

March 21, 2016

Bob e abatement

Mr. Greg Payne, Development Officer
Avesta Housing
307 Cumberland Avenue
Portland, ME 04101

Re: Hazardous Materials Assessment | 72 Bishop Street | Portland, Maine

Dear Mr. Payne:

At your request, CES, Inc. (CES) completed a Hazardous Materials Assessment of the residential structure located at 72 Bishop Street in Portland, Maine.

This Hazardous Materials Assessment conducted on March 4, 2016, included the completion of an asbestos demolition impact survey, Lead-Based Paint (LBP) determination, and Universal Wastes/potential hazardous materials inventory of the facility.

ASBESTOS DEMOLITION IMPACT SURVEY

The asbestos demolition impact survey was conducted in accordance with the Maine Department of Environmental Protection (MDEP) Chapter 425 Asbestos Management Regulations (April 3, 2011 revision) and was completed to provide you with information regarding the presence of Asbestos-Containing Materials (ACM) within the interior and on the exterior of the building. Ms. Deborah Kasik (CES), an asbestos inspector licensed by the MDEP (AI#-0177), performed the field survey on March 4, 2016. A copy of Ms. Kasik's Asbestos Inspector certification is included in **Attachment A**.

Completion of the asbestos demolition impact survey included:

- ◆ Visual identification of suspect ACM on the interior and exterior of the building;
- ◆ Collection of bulk samples of suspect ACM from the interior and exterior of the building in accordance with MDEP regulations; and
- ◆ Quantification of ACM identified by laboratory analysis.

As with any scientific study, an asbestos identification survey is subject to a variety of limitations. Limitations to be considered in interpreting the results of the survey performed on this building include the following:



- ◆ Variations in building materials used during construction and subsequent renovations;
- ◆ Inaccessible areas within wall cavities and above solid ceilings;
- ◆ Interior ceiling heights; and
- ◆ Condition of the building at the time of the survey.

The following is a summary of field findings and laboratory analytical results of the survey:

The residential building consists of a two-story, wood-framed structure with a full basement. Thirty-one (31) samples of suspect ACM were collected from the interior and exterior of the building. Suspect ACM sampled included:

- ◆ Refractory cement;
- ◆ Sheetrock wall board;
- ◆ One type of sheet flooring;
- ◆ Duct work insulation;
- ◆ Cementitious shingle siding; and
- ◆ Asphalt roofing shingles.

Bulk samples of suspect ACM collected during the survey were submitted to EMSL Analytical, Inc. (EMSL) of South Portland, Maine for analysis. Bulk samples collected during this survey were analyzed using the MDEP required analytical methods: "PLM-EPA 600/R-93/116" (for surfacing, thermal system insulation, and cementitious materials) and "PLM NOB-EPA 600/R-93/116" (for non-friable organically bound materials (NOBs)) (e.g., floor tile, adhesives, and roofing) with "gravimetric reduction". Samples were analyzed at the EMSL laboratory, which is certified to perform asbestos analysis by both the National Voluntary Laboratory Accreditation Program (NVLAP) and the American Industrial Hygiene Association (AIHA). EMSL is a MDEP licensed asbestos analytical laboratory. A copy of EMSL's laboratory certifications is included in **Attachment B**. Laboratory analytical results and chain of custodies are included as **Attachment C**. Sample locations and identified ACM are identified on the included figures.

According to the MDEP Chapter 425 Asbestos Management Regulations, bulk samples shall be analyzed until a positive result is obtained or all samples have been analyzed. The MDEP defines ACM as "any material containing asbestos in quantities greater than or equal to one percent (%) by volume as determined by weight, visual evaluation, and/or point count analysis."

Sampled materials identified by laboratory analysis as ACM consisted of:

- ◆ Ductwork insulation (Sample BS-005A); and
- ◆ Cementitious shingle siding (Sample BS-006A).

A summary of identified ACM, including location is presented in **Table 1**:

The LBP testing was conducted utilizing a portable X-Ray Fluorescence (XRF) Lead Paint Analyzer (RMD LPA-1), which non-destructively tests for the presence of LBP on building surfaces. The determination as to whether or not a component contains LBP is based upon the MDEP Lead Management Regulations (Chapter 424) which defines a component as lead-containing if the XRF result is greater than or equal to (\geq) 1.0 milligrams per square centimeter (mg/cm^2). A visual assessment of the existing condition of the identified LBP was also completed at the time of the determination. The LBP testing is non-destructive and therefore limitations exist when interpreting the results. Limited assumptions are only made based on both collected data and similarity of components.

The LBP determination report for the building is included as **Attachment D**. Specific building material types, location, and condition of building materials tested for LBP are presented in the LBP determination report and associated figures.

A summary of identified LBP are presented below:

Interior

- ◆ Lead-Based Paint was not identified on the interior of the building.

Exterior:

- ◆ Door and door trim (including threshold);
- ◆ Window trim (regular and basement);
- ◆ Porch trim; and
- ◆ Soffit and fascia trim.

CONCLUSIONS AND RECOMMENDATIONS

This investigation revealed the following relevant information:

Asbestos-Containing Materials

ACM in the form of duct work insulation (including metal covers) and exterior cementitious shingle siding (including stored materials in basement) was identified throughout the interior and on the exterior of the building.

Regulations require that identified ACM which may be impacted by planned renovation/demolition activity be removed by a MDEP licensed asbestos abatement contractor in accordance with applicable state and federal regulations prior to disturbance by such planned activities. In accordance with 40 CFR 61, *National Emissions Standards for Hazardous Air Pollutants* (NESHAP), and 06-096 State of Maine, Department of Environmental Protection, Chapter 425, Asbestos Management Regulations (effective date: May 29, 2004), a contractor conducting any renovation and/or demolition activity that would disturb regulated ACM must: (1) notify the U.S. Environmental Protection Agency (USEPA) Administrator and the MDEP of such

TABLE 1 | ASBESTOS-CONTAINING MATERIALS

Location	Sample Number	Quantity	Unit Cost	Total Cost	ACM Material
Basement, First and Second Floors	BS-005A	220 Square Feet (SF)	\$15/SF	\$3,300	Ductwork insulation (including loose piece of asbestos board laying on top of ductwork in basement)
Exterior Siding; Stored in Basement	BS-006A	3,000 SF	\$4/SF	\$12,000	Cementitious Shingle Siding, includes stored siding in basement
Estimated Total Abatement Cost:				\$ 15,300	

POTENTIAL HAZARDOUS MATERIALS AND UNIVERSAL WASTE

During the walk through evaluation on March 4, 2016, CES evaluated the structure for potential hazardous materials and Universal Wastes. An inventory of identified materials and associated budgetary cost estimates for removal and disposal are presented in Table 2:

TABLE 2 | HAZARDOUS MATERIALS INVENTORY

Identified Hazardous Materials	Quantity (Each)	Quantity Per Unit	Total Estimated Quantity	Unit Cost	Estimated Remediation Cost
Mercury-containing Thermostat (EA)	1	5 lbs/EA	5	\$5.00	\$25
Above Ground Storage Tank	2	1/EA	2	\$750	\$1,500
Sub-Total A					\$1,525
Transportation (per pickup)	1	-	-	\$1,000	\$1,000
Labor (Mandays)	1	-	-	\$500	\$500
Sub-Total B					\$1,500
TOTAL					\$3,025

Hazardous materials in the form of potential Universal Wastes (mercury-containing thermostats, and above ground storage tanks) were observed within the residential structure. When removed for disposal, mercury-containing thermostats are considered a Universal Waste and must be properly handled, packaged, and disposed.

LEAD-BASED PAINT DETERMINATION

A LBP determination was conducted by Ms. Deborah A. Kasik (CES), a MDEP certified Lead Risk Assessor on March 4, 2016. The purpose of the determination was to identify LBP, if present, on the interior and exterior surfaces of the structure. The LBP determination was performed in accordance with the established protocols outlined in the MDEP Lead Management Regulations, Chapter 424, Section 7, and as applicable to this project. The testing provides information on the LBP content and assessment of existing condition for the surfaces tested.

activities, (2) use proper removal procedures, (3) use proper engineering controls to limit emissions of asbestos fibers, and (4) utilize proper waste disposal. If any hidden suspect ACM (behind walls, in chases, above permanent ceilings, etc.) is uncovered during renovation or demolition activities, work must be stopped and the material tested for asbestos content. All ACM must be disposed of in accordance with all applicable state and federal requirements.

Additionally, notification requirements, as required by OSHA 29 CFR Parts 1910.1001 and 1926.1101, must be adhered to as part of routine communication with employees and outside contractors. Potential contractors bidding on the renovation work must first be informed of the results of this survey. Notification regarding the presence of the ACM must also be provided to employees who occupy an area containing ACM.

Hazardous Materials

Hazardous materials in the form of potential Universal Wastes (mercury-containing thermostats and ASTs) were observed within the building. When removed for disposal, mercury-containing thermostats are considered a Universal Waste and must be properly handled, packaged, and disposed. The ASTs are assumed to contain residual oil which should be removed from the ASTs and the ASTs removed for re-use or disposal.

Lead-Based Paint

LBP was identified on exterior surfaces of the building.

Under current state and federal regulations for residential structures, LBP does not have to be removed from a structure prior to demolition, renovation, or removal of specific building components. However, the following regulations/requirements must be followed in relation to disturbance of LBP during renovation or demolition:

- ◆ OSHA 29 CFR 1926.62 requires that an employer protect their personnel from exposure to lead dust during construction or renovation. While primarily an issue for the renovation or abatement contractor, the Owner is responsible to notify all parties involved in the work of the knowledge or presumption that painted surfaces may contain lead.
- ◆ The MDEP requires that building components with LBP be disposed in a licensed Construction and Demolition (C&D) Landfill, and that a manifest documenting the transport and disposal of this material be provided to the Owner.
- ◆ LBP removed (e.g., scrapped, chipped) from surfaces must be analyzed using a Toxicity Characteristic Leaching Procedure (TCLP) test to determine whether the residue is considered a hazardous waste. If TCLP results indicate levels of leachable lead in excess of 5.0 parts per million (ppm), the resulting waste must be disposed of as a hazardous material.

This report was prepared by CES for the sole use of Avesta Housing, and should not be reproduced without their full, written authorization. Please contact either of the undersigned at (207) 989-4824 if you have any questions related to this project or if additional services are required.

Sincerely,
CES, INC.



Deborah A. Kasik
MDEP Asbestos Inspector AI-0177
MDEP Lead Risk Assessor LR#0003



Dennis B. Kingman, Jr. CHMM, VP
Senior Project Manager
MDEP Asbestos Inspector AI-0034

DAK/DBK/jok
Attachments

ATTACHMENTS

STATE OF NEW YORK

1

ATTACHMENT A

ASBESTOS AND LEAD RISK ASSESSOR CERTIFICATION(S)

Maine Labor Group on Health

Asbestos Abatement Inspector Refresher Training

This is to Certify that

Deborah A. Kasik

Has Met the Attendance Requirements and Successfully Completed the Exam and the
1/2 Day 4 Hour, Curriculum Course Entitled Asbestos Abatement Inspector Refresher Course, for
accreditation under TSCA Title II

March 13, 2015



Executive Director and Design Consultant
Maine Labor Group on Health

Registered Certificate:

2015 ASB 0040

Expiration: 3-15-2016

Exam Score: 92

Exam Date: 3-15-2015

Course Location: Auburn, ME.

MLGH * P.O. Box 5197 * Augusta, ME 04332 * 207-622-7823 * mlgh@gwi.net



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

March 19, 2015

CES, Inc.
465 S. Main Street
Brewer, Maine 04412

Dear Licensee:

Asbestos application(s) for individual certification of the two employee(s) listed below have been received and **approved**. Individual certification numbers are listed below and wallet card(s) are enclosed. Card(s) are property of the individual to whom each is issued. Your responsibility as a licensee is to ensure delivery of the cards to persons in your employment. This letter should be retained for your company files as record of certification.

Remember, in Maine all certified employees working on an asbestos abatement project, whether conducting removal/repair, air monitoring, design, inspection, or analysis functions, must work for a State of Maine licensed asbestos firm and carry his/her wallet card(s) on the job site.

As a reminder, prior to renewing your asbestos certification, the State of Maine requires an annual refresher course to be taken before submitting a renewal application. A certificate shall expire one year from the last day of the month from the date of issuance, **or on the last day of the month that the training certificate expires, whichever is sooner.**

All our asbestos forms can be found at <http://www.maine.gov/dep/rwm/asbestos/newupdatedformsasb.htm>. Thank you for your cooperation and your completed application(s).

<u>Name</u>	<u>Category</u>	<u>Certification #</u>	<u>Exp. Date</u>
Deborah A. Kasik	Inspector	AI-0177	03/31/2016
Deborah A. Kasik	Management Planner	MP-0178	03/31/2016

Sincerely,

Sandra J. Moody, Environmental Technician
Division of Remediation
Bureau of Remediation and Waste Management

State of Maine
Asbestos Abatement Program
Deborah A. Kasik

-Inspector
Cert 1: AI-0177
Trn. Exp. Date 03/13/2016
Management Planner
Cert 2: MP-0178
Trn. 2 Exp. Date 03/13/2016

Expiration Date 03 31 2016

This is not a legal form of official identification



AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANGO
PORTLAND
(207) 822-631

MAINE LABOR GROUP ON HEALTH

P.O. Box 5197 * Augusta, Maine 04332 * 207-622-7823

Lead Risk Assessor Refresher Course

This is to Certify that

Deborah A. Kasik

Has met the Attendance Requirements and Successfully Completed the 1-Day
8 Hour Curriculum Course Entitled Lead Risk Assessor Refresher Course

September 3, 2015



Executive Director
Maine Labor Group on Health

Registered Certificate:

2015 PB 0077

ID: 04/26/62

Exam Score: 100

ME DEP Expiration: 09/03/2016

US EPA Expiration: 09/03/2017

Course Location: Augusta, ME



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

September 8, 2015

Attn:Deborah A. Kasik
CES, Inc.
PO Box 639
Brewer, Maine 04412

Dear Ms. Kasik,

Your lead application for certification has been received and approved. You have been granted certification as a Lead Risk Assessor LR-0003. Enclosed is your wallet card, with an expiration date of September 30, 2016. All employees working on a lead abatement project must carry this photo ID wallet card. The card is property of the individual to whom it is issued. Your responsibility as a licensee is to ensure delivery of the card to person in your employment. This letter should be retained for your company files as record of certification. Please attach 1 updated passport size photo with every application.

Thank you for your cooperation and your completed application(s). Applications can now be found on our DEP webpage at the following:
<http://www.maine.gov/dep/rwm/lead/forms/index.htm>

If you have any questions on this certification or on any other aspect of DEP's lead abatement licensing program, please call Sandra Moody (207) 287-7751.

Sincerely,

Sandra J. Moody, Environmental Technician
Division of Remediation
Bureau of Remediation and Waste Management

Enclosure

State of Maine
Lead Abatement Program

Deborah A. Kasik

Risk Assessor
Cert No. LR-0003
Trn.Exp.Date 09/30/2016

Expiration Date 09/30/2016

This is not a legal form of official identification



AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

ATTACHMENT B

ASBESTOS ANALYTICAL LABORATORY CERTIFICATIONS

[Faint, illegible text from a document, likely a laboratory certification form, is visible in the background.]



AIHA Laboratory Accreditation Programs, LLC

acknowledges that

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Laboratory ID: 100194

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

- INDUSTRIAL HYGIENE Accreditation Expires: 09/01/2016
- ENVIRONMENTAL LEAD Accreditation Expires: 09/01/2016
- ENVIRONMENTAL MICROBIOLOGY Accreditation Expires: 09/01/2016
- FOOD Accreditation Expires:
- UNIQUE SCOPES Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Gerald R Schultz

Gerald Schultz, CIH
Chairperson, Analytical Accreditation Board

Revision 14: 03/26/2014

Cheryl O. Morton

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Date Issued: 10/31/2014



AIHA Laboratory Accreditation Programs, LLC SCOPE OF ACCREDITATION

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077

Laboratory ID: **100194**
Issue Date: 10/31/2014

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

The EPA recognizes the AIHA-LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air analysis is not included as part of the NLLAP.

Environmental Lead Laboratory Accreditation Program (ELLAP)

Initial Accreditation Date: 01/18/1995

Field of Testing (FoT)	Method	Method Description (for internal methods only)
Paint	EPA SW-846 3050B	
	EPA SW-846 7000B	
Soil	EPA SW-846 3050B	
	EPA SW-846 7000B	
Settled Dust by Wipe	EPA SW-846 3050B	
	EPA SW-846 7000B	
Airborne Dust	NIOSH 7082	

A complete listing of currently accredited Environmental Lead laboratories is available on the AIHA-LAP, LLC website at: <http://www.aihaaccreditedlabs.org>



AIHA Laboratory Accreditation Programs, LLC SCOPE OF ACCREDITATION

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077

Laboratory ID: **100194**
Issue Date: 07/31/2012

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or revocation. A complete listing of currently accredited Industrial Hygiene laboratories is available on the AIHA-LAP, LLC website at: <http://www.aihaaccreditedlabs.org>

Industrial Hygiene Laboratory Accreditation Program (IHLAP)

Initial Accreditation Date: 02/01/1989

IHLAP Scope Category	Field of Testing (FoT)	Technology sub-type/ Detector	Published Reference Method/ Title of In-house Method	Method Description or Analyte <i>(for internal methods only)</i>
Chromatography Core	Gas Chromatography	GC/ FID	NIOSH 1003	
			NIOSH 1005	
			NIOSH 1400	
			NIOSH 1500	
			NIOSH 1550	
			NIOSH 1603	
		NIOSH 2000		
		NIOSH 5502		
		NIOSH 5503		
		NIOSH 5510		
	OSHA 1010			
	GC/ECD	NIOSH 2551		
	GC/NPD	EPA TO-15		
	GC/MS	NIOSH 1501		
	Gas Chromatography (Diffusive Samplers)	NIOSH 6004		
	Ion Chromatography (IC)	NIOSH 6011		
		NIOSH 7903		
OSHA ID-214				
OSHA ID-215				
Liquid Chromatography	HPLC/FL	NIOSH 5506		
	HPLC/UV	NIOSH 2016		



AIHA

Laboratory Accreditation Programs, LLC

IHLAP Scope Category	Field of Testing (FoT)	Technology sub-type/ Detector	Published Reference Method/Title of In-house Method	Method Description or Analyte (for internal methods only)
Spectrometry Core	Atomic Absorption	CVAA	NIOSH 6009	
			OSHA ID-145	SOP LM-015
		OSHA ID-145	SOP LM-013	
		FAA	NIOSH 7082	
	Inductively-Coupled Plasma	ICP/MS	NIOSH 7105	
			ICP/AES	NIOSH 7300 Modified
	X-ray Diffraction (XRD)		NIOSH 7300	
			OSHA ID-142	
UV/VIS (Colorimetric)		NIOSH 6010		
Asbestos/Fiber Microscopy Core	Polarized Light Microscopy (PLM)		EPA 600/R-93/116	
	Phase Contrast Microscopy (PCM)		NIOSH 7400	
	Transmission Electron Microscopy (TEM)		EPA AHERA - 40 CFR Part 763	
			NIOSH 7402	
Miscellaneous Core	Gravimetric		NIOSH 0500	
			NIOSH 0600	
			NIOSH 5524	
	Thermo-optical Analysis (TOA)		NIOSH 5040	

The laboratory participates in the following AIHA-LAP, LLC-approved proficiency testing programs:

- ✓ AIHA-PAT Programs, LLC IHPAT Metals
- ✓ AIHA-PAT Programs, LLC IHPAT Organic Solvents
- ✓ AIHA-PAT Programs, LLC IHPAT Silica
- ✓ AIHA-PAT Programs, LLC IHPAT Diffusive Sampler (3M)
- ☐ AIHA-PAT Programs, LLC IHPAT Diffusive Sampler (SKC)
- ☐ AIHA-PAT Programs, LLC IHPAT Diffusive Sampler (AT)
- ✓ AIHA-PAT Programs, LLC IHPAT Asbestos
- ☐ AIHA-PAT Programs, LLC Bulk Asbestos (BAPAT)
- ☐ AIHA-PAT Programs, LLC Beryllium (BePAT)
- ✓ HSE Workplace Analytical Scheme for Proficiency (WASP) (Formaldehyde)
- ☐ HSE Workplace Analytical Scheme for Proficiency (WASP) (Thermal Desorption Tubes)
- ☐ Pharmaceutical Round Robin
- ☐ Compressed/Breathing Air Round Robin
- ✓ National Voluntary Laboratory Accreditation Program (NVLAP - determined at the time of site assessment)
- ☐ New York State Department of Health (NYS DOH – PCM and TEM)
- ✓ ERA Air and Emissions standards for indoor air quality
- ☐ Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA, formerly BGIA)
- ☐ Institut de Recherche Robert-Sauvé en Santé et en Sécurité du Travail (IRSST)

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 500094-0

EMSL Analytical, Inc.
South Portland, ME

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2015-10-01 through 2016-09-30

Effective Dates



A handwritten signature in black ink, appearing to read "R. Murphy".

For the National Voluntary Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

EMSL Analytical, Inc.

161 John Roberts Road
South Portland, ME 04106
Mr. Alex Maxinoski

Phone: 207-517-6921 Fax: 207-517-6922

Email: amaxinoski@emsl.com

<http://www.emsl.com>

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 500094-0

Bulk Asbestos Analysis

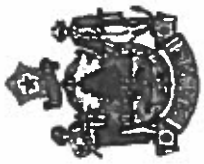
<u>Code</u>	<u>Description</u>
18/A01	EPA 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

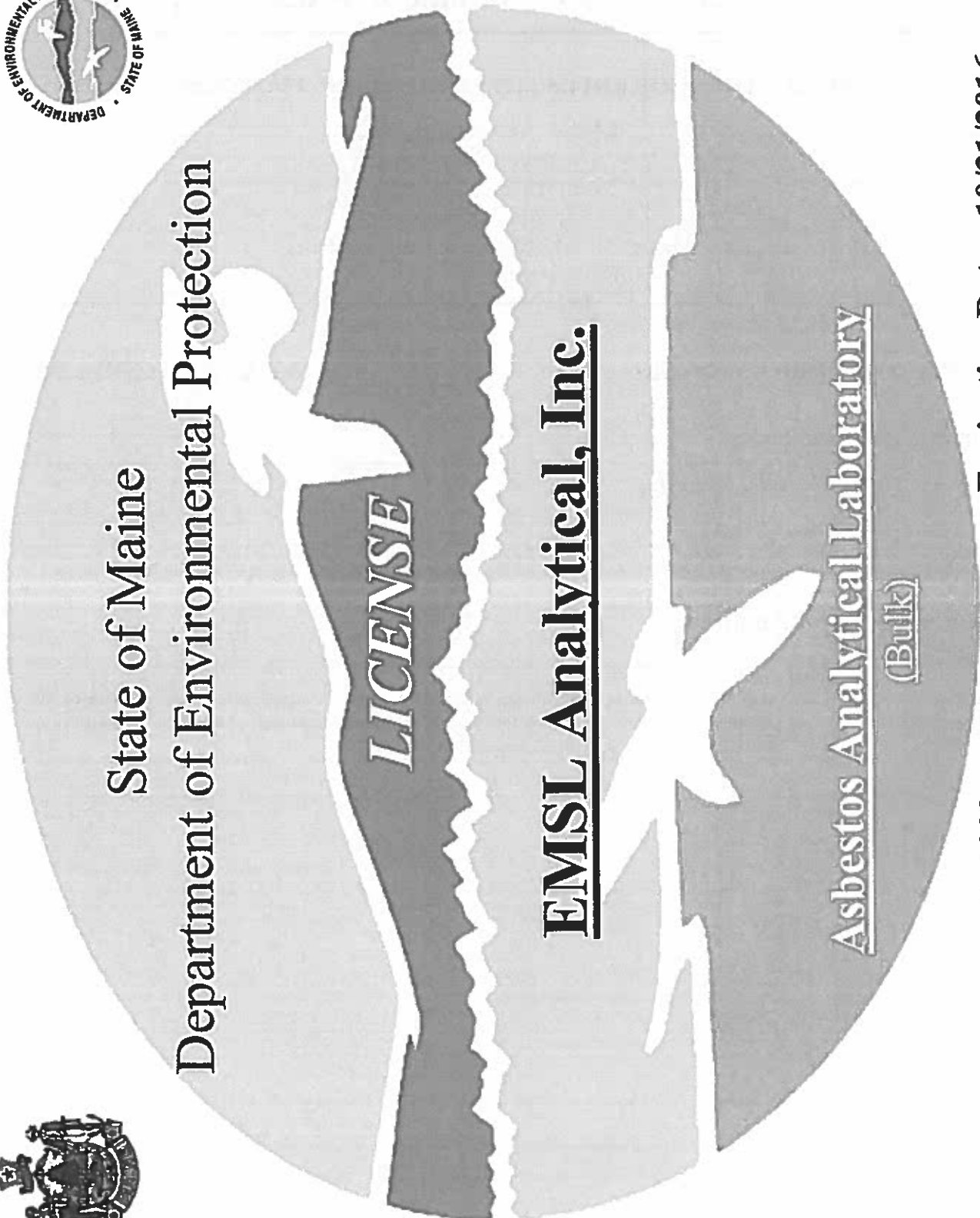
<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

A handwritten signature in black ink, appearing to read "Alan R. M. [unclear]".

For the National Voluntary Laboratory Accreditation Program



State of Maine
 Department of Environmental Protection



LICENSE

EMSL Analytical, Inc.

Asbestos Analytical Laboratory
 (Bulk)

License Number: LB-0039

Expiration Date: 10/31/2016



State of Maine
Department of Environmental Protection

LICENSE

EMSL Analytical, Inc.

Asbestos Analytical Laboratory
(Air)

License Number: LA-0038

Expiration Date: 10/31/2016



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

EVERETT DAY
Acting Commissioner

October 28, 2015

Attn: Bonnie Soules, QA Administrator
EMSL Analytical, Inc.
24 West Steuben St., Ste. 102
Bath, NY 14810

Dear Ms. Soules,

This is to confirm that the Maine Department of Environmental Protection is in receipt of your request to add the following labs to your licensing of Analytical Laboratories: Buffalo, New York; New York, New York; Carle Place, New York; Wallingford, CT; Piscataway, New Jersey, Woburn, MA. Salem, NH and South Portland, Maine.

LA-0038 for Asbestos Analytical Laboratory (Air), expires on 10/31/2016
LB-0039 for Asbestos Analytical Laboratory (Bulk), expires on 10/31/2016

Remember each laboratory must have certified individual(s) within the lab to perform analyses.

If you need any further assistance please feel free to contact me at (207) 287-7751 or e-mail at sandy.j.moody@maine.gov.

Sincerely,

Sandra J. Moody, Environmental Technician
Division of Remediation
Bureau of Remediation and Waste Management

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX (207) 287-7626
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-3570 FAX (207) 941-3581

PORTLAND
312 CANAL ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04679-2091
(207) 764-0177 FAX (207) 760-3113

EMPLOYEE (INDIVIDUAL) STATE CERTIFICATIONS

November 9, 2015

<i>Employee Name</i>	<i>Lab Location</i>	<i>State Certified</i>	<i>Certification No.</i>	<i>Type of Cert.</i>	<i>Exp. Date</i>
Desiree Lunt	Portland	Maine	BA0166	Bulk Asbestos Analyst	02/28/2016

MAINE DEPARTMENT OF LABOR

EMPLOYEE (INDIVIDUAL) STATE CERTIFICATIONS

State of Maine

March 12, 2015

<i>Employee Name</i>	<i>Lab Location</i>	<i>State Certified</i>	<i>Certification No.</i>	<i>Type of Cert.</i>	<i>Exp. Date</i>
Alex Maxinoski	Portland	Maine	BA-0150	Bulk Asbestos Analyst	12/31/2015
Leslie McCluskey-Eissing	Portland	Maine	AA-0449	Air Asbestos Analyst	06/30/2015
Leslie McCluskey-Eissing	Portland	Maine	BA-0123	Bulk Asbestos Analyst	06/30/2015
Joshua Snyder	Portland	Maine	BA-0155	Bulk Asbestos Analyst	08/31/2015
Christina Walker	Portland	Maine	AA-0439	Air Asbestos Analyst	07/31/2015
Christina Walker	Portland	Maine	BA-0142	Bulk Asbestos Analyst	07/31/2015

ATTACHMENT C

ASBESTOS LABORATORY ANALYTICAL RESULTS



EMSL Analytical, Inc.

161 John Roberts Road South Portland, ME 04106
Phone/Fax: (207) 517-6921 / (207) 517-6922
<http://www.EMSL.com> / portlandlab@emsl.com

EMSL Order ID: 621600312
Customer ID: CESI62
Customer PO:
Project ID:

Attn: Deb Kasik
CES/Summit Environmental Consultants
465 South Main Street
Brewer, ME 04412
Phone: (207) 989-4824
Fax: (207) 989-4881
Collected:
Received: 3/14/2016
Analyzed: 3/18/2016
Proj: 10618.008

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method via Polarized Light Microscopy

Client Sample ID: BS-001A **Lab Sample ID:** 621600312-0001
Sample Description: 2ND FL - ROOM #1/SHEETROCK (WALL)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/17/2016	Gray	8%	92%	None Detected	

Client Sample ID: BS-001B **Lab Sample ID:** 621600312-0002
Sample Description: 2ND FL - ROOM #3/SHEETROCK (CEILING)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/17/2016	Gray	18%	82%	None Detected	

Client Sample ID: BS-001C **Lab Sample ID:** 621600312-0003
Sample Description: 1ST FL - ROOM #8/SHEETROCK (WALL)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/17/2016	Gray	10%	90%	None Detected	

Client Sample ID: BS-002A **Lab Sample ID:** 621600312-0004
Sample Description: BASEMENT/REFRACTORY CEMENT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/17/2016	Gray	0%	100%	None Detected	

Client Sample ID: BS-003A **Lab Sample ID:** 621600312-0005
Sample Description: 2ND FL - ROOM #4/TAN SHEET FLOORING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/18/2016	Tan	9.5%	90.5%	None Detected	

Client Sample ID: BS-003B **Lab Sample ID:** 621600312-0006
Sample Description: 1ST FL - ROOM #8/TAN SHEET FLOORING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/18/2016	Tan	27.4%	72.6%	None Detected	

Client Sample ID: BS-003C **Lab Sample ID:** 621600312-0007
Sample Description: 1ST FL - ROOM #8/TAN SHEET FLOORING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/18/2016	Tan	10.6%	89.4%	None Detected	



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EMSL Order ID: 621600312
Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method via Polarized Light Microscopy

Client Sample ID: BS-004A Lab Sample ID: 621600312-0008

Sample Description: 1ST FL - ROOM #8/FELT UNDERLAYMENT

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/18/2016	Brown	0.0%	100%	None Detected	

Client Sample ID: BS-005A Lab Sample ID: 621600312-0009

Sample Description: BASEMENT/DUCTWORK INSULATION

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/17/2016	Gray	0%	35%	65% Chrysotile	

Client Sample ID: BS-005B Lab Sample ID: 621600312-0010

Sample Description: 1ST FLOOR ROOM #7/VENT INSULATION

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/17/2016				Stop Positive (Not Analyzed)	

Client Sample ID: BS-005C Lab Sample ID: 621600312-0011

Sample Description: 1ST FLOOR ROOM #8/DUCTWORK INSULATION (IN WALL)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/17/2016				Stop Positive (Not Analyzed)	

Client Sample ID: BS-005D Lab Sample ID: 621600312-0012

Sample Description: 2ND FLOOR - ROOM #5/VENT INSULATION

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/17/2016				Stop Positive (Not Analyzed)	

Client Sample ID: BS-006A Lab Sample ID: 621600312-0013

Sample Description: EXTERIOR/CEMENTITIOUS SIDING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/17/2016	Gray	0%	85%	15% Chrysotile	

Client Sample ID: BS-006B Lab Sample ID: 621600312-0014

Sample Description: EXTERIOR/CEMENTITIOUS SIDING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/17/2016				Stop Positive (Not Analyzed)	

Client Sample ID: BS-006C Lab Sample ID: 621600312-0015

Sample Description: EXTERIOR/CEMENTITIOUS SIDING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/17/2016				Stop Positive (Not Analyzed)	



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

EMSL Order ID: 621600312
Customer ID: CESI62
Customer PO:
Project ID:

Summary Test Report for Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method via Polarized Light Microscopy

Client Sample ID: BS-007A

Lab Sample ID: 621600312-0016

Sample Description: EXTERIOR/ASPHALT ROOF SHINGLE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/18/2016	Black	21.3%	78.7%	None Detected	

Client Sample ID: BS-007B

Lab Sample ID: 621600312-0017

Sample Description: EXTERIOR/ASPHALT ROOF SHINGLE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/18/2016	Black	19.3%	80.7%	None Detected	

Client Sample ID: BS-007B

Lab Sample ID: 621600312-0018

Sample Description: EXTERIOR/ASPHALT ROOF SHINGLE

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/18/2016	Black	21.9%	78.1%	None Detected	

PLM: ME CERT # BA - 0166 (DL)

PLM EPA NOB: ME CERT # BA - 0166 (DL)

Analyst(s):

Desiree Lunt PLM (6)
PLM Grav. Reduction (7)

Reviewed and approved by:

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. This test report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. EMSL bears no responsibility for sample collection activities or analytical method limitations. The laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples. PLM alone is not consistently reliable in detecting asbestos in floor coverings and similar NOBs

Samples analyzed by EMSL Analytical, Inc. South Portland, ME

Initial report from: 03/18/2016 12:21:08



**Asbestos Bulk Building Material
Chain of Custody**

EMSL Order Number (Lab Use Only):

621600312

South Portland, ME 04106
PHONE: (207) 517-6921
FAX: (207) 517-6922

EMSL ANALYTICAL, INC.
LABORATORY CERTIFIED

Company: CES, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 465 S. Main Street PO Box 639		Third Party Billing requires written authorization from third party	
City: Brewer	State/Province: ME	Zip/Postal Code: 04412	Country: United States
Report To (Name): Deb Kasik		Telephone #: 207-989-4824	
Email Address: DKASIK@CES-MAINE.COM		Fax #: 207-989-4881	Purchase Order:
Project Name/Number: 10618.009		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: ME		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week			
*For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.			
PLM - Bulk (reporting limit)		TEM - Bulk	
<input checked="" type="checkbox"/> PLM EPA 600/R-83/116 (<1%)		<input type="checkbox"/> TEM EPA NOB - EPA 600/R-83/116 Section 2.5.5.1	
<input checked="" type="checkbox"/> PLM EPA NOB (<1%)		<input type="checkbox"/> NY ELAP Method 198.4 (TEM)	
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)		<input type="checkbox"/> Chatfield Protocol (semi-quantitative)	
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)		<input type="checkbox"/> TEM % by Mass - EPA 600/R-83/116 Section 2.5.5.2	
<input type="checkbox"/> NIOSH 9002 (<1%)		<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique	
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)		<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique	
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)		Other	
<input type="checkbox"/> OSHA ID-191 Modified		<input type="checkbox"/>	
<input type="checkbox"/> Standard Addition Method			
<input checked="" type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		Date Sampled: 3/4/16	
Samplers Name: DKasik		Samplers Signature: DKasik	
Sample #	HA #	Sample Location	Material Description
BS-001A		2nd fl - Room #1	Sheetrock (wall)
001B		2nd fl - Room #3	" (ceiling)
001C		1st fl - Room #8	" (wall)
BS-002A		Basement	Refractory Cement
BS-003A		2nd fl - Room #4	Ten Sheet flooring
B		1st fl - Room #8	"
C		1st fl - Room #8	"
BS-004A		1st fl - Room #8	Felt underlayment
BS-005A		Basement	Ductwork insulation
-005B		1st Floor Room #7	Vent (Cover) insulation
Client Sample # (s):		Total # of Samples: 18	
Relinquished (Client): DKasik		Date: 3/12/16	Time: 1:30
Received (Lab):		Date:	Time:
Comments/Special Instructions:			

RECEIVED
MAR 14 2016
By: DL

7951 2591 1372

6

EMSL Analytical, Inc.
161 John Roberts Road



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

**Asbestos Bulk Building Material
Chain of Custody**

EMSL Order Number (Lab Use Only):

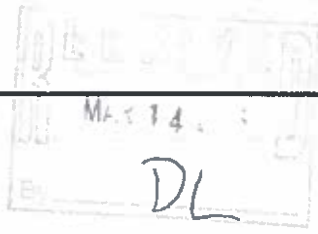
621600312

South Portland, ME 04106
PHONE: (207) 517-6921
FAX: (207) 517-6922

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
BS-005C		15 th floor - Room # 8	Ductwork insulation (wall)
BS-005D		2 nd floor - Room # 5	Vent (Cover) insulation
BS-006A		Exterior	Cementitious Siding
B		"	"
C		"	"
BS-007A		Exterior	Asphalt Roof Shingles
B		"	"
C		"	"

*Comments/Special Instructions:
NOB PER ME DEP




ATTACHMENT D

LEAD-BASED PAINT DETERMINATION REPORT

1000 WEST 1000 NORTH AVENUE, 1000 NORTH 1000

ENVIRONMENTAL LEAD-BASED PAINT XRF RESULTS

XRF #	CLIENT:	DATE:	INSPECTOR SIGNATURE:	DATE:	NOTES:			
	 CES INC <small>Environmental Surveys • Services</small>	AVESTA HOUSING 72 BISHOP STREET, PORTLAND, MAINE INTERIOR	RMD LPA-1 #3305, ME Rad Lic #31223 CALIBRATION: 1.0 / 1.0 mg/cm2 Inspector Signature:	3/4/2016 10618.008-01 1 OF 2	Deborah A. Kasik/LR#0003			
FIELD ID #	SAMPLE LOCATION	SIDE	COMPONENT(S)	COLOR	SUBSTRATE TYPE:	RESULTS mg/cm ²	CONDITION	NOTES:
L-1	CALIBRATION				WOOD	0.0		
L-2	CALIBRATION				WOOD	0.0		
L-3	CALIBRATION				WOOD	0.0		
L-4	CALIBRATION				WOOD	1.1		
L-5	CALIBRATION				WOOD	1.0		
L-6	CALIBRATION				WOOD	0.9		
L-7	SECOND FLOOR; ROOM #1 - BEDROOM		CEILING	WHITE	DRYWALL	0.0/0.0		
L-8			WALLS	VARIOUS	DRYWALL	0.0/0.0/0.0/0.0		
L-9			BASEBOARD	WHITE	WOOD	0.5/0.4		
L-10			WINDOW TRIM	WHITE	WOOD	0.4/0.2/0.3/0.4		
L-11			DOOR TRIM	WHITE	WOOD	0.6/0.6/0.5		
L-12	SECOND FLOOR; ROOM #2 HALLWAY		CEILING	WHITE	DRYWALL	0.0		
L-13			WALLS	VARIOUS	DRYWALL	0.2/0.0		
L-14			BASEBOARD	WHITE	WOOD	0.4/0.3		
L-15	RM. #3		STAIRWELL COMPONENTS	WHITE	WOOD	0.2/0.2		
L-16			WINDOW TRIM	WHITE	WOOD	0.6/0.6/0.3/0.1		
L-17			DOOR TRIM	WHITE	WOOD	0.4/0.2/0.2		
L-18	SECOND FLOOR; ROOM #4 BATHROOM		CEILING	WHITE	DRYWALL	0.0/0.1		
L-19			WALLS	WHITE	DRYWALL	0.2/0.2		
L-20			BASEBOARD	WHITE	WOOD	0.4		

D = Drywall; P = Plaster; W = Wood; M = Metal; C = Concrete; B = Brick; Y = Vinyl; CER = Ceramic. $\mu\text{g}/\text{cm}^2$ = Micrograms per square centimeter

ENVIRONMENTAL LEAD-BASED PAINT XRF RESULTS

XRF #	RMD LPA-1 #3305; ME Rad Lic #31223	CALIBRATION: 1.0 / 1.0 mg/cm ²	Inspector Signature: Deborah A. Kasik/LR#0003	DATE: CES, INC #: Page:	3/4/2016 10618.008-01 2 OF 2			
CLIENT: SITE: BLDG:		AVESTA HOUSING 72 BISHOP STREET, PORTLAND, MAINE INTERIOR						
FIELD ID #	SAMPLE LOCATION	SIDE	COMPONENT(S)	COLOR	SUBSTRATE TYPE:	RESULTS mg/cm ²	CONDITION	NOTES:
L-21	SECOND FLOOR; ROOM 5 BEDROOM		CEILING	WHITE	DRYWALL	0.0		
L-22			WALLS	VARIOUS	DRYWALL	0.1/0.0		
L-23			BASEBOARD	WHITE	WOOD	0.2		
L-24			WINDOW TRIM	WHITE	WOOD	0.3/0.2/0.5		
L-25			DOOR TRIM	WHITE	WOOD	0.2/0.2/0.4		
L-26	FIRST FLOOR; ROOM 6 FRONT ENTRY		CEILING	WHITE	DRYWALL	0.0		
L-27			WALLS	WHITE	DRYWALL	0.2		
L-28			BASEBOARD	WHITE	WOOD	0.0		
L-29			DOOR TRIM	WHITE	WOOD	0.0		
L-30	FIRST FLOOR; ROOM 7 LIVING ROOM		CEILING	WHITE	DRYWALL	0.0		
L-31			WALLS	VARIOUS	DRYWALL	0.0		
L-32			BASEBOARD	WHITE	WOOD	0.5		
L-33			WINDOW TRIM	WHITE	WOOD	0.5/0.1/0.3		
L-34	FIRST FLOOR; ROOM 8 KITCHEN		CEILING	WHITE	DRYWALL	0.0		
L-35			WALLS	VARIOUS	DRYWALL	0.0/0.1/0.0		
L-36			BASEBOARD	WHITE	WOOD	0.4		
L-37			CABINETS	WHITE	WOOD	0.0		
L-38			WINDOW TRIM	WHITE	WOOD	0.6/0.3		
L-39	FIRST FLOOR; ROOM 9 BEDROOM		CEILING	WHITE	DRYWALL	0.0/0.0		
L-40			WALLS	VARIOUS	DRYWALL	0.0/0.0		

D = Drywall; P = Plaster; W = Wood; M = Metal; C = Concrete; B = Brick; V = Vinyl; CER = Ceramic. MG/CM² = Milligrams per square centimeter

