



Tacony Academy Charter High School
6201 Keystone Street
Philadelphia, Pennsylvania

Asbestos Inspection Report

MARCH 10, 2020

PREPARED FOR:

American Paradigm Schools
8101 Castor Avenue
Philadelphia, Pennsylvania
Attn: Ms. Katie Santilli

PREPARED BY:

The Vertex Companies, Inc.
700 Turner Industrial Way
Aston, Pennsylvania 19014
PHONE 610.558.8902

VERTEX Project No: 61445

Table of Contents

Asbestos Containing Materials Inspection Report

- Introduction
- Results
- Sampling Methodology
- Limitations and Service Constraints
- Conclusions and Recommendations

Appendices

- Asbestos Containing Materials Table
- Sample Locations and Results Table
- Bulk Sample Analysis Results

I. INTRODUCTION

The Vertex Companies, Inc. (VERTEX) was retained by American Paradigm Schools to perform an asbestos facility inspection within the Tacony Academy Charter High School located at 6201 Keystone Street in Philadelphia, Pennsylvania.

This inspection was conducted to confirm/dismiss the presence, locations and quantities of Asbestos Containing Materials (ACM) or Presumed Asbestos Containing Materials (PACM).

This survey was performed on January 14, 2020 and January 15, 2020 by James Mongan, a US EPA AHERA Certified Asbestos Building Inspector/Commonwealth of Pennsylvania Licensed Asbestos Building Inspector (#050701)/City of Philadelphia Certified Asbestos Investigator (#AIC-0286).

Bulk samples were submitted to and analyzed by EMSL Analytical, Inc. of Cinnaminson, New Jersey in accordance with United States Environmental Protection Agency (USEPA) Method 600/R-93/116 protocol utilizing Polarized Light Microscopy (PLM). EMSL is accredited through the National Voluntary Laboratory Accreditation Program (NVLAP #101048-0).

Note: Polarized Light Microscopy (PLM) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound (NOB) materials. Fiber size (both length & diameter) of NOBs is frequently very small limiting fiber detection by PLM optics. Fibers are also tightly bound in the matrix of NOBs obscuring their detection. The Commonwealth of Pennsylvania does not require confirmatory TEM analysis of NOB samples with negative or "inconclusive" asbestos content by PLM. TEM analysis was not authorized by the client and was not included in the scope of services for this project.

II. RESULTS

Results indicate that that the following asbestos containing materials were identified:

- No ACMs were identified.

RESTRICTIONS

- No inspection/sampling was performed within enclosed walls/ceilings.
- No inspection/sampling was performed inside mechanical equipment.
- No inspection/sampling was performed below finished grade or within confined spaces.
- No inspection/sampling was performed on exterior materials.

A more detailed presentation of the results is found in the attached tables.

III. SAMPLING METHODOLOGY

Bulk samples were collected and analyzed in order to determine the identity of suspect materials and their composition. The purpose of the survey was to identify all accessible ACMs.

Bulk samples were grouped into homogenous sampling areas. A homogenous sampling area contains suspect asbestos materials that are uniform in texture, appearance, time of installation, and is unlikely to consist of more than one type or formulation of material. Per AHERA protocol, if any sample within the homogenous sampling area has greater than 1% by weight, then the entire sampling area is assumed to containing asbestos.

Bulk samples were collected from both friable and non-friable suspect asbestos containing materials. Representative core samples of each material were collected by penetrating the material to its substrate. Each sample and sample location was incorporated into a sampling log and chain of custody for each sample was documented. All samples were placed in sealed containers and labeled with an identifying code.

Bulk samples were submitted to and analyzed by EMSL Analytical, Inc. of Cinnaminson, New Jersey in accordance with United States Environmental Protection Agency (USEPA) Method 600/R-93/116 protocol utilizing Polarized Light Microscopy (PLM). PLM is the reference method of analysis to demonstrate that presumed asbestos containing materials do not contain asbestos per OSHA's Construction Standard (29 CFR 1926.1101) and EPA's Asbestos Hazard Emergency Response Act (40 CFR 763, Subpart E). The detection limit of the PLM referenced method is one percent (1%) asbestos. EMSL is accredited through the National Voluntary Laboratory Accreditation Program (NVLAP #101048-0).

Polarized Light Microscopy (PLM) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound (NOB) materials. Fiber size (both length & diameter) of NOBs is frequently very small limiting fiber detection by PLM optics. Fibers are also tightly bound in the matrix of NOBs obscuring their detection. The Commonwealth of Pennsylvania does not require confirmatory TEM analysis of NOB samples with negative or "inconclusive" asbestos content by PLM. TEM analysis was not authorized by the client and was not included in the scope of services for this project.

IV. LIMITATIONS AND SERVICE CONSTRAINTS

Professional opinions presented in this report are based on information made available either by review of data provided by others or data gained by inspection personnel.

VERTEX affirms that data gathered and presented in this report was collected in an appropriate manner in accordance with generally accepted methods and practices. Conditions described in this report were observed at the time of the investigation, unless otherwise stated.

Exploratory demolition was performed in limited locations, to the extent feasible. Please see specific restrictions above.

Reasonable effort was made by inspection personnel to locate and sample suspect materials within the designated areas inspected. However, for any facility, the existence of unique or concealed ACMs and debris is a possibility. VERTEX does not warrant, guarantee or profess to have the ability to locate or identify all ACMs in a facility.

The intent of this report is to be used in planning for potential renovation activity. If ACMs are discovered during renovation related activities, these materials should be removed and disposed of in accordance with all local, state and federal regulations prior to any demolition-related activities. Abatement of ACM must be performed by an accredited/certified/licensed asbestos-abatement contractor.

VERTEX analyzed only the substances, conditions, and locations described in the report at the time indicated. VERTEX retains the right to revise this report if new information is later discovered or made available.

The report must be presented in its entirety.

V. CONCLUSIONS AND RECOMMENDATIONS

A summary table is provided in the attachments which include the samples collected, locations and analytical results. The laboratory reports are also attached.

Based on the sampling and analysis of suspect materials, no ACMs were identified within the structure. AHERA identifies ACM as any material containing greater than 1% asbestos.

If additional suspect materials are discovered during future renovation activities, VERTEX recommends collecting/analyzing samples of the materials for asbestos content prior to disturbance.

Asbestos Containing Materials Table

The Vertex Companies, Inc.

ASBESTOS CONTAINING MATERIALS

CLIENT: American Paradigm Schools
SITE: Tacony Academy Charter High School
6201 Keystone Street
Philadelphia, Pennsylvania

VERTEX PROJECT #: 61445
DATE: 1/14-15/20

Location	Material Description	Estimated Quantity	Friable (Y/N)	Conditions (G/F/P)	Debris (Y/N)	Sample #	Lab Result ACBM (Y/N)
	No ACMs were identified.						

Sample Locations and Results Table

The Vertex Companies, Inc.

SAMPLE LOCATIONS AND RESULTS TABLE

CLIENT: American Paradigm Schools
SITE: Tacony Academy Charter High School
 6201 Keystone Street
 Philadelphia, Pennsylvania

VERTEX PROJECT #: 61445
DATE: 1/14-15/20

Location	Material Description	Estimated Quantity	Friable (Y/N)	Conditions (G/F/P)	Debris (Y/N)	Sample #	Lab Result ACBM (Y/N)
Throughout	2'x4' ceiling tile - pitted	28,500 SF	Y	G	N	01A,01B,01C,01D,01E,01F,01G,01H,01I	N
Throughout	2'x4' ceiling tile - grooved	6,840 SF	Y	G	N	02A,02B,02C,02D,02E,02F,02G,02H,02I	N
Throughout	12" yellow floor tile and mastic	10,000 SF	N	G	N	03A,03B,03C,03D,03E,03F,03G,03H,03I	N
Throughout	12" white floor tile and mastic	10,000 SF	N	G	N	04A,04B,04C,04D,04E,04F,04G,04H,04I	N
Throughout	12" green floor tile and mastic	5,340 SF	N	G	N	05A,05B,05C,05D,05E,05F,05G,05H,05I	N
Throughout	12" tan floor tile and mastic	10,000 SF	N	G	N	06A,06B,06C,06D,06E,06F,06G,06H,06I	N
Throughout - 1st floor	Drywall/joint compound	12,000 SF	N	G	N	07A,07B,07C,07D,07E,07F,07G,07H,07I	N
Throughout - 2nd floor	Drywall/joint compound	12,000 SF	N	G	N	08A,08B,08C,08D,08E,08F,08G,08H,08I	N
Throughout - 3rd floor	Drywall/joint compound	12,000 SF	N	G	N	09A,09B,09C,09D,09E,09F,09G,09H,09I	N
Kitchen	2'x4' ceiling tile - gypsum	1,000 SF	N	G	N	10A,10B,10C	N
Throughout	Tan covebase and mastic	2,000 SF	N	G	N	11A,11B,11C,11D,11E,11F,11G,11H,11I	N

Bulk Sample Analysis Results



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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

EMSL Order: 042001147

Customer ID: VRTX78

Customer PO:

Project ID:

Attention: Don Heim
The Vertex Companies, Inc.
700 Turner Way, Suite 105
Aston, PA 19014

Phone: (610) 787-0402

Fax: (610) 558-8904

Received Date: 01/15/2020 1:35 PM

Analysis Date: 01/16/2020 - 01/17/2020

Collected Date: 01/14/2020

Project: Tacony Academy / 61445 / 6201 Keystone

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
01A 042001147-0001	1st Floor - Throughout - Building Enc - 2x4 Ceiling Tile - Pitted	Tan/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 01					
01B 042001147-0002	1st Floor - Throughout - Boy's Room - 2x4 Ceiling Tile - Pitted	Tan/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 01					
01C 042001147-0003	1st Floor - Throughout - Faculty Room - 2x4 Ceiling Tile - Pitted	Tan/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 01					
01D 042001147-0004	2nd Floor - Throughout - Room 203 - 2x4 Ceiling Tile - Pitted	Tan/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 01					
01E 042001147-0005	2nd Floor - Throughout - Room 207 - 2x4 Ceiling Tile - Pitted	Tan/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 01					
01F 042001147-0006	2nd Floor - Throughout - Room 213 - 2x4 Ceiling Tile - Pitted	Tan/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 01					
01G 042001147-0007	2nd Floor - Throughout - Room 303 - 2x4 Ceiling Tile - Pitted	Tan/White Fibrous Homogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 01					
01H 042001147-0008	2nd Floor - Throughout - Room 307 - 2x4 Ceiling Tile - Pitted	White Fibrous Homogeneous	50% Cellulose 35% Min. Wool	15% Non-fibrous (Other)	None Detected
HA: 01					
01I 042001147-0009	3rd Floor - Throughout - Spc. Ed. - 2x4 Ceiling Tile - Pitted	White Fibrous Homogeneous	50% Cellulose 35% Min. Wool	15% Non-fibrous (Other)	None Detected
HA: 01					
02A 042001147-0010	1st Floor - Throughout - West Hall - 2x4 Ceiling Tile - Grooved	Tan/White Fibrous Homogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 02					
02B 042001147-0011	1st Floor - Throughout - Center Hall - 2x4 Ceiling Tile - Grooved	Tan/White Fibrous Homogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 02					

Initial report from: 01/17/2020 22:12:50



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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

EMSL Order: 042001147

Customer ID: VRTX78

Customer PO:

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
02C 042001147-0012	1st Floor - Throughout - East Hall - 2x4 Ceiling Tile - Grooved	Tan/White Fibrous Homogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 02					
02D 042001147-0013	2nd Floor - Throughout - West Hall - 2x4 Ceiling Tile - Grooved	Tan/White Fibrous Homogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 02					
02E 042001147-0014	2nd Floor - Throughout - Center Hall - 2x4 Ceiling Tile - Grooved	Tan/White Fibrous Homogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 02					
02F 042001147-0015	2nd Floor - Throughout - East Hall - 2x4 Ceiling Tile - Grooved	Tan/White Fibrous Homogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 02					
02G 042001147-0016	3rd Floor - Throughout - West Hall - 2x4 Ceiling Tile - Grooved	Tan/White Fibrous Homogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 02					
02H 042001147-0017	3rd Floor - Throughout - Center Hall - 2x4 Ceiling Tile - Grooved	White Fibrous Homogeneous	30% Cellulose 50% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 02					
02I 042001147-0018	3rd Floor - Throughout - East Hall - 2x4 Ceiling Tile - Grooved	White Fibrous Homogeneous	30% Cellulose 50% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 02					
03A-Floor Tile 042001147-0019	1st Floor - Throughout - Electrical Closet - 12" Floor Tile Yellow	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 03					
03AM-Mastic 042001147-0019A	1st Floor - Throughout - Electrical Closet - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 03					
03B-Floor Tile 042001147-0020	1st Floor - Throughout - Near Restrooms - 12" Floor Tile Yellow	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 03					
03BM-Mastic 042001147-0020A	1st Floor - Throughout - Near Restrooms - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 03					
03C-Floor Tile 042001147-0021	1st Floor - Throughout - Near Library - 12" Floor Tile Yellow	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 03					
03CM-Mastic 042001147-0021A	1st Floor - Throughout - Near Library - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 03					

Initial report from: 01/17/2020 22:12:50



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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

EMSL Order: 042001147
Customer ID: VRTX78
Customer PO:
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
03D-Floor Tile 042001147-0022	2nd Floor - Throughout - Stairwell East - 12" Floor Tile Yellow	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 03		
03DM-Mastic 042001147-0022A	2nd Floor - Throughout - Stairwell East - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 03		
03E-Floor Tile 042001147-0023	2nd Floor - Throughout - Near Room 205 - 12" Floor Tile Yellow	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 03		
03EM-Mastic 042001147-0023A	2nd Floor - Throughout - Near Room 205 - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 03		
03F-Floor Tile 042001147-0024	2nd Floor - Throughout - Stairwell West - 12" Floor Tile Yellow	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 03		
03FM-Mastic 042001147-0024A	2nd Floor - Throughout - Stairwell West - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 03		
03G-Floor Tile 042001147-0025	3rd Floor - Throughout - Stairwell East - 12" Floor Tile Yellow	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 03		
03GM-Mastic 042001147-0025A	3rd Floor - Throughout - Stairwell East - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 03		
03H-Floor Tile 042001147-0026	3rd Floor - Throughout - Near Room 305 - 12" Floor Tile Yellow	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 03		
03HM-Mastic 042001147-0026A	3rd Floor - Throughout - Near Room 305 - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 03		
03I-Floor Tile 042001147-0027	3rd Floor - Throughout - Stairwell West - 12" Floor Tile Yellow	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 03		
03IM-Mastic 042001147-0027A	3rd Floor - Throughout - Stairwell West - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 03		
04A-Floor Tile 042001147-0028	1st Floor - Throughout - Electric Closet - 12" Floor Tile White	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 04		

Initial report from: 01/17/2020 22:12:50



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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

EMSL Order: 042001147
Customer ID: VRTX78
Customer PO:
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
04AM-Mastic 042001147-0028A	1st Floor - Throughout - Electric Closet - Mastic	Black Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected
04B-Floor Tile 042001147-0029	1st Floor - Throughout - Near Restrooms - 12" Floor Tile White	White Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected
04BM-Mastic 042001147-0029A	1st Floor - Throughout - Near Restrooms - Mastic	Black Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected
04C-Floor Tile 042001147-0030	1st Floor - Throughout - Near Library - 12" Floor Tile White	White Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected
04CM-Mastic 042001147-0030A	1st Floor - Throughout - Near Library - Mastic	Black Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected
04D-Floor Tile 042001147-0031	2nd Floor - Throughout - Room 204 - 12" Floor Tile White	White Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected
04DM-Mastic 042001147-0031A	2nd Floor - Throughout - Room 204 - Mastic	Black Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected
04E-Floor Tile 042001147-0032	2nd Floor - Throughout - Hall outside Restroom - 12" Floor Tile White	White Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected
04EM-Mastic 042001147-0032A	2nd Floor - Throughout - Hall outside Restroom - Mastic	Black Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected
04F-Floor Tile 042001147-0033	2nd Floor - Throughout - Room 208 - 12" Floor Tile White	White Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected
04FM-Mastic 042001147-0033A	2nd Floor - Throughout - Room 208 - Mastic	Black Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected
04G-Floor Tile 042001147-0034	3rd Floor - Throughout - Room 203 - 12" Floor Tile White	White Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected
04GM-Mastic 042001147-0034A	3rd Floor - Throughout - Room 203 - Mastic	Black Non-Fibrous Homogeneous	HA: 04	100% Non-fibrous (Other)	None Detected

Initial report from: 01/17/2020 22:12:50



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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

EMSL Order: 042001147
Customer ID: VRTX78
Customer PO:
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
04H-Floor Tile <small>042001147-0035</small>	3rd Floor - Throughout - Near Restrooms - 12" Floor Tile White	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 04		
04HM-Mastic <small>042001147-0035A</small>	3rd Floor - Throughout - Near Restrooms - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 04		
04I-Floor Tile <small>042001147-0036</small>	3rd Floor - Throughout - Room 207 - 12" Floor Tile White	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 04		
04IM-Mastic <small>042001147-0036A</small>	3rd Floor - Throughout - Room 207 - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 04		
05A-Floor Tile <small>042001147-0037</small>	1st Floor - Throughout - Hall near Café - 12" Floor Tile Green	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 05		
05AM-Mastic <small>042001147-0037A</small>	1st Floor - Throughout - Hall near Café - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 05		
05B-Floor Tile <small>042001147-0038</small>	1st Floor - Throughout - Faculty Room - 12" Floor Tile Green	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 05		
05BM-Mastic <small>042001147-0038A</small>	1st Floor - Throughout - Faculty Room - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 05		
05C-Floor Tile <small>042001147-0039</small>	1st Floor - Throughout - Hall near Lobby - 12" Floor Tile Green	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 05		
05CM-Mastic <small>042001147-0039A</small>	1st Floor - Throughout - Hall near Lobby - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 05		
05D-Floor Tile <small>042001147-0040</small>	2nd Floor - Throughout - Room 202 - 12" Floor Tile Green	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 05		
05DM-Mastic <small>042001147-0040A</small>	2nd Floor - Throughout - Room 202 - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 05		
05E-Floor Tile <small>042001147-0041</small>	2nd Floor - Throughout - Room 204 - 12" Floor Tile Green	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 05		
05EM-Mastic <small>042001147-0041A</small>	2nd Floor - Throughout - Room 204 - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 01/17/2020 22:12:50



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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

EMSL Order: 042001147

Customer ID: VRTX78

Customer PO:

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
HA: 05					
05F-Floor Tile 042001147-0042	2nd Floor - Throughout - Hall near Room 210 - 12" Floor Tile Green	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 05					
05FM-Mastic 042001147-0042A	2nd Floor - Throughout - Hall near Room 210 - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 05					
05G-Floor Tile 042001147-0043	3rd Floor - Throughout - Room 308 - 12" Floor Tile Green	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 05					
05GM-Mastic 042001147-0043A	3rd Floor - Throughout - Room 308 - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 05					
05H-Floor Tile 042001147-0044	3rd Floor - Throughout - Hall near Room 311 - 12" Floor Tile Green	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 05					
05HM-Mastic 042001147-0044A	3rd Floor - Throughout - Hall near Room 311 - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 05					
05I-Floor Tile 042001147-0045	3rd Floor - Throughout - Room 313 - 12" Floor Tile Green	Green Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 05					
05IM-Mastic 042001147-0045A	3rd Floor - Throughout - Room 313 - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 05					
06A-Floor Tile 042001147-0046	1st Floor - Throughout - Corridor Hall - 12" Floor Tile Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 06					
06AM-Mastic 042001147-0046A	1st Floor - Throughout - Corridor Hall - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 06					
06B-Floor Tile 042001147-0047	1st Floor - Throughout - Hall near Restroom - 12" Floor Tile Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 06					
06BM-Mastic 042001147-0047A	1st Floor - Throughout - Hall near Restroom - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 06					
06C-Floor Tile 042001147-0048	1st Floor - Throughout - Hall near Lobby - 12" Floor Tile Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 06					

Initial report from: 01/17/2020 22:12:50



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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

EMSL Order: 042001147

Customer ID: VRTX78

Customer PO:

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
06CM-Mastic 042001147-0048A	1st Floor - Throughout - Hall near Lobby - Mastic	Black Non-Fibrous Homogeneous	HA: 06	100% Non-fibrous (Other)	None Detected
06D-Floor Tile 042001147-0049	2nd Floor - Throughout - Room 202 - 12" Floor Tile Tan	Tan Non-Fibrous Homogeneous	HA: 06	100% Non-fibrous (Other)	None Detected
06DM-Mastic 042001147-0049A	2nd Floor - Throughout - Room 202 - Mastic	Black Non-Fibrous Homogeneous	HA: 06	100% Non-fibrous (Other)	None Detected
06E-Floor Tile 042001147-0050	2nd Floor - Throughout - Room 204 - 12" Floor Tile Tan	Tan Non-Fibrous Homogeneous	HA: 06	100% Non-fibrous (Other)	None Detected
06EM-Mastic 042001147-0050A	2nd Floor - Throughout - Room 204 - Mastic	Black Non-Fibrous Homogeneous	HA: 06	100% Non-fibrous (Other)	None Detected
06F-Floor Tile 042001147-0051	2nd Floor - Throughout - Hall near Room 210 - 12" Floor Tile Tan	Tan Non-Fibrous Homogeneous	HA: 06	100% Non-fibrous (Other)	None Detected
06FM-Mastic 042001147-0051A	2nd Floor - Throughout - Hall near Room 210 - Mastic	Black Non-Fibrous Homogeneous	HA: 06	100% Non-fibrous (Other)	None Detected
06G-Floor Tile 042001147-0052	3rd Floor - Throughout - Room 308 - 12" Floor Tile Tan	Tan Non-Fibrous Homogeneous	HA: 06	100% Non-fibrous (Other)	None Detected
06GM-Mastic 042001147-0052A	3rd Floor - Throughout - Room 308 - Mastic	Black Non-Fibrous Homogeneous	HA: 06	100% Non-fibrous (Other)	None Detected
06H-Floor Tile 042001147-0053	3rd Floor - Throughout - Hall near Room 311 - 12" Floor Tile Tan	Tan Non-Fibrous Homogeneous	HA: 06	100% Non-fibrous (Other)	None Detected
06HM-Mastic 042001147-0053A	3rd Floor - Throughout - Hall near Room 311 - Mastic	Black Non-Fibrous Homogeneous	HA: 06	100% Non-fibrous (Other)	None Detected
06I-Floor Tile 042001147-0054	3rd Floor - Throughout - Room 313 - 12" Floor Tile Tan	Tan Non-Fibrous Homogeneous	HA: 06	100% Non-fibrous (Other)	None Detected
06IM-Mastic 042001147-0054A	3rd Floor - Throughout - Room 313 - Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 01/17/2020 22:12:50



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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

EMSL Order: 042001147
Customer ID: VRTX78
Customer PO:
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
HA: 06					
07A-Composite 042001147-0055	1st Floor - Throughout - PE Office - Drywall with Compound	Brown/White Fibrous Heterogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 07					
07B-Composite 042001147-0056	1st Floor - Throughout - Gym Storage - Drywall with Compound	Brown/White Fibrous Heterogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 07					
07C-Composite 042001147-0057	1st Floor - Throughout - Hall near Work Room - Drywall with Compound	Brown/White Fibrous Heterogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 07					
07D-Composite 042001147-0058	1st Floor - Throughout - Boy's Room - Drywall with Compound	Brown/White Fibrous Heterogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 07					
07E-Composite 042001147-0059	1st Floor - Throughout - Girl's Room - Drywall with Compound	Brown/White Fibrous Heterogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 07					
07F-Composite 042001147-0060	1st Floor - Throughout - Guidance Office - Drywall with Compound	Brown/White Fibrous Heterogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 07					
07G-Composite 042001147-0061	1st Floor - Throughout - Inst. Storage - Drywall with Compound	Brown/White Fibrous Heterogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 07					
07H-Composite 042001147-0062	1st Floor - Throughout - Nurse Office - Drywall with Compound	Brown/White Fibrous Heterogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 07					
07I-Composite 042001147-0063	1st Floor - Throughout - Ensemble Room - Drywall with Compound	White Fibrous Heterogeneous	5% Glass	95% Non-fibrous (Other)	None Detected
HA: 07					
08A-Composite 042001147-0064	2nd Floor - Throughout - Room 201 - Drywall with Compound	Brown/Gray/White Fibrous Heterogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected
HA: 08					
08B-Composite 042001147-0065	2nd Floor - Throughout - Room 214 - Drywall with Compound	Brown/Gray/White Fibrous Heterogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected
HA: 08					
08C-Composite 042001147-0066	2nd Floor - Throughout - Room 204 - Drywall with Compound	Brown/Gray/White Fibrous Homogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected

Initial report from: 01/17/2020 22:12:50



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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

EMSL Order: 042001147
Customer ID: VRTX78
Customer PO:
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
HA: 08					
08D-Composite <i>042001147-0067</i>	2nd Floor - Throughout - Hall near Room 205 - Drywall with Compound	Brown/Gray/White Fibrous Heterogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected
HA: 08					
08E-Composite <i>042001147-0068</i>	2nd Floor - Throughout - Hall near Room 211 - Drywall with Compound	Brown/Gray/White Fibrous Heterogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected
HA: 08					
08F-Composite <i>042001147-0069</i> <i>Limited JC for analysis.</i>	2nd Floor - Throughout - Room 208 - Drywall with Compound	Brown/Gray/White Fibrous Homogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected
HA: 08					
08G-Composite <i>042001147-0070</i>	2nd Floor - Throughout - Room 207 - Drywall with Compound	Brown/Gray/White Fibrous Heterogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected
HA: 08					
08H-Composite <i>042001147-0071</i>	2nd Floor - Throughout - Room 206 - Drywall with Compound	Brown/White Fibrous Homogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 08					
08I-Composite <i>042001147-0072</i>	2nd Floor - Throughout - Room 210 - Drywall with Compound	Brown/White Fibrous Heterogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 08					
09A-Composite <i>042001147-0073</i>	3rd Floor - Throughout - Room 201 - Drywall with Compound	Brown/Gray/White Fibrous Heterogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected
HA: 09					
09B-Composite <i>042001147-0074</i>	3rd Floor - Throughout - Room 314.1 - Drywall with Compound	Brown/Gray/White Fibrous Homogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected
HA: 09					
09C-Composite <i>042001147-0075</i>	3rd Floor - Throughout - Room 203 - Drywall with Compound	Brown/Gray/White Fibrous Homogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected
HA: 09					
09D-Composite <i>042001147-0076</i>	3rd Floor - Throughout - Men's Room - Drywall with Compound	Brown/Gray/White Fibrous Homogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected
HA: 09					
09E-Composite <i>042001147-0077</i>	3rd Floor - Throughout - Girl's Room - Drywall with Compound	Brown/Gray/White Fibrous Homogeneous	15% Cellulose 3% Glass	82% Non-fibrous (Other)	None Detected
HA: 09					

Initial report from: 01/17/2020 22:12:50



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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

EMSL Order: 042001147
Customer ID: VRTX78
Customer PO:
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
09F-Composite <small>042001147-0078</small>	3rd Floor - Throughout - Room 305 - Drywall with Compound	Gray/White Fibrous Heterogeneous	2% Cellulose 5% Glass	93% Non-fibrous (Other)	None Detected
HA: 09					
09G-Composite <small>042001147-0079</small>	3rd Floor - Throughout - Room 306 - Drywall with Compound	Brown/White Fibrous Heterogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 09					
09H-Composite <small>042001147-0080</small>	3rd Floor - Throughout - Room 310 - Drywall with Compound	Brown/White Fibrous Homogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 09					
09I-Composite <small>042001147-0081</small>	3rd Floor - Throughout - Room 308 - Drywall with Compound	Brown/White Fibrous Homogeneous	15% Cellulose 5% Glass	80% Non-fibrous (Other)	None Detected
HA: 09					
10A <small>042001147-0082</small>	1st Floor - Kitchen - 2x4 Ceiling Tile Gypsum	Tan/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 10					
10B <small>042001147-0083</small>	1st Floor - Kitchen - 2x4 Ceiling Tile Gypsum	Tan/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 10					
10C <small>042001147-0084</small>	1st Floor - Kitchen - Hall - 2x4 Ceiling Tile Gypsum	Tan/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (Other)	None Detected
HA: 10					
11A-Cove Base <small>042001147-0085</small>	1st Floor - Throughout - Faculty Room - Cove Base Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11AM-Mastic <small>042001147-0085A</small>	1st Floor - Throughout - Faculty Room - Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11B-Cove Base <small>042001147-0086</small>	1st Floor - Throughout - Ensemble Room - Cove Base Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11BM-Mastic <small>042001147-0086A</small>	1st Floor - Throughout - Ensemble Room - Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11C-Cove Base <small>042001147-0087</small>	1st Floor - Throughout - Room 110 - Cove Base Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11CM-Mastic <small>042001147-0087A</small>	1st Floor - Throughout - Room 110 - Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11D-Cove Base <small>042001147-0088</small>	2nd Floor - Throughout - Room 214 - Cove Base Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 01/17/2020 22:12:50



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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

EMSL Order: 042001147

Customer ID: VRTX78

Customer PO:

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
HA: 11					
11DM-Mastic 042001147-0088A	2nd Floor - Throughout - Room 214 - Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11E-Cove Base 042001147-0089	2nd Floor - Throughout - Room 205 - Cove Base Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11EM-Mastic 042001147-0089A	2nd Floor - Throughout - Room 205 - Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11F-Cove Base 042001147-0090	2nd Floor - Throughout - Room 207 - Cove Base Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11FM-Mastic 042001147-0090A	2nd Floor - Throughout - Room 207 - Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11G-Cove Base 042001147-0091	3rd Floor - Throughout - Room 302 - Cove Base Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11GM-Mastic 042001147-0091A	3rd Floor - Throughout - Room 302 - Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11H-Cove Base 042001147-0092	3rd Floor - Throughout - Room 305 - Cove Base Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11HM-Mastic 042001147-0092A	3rd Floor - Throughout - Room 305 - Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11I-Cove Base 042001147-0093	3rd Floor - Throughout - Room 308 - Cove Base Tan	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					
11IM-Mastic 042001147-0093A	3rd Floor - Throughout - Room 308 - Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 11					



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

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

EMSL Order: 042001147

Customer ID: VRTX78

Customer PO:

Project ID:

Analyst(s)

Amy Johnson (10)

Christian Strey (13)

Gregory Barry (45)

John Witcraft (26)

Olufunke Akintunde (44)

Samantha Rundstrom, 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. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367, LA #04127

Initial report from: 01/17/2020 22:12:50