



Uptown Environmental Services, LLC

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Asbestos Survey

459 Blinn St.

Akron, OH 44310

Parcel Number: 6710483

Prepared for:

O.R. Colan Associates, LLC

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Prepared by:

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Date of Inspection: August 9, 2019

Table of Contents

1	Executive Summary	
	• Scope	
	• Inspection Results	
2	Inspection Procedures	
	• General Asbestos Inspection and Sampling Procedures	
	• Bulk Sample Collection Methods	
	• Analysis of Bulk Samples	
	• Reporting of Analysis Results	
	• Laboratory	
	• Physical Assessment Factors	
	• Hazard Assessment Factors	
3	Bulk Sample Data Summary	
4	Inventory of Asbestos Containing Materials	
Tables	2-1	Factors for Assessing Potential Fiber Release
	2-2	Classifications for Hazard Potential of Friable ACM
	3-1	Bulk Sample Summary
	4-1	Asbestos Containing Material Inventory
Appendix A	Photographs	
Appendix B	Lab Results	
Appendix C	Site Sketch	

1 Executive Summary

Uptown Environmental Services, LLC performed an asbestos survey as part of pre-demolition services for O.R. Colan Associates. The property surveyed is located at 459 Blinn St., Akron, OH 44310. The property is a one bedroom ranch block frame structure built approximately in 1918. The purpose of the inspection was to identify, whether friable or non-friable, locate, and quantify ACM (asbestos containing material) and SACM (suspect asbestos containing material) and the condition of such material.

The survey was conducted by an OEPA certified Asbestos Hazard Evaluation Specialist under the OAC 3745-22-06(C). The inspection and collecting of samples was performed under the industry standard protocol of AHERA – Asbestos Hazard Emergency Response Act, 40 CFR Part 763.86.

Inspection Results:

The following is a summary of materials confirmed by the laboratory to contain >1% asbestos and/or assumed to be an asbestos containing material. Please note that the quantities provided in this summary are approximate amounts, and should be verified by an abatement contractor prior to the onset of removal activities.

- ***Seam Tape – Approximately 8 square feet of asbestos containing seam tape was identified in the basement on various ducts and returns. The material is in fair condition and is friable.***

Transite Siding – No

Hazardous Materials – No

All non-friable roofing and floor tile/mastic were assumed to be asbestos containing materials. The amount of roofing on the dwelling including garage is approximately 1,000 total square feet and is in fair condition. The amount of flooring throughout the dwelling is approximately 162 total square feet and is in fair condition; kitchen and bath.

Note 1: While care was taken during the inspection to identify all asbestos containing materials using destructive sampling methods (pre demo), additional materials may be located within non-accessible areas of the structure (e.g. behind walls, above intact ceiling, inside concealed pipe chases, etc.). If, through demolition, these materials are discovered, they should be treated as asbestos-containing until further testing proves otherwise.

2 Inspection Procedures

General Asbestos Inspection and Sampling Procedures

The inspection was performed in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAPS, 40 CFR 61.145) and the Ohio Administrative Code (OAC, 3745-20) regulations governing asbestos emission and waste control from demolition/renovation activities. Bulk sampling of material suspected to contain asbestos was conducted following Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA, 40 CFR 763.86), the accepted industry standard for conducting asbestos investigations in all types of buildings.

The majority of physically accessible spaces within the building were accessed and inspected for ACM and SACM. The suspect materials are then grouped into homogenous areas for sampling. Homogenous areas are areas with materials of like characteristics. A visual observation is made to determine the condition of friability. According to the EPA, friable ACM contains more than 1% asbestos and can be “crumbled, pulverized, or reduced to powder by hand pressure when dry.” Other things being equal, friable ACM is thought to release fibers into the air more readily than non-friable ACM.

The inspector assessed all identified asbestos containing materials. The inspection encompassed both friable and non-friable materials. The inspector then assumed that the specific material remained homogenous (based upon the materials’ appearance and application) throughout the building. In situations where materials appeared to alternate between asbestos containing and non-asbestos containing, the inspector looked for visible differences between materials. If differences were not apparent, the inspector made a professional decision to err on the side of conservatism and assumed that all materials were asbestos containing.

The inspector made every effort to locate all asbestos containing materials identified during the limited inspection, however, should unidentified suspect asbestos containing materials be discovered, please contact Uptown Environmental Services, LLC for assistance in material identification.

Bulk Sample Collection Methods

To avoid disturbing suspected asbestos containing materials more than necessary and minimize the potential release of asbestos fibers, the inspector performed bulk sampling in accordance with the industry accepted procedures outlined in the current EPA Guidance Document and the AHERA sampling protocol. Each sample collected was obtained using a clean coring tool, utility knife, or other appropriate tool. Each sample was then placed in a clean, sealable bag and labeled with a unique sample identification number. Care was taken to obtain a sample that was representative of all layers of a material. To avoid cross contamination, the tools used for sample collection were thoroughly cleaned before collecting the next sample. If requested, the sample site was labeled with a permanent marker bearing a corresponding sample identification number. Pertinent sample information was recorded on a standardized bulk sample log sheet including the date of the inspection, name of the inspector, a brief description and location of the sample, and the type of material sampled (e.g., wall plaster).

Analysis of Bulk Samples

Bulk samples were analyzed for asbestos content by Polarized Light Microscopy (PLM) and dispersion staining (Method Reference: EPA/600/R-931/116). This analytical method, which EPA currently recommends, for the determination of asbestos in bulk samples, can be used for qualitative identification of six morphologically different types of asbestos fibers: chrysotile, amosite, crocidolite, anthophyllite, tremolite, and actinolite asbestos. If applicable, please be advised that the Stereo Scope/PLM Method has limitations regarding floor tile analysis for asbestos content. Historically, the production of floor tile has included the grinding of asbestos into submicroscopic portions. Therefore, this method of analysis may produce incorrect results for tests of floor tile which may produce false negatives for asbestos.

PLM analysis requires the microscopist to take a portion of the sample and treat it with an oil of a specific refractive index. This prepared slide is then subjected to a variety of tests while being viewed under varying polarization of light. Each asbestos type displays unique characteristics when subjected to these tests. Percentages of the identified types of asbestos are determined by visual estimation.

PLM point count technique is a method of analyzing bulk samples whereby the sample is homogenized, placed on microscopic slides and examined under a polarized light microscope. A point counting stage and cross hair reticle are used for counting with only the particle(s) directly under the cross being counted, minus any void space. Several slides are used with a minimum of 400 counts for each slide.

Per EPA guidelines, a sample in which no asbestos is detected by PLM does not have to be point counted; however, a minimum of at least three slide mounts should be prepared and examined in their entirety by PLM to determine if asbestos is present. If the amount by visual estimation appears to be less than ten percent, the owner or operator of the building may (1) assume the amount to be greater than 1 percent and treat the material as asbestos containing material, or (2) require verification of the amount by point counting. If a result obtained by point count is different from a result obtained by visual estimation, the point count result will be used. This is a requirement for NESHAP monitoring, and a recommendation for AHERA and other asbestos monitoring applications.

Reporting of Analysis Results

The method specifies that the asbestos content in a bulk sample shall be estimated and reported as a finite percentage (rounded to the nearest percent) within the range of 0 to 100. Minute quantities asbestos in bulk samples may be reported as "trace" (tr) or less than 1 percent. The composition of bulk samples is reported in percentages of asbestos components (i.e. chrysotile, amosite, crocidolite, or other). The original laboratory reports are presented in Appendix B.

Laboratory

Analysis of all suspect asbestos containing materials was performed by ACM Engineering & Environmental Services using polarized light microscopy. ACM Engineering & Environmental Services successfully participates in, and is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), administered by the National Institute of Standards and Technology.

Physical Assessment Factors

Per AHERA requirements, the inspector performed a physical assessment of all friable asbestos containing materials. This involved physically observing and documenting the current condition of each friable material, and assessing its potential for future disturbance (or fiber release potential). The Inspector categorized the materials current condition as Good, Fair, or Poor. AHERA protocol is not specific as to how these categories are arrived at, but in general the following guidelines are used:

- Good – less than 10% area damage
- Fair – more than 10%, but less than 25% area damage
- Poor – more than 25% area damage

The Inspector then made an assessment of the materials potential for future disturbance (or fiber release potential) using the general factors listed in Table 2-1 below. The first three factors focus on the current condition of the asbestos containing material. Evidence of deterioration, delamination, physical damage, or water damage indicates that fiber release has occurred, is occurring, or is likely to occur in the future. Such evidence is based on the appearance of the material and/or the presence of dislodged or crumbled material in the surrounding area. The second three factors focus on the potential for fiber release due to disturbance or erosion. Surface erosion is likely to occur when asbestos containing materials are located in air plenums or near forced-air streams. Exposed and easily accessible materials in areas frequented by building occupants, or subject to mechanical vibrations are more vulnerable to disturbance or damage than materials in other locations.

Table 2-1: Factors for Assessing Potential Fiber Release

Current Condition of Asbestos Containing Materials
<ul style="list-style-type: none">• Evidence of deterioration or delamination from the underlying surface (substrate)• Evidence of physical damage (e.g., presence of debris)• Evidence of water damage
Potential for Future Disturbance, Damage, or Erosion of Asbestos Containing Material
<ul style="list-style-type: none">• Proximity to air plenum or direct airstream• Visibility, accessibility (to building occupants and maintenance personnel), and degree of activity (air movement, vibration, movement of building occupants)• Change in building use

Hazard Assessment Factors

Based upon the physical assessment, friable asbestos containing materials are then given a hazard rank with corresponding response to the options to aid the building owner in prioritizing response actions (see Table 2.2). The hazards rank from 7- most hazardous, to 1- least hazardous as shown in Table 2.2. The highest rank is reserved for materials that are “significantly damaged” or material that is so extensively damaged that it requires immediate corrective action. Hazard ranks 4-6 reflect materials which are “damaged” with rank 6 indicating a high potential for further damage, and rank 5 indicating a moderate potential for damage. Hazard rank 4 denotes that a material has been damaged; however, the potential for any further damage is low. Hazard ranks 1-3 are reserved for materials currently in good condition with future disturbance potentials being high, moderate, or low (3, 2, 1 respectively). Non-friable materials are categorized as non-friable.

Table 2-2: Classifications for Hazard Potential of Friable Asbestos Containing Materials

Hazard Rank	Condition	Disturbance Potential
7	Poor	Any
6	Fair	High
5	Fair	Moderate
4	Fair	Low
3	Good	High
2	Good	Moderate
1	Good	Low

The physical and hazard assessments made for all asbestos containing materials identified during this inspection can be found in Section 4.0 “Inventory of Asbestos Containing Materials”.

3 Bulk Sample Data Summary

The following table presents the results of materials sampled:

<u>Table 3-1: Bulk Sample Summary</u>					
Sample Number	Material Description	Approx. Sq. Ft.	Room/Location	Laboratory Results	Homogenous Material No.
459-1A	Wall Plaster	1,498	Dining Room	None Detected	1
459-1B	Wall Plaster	1,498	Bath	None Detected	1
459-1C	Wall Plaster	1,498	Kitchen	None Detected	1
459-1D	Wall Plaster	1,498	Bedroom	None Detected	1
459-1E	Wall Plaster	1,498	Bedroom	None Detected	1
459-2A	Drywall/Mud		Dining Room	None Detected	2
459-2B	Drywall/Mud		Bath	None Detected	2
459-2C	Drywall/Mud		Dining Room	None Detected	2

4 Inventory of Asbestos Containing Material

The following table presents a list of asbestos containing materials and assumed asbestos containing materials identified during the inspection and should be removed prior to the onset of demolition activity:

<u>Table 4-1: Asbestos Containing Materials Inventory</u>			
Room/Location	Material Type	Condition/Hazard Rank	Estimated Quantity
Basement	Seam Tape (Assumed)	Fair/4	8 SF

Appendix A



459 Blinn St



459 Blinn St - Rear



459 Blinn St – No Transite



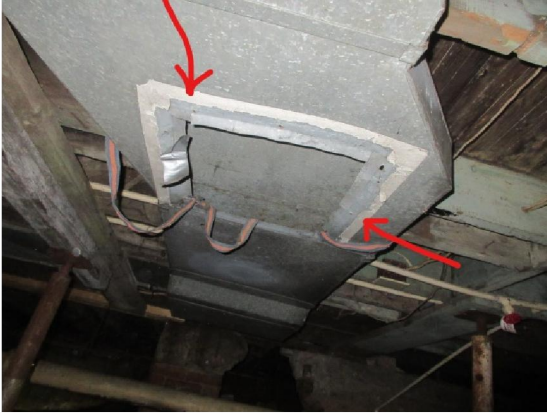
459 Blinn St - Garage



459 Blinn St – Basement



459 Blinn St – Basement



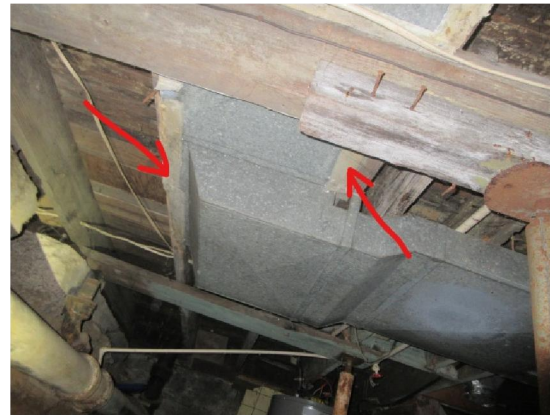
459 Blinn St – Basement



459 Blinn St – Basement



459 Blinn St – Basement



459 Blinn St – Basement



459 Blinn St – Basement



459 Blinn St – Kitchen

APPENDIX B

Lab Results



ANALYSIS OF SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS

METHOD:

All analyses and quantifications are performed in accordance with the U.S. Environmental Protection Agency's "Method for the Determination of Asbestos in Bulk Building Materials", EPA/600/R-93/116 & EPA/600/M4-82/020: "Interim Method for the Determination of Asbestos in Bulk Insulation Samples." ACM Engineering & Environmental Services is accredited by the National Voluntary Accreditation Program (NVLAP) for the scope of accreditation under NVLAP code 101977-0. These methods utilize stereoscopic examination of bulk samples, as well as utilizing the polarized light microscope (PLM). To determine the refractive index, the central stop dispersion staining method is used, as well as matching with refractive index oil and using light matching the sodium D line wavelength. Identification of non-asbestos species is less rigorous, as they are of secondary interest.

Gross samples are examined under a 10X or 20X stereoscope where homogeneity (need for sub-samples), texture and /or any other distinguishing characteristics are determined. Sub-samples are prepared if needed. Any fibrous material is mounted in high dispersion oil for further microscope examination utilizing PLM. Any possible asbestos fibers are analyzed for morphology, color and pleochroism, index of refraction parallel and perpendicular to elongation, birefringence, extinction characteristic and sign of elongation, and any other distinguishing characteristics observed.

The percentage of asbestos and other fibrous materials are then determined according to sample area coverage and thickness. The limit of qualification is one percent (1%). The above is recorded on the laboratory analysis sheet and maintained for three years. The error involved for reported percentages of fibrous is 100% error for 1% to 5%, 50% error for 5% to 20%, and 25% error for 20% to 100%. All percentages will be reported in a range indicating error or a single value, in which case the above error should be applied. When the value 1% or greater is reported this indicates asbestos is present in the sample.

THE REPORT:

The attached report quantifies the fibrous materials found in each sample submitted for analysis. A complete fibrous analysis of samples is given for each sample followed by a breakdown analysis of any sub-samples for heterogeneous material.

- *The first column* is the client sample number identification.
- *The second column* is the laboratory sample number. The laboratory number for the overall sample analysis is a digit number. The laboratory number followed by a letter designation (A,B,C. etc.) indicates a sub-sample analysis.
- *The third column* is the sample identification, which indicates whether the sample is homogeneous or heterogeneous, the color of the sample, and the physical description (cementitious, fibrous, cloth, etc.)
- *The fourth column* indicates the types and percentages of asbestos identified if any.
- *The fifth column* indicates the types and percentages of cellulose (CELL) non-asbestos identified.
- *The sixth column* indicates the types and percentages of non-fibrous, non-asbestos material (NON -FIB NON-ACBM) identified.
- *The seventh column* indicates the types and percentages of fibrous non-asbestos material (FIB NON ACBM) in the sample or sub-sample.

SAMPLE RETENTION:

Samples will be retained for 6 months unless otherwise instructed. After this period, the sample(s) will be disposed of appropriately. Upon written request, the samples will be returned by mail or delivery for a nominal fee to cover postage and handling. There would be no charge for samples picked-up at ACM Engineering & Environmental Services.

DISCUSSION AND RECOMMENDATIONS:

In order to reduce the risk of introducing asbestos fibers into the air, care should be taken not to disturb the asbestos containing building materials. If renovation, demolition or other activities might disturb known asbestos containing building materials, a reputable asbestos consultant should be contacted to help effectively design and implement an asbestos management program.

COMPONENTS DESCRIPTION:

<u>ASBESTOS MATERIALS</u>	<u>NON-ASBESTOS MATERIALS</u>
A = Amosite	CF = Ceramic Fibers N = Nylon
AC = Actinolite	CO = Cotton O = Other
AN = Anthophyllite	G = Fibrous Glass S = Synthetics
C = Chrysotile	H = Hair V = Vermiculite
CR = Crocidolite	M = Mineral Wool
T = Tremolite	
---- = No Asbestos Detected	

NOTE: ACM Engineering & Environmental Services does not deviate from the test method described in this report. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items above. This report must not be reproduced, except in full, without the written consent of ACM Engineering & Environmental Services.



CLIENT: Uptown Environmental Services
 12600 Rockside Road, Ste. 203
 Cleveland, OH 44125

ANALYSIS METHODS: EPA/600/R-93-116 &
 EPA/600/M4-82-020

NVLAP LAB ID #: 101977-0
MATRIX: Bulk

LOCATION: 459 Blinn St.
 Akron, OH 44310

Sample Date: 08/09/19
Analysis Date: 08/13/19
ACM PROJECT #: 30044

CLIENT SAMPLE #	LAB SAMPLE #	SAMPLE IDENTIFICATION	ASBEST	CELL	NON FIB NON ACBM	FIB NON ACBM
459-1A	1907855	WALL PLASTER-DINING ROOM	----	----	100%	----
459-1B	1907856	WALL PLASTER-BATH	----	----	100%	----
459-1C	1907857	WALL PLASTER-KITCHEN	----	----	100%	----
459-1D	1907858	WALL PLASTER-BEDROOM	----	----	100%	----
459-1E	1907859	WALL PLASTER-BEDROOM	----	----	100%	----
459-2A	1907860	DRYWALL-DINING ROOM	----	10%	90%	----
459-2A	1907860A	MUD-DINING ROOM	----	----	100%	----
459-2B	1907861	DRYWALL-BATH	----	10%	90%	----
459-2B	1907861A	MUD-BATH	----	----	100%	----
459-2C	1907862	DRYWALL-DINING ROOM	----	10%	90%	----
459-2C	1907862A	MUD-DINING ROOM	----	----	100%	----

ACM RECOMMENDS POINT COUNTING ANALYSIS ON ALL BULK SAMPLES WITH LESS THAN 10% (<10%) ASBESTOS CONTENT.

Microscopist: Larry Malon

Title: Laboratory Director

Date: 08/13/19

Printed Name: Larry Malon

APPENDIX C

Site Sketch

459 BLINN ST.

