



FUSS & O'NEILL

July 18, 2023

Mr. Angelus Papageorge  
Executive Director of Operations  
Fairfield Public Schools  
501 Kings Highway East, Suite 210  
Fairfield, CT 06824  
[apapageorge@fairfieldschools.com](mailto:apapageorge@fairfieldschools.com)

**Re: Asbestos Abatement Clearance Air Sampling**  
**Fairfield Ludlowe High School – Bathrooms 117/118**  
**785 Unquowa Road, Fairfield, CT**  
Fuss & O'Neill Project No. 20110458.A40

Dear Mr. Papageorge:

At your request, Fuss & O'Neill, Inc. (Fuss & O'Neill) has prepared this summary letter following completion of the asbestos abatement project conducted in Bathrooms 117/118 at the Fairfield Ludlowe High School located at 785 Unquowa Road in Fairfield, Connecticut (the "Site"). The scope of work involved the removal of 100 linear feet of fiberglass insulation/asbestos-containing mudded pipe fitting insulation to support bathroom renovations at the Site. The project began on July 6, 2023, and was completed on July 7, 2023.

Under the supervision of Fuss & O'Neill's Senior Environmental Analyst, Eduardo Miguel Marques, Fuss & O'Neill representatives, Mr. Thomas Mulvehill, Ms. Julia Grounds and Ms. Vikki DeVoe-LeMoine, a State of Connecticut Department of Public Health (CTDPH) licensed Asbestos Project Monitor performed the post abatement re-occupancy air sampling. Fuss & O'Neill Project Monitor License and Accreditation are included in *Attachment A*.

Bestech Inc. of Ellington, Connecticut conducted the asbestos abatement project. Asbestos abatement was performed within a negative pressure enclosure.

Upon commencement of abatement activities, background air samples were collected for analysis using Phase Contrast Microscopy (PCM). These background samples were collected at locations such as the entrance to the worker decontamination facility and outside critical barriers. These samples were collected and analyzed in order to monitor the air quality outside the containment during the abatement process. PCM air samples were analyzed by a trained Asbestos Project Monitor listed on the Asbestos Analyst's Registry (AAR) maintained by the American Industrial Hygiene Association (AIHA). Please refer to *Attachment B* for the Area Air Monitoring Worksheet.

59 Elm Street  
Suite 500  
New Haven, CT  
06510  
t 203.374.3748  
800.286.2469  
f 860.533.5143

[www.fando.com](http://www.fando.com)

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Mr. Angelus Papageorge

July 18, 2023

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Following the completion of final cleaning and encapsulation of the work area, aggressive final air clearance sampling was performed inside the work area to comply with state and federal regulatory requirements. The work area passed a pre-sealant visual inspection prior to work area encapsulation by the Contractor. Please refer to *Attachment C* for a copy of the Final Visual Inspection Form.

Following encapsulation, aggressive final air clearance sampling by PCM was conducted in accordance with the requirements of the CTDPH Standards for Asbestos Abatement (19a-332a-1 through 19a-332a-16) and the EPA Asbestos Hazard Emergency Response Act (AHERA) Regulation (40 CFR Part 763 Final Rule and Notice). PCM air samples were analyzed by a trained Asbestos Project Monitor listed on the AAR maintained by the AIHA. The work area passed final air clearance. Please refer to *Attachment D* for the Final Air Clearance Report.

If you have any questions regarding this summary letter, please do not hesitate to contact Eduardo Miguel Marques at (860) 783-4751.

Report prepared by:



Eduardo Miguel Marques  
Senior Environmental Analyst

Report reviewed by:



Kathleen C. Pane  
Associate | Department Manager

Attachments

## **Attachment A**

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### Fuss & O'Neill Project Monitor License and Accreditation

**STATE OF CONNECTICUT**

**DEPARTMENT OF PUBLIC HEALTH**

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED  
BY THIS DEPARTMENT AS A  
**ASBESTOS CONSULTANT-PROJECT MONITOR**

**EDUARDO M. MARQUES**

CERTIFICATE NO.

**000376**

CURRENT THROUGH

**02/29/24**

VALIDATION NO.

**03-015373**



SIGNATURE



COMMISSIONER

**CERT#: PM-200-Virtual.636**

**CHEMSCOPE TRAINING DIVISION  
ASBESTOS PROJECT MONITOR REFRESHER  
8HOUR TRAINING CERTIFICATE**

**Eduardo Miguel Marques**

**146 Hartford Road, Manchester CT**

Has attended an 8hour course on the subject discipline on  
10/07/2022 and has passed a written examination.

"The person receiving this certificate has completed the requisite training required for asbestos accreditation as a project monitor under TSCA Title II"

Course topics include all the EPA MAP curriculum items. The training course has been accredited by the State of Connecticut.

The course meets the requirements of DPH Regulation 20-440-7 and the EPA Model Accreditation Plan.

**Examination Score: 93%**

**Exam Date: 10/07/2022**

**Expiration Date: 10/07/2023**



Daniel Sullivan  
Training Manager

Chem Scope, Inc.  
15 Moulthrop Street  
North Haven CT 06473  
Phone: 203.865.5605  
[www.chem-scope.com](http://www.chem-scope.com)



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-C01-P04646-I



VIKKI DEVOE-LEMOINE  
556 MOOSE HILL RD  
MONROE CT 06468-2413

Dear VIKKI DEVOE-LEMOINE,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health  
P.O. Box 340308  
M.S.#12MQA  
Hartford, CT 06134-0308

(860) 509-7603  
oplc.dph@ct.gov  
www.ct.gov/dph/license

Sincerely,

MANISHA JUTHANI, MD, COMMISSIONER  
DEPARTMENT OF PUBLIC HEALTH

EMPLOYER'S COPY		
STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH		
NAME VIKKI DEVOE-LEMOINE		
VALIDATION NO. 03-994908	CERTIFICATE NO. 000877	CURRENT THROUGH 10/31/23
PROFESSION ASBESTOS CONSULTANT-PROJECT MONITOR		
 SIGNATURE	 COMMISSIONER	

**STATE OF CONNECTICUT**  
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED  
BY THIS DEPARTMENT AS A  
**ASBESTOS CONSULTANT-PROJECT MONITOR**

VIKKI DEVOE-LEMOINE

CERTIFICATE NO.  
000877

CURRENT THROUGH  
10/31/23

VALIDATION NO.  
03-994908

  
SIGNATURE  
COMMISSIONER

**INSTRUCTIONS:**

1. Detach and sign each of the cards on this form.
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

WALLET CARD		
STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH		
NAME VIKKI DEVOE-LEMOINE		
VALIDATION NO. 03-994908	CERTIFICATE NO. 000877	CURRENT THROUGH 10/31/23
PROFESSION ASBESTOS CONSULTANT-PROJECT MONITOR		
 SIGNATURE	 COMMISSIONER	

**CERT#: PM-200-Virtual.653**

**CHEMSCOPE TRAINING DIVISION**  
**ASBESTOS PROJECT MONITOR REFRESHER**  
**8HOUR TRAINING CERTIFICATE**

**Vikki DeVoe-LeMoine**

**59 Elm Street, Suite 500, New Haven CT**

Has attended an 8hour course on the subject discipline on  
04/21/2023 and has passed a written examination.

"The person receiving this certificate has completed the requisite training required for asbestos accreditation as a project monitor under TSCA Title II"

Course topics include all the EPA MAP curriculum items. The training course has been accredited by the State of Connecticut.

The course meets the requirements of DPH Regulation 20-440-7 and the EPA Model Accreditation Plan.

**Examination Score: 99%**  
**Exam Date: 04/21/2023**  
**Expiration Date: 04/21/2024**



Daniel Sullivan  
Training Manager

Chem Scope, Inc.  
15 Moulthrop Street  
North Haven CT 06473  
Phone: 203.865.5605  
[www.chem-scope.com](http://www.chem-scope.com)



**CERT#: PM-100-71**

**CHEMSCOPE TRAINING DIVISION  
ASBESTOS PROJECT MONITOR INITIAL  
40HOUR TRAINING CERTIFICATE**

**Julia Grounds**

**59 Elm Street, Suite 500, New Haven CT**

Has attended a 40hour course on the subject discipline on

05/08, 05/09, 05/12, 05/15 & 05/16/2023 and has passed a written examination.

"The person receiving this certificate has completed the requisite training required for asbestos accreditation as a project monitor under TSCA Title II"

Course topics include all the EPA MAP curriculum items. This training course has been accredited by the State of Connecticut.

This training course has been accredited by the State of Connecticut.

The course meets the requirements of DPH Regulation 20-440-7 and the EPA Model Accreditation Plan.

**Examination Score: 98%**

**Exam Date: 05/16/2023**

**Expiration Date: 05/16/2024**

  
Daniel Sullivan  
Training Manager

Chem Scope, Inc.  
15 Moulthrop Street  
North Haven CT 06473  
Phone: 203.865.5605  
[www.chem-scope.com](http://www.chem-scope.com)



## **Attachment B**

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### Area Air Monitoring Worksheet





FUSS & O'NEILL

59 Elm Street, Suite 500, New Haven, CT 06510-2047

# PCM Air Monitoring Worksheet For Asbestos Analysis

Form 7400-05  
Edition June 2019  
Supersedes previous editions

Project Name: Fairfield Ludlowe HS  
Asbestos Bathroom 117/118  
 Project Number: 20110458.A40  
 Project Manager: EMM  
 Project Address: 785 Ungwong Rd, Fairfield, CT

Rotometer Number: 101404 Cassette Lot#: 20210602  
 Rotometer Cal. Date: 4/5/2023  
 Microscope Number: 101980  
 Phase Ring Aligned? Y/N  
 HSE/NPL checked Y/N

Sampler Name: TM/EMM  
 Analyst Name: Vikki Delpe-Lemone AAR# 290890  
 Analyst Signature: Vikki Delpe-Lemone  
 Sample Date: 7/6/2023 Analysis Date: 7/7/23

Sample ID Number	Sample Location	Activity Code/ Comment	Sample Time		Sample Duration (Minutes)	Flow Rate (LPM)			Total Volume (Liters)	Limit of Det. Fib/cc (=2.7/ Total Vol.)	Fiber Count Fib/Flds	Fiber Density (Fib/mm²)	Fiber Conc. (Fibers/cc)
			On	Off		Pre	Post	Avg.					
070623-TM-01	Field Blank #1	Submit at least 2 field blanks or 10% of the number of samples collected in 1 work shift.									1/100	17.01	
070623-TM-02	Field Blank #2											1/100	17.01
070623-TM-03	Outside Bathroom 117/118	123	7:29	9:39	136	9.5	9.5	9.5	1235	0.0022	14/100	16.56	0.0052
070623-TM-04	Outside Bathroom 117/118	3	10:01	13:21	200	6	6	6	1200	0.0023	33/100	40.76	0.0131
070623-TM-05	Outside Bathroom 117/118	3	13:32	15:57	145	9	9.5	9.25	1341	0.0020	10/100	11.46	0.003
070623-TM-06	Duplicate Count										32/100	39.49	0.0126

Reference Method: NIOSH 7400 Issue 2, 8/15/94 Method Limit of Detection: 5.5 Fibers/100 Fields

Sample Type: 25 mm 3 piece 0.8μ mixed cellulose ester PCM Air Monitor

FIBER DENSITY (Fibers/mm<sup>2</sup>) = (SAMPLE fibers/field) - (Average BLANK fibers/field)  
 (0.00785mm<sup>2</sup>/field)

CONCENTRATION (fibers/cc) = (SAMPLE fibers/field) - (Average BLANK fibers/field) x (385) mm<sup>2</sup>/filter  
 (0.00785mm<sup>2</sup>/field) x liters x 1000 cc/liter

IC	Inside Containment
OCB	Outside Critical Barrier
Decon	Decontamination Facility

Range	Intra Lab Sr	Inter Lab Sr
1 (5-20 fibers/100 fields)	0.40	0.50
2 (>20-50 Fibers/100 fields)	0.45	0.39
3 (>50 Fibers/100 fields)	0.26	0.35

Project Activity:

Code	Type
1	Background
2	Setup
3	During
4	Clearance
5	Environmental
6	Personal
7	

Q:\EnviroScience\Admin\FORMS\Asbestos\Project Monitoring\New Haven\PCM Air Mon Field Analysis\_Revised\_20220628.doc

\* interference with MAMMASE fibers observed on site - (KPMI DEMO OCCURRING AT THE TIME



## **Attachment C**

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### Final Visual Inspection Form





FUSS &amp; O'NEILL

**Final Visual Inspection Form****Asbestos Abatement**Date: 7/7/23 ☒ Removal ☐ Encapsulation ☐ Enclosure ☐ Repair ☐ CleanupPROJECT NAME: Fairfield Ludlowe HS PROJECT No.: 20110458-A40SITE LOCATION: 785 Unguowa Rd. BUILDING: HS ☒ PASSWORK AREA: bathroom 117/118 ☐ FAILCONTRACTOR: Bestech☒ Neg Pressure Contain. ☐ Mini-Enclosure ☐ Glovebag ☐ Other (Describe Below) ☐ None**MATERIALS ABATED IN THIS SPECIFIC WORK AREA:**

1. <del>100</del> pipe fitting / insulation	QTY: <u>100 LF</u>	2.	QTY:
3.	QTY:	4.	QTY:
5.	QTY:	6.	QTY:
7.	QTY:	8.	QTY:
9.	QTY:	10.	QTY:

**SUSPECT ACM REMAINING IN CONTAINMENT NOT SPECIFIED FOR REMOVAL**

1.	QTY:	2.	QTY:
3.	QTY:	4.	QTY:

**SURFACES INSPECTED****Instructions:** Check surfaces that pass. Circle surfaces that fail. Strike through N/A.

☒ Floor ☒ Horizontal Surfaces ☒ Pipes ☐ Mechanical Equipment  
☐ Duct Work ☒ Vertical Surfaces ☒ Access Unit ☐ Contractor's Equipment  
☒ Fixtures ☒ Enclosed Items ☒ Waste Load Out ☐ Other:

**FIELD OBSERVATIONS**no visible ACM debris/dust observed.

PCM samples

— where pipe fittings/insulation was removed

 WORK AREA CLEARANCE: ☒ PCM ☐ TEM ☐ Visual Only ☐ None Performed
**ACKNOWLEDGEMENT**

I acknowledge that I inspected this work area on this day.

 Fuss & O'Neill Inspector: Julia Grands JSSS under the supervision of Eduardo Miguel  
 PRINTED SIGNATURE Morgues

I have read and understand the inspection results.

 Contractor's Supervisor: [Signature] JULIO ALVARO  
 PRINTED SIGNATURE

## **Attachment D**

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### Final Air Clearance Report

## PCM Air Monitoring Worksheet For Asbestos Analysis

59 Elm Street, Suite 500 - New Haven, CT 06510

Form 7400-05  
Edition June 2019  
Supersedes previous editions

<b>Project Name:</b> <u>Fairfield Ludlowe High School</u> <b>Project Number:</b> <u>20110458.A40</u> <b>Building Name/#:</b> <u>Fairfield Ludlowe High School</u> <b>Site Address:</b> <u>785 Unquowa Rd. Fairfield, CT</u> <b>Work Area:</b> <u>Bathroom 117/118</u>	<b>Project Manager:</b> <u>Eduardo Miguel Marques</u> <b>Rotometer #/Cal. Date:</b> <u>101818 -- 4/5/23</u> <b>Cassette Lot #/Manufacturer:</b> <u>32726 -- Zefon</u> <b>Microscope #:</b> <u>101980</u> <b>HSE/NPL Checked:</b> <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N	<b>Sampler Name:</b> <u>Julia Grounds / Eduardo Miguel Marques</u> <b>Sample Date:</b> <u>7/7/2023</u> <b>Analyst Name:</b> <u>Vikki DeVoe-LeMoine</u> <b>AAR# :</b> <u>290890</u> <b>Analysis Date:</b> <u>7/7/2023</u> <b>Analyst Signature:</b> <u><i>Vikki DeVoe-LeMoine</i></u>
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Sample ID # (##-Date-Initials)	Sample Location	Activity Code	Sample Time		Sample Duration (Minutes)	Flow Rate (LPM)			Total Volume (Liters)	Limit of Detection (Fibers/cc)	Fiber Count (Fibers / Fields)		Fiber Density (Fibers/mm <sup>2</sup> )	Fiber Conc. (Fibers/cc)
			On	Off		Pre	Post	Avg.						
06-070723-JRG	Field Blank #1		Submit at least 2 field blanks or 10% of the number of samples collected in 1 work shift.								1	100	<7	
07-070723-JRG	Field Blank #2										1	100	<7	
01-070723-JRG	Inside containment	4	8:16	9:49	93	13.4	13.4	13.40	1246.20	0.0022	8	100	8.92	0.0028
02-070723-JRG	Inside containment	4	8:18	9:44	86	14.3	13.4	13.85	1191.10	0.0023	8	100	8.92	0.0029
03-070723-JRG	Inside containment	4	8:19	9:42	83	14.8	13.9	14.35	1191.05	0.0023	10	100	11.46	0.0037
04-070723-JRG	Inside containment	4	8:20	9:43	83	14.8	14.3	14.55	1207.65	0.0022	7	100	7.64	0.0024
05-070723-JRG	Inside containment	4	8:21	9:47	86	14.3	13.9	14.10	1212.60	0.0022	8	100	8.92	0.0028
03-070723-JRG	Duplicate										7	100	7.64	0.0025

Reference Method: NIOSH 7400 Issue 2,8/15/94 Method Limit of Detection: 5.5 Fibers/100 Fields

Sample type: 25 mm 3 piece 0.8μ mixed cellulose ester PCM Air Monitor

FIBER DENSITY (Fibers/mm<sup>2</sup>) =  $\frac{(\text{SAMPLE fibers/field}) - (\text{Average BLANK fibers/field})}{0.0785\text{mm}^2/\text{field}}$ 


CONCENTRATION (fibers/cc) =  $\frac{(\text{SAMPLE fibers/field}) - (\text{Average BLANK fibers/field}) \times (385) \text{ mm}^2/\text{filter}}{(0.0078\text{mm}^2/\text{field}) \times \text{liters} \times 1000 \text{ cc/liter}}$ 

IC	Inside Containment
OCB	Outside Critical Barrier
Decon	Decontamination Facility

Range	Intra Lab Sr	Inter Lab Sr
1 (5-20 Fibers/100 fields)	0.40	0.50
2 (>20-50 Fibers/100 fields)	0.45	0.39
3 (>50 Fibers/100 fields)	0.26	0.35

**Project Activity:**

Code	Type
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7	