Limited Asbestos-Containing Materials Inspection 1504-1508 Broadway Street Ann Arbor, Michigan

Ann Arbor Housing Commission

November 11, 2013

ASTI Environmental





Limited Asbestos-Containing Materials Inspection 1504-1508 Broadway Street Ann Arbor, Michigan

November 11, 2013

Prepared For:

Ann Arbor Housing Commission 404 North Ashley Ann Arbor, Michigan, 48103

Prepared By:

ASTI Environmental 10448 Citation Drive, Suite 100 Brighton, Michigan 48116 1-800-395-ASTI

ASTI Project 8563

Report Prepared by:

Kevin Ushery

Asbestos Inspector No. A34315

Report Reviewed by:

Robert C. Anderson P.G.

Director - Site Redevelopment Services



TABLE OF CONTENTS

Executive Summary	iii
1.0 Introduction	1
2.0 LIMITATIONS AND EXCEPTIONS3.0 PROPERTY DESCRIPTION	2 3
4.0 Asbestos-Containing Materials Inspection	4
4.1 Previous Asbestos-Containing Materials Inspections	4
4.2 Asbestos Inspection Methodology	4
4.3 Sample Collection	4
4.4 Laboratory Analytical Results	5
5.0 Conclusions and Recommendations	6
<u>Appendices</u>	
A Site Location Map	
B Resume and Accreditation of Kevin Ushery	
C Results of Sample Analysis and Chain-of-Custody Document D Asbestos Sample Table	



Executive Summary

ASTI Environmental (ASTI) was retained by Ann Arbor Housing Commission to conduct a limited asbestos-containing materials inspection of apartment units at 1506-1508 Broadway Street, Ann Arbor, Washtenaw County, Michigan (Property). The information and opinions rendered in this report are for reliance by Ann Arbor Housing Commission. ASTI will not distribute or publish this report without the consent of Ann Arbor Housing Commission, except as required by law or court order. The services provided by ASTI in completing this assessment have been provided in a manner consistent with the normal standards of the profession. No other warranties, expressed or implied, are made.

ASTI's scope of work included sampling of suspect homogeneous ACMs in general conformance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 61 Subpart M and ASTME2356-10 Standard Practice for Comprehensive Building Asbestos Surveys. No destructive or intrusive sampling was conducted.

Based on the ACM inspection conducted by ASTI on October 15th and 16th, 2013, no ACMs were identified on the Property.



1.0 Introduction

ASTI Environmental (ASTI) was retained by Ann Arbor Housing Commission to conduct an asbestos-containing materials inspection of the apartment units at 1506-1508 Broadway Street, Ann Arbor, Michigan (Property). The inspection was performed for the benefit of Ann Arbor Housing Commission and ASTI acknowledges that only said party may rely on the contents and conclusions presented in this report.



2.0 LIMITATIONS AND EXCEPTIONS

ASTI's scope of services did not include destructive or intrusive testing of interstitial spaces, such as wall cavities, between buildings floors/sealed ceiling spaces, confined spaces, and fire doors. ASTI's scope of work included inspection of all units at the Property. Any suspect materials not sampled should be presumed to be asbestos-containing materials (ACMs). Suspect materials not identified within this report may be encountered in inaccessible cavities, chases, floor cavities, etc. during renovation activities. These materials must be presumed ACM until they can be sampled and analyzed for asbestos content.



3.0 PROPERTY DESCRIPTION

The Property is a residential apartment complex comprised of three buildings with a total of twenty apartment units. The buildings were constructed of wood frame with brick exterior and asphalt roofing. City of Ann Arbor online assessing records were reviewed for the property, however no building descriptions or date of construction were listed. A site location map is provided as Appendix A.



4.0 ASBESTOS-CONTAINING MATERIALS INSPECTION

Kevin Ushery of ASTI's Site Redevelopment Services (Asbestos Inspector No: A34315) conducted the inspection of the subject buildings for suspect ACMs on October 15th and 16th, 2013. Access was provided by Ann Arbor Housing Commission maintenance staff. Mr. Ushery inspected all accessible areas of the buildings. A copy of Mr. Ushery's resume and asbestos inspection certification are provided as Appendix B.

4.1 Previous Asbestos-Containing Materials Inspections

ASTI is unaware of any previous ACM inspections.

4.2 Asbestos Inspection Methodology

The ACM inspection was done in accordance with the National Emissions Standards for Hazardous Air Pollutants (NESHAP) requirements and ASTME2356-10 Standard Practice for Comprehensive Building Asbestos Surveys. NESHAP defines ACM as a material containing greater than one percent asbestos. The survey included a visual inspection of the building, identifying homogeneous areas of suspect surfacing materials, thermal system insulation (TSI), and miscellaneous materials, and the sampling of suspect friable and non-friable materials. ASTI's scope of services did not include destructive or intrusive testing of interstitial spaces, such as wall cavities, between buildings floors/sealed ceiling spaces, and confined spaces.

4.3 Sample Collection

Samples were collected by physically removing a small piece of suspect material and placing it in a marked plastic bag corresponding to field notes. Samples were collected using wet methods as appropriate and the sample collection tool was cleaned prior to each use to avoid cross contamination of samples. The materials that were sampled by ASTI are as follows.

- Drywall and joint compound
- Plaster & mortar
- Floor tile and associated mastics
- Stuccos
- Base cove and associated adhesive



The suspect ACMs appeared to be in generally good condition during ASTI's inspection. ASTI collected 76 bulk samples from the types of suspect ACMs that are listed above.

The bulk samples were transmitted under chain-of-custody protocol to APEX Research, Inc. in Whitmore Lake, Michigan for asbestos analysis using polarized light microscopy with dispersion staining (PLM/DS) in accordance with the US Environmental Protection Agency's (US EPA's) "Interim Method for the Determination of Asbestos in Material Insulation Samples" (EPA-600/M4-82-020, December 1982). Positive samples containing less than 10 percent asbestos were additionally analyzed using the point count method for accurate percentage of asbestos contained in the sampled material.

4.4 Laboratory Analytical Results

The analytical results did not identify any ACMs.

A copy of the Certificate of Laboratory Analysis is included as Appendix C. A comprehensive list of sampled materials with analytical results is provided as Appendix D.



5.0 CONCLUSIONS AND RECOMMENDATIONS

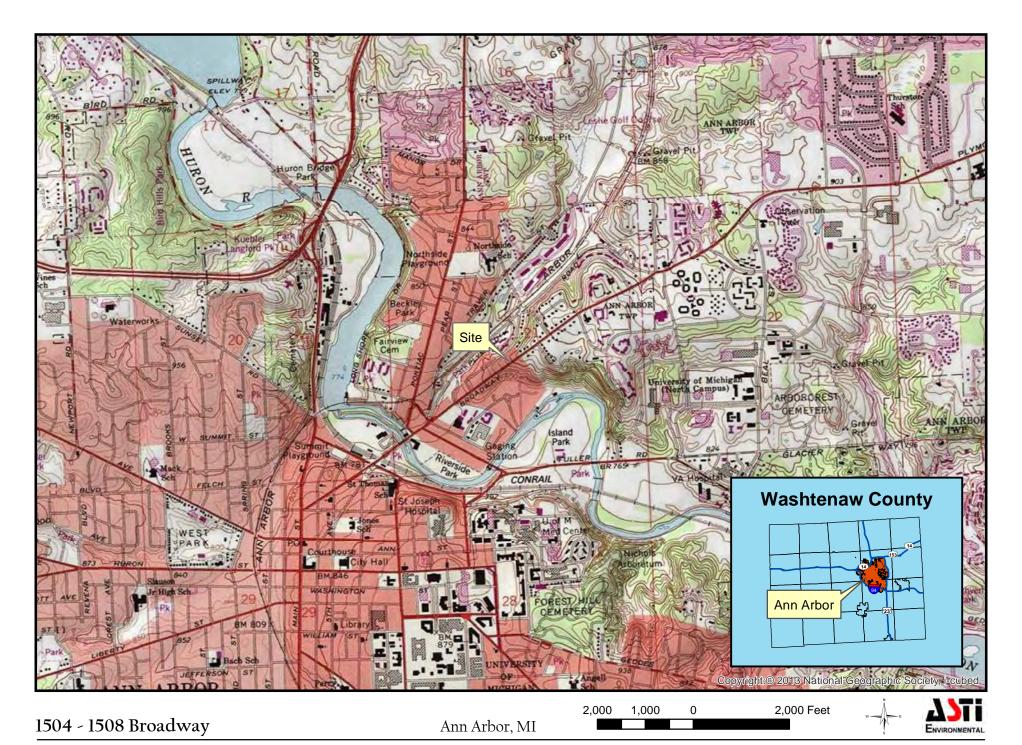
Based on the results of the ACM inspection completed on the Property no materials were identified as ACM.



Attachment A

Site Location Map





Created for: Ann Arbor Housing Commission Created by: LJD, November 26, 2013, ASTI Project 8563

Attachment B

Resume and Accreditation of Kevin Ushery



RESUME

ASTI ENVIRONMENTAL



KEVIN USHERY Environmental Scientist

PROFILE

Certifications/Training

OSHA Confined Space Entry Training - November 13, 2006

State of Michigan Licensed Lead-based Paint Inspector and Risk Assessor, P-03409, March, 2010

State of Michigan Asbestos Inspector Certification #A34315 – 2010

State of Michigan Asbestos Management Planner Certification #A34315 - 2009

State of Michigan Asbestos Contractor/Supervisor #A34315 – 2010

State of Ohio Asbestos Hazard Evaluation Specialist Certification #ES35016 – September 2010

State of Ohio Asbestos Hazard Abatement Air Monitoring Technician #AM 70566 - December 2010

American Petroleum Institute Service Station Contractor Safety Certification #54836643 - February 2009

Education

University of Phoenix, BS Business Management, 2005

Experience History

Abatement Marketing, EME Inc, Livonia, MI 2002 – 2004
Technician/Associate, EKS services, Detroit, MI, 2004 – 2005
Environmental Scientist, Traverse Group, Detroit, MI, 2005 – 2006
Environmental Scientist, TTL Associates, Inc., Plymouth, MI, 2006 – 2009
Technician/Associate, ASTI Environmental, Brighton, MI, 2009 – present

Professional Background

Mr. Ushery has provided environmental services for industrial, commercial, and private clients since 2002. His focus has been Lead Hazard Assessments, including Lead-based Paint Inspections and Risk Assessments per HUD and EPA requirements. He has also developed extensive experience in asbestos inspections and asbestos management. Specific tasks for this type of work include developing and implementing site sampling plans, sampling environmental media, site inspections, and preparing reports.

Years Experience: 6 years – Other Firms

3 years - ASTI ENVIRONMENTAL



PROJECT EXPERIENCE

Asbestos Inspections

Conducted numerous asbestos inspections for residential commercial and industrial properties to determine whether ACMs were present and required remediation. Asbestos inspections have been performed in Michigan, Ohio, Tennessee, Indiana, Missouri and Kentucky.

Confined Space Entry, Asbestos Inspection

Conducted air monitoring testing for entry into tunnels below Blowing Green University in order to establish safe conditions for inspections for the presence of ACM.

Mold Sampling and Remediation

Indoor air quality sampling and remediation of Mold, in residential and commercial industries. Air sampling has been performed in Michigan.

Indoor Air Quality Sampling

Indoor air quality sampling for Asbestos, Lead and Mold, in residential and commercial buildings. Air quality sampling projects were performed in Michigan, Ohio, Indiana and Kentucky.

Lead-based Paint Clearance Reports, Redford

Conducted clearance testing in accordance with State of Michigan *Lead Control Rules* for township. Clearance sampling established that abatement contractor's work met EPA standards.

<u>Lead-based Paint Inspection, Apartment Leasing Office, East Lansing</u>

Conducted surface-by-surface testing for lead-based paint using a Niton XLp 300A x-ray fluorescence instrument in accordance with HUD and EPA protocols. Determined that no lead-based paint was present.

Lead-based Paint Inspection, Apartments, Detroit
Developed subsampling plan in accordance with
HUD guidelines for 432 apartments. Conducted
surface-by-surface testing for lead-based paint using
a Niton XLp 300A x-ray fluorescence instrument in

accordance with HUD and EPA protocols. Provided report with results for more than 2,000 paint tests.

Lead-based Paint Clearance Reports, Ionia
Conducted clearance testing in accordance with
State of Michigan Lead Control Rules for Ionia
Housing Commission. Clearance sampling
established that abatement contractor's work met
EPA standards.

Lead-based Paint Inspections

and Risk Assessments, Residences in Lincoln Park
Project manager for a program of rapid assessment
of 36 homes for NSP program. Conducted surfaceby-surface testing for lead-based paint using a Niton
XLp 300A x-ray fluorescence instrument in
accordance with HUD and EPA protocols.
Conducted dust wipe and soil sampling and
documented paint condition and building condition
as part of risk determination. Conducted asbestos
inspection and sampling for same homes.

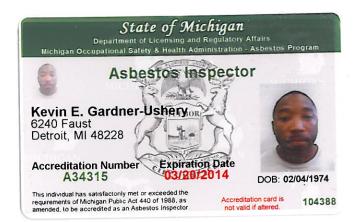
Lead-based Paint Inspections

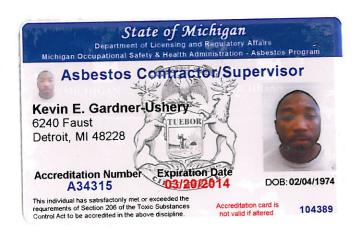
and Risk Assessments, Two Residences in Detroit Conducted surface-by-surface testing for lead-based paint using a Niton XLp 300A x-ray fluorescence instrument in accordance with HUD and EPA protocols. Conducted dust wipe and soil sampling and documented paint condition and building condition as part of risk determination. Provided report with results for two residences.

<u>Lead-based Paint Inspections, Residences in</u> Redford

Project manager for a program of rapid assessment of 4 homes for NSP program. Conducted surface-by-surface testing for lead-based paint using a Niton XLp 300A x-ray fluorescence instrument in accordance with HUD and EPA protocols. Conducted dust wipe and soil sampling and documented paint condition and building condition as part of risk determination. Provided report with results for more than 1,200 paint tests.







Attachment C

Results of Sample Analysis and Chain-of-Custody Document





Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery ASTI Environmental 10448 Citation Dr. Brighton, MI 48116 ARI Report # 13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Lab ID #: 48368 - 01 Cust. #: HA-01-A

Material: Vinyl Floor 12x12 Location: Kitchen 1504-Apt 2

Appearance: white, fibrous, nonhomogenous

Asbestos Present: NO

No Asbestos Observed

Cellulose - 10%

Fiberglass - 10% Other - 80%

Layer: 1 of 1

Lab ID #: 48368 - 02

Cust. #: HA-01-B

Material: Vinyl Floor 12x12 Location: Kitchen 1504-Apt-4

Appearance: white, fibrous, nonhomogenous

Layer: 1 of 1

Asbestos Present: NO

No Asbestos Observed

Cellulose - 10%

Fiberglass - 10%

Other - 80%

Lab ID #: 48368 - 03

Cust. #: HA-01-C Material: Vinyl Floor 12x12

Location: Kitchen 1506-Apt-2

Appearance: white, fibrous, nonhomogenous

Layer: 1 of 1

Asbestos Present: NO

No Asbestos Observed

Cellulose - 10%

Fiberglass - 10%

Other - 80%

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report # 13-48368

Date Collected: 10/23/13 Date Received: 10/24/13 Date Analyzed: 10/25/13

Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Lab ID #: 48368 - 04 Cust. #: HA-01-D

Material: Vinyl Floor 12x12 Location: Kitchen 1506-Apt-5

Appearance: white, fibrous, nonhomogenous

Layer: 1 of 1

Asbestos Present: NO

No Asbestos Observed

Cellulose - 10%

Fiberglass - 10% Other - 80%

Lab ID #: 48368 - 05

Cust. #: HA-01-E

Material: Vinyl Floor 12x12 Location: Kitchen 1508-Apt-7

Appearance: white, fibrous, nonhomogenous

Asbestos Present: **NO**

No Asbestos Observed

Cellulose - 10%

Fiberglass - 10%

Other - 80%

Layer: 1 of 1

Lab ID #: 48368 - 06 Cust. #: HA-01-F

Material: Vinyl Floor 12x12

Location: Kitchen 1508-Apt-5

Appearance: white, fibrous, nonhomogenous

Layer: 1 of 1

Asbestos Present: NO

No Asbestos Observed

Cellulose - 10%

Fiberglass - 10%

Other - 80%

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report #

13-48368 Date Collected: 10/23/13

Date Received: 10/24/13 Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Lab ID #: 48368 - 07

Cust. #: HA-01-G

Material: Vinyl Floor 12x12 Location: Kitchen 1508-Apt-2

Appearance: white, fibrous, nonhomogenous

Layer: 1 of 1

Asbestos Present: NO No Asbestos Observed

Cellulose - 10% Fiberglass - 10%

Other - 80%

Other - 100%

Lab ID #: 48368 - 08

Cust. #: HA-02-A

Material: Drywall/Plaster

Location: 1504-Apt-2 - Throughout

Appearance: white, nonfibrous, homogenous

Layer: 1 of 2

Asbestos Present: **NO**

No Asbestos Observed

Asbestos Present: NO No Asbestos Observed

Hair - 2% Other - 98%

Cust. #: HA-02-A

Material: Mortar

Lab ID #: 48368 - 08a

Location: 1504-Apt-2 - Throughout Appearance: grey,fibrous,homogenous

Layer: 2 of 2

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery ASTI Environmental 10448 Citation Dr. Brighton, MI 48116 ARI Report # 13-48368

Date Collected: 10/23/13 Date Received: 10/24/13 Date Analyzed: 10/25/13

Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos

Other - 100%

Lab ID #: 48368 - 09

Cust. #: HA-02-B

Material: Drywall/Plaster

Location: 1504-Apt-4 - Throughout

Appearance: white, nonfibrous, homogenous

Layer: 1 of 2

Asbestos Present: NO

Hair - 2%

Lab ID #: 48368 - 09a Cust. #: HA-02-B

Material: Mortar

No Asbestos Observed

Other - 98%

Other - 100%

Location: 1504-Apt-4 - Throughout Appearance: grey,fibrous,homogenous

Layer: 2 of 2

Lab ID #: 48368 - 10

Asbestos Present: NO

Cust. #: HA-02-C

: 1 D 11/D1 4

No Asbestos Observed

Material: Drywall/Plaster

Location: 1506-Apt-2 - Throughout

Appearance: white, nonfibrous, homogenous

Layer: 1 of 2

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report # 13-48368

Date Collected: 10/23/13 Date Received: 10/24/13 Date Analyzed: 10/25/13

Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Lab ID #: 48368 - 10a

Cust. #: HA-02-C Material: Mortar

Location: 1506-Apt-2 - Throughout

Appearance: grey,nonfibrous,homogenous

Layer: 2 of 2

Asbestos Present: NO No Asbestos Observed

Asbestos Present: **NO**

No Asbestos Observed

Other - 100%

Lab ID #: 48368 - 11

Cust. #: HA-02-D

Material: Drywall/Plaster

Location: 1506-Apt-5 - Throughout

Appearance: white, nonfibrous, homogenous

Layer: 1 of 2

Asbestos Present: NO

No Asbestos Observed

Cellulose - 1% Other - 99%

Other - 100%

Cust. #: HA-02-D Material: Mortar

Lab ID #: 48368 - 11a

Location: 1506-Apt-5 - Throughout

Appearance: grey,nonfibrous,homogenous

Layer: 2 of 2

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report #

13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13

Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos

Other - 100%

Lab ID #: 48368 - 12

Cust. #: HA-02-E

Material: Drywall/Plaster

Location: 1508-Apt-7 - Throughout

Appearance: white, nonfibrous, homogenous

Layer: 1 of 3

No Asbestos Observed

Asbestos Present: **NO**

Other - 100%

Lab ID #: 48368 - 12a Cust. #: HA-02-E

Material: Plaster

Location: 1508-Apt-7 - Throughout

Appearance: white, nonfibrous, homogenous

Layer: 2 of 3

Lab ID #: 48368 - 12b

Cust. #: HA-02-E

Material: Mortar

Location: 1508-Apt-7 - Throughout Appearance: grey,fibrous,homogenous

Layer: 3 of 3

Asbestos Present: NO

Cellulose - 1%

No Asbestos Observed

Other - 99%

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report #

13-48368

Date Collected: 10/23/13

Date Received: 10/24/13

Date Analyzed: 10/25/13

Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos

Other - 100%

Lab ID #: 48368 - 13

Cust. #: HA-02-F

Material: Plaster

Location: 1508-Apt-5 - Throughout

Appearance: white, nonfibrous, homogenous

Layer: 1 of 2

Asbestos Present: **NO**

No Asbestos Observed

Cellulose - 1%

Lab ID #: 48368 - 13a Cust. #: HA-02-F

Material: Mortar

Location: 1508-Apt-5 - Throughout

Appearance: grey,nonfibrous,homogenous

Layer: 2 of 2

Asbestos Present: NO

No Asbestos Observed

Other - 100%

Other - 99%

Lab ID #: 48368 - 14 Cust. #: HA-02-G

Material: Plaster

Location: 1508-Apt-2 - Throughout

Appearance: white, nonfibrous, homogenous

Layer: 1 of 2

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report #

13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13

Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Lab ID #: 48368 - 14a Cust. #: HA-02-G

Material: Mortar

Location: 1508-Apt-2 - Throughout

Appearance: grey,nonfibrous,homogenous

Layer: 2 of 2

Asbestos Present: NO No Asbestos Observed

Asbestos Present: **NO**

No Asbestos Observed

Cellulose - 1%

Cellulose - 100%

Other - 99%

Lab ID #: 48368 - 15

Cust. #: HA-03-A

Material: Floor Tile 12x12 - Brown

Location: Closet 1504-Apt-2

Appearance: brown, nonfibrous, homogenous

Layer: 1 of 2

Asbestos Present: NO

Cellulose - 1%

Cust. #: HA-03-A Material: Mastic

Lab ID #: 48368 - 15a

Location: Closet 1504-Apt-2

Appearance: black,nonfibrous,homogenous

Layer: 2 of 2

No Asbestos Observed

Other - 99%

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery ASTI Environmental 10448 Citation Dr. Brighton, MI 48116 ARI Report # 13-

13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13

Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Lab ID #: 48368 - 16

Cust. #: HA-03-B

Material: Floor Tile 12x12 - Brown Location: Closet 1504-Apt-4

Appearance: brown,nonfibrous,homogenous

Layer: 1 of 2

Asbestos Present: NO

Other - 100%

Other - 100%

Other - 100%

Lab ID #: 48368 - 16a

Cust. #: HA-03-B

Material: Mastic

Location: Closet 1504-Apt-4

Appearance: yellow,nonfibrous,homogenous

Layer: 2 of 2

Lab ID #: 48368 - 17

Cust. #: HA-03-C

Material: Floor Tile 12x12 - Brown

Location: Closet 1506-Apt-2

Appearance: brown,nonfibrous,homogenous

Layer: 1 of 2

No Asbestos Observed

Asbestos Present: **NO**

No Asbestos Observed

Asbestos Present: NO

No Asbestos Observed

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report #

13-48368 Date Collected: 10/23/13

Date Received: 10/24/13 Date Analyzed: 10/25/13

Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos

Other - 100%

Lab ID #: 48368 - 17a Cust. #: HA-03-C

Material: Mastic

Location: Closet 1506-Apt-2

Appearance: yellow,nonfibrous,homogenous

Layer: 2 of 2

Asbestos Present: **NO**

No Asbestos Observed

Other - 100%

Lab ID #: 48368 - 18 Cust. #: HA-03-D

Material: Floor Tile 12x12 - Brown

Location: Closet 1506-Apt-5

Appearance: brown,nonfibrous,homogenous

Layer: 1 of 2

Lab ID #: 48368 - 18a Cust. #: HA-03-D

Material: Mastic

Location: Closet 1506-Apt-5

Appearance: black,nonfibrous,homogenous

Layer: 2 of 2

Asbestos Present: NO

No Asbestos Observed

Cellulose - 1%

Other - 99%

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery ASTI Environmental 10448 Citation Dr. Brighton, MI 48116 ARI Report # 13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Other - 100%

Other - 100%

Lab ID #: 48368 - 19

Cust. #: HA-03-E

Material: 12x12 Floor Tile - Brown Location: Closet 1508-Apt-7

Appearance: brown,nonfibrous,homogenous

Layer: 1 of 2

Asbestos Present: NO

Other - 100%

Lab ID #: 48368 - 19a

Cust. #: HA-03-E

Material: Mastic

Location: Closet 1508-Apt-7

Appearance: yellow,nonfibrous,homogenous

Layer: 2 of 2

Lab ID #: 48368 - 20

Cust. #: HA-03-F

Material: 12x12 Floor Tile - Brown

Location: Closet 1508-Apt-6

Appearance: brown,nonfibrous,homogenous

Layer: 1 of 2

No Asbestos Observed

Asbestos Present: **NO**

No Asbestos Observed

Asbestos Present: NO

No Asbestos Observed

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report # 13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Lab ID #: 48368 - 20a

Cust. #: HA-03-F Material: Mastic

Location: Closet 1508-Apt-6

Appearance: yellow,nonfibrous,homogenous

Layer: 2 of 2

Asbestos Present: NO No Asbestos Observed

Other - 100%

Other - 100%

Other - 100%

Lab ID #: 48368 - 21

Cust. #: HA-03-G

Material: 12x12 Floor Tile - Brown

Location: Closet 1500-Apt-2

Appearance: brown,nonfibrous,homogenous

Layer: 1 of 2

Asbestos Present: **NO**

No Asbestos Observed

Lab ID #: 48368 - 21a Cust. #: HA-03-G Material: Mastic

Location: Closet 1500-Apt-2

Appearance: yellow,nonfibrous,homogenous

Layer: 2 of 2

Asbestos Present: NO

No Asbestos Observed

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report #

13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Other - 100%

Lab ID #: 48368 - 22

Cust. #: HA-04-A

Material: Brown Covebase Location: Kitchen 1504-Apt-4

Appearance: brown,nonfibrous,homogenous

Layer: 1 of 1

Lab ID #: 48368 - 23

Cust. #: HA-04-B

Material: Brown Covebase Location: Kitchen 1506-Apt-2

Appearance: brown, nonfibrous, homogenous

Layer: 1 of 1

Lab ID #: 48368 - 24

Cust. #: HA-04-C

Material: Brown Covebase Location: Kitchen 1508-Apt-7

Appearance: brown,nonfibrous,homogenous

Layer: 1 of 1

Asbestos Present: NO

No Asbestos Observed

Asbestos Present: **NO** No Asbestos Observed

Other - 100%

Other - 100%

Asbestos Present: NO No Asbestos Observed

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery ASTI Environmental 10448 Citation Dr. Brighton, MI 48116 ARI Report # 13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Other - 100%

Lab ID #: 48368 - 25

Cust. #: HA-04-D

Material: Brown Covebase Location: Kitchen 1508-Apt-5

Appearance: brown,nonfibrous,homogenous

Layer: 1 of 1

Asbestos Present: NO

No Asbestos Observed

Asbestos Present: NO

No Asbestos Observed

Other - 100%

Other - 100%

Cust. #: HA-04-E

Lab ID #: 48368 - 26

Material: Brown Covebase Location: Kitchen 1508-Apt-2

Appearance: brown,nonfibrous,homogenous

Layer: 1 of 2

Lab ID #: 48368 - 26a

Cust. #: HA-04-E

Material: Glue

Location: Kitchen 1508-Apt-2

Appearance: yellow,nonfibrous,homogenous

Layer: 2 of 2

Asbestos Present: NO

No Asbestos Observed

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report #

13-48368 Date Collected: 10/23/13

Date Received: 10/24/13 Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Non-Asbestos

Other - 100%

Other - 100%

Other - 100%

Lab ID #: 48368 - 27

Cust. #: HA-05-A

Material: Stucco

Location: Kitchen 1504-Apt-1

Appearance: white, nonfibrous, homogenous

Layer: 1 of 1

Lab ID #: 48368 - 28

Cust. #: HA-05-B

Material: Stucco

Location: Living 1504-Apt-1

Appearance: white, nonfibrous, homogenous

Layer: 1 of 1

Lab ID #: 48368 - 29

Cust. #: HA-05-C

Material: Stucco

Location: Hall 1504-Apt-1

Appearance: white, nonfibrous, homogenous

Layer: 1 of 1

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Asbestos Present: **NO**

No Asbestos Observed

Asbestos Present: NO

No Asbestos Observed

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery ASTI Environmental 10448 Citation Dr. Brighton, MI 48116 ARI Report # 13

13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Asbestos Present: **NO**

No Asbestos Observed

Non-Asbestos

Fiberglass - 5%

Fiberglass - 5%

Other - 95%

Other - 95%

Lab ID #: 48368 - 30

Cust. #: HA-06-A

Material: 2x2 Vinyl Floor Location: Kitchen 1506-Apt-4

Appearance: beige, fibrous, homogenous

Layer: 1 of 1

Lab ID #: 48368 - 31

Cust. #: HA-06-B

Material: 2x2 Vinyl Floor Location: Kitchen 1506-Apt-4

Appearance: beige, fibrous, homogenous

Layer: 1 of 1

Asbestos Present: **NO**

No Asbestos Observed

Asbestos Present: NO

Fiberglass - 5%

No Asbestos Observed

Other - 95%

Lab ID #: 48368 - 32

Cust. #: HA-06-C

Material: 2x2 Vinyl Floor Location: Kitchen 1506-Apt-4

Appearance: beige, fibrous, homogenous

Layer: 1 of 1

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report #

13-48368 Date Collected: 10/23/13

Date Received: 10/24/13 Date Analyzed: 10/25/13

Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos

Cellulose - 1%

Other - 99%

Lab ID #: 48368 - 33

Cust. #: HA-07-A

Material: Stucco - Wall

Location: Basement 1506-5-8

Appearance: white, fibrous, homogenous

Layer: 1 of 1

Asbestos Present: **NO**

No Asbestos Observed

Cellulose - 1%

Other - 99%

Lab ID #: 48368 - 34 Cust. #: HA-07-B

Material: Stucco - Wall

Location: Basement 1506-5-8

Appearance: white, fibrous, homogenous

Layer: 1 of 1

Asbestos Present: NO No Asbestos Observed

Cellulose - 1% Other - 99%

Cust. #: HA-07-C

Lab ID #: 48368 - 35

Material: Stucco - Wall

Location: Basement 1506-5-8

Appearance: white, fibrous, homogenous

Layer: 1 of 1

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery ASTI Environmental 10448 Citation Dr. Brighton, MI 48116 ARI Report # 13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos

Cellulose - 4%

Other - 96%

Lab ID #: 48368 - 36 Cust. #: HA-08-A

Material: Stucco Ceiling

Location: Living Rm-1508-Apt-8

Appearance: white, fibrous, homogenous

Layer: 1 of 1

Lab ID #: 48368 - 37

Cust. #: HA-08-B

Material: Stucco Ceiling

Location: Living Rm-1508-Apt-8

Appearance: white, fibrous, homogenous

Layer: 1 of 1

Asbestos Present: **NO**

No Asbestos Observed

Cellulose - 5%

Other - 95%

Lab ID #: 48368 - 38

Cust. #: HA-08-C

Material: Stucco Ceiling

Location: Living Rm-1508-Apt-8

Appearance: white, fibrous, homogenous

Layer: 1 of 1

Asbestos Present: NO

No Asbestos Observed

Cellulose - 5%

Other - 95%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery ASTI Environmental 10448 Citation Dr. Brighton, MI 48116 ARI Report # 13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Lab ID #: 48368 - 39

Cust. #: HA-09-A

Material: 2x2 Vinyl Floor Location: 1508-Apt-1

Appearance: beige, fibrous, homogenous

Layer: 1 of 1

Lab ID #: 48368 - 40

Cust. #: HA-09-B

Material: 2x2 Vinyl Floor Location: 1508-Apt-1

Appearance: beige, fibrous, homogenous

Layer: 1 of 1

Asbestos Present: NO

No Asbestos Observed

Fiberglass - 5%

Other - 95%

•

Lab ID #: 48368 - 41 Cust. #: HA-09-C

Material: 2x2 Vinyl Floor Location: 1508-Apt-1

Appearance: beige, fibrous, homogenous

Layer: 1 of 1

Asbestos Present: **NO**No Asbestos Observed

Fiberglass - 5%

Other - 95%

Asbestos Present: NO Fiberglass - 5%

No Asbestos Observed Other - 95%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report #

13-48368 Date Collected: 10/23/13

Date Received: 10/24/13

Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Other - 100%

Other - 100%

Other - 100%

Lab ID #: 48368 - 42

Cust. #: HA-10-A

Material: Cream Covebase Location: 1506-Apt-4

Appearance: white, nonfibrous, homogenous

Layer: 1 of 2

Lab ID #: 48368 - 42a

Cust. #: HA-10-A

Material: Glue

Location: 1506-Apt-4

Appearance: white, nonfibrous, homogenous

Layer: 2 of 2

Lab ID #: 48368 - 43 Cust. #: HA-10-B

Material: Cream Covebase Location: 1508-Apt-1

Appearance: white, nonfibrous, homogenous

Layer: 1 of 1

Asbestos Present: NO

No Asbestos Observed

Asbestos Present: **NO**

No Asbestos Observed

Asbestos Present: NO No Asbestos Observed

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report # Date Collected: 10/23/13

13-48368

Date Received: 10/24/13

Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Other - 100%

Lab ID #: 48368 - 44

Cust. #: HA-10-C

Material: Cream Covebase Location: 1508-Apt-1

Appearance: white, nonfibrous, homogenous

Layer: 1 of 1

Lab ID #: 48368 - 45

Cust. #: HA-11-A

Material: 12x12 White Floor Tile

Location: 1504-1506-1508

Appearance: white, nonfibrous, homogenous

Layer: 1 of 2

Lab ID #: 48368 - 45a

Cust. #: HA-11-A

Material: Mastic

Location: 1504-1506-1508

Appearance: yellow,nonfibrous,homogenous

Layer: 2 of 2

Asbestos Present: NO

No Asbestos Observed

Asbestos Present: **NO**

No Asbestos Observed

Other - 100%

Other - 100%

Asbestos Present: NO No Asbestos Observed

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery ASTI Environmental 10448 Citation Dr. Brighton, MI 48116 ARI Report # 13-

13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos

Other - 100%

Lab ID #: 48368 - 46

Cust. #: HA-11-B

Material: 12x12 White Floor Tile Location: 1504-1506-1508

Appearance: white, nonfibrous, homogenous

Layer: 1 of 2

Asbestos Present: **NO**

No Asbestos Observed

Other - 100%

Other - 100%

Lab ID #: 48368 - 46a Cust. #: HA-11-B

Material: Mastic

Location: 1504-1506-1508

Appearance: yellow,nonfibrous,homogenous

Layer: 2 of 2

Lab ID #: 48368 - 47

Cust. #: HA-11-C

Material: 12x12 White Floor Tile

Location: 1504-1506-1508

Appearance: white, nonfibrous, homogenous

Layer: 1 of 2

Asbestos Present: NO

No Asbestos Observed

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report #

13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13

Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Other - 100%

Other - 100%

Other - 100%

Lab ID #: 48368 - 47a

Cust. #: HA-11-C

Material: Mastic

Location: 1504-1506-1508

Appearance: yellow,nonfibrous,homogenous

Layer: 2 of 2

Lab ID #: 48368 - 48

Cust. #: HA-12-A

Material: Glue

Location: 1504-1506-1508

Appearance: yellow,nonfibrous,homogenous

Layer: 1 of 3

Lab ID #: 48368 - 48a

Cust. #: HA-12-A

Material: 12x12 Pink Floor Tile Location: 1504-1506-1508

Appearance: pink,nonfibrous,homogenous

For Layered Samples, each component will be analyzed and reported separately

Layer: 2 of 3

Asbestos Present: NO

No Asbestos Observed

Asbestos Present: **NO**

No Asbestos Observed

Asbestos Present: NO

No Asbestos Observed

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery ASTI Environmental 10448 Citation Dr. Brighton, MI 48116 ARI Report # 13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13 Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos

Other - 100%

Lab ID #: 48368 - 48b

Cust. #: HA-12-A

Material: Glue

Location: 1504-1506-1508

Appearance: yellow,nonfibrous,homogenous

Layer: 3 of 3

Asbestos Present: NO

No Asbestos Observed

Other - 100%

Other - 100%

Lab ID #: 48368 - 49 Cust. #: HA-12-B

Material: Glue

Location: 1504-1506-1508

Appearance: yellow,nonfibrous,homogenous

Layer: 1 of 3

Lab ID #: 48368 - 49a

Cust. #: HA-12-B

Material: 12x12 Pink Floor Tile Location: 1504-1506-1508

Appearance: pink,nonfibrous,homogenous

Layer: 2 of 3

Asbestos Present: NO

No Asbestos Observed

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report To:

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report #

13-48368 Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13

Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Other - 100%

Lab ID #: 48368 - 49b

Cust. #: HA-12B Material: Glue

Location: 1504-1506-1508

Appearance: yellow,nonfibrous,homogenous

Layer: 3 of 3

No Asbestos Observed

Asbestos Present: NO

Asbestos Present: **NO**

No Asbestos Observed

Other - 100%

Other - 100%

Lab ID #: 48368 - 50 Cust. #: HA-12-C

Material: Glue

Location: 1504-1506-1508

Appearance: yellow,nonfibrous,homogenous

Layer: 1 of 3

Lab ID #: 48368 - 50a

Cust. #: HA-12-C

Material: 12x12 Pink Floor Tile Location: 1504-1506-1508

Appearance: pink,nonfibrous,homogenous

Layer: 2 of 3

Asbestos Present: NO

No Asbestos Observed

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Project # 8563

Report	To:
--------	-----

Mr. Kevin Ushery **ASTI Environmental** 10448 Citation Dr. Brighton, MI 48116

ARI Report #

13-48368

Date Collected: 10/23/13 Date Received: 10/24/13

Date Analyzed: 10/25/13

Date Reported: 10/29/13

Sample Information

Asbestos Type/Percent

Non-Asbestos

Other - 100%

Lab ID #: 48368 - 51b

Cust. #: HA-12-C

Material: Glue

Location: 1504-1506-1508

Appearance: yellow,nonfibrous,homogenous

Layer: 3 of 3

Lab ID #:

Cust. #: Material: Location: Appearance: Layer:

Lab ID #:

Cust. #: Material: Location: Appearance: Layer:

Asbestos Present: NO

No Asbestos Observed

Asbestos Present:

Asbestos Present:

For Layered Samples, each component will be analyzed and reported separately

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate may not be used by the customer to claim product endorsement by NVLAP or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

* 48368



APEX Research, Inc.
054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991. Web Site: http://apexresearch-inc.com. Email: Bob.Letarte@apexresearchlab.com

Customer Name:Address:City, St., Zip:Phone: Turn Arounce Rush 48 hour Other:	P.O. Brighton	Box 2- n, MI ax: (Circl	160 48116 -	Email: No. 10 Section 1. 10 Se	SNARI 8563 Son: K SPOC additions on Wipe Wipe Tape	BOR HOUSING 3. USHERY STI-ENV. 4 the other side.	Com Point Count _ Air BioSIS	X PO	Lab Use Only Log-In: Report: Fax: Verbal: Email: CM Soil Viable Other
Lab ID	Customer	ID#	Materia	al/Location		Volume	Area		Results
(HR-01-	A	VINYI FLOOR 12,	1120 REAM -150	4-APT2	KitcHs	30		
2		В			HAPTY				
3		C			APTQ				
4		D		1506-	APT 5				
5		Specialists Specialists , Specialists	OSSAGO	1508-	APT ブ				
6		F		15087	W75				
7		6		1508-1	APT 2				
8	HA-03	~ D	DRYWALILPLAS			THROUGHOUT	N/A		
9		B	,	1504-1					
10				1506-1	APT 2				
[1		b.		1506-1	VPT5				
Relinquished By: North Date: 10-23-13 Revision Date: June/2011	Re Da	eceived B ate: \(\frac{1}{2}\)	y: 24) Hair relis of MESEARCH			/:			





Customer Name:Address:City, St., Zip:Phone: Turn Around Rush 48 hour Other:		160 48116 -	Date of Survey:Project:Project #Contact Person: \(\frac{1}{N} \) \(\frac{1} \) \(\frac{1}{N} \) \(\frac{1}{N} \) \(\frac{1}{N} \) \(\f	STI-ENV.C. a the other side. C Ai Bi	oint Count ir Pain	Log-In: Report: Fax: Verbal: Email: PCM
Lab ID	Customer ID #	Materia	l/Location	Volume	Area	Results
12	HA-02-E	DRYWALL/PLASTER	WALL-1508-APT 7	THROUGHOUT	NA	
13		,	1508-APT 5			
14	G	W	1508-APT 2			
15	HA-03-A	12×12 BROWN FLOOR	TILE-1504-APT-2	Closer	85F	
16	B		1504-APT-4			
17	C		1506-APT-2			
18	D		1506-APT-5			
19	- Land		1508-APT-7			
20	F		1508-APT-6			
21	6		1500-APT - 2			
		iel/en				
Relinquished By: Aurillary Date: 10-23-13 Revision Date: June/2011	U Date: is	127113 som		v:		ed By:



APEX Research, Inc.
11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991. Web Site: http://apexresearch-inc.com. Email: Bob.Letarte@apexresearchlab.com

Customer Name: _	ASTI Environr		Date of Survey:	Lab Use Only						
Address:	P.O. Box 2 [·] Brighton, MI		Droject.							
City, St., Zip:			Project #	Report:						
Phone:	Fax:		Contact Person:	K. W.SHERV		Fax:				
_			Email: NSPa	asti-env	-Com	Verbal:				
Turn Around	Times: (Circl	e One)	***Terms and conditions	Email:						
Rush	24 hour	Asbestos:			Point Count &	PCM				
48 hour	72 hour	Lead:				nt Soil				
Other:	TTP yes / no	Mold:				Other Viable				
	(Test Till Positive)	TEM:				I Other				
<i>પ્</i> ષ્કાહ ર					BIA Level I	T Other				
Lab ID	Customer ID #	Materia	l/Location	Volume	Area	Results				
22	HA-04- A	BROWNCOUEBASE	-1504-APT- 4	KITCHEN	30LF					
23) · B		1506-APT- 2							
24	C		1508 - APT- 7							
25	D		1508-APT- 5							
26	E		1508-HPF- 2	`						
27	HA-05 - A	STirco -		Kirchen						
28	В		1	LIVING						
29	0			HALL						
30	HA-06- A	2x2 mixen TADVINO	41 /2008/NG 1506-APT							
31	B)	1 2001100-1300-11	T A LOSTED						
37	I CH	ECEVEN								
Relinquished By: Aurill Date:	Date: (\square	RESEARCH		Ву:		hed By:				





Customer Name: _	ASTI Environ		D					
Address:	ASTI Environr P.O. Box 2	nentai 160	Date of Su	rvey:		·		Lab Use Only
City, St., Zip:	Brighton, MI	48116 -	Project:					Log-In:
Dhono:			riolect#					Report:
Phone:	Fax:		Contact Pe	rson: 🚶	WSHERY			Fax:
Turn Around	Times: (Circl	e One)	Email: N	<u>St@0</u>	STI-ENV.	iom		Verbal:
Rush	24 hour	,	***Terms and co					Email:
48 hour	72 hour	Asbestos:	Bulk	_ Wipe	F	Point Count _	火 PC	M
		Lead:	Bulk	_ Wipe	·	Air	Paint	Soil
Other:	TTP yes / no (Test Till Positive)	Mold:	Bulk	_ Tape	F	BioSIS	Other	Viable
<u>4850 e</u>	(Test Till Positive)	TEM:	Bulk/NOP _	··········	AHERA	EPA Lev	vel II	Other
Lab ID	Customer ID#	Materia	l/Location		Volume	Area		Results
33	HA-07-A	STUCCO WALL-	1506/20	2000	Species .			
34	P	STAGE OF THE CO	1900/50	DIISTMA	NI			
35						-		
36	HA-08-A		1 201		·			
	HH-00- A	STucco Celling-	<u> 1508 - APT</u>	8 LIV	ING Rm			
37	<u>B</u>	,		```				
38	Com							
39	HA-09-A	VINY FLOOR 212	mive N heire -10	TO DOT		2005		
40	P.	1	and xall trans.	1 11 00		305F		
41				1				
		\						
\								
Relinquished By: Aurillo Date: 10-33-13 Revision Date: June/2011	Date: (🐔	8: SHOL KATU OFN ESEARCH	_ Relind	quished By		•	quished By:	





Customer Name:Address:City, St., Zip:	ASTI Environr P.O. Box 2 Brighton, MI	mental 160 48116	Date of Survey: Project: Project #		·	Log-In:
Phone: Turn Around			Contact Person: Y Email: NSP@c	isti-env.c	0m	Fax: Verbal: Email:
Rush	24 hour	Asbestos:	Bulk Wipe	e Po	oint Count 🗡	PCM
48 hour	72 hour	Lead:				Soil
Other:		Mold:				Other Viable
<i>નુજી૯</i> ટ	(Test Till Positive)	ТЕМ:	Bulk/NOP			
Lab ID	Customer ID #	Materia	l/Location	Volume	Area	Results
42	HA-10-A	Cleam Cover A	SE-1506-APT 4		BOLF	
43	<u> </u>	i i	1508 ATT 1			
44			1508 APT 1			
45	HA-N-A	12 N2 WHITE FLOOR	17/14-1504-1506-1508		200LF	
46	₿				i	
47	C					
48	HA-12-A	12X12 PINV Flore	Tile-1504-1508-1508		4	
49	В	I I I I I I I I I I I I I I I I I I I	114 120-1300-1500	·		
50						
	300 resp.					
	ME					
Relinquished By: August Date: 10-3-/3 Revision Date: June/2011	Johnny Received F	RESEARCH		y:		ed By:

Attachment D Asbestos Sample Table



Attachment D- Asbestos Sample Results 1504-1508 Broadway Ann Arbor, Michigan ASTI Project No. 8563

ASTI Sample No.	Material/Description	Functional Space	Sample Location	Friability	Asbestos Result	Quantity	
1A	Vinyl Flooring/ 12"x12" cream	1504-APT 2	Kitchen floor	NF	NAD		
1B	Vinyl Flooring/ 12"x12" cream	1504-APT 4	Kitchen floor	NF	NAD		
1C	Vinyl Flooring/ 12"x12" cream	1506-APT 2	Kitchen floor	NF	NAD		
1D	Vinyl Flooring/ 12"x12" cream	1506-APT 5	Kitchen floor	NF	NAD	~30 SF per Unit	
1E	Vinyl Flooring/ 12"x12" cream	1504-APT 7	Kitchen floor	NF	NAD		
1F	Vinyl Flooring/ 12"x12" cream	1508-APT 5	Kitchen floor	NF	NAD		
1G	Vinyl Flooring/ 12"x12" cream	1508-APT 2	Kitchen floor	NF	NAD		
2A -	Drywall/Plaster Mortar	1504-APT 2	Wall	NF	NAD		
2B -	Drywall/Plaster Mortar	1504-APT 4	Wall	NF	NAD		
2C	Drywall/Plaster Mortar	1506-APT 2	Wall	NF	NAD		
2D	Drywall/Plaster Mortar	1506-APT 5	Wall	NF	NAD	NQ	
2E -	Drywall/Plaster Mortar	1508-APT 7	Wall	NF	NAD		
2F -	Drywall/Plaster Mortar	1508-APT 5	Wall	NF	NAD		
2G	Drywall/Plaster Mortar	1508-APT 2	Wall	NF	NAD		
3A -	Floor tile 12"x12" Brown Mastic	1504-APT 2	Closet floor	NF	NAD		
3B -	Floor tile 12"x12" Brown	1504-APT 4	Closet floor	NF	NAD	-	
3C -	Mastic Floor tile 12"x12" Brown	1506-APT 2	Closet floor	NF	NAD	_	
3D -	Mastic Floor tile 12"x12" Brown	1506-APT 5	Closet floor	NF	NAD	~8 SF per Unit	
3E -	Mastic Floor tile 12"x12" Brown	1508-APT 7	Closet floor	NF	NAD	-	
3F -	Mastic Floor tile 12"x12" Brown	1508-APT 6	Closet floor	NF	NAD	-	
3G -	Mastic Floor tile 12"x12" Brown	1508-APT 2	Closet floor	NF	NAD	_	
30	Mastic	1300-Al 12	Closet llool	INI	ואח		
4A	Brown Covebase	1504-APT 4	Kitchen walls	NF	NAD		
4B	Brown Covebase	1506-APT 2	Kitchen walls	NF	NAD	~30 LF per	
4C	Brown Covebase	1508-APT 7	Kitchen walls	NF	NAD	-30 LF per Unit	
4D	Brown Covebase	1508-APT 5	Kitchen walls	NF	NAD		
4E	Brown Covebase/Glue	1508-APT 2	Kitchen walls	NF	NAD	7	

Attachment D- Asbestos Sample Results 1504-1508 Broadway Ann Arbor, Michigan ASTI Project No. 8563

ASTI Sample No.	Material/Description	Functional Space	Sample Location	Friability	Asbestos Result	Quantity	
5A	Stucco	1504-APT 1	Kitchen ceilling	F	NAD		
5B	Stucco	1504-APT 1	Living room ceiling	F	NAD	NQ	
5C	Stucco	1504-APT 1	Hall ceiling	F	NAD		
6A	Vinyl Flooring/ 2'x2' tan	1506-APT 4	Kitchen floor	NF	NAD		
6B	Vinyl Flooring/ 2'x2' tan	1506-APT 4	Kitchen floor	NF	NAD	~600 SF per Unit	
6C	Vinyl Flooring/ 2'x2' tan	1506-APT 4	Kitchen floor	NF	NAD	- Office	
7A	Stucco	1506-5-8	Basement wall	F	NAD		
7B	Stucco	1506-5-8	Basement wall	F	NAD	NQ	
7C	Stucco	1506-5-8	Basement wall	F	NAD		
8A	Stucco	1508-APT 8	Living room ceiling	F	NAD		
8B	Stucco	1508-APT 8	Living room ceiling	F	NAD	NQ	
8C	Stucco	1508-APT 8	Living room ceiling	F	NAD		
9A	Vinyl Flooring/ 12"x12" mixed beige	1508-APT 1	Bathroom floor	NF	NAD		
9B	Vinyl Flooring/ 12"x12" mixed beige	1508-APT 1	Bathroom floor	NF	NAD	~30 SF per Unit	
9C	Vinyl Flooring/ 12"x12" mixed beige	1508-APT 1	Bathroom floor	NF	NAD		
10A	Cream Covebase/Glue	1506-APT 4	Kitchen wall base	NF	NAD		
10B	Cream Covebase/Glue	1508-APT 1	Kitchen wall base	NF	NAD	NQ	
10C	Cream Covebase	1508-APT 1	Kitchen wall base	NF	NAD		
11A	Floor tile 12"x12" white Mastic	1504	Hall floor	NF	NAD		
11B	Floor tile 12"x12" white Mastic	1506	Hall floor	NF	NAD	~200 SF per Unit	
11C	Floor tile 12"x12" white Mastic	1508	Hall floor	NF	NAD		
12A	Glue Floor tile 12"x12" pink Glue	1504	Hall floor	NF	NAD		
12B	Glue Floor tile 12"x12" pink Glue	1506	Hall floor	NF	NAD	~200 SF per Unit	
12C	Glue Floor tile 12"x12" pink Glue	1508	Hall floor	NF	NAD		

ASTI ENVIRONMENTAL

8,000 Environmental Investigation, Remediation, Compliance and Restoration Projects Throughout The Great Lakes Since 1985.

OUR SERVICES INCLUDE:

- ASBESTOS, LEAD, MOLD, AND RADON ASSESSMENTS
- BROWNFIELD/GREYFIELD REDEVELOPMENT STRATEGIES
- DEVELOPMENT INCENTIVES
- ECOLOGICAL ASSESSMENTS AND RESTORATION
- Environmental Assessments and Impact Statements
- Environmental Opportunities Assessment
- GIS MAPPING
- HAZARD MITIGATION PLANNING
- MINING AND RECLAMATION ASSISTANCE
- OPERATION AND MAINTENANCE
- Phase I ESA and Environmental Due Diligence
- REGULATORY COMPLIANCE AND PERMITTING
- Soil and Groundwater Assessments
- Soil and Groundwater Remediation
- STORAGE TANK COMPLIANCE AND CLOSURE
- THREATENED AND ENDANGERED SPECIES SURVEYS
- Watershed and Stormwater Management Programs
- WETLAND DELINEATION, PERMITTING, MITIGATION AND BANKING

