REPORT
FOR
HAZARDOUS MATERIALS DETERMINATION
SURVEY
AT THE
EARLY PRE-SCHOOL CHILDHOOD PRE-SCHOOL
NEWTON, MASSACHUSETTS

PROJECT NO: 219 014.00

Survey Dates:
April 20, 2018
February 25, 2019

SURVEY CONDUCTED BY:

UNIVERSAL ENVIRONMENTAL CONSULTANTS
12 BREWSTER ROAD
FRAMINGHAM, MA 01702

UEC universal environmental consultants

March 1, 2019

Ms. Meryl Nistler
Arrowstreet
10 Post Office Square
Boston, MA 02109

Reference: Hazardous Materials Determination Survey
Newton Early Pre-School Childhood Pre-School, Newton, MA

Dear Ms. Nistler:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

Enclosed please find the report for limited hazardous materials determination survey at the Newton Early Pre-School Childhood Pre-School, Newton, MA.

Please do not hesitate to call should you have any questions.

Very truly yours,

Universal Environmental Consultants

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Ammar M. Dieb
President

UEC:\219 014.00\Newton Early Pre-School Childhood Pre-School Report.DOC

Enclosure

1.0 INTRODUCTION:

UEC has been providing comprehensive asbestos services since 2001 and has completed projects throughout New England. We have completed projects for a variety of clients including commercial, industrial, municipal, and public and private schools. We maintain appropriate asbestos licenses and staff with a minimum of thirty years of experience.

UEC was contracted by Arrowstreet to conduct the following services at the Newton Early Pre-School Childhood Pre-School, Newton, MA:

- Asbestos Containing Materials (ACM) determination inspection and sampling;
- Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures inspection;
- PCB's Caulking Inspection;
- Lead Based Paint (LBP) inspection;
- Mercury in Rubber Flooring inspection and sampling;
- Underground Oil Storage Tank inspection.

The scope of work included the inspection of accessible ACM, collection of bulk samples from materials suspected to contain asbestos, determination and quantities of types of ACM found and cost estimates for remediation. A comprehensive survey per the Environmental Protection Agency (EPA) NESHAP regulation would be required prior to any renovation or demolition activities.

Bulk samples analyses for asbestos were performed using the standard Polarized Light Microscopy (PLM) Method in accordance with EPA standard. Bulk samples were collected by Massachusetts licensed asbestos inspectors Mr. Jason Becotte (AI-034963) and Mr. Leonard J. Busa (AI-030673) and analyzed by Massachusetts licensed laboratories EMSL and Asbestos Identification Laboratory, Woburn, MA.

Samples results are attached.

2.0 FINDINGS:

Asbestos Containing Materials (ACM):

The regulations for asbestos inspection are based on representative sampling. It would be impractical and costly to sample all materials in all areas. Therefore, representative samples of each homogenous area were collected and analyzed or assumed.

All suspect materials were grouped into homogenous areas. A homogenous area is one in which the materials are evenly mixed and similar in appearance and texture throughout. A homogeneous area shall be determined to contain asbestos based on findings that the results of at least one sample collected from that area shows that asbestos is present in an amount >1% in accordance with EPA regulations. All suspect materials that contain any amount of asbestos must be considered asbestos if it is scheduled to be removed per the Department of Environmental Protection (DEP) regulations.

Number of Samples Collected

April 20, 2018
Eighty-one (81) bulk samples were collected from the following materials suspected of containing asbestos:

Type and Location of Material

1. Generator exhaust insulation at boiler room
2. Generator exhaust insulation at boiler room

3. Generator exhaust insulation at boiler room
4. Tank insulation at boiler room
5. Tank insulation at boiler room
6. Tank insulation at boiler room
7. Boiler exhaust insulation at boiler room
8. Boiler exhaust insulation at boiler room
9. Boiler exhaust insulation at boiler room
10. Hard joint insulation at boiler room
11. Hard joint insulation at boiler room
12. Hard joint insulation at boiler room
13. Generator duct vibration cloth at boiler room
14. Generator duct vibration cloth at boiler room
15. Spray-on ceiling at boiler room
16. Spray-on ceiling at boiler room
17. Spray-on ceiling at boiler room
18. Spray-on ceiling at boiler room
19. Spray-on ceiling at boiler room
20. Rough ceiling plaster at cafeteria storage room closet
21. Rough ceiling plaster at cafeteria storage room closet
22. Rough ceiling plaster at auditorium mechanical room
23. Rough ceiling plaster at auditorium mechanical room
24. Rough ceiling plaster at auditorium mechanical room
25. Textured ceiling plaster at auditorium
26. Textured ceiling plaster at auditorium
27. Textured ceiling plaster at auditorium entry hall
28. Textured ceiling plaster at auditorium entry hall
29. Textured ceiling plaster at auditorium lobby
30. Textured ceiling plaster at auditorium lobby
31. Textured ceiling plaster at auditorium lobby
32. Hard wall plaster at room 101
33. Hard wall plaster at room 104
34. Hard wall plaster at projector room
35. Hard wall plaster at room 204
36. Hard wall plaster at room 301
37. Hard wall plaster at room 306
38. Hard wall plaster at room 307
39. Hard ceiling plaster at projector room
40. Hard ceiling plaster at second floor custodian closet
41. Hard ceiling plaster at third floor custodian closet
42. 2’ x 2’ Suspended acoustical ceiling tile at auditorium side stairwell
43. 2’ x 2’ Suspended acoustical ceiling tile at convent stairwell
44. 1’ x 1’ Acoustical ceiling tile at room 203
45. 1’ x 1’ Acoustical ceiling tile at third floor hallway
46. Joint compound at room 204
47. Joint compound at room 301
48. Science lab counter top at room 204
49. Science lab counter top at room 204
50. Black sink coating at room 201A
51. Black sink coating at library
52. Interior window glazing caulking at library
53. Interior window glazing caulking at second floor hallway
54. Tan 12” x 12” vinyl floor tile at room 101
55. Tan 12” x 12” vinyl floor tile at cafeteria
56. Yellow glue for tan 12” x 12” vinyl floor tile at room 101

57. Yellow glue for tan 12” x 12” vinyl floor tile at cafeteria
58. Green 12” x 12” vinyl floor tile type I at room 110
59. Green 12” x 12” vinyl floor tile type I at room 203
60. Green 12” x 12” vinyl floor tile type II at room 107
61. Green 12” x 12” vinyl floor tile type II at room 107
62. Beige 12” x 12” vinyl floor tile type I at room 201A
63. Beige 12” x 12” vinyl floor tile type I at room 206
64. Yellow glue for beige 12” x 12” vinyl floor tile type I at room 201A
65. Yellow glue for beige 12” x 12” vinyl floor tile type I at room 206
66. White 12” x 12” vinyl floor tile at room 209
67. White 12” x 12” vinyl floor tile at room 209
68. Light grey 12” x 12” vinyl floor tile at room 302
69. Light grey 12” x 12” vinyl floor tile at room 307
70. Black mastic for light grey 12” x 12” vinyl floor tile at room 302
71. Black mastic for light grey 12” x 12” vinyl floor tile at room 307
72. Blue 12” x 12” vinyl floor tile at basement entry
73. Blue 12” x 12” vinyl floor tile at auditorium side stairwell
74. 9” x 9” Vinyl floor tile at room 207
75. 9” x 9” Vinyl floor tile at third floor closet
76. Mastic for 9” x 9” vinyl floor tile at room 207
77. Mastic for 9” x 9” vinyl floor tile at third floor closet
78. Brown 9” x 9” vinyl floor tile at second floor main office closet
79. Brown 9” x 9” vinyl floor tile at convent stairwell
80. Mastic for brown 9” x 9” vinyl floor tile at second floor main office closet
81. Mastic for brown 9” x 9” vinyl floor tile at convent stairwell

Samples Results

Type and Location of Material	**Sample Result**
1. Generator exhaust insulation at boiler room	10% Asbestos
2. Generator exhaust insulation at boiler room	10% Asbestos
3. Generator exhaust insulation at boiler room	10% Asbestos
4. Tank insulation at boiler room	40% Asbestos
5. Tank insulation at boiler room	40% Asbestos
6. Tank insulation at boiler room	40% Asbestos
7. Boiler exhaust insulation at boiler room	40% Asbestos
8. Boiler exhaust insulation at boiler room	40% Asbestos
9. Boiler exhaust insulation at boiler room	40% Asbestos
10. Hard joint insulation at boiler room	No Asbestos Detected
11. Hard joint insulation at boiler room	No Asbestos Detected
12. Hard joint insulation at boiler room	No Asbestos Detected
13. Generator duct vibration cloth at boiler room	90% Asbestos
14. Generator duct vibration cloth at boiler room	90% Asbestos
15. Spray-on ceiling at boiler room	55% Asbestos
16. Spray-on ceiling at boiler room	40% Asbestos
17. Spray-on ceiling at boiler room	40% Asbestos
18. Spray-on ceiling at boiler room	40% Asbestos
19. Spray-on ceiling at boiler room	40% Asbestos
20. Rough ceiling plaster at cafeteria storage room closet	No Asbestos Detected
21. Rough ceiling plaster at cafeteria storage room closet	No Asbestos Detected
22. Rough ceiling plaster at auditorium mechanical room	No Asbestos Detected
23. Rough ceiling plaster at auditorium mechanical room	No Asbestos Detected
24. Rough ceiling plaster at auditorium mechanical room	No Asbestos Detected

25. Textured ceiling plaster at auditorium	15% Asbestos
26. Textured ceiling plaster at auditorium	10% Asbestos
27. Textured ceiling plaster at auditorium entry hall	15% Asbestos
28. Textured ceiling plaster at auditorium entry hall	15% Asbestos
29. Textured ceiling plaster at auditorium lobby	No Asbestos Detected
30. Textured ceiling plaster at auditorium lobby	10% Asbestos
31. Textured ceiling plaster at auditorium lobby	No Asbestos Detected
32. Hard wall plaster at room 101	No Asbestos Detected
33. Hard wall plaster at room 104	No Asbestos Detected
34. Hard wall plaster at projector room	No Asbestos Detected
35. Hard wall plaster at room 204	No Asbestos Detected
36. Hard wall plaster at room 301	No Asbestos Detected
37. Hard wall plaster at room 306	No Asbestos Detected
38. Hard wall plaster at room 307	No Asbestos Detected
39. Hard ceiling plaster at projector room	No Asbestos Detected
40. Hard ceiling plaster at second floor custodian closet	No Asbestos Detected
41. Hard ceiling plaster at third floor custodian closet	No Asbestos Detected
42. 2’ x 2’ Suspended acoustical ceiling tile at auditorium side stairwell	No Asbestos Detected
43. 2’ x 2’ Suspended acoustical ceiling tile at convent stairwell	No Asbestos Detected
44. 1’ x 1’ Acoustical ceiling tile at room 203	No Asbestos Detected
45. 1’ x 1’ Acoustical ceiling tile at third floor hallway	No Asbestos Detected
46. Joint compound at room 204	No Asbestos Detected
47. Joint compound at room 301	No Asbestos Detected
48. Science lab counter top at room 204	No Asbestos Detected
49. Science lab counter top at room 204	No Asbestos Detected
50. Black sink coating at room 201A	2% Asbestos
51. Black sink coating at library	2% Asbestos
52. Interior window glazing caulking at library	<1% Asbestos
53. Interior window glazing caulking at second floor hallway	<1% Asbestos
54. Tan 12” x 12” vinyl floor tile at room 101	No Asbestos Detected
55. Tan 12” x 12” vinyl floor tile at cafeteria	No Asbestos Detected
56. Yellow glue for tan 12” x 12” vinyl floor tile at room 101	No Asbestos Detected
57. Yellow glue for tan 12” x 12” vinyl floor tile at cafeteria	No Asbestos Detected
58. Green 12” x 12” vinyl floor tile type I at room 110	No Asbestos Detected
59. Green 12” x 12” vinyl floor tile type I at room 203	No Asbestos Detected
60. Green 12” x 12” vinyl floor tile type II at room 107	No Asbestos Detected
61. Green 12” x 12” vinyl floor tile type II at room 107	No Asbestos Detected
62. Beige 12” x 12” vinyl floor tile type I at room 201A	No Asbestos Detected
63. Beige 12” x 12” vinyl floor tile type I at room 206	No Asbestos Detected
64. Yellow glue for beige 12” x 12” vinyl floor tile type I at room 201A	No Asbestos Detected
65. Yellow glue for beige 12” x 12” vinyl floor tile type I at room 206	No Asbestos Detected
66. White 12” x 12” vinyl floor tile at room 209	No Asbestos Detected
67. White 12” x 12” vinyl floor tile at room 209	No Asbestos Detected
68. Light grey 12” x 12” vinyl floor tile at room 302	No Asbestos Detected
69. Light grey 12” x 12” vinyl floor tile at room 307	No Asbestos Detected
70. Black mastic for light grey 12” x 12” vinyl floor tile at room 302	No Asbestos Detected
71. Black mastic for light grey 12” x 12” vinyl floor tile at room 307	No Asbestos Detected
72. Blue 12” x 12” vinyl floor tile at basement entry	No Asbestos Detected
73. Blue 12” x 12” vinyl floor tile at auditorium side stairwell	No Asbestos Detected
74. 9” x 9” Vinyl floor tile at room 207	6% Asbestos
75. 9” x 9” Vinyl floor tile at third floor closet	5% Asbestos
76. Mastic for 9” x 9” vinyl floor tile at room 207	4% Asbestos
77. Mastic for 9” x 9” vinyl floor tile at third floor closet	7% Asbestos
78. Brown 9” x 9” vinyl floor tile at second floor main office closet	10% Asbestos

79.	Brown 9” x 9” vinyl floor tile at convent stairwell	8% Asbestos
80.	Mastic for brown 9” x 9” vinyl floor tile at second floor main office closet	8% Asbestos
81.	Mastic for brown 9” x 9” vinyl floor tile at convent stairwell	7% Asbestos

February 25, 2019
Twenty (20) bulk samples were collected from the following materials suspected of containing asbestos:

Type and Location of Material

1. Flashing protruding from outside wall
2. Black glue in fiberglass insulated duct at large mechanical room
3. Black glue in fiberglass insulated duct at large mechanical room
4. Linoleum floor covering at room 301
5. Mastic for linoleum floor covering at room 301
6. Linoleum floor covering at room 202
7. Mastic for linoleum floor covering at room 202
8. Old vinyl baseboard at first floor hallway
9. Mastic for old vinyl baseboard at first floor hallway
10. Old vinyl baseboard at second floor hallway
11. Mastic for old vinyl baseboard at second floor hallway
12. 1’ x 1’ Acoustical ceiling tile at second floor hallway
13. 1’ x 1’ Acoustical ceiling tile at first floor kitchen
14. Grey 9” x 9” vinyl floor tile at stairwell by door 11
15. Mastic for grey 9” x 9” vinyl floor tile at stairwell by door 11
16. Soft ceiling plaster at stairwell by room 301
17. Glue daub for 1’ x 1’ acoustical ceiling tile at first floor
18. Glue daub for 1’ x 1’ acoustical ceiling tile at first floor
19. Black paper under hardwood floor at stage
20. Black paper under hardwood floor at stage

Samples Results

	Type and Location of Material	**Sample Result**
1.	Flashing protruding from outside wall	No Asbestos Detected
2.	Black glue in fiberglass insulated duct at large mechanical room	No Asbestos Detected
3.	Black glue in fiberglass insulated duct at large mechanical room	No Asbestos Detected
4.	Linoleum floor covering at room 301	No Asbestos Detected
5.	Mastic for linoleum floor covering at room 301	No Asbestos Detected
6.	Linoleum floor covering at room 202	No Asbestos Detected
7.	Mastic for linoleum floor covering at room 202	No Asbestos Detected
8.	Old vinyl baseboard at first floor hallway	No Asbestos Detected
9.	Mastic for old vinyl baseboard at first floor hallway	No Asbestos Detected
10.	Old vinyl baseboard at second floor hallway	No Asbestos Detected
11.	Mastic for old vinyl baseboard at second floor hallway	No Asbestos Detected
12.	1’ x 1’ Acoustical ceiling tile at second floor hallway	No Asbestos Detected
13.	1’ x 1’ Acoustical ceiling tile at first floor kitchen	No Asbestos Detected
14.	Grey 9” x 9” vinyl floor tile at stairwell by door 11	3% Asbestos
15.	Mastic for grey 9” x 9” vinyl floor tile at stairwell by door 11	5% Asbestos
16.	Soft ceiling plaster at stairwell by room 301	3% Asbestos
17.	Glue daub for 1’ x 1’ acoustical ceiling tile at first floor	No Asbestos Detected
18.	Glue daub for 1’ x 1’ acoustical ceiling tile at first floor	No Asbestos Detected
19.	Black paper under hardwood floor at stage	No Asbestos Detected
20.	Black paper under hardwood floor at stage	No Asbestos Detected

Observations and Conclusions:
All ACM must be removed by a Massachusetts licensed asbestos abatement contractor under the supervision of a Massachusetts licensed project monitor prior to any renovation or demolition activities that might disturb the ACM.

1. Generator exhaust insulation at boiler room was found to contain asbestos.
2. Tank insulation at boiler room was found to contain asbestos.
3. Boiler exhaust insulation at boiler room was found to contain asbestos.
4. Generator duct vibration cloth at boiler room was found to contain asbestos.
5. Spray-on ceiling at boiler room was found to contain asbestos.
6. Textured ceiling plaster at auditorium area was found to contain asbestos.
7. Black sink coating was found to contain asbestos.
8. Interior window glazing caulking was found to contain <1% asbestos. Per DEP the caulking would have to be disposed as asbestos.
9. Interior caulking within windows in doors was assumed to contain asbestos.
10. 9" x 9" Vinyl floor tile was found to contain asbestos.
11. Mastic for 9" x 9" vinyl floor tile was found to contain asbestos.
12. Brown 9" x 9" vinyl floor tile was found to contain asbestos.
13. Mastic for brown 9" x 9" vinyl floor tile was found to contain asbestos.
14. Multiple layers of flooring exist and old 9" x 9" vinyl floor tile was assumed to contain asbestos.
15. Soft ceiling plaster was found to contain asbestos.
16. Ceramic tiles grout and adhesive were assumed to contain asbestos.
17. Glue holding blackboard was assumed to contain asbestos.
18. Insulation inside old incinerator was assumed to contain asbestos.
19. Insulation inside boilers was assumed to contain asbestos.
20. Exterior window framing and glazing caulking at the vacant portion of the building was previously found to contain asbestos.
21. Exterior door framing caulking at the vacant portion of the building was previously found to contain asbestos.
22. Exterior unit vent grille caulking at the vacant portion of the building was previously found to contain asbestos.
23. Underground sewer pipes were assumed to contain asbestos.
24. Damproofing on exterior and foundation walls was assumed to contain asbestos. The demolition contractor will have to segregate the ACM from non-ACM building surfaces for proper disposal in an EPA approved landfill that does not recycle. A non-traditional abatement plan would have to be prepared and submitted to the DEP for approval.
25. Testing was not performed of the roof to avoid damage. Therefore, roofing was assumed to contain asbestos. However, roofing does not have to be removed by a licensed asbestos abatement contractor. Roofing material does not have to be removed by a licensed asbestos contractor. However, the General Contractor must comply with OSHA regulation during demolition and with state regulations for proper disposal. A non-traditional abatement plan would have to be prepared and submitted to the DEP for approval.
26. All other suspect materials were found not to contain asbestos. Hidden ACM may be found during renovation and demolition activities.

Polychlorinated Biphenyls (PCB's)-Electrical Equipment and Light Fixtures:
Observations and Conclusions:
Visual inspection of various equipments such as light fixtures, thermostats, exit signs and switches was performed for the presence of PCB's and mercury. Ballasts in light fixtures were assumed to contain PCB's. Tubes in light fixtures, thermostats, signs and switches were assumed to contain mercury. It would be very costly to test those equipments and dismantling would be required to access. Therefore, the above mentioned equipments should be considered to contain PCB's and mercury and disposed in an EPA approved landfill as part of the demolition project.

PCB's in Caulking:
PCB's are manmade chemicals that were widely produced and distributed across the country from the 1950s to 1977 until the production of PCB's was banned by the US Environmental Protection Agency (EPA) law which became effective in 1978. PCB's are a class of chemicals made up of more than 200 different compounds. PCB's are non-flammable, stable, and good insulators so they were widely used in a variety of products including electrical transformers and capacitors, cable and wire coverings, sealants and caulking, and household products such as television sets and fluorescent light fixtures. Because of their chemical properties, PCB's are not very soluble in water and they do not break down easily in the environment. PCB's also do not readily evaporate into air but tend to remain as solids or thick liquids. Even though PCB's have not been produced or used in the country for more than 30 years, they are still present in the environment in the air, soil, and water and in our food. EPA requires that all construction waste including caulking be disposed as PCB's if PCB's level exceed 50 mg/kg (ppm). An abatement plan might also be required.

Observations and Conclusions:
Building materials and caulking were previously found to contain PCB's. Exterior brick was previously tested, and PCB's was found to have leached into the brick.

Lead Based Paint (LBP):
Observations and Conclusions:
LBP was assumed to exist on painted surfaces in all areas constructed prior to 1978. A school is not considered a regulated facility. All LBP activities performed, including waste disposal, should be in accordance with applicable Federal, State, or local laws, ordinances, codes or regulations governing evaluation and hazard reduction. In the event of discrepancies, the most protective requirements prevail. These requirements can be found in OSHA 29 CFR 1926-Construction Industry Standards, 29 CFR 1926.62-Construction Industry Lead Standards, 29 CFR 1910.1200-Hazards Communication, 40 CFR 261-EPA Regulations. According to OSHA, any amount of LBP triggers compliance.

Mercury in Rubber Flooring:
Observations and Conclusions:
No rubber floor exists in the school.

Underground Oil Storage Tank:
Observations and Conclusions:
One underground storage oil tank exists. No records were found to review size or condition.

COST ESTIMATES:
The cost includes removal and disposal of all accessible ACM and an allowance for removal of inaccessible or hidden ACM that may be found during the demolition or renovation project. **The estimated costs do not include PCB's related work.**

Location	Material	Approximate Quantity	Cost Estimate ($)
Throughout	9" x 9" Vinyl Floor Tile and Mastic	15,000 SF	75,000.00
	Multiple Layers of Flooring	3,500 SF	21,000.00
	Interior Windows	135 Total	27,000.00
	Interior Doors with Windows	125 Total	25,000.00
	Chalkboards/Tackboards	290 Total	72,500.00
	Sinks	15 Total	1,500.00
	Hidden and Miscellaneous HAZ MAT	Unknown	75,000.00
Various Locations	Soft/Textured Ceiling Plaster	11,000 SF	220,000.00

Location	Material	Approximate Quantity	Cost Estimate ($)
Kitchen	Old Incinerator	1 Total	7,500.00
Boiler Room	Tank Insulation	120 SF	3,000.00
	Duct Insulation	300 SF	7,500.00
	Generator Exhaust Insulation	25 LF	1,000.00
	Vibration Cloth	16 LF	700.00
	Fireproofing	2,200 SF	44,000.00
	Boilers	2 Total	18,000.00
Garage	Fireproofing	2,000 SF	40,000.00
Exterior	Windows (Vacant Building)	235 Total	70,500.00
	Doors (Vacant Building)	10 Total	2,000.00
	Unit Vent Grills (Vacant Building)	2 Total	500.00
Exterior	Transite Sewer Pipes	Unknown[1]	50,000.00
	Roofing Materials	60,000 SF[2]	180,000.00
	Damproofing on Exterior/Foundation Walls	Unknown[1]	675,000.00
	Oil Tank	1 Total	25,000.00
Estimated costs for ACM Inspection and Testing Services			17,500.00
Estimated costs for Design, Construction Monitoring and Air Sampling Services			165,800.00
		Total:	**1,825,000.00**

[1]: Part of total demolition and Excavation.

[2]: Estimated.

4.0 DESCRIPTION OF SURVEY METHODS AND LABORATORY ANALYSES:

Asbestos samples were collected using a method that prevents fiber release. Homogeneous sample areas were determined by criteria outlined in EPA document 560/5-85-030a.

Bulk material samples were analyzed using PLM and dispersion staining techniques with EPA method 600/M4-82-020.

5.0 LIMITATIONS AND CONDITIONS:

This report has been completed based on visual and physical observations made and information available at the time of the site visits, as well as an interview with the Owner's representatives. This report is intended to be used as a summary of available information on existing conditions with conclusions based on a reasonable and knowledgeable review of evidence found in accordance with normally accepted industry standards, state and federal protocols, and within the scope and budget established by the client. Any additional data obtained by further review must be reviewed by UEC and the conclusions presented herein may be modified accordingly.

This report and attachments, prepared for the exclusive use of Owner for use in an environmental evaluation of the subject site, are an integral part of the inspections and opinions should not be formulated without reading the report in its entirety. No part of this report may be altered, used, copied or relied upon without prior written permission from UEC, except that this report may be conveyed in its entirety to parties associated with Owner for this subject study.

Inspected By:

Jason Becotte
Asbestos Inspector (AI-034963)

Inspected By:

Leonard J. Busa
Asbestos Inspector (AI-030673)

OrderID: 131802039

131802039

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

PLM

48-hour TAT

Town/City: Newton, MA Building Name Aquinas School

Sample	Result	Description of Material	Sample Location
1		Generater exhaust Insulation	Boiler room
2		"	"
3		"	"
4		Tank Insulation	Boiler room
5		"	"
6		"	"
7		Boiler exhaust Insulation	Boiler room
8		"	"
9		"	"
10		Hard Joint Pipe insulation	Boiler room
11		"	"
12		"	Auditorium mechanical room
13		Generater duct vibration cloth	Boiler room
14		"	"
15		Spray-on ceiling	Boiler room
16		"	"
17		"	"
18		"	"
19		"	"
20		Rough Plaster	Cafeteria Storage Closet

Reported By: Jason Becotte Date: 4-20-18 Due Date: ----------

Received By: ---------- Date: ----------

REC'D EMSL-BOSTON APR 20 2018

OrderID: 131802039

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PLM

Town/City: Newton, MA Building Name Aquinas School

Sample	Result	Description of Material	Sample Location
21		Rough Plaster	Cafeteria storage closet
22		"	Auditorium Mechanical Room
23		"	"
24		"	"
25		Textured ceiling plaster	Auditorium
26		"	"
27		"	Auditorium entry hall
28		"	"
29		"	Auditorium Lobby rear exit hallway
30		"	"
31		"	"
32		Hard wall Plaster	Room 101
33		"	Room 104
34		"	Projector room
35		"	Room 204
36		"	Room 301
37		"	Room 306
38		"	Room 307
39		Hard ceiling plaster	Projector room
40		"	2nd fl. Custodian closet

Reported By: Jason Becotte Date: 4-20-18 Due Date: ----------

Received By: ---------- Date: ----------

REC'D 11:14:00 EMSL-BOSTON APR 20 2018

OrderID: 131802039

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PLM

Town/City: Newton, MA Building Name: Aquinas School

Sample	Result	Description of Material	Sample Location
41		~~Hard~~ Hard ceiling Plaster	3rd fl. Custodian Closet
42		2x2 SAT	Auditorium side stairwell
43		" "	Convent Stairwell
44		1x1 AT ceiling	Room 203
45		" "	3rd fl. Hallway
46		Joint Compound	Room 204
47		" "	Room 301
48		Science lab countertop	Room 204
49		" "	Room 204
50		Black sink coating	Room 201A Faculty
51		" "	Library
52		Interior window glaze	Library
53		" "	3rd fl. Hallway
54		Tan 12x12 VFT	Room 101
55		" "	Cafeteria
56		Yellow glue	On #54
57		" "	on #55
58		Green 12x12 VFT Type 1	Room 110
59		" "	Room 203
60		Green 12x12 VFT Type 2	Room 107

Reported By: Jason Beattie Date: 4-20-18 Due Date: ----------

Received By: ---------- Date: ----------

REC'D 11:14:00 EMSL-BOSTON APR 20 2018

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PLM

Town/City: Newton, MA Building Name: Aquinas School

Sample	Result	Description of Material	Sample Location
61		Green 12x12 VFT Type 2	Room 107
62		Beige 12x12 VFT	Room 201 A Faculty
63		" "	Room 206
64		Yellow glue	on # 62
65		" "	on # 63
66		White 12x12 VFT	Room 209
67		" "	"
68		Light Gray 12x12 VFT	Room 302
69		" "	Room 307
70		Black mastic	on # 68
71		" "	on # 69
72		Blue 12x12 VFT	Basement entry
73		" "	Auditorium side stairwell
74		White w/colors 9x9 VFT	Room 207
75		" "	3rd Fl. Dean office closet
76		Black mastic	on # 74
77		" "	on # 75
78		Brown 9x9 VFT	2nd fl. main office closet
79		" "	Convent stair well
80		Black mastic	on # 78
81		" "	on # 79

Reported By: Jason Beattie Date: 4-20-18 Due Date:

Received By: Date:

REC'D 11 14:00 EMSL-BOSTON APR 20 2018

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order:	131802039
Customer ID:	UEC63
Customer PO:	
Project ID:	

Attention:	Ammar Dieb	**Phone:**	(617) 984-9772
	Universal Environmental Consultants	**Fax:**	(508) 628-5488
	12 Brewster Road	**Received Date:**	04/20/2018 2:00 PM
	Framingham, MA 01702	**Analysis Date:**	04/23/2018 - 04/24/2018
		Collected Date:	
Project:	Aquinas School - Newton, MA		

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1 *131802039-0001*	Boiler Room - Generator Exhaust Insulation	Pink Fibrous Homogeneous		90% Non-fibrous (Other)	10% Amosite
2 *131802039-0002*	Boiler Room - Generator Exhaust Insulation	Gray Fibrous Homogeneous	50% Min. Wool	40% Non-fibrous (Other)	10% Chrysotile
3 *131802039-0003*	Boiler Room - Generator Exhaust Insulation	Gray Fibrous Homogeneous	50% Min. Wool	40% Non-fibrous (Other)	10% Chrysotile
4 *131802039-0004*	Boiler Room - Tank Insulation	Gray Fibrous Homogeneous		60% Non-fibrous (Other)	40% Chrysotile
5 *131802039-0005*	Boiler Room - Tank Insulation	Gray Fibrous Homogeneous		60% Non-fibrous (Other)	40% Chrysotile
6 *131802039-0006*	Boiler Room - Tank Insulation	Gray Fibrous Homogeneous	15% Glass	45% Non-fibrous (Other)	40% Chrysotile
7 *131802039-0007*	Boiler Room - Boiler Exhaust Insulation	Gray Fibrous Homogeneous		60% Non-fibrous (Other)	40% Chrysotile
8 *131802039-0008*	Boiler Room - Boiler Exhaust Insulation	Gray Fibrous Homogeneous		60% Non-fibrous (Other)	40% Chrysotile
9 *131802039-0009*	Boiler Room - Boiler Exhaust Insulation	Gray Fibrous Homogeneous		60% Non-fibrous (Other)	40% Chrysotile
10 *131802039-0010*	Boiler Room - Hard Joint Pipe Insulation	Gray Fibrous Homogeneous	50% Min. Wool	50% Non-fibrous (Other)	None Detected
11 *131802039-0011*	Boiler Room - Hard Joint Pipe Insulation	Gray Fibrous Homogeneous	50% Min. Wool	50% Non-fibrous (Other)	None Detected
12 *131802039-0012*	Auditorium Mechanical Room - Hard Joint Pipe Insulation	Gray Fibrous Homogeneous	50% Min. Wool	50% Non-fibrous (Other)	None Detected
13 *131802039-0013*	Boiler Room - Generator Duct Vibration Cloth	Gray Fibrous Homogeneous		10% Non-fibrous (Other)	90% Chrysotile
14 *131802039-0014*	Boiler Room - Generator Duct Vibration Cloth	Gray Fibrous Homogeneous		10% Non-fibrous (Other)	90% Chrysotile
15 *131802039-0015*	Boiler Room - Spray-on Ceiling	White Fibrous Homogeneous	20% Min. Wool	25% Non-fibrous (Other)	50% Amosite 5% Chrysotile
16 *131802039-0016*	Boiler Room - Spray-on Ceiling	Gray Fibrous Homogeneous	50% Min. Wool	10% Non-fibrous (Other)	40% Amosite

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EMSL Order: 131802039
Customer ID: UEC63
Customer PO:
Project ID:

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
17 *131802039-0017*	Boiler Room - Spray-on Ceiling	Gray Fibrous Homogeneous	50% Min. Wool	10% Non-fibrous (Other)	40% Amosite
18 *131802039-0018*	Boiler Room - Spray-on Ceiling	Gray Fibrous Homogeneous	50% Min. Wool	10% Non-fibrous (Other)	40% Amosite
19 *131802039-0019*	Boiler Room - Spray-on Ceiling	Gray Fibrous Homogeneous	50% Min. Wool	10% Non-fibrous (Other)	40% Amosite
20 *131802039-0020*	Cafeteria Storage Closet - Rough Plaster	Gray Non-Fibrous Homogeneous		75% Quartz 25% Non-fibrous (Other)	None Detected
21 *131802039-0021*	Cafeteria Storage Closet - Rough Plaster	Gray Non-Fibrous Homogeneous		75% Quartz 25% Non-fibrous (Other)	None Detected
22 *131802039-0022*	Auditorium Mechanical Room - Rough Plaster	Gray Non-Fibrous Homogeneous		75% Quartz 25% Non-fibrous (Other)	None Detected
23 *131802039-0023*	Auditorium Mechanical Room - Rough Plaster	Gray Non-Fibrous Homogeneous		75% Quartz 25% Non-fibrous (Other)	None Detected
24 *131802039-0024*	Auditorium Mechanical Room - Rough Plaster	Gray Non-Fibrous Homogeneous		50% Quartz 50% Non-fibrous (Other)	None Detected
25 *131802039-0025*	Auditorium - Textured Ceiling Plaster	Gray Fibrous Homogeneous		40% Ca Carbonate 45% Non-fibrous (Other)	15% Chrysotile
26 *131802039-0026*	Auditorium - Textured Ceiling Plaster	Gray Fibrous Homogeneous		20% Ca Carbonate 70% Non-fibrous (Other)	10% Chrysotile
27 *131802039-0027*	Auditorium Entry Hall - Textured Ceiling Plaster	Gray Fibrous Homogeneous		20% Ca Carbonate 65% Non-fibrous (Other)	15% Chrysotile
28 *131802039-0028*	Auditorium Entry Hall - Textured Ceiling Plaster	Gray Fibrous Homogeneous		20% Ca Carbonate 65% Non-fibrous (Other)	15% Chrysotile
29 *131802039-0029*	Auditorium Lobby Rear Exit Hallway - Textured Ceiling Plaster	Gray Fibrous Homogeneous	10% Cellulose	20% Ca Carbonate 70% Non-fibrous (Other)	None Detected
30 *131802039-0030*	Auditorium Lobby Rear Exit Hallway - Textured Ceiling Plaster	Gray Fibrous Homogeneous		20% Ca Carbonate 70% Non-fibrous (Other)	10% Chrysotile
31 *131802039-0031*	Auditorium Lobby Rear Exit Hallway - Textured Ceiling Plaster	White Non-Fibrous Homogeneous		5% Quartz 15% Ca Carbonate 80% Non-fibrous (Other)	None Detected
32 *131802039-0032*	Room 101 - Hard Wall Plaster	White Non-Fibrous Homogeneous		45% Ca Carbonate 12% Gypsum 43% Non-fibrous (Other)	None Detected
33-Skim Coat *131802039-0033*	Room 104 - Hard Wall Plaster	White Non-Fibrous Homogeneous	2% Cellulose	20% Ca Carbonate 55% Gypsum 23% Non-fibrous (Other)	None Detected
33-Base Coat *131802039-0033A*	Room 104 - Hard Wall Plaster	Gray Non-Fibrous Homogeneous		55% Quartz 2% Ca Carbonate 14% Gypsum 29% Non-fibrous (Other)	None Detected

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
34-Skim Coat *131802039-0034*	Projector Room - Hard Wall Plaster	White Non-Fibrous Homogeneous	<1% Cellulose	3% Quartz 15% Ca Carbonate 54% Gypsum 28% Non-fibrous (Other)	None Detected
34-Base Coat *131802039-0034A*	Projector Room - Hard Wall Plaster	Gray Non-Fibrous Homogeneous	2% Cellulose	58% Quartz 17% Ca Carbonate 10% Gypsum 13% Non-fibrous (Other)	None Detected
35 *131802039-0035*	Room 204 - Hard Wall Plaster	White Non-Fibrous Homogeneous		18% Ca Carbonate 60% Gypsum 22% Non-fibrous (Other)	None Detected
36-Skim Coat *131802039-0036*	Room 301 - Hard Wall Plaster	White Non-Fibrous Homogeneous		12% Ca Carbonate 55% Gypsum 33% Non-fibrous (Other)	None Detected
36-Base Coat *131802039-0036A*	Room 301 - Hard Wall Plaster	Gray Non-Fibrous Homogeneous		60% Quartz 7% Ca Carbonate 18% Gypsum 15% Non-fibrous (Other)	None Detected
37 *131802039-0037*	Room 306 - Hard Wall Plaster	White Non-Fibrous Homogeneous	<1% Cellulose	15% Ca Carbonate 62% Gypsum 23% Non-fibrous (Other)	None Detected
38-Skim Coat *131802039-0038*	Room 307 - Hard Wall Plaster	White Non-Fibrous Homogeneous		20% Ca Carbonate 70% Gypsum 10% Non-fibrous (Other)	None Detected
38-Base Coat *131802039-0038A*	Room 307 - Hard Wall Plaster	Brown/Gray/Tan Non-Fibrous Homogeneous	<1% Cellulose	60% Quartz 15% Ca Carbonate 25% Gypsum	None Detected
39-Skim Coat *131802039-0039*	Projector Room - Hard Ceiling Plaster	White Non-Fibrous Homogeneous	4% Cellulose	20% Ca Carbonate 55% Gypsum 21% Non-fibrous (Other)	None Detected
39-Base Coat *131802039-0039A* *5*	Projector Room - Hard Ceiling Plaster	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 60% Gypsum 25% Non-fibrous (Other)	None Detected
40 *131802039-0040*	2nd Fl. Custodian Closet - Hard Ceiling Plaster	Gray Non-Fibrous Homogeneous	2% Cellulose	56% Quartz 10% Ca Carbonate 25% Gypsum 7% Non-fibrous (Other)	None Detected
41-Skim Coat *131802039-0041*	3rd Fl. Custodian Closet - Hard Ceiling Plaster	White Non-Fibrous Homogeneous		30% Ca Carbonate 55% Gypsum 15% Non-fibrous (Other)	None Detected
41-Base Coat *131802039-0041A*	3rd Fl. Custodian Closet - Hard Ceiling Plaster	Brown/Gray/Tan Non-Fibrous Homogeneous		55% Quartz 10% Ca Carbonate 30% Gypsum 3% Mica 2% Non-fibrous (Other)	None Detected
42 *131802039-0042*	Auditorium Side Stairwell - 2x2 SAT	Tan/White Fibrous Homogeneous	50% Cellulose 10% Min. Wool	10% Matrix 30% Non-fibrous (Other)	None Detected
43 *131802039-0043*	Convent Stairwell - 2x2 SAT	Gray/White Non-Fibrous Homogeneous	52% Cellulose	10% Mica 38% Non-fibrous (Other)	None Detected
44 *131802039-0044*	Room 203 - 1x1 AT Ceiling	Gray Non-Fibrous Homogeneous	80% Min. Wool	20% Non-fibrous (Other)	None Detected
45 *131802039-0045*	3rd Fl. Hallway - 1x1 AT Ceiling	Gray Fibrous Homogeneous	81% Min. Wool	19% Non-fibrous (Other)	None Detected

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EMSL Order: 131802039
Customer ID: UEC63
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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
46 *131802039-0046*	Room 204 - Joint Compound	White/Green Non-Fibrous Heterogeneous		75% Ca Carbonate 3% Mica 7% Matrix 15% Non-fibrous (Other)	None Detected
47 *131802039-0047*	Room 301 - Joint Compound	Tan/White Non-Fibrous Heterogeneous		70% Ca Carbonate 12% Mica 5% Matrix 13% Non-fibrous (Other)	None Detected
48 *131802039-0048*	Room 204 - Science Lab Countertop	Tan/Black Fibrous Heterogeneous	85% Cellulose	8% Matrix 7% Non-fibrous (Other)	None Detected
49 *131802039-0049*	Room 204 - Science Lab Countertop	Tan/Black Fibrous Heterogeneous	80% Cellulose	10% Matrix 10% Non-fibrous (Other)	None Detected
50 *131802039-0050*	Room 201A Faculty - Black Sink Coating	Brown/Black Fibrous Homogeneous		15% Ca Carbonate 60% Matrix 23% Non-fibrous (Other)	2% Chrysotile
51 *131802039-0051*	Library - Black Sink Coating	Brown/Black Fibrous Homogeneous		15% Ca Carbonate 65% Matrix 17% Non-fibrous (Other)	3% Chrysotile
52 *131802039-0052*	Library - Interior Window Glaze	Gray/Tan/White Fibrous Homogeneous	3% Cellulose 2% Glass	45% Ca Carbonate 50% Non-fibrous (Other)	<1% Chrysotile
53 *131802039-0053*	3rd Fl. Hallway - Interior Window Glaze	Gray/Tan/White Fibrous Homogeneous	4% Cellulose <1% Glass	50% Ca Carbonate 46% Non-fibrous (Other)	<1% Chrysotile
54 *131802039-0054*	Room 101 - Tan 12x12 VFT	Tan/White/Pink Non-Fibrous Homogeneous	3% Cellulose	25% Ca Carbonate 55% Gypsum 17% Non-fibrous (Other)	None Detected
55 *131802039-0055*	Cafeteria - Tan 12x12 VFT	Brown/Tan/White Fibrous Homogeneous	4% Cellulose	20% Ca Carbonate 60% Gypsum 16% Non-fibrous (Other)	None Detected
56 *131802039-0056*	On #54 - Yellow Glue	Tan/Yellow Fibrous Homogeneous	2% Cellulose <1% Synthetic	5% Quartz 75% Matrix 18% Non-fibrous (Other)	None Detected
57 *131802039-0057*	On #55 - Yellow Glue	Brown/Gray/Tan Fibrous Homogeneous	5% Cellulose	10% Ca Carbonate 25% Gypsum 60% Non-fibrous (Other)	None Detected
58 *131802039-0058*	Room 110 - Green 12x12 VFT Type 1	White/Green Fibrous Homogeneous	<1% Cellulose	15% Ca Carbonate 65% Gypsum 20% Non-fibrous (Other)	None Detected
59 *131802039-0059*	Room 203 - Green 12x12 VFT Type 1	White/Green Non-Fibrous Homogeneous	<1% Cellulose	20% Ca Carbonate 70% Gypsum 10% Non-fibrous (Other)	None Detected
60 *131802039-0060*	Room 107 - Green 12x12 VFT Type 2	White/Green Non-Fibrous Homogeneous	<1% Cellulose	20% Ca Carbonate 65% Gypsum 15% Non-fibrous (Other)	None Detected
61 *131802039-0061*	Room 107 - Green 12x12 VFT Type 2	White/Green Non-Fibrous Homogeneous	2% Cellulose	25% Ca Carbonate 60% Gypsum 13% Non-fibrous (Other)	None Detected
62 *131802039-0062*	Room 201A Faculty - Beige 12x12 VFT	Gray/Tan/White Non-Fibrous Homogeneous	<1% Cellulose	15% Ca Carbonate 70% Gypsum 15% Non-fibrous (Other)	None Detected
63 *131802039-0063*	Room 206 - Beige 12x12 VFT	Gray/Tan/White Non-Fibrous Homogeneous	<1% Cellulose	20% Ca Carbonate 65% Gypsum 15% Non-fibrous (Other)	None Detected

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EMSL Order: 131802039
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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
64 *131802039-0064*	On #62 - Yellow Glue	Tan/Yellow Fibrous Homogeneous	4% Cellulose	7% Quartz 70% Matrix 19% Non-fibrous (Other)	None Detected
65 *131802039-0065*	On #63 - Yellow Glue	Tan/Yellow Non-Fibrous Homogeneous	3% Cellulose	7% Quartz 65% Matrix 25% Non-fibrous (Other)	None Detected
66 *131802039-0066*	Room 209 - White 12x12 VFT	White Non-Fibrous Homogeneous		75% Ca Carbonate 25% Non-fibrous (Other)	None Detected
67 *131802039-0067*	Room 209 - White 12x12 VFT	White Non-Fibrous Homogeneous		72% Ca Carbonate 28% Non-fibrous (Other)	None Detected
68 *131802039-0068*	Room 302 - Light Gray 12x12 VFT	Gray Non-Fibrous Homogeneous		75% Ca Carbonate 25% Non-fibrous (Other)	None Detected
69 *131802039-0069*	Room 307 - Light Gray 12x12 VFT	Gray Non-Fibrous Homogeneous		70% Ca Carbonate 30% Non-fibrous (Other)	None Detected
70 *131802039-0070*	On #68 - Black Mastic	Black Non-Fibrous Homogeneous		50% Matrix 50% Non-fibrous (Other)	None Detected
71 *131802039-0071*	On #69 - Black Mastic	Black Non-Fibrous Homogeneous		55% Matrix 45% Non-fibrous (Other)	None Detected
72 *131802039-0072*	Basement Entry - Blue 12x12 VFT	Blue Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	None Detected
73 *131802039-0073*	Auditorium Side Stairwell - Blue 12x12 VFT	Blue Non-Fibrous Homogeneous		78% Ca Carbonate 22% Non-fibrous (Other)	None Detected
74 *131802039-0074*	Room 207 - White w/Colors 9x9 VFT	Tan/White/Green Non-Fibrous Homogeneous	2% Cellulose	15% Ca Carbonate 60% Gypsum 17% Non-fibrous (Other)	6% Chrysotile
75 *131802039-0075*	3rd Fl. Dean Office Closet - White w/Colors 9x9 VFT	Tan/White/Pink Non-Fibrous Homogeneous	<1% Cellulose	20% Ca Carbonate 65% Gypsum 10% Non-fibrous (Other)	5% Chrysotile
76 *131802039-0076* *Yellow mastic present on Floor Tile. Only black mastic analyzed.*	On #74 - Black Mastic	Black Fibrous Heterogeneous	2% Cellulose	10% Quartz 65% Matrix 19% Non-fibrous (Other)	4% Chrysotile
77 *131802039-0077*	On #75 - Black Mastic	Black Fibrous Homogeneous	2% Cellulose	10% Quartz 70% Matrix 11% Non-fibrous (Other)	7% Chrysotile
78 *131802039-0078*	2nd Fl. Main Office Closet - Brown 9x9 VFT	Brown/Gray/Tan Non-Fibrous Homogeneous	<1% Cellulose	25% Ca Carbonate 55% Gypsum 10% Non-fibrous (Other)	10% Chrysotile
79 *131802039-0079*	Convent Stairwell - Brown 9x9 VFT	Brown/Gray/Tan Non-Fibrous Homogeneous	2% Cellulose	20% Ca Carbonate 60% Gypsum 10% Non-fibrous (Other)	8% Chrysotile
80 *131802039-0080*	On #78 - Black Mastic	Tan/Black Fibrous Homogeneous	3% Cellulose	15% Quartz 60% Matrix 14% Non-fibrous (Other)	8% Chrysotile
81 *131802039-0081*	On #79 - Black Mastic	Tan/Black Fibrous Homogeneous	2% Cellulose	15% Quartz 65% Matrix 11% Non-fibrous (Other)	7% Chrysotile

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EMSL Order:	131802039
Customer ID:	UEC63
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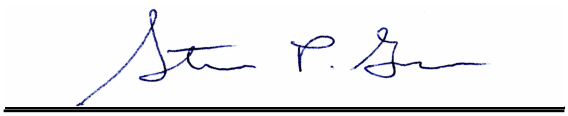
Project ID:	

Analyst(s)

Daniel Clarke (30)
Melvin Ramirez (25)
Tomas Montes De Oca (32)



Steve Grise, Laboratory Manager
or Other Approved Signatory

Initial report from: 04/24/2018 17:07:09

Asbestos Identification Laboratory

165 New Boston St., Ste 227
Woburn, MA 01801
781-932-9600

Web: www.asbestosidentificationlab.com
Email: mikemanning@asbestosidentificationlab.com

Batch: 40218

NVLAP®
Lab Code: 200919-0

February 26, 2019

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Number:
Project Name: NECP School - 150 Jackson Road, Newton, MA
Date Sampled: 2019-02-25
Work Received: 2019-02-26
Work Analyzed: 2019-02-26

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

Dear Ammar Dieb,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project .

The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Ammar Dieb for your business.

Michael Manning
Owner/Director

February 26, 2019

Ammar Dieb
Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702

Project Number:
Project Name: NECP School - 150 Jackson Road, Newton, MA
Date Sampled: 2019-02-25
Work Received: 2019-02-26
Work Analyzed: 2019-02-26

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
1 / 445456	Interior Flashing Protruding from Outside Wal	Large Mech Rm 1st Fl	black	Non-Fibrous 100	None Detected
2 / 445457	Black in FG DI	Large Mech Rm 1st Fl	black	Fiberglass 80 Cellulose 10 Non-Fibrous 10	None Detected
3 / 445458	Black in FG DI	Large Mech Rm 1st Fl	black	Fiberglass 80 Cellulose 10 Non-Fibrous 10	None Detected
4 / 445459	Linoleum	Rm 301	multi	Cellulose 50 Non-Fibrous 50	None Detected
5 / 445460	Mastic #4	Rm 301	brown	Non-Fibrous 100	None Detected
6 / 445461	Linoleum	Rm 202	multi	Cellulose 50 Non-Fibrous 50	None Detected
7 / 445462	Mastic #6	Rm 202	brown	Non-Fibrous 100	None Detected
8 / 445463	Old Vinyl Baseboard	1st Fl Hall	brown	Non-Fibrous 100	None Detected
9 / 445464	Mastic #8	1st Fl Hall	brown	Non-Fibrous 100	None Detected
10 / 445465	Old VBB	2nd Fl Hall	brown	Non-Fibrous 100	None Detected
11 / 445466	Mastic #10	2nd Fl Hall	brown	Non-Fibrous 100	None Detected
12 / 445467	1.1 AT	2nd Fl Hall	white	Mineral Wool 90 Cellulose 2 Non-Fibrous 8	None Detected
13 / 445468	1.1 AT	1st Fl Kitchen	white	Mineral Wool 95 Non-Fibrous 5	None Detected
14 / 445469	9" Gray VT	Stairwell by Door 11	gray	Non-Fibrous 97	**Detected** **Chrysotile 3**

FieldID / LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
15 / 445470	Black Mastic #14	Stairwell by Door 11	black	Non-Fibrous 95	**Detected** Chrysotile 5
16 / 445471	Soft CP	SW by 301	white	Non-Fibrous 97	**Detected** Chrysotile 3
17 / 445472	Glue Daub for 1.1 AT	1st Flr Far End Room	brown	Non-Fibrous 100	None Detected
18 / 445473	Glue Daub for 1.1 AT	1st Flr Far End Room	brown	Non-Fibrous 100	None Detected
19 / 445474	Black Paper under Hdwd Floor	Auditorium Stage, Occupied Side	black	Cellulose 70 Non-Fibrous 30	None Detected
20 / 445475	Bl Paper under Hdwd Fl	Auditorium Stage, Occupied Side	black	Cellulose 70 Non-Fibrous 30	None Detected

Tuesday 26 February

Analyzed by: Erik Gongas

End of Report

Batch: 40218

CHAIN OF CUSTODY

Universal Environmental Consultants
12 Brewster Road
Framingham, MA 01702
Tel: (508) 628-5486 - Fax: (508) 628-5488
adieb@uec-env.com

#1 – #18 = vacant side

Town/City: Newton, MA Building Name NECP school - 150 Jackson Road

Sample	Result	Description of Material (exterior)	Sample Location
1		flashing protruding from outside wall @ Large mech. rm	1ST FL
2		Black in FG (D1)	
3		Black in FG (D1)	
4		Linoleum	rm 301
5		mastic #4	rm 301
6		Linoleum	rm 202
7		mastic #6	rm 202
8		old vinyl baseboard	1ST FL hall
9		mastic #8	" "
10		old VCB	2nd FL hall
11		(m) #10	" "
12		1.1 [AT]	2nd FL hall
13		1.1 [AT]	1ST FL Kitchen
14		9" grey VT	STAIRWELL by Door 11
15		Black (m) #14	" " "
16		soft CP	SW by 301
17		glue daub for 1.1 [AT]	1st FL far end room
18		glue daub for 1.1 [AT]	" " "
19		Black paper under hdwd floor	auditorium stage (occupied side)
20		BL paper under hdwd fl	" " "

Reported By: [signature] Date: 2/25/19 Due Date: 24-hr

Received By: [signature] Date: 2/26/19