1 Fountain Square
Chattanooga, TN 37402
423 294 1011
unum.com

November 17, 2014

H. Curtis Spalding
Regional Administrator
U.S. Environmental Protection Agency
Region One
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Dear Mr. Spalding,

Unum Life Insurance Company of America ("UNUM") is renovating the interior of one of the buildings at its home office to begin the process of bringing the building, which was constructed in the 1970s, into compliance with more modern building codes.

Limited sampling conducted to date indicates that PCBs are present in some of the caulking and sealants found in this building. Because PCBs were commonly used by the manufacturers of caulking and sealants in the 1970s, UNUM will assume that any caulking and sealants encountered during the renovation work contains PCBs in a concentration greater than 50 parts per million, and will therefore be removed and disposed of in accordance with the regulations published at 40 C.F.R. § 761.61.

A self-implementing work plan has been prepared in accordance with the regulations promulgated at 40 C.F.R. § 761.61 (a). It is attached and incorporated herein. That work plan describes the current condition of the building, the planned renovations, and the means by which UNUM will remove and dispose of PCB containing materials. As required by the regulations, none of the PCB containing materials described in this work plan will be disturbed within the next thirty days.

Please contact me with any questions.

Sincerely yours,

Richard Meadows

Copy (with enclosure):

Patricia Aho
Commissioner
Maine Department of Environmental Protection
17 State House Station
28 Tyson Drive
Augusta, Maine 04333-0017

City of Portland, Public Health Division
389 Congress Street
Portland, Maine 04101

SELF-IMPLEMENTING CLEAN-UP PLAN FOR PCBs

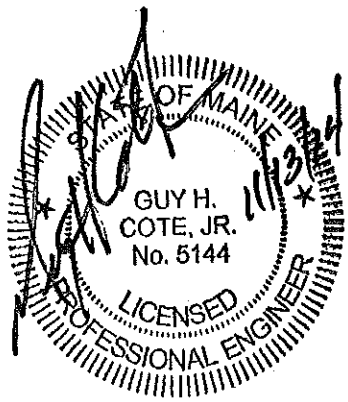
INTERIOR RENOVATION

UNUM
PORTLAND, MAINE

November 14, 2014

SME
Sevee & Maher Engineers, Inc.

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE



4 Blanchard Road, PO Box 85A, Cumberland Center, ME 04021 • Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

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PORTLAND, MAINE

1.0 INTRODUCTION AND NOTIFICATION

Sevee & Maher Engineers, Inc. (SME), on behalf of Darmody, P.A. (Darmody), has prepared this document to provide notification to U.S.EPA and to submit a plan for a Self-Implementing On-Site Cleanup Plan (Plan) for the management of caulk, concrete, and building materials at the Unum Life Insurance Company of America ("UNUM") site (Site) located in Portland, Maine. UNUM retained Darmody to provide guidance on compliance with PCB regulations and PCB remediation. Darmody retained Sevee and Maher Engineers Inc. (SME), of Cumberland, Maine, to prepare this Plan and to conduct the work described herein.

This Plan is being submitted in accordance with 40 C.F.R. § 761.61(a).

Planned interior improvements include demolition and renovation in an area where caulk has recently been tested for the presence of polychlorinated biphenyls (PCBs), which were detected at a concentration greater than 50 parts per million (ppm). Renovations are planned to begin in late October, and will continue for 8 to 12 months. Asbestos abatement will be conducted in the area covered by this Plan, and will include engineering controls that will also control any PCB-containing dust generated by remediation and renovation. This Plan will be implemented as soon as it is approved.

This document has been prepared to meet the requirements for a Self-Implementing On-Site Cleanup as described in 40 C.F.R. § 761.61(a), and includes the following items:

- Notification
- Site characterization including the nature and extent of contamination
- Summary of the sampling procedures
- The location and extent of the project area covered by this Plan
- A cleanup plan for the project area
- Written certification (Appendix A)

The Site Owner Name, Address, and Contact information is as follows:

Site Owner:	UNUM
Site Address:	2211 Congress Street Portland, ME 04122
Site Contact:	Richard Meadows
Phone No:	423-294-1277
Darmody Contact:	Stephen Darmody
Phone No:	305-728-7037
SME Contact:	Erik Clapp, Ph.D. or Bob Steeves, P.E.
Phone No:	207-829-5016

2.0 SITE CHARACTERIZATION AND NATURE OF CONTAMINATION

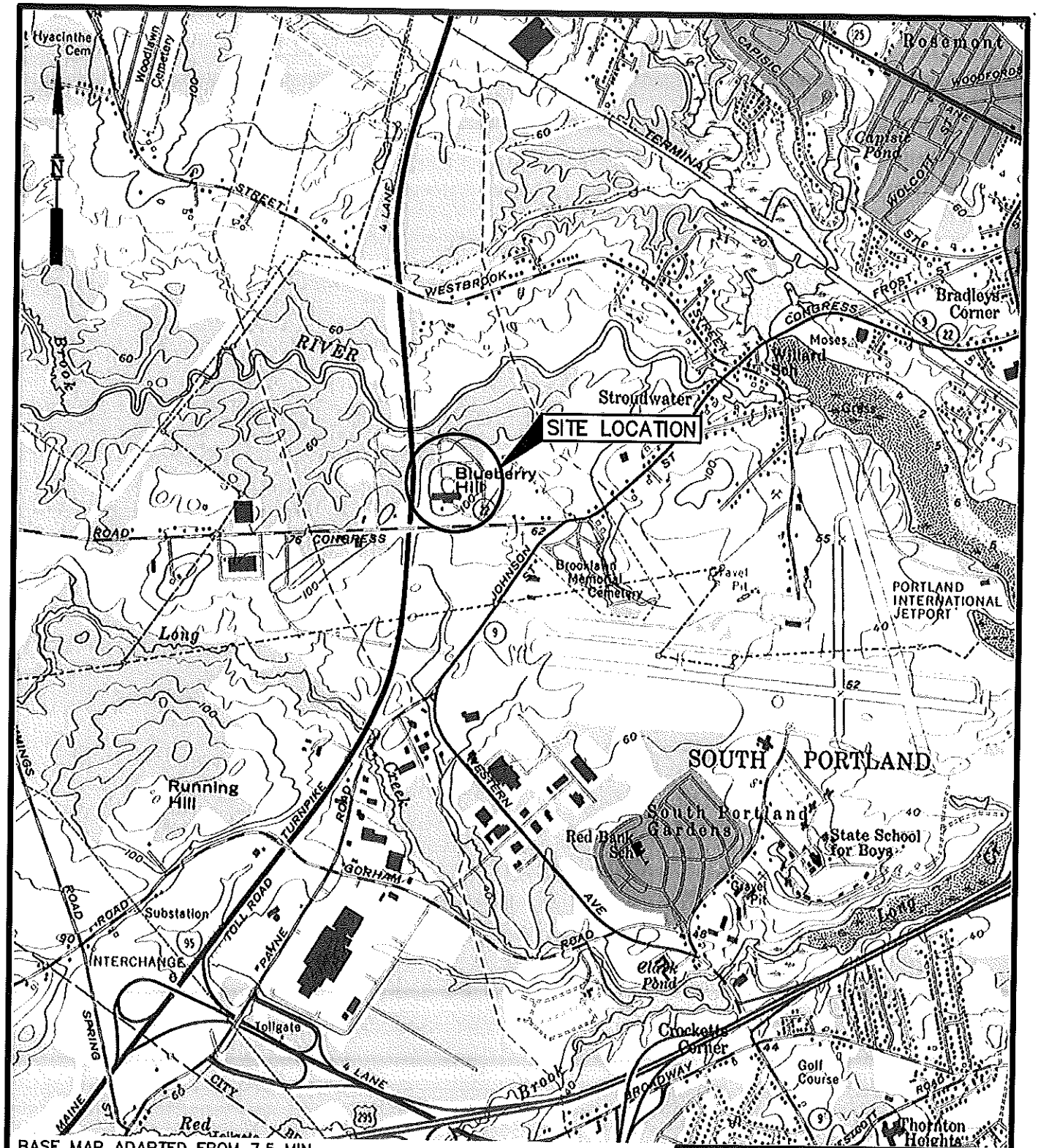
2.1 Site Description and Facility Setting

The Site is located at 2211 Congress Street in Portland, Maine. A site location plan is shown on Figure 1. Originally developed in about 1970, the Site occupies approximately 86.5 acres bounded by Congress Street to the southeast, Route 22 to the south, the Maine Turnpike to the west, and wooded areas to the north and east. The facility contains three office buildings and several parking areas.

Building HO-1 is located in the southwestern region of the property, and was built circa 1970 with major additions to the building in the late 1970s. Based on EPA guidance, building materials (particularly caulking around windows, doors, and expansion joints) used during the 1950s through the 1970s could potentially contain PCBs. Samples of caulking around interior windows and a skylight were collected from the HO-1 atrium area and submitted for laboratory analysis of PCBs. The first floor plan for Building HO-1 is shown on Figure 2, which includes approximate locations of caulking samples and resulting PCB concentrations. Because three of the samples had concentrations greater than 50 mg/Kg, building materials in contact with caulking in the HO-1 atrium area will all be assumed to contain PCBs at concentrations greater than 50 mg/Kg, and will be handled accordingly and sent for disposal to a hazardous waste landfill permitted by U.S. EPA under Section 3004 of RCRA. Beyond the bead of caulk surrounding the windows and doors, renovation plans in the HO-1 atrium area do not involve disturbance of other building materials that may contain PCBs.

2.2 Characterization of Building Materials.

Five samples were previously collected from the caulk in the HO-1 Atrium area, from locations shown on Figure 2. Sampling locations were selected to be representative of the caulking and sealant materials observed in the HO-1 atrium area, and included caulking from interior windows (B202, B204, B205), and caulking on the interior face of an exterior window (B203), and outside skylight windows (B201; taken from the roof).



BASE MAP ADAPTED FROM 7.5 MIN
USGS TOPOGRAPHIC QUADRANGLE
PORTLAND–WEST, ME – 1978

1000 0 2000 FEET

FIGURE 1
SITE LOCATION PLAN
UNUM
PORTLAND, MAINE

SME
Sevee & Maher Engineers, Inc.
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

DWG: SITELOC LMN: SITELOC CTB: SME-STD REV: 11/11/14

\\Server1c5\Darmody\Portland\Acad\Figures\Siteloc.dwg, 11/11/2014 2:22:34 PM, parr

Samples were collected by The Scott Lawson Group, LTD and analyzed by Phoenix Environmental Laboratories, Inc. of Manchester, Connecticut. Results were provided to SME by Darmody. Detected PCB concentrations are shown on Figure 2. In the two samples collected within the area of intended renovations, PCBs were detected at 1.2 and 72,000 mg/Kg. Laboratory analytical reports provided to SME are included as Appendix B.

40 C.F.R. §761.61(a)(2) requires that PCB waste be characterized to define the nature and extent of contamination. Because there is limited presence of caulking and sealant in the renovation area and because one sample showed the presence of PCBs in a concentration greater than 50 mg/Kg, all caulking and sealant in the HO-1 atrium renovation area will, for the purposes of this project, be assumed to contain PCBs at a concentration greater than 50 mg/Kg. Given this proposed conservative approach, further characterization sampling is not intended prior to removal of caulking and sealant.

3.0 PROPOSED PLAN FOR MANAGING REMEDIATION WASTE

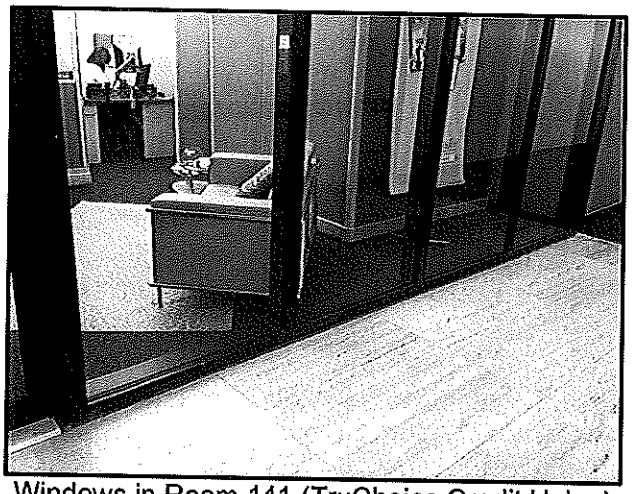
As described in Section 2.0 of this Plan, renovations are planned in the HO-1 atrium area shown on Figure 3. As part of planned renovations, building materials containing caulking and sealant will be removed. It is the intention of this Plan that all caulk and sealant be assumed to contain PCBs at concentrations greater than 50 mg/Kg. All building materials containing and in direct contact with caulking or sealant will be managed according to this Plan. These materials are expected to include:

- Caulking around interior windows (e.g., TruChoice Credit Union storefront);
- Factory-installed caulking around sidelight windows, inside metal doorframes;
- Wall and ceiling construction materials in contact with interior windows; and
- Travertine floor tiles that are or may previously have been in contact with caulking.

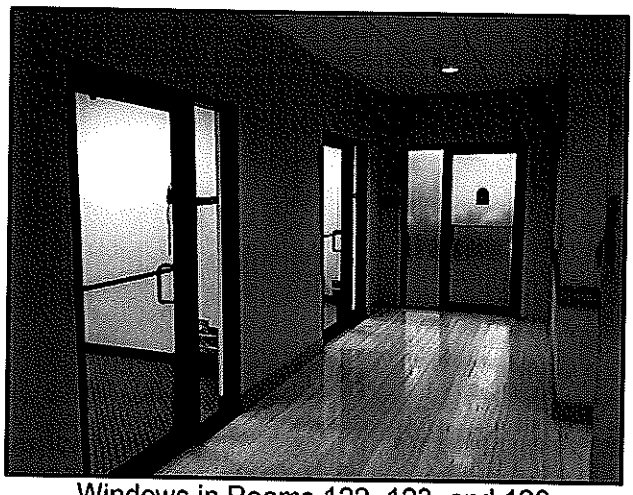
Photographs of representative materials in the area to be renovated are provided in Figure 4. Additional details regarding management of specific remediation waste are provided in the following subsections.

FIGURE 4

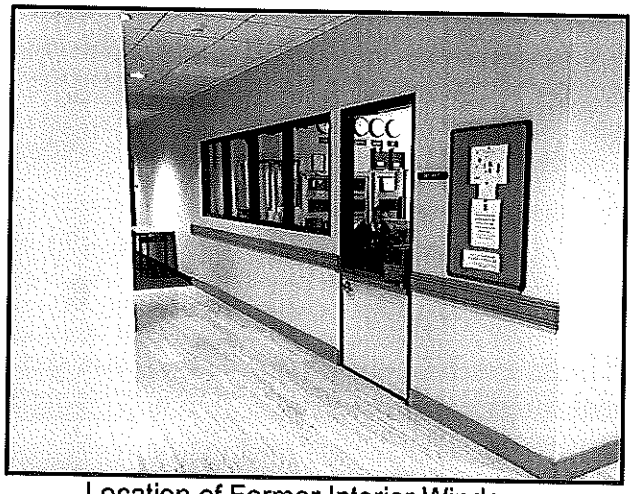
PHOTOGRAPHS OF TYPICAL PCB REMEDIATION MATERIALS
BUILDING HO-1 ATRIUM RENOVATION AREA
UNUM
PORTLAND, MAINE



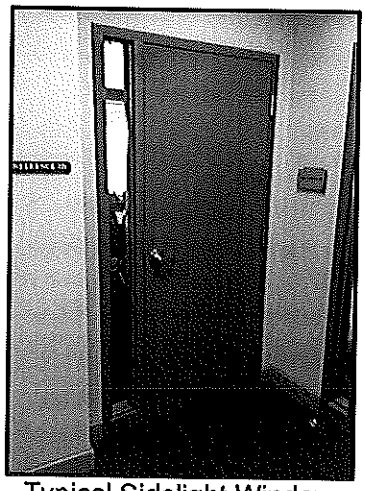
Windows in Room 141 (TruChoice Credit Union)



Windows in Rooms 122, 123, and 120
(Interview and Conference Rooms)



Location of Former Interior Windows,
Room 125 (Security)



Typical Sidelight Window

SME is not currently aware of the presence of expansion joints in the renovation area; however, if expansion joints are encountered in the work area, caulking and remediation waste will be managed according to Section 3.1. SME, on behalf of UNUM, will contract with a licensed remediation contractor to remove, transport, and dispose of the wastes described above in accordance with the Toxic Substances Control Act (TSCA). SME will provide oversight during the removal of remediation waste.

3.1 Interior Windows

Interior windows are located in rooms 141, 146, 122, 123, and 120. Characterization testing indicates that caulking around interior windows in these rooms contain PCBs at greater than 50 mg/Kg. Wherever these windows are encountered in the HO-1 atrium renovation area, the following steps will be followed:

- Remove glass, metal frames, and caulking.
- Remove wall and ceiling material (i.e., wallboard, wood, or other construction materials) previously in contact with caulking. Over-cut wall construction materials by one foot or the distance to next framing member, whichever is closer. Over-cut ceiling materials by one foot.
- Saw-cut travertine floor tiles currently or previously in contact with caulking. Over-cut floor tiles by one inch or greater laterally, and remove concrete from the floor slab beneath travertine tiles to a depth of one inch or greater.
- Place all materials in a roll-off container for off-Site disposal as a hazardous waste.
- Collect verification samples from the remaining surfaces, as described in Section 3.4.

The travertine floor tiles in the area of former interior windows in room 125 will also be managed as described above. Prior renovation in this area included removal of windows and caulking; however, building materials in contact with PCB-containing caulking may have been left in place.

3.2 Sidelight Windows

Sidelight windows, located inside metal door frames, are located in and near rooms 122, 123, 126, and 146. Caulking between window glass and metal frames appears to have been applied by the manufacturer, and has not been tested for the presence of PCBs. Nonetheless, it will be assumed to contain PCBs at concentrations greater than 50 mg/Kg. The door slabs are not in contact with the sidelight windows or caulking. Wherever these windows are encountered in the HO-1 atrium renovation area, the following steps will be taken:

- Remove door slab, and place in a roll-off container for off-Site disposal as construction debris (i.e., non-hazardous).
- Remove the metal door frame, window glass, and caulking, and place in a roll-off container for off-Site disposal as a hazardous waste.
- Since all caulking is contained within the metal frame and is not in contact with surrounding building materials, no verification testing will be necessary.

3.3 Off-Site Disposal

All remediation waste identified in Sections 3.1 and 3.2 will be handled as TSCA/Maine Hazardous Waste, and will be transported to the EQ Facility in Michigan, which is a licensed TSCA/Maine Hazardous Waste disposal facility.

4.0 VERIFICATION TESTING

Following the removal of the materials described above, verification testing will be performed to demonstrate that the objectives of the Self Implementing Clean-up Plan have been met and that no additional materials need to be removed. This section describes the procedures and methods that will be followed for the verification testing. The procedures for the collection of samples for Verification Testing are included in Appendix C.

Once the materials described in Section 3.1 have been removed, verification samples will be collected in the remaining building materials. The table below describes the sequence of verification testing to be performed to demonstrate that the project objectives have been met.

Verification Step 1	If the verification testing indicates that building materials exposed by removal of the materials described in Section 3.1 and over-cutting does not contain PCBs at a concentration at or above 1 mg/Kg, remediation is compete.
Verification Step 2	If the verification testing indicates that exposed building materials contain PCBs at concentrations greater than or equal to 1 mg/kg, additional building materials will be removed from appropriate areas. A second round of verification testing will be performed in areas of additional remediation waste removal. If the additional verification testing indicates that exposed building materials do not contain PCBs at concentrations at or above 1 mg/Kg, remediation is complete.
Completion	Verification steps will be repeated until verification testing indicates that exposed building materials do not contain PCBs at concentrations at or above 1 mg/Kg. Renovation can then proceed.

4.1 Sample Frequency

The sampling density for the verification testing will be implemented in accordance with 40 C.F.R. §761, Subpart O - Sampling to Verify Completion of Self-Implementing Cleanup and On-Site Disposal of Bulk PCB Remediation Waste and Porous Surfaces in Accordance with 40 C.F.R. §761.61(a)(6). A 1.5-meter grid will be established in accordance with Subpart O. Since remediation areas will be predominantly narrow, linear areas, samples will be spaced every 1.5 meters along each remediation waste removal area.

At least three samples will be collected from each type of building material exposed by removal of PCB remediation waste. Once removal of PCB containing materials has been completed, SME will finalize the sampling plan taking into account types of construction materials and length of remediation areas.

Verification samples of porous materials may be individual or composite. If composite, SME will follow the procedures described in 40 C.F.R. §761.289.

If metal framing materials are encountered in the remediation area, verification wipe samples of non-porous surfaces will be conducted at a density developed in accordance with 40 C.F.R. §761, Subpart P.

4.2 Sampling and Analytical Procedures

Samples for verification testing will be collected and analyzed in general accordance with the procedures described in Appendix C. All samples and composite subsamples from porous media will be collected in general accordance with the May 2011 USEPA New England – Region 1 Standard Operating Procedure (SOP) for Sampling Porous Surfaces for Polychlorinated Biphenyls. All non-porous surface samples will be collected according to 40 C.F.R. §761, Subpart P.

Samples will be submitted to Alpha Analytical Laboratory (Alpha) of Westborough, Massachusetts for analysis of PCBs by Method 8082 with extraction by Method 3540 (Soxhlet).

4.3 Quality Assurance/Quality Control

Field, co-located samples will be collected and analyzed at a rate of ten percent of the total number of samples. Laboratory QA/QC activities specified in Method 8082 will be performed by the laboratory and reviewed by SME.

SME will perform a Tier II data validation, in accordance with U.S.EPA Data Validation Guidelines, on these data prior to accepting the data for use in making project decisions.

4.4 Chain-of-Custody

A chain-of-custody (COC) record will be completed in the field by the inspecting personnel in charge of sample collection.

5.0 DOCUMENTATION AND REPORTING

During the implementation of the Clean-up Plan, remediation waste removal, management, and testing activities will be overseen and documented by SME. The documentation will include the following items: remediation procedures, security procedures, PCB remediation waste quantity estimates, sampling procedures, and transportation and disposal procedures.

The documentation will consist of the following:

- Daily Reports (during field activities)
- Manifests
- Inspection Logs
- Sample Location Plan
- Test Results
- Photographs

Following completion of the Plan, a documentation report will be prepared and submitted to the Maine Department of Environmental Protection (MEDEP) and U.S.EPA.

APPENDIX B

PCB LABORATORY DATA REPORTS

Wednesday, September 11, 2013

Attn: Ms. Helen Enzien
The Scott Lawson Group
P.O. Box 3304
Concord, NH 03301-3304

Project ID: UNUM BRIDGE HO1-RENOVATION
Sample ID#s: BF35284 - BF35288

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.

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 have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
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
VT Lab Registration #VT11301

PHOENIX

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

September 11, 2013

FOR: Attn: Ms. Helen Enzien
The Scott Lawson Group
P.O. Box 3304
Concord, NH 03301-3304

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/04/13	0:00
Location Code:	SCOTTLA	Received by:	LB	09/06/13	11:37
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	13-2361				

Laboratory Data

SDG ID: GBF35284
Phoenix ID: BF35284

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B201

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	09/06/13		E160.3
Caulk Extraction for PCB	Completed			09/06/13	BB/W	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1221	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1232	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1242	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1248	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1254	77000	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1260	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1262	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1268	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	101		%	09/09/13	AW	30 - 150 %
% TCMX	89		%	09/09/13	AW	30 - 150 %

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B201

Phoenix I.D.: BF35284

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected
BRL=Below Reporting Level

Comments:

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

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
September 11, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

September 11, 2013

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P.O. Box 3304
Concord, NH 03301-3304

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/04/13	0:00
Location Code:	SCOTTLA	Received by:	LB	09/06/13	11:37
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	13-2361				

Laboratory Data

SDG ID: GBF35284
Phoenix ID: BF35285

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B202

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	09/06/13		E160.3
Caulk Extraction for PCB	Completed			09/06/13	BB/W	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	38000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1221	ND	38000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1232	ND	38000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1242	ND	38000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1248	ND	38000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1254	74000000	38000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1260	ND	38000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1262	ND	38000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1268	ND	38000000	ug/Kg	09/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	09/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	09/09/13	AW	30 - 150 %

PHOENIX
Environmental Laboratories, Inc.

Wednesday, September 11, 2013

Attn: Ms. Helen Enzien
The Scott Lawson Group
P.O. Box 3304
Concord, NH 03301-3304

Project ID: UNUM BRIDGE HO1-RENOVATION
Sample ID#s: BF35284 - BF35288

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Laboratory Director

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Phoenix ID: BF35284

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B201

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
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PCB-1232	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1242	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1248	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1254	77000	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1260	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1262	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1268	ND	12000	ug/Kg	09/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	101		%	09/09/13	AW	30 - 150 %
% TCMX	89		%	09/09/13	AW	30 - 150 %

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B202

Phoenix I.D.: BF35285

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

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September 11, 2013

FOR: Attn: Ms. Helen Enzien
The Scott Lawson Group
P.O. Box 3304
Concord, NH 03301-3304

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/04/13	0:00
Location Code:	SCOTTLA	Received by:	LB	09/06/13	11:37
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	13-2361				

Laboratory Data

SDG ID: GBF35284
Phoenix ID: BF35286

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B203

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	09/06/13		E160.3
Caulk Extraction for PCB	Completed			09/06/13	BB/W	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1221	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1232	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1242	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1248	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1254	54000000	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1260	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1262	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1268	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	09/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	09/09/13	AW	30 - 150 %

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B203

Phoenix I.D.: BF35286

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected
BRL=Below Reporting Level

Comments:

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If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
September 11, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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

ACCREDITED IN ACCORDANCE WITH NELAC
NY # 11301

Analysis Report

September 11, 2013

FOR: Attn: Ms. Helen Enzien
The Scott Lawson Group
P.O. Box 3304
Concord, NH 03301-3304

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/04/13	0:00
Location Code:	SCOTTLA	Received by:	LB	09/06/13	11:37
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	13-2361				

Laboratory Data

SDG ID: GBF35284
Phoenix ID: BF35286

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B203

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	09/06/13		E160.3
Caulk Extraction for PCB	Completed			09/06/13	BB/W	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1221	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1232	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1242	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1248	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1254	54000000	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1260	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1262	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1268	ND	28000000	ug/Kg	09/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	09/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	09/09/13	AW	30 - 150 %

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B203

Phoenix I.D.: BF35286

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected
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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

September 11, 2013

FOR: Attn: Ms. Helen Enzien
The Scott Lawson Group
P.O. Box 3304
Concord, NH 03301-3304

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/04/13	0:00
Location Code:	SCOTTLA	Received by:	LB	09/06/13	11:37
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	13-2361				

Laboratory Data

SDG ID: GBF35284
Phoenix ID: BF35287

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B204

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	09/06/13		E160.3
Caulk Extraction for PCB	Completed			09/06/13	BB/W	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1221	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1232	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1242	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1248	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1254	72000000	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1260	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1262	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1268	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	09/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	09/09/13	AW	30 - 150 %

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B204

Phoenix I.D.: BF35287

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

September 11, 2013

FOR: Attn: Ms. Helen Enzien
The Scott Lawson Group
P.O. Box 3304
Concord, NH 03301-3304

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		09/04/13	0:00
Location Code:	SCOTTLA	Received by:	LB	09/06/13	11:37
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	13-2361				

Laboratory Data

SDG ID: GBF35284
Phoenix ID: BF35287

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B204

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	09/06/13		E160.3
Caulk Extraction for PCB	Completed			09/06/13	BB/W	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1221	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1232	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1242	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1248	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1254	72000000	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1260	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1262	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
PCB-1268	ND	27000000	ug/Kg	09/09/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	09/09/13	AW	30 - 150 %
% TCMX	Diluted Out		%	09/09/13	AW	30 - 150 %

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B204

Phoenix I.D.: BF35287

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

September 11, 2013

FOR: Attn: Ms. Helen Enzien
The Scott Lawson Group
P.O. Box 3304
Concord, NH 03301-3304

Sample Information	
Matrix:	SOLID
Location Code:	SCOTTLA
Rush Request:	Standard
P.O.#:	13-2361

Custody Information		Date	Time
Collected by:			
Received by:	LB	09/04/13	0:00
Analyzed by:	see "By" below	09/06/13	11:37

Laboratory Data

SDG ID: GBF35284
Phoenix ID: BF35288

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B205

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	09/06/13		E160.3
Caulk Extraction for PCB	Completed			09/06/13	BB/W	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	830	ug/Kg	09/10/13	AW	3540C/8082
PCB-1221	ND	830	ug/Kg	09/10/13	AW	3540C/8082
PCB-1232	ND	830	ug/Kg	09/10/13	AW	3540C/8082
PCB-1242	ND	830	ug/Kg	09/10/13	AW	3540C/8082
PCB-1248	ND	830	ug/Kg	09/10/13	AW	3540C/8082
PCB-1254	1200	830	ug/Kg	09/10/13	AW	3540C/8082
PCB-1260	ND	830	ug/Kg	09/10/13	AW	3540C/8082
PCB-1262	ND	830	ug/Kg	09/10/13	AW	3540C/8082
PCB-1268	ND	830	ug/Kg	09/10/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	53		%	09/10/13	AW	30 - 150 %
% TCMX	47		%	09/10/13	AW	30 - 150 %

Project ID: UNUM BRIDGE HO1-RENOVATION
Client ID: B205

Phoenix I.D.: BF35288

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quanitation) ND=Not Detected
BRL=Below Reporting Level

Comments:

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

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

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

QA/QC Report

September 11, 2013

QA/QC Data

SDG I.D.: GBF35284

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 250422, QC Sample No: BF35197 (BF35284, BF35285, BF35286, BF35287, BF35288)									
Polychlorinated Biphenyls - Solid									
PCB-1016	ND	89	89	0.0				40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	98	98	0.0				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	126	130	122	6.3				30 - 150	30
% TCMX (Surrogate Rec)	103	99	97	2.0				30 - 150	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

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
September 11, 2013

Requested Criteria: None

State: NH

Sample Criteria Exceedences Report

GBF35284 - SCOTTLA

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

APPENDIX C

VERIFICATION TESTING SAMPLE COLLECTION AND ANALYTICAL PROCEDURES

ATTACHMENT C
VERIFICATION TESTING
SAMPLE COLLECTION AND ANALYTICAL PROCEDURES
BUILDING HO-1 ATRIUM RENOVATION AREA, UNUM SITE

Verification samples will be collected using the following procedures:

- Samples may be individual or composite of three to nine subsamples.
- A 1.5 meter sampling grid will be established in accordance with 40 C.F.R, §761 Subpart O. Since remediation areas will be predominantly narrow, linear areas, subsample frequency will be every 1.5 meters along each remediation waste removal area.
- Each individual sample or composite subsample of porous material will be collected in general accordance with the May 2011 USEPA New England – Region 1 Standard Operating Procedure (SOP) for Sampling Porous Surfaces for Polychlorinated Biphenyls.
    - Concrete samples will be collected according to procedures provided in Section 9.1, Hard Porous Surfaces.
    - Samples of wood, wallboard, ceiling tile, or other soft construction materials will be collected according to procedures provided in Section 9.2, Soft Porous Surfaces.
- A minimum of 10 grams of porous material must be collected for each sample or composite subsample. Prior to sampling, Alpha Analytical Laboratory (Alpha) will be consulted to determine the minimum sample size needed for PCB extraction and analysis.
- Dedicated sampling tools will be utilized. Tools may include, but are not limited to: masonry drill bits, knives, chisels, stainless steel spoons/spatulas, 2 oz stainless steel cups, and aluminum pans.
- For each composite sample,
    - At each sample node for the given composite sample, porous material sampling will be conducted as described above, according to the relevant procedure in the May 2011 SOP.
    - When the requisite sample amount has been collected, sample material will be placed into the aluminum pan.
    - The same 2 oz cup and spoon will be utilized for all subsamples within a given composite sample.
    - Once all subsamples are collected and placed in the aluminum pan, the sample will be thoroughly mixed using the stainless steel spoon.
- Each thoroughly mixed sample will be placed into a 4 oz jar.
- The sample jars will be placed in a cooler with ice and will be kept at 4 degrees C until delivered to the laboratory.
- The dedicated tools will be disposed of, along with all PPE, as hazardous waste.
- If metal framing or construction materials are encountered in the area of verification sampling, wipe samples will be collected in accordance with 40 C.F.R, §761 Subpart P.

Samples will be analyzed by Alpha for PCBs using US EPA SW846 Method 8082. All Verification Testing samples will be prepared using extraction method SW846 3540 (Soxhlet).

TSCA CERTIFICATION
SELF-IMPLEMENTING CLEAN-UP PLAN FOR PCBS
BUILDING HO-1 INTERIOR RENOVATION AREA
PORTLAND, MAINE SITE

In accordance with 40 C.F.R. § 761.61(a)(3)(E), Unum Life Insurance Company of America ("UNUM"), the owner of the property and party responsible for the cleanup, is providing this certification related to the management of bulk PCB remediation waste associated with interior renovations in Building HO-1 Atrium area at its Site in Portland, Maine.

UNUM certifies that:

> All sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrument/chemical analysis procedures used to assess or characterize the PCB contamination in the Building HO-1 Interior Renovation Area, are on file at the offices of Sevee & Maher Engineers, Inc., 4 Blanchard Road, Cumberland Center, Maine 04021.

UNUM also certifies that the documents listed above, located at the offices of Sevee & Maher Engineers, Inc., are available for USEPA inspection.

BY: Unum Life Insurance Company of America

NAME: 

TITLE: AVP, Corporate Real Estate

DATE: 11/17/14

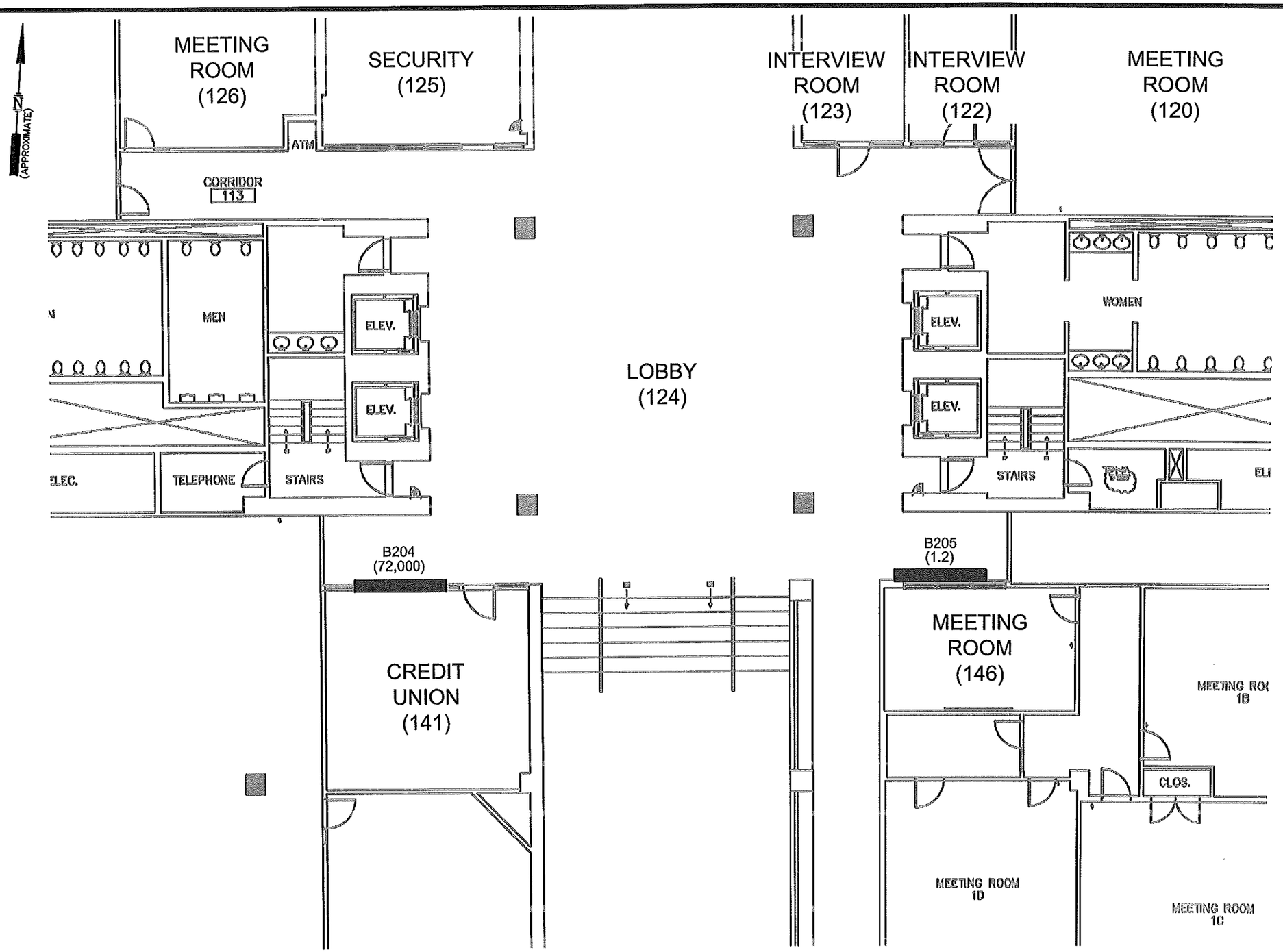

FIGURE 3
BUILDING HO–1
ATRIUM WORK AREA
UNUM
PORTLAND, MAINE

SME
Sevee & Maher Engineers, Inc.
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

DWG: PCB–AIR SAMPLES LMN:ATRIUM–WORK–AREA CTB: SME–STD REV: 11/13/2014

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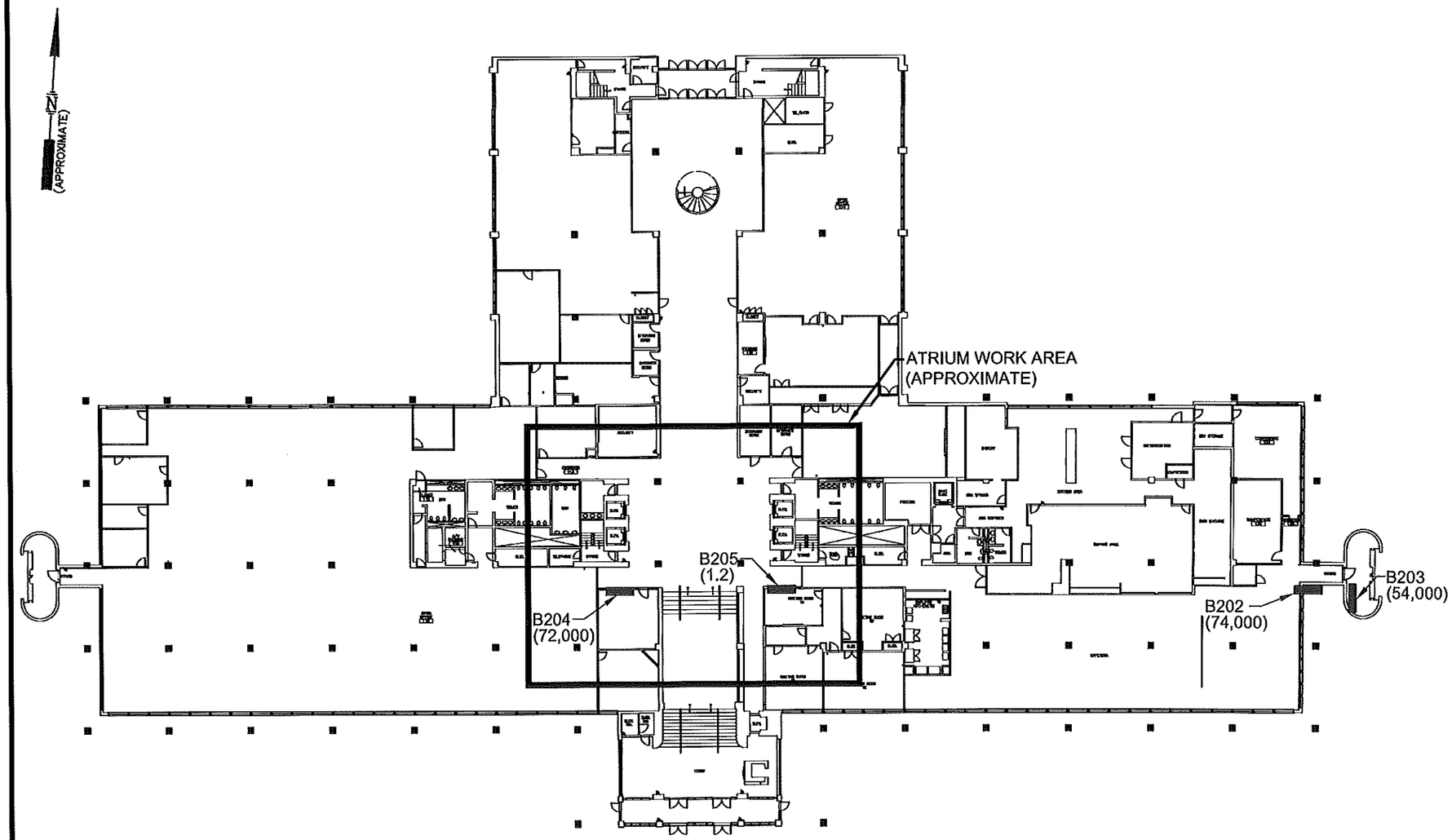

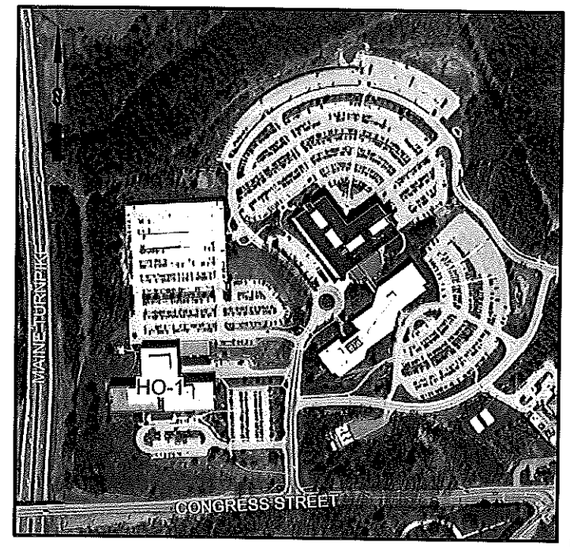

LOCATION PLAN

300 0 600 FEET
(APPROXIMATE)

LEGEND

PCB CAULK SAMPLE
APPROXIMATE LOCATION AND ID

(1.2) PCB CONCENTRATION IN CAULK (mg/Kg)

20 0 40 FEET
(APPROXIMATE)

NOTES

1. SAMPLE B201 (BLACK CAULKING) WAS COLLECTED FROM THE ROOF OUTSIDE THE SKYLIGHT ON THE NORTH SIDE OF THE ATRIUM AREA. RESULTS WERE 77 mg/Kg.
2. SAMPLES B202 AND B203 WERE COLLECTED IN THE THIRD-FLOOR LANDING TO THE EAST SILO.

FIGURE 2
HO-1 FIRST FLOOR PLAN AND PCB CAULK SAMPLE LOCATIONS
UNUM
PORTLAND, MAINE

SME
Sevee & Maher Engineers, Inc.
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

DWG: PCB-AIR SAMPLES LMN: CAULK-SAMPLES CTB: SME-STD REV: 11/13/2014

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