



November 4, 2024

**Worcester East Middle School
Window and Door Replacement Project Manual
Attachment A**

Mr. Ryan Hacker
Assistant Director of Facilities
Worcester Public Schools
115 Northeast Cutoff Road
Worcester, MA 01606

RE: Asbestos Exterior Sampling Report
Worcester East Middle School
Worcester, Massachusetts

Dear Mr. Hacker:

Atlas Technical Consultants, LLC (ATLAS) performed asbestos and lead paint sampling of suspect materials on the exterior of Worcester East Middle School associated with an upcoming window replacement project. Specifically, ATLAS's Scope of Work included the following:

1. Performance of a limited Asbestos Inspection for accessible suspect asbestos-containing materials subject to disturbance by the forthcoming window replacement project.
2. All asbestos bulk samples were analyzed for asbestos content using Polarized Light Microscopy (PLM) with Dispersion Staining EPA Method 600/R-93-116 per 40 CFR 763, Subpart E. To qualify as asbestos containing, the material must be determined to contain *greater than one percent (>1%)* asbestos from a homogeneous material area set of samples.
3. All lead paint samples were analyzed by flame atomic absorption spectrometry. A detectable constitutes the paint as lead-containing paint (LCP).

The following Table summarizes the results of ATLAS's asbestos sampling:

| SUMMARY OF ASBESTOS SAMPLING RESULTS | | |
|--------------------------------------|---|----------------|
| LOCATION | MATERIAL | RESULT |
| Exterior | Exterior Window Panel Caulk (top) | 3% Chrysotile |
| Exterior | Exterior Window Panel Caulk (bottom) | 15% Chrysotile |
| Exterior | Exterior Black/Gray Flashing Cement on Masonry Trim | 15% Chrysotile |
| Exterior | Exterior Seam Caulk on Masonry Trim | None Detected |
| Exterior | Exterior Window Glaze (6-Light) | None Detected |
| Exterior | Exterior Window Caulk (6-Light,top) | None Detected |
| Exterior | Exterior Window Caulk (6-Light,bottom) | 10% Chrysotile |
| Exterior (Boiler Room) | Exterior Wall Caulk | None Detected |
| Exterior (Arthur & Dorchester) | Exterior Door Caulk | None Detected |
| Stairwells | Interior Window Glaze | 3% Chrysotile |
| Stairwells | Interior Window Caulk | None Detected |
| Exterior | Exterior Wood Window Glaze (8-Light) | 10% Chrysotile |
| Exterior | Exterior Wood Window Caulk (8-Light) | 15% Chrysotile |
| Interior | Plaster Ceiling (Above Window) | None Detected |
| Exterior | Exterior Door Window Glaze | None Detected |



| SUMMARY OF ASBESTOS SAMPLING RESULTS | | |
|--------------------------------------|------------------------------------|---------------|
| LOCATION | MATERIAL | RESULT |
| Exterior | Interior Cafeteria Window Caulking | None Detected |
| Exterior | Aggregate Panel | None Detected |
| Interior (Hall) | Interior Wood Window Caulk | None Detected |

The following Table summarizes the results of ATLAS's lead paint sampling:

| SUMMARY OF LEAD PAINT SAMPLING RESULTS | | |
|--|------------------------------|--------|
| LOCATION | MATERIAL | RESULT |
| Exterior | Metal Window Frame (6-Light) | 14% |
| Exterior | Metal Entrance Door | 33% |
| Interior | Brick Wall | 0.20% |
| Interior | Metal Windows | 23% |

If you have any questions regarding this report, please call our office at (413) 781-0070.

ATLAS TECHNICAL CONSULTANTS, LLC

Edward Kolodziej
Senior Project Manager
Direct Line 413-426-6819
edward.kolodziej@oneatlas.com

Brian Williams
Area Manager
Direct Line 413-504-1653
brian.williams@oneatlas.com



November 4 2024

ATTACHMENT A

Asbestos & Lead Paint Window Sampling Report
Worcester East Middle School
Worcester Public Schools
Worcester, Massachusetts

ATTACHMENT A

PLM BULK ASBESTOS LABORATORY REPORT



EMSL Analytical, Inc.

165 Gracey Avenue Meriden, CT 06451

Tel/Fax: (203) 284-5948 / (203) 284-5978

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

EMSL Order: 242405688

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Edward Kolodjek
Atlas Technical
73 William Franks Drive
West Springfield, MA 01089

Phone: (413) 781-0070

Fax: (413) 781-3734

Received Date: 10/23/2024 9:00 AM

Analysis Date: 10/23/2024

Collected Date: 10/22/2024

Project: WORCESTER PUBLIC SCHOOLS, WORCESTER EAST MIDDLE SCHOOL

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

| Sample | Description | Appearance | Non-Asbestos | | Asbestos |
|---|---|---|--------------|--------------------------------------|---------------|
| | | | % Fibrous | % Non-Fibrous | % Type |
| WEMS-01A <small>242405688-0001</small> | Exterior - aggregate panel | White Non-Fibrous Homogeneous | | 8% Quartz 92% Non-fibrous (Other) | None Detected |
| WEMS-01B <small>242405688-0002</small> | Exterior - aggregate panel | Gray/Tan Non-Fibrous Homogeneous | | 8% Quartz 92% Non-fibrous (Other) | None Detected |
| WEMS-02A <small>242405688-0003</small> | 2nd floor hall - interior wood window caulk | Gray/White/Blue Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WEMS-02B <small>242405688-0004</small> | 2nd floor hall - interior wood window caulk | Gray/White/Blue Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WEMS-02C <small>242405688-0005</small> | 2nd floor hall - interior wood window caulk | Gray/Tan Non-Fibrous Homogeneous | | 2% Quartz 98% Non-fibrous (Other) | None Detected |

Danny Sandhu, Asbestos Laboratory Manager
or Other Approved Signatory

Analyst(s)

Hailey Rangel (3)

Leslie Tetrack (2)

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

Samples analyzed by EMSL Analytical, Inc. Meriden, CT NVLAP Lab Code 200700-0.

Initial report from: 10/23/2024 11:08:28



EMSL Analytical, Inc.

10-39 45th Road Long Island City, NY 11101

Tel/Fax: (212) 290-0051 / (212) 290-0058

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

EMSL Order: 032414208

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Edward Kolodziej
Atlas Technical
73 William Franks Drive
West Springfield, MA 01089

Phone: (413) 426-6819
Fax: (413) 781-3734
Received Date: 10/10/2024 10:11 AM
Analysis Date: 10/10/2024 - 10/11/2024
Collected Date: 10/08/2024

Project: Worcester East Middle School

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

| Sample | Description | Appearance | Non-Asbestos | | Asbestos |
|----------------------------|--|--|--------------|---|---------------------------------|
| | | | % Fibrous | % Non-Fibrous | % Type |
| WEMS-01A 032414208-0001 | Exterior - Exterior Window Panel Caulk (Top) | Gray/Tan Non-Fibrous Homogeneous | | 7% Quartz 55% Ca Carbonate 35.0% Non-fibrous (Other) | 3% Chrysotile |
| WEMS-01B 032414208-0002 | Exterior - Exterior Window Panel Caulk (Top) | | | | Positive Stop (Not Analyzed) |
| WEMS-02A 032414208-0003 | Exterior - Exterior Window Panel Caulk (Bottom) | Tan Non-Fibrous Homogeneous | | 20% Quartz 50% Ca Carbonate 15.0% Non-fibrous (Other) | 15% Chrysotile |
| WEMS-02B 032414208-0004 | Exterior - Exterior Window Panel Caulk (Bottom) | | | | Positive Stop (Not Analyzed) |
| WEMS-03A 032414208-0005 | Exterior - Exterior Black/ Gray Flashing Cement On Masonry Trim | Gray/Black Fibrous Homogeneous | 5% Cellulose | 3% Quartz 7% Ca Carbonate 70.0% Non-fibrous (Other) | 15% Chrysotile |
| WEMS-03B 032414208-0006 | Exterior - Exterior Black/ Gray Flashing Cement On Masonry Trim | | | | Positive Stop (Not Analyzed) |
| WEMS-04A 032414208-0007 | Exterior - Exterior Seam Caulk On Masonry Trim | Gray/Tan Non-Fibrous Homogeneous | 5% Glass | 7% Quartz 35% Ca Carbonate 3% Mica 50.0% Non-fibrous (Other) | None Detected |
| WEMS-04B 032414208-0008 | Exterior - Exterior Seam Caulk On Masonry Trim | Gray/Tan Non-Fibrous Homogeneous | | 10% Ca Carbonate 90.0% Non-fibrous (Other) | None Detected |
| WEMS-05A 032414208-0009 | Exterior - Exterior Window Glaze (6-Light) | Gray Non-Fibrous Homogeneous | 5% Synthetic | 15% Quartz 55% Ca Carbonate 25.0% Non-fibrous (Other) | None Detected |

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Samples analyzed by EMSL Analytical, Inc. Long Island City, NY AIHA LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, CT PH-0170, MA AA000170

Initial report from: 10/11/2024 01:01:44



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Project: Worcester East Middle School

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

| Sample | Description | Appearance | Non-Asbestos | | Asbestos |
|----------------------------|--|---|-------------------|---|---------------------------------|
| | | | % Fibrous | % Non-Fibrous | % Type |
| WEMS-05B 032414208-0010 | Exterior - Exterior Window Glaze (6-Light) | Gray Non-Fibrous Homogeneous | 5% Fibrous_Other | 15% Ca Carbonate 80.0% Non-fibrous (Other) | None Detected |
| WEMS-06A 032414208-0011 | Exterior - Exterior Window Caulk (6-Light, Top) | Brown Non-Fibrous Homogeneous | | 3% Quartz 7% Ca Carbonate 90.0% Non-fibrous (Other) | None Detected |
| WEMS-06B 032414208-0012 | Exterior - Exterior Window Caulk (6-Light, Top) | Gray Non-Fibrous Homogeneous | | 10% Ca Carbonate 90.0% Non-fibrous (Other) | None Detected |
| WEMS-07A 032414208-0013 | Exterior - Exterior Window Caulk (6-Light, Bottom) | Brown/Tan Non-Fibrous Heterogeneous | | 5% Quartz 50% Ca Carbonate 35.0% Non-fibrous (Other) | 10% Chrysotile |
| WEMS-07B 032414208-0014 | Exterior - Exterior Window Caulk (6-Light, Bottom) | | | | Positive Stop (Not Analyzed) |
| WEMS-08A 032414208-0015 | Exterior (Boiler Room) - Exterior Wall Caulk | Gray Non-Fibrous Homogeneous | | 20% Quartz 60% Ca Carbonate 20.0% Non-fibrous (Other) | None Detected |
| WEMS-08B 032414208-0016 | Exterior (Boiler Room) - Exterior Wall Caulk | Gray Non-Fibrous Homogeneous | | 20% Ca Carbonate 80.0% Non-fibrous (Other) | None Detected |
| WEMS-09A 032414208-0017 | Exterior (Boiler Room) - Exterior Door Caulk | Gray Non-Fibrous Homogeneous | <1% Fibrous_Other | 7% Quartz 55% Ca Carbonate 3% Mica 35.0% Non-fibrous (Other) | None Detected |
| WEMS-09B 032414208-0018 | Exterior (Boiler Room) - Exterior Door Caulk | Gray Non-Fibrous Homogeneous | <1% Fibrous_Other | 3% Quartz 50% Ca Carbonate 2% Mica 45.0% Non-fibrous (Other) | None Detected |

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

| Sample | Description | Appearance | Non-Asbestos | | Asbestos |
|----------------------------|--|--|--------------|---|---------------------------------|
| | | | % Fibrous | % Non-Fibrous | % Type |
| WEMS-09C 032414208-0019 | Exterior (Boiler Room) - Exterior Door Caulk | Gray Non-Fibrous Homogeneous | | 10% Ca Carbonate 90.0% Non-fibrous (Other) | None Detected |
| WEMS-10A 032414208-0020 | Exterior (Arthur & Dorchester) - Exterior Door Caulk | Brown Non-Fibrous Homogeneous | | 3% Quartz 7% Ca Carbonate 90.0% Non-fibrous (Other) | None Detected |
| WEMS-10B 032414208-0021 | Exterior (Arthur & Dorchester) - Exterior Door Caulk | Brown Non-Fibrous Homogeneous | | 100.0% Non-fibrous (Other) | None Detected |
| WEMS-11A 032414208-0022 | Stairwell By Room 101 - Interior Window Glaze | Gray/Tan/Clear Non-Fibrous Homogeneous | | 7% Quartz 45% Ca Carbonate 45.0% Non-fibrous (Other) | 3% Chrysotile |
| WEMS-11B 032414208-0023 | Stairwell By Room 101 - Interior Window Glaze | | | | Positive Stop (Not Analyzed) |
| WEMS-12A 032414208-0024 | Stairwell By Room 101 - Interior Window Caulk | Gray/Beige/Clear Non-Fibrous Homogeneous | | 5% Quartz 15% Ca Carbonate 80.0% Non-fibrous (Other) | None Detected |
| WEMS-12B 032414208-0025 | Stairwell By Room 213 - Interior Window Caulk | Gray/Clear Non-Fibrous Homogeneous | | 20% Quartz 15% Ca Carbonate 65.0% Non-fibrous (Other) | None Detected |
| WEMS-13A 032414208-0026 | Room 201 - Interior Window Glaze | Gray Non-Fibrous Homogeneous | | 7% Quartz 55% Ca Carbonate 35.0% Non-fibrous (Other) | 3% Chrysotile |
| WEMS-13B 032414208-0027 | Room 204 - Interior Window Glaze | | | | Positive Stop (Not Analyzed) |

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Project: Worcester East Middle School

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

| Sample | Description | Appearance | Non-Asbestos | | Asbestos |
|---|---|--|-------------------|--|---------------------------------|
| | | | % Fibrous | % Non-Fibrous | % Type |
| WEMS-14A 032414208-0028 | 2nd Floor Hall - Exterior Wood Window Glaze (8-Light) | Tan/Black Non-Fibrous Homogeneous | | 7% Quartz 55% Ca Carbonate 3% Mica 25.0% Non-fibrous (Other) | 10% Chrysotile |
| WEMS-14B 032414208-0029 | 2nd Floor Hall - Exterior Wood Window Glaze (8-Light) | | | | Positive Stop (Not Analyzed) |
| WEMS-15A 032414208-0030 | 2nd Floor Hall - Exterior Wood Window Glaze (8-Light) | Various Non-Fibrous Homogeneous | | 5% Quartz 50% Ca Carbonate 30.0% Non-fibrous (Other) | 15% Chrysotile |
| WEMS-15B 032414208-0031 | 2nd Floor Hall - Exterior Wood Window Glaze (8-Light) | | | | Positive Stop (Not Analyzed) |
| WEMS-16A-Skim Coat 032414208-0032 | Room 204 - Plaster Ceiling (Above Window) | White Non-Fibrous Homogeneous | | 10% Quartz 50% Ca Carbonate 15% Gypsum 5% Mica 20.0% Non-fibrous (Other) | None Detected |
| WEMS-16A-Rough Coat 032414208-0032A | Room 204 - Plaster Ceiling (Above Window) | Gray Non-Fibrous Homogeneous | 2% Cellulose | 25% Quartz 35% Ca Carbonate 5% Mica 33.0% Non-fibrous (Other) | None Detected |
| WEMS-16B-Skim Coat 032414208-0033 | Room 204 - Plaster Ceiling (Above Window) | Tan/White Non-Fibrous Homogeneous | | 55% Ca Carbonate 45.0% Non-fibrous (Other) | None Detected |
| WEMS-16B-Rough Coat 032414208-0033A | Room 204 - Plaster Ceiling (Above Window) | Gray Non-Fibrous Homogeneous | | 40% Quartz 20% Ca Carbonate 40.0% Non-fibrous (Other) | None Detected |
| WEMS-17A 032414208-0034 | Exterior - Exterior Door Window Glaze | Brown/Gray Non-Fibrous Homogeneous | <1% Fibrous_Other | 7% Quartz 55% Ca Carbonate 3% Mica 35.0% Non-fibrous (Other) | None Detected |

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| Sample | Description | Appearance | Non-Asbestos | | Asbestos |
|----------------------------|--|--|--------------|---|---------------|
| | | | % Fibrous | % Non-Fibrous | % Type |
| WEMS-17B 032414208-0035 | Exterior - Exterior Door Window Glaze | Gray/Tan Non-Fibrous Homogeneous | 5% Cellulose | 15% Ca Carbonate 80.0% Non-fibrous (Other) | None Detected |
| WEMS-18A 032414208-0036 | Cafeteria - Interior Cafeteria Window Caulking | Various Non-Fibrous Homogeneous | | 7% Quartz 45% Ca Carbonate 3% Mica 45.0% Non-fibrous (Other) | None Detected |
| WEMS-18B 032414208-0037 | Cafeteria - Interior Cafeteria Window Caulking | Gray/Green Non-Fibrous Homogeneous | | 15% Ca Carbonate 85.0% Non-fibrous (Other) | None Detected |

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Collected Date: 10/08/2024

Project: Worcester East Middle School

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk materials via EPA/600 (0513) Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

Report Comments:

Sample Receipt Date: 10/10/2024

Sample Receipt Time: 10:11 AM

Analysis Completed Date: 10/11/2024

Analysis Completed Time: 12:50 AM

Analyst(s):

Ghaly Hemaya PLM (11)

Kerrie Gibson PLM (20)

Samples Reviewed and approved by:

Charles Johnson, Asbestos Laboratory Manager
or other approved signatory

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

Samples analyzed by EMSL Analytical, Inc. Long Island City, NY AIHA LAP, LLC-IHLAP Accredited #102581, NVLAP Lab Code 101048-9, CT PH-0170, MA AA000170

Initial report from: 10/11/2024 01:01:44



EMSL Analytical, Inc.

440 Washington Street, Suite 2 Weymouth, MA 02188

Tel/Fax: (781) 682-2206 / (781) 682-2207

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

EMSL Order: 642000375

Customer ID: ATC62

Customer PO: 183BW20019

Project ID:

Attention: Brian Williams

ATC Group Services LLC

73 William Franks Drive

West Springfield, MA 01089

Phone:

Fax: (413) 781-3734

Received Date: 02/11/2020 10:00 AM

Analysis Date: 02/17/2020

Collected Date: 02/07/2020

Project: 183BW20019 / Worcester East Middles School / Habbed Architects / 420 Grafton St / Worcester MA

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 |
| WMES-01A 642000375-0001 | 1st Floor Handicap Bath - 2' x 4' Fissure C.T. | Gray Fibrous Homogeneous | 35% Cellulose 20% Glass | 45% Non-fibrous (Other) | None Detected |
| WMES-01B 642000375-0002 | 1st Floor Handicap Bath - 2' x 4' Fissure C.T. | Gray Fibrous Homogeneous | 35% Cellulose 20% Glass | 45% Non-fibrous (Other) | None Detected |
| WMES-02A 642000375-0003 | 1st Floor Handicap Bath - 4" x 4" Beige CWT Grout | White Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-02B 642000375-0004 | 1st Floor Handicap Bath - 4" x 4" Beige CWT Grout | White Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-03A 642000375-0005 | 1st Floor Handicap Bath - 4" x 4" Beige CWT Mastic | Gray Non-Fibrous Homogeneous | | 98% Non-fibrous (Other) | 2% Chrysotile |
| WMES-03B 642000375-0006 | 1st Floor Handicap Bath - 4" x 4" Beige CWT Mastic | | | | Positive Stop (Not Analyzed) |
| WMES-04A 642000375-0007 | 1st Floor Handicap Bath - 1" x 1" Beige CFT Grout | Gray Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-04B 642000375-0008 | 1st Floor Handicap Bath - 1" x 1" Beige CFT Grout | Gray Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-05A 642000375-0009 | 1st Floor Handicap Bath - 1" x 1" Beige CFT Mastic | Gray Non-Fibrous Homogeneous | | 98% Non-fibrous (Other) | 2% Chrysotile |
| WMES-05B 642000375-0010 | 1st Floor Handicap Bath - 1" x 1" Beige CFT Mastic | | | | Positive Stop (Not Analyzed) |
| WMES-07A 642000375-0011 | Basement Custodial Storage - Fittings on Fiberglass | Gray Fibrous Heterogeneous | 30% Glass | 55% Non-fibrous (Other) | 15% Chrysotile |
| WMES-07B 642000375-0012 | Basement Custodial Storage - Fittings on Fiberglass | | | | Positive Stop (Not Analyzed) |
| WMES-07C 642000375-0013 | Basement Custodial Storage - Fittings on Fiberglass | | | | Positive Stop (Not Analyzed) |
| WMES-08A 642000375-0014 | Custodial Storage - 1' x 1' Perforated Ceiling Tile | Gray Fibrous Heterogeneous | 45% Cellulose | 55% Non-fibrous (Other) | None Detected |
| WMES-08B 642000375-0015 | Custodial Storage - 1' x 1' Perforated Ceiling Tile | Gray Fibrous Homogeneous | 45% Cellulose | 55% Non-fibrous (Other) | None Detected |
| WMES-09A 642000375-0016 | B19 - Plaster Skim | White Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |

Initial report from: 02/17/2020 16:29:01



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EMSL Order: 642000375

Customer ID: ATC62

Customer PO: 183BW20019

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 |
| WMES-09B 642000375-0017 | B19 - Plaster Skim | White Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-09C 642000375-0018 | Plaster Skim | White Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-10A 642000375-0019 | B19 - Plaster Base | Gray Non-Fibrous Homogeneous | 3% Hair | 97% Non-fibrous (Other) | None Detected |
| WMES-10B 642000375-0020 | B19 - Plaster Base | Gray Fibrous Homogeneous | 2% Hair | 98% Non-fibrous (Other) | None Detected |
| WMES-10C 642000375-0021 | Plaster Base | Gray Fibrous Homogeneous | 2% Hair | 98% Non-fibrous (Other) | None Detected |
| WMES-11A 642000375-0022 | B19 - Sheetrock | Gray Fibrous Homogeneous | 5% Cellulose | 95% Non-fibrous (Other) | None Detected |
| WMES-11B 642000375-0023 | Sheetrock | Gray Fibrous Homogeneous | 5% Cellulose | 95% Non-fibrous (Other) | None Detected |
| WMES-12A 642000375-0024 | B19 - Joint Compound | White Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-12B 642000375-0025 | Joint Compound | White Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-13A 642000375-0026 | B19 - Concrete Skim | Gray Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-13B 642000375-0027 | B19 - Concrete Skim | Gray Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-13C 642000375-0028 | B19 - Concrete Skim | Gray Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-14A 642000375-0029 | 2nd Floor Corridor - Frame Caulk on 3' x 5' DH Windows | Brown Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-14B 642000375-0030 | 2nd Floor Corridor - Frame Caulk on 3' x 5' DH Windows | Brown Non-Fibrous Homogeneous | | 100% Non-fibrous (Other) | None Detected |
| WMES-15A 642000375-0031 | 2nd Floor Corridor - Glazing on 3' x 5' DH Windows | Gray Non-Fibrous Homogeneous | | 95% Non-fibrous (Other) | 5% Chrysotile |
| WMES-15B 642000375-0032 | 2nd Floor Corridor - Glazing on 3' x 5' DH Windows | | | | Positive Stop (Not Analyzed) |
| WMES-16A 642000375-0033 | 2nd Floor Corridor - Ext Frame Caulk on DH Windows | Tan/Black Non-Fibrous Homogeneous | | 92% Non-fibrous (Other) | 8% Chrysotile |
| WMES-16B 642000375-0034 | 2nd Floor Corridor - Ext Frame Caulk on DH Windows | | | | Positive Stop (Not Analyzed) |

Initial report from: 02/17/2020 16:29:01



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EMSL Order: 642000375

Customer ID: ATC62

Customer PO: 183BW20019

Project ID:

Analyst(s)

Sandhya Gunasekara (28)

Christine Cleveland

Christine Cleveland, 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. Weymouth, MA NVLAP Lab Code 600217-0, MA AA000244, RI AAL-112

Initial report from: 02/17/2020 16:29:01



EMSL Analytical, Inc.

307 West 38th Street New York, NY 10018

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

EMSL Order: 031834159

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Brian Williams
ATC Group Services LLC
73 William Franks Drive
West Springfield, MA 01089

Phone:
Fax: (413) 781-3734
Received Date: 12/22/2018 11:33 AM
Analysis Date: 12/22/2018
Collected Date: 12/21/2018

Project: 183BW18223/ WORCESTER EAST MIDDLE SCHOOL/ 420 GRAFTON ST, WORCESTER, MA

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 |
| WE-01A 031834159-0001 | ROOM 111 CEILING - CEILING PLASTER BASE | Gray/Tan Non-Fibrous Homogeneous | 3% Cellulose | 40% Quartz 10% Gypsum 47.0% Non-fibrous (Other) | None Detected |
| WE-01B 031834159-0002 | ROOM 111 CEILING - CEILING PLASTER BASE | Gray/Tan Non-Fibrous Homogeneous | 3% Cellulose | 45% Quartz 2% Mica 50.0% Non-fibrous (Other) | None Detected |
| WE-01C 031834159-0003 | ROOM 111 CEILING - CEILING PLASTER BASE | Gray Non-Fibrous Homogeneous | | 25% Quartz 21% Ca Carbonate 11% Gypsum 43.0% Non-fibrous (Other) | None Detected |
| WE-02A 031834159-0004 | ROOM 111 CEILING - CEILING PLASTER SKIM | White/Yellow Non-Fibrous Heterogeneous | | 45% Ca Carbonate 55.0% Non-fibrous (Other) | None Detected |
| Inseparable paint / coating layer included in analysis | | | | | |
| WE-02B 031834159-0005 | ROOM 111 CEILING - CEILING PLASTER SKIM | Tan/White Non-Fibrous Heterogeneous | | 50% Ca Carbonate 50.0% Non-fibrous (Other) | None Detected |
| Inseparable paint / coating layer included in analysis | | | | | |
| WE-02C 031834159-0006 | ROOM 111 CEILING - CEILING PLASTER SKIM | White Non-Fibrous Homogeneous | | 40% Ca Carbonate 60.0% Non-fibrous (Other) | None Detected |
| WE-03A 031834159-0007 | OUTSIDE RM 306 (HALLWAY CEILING) - CEILING PLASTER BASE | Brown/Gray Non-Fibrous Homogeneous | | 40% Quartz 4% Mica 56.0% Non-fibrous (Other) | None Detected |
| WE-03B 031834159-0008 | OUTSIDE RM 306 (HALLWAY CEILING) - CEILING PLASTER BASE | Gray Non-Fibrous Homogeneous | 3% Cellulose 3% Hair | 40% Quartz 2% Mica 52.0% Non-fibrous (Other) | None Detected |
| WE-03C 031834159-0009 | OUTSIDE RM 305 (HALLWAY CEILING) - CEILING PLASTER BASE | Gray Non-Fibrous Homogeneous | | 44% Quartz 3% Mica 53.0% Non-fibrous (Other) | None Detected |

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Initial report from: 12/22/2018 16:31:27



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EMSL Order: 031834159

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Brian Williams
ATC Group Services LLC
73 William Franks Drive
West Springfield, MA 01089

Phone:

Fax: (413) 781-3734

Received Date: 12/22/2018 11:33 AM

Analysis Date: 12/22/2018

Collected Date: 12/21/2018

Project: 183BW18223/ WORCESTER EAST MIDDLE SCHOOL/ 420 GRAFTON ST, WORCESTER, MA

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 |
| WE-04A 031834159-0010 | OUTSIDE RM 306 (HALLWAY CEILING) - CEILING PLASTER SKIM | Tan/White Non-Fibrous Homogeneous | | 40% Ca Carbonate 60.0% Non-fibrous (Other) | None Detected |
| WE-04B 031834159-0011 | OUTSIDE RM 306 (HALLWAY CEILING) - CEILING PLASTER SKIM | White/Yellow Non-Fibrous Heterogeneous | | 45% Ca Carbonate 55.0% Non-fibrous (Other) | None Detected |
| Inseparable paint / coating layer included in analysis | | | | | |
| WE-04C 031834159-0012 | OUTSIDE RM 305 (HALLWAY CEILING) - CEILING PLASTER SKIM | White Non-Fibrous Homogeneous | | 40% Ca Carbonate 60.0% Non-fibrous (Other) | None Detected |

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Initial report from: 12/22/2018 16:31:27



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EMSL Order: 031834159

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Brian Williams
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73 William Franks Drive
West Springfield, MA 01089

Phone:

Fax: (413) 781-3734

Received Date: 12/22/2018 11:33 AM

Analysis Date: 12/22/2018

Collected Date: 12/21/2018

Project: 183BW18223/ WORCESTER EAST MIDDLE SCHOOL/ 420 GRAFTON ST, WORCESTER, MA

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk materials via EPA/600 (0513) Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

Report Comments:

Sample Receipt Date: 12/22/2018

Sample Receipt Time: 11:33 AM

Analysis Completed Date: 12/22/2018

Analysis Completed Time: 4:27 PM

Analyst(s):

Chad Layne PLM (4)

Jon Williams PLM (8)

Samples Reviewed and approved by:

James Hall, Laboratory Manager
or other approved signatory

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EMSL Order: 031821843

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Brian Williams
ATC Group Services LLC
73 William Franks Drive
West Springfield, MA 01089

Phone:
Fax: (413) 781-3734
Received Date: 08/11/2018 10:59 AM
Analysis Date: 08/11/2018
Collected Date: 08/10/2018

Project: WORCESTER EAST MIDDLE/ 420 GRAFTON ST. WORCESTER

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 |
| WEM-1A 031821843-0001 | ROOM B6/ B6 A - CEILING PLASTER SKIM | White Non-Fibrous Homogeneous | | 56% Ca Carbonate 44% Non-fibrous (Other) | None Detected |
| WEM-1B 031821843-0002 | ROOM B6/ B6 A - CEILING PLASTER SKIM | White Non-Fibrous Homogeneous | | 65% Ca Carbonate 35% Non-fibrous (Other) | None Detected |
| WEM-1C 031821843-0003 | ROOM B6/ B6 A - CEILING PLASTER SKIM | White Non-Fibrous Homogeneous | | 55% Ca Carbonate 45% Non-fibrous (Other) | None Detected |
| WEM-2A 031821843-0004 | ROOM B6/ B6 A - CEILING PLASTER BASE | Brown Non-Fibrous Homogeneous | | 45% Quartz 32% Gypsum 23% Non-fibrous (Other) | None Detected |
| WEM-2B 031821843-0005 | ROOM B6/ B6 A - CEILING PLASTER BASE | Brown Non-Fibrous Homogeneous | | 45% Quartz 32% Gypsum 23% Non-fibrous (Other) | None Detected |
| WEM-2C 031821843-0006 | ROOM B6/ B6 A - CEILING PLASTER BASE | Gray Non-Fibrous Homogeneous | | 45% Quartz 30% Ca Carbonate 3% Mica 22% Non-fibrous (Other) | None Detected |
| WEM-3A 031821843-0007 | ROOM B6/ B6 A - TSI PIPE INSULATION | White Fibrous Homogeneous | | 80% Non-fibrous (Other) | 20% Chrysotile |
| WEM-3B 031821843-0008 | ROOM B6/ B6 A - TSI PIPE INSULATION | | | | Positive Stop (Not Analyzed) |
| WEM-3C 031821843-0009 | ROOM B6/ B6 A - TSI PIPE INSULATION | | | | Positive Stop (Not Analyzed) |

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Initial report from: 08/11/2018 13:01:27



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EMSL Order: 031821843

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Brian Williams
ATC Group Services LLC
73 William Franks Drive
West Springfield, MA 01089

Phone:

Fax: (413) 781-3734

Received Date: 08/11/2018 10:59 AM

Analysis Date: 08/11/2018

Collected Date: 08/10/2018

Project: WORCESTER EAST MIDDLE/ 420 GRAFTON ST. WORCESTER

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk materials via EPA/600 (0513) Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

Report Comments:

Sample Receipt Date: 08/11/2018

Sample Receipt Time: 10:59 AM

Analysis Completed Date: 08/11/2018

Analysis Completed Time: 12:59 PM

Analyst(s):

Kamel Alawawda PLM (5)

Krystal Harris PLM (2)

Samples Reviewed and approved by:

James Hall, Laboratory Manager
or other approved signatory

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Initial report from: 08/11/2018 13:01:27



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EMSL Order: 031714951

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Brian Williams
ATC Group Services LLC
73 William Franks Drive
West Springfield, MA 01089

Phone:

Fax: (413) 781-3734

Received Date: 05/25/2017 11:51 AM

Analysis Date: 05/25/2017

Collected Date: 05/23/2017

Project: 183BS01436/ WPS WORCESTER EAST MIDDLE/ 420 GRATTON ST/ WORCESTER, MA

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 |
| 1A 031714951-0001 | 310A SOUTHWALL - PLASTER HORIZONTAL PATCHES | White Non-Fibrous Homogeneous | | 65% Ca Carbonate 35% Non-fibrous (Other) | None Detected |
| 1B 031714951-0002 | 310A EASTWALL - PLASTER HORIZONTAL PATCHES | White/Blue Non-Fibrous Heterogeneous | | 55% Ca Carbonate 3% Mica 42% Non-fibrous (Other) | None Detected |
| Inseparable paint / coating layer included in analysis | | | | | |
| 2A 031714951-0003 | 310A SOUTHWALL - PLASTER SKIM | White Non-Fibrous Homogeneous | | 68% Ca Carbonate 32% Non-fibrous (Other) | None Detected |
| 2B 031714951-0004 | 310A EASTWALL - PLASTER SKIM | White/Blue Non-Fibrous Heterogeneous | | 55% Ca Carbonate 45% Non-fibrous (Other) | None Detected |
| Inseparable paint / coating layer included in analysis | | | | | |
| 3A 031714951-0005 | 310A SOUTHWALL - PLASTER BASE | Brown Non-Fibrous Homogeneous | | 50% Quartz 50% Non-fibrous (Other) | None Detected |
| 3B 031714951-0006 | 310A EASTWALL - PLASTER BASE | Gray/Tan Non-Fibrous Homogeneous | 2% Hair | 45% Quartz 10% Ca Carbonate 3% Mica 40% Non-fibrous (Other) | None Detected |
| 4A 031714951-0007 | HALLWAY ACROSS FROM 300 - PLASTER CEILING MOLDING | White Non-Fibrous Homogeneous | | 68% Ca Carbonate 5% Mica 27% Non-fibrous (Other) | None Detected |
| 4B 031714951-0008 | HALLWAY ACROSS FROM 300 - PLASTER CEILING MOLDING | White Non-Fibrous Homogeneous | | 65% Ca Carbonate 4% Mica 31% Non-fibrous (Other) | None Detected |
| 5A 031714951-0009 | HALLWAY ACROSS FROM 300 - PLASTER CEILING-SKIM | White Non-Fibrous Homogeneous | | 60% Ca Carbonate 40% Non-fibrous (Other) | None Detected |

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Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC--IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from: 05/25/2017 17:22:21



EMSL Analytical, Inc.

307 West 38th Street New York, NY 10018

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

EMSL Order: 031714951

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Brian Williams
ATC Group Services LLC
73 William Franks Drive
West Springfield, MA 01089

Phone:

Fax: (413) 781-3734

Received Date: 05/25/2017 11:51 AM

Analysis Date: 05/25/2017

Collected Date: 05/23/2017

Project: 183BS01436/ WPS WORCESTER EAST MIDDLE/ 420 GRATTON ST/ WORCESTER, MA

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 |
| 5B 031714951-0010 | HALLWAY ACROSS FROM 300 - PLASTER CEILING-SKIM | White Non-Fibrous Heterogeneous | | 50% Ca Carbonate 50% Non-fibrous (Other) | None Detected |
| 6A 031714951-0011 | HALLWAY ACROSS FROM 300 - PLASTER CEILING BASE | Brown Non-Fibrous Homogeneous | | 75% Quartz 25% Non-fibrous (Other) | None Detected |
| 6B 031714951-0012 | HALLWAY ACROSS FROM 300 - PLASTER CEILING BASE | Gray/White Non-Fibrous Homogeneous | | 45% Quartz 20% Ca Carbonate 35% Non-fibrous (Other) | None Detected |
| 7A 031714951-0013 | ROOM 210 - PLASTER CEILING SKIM | White Non-Fibrous Homogeneous | | 56% Ca Carbonate 44% Non-fibrous (Other) | None Detected |
| 7B 031714951-0014 | ROOM 210 - PLASTER CEILING SKIM | White Non-Fibrous Homogeneous | | 5% Quartz 50% Ca Carbonate 45% Non-fibrous (Other) | None Detected |
| 8A 031714951-0015 | ROOM 210 - PLASTER CEILING BROWN/BASE | White Non-Fibrous Homogeneous | | 65% Ca Carbonate 35% Non-fibrous (Other) | None Detected |
| 8B 031714951-0016 | ROOM 210 - PLASTER CEILING BROWN/BASE | White Non-Fibrous Homogeneous | | 30% Quartz 30% Ca Carbonate 2% Mica 38% Non-fibrous (Other) | None Detected |
| 11A 031714951-0017 | ROOM 210 - 3" MUDDIED PIPE FITTING | Tan/White Fibrous Homogeneous | 6% Cellulose | 79% Non-fibrous (Other) | 15% Chrysotile |
| 11B 031714951-0018 | ROOM 210 - 3" MUDDIED PIPE FITTING | White Fibrous Homogeneous | 30% MinWool | 25% Ca Carbonate 32% Non-fibrous (Other) | 13% Chrysotile |

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Initial report from: 05/25/2017 17:22:21



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EMSL Order: 031714951

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Customer PO: 11-81-0030

Project ID:

Attention: Brian Williams
ATC Group Services LLC
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West Springfield, MA 01089

Phone:

Fax: (413) 781-3734

Received Date: 05/25/2017 11:51 AM

Analysis Date: 05/25/2017

Collected Date: 05/23/2017

Project: 183BS01436/ WPS WORCESTER EAST MIDDLE/ 420 GRATTON ST/ WORCESTER, MA

Report Comments:

Sample Receipt Date: 05/25/2017

Sample Receipt Time: 11:51 AM

Analysis Completed Date: 05/25/2017

Analysis Completed Time: 3:02 PM

Analyst(s):

Daena Charles PLM (9)

Jon Williams PLM (9)

Samples Reviewed and approved by:

James Hall, Laboratory Manager
or other approved signatory

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EMSL Order: 031637723

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Brian Williams
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West Springfield, MA 01089

Phone:

Fax: (413) 781-3734

Received Date: 12/21/2016 11:14 AM

Analysis Date: 12/24/2016 - 12/27/2016

Collected Date: 12/20/2016

Project: WORCESTER EAST MIDDLE SCHOOL/ 420 GARFTON ST. WORCESTER, MA 01604, USA

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 |
| ES-01A 031637723-0001 | NURSE OFFICE #2 - PLASTER BASE | Gray Non-Fibrous Homogeneous | | 35% Quartz 10% Mica 55% Non-fibrous (Other) | None Detected |
| ES-01B 031637723-0002 | NURSE OFFICE #1 - PLASTER BASE | Gray Non-Fibrous Homogeneous | | 30% Quartz 70% Non-fibrous (Other) | None Detected |
| ES-01C 031637723-0003 | ROOM ACROSS FROM DENTAL OFFICE #1 - PLASTER BASE | Gray Non-Fibrous Homogeneous | | 25% Quartz 20% Gypsum 10% Mica 45% Non-fibrous (Other) | None Detected |
| ES-01D 031637723-0004 | ROOM ACROSS FROM DENTAL OFFICE #1 - PLASTER BASE | Gray Non-Fibrous Homogeneous | | 45% Quartz 30% Gypsum 25% Non-fibrous (Other) | None Detected |
| ES-01E 031637723-0005 | DENTAL HALL-OVER SINK - PLASTER BASE | Gray Non-Fibrous Homogeneous | | 40% Quartz 35% Gypsum 25% Non-fibrous (Other) | None Detected |
| ES-02A 031637723-0006 | NURSE OFFICE #2 - PLASTER SKIM | White Non-Fibrous Homogeneous | | 20% Ca Carbonate 10% Gypsum 70% Non-fibrous (Other) | None Detected |
| ES-02B 031637723-0007 | NURSE OFFICE #1 - PLASTER SKIM | White Non-Fibrous Homogeneous | | 30% Gypsum 70% Non-fibrous (Other) | None Detected |
| ES-02C 031637723-0008 | ROOM ACROSS FROM DENTAL OFFICE #1 - PLASTER SKIM | White Non-Fibrous Homogeneous | | 40% Gypsum 60% Non-fibrous (Other) | None Detected |
| ES-02D 031637723-0009 | ROOM ACROSS FROM DENTAL OFFICE #1 - PLASTER SKIM | White Non-Fibrous Homogeneous | | 58% Ca Carbonate 42% Non-fibrous (Other) | None Detected |
| ES-02E 031637723-0010 | DENTAL HALL-OVER SINK - PLASTER SKIM | White Non-Fibrous Homogeneous | | 65% Ca Carbonate 35% Non-fibrous (Other) | None Detected |

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Samples analyzed by EMSL Analytical, Inc. New York, NY AIHA-LAP, LLC--IHLAP Accredited #102581, NVLAP Lab Code 101048-9, NYS ELAP 11506, NJ NY022, CT PH-0170, MA AA000170

Initial report from: 12/27/2016 15:02:53



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EMSL Order: 031637723

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Brian Williams
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Phone:
Fax: (413) 781-3734
Received Date: 12/21/2016 11:14 AM
Analysis Date: 12/24/2016 - 12/27/2016
Collected Date: 12/20/2016

Project: WORCESTER EAST MIDDLE SCHOOL/ 420 GARFTON ST. WORCESTER, MA 01604, USA

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 |
| ES-03A 031637723-0011 | DENTAL HALL-OVER SINK - SHEETROCK | White Non-Fibrous Homogeneous | 5% Fibrous_Other | 35% Gypsum 60% Non-fibrous (Other) | None Detected |
| ES-03B 031637723-0012 | END OF DENTAL HALL - SHEETROCK | White Non-Fibrous Homogeneous | 5% Fibrous_Other | 40% Gypsum 55% Non-fibrous (Other) | None Detected |
| ES-03C 031637723-0013 | END OF DENTAL HALL - SHEETROCK | Brown/Gray Non-Fibrous Homogeneous | 15% Cellulose | 60% Gypsum 25% Non-fibrous (Other) | None Detected |
| ES-04A 031637723-0014 | DENTAL HALL-OVER SINK - JOINT COMPOUND | White Non-Fibrous Homogeneous | 5% Cellulose | 25% Ca Carbonate 70% Non-fibrous (Other) | None Detected |
| ES-04B 031637723-0015 | END OF DENTAL HALL - JOINT COMPOUND | White Non-Fibrous Homogeneous | | 10% Ca Carbonate 10% Gypsum 80% Non-fibrous (Other) | None Detected |
| ES-04C 031637723-0016 | END OF DENTAL HALL - JOINT COMPOUND | White Non-Fibrous Homogeneous | | 45% Ca Carbonate 20% Gypsum 35% Non-fibrous (Other) | None Detected |
| ES-05A 031637723-0017 | LOBBY - TEXTURED CEILING | White Non-Fibrous Homogeneous | | 45% Ca Carbonate 55% Non-fibrous (Other) | None Detected |
| ES-05B 031637723-0018 | DENTAL HALL - TEXTURED CEILING | White Non-Fibrous Homogeneous | | 50% Ca Carbonate 50% Non-fibrous (Other) | None Detected |
| ES-05C 031637723-0019 | DENTAL HALL - TEXTURED CEILING | White Non-Fibrous Homogeneous | | 60% Ca Carbonate 40% Non-fibrous (Other) | None Detected |
| ES-06A 031637723-0020 | DENTAL HALL - 2x2 DROP CEILING | Brown Fibrous Homogeneous | 40% Cellulose 15% MinWool | 25% Perlite 20% Non-fibrous (Other) | None Detected |

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EMSL Order: 031637723

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Brian Williams
ATC Group Services LLC
73 William Franks Drive
West Springfield, MA 01089

Phone:
Fax: (413) 781-3734
Received Date: 12/21/2016 11:14 AM
Analysis Date: 12/24/2016 - 12/27/2016
Collected Date: 12/20/2016

Project: WORCESTER EAST MIDDLE SCHOOL/ 420 GARFTON ST. WORCESTER, MA 01604, USA

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 |
| ES-06B 031637723-0021 | DENTAL HALL - 2x2 DROP CEILING | Brown/Gray Fibrous Homogeneous | 45% Cellulose 15% MinWool | 40% Non-fibrous (Other) | None Detected |
| ES-07A 031637723-0022 | DENTAL HALL INFRONT OF SINK - 12x12 WHITE W/TAN VFT | Tan Non-Fibrous Homogeneous | | 65% Gypsum 35% Non-fibrous (Other) | None Detected |
| ES-07B 031637723-0023 | DENTAL HALL STORAGE ROOM - 12x12 WHITE W/TAN VFT | Gray Non-Fibrous Homogeneous | | 20% Ca Carbonate 80% Non-fibrous (Other) | None Detected |
| ES-08A 031637723-0024 | DENTAL HALL INFRONT OF SINK - 12x12 WHITE W/TAN VFT MASTIC | Gray Non-Fibrous Homogeneous | 3% Cellulose | 10% Ca Carbonate 87% Non-fibrous (Other) | None Detected |
| ES-08B 031637723-0025 | DENTAL HALL STORAGE ROOM - 12x12 WHITE W/TAN VFT MASTIC | Gray Non-Fibrous Homogeneous | | 15% Matrix 85% Non-fibrous (Other) | None Detected |
| ES-09A 031637723-0026 | NURSES OFFICE #1 - CEILING PLASTER BASE | Gray Non-Fibrous Homogeneous | | 45% Quartz 30% Gypsum 25% Non-fibrous (Other) | None Detected |
| ES-09B 031637723-0027 | LOBBY - CEILING PLASTER BASE | Gray Non-Fibrous Homogeneous | | 40% Quartz 35% Gypsum 25% Non-fibrous (Other) | None Detected |
| ES-09C 031637723-0028 | DENTAL HALL - CEILING PLASTER BASE | Gray Non-Fibrous Homogeneous | | 50% Quartz 50% Non-fibrous (Other) | None Detected |
| ES-10A 031637723-0029 | NURSES OFFICE #1 - CEILING PLASTER SKIM | White Non-Fibrous Homogeneous | | 55% Ca Carbonate 45% Non-fibrous (Other) | None Detected |
| ES-10B 031637723-0030 | LOBBY - CEILING PLASTER SKIM | White Non-Fibrous Homogeneous | | 65% Ca Carbonate 35% Non-fibrous (Other) | None Detected |

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Project: WORCESTER EAST MIDDLE SCHOOL/ 420 GARFTON ST. WORCESTER, MA 01604, USA

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 |
| ES-10C 031637723-0031 | DENTAL HALL - CEILING PLASTER SKIM | White Non-Fibrous Homogeneous | | 60% Ca Carbonate 40% Non-fibrous (Other) | None Detected |
| ES-11A 031637723-0032 | DENTAL HALL SINK - WHITE SINK UNDERCOAT | White Fibrous Homogeneous | 25% Cellulose | 45% Ca Carbonate 30% Non-fibrous (Other) | None Detected |
| ES-11B 031637723-0033 | DENTAL HALL STORAGE SINK - WHITE SINK UNDERCOAT | White Non-Fibrous Homogeneous | | 10% Ca Carbonate 90% Non-fibrous (Other) | None Detected |
| ES-12A 031637723-0034 | DENTAL HALL - 4" WHITE COVE BASE | Beige Non-Fibrous Homogeneous | | 25% Ca Carbonate 75% Non-fibrous (Other) | None Detected |
| ES-12B 031637723-0035 | ROOM ACROSS FROM DENTAL OFFICE #1 - 4" WHITE COVE BASE | Tan Non-Fibrous Homogeneous | | 15% Ca Carbonate 85% Non-fibrous (Other) | None Detected |
| ES-13A 031637723-0036 | DENTAL HALL - 4" WHITE COVE BASE MASTIC | Beige Non-Fibrous Homogeneous | | 10% Ca Carbonate 90% Non-fibrous (Other) | None Detected |
| ES-13B 031637723-0037 | ROOM ACROSS FROM DENTAL OFFICE #1 - 4" WHITE COVE BASE MASTIC | Brown Non-Fibrous Homogeneous | 12% Cellulose | 40% Matrix 48% Non-fibrous (Other) | None Detected |

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

EMSL Order: 031637723

Customer ID: ATC62

Customer PO: 11-81-0030

Project ID:

Attention: Brian Williams
ATC Group Services LLC
73 William Franks Drive
West Springfield, MA 01089

Phone:

Fax: (413) 781-3734

Received Date: 12/21/2016 11:14 AM

Analysis Date: 12/24/2016 - 12/27/2016

Collected Date: 12/20/2016

Project: WORCESTER EAST MIDDLE SCHOOL/ 420 GARFTON ST. WORCESTER, MA 01604, USA

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk materials via EPA/600 (0513) Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

Report Comments:

Sample Receipt Date: 12/21/2016

Sample Receipt Time: 11:14 AM

Analysis Completed Date: 12/27/2016

Analysis Completed Time: 2:50 PM

Analyst(s):

Daena Charles PLM (9)

Emily Myint PLM (18)

Krystal Harris PLM (10)

Samples Reviewed and approved by:

James Hall, Laboratory Manager
or other approved signatory

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Initial report from: 12/27/2016 15:02:53



November 4 2024

ATTACHMENT B

Asbestos & Lead Paint Window Sampling Report
Worcester East Middle School
Worcester Public Schools
Worcester, Massachusetts

ATTACHMENT B

FLAME AAS LEAD PAINT LABORATORY REPORT

**EMSL Analytical, Inc.**

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax: 856-786-5974
EMSL-CIN-01

EMSL Order ID: 012434698**LIMS Reference ID:** AC34698**EMSL Customer ID:** ATC62

Attention: Brian Williams
Atlas Technical [ATC62]
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070
brian.williams@oneatlas.com

Project Name: Worcester East Middle School - 420 Grafton St
Worcester / 183WPS2496

Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 10/24/2024 10:15
Reported: 10/25/2024 14:11

Analytical Results

| Analyte | Results | RL | Weight(g) | Prep Date & Tech | Prep Method | Analysis Date & Analyst | Analytical Method | Q | DF |
|---------------------------------------|---------|----------|-----------|---------------------|--------------|----------------------------|-------------------------------|---|-----|
| Client Sample ID: WEM-1/Metal Windows | | | | | | | Date Sampled: 10/23/24 | | |
| Matrix: Chips | | | | | | | LIMS Reference ID: AC34698-01 | | |
| Lead | 23 % wt | 1.5 % wt | 0.2656 | 10/24/24 CZX | SW-846 3050B | 10/25/24 PMX | SW846-7000B | D | 200 |
| Sample Comments: | | | | | | | | | |

**EMSL Analytical, Inc.**

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax: 856-786-5974
EMSL-CIN-01

EMSL Order ID: 012434698

LIMS Reference ID: AC34698

EMSL Customer ID: ATC62

Attention: Brian Williams
Atlas Technical [ATC62]
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West Springfield, MA 01089
(413) 781-0070
brian.williams@oneatlas.com

Project Name: Worcester East Middle School - 420 Grafton St
Worcester / 183WPS2496

Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 10/24/2024 10:15
Reported: 10/25/2024 14:11

Certified Analyses included in this Report

| Analyte | Certifications |
|-----------------------------|----------------|
| SW846-7000B in Chips | |
| Lead | AIHA LAP |

List of Certifications

| Code | Description | Number | Expires |
|-----------------|--|----------|------------|
| NJDEP | New Jersey Department of Environmental Protection | 03036 | 06/30/2025 |
| AIHA LAP | EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC-ELLAP Accredited | 100194 | 01/01/2025 |
| NYSDOH | New York State Department of Health | 10872 | 04/01/2025 |
| California ELAP | California Water Boards | 1877 | 06/30/2025 |
| A2LA | A2LA Environmental Certificate | 2845.01 | 07/31/2026 |
| PADEP | Pennsylvania Department of Environmental Protection | 68-00367 | 11/30/2024 |
| MADEP | Massachusetts Department of Environmental Protection | M-NJ337 | 06/30/2025 |
| CTDPH | Connecticut Department of Public Health | PH-0270 | 06/23/2026 |

Please see the specific Field of Testing (FOT) on www.emsl.com <<http://www.emsl.com>> for a complete listing of parameters for which EMSL is certified.

Notes and Definitions

| Item | Definition |
|---|---|
| D | Analyte was reported from a dilution run. |
| Pb3 | The QC sample duplicate RPD result for Lead was outside of the method control limits. |
| (Dig) | For metals analysis, sample was digested. |
| [2C] | Reported from the second channel in dual column analysis. |
| DF | Dilution Factor |
| MDL | Method Detection Limit. |
| ND | Analyte was NOT DETECTED at or above the detection limit. |
| NR | Spike/Surrogate showed no recovery. |
| Q | Qualifier |
| RL | Reporting Limit For paint chips, the RL is 0.008% by wt. (equiv. to 80 mg/kg, or ppm) based upon a minimum sample weight of 0.25 grams. For soils, the RL is 40 mg/kg (ppm) based upon a minimum sample weight of 0.5 grams. For dust wipes, the RL is 10 µg/wipe; reporting units of µg/sq. ft. are not validated by the lab based upon data provided by non-lab personnel. |
| Wet | Sample is not dry weight corrected. |
| Measurement of uncertainty and any applicable definitions of method modifications are available upon request. Per EPA NLLAP policy, sample results are not blank corrected. | |

**EMSL Analytical, Inc.**

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax: 856-786-5974
EMSL-CIN-01

EMSL Order ID: 012434698
LIMS Reference ID: AC34698
EMSL Customer ID: ATC62

Attention: Brian Williams
Atlas Technical [ATC62]
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070
brian.williams@oneatlas.com

Project Name: Worcester East Middle School - 420 Grafton St
Worcester / 183WPS2496

Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 10/24/2024 10:15
Reported: 10/25/2024 14:11

Owen McKenna Laboratory Manager or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. QC sample results are within quality control criteria and met method specifications unless otherwise noted. All results for soil samples are reported on a dry weight basis, unless otherwise noted.

Analysis following EMSL SOP for the Determination of Environmental Lead by FLAA. The laboratory has a reporting limit of 0.008% by wt., based upon a minimum sample weight of 0.25g submitted to the lab, and is not responsible for any result or reporting limit provided in mg/cm² since it is dependent upon an area value provided by non-lab personnel. A "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty and definitions of modifications are available upon request. Results in this report are not blank corrected unless specified.



EMSL Analytical, Inc.

528 Mineola Avenue, Carle Place, NY, 11514
Telephone: 516.997.7251 Fax: 856-786-5974
EMSL-CP-06

EMSL Order ID: 062456881
LIMS Reference ID: EC56881
EMSL Customer ID: ATC62

Attention: Edward Kolodziej
Atlas Technical [ATC62]
73 William Franks Drive
West Springfield, MA 01089
(413) 426-6819
edward.kolodziej@oneatlas.com

Project Name: WEMS - Window Project: Worcester Public
Schools: Worcester Middle School

Customer PO:
EMSL Sales Rep: Christopher Brandt
Received: 10/10/2024 19:04
Reported: 10/11/2024 10:57

Analytical Results

| Analyte | Results | RL | Weight(g) | Prep Date & Tech | Prep Method | Analysis Date & Analyst | Analytical Method | Q | DF |
|---|------------|------------|-----------|---------------------|--------------|----------------------------|-------------------------------|---|-----|
| Client Sample ID: Pb-01/Exterior - Metal Window Frame (6-Light) | | | | | | | Date Sampled: 10/08/24 | | |
| Matrix: Chips | | | | | | | LIMS Reference ID: EC56881-01 | | |
| Lead | 14 % wt | 0.71 % wt | 0.283 | 10/10/24 SxW | SW-846 3050B | 10/11/24 BP | SW 846-7000B | D | 100 |
| Sample Comments: | | | | | | | | | |
| Client Sample ID: Pb-02/Exterior - Metal Entrance Door | | | | | | | Date Sampled: 10/08/24 | | |
| Matrix: Chips | | | | | | | LIMS Reference ID: EC56881-02 | | |
| Lead | 33 % wt | 0.70 % wt | 0.2867 | 10/10/24 SxW | SW-846 3050B | 10/11/24 BP | SW 846-7000B | D | 100 |
| Sample Comments: | | | | | | | | | |
| Client Sample ID: Pb-03/Interior - Brick Wall | | | | | | | Date Sampled: 10/08/24 | | |
| Matrix: Chips | | | | | | | LIMS Reference ID: EC56881-03 | | |
| Lead | 0.020 % wt | 0.008 % wt | 0.2769 | 10/10/24 SxW | SW-846 3050B | 10/11/24 BP | SW 846-7000B | | 1 |
| Sample Comments: | | | | | | | | | |

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edward.kolodziej@oneatlas.com

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Schools: Worcester Middle School
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Certified Analyses included in this Report

| Analyte | Certifications |
|-------------------------------------|----------------|
| <i>SW 846-7000B in Chips</i> | |
| Lead | 06-AIHA LAP |

List of Certifications

| Code | Description | Number | Expires |
|--------------------|--|---------|------------|
| 06-AIHA LAP | EMSL Analytical, Inc. Carle Place, NY AIHA-LAP, LLC-ELLAP Accredited | 102344 | 08/01/2026 |
| 06-NYSDOH | New York State Department of Health | 11469 | 04/01/2025 |
| 06-NYSELAP | NY NYS ELAP | 11469 | 04/01/2025 |
| 06-California ELAP | California Water Boards | 2339 | 04/01/2025 |
| 06-CTDPH | Connecticut Department of Public Health | PH-0249 | 03/31/2025 |

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| Q | Qualifier |
| RL | Reporting Limit |
| Wet | Sample is not dry weight corrected. |

Measurement of uncertainty and any applicable definitions of method modifications are available upon request. Per EPA NLLAP policy, sample results are not blank corrected.

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James Han Laboratory Manager or other approved signatory

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