



Tighe&Bond

**Davenport Ridge Elementary
School Exterior Expansion
Joint Project**

**Hazardous Building
Materials Assessment**

Prepared For:

Stamford Mold Task Force

April 2019

Hazardous Building Materials Assessment Report Prepared for:

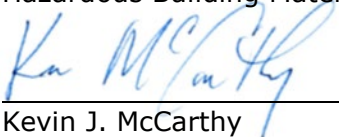
City of Stamford
Mold Task Force
Office of Administration, 10th Floor
888 Washington Avenue
Stamford, CT 06901

Hazardous Building Materials Assessment Performed by:

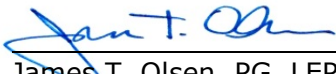


Brian N. Sirowich
Project Environmental Scientist 2
CTDPH Asbestos Inspector License #342

Hazardous Building Materials Assessment Report Reviewed and Approved By:



Kevin J. McCarthy
Project Manager



James T. Olsen, PG, LEP
Vice President

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Section 1

Introduction

Tighe & Bond, Inc. (Tighe & Bond) was retained by the Stamford Mold Task Force (the "Client") to complete a Hazardous Building Materials Assessment (the "Assessment") at Davenport Ridge Elementary School located at 1300 Newfield Avenue in Stamford, Connecticut (the "site").

The Assessment was performed on March 18, 2019, by Mr. Brian N. Sirowich of Tighe & Bond, a Connecticut licensed asbestos inspector. Mr. Sirowich's license and accreditation are included as Appendix A of this report. The Assessment was performed due to proposed replacement of exterior expansion joints as part of the Mold Task Force work at the site.

1.1 Assessment Summary

The Assessment at the site was conducted with the understanding that the Client is scheduled to replace the expansion joints at the site. Other exterior caulking (windows, doors, vents, etc.) of the school building not scheduled for replacement were not included in this Assessment.

The site is an elementary school operated by the City of Stamford. The main school building footprint encompasses approximately 87,500 square feet. The exterior of the building is constructed with precast concrete panels. The expansion joints are located at the precast concrete panel intersections. The caulking associated with the expansion joints is gray and was found to be in poor condition with pitting and cracking observed along select expansion joint locations. Photographs of the expansion joints are included in Appendix B.

The Assessment included a visual assessment of suspect hazardous building materials (asbestos and polychlorinated biphenyls [PCBs]), and physical bulk sampling of suspect asbestos and PCB-containing materials. Asbestos and PCB sample locations are depicted in Figure 1.

Section 2

Assessment Protocols

2.1 Asbestos-Containing Materials

Prior to any type of building demolition or renovation, a thorough investigation is required to identify and quantify asbestos containing materials (ACM) which may be impacted by the demolition or renovation activities. The survey is required by the United States Environmental Protection Agency (EPA) National Emissions Standard for Hazardous Air Pollutants (NESHAP) regulations (Title 40 CFR, Part 61, Subpart M), State of Connecticut Department of Public Health (CTDPH) Standards for Asbestos Abatement (19a-332a-1 – 19a-332a-23) as well as applicable portions of the Occupational Safety and Health Administration (OSHA) CFR 1926.1101 asbestos in construction regulations.

The Assessment included a visual inspection to locate, as far as practical, suspect ACM associated with the expansion joints. The majority of the Assessment involved visible and accessible materials along the exterior of the building.

Suspect materials were divided into "homogeneous materials", building materials which were determined by the inspector to be homogeneous based on their color, texture, and age. During the asbestos portion of the Assessment, the sample locations, types of material, quantities and asbestos content, were recorded in tabular form.

The EPA recommends collecting samples of suspect ACM in a manner sufficient to determine asbestos content. 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 outlined in the EPA Asbestos Hazard Emergency Response Act (AHERA) (Title 40 CFR, Part 763, Subpart E). Numbers of samples collected by Tighe & Bond at the site were based in part on the AHERA regulation.

Bulk material samples collected were logged on proper chain-of-custody forms for transport to EMSL Analytical Inc. (EMSL), of Wallingford, Connecticut, for analysis. EMSL is a Connecticut licensed and American Industrial Hygiene Association (AIHA)-accredited asbestos laboratory. Initial asbestos sample analysis was conducted using the EPA Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116) via Polarized Light Microscopy with Dispersion Staining (PLM/DS) in accordance with the accreditation of the National Institute of Standards and Technology (NIST). Additionally, in accordance with EPA guidance documents, non-friable organically bound materials (NOB) (e.g., expansion caulk) were further analyzed by Transmission Electron Microscopy (TEM) to confirm PLM analysis.

The EPA, OSHA, and the CTDPH define a material that contains greater than one percent (>1%) asbestos, utilizing PLM/DS, as being an ACM. Materials that are identified as "none detected" are specified as not containing asbestos. Materials containing less than one percent (<1%) asbestos are regulated to a degree by OSHA related to work practices, worker exposure, and waste containerization.

2.2 Polychlorinated Biphenyl-Containing Building Materials

PCBs in building materials have received extensive attention over recent years by environmental regulators, consultants, and contractors, and PCBs are increasingly being identified in buildings that may undergo demolition or renovation. Buildings/structures that were constructed (or renovated) between the 1950s and the late 1970s have a greater potential to contain PCBs in certain building materials.

It is important to note that EPA regulations which govern the Toxic Substance Control Act (TSCA) requirements including PCBs and PCB Bulk Product Wastes require the proper disposal of PCB-containing building materials, however, there is no current regulatory requirement to sample for PCBs (local, state or federal) prior to renovation or demolition.

Regardless of the regulatory sampling requirements, many waste/recycling receiving facilities may request PCB sampling to be performed. If it is suspected that PCBs could be present, it is important to also mitigate potential human health and safety risk to abatement/demolition contractors and owners' potential liability associated with the proper recycling/disposal of certain generated demolition waste materials.

One type of expansion caulk was determined to be present and tested by Tighe & Bond. These samples were submitted to Phoenix Environmental Laboratories, Inc. of Manchester, Connecticut, a Connecticut-accredited laboratory, for analysis of PCBs utilizing the EPA 3540C Soxhlet Extraction and SW 846 8082 analytical method.

Source material sampling involved removal of the source materials using hand tools to submit in bulk form to determine PCB content. The sampling tools utilized during the sampling were properly decontaminated prior to sample collection and following the collection of each individual sample in accordance with EPA guidelines to prevent cross-contamination of samples.

Presently, source materials containing PCBs at concentrations ≥ 50 parts per million (ppm) or the equivalent units of milligrams per kilogram (mg/kg) are regulated by the EPA and characterized as PCB Bulk Product Waste. Source materials containing < 50 ppm may be regulated by the EPA unless proven to be an Excluded PCB Product. The definition of an Excluded PCB Product includes those products or source of the products containing < 50 ppm concentration of PCBs that were legally manufactured, processed, distributed in commerce, or used before October 1, 1984. Based on the Excluded PCB Product definition, materials installed after 1984 and determined to contain PCBs in concentrations > 1 ppm are considered PCB Remediation Waste. Source materials determined to be Excluded PCB Product containing > 1 ppm PCBs but < 50 ppm PCBs are regulated by the Connecticut Department of Energy and Environmental Protection (CTDEEP). Source materials containing ≤ 1 ppm PCBs are considered non-regulated by the EPA and CTDEEP.

Section 3 Findings

3.1 Asbestos-Containing Materials

One homogeneous material was identified during the Assessment and three samples of suspect ACM anticipated to be impacted by the proposed replacement were collected. Materials observed to be homogeneous throughout the site (i.e. expansion caulk) were sampled in accordance with EPA regulations and analyzed by PLM/DS. The NOB material determined to be non-asbestos by PLM/DS analysis was further analyzed by TEM to determine asbestos content.

The expansion joint caulk sampled during this Assessment were found to be non-ACM

A complete list of suspect homogenous material, along with sample ID numbers, material description and location is provided in Table 1. Refer to Figure 1 indicating locations of suspect asbestos samples collected. The laboratory analytical report and chain-of-custody forms for asbestos sampling conducted by Tighe & Bond are in Appendix C.

Suspect materials encountered during renovation that are not identified in this report as being non-ACM should be assumed to be ACM until sample collection and laboratory analysis indicate otherwise.

3.2 PCB-Containing Building Materials

Expansion caulk samples collected and analyzed were determined to be none detected with laboratory reporting limits < 1 ppm. Materials sampled were determined to be unregulated for PCBs.

Refer to Table 2 for a detailed list of expansion caulk sampled by Tighe & Bond for PCBs. Refer to Figure 1 indicating locations of suspect PCB samples collected.

Laboratory analytical reports for PCB samples collected by Tighe & Bond are provided in Appendix D.

Section 4

Hazardous Building Material Assessment Limitations

This report has been prepared on behalf of and for the exclusive use of the Client and is subject to and issued in accordance with the Agreement and the provisions thereof. Documents provided on this project shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party without the prior written consent of Tighe & Bond. Reuse of documents by Client or others without Tighe & Bond's written permission and mutual agreement shall be at the user's sole risk, without liability on Tighe & Bond's part and Client agrees to indemnify and hold Tighe & Bond harmless from all claims, damages, and expenses, including attorney's fees, arising out of such unauthorized use or reuse.

Tighe & Bond performed the work in accordance with our Agreement (including any stated scope and schedule limitations) and used the degree of care and skill ordinarily exercised under similar circumstances by members of the profession practicing in the same or similar locality. The HBMA may not identify all regulated building materials as our scope may be limited to certain locations within an identified structure(s). Tighe & Bond performed the HBMA using reasonable methods to access and identify the presence of suspect materials. Therefore, additional suspect materials may be enclosed/hidden in inaccessible areas, including within the interior of walls, beneath slabs, above fixed ceilings or otherwise not readily accessible. Occupied buildings spaces, including the presence of tenant/building owner's materials may have restricted our access or observations of suspect materials. Tighe & Bond did not access or disassemble electrical/mechanical equipment. If applicable and to the extent feasible, we recommend supplemental evaluations following full building vacancy. Unless otherwise noted, sampling of building materials for polychlorinated biphenyls (PCBs) was not performed and the evaluation of the potential presence of mold was not completed.

If an Opinion of Probable Construction Costs (OPCC) is provided, Tighe & Bond has no control over the cost or availability of labor, equipment or materials, or over market conditions or the contractor's method of pricing, and that the opinion of probable costs is made on the basis of Tighe & Bond's professional judgment and experience is based on currently available information. Tighe & Bond makes no guarantee nor warranty, expressed or implied, that the actual costs of the construction work will not vary from the OPCC.

This report is not intended to be utilized as a bidding document or as a project specification document. This report was prepared for use by the building owner and project team (i.e. architect, construction manager, general contractor, demolition contractor, abatement contractor) for locating identified hazardous regulated building materials within the contracted limits of the scope of services.

J:\S\S2087 Stamford\033 Mold Remediation Consulting\Sites\Davenport\Expansion Joint Assessment\Report\Davenport_Expansion_Joint_Assessment.docx

Tighe&Bond

TABLES

TABLE 1
SUMMARY OF SUSPECT ASBESTOS-CONTAINING MATERIALS
DAVENPORT RIDGE ELEMENTARY SCHOOL
1300 NEWFIELD AVENUE
STAMFORD, CONNECTICUT

Sample #	Material Description	Color	Material Location	Approximate Quantity	Asbestos Result	Comment
0319BS-01A	Gray Expansion Joint	Gray	Southeast Side/Mens room	NA	ND ¹	
0319BS-01B	Gray Expansion Joint	Gray	East Side/Gymnasium	NA	ND	
0319BS-01C	Gray Expansion Joint	Gray	North Side b/t Rooms 20 & 21	NA	ND	

LEGEND SURVEY PERFORMED BY: BRIAN N SIROWICH ND = NONE DETECTED ¹ - CONFIRMATORY ANALYSIS VIA TEM NOB NA = NOT APPLICABLE						
State License #:000342						

TABLE 2
SUMMARY OF SUSPECT PCB-CONTAINING BUILDING MATERIALS
DAVENPORT RIDGE ELEMENTARY SCHOOL
1300 NEWFIELD AVENUE
STAMFORD, CONNECTICUTT

Sample #	Material Description	Material Location	Substrate	PCB Results (PPM)	Comments
0318BS-E1	Gray Exterior Expansion Joint	Southeast Side/Mens Room	Concrete	ND<0.81	
0318BS-E2		East Side/Gymnasium		ND<0.79	
0318BS-E3		North Side b/t Rooms 20 & 21		ND<0.82	
0318BS-E4		West Side b/t Rooms 6 & 7		ND<0.78	
0318BS-E5		East Side/Room 1		ND<0.8	
0318BS-E6		Courtyard b/t Conference Room & Assistant Principal Office		ND<0.82	
LEGEND SURVEY PERFORMED BY: BRIAN N SIROWICH PPM = PARTS PER MILLION ND= NONE DETECTED					

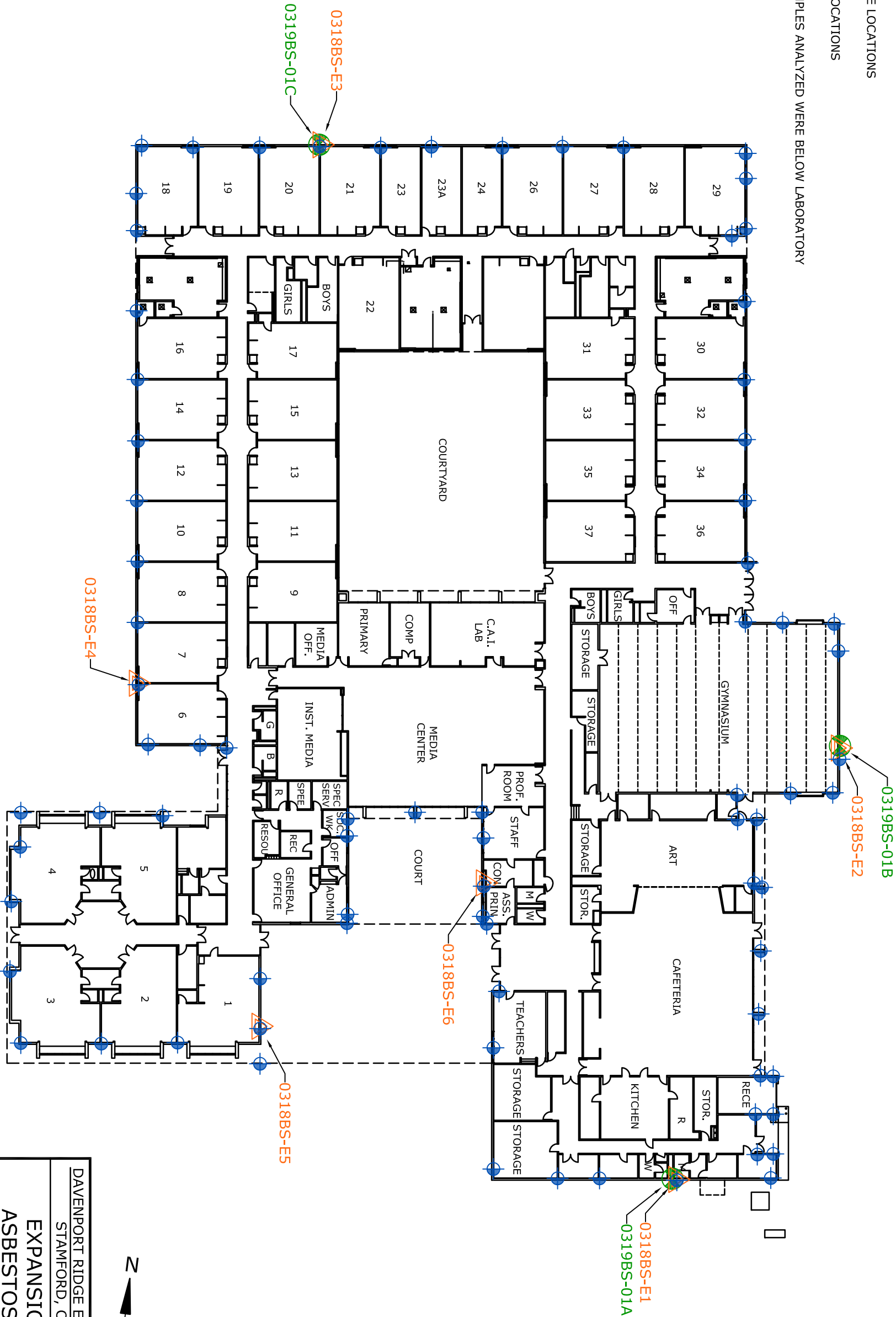
Tighe&Bond

FIGURES

LEGEND

-  = NON-ASBESTOS CONTAINING EXTERIOR SAMPLE LOCATION
-  = PCB SOURCE SAMPLE LOCATIONS
-  = EXPANSION JOINT LOCATIONS

RESULTS FOR ALL SAMPLES ANALYZED WERE BELOW LABORATORY REPORTING LIMITS



DAVENPORT RIDGE ELEMENTARY SCHOOL
STAMFORD, CONNECTICUT

EXPANSION JOINT,
ASBESTOS, AND PCB
SAMPLE LOCATION MAP

DATE: 04/02/2019
SCALE: NOT TO SCALE
FIGURE: FIGURE-1

Tighe & Bond
Engineers | Environmental Specialists

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-INSPECTOR

BRIAN N. SIROWICH

CERTIFICATE NO.

000342

CURRENT THROUGH

11/30/19

VALIDATION NO.

03-721939


SIGNATURE


COMMISSIONER

Big Apple Occupational Safety Inc

505 Eighth Avenue, #2305, New York, NY 10018
(212) 564-7656

This Is To Certify That

Brian Sirowich

SS#: XXX-XX-XXXX

has successfully completed the New York State Department of Health approved course entitled
This course meets requirements of TSCA Title II

Inspector Refresher

*(The official record of successful completion is the DOH 2832 Certificate of completion
New York State Department of Health Certificate of Asbestos Safety Training)*

Course Date: 10/05/2018

Expiration Date: 10/05/2019

Examination Date: 10/05/2018

Examination Grade: 98.9%

Certificate Number: 822184

Radha Reddy
Training Director

Appendix B - Photographic Log

Client: Stamford Mold Task Force
Site: Davenport Ridge Elementary School

Job Number: 28-2087-033P

Photograph No.: 1	Date: 3/18/19	Direction Taken:
Description: Typical Gray Expansion Joint		
		

Photograph No.: 2	Date: 3/18/19	Direction Taken:
Description: Expansion Joint located above and below window		
		

Appendix B - Photographic Log

Client: Stamford Mold Task Force
Site: Davenport Ridge Elementary School

Job Number: 28-2087-033P

Photograph No.: 3	Date: 3/18/19	Direction Taken:
Description: Upper Gray Expansion Joint		
		

Photograph No.: 2	Date:	Direction Taken:
Description: Expansion Joint Along Wall Panel		
		



EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492

Tel/Fax: (203) 284-5948 / (203) 284-5978

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

EMSL Order: 241901400

Customer ID: TIGH62

Customer PO:

Project ID:

Attention: Kevin McCarthy

Tighe & Bond

213 Court Street

Suite 1100

Middletown, CT 06457

Phone: (203) 641-2782

Fax: (860) 704-4775

Received Date: 03/22/2019 8:10 AM

Analysis Date: 03/28/2019

Collected Date: 03/19/2019

Project: 28-2087-033P/ DAVENPORT RIDGE ELEMENTARY, 1300 NEWFIELD AVE, STAMFORD, CONNECTICUT

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
0319BS01A 241901400-0001	Southeast side/mens room - gray expansion joint	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
0319BS01B 241901400-0002	East side/gymnasium - gray expansion joint	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
0319BS01C 241901400-0003	North side b/t rooms 20 & 21 - gray expansion joint	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Kelsey Witik (1)

Leslie Tetrick (2)

Almedina Hodzic, Asbestos 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. Wallingford, CT NVLAP Lab Code 200700-0.

Initial report from: 03/28/2019 17:09:46



EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492

Tel/Fax: (203) 284-5948 / (203) 284-5978

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

EMSL Order: 241901400

Customer ID: TIGH62

Customer PO:

Project ID:

Attention: Kevin McCarthy
Tighe & Bond
213 Court Street
Suite 1100
Middletown, CT 06457

Phone: (203) 641-2782

Fax: (860) 704-4775

Received Date: 03/22/2019 8:10 AM

Analysis Date: 03/29/2019

Collected Date: 03/19/2019

Project: 28-2087-033P/ DAVENPORT RIDGE ELEMENTARY, 1300 NEWFIELD AVE, STAMFORD, CONNECTICUT

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

Sample ID	Description	Appearance	% Matrix Material	% Non-Asbestos Fibers	Asbestos Types
0319BS01A 241901400-0001	Southeast side/mens room - gray expansion joint	Gray Non-Fibrous Heterogeneous	100.0 Other	None	No Asbestos Detected

Analyst(s)

Almedina Hodzic (1)

Almedina Hodzic, Asbestos Laboratory
Manager
or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Wallingford, CT

Initial report from: 03/29/2019 13:27:16

SAMPLE LOG FOR ASBESTOS BULKS

Page 1 of 2

Project Name: Davenport Ridge Elementary

Project No. 28-2087-033P

Building: 1300 Newfield Ave, Stamford, Connecticut

Project Manager: McCarthy, K[illegible]

Analysis Method: ☒ PLM ☐ Other_____

Turnaround Time 5 day

Based on the turnaround time indicated above, analyses are due to Tighe & Bond, Inc. on or before this date: 3/28/2019

Please call the office if analyses will be late at 860-704-4760.

Email Results to: kmccarthy@tighebond.com **Do Not Mail Hard Copy Report** **Total # of Samples:** 6

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. If NOB group sample results are 0% - < 1% by PLM, analyze only "A" group sample above by TEM NOB, per group, as noted by asterisk and bold front.

Samples collected by: Brian Sirowich **Date:** 3/19/19 **Time:** _____

Samples [Rec'd][Sent by] [Sirowich] Date: [3/21/19] Time: _____

Samples Received by: [Signature] Date: 3/22/19 Time: _____

Shipped To: ☒ EMSL State _____

☐ Other

Method of Shipment: ☐ Fed Ex ☐ Other



Thursday, March 28, 2019

Attn: Kevin McCarthy
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: SMTF- DAVENPORT RIDGE ELEMENTARY SCHOOL
SDG ID: GCC73049
Sample ID#s: CC73049 - CC73054

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

March 28, 2019

SDG I.D.: GCC73049

Project ID: SMTF- DAVENPORT RIDGE ELEMENTARY SCHOOL

Client Id	Lab Id	Matrix
0318BS-E1	CC73049	CAULK
0318BS-E2	CC73050	CAULK
0318BS-E3	CC73051	CAULK
0318BS-E4	CC73052	CAULK
0318BS-E5	CC73053	CAULK
0318BS-E6	CC73054	CAULK



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 28, 2019

FOR: Attn: Kevin McCarthy
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information

Matrix: CAULK
Location Code: TIGHE
Rush Request: Standard
P.O.#: 28-2087-033P

Custody Information

Collected by: BS
Received by: CP
Analyzed by: see "By" below

Date

03/19/19

Time

03/22/19 12:12

Laboratory Data

SDG ID: GCC73049
Phoenix ID: CC73049

Project ID: SMTF- DAVENPORT RIDGE ELEMENTARY SCHOOL
Client ID: 0318BS-E1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Caulk Extraction for PCB	Completed				03/22/19	XX/AK/KL	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	810	ug/Kg	5	03/26/19	SC	SW8082A
PCB-1221	ND	810	ug/Kg	5	03/26/19	SC	SW8082A
PCB-1232	ND	810	ug/Kg	5	03/26/19	SC	SW8082A
PCB-1242	ND	810	ug/Kg	5	03/26/19	SC	SW8082A
PCB-1248	ND	810	ug/Kg	5	03/26/19	SC	SW8082A
PCB-1254	ND	810	ug/Kg	5	03/26/19	SC	SW8082A
PCB-1260	ND	810	ug/Kg	5	03/26/19	SC	SW8082A
PCB-1262	ND	810	ug/Kg	5	03/26/19	SC	SW8082A
PCB-1268	ND	810	ug/Kg	5	03/26/19	SC	SW8082A

QA/QC Surrogates

% DCBP	70	%	5	03/26/19	SC	30 - 150 %
% DCBP (Confirmation)	65	%	5	03/26/19	SC	30 - 150 %
% TCMX	57	%	5	03/26/19	SC	30 - 150 %
% TCMX (Confirmation)	53	%	5	03/26/19	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

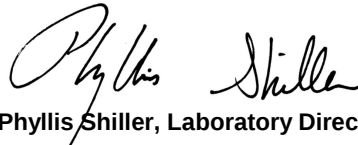
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

March 28, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 28, 2019

FOR: Attn: Kevin McCarthy
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information

Matrix: CAULK
Location Code: TIGHE
Rush Request: Standard
P.O.#: 28-2087-033P

Custody Information

Collected by: BS
Received by: CP
Analyzed by: see "By" below

Date

03/19/19

Time

03/22/19 12:12

Laboratory Data

SDG ID: GCC73049
Phoenix ID: CC73050

Project ID: SMTF- DAVENPORT RIDGE ELEMENTARY SCHOOL
Client ID: 0318BS-E2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Caulk Extraction for PCB	Completed				03/22/19	XX/AK/KL	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	790	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1221	ND	790	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1232	ND	790	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1242	ND	790	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1248	ND	790	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1254	ND	790	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1260	ND	790	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1262	ND	790	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1268	ND	790	ug/Kg	5	03/25/19	SC	SW8082A

QA/QC Surrogates

% DCBP	78	%	5	03/25/19	SC	30 - 150 %
% DCBP (Confirmation)	NA	%	5	03/25/19	SC	30 - 150 %
% TCMX	58	%	5	03/25/19	SC	30 - 150 %
% TCMX (Confirmation)	57	%	5	03/25/19	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment: CC73050

Due to matrix interference from non target compounds in the sample, DBCP surrogate on the confirmation column could not be reported.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

March 28, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 28, 2019

FOR: Attn: Kevin McCarthy
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information

Matrix: CAULK
Location Code: TIGHE
Rush Request: Standard
P.O.#: 28-2087-033P

Custody Information

Collected by: BS
Received by: CP
Analyzed by: see "By" below

Date

03/19/19

Time

03/22/19 12:12

Laboratory Data

SDG ID: GCC73049
Phoenix ID: CC73051

Project ID: SMTF- DAVENPORT RIDGE ELEMENTARY SCHOOL
Client ID: 0318BS-E3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Caulk Extraction for PCB	Completed				03/22/19	XX/AK/KL	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1221	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1232	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1242	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1248	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1254	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1260	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1262	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1268	ND	820	ug/Kg	5	03/25/19	SC	SW8082A

QA/QC Surrogates

% DCBP	53	%	5	03/25/19	SC	30 - 150 %
% DCBP (Confirmation)	38	%	5	03/25/19	SC	30 - 150 %
% TCMX	48	%	5	03/25/19	SC	30 - 150 %
% TCMX (Confirmation)	39	%	5	03/25/19	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

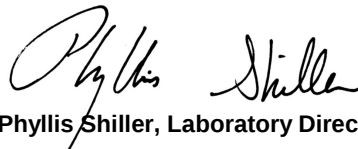
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

March 28, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 28, 2019

FOR: Attn: Kevin McCarthy
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information

Matrix: CAULK
Location Code: TIGHE
Rush Request: Standard
P.O.#: 28-2087-033P

Custody Information

Collected by: BS
Received by: CP
Analyzed by: see "By" below

Date

03/19/19

Time

03/22/19 12:12

Laboratory Data

SDG ID: GCC73049
Phoenix ID: CC73052

Project ID: SMTF- DAVENPORT RIDGE ELEMENTARY SCHOOL
Client ID: 0318BS-E4

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Caulk Extraction for PCB	Completed				03/22/19	XX/AK/KL	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	780	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1221	ND	780	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1232	ND	780	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1242	ND	780	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1248	ND	780	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1254	ND	780	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1260	ND	780	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1262	ND	780	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1268	ND	780	ug/Kg	5	03/25/19	SC	SW8082A

QA/QC Surrogates

% DCBP	89	%	5	03/25/19	SC	30 - 150 %
% DCBP (Confirmation)	84	%	5	03/25/19	SC	30 - 150 %
% TCMX	77	%	5	03/25/19	SC	30 - 150 %
% TCMX (Confirmation)	65	%	5	03/25/19	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

March 28, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 28, 2019

FOR: Attn: Kevin McCarthy
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information

Matrix: CAULK
Location Code: TIGHE
Rush Request: Standard
P.O.#: 28-2087-033P

Custody Information

Collected by: BS
Received by: CP
Analyzed by: see "By" below

Date

03/19/19

Time

03/22/19 12:12

Laboratory Data

SDG ID: GCC73049
Phoenix ID: CC73053

Project ID: SMTF- DAVENPORT RIDGE ELEMENTARY SCHOOL
Client ID: 0318BS-E5

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Caulk Extraction for PCB	Completed				03/22/19	XX/AK/KL	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	800	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1221	ND	800	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1232	ND	800	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1242	ND	800	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1248	ND	800	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1254	ND	800	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1260	ND	800	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1262	ND	800	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1268	ND	800	ug/Kg	5	03/25/19	SC	SW8082A

QA/QC Surrogates

% DCBP	88	%	5	03/25/19	SC	30 - 150 %
% DCBP (Confirmation)	87	%	5	03/25/19	SC	30 - 150 %
% TCMX	69	%	5	03/25/19	SC	30 - 150 %
% TCMX (Confirmation)	57	%	5	03/25/19	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

March 28, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 28, 2019

FOR: Attn: Kevin McCarthy
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information

Matrix: CAULK
Location Code: TIGHE
Rush Request: Standard
P.O.#: 28-2087-033P

Custody Information

Collected by: BS
Received by: CP
Analyzed by: see "By" below

Date

03/19/19

Time

03/22/19 12:12

Laboratory Data

SDG ID: GCC73049
Phoenix ID: CC73054

Project ID: SMTF- DAVENPORT RIDGE ELEMENTARY SCHOOL
Client ID: 0318BS-E6

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Caulk Extraction for PCB	Completed				03/22/19	XX/AK/KL	SW3540C

PCB (Soxhlet SW3540C)

PCB-1016	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1221	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1232	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1242	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1248	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1254	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1260	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1262	ND	820	ug/Kg	5	03/25/19	SC	SW8082A
PCB-1268	ND	820	ug/Kg	5	03/25/19	SC	SW8082A

QA/QC Surrogates

% DCBP	66	%	5	03/25/19	SC	30 - 150 %
% DCBP (Confirmation)	68	%	5	03/25/19	SC	30 - 150 %
% TCMX	59	%	5	03/25/19	SC	30 - 150 %
% TCMX (Confirmation)	58	%	5	03/25/19	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

March 28, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

March 28, 2019

QA/QC Data

SDG I.D.: GCC73049

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 471478 (ug/Kg), QC Sample No: CC71500 10X (CC73049, CC73050, CC73051, CC73052, CC73053, CC73054)										
<u>Polychlorinated Biphenyls</u>										
PCB-1016	ND	170			87				40 - 140	30
PCB-1221	ND	170							40 - 140	30
PCB-1232	ND	170							40 - 140	30
PCB-1242	ND	170							40 - 140	30
PCB-1248	ND	170							40 - 140	30
PCB-1254	ND	170							40 - 140	30
PCB-1260	ND	170			89				40 - 140	30
PCB-1262	ND	170							40 - 140	30
PCB-1268	ND	170							40 - 140	30
% DCBP (Surrogate Rec)	89	%			94				30 - 150	30
% DCBP (Surrogate Rec) (Confirm)	95	%			99				30 - 150	30
% TCMX (Surrogate Rec)	71	%			82				30 - 150	30
% TCMX (Surrogate Rec) (Confirm)	74	%			86				30 - 150	30

Comment:

The LCSD was lost during extraction, this batch consists of a Blank and LCS.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference


Phyllis Shiller, Laboratory Director
March 28, 2019

Thursday, March 28, 2019

Criteria: None

State: CT

Sample Criteria Exceedances Report

GCC73049 - TIGHE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Comments

March 28, 2019

SDG I.D.: GCC73049

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

PCB Narration

AU-ECD1 03/25/19-1: CC73053

The following Continuing Calibration compounds did not meet % deviation criteria:

Samples: CC73053

Preceding CC 325B012 - None.

Succeeding CC 325B025 - DCBP SURR 100%L (%)

2.4049

PCB SOURCE SAMPLE CHAIN OF CUSTODY

Tighe & Bond

Project Number: 28-2087-033P
Project Name: SMTF - Davenport Ridge Elementary School
Site Address: 1300 Newfield Ave., Stamford, CT
Project Manager: Kevin McCarthy

Date: 3/21/2019
Page: 1 of 1

Sample ID	Sample Location	Material	Substrate	Date Collected	Time Collected	Notes
0318BS-E1	Southeast Side/Mens Room	Gray Expansion Joint	Concrete	3/19/2019	AM	73049
0318BS-E2	East Side/Gymnasium	Gray Expansion Joint	Concrete	3/19/2019	AM	73050
0318BS-E3	North Side b/t Rooms 20 & 21	Gray Expansion Joint	Concrete	3/19/2019	AM	73051
0318BS-E4	West Side b/t Rooms 6 & 7	Gray Expansion Joint	Concrete	3/19/2019	AM	73052
0318BS-E5	East Side of Room 1	Gray Expansion Joint	Concrete	3/19/2019	AM	73053
0318BS-E6	Courtyard b/t Conference room and Assistant Principal	Gray Expansion Joint	Concrete	3/19/2019	AM	73054

Analysis Method: EPA Method 3500B/3540C (extraction), EPA Method 8082 (analysis) **Laboratory:** Phoenix **Turnaround Time:** 5 day
Email PDF of Results to: kmccarthy@tighebond.com **Reporting Limit:** <1 ppm

Special Instructions:
Samples Collected By: B. Sirowich **Date:** 3/19/2019 **Time:**
Relinquished [By][To]: [Signature] **Date:** 3/21/19 **Time:** 9:00
Relinquished [By][To]: [Signature] **Date:** 3/22/19 **Time:** 12:12
Relinquished [By][To]: [Signature] **Date:** **Time:**

213 Court Street • Middletown, CT 06457 • Tel 860.704.4760 • Fax 860.704.4775