HAZARDOUS BUILDING MATERIALS SURVEY

Demolition

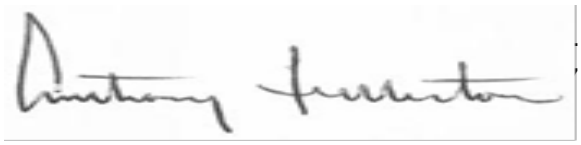
Commercial Structure
1110 Alexander Avenue
Tacoma, Washington

Submitted to:

WSP
33301 Ninth Avenue South, Suite 300
Federal Way, Washington 98003-2600

Prepared by:

Med-Tox Northwest
Post Office Box 1446
Auburn, WA
MTNW Project A-8842.1



Anthony Fullerton
AHERA BI #169219 Exp. 08/29/2019
November 2019 revised

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Tables

Acronyms

AAS	atomic absorption spectroscopy
ACM	asbestos-containing materials
AHERA	Asbestos Hazard Emergency Response Act
ASHARA	Asbestos Schools Hazard Abatement Reauthorization Act
ASTM	American Society of Testing and Materials
CFC	chlorofluorocarbons
CFR	Code of Federal Regulation
ECD	electron capture detectors
EPA	U.S. Environmental Protection Agency
GC	gas chromatography
HBM	hazardous building materials
HM	homogeneous material
LBP	lead-based paint
LF	linear feet
mg/cm^2	milligrams per square centimeter
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MTNW	Med-Tox Northwest
ND	none detected
NVLAP	National Voluntary Laboratory Accreditation Program
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PLM	polarized light microscopy
ppm	parts per million
PSCAA	Puget Sound Clean Air Agency
RCRA	Resource, Conservation and Recovery Act
SAT	Seattle Asbestos Test, LLC
SF	square feet
TCLP	toxicity characteristic leaching procedure
TSI	thermal system insulation
WAC	Washington Administration Code
WDOC	Washington Department of Commerce
WISHA	Washington Industrial Safety and Health Act
WRD	WISHA Regional Directive
XRF	x-ray fluorescence
% wt.	percent in weight

Survey Summary

On June 25, 2019 and then again on October 30, 2019, Eric Jarvis and Anthony Fullerton of Med-Tox Northwest (MTNW) conducted a hazardous building materials (HBM) survey of the property located at 1110 Alexander Avenue, Tacoma, Washington. This work was conducted on behalf of the Port of Tacoma under subcontract to WSP. The commercial buildings (identified in this report as building's 1, 2, 3 and electrical shack) were vacant the time of the survey.

This report identifies building materials that contain asbestos, estimates the quantity of asbestos-containing material (ACM) present and documents building materials that potentially contain lead-based paint (LBP), polychlorinated biphenyls (PCBs), and other hazardous materials that require removal or management as part of demolition activities. Washington Administrative Code (WAC) 296-155-775 requires identification of asbestos and hazardous materials and their hazards eliminated before demolition is started.

As required by WAC 296-62-077 and Puget Sound Clean Air Agency (PSCAA), a building inspector certified under the Asbestos Hazard Emergency Response Act (AHERA) and employed by MTNW conducted the asbestos portion of the survey. Copies of the inspector's AHERA Building Inspector certificate and Washington State Department of Commerce (WDOC) LBP Risk Assessor certificate are included in **Appendix A**.

No previous HBM surveys or as-built construction documents were available as part of the survey.

Building Information

Photographic documentation of the structure and the major systems described herein are provided in **Appendix B**.

General and Structural: These commercial buildings were constructed in 1970; in all, total square footage is approximately 28,000. There are multiple structures all connected. They seem to have been constructed over time as additional space was required. It appears that the buildings were used for industrial fabrication. The buildings have a combination of metal and wood siding. Interior finishes are minimal. Construction is combination of metal and wood framing depending on the build-out. The buildings are constructed slab on grade. The roofs of the buildings are flat and are finished with a combination of rolled-on composition roofing, black asphalt roofing and corrugated metal. There were multiple levels observed. Some of the roofs are in poor shape and roofing debris was observed on the ground around the perimeter of the buildings.

Heating and Mechanical Systems: There were no heating systems observed in the buildings and all pipes observed were un-insulated.

Asbestos Survey

The AHERA regulation, 40 Code of Federal Regulation (CFR) 763, is the primary governing regulation when performing asbestos surveys. This regulation was originally enacted for school buildings but has since been applied to public and commercial buildings by the Asbestos School Hazard Abatement Reauthorization Act (ASHARA) in 1994 and by the Occupational Safety and Health Administration's (OSHA) worker protection regulations in 1995, specifically 29 CFR 1926.1101(k).

PSCAA also requires compliance with AHERA's survey and sampling requirements. This applies to any renovation or demolition activities where suspect ACM may be disturbed. PSCAA is a local agency that receives statutory authority from the U.S. Environmental Protection Agency (EPA) to enforce environmental regulations.

AHERA divides suspect ACM into three categories; "surfacing materials" (i.e., sprayed fireproofing, popcorn ceiling texture, etc.), "thermal system insulation" (TSI) (i.e., pipe or building insulation, etc.), and "miscellaneous materials" (i.e., flooring material, roofing, construction mastics, etc.). The following sections summarize the potential ACMs identified for each of these three categories. For a complete listing of suspect materials sampled, see **Appendix C**. See **Appendix J** for drawings with asbestos, lead and PCB sample and material locations.

The following sections summarize the potential ACMs identified by homogeneous material (HM) description as they relate to each of the AHERA categories and clarify location along with the number of samples collected for regulatory compliance.

Thermal System Insulation

There were two TSI materials observed in the buildings.

- Yellow foam insulation panels with silver foil and adhesive (HM-07). This material was observed east of building 1. Three samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Yellow foam insulation panels with adhesive on metal panels (HM-09). This material was observed in buildings 1 and 2. Three samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.

All visible pipes observed in the building were un-insulated.

Surfacing Materials

There were no surfacing materials observed in the buildings.

Miscellaneous Materials

- Black remnant tar (HM-01). This material was identified inside the electrical shack. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- **Gray pipe caulking (HM-02).** This material was identified on the piping on the electrical shack roof. Two samples were collected and analyzed for asbestos content; **this material was determined to contain 4% to 8% Chrysotile asbestos.**
- Black rolled roofing and vapor barrier (HM-03). This material was identified on the roof of the electrical shack. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Black residual tar on corrugated metal siding (HM-04). This material was identified on building 1 exterior. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Gray remnant adhesive (HM-05). This material was identified on the exterior of building 1 on the northeast corner. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- White pipe caulking (HM-06). This material was identified on the northeast exterior corner of building 1. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Black exterior screw sealant (HM-08). This material was identified on building 1 exterior on the east wall. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Black interior wall seam sealant (HM-10). This material was identified inside building 1 on the south wall. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Black mastic on black membrane wall covering with white, silver and orange coating (HM-11). This material was identified inside building 1 on the south wall. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.

- Silver coating on corrugated wall panels and foam insulation-HM-09 (HM-12). This material was identified inside building 3 on the south wall. The silver coating was observed to be on HM-09 (foam insulation) Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Black asphaltic composition roofing and black vapor barrier (HM-13). This material was observed on building 2 on the south roof overhang. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- White exterior wall caulking (HM-14). This material was observed on building 3 on the south exterior wall. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- White and gray ground covering with adhesive on concrete (HM-15). This material was observed on the concrete slab south of building 3. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Brown asphaltic composition roofing- remnant (HM-16). This material was observed on the ground south of building 3. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Gray exterior window caulking (HM-17). This material was observed on the exterior windows of building 1 on the north wall. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Gray and brown floor leveler (HM-18). This material was observed on the floor of building 1. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Light brown and gray built-up floor leveling compound (HM-19). This material was observed on the floor of building 1. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Cementitious electrical box liner (HM-20). This material was observed inside the electrical panels of the electrical shack. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Light brown fibrous tarp (HM-21). This material was identified in the doorway of building 3. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.

Samples collected on October 30, 2019

- Black rolled roofing with tar (HM-22). This material was identified on the roof of building 3. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Tan rolled composition roofing (HM-23). This material was identified on the roof of building 3. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Tan rolled composition roofing (HM-24). This material was identified on multiple roof levels of building 2. Three samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- Black tar sealant on roofing (HM-25). This material was identified on the roof of building 2 on the west end and the vertical wall to upper roof. Two samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.
- White rolled composition roofing over built-up roofing (HM-26). These roofing materials were identified on the roof of building 3. Three samples were collected and analyzed for asbestos content; this material was determined to be negative for asbestos.

Table 1 summarizes ACM identified in the structures surveyed by MTNW.

Table 1. Summary of Asbestos-Containing Materials

Material	Location	Friable	Quantity
Gray pipe caulking	Office area	No	3 LF

LF=linear feet. Note: This table is not to be used without the complete survey document including appendices for additional information.

Table 2 lists all suspect materials sampled that have been determined to be non-asbestos containing.

Table 2. Summary of Suspect Materials Determined Non-Asbestos Containing

Material Location	Material Description
Electrical shack	Black remnant tar
Electrical shack	Black rolled roofing and vapor barrier
Building 1	Black residual tar on corrugated metal siding
Building 1	Gray remnant adhesive
Building 1	White pipe caulking
Water box east of building 1	Yellow foam insulation panels with silver foil and adhesive

Material Location	Material Description
Building 1	Black exterior screw sealant
Building 2	Yellow foam insulation with adhesive on metal panels
Building 1	Black interior wall seam sealant
Building 1	Black mastic on black membrane wall covering with white, silver and orange coating
Building 3	Silver coating on corrugated wall panels and foam insulation
Building 2- south overhang	Black asphaltic composition roofing and black vapor barrier
Building 3	White exterior wall caulking
Building 3- south on concrete slab	White and gray ground covering with adhesive on concrete
South of building 3 on ground	Brown asphaltic composition roofing debris
Building 1	Gray exterior window caulking
Building 1	Gray and brown floor leveler
Building 1	Light brown and gray built-up floor leveling compound
Electrical shack	Cementitious electrical box liner
Building 3	Light brown fibrous tarp
Building 3	Black rolled roofing with tar
Building 3	Tan rolled composition roofing
Building 2	Black tar sealant
Building 2	Tan rolled composition roofing
Building 1	White rolled composition roofing over built-up roofing

Note: This table is not to be used without the complete survey document including appendices for additional information.

Lead-Based Paint Summary

Lead was commonly used in most paint products until 1978, when it was banned from residential paints at concentrations greater than 600 parts per million (ppm); however, commercial applications with lead are still utilized and available. Lead is poisonous to the human body and presents a potential health hazard during any kind of disturbance

(such as maintenance, including grinding, welding, and cutting) and if improperly disposed, where lead can enter drinking water supplies.

EPA defines LBP as a concentration of 1.0 milligrams per centimeter squared (mg/cm^2) or greater by x-ray fluorescence (XRF) or 0.5 percent by weight (% wt.) or greater by total lead analysis; equivalent to 5,000 milligrams per kilogram (mg/kg). This EPA action level triggers requirements for protection of the environment, maintenance workers, and building occupants in child occupied facilities as defined by 40 CFR 745. Additionally, building components exceeding EPA lead levels may cause demolition waste streams to fail waste designation sampling performed for compliance with WAC 173-303 Dangerous Waste Regulations.

The Washington Industrial Safety and Health Act (WISHA) worker protection regulations have not defined a minimum concentration for regulating lead and has clarified that lead at any detectable concentration shall be considered regulated by WAC 296-155-176, Lead. Paint sample results can be expressed in mg/kg (same as ppm), % wt. or mg/cm^2 by area depending on the type of analytical methods used. Any positive result, regardless of the reporting method by the laboratory, will require compliance with WAC 296-155-176.

Lead in Painted Surfaces

Interior and exterior painted surfaces were tested for LBP using bulk sample collection and chemical analysis. A total of three paint chip samples were collected. Analytical results are provided in **Table 3**.

Table 3. Summary of Bulk Paint Chip Sample Results

Sample Number	Location	Component	Substrate	Color	Result (ppm*)
8842.1-1110-01Pb	Building 1 exterior	Wall	Wood	White	<87
8842.1-1110-02Pb	Building 1 interior	Wall	Wood	Light Blue	<81
8842.1-1110-03Pb	Building 3 exterior	Wall	Wood	Dark Blue	<95

ppm. = parts per milliion. **Bolded values** – bulk paint chip samples with lead detected above the laboratory reporting limit have been bolded. The WISHA worker protection regulations have stated that lead at any detectable concentration shall be considered regulated WAC 296-155-176, Lead. Do not use this table without the complete survey document.

Waste Designation Survey

Waste designation sampling has been performed for the building demolition, including Toxicity Characterization Leaching Procedure (TCLP) analytical sampling of affected building components. The TCLP procedure is used to simulate the transfer of lead from

lead-containing waste into the ground water system upon co-disposal of the lead-containing waste and municipal solid waste in unlined solid waste landfills. The TCLP attempts to simulate rain or ground water leaching, or both, of lead from the buried waste. In order for the procedure to yield an accurate predictor of the subsurface (in-ground) leaching process, a representative sample of the volume of the waste must be selected and submitted for leaching and analysis. The result of the sampling, leaching, and analysis process is used to determine the waste handling and disposal protocols to be followed and to document compliance with applicable laws, regulations, and requirements. WAC 173-303 Dangerous Waste Regulations defines hazardous waste as it relates to lead by toxicity as 5.0 milligrams per Liter (mg/L) by TCLP.

A visual inspection of the survey area was conducted to separate the major components of the structures to be demolished into the following categories:

- **Recyclables**. It is anticipated that many of the metal items (i.e., metal piping, tanks, door frames, doors, handrails, flashing, aluminum window frames, etc.) and un-painted clean concrete materials in the survey area will be recycled or reused. These items were not tested for waste pre-designation. Additionally, glass is recyclable and not included in the waste designation survey.

- **Potential Wastes**. Items that are not likely to be recycled were sampled and tested for waste pre-designation. Samples of other building finish materials likely to be landfill disposed were collected, composited and submitted for TCLP testing.

- **Assumed hazardous waste**. None.

One composited sample was collected from the site and tested by TCLP analysis for Resource Conservation and Recovery Act (RCRA) metal – lead. The result for the sample is presented in **Table 4**:

Table 4. Summary of TCLP Sample Results

Sample	Location and Composition	Result (mg/L)
8842.1-1110-01TCLP	Painted and unpainted building components	<0.40

mg/L = milligrams per liter. Note: Do not use this table without the complete survey document.

The TCLP sample collected from the building was determined to have leachable lead less than the regulated level of 5.0 mg/L. Demolition waste from this structure can be disposed of as general construction debris.

Other Hazardous Building Materials

Chlorofluorocarbons

MTNW inspected the building for cooling systems with potential chlorofluorocarbons (CFCs). There were none observed.

PCB Light Ballasts and Fluorescent Light Tubes

Older fluorescent light ballasts have small capacitors that may contain high concentrations of PCBs. Nearly all ballasts manufactured before 1979 contain PCBs. All ballasts manufactured after July 1, 1978 that do not contain PCBs are required to be clearly marked "No PCBs". Unmarked ballasts or ballasts without a date code should be assumed to be PCB ballasts. PCBs are toxic chemicals according to the EPA. While there is only a small amount, about one ounce, of PCBs in each light ballast capacitor, there are a large number of ballasts in the United States. A "No PCB" label means there are less than 50 ppm PCBs however, in the state of Washington PCB in oils are regulated at 2 ppm (WAC 173-303-9904).

There were fluorescent light fixtures and high-intensity discharge (HID) lighting observed in the buildings. **Table 5** provides a summary of these items in the building:

Table 5. Summary of Fluorescent Lights and Smoke Detectors

Location/floor	8-foot, 1-bulb	8-foot, 2-bulb	8-foot, 4-bulb	4-foot, 2-bulb	4-foot, 1-bulb	HID
Throughout	0	0	8	0	0	25
Total	**0**	**0**	**8**	**0**	**0**	**25**

Do not use this table without the complete survey document.

Typically, there is one ballast for every two-light tubes in a fluorescent light fixture; accordingly, there are 41 ballasts in the light fixture requiring recycling or PCB hazardous waste disposal. There are also 32, 8-foot light tubes that will need to be recycled during demolition.

PCB in Caulking and Paint

PCBs were used in paint and caulk formulations as drying oils (resins) and plasticizers or softening agents (liquids). Wood, concrete, gypsum wallboard and metal may have painted surfaces containing PCBs.

PCBs were tested in representative caulking, adhesive and sealants on the interior and exterior of the building **Table 6** below provides a summary of PCB sample results.

Table 6. Summary of PCB Sample Results

Sample Number	Location	Material	Result (mg/kg*)
8842.1-1110-01PCB	Piping on roof of electrical shack	Gray caulking	ND
8842.1-1110-02PCB	Building 1 Northeast exterior wall	Gray adhesive	ND
8842.1-1110-03PCB	Building 1 Northeast exterior, piping on top of electrical box	White caulking	ND
8842.1-1110-04PCB	Interior South wall of Building 1, metal wall panels	Black seam sealant	ND
8842.1-1110-05PCB	Building 3 exterior wall	White caulking	ND
8842.1-1110-06PCB	Glass to metal frame; Window in Northeast section of Building 1	Gray window caulking	ND
8842.1-1110-07PCB	Exterior corrugated metal wall of Building 1, around screws	Black screw sealant	ND

*mg/kg= milligrams per kilogram, ND= none detected.

Mercury Containing Switches

Heating system thermostats were investigated for mercury containing systems. The thermostats observed in the building were electric; therefore, not suspect of containing mercury.

Laboratory Analytical Methods

Asbestos-Containing Materials

Bulk samples were analyzed by polarized light microscopy (PLM) dispersion staining EPA Method 600/R-93/116 by Seattle Asbestos Test, LLC (SAT). SAT is accredited through the National Voluntary Laboratory Accreditation Program (NVLAP) of the U. S. Department of Commerce. This accreditation does not constitute endorsement, but rather a finding of laboratory competence. The NVLAP participant number for SAT is 200768-0 (certification copy is located in **Appendix D**). Analytical results are in **Appendix E**.

Lead-Based Paint

Bulk paint chip samples were submitted to EMSL Analytical, Inc. for analysis using atomic absorption spectroscopy (AAS) to determine the presence and percentage of lead. Procedures for analyzing metals are found in the American Society of Testing and Materials (ASTM) D-3335-78 and EPA Method Manual SW-846, Method 6010. EMSL used SW 846-7000B, an equivalent analytical method.

One TCLP sample was also collected and submitted to EMSL Analytical, Inc. for analysis using AAS. The extraction of the TCLP sample was performed using SW846-1311/7000B/SM 3111B.

Analytical results for paint chip results are provided in **Appendix F**. EMSL Analytical, Inc., laboratory certification is attached in **Appendix G**.

PCBs

Bulk PCB samples were submitted to On-Site Environmental, Inc., for analysis using gas chromatography (GC) equipped with electron capture detectors (ECD). Samples were analyzed using EPA Method SW-846 8082A. Analytical results are provided in **Appendix H**. On-Site Environmental, Inc. laboratory certification is attached in **Appendix I**.

Sample location drawings are provided in **Appendix J**.

Comments and Recommendations

Asbestos-Containing Materials

MTNW recommends, and state law requires, that the asbestos material identified in **Table 1** be removed prior to demolition.

MTNW recommends that this survey report be placed on-site during renovation and/or demolition and copies provided to the contractor(s) bidding and performing work. WISHA, OSHA and PSCAA require that the report be on-site and available for review during the entire project duration.

29 CFR 1926.1101/WAC 296-65 requires ACM be removed by trained and licensed contractors using certified asbestos abatement workers and supervisors (except for deregulated roofing sealants, mastics, and coatings). A 10-day prior notification is also required before abatement can begin. In addition, PSCAA requires notification and fees prior to beginning removal of friable ACM.

MTNW recommends third party oversight of asbestos abatement and renovation activities by an AHERA accredited building inspector to ensure regulatory compliance and completion of the additional destructive methods recommended herein.

Lead-Based Paint

For lead, any percentage of lead in the material should be an assumed risk to human health. All painted surfaces should be assumed to contain at least trace levels of lead in paint, therefore requiring compliance with WAC 296-155-176 during any disturbance of painted surfaces. The WISHA criteria are used to determine if materials are hazardous during a demolition.

Disposal options under WAC 173-303 are also determined by whether the material contains lead. The TCLP sample collected was determined to be less than the regulated level of 5.0 mg/l. Demolition waste from site can be disposed of as general construction debris.

PCB

During demolition, the asbestos abatement contractor should be tasked with dismantling light fixtures, collecting all lighting ballasts for proper disposal, and recycling the light tubes. Ballasts without “No-PCB” labels are considered PCB-containing and must be disposed as a hazardous waste. “No-PCB” ballasts may designate as Washington Dangerous Waste and should be sent to an EPA licensed facility for proper disposal.

Other Hazardous Building Materials

Fluorescent light tubes contain mercury and can be recycled as a universal waste for minimal cost. HID lights should also be collected/recycled as a universal waste.

Limitations

A good faith effort has been made to identify ACM, LBP and other HBM in preparation for building demolition. This survey was performed for complete demolition of the building. Additional destructive investigation and sampling will be required depending on inaccessible building systems including mechanical spaces and/or mechanical/electrical system routing.

Sampling was performed consistent with the level of care and skill ordinarily exercised by professionals currently practicing under similar conditions in the area. No other warranty, expressed or implied, is made.

This report has been prepared for the exclusive use of WSP and Port of Tacoma and its' designates for this project only. The analyses, conclusions, and recommendations presented in this report are based on conditions encountered at the time of our survey and our experience and judgment. MTNW cannot be held responsible for interpretation by others of the data contained in this report; any use of this report shall include the entire document. This survey is not intended for use as abatement plans and/or specifications which MTNW recommends for regulatory compliance.

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Appendix A
AHERA Building Inspector and WDOC Risk Assessor Certificates

Certificate of Completion

This is to certify that

Anthony L. Fullerton

has satisfactorily completed
4 hours of refresher training as an

AHERA Building Inspector

to comply with the training requirements of
TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

174346
Certificate Number

ARGUS PACIFIC
TRAINING • CONSULTING
A Terracon COMPANY

Aug 21, 2019 — Expires in 1 year.
Date(s) of Training

Exam Score: N/A
(if applicable)

Instructor

ARGUS PACIFIC, INC / 21905 64th AVE W, SUITE 100 / MOUNTLAKE TERRACE, WASHINGTON 98043 / 206.285.3373 / ARGUSPACIFIC.COM

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Abatement Program

Anthony L Fullerton

Has fulfilled the certification requirements of
WAC 365-230
and has been certified to conduct lead-based paint activities as a
Risk Assessor

Certification #	Issuance Date	Expiration Date
0242	05/25/2017	04/03/2020

Certificate of Completion

This is to certify that

Eric T. Jarvis

has satisfactorily completed
24 hours of training as an

AHERA Building Inspector

to comply with the training requirements of
TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

169779
Certificate Number

ARGUS PACIFIC
TRAINING • CONSULTING
A Terracon COMPANY

Oct 15 - 17, 2018 Expires in 1 year.
Date(s) of Training

Exam Score: 88%
If appropriate:

Instructor

ARGUS PACIFIC, INC / 21905 64th AVE W, SUITE 100 / MOUNTLAKE TERRACE, WASHINGTON 98043 / 206.285.3373 / ARGUSPACIFIC.COM

Appendix B
Building and Building System Photographic Documentation

Photo 1: Main building facing southeast.

Photo 2: East side of buildings facing west.

Photo 3: South side of the buildings facing north.

Photo 4: South and east sides of the buildings facing northwest.

Photo 5: Interior of main building.

Appendix C
Summary of Materials Sampled for Asbestos

Table C-1. Summary of Materials Sampled for Asbestos

Sample	Material	Location	AHERA Type	HM	Result
8842.1-1110-001	Black remnant tar	Electrical shack, South side - center	Miscellaneous	01	ND
8842.1-1110-002	Black remnant tar	Electrical shack, South side - center	Miscellaneous	01	ND
8842.1-1110-003	**Gray pipe caulking**	**Piping, Electrical shack roof**	**Miscellaneous**	**02**	**4% Chrysotile**
8842.1-1110-004	**Gray pipe caulking**	**Piping, Electrical shack roof**	**Miscellaneous**	**02**	**8% Chrysotile**
8842.1-1110-005	Black rolled roofing and vapor barrier	Electrical shack roof	Miscellaneous	03	ND
8842.1-1110-006	Black rolled roofing and vapor barrier	Electrical shack roof	Miscellaneous	03	ND
8842.1-1110-007	Black residual tar on corrugated metal siding	Building 1, base of north exterior wall	Miscellaneous	04	ND
8842.1-1110-008	Black residual tar on corrugated metal siding	Building 1, base of north exterior wall	Miscellaneous	04	ND
8842.1-1110-009	Gray remnant adhesive	Building 1 exterior wall, Northeast corner	Miscellaneous	05	ND
8842.1-1110-010	Gray remnant adhesive	Building 1 exterior wall, Northeast corner	Miscellaneous	05	ND
8842.1-1110-011	White pipe caulking	Building 1 exterior piping, Northeast corner	Miscellaneous	06	ND
8842.1-1110-012	White pipe caulking	Building 1 exterior piping, Northeast corner	Miscellaneous	06	ND
8842.1-1110-013	Yellow foam insulation panels with silver foil and adhesive	Water box, East of Building 1 Northeast corner	TSI	07	ND

Sample	Material	Location	AHERA Type	HM	Result
8842.1-1110-014	Yellow foam insulation panels with silver foil and adhesive	Water box, East of Building 1 Northeast corner	TSI	07	ND
8842.1-1110-015	Yellow foam insulation panels with silver foil and adhesive	Water box, East of Building 1 Northeast corner	TSI	07	ND
8842.1-1110-016	Black exterior screw sealant	Building 1, East exterior wall	Miscellaneous	08	ND
8842.1-1110-017	Black exterior screw sealant	Building 1, East exterior wall	Miscellaneous	08	ND
8842.1-1110-018	Yellow foam insulation with adhesive on metal	Building 2 interior North wall	TSI	09	ND
8842.1-1110-019	Yellow foam insulation with adhesive on metal	Building 2 interior North wall	TSI	09	ND
8842.1-1110-020	Yellow foam insulation with adhesive on metal	Building 1 exterior South wall	TSI	09	ND
8842.1-1110-021	Black interior wall seam sealant	Building 1, interior South wall - seams of metal wall panels	Miscellaneous	10	ND
8842.1-1110-022	Black interior wall seam sealant	Building 1 interior, South wall - seams of metal wall panels	Miscellaneous	10	ND
8842.1-1110-023	Black mastic on black membrane wall covering with white and silver coating	Building 1 interior, south wall	Miscellaneous	11	ND
8842.1-1110-024	Black mastic on black membrane wall covering with orange coating	Building 1 interior, south wall	Miscellaneous	11	ND

Sample	Material	Location	AHERA Type	HM	Result
8842.1-1110-025	Silver coating on corrugated wall panels and foam insulation (HM-09)	Building 3 interior, North wall	Miscellaneous	12	ND
8842.1-1110-026	Silver coating on corrugated wall panels and foam insulation (HM-09)	Building 3 interior, South wall	Miscellaneous	12	ND
8842.1-1110-027	Black asphaltic composition roofing and black vapor barrier	Building 2, South overhang	Miscellaneous	13	ND
8842.1-1110-028	Black asphaltic composition roofing and black vapor barrier	Building 2, South overhang	Miscellaneous	13	ND
8842.1-1110-029	White exterior wall caulking	Building 3 exterior South wall	Miscellaneous	14	ND
8842.1-1110-030	White exterior wall caulking	Building 3 exterior South wall	Miscellaneous	14	ND
8842.1-1110-031	White and gray ground covering with adhesive on concrete	South of Building 3 under dirt	Miscellaneous	15	ND
8842.1-1110-032	White and gray ground covering with adhesive on concrete	South of Building 3 under dirt	Miscellaneous	15	ND
8842.1-1110-033	Brown asphaltic composition roofing	South of Building 3	Miscellaneous	16	ND
8842.1-1110-034	Brown asphaltic composition roofing	South of Building 3	Miscellaneous	16	ND
8842.1-1110-035	Gray exterior window caulking	Building 1 North wall, glass to metal frame	Miscellaneous	17	ND
8842.1-1110-036	Gray exterior window caulking	Building 1 North wall, glass to metal frame	Miscellaneous	17	ND
8842.1-1110-037	Gray and brown patching/leveling floor compound	Building 1, interior floor	Miscellaneous	18	ND
8842.1-1110-038	Gray and brown patching/leveling floor compound	Building 1, interior floor	Miscellaneous	18	ND

Sample	Material	Location	AHERA Type	HM	Result
8842.1-1110-039	Light brown and gray built up floor leveling compound	Building 1, interior floor	Miscellaneous	19	ND
8842.1-1110-040	Light brown and gray built up floor leveling compound	Building 1, interior floor	Miscellaneous	19	ND
8842.1-1110-041	Cement Asbestos Board electrical box liner	Electrical shack, interior of west electrical box	Miscellaneous	20	ND
8842.1-1110-042	Cement Asbestos Board electrical box liner	Electrical shack, interior of west electrical box	Miscellaneous	20	ND
8842.1-1110-043	Light brown fibrous tarp	Southeast doors of Building 3	Miscellaneous	21	ND
8842.1-1110-044	Light brown fibrous tarp	Southeast doors of Building 3	Miscellaneous	21	ND
Roof Samples Collected on October 30. 2019					
8842.1a-1110-045	Black rolled roofing with tar	Building 3	Miscellaneous	22	ND
8842.1a-1110-046	Black rolled roofing with tar	Building 3	Miscellaneous	22	ND
8842.1a-1110-047	Tan rolled composition roofing	Building 3	Miscellaneous	23	ND
8842.1a-1110-048	Tan rolled composition roofing	Building 3	Miscellaneous	23	ND
8842.1a-1110-049	Tan rolled composition roofing	Building 2-upper center	Miscellaneous	24	ND
8842.1a-1110-050	Black tar sealant on roofing	Building 2-west end	Miscellaneous	25	ND
8842.1a-1110-051	Black tar sealant on roofing	Building 2-vertical wall to upper roof	Miscellaneous	25	ND
8842.1a-1110-052	Tan rolled composition roofing	Building 2	Miscellaneous	24	ND
8842.1a-1110-053	Tan rolled composition roofing	Building 2-west end	Miscellaneous	24	ND
8842.1a-1110-054	White rolled composition roofing over built-up	Building 1	Miscellaneous	25	ND

Sample	Material	Location	AHERA Type	HM	Result
8842.1a-1110-055	White rolled composition roofing over built-up	Building 1	Miscellaneous	25	ND
8842.1a-1110-056	White rolled composition roofing over built-up	Building 1	Miscellaneous	25	ND

HM = homogeneous material, ND = none detected.

Appendix D
SAT National Voluntary Laboratory Accreditation Program Certificate

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 200768-0

Seattle Asbestos Test, LLC

Lynnwood, WA

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).

2018-10-01 through 2019-09-30

Effective Dates

For the National Voluntary Laboratory Accreditation Program

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200768-0

Seattle Asbestos Test, LLC

Lynnwood, WA

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 17025:2017. 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).

2019-10-01 through 2020-09-30

Effective Dates

DEPARTMENT OF COMMERCE * UNITED STATES OF AMERICA *

For the National Voluntary Laboratory Accreditation Program

NVLAP® National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Seattle Asbestos Test, LLC
19701 Scriber Lake Road, Suite 103
Lynnwood, WA 98036
Mr. Fanyao (Steve) Zhang
Phone: 425-673-9850 Fax: 425-673-9810
Email: admin@seattleasbestostest.com
http://www.seattleasbestostest.com

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 200768-0

Bulk Asbestos Analysis

Code	*Description*
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of 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

For the National Voluntary Laboratory Accreditation Program

Effective 2019-10-01 through 2020-09-30

Appendix E
Analytical Reports- Asbestos

SEATTLE ASBESTOS TEST, LLC

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

www.seattleasbestostest.com, admin@seattleasbestostest.com

Project Manager:	Anthony Fullerton	Date Analyzed:	7/3/2019
Client:	Med-Tox, Northwest	Client Job#:	8842.1
Address:	PO Box 1446, Auburn, WA 98071-1446	Project Location:	1110 Alexander Ave Tacoma WA
Tel:	253.351.0677	Laboratory batch#:	201911091
		Samples Received:	44

Enclosed please find the test results for the bulk samples submitted to our laboratory for asbestos analysis. Analysis was performed using polarized light microscopy (PLM) in accordance with Test Method US EPA/600/R-93/116.

Percentages for this report are done by visual estimate and relate to the suggested acceptable error ranges by the method. Since variation in data increases as the quantity of asbestos decreases toward the limit of detection, the EPA recommends point counting for samples containing between <1% and 10% asbestos (NESHAP, 40 CFR Part 61). Statistically, point counting is a more accurate method. If you feel a point count might be beneficial, please feel free to call and request one.

The test results refer only to the samples or items submitted and tested. The accuracy with which these samples represent the actual materials is totally dependent on the acuity of the person who took the samples. This report must not be used by the client to claim product certification, approval, or endorsement by Seattle Asbestos Test, LLC, NVLAP, NIST, or any agency of the Federal government. The test report or calibration certificate shall not be reproduced except in full, without written approval of the laboratory.

This report is highly confidential and will not be released without your consent. Samples are archived for 30 days after the analysis, and disposed of as hazardous waste thereafter.

Thank you for using our service and let us know if we can further assist you.

Sincerely

SZhang

Steve (Fanyao) Zhang
President

20191109|

SEATTLE ASBESTOS TEST, LLC

Lynnwood Lab: 19711 Scriber Lake Road, Suite D, WA 98036, Tel:425.673.9850, Fax:425.673.9810
Bellevue Lab: 12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Email: admin@seattleasbestostest.com, Website: www.seattleasbestostest.com

Analyzing Quality

CHAIN OF CUSTODY

- [x] Bulk Asbestos
- [ ] Point Count 400
- [ ] Point Count 1000
- [ ] Point Count Gravimetric
- [ ] Other (Specify)

- [ ] 1 Hour
- [ ] 2 Hours
- [ ] Same day (4 to 6 Hrs.)
- [ ] 1 Day
- [ ] 5 Days

Med-Tox, Northwest

PO Box 1446, Auburn, WA 98071-1446 Tel: 253.351.0677 Fax: 253.351.0688

Number of Samples 44 PO# 8042.1 Project Location 1110 Alexander Ave, Tacoma WA

Project Manager (Check one or more):

- [x] Anthony Fullerton 206.356.8927 fullertona@medtoxnw.com
- [ ] Ginnie Kindler kindlerg@medtoxnw.com
- [ ] Judy Lurvey lurveyj@medtoxnw.com
- [ ] evansc@medtoxnw.com
- [ ] Jon Havelock havelockj@medtoxnw.com
- [ ] Teresa Choate choatet@medtoxnw.com

SEQ#	CLIENT SAMPLE #	SAMPLE DESCRIPTION	LOCATION	NOTES
1	8842-1-1110-001			
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20	8842-1-1110-044			

See Attached Table

	Print Name	Signature	Company	Date	Time
Sampled:	A. Fullerton		Med-Tox, Northwest	6/25/19	
Relinquished:	A Fullerton		Med-Tox, Northwest	6/27/19	
Delivered:			Med-Tox, Northwest		
Received:	Qi Yang		Seattle Asbestos Test	6/27/19	11:30
Analyzed:	Qi Yang	Qi Yang	Seattle Asbestos Test	7/3/19	1541
Reported:			Seattle Asbestos Test		

Results reporting method: [ ] Phone [ ] Fax [ ] Email [ ] Pick-up

[ ] Composite all wallboard samples [ ] Text result to phone [ ] Point count ..... % or less asbestos

Table C-1. Summary of Materials Sampled for Asbestos

Sample	Material	Location	AHERA Type	HM	Result
8842.1-1110-001	Black remnant tar	Electrical shack, South side - center	Miscellaneous	01	
8842.1-1110-002	Black remnant tar	Electrical shack, South side - center	Miscellaneous	01	
8842.1-1110-003	Gray pipe caulking	Piping, Electrical shack roof	Miscellaneous	02	
8842.1-1110-004	Gray pipe caulking	Piping, Electrical shack roof	Miscellaneous	02	
8842.1-1110-005	Black rolled roofing and vapor barrier	Electrical shack roof	Miscellaneous	03	
8842.1-1110-006	Black rolled roofing and vapor barrier	Electrical shack roof	Miscellaneous	03	
8842.1-1110-007	Black residual tar on corrugated metal siding	Building 1, base of north exterior wall	Miscellaneous	04	
8842.1-1110-008	Black residual tar on corrugated metal siding	Building 1, base of north exterior wall	Miscellaneous	04	
8842.1-1110-009	Gray remnant adhesive	Building 1 exterior wall, Northeast corner	Miscellaneous	05	
8842.1-1110-010	Gray remnant adhesive	Building 1 exterior wall, Northeast corner	Miscellaneous	05	
8842.1-1110-011	White pipe caulking	Building 1 exterior piping, Northeast corner	Miscellaneous	06	
8842.1-1110-012	White pipe caulking	Building 1 exterior piping, Northeast corner	Miscellaneous	06	
8842.1-1110-013	Yellow foam insulation panels with silver foil and adhesive	Water box, East of Building 1 Northeast corner	TSI	07	
8842.1-1110-014	Yellow foam insulation panels with silver foil and adhesive	Water box, East of Building 1 Northeast corner	TSI	07	
8842.1-1110-015	Yellow foam insulation panels with silver foil and adhesive	Water box, East of Building 1 Northeast corner	TSI	07	
8842.1-1110-016	Black exterior screw sealant	Building 1, East exterior wall	Miscellaneous	08	
8842.1-1110-017	Black exterior screw sealant	Building 1, East exterior wall	Miscellaneous	08	
8842.1-1110-018	Yellow foam insulation with adhesive on metal	Building 2 interior North wall	TSI	09	
8842.1-1110-019	Yellow foam insulation with adhesive on metal	Building 2 interior North wall	TSI	09	
8842.1-1110-020	Yellow foam insulation with adhesive on metal	Building 1 exterior South wall	TSI	09	

Sample	Material	Location	AHERA Type	HM	Result
8842.1-1110-021	Black interior wall seam sealant	Building 1, interior South wall - seams of metal wall panels	Miscellaneous	10	
8842.1-1110-022	Black interior wall seam sealant	Building 1 interior, South wall - seams of metal wall panels	Miscellaneous	10	
8842.1-1110-023	Black mastic on black membrane wall covering with white and silver coating	Building 1 interior, south wall	Miscellaneous	11	
8842.1-1110-024	Black mastic on black membrane wall covering with orange coating	Building 1 interior, south wall	Miscellaneous	11	
8842.1-1110-025	Silver coating on corrugated wall panels and foam insulation (HM-09)	Building 3 interior, North wall	Miscellaneous	12	
8842.1-1110-026	Silver coating on corrugated wall panels and foam insulation (HM-09)	Building 3 interior, South wall	Miscellaneous	12	
8842.1-1110-027	Black asphaltic composition roofing and black vapor barrier	Building 2, South overhang	Miscellaneous	13	
8842.1-1110-028	Black asphaltic composition roofing and black vapor barrier	Building 2, South overhang	Miscellaneous	13	
8842.1-1110-029	White exterior wall caulking	Building 3 exterior South wall	Miscellaneous	14	
8842.1-1110-030	White exterior wall caulking	Building 3 exterior South wall	Miscellaneous	14	
8842.1-1110-031	White and gray ground covering with adhesive on concrete	South of Building 3 under dirt	Miscellaneous	15	
8842.1-1110-032	White and gray ground covering with adhesive on concrete	South of Building 3 under dirt	Miscellaneous	15	
8842.1-1110-033	Brown asphaltic composition roofing	South of Building 3	Miscellaneous	16	
8842.1-1110-034	Brown asphaltic composition roofing	South of Building 3	Miscellaneous	16	
8842.1-1110-035	Gray exterior window caulking	Building 1 North wall, glass to metal frame	Miscellaneous	17	

Sample	Material	Location	AHERA Type	HM	Result
8842.1-1110-036	Gray exterior window caulking	Building 1 North wall, glass to metal frame	Miscellaneous	17	
8842.1-1110-037	Gray and brown patching/leveling floor compound	Building 1, interior floor	Miscellaneous	18	
8842.1-1110-038	Gray and brown patching/leveling floor compound	Building 1, interior floor	Miscellaneous	18	
8842.1-1110-039	Light brown and gray built up floor leveling compound	Building 1, interior floor	Miscellaneous	19	
8842.1-1110-040	Light brown and gray built up floor leveling compound	Building 1, interior floor	Miscellaneous	19	
8842.1-1110-041	Cement Asbestos Board electrical box liner	Electrical shack, interior of west electrical box	Miscellaneous	20	
8842.1-1110-042	Cement Asbestos Board electrical box liner	Electrical shack, interior of west electrical box	Miscellaneous	20	
8842.1-1110-043	Light brown fibrous tarp	Southeast doors of Building 3	Miscellaneous	21	
8842.1-1110-044	Light brown fibrous tarp	Southeast doors of Building 3	Miscellaneous	21	

HM = homogeneous material, ND = none detected.

SEATTLE ASBESTOS TEST

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.:	Anthony Fullerton	**Client:**	Med-Tox, Northwest	**Address:**	PO Box 1446, Auburn, WA 98071-1446
Job#:	8842.1	**Batch#:**	201911091	**Date Received:**	6/27/2019
Samples Rec'd:	44	**Date Analyzed:**	7/3/2019	**Samples Analyzed:**	44
Project Loc.:	1110 Alexander Ave Tacoma WA				

Analyzed by: Yui Yang

Reviewed by: SZhang Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
1	8842.1-1110 -001	1	Black asphaltic material		**None detected**	Asphalt/binder	2	Cellulose
2	8842.1-1110 -002	1	Black asphaltic material with paint		**None detected**	Asphalt/binder, Paint	3	Cellulose
3	8842.1-1110 -003	1	Gray/black asphaltic material	4	**Chrysotile**	Asphalt/binder	3	Cellulose
4	8842.1-1110 -004	1	Gray/black asphaltic material	8	**Chrysotile**	Asphalt/binder	3	Cellulose
5	8842.1-1110 -005	1	Black asphaltic material		**None detected**	Asphalt/binder	2	Cellulose
		2	Black asphaltic fibrous material		**None detected**	Filler, Asphalt, Binder	75	Cellulose
6	8842.1-1110 -006	1	Black asphaltic material		**None detected**	Asphalt/binder	2	Cellulose
		2	Black asphaltic fibrous material		**None detected**	Filler, Asphalt, Binder	71	Cellulose
7	8842.1-1110 -007	1	Black asphaltic material with paint		**None detected**	Asphalt/binder, Paint	3	Cellulose
8	8842.1-1110 -008	1	Black asphaltic material		**None detected**	Asphalt/binder	2	Cellulose
9	8842.1-1110 -009	1	Gray soft/elastic material		**None detected**	Binder, Filler	2	Cellulose
		2	White soft/elastic material with paint		**None detected**	Binder, Filler, Paint	3	Cellulose
10	8842.1-1110 -010	1	Gray soft/elastic material		**None detected**	Binder, Filler	2	Cellulose
		2	White soft/elastic material with paint		**None detected**	Binder, Filler, Paint	2	Cellulose
11	8842.1-1110 -011	1	White/pink brittle material with paint		**None detected**	Filler, Binder, Paint	4	Cellulose
		2	Gray soft material		**None detected**	Filler, Binder	2	Cellulose
12	8842.1-1110 -012	1	White/pink loose brittle material with trace paint		**None detected**	Filler, Binder, Paint	2	Cellulose
13	8842.1-1110 -013	1	Silver foil		**None detected**	Foil/binder		None detected
		2	Tan paper with clear mastic		**None detected**	Filler, Mastic/binder	75	Cellulose
		3	Yellow foamy material		**None detected**	Synthetic foam		None detected
14	8842.1-1110 -014	1	Silver foil		**None detected**	Foil/binder		None detected
		2	Tan paper with clear mastic		**None detected**	Filler, Mastic/binder	72	Cellulose
		3	Yellow foamy material		**None detected**	Synthetic foam		None detected
15	8842.1-1110 -015	1	Silver foil		**None detected**	Foil/binder		None detected

SEATTLE ASBESTOS TEST

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Anthony Fullerton | Client: Med-Tox, Northwest | Address: PO Box 1446, Auburn, WA 98071-1446

Job#: 8842.1 | Batch#: 201911091 | Date Received: 6/27/2019

Samples Rec'd: 44 | Date Analyzed: 7/3/2019 | Samples Analyzed: 44

Project Loc.: 1110 Alexander Ave Tacoma WA

Analyzed by: Yui Yang | Reviewed by: Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
15	8842.1-1110 -015	2	Tan paper with clear mastic		None detected	Filler, Mastic/binder	78	Cellulose
		3	Yellow foamy material		None detected	Synthetic foam		None detected
16	8842.1-1110 -016	1	Black soft/elastic material		None detected	Binder, Filler	4	Cellulose
17	8842.1-1110 -017	1	Black soft/elastic material		None detected	Binder, Filler	3	Cellulose
18	8842.1-1110 -018	1	Yellow foamy material		None detected	Synthetic foam		None detected
		2	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
19	8842.1-1110 -019	1	Yellow foamy material		None detected	Synthetic foam		None detected
		2	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
20	8842.1-1110 -020	1	Yellow foamy material		None detected	Synthetic foam		None detected
		2	Black/brown asphaltic material		None detected	Asphalt/binder	3	Cellulose
21	8842.1-1110 -021	1	Black/clear soft/elastic material with debris		None detected	Binder, Filler, Debris	4	Cellulose
22	8842.1-1110 -022	1	Black/clear soft/elastic material with debris		None detected	Binder, Filler, Debris	3	Cellulose
23	8842.1-1110 -023	1	Black asphaltic material with fibrous material and paint		None detected	Asphalt/binder, Filler, Paint	35	Cellulose
24	8842.1-1110 -024	1	Black asphaltic material with fibrous material and paint		None detected	Asphalt/binder, Filler, Paint	31	Cellulose
25	8842.1-1110 -025	1	Silver/white paint		None detected	Paint, Filler	2	Cellulose
		2	Yellow foamy material		None detected	Synthetic foam		None detected
26	8842.1-1110 -026	1	Silver/white paint		None detected	Paint, Filler	2	Cellulose
		2	Yellow foamy material		None detected	Synthetic foam		None detected
27	8842.1-1110 -027	1	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	24	Glass fibers
		2	Black asphaltic fibrous material		None detected	Asphalt/binder, Binder/filler	70	Cellulose
28	8842.1-1110 -028	1	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	25	Glass fibers

SEATTLE ASBESTOS TEST

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Anthony Fullerton | Client: Med-Tox, Northwest | Address: PO Box 1446, Auburn, WA 98071-1446

Job#: 8842.1 | Batch#: 201911091 | Date Received: 6/27/2019

Samples Rec'd: 44 | Date Analyzed: 7/3/2019 | Samples Analyzed: 44

Project Loc.: 1110 Alexander Ave Tacoma WA

Analyzed by: Yui Yang | Reviewed by: Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
28	8842.1-1110 -028	2	Black asphaltic fibrous material		None detected	Asphalt/binder, Binder/filler	73	Cellulose
29	8842.1-1110 -029	1	White soft/elastic material with paint and debris		None detected	Binder, Filler, Paint, Debris	4	Cellulose
30	8842.1-1110 -030	1	White soft/elastic material with paint and debris		None detected	Binder, Filler, Paint, Debris	5	Cellulose
31	8842.1-1110 -031	1	White/gray soft/elastic material with debris		None detected	Binder, Filler, Debris	3	Cellulose
		2	Beige mastic		None detected	Mastic/binder	2	Cellulose
		3	Gray sandy/brittle material		None detected	Sand, Filler, Binder	2	Cellulose
32	8842.1-1110 -032	1	White/gray soft/elastic material with debris		None detected	Binder, Filler, Debris	4	Cellulose
		2	Beige mastic with debris		None detected	Mastic/binder	2	Cellulose
		3	Gray sandy/brittle material		None detected	Sand, Filler, Binder	3	Cellulose
33	8842.1-1110 -033	1	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	29	Glass fibers
34	8842.1-1110 -034	1	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	25	Glass fibers
35	8842.1-1110 -035	1	Gray soft/elastic material		None detected	Binder, Filler	2	Cellulose
36	8842.1-1110 -036	1	Gray soft/elastic material		None detected	Binder, Filler	3	Cellulose
37	8842.1-1110 -037	1	Gray/brown cementitious material with debris		None detected	Cement/binder, Debris	5	Cellulose
38	8842.1-1110 -038	1	Gray/brown cementitious material with debris		None detected	Cement/binder, Debris	4	Cellulose
39	8842.1-1110 -039	1	Gray hard sandy/brittle material with debris		None detected	Sand, Filler, Cement/binder, Debris	3	Cellulose
40	8842.1-1110 -040	1	Gray hard sandy/brittle material with debris		None detected	Sand, Filler, Cement/binder, Debris	3	Cellulose
41	8842.1-1110 -041	1	Beige hard brittle material with fibrous material and debris		None detected	Filler, Binder, Debris	15	Cellulose, Glass fibers

SEATTLE ASBESTOS TEST

Lynnwood Laboratory: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel: 425.673.9850, Fax: 425.673.9810, NVLAP Lab Code: 200768-0

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.:	Anthony Fullerton	**Client:**	Med-Tox, Northwest	**Address:**	PO Box 1446, Auburn, WA 98071-1446
Job#:	8842.1	**Batch#:**	201911091	**Date Received:**	6/27/2019
Samples Rec'd:	44	**Date Analyzed:**	7/3/2019	**Samples Analyzed:**	44
Project Loc.:	1110 Alexander Ave Tacoma WA				

Analyzed by: Yui Yang

Reviewed by: SZhang Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
42	8842.1-1110 -042	1	Beige hard brittle material with fibrous material and debris		**None detected**	Filler, Binder, Debris	17	Cellulose, Glass fibers
43	8842.1-1110 -043	1	Light brown/gray soft/elastic material with woven fibrous material and debris		**None detected**	Binder, Filler	20	Synthetic fibers
44	8842.1-1110 -044	1	Light brown/gray soft/elastic material with woven fibrous material and debris		**None detected**	Binder, Filler	23	Synthetic fibers

SEATTLE ASBESTOS TEST, LLC

Seattle Laboratory: 4500 9th Ave. NE, Suite 300, Seattle, WA 98105, Tel: 206.633.1111, Fax: 206.633.4747, NVLAP Lab Code: 201057-0

www.seattleasbestostest.com, admin@seattleasbestostest.com

Project Manager:	Anthony Fullerton
Client:	Med-Tox, Northwest
Address:	PO Box 1446, Auburn, WA 98071-1446
Tel:	253.351.0677

Date Analyzed:	11/4/2019
Client Job#:	8842.1a
Project Location:	1110 Alexander Ave
Laboratory batch#:	201912877
Samples Received:	12

Enclosed please find the test results for the bulk samples submitted to our laboratory for asbestos analysis. Analysis was performed using polarized light microscopy (PLM) in accordance with Test Method US EPA/600/R-93/116.

Percentages for this report are done by visual estimate and relate to the suggested acceptable error ranges by the method. Since variation in data increases as the quantity of asbestos decreases toward the limit of detection, the EPA recommends point counting for samples containing between <1% and 10% asbestos (NESHAP, 40 CFR Part 61). Statistically, point counting is a more accurate method. If you feel a point count might be beneficial, please feel free to call and request one.

The test results refer only to the samples or items submitted and tested. The accuracy with which these samples represent the actual materials is totally dependent on the acuity of the person who took the samples. This report must not be used by the client to claim product certification, approval, or endorsement by Seattle Asbestos Test, LLC, NVLAP, NIST, or any agency of the Federal government. The test report or calibration certificate shall not be reproduced except in full, without written approval of the laboratory.

This report is highly confidential and will not be released without your consent. Samples are archived for 30 days after the analysis, and disposed of as hazardous waste thereafter.

Thank you for using our service and let us know if we can further assist you.

Sincerely

SZhang

Steve (Fanyao) Zhang
President

SEATTLE ASBESTOS TEST, LLC

Lynnwood Lab: 19711 Scriber Lake Road, Suite D, WA 98036, Tel:425.673.9850, Fax:425.673.9810
Bellevue Lab: 12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Email: admin@seattleasbestostest.com, Website: www.seattleasbestostest.com

2019128877

Analyzing Quality

CHAIN OF CUSTODY

- [x] Bulk Asbestos
- [ ] 1 Hour
- [ ] Point Count 400
- [ ] 2 Hours
- [ ] Point Count 1000
- [ ] Same day (4 to 6 Hrs.)
- [ ] Point Count Gravimetric
- [ ] 1 Day
- [x] Other (Specify) 5 Days

Med-Tox, Northwest

PO Box 1446, Auburn, WA 98071-1446 Tel: 253.351.0677 Fax: 253.351.0688

Number of Samples 12 PO# 8842-1a Project Location 1110 Alexander Ave

Project Manager (Check one or more):

- [x] Anthony Fullerton 206.356.8927 fullertona@medtoxnw.com
- [ ] Ginnie Kindler kindlerg@medtoxnw.com
- [ ] Jon Havelock havelockj@medtoxnw.com
- [ ] Teresa Choate choatet@medtoxnw.com
- [ ] evansc@medtoxnw.com

SEQ#	CLIENT SAMPLE #	SAMPLE DESCRIPTION	LOCATION	NOTES
1	8842-1a-1110-	045		
2		046		
3		047		
4		048		
5		049		
6		050		
7		051		
8		052		
9		053		
10		054		
11		055		
12	8842-1a-1110-	056		
13				
14				
15				
16				
17				
18				
19				
20				

See Data Sheet

	Print Name	Signature	Company	Date	Time
Sampled:	A Fullerton		Med-Tox, Northwest	10/30/19	
Relinquished:	A Fullerton		Med-Tox, Northwest	11/1/19	
Delivered:			Med-Tox, Northwest		
Received:			Seattle Asbestos Test	11/1/19	14:35
Analyzed:			Seattle Asbestos Test		
Reported:			Seattle Asbestos Test	11/4/19	12:28

Results reporting method: [ ] Phone [ ] Fax [ ] Email [ ] Pick-up

[ ] Composite all wallboard samples [ ] Text result to phone [ ] Point count ..... % or less asbestos

SEATTLE ASBESTOS TEST

Seattle Laboratory: 4500 9th Ave. NE, Suite 300, Seattle, WA 98105, Tel: 206.633.1111, Fax: 206.633.4747, NVLAP Lab Code: 201057-0

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Anthony Fullerton **Client:** Med-Tox, Northwest **Address:** PO Box 1446, Auburn, WA 98071-1446

Job#: 8842.1a **Batch#:** 201912877 **Date Received:** 11/1/2019

Samples Rec'd: 12 **Date Analyzed:** 11/4/2019 **Samples Analyzed:** 12

Project Loc.: 1110 Alexander Ave

Analyzed by: Yajun Gao Reviewed by: Steve (Fanyao) Zhang, President

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-fibrous Components	%	Non-asbestos Fibers
1	8842.1a-1110-045	1	Black asphaltic material with fibrous material		None detected	Asphalt/binder, Filler	20	Synthetic fibers, Cellulose
		2	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
2	8842.1a-1110-046	1	Black asphaltic material		None detected	Asphalt/binder	3	Cellulose
3	8842.1a-1110-047	1	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	4	Glass fibers
		2	Black asphaltic material with fibrous material		None detected	Asphalt/binder, Filler	28	Glass fibers, Cellulose
4	8842.1a-1110-048	1	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	3	Glass fibers
		2	Black asphaltic material with fibrous material		None detected	Asphalt/binder, Filler	30	Glass fibers, Cellulose
		3	Black asphaltic material		None detected	Asphalt/binder	3	Cellulose
		4	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	3	Glass fibers
		5	Black asphaltic material with fibrous material		None detected	Asphalt/binder, Filler	26	Glass fibers, Cellulose
5	8842.1a-1110-049	1	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
		2	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	3	Glass fibers
		3	Black asphaltic material with fibrous material		None detected	Asphalt/binder, Filler	32	Glass fibers, Cellulose
		4	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
		5	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	3	Glass fibers
		6	Black asphaltic material with fibrous material		None detected	Asphalt/binder, Filler	27	Glass fibers, Cellulose
		7	Black asphaltic material		None detected	Asphalt/binder	3	Cellulose
6	8842.1a-1110-050	1	Black asphaltic material		None detected	Asphalt/binder	3	Cellulose
7	8842.1a-1110-051	1	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose
8	8842.1a-1110-052	1	Black asphaltic material with sand		None detected	Asphalt/binder, Sand	18	Glass fibers
		2	Black asphaltic material		None detected	Asphalt/binder	2	Cellulose