

Limited Asbestos-Containing Materials Inspection
701-749 North Maple
Ann Arbor, Michigan

Ann Arbor Housing Commission

November 13, 2013

ASTI ENVIRONMENTAL



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Prepared For:

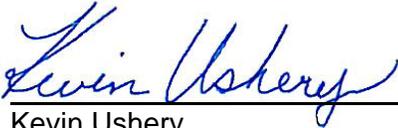
Ann Arbor Housing Commission
404 North Ashley
Ann Arbor, Michigan, 48103

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



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Executive Summary

ASTI Environmental (ASTI) was retained by Ann Arbor Housing Commission to conduct a limited asbestos-containing materials inspection of apartment units at 701-749 North Maple, 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 asbestos containing materials ACMs in general conformance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 61 Subpart M and ASTM E2356-10 Standard Practice for Comprehensive Building Asbestos Surveys. No destructive or intrusive sampling was conducted.

Based on the ACM inspection conducted by ASTI on October 24, 2013, the following ACMs were identified on the Property.

SAMPLE ID	MATERIAL	LOCATION	RESULTS
HA-02-D,E,F	Drywall Joint Compound	Apartment unit 725, 731, 735	1.25%-1.5%

According to classification guidelines set forth in NESHAP, drywall joint compound is classified as Category II non-friable ACM. The joint compound, if maintained in its current condition, represents minimal potential for a fiber release. An O&M Program is recommended if the drywall and joint compound is to be left in place. Prior to any renovations or demolition, the drywall joint compound would need to be abated by a licensed abatement contractor using Class II removal techniques and engineering controls.

Notification for all regulated ACM (RACM) is required by the Michigan Department of Licensing and Regulatory Affairs (LARA) and the Michigan Department of Environmental Quality Air Division, NESHAP on the *Notification of Intent to Renovate/Demolish* for any renovation or demolition activities. The asbestos-containing joint compound is not an RACM, however methods utilized to remove the materials would likely render the material as friable and therefore should be removed prior to any renovation or demolition by a licensed abatement contractor.

1.0 INTRODUCTION

ASTI Environmental (ASTI) was retained by Ann Arbor Housing Commission to conduct a limited asbestos-containing materials inspection of the apartment units at 701-749 North Maple, 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 LIMITATION 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 ACM. 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 20 stand-alone units and two duplexes. The 20 stand-alone units were constructed of wood frames with vinyl exteriors on concrete slabs and asphalt roofing. The two duplexes were constructed of wood frames with brick exteriors 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 Attachment A

4.0 ASBESTOS-CONTAINING MATERIAL 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 24th, 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 accreditations are provided as Attachment B

4.1 Previous Asbestos-Containing Materials Inspections

ASTI is unaware of any previous ACM inspections.

4.2 Asbestos Inspection Methodology

This limited ACM inspection was done in accordance with the National Emissions Standards for Hazardous Air Pollutants (NESHAP) requirements and ASTM E2356-10 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 suspect 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
- Floor tile and associated mastics
- Sink Undercoating
- Stucco
- Base cove and associated adhesive
- Linoleum and associated adhesives

- Exterior window, door and stair caulk

The suspect ACMs appeared to be in generally good condition during ASTI’s inspection. ASTI collected 102 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 identified the following materials as ACM.

SAMPLE ID	MATERIAL	LOCATION	RESULTS
HA-02-D,E,F	Drywall Joint Compound	Apartment unit 725, 731, 735	1.25%-1.5%

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.

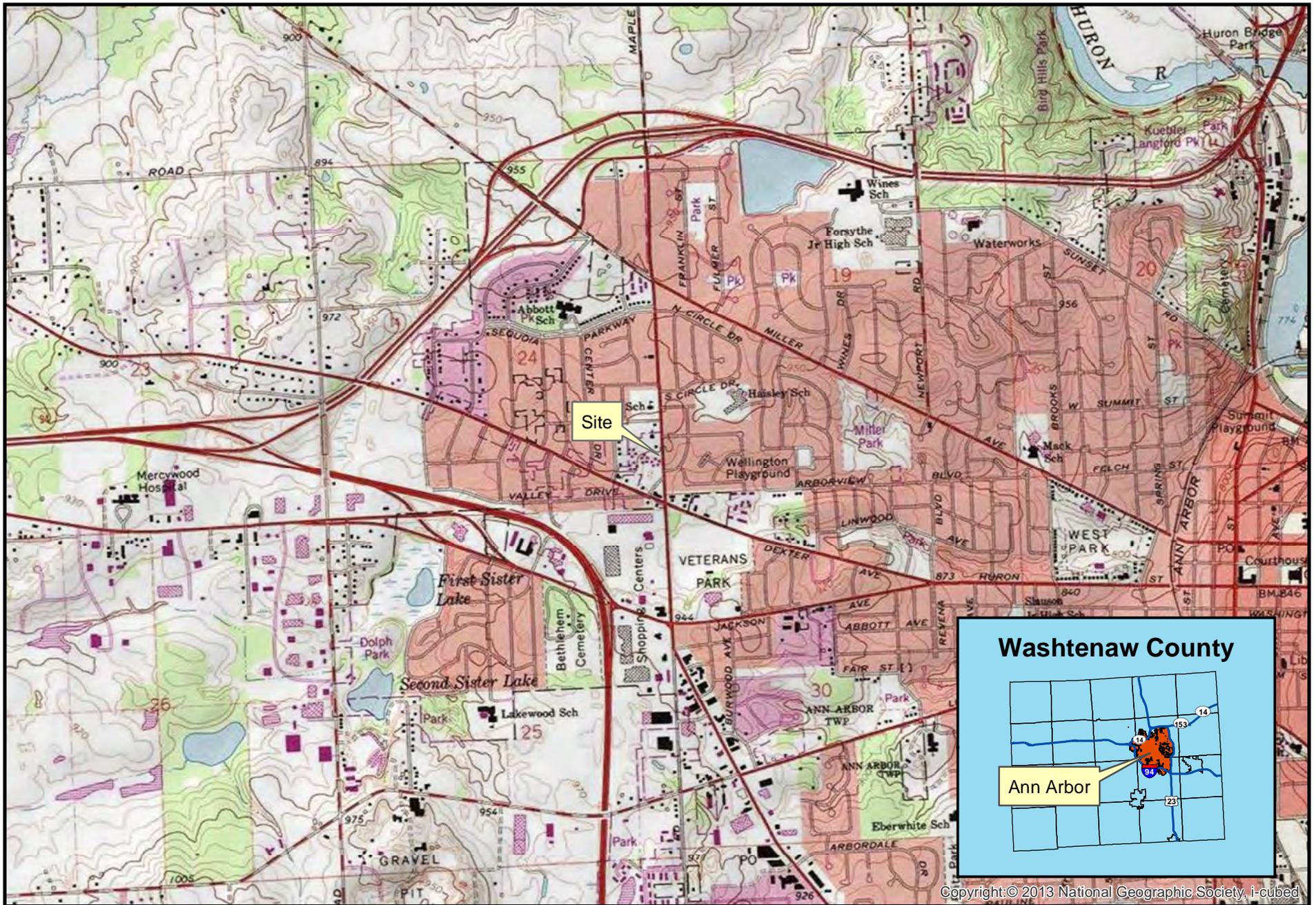
5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the ACM inspection completed on the Property, the following materials were identified as ACM with the following recommendations.

According to classification guidelines set forth in NESHAP, drywall joint compound is classified as Category II non-friable ACM. The joint compound, if maintained in its current condition, represents minimal potential for a fiber release. An O&M Program is recommended if the drywall and joint compound is to be left in place. Prior to any renovations or demolition, the drywall joint compound would need to be abated by a licensed abatement contractor.

Notification for all regulated ACM (RACM) is required by the Michigan Department of Licensing and Regulatory Affairs (LARA) and the Michigan Department of Environmental Quality Air Division, NESHAP on the *Notification of Intent to Renovate/Demolish* for any renovation or demolition activities. The asbestos-containing joint compound is not an RACM, however methods utilized to remove the materials would likely render the material as friable and therefore should be removed prior to any renovation or demolition by a licensed abatement contractor. A copy of the Notification of Intent to Renovate/Demolish is provided as Appendix E.

Attachment A
Site Location Map



Copyright © 2013 National Geographic Society, i-cubed

701 - 749 North Maple

Ann Arbor, MI



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

Site Location Map

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.

Lead-based Paint Inspection, Apartment Leasing Office, East Lansing

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 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. 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.

Lead-based Paint Inspections, Residences in 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.

State of Michigan
 Department of Licensing and Regulatory Affairs
 Michigan Occupational Safety & Health Administration - Asbestos Program





Asbestos Inspector

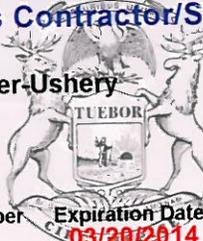
Kevin E. Gardner-Ushery
 6240 Faust
 Detroit, MI 48228

Accreditation Number **A34315** Expiration Date **03/20/2014** DOB: 02/04/1974

This individual has satisfactorily met or exceeded the requirements of Michigan Public Act 440 of 1988, as amended, to be accredited as an Asbestos Inspector.

Accreditation card is not valid if altered. **104388**

State of Michigan
 Department of Licensing and Regulatory Affairs
 Michigan Occupational Safety & Health Administration - Asbestos Program


Asbestos Contractor/Supervisor

Kevin E. Gardner-Ushery
 6240 Faust
 Detroit, MI 48228

Accreditation Number **A34315** Expiration Date **03/20/2014** DOB: 02/04/1974

This individual has satisfactorily met or exceeded the requirements of Section 206 of the Toxic Substances Control Act to be accredited in the above discipline.

Accreditation card is not valid if altered. **104389**

Attachment C

Results of Sample Analysis and Chain-of-Custody Document



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Commission
Project # 8563

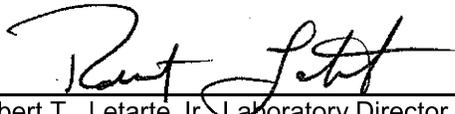
Report To:

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

ARI Report # 13-48452
Date Collected: 10/24/13
Date Received: 10/28/13
Date Analyzed: 10/31/13
Date Reported: 10/31/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 01 Cust. #: HA-01-A Material: 12x12 White Floor Tile Location: 1st Floor 707 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 01a Cust. #: HA-01-A Material: Mastic Location: 1st Floor 707 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 02 Cust. #: HA-01-B Material: 12x12 White Floor Tile Location: 1st Floor 713 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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.



NVLAP Lab Code 102118-0



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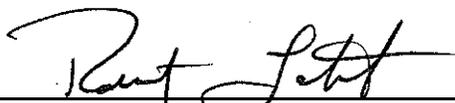
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 02a Cust. #: HA-01-B Material: Mastic Location: 1st Floor 713 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 03 Cust. #: HA-01-C Material: 12x12 White Floor Tile Location: 1st Floor 723 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 04 Cust. #: HA-01-D Material: 12x12 White Floor Tile Location: 1st Floor 725 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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


 Robert T. Letarte Jr., Laboratory Director

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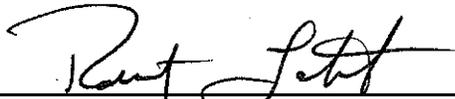
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 04a Cust. #: HA-01-D Material: Mastic Location: 1st Floor 725 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 05 Cust. #: HA-01-E Material: 12x12 White Floor Tile Location: 1st Floor 731 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 05a Cust. #: HA-01-E Material: Mastic Location: 1st Floor 731 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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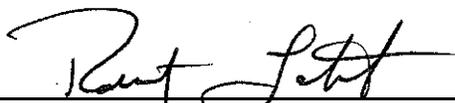
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 06 Cust. #: HA-01-F Material: 12x12 White Floor Tile Location: 1st Floor 735 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 06a Cust. #: HA-01-F Material: Mastic Location: 1st Floor 735 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 07 Cust. #: HA-01-G Material: 12x12 White Floor Tile Location: 1st Floor 739 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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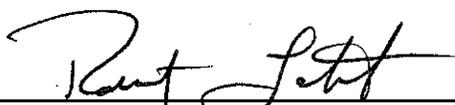
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 07a Cust. #: HA-01-G Material: Mastic Location: 1st Floor 739 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 08 Cust. #: HA-02-A Material: Drywall Location: Throughout - 707 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48452 - 08a Cust. #: HA-02-A Material: Joint Compound Location: Throughout - 707 Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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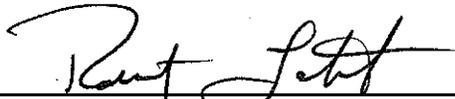
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 09 Cust. #: HA-02-B Material: Drywall Location: Throughout - 713 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48452 - 09a Cust. #: HA-02-B Material: Joint Compound Location: Throughout - 713 Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO Chrysotile - 0.75% POINT COUNT RESULT	Other - 99.25%
Lab ID #: 48452 - 10 Cust. #: HA-02-C Material: Drywall Location: Throughout - 723 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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


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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.



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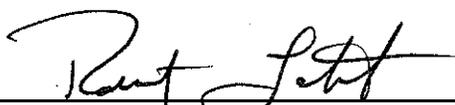
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 10a Cust. #: HA-02-C Material: Joint Compound Location: Throughout - 723 Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 11 Cust. #: HA-02-D Material: Drywall Location: Throughout - 725 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48452 - 11a Cust. #: HA-02-D Material: Joint Compound Location: Throughout - 725 Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 1.5% POINT COUNT RESULT	Other - 98.5%

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


 Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

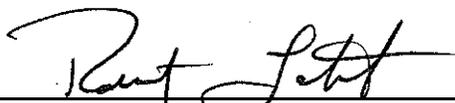
Project: Ann Arbor Housing Commission
Project # 8563

Report To:
Mr. Kevin Ushery
ASTI Environmental
10448 Citation Dr.
Brighton, MI 48116

ARI Report # 13-48452
Date Collected: 10/24/13
Date Received: 10/28/13
Date Analyzed: 10/31/13
Date Reported: 10/31/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 12 Cust. #: HA-02-E Material: Drywall Location: Throughout - 731 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48452 - 12a Cust. #: HA-02-E Material: Joint Compound Location: Throughout - 731 Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 1.25% POINT COUNT RESULT	Other - 98.75%
Lab ID #: 48452 - 13 Cust. #: HA-02-F Material: Drywall Location: Throughout - 735 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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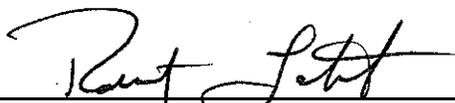
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 13a Cust. #: HA-02-F Material: Joint Compound Location: Throughout - 735 Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 1.5% POINT COUNT RESULT	Other - 98.5%
Lab ID #: 48452 - 14 Cust. #: HA-02-G Material: Drywall Location: Throughout - 739 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48452 - 14a Cust. #: HA-02-G Material: Joint Compound Location: Throughout - 739 Appearance: white, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO Chrysotile - 0.25% POINT COUNT RESULT	Other - 99.75%

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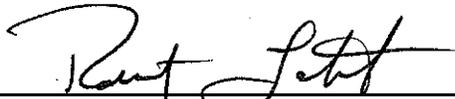
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Date Reported: 10/31/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 15 Cust. #: HA-03-A Material: 12x12 Brown Speck Floor Tile Location: 2nd Floor 707 Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 16 Cust. #: HA-03-B Material: 12x12 Brown Speck Floor Tile Location: 2nd Floor 713 Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 16a Cust. #: HA-03-B Material: Mastic Location: 2nd Floor 713 Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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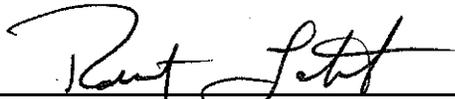
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Date Reported: 10/31/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 17 Cust. #: HA-03-C Material: 12x12 Brown Speck Floor Tile Location: 2nd Floor 723 Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 17a Cust. #: HA-03-C Material: Mastic Location: 2nd Floor 723 Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 18 Cust. #: HA-03-D Material: 12x12 Brown Speck Floor Tile Location: 2nd Floor 725 Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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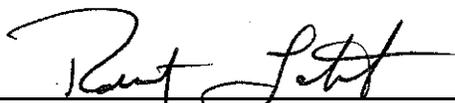
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 18a Cust. #: HA-03-D Material: Mastic Location: 2nd Floor 725 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 19 Cust. #: HA-03-E Material: 12x12 Brown Speck Floor Tile Location: 2nd Floor 731 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 20 Cust. #: HA-03-F Material: 12x12 Brown Speck Floor Tile Location: 2nd Floor 735 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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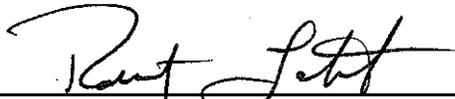
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 20a Cust. #: HA-03-F Material: Mastic Location: 2nd Floor 735 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 21 Cust. #: HA-03-G Material: 12x12 Brown Speck Floor Tile Location: 2nd Floor 739 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 21a Cust. #: HA-03-G Material: Mastic Location: 2nd Floor 739 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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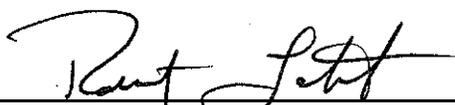
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 22 Cust. #: HA-04-A Material: Sink Undercoating Location: Kitchen - 707 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 48452 - 23 Cust. #: HA-04-B Material: Sink Undercoating Location: Kitchen - 713 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48452 - 24 Cust. #: HA-04-C Material: Sink Undercoating Location: Kitchen - 723 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 25 Cust. #: HA-04-D Material: Sink Undercoating Location: Kitchen - 725 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48452 - 26 Cust. #: HA-04-E Material: Sink Undercoating Location: Kitchen - 731 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48452 - 27 Cust. #: HA-04-F Material: Sink Undercoating Location: Kitchen - 735 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Date Collected: 10/24/13
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 28 Cust. #: HA-04-G Material: Sink Undercoating Location: Kitchen - 739 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48452 - 29 Cust. #: HA-05-A Material: 12x12 Gray Floor Tile Location: Stairs Up - 707 Appearance: grey, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 29a Cust. #: HA-05-A Material: Mastic Location: Stairs Up - 707 Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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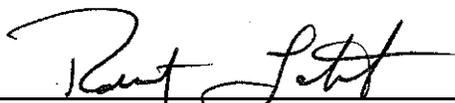
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 30 Cust. #: HA-05-B Material: 12x12 Gray Floor Tile Location: Stairs Up - 713 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 30a Cust. #: HA-05-B Material: Mastic Location: Stairs Up - 713 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 31 Cust. #: HA-05-C Material: 12x12 Gray Floor Tile Location: Stairs Up - 723 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 31a Cust. #: HA-05-C Material: Mastic Location: Stairs Up - 723 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 32 Cust. #: HA-05D Material: 12x12 Gray Floor Tile Location: Stairs Up - 725 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 33 Cust. #: HA-05-E Material: 12x12 Gray Floor Tile Location: Stairs Up - 731 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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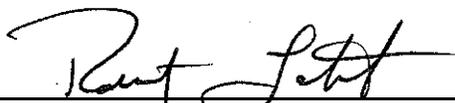
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 33a Cust. #: HA-05-E Material: Mastic Location: Stairs Up - 731 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 34 Cust. #: HA-06-A Material: Stucco Location: Basement - 707 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 35 Cust. #: HA-06-B Material: Stucco Location: Basement - 713 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 35a Cust. #: HA-06-B Material: Grey Stucco Location: Basement - 713 Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 36 Cust. #: HA-06-C Material: Stucco Location: Basement - 723 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 37 Cust. #: HA-06-D Material: Stucco Location: Basement - 725 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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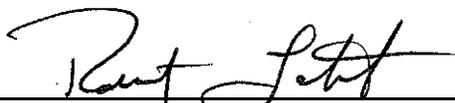
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 38 Cust. #: HA-06-E Material: Stucco Location: Basement - 731 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 39 Cust. #: HA-06-F Material: Stucco Location: Basement - 735 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 40 Cust. #: HA-06-G Material: Stucco Location: Basement - 739 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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


 Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing Commission
Project # 8563

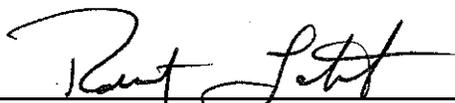
Report To:

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

ARI Report # 13-48452
Date Collected: 10/24/13
Date Received: 10/28/13
Date Analyzed: 10/31/13
Date Reported: 10/31/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 41 Cust. #: HA-07-A Material: Beige Box Vinyl Floor Location: Bath - 711 Appearance: beige, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 48452 - 41a Cust. #: HA-07-A Material: Mastic Location: Bath - 711 Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 42 Cust. #: HA-07-B Material: Beige Box Vinyl Floor Location: Bath - 711 Appearance: beige, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%

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Brighton, MI 48116

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 42a Cust. #: HA-07-B Material: Mastic Location: Bath - 711 Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 43 Cust. #: HA-07-C Material: Beige Box Vinyl Floor Location: Bath - 711 Appearance: beige, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 48452 - 43a Cust. #: HA-07-C Material: Mastic Location: Bath - 711 Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Project: Ann Arbor Housing Commission
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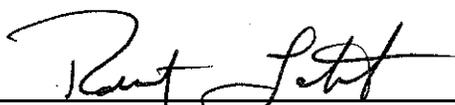
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ARI Report # 13-48452
Date Collected: 10/24/13
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Date Analyzed: 10/31/13
Date Reported: 10/31/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 44 Cust. #: HA-08-A Material: 12x12 Grey Speckled Floor Tile Location: Stairs Up - 717 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 44a Cust. #: HA-08-A Material: Mastic Location: Stairs Up - 717 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 45 Cust. #: HA-08-B Material: 12x12 Grey Speckled Floor Tile Location: Stairs Up - 717 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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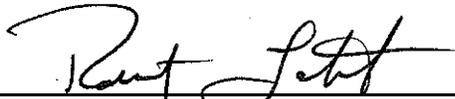
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Brighton, MI 48116

ARI Report # 13-48452
Date Collected: 10/24/13
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Date Analyzed: 10/31/13
Date Reported: 10/31/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 46 Cust. #: HA-08-C Material: 12x12 Grey Speckled Floor Tile Location: Stairs Up - 717 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 47 Cust. #: HA-09-A Material: 9x9 Brown Vinyl Floor Location: 2nd Floor Bath - 719 Appearance: beige,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 48452 - 47a Cust. #: HA-09-A Material: Mastic Location: 2nd Floor Bath - 719 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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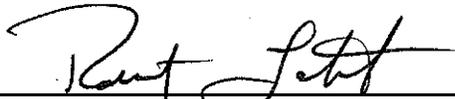
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 48 Cust. #: HA-09-B Material: 9x9 Brown Vinyl Floor Location: 2nd Floor Bath - 719 Appearance: beige, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 48452 - 48a Cust. #: HA-09-B Material: Mastic Location: 2nd Floor Bath - 719 Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 49 Cust. #: HA-09-C Material: 9x9 Brown Vinyl Floor Location: 1st Floor Bath - 739 Appearance: beige, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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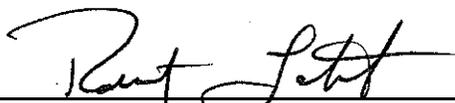
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Date Collected: 10/24/13
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 49a Cust. #: HA-09-C Material: Mastic Location: 1st Floor Bath - 739 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 50 Cust. #: HA-10-A Material: 12x12 Dark Brown Floor Tile Location: 1st Floor - 727 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 50a Cust. #: HA-10-A Material: Mastic Location: 1st Floor - 727 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 51 Cust. #: HA-10-B Material: 12x12 Dark Brown Floor Tile Location: Stairs Up - 735 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 52 Cust. #: HA-10-C Material: 12x12 Dark Brown Floor Tile Location: Stairs Up - 735 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 52a Cust. #: HA-10-C Material: Mastic Location: Stairs Up - 735 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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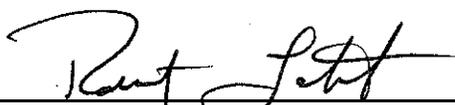
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ARI Report # 13-48452
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 53 Cust. #: HA-11-A Material: Window Caulk Location: Exterior - 707 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 53a Cust. #: HA-11-A Material: Caulk 2 Location: Exterior - 707 Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 54 Cust. #: HA-11-B Material: Window Caulk Location: Exterior - 713 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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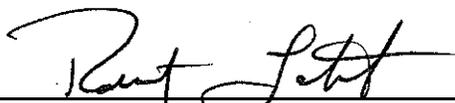
Project: Ann Arbor Housing Commission
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Brighton, MI 48116

ARI Report # 13-48452
Date Collected: 10/24/13
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Date Analyzed: 10/31/13
Date Reported: 10/31/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 55 Cust. #: HA-11-C Material: Window Caulk Location: Exterior - 725 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 56 Cust. #: HA-11-D Material: Window Caulk Location: Exterior - 731 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 57 Cust. #: HA-11-E Material: Window Caulk Location: Exterior - 739 Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 2% Other - 98%

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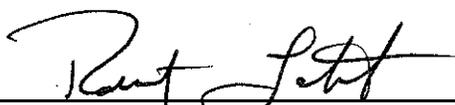
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Date Reported: 10/31/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 57a Cust. #: HA-11-E Material: Caulk 2 Location: Exterior - 739 Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 58 Cust. #: HA-12-A Material: Red Covebase Location: 719 Appearance: purple,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48452 - 59 Cust. #: HA-12-B Material: Red Covebase Location: 719 Appearance: purple,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48452 - 60 Cust. #: HA-12-C Material: Red Covebase Location: 719 Appearance: purple, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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48452

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 Environmental
Address: P.O. Box 2160
City, St., Zip: Brighton, MI 48116
Phone: _____ Fax: _____

Date of Survey: 10-24-13
Project: ANN ARBOR HOUSING COMMISSION
Project # 8563
Contact Person: K. USHERY
Email: NSP@ASTI-ENV.COM

Lab Use Only
Log-In: _____
Report: _____
Fax: _____
Verbal: _____
Email: _____

Turn Around Times: (Circle One)

Rush 24 hour
48 hour 72 hour
Other: _____ TTP yes / no
(Test Till Positive)

***Terms and conditions on the other side.
Asbestos: Bulk Wipe _____ Point Count PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
48452 1	50	HA-01-A	12x12 WHITE FLOOR TILE / 1ST FLOOR-707	900 SF	
2	51	B	713		
3	52	C	723		
4	53	D	725		
5	54	E	731		
6	55	F	735		
7	56	G	739		
8	57	HA-02-A	DRYWALL / THROUGH OUT - 707		
9	58	B	713		
10	59	C	723		
11	60	D	725		

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Date: 10-25-13

Received By: [Signature]
Date: 10/24 **OCT 28 2013**

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Date: _____

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Date: _____

Revision Date: June/2011

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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



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 City, St., Zip: Brighton, MI 48116
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 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
 TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
48452 12	40	HA-02 - E	DRYWALL / THROUGHOUT - 731		
13	41	F	735		
14	42	G	739		
15	43	HA-03 - A	12x12 BROWN SPECK FLOOR TILE - 2 ND FLOOR	707	GOOSE
16	44	B	713		
17	45	C	723		
18	46	D	725		
19	47	E	731		
20	48	F	735		
21	49	G	739		
22					

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Revision Date: June/2011

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Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
48452 22 29	HA-04-A	SINK UNDERCOATING-KITCHEN-707			
29 30	B		713		
24 25 27	C		723		
25 26 32	D		725		
26 27 33	E		731		
27 28 34	F		735		
28 29 35	G		739		
29 30 36	HA-05-A	12x12 GRAY FLOOR TILE STAIRS UP 707		30 SF	
30 31 37	B		713		
31 32 38	C		723		
32 33 39	D		725		

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 Revision Date: June/2011

Received By: [Signature] OCT 28 2013
 Date: 10/24

APEX RESEARCH

Relinquished By: _____
 Date: _____

Relinquished By: _____
 Date: _____

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 Environmental
 Address: P.O. Box 2160
 City, St., Zip: Brighton, MI 48116
 Phone: _____ Fax: _____

Date of Survey: 10-24-13
 Project: ANN ARBOR HOUSING COMMISSION
 Project # 8563
 Contact Person: X. USTERY
 Email: NSP@ASTI-ENV.COM

Lab Use Only
 Log-In: _____
 Report: _____
 Fax: _____
 Verbal: _____
 Email: _____

Turn Around Times: (Circle One)

Rush 24 hour
 48 hour 72 hour
 Other: _____ TTP yes / no
 (Test Till Positive)

***Terms and conditions on the other side.
Asbestos: Bulk Wipe _____ Point Count PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
48452 334 18	HA-05-E	12x12 GRAY FLOOR TILES / STAIRS UP	731	7	30 SF
34 35 19	HA-06-A	STUCCO / BASEMENT	707		
35 36 20	B		713		
36 37 21	C		723		
37 38 22	D		725		
38 39 23	E		731		
39 40 24	F		735		
40 41 25	G		739		
41 42 26	HA-07-A	BEIGE BOX VINYL FLOOR / BATH	711		20 SF
42 43 27	B				
43 44 28	C				

RECEIVED
 OCT 28 2013

Relinquished By: X. Ustery
 Date: 10-25-13
 Revision Date: June/2011

Received By: [Signature]
 Date: 10/28 APEX RESEARCH
 Relinquished By: _____
 Date: _____

Relinquished By: _____
 Date: _____

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991.
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Customer Name: ASTI Environmental
 Address: P.O. Box 2160
 City, St., Zip: Brighton, MI 48116
 Phone: _____ Fax: _____

Date of Survey: 10-24-13
 Project: ANN ARBOR
 Project # 8563
 Contact Person: K. USHERY
 Email: NSP@asti-env.com

Lab Use Only
 Log-In: _____
 Report: _____
 Fax: _____
 Verbal: _____
 Email: _____

Turn Around Times: (Circle One)

Rush 24 hour
 48 hour 72 hour
 Other: _____ TTP yes / no
 (Test Till Positive)

***Terms and conditions on the other side.

Asbestos: Bulk Wipe _____ Point Count PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
 TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
45 46 45	9	HA-08-A	12x12 GRAY SPECK FLOOR TILE / 717 STAIRS UP	30 SF	
46 47 46	B				
47 48 47	C				
48 49 48	9	HA-09-A	9x9 BROWN VINYL FLOOR / 2ND FLOOR BATH 719	20 SF	
49 50 49	B		719		
50 51 50	C		1ST FLOOR BATH 739		
51 52 51	9	HA-10-A	12x12 DARK BROWN FLOOR TILE / 1ST FLOOR	727	100 SF
52 53 52	B		STAIRS UP 735	20 SF	
53 54 53	C		735	1	
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p style="margin: 0;">RECEIVED</p> <p style="margin: 0;">OCT 28 2013</p> </div>					

Relinquished By: Kevin Ushery
 Date: 10-25-13
 Revision Date: June/2011

Received By: [Signature]
 Date: 10/28
 APEX RESEARCH

Relinquished By: _____
 Date: _____

Relinquished By: _____
 Date: _____

48452

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 Environmental
 Address: P.O. Box 2160
 City, St., Zip: Brighton, MI 48116
 Phone: _____ Fax: _____

Date of Survey: _____
 Project: _____
 Project # _____
 Contact Person: K. Ustery
 Email: NSP@asti-env.com

Lab Use Only
 Log-In: _____
 Report: _____
 Fax: _____
 Verbal: _____
 Email: _____

Turn Around Times: (Circle One)

Rush _____ 24 hour _____
 48 hour _____ 72 hour _____
 Other: _____ TTP yes / no _____
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Asbestos: Bulk _____ Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
48452 53	1	HA-11 - A	WINDOW SILL / EXTERIOR	707	
54	B		713		
55 56	C		725		
56 57	D		731		
57 58	E		739		
58 59	6	HA-12 - A	COVER BASE RED	719	10 LF
59 60	B				
60 61	C				
RECEIVED					

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 Revision Date: June/2011

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 Date: 10/28
APEX RESEARCH

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing
Project # 8563

Report To:
Mr. Kevin Ushery
ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 01 Cust. #: HA-01-A Material: Drywall Location: Apt 749 Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48589 - 01a Cust. #: HA-01-A Material: Joint Compound Location: Apt 749 Appearance: white, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 48589 - 02 Cust. #: HA-01-B Material: Drywall Location: Apt 747 Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



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Project: Ann Arbor Housing
Project # 8563

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ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 02a Cust. #: HA-01-B Material: Joint Compound Location: Apt 747 Appearance: white, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 48589 - 03 Cust. #: HA-01-C Material: Drywall Location: Apt 745 Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 48589 - 03a Cust. #: HA-01-C Material: Joint Compound Location: Apt 745 Appearance: white, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 04 Cust. #: HA-02-A Material: Stucco Location: Apt 749 Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 48589 - 05 Cust. #: HA-02-B Material: Stucco Location: Apt 747 Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 48589 - 06 Cust. #: HA-02-C Material: Stucco Location: Apt 745 Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 07 Cust. #: HA-03-A Material: 12"x12" Floor Tile - Beige Location: Apt 749 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 08 Cust. #: HA-03-B Material: 12"x12" Floor Tile - Beige Location: Apt 749 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 08a Cust. #: HA-03-B Material: Mastic Location: Apt 749 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Project: Ann Arbor Housing
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ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 09 Cust. #: HA-03-C Material: 12"x12" Floor Tile - Beige Location: Apt 749 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 09a Cust. #: HA-03-C Material: Mastic Location: Apt 749 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 10 Cust. #: HA-04-A Material: 12"x12" Floor Tile - Red Location: Apt 745 Appearance: red,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 10a Cust. #: HA-04-A Material: Mastic Location: Apt 745 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 11 Cust. #: HA-04-B Material: 12"x12" Floor Tile - Red Location: Apt 749 Appearance: red,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 11a Cust. #: HA-04-B Material: Mastic Location: Apt 749 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Project: Ann Arbor Housing
Project # 8563

Report To:
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ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 12 Cust. #: HA-04-C Material: 12"x12" Floor Tile - Red Location: Apt 745 Appearance: red,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 12a Cust. #: HA-04-C Material: Mastic Location: Apt 745 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 13 Cust. #: HA-05-A Material: Sink Undercoating Location: Apt 749 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%

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Date Collected: 11/05/13
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Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 14 Cust. #: HA-05-B Material: Sink Undercoating Location: Apt 743 Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%
Lab ID #: 48589 - 15 Cust. #: HA-05-C Material: Sink Undercoating Location: Apt 745 Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%
Lab ID #: 48589 - 16 Cust. #: HA-06-A Material: Linoleum Location: Apt 749 Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

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Project # 8563

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10448 Citation Dr., Suite 100
Brighton, MI 48116

ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 17 Cust. #: HA-06-B Material: Linoleum Location: Apt 749 Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 48589 - 18 Cust. #: HA-06-C Material: Linoleum Location: Apt 745 Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 48589 - 19 Cust. #: HA-07-A Material: Brown Base Cove Location: Apt 749 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 20 Cust. #: HA-07-B Material: Brown Base Cove Location: Apt 749 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 21 Cust. #: HA-07-C Material: Brown Base Cove Location: Apt 749 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 22 Cust. #: HA-08-A Material: 12"x12" Floor Tile - Tan Location: Apt 747 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 22a Cust. #: HA-08-A Material: Mastic Location: Apt 747 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 23 Cust. #: HA-08-B Material: 12"x12" Floor Tile - Tan Location: Apt 747 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 23a Cust. #: HA-08-B Material: Mastic Location: Apt 747 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 24 Cust. #: HA-08-C Material: 12"x12" Floor Tile - Tan Location: Apt 743 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 24a Cust. #: HA-08-C Material: Mastic Location: Apt 743 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 25 Cust. #: HA-09-A Material: White Base Cove Location: Apt 743 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 25a Cust. #: HA-09-A Material: Adhesive Location: Apt 743 Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 26 Cust. #: HA-09-B Material: White Base Cove Location: Apt 743 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 26a Cust. #: HA-09-B Material: Adhesive Location: Apt 743 Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing
Project # 8563

Report To:
Mr. Kevin Ushery
ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 27 Cust. #: HA-09-C Material: White Base Cove Location: Apt 743 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 27a Cust. #: HA-09-C Material: Adhesive Location: Apt 743 Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 28 Cust. #: HA-10-A Material: 12"x12" Floor Tile - Grey Specks Location: Apt 745 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 29 Cust. #: HA-10-B Material: 12"x12" Floor Tile - Grey Specks Location: Apt 745 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 30 Cust. #: HA-10-C Material: 12"x12" Floor Tile - Grey Specks Location: Apt 745 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 30a Cust. #: HA-10-C Material: Mastic Location: Apt 745 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Project # 8563

Report To:
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Brighton, MI 48116

ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 31 Cust. #: HA-11-A Material: Grey Base Cove Location: Apt 745 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 31a Cust. #: HA-11-A Material: Adhesive Location: Apt 745 Appearance: beige,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 32 Cust. #: HA-11-B Material: Grey Base Cove Location: Apt 745 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Project: Ann Arbor Housing
Project # 8563

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ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 32a Cust. #: HA-11-B Material: Adhesive Location: Apt 745 Appearance: beige,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 33 Cust. #: HA-11-C Material: Grey Base Cove Location: Apt 745 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 33a Cust. #: HA-11-C Material: Adhesive Location: Apt 745 Appearance: beige,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 34 Cust. #: HA-12-A Material: Stair Caulk Location: Apt 743-745 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 35 Cust. #: HA-12-B Material: Stair Caulk Location: Apt 743-745 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 36 Cust. #: HA-12-C Material: Stair Caulk Location: Apt 743-745 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Brighton, MI 48116

ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 37 Cust. #: HA-13-A Material: Window Caulk Location: Apt 749 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 38 Cust. #: HA-13-B Material: Window Caulk Location: Apt 747 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 39 Cust. #: HA-13-C Material: Window Caulk Location: Apt 743 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: Ann Arbor Housing
Project # 8563

Report To:
Mr. Kevin Ushery
ASTI Environmental
10448 Citation Dr., Suite 100
Brighton, MI 48116

ARI Report # 13-48589
Date Collected: 11/05/13
Date Received: 11/06/13
Date Analyzed: 11/07/13
Date Reported: 11/07/13

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 48589 - 40 Cust. #: HA-14-A Material: Door Caulk Location: Apt 743 - Side Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 41 Cust. #: HA-14-B Material: Door Caulk Location: Apt 743 - Front Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 48589 - 42 Cust. #: HA-14-C Material: Door Caulk Location: Apt 747 - Side Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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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 Environmental
 Address: P.O. Box 2160
 City, St., Zip: Brighton, MI 48116
 Phone: _____ Fax: _____

Date of Survey: 11-5-13
 Project: ANN ARBOR HOUSING
 Project # 8563
 Contact Person: K. USTERY
 Email: NSP@ASTI-ENV.COM

Lab Use Only
 Log-In: _____
 Report: _____
 Fax: _____
 Verbal: _____
 Email: _____

Turn Around Times: (Circle One)

Rush 24 hour
 48 hour 72 hour
 Other: _____ TTP yes / no
 (Test Till Positive)

***Terms and conditions on the other side.
Asbestos: Bulk Wipe _____ Point Count PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	HA-01-A	DRYWALL - APT 749			
2	B	747			
3	C	745			
4	HA-02-A	STUCCO - APT 749			
5	B	747			
6	C	745			
7	HA-03-A	12x12 FLOOR TILE BEIGE - APT 749			
8	B				
9	C				
10	HA-04-A	12x12 FLOOR TILE RED - APT 745			
11	B	749			
12	C	745			

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Relinquished By: Kevin Ustery
 Date: 11-5-13
 Revision Date: June/2011

Received By: _____
 Date: _____

Relinquished By: AB ^{NOV 6 2013}
 Date: _____
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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 Environmental
 Address: P.O. Box 2160
 City, St., Zip: Brighton, MI 48116
 Phone: _____ Fax: _____

Date of Survey: 11-5-13
 Project: ANN ARBOR HOUSING
 Project # 8563
 Contact Person: K. USHERY
 Email: NSP@asti-env.com

Lab Use Only
 Log-In: _____
 Report: _____
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 Email: _____

Turn Around Times: (Circle One)

Rush 24 hour
 48 hour 72 hour
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Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

48589

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	HA-05-A	SINK UNDERCOATING - APT 749			
14	B	743			
15	C	745			
16	HA-06-A	LINDEN - APT 749			
17	B	749			
18	C	745			
19	HA-07-A	BROWN COVE BASE - APT 749			
20	B	-			
21	C				
22	HA-08-A	12x12 FLOOR TILE TAN - APT 747			
23	B	747			
24	C	743			

RECEIVED

NOV 6 2013

Relinquished By: Kevin Usbery
 Date: 11-5-13

Received By: _____
 Date: _____

Relinquished By: BB
 Date: _____

Relinquished By: _____
 Date: _____

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991.

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Customer Name: ASTI Environmental
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 Phone: _____ Fax: _____

Date of Survey: 11-5-13
 Project: ANN ARBOR HOUSING
 Project # 8563
 Contact Person: K. USHERY
 Email: NSP@ASTI-ENV.COM

Lab Use Only
 Log-In: _____
 Report: _____
 Fax: _____
 Verbal: _____
 Email: _____

Turn Around Times: (Circle One)

Rush 24 hour
 48 hour 72 hour
 Other: _____ TTP yes / no
(Test Till Positive)

***Terms and conditions on the other side.

Asbestos: Bulk Wipe _____ Point Count PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
 TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

48589

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
25	HA-09-A	WHITE COVE BASE - APT 743			
26	B				
27	C				
28	HA-10-A	12x12 FLOOR TILE GRAY SPECK - APT 745			
29	B				
30	C				
31	HA-11-A	GRAY COVE BASE - APT 745			
32	B				
33	C				
34	HA-12-A	STAIR CAULK - APT 743-745			
35	B				
36	C				

RECEIVED

NOV 6 2013

Relinquished By: Kevin Ushery
 Date: 11-5-13

Received By: _____
 Date: _____

Relinquished By: [Signature]
 Date: _____

Relinquished By: _____
 Date: _____

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991.
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 Email: _____

Turn Around Times: (Circle One)

Rush 24 hour
 48 hour 72 hour
 Other: _____ TTP yes / no
 (Test Till Positive)

***Terms and conditions on the other side.
Asbestos: Bulk Wipe _____ Point Count PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: Bulk/NOP _____ AHERA _____ EPA Level II _____ Other _____

46589

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
37	HA-13-A	WINDOW CAULK - APT 749			
38	B	747			
39	C	743			
40	HA-14-A	DOOR CAULK - APT 743 SIDE			
41	B	743 FRONT			
42	C	747 SIDE			

RECEIVED

Relinquished By: Kevin Ustery
 Date: 11-5-13
 Revision Date: June/2011

Received By: _____
 Date: _____

Relinquished By: _____
 Date: _____

NOV 10 2013
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Attachment D
Asbestos Sample Tables

**Table 1
Asbestos Sample Results
701-749 North Maple
ASTI Project No. 8563
Sample Date 10/23/13**

ASTI Sample ID	Material	Description	Sample Location	Condition of Material	Friability	Asbestos Result	Quantity of Asbestsos
HA-01-A	12" x 12" Floor tile	White	Unit 707 1st floor	Good	NF	NAD	NQ
HA-01-B	12" x 12" Floor tile	White	Unit 713 1st floor	Good	NF	NAD	
HA-01-C	12" x 12" Floor tile	White	Unit 723 1st floor	Good	NF	NAD	
HA-01-D	12" x 12" Floor tile	White	Unit 725 1st floor	Good	NF	NAD	
HA-01-E	12" x 12" Floor tile	White	Unit 731 1st floor	Good	NF	NAD	
HA-01-F	12" x 12" Floor tile	White	Unit 735 1st floor	Good	NF	NAD	
HA-01-G	12" x 12" Floor tile	White	Unit 739 1st floor	Good	NF	NAD	
HA-02-A	Drywall	White	Unit 707	Good	NF	NAD	NQ
	Joint compound					NAD	
HA-02-B	Drywall	White	Unit 713	Good	NF	NAD	
	Joint compound					0.75% Chrsytile	
HA-02-C	Drywall	White	Unit 723	Good	NF	NAD	
	Joint compound					NAD	
HA-02-D	Drywall	White	Unit 725	Good	NF	NAD	
	Joint compound					1.5% Chrsytile	
HA-02-E	Drywall	White	Unit 731	Good	NF	NAD	
	Joint compound					1.25% Chrsytile	
HA-02-F	Drywall	White	Unit 735	Good	NF	NAD	
	Joint compound					1.5% Chrsytile	
HA-02-G	Drywall	White	Unit 739	Good	NF	NAD	
	Joint compound					0.25% Chrsytile	
HA-03-A	12" x 12" Floor tile	Brown speckled	Unit 707 2nd floor	Good	NF	NAD	NQ
HA-03-B	12" x 12" Floor tile	Brown speckled	Unit 713 2nd floor	Good	NF	NAD	
HA-03-C	12" x 12" Floor tile	Brown speckled	Unit 723 2nd floor	Good	NF	NAD	
HA-03-D	12" x 12" Floor tile	Brown speckled	Unit 725 2nd floor	Good	NF	NAD	
HA-03-E	12" x 12" Floor tile	Brown speckled	Unit 731 2nd floor	Good	NF	NAD	
HA-03-F	12" x 12" Floor tile	Brown speckled	Unit 735 2nd floor	Good	NF	NAD	
HA-03-G	12" x 12" Floor tile	Brown speckled	Unit 739 2nd floor	Good	NF	NAD	
HA-04-A	Sink undercoating	White	Unit 707	Good	NF	NAD	NQ
HA-04-B	Sink undercoating	White	Unit 713	Good	NF	NAD	
HA-04-C	Sink undercoating	White	Unit 723	Good	NF	NAD	
HA-04-D	Sink undercoating	White	Unit 725	Good	NF	NAD	
HA-04-E	Sink undercoating	White	Unit 731	Good	NF	NAD	
HA-04-F	Sink undercoating	White	Unit 735	Good	NF	NAD	
HA-04-G	Sink undercoating	White	Unit 739	Good	NF	NAD	

F = Friable
NF = Non Friable

L.F. = Linear Feet
S.F. = Sqaure Feet
- = Included in above total

Shaded = Positive for asbestos
NAD = No Asbestos Detected

* Observed in several locations. Discussed in report text.

**Table 1
Asbestos Sample Results
701-749 North Maple
ASTI Project No. 8563
Sample Date 10/23/13**

ASTI Sample ID	Material	Description	Sample Location	Condition of Material	Friability	Asbestos Result	Quantity of Asbestsos
HA-05-A	12" x 12" Floor tile	Grey	Unit 707 stairs to 2nd	Good	NF	NAD	NQ
HA-05-B	12" x 12" Floor tile	Grey	Unit 713 stairs to 2nd	Good	NF	NAD	
HA-05-C	12" x 12" Floor tile	Grey	Unit 723 stairs to 2nd	Good	NF	NAD	
HA-05-D	12" x 12" Floor tile	Grey	Unit 725 stairs to 2nd	Good	NF	NAD	
HA-05-E	12" x 12" Floor tile	Grey	Unit 731 stairs to 2nd	Good	NF	NAD	
HA-06-A	Stucco	Grey	Unit 707 basement	Good	NF	NAD	NQ
HA-06-B	Stucco	Grey	Unit 713 basement	Good	NF	NAD	
HA-06-C	Stucco	Grey	Unit 723 basement	Good	NF	NAD	
HA-06-D	Stucco	Grey	Unit 725 basement	Good	NF	NAD	
HA-06-E	Stucco	Grey	Unit 731 basement	Good	NF	NAD	
HA-06-F	Stucco	Grey	Unit 735 basement	Good	NF	NAD	
HA-06-G	Stucco	Grey	Unit 739 basement	Good	NF	NAD	
HA-07-A	Linoleum flooring	Beige boxes	Unit 711 Bathroom	Good	NF	NAD	NQ
HA-07-B	Linoleum flooring	Beige boxes	Unit 711 Bathroom	Good	NF	NAD	
HA-07-C	Linoleum flooring	Beige boxes	Unit 711 Bathroom	Good	NF	NAD	
HA-08-A	12" x 12" Floor tile	Grey speckled	Unit 717 stairs to 2nd	Good	NF	NAD	NQ
HA-08-B	12" x 12" Floor tile	Grey speckled	Unit 717 stairs to 2nd	Good	NF	NAD	
HA-08-C	12" x 12" Floor tile	Grey speckled	Unit 717 stairs to 2nd	Good	NF	NAD	
HA-09-A	9" x 9" Floor tile	Brown	Unit 719 2nd floor bath	Good	NF	NAD	NQ
HA-09-B	9" x 9" Floor tile	Brown	Unit 719 2nd floor bath	Good	NF	NAD	
HA-09-C	9" x 9" Floor tile	Brown	Unit 739 1st floor bath	Good	NF	NAD	
HA-10-A	12" x 12" Floor tile	Dark brown	Unit 727 1st floor	Good	NF	NAD	NQ
HA-10-B	12" x 12" Floor tile	Dark brown	Unit 735 stairs to 2nd	Good	NF	NAD	
HA-10-C	12" x 12" Floor tile	Dark brown	Unit 735 stairs to 2nd	Good	NF	NAD	
HA-11-A	Window caulk	White	Unit 707	Good	NF	NAD	NQ
HA-11-B	Window caulk	White	Unit 713	Good	NF	NAD	
HA-11-C	Window caulk	White	Unit 725	Good	NF	NAD	
HA-11-D	Window caulk	White	Unit 731	Good	NF	NAD	
HA-11-E	Window caulk	White	Unit 739	Good	NF	NAD	
HA-12-A	Base cove	Red	Unit 719	Good	NF	NAD	NQ
HA-12-B	Base cove	Red	Unit 719	Good	NF	NAD	
HA-12-C	Base cove	Red	Unit 719	Good	NF	NAD	

F = Friable
NF = Non Friable

* Observed in several locations. Discussed in report text.

L.F. = Linear Feet
S.F. = Square Feet
- = Included in above total

Shaded = Positive for asbestos
NAD = No Asbestos Detected

Table 2
Asbestos Sample Results
701-749 North Maple
ASTI Project No. 8563
Sample Date 11/5/13

ASTI Sample ID	Material	Description	Sample Location	Condition of Material	Friability	Asbestos Result	Quantity of Asbestos
HA-01-A	Drywall	White	Unit 749	Good	NF	NAD	NQ
	Joint compound					NAD	
HA-01-B	Drywall	White	Unit 747	Good	NF	NAD	NQ
	Joint compound					NAD	
HA-01-C	Drywall	White	Unit 745	Good	NF	NAD	NQ
	Joint compound					NAD	
HA-02-A	Stucco	White	Unit 749	Good	NF	NAD	NQ
HA-02-B	Stucco	White	Unit 747	Good	NF	NAD	
HA-02-C	Stucco	White	Unit 745	Good	NF	NAD	
HA-03-A	12" x 12" Floor tile	beige	Unit 747	Good	NF	NAD	NQ
HA-03-B	12" x 12" Floor tile	beige	Unit 747	Good	NF	NAD	
HA-03-C	12" x 12" Floor tile	beige	Unit 747	Good	NF	NAD	
HA-04-A	12" x 12" Floor tile	Red	Unit 745	Good	NF	NAD	NQ
HA-04-B	12" x 12" Floor tile	Red	Unit 749	Good	NF	NAD	
HA-04-C	12" x 12" Floor tile	Red	Unit 745	Good	NF	NAD	
HA-05-A	Sink undercoating	White	Unit 749	Good	NF	NAD	NQ
HA-05-B	Sink undercoating	White	Unit 743	Good	NF	NAD	
HA-05-C	Sink undercoating	White	Unit 745	Good	NF	NAD	
HA-06-A	Linoleum flooring	White	Unit 749	Good	NF	NAD	NQ
HA-06-B	Linoleum flooring	White	Unit 749	Good	NF	NAD	
HA-06-C	Linoleum flooring	White	Unit 745	Good	NF	NAD	
HA-07-A	Base cove	Brown	Unit 749	Good	NF	NAD	NQ
HA-07-B	Base cove	Brown	Unit 749	Good	NF	NAD	
HA-07-C	Base cove	Brown	Unit 749	Good	NF	NAD	
HA-08-A	12" x 12" Floor tile	Tan	Unit 747	Good	NF	NAD	NQ
HA-08-B	12" x 12" Floor tile	Tan	Unit 747	Good	NF	NAD	
HA-08-C	12" x 12" Floor tile	Tan	Unit 743	Good	NF	NAD	
HA-09-A	Base cove	White	Unit 743	Good	NF	NAD	NQ
HA-09-B	Base cove	White	Unit 743	Good	NF	NAD	
HA-09-C	Base cove	White	Unit 743	Good	NF	NAD	
HA-10-A	12" x 12" Floor tile	Gray speck	Unit 745	Good	NF	NAD	NQ
HA-10-B	12" x 12" Floor tile	Gray speck	Unit 745	Good	NF	NAD	
HA-10-C	12" x 12" Floor tile	Gray speck	Unit 745	Good	NF	NAD	
HA-11-A	Base cove	Gray	Unit 745	Good	NF	NAD	NQ
HA-11-B	Base cove	Gray	Unit 745	Good	NF	NAD	
HA-11-C	Base cove	Gray	Unit 745	Good	NF	NAD	
HA-12-A	Stair caulk	White	Unit 743-745	Good	NF	NAD	NQ
HA-12-B	Stair caulk	White	Unit 743-745	Good	NF	NAD	
HA-12-C	Stair caulk	White	Unit 747-749	Good	NF	NAD	
HA-13-A	Window caulk	White	Unit 749	Good	NF	NAD	NQ
HA-13-B	Window caulk	White	Unit 743	Good	NF	NAD	
HA-13-C	Window caulk	White	Unit 747	Good	NF	NAD	
HA-14-A	Door caulk	White	Unit 743 side	Good	NF	NAD	NQ
HA-14-B	Door caulk	White	Unit 743 front	Good	NF	NAD	
HA-14-C	Door caulk	White	Unit 747 side	Good	NF	NAD	

Attachment E

Copy of Notification of Intent to Renovate or Demolish

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ___/___/___ Rec'd Date ___/___/___
 Emergency Date ___/___/___ Valid No. _____
 OK Send Def Ltr. Date of Def Ltr. ___/___/___
 FOLLOW UP ___/___/___ Spoke w/ _____
 Comments: _____

 Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)
 Total Project Cost: _____ x 0.01 = _____
 Type of Contractor: _____ License No.: _____
 Licensing Authority: _____

1. NOTIFICATION:
 Date of Notification: _____
 Date of Revision(s): _____
 Notification Type: Original Revised Canceled Annual
Mark appropriate boxes: (both DEQ and LARA may apply):
DEQ (NESHAP) [260 In. ft./160 sq. ft. or more is threshold]
 Planned Renovation – 10 working days notice
 Emergency Renovation
 Scheduled Demolition – 10 working days notice
 Intentional Burn – 10 working days notice
 Ordered Demolition
LARA (MIOSHA) [Will not accept annual notifications]
 Demo, Reno, Encap. (>10 In. ft./15 sq. ft.) 10 calendar days notice
 Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
 +Include only those dates you are conducting asbestos removal/demo.
 Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR: Internal Project #: _____
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR: Internal Project #: _____
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)
 Name: _____
 Mailing Address: _____
 City/State/Zip: _____
 E-mail: _____
 Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:
 Facility Name: _____
 Location Address/Description: _____
 _____ If Apt. # of units: _____
 City/Twp. _____ State: _____ Zip Code: _____
 County: _____ Nearest Crossroad: _____
 Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
 Age: _____ Present Use: _____ Prior Use: _____
 Specific Location(s) in Facility: _____

7. DISPOSAL SITE:
 Name: _____
 Location Address: _____
 City/State/Zip: _____

8. WASTE TRANSPORTER 1:	WASTE TRANSPORTER 2:
Name: _____	_____
Address: _____	_____
City/State/Zip: _____	_____
Phone: _____	_____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.
 Gov't Agency Ordering Demo: _____
 Name/Title of Person Signing Order: _____

 Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT? Yes No To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that will not be removed prior to demolition. (NOTE: In a demolition, cementitious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM <u>not</u> removed prior to demo.	
		Category I	Category II
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Units of Measure			
<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.	<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu.M.*		

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete A) for Renovation (asbestos removal/encapsulation) and/or B) for Demolition:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

- Piping Fittings Boiler(s) Tanks(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Mag Block Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

- Piping Fittings Boiler(s) Tank(s)
 Beam(s) Duct(s) Tunnel(s) Ceiling Tile(s)
 Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: A) Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor *Date*

Signature of Owner or Demolition Contractor *Date*

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
 Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. *I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.*

Signature of Building Owner or Lessee *Date*

Signature of Asbestos Abatement Contractor Representative *Date*

NOTE: It is not mandatory that a signed copy be sent to LARA unless requested. For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator

Date

Signature of Owner/Operator

Date

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), mail to address below. For more info visit: <http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.322.1320 (office), 517.322.1713 (fax)

For NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M, mail notifications to the appropriate address below (by county of subject facility): For more info visit <http://www.michigan.gov/deq> click on Air, then Asbestos NESHAP Program.

All Counties (except Wayne County)

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.241.7463 (Office)
 517.373.7064 (Revision Line)

Wayne County Only

NESHAP Asbestos Program
 Detroit Field Office, DEQ, AQD
 Cadillac Place, Suite 2-300
 3058 West Grand Boulevard
 Detroit, MI 48202

313.456.4686

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8,000 ENVIRONMENTAL INVESTIGATION, REMEDIATION, COMPLIANCE AND
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- **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**
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- **WETLAND DELINEATION, PERMITTING, MITIGATION AND BANKING**