



Heather Forgione
Axiom Partners, Inc.
545 Salem St.
Wakefield MA 01880

Project Reference: 01288.003
Laboratory Batch #: 1614744
Date Samples Received: 02/19/2016
Date Samples Analyzed: 02/19/2016
Date of Final Report: 02/19/2016

SAMPLE IDENTIFICATION:

Eight (8) samples from Haverhill HS Emergency project were submitted by Heather Forgione on 2016/02/19

This bulk sample(s) was delivered to Optimum Analytical Consulting, LLC (Optimum) located in Salem, New Hampshire for asbestos content determination.

ANALYTICAL METHOD:

Analytical procedures were performed in accordance with the U.S. Environmental Protection Agency (EPA) Recommended Method for the Determination of Asbestos in Bulk Samples by Polarized Light Microscopy and Dispersion Staining (PLM/DS)(EPA-600/M4-82-020, EPA-600/ R-93-116). This report relates only to those samples analyzed, and may not be indicative of other similar appearing materials existing at this, or other sites. Quantification of asbestos content was determined by Calibrated Visual Estimation. Optimum is not responsible for sample collection activities or analytical method limitations. The laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples.

In any given material, fibers with a small diameter ($<0.25\mu\text{m}$) may not be detected by the PLM method. Floor tile and other resinously bound material may yield a false negative if the asbestos fibers are too small to be resolved using PLM. Additional analytical methods may be required. Optimum recommends using Transmission Electron Microscopy (TEM) for a more definitive analysis.

Optimum will retain all samples for a minimum of three months. Further analysis or return of samples must be requested within this three month period to guarantee their availability. This report may not be reproduced except in full, without the written approval of Optimum Analytical and Consulting, LLC.

Use of the NVLAP and AIHA Logo in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology or the American Industrial Hygiene Association.

Detection Limit $<1\%$, Reporting Limits: CVES = 1% , 400 Point Count = $.25\%$, 1000 Point Count = 0.1% ; Present or Absent are observations made during a qualitative analysis.

This report is considered preliminary until signed by both the Laboratory Analyst and Laboratory Director or Supervisor. If you have any questions regarding this report, please do not hesitate to contact us.

Jamie L. Noel
Laboratory Director

Kristina Scaviola
Laboratory Supervisor



OPTIMUM

Analytical and Consulting, LLC

85 Stiles Road, Suite 201, Salem, NH 03079 Phone: (603)-458-5247

BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

CLIENT: Axiom Partners, Inc.
ADDRESS: 545 Salem St.
CITY / STATE / ZIP: Wakefield MA 01880
CONTACT: Heather Forgione
DESCRIPTION: PLM Analysis
LOCATION: Haverhill HS Emergency

ORDER #: 1614744
PROJECT #: 01288.003
DATE COLLECTED: 02/18/2016
COLLECTED BY: Heather Forgione
DATE RECEIVED: 02/19/2016
ANALYSIS DATE: 02/19/2016
REPORT DATE: 02/19/2016
ANALYST: Kristina Scaviola

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1614744-001 021816-45-01A	Room F21D 4" Covebase, Beige	LAYER 1 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
1614744-002 021816-45-01B	F Wing Mechanical Room 4" Covebase, Beige	LAYER 1 100%	None Detected	Cellulose Fiber 1% Non-Fibrous Material 99%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
1614744-003 021816-45-02A	Room F21D 4" Covebase Adhesive, Tan	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
1614744-004 021816-45-02B	F Wing Mechanical Room 4" Covebase Adhesive, Tan	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
1614744-005 021816-45-03A	Room F22 Nieves 5" Covebase, Black	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
1614744-006 021816-45-03B	Room F22 Lynch 5" Covebase, Black	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
1614744-007 021816-45-04A	Room F22 Nieves 5" Covebase Adhesive, Tan	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%
1614744-008 021816-45-04B	Room F22 Lynch 5" Covebase Adhesive, Tan	LAYER 1 100%	None Detected	Cellulose Fiber 2% Non-Fibrous Material 98%
Total % Asbestos:			No Asbestos Detected	Total % Non-Asbestos: 100.0%



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CONTACT: Heather Forgione
DESCRIPTION: PLM Analysis
LOCATION: Haverhill HS Emergency

BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

ORDER #: 1614744
PROJECT #: 01288.003
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REPORT DATE: 02/19/2016
ANALYST: Kristina Scaviola

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
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Analyst

Signatory:

Kristina Scaviola

NVLAP[®]
Lab Code: 101433-0



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ADDRESS: 545 Salem St.
CITY / STATE / ZIP: Wakefield MA 01880
CONTACT: Heather Forgione
DESCRIPTION: PLM Analysis
LOCATION: Haverhill HS Emergency

BULK SAMPLE ANALYSIS REPORT POLARIZED LIGHT MICROSCOPY

PLM (EPA-600/M4-82-020, EPA-600/ R-93-116) NVLAP Lab Code: 101433-0

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AXIOM PARTNERS
979 MAIN STREET
WAKEFIELD, MA 01880
PHONE: 781.213.9198
FAX: 781.213.6992

LABORATORY ORDER #:

1614744

Sample(s) received in good condition? [Y] [N]
Discernable field blank submitted? [Y] [N]

Asbestos Analysis - Chain of Custody Form

Sampled by:	HR FORGIONE	Date Collected:	02.18.16
Project Name:	HAVERHILL HS EMERGENCY		
Project ID/Number:	01288.003	S MINASSIAN	
Special Lab Instructions:	Positive stop; email results to James@axiomenv.com and hforigione@axiomenv.com		

TURNAROUND TIME - If turnaround time is not chosen standard turnaround time applies (6 + Days)

☒ 3 Hours ☐ 6 Hours ☐ 12 Hours ☐ 24 Hours ☐ 48 Hours ☐ 72 Hours ☐ 4 Days ☐ 5 Days ☐ 6-10 Days

TYPE OF ASBESTOS ANALYSIS: EPA 600/R-93/116

SAMPLE NO.	SAMPLE DESCRIPTION	SAMPLE LOCATION	COMMENTS
021816-45-01A	4" COVE BASE	ROOM F21D	
01B	" "	F WING MECHANICAL ROOM	
021816-45-02A	4" COVE BASE ADHESIVE	ROOM F21D	
02B	" " "	F WING MECHANICAL ROOM	
021816-45-03A	5" COVE BASE	ROOM F22 NIEVES	
03B	" "	ROOM F22 LYNCH	
021816-45-04A	5" COVE BASE ADHESIVE	ROOM F22 NIEVES	
04B	" " "	ROOM F22 LYNCH	

Relinquished:		Date:	02.18.16	Time:	1657
Received:		Date:	2/19/16	Time:	
Relinquished:		Date:		Time:	
Received:		Date:		Time:	