626-0078	Small Ceramic Wall Tile Grout/Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
79 161904626-0079	Wall Panel Adhesive	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
80 161904626-0080	Wall Panel Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
81 161904626-0081	Wall Panel Adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
82 161904626-0082	Duct Sealant	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
83 161904626-0083	Duct Sealant	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
84 161904626-0084	Duct Sealant	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
85 161904626-0085	Door Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 03/22/2019 15:31:31



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EMSL Order: 161904626

Customer ID: AMECMM25

Customer PO: C012608778

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
86 <i>161904626-0086</i>	Door Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
87 <i>161904626-0087</i>	Door Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
88 <i>161904626-0088</i>	Black Window/Door Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
89 <i>161904626-0089</i>	Black Window/Door Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
90 <i>161904626-0090</i>	Black Window/Door Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
91 <i>161904626-0091</i>	Concrete Slab	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (Other)	None Detected

Analyst(s)

Amanda Straw (45)

Jadda Moffett (86)

Richard Harding, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN NVLAP Lab Code 200188-0, AZ0939, CA 2575, CO AL-15132, TX 300262, LA 04135

Initial report from: 03/22/2019 15:31:31

**EMSL Analytical, Inc.**

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EMSL Order: 161904626
CustomerID: AMECMM25
CustomerPO: C012608778
ProjectID:

Attn: **Kevin Arnold**
Wood Env. & Infrastructure Solutions
15933 Clayton Road
Suite 215
Ballwin, MO 63011

Phone: (314) 209-5900
Fax:
Received: 03/15/19 8:45 AM
Analysis Date: 4/4/2019
Collected:

Project: **Kroger D406 / 19038****Test Report: Polarized Light Microscopy (PLM) - Point Count Performed by EPA 600/R-93/116 Method with Gravimetric Reduction and 400 Point Count**

SAMPLE ID	DESCRIPTION	APPEARANCE	(% Matrix Organic Acid		NON- ASBESTOS % Fibrous	NON- ASBESTOS % NON-FIBROUS	ASBESTOS % TYPES
23-Mastic 161904626-0023A	12x12 White VFT & Mastic	Black/Yellow Non-Fibrous Homogeneous	36.3	0.0		62.9 Non-fibrous (other)	0.8 Chrysotile
Sample is a composite result of 23-26							
30-Mastic 161904626-0030A	12x12 Green VFT & Mastic						Insufficient Material
Insufficient Material							
32-Mastic 161904626-0032A	12x12 Peach VFT & Mastic	Black Non-Fibrous Homogeneous	36.8	0.0		61.5 Non-fibrous (other)	1.7 Chrysotile
Sample is a composite result of 32 & 33							
37-Mastic 161904626-0037A	12x12 Black VFT & Mastic	Black Non-Fibrous Homogeneous	32.9	0.0		66.3 Non-fibrous (other)	0.8 Chrysotile
Sample is a composite result of 37-39							
44-Mastic 161904626-0044A	12x12 Lt. Brown VFT & Mastic	Black Non-Fibrous Homogeneous	61.1	0.0		38.1 Non-fibrous (other)	0.8 Chrysotile
Sample is a composite result of 44 & 45							
46-Floor Tile 161904626-0046	12x12 Brown Mottled VFT & Mastic	Brown/Gray Non-Fibrous Homogeneous	27.1	0.0		71.8 Non-fibrous (other)	1.1 Chrysotile

Analyst(s)
Ross Matlock (7)

Richard Harding, Laboratory Manager
or other approved signatory

Disclaimers: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc. suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical Inc.. This report must not be used to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc. bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layer samples. EMSL Analytical Inc. liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.
Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN

Initial report from 04/01/2019 10:29:29

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EMSL Order: 161904626

CustomerID: AMECMM25

CustomerPO: C012608778

ProjectID:

Attn: **Kevin Arnold**
Wood Env. & Infrastructure Solutions
15933 Clayton Road
Suite 215
Ballwin, MO 63011

Phone: (314) 209-5900

Fax:

Received: 03/15/19 8:45 AM

Analysis Date: 4/4/2019

Collected:

Project: **Kroger D406 / 19038****Test Report: Polarized Light Microscopy (PLM) - Point Count Performed by EPA 600/R-93/116 Method with Gravimetric Reduction and 400 Point Count**

SAMPLE ID	DESCRIPTION	APPEARANCE	Matrix Organic Acid (%)		NON- ASBESTOS % Fibrous	NON- ASBESTOS % NON-FIBROUS	ASBESTOS % TYPES
47-Floor Tile 161904626-0047	12x12 Brown Mottled VFT & Mastic	Brown/Gray Non-Fibrous Homogeneous	28.3	0.0		70.8 Non-fibrous (other)	0.9 Chrysotile
48-Floor Tile 161904626-0048	12x12 Brown Mottled VFT & Mastic	Brown Non-Fibrous Homogeneous	26.2	0.0		72.5 Non-fibrous (other)	1.3 Chrysotile

Analyst(s)

Ross Matlock (7)

Richard Harding, Laboratory Manager
or other approved signatory

Disclaimers: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc. suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical Inc.. This report must not be used to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc. bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layer samples. EMSL Analytical Inc. liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN

Initial report from 04/01/2019 10:29:29



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Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

161904626

EMSL ANALYTICAL, INC.
6340 CASTLEPLACE DR.
INDIANAPOLIS, IN 46250
PHONE: (800) 220-3675
FAX: (317)803-3047

Company Name : Wood E & IS		EMSL Customer ID: AMECMM25	
Street: 15933 Clayton Road Suite 215		City: Ballwin	State/Province: MO
Zip/Postal Code: 63011	Country: US	Telephone #: 636-200-5137	Fax #:
Report To (Name): Kevin Arnold		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: kevin.arnold@woodplc.com		Purchase Order: C012608778	
Project Name/Number: Kroger D406 / 19038		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken: MI		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different - If Bill to is Different note instructions in Comments** Third Party Billing requires written authorization from third party			
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour
<input type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 2 Week
*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.			
PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NYS 198.8 SOF-V <input type="checkbox"/> NIOSH 9002 (<1%)		TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	
TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<1%) <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%) <input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM Qualitative via Filtration Prep <input type="checkbox"/> TEM Qualitative via Drop Mount Prep <input type="checkbox"/> Cincinnati Method EPA 600/R-04/004 - PLM/TEM (BC only) Other: <input type="checkbox"/>			
<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		Filter Pore Size (Air Samples): <input type="checkbox"/> 0.8µm <input type="checkbox"/> 0.45µm	
Samplers Name: Kevin Arnold		Samplers Signature: <i>Kevin Arnold</i>	
Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
1-3	Drywall/joint compound, perimeter		
4-6	Drywall/joint compound, interior		
7-9	2x4 Fissure ACT		
10-12	2x4 Large fissure ACT		
13-15	2x4 Split fissure ACT		
Client Sample # (s):		Total # of Samples: 91	
Relinquished (Client): <i>Kevin Arnold</i>		Date: 3/14/19 Time: 4pm	
Received (Lab): <i>Carolyn McDermott</i>		Date: 3-15-19 Time: 8:45EA	
Comments/Special Instructions: Please provide composite result for positive drywall/joint compound samples. Bill To: Wood E & IS, 15933 Clayton Road, Ste. 215, Ballwin, MO 63011 Attn: Carol Long 636/200-5169 Email: carol.long@woodplc.com			



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Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

4626

EMSL ANALYTICAL, INC.
6340 CASTLEPLACE DR
INDIANAPOLIS, IN46250
PHONE: (800) 220-3675
FAX: (317)803-3047

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

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
16-18	2x4 Gypsum ACT		
19-21	12x12 Gray VFT & mastic		
22-27	12x 12 White VFT & mastic		
28-30	12x12 Green VFT & mastic		
31-33	12x12 Peach VFT & mastic		
34-36	12x12 Off-white VFT & mastic		
37-39	12x12 Black VFT & mastic		
40-42	12x12 Lt. Green VFT & mastic		
43-45	12x12 Lt. Brown VFT & mastic		
46-48	12x12 Brown mottled VFT & mastic		
49-51	Black stair tread & mastic		
52-54	Carpet mastic		
55-57	Black cove base & mastic		
58-60	Brown cove base & mastic		
61-63	Brown poured flooring		
64-66	Red poured flooring		
67-69	Quarry tile grout/thinset		
70-72	Large ceramic floor grout/mastic		
73-75	Large ceramic wall tile grout/mastic		
76-78	Small ceramic wall tile grout/mastic		
79-81	Wall panel adhesive		
82-84	Duct sealant		
85-87	Door caulk		

*Comments/Special Instructions:




APPENDIX E
Inspector Certification

State of Michigan

Department of Licensing and Regulatory Affairs

Michigan Occupational Safety & Health Administration - Asbestos Program




Asbestos Inspector

Kevin S. Arnold

3480 Sutton Court

Saint Charles, MO 63301




Accreditation Number

A9023

Expiration Date

03/19/2019



DOB: 05/09/1960

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.

132936