



Steve Minassian
Axiom Partners, Inc.
545 Salem St.
Wakefield MA 01880

Project Reference: 01288.004
Laboratory Batch #: 1615413
Date Samples Received: 04/14/2016
Date Samples Analyzed: 04/15/2016
Date of Final Report: 04/15/2016

SAMPLE IDENTIFICATION:

Eight (8) samples from Consentino, Haverhill, MA project were submitted by Heather R. Forgione on 2016/04/14

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: Steve Minassian
DESCRIPTION: PLM Analysis
LOCATION: Consentino, Haverhill, MA

ORDER #: 1615413
PROJECT #: 01288.004
DATE COLLECTED: 04/13/2016
COLLECTED BY: Heather R. Forgione
DATE RECEIVED: 04/14/2016
ANALYSIS DATE: 04/15/2016
REPORT DATE: 04/15/2016
ANALYST: Jamie Noel

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type	(%)	Non-Asbestos Components	(%)
1615413-001 041316-45-01A	Library LAYER 1 Leveling Compound, Gray/White LAYER 2 Mastic, Tan	LAYER 1 100% LAYER 2 100%	None Detected Chrysotile	 2%	Cellulose Fiber Non-Fibrous Material Cellulose Fiber Non-Fibrous Material	1% 99% 2% 96%
Total % Asbestos:				2.0%	Total % Non-Asbestos:	98.0%
1615413-002 041316-45-01B	Library LAYER 1 Leveling Compound, Gray/White LAYER 2 Mastic, Tan Note: Positive Stop	LAYER 1 100% LAYER 2 100%	None Detected		Cellulose Fiber Non-Fibrous Material	1% 99%
Total % Asbestos:				No Asbestos Detected	Total % Non-Asbestos:	100.0%
1615413-003 041316-45-02A	Library Above Central Support Beam Plaster, Gray	LAYER 1 100%	Chrysotile	2%	Cellulose Fiber Non-Fibrous Material	10% 88%
Total % Asbestos:				2.0%	Total % Non-Asbestos:	98.0%
1615413-004 041316-45-02B	Library Above Central Support Beam Plaster, Positive Stop	LAYER 1 100%				
1615413-005 041316-45-02C	Library Above Central Support Beam Plaster, Positive Stop	LAYER 1 100%				
1615413-006 041316-45-03A	Hall at Room 1 Spray On Fireproofing, Gray	LAYER 1 100%	Chrysotile	15%	Cellulose Fiber Fibrous Glass Non-Fibrous Material	45% 10% 30%
Total % Asbestos:				15.0%	Total % Non-Asbestos:	85.0%
1615413-007 041316-45-03B	Hall at Room 1 Spray on Fireproofing, Note: Positive Stop	LAYER 1 100%				



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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: Steve Minassian
DESCRIPTION: PLM Analysis
LOCATION: Consentino, Haverhill, MA

ORDER #: 1615413
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ANALYST: Jamie Noel

REPORT OF ANALYSIS

Laboratory ID Sample No.	Sample Location Description	Layer No. Layer %	Asbestos Type (%)	Non-Asbestos Components (%)
1615413-008	Hall at Room 1			
041316-45-03C	Spray on Fireproofing, Note: Positive Stop	LAYER 1 100%		

**Analyst
Signatory:**

Jamie Noel

NVLAP[®]
Lab Code: 101433-0



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CONTACT: Steve Minassian
DESCRIPTION: PLM Analysis
LOCATION: Consentino, Haverhill, MA

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 #
1615413
 Sample(s) received in good condition? [Y] [N]
 Discernable field blank submitted? [Y] [N]

Asbestos Analysis - Chain of Custody Form

Sampled by: <u>HR FORGIONE</u>	Date Collected: <u>04.13.16</u>
Project Name: <u>CONSENTINO, HAVERHILL MA</u>	
Project ID/Number: <u>01288.004</u> <u>smnassian</u>	
Special Lab Instructions: Positive stop; email results to <u>smnass@axiomenv.com</u> and <u>hforigione@axiomenv.com</u>	

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
041316-45-01A	GREY/WHITE LEVELING COMPOUND	LIBRARY	
01B	↓	↓	
02A	PLASTER	LIBRARY ABOVE CENTRAL SUPPORT BEAM	
02B	↓	↓	
02C	↓	↓	
03A	SPRAY ON FIREPROOFING	HALL @ ROOM 1	
03B	↓	↓	
03C	↓	↓	

Relinquished: Heather R. Forgione Date: 04/13/16 Time: 1716
 Received: [Signature] Date: 4/14/16 Time: 800
 Relinquished: _____ Date: _____ Time: _____
 Received: _____ Date: _____ Time: _____