

Limited Hazardous Building Materials Inspection

Inspection Date: July 15, 2024

Boiler Replacement Project
Roger Sherman Elementary School – Boiler Room
250 Fern Street
Fairfield, Ct

Fairfield Public Schools
Fairfield, CT

July 2024

**FUSS &
O'NEILL** | 59 Elm Street, Suite 500
New Haven, CT 06510
203.374.3748
www.fando.com

July 19, 2024

Mr. Salvatore Morabito
Director of Construction and Energy Services
Fairfield Public Schools
501 Kings Highway East, Suite 210
Fairfield, CT 06825

**Re: Limited Hazardous Building Materials Inspection
Boiler Replacement Project
Roger Sherman Elementary School – Boiler Room
Fuss & O'Neill Project No. 20180955.A60**

Dear Mr. Morabito:

Enclosed is the report for the limited hazardous building materials inspection conducted to support the boiler replacement project at the Roger Sherman Elementary School located at 250 Fern Street in Fairfield, Connecticut (the "Site"). This proposal was developed for the exclusive use of the Fairfield Public Schools (the "Client").

The services were performed on July 15, 2024, by a Fuss & O'Neill, Inc. licensed inspector and included a limited asbestos-containing material (ACM) inspection, lead-based paint (LBP) determination, and an inventory of polychlorinated biphenyl (PCB)-containing ballasts and mercury-containing equipment. The information summarized in this report is for the above-mentioned materials only. The work was performed in accordance with our written proposal dated July 11, 2024.

If you should have any questions regarding the contents of this report, please do not hesitate to contact me at (860) 7834751. Thank you for this opportunity to have served your environmental needs.

Sincerely,



Eduardo Miguel Marques
Senior Environmental Analyst

EMM/nw

Enclosure

Table of Contents

**Limited Hazardous Building Materials Inspection Report
Boiler Replacement Project
Roger Sherman Elementary School
Fairfield Public Schools**

1 Introduction..... 1

2 Asbestos Inspection 1

2.1 Methodology 1

2.2 Results..... 3

2.3 Discussion 3

2.4 Conclusions and Recommendations 3

3 Lead-Based Paint Determination 4

3.1 Methodology 4

3.2 XRF Determination Results 5

3.3 Discussion 5

3.4 Conclusion and Recommendations 5

4 PCB-Containing Fluorescent Light Ballasts and Mercury-Containing Equipment 6

4.1 PCB-Containing Fluorescent Ballasts 6

4.2 Mercury-Containing Equipment..... 6

Tables

End of Report

- 1. Summary of Suspect Asbestos-Containing Materials
- 2. Summary of Identified Asbestos-Containing Materials, Material Containing <1% Asbestos and Assumed Asbestos Inventory
- 3. PCB/DEHP-Containing Light Ballasts Inventory
- 4. Mercury-Containing Equipment Inventory

Appendices

End of Report

- A Limitations
- B Inspector License And Accreditation
- C Asbestos Laboratory Report and Chain of Custody Form
- D Site Photographs
- E XRF Lead Determination Field Data Sheets

1 Introduction

On July 15, 2024, Fuss & O'Neill, Inc. (Fuss & O'Neill) representative, Ms. Sandra Guzman, performed a limited hazardous building materials inspection to support the boiler replacement project (the "Project") at the Roger Sherman Elementary School located at 250 Fern Street in Fairfield, Connecticut (the "Site"). The work was conducted for Fairfield Public Schools (the "Client") in accordance with our written scope of services dated July 11, 2024, and is subject to the limitations included in *Appendix A*.

The limited inspection included the following:

- Asbestos-containing material (ACM) inspection;
- Lead-based paint (LBP) determination; and
- Polychlorinated biphenyl (PCB)-containing light ballasts and mercury-containing equipment inventory.

This limited hazardous building materials inspection was performed to support the Project. It is anticipated that one roof penetration will be required as part of the Project. Roof testing was not performed at this time per the Client's request. The roof at the Site has been recently replaced and testing will be performed at a later date once the penetration location is known. Fuss & O'Neill can provide additional bulk sampling services proposal under a separate cover upon request.

We have excluded collection and analysis of building materials for PCBs. Sampling for PCBs is presently not mandated by the Environmental Protection Agency (EPA); however, significant liability risk for disposing of PCB-containing wastes exists. Recent knowledge of PCBs within these matrices has become more prevalent, especially with remediation contractors, waste haulers, and disposal facilities. Many property Owners have become subject to large changes in schedule, scope, and costs as a result of failure to identify this possible contaminant prior to renovation or demolition.

2 Asbestos Inspection

A property Owner must ensure that a thorough ACM inspection is performed prior to possible disturbance of suspect ACM during renovation activities. This is a requirement of the EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation located at Title 40 CFR, Part 61, Subpart M.

On July 15, 2024, Ms. Guzman of Fuss & O'Neill conducted the limited inspection. Mr. Guzman is a State of Connecticut Department of Public Health (CTDPH)- licensed Asbestos Inspector. Refer to *Appendix B* for the Asbestos Inspector license and accreditation.

2.1 Methodology

The limited inspection was conducted by visually inspecting for accessible suspect ACM and touching each of the suspect materials anticipated to be impacted by this Project. The suspect materials were categorized into three EPA NESHAP groups: friable and non-friable Category I and Category II type ACM.

- A Friable Material is defined as material that contains greater than 1 percent (> 1%) asbestos that when dry can be crumbled, pulverized, or reduced to powder by hand pressure.

- A Category I Non-Friable Material refers to material that contains > 1% asbestos (i.e., packings, gaskets, resilient floor coverings, and asphalt roofing products) that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure.
- A Category II Non-Friable Material refers to any non-friable material excluding Category I materials that contain > 1% asbestos that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

The suspect ACM were also categorized into their applications including Thermal System Insulation (TSI), Surfacing ACM (S), and Miscellaneous ACM (M). TSI includes those materials used to prevent heat loss/gain or water condensation on mechanical systems. Examples of TSI are pipe insulation, boiler insulation, duct insulation, and mudded pipe fitting insulations. Surfacing ACM includes those ACM that are applied by spray, trowel, or otherwise applied to an existing surface. Surfacing ACM is commonly used for fireproofing, decorative, and acoustical applications. Miscellaneous materials include those ACM not listed as thermal or surfacing, such as linoleum, vinyl asbestos flooring, ceiling tiles, caulking compounds, glues, construction adhesives, etc.

The EPA recommends collecting suspect ACM samples in a manner sufficient to determine asbestos content and to segregate each suspect type of homogeneous (similar in color, texture, and date of application) materials. The EPA NESHAP regulation does not specifically identify a minimum number of samples to be collected for each homogeneous material, but the NESHAP regulation does recommend the use of sampling protocols included in Title 40 CFR, Part 763, Subpart E: Asbestos Hazard Emergency Response Act (AHERA).

The EPA AHERA regulation requires a specific number of samples be collected based on the type of material and quantity present. This regulation includes the following protocol:

1. Surfacing Materials (S) (i.e., plasters, spray-applied fireproofing, etc.) must be collected in a randomly distributed manner representing each homogeneous area based on the overall quantity represented by the sampling as follows:
 - a. Three (3) samples collected from each homogeneous area that is less than or equal to 1,000 square feet.
 - b. Five (5) samples collected from each homogeneous area that is greater than 1,000 square feet but less than or equal to 5,000 square feet.
 - c. Seven (7) samples collected from each homogeneous area that is greater than 5,000 square feet.
2. Thermal System Insulation (TSI) (i.e., pipe insulations, tank insulations, etc.) must be collected in a randomly distributed manner representing each homogeneous area. Three (3) samples must be 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 should be collected.
3. Miscellaneous materials (M) (i.e., floor tile, gaskets, construction mastics, etc.) should have a minimum of two (2) samples collected for each type of homogeneous material. Sample collection was conducted in a manner sufficient to determine asbestos content of the homogeneous material as determined by the inspector.

The inspector collected samples of those suspect ACM anticipated to be disturbed by the Project and prepared a proper chain of custody form for transmission of the samples to EMSL Analytical, Inc. (EMSL) for analysis. EMSL is a State of Connecticut-licensed and American Industrial Hygiene Association (AIHA)-accredited asbestos

laboratory. The sample locations, material type, sample identification, and asbestos content are identified by bulk sample analysis in *Table 1* attached hereto. Suspect ACM not listed in the table that may be identified later at the Site, should be assumed to be ACM until sample collection and analysis indicate otherwise. Initial asbestos sample analysis was conducted using the EPA Interim Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116) via Polarized Light Microscopy with Dispersion Staining (PLM/DS).

Subsurface investigations including, but not limited to, concrete foundations were not performed. Also, Fuss & O'Neill did not conduct subsurface investigations to identify suspect cementitious pipe or other subsurface features throughout the Site. Per discussion with the Client, trenching work is not anticipated and a sub-slab investigation was not performed to determine the presence of suspect ACM beneath the concrete slab floor.

2.2 Results

Utilizing the EPA protocol and criteria, the following materials were determined to contain asbestos:

- White bottom layer original caulking compound associate with window/duct/louvre vent
- Black damp-proofing tar/paper associated with concrete block wall
- Pipe fitting insulation – previously identified in Tunnels

The following materials were identified as containing asbestos at less than one percent (< 1%):

- Window/door glazing compound

The following materials were assumed to contain asbestos:

- Damp-proofing under concrete slab
- Roofing materials (roof recently replaced/installed)

Refer to *Table 1* for a complete list of ACM and non-ACM sampled as part of this limited inspection. Refer to *Table 2* attached hereto for the identified ACM, material containing <1% inventory and assumed ACM. Refer to *Appendix C* for the asbestos laboratory report and chain of custody form. Refer to *Appendix D* for Site photographs.

2.3 Discussion

The EPA and the Occupational Safety and Health Administration (OSHA) define a material that contains greater than one percent (> 1%) asbestos, utilizing PLM/DS, as being an ACM. The CTDPH defines any material that contains equal to or greater than one percent ($\geq 1\%$) asbestos, utilizing PLM/DS, as being an ACM. Materials that are identified as "none detected" are specified as not containing asbestos.

Suspect ACM not identified during this limited inspection should be presumed to contain asbestos until sample collection and laboratory analysis indicate otherwise.

2.4 Conclusions and Recommendations

Based on visual observations, sample collection, and laboratory analysis, asbestos has been identified in some of the materials sampled at the Site.

Prior to disturbance, ACM that would likely be impacted by the proposed renovation activities must first be abated by a state-licensed Asbestos Abatement Contractor. This is a requirement of CTDPH and EPA NESHAP regulations governing asbestos abatement.

Due to the inability to effectively separate some types of multi-layered ACM from non-ACM, these materials are considered asbestos-contaminated and must be managed as ACM for the purposes of removal and disposal.

This report is not intended to be utilized as a bidding document or as a project specification document. The report is designed to aid the Client in locating identified ACM, material containing <1% asbestos and assumed ACM.

3 Lead-Based Paint Determination

On July 15, 2024, Ms. Guzman of Fuss & O'Neill performed a lead-based paint (LBP) determination associated with coated building components at the Site that may be disturbed during the Project. An x-ray fluorescence (XRF) analyzer was used to perform the LBP determination. The determination was conducted in accordance with generally accepted industry standards for non-residential (i.e., not child-occupied) buildings.

3.1 Methodology

A Heuresis Pb200i handheld XRF lead paint analyzer, serial number 2170, was utilized for the LBP determination. The instrument was checked for proper calibration prior to use as detailed by the manufacturer and the Performance Characteristic Sheet (PCS) developed for the instruments.

For the purpose of this LBP determination, representative building components were tested as part of this pre-renovation study. Individual repainting efforts are not discoverable in such a limited program. LBP issues involving properties that are not residential are regulated to a limited degree for worker protection relating to paint-disturbing work activities and waste disposal.

Worker protection is regulated by OSHA regulations, as well as CTDPH regulations. These regulations involve air monitoring of workers to determine exposure levels when disturbing lead-containing paint. An LBP determination cannot determine a safe level of lead but is intended to provide guidance for implementing industry standards for lead in paint at identified locations. Contractors may then better determine exposure of workers to airborne lead by understanding the different concentrations of LBP activities that disturb paint on representative surfaces.

The EPA Resource Conservation and Recovery Act (RCRA), as well as the Connecticut Department of Energy and Environmental Protection (CTDEEP), regulate disposal of lead-containing waste. Lead-containing materials that will be impacted during renovation or demolition activities, and result in waste for disposal must either be analyzed using the Toxicity Characteristic Leaching Procedure (TCLP) analysis if lead is determined to be present in non-residential buildings or be presumed as a hazardous waste. A TCLP sample is a representative sample of the intended waste stream. The results are compared to a threshold value of 5.0 milligrams per liter (mg/L); results equal to or exceeding this value is considered hazardous lead waste. If the result is below the established level, the material is not considered hazardous and may be disposed as general construction debris.

A level of LBP equal to or exceeding 1.0 milligrams of lead per square centimeter (mg/cm²) by XRF is considered toxic or dangerous for compliance with residential standards. For the purpose of this LBP determination the level of 1.0 mg/cm² has been utilized as a threshold for areas where possible worker exposures may occur.

3.2 XRF Determination Results

The LBP determination indicated consistent painting trends associated with representative building components that may be impacted by the Project. Metal valves, elbows and T connectors associated with piping were determined to contain levels of lead equal to or greater than 1.0 mg/cm² by XRF.

Refer to *Appendix E* for the XRF lead determination field data sheets.

3.3 Discussion

OSHA published a Lead in Construction Standard (OSHA Lead Standard) Title 29 CFR, Part 1926.62 in May 1993. The OSHA Lead Standard has no set limit for the content of lead in paint below which the standards do not apply. The OSHA Lead Standards are task based and derived from airborne exposure and blood lead levels.

The results of this LBP determination are intended to provide guidance to contractors for occupational lead exposure controls. Building components coated with lead levels above industry standards may cause exposures to lead above OSHA standards during proposed demolition and renovation activities. The results of this determination are also intended to provide insight into waste disposal requirements, in accordance with EPA RCRA regulations. Metal components were found to contain lead and can be recycled; therefore, TCLP sampling was not conducted.

3.4 Conclusion and Recommendations

Based on our LBP determination results, LBP is present on metal valves, elbows and T connectors associated with piping located in the boiler room at the Site that were tested by XRF as part of this limited inspection.

Contractors must be made aware that OSHA has not established a level of lead in a material below which Title 29 CFR, Part 1926.62 does not apply. Contractors shall comply with exposure assessment criteria, interim worker protection, and other requirements of the regulation as necessary to protect workers during any renovation/demolition work that will impact lead paint.

If disturbed and managed off-site, non-porous LBP-coated building materials (i.e., metals) may be segregated and recycled as scrap metal. Metal LBP-coated building components cannot be subject to grinding, sawing, drilling, sanding, or torch cutting.

Note that future work involving surface preparation of identified surface(s) must be performed in accordance with OSHA worker protection requirements, as well as EPA Renovation, Repair and Painting Rule (RRP).

For purposes of complying with the EPA's RRP (40 CFR 745.80 through 92) a Comprehensive Lead Inspection of the entire structure or targeted areas scheduled for renovation is necessary to determine if the RRP rule is applicable. A Comprehensive Lead Inspection includes testing representative coated surfaces of each building component in each room or room equivalent for LBP content. Other types of lead surveys, such as lead paint screening, determination and risk assessments, do not include testing all coated surfaces for LBP and typically do not satisfy the LBP testing requirements of the RRP Rule. Since the testing performed was not a comprehensive inspection, the testing will not satisfy applicability requirements of the RRP for any untested surfaces. The testing was performed for surfaces targeted for renovation or demolition as anticipated to be impacted by the Project.

Only the results for those specific surfaces and locations tested within this targeted testing can be utilized to determine applicability requirements for RRP. **Reliance on this report for determining RRP applicability for any other surfaces than those tested is not authorized by Fuss & O'Neill, Inc..**

The building is considered a “child-occupied facility” and therefore, it is subject to lead safe renovation requirements. If a specific component or surface is not identified as having been tested it should be presumed to contain lead paint unless tested.

Those surfaces which contain LBP are subject to RRP work practice and training requirements if more than de-minimus amounts are disturbed in renovation. Those surfaces which do not contain LBP are not subject to the RRP requirements. If a specific component or surface is not identified as having been tested it should be presumed to contain lead paint unless tested. Contractors should be aware that the threshold limit of 1.0 mg/cm² for purposes of RRP requirements is not recognized by OSHA and workers exposures are still subject to lead in construction regulation 29 CFR 1926.62 regardless of paint testing results.

4 PCB-Containing Fluorescent Light Ballasts and Mercury-Containing Equipment

4.1 PCB-Containing Fluorescent Ballasts

Fluorescent light ballasts manufactured prior to 1979 may contain capacitors that contain PCBs. Light ballasts installed as late as 1985 may also contain PCB capacitors. Fluorescent light ballasts that are not labeled as "No-PCBs" must be assumed to contain PCBs, unless proven otherwise by quantitative analysis. Capacitors in fluorescent light ballasts labeled as non-PCB-containing may contain diethylhexyl phthalate (DEHP). DEHP was the primary substitute to replace PCBs for small capacitors in fluorescent light ballasts in use until 1991. DEHP is a toxic substance, a suspected carcinogen, and is listed under EPA RCRA and the Superfund law as a hazardous waste. Therefore, EPA Superfund liability exists for landfilling both PCB and DEHP-containing light ballasts. These listed materials are considered hazardous waste under EPA RCRA and require special handling and disposal considerations.

On July 15, 2024, Fuss & O'Neill representative, Ms. Guzman, performed a visual inspection of representative light fixtures to identify possible PCB-containing light ballasts in the boiler room at the Site. Upon evaluation, it was determined that single bulb pendant lights exist in the boiler room and fluorescent light ballasts were not observed.

4.2 Mercury-Containing Equipment

Fluorescent lamps/tubes are presumed to contain mercury vapor, which is a hazardous substance to both human health and the environment. Thermostatic controls and electrical switch gear may contain a vial or bulb of mercury associated with the control. Mercury-containing equipment is regulated for proper disposal by the EPA RCRA hazardous waste regulations. According to the EPA, mercury lamps are characterized as a Universal Waste. Therefore, fluorescent lamps must be either recycled, or disposed of as hazardous waste.

On July 15, 2024, Fuss & O'Neill representative, Ms. Guzman, performed an inventory of mercury equipment. These fixtures were inventoried in-place. Refer to *Table 3* for the Mercury-Containing Equipment Inventory.

Prepared by:



Eduardo Miguel Marques
Senior Environmental Analyst

Reviewed by:



Kathleen C. Pane
Associate

Tables

**Table 1
Summary of Suspect Asbestos-Containing Materials**

Sample No.	Sample Location	Material Type	Asbestos Content
71524SG-01A	Boiler #1	Tan/White Pipe Dope	ND
71524SG-01B	Boiler #2	Tan/White Pipe Dope	ND
71524SG-01C	Boiler #2 - Motor Pipe	Tan/White Pipe Dope	ND
71524SG-02A	Boiler #2	Yellow Adhesive associated with Interior Fiberglass Boiler Insulation	ND
71524SG-02B	Boiler #1	Yellow Adhesive associated with Interior Fiberglass Boiler Insulation	ND
71524SG-03A	Boiler #1	Interior Boiler Rib Insulation	ND
71524SG-03B	Boiler #2	Interior Boiler Rib Insulation	ND
71524SG-03C	Boiler #2	Interior Boiler Rib Insulation	ND
71524SG-04A	Boiler #1	White Boiler Door Gasket	ND
71524SG-04B	Boiler #1	White Boiler Door Gasket	ND
71524SG-05A	Boiler #2	White Door Rope/Gasket	ND
71524SG-05B	Boiler #2	White Door Rope/Gasket	ND
71524SG-06A	Boiler # 1 - Side Pipe System	Black/Tan Pipe Flange Gasket	ND
71524SG-06B	Boiler # 2 - Side Pipe System	Black/Tan Pipe Flange Gasket	ND
71524SG-07A	Boiler #1 - Pipe System	Tan Pipe Flange Gasket	ND
71524SG-07B	Boiler #2 - Pipe System	Tan Pipe Flange Gasket	ND
71524SG-08A	Boiler #1	White/Silver Pipe Wrapping Paper associated with Fiberglass Pipe Insulation	ND
71524SG-08B	Boiler #2	White/Silver Pipe Wrapping Paper associated with Fiberglass Pipe Insulation	ND
71524SG-08C	Elevated Pipe System	White/Silver Pipe Wrapping Paper associated with Fiberglass Pipe Insulation	ND
71524SG-09A	Boiler #1 - Boiler Breeching	Red Boiler Breeching Caulking	ND
71524SG-09B	Boiler #2 - Boiler Breeching	Red Boiler Breeching Caulking	ND
71524SG-10A	Boiler #1 - Boiler Breeching	Gray/Silver Boiler Breeching Caulking	ND
71524SG-10B	Boiler #2 - Boiler Breeching	Gray/Silver Boiler Breeching Caulking	ND
71524SG-11A	Boiler #1 - Breeching/Chimney Joint	White/Gray Breeching Chimney Cement	ND
71524SG-11B	Boiler #2 - Breeching/Chimney Joint	White/Gray Breeching Chimney Cement	ND
71524SG-12A	Water Tank - Breeching and Chimney	White/Gray Breeching Joint Caulk	ND
71524SG-12B	Water Tank - Breeching and Chimney	White/Gray Breeching Joint Caulk	ND
71524SG-13A	Chimney	Red Chimney Brick	ND
71524SG-13B	Chimney	Red Chimney Brick	ND
71524SG-14A	Chimney	Gray Mortar associated with Red Chimney Brick	ND
71524SG-14B	Chimney	Gray Mortar associated with Red Chimney Brick	ND
71524SG-15A	Side C - Wall	Pink/Gray Wall/Pipe Joint Filler	ND

Sample No.	Sample Location	Material Type	Asbestos Content
71524SG-15B	Side C - Wall	Pink/Gray Wall/Pipe Joint Filler	ND
71524SG-16A	Side B - Wall	Light Gray Cement associated with Electrical Pipe/Wall Joint	ND
71524SG-16B	Side B - Wall	Light Gray Cement associated with Electrical Pipe/Wall Joint	ND
71524SG-17A	Boiler #1 - Motor	Motor Flooring	ND
71524SG-17B	Boiler #2 - Motor	Motor Flooring	ND
71524SG-18A	Chimney Door 1	White/Gray Painted Chimney Door Caulking	ND
71524SG-18B	Chimney Door 2	White/Gray Painted Chimney Door Caulking	ND
71524SG-19A	Side A - Ceiling	Light Gray Rough Coat Plaster	ND
71524SG-19B	Side B - Ceiling	Light Gray Rough Coat Plaster	ND
71524SG-19C	Side C - Ceiling	Light Gray Rough Coat Plaster	ND
71524SG-20A	Side A - Ceiling	White Skim Coat Plaster	ND
71524SG-20B	Side B - Ceiling	White Skim Coat Plaster	ND
71524SG-20C	Side C - Ceiling	White Skim Coat Plaster	ND
71524SG-21A	Ceiling	White Texture Paint	ND
71524SG-21B	Ceiling	White Texture Paint	ND
71524SG-21C	Ceiling	White Texture Paint	ND
71524SG-22A	Ceiling - Pach	White Ceiling Cement Repair Patch	ND
71524SG-22B	Ceiling - Pach	White Ceiling Cement Repair Patch	ND
71524SG-22C	Ceiling - Pach	White Ceiling Cement Repair Patch	ND
71524SG-23A	Concrete Floor by Chimney and Hot Water Tank	Floor Debris	ND
71524SG-23B	Concrete Floor by Chimney and Hot Water Tank	Floor Debris	ND
71524SG-24A	Ceiling Wood Panel	Red Fire Seam Caulking	ND
71524SG-24B	Wall/Pipe Joint	Red Fire Seam Caulking	ND
71524SG-25A	Exterior Door 24	Door/Window Glazing	<1% Chrysotile
71524SG-25A	Exterior Door 24	Door/Window Glazing	<1% Chrysotile
71524SG-26A	Exterior Door 24	Exterior Gray Caulking associated with Exterior Door	ND
71524SG-26B	Exterior Door 24	Exterior Gray Caulking associated with Exterior Door	ND
71524SG-27A	Exterior Window/Duct Louver Vent	Clear Gray Top Layer Replacement Caulking	ND
71524SG-27B	Exterior Window/Duct Louver Vent	Clear Gray Top Layer Replacement Caulking	ND
71524SG-28A	Exterior Window/Duct Louver Vent	White Bottom Layer Original Caulking	4% Chrysotile

Sample No.	Sample Location	Material Type	Asbestos Content
71524SG-28B	Exterior Window/Duct Louver Vent	White Bottom Layer Original Caulking	NA/Pos Stop
71524SG-29A	Side A - Wall by Door - Wall Cavity behind CMU	Black Damp-Proofing Tar/Paper	15% Chrysotile
71524SG-29B	Side D - By Window/Duct Louver Vent - Wall Cavity behind CMU	Black Damp-Proofing Tar/Paper	NA/Pos Stop

NA/Pos Stop = Not Analyzed/Positive Stop

ND = None Detected

Table 2

Summary of Identified Asbestos-Containing Materials, Material Containing <1% Asbestos and Assumed Asbestos-Containing Materials Inventory

Location	Material Type	Asbestos Content	Estimated Total Quantity	Comments
Exterior Door 24	Door/Window Glazing Compound	<1% Chrysotile	1 EA	Exterior door 24
Exterior Window/Duct Louvre Vent	White Bottom Layer Original Caulking Compound	4% Chrysotile	1 EA	Bottom layer of caulking
Side A - Wall by Door - Wall Cavity behind CMU	Black Damp-Proofing Tar/Paper	15% Chrysotile	20 SF/ Unknown	20 SF Observed by door and window behind CMU walls. Assumed to exist along exterior wall cavities
Tunnels	Pipe Fitting Insulation	20% Chrysotile	Unknown	Material identified in October 2019 inspection, assumed to exist in tunnels on pipe system.
Boiler Room	Damp-proofing Under Concrete Slab	Assumed	800 SF	Assumed to exist under the concrete slab
Roof	Roofing Materials	Assumed		Roof recently replaced. Roof penetration anticipated to support Project. Exact location of penetration to be determined as noted by Client. Testing to be performed at a later date.

SF = Square Feet, EA = Each

Table 3
Mercury-Containing Equipment Inventory

Type	Estimated Quantity
Exterior Light Tube	2
High Intensity Discharge (HID) Light	10
Thermostat	1

Appendix A

Limitations

LIMITATIONS

**Site: Roger Sherman Elementary School – Boiler Room
250 Fern Street, Fairfield, CT**

1. This inspection report has been prepared for the exclusive use of the Fairfield Public Schools (the “Client”) and is subject to and is issued in connection with the terms and conditions of the original Agreement and all of its provisions. Any use or reliance upon information provided in this report, without the specific written authorization of the Client and Fuss & O’Neill, Inc. (Fuss & O’Neill) shall be at the User’s individual risk. This report should not be used as an abatement specification. All quantities of materials identified during this inspection are approximate.
2. Fuss & O’Neill has obtained and relied upon information from multiple sources to form certain conclusions regarding likely environmental issues at and in the vicinity of the subject property in conducting this inspection. Except as otherwise noted, no attempt has been made to verify the accuracy or completeness of such information or verify compliance by any party with federal, state or local laws or regulations.
3. Fuss & O’Neill has obtained and relied upon laboratory analytical results in conducting the inspection. This information was used to form conclusions regarding the types and quantities of ACM that must be managed prior to renovation activities that may disturb these materials at the Site. Fuss & O’Neill has not performed an independent review of the reliability of this laboratory data.
4. Unless otherwise noted, only suspect hazardous materials associated within or located on the building (aboveground) were included in this inspection. Suspect hazardous materials may exist below the ground surface that were not included in the scope of work of this inspection. Fuss & O’Neill cannot guarantee all asbestos or suspect hazardous materials were identified within the areas included in the scope of work. Only visible and accessible areas were included in the scope of work for this limited inspection.
5. The findings, observations and conclusions presented in this report are limited by the scope of services outlined in our original Agreement dated July 11, 2024, which reflects schedule and budgetary constraints imposed by Client. Furthermore, the assessment has been conducted in accordance with generally accepted environmental practices. No other warranty, expressed or implied, is made.
6. The conclusions presented in this report are based solely upon information gathered by Fuss & O’Neill to date. Should further environmental or other relevant information be discovered at a later date, the Client should immediately bring the information to the Fuss & O’Neill’s attention. Based upon an evaluation and assessment of relevant information, Fuss & O’Neill may modify the letter report and its conclusions.

Appendix B

Fuss & O'Neill Inspector License and Accreditation

1000418-00000422-0000001 of 0000001-C01-a1d00101-1264-00420

Dear SANDRA L GUZMAN,

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


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-INSP/MGMT PLANNER

SANDRA L GUZMAN

SIGNATURE 

COMMISSIONER 

CERTIFICATE NO.
000335

CURRENT THROUGH
08/31/24

VALIDATION NO.
03-055356


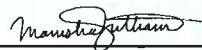
EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
SANDRA L GUZMAN

VALIDATION NO. CERTIFICATE NO. CURRENT THROUGH
03-055356 000335 08/31/24

PROFESSION
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

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.

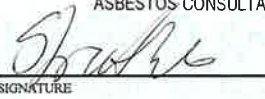

WALLET CARD

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
SANDRA L GUZMAN

VALIDATION NO. CERTIFICATE NO. CURRENT THROUGH
03-055356 000335 08/31/24

PROFESSION
ASBESTOS CONSULTANT-INSP/MGMT PLANNER

SIGNATURE  COMMISSIONER 

1000417-0000421-0000001 of 0000001-C01-a1d00101-1-1264-00419

Dear SANDRA L GUZMAN,

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

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT


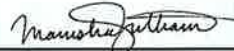
THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
LEAD INSPECTOR RISK ASSESSOR

SANDRA L GUZMAN

CERTIFICATE NO.
002296

CURRENT THROUGH
08/31/24

VALIDATION NO.
03-055355

SIGNATURE COMMISSIONER


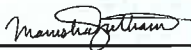
EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
SANDRA L GUZMAN

VALIDATION NO. CERTIFICATE NO. CURRENT THROUGH
03-055355 **002296** **08/31/24**

PROFESSION
LEAD INSPECTOR RISK ASSESSOR

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
SANDRA L GUZMAN

VALIDATION NO. CERTIFICATE NO. CURRENT THROUGH
03-055355 **002296** **08/31/24**

PROFESSION
LEAD INSPECTOR RISK ASSESSOR




SIGNATURE COMMISSIONER

CERT#: L-600-Virtual.1370

CHEMSCOPE TRAINING DIVISION
LEAD INSPECTOR/RISK ASSESSOR REFRESHER
8-HOUR TRAINING CERTIFICATE

Sandra Guzman

59 Elm Street, Suite 500, New Haven CT

Has attended an 8-hour course on the subject discipline on
01/18/2024 and has passed a written examination.

The above individual has successfully completed the above training course approved in accordance with the Department of Public Health Standards established pursuant to Section 20-477 of the Connecticut General Statutes.

Course topics include all required topics of State of Connecticut DPH and EPA.

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (U.S.C. 1001 and 15 U.S. C. 2615), I certify that this training complies with all applicable requirements of Title IV of TSCA, 40 CFR part 745 and any other applicable Federal, State or local requirements.

Examination Score: 96%
Exam Date: 01/18/2024
Expiration Date: 01/18/2025



Daniel Sullivan
Training Manager



Chem Scope, Inc.
15 Moulthrop Street
North Haven CT 06473
Phone: 203.865.5605
www.chem-scope.com

Appendix C

Asbestos Laboratory Report and Chain of Custody Forms



EMSL Analytical, Inc.

528 Mineola Avenue Carle Place, NY 11514

Tel/Fax: (516) 997-7251 / (516) 997-7528

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

EMSL Order: 062408959

Customer ID: ENVI54

Customer PO:

Project ID:

Attention: Miguel Marques
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Phone: (203) 379-6144

Fax:

Received Date: 07/16/2024 12:34 PM

Analysis Date: 07/17/2024

Collected Date: 07/15/2024

Project: Roger Sherman School; 250 Fern St. Fairfield, CT; Project#20180955.A60; Boiler Room

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
71524SG-01A <small>062408959-0001</small>	Boiler #1 - Tan/White Pipe Dope	Brown/Tan/White Fibrous Homogeneous	2% Cellulose 2% Glass	96% Non-fibrous (Other)	None Detected
71524SG-01B <small>062408959-0002</small>	Boiler #2 - Tan/White Pipe Dope	Brown/Tan/White Fibrous Homogeneous	3% Cellulose	97% Non-fibrous (Other)	None Detected
71524SG-01C <small>062408959-0003</small>	Boiler #2 - Motor Pipe - Tan/White Pipe Dope	Brown/Tan/White Fibrous Homogeneous	2% Cellulose <1% Glass	98% Non-fibrous (Other)	None Detected
71524SG-02A <small>062408959-0004</small>	Boiler #2 - Yellow Adhesive associated with Interior Fiberglass Boiler Insulation	Gray/Yellow Fibrous Homogeneous	2% Cellulose 23% Min. Wool	75% Non-fibrous (Other)	None Detected
71524SG-02B <small>062408959-0005</small>	Boiler #1 - Yellow Adhesive associated with Interior Fiberglass Boiler Insulation	Yellow Non-Fibrous Homogeneous	3% Cellulose 7% Min. Wool	90% Non-fibrous (Other)	None Detected
71524SG-03A <small>062408959-0006</small>	Boiler #1 - Interior Boiler Rib Insulation	White Fibrous Homogeneous	2% Cellulose 55% Glass	43% Non-fibrous (Other)	None Detected
71524SG-03B <small>062408959-0007</small>	Boiler #2 - Interior Boiler Rib Insulation	Gray/White Fibrous Homogeneous	<1% Cellulose 60% Glass	40% Non-fibrous (Other)	None Detected
71524SG-03C <small>062408959-0008</small>	Boiler #2 - Interior Boiler Rib Insulation	Gray/White Fibrous Homogeneous	<1% Cellulose 55% Min. Wool	45% Non-fibrous (Other)	None Detected
71524SG-04A <small>062408959-0009</small>	Boiler #1 - White Boiler Door Gasket	White/Black Fibrous Homogeneous	2% Cellulose 70% Min. Wool	28% Non-fibrous (Other)	None Detected
71524SG-04B <small>062408959-0010</small>	Boiler #1 - White Boiler Door Gasket	Tan/White Non-Fibrous Homogeneous	2% Cellulose 75% Min. Wool	23% Non-fibrous (Other)	None Detected
71524SG-05A <small>062408959-0011</small>	Boiler #2 - White Door Rope/Gasket	White Fibrous Homogeneous	95% Glass	5% Non-fibrous (Other)	None Detected
71524SG-05B <small>062408959-0012</small>	Boiler #2 - White Door Rope/Gasket	White Fibrous Homogeneous	97% Glass	3% Non-fibrous (Other)	None Detected
71524SG-06A <small>062408959-0013</small>	Boiler #1 - Side Pipe System - Black/Tan Pipe Flange Gasket	Tan/Black Non-Fibrous Homogeneous	<1% Glass <1% Fibrous (Other)	100% Non-fibrous (Other)	None Detected

Initial report from: 07/17/2024 18:10:26



EMSL Analytical, Inc.

528 Mineola Avenue Carle Place, NY 11514

Tel/Fax: (516) 997-7251 / (516) 997-7528

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

EMSL Order: 062408959
Customer ID: ENVI54
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
71524SG-06B <small>062408959-0014</small>	Boiler # 2 - Side Pipe System - Black/Tan Pipe Flange Gasket	Tan/Black Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
71524SG-07A <small>062408959-0015</small>	Boiler #1 - Pipe System - Tan Pipe Flange Gasket	Tan Fibrous Homogeneous	60% Synthetic 7% Wollastonite	33% Non-fibrous (Other)	None Detected
71524SG-07B <small>062408959-0016</small>	Boiler #2 - Pipe System - Tan Pipe Flange Gasket	Tan Fibrous Homogeneous	63% Synthetic 6% Wollastonite	31% Non-fibrous (Other)	None Detected
71524SG-08A <small>062408959-0017</small>	Boiler #1 - White/Silver Pipe Wrapping Paper associated with Fiberglass Pipe Insulation	White/Silver Fibrous Homogeneous	55% Cellulose 9% Glass	36% Non-fibrous (Other)	None Detected
71524SG-08B <small>062408959-0018</small>	Boiler #2 - White/Silver Pipe Wrapping Paper associated with Fiberglass Pipe Insulation	White/Silver Fibrous Homogeneous	57% Cellulose 10% Glass	33% Non-fibrous (Other)	None Detected
71524SG-08C <small>062408959-0019</small>	Elevated Pipe System - White/Silver Pipe Wrapping Paper associated with Fiberglass Pipe Insulation	White/Silver Fibrous Homogeneous	55% Cellulose 11% Glass	34% Non-fibrous (Other)	None Detected
71524SG-09A <small>062408959-0020</small>	Boiler #1 - Boiler Breeching - Red Boiler Breeching Caulking	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-09B <small>062408959-0021</small>	Boiler #2 - Boiler Breeching - Red Boiler Breeching Caulking	Red Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-10A <small>062408959-0022</small>	Boiler #1 - Boiler Breeching - Gray/Silver Boiler Breeching Caulking	Gray/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-10B <small>062408959-0023</small>	Boiler #2 - Boiler Breeching - Gray/Silver Boiler Breeching Caulking	Gray/Silver Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-11A <small>062408959-0024</small>	Boiler #1 - Breeching/Chimney Joint - White/Gray Breeching Chimney Cement	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-11B <small>062408959-0025</small>	Boiler #2 - Breeching/Chimney Joint - White/Gray Breeching Chimney Cement	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 07/17/2024 18:10:26



EMSL Analytical, Inc.

528 Mineola Avenue Carle Place, NY 11514

Tel/Fax: (516) 997-7251 / (516) 997-7528

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

EMSL Order: 062408959
Customer ID: ENVI54
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
71524SG-12A <i>062408959-0026</i>	Water Tank - Breeching an Chimney - White/Gray Breeching Joint Caulk	Gray/White/Red Non-Fibrous Heterogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
71524SG-12B <i>062408959-0027</i>	Water Tank - Breeching an Chimney - White/Gray Breeching Joint Caulk	Gray/White/Red Non-Fibrous Heterogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
71524SG-13A <i>062408959-0028</i>	Chimney - Red Chimney Brick	Red Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
71524SG-13B <i>062408959-0029</i>	Chimney - Red Chimney Brick	Red Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
71524SG-14A <i>062408959-0030</i>	Chimney - Gray Mortar associated with Red Chimney Brick	Gray/Tan Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
71524SG-14B <i>062408959-0031</i>	Chimney - Gray Mortar associated with Red Chimney Brick	Gray/Tan Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
71524SG-15A <i>062408959-0032</i>	Side C - Wall - Pink/Gray Wall/Pipe Joint Filler	Gray/Tan/Pink Non-Fibrous Heterogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
71524SG-15B <i>062408959-0033</i>	Side C - Wall - Pink/Gray Wall/Pipe Joint Filler	Gray/Tan/Pink Non-Fibrous Heterogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
71524SG-16A <i>062408959-0034</i>	Side B - Wall - Light Gray Cement associated with Electrical Pipe/Wall Joint	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-16B <i>062408959-0035</i>	Side B - Wall - Light Gray Cement associated with Electrical Pipe/Wall Joint	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-17A <i>062408959-0036</i> <i>Inseparable tar present.</i>	Boiler #1 - Motor - Motor Flooring	Gray/Tan/Black Non-Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
71524SG-17B <i>062408959-0037</i> <i>Inseparable tar present.</i>	Boiler #2 - Motor - Motor Flooring	Gray/Tan/Black Non-Fibrous Heterogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
71524SG-18A <i>062408959-0038</i>	Chimney Door 1 - White/Gray Painted Chimney Door Caulking	Gray/White Non-Fibrous Heterogeneous	2% Fibrous (Other)	98% Non-fibrous (Other)	None Detected

Initial report from: 07/17/2024 18:10:26



EMSL Analytical, Inc.

528 Mineola Avenue Carle Place, NY 11514

Tel/Fax: (516) 997-7251 / (516) 997-7528

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

EMSL Order: 062408959
Customer ID: ENVI54
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
71524SG-18B 062408959-0039	Chimney Door 2 - White/Gray Painted Chimney Door Caulking	Gray/White Non-Fibrous Heterogeneous	4% Fibrous (Other)	96% Non-fibrous (Other)	None Detected
71524SG-19A 062408959-0040	Side A - Ceiling - Light Gray Rough Coat Plaster	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-19B 062408959-0041	Side B - Ceiling - Light Gray Rough Coat Plaster	Gray/Tan Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
71524SG-19C 062408959-0042	Side C - Ceiling - Light Gray Rough Coat Plaster	Gray/Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-20A 062408959-0043	Side A - Ceiling - White Skim Coat Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-20B 062408959-0044	Side B - Ceiling - White Skim Coat Plaster	Gray/White Non-Fibrous Homogeneous	5% Wollastonite	95% Non-fibrous (Other)	None Detected
71524SG-20C 062408959-0045	Side C - Ceiling - White Skim Coat Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-21A 062408959-0046	Ceiling - White Texture Paint	Gray/Tan Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
71524SG-21B 062408959-0047	Ceiling - White Texture Paint	Gray/White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
71524SG-21C 062408959-0048	Ceiling - White Texture Paint	Gray/White Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
71524SG-22A 062408959-0049	Ceiling - Pach - White Ceiling Cement Repair Patch	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-22B 062408959-0050	Ceiling - Pach - White Ceiling Cement Repair Patch	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-22C 062408959-0051	Ceiling - Pach - White Ceiling Cement Repair Patch	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-23A 062408959-0052	Concrete Floor by Chimney and Hot Water Tank - Floor Debris	Brown/Gray/Red Fibrous Heterogeneous	4% Cellulose 5% Min. Wool 3% Hair	88% Non-fibrous (Other)	None Detected
71524SG-23B 062408959-0053	Concrete Floor by Chimney and Hot Water Tank - Floor Debris	Brown/Gray/White Fibrous Heterogeneous	4% Cellulose 2% Min. Wool 2% Hair	92% Non-fibrous (Other)	None Detected
71524SG-24A 062408959-0054	Ceiling Wood Panel - Red Frre Seam Caulking	Red/Black Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 07/17/2024 18:10:26



EMSL Analytical, Inc.

528 Mineola Avenue Carle Place, NY 11514

Tel/Fax: (516) 997-7251 / (516) 997-7528

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

EMSL Order: 062408959
Customer ID: ENVI54
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
71524SG-24B <small>062408959-0055</small>	Wall/Pipe Joint - Red Frre Seam Caulking	Red/Black Non-Fibrous Heterogeneous		100% Non-fibrous (Other)	None Detected
71524SG-25A <small>062408959-0056</small>	Exterior Door 24 - Door/Window Glazing	Gray/White/Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
71524SG-25A <small>062408959-0057</small>	Exterior Door 24 - Door/Window Glazing	Gray/White/Blue Non-Fibrous Homogeneous		100% Non-fibrous (Other)	<1% Chrysotile
71524SG-26A <small>062408959-0058</small>	Exterior Door 24 - Exterior Gray Caulking associated with Exterior Door	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-26B <small>062408959-0059</small>	Exterior Door 24 - Exterior Gray Caulking associated with Exterior Door	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-27A <small>062408959-0060</small>	Exterior Window/Duct Louver Vent - Clear Gray Top Layer Replacement Caulking	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-27B <small>062408959-0061</small>	Exterior Window/Duct Louver Vent - Clear Gray Top Layer Replacement Caulking	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
71524SG-28A <small>062408959-0062</small>	Exterior Window/Duct Louver Vent - White Bottom Layer Original Caulking	Gray/White Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
71524SG-28B <small>062408959-0063</small>	Exterior Window/Duct Louver Vent - White Bottom Layer Original Caulking				Positive Stop (Not Analyzed)
71524SG-29A <small>062408959-0064</small>	Side A - Wall by Door - Wall Cavity behind CMU - Black Damp-Proofing Tar/Paper	Brown/Black Fibrous Heterogeneous		85% Non-fibrous (Other)	15% Chrysotile
71524SG-29B <small>062408959-0065</small>	Side D - By Window/Duct Louver Vent - Wall Cavity behind CMU - Black Damp-Proofing Tar/Paper				Positive Stop (Not Analyzed)

Initial report from: 07/17/2024 18:10:26



EMSL Analytical, Inc.

528 Mineola Avenue Carle Place, NY 11514

Tel/Fax: (516) 997-7251 / (516) 997-7528

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

EMSL Order: 062408959

Customer ID: ENVI54

Customer PO:

Project ID:

Analyst(s)

Steve Juszczuk (19)

Anthony Miraglia (24)

Tomas Montes De Oca (20)

Daniel Clarke, Asbestos Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. 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. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Carle Place, NY NVLAP Lab Code 101048-10, CA ELAP 2339

Initial report from: 07/17/2024 18:10:26

062408959



FUSS O'NEILL

Fuss & O'Neill EMSL Customer No. ENVI54

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

www.fando.com
Phone (203) 374-3748

Date: 07/15/24 Page 1 of 3

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORM

Project Name: Roger Sherman School Project No. 20180955.A60 Task No.: _____

Site Address: 250 Fern St. Fairfield, CT Location: Boiler Room Project Manager: Miguel Marques

Sample ID	Sample Location	Type of Material
71524SG-01A	Boiler #1	Tan/White Pipe Dope
71524SG-01B	Boiler #2	Tan/White Pipe Dope
71524SG-01C	Boiler #2 – Motor Pipe	Tan/White Pipe Dope
71524SG-02A	Boiler #2	Yellow Adhesive Associated with Interior Fiberglass Boiler Insulation
71524SG-02B	Boiler #1	Yellow Adhesive Associated with Interior Fiberglass Boiler Insulation
71524SG-03A	Boiler #1	Interior Boiler Rib Insulation
71524SG-03B	Boiler #2	Interior Boiler Rib Insulation
71524SG-03C	Boiler #2	Interior Boiler Rib Insulation
71524SG-04A	Boiler #1	White Boiler Door Gasket
71524SG-04B	Boiler #1	White Boiler Door Gasket
71524SG-05A	Boiler #2	White Door Rope/Gasket
71524SG-05B	Boiler #2	White Door Rope/Gasket
71524SG-06A	Boiler #1- Side Pipe System	Black /Tan Pipe Flange Gasket
71524SG-06B	Boiler #2 - Side Pipe System	Black/Tan Pipe Flange Gasket
71524SG-07A	Boiler #1- Pipe System	Tan Pipe Flange Gasket
71524SG-07B	Boiler #2 – Pipe System	Tan Pipe Flange Gasket
71524SG-08A	Boiler #1	White/Silver Pipe Wrapping Paper Associated with Fiber Glass Pipe Insulation
71524SG-08B	Boiler #2	White/Silver Pipe Wrapping Paper Associated with Fiber Glass Pipe Insulation
71524SG-08C	Elevated Pipe System	White/Silver Pipe Wrapping Paper Associated with Fiber Glass Pipe Insulation
71524SG-09A	Boiler #1 – Boiler Breaching	Red Boiler Breaching Caulking
71524SG-09B	Boiler #2 – Boiler Breaching	Red Boiler Breaching Caulking
71524SG-10A	Boiler #1 – Boiler Breaching	Gray/Silver Boiler Breaching Caulking
71524SG-10B	Boiler #2 – Boiler Breaching	Gray/Silver Boiler Breaching Caulking
71524SG-11A	Boiler #1 – Breaching/Chimney Joint	White/Gray Breaching Chimney Cement

RECEIVED
 ANALYTICAL
 CHEMISTRY
 CARLE
 ENVI
 JUL 15 12:30 PM '24

Miguel Marques

James Monte de Oca 7/17/24

7/17/24

062408959

FUSS O'NEILL

Fuss & O'Neill EMSL Customer No. ENVI54

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

www.fando.com
Phone (203) 374-3748

Date: 07/15/24

Page 2 of 3

71524SG-11B	Boiler #2 – Breeching/Chimney Joint	White/Gray Breeching Chimney Cement
71524SG-12A	Water Tank Breeching and Chimney	White/gray breeching joint caulk
71524SG-12B	Water Tank Breeching and Chimney	White/gray breeching joint caulk
71524SG-13A	Chimney	Red Chimney Brick
71524SG-13B	Chimney	Red Chimney Brick
71524SG-14A	Chimney	Gray Mortar Associated with Red Chimney Brick
71524SG-14B	Chimney	Gray Mortar Associated with Red Chimney Brick
71524SG-15A	Wall - Side C	Pink/Gray Wall/Pipe Joint Filler
71524SG-15B	Wall - Side C	Pink/Gray Wall/Pipe Joint Filler
71524SG-16A	Side B Wall	Light Gray Cement Associated with Electrical Pipe/Wall Joint
71524SG-16B	Side B wall	Light Gray Cement Associated with Electrical Pipe/Wall Joint
71524SG-17A	Boiler #1 – Motor	Motor Footing
71524SG-17B	Boiler #2 – Motor	Motor Footing
71524SG-18A	Chimney Door 1	White/Gray Painted Chimney Door Caulking
71524SG-18B	Chimney Door 2	White/Gray Painted Chimney Door Caulking
71524SG-19A	Side A Ceiling	Light gray rough coat plaster
71524SG-19B	Side B Ceiling	Light gray rough coat plaster
71524SG-19C	Side C Ceiling	Light gray rough coat plaster
71524SG-20A	Side A Ceiling	White skim coat plaster
71524SG-20B	Side B Ceiling	White skim coat plaster
71524SG-20C	Side C Ceiling	White skim coat plaster
71524SG-21A	Ceiling	White texture paint
71524SG-21B	Ceiling	White texture paint
71524SG-21C	Ceiling	White texture paint
71524SG-22A	Ceiling – Pach	White Ceiling Cement Repair Patch
71524SG-22B	Ceiling – Pach	White Ceiling Cement Repair Patch
71524SG-22C	Ceiling – Pach	White Ceiling Cement Repair Patch
71524SG-23A	Concrete Floor by Chimney and Hot Water Tank	Floor Debris
71524SG-23B	Concrete Floor by Chimney and Hot Water Tank	Floor Debris

DeV...

Jonis Monte De Oca 7/17/24

7/17/24

U004038959

FUSS O'NEILL

Fuss & O'Neill EMSL Customer No. ENVI54

www.fando.com

Phone (203) 374-3748

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

Date: 07/15/24

Page 3 of 3

71524SG-24A	Ceiling Wood Panel	Red Fire Seam Caulking
71524SG-24B	Wall/Pipe Joint	Red Fire Seam Caulking
71524SG-25A	Exterior Door 24	Door/Window Glazing
71524SG-25A	Exterior Door 24	Door/Window Glazing
71524SG-26A	Exterior Door 24	Exterior Gray Caulking Associated with Exterior Door
71524SG-26B	Exterior Door 24	Exterior Gray Caulking Associated with Exterior Door
71524SG-27A	Exterior Window/Duct Louver Vent	Clear Gray Top Layer Replacement Caulking
71524SG-27B	Exterior Window/Duct Louver Vent	Clear Gray Top Layer Replacement Caulking
71524SG-28A	Exterior Window/Duct Louver Vent	White Bottom Layer Original Caulking
71524SG-28B	Exterior Window/Duct Louver Vent	White Bottom Layer Original Caulking
71524SG-29A	Side A wall by door - Wall Cavity Behind CMU	Black Damp-proofing Tar/Paper
71524SG-29B	Side D by Window/Duct Louver Vent - Wall Cavity Behind CMU	Black Damp-proofing Tar/Paper

Analysis Method: PLM TEM Other _____

Turnaround Time: PLM: x TEM _____
(24-Hours)

Based on the turnaround time indicated above, analyses are due to Fuss & O'Neill on or before this date: _____
Please call Fuss & O'Neill if analyses will not be completed for requested t/a/t at (860) 646-2469.

Email Results to: _____ and _____ **Do Not Mail Hard Copy Report**
Total # of Samples: 65 Samples

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do Not Point Count. No NOB Analysis.

Samples collected by: Sandra Guzman ^{SC} Date: 7/15/2024 Time: Throughout the Day

Samples Sent by: Sandra Guzman Stevie Date: 7/15/2024 Time: pm

Samples Received by: Darius Brinson Date: 7/16/24 Time: 12:34pm

Shipped To: EMSL Other _____

Method of Shipment: FedEx Lab Drop Off Other _____

[Handwritten signature] 7/17/24

James Monteleone 7/17/24

[Handwritten signature] 7/17/24



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 041931612

Customer ID: ENVI54

Customer PO: 20180955.A40

Project ID:

Attention: E. Marques
Fuss & O'Neill, Inc.
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469

Fax:

Received Date: 10/30/2019 9:20 AM

Analysis Date: 10/30/2019 - 11/03/2019

Collected Date: 10/28/2019

Project: 20180955.A40 / Rogers Sherman Elementary School / 250 Fern Street, Fairfield, CT

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
20191028-SG-01A <small>041931612-0001</small>	Storage 049 - White Pipe Fitting Insulation	White Fibrous Homogeneous		80% Non-fibrous (Other)	20% Chrysotile
			HA: 01		
20191028-SG-01B <small>041931612-0002</small>	Storage 041 Pipe - White Pipe Fitting Insulation				Positive Stop (Not Analyzed)
			HA: 01		
20191028-SG-01C <small>041931612-0003</small>	Boys Bathroom by Gym - White Pipe Fitting Insulation				Positive Stop (Not Analyzed)
			HA: 01		
20191028-SG-02A <small>041931612-0004</small>	Storage 049 - Tan Fabric Pipe Wrapping on Fiber Glass Insulation	Tan Fibrous Homogeneous	30% Cellulose 60% Glass	10% Non-fibrous (Other)	None Detected
			HA: 02		
20191028-SG-02B <small>041931612-0005</small>	Storage 041 - Tan Fabric Pipe Wrapping on Fiber Glass Insulation	Tan Fibrous Homogeneous	30% Cellulose 60% Glass	10% Non-fibrous (Other)	None Detected
			HA: 02		
20191028-SG-02C <small>041931612-0006</small>	Storage 041 - Tan Fabric Pipe Wrapping on Fiber Glass Insulation	Tan Fibrous Homogeneous	75% Cellulose 20% Glass	5% Non-fibrous (Other)	None Detected
			HA: 02		
20191028-SG-03A <small>041931612-0007</small>	Storage 049 - Tan/Black/Silver Pipe Wrapping on Fiber Glass Insulation	Tan/Black/Silver Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (Other)	None Detected
			HA: 03		
20191028-SG-03B <small>041931612-0008</small>	Storage 049 - Tan/Black/Silver Pipe Wrapping on Fiber Glass Insulation	Tan/Black/Silver Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (Other)	None Detected
			HA: 03		
20191028-SG-03C <small>041931612-0009</small>	Storage 049 - Tan/Black/Silver Pipe Wrapping on Fiber Glass Insulation	Tan/Black/Silver Fibrous Homogeneous	65% Cellulose 10% Glass	25% Non-fibrous (Other)	None Detected
			HA: 03		
20191028-SG-04A <small>041931612-0010</small>	Boys Bathroom - White/Silver Pipe Wrapping on Fiber Glass Insulation	White/Silver Fibrous Homogeneous	40% Cellulose 20% Glass	40% Non-fibrous (Other)	None Detected
			HA: 04		

Initial report from: 11/04/2019 08:39:41



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 041931612
Customer ID: ENVI54
Customer PO: 20180955.A40
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
20191028-SG-04B <small>041931612-0011</small>	Girls Bathroom - White/Silver Pipe Wrapping on Fiber Glass Insulation	White/Silver Fibrous Homogeneous	40% Cellulose 20% Glass	40% Non-fibrous (Other)	None Detected
HA: 04					
20191028-SG-04C <small>041931612-0012</small>	Boys Bathroom - White/Silver Pipe Wrapping on Fiber Glass Insulation	White/Silver Fibrous Homogeneous	30% Cellulose 15% Glass	55% Non-fibrous (Other)	None Detected
HA: 04					
20191028-SG-05A <small>041931612-0013</small>	Storage 041 - White Duct Flex Connector	White Fibrous Homogeneous		70% Non-fibrous (Other)	30% Chrysotile
HA: 05					
20191028-SG-05B <small>041931612-0014</small>	Storage 049 - White Duct Flex Connector				Positive Stop (Not Analyzed)
HA: 05					
20191028-SG-05C <small>041931612-0015</small>	Storage 041 - White Duct Flex Connector				Positive Stop (Not Analyzed)
HA: 05					
20191028-SG-06A <small>041931612-0016</small>	Room 6 - White/Tan Duct Wrapping on Fiber Glass Insulation	Tan/White Fibrous Homogeneous	40% Cellulose 40% Glass	20% Non-fibrous (Other)	None Detected
HA: 06					
20191028-SG-06B <small>041931612-0017</small>	Room 19 - White/Tan Duct Wrapping on Fiber Glass Insulation	Tan/White Fibrous Homogeneous	40% Cellulose 40% Glass	20% Non-fibrous (Other)	None Detected
HA: 06					
20191028-SG-06C <small>041931612-0018</small>	Room 5 - White/Tan Duct Wrapping on Fiber Glass Insulation	Tan/White Fibrous Homogeneous	50% Cellulose 35% Glass	15% Non-fibrous (Other)	None Detected
HA: 06					
20191028-SG-07A <small>041931612-0019</small>	Boys Bathroom - Drop Ceiling - White 2'x4' Ceiling Tiles	White Fibrous Homogeneous	60% Cellulose 30% Min. Wool	10% Non-fibrous (Other)	None Detected
HA: 07					
20191028-SG-07B <small>041931612-0020</small>	Room 6 - Drop Ceiling - White 2'x4' Ceiling Tiles	White Fibrous Homogeneous	60% Cellulose 35% Min. Wool	5% Non-fibrous (Other)	None Detected
HA: 07					
20191028-SG-08A <small>041931612-0021</small>	Storage 041 - Wall - Gray CMU	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 08					
20191028-SG-08B <small>041931612-0022</small>	Storage 049 - Wall - Gray CMU	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 08					
20191028-SG-09A <small>041931612-0023</small>	Storage 041 - Wall - Gray CMU Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 09					
20191028-SG-09B <small>041931612-0024</small>	Storage 049 - Wall - Gray CMU Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
HA: 09					

Initial report from: 11/04/2019 08:39:41



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 041931612
Customer ID: ENVI54
Customer PO: 20180955.A40
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
20191028-SG-10A <small>041931612-0025</small>	Girls Bathroom - Wall - Red Brick	Red Non-Fibrous Homogeneous	HA: 10	100% Non-fibrous (Other)	None Detected
20191028-SG-10B <small>041931612-0026</small>	Girls Bathroom - Wall - Red Brick	Red Non-Fibrous Homogeneous	HA: 10	100% Non-fibrous (Other)	None Detected
20191028-SG-11A <small>041931612-0027</small>	Girls Bathroom - Wall - Gray Brick Grout	Gray Non-Fibrous Homogeneous	HA: 11	100% Non-fibrous (Other)	None Detected
20191028-SG-11B <small>041931612-0028</small>	Girls Bathroom - Wall - Gray Brick Grout	Gray Non-Fibrous Homogeneous	HA: 11	100% Non-fibrous (Other)	None Detected
20191028-SG-12A <small>041931612-0029</small>	Room 6 - Duct Cover - White Gypsum Board	Brown/White Fibrous Homogeneous	HA: 12	20% Cellulose 80% Non-fibrous (Other)	None Detected
20191028-SG-12B <small>041931612-0030</small>	Room 19 - Duct Cover - White Gypsum Board	Brown/White Fibrous Homogeneous	HA: 12	18% Cellulose 82% Non-fibrous (Other)	None Detected
20191028-SG-13A <small>041931612-0031</small>	Room 6 - Division Wall - White/Gray Wall Panel	Gray/White Fibrous Homogeneous	HA: 13	40% Cellulose 60% Non-fibrous (Other)	None Detected
20191028-SG-13B <small>041931612-0032</small>	Room 19 - Division Wall - White/Gray Wall Panel	Gray/White Fibrous Homogeneous	HA: 13	35% Cellulose 65% Non-fibrous (Other)	None Detected
20191028-SG-14A <small>041931612-0033</small>	State - Gray Concrete Floor	Gray Non-Fibrous Homogeneous	HA: 14	100% Non-fibrous (Other)	None Detected
20191028-SG-14B <small>041931612-0034</small>	State - Gray Concrete Floor	Gray Non-Fibrous Homogeneous	HA: 14	100% Non-fibrous (Other)	None Detected
20191028-SG-15A <small>041931612-0035</small>	Cafeteria - Black Felt under Hard Wood Floor	Black Fibrous Homogeneous	HA: 15	60% Cellulose 40% Non-fibrous (Other)	None Detected
20191028-SG-15B <small>041931612-0036</small>	Cafeteria - Black Felt under Hard Wood Floor	Black Fibrous Homogeneous	HA: 15	70% Cellulose 30% Non-fibrous (Other)	None Detected
20191028-SG-16A <small>041931612-0037</small>	Boys Bathroom - Tan/Gray Ceramic Floor Tile Thin Set	Gray/Tan Non-Fibrous Homogeneous	HA: 16	100% Non-fibrous (Other)	None Detected
20191028-SG-16B <small>041931612-0038</small>	Girls Bathroom - Tan/Gray Ceramic Floor Tile Thin Set	Gray/Tan Non-Fibrous Homogeneous	HA: 16	100% Non-fibrous (Other)	None Detected

Initial report from: 11/04/2019 08:39:41



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 041931612
Customer ID: ENVI54
Customer PO: 20180955.A40
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
20191028-SG-17A <small>041931612-0039</small>	Boys Bathroom - Gray Ceramic Floor Tile Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 17		
20191028-SG-17B <small>041931612-0040</small>	Girls Bathroom - Gray Ceramic Floor Tile Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 17		
20191028-SG-18A <small>041931612-0041</small>	Boys Bathroom - White 1"x1" Ceramic Floor Tiles	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 18		
20191028-SG-18B <small>041931612-0042</small>	Girls Bathroom - White 1"x1" Ceramic Floor Tiles	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 18		
20191028-SG-19A <small>041931612-0043</small>	Girls Bathroom - Yellow Ceramic Cove Base Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 19		
20191028-SG-19B <small>041931612-0044</small>	Boys Bathroom - Yellow Ceramic Cove Base Glue	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 19		
20191028-SG-20A <small>041931612-0045</small>	Girls Bathroom - 6" White Ceramic Cove Base	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 20		
20191028-SG-20B <small>041931612-0046</small>	Boys Bathroom - 6" White Ceramic Cove Base	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 20		
20191028-SG-21A <small>041931612-0047</small>	Cafeteria Roof - Green Roof Shingles	Green Fibrous Homogeneous	20% Glass	80% Non-fibrous (Other)	None Detected
			HA: 21		
20191028-SG-21B <small>041931612-0048</small>	Cafeteria Roof - Green Roof Shingles	Green Fibrous Homogeneous	15% Glass	85% Non-fibrous (Other)	None Detected
			HA: 21		
20191028-SG-22A <small>041931612-0049</small>	Cafeteria Roof - Black Roof Base Sheet	Black Fibrous Homogeneous	20% Glass	80% Non-fibrous (Other)	None Detected
			HA: 22		
20191028-SG-22B <small>041931612-0050</small>	Cafeteria Roof - Black Roof Base Sheet	Black Fibrous Homogeneous	20% Glass	80% Non-fibrous (Other)	None Detected
			HA: 22		
20191028-SG-23A <small>041931612-0051</small>	Cafeteria Exterior Vent at Roof - Gray Vent Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 23		
20191028-SG-23B <small>041931612-0052</small>	Cafeteria Exterior Vent at Roof - Gray Vent Caulking	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 23		

Initial report from: 11/04/2019 08:39:41



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 041931612
Customer ID: ENVI54
Customer PO: 20180955.A40
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
20191028-SG-24A <small>041931612-0053</small>	Cafeteria Exterior Vent at Roof - White Vent Caulking	White Fibrous Homogeneous		97% Non-fibrous (Other)	3% Chrysotile
			HA: 24		
20191028-SG-24B <small>041931612-0054</small>	Cafeteria Exterior Vent at Roof - White Vent Caulking				Positive Stop (Not Analyzed)
			HA: 24		
20191028-SG-25A <small>041931612-0055</small>	Media Center Roof - Gray Caulking on Seams & Flashing	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 25		
20191028-SG-25B <small>041931612-0056</small>	Gym Roof - Gray Caulking on Seams & Flashing	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 25		
20191028-SG-26A <small>041931612-0057</small>	Media Center Room - Black Caulking on Seams & Flashing	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 26		
20191028-SG-26B <small>041931612-0058</small>	Gym Roof - Black Caulking on Seams & Flashing	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 26		
20191028-SG-27A-Built Up Roofing <small>041931612-0059</small>	Media Center Edge - Black Build-up	Black Fibrous Homogeneous	20% Glass	80% Non-fibrous (Other)	None Detected
			HA: 27		
20191028-SG-27A-Tar <small>041931612-0059A</small>	Media Center Edge - Black Build-up	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 27		
20191028-SG-27A-Tar Felt <small>041931612-0059B</small>	Media Center Edge - Black Build-up	Black Fibrous Homogeneous	40% Glass	60% Non-fibrous (Other)	None Detected
			HA: 27		
20191028-SG-27B-Built Up Roofing <small>041931612-0060</small>	Gym Roof Edge - Black Build-up	Black Fibrous Homogeneous	18% Glass	82% Non-fibrous (Other)	None Detected
			HA: 27		
20191028-SG-27B-Tar <small>041931612-0060A</small>	Gym Roof Edge - Black Build-up	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 27		
20191028-SG-27B-Tar Felt <small>041931612-0060B</small>	Gym Roof Edge - Black Build-up	Black Fibrous Homogeneous	35% Glass	65% Non-fibrous (Other)	None Detected
			HA: 27		
20191028-SG-28A-Built Up Roofing <small>041931612-0061</small>	Media Center Roof Field - Black Roof Build-up	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 28		

Initial report from: 11/04/2019 08:39:41



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnaslab@EMSL.com

EMSL Order: 041931612
Customer ID: ENVI54
Customer PO: 20180955.A40
Project ID:

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
20191028-SG-28A-Tar <i>041931612-0061A</i>	Media Center Roof Field - Black Roof Build-up	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 28		
20191028-SG-28A-Tar Felt <i>041931612-0061B</i>	Media Center Roof Field - Black Roof Build-up	Black Fibrous Homogeneous	30% Glass	70% Non-fibrous (Other)	None Detected
			HA: 28		
20191028-SG-28A-Tar Paper <i>041931612-0061C</i>	Media Center Roof Field - Black Roof Build-up	Black Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (Other)	None Detected
			HA: 28		
20191028-SG-28A-Insulation <i>041931612-0061D</i>	Media Center Roof Field - Black Roof Build-up	Tan Fibrous Homogeneous	80% Glass	20% Non-fibrous (Other)	None Detected
			HA: 28		
20191028-SG-28B-Built Up Roofing <i>041931612-0062</i>	Gym Roof Field - Black Roof Build-up	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 28		
20191028-SG-28B-Tar <i>041931612-0062A</i>	Gym Roof Field - Black Roof Build-up	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
			HA: 28		
20191028-SG-28B-Tar Felt <i>041931612-0062B</i>	Gym Roof Field - Black Roof Build-up	Black Fibrous Homogeneous	40% Glass	60% Non-fibrous (Other)	None Detected
			HA: 28		
20191028-SG-28B-Tar Paper <i>041931612-0062C</i>	Gym Roof Field - Black Roof Build-up	Black Fibrous Homogeneous	55% Cellulose	45% Non-fibrous (Other)	None Detected
			HA: 28		
20191028-SG-28B-Insulation <i>041931612-0062D</i>	Gym Roof Field - Black Roof Build-up	Tan Fibrous Homogeneous	60% Glass	40% Non-fibrous (Other)	None Detected
			HA: 28		

Analyst(s) _____

Garret Vliet (31)

Tyler Hurwitt (38)

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. 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. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367, LA #04127

Initial report from: 11/04/2019 08:39:41

**FUSS & O'NEILL**

Fuss & O'Neill EnviroScience EMSL Customer No. ENVI54

041931612

54

 RECEIVED
 EMSL
 www.emsl.com
 CINNAMINSON, N.J.
 2019 OCT 30 AM 10:41

56 Quarry Road, Trumbull, CT 066611

Phone (203) 374-3748 Fax (203) 374-4391

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORMSheet 1 of 3Project Name: Rogers Sherman Elementary School Project No. 20180955.A40 Date: 10/29/2019Site Address: 250 Fern Street, Fairfield CT Building Name/Number: _____ Project Manager: E Marques

Sample ID	Sample Location	Type of Material
20191028-SG- 01A	Storage 049	White Pipe Fitting Insulation
20191028-SG- 01B	Storage 041 Pipe	White Pipe Fitting Insulation
20191028-SG- 01C	Boys Bathroom by Gym	White Pipe Fitting Insulation
20191028-SG-02A	Storage 049	Tan Fabric Pipe Wrapping on Fiber Glass Insulation
20191028-SG-02B	Storage 041	Tan Fabric Pipe Wrapping Fiber Glass on Fiber Glass Insulation
20191028-SG-02C	Storage 041	Tan Fabric Pipe Wrapping Fiber Glass on Fiber Glass Insulation
20191028-SG-03A	Storage 049	Tan/Black/Silver Pipe Wrapping on Fiber Glass Insulation
20191028-SG-03B	Storage 049	Tan/Black/Silver Pipe Wrapping on Fiber Glass Insulation
20191028-SG-03C	Storage 049	Tan/Black/Silver Pipe Wrapping on Fiber Glass Insulation
20191028-SG-04A	Boys Bathroom	White/Silver Pipe Wrapping Fiber on Glass Insulation
20191028-SG-04B	Girls Bathroom	White/Silver Pipe Wrapping Fiber on Glass Insulation
20191028-SG-04C	Boys Bathroom	White/Silver Pipe Wrapping Fiber on Glass Insulation
20191028-SG-05A	Storage 041	White Duct Flex Connector
20191028-SG-05B	Storage 049	White Duct Flex Connector
20191028-SG-05C	Storage 041	White Duct Flex Connector
20191028-SG-06A	Room 6	White/Tan Duct Wrapping on Fiber Glass Insulation
20191028-SG-06B	Room 19	White/Tan Duct Wrapping on Fiber Glass Insulation
20191028-SG-06C	Room 5	White/Tan Duct Wrapping on Fiber Glass Insulation
20191028-SG-07A	Boys Bathroom Drop Ceiling	White 2'x 4' Ceiling Tiles
20191028-SG-07B	Room 6 Drop Ceiling	White 2'x 4' Ceiling Tiles
20191028-SG-08A	Storage 041 Wall	Gray CMU
20191028-SG-08B	Storage 049 Wall	Gray CMU
20191028-SG-09A	Storage 041 Wall	Gray CMU Grout
20191028-SG-09B	Storage 049 Wall	Gray CMU Grout
20191028-SG-10A	Girls Bathroom Wall	Red Brick
20191028-SG-10B	Girls Bathroom Wall	Red Brick
20191028-SG-11A	Girls Bathroom Wall	Gray Brick Grout



FUSS & O'NEILL

041931612

Page 2 of 3

RECEIVED

EMSL

1391

GINNAPINSON, N.J.

56 Quarry Road, Trumbull, CT 066611

Phone (203) 374-3748

2019 OCT 30 AM 10:41

Sample ID	Sample Location	Type of Material
20191028-SG-11B	Girls Bathroom Wall	Gray Brick Grout
20191028-SG-12A	Room 6 Duct Cover	White Gypsum Board
20191028-SG-12B	Room 19 Duct Cover	White Gypsum Board
20191028-SG-13A	Room 6 Division Wall	White/Gray Wall Panel
20191028-SG-13B	Room 19 Division Wall	White/Gray Wall Panel
20191028-SG-14A	Stage	Gray Concrete Floor
20191028-SG-14B	Stage	Gray Concrete Floor
20191028-SG-15A	Cafeteria	Black Felt Under Hard Wood Floor
20191028-SG-15B	Cafeteria	Black Felt Under Hard Wood Floor
20191028-SG-16A	Boys Bathroom	Tan/Gray Ceramic floor Tile Thin Set
20191028-SG-16B	Girls Bathroom	Tan/Gray Ceramic floor Tile Thin Set
20191028-SG-17A	Boys Bathroom	Gray Ceramic Floor Tile Grout
20191028-SG-17B	Girls Bathroom	Gray Ceramic Floor Tile Grout
20191028-SG-18A	Boys Bathroom	White 1" X 1" Ceramic Floor Tiles
20191028-SG-18B	Girls Bathroom	White 1" X 1" Ceramic Floor Tiles
20191028-SG-19A	Girls Bathroom	Yellow Ceramic Cove Base Glue
20191028-SG-19B	Boys Bathroom	Yellow Ceramic Cove Base Glue
20191028-SG-20A	Girls Bathroom	6" White Ceramic Cove Base
20191028-SG-20B	Boys Bathroom	6" White Ceramic Cove Base
20191028-SG-21A	Cafeteria Roof	Green Roof Shingles
20191028-SG-21B	Cafeteria Roof	Green Roof Shingles
20191028-SG-22A	Cafeteria Roof	Black Roof Base Sheet
20191028-SG-22B	Cafeteria Roof	Black Roof Base Sheet
20191028-SG-23A	Cafeteria Exterior Vent at roof	Gray Vent Caulking
20191028-SG-23B	Cafeteria Exterior Vent at roof	Gray Vent Caulking
20191028-SG-24A	Cafeteria Exterior Vent at roof	White Vent Caulking
20191028-SG-24B	Cafeteria Exterior Vent at roof	White Vent Caulking
20191028-SG-25A	Media Center Roof	Gray Caulking on Seams and Flashing
20191028-SG-25B	Gym Roof	Gray Caulking on Seams and Flashing
20191028-SG-26A	Media Center Roof	Black Caulking on Seams and Flashing
20191028-SG-26B	Gym Roof	Black Caulking on Seams and Flashing
20191028-SG-27A	Media Center Edge	Black Build Up



FUSS & O'NEILL

Fuss & O'Neill EnviroScience EMSL Customer No. ENVI54

041931612

Page 3 of 3
www.fando.com

56 Quarry Road, Trumbull, CT 066611

Phone (203) 374-3748 Fax (203) 374-4391

Sample ID	Sample Location	Type of Material
20191028-SG-27B	Gym Roof Edge	Black Build Up
20191028-SG-28A	Media Center Roof Field	Black Roof Build Up
20191028-SG-28B	Gym Roof Field	Black Roof Build Up

Analysis Method: PLM TEM Other _____ Turnaround Time: 72 Hours

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: November 2, 2019 Please call EnviroScience if analyses will not be completed for requested TAT at (203) 374 - 3748.

Email Results to: LabResults@fando.com and emarques@fando.com **Do Not Mail Hard Copy Report**

Total # of Samples: 62 Samples

Special Instructions: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. Do Not Point Count. No NOB analysis per client request.

Samples collected by: Sandra Guzman S Guzman Date: 10/28/2019 Time: 4:00 pm to 9:00 pm.

Samples Sent by: Sandra Guzman S Guzman Date: 10/29/2019 Time: 11:00 am

Samples Received by: Onix Date: 10-30-19 Time: 9:24

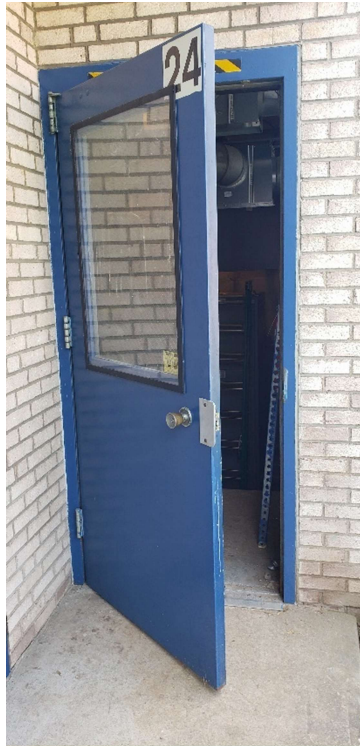
Shipped To: EMSL State NJ Other _____

Method of Shipment: FedEx Lab Drop Off Other _____

RECEIVED
EMSL
CINNAMINSON, N.J.
2019 OCT 30 AM 10:41

Appendix D

Site Photographs



Door/Window with <1% Asbestos-Containing Glazing Compound



Window/Louver Vent with Asbestos Containing Caulking Compound



Asbestos-Containing Black Damp Proofing in Wall Cavity by Door 24



Asbestos-Containing Black Damp-proofing in Wall Cavity by Window/Louver Vent



Pipe Elbows, Tees, and Connector – Lead Containing
(Material Not Painted)

Appendix E

XRF Lead Determination Field Data Sheets

XRF LEAD DETERMINATION FIELD DATA SHEET

XRF Model: RMD / Viken

Inspector Name: Sandra Guzman Inspector License #: 002291
 Date: 7/15/24 XRF Model: RMD / Viken Serial #: 2170

Project Name: Roger Sherman School Project Number: 20180955.A60

Address: 250 Fern St. Fairfield, CT Project PM: KCP

RMD XRF Calibration Check / Viken XRF Quality Control Check
(RMD: 0.7 to 1.3 mg/cm² inclusive, Viken: 0.8 to 1.2 mg/cm² inclusive)

	Hour	First Reading	Second Reading	Third Reading	Average
First Check	08:37	0.7	0.7	0.9	0.76
Second Check	11:52	0.8	0.9	0.9	0.86
Third Check					

Side	Surface/Component	Substrate/Color	XRF Reading	Positive (√)	Comments/Notes
A/B/C/D	Upper wall	CMU/ White	0.0		-
A/B/C/D	Lower wall	CMU /Gray	0.0		-
A	Stair Treads/Landing	M /Gray	0.5		Stairs in corner A/D
A	Stair railing	M /Gray	0.3		-
A	Stair post	M/Gray	0.1		-
	Floor	C/Gray	0.2		-
A	Door	M/Blue	0.2		Door in corner A/D
A	Door jamb	M/Brown	0.4		Door in corner A/D
A	Doorstop	M/Light blue	0.3		Door in corner A/D
D	Window casing	CMU/Black	0.4		-
A	Old Control Panel	W/ White	0.1		Lots of gauges/ Bridgeport, CT
A	Control box	M/Gray	0.0		4 boxes left of blue box
A	Control box	Blue/ Aluminum	0.1		-
A	Conduit piping	M/ White	0.1		All painted white conduit on A side.
A	Electric mounting board	Gray/Wood	0.0		Under blue control box
A	Quincy Compressor	M/ Blue	0.0		-
A	Generator	M/ Gray	0.0		(x2) small generators on floor near A/D corner stairs
-	Power Flame Burner	M/ Electric blue	0.0		Both Power Flame Burners
C	Piping and connectors	M/ Black	0.0		Wall behind boiler 1

C	Motor	M/Red	0.0		Wall behind boiler 1
C	Wall	CMU/Beige	0.0		Patch of wall 2'x6' behind boiler 1
C	Control box	M/Gray	0.8		Small 3"x8" Johnson Control box, wall behind boiler 1
C	Two switch boxes	M/ Gray	0.0		By red painted motor
	Boiler housing	M/Blue/gray	0.1		Both Boilers
	Boiler support feet	M/Gray	0.0		Both boilers
B	Boiler yellow pipe	M/Yellow	0.0		Both boilers
	Other fuel oil supply and return piping	M/Black	0.1		Both boilers, middle of A-side wall
	Water tank	M/White	0.0		On ceiling, x6
	Water tank support	M/white	0.1		On ceiling
	Ceiling	Plaster/White	0.1		-
	Removable floor plates	M/Gray	0.1		Includes all plates
	Pump	M/ Red	0.1		(x2) Middle of room
	Generator assoc. w/ red pump	M/Gray	0.1		(x2) Middle of room
A	Door	M/Green	0.4		A/B corner
A	Door jamb	M/Brown	0.5		A/B corner
A	Doorstop	M/Brown	0.7		A/B corner
A	Large control boxes	M/Gray	0.1		(x4) on the right side of large fuel oil pipe
A	Small control boxes/ switch boxes	M/Gray	0.2		(x9) on the right side of large fuel oil pipe
A	Speed-aire wall unit	M/Green/black	0.0		-
B	¼" elbow on yellow pipe	M	2.5	√	Valves, elbows and T connectors associated with pipes were found to contain lead (items are no painted)
-	1 ¼" T valve	M/Oxidized green	14.0	√	
A	1 ¼" T valve	M/Oxidized green	15.5	√	

* Substrate Type: Metal = M, Wood = W, Plaster = P, Sheetrock = S, Concrete = C, Brick = B
 N/A: Not Accessible; N/C: Not Coated; COV: Covered; VR – Vinyl Replacement