



Adelaide Environmental Health Associates, Inc.

**COMPREHENSIVE SURVEY FOR ASBESTOS CONTAINING
MATERIALS**

PERFORMED AT:

**Building 11
Veterans Affairs Medical Center
1970 Roanoke Blvd
Salem, Virginia 24153
Adelaide Project No. VAMC: 10079.00-IN**

PREPARED FOR:

**Department of Veterans Affairs
Veterans Affairs Medical Center
1970 Roanoke Blvd
Salem, Virginia 24153**

PREPARED BY:

**Adelaide Environmental Health Associates, Inc.
1511 Route 22, Suite C24
Brewster, New York 10509**

DATED:

June 28, 2010

Submitted by:

**Stephanie A. Soter
President**

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TABLE OF CONTENTS

1.0	Background/Purpose	1
2.0	Executive Summary of Inspection Results	1
3.0	Asbestos Field Procedures and Analysis Methodology	3
3.1	Inspection	3
3.2	Sampling	3
3.3	Analysis	4
4.0	Conclusions and Recommendations	5
5.0	Areas not Accessible	5
6.0	Report Certifications	5

APPENDICES

Tabular List of Positive Materials by Room	Appendix A
Asbestos Report Form	Appendix B
Asbestos Analytical Results and Chain of Custody Forms	Appendix C
Sample Location Map and Photos	Appendix D
Personnel and Laboratory Certifications	Appendix E

1.0 BACKGROUND/PURPOSE

Adelaide Environmental Health Associates, Inc. (Adelaide) was retained by The Department of Veterans Affairs Medical Center to conduct a comprehensive asbestos containing material (ACM) survey at the VA Medical Center (VAMC) in Salem, Virginia. This survey was based on the terms and conditions of Adelaide's proposal: VA-246-10-RQ-0293, dated April 19th, 2010. The survey was performed to meet the needs of the VAMC to have a room by room inspection of each building owned and operated by the facility, so it can be determined which rooms are asbestos free and which rooms have ACM. All interior and exterior accessible spaces were inspected for the presence of friable and non-friable ACM. Inspection activities conform to the requirements of the Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763), OSHA, all other state, local and VA requirements. Adelaide met with Cary Schiltz, the VAMC Industrial Hygienist, and discussed building history; reviewed asbestos abatement projects and the most recent asbestos survey performed in the facility. This asbestos inspection report provided by the VAMC contained limited sample results for each building at the Salem VAMC. Adelaide was able to utilize this report to reduce the amount of redundant sampling but also to allow a thorough room by room three (3) year AHERA asbestos survey, as required by VAMC. Additional sampling was performed in areas in order to provide the VAMC with the most up to date comprehensive survey of each building on the property. The asbestos survey was performed from June 7 – 14, 2010 by Adelaide representative Robert See (certified asbestos inspector).

2.0 EXECUTIVE SUMMARY OF INSPECTION RESULTS

Building 11 is located on the VAMC campus located at 1970 Roanoke Blvd, Salem, Virginia 24153. It is a two story structure with a basement and attic, constructed of brick and built circa 1938. Following the scope of work that was provided from the VAMC, Adelaide inspected all accessible areas of Building 11. Adelaide collected fifty-four (54) asbestos samples from the above-mentioned areas. Based on the results of Adelaide's asbestos survey and the limited survey and sample results provided by the facility, the following building materials were found to contain asbestos and are represented in the following Table 2.0 – Summary of Asbestos Containing Materials. All materials which tested negative for asbestos can be found in the Negative Material List. Refer to Appendix A for the asbestos sample report form, which assesses the condition of each ACM as found at the time of this survey.

Table 2.0 - Summary of Asbestos Containing Materials

Material	Approximate Quantity	Locations Of Material	Asbestos Content and Type
Samples Taken by Adelaide Environmental			
Basement Floor			
12x12 Floor Tile Cream with Multi Color Streaks	1,580 SF	Rooms 1A,B,4,4A,10,10A,B,C,D,E	2% Chrysotile
12x12 Floor Tile with Light Brown Spots	2,102 SF	Rooms 2,3	Homogenized with Building 8 3% Chrysotile
12x12 Floor Tile Known Positive White with Gray and Brown Streaks	1,714 SF	Rooms 9,17,18	Positive Per Box Found Marked Contains Asbestos
12x12 Floor Tile Cream with Brown Streaks	2,085 SF	Rooms 13,13A,B,C,D,E,F,G,H,	2% Chrysotile
9x9 Floor Tile Rose with White Streaks	69 SF	Room 11	2% Chrysotile
Black Mastic	10,478 SF	Rooms 1,1A,B,C,2,3,4,4A,C,6,6A,B,7,7A,B,C,9, 10,10A,B,C,D,E,11,11A,B,C,D,13,13A,B,C,D, E,F,G,H,17,18	7% Chrysotile
First Floor			
9x9 Floor Tile Dark Brown	118 SF	Rooms 101G,102,123	Homogenized with Building 8 5% Chrysotile
Black Mastic	9,810 SF	Rooms 101,101A,B,D,G,102,109,109A,B,C,D,E,F,110, 111A,112,113,113A,115,116,116A,B,C,D,E,118, 120,120A,B,C,D,E,F,G,121,122,122A,123,124, 124A,125,126,127,128,128A,129,	7% Chrysotile
Black Tar on Drip Pan		Rooms 101D	10% Chrysotile

Second Floor			
9x9 Floor Tile Dark Brown	59 SF	Rooms 201G,224	Homogenized with Building 8 5% Chrysotile
Black Mastic	8,786 SF	Rooms 201A,B,C,E,F,G,202,203,204,204A,207,209,209A,B,C,D,E,F,G,H,210,212,213,214,214A,216,217,217A,B,C,219,221,221A,B,C,D,E,F,G,222,223A,225,226,227,228,228A	7% Chrysotile
Black Tar on Drip Pan	1	Rooms 205	10% Chrysotile
Exterior			
Window Caulk Greenish Brown	All Windows	Exterior	Homogenized with Building 8 3% Chrysotile
Door Caulk Greenish White	All Doors	Exterior	Homogenized with Building 8 3% Chrysotile
Samples Taken by ALS			
Basement			
TSI Pipe	50 LF	Rooms 11E,F	3-10% Chrysotile
First Floor			
TSI Elbows	19	Rooms 106B	35% Chrysotile
TSI Pipe	64 LF	Rooms 106B,113	3-10% Chrysotile
Second Floor			
TSI Pipe	15 LF	Rooms 206B	3-10% Chrysotile

Based on our field observations, asbestos containing pipe insulation may be present within walls, above plaster ceilings and inside enclosed pipe chases.

Positive Homogenous Material List

The following is a list of the homogenous areas that tested positive during this inspection:

- #1 – 12x12 Floor Tile Cream with Multi Colored Streaks
- #2 – Mastic Layer Black under 12x12 Cream with Multi Colored Streaks, 12x12 Cream with Brown Streaks, 12x12 Cream with Light Brown Spots, 12x12 Black, 12x12 Cream with Gray Spots, 12x12 Off White with Gray Mottles, 12x12 Cream with Tan and Brown Streaks, 12x12 White with Gray and Brown Streaks, 9x9 Dark Brown, 9x9 Rose with White Streaks Floor Tile.
- #4 – 12x12 Floor Tile with Light Brown Spots (Homogenized with Building 8)
- #6 – Tar on Drip Pan
- #9 – 9x9 Floor Tile Rose with White Streaks
- #18 – 12x12 Floor Tile Cream with Brown Streaks
- #22 – Window Caulk Greenish White (Homogenized with Building 8)
- #23 – Door Caulk Greenish Brown (Homogenized with Building 8)
- #24 – Known Positive Floor Tile White with Gray and Brown Streaks
- #25 – TSI Piping
- #26 – TSI Elbows
- #27 – 9x9 Floor Tile Dark Brown (Homogenized with Building 8)

Negative Material List

The following is a list of the homogeneous areas that tested negative during this inspection:

- Brick Mortar
- Yellow Floor Mastic
- 12x12 Floor Tile Black
- 12x12 Floor Tile Cream with Gray Spots
- 12x12 Floor Tile Off White with Gray Mottles
- 12x12 White with Gray and Brown Streaks
- 4" Black Cove Base
- 4" Black Cove Base Adhesive Beige
- Plaster Ceiling
- Plaster Walls
- Drywall and Joint Compound

3.0 ASBESTOS FIELD PROCEDURES AND ANALYSIS METHODOLOGY

3.1 INSPECTION

Guidelines used for the inspection were established by the U.S. Environmental Protection Agency (EPA) in the Guidance for Controlling Asbestos Containing Materials in Buildings, Office of Pesticides and Toxic Substances, DOC# 560/5-85-024 and 40 CFR Part 763, Asbestos Hazard Emergency Response Act (AHERA). Field information was organized as per the AHERA concept of a homogeneous area (HA); that is, suspect Asbestos Containing Materials (ACM) with similar age, appearance, and texture were grouped together, sampled and assessed for condition.

For the purposes of this inspection, suspect ACM has been placed in three material categories: thermal, surfacing, and miscellaneous.

Surfacing materials are those that are sprayed on, troweled on or otherwise applied to surfaces for fireproofing, acoustical, or decorative purposes (e.g., wall and ceiling plaster).

Thermal materials are those applied to heat pipes or other structural components to prevent heat loss or gain or prevent water condensation (e.g., pipe and fitting insulation, duct insulation, boiler flue).

Miscellaneous materials are interior building materials on structural components, structural members or fixtures, such as floor and ceiling tiles, etc. and do not include surfacing material or thermal system insulation.

3.2 SAMPLING

SURFACING MATERIALS

Surfacing materials were grouped into homogeneous sampling areas. A homogeneous area contains material that is uniform in color and texture and appears identical in every other respect. Materials installed at different times belong to different sampling areas. Homogeneous areas were determined on per floor basis.

The following protocol was used for determining the number of samples to be collected:

- At least three bulk samples were collected from each homogeneous area that is 1,000 square feet or less.
- At least five bulk samples were collected from each homogeneous area that is greater than 1,000 square feet but less than or equal to 5,000 square feet.
- At least seven bulk samples were collected from each homogeneous area that is greater than 5,000 square feet.

THERMAL SYSTEM INSULATION (TSI)

The concept of homogeneous sampling areas applies equally well to thermal insulation as to surfacing material. A "typical" building may contain multiple insulated pipe runs from any combination of the following categories:

- Hot water supply and/or return
- Cold water supply
- Chilled water supply
- Steam supply and/or return
- Roof or system drain

The following protocol was used for determining the number of samples to be collected.

- Collect at least three bulk samples from each homogeneous area of thermal system insulation.
- Collect at least one bulk sample from each homogeneous area of patched thermal system insulation if the patched section is less than 6 linear or square feet.
- In a manner sufficient to determine whether the material is ACM or not ACM, collect a minimum of three bulk samples from each homogeneous insulated mechanical system tee, elbow, and valve.

Bulk samples are not collected from any homogeneous area where the certified inspector has determined that the thermal system insulation is fiberglass, foam glass, or rubber.

MISCELLANEOUS MATERIALS

Miscellaneous materials are grouped into different homogeneous areas and at least two bulk samples are collected from each homogeneous area as per the clarification letter from the EPA and the Professional Abatement Contractors of New York, Inc in November of 2007.

3.3 ANALYSIS

Adelaide utilized AmeriSci laboratory in Richmond, VA for all bulk samples collected. AmeriSci holds accreditation from the National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP). Bulk samples of suspect ACM were analyzed by Polarized Light Microscopy (PLM) with dispersion staining, as described in 40 CFR Part 763 and the National Emissions Standard for Hazardous Air Pollutants (NESHAPS). All NOB samples were analyzed by utilizing PLM methodology.

4.0 CONCLUSIONS AND RECOMMENDATIONS

This survey concluded that the materials listed in Table 2.0 – Summary of Asbestos Containing Materials, tested ***positive for the presence of***.

Asbestos: These areas must be abated prior to building demolition or renovation if they are to be disturbed.

5.0 AREAS NOT ACCESSIBLE

Adelaide Environmental Health Associates inspected and sampled materials which were visible and/or accessible to the survey team. Adelaide does not inspect physically inaccessible areas, such as between walls, above fixed ceilings, under concrete slabs, etc. This report makes no representations as to the content of these areas or materials.

All materials present in those not accessible areas shall be assumed positive until tested.

6.0 REPORT CERTIFICATIONS

Adelaide Environmental Health Associates certifies that the information contained herein is based on the physical and visual inspections conducted by Adelaide and data collected during the inspection survey.

APPENDIX A

TABULAR LIST OF POSITIVE

MATERIALS BY ROOM LISTING

Space #	Homogenous Area	Material Description	Quantity	Condition Response Action
1	2	Black Mastic	83 SF	Unknown/Defer Action/None Required
1A	1	12x12 Floor Tile Cream with Multi Streaks	165 SF	Good/Defer Action/None Required
	2	Black Mastic	165 SF	Unknown/Defer Action/None Required
1B	1	12x12 Floor Tile Cream with Multi Streaks	43 SF	Good/Defer Action/None Required
	2	Black Mastic	43 SF	Unknown/Defer Action/None Required
1C	2	Black Mastic	363 SF	Unknown/Defer Action/None Required
2	4	12x12 Floor Tile with Light Brown Spotting	486 SF	Good/Defer Action/None Required
	2	Black Mastic	486 SF	Unknown/Defer Action/None Required
3	4	12x12 Floor Tile with Light Brown Spotting	1616 SF	Good/Defer Action/None Required
	2	Black Mastic	1616 SF	Unknown/Defer Action/None Required
4	4	12x12 Floor Tile Cream with Multi Streaks	500 SF	Good/Defer Action/None Required
	2	Black Mastic	500 SF	Unknown/Defer Action/None Required
4A	4	12x12 Floor Tile Cream with Multi Streaks	175 SF	Good/Defer Action/None Required
	2	Black Mastic	175 SF	Unknown/Defer Action/None Required

4C	2	Black Mastic	49 SF	Unknown/Defer Action/None Required
6	2	Black Mastic	195 SF	Unknown/Defer Action/None Required
6A	2	Black Mastic	131 SF	Unknown/Defer Action/None Required
6B	2	Black Mastic	114 SF	Unknown/Defer Action/None Required
7	2	Black Mastic	114 SF	Unknown/Defer Action/None Required
7A	2	Black Mastic	393 SF	Unknown/Defer Action/None Required
7B	2	Black Mastic	114 SF	Unknown/Defer Action/None Required
7C	2	Black Mastic	131 SF	Unknown/Defer Action/None Required
9	24	Known Positive Floor Tile 12x12 White with Gray and Brown Streaks	221 SF	Good/Defer Action/None Required
	2	Black Mastic	221 SF	Unknown/Defer Action/None Required
10	1	12x12 Floor Tile Cream with Multi Streaks	105 SF	Good/Defer Action/None Required
	2	Black Mastic	105 SF	Unknown/Defer Action/None Required
10A	1	12x12 Floor Tile Cream with Multi Streaks	116 SF	Good/Defer Action/None Required
	2	Black Mastic	116 SF	Unknown/Defer Action/None Required
10B	1	12x12 Floor Tile Cream with Multi Streaks	115 SF	Good/Defer Action/None Required
	2	Black Mastic	115 SF	Unknown/Defer Action/None Required

10C	1	12x12 Floor Tile Cream with Multi Streaks	126 SF	Good/Defer Action/None Required
	2	Black Mastic	126 SF	Unknown/Defer Action/None Required
10D	1	12x12 Floor Tile Cream with Multi Streaks	115 SF	Good/Defer Action/None Required
	2	Black Mastic	115 SF	Unknown/Defer Action/None Required
10E	1	12x12 Floor Tile Cream with Multi Streaks	120 SF	Good/Defer Action/None Required
	2	Black Mastic	120 SF	Unknown/Defer Action/None Required
11	9	9x9 Floor Tile Rose with White Streaks	69 SF	Good/Defer Action/None Required
	2	Black Mastic	69 SF	Unknown/Defer Action/None Required
11A	2	Black Mastic	101 SF	Unknown/Defer Action/None Required
11B	2	Black Mastic	122 SF	Unknown/Defer Action/None Required
11C	2	Black Mastic	111 SF	Unknown/Defer Action/None Required
11D	2	Black Mastic	135 SF	Unknown/Defer Action/None Required
11E	25	TSI Pipe	25 LF	Good/Defer Action/None Required
11F	25	TSI Pipe	25 LF	Good/Defer Action/None Required
13	18	12x12 Floor Tile Cream with Brown Streak	580 SF	Good/Defer Action/None Required
	2	Black Mastic	580 SF	Unknown/Defer Action/None Required

13A	18	12x12 Floor Tile Cream with Brown Streak	292 SF	Good/Defer Action/None Required
	2	Black Mastic	292 SF	Unknown/Defer Action/None Required
13B	18	12x12 Floor Tile Cream with Brown Streak	263 SF	Good/Defer Action/None Required
	2	Black Mastic	263 SF	Unknown/Defer Action/None Required
13C	18	12x12 Floor Tile Cream with Brown Streak	119 SF	Good/Defer Action/None Required
	2	Black Mastic	119 SF	Unknown/Defer Action/None Required
13D	18	12x12 Floor Tile Cream with Brown Streak	131 SF	Good/Defer Action/None Required
	2	Black Mastic	131 SF	Unknown/Defer Action/None Required
13E	18	12x12 Floor Tile Cream with Brown Streak	126 SF	Good/Defer Action/None Required
	2	Black Mastic	126 SF	Unknown/Defer Action/None Required
13F	18	12x12 Floor Tile Cream with Brown Streak	259 SF	Good/Defer Action/None Required
	2	Black Mastic	259 SF	Unknown/Defer Action/None Required
13G	18	12x12 Floor Tile Cream with Brown Streak	184 SF	Good/Defer Action/None Required
	2	Black Mastic	184 SF	Unknown/Defer Action/None Required
13H	18	12x12 Floor Tile Cream with Brown Streak	131 SF	Good/Defer Action/None Required
	2	Black Mastic	131SF	Unknown/Defer Action/None Required

16	2	Black Mastic	772 SF	Unknown/Defer Action/None Required
17	24	Known Positive Floor Tile 12x12 White with Gray and Brown Streaks	743 SF	Good/Defer Action/None Required
	2	Black Mastic	743 SF	Unknown/Defer Action/None Required
18	24	Known Positive Floor Tile 12x12 White with Gray and Brown Streaks	750 SF	Good/Defer Action/None Required
	2	Black Mastic	750 SF	Unknown/Defer Action/None Required
101	2	Black Mastic	68 SF	Unknown/Defer Action/None Required
101A	2	Black Mastic	165 SF	Unknown/Defer Action/None Required
101B	2	Black Mastic	103 SF	Unknown/Defer Action/None Required
101D	2	Black Mastic	136 SF	Unknown/Defer Action/None Required
	6	Drip Pan with Black Tar	1	Good/Defer Action/None Required
101G	27	9x9 Floor Tile Dark Brown Homogenized with Building 8	26 SF	Good/Defer Action/None Required
	2	Black Mastic	26 SF	Unknown/Defer Action/None Required
102	27	9x9 Floor Tile Dark Brown Homogenized with Building 8	60 SF	Good/Defer Action/None Required
	2	Black Mastic	60 SF	Unknown/Defer Action/None Required
102 A	2	Black Mastic	97 SF	Unknown/Defer Action/None Required
103	2	Black Mastic	200 SF	Unknown/Defer Action/None Required