

**MAIN OFFICE:**

545 Salem Street
Wakefield, MA 01880
(781) 213-9198
(781) 213-6992 Fax

BRANCH OFFICES:

46 Watergate Lane
West Barnstable, MA 02668
(508) 746-5218
(508) 732-0281 Fax

10 Diamond Drive
Derry, NH 03038
(603) 434-5245
(603) 434-5172 Fax

www.axiomenv.com

March 1, 2016

Mr. Thomas Geary
Director of Facilities
Haverhill Public Schools
4 Summer Street
Haverhill, MA 01832

VIA EMAIL

AXIOM Project #01288.004

RE: INTERIM Emergency Asbestos Abatement Summary Report for Consentino Middle School, 685 Washington Street, Haverhill, MA 01832

Dear Mr. Geary,

AXIOM has been providing consulting support to Haverhill Public Schools during an emergency asbestos abatement project following a significant water leak and flooding that occurred in the building at the beginning of the February school vacation week. A ruptured unit ventilator pipe in Room 39 caused damage to various building materials including known asbestos-containing building materials (ACBMs).

The pipe rupture caused delamination of 12" x 12" asbestos-containing floor tiles from the concrete floor in Room 39, as well as significant damage to asbestos-containing spray-on fireproofing and underlying non-ACBM 1' x 1' concealed spline ceiling tiles throughout the Library and in the main corridors surrounding the Library. Removal of these materials, as well as the asbestos-containing floor tile mastic in Room 39, was required before these areas of the school could be reoccupied. It has been reported by the principal that ACBM floor tiles are beginning to delaminate in several other rooms; as such, additional asbestos abatement may be required in the near future. If additional work associated with this emergency is required, this report will be updated and re-issued at that time.

To ensure that the project was performed properly and in compliance with governing regulations the following occurred:

1. All concerned parties met at the site on Tuesday morning, February 16, 2016 to assess the damage and discuss the scope of asbestos abatement for compliance with governing asbestos regulations¹. This included school officials, insurance representatives, AXIOM and OneSource Environmental (OneSource), a Massachusetts-licensed Asbestos Abatement Contractor located in Windham, NH.
2. AXIOM notified the Massachusetts Department of Environmental Protection (MADEP) on February 17, 2016 to report the event and to request an emergency waiver to begin asbestos abatement immediately. A waiver was granted by the MADEP.

¹ EPA AHERA and NESHAP Regulations and Massachusetts Regulations



3. AXIOM's Massachusetts-licensed Asbestos Project Designer prepared a detailed asbestos abatement work plan as required for AHERA compliance and distributed the plan to all parties including the MADEP.
4. OneSource proceeded with the asbestos abatement in a phased manner. Work took place on February 17 through 20 and February 23 through 27, 2016. All asbestos removal (and associated demolition work) was performed inside a series of negative pressure enclosures (e.g., containments). Removal of ACM floor tile and mastic in Room 39 was completed on February 19, 2016. Removal of damaged ACM spray-on fireproofing, damaged ACM pipe fittings and damaged/contaminated non-ACM ceiling tiles and non-ACM pipe insulation in the hallways was completed on February 20, 2016. Removal of water-damaged materials and completion of asbestos abatement in the Library was completed on February 27, 2016. Due to the extensive water damage in the Library, it will remain closed until restoration work can be completed. As of the date of this report, ACM floor tiles in other rooms are reportedly beginning to delaminate. Abatement of these floor tiles and the associated ACM mastic may occur at a later date to be determined.

To date, AXIOM has provided oversight and air monitoring throughout the three completed abatement phases. Upon completion of each removal phase, AXIOM's Asbestos Project Monitor performed visual inspections and clearance air testing. As required by AHERA², air samples were collected and analyzed by Transmission Electron Microscopy (TEM). Air samples were collected using high-volume electric sampling pumps to draw air through a membrane filter at a known rate not to exceed 10 liters per minute. Samples were collected on 25-millimeter mixed cellulose ester filters with 0.4 micron (μm) pore size and sample volumes were between 1,200 and 1,800 liters of air.

The samples were hand-delivered to and analyzed by either EMSL Analytical, Inc. (EMSL) or ProScience Analytical Services, Inc. (ProScience) in accordance with 40 CFR, Part 763, Appendix A to subpart E. Both are Massachusetts-licensed asbestos TEM laboratories located in Woburn, MA.

TEM results are reported as the number of asbestos structures per square millimeter of filter area (s/mm^2). The AHERA and Massachusetts Department of Labor Standards (MADLS) standard for "clean air" is 70 s/mm^2 for the average of each set of clearance samples. All air samples were found to be below the AHERA clearance standard. The complete TEM analysis reports are attached.

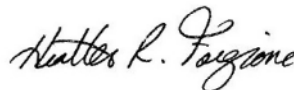
The abatement work and air clearance testing was conducted in accordance with the appropriate sections of regulations from the Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA) 1926.1101, 40 CFR, Part 763, Appendix A to Subpart E and Massachusetts DLS 453 CMR 6.0.

AXIOM will revise and reissue this report once all of the asbestos abatement work associated with this emergency has been completed. If you have any questions or require additional information, please call us.

Sincerely,



Stephen E. Minassian
Principal



Heather R. Forgione
Project Manager

Attachments: AXIOM Pre-Abatement Checklists, Certificate of Visual Inspection Forms, Daily Site Logs and PCM Air Sampling Forms; EMSL & ProScience TEM Laboratory Analysis Results

² EPA's Asbestos Hazard Emergency Response Act, 1986

ASBESTOS PREABATEMENT CHECK LIST

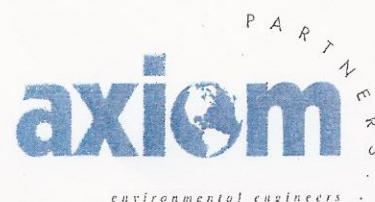
Date: 2/17/16 Time: 0830 a.m./p.m. Location: 1517-100 Hallway Phase I
 Project No.: 01288-003 Project Name: Consentino School
 Project Monitor: John G. Towski Contractor: One Source

FINDINGS/OBSERVATIONS	YES	N/A*	NO*
1. Required documentation/paperwork on-site and/or posted	✓		
2. OSHA warning signs posted	✓		
3. Critical barriers	✓		
4. Primary barriers	✓		
5. Precleaning/surface decontamination per specifications/regulations	✓		
6. Poly layers per specifications/regulations	✓		
7. Decontamination Facility properly constructed, operational and equipped, water supply and filtration	✓		
8. Ground fault circuit interrupter in use; electrical lock-out/tag-out lights, and outlets sealed	✓		
9. Temporary power and lights	✓		
10. HVAC shut down (lock-out/tag-out); vents sealed; steam/hot water shut down	✓		
11. Smoke tubes used to assess airflow	✓		
12. Negative air pressure at 0.02 inches of H ₂ O; pressure differential monitor/recorder unit operational; HEPA exhaust units properly installed and functional	✓		

REMARKS: * All N/A and NO responses require explanation below indicating deficiencies, locations, etc.

Abatement Superintendent (Contractor) Jose G. Leon
 (Signature)

Project Monitor (Axiom Partners) John G. Towski
 (Signature)



ASBESTOS PREABATEMENT CHECK LIST

Date: 2/17/16 Time: 1400 a.m./p.m. Location: Room 39
 Project No.: 01258-003 Project Name: Consentino School
 Project Monitor: John G. Tawak Contractor: One Source

FINDINGS/OBSERVATIONS	YES	N/A*	NO*
1. Required documentation/paperwork on-site and/or posted	✓		
2. OSHA warning signs posted	✓		
3. Critical barriers	✓		
4. Primary barriers	✓		
5. Precleaning/surface decontamination per specifications/regulations	✓		
6. Poly layers per specifications/regulations	✓		
7. Decontamination Facility properly constructed, operational and equipped, water supply and filtration	✓		
8. Ground fault circuit interrupter in use; electrical lock-out/tag-out lights, and outlets sealed	✓		
9. Temporary power and lights	✓		
10. HVAC shut down (lock-out/tag-out); vents sealed; steam/hot water shut down	✓		
11. Smoke tubes used to assess airflow	✓		
12. Negative air pressure at 0.02 inches of H ₂ O; pressure differential monitor/recorder unit operational; HEPA exhaust units properly installed and functional	✓		

REMARKS: * All N/A and NO responses require explanation below indicating deficiencies, locations, etc.

Abatement Superintendent (Contractor) John G. Tawak
 (Signature)
 Project Monitor (Axiom Partners) John G. Tawak
 (Signature)



ASBESTOS PREABATEMENT CHECK LIST

Date: 2/18/16 Time: 1230 a.m./p.m. Location: 1ST Floor Hallway Phase 2-3
 Project No.: 01288-003 Project Name: Consentio School
 Project Monitor: John G. Towski Contractor: One Source

FINDINGS/OBSERVATIONS	YES	N/A*	NO*
1. Required documentation/paperwork on-site and/or posted	✓		
2. OSHA warning signs posted	✓		
3. Critical barriers	✓		
4. Primary barriers	✓		
5. Precleaning/surface decontamination per specifications/regulations	✓		
6. Poly layers per specifications/regulations	✓		
7. Decontamination Facility properly constructed, operational and equipped, water supply and filtration	✓		
8. Ground fault circuit interrupter in use; electrical lock-out/tag-out lights, and outlets sealed	✓		
9. Temporary power and lights	✓		
10. HVAC shut down (lock-out/tag-out); vents sealed; steam/hot water shut down	✓		
11. Smoke tubes used to assess airflow	✓		
12. Negative air pressure at 0.02 inches of H ₂ O; pressure differential monitor/recorder unit operational; HEPA exhaust units properly installed and functional	✓		

REMARKS: * All N/A and NO responses require explanation below indicating deficiencies, locations, etc.

Abatement Superintendent (Contractor)

Jose Oliver

(Signature)

Project Monitor (Axiom Partners)

John G. Towski

(Signature)



ASBESTOS ABATEMENT INSPECTION LIST (Pre-Abatement and In-Progress)

Date: 02/24/16 Time (Military): 1710 Location: 1st Floor Library
 Project No: 01288.009 Project Name: Consentino Emergency Abatement 685 Washington St Haverhill, MA
 Project Monitor: David A. Rooney Client Contact: _____
 On-Site Supervisor: Franklin De La Cruz (AS031505) No. of Employees: 13

DECONTAMINATION CHAMBER

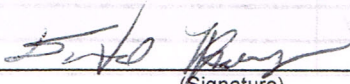
Yes	N/A	No		Yes	N/A	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the decon properly designed and functional?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is shower working?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are there any signs of contamination?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water properly drained (filtered)?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is enough (and proper) protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is entrance to work area posted per OSHA requirements?

WORK AREA

Yes	N/A	No		Yes	N/A	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are proper barriers set up on walls and secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are HVAC Systems in work area turned off?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	any holes or tears?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are grills covered?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the correct thickness poly used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are duct seams taped? Ducts to be removed as ACM due to overspray
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the barrier continue above suspended ceilings to deck? Ceiling to be removed as ACM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are exposed cracks, crevices, etc. stuffed with fiberglass or caulking or similar material?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is separate exit for bag removal set up?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there HEPA filter units to draw a negative pressure? If so, how many <u>6</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all openings out of the work area polyed/sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there sufficient negative pressure?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is an emergency exit marked?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are they DOP tested?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is floor covered?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are HEPA's kept as far from decon as possible?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Any holes or tears?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are they exhausting as far from decon entrance as possible or directly out of building?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	How many layers? <u>2</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are ground fault circuit interrupters (GFCI's) in use?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does floor go up wall at least one foot?				

WORK PRACTICES

Yes	N/A	No		Yes	N/A	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is material being wet before removal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are workers removing protective clothing before leaving equipment chamber?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is wetting agent being used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are workers showering?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is any material on floor being kept wet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adequate showers?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the area being misted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are workers leaving through bag removal exit?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are workers wearing OSHA-approved PPE?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are bags of debris properly labeled?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Respirators Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are they clean?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Coveralls Worn?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Double bagged or double wrapped?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Boots Worn?				

Project Monitor: 
 (Signature)

Page 1 of 1

**ASBESTOS ABATEMENT
CERTIFICATION OF
VISUAL INSPECTION FORM**

AXIOM PARTNERS, INC.
545 SALEM STREET
WAKEFIELD, MA 01880
781-213-9198

Site Name & Location: Consentino School Haverhill MA
Owner/Client: Haverhill Public School
Date: 2/18/16 Project No.: 01288-003 Project Monitor: John G. Tawak
Contractor: One Source Asbestos Supervisor: Franklin Delacruz

ACMs Abated (attach additional sheets or reference survey report or specs where applicable):

ACM	Location	Quantity	Units (SF, LF, EA)
Fire proofing	Phase 7 1st Floor Hall	2000	SF

Removal Method(s): Full Containment

ACMs Remaining in Area (if any): NOT in Containment

Waste Quantity: 525

A visual inspection of the above identified work area(s) has/have been completed and the abatement work has been completed to the satisfaction of the parties identified below.

Franklin Delacruz
Contractor Authorized Representative

Franklin Delacruz
Printed Name

AS 031505
License Number

2/18/16
Date

John G. Tawak
Axiom Partners, Inc. Project Representative

John G. Tawak
Printed Name

Monitor Am 060513
Title/License Number

2/18/16
Date

**ASBESTOS ABATEMENT
CERTIFICATION OF
VISUAL INSPECTION FORM**

AXIOM PARTNERS, INC.
545 SALEM STREET
WAKEFIELD, MA 01880
781-213-9198

Site Name & Location: Consettino School Haverhill MA

Owner/Client: Haverhill Public School

Date: 2/18/16 Project No.: 01288-003 Project Monitor: John Gutowski

Contractor: One Source Asbestos Supervisor: Franklin DeLaCruz

ACMs Abated (attach additional sheets or reference survey report or specs where applicable):

ACM	Location	Quantity	Units (SF, LF, EA)
Tile mastic	Room 39	500	SF

Removal Method(s): Full Containment

ACMs Remaining in Area (if any): Above Ceiling

Waste Quantity: 350 Bags

A visual inspection of the above identified work area(s) has/have been completed and the abatement work has been completed to the satisfaction of the parties identified below.

Franklin DeLaCruz
Contractor Authorized Representative

John Gutowski
Axiom Partners, Inc. Project Representative

Franklin DeLaCruz
Printed Name

John Gutowski
Printed Name

AS 031505
License Number

MONITOR AM060517
Title/License Number

2/18/16
Date

2/18/16
Date

**ASBESTOS ABATEMENT
CERTIFICATION OF
VISUAL INSPECTION FORM**

AXIOM PARTNERS, INC.
545 SALEM STREET
WAKEFIELD, MA 01880
781-213-9198

Site Name & Location: 685 Washington Street, Haverhill, MA

Owner/Client: Haverhill Schools

Date: 02-20-16 Project No.: 01288.003 Project Monitor: David A. Rooney

Contractor: One Source Inc. Asbestos Supervisor: _____

ACMs Abated (attach additional sheets or reference survey report or specs where applicable):

ACM	Location	Quantity	Units (SF, LF, EA)
SPRAY-ON FIRE PROOFING	1ST FL HALL PHASE 2 & 3	240	SF

Removal Method(s): _____

ACMs Remaining in Area (if any): FIRE PROOFING REMAINS ABOVE CEILING IN
ADJACENT AREAS - NOT IN SCOPE OF WORK

Waste Quantity: _____

A visual inspection of the above identified work area(s) has/have been completed and the abatement work has been completed to the satisfaction of the parties identified below.

Franklin Delacruz
Contractor Authorized Representative

FRANKLIN DELACRUZ
Printed Name

AS031505
License Number

2/20/16
Date

David A. Rooney
Axiom Partners, Inc. Project Representative

David A. Rooney
Printed Name

AM061689
Title/License Number

02-20-16
Date

**ASBESTOS ABATEMENT
CERTIFICATION OF
VISUAL INSPECTION FORM**

AXIOM PARTNERS, INC.

545 SALEM STREET

WAKEFIELD, MA 01880

781-213-9198

Site Name & Location: CONSENTINO SCHOOL 685 WASHINGTON ST. HAVERHILL, MA

Owner/Client: CITY OF HAVERHILL, MA

Date: 02/26/2016 Project No.: 01288-005 Project Monitor: Jim Cooper

Contractor: One Source Asbestos Supervisor: Franklin DeLaCruz

ACMs Abated (attach additional sheets or reference survey report or specs where applicable):

ACM	Location	Quantity	Units (SF, LF, EA)
SPRAY ON INS.	LIBRARY ROOF BEAMS	~ 2,000	SF
	MAIN BEAMS + PURLINS		

Removal Method(s): Full Containment, Wet Methods, De Con, PPE

ACMs Remaining in Area (if any): _____

Waste Quantity: ALL WASTE LOADED INTO "A" BAGS AND REMOVED TO ON SITE ACM STORAGE TRAILER. IT WILL BE DISPOSED OF AT A REGULATED LANDFILL.

A visual inspection of the above identified work area(s) has/have been completed and the abatement work has been completed to the satisfaction of the parties identified below.

Franklin DeLaCruz
Contractor Authorized Representative

Franklin DeLaCruz
Printed Name

031505
License Number

02/26/2016
Date

James F. Cooper
Axiom Partners, Inc. Project Representative

James F. Cooper
Printed Name

Hygienist / MA AM900466
Title/License Number

02/26/2016
Date

SITE LOG

Axiom Partners, Inc.

545 Salem Street
Wakefield, MA 01880
781-213-9198

Date:	02/17/16	Location:	First Floor Hallway & Room 39
Project Number:	01288-004	Address:	685 Washington St Haverhill, Ma
Project Monitor:	John Gutowski	Project:	Consentino School
License Number:	AM 060517	Supervisor:	Jose Alicea
Contractor:	One Source	No. of Workers:	19

TIME	NOTES
0700-0830	I, John Gutowski arrive on site. Due to a broken pipe, an estimated 10,000 gallons of water traveled from the second floor to the first floor library, surrounding hallway, classrooms and front office. Asbestos-containing fireproofing located above drop ceiling tiles on the first floor was damaged/saturated in the library and some areas of the hallway. Areas where water damage is present fall under the approved DEP Emergency Waiver. One Source will perform abatement in a series of phases. A full containment is already set up in the first floor hallway. Fireproofing insulation and overspray will be removed. Five HEPA/negative air machine units are operating. Workers don PPE and first begin removing the non-asbestos ceiling tiles. Inactive duct work will be cut out per the Director of Facilities for Haverhill Schools and the exposed opening sealed.
0830-1000	DEP Inspector John MacAuley arrives on site. He inspects the containment and walks through Room 39 and other sections of the first floor hallway. All abatement plans are approved.
1000-1130	One Source are cutting ductwork in the Phase 1 containment. An on site tractor trailer for waste is lined with poly and signs are posted.
1130-1300	One Source are setting up containments in Room 39 and the Phase 2 and 3 connected hallway.
1300-1500	One Source complete containment set up in Room 39. My pre-abatement inspection approves the containment for abatement. Workers don PPE and begin floor tile removal. Ductwork and drop ceiling tiles are removed from the Phase 1 containment. All materials are properly disposed of as contaminated waste. Air collected today is analyzed. The result is less than 0.010f/cc.

Signature: John Gutowski

SITE LOG

Axiom Partners, Inc.

545 Salem Street
Wakefield, MA 01880
781-213-9198

Date:	02/18/16	Location:	First Floor Hallway & Room 39
Project Number:	01288-004	Address:	685 Washington St Haverhill, Ma
Project Monitor:	John Gutowski	Project:	Consentino School
License Number:	AM 060517	Supervisor:	Jose Alicea
Contractor:	One Source	No. of Workers:	21

TIME	NOTES
1100-1200	I, John Gutowski (JG) arrive on site. All firproofing and ductwork removal is complete in the Phase 1 hallway containment. Tile and mastic removal is complete in Room 39. Fine cleaning is in progress in both containments.
1200-1300	I don PPE and perform a preliminary visual inspection in the Phase 1 containment. Debris present is pointed out to the inside foreman. A second visual inspection will occur once all fine cleaning is complete. Containment construction is complete and approved by JG for abatement. Workers don PPE and begin removing drop ceiling tiles.
1300-1400	I conduct a visual inspection in Room 39. Residual mastic spots on the floor. Once complete, and after a drying period of encapsulation, I collect 5 TEM final air clearance samples. Aggressive sampling techniques are utilized.
1400-1500	One Source workers are cutting and wrapping ductwork in the Phase 2-3 containmrnt.
15001600	I conduct a second visual inspection in the Phase 1 containment. Recleaning is performed on tops of lights and edges at interior walls. Once complete, One Source applies lockdown encapsulant. Air clearance samples for Phase 1 hallway are not collected today.
1600-1730	Clearance air samples from Room 39 are transported to an off site laboratory for analysis.

Signature: John Gutowski

SITE LOG

Axiom Partners, Inc.

545 Salem Street
Wakefield, MA 01880
781-213-9198

Date:	02/19/16
Project Number:	01288-004
Project Monitor:	John Gutowski
License Number:	AM 060517
Contractor:	One Source

Location:	First Floor Hallway & Room 39
Address:	685 Washington St Haverhill, Ma
Project:	Consentino School
Supervisor:	Jose Alicea
No. of Workers:	21

[illegible]

Signature: John Gutowski

SITE LOG

Axiom Partners, Inc.

545 Salem Street
Wakefield, MA 01880
781-213-9198

Date:	02/20/16	Location:	1 st Floor Hallway
Project Number:	01288.004	Address:	685 Washington St Haverhill MA
Project Monitor:	David A. Rooney	Project:	Consentino School Clean-up
License Number:	AM 061689	Supervisor:	Franklin De La Cruz (AS031505)
Contractor:	OneSource Inc.	No. of Workers:	12

TIME	NOTES
0805	I arrive on site to observe the conditions inside the elevator shaft. There are no suspect ACM materials or lead paints on the interior of the shaft. The ENPRO crew is onsite to pump out the water from the elevator pit which may contain PCBs from motor oils associated with the elevator machinery. OneSource crew is already abating the Phase 2 and 3 hallway containment. All controls are in place and operating properly. They are wearing full-face PAPR respirators during abatement activities.
0900	The ENPRO crew has completed their clean-up of the elevator shaft and departed the site. I begin calibrating the pumps for the TEM clearance of the hallway.
1000	The elevator is closed and locked. The mechanic cannot get the elevator operational.
1215	Final cleaning is completed and I don PPE to perform a visual inspection. The crew has removed ACM spray-applied fireproofing from the structural beams of the hallways. There is some debris on a poly-wrapped light fixture and the crew immediately re-cleans the affected area. I re-inspect and the area passed. I then use a leaf-blower to begin the aggressive air clearance.
1250	I exit the containment as the crew begins to apply encapsulant.
1340	I don PPE and enter the containment to set up the pumps to collect 5 TEM clearance samples.
1550	I don PPE and retrieve the TEM clearance samples. I then pack up my equipment and contact the lab to inform them I am on my way to deliver the samples.
1640	I deliver the TEM samples to ProScience for analysis.

Signature: David Rooney

SITE LOG

Axiom Partners, Inc.

545 Salem Street
Wakefield, MA 01880
781-213-9198

Date: 02-23-16

Project Number: 01288.0034

Project Monitor: Peter A. Del Sette, Jr

License Number: AM000014

Contractor: One Source

Location: Library of Consentino Middle School

Address: 686 Washington St. Haverhill MA

Project: Clean Out and Abatement Prep

On-Site Supervisor: Franklin DeLacruz

Number of Workers: Nine

TIME	NOTES
16:00	On site at the Consentino Middle School, Haverhill, MA. One Source on site in the library. They will continue to remove everything that cannot be cleaned and dispose of. There are 12 full Gaylord boxes that will be labeled as asbestos waste and disposed of as such. Workers are also doing prep work on the containment in anticipation of beginning abatement on Wednesday evening. They have laid poly sheeting in one corner where there is no spray on FP on the beams above and will stockpile there anything that is not being thrown out, plastic chairs, etc., and enclosed it behind a poly wall. Gaylords will stay in the containment until the project is completed.
17:00	Mr. Mele, the Principal is on site. He, Franklin and I meet in the hallway. The staff has expressed concerns about performing asbestos abatement while the children are in still in the school. They are in the building until 16:45. After a brief discussion, Franklin says that they will not start any abatement until after the children are off site.
17:10 -17:25	I see up two outside work area (OWA) background (BG) air samples in the hall outside of the work area at 12 liters per minute (LPM).
18:00	Workers loading out debris and loading in rolls of poly sheeting and other supplies. They have finished building the decon and put the shower in place.
18:30	I see fittings on fiberglass runs above the ceiling in an area where they will be taking down the splined ceiling. I take photos and send a text to Heather Forgione, the PM for clarification.
19:00	I recover the first set of samples and set up an inside work area (IWA) BG and another OWA BG in front of the entry to the library.
19:30	Workers loading out bags of debris.
20:00	Workers take break.
20:40	Workers return to work. Will continue to wet wipe items to remain and move them to the corner that is going to be sealed with poly walls.
21:30	I recover the air samples. They have 68 bags of waste that have been loaded in to the trailer. One Source will continue to wet wipe furniture and prepare to begin abatement tomorrow night. AXIOM off site.

Signature: _____

SITE LOG

Axiom Partners, Inc.

545 Salem Street
Wakefield, MA 01880
781-213-9198

Date:	02/24/16	Location:	1 st Floor Library
Project Number:	01288.004	Address:	685 Washington St Haverhill MA
Project Monitor:	David A. Rooney	Project:	Consentino School Clean-up
License Number:	AM 061689	Supervisor:	Franklin De La Cruz (AS031505)
Contractor:	OneSource Inc.	No. of Workers:	13

TIME	NOTES
1645	I arrive on site and set up the pumps in hallway by the administration office and the literacy room adjacent to the library to collect 2 PCM area samples. The OneSource crew has covered the bookcases and is finishing the prep in the library to abate the ceiling tiles, pipe fittings and spray-applied fireproofing as well as decontaminate the entire room.
1730	I don PPE and enter the containment to observe work practices. The crew is already tearing down the suspended spline ceiling tiles and bagging them as waste. They are not using much water, but the bags have not yet been sealed; the contents are still very dry. I am assured they will add more water to them before closing them. All workers are wearing proper PPE, including full face respirators. There are several pieces of metal furniture and a large photocopier left exposed inside the containment. The metal drums of water left by ENPRO are covered with poly, but not tightly sealed and the Gaylord boxes from yesterday are still inside the room. The crew is almost finished removing the ceiling tiles and they begin adding more water to the bags.
1750	I exit the containment and discuss the project with the OneSource supervisor Franklin. He assures me that all exposed items in the space are scheduled to be disposed of as asbestos waste.
1900	The OneSource crew continues abatement activities. All controls are in place and operating properly. The crew begins loading out waste bags. Jose of OneSource arrives on site to discuss possible future abatement areas with Consentino school maintenance staff. He then begins to assist with loading out waste.
1945	The crew breaks for dinner.
2030	The crew has resumed abatement activities.
2120	I don PPE and enter the containment to observe work practices. The crew switches from using an airless sprayer to simply wetting the fireproofing material with a hose. Some of the crew are cutting down the inactive HVAC ducts to access the fireproofing on the metal deck and structural steel in the middle of the room.
2300	Duct sections are wrapped in 2 layers of poly and loaded out of the containment as asbestos waste.
2335	The OneSource crew is finishing up operations for the night. I gather the area samples for analysis and depart the site.

Signature: David Rooney

SITE LOG

Axiom Partners, Inc.

545 Salem Street
Wakefield, MA 01880
781-213-9198

Date:	02/25/16	Location:	1 st Floor Library
Project Number:	01288.004	Address:	685 Washington St Haverhill MA
Project Monitor:	David A. Rooney	Project:	Consentino School Clean-up
License Number:	AM 061689	Supervisor:	Franklin De La Cruz (AS031505)
Contractor:	OneSource Inc.	No. of Workers:	13

TIME	NOTES
1635	I arrive on site and set up pumps in hallway by the administration and literacy rooms adjacent to the library to collect 2 PCM area samples. The OneSource crew is continuing to remove spray-applied fireproofing from the structural steel and metal decking in the library. All controls are in place and operating properly.
1730	Abatement continues slowly in the library.
1820	I don PPE and enter the containment to check progress and work practices. The area is being misted and the crew are still removing spray-applied fireproofing. The work is proceeding slowly; although they have removed all of the pipe insulation from the room there are still ceiling tiles remaining on one end of the room and more cleaning is required on the structural steel and metal decking. I exit after 5 minutes.
2000	The OneSource crew breaks for dinner.
2100	The crew has resumed abatement activities. All controls are in place and operating properly.
2230	Abatement continues slowly.
2315	The crew begins loading out waste bags. All bags clean and labeled properly.
2340	The OneSource crew is finishing work for the night. I gather the area samples for analysis and depart the site. Final cleaning should be completed tomorrow night.

Signature: David Rooney

SITE LOG

Axiom Partners, Inc.

545 Salem Street
Wakefield, MA 01880
781-213-9198

Date:	02/26/2016	Location:	Consentino School
Project Number:	01288-005	Address:	685 Washington St., Haverhill, MA
Project Monitor:	Jim Cooper	Project:	Library
License Number:	AM900466	Supervisor:	Franklin De La Cruz
Contractor:	One Source	No. of Workers:	11

TIME	NOTES
1630	I arrive on site and meet with Franklin De La Cruz the MA licensed asbestos supervisor in charge of tonight's project. He has 11 licensed asbestos workers (AWs) with him tonight, two less than previous nights. They have been working on this project for two weeks and are in final stages of abatement inside containment. I checked licenses and paperwork and all are in order. The plan tonight is to complete abatement and apply lock-down before we leave for the night. Tomorrow morning another Hygienist will run TEM air samples for AHERA clearance.
1700	Wearing PPE I enter the containment to check progress. There is a three stage de-con / entry with water for washing and clean-up. There are 6 HEPA units exhausting to the exterior. All critical barriers are sealed. There is double poly on the walls and floor. Workers wearing PPE are using hand tools to clean the spray-on fire proofing off of beams. I exit the containment.
1730	I calibrated three air sample collection pumps at 7.5 liters per minute (LM) and placed one outside containment and one in each adjacent hallway.
1800	I talked with Franklin regarding the removal of the Gaylord boxes before sampling, but he said they are too heavy and he will have a fork lift tomorrow. I instructed him to cover all containers remaining inside the containment with clean poly before encapsulating.
1900	Things seem to be going slowly. There is still some gross removal to be done. I am encouraging Franklin to stay on them but he is a little short-handed tonight.
2000	AWs break for dinner. Still not quite done with removal. Hopefully after dinner they will hit it hard. I check the sample pumps for proper operation.
2130	Things seem to be moving better now. Franklin said that they are final cleaning now. He is going inside containment to make sure they get it right the first time.
2200	Still final cleaning.
2230	Franklin says that they are almost done cleaning. I reminded him to make sure that the waste containers should be covered with clean poly.
2300	The AWs are loading out "A" bags from the containment and bringing them to the storage trailer. The Gaylord boxes will remain covered inside.
2345	Wearing PPE I enter the containment to perform a visual inspection. Franklin has a couple of AWs inspect with me and address any items that may be found.
0015	After some wet wiping on horizontal surfaces I give the OK to encapsulate.
0040	I collected the outside work area (OWA) and background (BG) sample cassettes for analysis.
0100	I prepared and read the sample slides and determined that all samples met the MA standard of < 0.010 f/cc.
0115	Workers are spraying lock-down now. Once complete they will seal the containment using a filter pad covering the make-up air hole in the door flap.
0130	Lock-down completed, closing down containment for the night. HEPAs running. I depart.

Signature: _____

SITE LOG

Axiom Partners, Inc.

545 Salem Street
Wakefield, MA 01880
781-213-9198

Date:	02/27/16	Location:	Consentino School
Project Number:	01288.004	Address:	685 Washington St., Haverhill, MA
Project Monitor:	Tom Nichols	Project:	Library Abatement/ Spray-On
License Number:	AM 001894	Supervisor:	J. Alicea
Contractor:	One Source	No. of Workers:	n/a

TIME	NOTES
7:00	I arrive on site. Meet with One Source supervisor Jose Alicea. He assists me with equipment mobilization to abatement area. I calibrate high volume air pumps using secondary methods. I don personal protective equipment, and enter containment with equipment. I get overview of contained area of spray-on removal on I-beams above ceiling and remnant overspray. I position high volume air pumps. Fan has been positioned at middle of floor of containment. I use leaf blower and begin aggressive transmission electron microscopy [TEM] air clearance sampling and exit containment.
9:30	I don PPE, enter containment, suspend air sampling, gather equipment and exit containment. I demobilize equipment and leave site to deliver [TEM] air samples to EMSL Labs for analysis. Chain of custody has been completed.
10:00	I arrive at lab, drop air samples off with lab technician who will analyze air samples. I sign chain of custody sheet. He tells me that turn around will be ~ 3 ½ hours.
14:30	I gather equipment, and leave site for day.

Signature: _____





ASBESTOS AIR MONITORING WORKSHEET

MAIN OFFICE:

545 Salem Street
Wakefield, Massachusetts 01880
(781) 213-9198
(781) 213-6992 Fax

www.axiomenv.com

BRANCH OFFICES:

46 Watergate Lane
Barnstable, Massachusetts 02668
(508) 746-0877 / (508) 732-0281 Fax

10 Diamond Drive
Derry, New Hampshire 03038
(603) 434-5245 / (603) 434-5172 Fax

Site Address: 685 Washington Street, Haverhill, Ma
Project Name: Consentino School
Sampler Name: John Gutowski Date: February 17, 2016
Analyst Name: John Gutowski Date: February 17, 2016

Project No: 01288-004
Client: Haverhill Public Schools
Location(s) Sampled: Phase I
State License #: MA 060517

Sample Number	Sample Location	Sample Type*	Work Activity**	Sampling Time (Minutes)			Flow Rate (Liters per Minute)			Total Volume (Liters)	Fiber Density (f/mm ³)	Limit of Detection (f/mm ³)	Fiber Count #	RESULT Fibers/Cubic Centimeter
				Start	Stop	Total	Start	Stop	Average					
021716-28-01	Field Blank												1.0	
021716-28-02	Field Blank												0.0	
021716-28-03	First Floor Hallway	DF	3	11:00	15:00	240	9.5	8.9	9.20	2208.0	7.6	7.6	6.0	0.001

CHAIN-OF-CUSTODY Relinquished by: _____ Printed Name: _____ Date: _____ Time: _____		Microscope ID # _____ Rotameter ID # _____ Analytical Method: NIOSH 7400, "A" Rules f/mm ² - fibers per square millimeter Effective Filter Area = 385 mm ² Field Area = 0.00785 mm ² * Fibers per 100 Fields unless specified	*Sample Type Codes IWA = Inside Work Area OWA = Outside Work Area HEPA = HEPA Exhaust BG = Background PL = Personal CL = Clearance DF = Decontam. Facility OT = Other	**Work Activity Codes 1 = Background 2 = Work Area Prep 3 = Asbestos Removal 4 = Waste Loadout 5 = Glovebag Removal 6 = Clearance Test 7 = Repair/Encapsulation 8 = Cleaning/Decontamination 9 = Pre-Abatement 10 = Gross Removal 11 = Fine Cleaning 12 = Repair/Encapsulation 13 = Soil Remediation 14 = Maintenance Activity 15 = Other
Received By: _____ Printed Name: _____ Date: _____ Time: _____		Fibers/CC = (SAMPLE fibers/field) - (BLANK fibers/field) x (385) (7.85) x (liters)		
MA PCM Lab ID # AA000179 AIHA Lab # 121587		Analyst Signature: <i>John Gutowski</i>		

New Hampshire Only (fax copy of form to NH Air Resources at 603-271-1381): Project Scope (Check One): ☐ Major (> 10 Inf/25 sqft of Friable ACM) ☐ Minor (≤ 10 Inf/25 sqft of Friable ACM)



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46 Watergate Lane
Barnstable, Massachusetts 02668
(508) 746-0877 / (508) 732-0281 Fax

10 Diamond Drive
Derry, New Hampshire 03038
(603) 434-5245 / (603) 434-5172 Fax

Site Address: 685 Washington Street, Haverhill, Ma
Project Name: Consentino School
Sampler Name: John Gutowski Date: February 18, 2016
Analyst Name: John Gutowski Date: February 18, 2016

Project No: 01288-004
Client: Haverhill Public Schools
Location(s) Sampled: Phase I
State License #: MA 060517

Sample Number	Sample Location	Sample Type*	Work Activity**	Sampling Time (Minutes)			Flow Rate (Liters per Minute)			Total Volume (Liters)	Fiber Density (f/mm ³)	Limit of Detection (f/mm ³)	Fiber Count #	RESULT Fibers/Cubic Centimeter
				Start	Stop	Total	Start	Stop	Average					
021816-28-01	Field Blank												0.0	
021816-28-02	Field Blank												1.0	
021816-28-03	First Floor Hallway	DF	3	12:00	16:30	270	6.9	6.5	6.70	1809.0	5.1	7.0	4.0	0.003

CHAIN-OF-CUSTODY Relinquished by: _____ Printed Name: _____ Date: _____ Time: _____		Microscope ID # _____ Rotameter ID # _____ Analytical Method: NIOSH 7400, "A" Rules f/mm ² - fibers per square millimeter Effective Filter Area = 385 mm ² Field Area = 0.00785 mm ² * Fibers per 100 Fields unless specified	*Sample Type Codes IWA = Inside Work Area OWA = Outside Work Area HEPA = HEPA Exhaust BG = Background PL = Personal CL = Clearance DF = Decontam. Facility OT = Other	**Work Activity Codes 1 = Background 2 = Work Area Prep 3 = Asbestos Removal 4 = Waste Loadout 5 = Glovebag Removal 6 = Clearance Test 7 = Repair/Encapsulation 8 = Cleaning/Decontamination 9 = Pre-Abatement 10 = Gross Removal 11 = Fine Cleaning 12 = Repair/Encapsulation 13 = Soil Remediation 14 = Maintenance Activity 15 = Other
Received By: _____ Printed Name: _____ Date: _____ Time: _____		Fibers/CC = (SAMPLE fibers/field) - (BLANK fibers/field) x (385) (7.85) x (liters)		
MA PCM Lab ID # AA000179 AIHA Lab # 121587		Analyst Signature: <i>John Gutowski</i>		

New Hampshire Only (fax copy of form to NH Air Resources at 603-271-1381): Project Scope (Check One): ☐ Major (> 10 Inf/25 sqft of Friable ACM) ☐ Minor (≤ 10 Inf/25 sqft of Friable ACM)



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Barnstable, Massachusetts 02668
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10 Diamond Drive
Derry, New Hampshire 03038
(603) 434-5245 / (603) 434-5172 Fax

Site Address: 685 Washington Street, Haverhill, Ma
Project Name: Consentino School
Sampler Name: John Gutowski Date: February 19, 2016
Analyst Name: John Gutowski Date: February 19, 2016

Project No: 01288-004
Client: Haverhill Public Schools
Location(s) Sampled: Phase 2 & 3
State License #: MA 060517

Sample Number	Sample Location	Sample Type*	Work Activity**	Sampling Time (Minutes)			Flow Rate (Liters per Minute)			Total Volume (Liters)	Fiber Density (f/mm ³)	Limit of Detection (f/mm ³)	Fiber Count #	RESULT Fibers/Cubic Centimeter
				Start	Stop	Total	Start	Stop	Average					
021916-28-01	Field Blank												0.0	
021916-28-02	Field Blank												1.0	
021916-28-03	First Floor Hallway, Phase 2&3	DF	3	6:30	10:50	270	6.9	6.5	6.70	1809.0	5.1	7.0	4.0	0.003
021916-28-04	First Floor Hallway, Phase 2&3	DF	3	10:52	14:55	243	7.1	6.5	6.80	1652.0	7.6	7.6	6.0	0.002

CHAIN-OF-CUSTODY Relinquished by: _____ Printed Name: _____ Date: _____ Time: _____		Microscope ID # _____ Rotameter ID # _____ Analytical Method: NIOSH 7400, "A" Rules f/mm ² - fibers per square millimeter Effective Filter Area = 385 mm ² Field Area = 0.00785 mm ² * Fibers per 100 Fields unless specified	*Sample Type Codes IWA = Inside Work Area OWA = Outside Work Area HEPA = HEPA Exhaust BG = Background PL = Personal CL = Clearance DF = Decontam. Facility OT = Other	**Work Activity Codes 1 = Background 2 = Work Area Prep 3 = Asbestos Removal 4 = Waste Loadout 5 = Glovebag Removal 6 = Clearance Test 7 = Repair/Encapsulation 8 = Cleaning/Decontamination 9 = Pre-Abatement 10 = Gross Removal 11 = Fine Cleaning 12 = Repair/Encapsulation 13 = Soil Remediation 14 = Maintenance Activity 15 = Other
Received By: _____ Printed Name: _____ Date: _____ Time: _____		Fibers/CC = (SAMPLE fibers/field) - (BLANK fibers/field) x (385) (7.85) x (liters)		
MA PCM Lab ID # AA000179		AIHA Lab # 121587		

New Hampshire Only (fax copy of form to NH Air Resources at 603-271-1381): Project Scope (Check One): ☐ Major (> 10 Inf/25 sqft of Friable ACM) ☐ Minor (≤ 10 Inf/25 sqft of Friable ACM)



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(508) 746-0877 / (508) 732-0281 Fax

10 Diamond Drive
Derry, New Hampshire 03038
(603) 434-5245 / (603) 434-5172 Fax

Site Address: Consentino School, 685 Washinton St., Haverhill, MA

Project No: 01288.004

Project Name: Library Abatement

Client: City of Haverhill, MA

Sampler Name: Peter A. Del Sette, Jr. Date: February 23, 2016

Location(s) Sampled: Background Air Samples

Analyst Name: Peter A. Del Sette, Jr. Date: February 24, 2016

State License #: AM 000014

Sample Number	Sample Location	Sample Type*	Work Activity**	Sampling Time (Minutes)			Flow Rate (Liters per Minute)			Total Volume (Liters)	Fiber Density (f/mm ³)	Limit of Detection (f/mm ³)	Fiber Count #	RESULT Fibers/Cubic Centimeter
				Start	Stop	Total	Start	Stop	Average					
022316-09-01	Method Blank												0.0	
022316-09-02	Method Blank												0.0	
022316-09-03	Hall Outside Library, To Right	OWA	1 2	5:07	7:01	123	12.5	12.5	12.50	1425.0	3.8	7.0	3.0	0.001
022316-09-04	Hall Outside Library, To Left	OWQ	1 2	5:12	7:05	100	12.5	12.5	12.50	1412.0	2.5	7.0	2.0	0.001
022316-09-03	Inside Library	IWA	1 2	7:08	9:12	124	12.5	12.5	12.50	1550.0	0.0	7.0	21.0	0.007
022316-09-04	Hall Outside Library In Front of Entry	OWQ	1 2	7:10	9:12	122	12.5	12.5	12.50	1525.0	0.0	7.0	3.0	0.001

CHAIN-OF-CUSTODY Relinquished by: _____ Printed Name: _____ Date: _____ Time: _____		Microscope ID # _____ Rotameter ID # <u>AX-H-01</u> Analytical Method: NIOSH 7400, "A" Rules f/mm ² - fibers per square millimeter Effective Filter Area = 385 mm ² Field Area = 0.00785 mm ² * Fibers per 100 Fields unless specified	*Sample Type Codes IWA = Inside Work Area OWA = Outside Work Area HEPA = HEPA Exhaust BG = Background PL = Personal CL = Clearance DF = Decontam. Facility OT = Other	**Work Activity Codes 1 = Background 2 = Work Area Prep 3 = Asbestos Removal 4 = Waste Loadout 5 = Glovebag Removal 6 = Clearance Test 7 = Repair/Encapsulation 8 = Cleaning/Decontamination 9 = Pre-Abatement 10 = Gross Removal 11 = Fine Cleaning 12 = Repair/Encapsulation 13 = Soil Remediation 14 = Maintenance Activity 15 = Other
Received By: _____ Printed Name: _____ Date: _____ Time: _____		Fibers/CC = (SAMPLE fibers/field) - (BLANK fibers/field) x (385) (7.85) x (liters)		
MA PCM Lab ID # <u>AA000179</u>		AIHA Lab # <u>121587</u>		

New Hampshire Only (fax copy of form to NH Air Resources at 603-271-1381):

Project Scope (Check One):

☐

Major (> 10 Inf/25 sqft of Friable ACM)

☐

Minor (≤ 10 Inf/25 sqft of Friable ACM)



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46 Watergate Lane
Barnstable, Massachusetts 02668
(508) 746-0877 / (508) 732-0281 Fax

10 Diamond Drive
Derry, New Hampshire 03038
(603) 434-5245 / (603) 434-5172 Fax

Site Address: 685 Washington St, Haverhill, MA

Project No: 01288.004

Project Name: Emergency Decontamination

Client: Haverhill Public Schools

Sampler Name: David A. Rooney Date: February 24, 2016

Location(s) Sampled: 1st Floor, Literacy Room & Hall by Admin.

Analyst Name: David A. Rooney Date: February 25, 2016

State License #: AM 061689

Sample Number	Sample Location	Sample Type*	Work Activity**	Sampling Time (Minutes)			Flow Rate (Liters per Minute)			Total Volume (Liters)	Fiber Density (f/mm ³)	Limit of Detection (f/mm ³)	Fiber Count #	RESULT Fibers/Cubic Centimeter
				Start	Stop	Total	Start	Stop	Average					
022416-22-01	Field Blank												0.0	
022416-22-02	Field Blank												0.0	
022416-22-03	1st Floor, Literacy Room	BG	2	16:53	23:38	405	4.1	4.1	4.14	1676.7	22.3	22.3	17.5	0.005
022416-22-04	1st Floor, Hall by Admin.	BG	2	16:57	23:40	403	4.1	4.1	4.14	1668.4	17.8	17.8	14.0	0.004

CHAIN-OF-CUSTODY		Microscope ID # 2H83772	*Sample Type Codes	**Work Activity Codes
Relinquished by:		Rotameter ID # AX L-07	IWA = Inside Work Area	1 = Background
Printed Name:			OWA = Outside Work Area	2 = Work Area Prep
Date:			HEPA = HEPA Exhaust	3 = Asbestos Removal
Time:		Analytical Method: NIOSH 7400, "A" Rules	BG = Background	4 = Waste Loadout
		f/mm ² - fibers per square millimeter	PL = Personal	5 = Glovebag Removal
Received By:		Effective Filter Area = 385 mm ²	CL = Clearance	6 = Clearance Test
Printed Name:		Field Area = 0.00785 mm ²	DF = Decontam. Facility	7 = Repair/Encapsulation
Date:		* Fibers per 100 Fields unless specified	OT = Other	8 = Cleaning/Decontamination
Time:				
MA PCM Lab ID # AA000179		AIHA Lab # 121587		Fibers/CC = (SAMPLE fibers/field) - (BLANK fibers/field) x (385)
				Analyst Signature: <i>David Rooney</i>
				(7.85) x (liters)

New Hampshire Only (fax copy of form to NH Air Resources at 603-271-1381):

Project Scope (Check One):

☐

Major (> 10 Inf/25 sqft of Friable ACM)

☐

Minor (≤ 10 Inf/25 sqft of Friable ACM)



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(508) 746-0877 / (508) 732-0281 Fax

10 Diamond Drive
Derry, New Hampshire 03038
(603) 434-5245 / (603) 434-5172 Fax

Site Address: 685 Washington St, Haverhill, MA

Project No: 01288.004

Project Name: Emergency Decontamination

Client: Haverhill Public Schools

Sampler Name: David A. Rooney Date: February 25, 2016

Location(s) Sampled: 1st Floor, Literacy Room & Hall by Admin.

Analyst Name: David A. Rooney Date: February 26, 2016

State License #: AM 061689

Sample Number	Sample Location	Sample Type*	Work Activity**	Sampling Time (Minutes)			Flow Rate (Liters per Minute)			Total Volume (Liters)	Fiber Density (f/mm ³)	Limit of Detection (f/mm ³)	Fiber Count #	RESULT Fibers/Cubic Centimeter
				Start	Stop	Total	Start	Stop	Average					
022416-22-01	Field Blank												0.0	
022416-22-02	Field Blank												0.0	
022416-22-03	1st Floor, Hall by Literacy Room	BG	2	16:45	23:39	414	4.1	4.1	4.14	1714.0	10.2	10.2	8.0	0.002
022416-22-04	1st Floor, Hall by Admin.	BG	2	16:41	23:38	417	4.1	4.1	4.14	1726.4	7.0	7.0	5.5	0.002

CHAIN-OF-CUSTODY		Microscope ID # 2H83772	*Sample Type Codes	**Work Activity Codes
Relinquished by:		Rotameter ID # AX L-07	IWA = Inside Work Area	1 = Background
Printed Name:			OWA = Outside Work Area	2 = Work Area Prep
Date:			HEPA = HEPA Exhaust	3 = Asbestos Removal
Time:		Analytical Method: NIOSH 7400, "A" Rules	BG = Background	4 = Waste Loadout
		f/mm ² - fibers per square millimeter	PL = Personal	5 = Glovebag Removal
Received By:		Effective Filter Area = 385 mm ²	CL = Clearance	6 = Clearance Test
Printed Name:		Field Area = 0.00785 mm ²	DF = Decontam. Facility	7 = Repair/Encapsulation
Date:		* Fibers per 100 Fields unless specified	OT = Other	8 = Cleaning/Decontamination
Time:				
MA PCM Lab ID # AA000179		AIHA Lab # 121587		Fibers/CC = (SAMPLE fibers/field) - (BLANK fibers/field) x (385)
				Analyst Signature: <i>David Rooney</i>
				(7.85) x (liters)

New Hampshire Only (fax copy of form to NH Air Resources at 603-271-1381):

Project Scope (Check One):

☐

Major (> 10 Inf/25 sqft of Friable ACM)

☐

Minor (≤ 10 Inf/25 sqft of Friable ACM)



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10 Diamond Drive
Derry, New Hampshire 03038
(603) 434-5245 / (603) 434-5172 Fax

Site Address: 685 Washington St., Haverhill, MA

Project Name: Consentino School

Sampler Name: Jim Cooper Date: February 26, 2016

Analyst Name: Jim Cooper Date: February 26, 2016

Project No: 01288-004

Client: City of Haverhill, MA

Location(s) Sampled: Outside De-con, Left Common Hall & Right Common Hall

State License #: AM 900466

Sample Number	Sample Location	Sample Type*	Work Activity**	Sampling Time (Minutes)			Flow Rate (Liters per Minute)			Total Volume (Liters)	Fiber Density (f/mm ³)	Limit of Detection (f/mm ³)	Fiber Count #	RESULT Fibers/Cubic Centimeter
				Start	Stop	Total	Start	Stop	Average					
022616-99-01	Field Blank												0.0	
022616-99-02	Field Blank												0.0	
022616-99-03	Left Commn Hall	BG	3	17:20	0:20	420	7.5	7.5	7.50	3150.0	3.2	7.0	2.5	< 0.001
022616-99-04	Outside De-Con	OWA	3	17:25	0:25	420	7.5	7.5	7.50	3150.0	7.6	7.6	6.0	0.001
022616-99-05	Right Common Hall	BG	3	17:30	0:30	420	7.5	7.5	7.50	3150.0	2.5	7.0	2.0	< 0.001

CHAIN-OF-CUSTODY		Microscope ID # AX-70211	*Sample Type Codes	**Work Activity Codes
Relinquished by:		Rotameter ID # AX-H-011	IWA = Inside Work Area	1 = Background
Printed Name:			OWA = Outside Work Area	2 = Work Area Prep
Date:			HEPA = HEPA Exhaust	3 = Asbestos Removal
Time:		Analytical Method: NIOSH 7400, "A" Rules	BG = Background	4 = Waste Loadout
		f/mm ² - fibers per square millimeter	PL = Personal	5 = Glovebag Removal
Received By:		Effective Filter Area = 385 mm ²	CL = Clearance	6 = Clearance Test
Printed Name:		Field Area = 0.00785 mm ²	DF = Decontam. Facility	7 = Repair/Encapsulation
Date:		* Fibers per 100 Fields unless specified	OT = Other	8 = Cleaning/Decontamination
Time:				9 = Pre-Abatement
				10 = Gross Removal
				11 = Fine Cleaning
				12 = Repair/Encapsulation
				13 = Soil Remediation
				14 = Maintenance Activity
				15 = Other
MA PCM Lab ID # AA000179		AIHA Lab # 121587		Analyst Signature:

New Hampshire Only (fax copy of form to NH Air Resources at 603-271-1381): Project Scope (Check One): ☐ Major (> 10 Inf/25 sqft of Friable ACM) ☐ Minor (≤ 10 Inf/25 sqft of Friable ACM)

**EMSL Analytical, Inc.**

7 Constitution Way, Suite 107, Woburn, MA 01801

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

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

EMSL Order: 131600730

CustomerID: AXIO80

CustomerPO:

ProjectID:

Attn: **Stephen Minassian**
Axiom Partners, Inc.
545 Salem Street
Wakefield, MA 01880

Phone: (781) 213-9198
Fax: (781) 213-6992
Received: 02/19/16 10:45 AM
Analysis Date: 2/19/2016
Collected: 2/19/2016

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM)
Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

Sample	Location	Volume (Liters)	Area Analyzed (mm ²)	Non Asb	Asbestos Type(s)	# Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥ 0.5μ < 5μ	≥ 5μ		(S/mm ²)	(S/cc)
02191628-01 131600730-0001	Phase I Hallway Inside	1337.00	0.0655	0	None Detected			0.0044	<15.00	
02191628-02 131600730-0002	Phase I Hallway Inside	1309.00	0.0655	0	None Detected			0.0045	<15.00	<0.0045
02191628-03 131600730-0003	Phase I Hallway Inside	1319.00	0.0655	0	None Detected			0.0045	<15.00	<0.0045
02191628-04 131600730-0004	Phase I Hallway Inside	1330.00	0.0655	0	None Detected			0.0044	<15.00	<0.0044
02191628-05 131600730-0005	Phase I Hallway Inside	1349.00	0.0655	0	None Detected			0.0044	<15.00	<0.0044
02191628-06 131600730-0006	Inside Blank				Not Analyzed					
02191628-07 131600730-0007	Outside Blank				Not Analyzed					
02191628-08 131600730-0008	Lab Blank				Not Analyzed					

Analyst(s)

Alexander Maxinoski (5)

Alexander Maxinoski, Asbestos Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. 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. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. Results reported in both structures/cm3 and structures/mm2 are dependent on the volume of air sampled and measured by non-laboratory personnel are not the responsibility of EMSL and are not covered by the laboratory's NVLAP accreditation. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-107T3 and VT AL998919

Initial report from 02/19/2016 13:28:38

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

131600730

EMSL ANALYTICAL, INC.
7 CONSTITUTION WAY, STE. 107
WOBBURN, MA 01801
PHONE: (781)-933-8411
FAX: (781)-933-8412

Company Name: <u>AXIUM PARTNERS</u>		EMSL Customer ID:	
Street: <u>545 Salem St</u>		City: <u>Woburn</u>	State/Province: <u>MA</u>
Zip/Postal Code: <u>01880</u>	Country: <u>US</u>	Telephone #: <u>781-213-9198</u>	Fax #: <u>781-213-6595</u>
Report To (Name): <u>SMITHSONIAN @ AXIUM ENV.COM</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: <u>SMITHSONIAN @ AXIUM ENV.COM</u>		Purchase Order:	
Project Name/Number:		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken:		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
EMSL-Bill to: <input type="checkbox"/> Same <input type="checkbox"/> Different - If Bill to is Different note instructions in Comments** Third Party Billing requires written authorization from third party			
Turnaround Time (TAT) Options* - Please Check			
<input checked="" type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week			
*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.			
PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NYS 198.8 SOF-V <input type="checkbox"/> NIOSH 9002 (<1%)		TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input checked="" type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	
TEM- Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite* <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique *Can not accept New York State Loose Fill Vermiculite Samples Other: <input type="checkbox"/>			
<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		Filter Pore Size (Air Samples): <input type="checkbox"/> 0.8µm <input type="checkbox"/> 0.45µm	
Samplers Name: <u>John G. Grouse</u>		Samplers Signature: <u>[Signature]</u>	
Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
0219162801	Phase I Hallway Inside	1337 L	
0219162802	Phase I Hallway Inside	1305 L	
0219162803	Phase I Hallway Inside	1319 L	
0219162804	Phase I Hallway Inside	1330 L	
0219162805	Phase I Hallway Inside	1345 L	
0219162806	Inside blank		
0219162807	Outside blank		
0219162808	Lab blank		
Client Sample # (s): <u>01 - 08</u>		Total # of Samples: <u>8</u>	
Relinquished (Client): <u>Charles Swanda</u>		Date: <u>2/19/16</u>	
Received (Lab):		Date: <u>W.F.</u>	
Comments/Special Instructions: <u>email to Forgiore @ AXIUM ENV.COM</u>		Time: <u>10:45</u> FEB 19 2016 By: <u>Am</u>	

**EMSL Analytical, Inc.**

7 Constitution Way, Suite 107, Woburn, MA 01801

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

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

EMSL Order: 131600725

CustomerID: AXIO80

CustomerPO:

ProjectID:

Attn: **Steve Minassian**
Axiom Partners, Inc.
545 Salem Street
Wakefield, MA 01880

Phone: (781) 213-9198
 Fax: (781) 213-6992
 Received: 02/18/16 5:20 PM
 Analysis Date: 2/19/2016
 Collected: 2/18/2016

Project: **Constantino School, Haverhill**

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM)

Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

Sample	Location	Volume (Liters)	Area Analyzed (mm ²)	Non Asb	Asbestos Type(s)	# Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥ 0.5μ < 5μ	≥ 5μ		(S/mm ²)	(S/cc)
0218162801 131600725-0001	Room 39 Inside	1337.00	0.0655	0	None Detected			0.0044	<15.00	<0.0044
0218162802 131600725-0002	Room 39 Inside	1309.00	0.0655	0	None Detected			0.0045	<15.00	<0.0045
0218162803 131600725-0003	Room 39 Inside	1319.00	0.0655	0	None Detected			0.0045	<15.00	<0.0045
0218162804 131600725-0004	Room 39 Inside	1330.00	0.0655	0	None Detected			0.0044	<15.00	<0.0044
0218162805 131600725-0005	Room 39 Inside	1349.00	0.0655	0	None Detected			0.0044	<15.00	<0.0044
0218162806 131600725-0006	Outside Blank				Not Analyzed					
0218162807 131600725-0007	Lab Blank				Not Analyzed					
0218162808 131600725-0008	Inside				Not Analyzed					

Analyst(s)

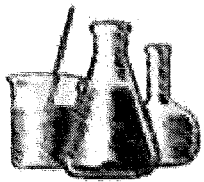
Alexander Maxinoski (5)

Alexander Maxinoski, Asbestos Laboratory Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. 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. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. Results reported in both structures/cm3 and structures/mm2 are dependent on the volume of air sampled and measured by non-laboratory personnel are not the responsibility of EMSL and are not covered by the laboratory's NVLAP accreditation. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-107T3 and VT AL998919

Initial report from 02/19/2016 09:22:09



ProScience Analytical Services, Inc

David Rooney
Axiom Partners, Inc., MA
545 Salem St.
Wakefield, MA 01880

February 20, 2016

Dear David Rooney :

Results of air samples you described and submitted to ProScience Analytical Services, Inc. are shown on the enclosed data sheets. The analytical results in this report apply to the items tested only.

The listed inside samples were prepared and analyzed in compliance with 40 CFR, Part 763, Appendix A to Subpart E, Final Rule and Notice, October 30, 1987 using transmission electron microscopy (TEM) with selected area electron diffraction (SAED) and semi-quantitative microanalysis.

As listed on the AHERA Analysis Summary, the average asbestos concentration for the inside samples analyzed was equal to or below the average background contamination level of 70 asbestos structures per square millimeter of filter area (s/mm²). This low average asbestos concentration completes the response action described in 40 CFR, Part 763, Appendix A to Subpart E, therefore analysis of outside samples, blanks, and the Z-test calculation are not required.

The quality control and uncertainty data related to the samples analyzed are available for review upon the written request of the client. ProScience Analytical Services, Inc. and its employees are not responsible for data collected by personnel who are not employed by the laboratory and assume no responsibility for potential sample contamination, misuse, misinformation, or misrepresentation by the client, therefore no statements about "clearance" are reported. All calculations (structures/cm³ and structures/mm²) are based on collection volumes supplied by the client and are not covered by our NVLAP accreditation. Samples are retained for a period of 2 months.

The enclosed results may not be used under any circumstances as product endorsement by any US government agency including NIST/NVLAP.

This report may not be reproduced, except in its entirety, without the permission of ProScience Analytical Services, Inc., laboratory Director.

Please contact me if you have any questions regarding this report or related information.

Sincerely,

Mark Derosier, Senior Analyst
Aimee Cormier, Laboratory Manager

Enclosure:

BATCH NUMBER : AT 15620 CLIENT PROJECT ID: 1288.003

Client Ref: Consentino School

NVLAP Lab Code 200090-0; CT ID# PH-0209; MA ID# AA000156; ME ID# LB-055; ME ID# LA-056;

AIHA ID# 102754; VT ID# AL016876; PH ID# 218(TEM,PLM); ELAP ID# 11632; RI ID# 186.

ProScience Analytical Services, Inc.

22 Cummings Park, Woburn, Massachusetts 01801
781-935-3212 ~ Fax: 781-932-4857 ~ E-Mail: general@proscience.net

Laboratory Report

Client Project #: 1288.003
Client Reference: Consentino School
PO #: 1288.004
Client #: 459
Client Name: Axiom Partners, Inc., MA

Batch: AT 15620
Method: AHERA
Date Received: 2/20/2016
Date Analyzed: 2/20/2016
Date of Report: 2/20/2016

Lab ID	Client ID	Description	Type	VOL(L)	# GO	GOA	TGOA	Analytical Sensitivity	# STR. >=5	Total # STR.	Total Asbestos			
											>=5	Total s/cc	>=5	Total s/mm ²
A119116	022016-22-04	1st Floor Hallway Phase 2	in	1208.7	7	0.010229	0.07160	.0044	NSD	2	NSD	.0089	NSD	27.932
A119117	022016-22-05	1st Floor Hallway Phase 2	in	1208.7	7	0.010229	0.07160	.0044	NSD	2	NSD	.0089	NSD	27.932
A119118	022016-22-06	1st Floor Hallway Phase 2	in	1208.7	7	0.010229	0.07160	.0044	NSD	NSD	NSD	NSD	NSD	NSD
A119119	022016-22-07	1st Floor Hallway Phase 3	in	1208.7	7	0.010229	0.07160	.0044	NSD	NSD	NSD	NSD	NSD	NSD
A119120	022016-22-08	1st Floor Hallway Phase 3	in	1208.7	7	0.010229	0.07160	.0044	NSD	1	NSD	.00445	NSD	13.966

ASBESTOS STRUCTURE TYPE TOTAL						AVERAGE ASBESTOS/mm ²
CHR	AMO	CRO	ACT	TRE	ANT	
5	0	0	0	0	0	13.966

Comments:

All sizes in microns **Key:** GO = Grid Opening GOA = Grid Opening Area TGOA = Total GOA
GHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite NSD = No Structures Detected
Aimee Cormier
Aimee Cormier, Analyst

www.proscience.net

TEI	Off-hours work is available but subject to DACT	
TEI		

Results

Tel	Fax	Email	HC
X		X	

Client

Client	
Name	AXIOM Partners
Address	545 Salem St, Wakefield MA
Job #	1288.003
Job Name	Consentino School
PO #	1288.004

Final Report

Email	Hard Copy
X	

Analysis

Air		Water		Bulk	
AHERA Clearance Set	X	Drinking (EPA 100.2)		NOB	
AHERA Method (no set)		Waste (EPA 100.1)		Qualitative	
NIOSH 7402 (PCM Equiv.)		Dust		Soil	
ISO 10312 (direct)		ASTM D6480		Stop 1st Pos	
ISO 13794 (indirect)		ASTM D5755		Other in Comments	

Contact

Contact	
Name	David Rooney
Phone/Fax	603-505-5877
Email	drooney@axiomenv.com

Relinquished By

Received By

Relinquished By

Received By

Date / Time

Date / Time

Date / Time

Date / Time

Client ID	Description	Type In, Out, Blk, Pnl, Area	Location / Date & Time Collected	Volume or Area	Comments
022016-22-01	Field Blank				
022016-22-02	Field Blank	IWA			
022016-22-03	Field Blank	OWA			
022016-22-04	TEM Clearance	IWA	1st Floor Hallway Phase 2	1208.7	
022016-22-05	TEM Clearance	IWA	1st Floor Hallway Phase 2	1208.7	
022016-22-06	TEM Clearance	IWA	1st Floor Hallway Phase 2	1208.7	
022016-22-07	TEM Clearance	IWA	1st Floor Hallway Phase 3	1208.7	
022016-22-08	TEM Clearance	IWA	1st Floor Hallway Phase 3	1208.7	



10 Diamond Drive

AT15620

Project No: 01288.004

Client: Haverhill Public Schools

Location(s) Sampled: 1st Floor Hallway, Phase 2 & 3

State License #: AM 061685

[illegible]

*****Work Activity Codes**

9 = Pre-Abatement

10 = Gross Removal

11 = Fine Cleaning

12 = Repair/Encaps

13 - 2011 Reinforcement

14 - Miscellaneous /

1810-1811

0.00

Friable ACM)

Grid Opening Size	0.010229
Eff.Filter Area (mm)	385
No. of Grid Openings	7
Analytical Sensitivity	.0044
Pore Size/Filter Type	0.45 MCE
Instrument / Voltage	Philips CM12/100KeV
Analyst	<i>JS</i>
Date Analyzed	<i>2/20/16</i>
Magnification	<i>~1875X</i>
Quality Of Prep	<i>1</i>
Scope #	<i>1</i>
Comments:	

	Location	G.S.O.	Str.#	Str. Type	Species	SAED	EDXA	Length (um)	Width (um)
↓	10D	H3	NSD						
		H5							
↑	10E	H3							
		H5							
		H6							
		I2							
			↓						
			1	M	Ch	✓		2.0	.08
			2	M	Ch	✓		1.25	.05

2

Totals

Page 1 of 5

AHERA / NIOSH Analysis TEM Sample Worksheet

Grid Opening Size	0.010229
Eff. Filter Area (mm)	385
No. of Grid Openings	7
Analytical Sensitivity	.0044
Pore Size/Filter Type	0.45 MCE
Instrument / Voltage	Philips CM12/100KeV
Analyst	<i>sfu</i>
Date Analyzed	<i>2/20/16</i>
Magnification	<i>~1875x</i>
Quality Of Prep	<i>✓</i>
Scope #	<i>1</i>
Comments:	

[illegible]

2

Totals

Page 2 of 5

AHERA / NIOSH Analysis TEM Sample Worksheet

Grid Opening Size	0.010229
Eff. Filter Area (mm)	385
No. of Grid Openings	7
Analytical Sensitivity	.0044
Pore Size/Filter Type	0.45 MCE
Instrument / Voltage	Philips CM12/100KeV
Analyst	<i>He</i>
Date Analyzed	<i>2/20/16</i>
Magnification	<i>~18750</i>
Quality Of Prep	<i>✓</i>
Scope #	<i>1</i>
Comments:	

[illegible]

NSD

Totals

Page 3 of 5

AHERA / NIOSH Analysis TEM Sample Worksheet

Grid Opening Size	0.010229
Eff.Filter Area (mm)	385
No. of Grid Openings	7
Analytical Sensitivity	.0044
Pore Size/Filter Type	0.45 MCE
Instrument / Voltage	Philips CM12/100KeV
Analyst	<i>Stu</i>
Date Analyzed	<i>2/20/16</i>
Magnification	<i>~18750</i>
Quality Of Prep	<i>✓</i>
Scope #	<i>1</i>
Comments:	

Total Asbestos Str

Totals

Page 4 of 5

AHERA / NIOSH Analysis TEM Sample Worksheet

Grid Opening Size	0.010229
Eff. Filter Area (mm)	385
No. of Grid Openings	7
Analytical Sensitivity	.0044
Pore Size/Filter Type	0.45 MCE
Instrument / Voltage	Philips CM12/100KeV
Analyst	<i>[Signature]</i>
Date Analyzed	2/20/16
Magnification	~1875X
Quality Of Prep	✓
Scope #	1
Comments:	

[illegible]

Totals

Page 5 of 5

**EMSL Analytical, Inc.**

7 Constitution Way, Suite 107, Woburn, MA 01801

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

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

EMSL Order: 131600895

CustomerID: AXIO80

CustomerPO:

ProjectID:

Attn: **Steve Minassian**
Axiom Partners, Inc.
545 Salem Street
Wakefield, MA 01880

Phone: (781) 213-9198
Fax: (781) 213-6992
Received: 02/27/16 10:00 AM
Analysis Date: 2/27/2016
Collected:

Project: **Consentino School / 1288.004**

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

Sample	Location	Volume (Liters)	Area Analyzed (mm ²)	Non Asb	Asbestos Type(s)	# Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥ 0.5μ	< 5μ ≥ 5μ		(S/mm ²)	(S/cc)
022716.01 131600895-0001	Sealed Blank				Not Analyzed					
022716.02 131600895-0002	Field Blank				Not Analyzed					
022716.03 131600895-0003	South / Containment	1261.00	0.0655	0	None Detected			0.0047	<15.00	<0.0047
022716.04 131600895-0004	Center / Containment	1261.00	0.0655	0	None Detected			0.0047	<15.00	<0.0047
022716.05 131600895-0005	North / Near Decon	1621.00	0.0655	0	None Detected			0.0036	<15.00	<0.0036
022716.06 131600895-0006	East Wall	1261.00	0.0655	0	None Detected			0.0047	<15.00	<0.0047
022716.07 131600895-0007	West Of Decon	1261.00	0.0655	0	None Detected			0.0047	<15.00	<0.0047

Analyst(s)

Kevin Pine (5)

Alexander Maxinoski, Asbestos Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. 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. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. Results reported in both structures/cm3 and structures/mm2 are dependent on the volume of air sampled and measured by non-laboratory personnel are not the responsibility of EMSL and are not covered by the laboratory's NVLAP accreditation. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.

Samples analyzed by EMSL Analytical, Inc. Woburn, MA NVLAP Lab Code 101147-0, CT PH-0315, MA AA000188, RI AAL-107T3 and VT AL998919

Initial report from 02/29/2016 07:34:07

EMSL ANALYTICAL INC.
LABORATORY PRODUCTS TRAINING

EMSL Order Number (Lab Use Only):

131600895

PHONE:
FAX:

Company Name: <u>AXIUM PARTNERS INC.</u>		EMSL Customer ID:	
Street: <u>545 SALMON ST. #4</u>		City: <u>WAKEFIELD</u>	State/Province: <u>MA</u>
Zip/Postal Code: <u>01886</u>	Country: <u>USA</u>	Telephone #: <u>2398230980</u>	Fax #:
Report To (Name): <u>HFORGIONE@axiumentv.com</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: <u>5MILBURN@AXIUMENTV.COM</u>		Purchase Order:	
Project Name/Number: <u>CONJUGATE/1288.004</u>		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken: <u>SCHOOL</u>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
EMSL Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different - If Bill to is Different note instructions in Comments**			
Third Party Billing requires written authorization from third party			
Turnaround Time (TAT) Options* - Please Check			
<input checked="" type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week			
*For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.			
PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/ Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NYS 198.8 SOF-V <input type="checkbox"/> NIOSH 9002 (<1%)		TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input checked="" type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	
TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite** <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique **Can not accept New York State Loose Fill Vermiculite Samples Other: <input type="checkbox"/>			
<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		Filter Pore Size (Air Samples): <input type="checkbox"/> 0.8µm <input type="checkbox"/> 0.45µm	
Samplers Name:		Samplers Signature:	
Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
022716.01	SEALED BLANK	N/A	N/A
022716.02	FIELD BLANK	10520.	02-27-16
022716.03	SOUTH / CONTAINMENT / NEAR AIR LOCATION	1261	022716 0710/0920
022716.04	CENTER / CONTAINMENT	1261	0712/0922
022716.05	NORTH / NEAR DECON	1261	0714/0924
022716.06	EAST WALL	1261	0717/0927
022716.07	WEST OF DECON	1261	0720/0930
Client Sample # (s):		Total # of Samples: <u>7</u>	
Relinquished (Client):		Date: <u>02-27-16</u> Time:	
Received (Lab):		Date: Time:	
Comments/Special Instructions:			

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* PLEASE CALL ASAP W/ RESULTS

