Limited Asbestos Inspection Report

Bourne High School
75 Waterhouse Road
Bourne, Massachusetts

Bourne Public Schools

Bourne, Massachusetts

August 11, 2009



FUSS & O'NEILL
Disciplines to Deliver

Fuss & O'Neill EnviroScience, LLC
50 Redfield Street, Suite 100
Boston, MA 02122

Project No. 20070914.A2E

FUSS & O'NEILL
EnviroScience, LLC

Disciplines to Deliver

August 11, 2009

Mr. Peter Simpson
Director of Business Services
Bourne Public Schools
36 Sandwich Road
Bourne, MA 02532

RE: Limited Asbestos Inspection Services
Bourne High School
75 Waterhouse Road, Bourne, Massachusetts
Fuss & O'Neill EnviroScience, LLC No. 20070914.A4E

Dear Mr. Simpson:

Enclosed is the report for the limited inspection for asbestos or suspect asbestos containing materials conducted at the Bourne High School located at 75 Waterhouse Road in Bourne, Massachusetts. The services were performed on July 21, 2009 by a Fuss & O'Neill EnviroScience, LLC licensed inspector.

If you have any questions regarding the contents of this report, please do not hesitate to contact Bob May at (617) 282-4675, extension 4701. Thank you for this opportunity to have served your environmental needs.

Sincerely,

Robert L. May, Jr.
Vice President

Stephen W. Connelly
Senior Vice President

RLM:adw
Enclosure

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Bourne High School
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1. Introduction

On July 21, 2009, a Fuss and O' Neill EnviroScience, LLC (EnviroScience) representative, Jonathan Hand, performed a limited inspection and sampling for asbestos containing materials (ACM) at the Bourne High School located at 75 Waterhouse Road in Bourne, Massachusetts. The inspection was performed for the Bourne Public Schools which is the Local Education Agency (LEA) responsible for compliance with federal and state regulations regarding asbestos in school buildings. Mr. Hand is a licensed asbestos inspector in the Commonwealth of Massachusetts. Refer to *Appendix A* for licensing documentation.

This inspection was performed in response to recommendation from EnviroScience to the LEA that previously unidentified materials or currently presumed asbestos containing materials, included in management plans required by the U.S. Environmental Protection Agency (USEPA), Asbestos Hazard Emergency Response Act (AHERA), be sampled to determine asbestos content.

No destructive investigation for concealed materials was performed. The results of this inspection and sampling is intended to assist Bourne Public Schools with the operations and maintenance requirements in compliance with USEPA, AHERA requirements for visible and accessible ACM within the school building. The results of this testing shall be utilized to update the existing management plan for the school building. The inspection and sampling was performed for only the materials listed herein which were either previously not identified or included in the management plan of if included listed as Presumed Asbestos Containing Materials (PACM).

The results of this limited inspection and sampling do not meet the requirements of an inspection prior to renovation or demolition as required by the USEPA, National Emission Standards for Hazardous Air Pollutants (NESHAP). A NESHAP inspection would be required if planned renovation or demolition is planned associated with the school building.

The results of the inspection and sampling are summarized below.

2. Asbestos Inspection

2.1 Introduction

Fuss and O'Neill EnviroScience, LLC sampled visible and accessible suspect ACM. Materials that were sampled are analyzed by Polarized Light Microscopy (PLM). Locations, material type, sample identification, and asbestos content of ACM identified by bulk sample analysis are given in Table 1 of the Results section. Materials determined to be non-asbestos containing are included in Table 2 of the Results section.

The Inspector collected samples of suspect asbestos containing materials in accordance with USEPA recommendations and AHERA protocols. The protocols included the following:

1. Surfacing Materials (such as plaster, spray-on fireproofing, etc.) were collected in a randomly distributed manner representing each homogenous area based on the overall quantity represented by the sampling as follows:

    a. Three (3) samples were collected from each homogenous area that is less than or equal to 1,000 square feet.
    b. Five (5) samples were collected from each homogenous area that is greater than 1,000 square feet but less than or equal to 5,000 square feet.
    c. Seven (7) samples were collected from each homogenous area that is greater than 5,000 square feet.

2. Thermal System Insulation (such as pipe insulation, tank insulation, etc.) was collected in a randomly distributed manner representing each homogenous area. Three (3) samples were collected from each material. Also, a minimum of one (1) sample of any patching materials applied to TSI presuming the patched area is less than 6 linear or square feet was also collected.

3. Miscellaneous Materials (such as floor tile, construction mastics, etc.) had a minimum of one (1) sample of each homogenous material type. Sampling was conducted in a manner sufficient to determine asbestos content of the homogenous material. In some instances, more than a single sample was collected of miscellaneous materials based on the judgment of the inspector.

Inspector(s) collected samples and prepared proper chain-of-custody forms for transmission of samples to an accredited laboratory for analysis by PLM.

2.2 Results

Utilizing the USEPA protocol and criteria the following Table 1 identifies materials determined to be ACM (Asbestos 1% or greater):

TABLE 1
ASBESTOS-CONTAINING MATERIALS (ACM)

SAMPLE LOCATION	MATERIAL TYPE	SAMPLE NO.	ASBESTOS CONTENT
Music Room	Roof Drain Mudded Insulation on Pipe Fittings	721JH-06A	40% Chrysotile 5% Amosite
1st Floor B-Wing Janitor's Closet	Mudded Insulation on Pipe Fittings	721JH-07A	50% Chrysotile 2% Amosite
Room Between Room 22C and 24C	Transite Fume Hood	721JH-08A	25% Chrysotile

Utilizing the USEPA protocol and criteria the following Table 2 identifies materials determined to be **non-ACM**:

TABLE 2
NON-ASBESTOS CONTAINING MATERIALS

SAMPLE LOCATION	MATERIAL TYPE	SAMPLE NO.
C-Wing Boiler Room	Small Boiler Insulation – Top Gray Layer	721JH-01 A-C
C-Wing Boiler Room	Small Boiler Insulation – Bottom White Layer	721JH-02 A-C
C-Wing Boiler Room	Boiler Breeching	721JH-03 A-C
A-Wing Boiler Room	Boiler Breeching	721JH-04 A-C
Pipe Tunnel (Art Wing)	Hot Water Heater Breeching	721JH-05 A-C
Throughout C-Wing	1x1 Fissured Ceiling Tile	721JH-09 A-C
Throughout A and B Wings	1x1 Pin Hole Ceiling Tile	721JH-10 A-C
Cafeteria and A-Wing Hall	2x2 Fissured Ceiling Tile	721JH-11 A-C
Main Lobby, Main Office, and A-Wing Classrooms	2x4 Fissured Ceiling Tile	721JH-12 A-C
Throughout Hallways	Brown w/ Brown and White Speckles 12x12 Floor Tile	721JH-13 A-C
Room 13A, Math Department Office, and Main Office	White w/ Gray and Tan Speckles 12x12 Floor Tile	721JH-14 A-C
Room 14A	White w/ Tan Speckles 12x12 Floor Tile	721JH-15 A-B
Language Arts Department Office and Room 20D	Grey w/ White Speckles 12x12 Floor Tile	721JH-16 A-B
Room 26D	Tan w/ Brown and White Speckles 12x12 Floor Tile	721JH-17 A-B
Throughout School	Black Mastic a/w 12x12 Floor Tile	721JH-18 A-D

The results of laboratory analysis summarized above are located in *Appendix B.*

2.3 Discussion

The USEPA, Occupational Safety and Health Administration (OSHA), and the Commonwealth of Massachusetts Division of Occupational Safety (DOS) defines any material that contains greater than one percent (>1%) asbestos, utilizing PLM, as being an ACM. The Commonwealth of Massachusetts Department of Environmental Protection (DEP) defines any material that contain equal to or greater than one percent (1%) asbestos as being an ACM. Materials that are identified as "none detected" are specified as not containing asbestos. Friable materials that are identified as containing less than ten percent (<10%) asbestos, are recommended to be analyzed further utilizing the EPA 400 point-counting technique to verify asbestos content by the USEPA. A property owner may elect to presume the results are asbestos containing based on the initial PLM results without the additional analysis by the EPA 400 point-counting technique. None of the materials were determined to contain asbestos by PLM with less than ten percent (<10%) asbestos and none require further analysis by the EPA 400 point-counting technique.

Additionally, the USEPA has suggested that materials that are non-friable organically bound materials such as mastic adhesives, etc are recommended for further confirmatory analysis utilizing Transmission Electron Microscopy (TEM) prior to disturbance in renovation or demolition. None of the collected samples were analyzed by TEM.

2.4 Conclusion

The materials determined to contain asbestos will continue to be included in the schools AHERA Management Plan. Materials sampled and determined to be non-asbestos will be removed from the AHERA Management Plan. Damaged asbestos containing materials should be repaired or removed by a licensed Asbestos Abatement Contractor and in accordance with the Commonwealth of Massachusetts, DLWD, DOS, DEP and USEPA National Emission Standards for Hazardous Air Pollutants (NESHAP) standards for asbestos abatement.

The results of this inspection must be maintained by the LEA as part of the permanent AHERA records maintained for the school building a copy of which should be both at the school building as well as central office of the LEA.

Report prepared by Environmental Technician I, Jonathan L. Hand.

Reviewed by:

Robert L. May, Jr.
Vice President

Stephen W. Connelly
Senior Vice President

RLM/adw

FUSS & O'NEILL
EnviroScience, LLC

Appendix A

Inspector's Licenses

Commonwealth of Massachusetts

Division of Occupational Safety

Laura M. Marlin, Commissioner

Asbestos Inspector

JONATHAN L. HAND

Eff. Date 03/19/09

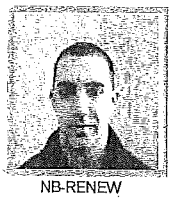
Exp. Date 03/18/10

AI041945

Member of C.O.N.E.S.

NB

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NB-RENEW

INSTITUTE FOR ENVIRONMENTAL EDUCATION, INC.

16 Upton Drive, Wilmington, MA 01887
(Phone) 978.658.5272

IEE IEE

This is to certify that
Jonathan Hand

has completed the requisite training, and has passed an examination for reaccreditation as:

Asbestos Inspector Refresher

pursuant to Title II of the Toxic Substance Control Act, 15 U.S.C. 2646

January 26, 2009
Course Dates

Course Location
Institute for Environmental Education
16 Upton Drive
Wilmington, MA 01887

January 26, 2009
Examination Date

09-3975-106-238580
Certificate Number

January 26, 2010
Expiration Date

Training Director

CERTIFICATE OF ACHIEVEMENT

This certifies that

Jonathan Hand

has successfully completed the

24 Hour Asbestos Site Inspector Training
Asbestos Accreditation Under TSCA Title II
40 CFR Part 763

conducted by

Official record of successful completion of this Course is the DOH2832 Certificate issued on January 9, 2008.

ATC Associates Inc.
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070

Edward Hodgins
Principal Instructor

January 7-9, 2008
Date of Course

January 9, 2009
Expiration Date

Gregory A. Morse
Regional Manager

SI-1359
Certificate Number

January 9, 2008
Examination Date

FUSS & O'NEILL
EnviroScience, LLC

Appendix B

Asbestos Sample Results and Chains of Custody

EMSL Analytical, Inc.
307 West 38th Street, New York, NY 10018
Phone: (212) 290-0051 Fax: (212) 290-0058 Email: manhattanlab@emsl.com

Attn: **Fuss & O' Neill EnviroScience, LLC**
50 Redfield Street
Boston, MA 02122

Fax: (413) 647-0018 Phone: (617) 282-4675

Project: **20070914.A2FL/ BOURNE PUBLIC SCHOOLS/ HIGH SCHOOL**

Customer ID: ENVI54C
Customer PO:
Received: 07/24/09 9:00 AM
EMSL Order: 030918763
EMSL Proj:
Analysis Date: 7/26/2009

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

			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**% Non-Fibrous**	**% Type**
721JH-01A *030918763-0001*	C WING BOILER ROOM/ SMALL BOILER INSULATION GRAY	Gray Fibrous Homogeneous	20%	Glass	60% Ca Carbonate 20% Non-fibrous (other)	**None Detected**
721JH-01B *030918763-0002*	C WING BOILER ROOM/ SMALL BOILER INSULATION GRAY	Gray Fibrous Homogeneous	25%	Glass	60% Ca Carbonate 15% Non-fibrous (other)	**None Detected**
721JH-01C *030918763-0003*	C WING BOILER ROOM/ SMALL BOILER INSULATION GRAY	Gray Fibrous Homogeneous	25%	Glass	60% Ca Carbonate 15% Non-fibrous (other)	**None Detected**
721JH-02A *030918763-0004*	C WING BOILER ROOM/ SMALL BOILER INSULATION WHITE	White Fibrous Homogeneous	10%	Glass	80% Ca Carbonate 10% Non-fibrous (other)	**None Detected**
721JH-02B *030918763-0005*	C WING BOILER ROOM/ SMALL BOILER INSULATION WHITE	White Fibrous Homogeneous	10% 3%	Glass Synthetic	80% Ca Carbonate 7% Non-fibrous (other)	**None Detected**

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager
or other approved signatory

Samples analyzed by EMSL Analytical, Inc. New York 307 West 38th Street, New York NY NVLAP Lab Code 101048-9, AIHA IHLAP 102581, NYS ELAP 11506, CT PH-0170, MA AA000170

EMSL Analytical, Inc.
307 West 38th Street, New York, NY 10018
Phone: (212) 290-0051 Fax: (212) 290-0058 Email: manhattanlab@emsl.com

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

			Non-Asbestos				Asbestos
Sample	Description	Appearance	%	Fibrous	%	Non-Fibrous	% Type
721JH-02C *030918763-0006*	C WING BOILER ROOM/ SMALL BOILER INSULATION WHITE	White Fibrous Homogeneous	10% 2%	Glass Synthetic	80% 8%	Ca Carbonate Non-fibrous (other)	None Detected
721JH-03A *030918763-0007*	C WING BOILER ROOM/ BOILER BREECHING	Gray/Yellow Fibrous Homogeneous	30%	Glass	60% 10%	Ca Carbonate Non-fibrous (other)	None Detected
721JH-03B *030918763-0008*	C WING BOILER ROOM/ BOILER BREECHING	Yellow Fibrous Homogeneous	10% 5%	Cellulose Glass	70% 15%	Ca Carbonate Non-fibrous (other)	None Detected
721JH-03C *030918763-0009*	C WING BOILER ROOM/ BOILER BREECHING	Yellow Fibrous Homogeneous	10% 5%	Cellulose Glass	70% 15%	Ca Carbonate Non-fibrous (other)	None Detected
721JH-04A *030918763-0010*	A WING BOILER ROOM/ BOILER BREECHING	Yellow Fibrous Homogeneous	10% <1%	Cellulose Glass	80% 10%	Ca Carbonate Non-fibrous (other)	None Detected
721JH-04B *030918763-0011*	A WING BOILER ROOM/ BOILER BREECHING	Gray/Yellow Fibrous Homogeneous	20%	Glass	70% 10%	Ca Carbonate Non-fibrous (other)	None Detected
721JH-04C *030918763-0012*	A WING BOILER ROOM/ BOILER BREECHING	Yellow Fibrous Homogeneous	7%	Cellulose	85% 8%	Ca Carbonate Non-fibrous (other)	None Detected

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager
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Analysis Date: 7/26/2009

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
721JH-05A *030918763-0013*	PIPE TUNNEL (ART WING)/ HOT WATER HEATER BREECHING	White Fibrous Homogeneous	7% Glass 3% Synthetic	80% Ca Carbonate 10% Non-fibrous (other)	**None Detected**
721JH-05B *030918763-0014*	PIPE TUNNEL (ART WING)/ HOT WATER HEATER BREECHING	White Fibrous Homogeneous	15% Glass 5% Synthetic	65% Ca Carbonate 15% Non-fibrous (other)	**None Detected**
721JH-05C *030918763-0015*	PIPE TUNNEL (ART WING)/ HOT WATER HEATER BREECHING	White Fibrous Homogeneous	15% Glass 3% Synthetic	70% Ca Carbonate 12% Non-fibrous (other)	**None Detected**
721JH-06A *030918763-0016*	MUSIC ROOM/ ROOF DRAIN MUDDED FITTINGS	White Fibrous Homogeneous		50% Ca Carbonate 5% Non-fibrous (other)	**5% Amosite** **40% Chrysotile**
721JH-06B *030918763-0017*	BIOLOGY LAB/ ROOF DRAIN MUDDED FITTINGS				**Not Analyzed**

POSITIVE STOP

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager
or other approved signatory

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
721JH-06C *030918763-0018*	WOMEN'S LOCKER ROOM/ ROOF DRAIN MUDDED FITTINGS				**Not Analyzed**
			POSITIVE STOP		
721JH-07A *030918763-0019*	JANITOR'S CLOSET 1ST FLOOR B WING/ MUDDED FITTINGS	Brown Fibrous Homogeneous		40% Ca Carbonate 8% Non-fibrous (other)	**2% Amosite** **50% Chrysotile**
721JH-07B *030918763-0020*	C WING PIPE TUNNEL/ MUDDED FITTINGS				**Not Analyzed**
			POSITIVE STOP		
721JH-07C *030918763-0021*	A WING PIPE TUNNEL/ MUDDED FITTINGS				**Not Analyzed**
			POSITIVE STOP		
721JH-07D *030918763-0022*	A WING PIPE TUNNEL/ MUDDED FITTINGS				**Not Analyzed**
			POSITIVE STOP		

Analyst(s)

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

			Non-Asbestos			Asbestos
Sample	Description	Appearance	% Fibrous		% Non-Fibrous	% Type
721JH-08A *030918763-0023*	ROOM BETWEEN ROOMS 22C & 24C/ TRANSITE FUME HOOD	Gray Fibrous Homogeneous			65% Ca Carbonate 10% Non-fibrous (other)	**25% Chrysotile**
721JH-08B *030918763-0024*	ROOM BETWEEN ROOMS 22C & 24C/ TRANSITE FUME HOOD					**Not Analyzed**
			POSITIVE STOP			
721JH-08C *030918763-0025*	ROOM BETWEEN ROOMS 22C & 24C/ TRANSITE FUME HOOD					**Not Analyzed**
			POSITIVE STOP			
721JH-09A *030918763-0026*	ROOM 14C/ 1 X 1 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	5% 60%	Cellulose Glass	35% Non-fibrous (other)	**None Detected**
721JH-09B *030918763-0027*	C WING HALL/ 1 X 1 FISSUSED CEILING TILE	Gray Fibrous Homogeneous	10% 60%	Cellulose Glass	30% Non-fibrous (other)	**None Detected**
721JH-09C *030918763-0028*	C WING MEN'S ROOM/ 1 X 1 FISSUSED CEILING TILE	Gray Fibrous Homogeneous	10% 55%	Cellulose Glass	35% Non-fibrous (other)	**None Detected**

Analyst(s)

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

			Non-Asbestos			Asbestos
Sample	Description	Appearance	% Fibrous		% Non-Fibrous	% Type
721JH-10A *030918763-0029*	A-WING HALL/ 1 X 1 PIN HOLE CEILING TILE	Brown/White Fibrous Homogeneous	95%	Cellulose	5% Non-fibrous (other)	None Detected
721JH-10B *030918763-0030*	B-WING HALL/ 1 X 1 PIN HOLE CEILING TILE	Brown/White Fibrous Homogeneous	90%	Cellulose	10% Non-fibrous (other)	None Detected
721JH-10C *030918763-0031*	ROOM 13B/ 1 X 1 PIN HOLE CEILING TILE	Brown/White Fibrous Homogeneous	95%	Cellulose	5% Non-fibrous (other)	None Detected
721JH-11A *030918763-0032*	CAFÉ HALL/ 2 X 2 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	45% 25%	Cellulose Glass	30% Non-fibrous (other)	None Detected
721JH-11B *030918763-0033*	CAFÉ HALL/ 2 X 2 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	40% 30%	Cellulose Glass	30% Non-fibrous (other)	None Detected
721JH-11C *030918763-0034*	A-WING HALL/ 2 X 2 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	50% 20%	Cellulose Glass	30% Non-fibrous (other)	None Detected
721JH-12A *030918763-0035*	MAIN LOBBY/ 2 X 4 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	50% 20%	Cellulose Glass	30% Non-fibrous (other)	None Detected

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager
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Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos			Asbestos
Sample	Description	Appearance	%	Fibrous	% Non-Fibrous	% Type
721JH-12B *030918763-0036*	MAIN OFFICE/ 2 X 4 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	45% 20%	Cellulose Glass	35% Non-fibrous (other)	None Detected
721JH-12C *030918763-0037*	ROOM 14A/ 2 X 4 FISSUSED CEILING TILE	Gray/White Fibrous Homogeneous	40% 20%	Cellulose Glass	40% Non-fibrous (other)	None Detected
721JH-13A *030918763-0038*	2ND FLOOR D-WING HALL/ BROWN W/ BROWN & WHITE	Brown Non-Fibrous Homogeneous			80% Ca Carbonate 20% Non-fibrous (other)	None Detected
721JH-13B *030918763-0039*	1ST FLOOR D-WING CUSTODIAN CLOSET/ 12 X 12 FLOOR	Brown Non-Fibrous Homogeneous			85% Ca Carbonate 15% Non-fibrous (other)	None Detected
721JH-13C *030918763-0040*	LOBBY HALL/ 12 X 12 FLOOR TILE	Brown Non-Fibrous Homogeneous			80% Ca Carbonate 20% Non-fibrous (other)	None Detected
721JH-14A *030918763-0041*	ROOM 13A/ WHITE W/ GRAY AND TAN SPECKLES	Gray/White Non-Fibrous Heterogeneous			80% Ca Carbonate 20% Non-fibrous (other)	None Detected

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager
or other approved signatory

Samples analyzed by EMSL Analytical, Inc. New York 307 West 38th Street, New York NY NVLAP Lab Code 101048-9, AIHA IHLAP 102581, NYS ELAP 11506, CT PH-0170, MA AA000170

EMSL Analytical, Inc.
307 West 38th Street, New York, NY 10018
Phone: (212) 290-0051 Fax: (212) 290-0058 Email: manhattanlab@emsl.com

Attn: **Fuss & O' Neill EnviroScience, LLC**
50 Redfield Street
Boston, MA 02122

Fax: (413) 647-0018 Phone: (617) 282-4675

Project: **20070914.A2FL/ BOURNE PUBLIC SCHOOLS/ HIGH SCHOOL**

Customer ID: ENVI54C
Customer PO:
Received: 07/24/09 9:00 AM
EMSL Order: 030918763
EMSL Proj:
Analysis Date: 7/26/2009

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

			Non-Asbestos		Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
721JH-14B *030918763-0042*	MATH DEPARTMENT OFFICE/ 12 X 12 FLOOR TILE	Gray/White Non-Fibrous Heterogeneous		80% Ca Carbonate 20% Non-fibrous (other)	**None Detected**
721JH-14C *030918763-0043*	MAIN OFFICE/ 12 X 12 FLOOR TILE	Gray/White Non-Fibrous Heterogeneous		85% Ca Carbonate 15% Non-fibrous (other)	**None Detected**
721JH-15A *030918763-0044*	ROOM 14A/ WHITE W/ TAN SPECKLES 12 X 12 FLOOR TILE	White Non-Fibrous Homogeneous		90% Ca Carbonate 10% Non-fibrous (other)	**None Detected**
721JH-15B *030918763-0045*	ROOM 14A/ WHITE W/ TAN SPECKLES 12 X 12 FLOOR TILE	White Non-Fibrous Homogeneous		90% Ca Carbonate 10% Non-fibrous (other)	**None Detected**
721JH-16A *030918763-0046*	LANGUAGE ARTS DEPARTMENT OFFICE/ GRAY W/ WHITE	Gray Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (other)	**None Detected**
721JH-16B *030918763-0047*	ROOM 20D/ GRAY W/ WHITE SPECKLES 12 X12 FLOOR TILE	Gray Non-Fibrous Homogeneous		85% Ca Carbonate 15% Non-fibrous (other)	**None Detected**

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager
or other approved signatory

Samples analyzed by EMSL Analytical, Inc. New York 307 West 38th Street, New York NY NVLAP Lab Code 101048-9, AIHA IHLAP 102581, NYS ELAP 11506, CT PH-0170, MA AA000170

EMSL Analytical, Inc.
307 West 38th Street, New York, NY 10018
Phone: (212) 290-0051 Fax: (212) 290-0058 Email: manhattanlab@emsl.com

Attn: **Fuss & O' Neill EnviroScience, LLC**
50 Redfield Street
Boston, MA 02122

Fax: (413) 647-0018 Phone: (617) 282-4675
Project: **20070914.A2FL/ BOURNE PUBLIC SCHOOLS/ HIGH SCHOOL**

Customer ID: ENVI54C
Customer PO:
Received: 07/24/09 9:00 AM
EMSL Order: 030918763
EMSL Proj:
Analysis Date: 7/26/2009

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

			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**
721JH-17A *030918763-0048*	ROOM 26D/ TAN W/ BROWN AND WHITE SPECKLES 12 X 12	Gray Non-Fibrous Heterogeneous			80% Ca Carbonate 20% Non-fibrous (other)	**None Detected**
721JH-17B *030918763-0049*	ROOM 26D/ TAN W/ BROWN AND WHITE SPECKLES 12 X 12	Gray Non-Fibrous Homogeneous			85% Ca Carbonate 15% Non-fibrous (other)	**None Detected**
721JH-18A *030918763-0050*	LOBBY HALL/ BLACK MASTIC A/W BRWN W/ BROWN & WHITE	Brown/Black Fibrous Homogeneous	5%	Cellulose	95% Non-fibrous (other)	**None Detected**
721JH-18B *030918763-0051*	1ST FLOOR D-WING HALL/ BLACK MASTIC A/W BROWN W/	Gray Fibrous Heterogeneous	20%	Cellulose	50% Non-fibrous (other) 30% Quartz	**None Detected**
721JH-18C *030918763-0052*	2ND FLOOR D-WING HALL/ BLACK MASTIC A/W BROWN W/	Black Non-Fibrous Heterogeneous	10%	Cellulose	90% Non-fibrous (other)	**None Detected**
721JH-18D *030918763-0053*	MATH DEPARTMENT OFFICE/ BLACK MASTIC A/W WHITE W/	Black Non-Fibrous Heterogeneous	5%	Cellulose	95% Non-fibrous (other)	**None Detected**

Analyst(s)

Alexander Balter (46)

James Hall, Laboratory Manager
or other approved signatory

Samples analyzed by EMSL Analytical, Inc. New York 307 West 38th Street, New York NY NVLAP Lab Code 101048-9, AIHA IHLAP 102581, NYS ELAP 11506, CT PH-0170, MA AA000170

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0309187 63

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SAMPLE LOG FOR ASBESTOS BULKS

Sheet 1 of 5

Project Name: Bourne Public Schools Project No. 20070914.A2B

Building: High School Project Manager: Bob May

Sample ID	Sample Location	Material	Result (%)
721JH-01A	C wing Boiler Room	Small Boiler insulation grey Top layer	
-01B	↓	↓	
-01C	↓	↓	
721JH-02A	↓	Small Boiler Insulation white Bottom Layer	
-02B	↓	↓	
-02C	↓	↓	
721JH-03A	↓	Boiler Breeching	
-03B	↓	↓	
-03C	↓	↓	
721JH-04A	A wing Boiler Room	↓	
-04B	↓	↓	

Analysis Method: ☒ PLM ☐ Other _____ Turnaround Time 48 hr

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____ Please call the EnviroScience Laboratory at (860) 953-2700 if analyses will be late.

#792097962462

RECEIVED JUL 23 2009 By SA 0940

Fax Results To: EnviroScience Consultants, Inc. Laboratory at 413-647-0018

Special Instructions: Stop @ 1st positive in each

Samples Collected By: JH Date: 7/21/09 Time: AM

Samples [Rec'd][Sent By]: [ ][JH] Date: [ ][7/22/09] Time: [ ][PM]

Samples Received By: Katy Cx Date: 7/24/09 Time: 952 am

Shipped To: ☒ EMSL (State) _____ ☐ Other _____

Method of Shipment: ☒ Fed Ex ☐ UPS Overnight ☐ UPS Ground ☐ Other _____

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SAMPLE LOG FOR ASBESTOS BULKS

Sheet 2 of 5

Project Name: Bourne Public Schools Project No. 20070914.A2Z

Building: High School Project Manager: Bob May

Sample ID	Sample Location	Material	Result (%)
-04C	↓	↓	
721JH-05A	Pipe Tunnel (Art wing)	Hot water heater Breeching Insulation	
-05B	↓	↓	
-05C	↓	↓	
721JH-06A	Music Room	Roof drain mudded fittings	
-06B	Biology lab	↓	
-06C	Women's Locker Room	↓	
721JH-07A	Janitor's closet 1st Floor B wing	mudded fittings	
-07B	C-wing pipe Tunnel	↓	
-07C	A-wing pipe tunnel	↓	
-07D	↓	↓	

Analysis Method: ☒ PLM ☐ Other _____ Turnaround Time 48 hr

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____. Please call the EnviroScience Laboratory at (860) 953-2700 if analyses will be late.

Fax Results To: EnviroScience Consultants, Inc. Laboratory at 413-647-0018

Special Instructions: Stop @ 1st positive in each set

Samples Collected By: JH Date: 7/21/09 Time: AM

Samples [Rec'd][Sent By]: [ ][JH] Date: [ ][7/22/09] Time: [ ][PM]

Samples Received By: KLK Date: 7/24 Time: 952 am

Shipped To: ☒ EMSL (State) _____ ☐ Other _____

Method of Shipment: ☒ Fed Ex ☐ UPS Overnight ☐ UPS Ground ☐ Other _____

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SAMPLE LOG FOR ASBESTOS BULKS

Sheet 3 of 5

Project Name: Bourne Public Schools Project No. 20070914.A2Z

Building: High School Project Manager: Bob May

Sample ID	Sample Location	Material	Result (%)
721JH-08A	Room Between Rooms 22C & 24C	Transite Fume Hood	
-08B	↓	↓	
-08C	↓	↓	
721JH-09A	Room 14C	1x1 Fissured Ceiling Tile	
-09B	C-wing Hall	↓	
-09C	C-wing men's Room	↓	
721JH-10A	A-wing Hall	1x1 pin hole ceiling tile	
-10B	B-wing Hall	↓	
-10C	Room 13B	↓	
721JH-11A	Cafe Hall	2x2 Fissured ceiling tile	
-11B	↓	↓	

Analysis Method: ☒ PLM ☐ Other _____ Turnaround Time 48 hr

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____. Please call the EnviroScience Laboratory at (860) 953-2700 if analyses will be late.

Fax Results To: EnviroScience Consultants, Inc. Laboratory at 413-647-0018

Special Instructions: Stop @ 1st positive in each set

Samples Collected By: JH Date: 7/21/09 Time: AM

Samples [Rec'd][Sent By]: [ ][JH] Date: [ ][7/22/09] Time: [ ][PM]

Samples Received By: [illegible] Date: 7/24 Time: 9:52am

Shipped To: ☒ EMSL (State) _____ ☐ Other _____

Method of Shipment: ☒ Fed Ex ☐ UPS Overnight ☐ UPS Ground ☐ Other _____

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SAMPLE LOG FOR ASBESTOS BULKS

Sheet 4 of 5

Project Name: Bourne Public Schools Project No. 20070914.A2Z

Building: High School Project Manager: Bob Mary

Sample ID	Sample Location	Material	Result (%)
-11C	A-wing Hall	↓	
721JH-12A	Main Lobby	2x4 fissured ceiling Tile	
-12B	Main OFFICE	↓	
-12C	Room 14A	↓	
721JH-13A	2nd Floor D-wing Hall	Brown w/ Brown + white speckles 12x12 Floor Tile	
-13B	1st Floor D-wing custodian closet	↓	
-13C	Lobby Hall	↓	
721JH-14A	Room 13A	white w/ grey + Tan speckles 12x12 Floor Tile	
-14B	Math Department office	↓	
-14C	Main Office	↓	
721JH-15A	Room 14A	white w/ Tan Speckles 12x12 Floor Tile	

Analysis Method: ☒ PLM ☐ Other _____ Turnaround Time 48 hr

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____. Please call the EnviroScience Laboratory at (860) 953-2700 if analyses will be late.

Fax Results To: EnviroScience Consultants, Inc. Laboratory at 413-647-0018

Special Instructions: Stop @ 1st positive in each set

Samples Collected By: JH Date: 7/21/09 Time: AM

Samples [Rec'd][Sent By]: [ ][JH] Date: [ ][7/22/09] Time: [ ][PM]

Samples Received By: [illegible] Date: 7/24 Time: 9:52 AM

Shipped To: ☒ EMSL (State) _____ ☐ Other _____

Method of Shipment: ☒ Fed Ex ☐ UPS Overnight ☐ UPS Ground ☐ Other _____

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SAMPLE LOG FOR ASBESTOS BULKS

Sheet 5 of 5

Project Name: Bourne Public Schools Project No. 20070914.A2R

Building: High School Project Manager: Bob Mac

Sample ID	Sample Location	Material	Result (%)
-15B	↓	↓	
721JH-16A	Language Arts Department Office	grey w/ white speckles 12x12 Floor Tile	
-16B	Room 20D	↓	
721JH-17A	Room 26D	Tan w/ Brown & white speckles 12x12 Floor Tile	
-17B	↓	↓	
721JH-18A	Lobby Hall	Black mastic A/W Brown w/ Brown & white	
-18B	D-wing 1st floor Hall	speckles 12x12 Floor Tile	
-18C	2nd Floor D-wing Hall	↓	
-18D	Math Department office	Black mastic A/W white w/ grey & Tan speckles 12x12 Floor Tile	

Analysis Method: ☒ PLM ☐ Other _____ Turnaround Time 48 hr

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: _____. Please call the EnviroScience Laboratory at (860) 953-2700 if analyses will be late.

Fax Results To: EnviroScience Consultants, Inc. Laboratory at 413-647-0018

Special Instructions: Stop @ 1st positive in each set

Samples Collected By: JH Date: 7/21/09 Time: AM

Samples [Rec'd][Sent By]: [ ][JH] Date: [ ][7/22/09] Time: [ ][PM]

Samples Received By: @ Date: 7/24 Time: 9:57A

Shipped To: ☒ EMSL (State) _____ ☐ Other _____

Method of Shipment: ☒ Fed Ex ☐ UPS Overnight ☐ UPS Ground ☐ Other _____