

December 29, 2017

Ms. Roxanne Case Grant Manager Ingham County Land Bank 3024 Turner Street Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey 1000 W Saginaw St, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited predemolition regulated materials survey (RMS) performed at 1000 W Saginaw St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information			
Property Address	1000 W Saginaw St, Lansing, MI		
Parcel #	33-01-01-08-481-151		
No. Stories	3		
Square Footage (approx.)	2,500 SF		
Siding	Wood		
Basement	Yes		
Garage	Yes attached		



Asbestos Containing Material							
Location	Material Group	Friable/Non Friable	Asbestos	Quantity			
RM-14	Green tile	Non Friable	10% Chrysotile	275 SF			
RM-2	Sink undercoating	Non Friable	10% Chrysotile	3 SF			
RM-2, RM-4, RM-5	Tan tile	Non Friable	10% Chrysotile	375 SF			
RM-9	Brown linoleum	Non Friable	20% Chrysotile	120 SF			
Roof	Roof tar	Non Friable	20% Chrysotile	275 SF			

Hazardous Materials				
Location	Quantity			
RM-16	1 Gallon paint can	6		

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Universal Waste Inventory					
Location	Material Description	Quantity			
Basement, Exterior	CFL bulb	2			
RM-1	Television	1			
RM-6, RM-13	Fluorescent bulb	6			
RM-13, RM-16	Fire extinguisher	2			
RM-5, RM-14	Thermostat	2			
RM-11, RM-12, Basement	Smoke detector	3			

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 20, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I nonfriable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time,

and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - o IATA International Air Transport Association; Dangerous Goods Regulations;
 - o ICAO International Civil Aviation Organization; Technical Instructions; and
 - AF Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) List of Hazardous Substances and Reportable Quantities, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of

the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log.* The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified eighteen (18) homogenous materials that were suspect as asbestos containing during the ACM survey. Forty (40) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy

using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found five (5) homogenous materials (samples 3-1, 7-1, 9-1, 13-1 and 18-1) contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the eighteen (18) homogenous materials collected as part of the ACM survey, five (5) homogenous materials contained asbestos greater than 1% (samples 3-1, 7-1, 9-1, 13-1 and 18-1) with these five (5) homogenous materials being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional

universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232. Sincerely,

Kory McKay Environmental Scientist Accreditation Number A47903

-LP

Charlie Bush Senior Project Manager Accreditation Number A34293

Attachments





TECHNICAL SKILL. CREATIVE SPIRIT.

Address: 1000 W Saginaw St Date: December 22, 2017 Drawing not to scale 1st Floor 2-2 2-1 16-1, 2 17-1, 2 18-1, 2 Room 4 Room 9 Room 5 7-1, 2 Room 7 1-2 1-1 3-1, 2 Room 3 Room 2 Room 8 Room 6 4-1, 2 5-1, 2 1-3 6-1, 2 9-1, 2 Room 1

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com



Sink Under Coating (3 SF)





Brown Linoleum (120 SF)



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721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com









TABLE 1 Asbestos Sampling Results

		-								
Client Ingham County Land Bank Authority										
Survey Loca	ation	1000 W Sagin	aw St							
Functional Area	Floor	Sample ID	, 2017 HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-2	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	4800 SF
RM-6	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	4800 SF
RM-8	1	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	4800 SF
RM-10	2	AS 1-4	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	4800 SF
RM-10	2	AS 1-5	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	4800 SF
RM-5	1	AS 2-1	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	No	No	425 SF
RM-4	1	AS 2-2	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	No	No	425 SF
RM-2	1	AS 3-1	HA-3	Tan tile	Non-Friable	Good	Miscellaneous	Yes	10% Chrysotile	375 SF
RM-2	1	AS 3-2	HA-3	Tan tile	Non-Friable	Good	Miscellaneous	Yes	NA	375 SF
RM-3	1	AS 4-1	HA-4	Cream Linoleum	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-3	1	AS 4-2	HA-4	Cream Linoleum	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-6	1	AS 5-1	HA-5	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-6	1	AS 5-2	HA-5	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-6	1	AS 6-1	HA-6	Yellow Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-6	1	AS 6-2	HA-6	Yellow Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF

TABLE 1 Asbestos Sampling Results

Client	t Ingham County Land Bank Authority									
Survey Loca	ation	1000 W Saginaw St								
Survey Da Functional Area	Floor	December 20, Sample ID	, 2017 HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-9	1	AS 7-1	HA-7	Brown Linoleum	Non-Friable	Good	Miscellaneous	Yes	20% Chrysotile	120 SF
RM-9	1	AS 7-2	HA-7	Brown Linoleum	Non-Friable	Good	Miscellaneous	Yes	NA	120 SF
Basement	В	AS 8-1	HA-8	Basement cement	Non-Friable	Good	Miscellaneous	No	No	300 SF
Basement	В	AS 8-2	HA-8	Basement cement	Non-Friable	Good	Miscellaneous	No	No	300 SF
RM-2	1	AS 9-1	HA-9	Sink under coating	Non-Friable	Good	Miscellaneous	Yes	10% Chrysotile	3 SF
RM-2	1	AS 9-2	HA-9	Sink under coating	Non-Friable	Good	Miscellaneous	Yes	NA	3 SF
RM-10	2	AS 10-1	HA-10	Plaster	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-10	2	AS 10-2	HA-10	Plaster	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-10	2	AS 10-3	HA-10	Plaster	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-13	2	AS 11-1	HA-11	Faux wood tile	Non-Friable	Good	Miscellaneous	No	No	260 SF
RM-13	2	AS 11-2	HA-11	Faux wood tile	Non-Friable	Good	Miscellaneous	No	No	260 SF
RM-15	2	AS 12-1	HA-12	Beige tile sandwich	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-15	2	AS 12-2	HA-12	Beige tile sandwich	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-14	2	AS 13-1	HA-13	Green tile	Non-Friable	Good	Miscellaneous	Yes	10% Chrysotile	275 SF
RM-14	2	AS 13-2	HA-13	Green tile	Non-Friable	Good	Miscellaneous	Yes	NA	275 SF

TABLE 1 Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Loc	ation	1000 W Saginaw St								
Survey Da Functional Area	Floor	December 20, Sample ID	, 2017 HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-18	3	AS 14-1	HA-14	Faux marble tile	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-18	3	AS 14-2	HA-14	Faux marble tile	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-16	3	AS 15-1	HA-15	White tile	Non-Friable	Good	Miscellaneous	No	No	170 SF
RM-16	3	AS 15-2	HA-15	White tile	Non-Friable	Good	Miscellaneous	No	No	170 SF
Roof	E	AS 16-1	HA-16	Shingles	Non-Friable	Good	Miscellaneous	No	No	600 SF
Roof	E	AS 16-2	HA-16	Shingles	Non-Friable	Good	Miscellaneous	No	No	600 SF
Roof	E	AS 17-1	HA-17	Garage shingles	Non-Friable	Good	Miscellaneous	No	No	400 SF
Roof	E	AS 17-2	HA-17	Garage shingles	Non-Friable	Good	Miscellaneous	No	No	400 SF
Roof	E	AS 18-1	HA-18	Roof tar	Non-Friable	Good	Miscellaneous	Yes	20% Chrysotile	275 SF
Roof	Ε	AS 18-2	HA-18	Roof tar	Non-Friable	Good	Miscellaneous	Yes	NA	275 SF

Table 2Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory1000 W Saginaw StLansing, Ingham County, Michigan

Universal Waste Inventory					
Location	Type of Waste	Approximate Quantity			
Basement, Exterior	CFL bulb	2			
RM-1	Television	1			
RM-6, RM-13	Fluorescent bulb	6			
RM-13, RM-16	Fire extinguisher	2			
RM-5, RM-14	Thermostat	2			
RM-11, RM-12, Basement	Smoke detector	3			
	Hazardous Materials Inventory				
Location	Type of Waste	Approximate Quantity			
RM-16	1 Gallon paint can	6			
Other Regulated Materials Inventory					
Location	Type of Waste	Approximate Quantity			
-	-	-			



Ingham County Land Bank 1000 W Saginaw St, Lansing, MI Photographs taken by: Kory McKay on 12/20/2017

Property Photos







Ingham County Land Bank 1000 W Saginaw St, Lansing, MI Photographs taken by: Kory McKay on 12/20/2017

Sample Photos



Ingham County Land Bank 1000 W Saginaw St, Lansing, MI Photographs taken by: Kory McKay on 12/20/2017

Sample Photos



Faux wood tile from room 13





Green tile sample from room 14







REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

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Regulated Materials Survey Limitations.Docx

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.



ANALYTICAL REPORTS AND CHAINS OF CUSTODY



Project: 1000 W. Saginaw St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73859

 Date Collected:
 12/20/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 01 Cust. #: AS 14-1 Material: Faux Marble Tile Location: Room 18 Appearance: green,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 73859 - 01a Cust. #: AS 14-1 Material: Glue Location: Room 18 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 02 Cust. #: AS 14-2 Material: Faux Marble Tile Location: Room 18 Appearance: green,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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

Robert T. Letarte Jr., Laboratory Director

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

 $\mathbb{N}\mathbb{V}$



APEX RESEARCH

Project: 1000 W. Saginaw St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73859

 Date Collected:
 12/20/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 02a Cust. #: AS 14-2 Material: Glue Location: Room 18 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 03 Cust. #: AS 15-1 Material: White Tile Location: Room 16 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 03a Cust. #: AS 15-1 Material: Glue Location: Room 16 Appearance: clear,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.

AD) NV

APEX RESEARCH

Project: 1000 W. Saginaw St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73859

 Date Collected:
 12/20/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 04 Cust. #: AS 15-2 Material: White Tile Location: Room 16 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 04a Cust. #: AS 15-2 Material: Glue Location: Room 16 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 05 Cust. #: AS 1-4 Material: Drywall Location: Room 10 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	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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Project: 1000 W. Saginaw St. Project # I1440002

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 17-73859

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 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 06 Cust. #: AS 1-5 Material: Drywall Location: Room 10 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73859 - 07 Cust. #: AS 12-1 Material: Beige Tile Sandwich Location: Room 15 Appearance: brown,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 07a Cust. #: AS 12-1 Material: Glue Location: Room 15 Appearance: clear,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 07b Cust. #: AS 12-1 Material: Linoleum Location: Room 15 Appearance: white,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73859 - 08 Cust. #: AS 12-2 Material: Beige Tile Sandwich Location: Room 15 Appearance: brown,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 08a Cust. #: AS 12-2 Material: Glue Location: Room 15 Appearance: clear,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 08b Cust. #: AS 12-2 Material: Linoleum Location: Room 15 Appearance: white,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73859 - 09 Cust. #: AS 11-1 Material: Faux Wood Tile Location: Room 13 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 73859 - 09a Cust. #: AS 11-1 Material: Glue Location: Room 13 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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ARI Report # 17-73859 Date Collected: 12/20/17 Date Received: 12/21/17 Date Analyzed: 12/27/17 Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 10 Cust. #: AS 11-2 Material: Faux Wood Tile Location: Room 13 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 73859 - 10a Cust. #: AS 11-2 Material: Glue Location: Room 13 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 11 Cust. #: AS 13-1 Material: Green Tile Location: Room 14 Appearance: green,fibrous,homogenous Layer: 1 of 3	Asbestos Present: YES Chrysotile - 10%	Other - 90%

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Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 11a Cust. #: AS 13-1 Material: Mastic Location: Room 14 Appearance: black,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 73859 - 11b Cust. #: AS 13-1 Material: Tar Paper Location: Room 14 Appearance: black,fibrous,homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 73859 - 12 Cust. #: AS 13-2 Material: Green Tile Location: Room 14 Appearance: Layer: 1 of 3	Asbestos Present: NOT ANALYZED	
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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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 12a Cust. #: AS 13-2 Material: Mastic Location: Room 14 Appearance: black,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 12b Cust. #: AS 13-2 Material: Tar Paper Location: Room 14 Appearance: black,fibrous,homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 73859 - 13 Cust. #: AS 10-2 Material: Plaster - Base Coat Location: Room 10 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 14 Cust. #: AS 10-3 Material: Texture Location: Room 10 Appearance: white,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Wollastonite - 5% Other - 95%
Lab ID #: 73859 - 14a Cust. #: AS 10-3 Material: Plaster - Base Coat Location: Room 10 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 1% Other - 99%
Lab ID #: 73859 - 15 Cust. #: AS 10-1 Material: Texture Location: Room 10 Appearance: white,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Wollastonite - 1% Other - 99%

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Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 15a Cust. #: AS 10-1 Material: Plaster - Base Coat Location: Room 10 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73859 - 16 Cust. #: AS 16-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 73859 - 17 Cust. #: AS 16-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 18 Cust. #: AS 9-1 Material: Sink Undercoating Location: Room 2 Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 10%	Other - 90%
Lab ID #: 73859 - 19 Cust. #: AS 9-2 Material: Sink Undercoating	Asbestos Present: NOT ANALYZED	
Location: Room 2 Appearance: Layer: of		
Lab ID #: 73859 - 20 Cust. #: AS 1-1 Material: Drywall Location: Room 2 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	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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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 21 Cust. #: AS 3-1 Material: Tan Tile Location: Room 2 Appearance: beige,fibrous,homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 10%	Other - 90%
Lab ID #: 73859 - 21a Cust. #: AS 3-1 Material: Mastic Location: Room 2 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 22 Cust. #: AS 3-1 Material: Tan Tile Location: Room 2 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	

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Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 22a Cust. #: AS 3-1 Material: Mastic Location: Room 2 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 23 Cust. #: AS 4-1 Material: Cream Linoleum Location: Room 3 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73859 - 24 Cust. #: AS 4-2 Material: Cream Linoleum Location: Room 3 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 25 Cust. #: AS 7-1 Material: Brown Linoleum Location: Room 9 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 20%	Other - 80%
Lab ID #: 73859 - 26 Cust. #: AS 7-2 Material: Brown Linoleum Location: Room 9 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73859 - 27 Cust. #: AS 2-2 Material: Window Glaze Location: Room 4 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%

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ARI Report # 17-73859 Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 28 Cust. #: AS 2-1 Material: Window Glaze Location: Room 5 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 73859 - 29 Cust. #: AS 1-2 Material: Drywall Location: Room 6 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73859 - 30 Cust. #: AS 5-1 Material: Faux Wood Linoleum Location: Room 6 Appearance: brown,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 #: 73859 - 30a Cust. #: AS 5-1 Material: Glue Location: Room 6 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 31 Cust. #: AS 5-2 Material: Faux Wood Linoleum Location: Room 6 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 31a Cust. #: AS 5-2 Material: Glue Location: Room 6 Appearance: clear,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 #: 73859 - 32 Cust. #: AS 6-1 Material: Yellow Linoleum Location: Room 6 Appearance: yellow,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73859 - 33 Cust. #: AS 6-2 Material: Yellow Linoleum Location: Room 6 Appearance: yellow,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73859 - 34 Cust. #: AS 1-3 Material: Drywall Location: Room 8 Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 34a Cust. #: AS 1-3 Material: Joint Compound Location: Room 8 Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 35 Cust. #: AS 17-1 Material: Garage Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 73859 - 36 Cust. #: AS 17-2 Material: Garage Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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.

AD) NV

Project: 1000 W. Saginaw St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73859

 Date Collected:
 12/20/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 37 Cust. #: AS 8-1 Material: Basement Cement Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 38 Cust. #: AS 8-2 Material: Basement Cement Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73859 - 39 Cust. #: AS 18-1 Material: Roof Tar/Felt Location: Roof Appearance: black,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 15%	Other - 85%

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.

 $\mathbb{N}\mathbb{V}$



APEX RESEARCH

Project: 1000 W. Saginaw St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73859

 Date Collected:
 12/20/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73859 - 39a Cust. #: AS 18-1 Material: Roof Cement Location: Roof Appearance: black,fibrous,homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 20%	Other - 80%
Lab ID #: 73859 - 40 Cust. #: AS 18-2 Material: Roof Tar Location: Roof Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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

Robert T. Letarte Jr., Laboratory Director

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

AD) NV

NVLAP Lab Code 102118-0

APEX Research Inc., 11054 Hi Tech Drive, Whitmore Lake, MI 48189 (734) 449-9990, Fax (734) 449-9991

	n Drive, Whi	tmore Lake, MI 48189. Phone:	(734) 449 - 9990, Fax (734) 449	- 9991 www.ApexMI.co	om		APEX
			Date of Survey:	12/20/20	17 5:00		Lab Use Or
MANNIK & SMITH GROUP			Project:	1000 W S	AGINAW ST		Log-In:
2193 Associ	ation Dr	ive, Suite 200	Project #	11440002			Report:
Oken	nos, MI,	48864	Contact Person:	Charlie B	ush		Fax:
(517) 316-9232	Fax:	(517) 316-9233	Email:	<u>cbush@n</u>	nanniksmithgr	oup.com	Verbal:
e one)***Terms and conditions on th	e other side.		Circle analyses requi	red, indicate type ar	nd quantity		Email:
24 Hour			Asbstos:	Bulk X Wipe	Point Coun	t PCM	
72 Hour			Lead / Cad / Chrome:	Air Paint	Wipe (ASTM) Bulk	
TTP ves /no (Test Till Positive)			Mold:	Bulk Air	BioSIS	S Tape	
			TEM:	Bulk NIOSH	EPA Level I	I Other	
ustomer ID #		Mate	rial/Location		Volume	Area	Results
AS 14-1		RM-18 -	Faux marble tile		Bag	HA-14	
AS 14-2		RM-18 -	Faux marble tile		Bag	HA-14	
AS 15-1		RM-1	6 - White tile		Bag	HA-15	
AS 15-2		RM-1	6 - White tile		Bag	HA-15	••••••••••••••••••••••••••••••••••••••
AS 1-4		RM-	10 - Drywall		Bag	HA-1	<u></u>
AS 1-5		RM-	10 - Drywall		Bag	HA-1	
AS 12-1		RM-15 - B	eige tile sandwich		Bag	HA-12	
AS 12-2		RM-15 - B	eige tile sandwich		Bag	HA-12	
AS 11-1	RM-13 - Faux wood tile Bag HA-11				HA-11		
AS 11-2	RM-13 - Faux wood tile Bag HA-11						
AS 13-1	RM-14 - Green tile Bag HA-13			HA-13			
AS 13-2		CRM-1	4 - Green tile		Bag	HA-13	
	PF	Received By:	LERECEIVEL	Relinguished By:		Received By.	
	7	Time/Date: 14/21	17 DEC 2 1 2017	Date:		Time/Date:	W
	2193 Associ Oken (517) 316-9232 9 00 P)Terms and conditions on the 24 Hour 72 Hour 73 Hour	2193 Association Dr Okemos, MI, (517) 316-9232 Fax: 9 000)***Terms and conditions on the other side. 24 Hour 72 Hour 72 Hour 72 Hour 72 Hour 72 Hour 71 Ports Tall Positive) ustomer ID # AS 14-1 AS 14-2 AS 15-1 AS 15-2 AS 15-2 AS 15-1 AS 15-2 AS 15-2 AS 15-1 AS 15-2 AS 15-1 AS 15-2 AS 1-4 AS 12-2 AS 12-1 AS 12-2 AS 11-1 AS 13-1 AS 13-1 AS 13-2	2193 Association Drive, Suite 200 Okemos, MI, 48864 (517) 316-9232 Fax: (517) 316-9233 9 One)-**Terms and conditions on the other side. 24 Hour 7 Mate AS 14-1 RM-18 AS 14-1 RM-18 AS 14-2 RM-18 AS 15-1 RM-1 AS 15-2 RM-1 AS 15-2 RM-1 AS 1-5 RM-1 AS 12-2 RM-15 - B AS 11-1 RM-13 - AS 13-1 RM-13 - AS 13-1 RM-1 AS 13-2 RM-1 Time/Date: U Time/Date: U	2193 Association Drive, Suite 200 Project # Okemos, MI, 48864 Contact Person: (517) 316-9232 Fax: (517) 316-9233 Email: 2 000)"Tems and conditions on the other side. Circle analyses required in the state. 24 Hour Image: State of the other side. Circle analyses required in the other side. 24 Hour Image: State of the other side. Circle analyses required in the other side. 24 Hour Image: State of the other side. Image: State of the other side. 24 Hour Image: State of the other side. Image: State of the other side. 24 Hour Image: State of the other side. Image: State of the other side. 24 Hour Image: State of the other side. Image: State of the other side. 24 Hour Image: State of the other side. Image: State of the other side. 24 Hour Image: State of the other side. Image: State of the other side. 24 Hour Image: State of the other side. Image: State of the other side. 24 Hour Image: State of the other side. Image: State of the other side. 35 Image: State of the other side. Image: State of the other side. Image: State of the other side. AS 14-1 Received By:	2193 Association Drive, Suite 200 Project # I1440002 Okemos, MI, 48864 Contact Person: Charlie B (517) 316-9232 Fax: (517) 316-9233 Email: cbush@n 2000)~Tems and condition on the other side. Circle analyses required, indicate type an 24 Hour Asbstos Bulk_X Wipe, 17 TPF_ces_Doo Mold: Bulk_Air Print, 7 THO Material/Location Air Paint, AS 14-1 RM-18 - Faux marble tile As 14-1 AS 14-2 RM-18 - Faux marble tile As 14-2 AS 14-2 RM-16 - White tile As 15-2 AS 15-1 RM-16 - White tile As 15-2 AS 15-2 RM-16 - White tile As 14-2 AS 15-2 RM-16 - White tile As 14-2 AS 15-2 RM-16 - White tile As 14-1 AS 15-2 RM-16 - White tile As 14-2 AS 14-1 RM-16 - White tile As 14-2 AS 14-2 RM-16 - White tile As 14-2 AS 15-2 RM-16 - White tile As 14-2 AS 11-1 RM-13 - Beige tile sandwich As 1	2193 Association Drive, Suite 200 Project # I1440002 Okemos, MI, 48864 Contact Person: Charlie Bush (517) 316-9232 Fax: (517) 316-9233 Email: cbush@manniksmithgr 20 ne)="Tems and conditions on the other site. Circle analyses required, indicate type and quantity 24 Hour Asbates Bulk_X Wipe	2193 Association Drive, Suite 200 Project # 11440002 Okemos, MI, 48864 Contact Person: Charlie Bush (517) 316-9232 Fax: (517) 316-9233 Email: cbush@manniksmithgroup.com 3 000 Prome ad codium on be after ale. Circle analyses required, indicate type and quantity 24 Hour Adottors Bulk_X Wipe

Арех #

73850	11054 Hi Te	AP ch Drive, Whitmore Lake, MI 44	PEX Rese 8189. Phone: (Carch, Inc. (734) 449 - 9990, Fax (734) 449	9 - 9991 www.ApexMI.c	om		APEX
				Date of Survey:	12/20/20	17 5:00		Lab Use Only
Customer Na	me: MANNIK	& SMITH GROU	IP	Project:	1000 W S	SAGINAW ST		Log-In:
Address:	2193 Assoc	ciation Drive, Suite 2	200	Project #	11440002			Report:
City, St., Zip:	Oke	mos, MI, 48864		Contact Person:	Charlie B	ush		Fax:
Phone:	(517) 316-9232	Fax: <u>(517) 316</u>	6-9233	Email:	<u>cbush@</u> r	nanniksmithgr	oup.com	Verbal:
Furn Around Tin	ne: (Circle one)***Terms and conditions or	the other side.		Circle analyses requi	red, indicate type a	nd quantity		Email:
Rush	24 Hour			Asbstos:	Bulk X Wipe	Point Coun	t PCM	
8 Hour	72 Hour			Lead / Cad / Chrome:	Air Paint	Wipe (ASTM	Bulk	
Other:	TTP ves no			Mold:	Bulk Air	BioSIS	S Tape	
Samples received after 3p ogged in next morning	m			TEM:	BulkNIOSH	EPA Level I	I Other	
Lab ID	Customer ID #		Mater	ial/Location		Volume	Area	Results
13	AS 10-2	RM-10 - Plaster			na n	Bag	HA-10	ч
14	AS 10-3		RM-10 - Plaster			Bag	HA-10	
15	AS 10-1	RM-10 - Plaster			Bag	HA-10		
16	AS 16-1		Roof	- Shingles		Bag	HA-16	
17	AS 16-2		Roof	- Shingles		Bag	HA-16	
18	AS 9-1		RM-2 - Sii	nk under coating		Bag	HA-9	
19	AS 9-2		RM-2 - Sin	nk under coating		Bag	HA-9	
-20	AS 1-1	RM-2 - Drywall				Bag	HA-1	
2	AS 3-1	RM-2 - Tan tile			Bag	HA-3		
aa	AS 3-2	RM-2 - Tan tile			Bag	HA-3		
23	AS 4-1	RM-3 - Cream Linoleum			Bag	HA-4		
24	AS 4-2		RM-3 - C	ream Linoleum		Bag	HA-4	
Relinquished By:	Clul	Received By:	5-7-	KELECEN	Relinquished By:		Received By:	· · · · · · · · · · · · · · · · · · ·
Date: 12/2	1/17	Time/Date:	12/21/1	<u>7 DEC 2120</u>	Date:		Time/Date:	

APEX RESEARCH

72050	APEX Research, Inc.							
[,]]	11054 Hi Te	11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com					APEX	
				Date of Survey:	12/20/20	17 5:00		Lab Use Only
Customer Na	ame: MANNIK	MANNIK & SMITH GROUP		Project:	1000 W S	SAGINAW ST		Log-In:
Address:	2193 Asso	ciation Dri	ve, Suite 200	Project #	l1440002			Report:
City, St., Zip:	Oke	emos, MI, 4	48864	Contact Person:	Charlie B	ush		Fax:
Phone:	(517) 316-9232	Fax:	(517) 316-9233	Email:	<u>cbush@r</u>	nanniksmithgr	oup.com	Verbal:
Turn Around Tin	ne: (Circle One)Terms and conditions or	n the other side.		Circle analyses requi	red, indicate type a	nd quantity		Email:
Rush	24 Hour			Asbstos:	Bulk X Wipe	Point Count	t PCM	
48 Hour	72 Hour			Lead / Cad / Chrome:	Air Paint	Wipe (ASTM)) Bulk	
Other:	TTP ves no (Test Till Positive)			Mold:	Bulk Air	BioSIS	Tape	
Samples received after 3p. logged in next morning	m			TEM:	BulkNIOSH	EPA Level II	[Other_	
Lab ID	Customer ID #		Mate	erial/Location		Volume	Area	Results
25	AS 7-1		RM-9 - Brown Linoleum Bag				HA-7	
26	AS 7-2		RM-9 - Brown Linoleum			Bag	HA-7	
27	AS 2-2		RM-4 -	- Window glaze		Bag	HA-2	
28	AS 2-1		RM-5 - Window glaze			Bag	HA-2	
29	AS 1-2		RM-6 - Drywall			Bag	HA-1	
30	AS 5-1		RM-6 - Fa	ux wood Linoleum		Bag	HA-5	
31	AS 5-2		RM-6 - Fa	ux wood Linoleum		Bag	HA-5	
32	AS 6-1		RM-6 - Yellow Linoleum Bag		Bag	HA-6		
33	AS 6-2		RM-6 - Yellow Linoleum Bag HA-6					
34	AS 1-3		RM-8 - Drywall Bag HA-1					
35	AS 17-1		Roof - Garage shingles Bag HA-17					
3.6	AS 17-2		Roof -	Garage shingles		Bag	HA-17	
Relinquished By: Date: Revision R4 Date: May/201	12/21/17	R. Ti	eceived By:	HEEL 2 1 2017	Relinquished By:		Received By	:

73859		APEX Res	earch, Inc.				
	11054 Hi H	ech Drive, Whitmore Lake, MI 48189. Phone:	(734) 449 - 9990, Fax (734) 449	~ 9991 www.ApexMI.co	om		
_			Date of Survey:	12/20/20	17 5:00		Lab Use Only
Customer Na	me: MANNIK	& SMITH GROUP	Project:	1000 W S	SAGINAW ST		Log-In:
Address:	2193 Asso	ciation Drive, Suite 200	Project #	11440002			Report:
City, St., Zip:	Oke	emos, MI, 48864	Contact Person:	Charlie B	ush		Fax:
Phone:	(517) 316-9232	Fax: (517) 316-9233	Email:	cbush@n	nanniksmithgr	oup.com	Verbal:
Turn Around Tin	ne: (Circle One)***Terms and conditions o	n the other side.	Circle analyses requir	ed, indicate type a	nd quantity		Email:
Rush	24 Hour		Asbstos:	Bulk X Wipe	Point Count	E PCM_	
48 Hour	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM)	Bulk	
Other:	TTP ves /no		Mold:	Bulk Air	BioSIS	Tape	
Samples received after 3pt logged in next morning	n (2000 2000 2000)		TEM:	Bulk NIOSH	EPA Level II	Other_	
Lab ID	Customer ID #	Mate	rial/Location		Volume	Area	Results
37	AS 8-1	Basement - Bas	Basement - Basement cement basement Bag				
38	AS 8-2	Basement - Base	ement cement basement		Bag	HA-8	
39	AS 18-1	Roc	of - Roof tar		Bag	HA-18	
40	AS 18-2	Roc	of - Roof tar		Bag	HA-18	
							-
				** 5m-			<u> </u>
Relinquished By:	Car	Received By:	teen	Relinquished By: _		Received By:	· · · · · · · · · · · · · · · · · · ·
Date:2	1/17	Time/Date: 12/21	17 DEC 2 1 201	7 Date:		Time/Date: _	
Revision R4 Date: May/2017			APEX RESEAR	Ch			



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF IN	TENT TO RENOVATE/DEMOLISH
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUA (MDEQ) AIR QUALITY DIVISION NESHAP, 40 CFR Part 61, Subpart M	ALITY 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.	3. ABATEMENT CONTRACTOR: Internal Project #:
Calculate LARA Asbestos Project Fee: (1% Proje	ct Fee)
Total Project Cost: x 0.01 =	5. FACILITY OWNER: ("Facility" includes Bridges)
Type of Contractor: License No.:	Name:
Licensing Authority:	
1. NOTIFICATION:	E-mail:
	Contact: Dhone:

Contact:

6. FACILITY DESCRIPTION:

Location Address/Description: _____

Specific Location(s) in Facility:

City/State/Zip: _____

Gov't Agency Ordering Demo:

Name/Title of Person Signing Order:

Facility Name:

7. DISPOSAL SITE:

Name

Phone:

notification.

Date of Order:

Phone:

If Apt. # of units:

County: _____ Nearest Crossroad: _____

City/Twp. _____ State: _____ Zip Code: _____

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____

Age: _____ Present Use: _____ Prior Use: _____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of

"Ordered Demolition.") A copy of the official Order must accompany this

Date Ordered to Begin:

Date of Revision(s):

Notification Type: Original Revised Canceled Annual

START DATE

Mark appropriate boxes: (both DEQ and LARA may app	oly):
DEQ (NESHAP) [260 In. ft./160 sq. ft. or more is thresho	old]

Planned Renovation – 10 working days notice
Emergency Renovation
Scheduled Demolition – 10 working days notice

Interational Duma	40 mentalment der in estime
 Intentional Burn –	TU working days notice
Internal Barn	no montang dayo notico

□ 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:

* Renovation			Location Address:	
+Asb. Removal			City/State/Zip:	
+Demolition:			8. WASTE TRANSPORTER 1:	WASTE TR
Encapsulation:			Name:	
Work Schedule:	Please indicate the anticip	pated days of the week and	Address:	

END DATE

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

> Work Hours Days of the Week

Asb.	Removal:
ASD.	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.

It <u>must</u> be removed prior to demolition.)

10. IS ASBESTOS PRESENT?

IS ASBESTOS PRESENT?	🗌 Yes	🗌 No	To be remove	d prior to demolitio	n			
Estimate the amount of asbestos:	Include F	RACM	RACM to be	RACM to be	Non-friabl removed pi	e ACM <u>not</u> ior to demo.		
(Regulated Asbestos Containing Mat	terial) to l	be	Removed	Encapsulated	Category I	Category II	Units of I	Measure
removed, encapsulated, etc. Also inc	clude the	amount					🗌 Ln. Ft.	🗌 Ln. M.
I and/or Category II ACM that will no	on-friable ot be rem	e Category loved prior					🗌 Sq. Ft.	🗌 Sq. M.
to demolition. (NOTE: In a demolition	n, cemer	ntatious					🗌 Cu. Ft.*	🗌 Cu.M.*
ACM <u>cannot</u> remain in a structure, as become regulated in the demolition/h	s it is like handling i	ly to process.	*) (aluma (aubia ft	(motoro) obouid by		nabla ta maaau	na hu linaar/agu	

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

WASTE TRANSPORTER 2:

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continue

11.	PROJECT DESCRIPTION: Complete A) for Renovation (asbestos remo	val/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) Tunnel (s) Tunnel (s)	Encapsulation (for LARA): Mark surfaces/types to be encapsulated: Piping Fittings Boiler(s) Tank(s) Beam(s) Duct(s) Tunnel(s) Ceiling Tile(Other (describe)	: (s)		
	Method of removal: Describe <u>how</u> 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, et	c., and indicate if complete or partial. If partial, describe which part of facility			
	bridge, etc., will be demolished:				
10		pantrale used to prevent visible opissions before during and offer removal op			
12.	until proper disposal:	controls used to prevent visible emissions before, during, and alter removal, an			
13.	UNEXPECTED ASBESTOS: Describe the steps you intend to follow in becomes friable (crumbled, pulverized, reduced to powder, etc.) and there	h the event that unexpected RACM is found or previously non-friable asbesto fore regulated:	os		
	· · · · · ·		_		
14.	PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS analytical sampling was used, describe method of analysis. (The determine a renovation/demolition notification.):	A) Indicate how you determined whether or not asbestos is in the facility. nation of the presence or absence of asbestos must be made prior to submittin	lf ng		
	B) Name, address, and phone number of company performing asbestos s	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, S RACM above the threshold and/or during an ordered demolition. Evide inspection at the renovation or demolition site.	Subpart M, will be on-site during the renovation and during demolition involvir ence that this person has completed the required training will be available f	ng for		
	Signature of Owner or Abatement Contractor Date	Signature of Owner or Demolition Contractor Date			
17.	Signature Requirements for Projects with Negative Prese Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance ai linear feet/15 square feet or more of friable material which is perform have been advised by the contractor of my responsibility under Act of	ssure Enclosures: (required by LARA) ir monitoring is required for any asbestos abatement project involving a med within a negative pressure enclosure. <i>I (the building owner or lesse</i> 135 to have clearance air monitoring performed on this project.	10 ⊯)		
	Signature of Building Owner or Lessee Date NOTE: It is not mandatory that a signed copy be sent to LARA unless reques and made part of your records before the project begins.	Signature of Asbestos Abatement Contractor Representative Date ted. For affected projects, this section of the notification form must be completed, signed,			
18.	I certify that the above information is correct:				
	Printed Name of Owner/Operator Date	Signature of Owner/Operator Date			
MA	ILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine v	which agency requirements/regulations are applicable to your project.)			
For mail <u>http</u>	Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), to address below. For more info visit: ://www.michigan.gov/asbestos	For NESHAP Demolitions/Renovations , 40 CFR , Part 61 , Subpart I please use the e-submittal process. For more information vis <u>http://www.michigan.gov/air</u> , under Air Links click on Asbestos NESHA Program.	M, sit ∖P		
MIC LAF P.O Lan	VSHA Asbestos Program A, CSHD . Box 30671 sing, MI 48909-8171	NESHAP Asbestos Program DEQ, AQD P.O. Box 30260 Lansing, MI 48909-7760			
517	517.636.4551 (office), 517.322.1713 (fax)				



December 28, 2017

Ms. Roxanne Case Grant Manager Ingham County Land Bank 3024 Turner Street Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey 406 West Saginaw St, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited predemolition regulated materials survey (RMS) performed at 406 West Saginaw St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information			
Property Address	406 W Saginaw St, Lansing, MI		
Parcel #	33-01-01-09-364-121		
No. Stories	2		
Square Footage (approx.)	1,400 SF		
Siding	Vinyl and Asphalt		
Basement	Yes		
Garage	No		



Asbestos Containing Material					
Location Material Group Friable/Non Friable Asbestos Quantity					
No asbestos containing materials were found on site					

Universal Waste Inventory					
Location	Material Description	Quantity			
RM-2	Thermostat	1			
RM-2	Laptop	1			
RM-1, RM-2, RM-3, RM-4, RM-5, RM-6, RM-7, RM-8, RM-9, Basement	CFL light bulb	12			



Universal Waste Inventory Cont.				
Location	Material Description	Quantity		
RM-2, RM-6, Basement	Smoke detector	3		
Basement	Computer	4		
Basement	Printer	4		
Basement	Television	3		
Basement	Large speaker	4		

Hazardous Materials				
Location	Material Description	Quantity		
RM-4	1 Gallon paint can	2		

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 6, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I nonfriable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);

- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - o DOT Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - o IATA International Air Transport Association; Dangerous Goods Regulations;
 - o ICAO International Civil Aviation Organization; Technical Instructions; and
 - AF Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items

cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log.* The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified fourteen (14) homogenous materials that were suspect as asbestos containing during the ACM survey. Thirty-four (34) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found no samples to contain greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the fourteen (14) homogenous materials collected as part of the ACM survey, no samples contained asbestos greater than 1%. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish.* This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional

universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100. Sincerely,

Kory McKay Environmental Scientist Accreditation Number A47903

-10

Charlie Bush Senior Project Manager Accreditation Number A34293

Attachments









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721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com





TABLE 1 Asbestos Sampling Results

Client	Client Ingham County Land Bank Authority									
Survey Loca	Survey Location 406 W Saginaw St									
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-2	1	AS 1-1	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	2200 SF
RM-1	1	AS 1-2	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	2200 SF
RM-2	1	AS 1-3	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	2200 SF
RM-8	2	AS 1-4	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	2200 SF
RM-7	2	AS 1-5	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	2200 SF
RM-2	1	AS 2-1	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	2200 SF
RM-4	1	AS 2-2	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	2200 SF
RM-3	1	AS 2-3	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	2200 SF
RM-7	2	AS 2-4	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	2200 SF
RM-6	2	AS 2-5	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	2200 SF
RM-4	1	AS 3-1	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-4	1	AS 3-2	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-2	1	AS 4-1	HA-4	Black tile	Non-Friable	Good	Miscellaneous	No	No	517 SF
RM-2	1	AS 4-2	HA-4	Black tile	Non-Friable	Good	Miscellaneous	No	No	517 SF
RM-2	2	AS 5-1	HA-5	Tan 12x12 tile	Non-Friable	Good	Miscellaneous	No	No	216 SF
RM-2	1	AS 5-2	HA-5	Tan 12x12 tile	Non-Friable	Good	Miscellaneous	No	No	216 SF
RM-2	1	AS 6-1	HA-6	Red Linoleum	Non-Friable	Good	Miscellaneous	No	No	216 SF

TABLE 1 Asbestos Sampling Results

		-								
Client Ingham County Land Bank Authority										
Survey Location 406 W Saginaw St										
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-2	1	AS 6-2	HA-6	Red Linoleum	Non-Friable	Good	Miscellaneous	No	No	216 SF
RM-2	1	AS 7-1	HA-7	Stone flooring	Non-Friable	Good	Miscellaneous	No	No	216 SF
RM-2	1	AS 7-2	HA-7	Stone flooring	Non-Friable	Good	Miscellaneous	No	No	216 SF
RM-1	1	AS 8-1	HA-8	Brown 16x16 tile	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-1	1	AS 8-2	HA-8	Brown 16x16 tile	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-10	1	AS 9-1	HA-9	Green 12x12 tile	Non-Friable	Good	Miscellaneous	No	No	35 SF
RM-10	1	AS 9-2	HA-9	Green 12x12 tile	Non-Friable	Good	Miscellaneous	No	No	35 SF
RM-8	2	AS 10-1	HA-10	Multi color tile	Non-Friable	Good	Miscellaneous	No	No	30 SF
RM-8	2	AS 10-2	HA-10	Multi color tile	Non-Friable	Good	Miscellaneous	No	No	30 SF
RM-9	2	AS 11-1	HA-11	Dark faux wood tile	Non-Friable	Good	Miscellaneous	No	No	169 SF
RM-9	2	AS 11-2	HA-11	Dark faux wood tile	Non-Friable	Good	Miscellaneous	No	No	169 SF
RM-5	2	AS 12-1	HA-12	Light faux wood tile	Non-Friable	Good	Miscellaneous	No	No	96 SF
RM-5	2	AS 12-2	HA-12	Light faux wood tile	Non-Friable	Good	Miscellaneous	No	No	96 SF
Roof	E	AS 13-1	HA-13	Shingles	Non-Friable	Good	Miscellaneous	No	No	550 SF
Roof	1	AS 13-2	HA-13	Shingles	Non-Friable	Good	Miscellaneous	No	No	550 SF
Exterior	E	AS 14-1	HA-14	Asphalt siding	Non-Friable	Good	Miscellaneous	No	No	2300 SF
Exterior	E	AS 14-2	HA-14	Asphalt siding	Non-Friable	Good	Miscellaneous	No	No	2300 SF

Table 2Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory406 W Saginaw StLansing, Ingham County, Michigan

Universal Waste Inventory						
Location	Type of Waste	Approximate Quantity				
RM-2	Thermostat	1				
RM-2	Laptop	1				
RM-1,2,3,4,5,6,7,8,9, Basement	CFL Bulb	12				
RM-2, RM-6, Basement	Smoke Detector	3				
Basement	Computer	4				
Basement	Printer	4				
Basement	TV	3				
Basement	Large Speaker	4				
Hazardous Materials Inventory						
Location	Type of Waste	Approximate Quantity				
RM-4	1 Gallon Paint Can	2				
Other Regulated Materials Inventory						
Location	Type of Waste	Approximate Quantity				
-	-	-				



Ingham County Land Bank 406 West Saginaw St, Lansing, MI Photographs taken by: Kory McKay on 12/06/2017

Property Photos









Ingham County Land Bank 406 West Saginaw St, Lansing, MI Photographs taken by: Kory McKay on 12/06/2017

Sample Photos







REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

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Regulated Materials Survey Limitations.Docx

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.



ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Project: 406 W. Saginaw St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73610

 Date Collected:
 12/06/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/12/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 01 Cust. #: AS1-1 Material: Plaster Finish Coat Location: Room 2 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 01a Cust. #: AS1-1 Material: Plaster Base Coat Location: Room 2 Appearance: beige,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 73610 - 02 Cust. #: AS1-2 Material: Plaster Base Coat Location: Room 1 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%

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

Robert T. Letarte Jr., Laboratory Director

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



Project: 406 W. Saginaw St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73610

 Date Collected:
 12/06/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/12/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 03 Cust. #: AS1-3 Material: Plaster Finish Coat Location: Room 2 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 03a Cust. #: AS1-3 Material: Plaster Base Coat Location: Room 2 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73610 - 04 Cust. #: AS1-4 Material: Plaster Finish Coat Location: Room 8 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.


Project: 406 W. Saginaw St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73610

 Date Collected:
 12/06/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/12/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 04a Cust. #: AS1-4 Material: Plaster Base Coat Location: Room 8 Appearance: beige,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 73610 - 05 Cust. #: AS1-5 Material: Plaster Finish Coat Location: Room 7 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 05a Cust. #: AS1-5 Material: Plaster Base Coat Location: Room 7 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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.



Project: 406 W. Saginaw St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73610

 Date Collected:
 12/06/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/12/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 06 Cust. #: AS2-1 Material: Drywall Location: Room 2 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73610 - 07 Cust. #: AS2-2 Material: Drywall Location: Room 4 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 5% Other - 80%
Lab ID #: 73610 - 08 Cust. #: AS2-3 Material: Drywall Location: Room 3 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	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

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.



Project: 406 W. Saginaw St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73610

 Date Collected:
 12/06/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/12/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 09 Cust. #: AS2-4 Material: Drywall Location: Room 7 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73610 - 10 Cust. #: AS2-5 Material: Drywall Location: Room 6 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73610 - 11 Cust. #: AS3-1 Material: Window Glaze Location: Room 4 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%

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

Robert T. Letarte Jr., Laboratory Director

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 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 12 Cust. #: AS3-2 Material: Window Glaze Location: Room 4 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 73610 - 13 Cust. #: AS4-1 Material: Black Tile Location: Room 2 Appearance: black,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 13a Cust. #: AS4-1 Material: Mastic Location: Room 2 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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 Date Analyzed:
 12/12/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 14 Cust. #: AS4-2 Material: Black Tile Location: Room 2 Appearance: black,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 14a Cust. #: AS4-2 Material: Mastic Location: Room 2 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 15 Cust. #: AS5-1 Material: Tan 12x12 Tile Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 15a Cust. #: AS5-1 Material: Mastic Location: Room 2 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 16 Cust. #: AS5-2 Material: Tan 12x12 Tile Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 16a Cust. #: AS5-2 Material: Mastic Location: Room 2 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 17 Cust. #: AS6-1 Material: Red Linoleum Location: Room 2 Appearance: red,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73610 - 18 Cust. #: AS6-2 Material: Red Linoleum Location: Room 2 Appearance: red,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73610 - 19 Cust. #: AS7-1 Material: Stone Flooring Location: Room 2 Appearance: beige,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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 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 20 Cust. #: AS7-2 Material: Stone Flooring Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 21 Cust. #: AS8-1 Material: Brown 16x16 Tile Location: Room 1 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 21a Cust. #: AS8-1 Material: Mastic Location: Room 1 Appearance: clear,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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 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 22 Cust. #: AS8-2 Material: Brown 16x16 Tile Location: Room 1 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 22a Cust. #: AS8-2 Material: Mastic Location: Room 1 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 23 Cust. #: AS9-1 Material: Green 12x12 Floor Tile Location: Room 10 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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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 23a Cust. #: AS9-1 Material: Mastic Location: Room 10 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 24 Cust. #: AS9-2 Material: Green 12x12 Floor Tile Location: Room 10 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 24a Cust. #: AS9-2 Material: Mastic Location: Room 10 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 25 Cust. #: AS10-1 Material: Flooring Location: Room 8 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73610 - 26 Cust. #: AS10-2 Material: Flooring Location: Room 8 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73610 - 27 Cust. #: AS11-1 Material: Floor Tile Location: Room 11, Room 9 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 12/12/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 27a Cust. #: AS11-1 Material: Mastic Location: Room 11, Room 9 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 28 Cust. #: AS11-2 Material: Floor Tile Location: Room 11, Room 9 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 28a Cust. #: AS11-2 Material: Mastic Location: Room 11, Room 9 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 29 Cust. #: AS12-1 Material: Floor Tile Location: Room 5 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 29a Cust. #: AS12-1 Material: Mastic Location: Room 5 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 30 Cust. #: AS12-2 Material: Floor Tile Location: Room 5 Appearance: brown,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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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 30a Cust. #: AS12-2 Material: Mastic Location: Room 5 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73610 - 31 Cust. #: AS13-1 Material: Shingle Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 73610 - 32 Cust. #: AS13-2 Material: Shingle Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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 12/12/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73610 - 33 Cust. #: AS14-1 Material: Siding Location: Exterior Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73610 - 34 Cust. #: AS14-2 Material: Siding Location: Exterior Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
For Laward Samples, each component will be analyzed and reported concretely.		

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

Robert T. Letarte Jr., Laboratory Director

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					Date of Survey:	12/6/2017	5:00		Lab Use Or
Customer Na	me:	Mannik	& SMI	TH GROUP	Project:	406 W SA	GINAW ST		Log-In:
Address:	-	2193 Assoc	iation Dr	ive, Suite 200	Project #	11440002			Report:
City, St., Zip:	-	Oker	nos, MI,	48864	Contact Person:	Charlie Bu	ish		Fax:
Phone:		(517) 316-9232	Fax:	(517) 316-9233	Email:	<u>cbush@m</u>	anniksmithgr	oup.com	Verbal:
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2		AS 1-3		RM	I-2 - Plaster		Bag	HA-1	
4		AS 1-4		RM	I-8 - Plaster		Bag	HA-1	· · ·
S		AS 1-5		RM	I-7 - Plaster		Bag	HA-1	
6		AS 2-1		RM	-2 - Drywall		Bag	HA-2	•••••
7		AS 2-2		RM·	-4 - Drywall		Bag	HA-2	
\$		AS 2-3		RM	-3 - Drywall		Bag	HA-2	
9		AS 2-4		RM·	-7 - Drywall		Bag	HA-2	
6		AS 2-5		RM·	-6 - Drywall		Bag	HA-2	
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APEX RESEARCH Page1 of 3

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			Date of Survey:	12/6/20)17 5:00		Lab Use Only
Customer Na	me: Manni	K & SMITH GROUP	Project:	406 W	SAGINAW ST		Log-In:
ddress:	2193 Asso	ciation Drive, Suite 200	Project #	114400	02		R.eport:
City, St., Zip:	Oke	emos, MI, 48864	Contact Person:	Charlie	Bush		Fax:
hone:	(517) 316-9232	Fax: (517) 316-9233	Email:	<u>cbush(</u>	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	oup.com	Verbal:
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gged in next morning			115101.		SH EPA Level I	Uther_	
Lab ID	Customer ID #	Mate	erial/Location		Volume	Area	Results
13	AS 4-1	RM-	-2 - Black tile		Bag	HA-4	
14	AS 4-2	RM-	-2 - Black tile		Bag	HA-4	
Ϋ́ς	AS 5-1	RM-2 -	- Tan 12x12 tile	,, <u>,</u> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Bag	HA-5	
ю	AS 5-2	RM-2 -	- Tan 12x12 tile		Bag	HA-5	
17	AS 6-1	RM-2	- Red Linoleum	,,, , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Bag	HA-6	
18	AS 6-2	RM-2	- Red Linoleum		Bag	HA-6	
19	AS 7-1	RM-2	- Stone flooring	<u> </u>	Bag	HA-7	
20	AS 7-2	RM-2	- Stone flooring		Bag	HA-7	
21	AS 8-1	RM-1 - 1	Brown 16x16 tile		Bag	HA-8	
22	AS 8-2	RM-1 - 1	Brown 16x16 tile		Bag	HA-8	•
23	AS 9-1	RM-10 -	Green 12x12 tile		Bag	НА-9	
24	AS 9-2	RM-10 -	Green 12x12 tile		Bag	НА-9	-
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	11054 Hi Te	ch Drive, Wh	APEX Res itmore Lake, MI 48189. Phone:	earch, Inc. (734) 449 - 9990, Fax (734) 449	9 - 9991 www.ApexMI.co	m		APEX PHILIP
				Date of Survey:	12/6/2017	7 5:00		Lab Use Onl
Customer Na	me: MANNIK	& SMI	TH GROUP	Project:	406 W SA	GINAW ST		Log-In:
Address:	2193 Assoc	iation D	rive, Suite 200	Project #	11440002			Report:
City, St., Zip:	Oke	mos, MI,	48864	Contact Person:	Charlie B	ush		Fax:
Phone:	(517) 316-9232	Fax:	(517) 316-9233	Email:	<u>cbush@n</u>	nanniksmithg	oup.com	Verbali
Turn Around Tim	e: (Circle One) •••• Terms and conditions on	the other side.		Circle analyses requi	red, indicate type ar	nd quantity		Email:
Rush	24 Hour			Asbstos:	Bulk X Wipe	Point Cour	t PCM_	
48 Hour Other:	TTP ves /mo			Lead / Cad / Chrome:	Air Paint	Wipe (ASTM) Bulk_	
Samples received after 3pr	(Test Till Positive)			Mold: TEM:	Bulk NIOSH	BioSI	S Tape_	
ogged in next morning					110011			
Lab ID	Customer ID #		Mate	rial/Location		Volume	Area	Results
25	AS 10-1		RM	1-8 - RM-8		Bag	HA-10	
26	AS 10-2		RM	1-8 - RM-8		Bag	HA-10	
27	AS 11-1		RM-9 -	• RM-11,RM-9		Bag	HA-11	
256	AS 11-2		RM-9 -	• RM-11,RM-9		Bag	HA-11	
29	AS 12-1		RM	1-5 - RM-5		Bag	HA-12	
20	AS 12-2		RM	1-5 - RM-5		Bag	HA-12	
21	AS 13-1		Ro	oof - Roof		Bag	HA-13	
22	AS 13-2		Ro	oof - Roof		Bag	HA-13	
22	AS 14-1		Exter	ior - Exterior		<u>Вад</u>	ΗΔ-1/	
216	AS 14-2		Fxter	ior - Exterior		Bag	LIA 14	
L/ I						<u></u>	11/1-14	
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Relinquished By:]	Received By:	Hier	Relinquished By: _	· · · · · · · · · · · · · · · · · · ·	_Received By:	ALCENI

Page3 of 3



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF IN	TENT TO RENOVATE/DEMOLISH
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUA (MDEQ) AIR QUALITY DIVISION NESHAP, 40 CFR Part 61, Subpart M	ALITY 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.	3. ABATEMENT CONTRACTOR: Internal Project #:
Calculate LARA Asbestos Project Fee: (1% Proje	ct Fee)
Total Project Cost: x 0.01 =	5. FACILITY OWNER: ("Facility" includes Bridges)
Type of Contractor: License No.:	Name:
Licensing Authority:	
1. NOTIFICATION:	E-mail:
	Contact: Dhone:

Contact:

6. FACILITY DESCRIPTION:

Location Address/Description: _____

Specific Location(s) in Facility:

City/State/Zip: _____

Gov't Agency Ordering Demo:

Name/Title of Person Signing Order:

Facility Name:

7. DISPOSAL SITE:

Name

Phone:

notification.

Date of Order:

Phone:

If Apt. # of units:

County: _____ Nearest Crossroad: _____

City/Twp. _____ State: _____ Zip Code: _____

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____

Age: _____ Present Use: _____ Prior Use: _____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of

"Ordered Demolition.") A copy of the official Order must accompany this

Date Ordered to Begin:

Date of Revision(s):

Notification Type: Original Revised Canceled Annual

START DATE

Mark appropriate boxes: (both DEQ and LARA may app	oly):
DEQ (NESHAP) [260 In. ft./160 sq. ft. or more is thresho	old]

Planned Renovation – 10 working days notice
Emergency Renovation
Scheduled Demolition – 10 working days notice

Interational Duma	40 mentalment der in estime
 Intentional Burn –	TU working days notice
Internal Barn	no montang dayo notico

□ 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:

* Renovation			Location Address:	
+Asb. Removal			City/State/Zip:	
+Demolition:			8. WASTE TRANSPORTER 1:	WASTE TR
Encapsulation:			Name:	
Work Schedule:	Please indicate the anticip	pated days of the week and	Address:	

END DATE

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

> Work Hours Days of the Week

Asb.	Removal:
ASD.	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.

It <u>must</u> be removed prior to demolition.)

10. IS ASBESTOS PRESENT?

IS ASBESTOS PRESENT?	🗌 Yes	🗌 No	To be removed prior to demolition							
Estimate the amount of asbestos	: Include F	RACM	RACM to be	RACM to be	Non-friabl removed p	e ACM <u>not</u> rior to demo.				
(Regulated Asbestos Containing Ma	aterial) to l	be	Removed	Encapsulated	Category I	Category II	Units of I	Measure		
removed, encapsulated, etc. Also in	nclude the	amount					🗌 Ln. Ft.	🗌 Ln. M.		
I and/or Category II ACM that will n	non-friable	oved prior					🗌 Sq. Ft.	🗌 Sq. M.		
to demolition. (NOTE: In a demoliti	ion, cemer	ntatious					🗌 Cu. Ft.*	🗌 Cu.M.*		
ACM <u>cannot</u> remain in a structure, a become regulated in the demolition	as it is like /handling j	ely to process.	*) (aluma (aubia ft	(motoro) should be		nable to manage	ro by linear/agy			

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

WASTE TRANSPORTER 2:

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continue

11.	PROJECT DESCRIPTION: Complete A) for Renovation (asbestos remo	val/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) Tune of the second seco	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)									
	wernon or removal: Describe <u>now</u> the aspestos 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, et	c., and indicate if complete or partial. If partial, describe which part of facility									
	bridge, etc., will be demolished:										
10		pontrole used to provent visible emissions before during and ofter removal and									
12.	until proper disposal:										
13.	UNEXPECTED ASBESTOS: Describe the steps you intend to follow in becomes friable (crumbled, pulverized, reduced to powder, etc.) and there	the event that unexpected RACM is found or previously non-friable asbestos fore regulated:									
		-									
14.	PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS analytical sampling was used, describe method of analysis. (The determine a renovation/demolition notification.):	A) Indicate how you determined whether or not asbestos is in the facility. If nation of the presence or absence of asbestos must be made prior to submitting									
	B) Name, address, and phone number of company performing asbestos s	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 equi	pment damage and/or an unreasonable financial burden.									
16.	I certify that an individual trained in the provisions of 40 CFR Part 61, 5 RACM above the threshold and/or during an ordered demolition. Evid inspection at the renovation or demolition site.	Subpart M, will be on-site during the renovation and during demolition involving ence that this person has completed the required training will be available for									
	Signature of Owner or Abatement Contractor Date	Signature of Owner or Demolition Contractor Date									
17.	Signature Requirements for Projects with Negative Pre Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance a linear feet/15 square feet or more of friable material which is perform have been advised by the contractor of my responsibility under Act	ssure Enclosures: (required by LARA) ir monitoring is required for any asbestos abatement project involving 10 med within a negative pressure enclosure. <i>I (the building owner or lessee)</i> <i>135 to have clearance air monitoring performed on this project.</i>									
	Signature of Building Owner or Lessee Date NOTE: It is not mandatory that a signed copy be sent to LARA unless reques and made part of your records before the project begins.	Signature of Asbestos Abatement Contractor Representative Date ted. For affected projects, this section of the notification form must be completed, signed,									
18.	I certify that the above information is correct:										
	Printed Name of Owner/Operator Date	Signature of Owner/Operator Date									
MA	LING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine v	which agency requirements/regulations are applicable to your project.)									
For mail <u>http</u>	Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), to address below. For more info visit: //www.michigan.gov/asbestos	For NESHAP Demolitions/Renovations , 40 CFR , Part 61 , Subpart M , please use the e-submittal process. For more information visit <u>http://www.michigan.gov/air</u> , under Air Links click on Asbestos NESHAP Program.									
MIC LAF P.O Lan	OSHA Asbestos Program RA, CSHD . Box 30671 sing, MI 48909-8171	NESHAP Asbestos Program DEQ, AQD P.O. Box 30260 Lansing, MI 48909-7760									
517	517.636.4551 (office), 517.322.1713 (fax)										



January 2, 2018

Ms. Roxanne Case Grant Manager Ingham County Land Bank 3024 Turner Street Lansing, Ingham County, Michigan 48906

Pre-Demolition Regulated Materials Survey Re: 1001 N Pine St, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited predemolition regulated materials survey (RMS) performed at 1001 N Pine St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information						
Property Address	1001 N Pine St, Lansing, MI					
Parcel #	33-01-01-09-306-121					
No. Stories	3					
Square Footage (approx.)	1,700 SF					
Siding	Transite					
Basement	Yes					
Garage	Yes attached					



Asbestos Containing Material								
Location	Asbestos	Quantity						
RM-1, RM-2, RM-3, RM-5, RM-6, RM-7, RM-8, RM-9 (walls and ceilings)	Plaster	Non Friable	1.75% Chrysotile	4,250 SF				
RM-1, RM-2, RM-3	Vent wrap	Friable	45% Chrysotile	240 SF				
Exterior	Siding	Non Friable	35% Chrysotile	3,000 SF				
RM-3	Sink under coating	Non Friable	1.75% Chrysotile	3 SF				
	Hazardo	us Materials						
Location	Material Des	cription	Quantit	у				
RM-5	1 Gallon b	each	1					
RM-3	1 Gallon pe	sticide	1					
RM-7	1 Gallon pa	nt can	4					
Roof	5 Gallon container un	known contents	1					
TECHNICAL SKILL.								

CREATIVE SPIRIT.

Universal Waste Inventory							
Location	Material Description	Quantity					
RM-2, RM-8	Television	3					
RM-1	Thermostat	1					
RM-2, Basement	Smoke detector	2					
RM-3	CFL bulb	1					

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 19, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I nonfriable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples

were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - o IATA International Air Transport Association; Dangerous Goods Regulations;
 - o ICAO International Civil Aviation Organization; Technical Instructions; and
 - AF Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994

P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log.* The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified nineteen (19) homogenous materials that were suspect as asbestos containing during the ACM survey. Forty-six (46) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory

Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found four (4) homogenous materials (samples 2-5, 15-3, 16-1 and 19-1) contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. Point counts were conducted on samples 2-5 and 19-1.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the nineteen (19) homogenous materials collected as part of the ACM survey, four (4) homogenous materials (plaster, vent wrap, siding and sink under coating) contained asbestos greater than 1% (samples 2-5, 15-3, 16-1 and 19-1) with these four (4) homogenous materials being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition

activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232. Sincerely,

Kory McKay Environmental Scientist Accreditation Number A47903

200

Charlie Bush Senior Project Manager Accreditation Number A34293

Attachments





TECHNICAL SKILL. CREATIVE SPIRIT.

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com





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18-1, 2

17-1, 2



= Siding (3,000 SF)

= Plaster Wall and

Ceiling (4,250 SF)



TABLE 1 Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Loca	ation	December 19	2017							
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1750 SF
RM-3	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1750 SF
RM-3	1	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1750 SF
RM-8	2	AS 1-4	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1750 SF
RM-6	2	AS 1-5	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1750 SF
RM-2	1	AS 2-1	HA-2	Plaster	Non-Friable	Good	Miscellaneous	Yes	NA	4250 SF
RM-2	1	AS 2-2	HA-2	Plaster	Non-Friable	Good	Miscellaneous	Yes	NA	4250 SF
RM-3	1	AS 2-3	HA-2	Plaster	Non-Friable	Good	Miscellaneous	Yes	NA	4250 SF
RM-9	2	AS 2-4	HA-2	Plaster	Non-Friable	Good	Miscellaneous	Yes	NA	4250 SF
RM-9	2	AS 2-5	HA-2	Plaster	Non-Friable	Good	Miscellaneous	Yes	1.75% Chrysotile	4250 SF
RM-2	1	AS 3-1	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	210 SF
RM-1	1	AS 3-2	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	210 SF
RM-2	1	AS 4-1	HA-4	Textured ceiling	Friable	Good	Miscellaneous	No	No	366 SF
RM-1	1	AS 4-2	HA-4	Textured ceiling	Friable	Good	Miscellaneous	No	No	366 SF
RM-1	1	AS 4-3	HA-4	Textured ceiling	Friable	Good	Miscellaneous	No	No	366 SF

TABLE 1 Asbestos Sampling Results

0										
Survey Loc	Survey Location 1001 N Pine St									
Survey Da	te December 19, 2017									
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-3	1	AS 5-1	HA-5	Tan flooring	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-3	1	AS 5-2	HA-5	Tan flooring	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-11	1	AS 6-1	HA-6	Faux wood tile	Non-Friable	Good	Miscellaneous	No	No	40 SF
RM-11	1	AS 6-2	HA-6	Faux wood tile	Non-Friable	Good	Miscellaneous	No	No	40 SF
RM-3	1	AS 7-1	HA-7	Faux stone Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-3	1	AS 7-2	HA-7	Faux stone Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
Basement	В	AS 8-1	HA-8	Linoleum sandwich	Non-Friable	Good	Miscellaneous	No	No	50 SF
Basement	В	AS 8-2	HA-8	Linoleum sandwich	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-5	2	AS 9-1	HA-9	White linoleum	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-5	2	AS 9-2	HA-9	White linoleum	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-5	2	AS 10-1	HA-10	Blue tile	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-5	2	AS 10-2	HA-10	Blue tile	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-8	2	AS 11-1	HA-11	Blue Linoleum	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-8	2	AS 11-2	HA-11	Blue Linoleum	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-7	2	AS 12-1	HA-12	Gray tile	Non-Friable	Good	Miscellaneous	No	No	200 SF

TABLE 1 Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Loca	ation	1001 N Pine S	5t							
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-7	2	AS 12-2	HA-12	Gray tile	Non-Friable	Good	Miscellaneous	No	No	200 SF
RM-7	2	AS 13-1	HA-13	Cream Linoleum	Non-Friable	Good	Miscellaneous	No	No	200 SF
RM-7	2	AS 13-2	HA-13	Cream Linoleum	Non-Friable	Good	Miscellaneous	No	No	200 SF
Roof	E	AS 14-1	HA-14	Shingles	Non-Friable	Good	Miscellaneous	No	No	700 SF
Roof	E	AS 14-2	HA-14	Shingles	Non-Friable	Good	Miscellaneous	No	No	700 SF
RM-2	1	AS 15-1	HA-15	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	240 SF
RM-2	1	AS 15-2	HA-15	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	240 SF
RM-1	1	AS 15-3	HA-15	Vent wrap	Friable	Good	Miscellaneous	Yes	45% Chrysotile	240 SF
Exterior	E	AS 16-1	HA-16	Siding	Non-Friable	Good	Miscellaneous	Yes	35% Chrysotile	3000 SF
Exterior	E	AS 16-2	HA-16	Siding	Non-Friable	Good	Miscellaneous	Yes	NA	3000 SF
Basement	В	AS 17-1	HA-17	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	В	AS 17-2	HA-17	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	В	AS 18-1	HA-18	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	4 SF
Basement	В	AS 18-2	HA-18	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	4 SF
RM-3	1	AS 19-1	HA-19	Sink under coating	Non-Friable	Good	Miscellaneous	Yes	1.75% Chrysotile	3 SF
RM-3	1	AS 19-2	HA-19	Sink under coating	Non-Friable	Good	Miscellaneous	Yes	NA	3 SF

Table 2Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory1001 N Pine StLansing, Ingham County, Michigan

Universal Waste Inventory							
Location	Type of Waste	Approximate Quantity					
RM-2, RM-8	Television	3					
RM-1	Thermostat	1					
RM-2, Basement	Smoke detector	2					
RM-3	CFL bulb	1					
Hazardous Materials Inventory							
Location	Type of Waste	Approximate Quantity					
RM-5	1 Gallon bleach	1					
RM-3	1 Gallon pesticide	1					
RM-7	1 Gallon paint can	4					
Roof	5 Gallon container unknown contents	1					
Other Regulated Materials Inventory							
Location	Type of Waste	Approximate Quantity					
-	-	-					


Ingham County Land Bank 1001 N Pine St, Lansing, MI Photographs taken by: Kory McKay on 12/19/2017

Property Photos









Ingham County Land Bank 1001 N Pine St, Lansing, MI Photographs taken by: Kory McKay on 12/19/2017

Sample Photos



Ingham County Land Bank 1001 N Pine St, Lansing, MI Photographs taken by: Kory McKay on 12/19/2017

Sample Photos











REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

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Regulated Materials Survey Limitations.Docx

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.



ANALYTICAL REPORTS AND CHAINS OF CUSTODY



Project: 1001 N. Pine St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

ARI Report # 17-73861 Date Collected: 12/19/17 Date Received: 12/21/17 Date Analyzed: 12/27/17 Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 01 Cust. #: AS 9-1 Material: White Linoleum Location: Room 5 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 20% Other - 65%
Lab ID #: 73861 - 02 Cust. #: AS 9-2 Material: White Linoleum Location: Room 5 Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 20% Other - 65%
Lab ID #: 73861 - 02a Cust. #: AS 9-2 Material: Mastic Location: Room 5 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.

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NVLAP Lab Code 102118-0



Project: 1001 N. Pine St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73861

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 03 Cust. #: AS 10-1 Material: Blue Tile Location: Room 5 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73861 - 03a Cust. #: AS 10-1 Material: Mastic Location: Room 5 Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73861 - 04 Cust. #: AS 10-2 Material: Blue Tile Location: Room 5 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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

APEX RESEARCH

Project: 1001 N. Pine St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73861

 Date Collected:
 12/19/17

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 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 04a Cust. #: AS 10-2 Material: Mastic Location: Room 5 Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73861 - 05 Cust. #: AS 2-5 Material: Plaster - Base Coat Location: Room 9 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 1.75% POINT COUNT RESULT	Cellulose - 2% Other - 96.25%
Lab ID #: 73861 - 06 Cust. #: AS 1-5 Material: Drywall Location: Room 6 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%

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

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 07 Cust. #: AS 1-4 Material: Drywall Location: Room 8 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73861 - 08 Cust. #: AS 11-1 Material: Blue Linoleum Location: Room 8 Appearance: green,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 73861 - 09 Cust. #: AS 11-2 Material: Blue Linoleum Location: Room 8 Appearance: green,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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

Robert T. Letarte Jr., Laboratory Director

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APEX RESEARCH

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 17-73861

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 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 10 Cust. #: AS 2-4 Material: Plaster Location: Room 9 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73861 - 11 Cust. #: AS 12-1 Material: Gray Tile/Backing Location: Room 7 Appearance: black,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73861 - 11a Cust. #: AS 12-1 Material: Mastic Location: Room 7 Appearance: black,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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 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 12 Cust. #: AS 12-2 Material: Gray Tile/Backing Location: Room 7 Appearance: black,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73861 - 12a Cust. #: AS 12-2 Material: Mastic Location: Room 7 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73861 - 13 Cust. #: AS 13-1 Material: Cream Linoleum Location: Room 7 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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 Date Analyzed:
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 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 13a Cust. #: AS 13-1 Material: Mastic Location: Room 7 Appearance: beige,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73861 - 14 Cust. #: AS 13-2 Material: Cream Linoleum Location: Room 7 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73861 - 14a Cust. #: AS 13-2 Material: Mastic Location: Room 7 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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APEX RESEARCH

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 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 15 Cust. #: AS 1-1 Material: Drywall Location: Room 7 Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73861 - 15a Cust. #: AS 1-1 Material: Joint Compound Location: Room 7 Appearance: beige,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73861 - 16 Cust. #: AS 15-3 Material: Vent Wrap Location: Room 1 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 45%	Other - 55%

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

APEX RESEARCH

Project: 1001 N. Pine St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73861

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 17 Cust. #: AS 3-2 Material: Window Glaze Location: Room 1 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 73861 - 18 Cust. #: AS 4-2 Material: Textured Ceiling Location: Room 1 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73861 - 19 Cust. #: AS 4-3 Material: Textured Ceiling Location: Room 1 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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

Robert T. Letarte Jr., Laboratory Director

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Project: 1001 N. Pine St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73861

 Date Collected:
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 12/27/17

 Date Reported:
 12/28/17

Lab ID #: 73861 - 20 Asbestos Present:	
Cust. #: AS 2-2 Material: Plaster NOT ANALYZED Location: Room 2 Appearance: Layer: of	
Lab ID #: 73861 - 21Asbestos Present:Cust. #: AS 15-1NOT ANALYZEDMaterial: Vent WrapNOT ANALYZEDLocation: Room 2Appearance:Layer:of	
Lab ID #: 73861 - 22Asbestos Present:Cust. #: AS 15-2NOT ANALYZEDMaterial: Vent WrapNOT ANALYZEDLocation: Room 2Appearance:Layer:of	

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

Robert T. Letarte Jr., Laboratory Director

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APEX RESEARCH

Project: 1001 N. Pine St. Project # 11440002

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 ARI Report #
 17-73861

 Date Collected:
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 Date Received:
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 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 23 Cust. #: AS 4-1 Material: Textured Ceiling Location: Room 2 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73861 - 24 Cust. #: AS 2-1 Material: Plaster Location: Room 2 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73861 - 25 Cust. #: AS 3-1 Material: Window Glaze Location: Room 2 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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



Project: 1001 N. Pine St. Project # 11440002

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 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 26 Cust. #: AS 5-1 Material: Tan Flooring Location: Room 3 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73861 - 26a Cust. #: AS 5-1 Material: Mastic Location: Room 3 Appearance: brown,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73861 - 27 Cust. #: AS 5-2 Material: Tan Flooring Location: Room 3 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%

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

Robert T. Letarte Jr., Laboratory Director

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APEX RESEARCH

Project: 1001 N. Pine St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73861

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 27a Cust. #: AS 5-2 Material: Mastic Location: Room 3 Appearance: brown,fibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73861 - 28 Cust. #: AS 7-1 Material: Faux Stone Linoleum Location: Room 3 Appearance: green,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73861 - 29 Cust. #: AS 7-2 Material: Faux Stone Linoleum Location: Room 3 Appearance: green,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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



Project: 1001 N. Pine St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73861

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 30 Cust. #: AS 1-2 Material: Drywall Location: Room 3 Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73861 - 30a Cust. #: AS 1-2 Material: Joint Compound Location: Room 3 Appearance: beige,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73861 - 31 Cust. #: AS 1-3 Material: Drywall Location: Room 3 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%

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

Robert T. Letarte Jr., Laboratory Director

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AD) NV

NVLAP Lab Code 102118-0

APEX RESEARCH

Project: 1001 N. Pine St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73861

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 32 Cust. #: AS 2-3 Material: Plaster Location: Room 3 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73861 - 33 Cust. #: AS 8-1 Material: Linoleum Location: Basement Appearance: black,fibrous,nonhomogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73861 - 33a Cust. #: AS 8-1 Material: Linoleum Location: Basement Appearance: black,fibrous,nonhomogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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

Robert T. Letarte Jr., Laboratory Director

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 $\mathbb{N}\mathbb{V}$



Project: 1001 N. Pine St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73861

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 33b Cust. #: AS 8-1 Material: Mastic Location: Basement Appearance: red,nonfibrous,homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73861 - 34 Cust. #: AS 8-2 Material: Linoleum Location: Basement Appearance: black,fibrous,homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73861 - 34a Cust. #: AS 8-2 Material: Mastic Location: Basement Appearance: yellow,nonfibrous,homogenous Layer: 2 of 4	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



Project: 1001 N. Pine St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73861

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 34b Cust. #: AS 8-2 Material: Linoleum Location: Basement Appearance: black,fibrous,homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73861 - 34c Cust. #: AS 8-2 Material: Mastic Location: Basement Appearance: red,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73861 - 35 Cust. #: AS 6-1 Material: Faux Wood Tile Location: Room 11 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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APEX RESEARCH

Project: 1001 N. Pine St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73861

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 35a Cust. #: AS 6-1 Material: Mastic Location: Room 11 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73861 - 36 Cust. #: AS 6-2 Material: Faux Wood Tile Location: Room 11 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73861 - 36a Cust. #: AS 6-2 Material: Mastic Location: Room 11 Appearance: clear,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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NVLAP Lab Code 102118-0



Project: 1001 N. Pine St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73861

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 37 Cust. #: AS 14-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%
Lab ID #: 73861 - 38 Cust. #: AS 14-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73861 - 38a Cust. #: AS 14-2 Material: Tar Location: Roof Appearance: black,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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APEX RESEARCH

Project: 1001 N. Pine St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73861

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 39 Cust. #: AS 16-1 Material: Siding Location: Exterior Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 35%	Other - 65%
Lab ID #: 73861 - 40 Cust. #: AS 16-2 Material: Siding Location: Exterior Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73861 - 41 Cust. #: AS 17-1 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,nonhomogenous 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

Project: 1001 N. Pine St. Project # 11440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73861

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 42 Cust. #: AS 17-2 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73861 - 43 Cust. #: AS 18-1 Material: Stack Cement Location: Basement Appearance: grey,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73861 - 44 Cust. #: AS 18-2 Material: Stack Cement Location: Basement Appearance: grey,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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

Robert T. Letarte Jr., Laboratory Director

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APEX RESEARCH

Project: 1001 N. Pine St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73861

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73861 - 45 Cust. #: AS 19-1 Material: Sink Undercoating Location: Room 3 Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 1.75% POINT COUNT RESULT	Cellulose - 2% Other - 96.25%
Lab ID #: 73861 - 46 Cust. #: AS 19-2 Material: Sink Undercoating Location: Room 3 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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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.

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NVLAP Lab Code 102118-0

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				Date of Survey:	12/19/201	7 5:00		Lab
Customer Nam	e: MANNIK	& SMITH GR	OUP	Project:	1001 N PI	NE ST		Log
ddress:	2193 Assoc	iation Drive, Sui	ite 200	Project #	11440002			Rep
City, St., Zip:	Oker	mos, MI, 48864		Contact Person:	Charlie Bu	ısh		Fax
Phone:	(517) 316-9232	Fax: (517)	316-9233	Email:	<u>cbush@m</u>	anniksmithgr	oup.com	Vert
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mples received after 3pm gged in next morning	(100 1 1 1 00 0 0)			TEM:	Bulk NIOSH _	EPA Level I	Other	—
Lab ID	Customer ID #		Mate	rial/Location		Volume	Area	Resu
	AS 9-1		RM-5 -	White linoleum		Bag	HA-9	
2	AS 9-2	RM-5 - White linoleum				Bag	HA-9	
3	AS 10-1	RM-5 - Blue tile				Bag	HA-10	
4	AS 10-2		RM-	-5 - Blue tile		Bag	HA-10	
5	AS 2-5		RM	1-9 - Plaster		Bag	HA-2	
6	AS 1-5		RM	-6 - Drywall		Bag	HA-1	
ר	AS 1-4		RM	-8 - Drywall		Bag	HA-1	
50	AS 11-1		RM-8 -	Blue Linoleum		Bag	HA-11	
9	AS 11-2		RM-8 -	Blue Linoleum		Bag	HA-11	
16	AS 2-4		RM	1-9 - Plaster		Bag	HA-2	
11	AS 12-1		RM-	-7 - Gray tile		Bag	HA-12	
12	AS 12-2		RM	-7 - Gray tile	×	Bag	HA-12	
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ddress:	2193 Assoc	iation Dr	ive, Suite 200	Project #	<u> </u>	440002			Report:
City, St., Zip:	Oker	nos, MI,	48864	Contact Person:	Cł	narlie Bu	sh		Fax:
Phone:	(517) 316-9232	Fax:	(517) 316-9233	Email:	<u>cb</u>	ush@m	anniksmithgro	oup.com	Verbal:
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8 Hour	72 Hour			Lead / Cad / Chrome:	Air	Paint	Wipe (ASTM)	Bulk	_
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amples received after 3pm gged in next morning	(Test Thi Foshive)	,		TEM:	Bulk	NIOSH	EPA Level II	Other	_
Lab ID	Customer ID #		Mat	erial/Location	-		Volume	Area	Results
13	AS 13-1		RM-7 - Cream Linoleum				Bag	HA-13	
14	AS 13-2	RM-7 - Cream Linoleum				Bag	HA-13		
15	AS 1-1	RM-1 - Drywall			Bag	HA-1			
16	AS 15-3		RM-1 - Vent wrap			Bag	HA-15		
17	AS 3-2		RM-1 - Window glaze				Bag	HA-3	
18	AS 4-2		RM-1 -	Textured ceiling			Bag	HA-4	
19	AS 4-3		RM-1 -	Textured ceiling			Bag	HA-4	
20	AS 2-2		RI	vI-2 - Plaster			Bag	HA-2	
21	AS 15-1		RM-	-2 - Vent wrap			Bag	HA-15	
22	AS 15-2		RM·	-2 - Vent wrap			Bag	HA-15	
23	AS 4-1		RM-2 -	Textured ceiling			Bag	HA-4	
24	AS 2-1		RN	√I-2 - Plaster			Bag	HA-2	
elinquished By]	Received By:	for MECEN	Relinqui	shed By: _		Received By: _	
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176/1	110541675	APEX Res	search, Inc.				
17061	11054 Fil Te	CI Drive, Whichore Lake, MI 48189. Phone	Date of Survey.	12/19/201	7.5:00		Lab Use Only
Customer Nam	e: Mannik	& SMITH GROUP	Project:	1001 N P	INE ST		Log-In:
Address:	2193 Assoc	ciation Drive, Suite 200	Project #	[1440002			Report:
City, St., Zip:	Oke	mos, MI, 48864	Contact Person:	Charlie B	ush		— Fax:
Phone:	(517) 316-9232	Fax: (517) 316-9233	_ Email:	cbush@n	nanniksmithgr	oup.com	Verbal:
Turn Around Time:	Circle One)***Terms and conditions on	the other side.	– Circle analyses requi	ired. indicate type ar	nd quantity		Email:
Rush	24 Hour		(Asbstos:)	Bulk X Wipe Point Count PCM			
48 Hour	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM)) Bulk	
Other:	_ TTP ves no		Mold:	Bulk Air	BioSIS	S Tape	
Samples received after 3pm logged in next morning	(Test Till Positive)		TEM:	BulkNIOSH	EPA Level I	I Other	
Lab ID	Customer ID #	Mat	terial/Location		Volume	Area	Results
25	AS 3-1	RM-2	- Window glaze		Bag	HA-3	
26	AS 5-1	RM-	3 - Tan flooring		Bag	HA-5	
27	AS 5-2	RM-	3 - Tan flooring		Bag	HA-5	
28	AS 7-1	RM-3 - F	aux stone Linoleum		Bag	HA-7	
29	AS 7-2	RM-3 - F	aux stone Linoleum		Bag	HA-7	
30	AS 1-2	RN	A-3 - Drywall		Bag	HA-1	
31	AS 1-3	RM-3 - Drywall Bag HA			HA-1		
32	AS 2-3	RM-3 - Plaster Bag HA-2					
33	AS 8-1	Basement - Linoleum sandwichBagHA-8Basement - Linoleum sandwichBagHA-8		HA-8			
34	AS 8-2			HA-8			
35	AS 6-1	RM-11	l - Faux wood tile		Bag	HA-6	
36	AS 6-2	RM-11	I - Faux wood tile	s	Bag	HA-6	
Received By: Recei							
Date: $\frac{12}{2!/17}$ Time/Date: $\frac{12}{2!(17)}$ Date:					Time/Date:		
Revision R4 Date: May/2017	,		APEX RESEARCH	3			

			esearch Inc		•		
73861	APEX Researcn, Inc.				APEX		
			Date of Survey:	12/19/20 ⁻	17 5:00		Lab Use On
Customer Nan	ne: MANNIK	& SMITH GROUP	Project:	1001 N P	INE ST		Log-In:
Address:	2193 Assoc	iation Drive, Suite 200	Project #	11440002			Report:
City, St., Zip:	Okei	nos, MI, 48864	Contact Person:	Charlie B	ush		Fax:
Phone:	(517) 316-9232	Fax: <u>(517) 316-9233</u>	Email:	<u>cbush@n</u>	nanniksmithgr	oup.com	Verbal:
Turn Around Time	e: (Circle One)***Terms and conditions on	the other side.	Circle analyses requi	red, indicate type a	nd quantity		Email:
Rush	24 Hour		Asbstos:	Bulk X Wipe	Point Count	t PCM	
48 Hour	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM)) Bulk	
Other:	TTP ves no (Test Till Positive)		Mold:	Bulk Air	BioSIS	S Tape	<u> </u>
Samples received after 3pm ogged in next morning	(100 100 1000)		TEM:	BulkNIOSH	EPA Level I	I Other	—
Lab ID	Customer ID #	M	laterial/Location		Volume	Area	Results
37	AS 14-1	Ι	Roof - Shingles		Bag	HA-14	
38	AS 14-2	I	Roof - Shingles		Bag	HA-14	
39	AS 16-1	E	Exterior - Siding		Bag	HA-16	
40	AS 16-2	E	Exterior - Siding		Bag	HA-16	
41	AS 17-1	Basement	- Basement cement floor		Bag	HA-17	
42	AS 17-2	Basement	- Basement cement floor		Bag	HA-17	
43	AS 18-1	Baser	nent - Stack Cement		Bag	HA-18	
44	AS 18-2	Baser	nent - Stack Cement		Bag	HA-18	
45	AS 19-1	RM-3	- Sink under coating		Bag	HA-19	
46	AS 19-2	RM-3	- Sink under coating		Bag	HA-19	
		•					
		0	DECEME	n.			
Relinquished By:	Cel	Received By:	Here and the second	"Relinquished By:	· · · · · · · · · · · · · · · · · · ·	_ Received By:	
Date: 12/2	1/17	Time/Date:パイ	zili7 DEC 21 201	Date:		Time/Date:	
Revision R4 Date: May/2017			APEX RESEAR	Cł-			



NOTIFICATION OF INTENT TO RENOVATE/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:	3. ABATEMENT CONTRACTOR: Internal Project #:
Calculate LAPA Ashestes Project Fee: (1% Project Fee)	Contact: Phone:
Total Project Cost:	5. FACILITY OWNER: ("Facility" includes Bridges) Name: Mailing Address:
1. NOTIFICATION: Date of Notification: Date of Revision(s): Notification Type: Original Revised Canceled Annual	City/State/Zip: E-mail: Contact: Phone: 6. FACILITY DESCRIPTION:
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	Facility Name:

Scheduled Demolition - 10 working days notice

LARA (MIOSHA) [Will not accept annual notifications]

Demo, Reno, Encap. (>10 In. ft./15 sq. ft.) 10 calendar days notice

START DATE

work hours for the purpose of scheduling a compliance inspection.

* 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

Days of the Week

END DATE

Work Hours

Please indicate the anticipated days of the week and

☐ Yes ☐ No

Intentional Burn – 10 working days notice

Emergency Renovation/Encapsulation

the start/end date of each phase.

Estimate the amount of asbestos: Include RACM

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, cementatious

(Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount

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.)

Ordered Demolition

2. PROJECT SCHEDULE:

* Renovation

+Demolition:

+Asb. Removal

Encapsulation:

Work Schedule:

Asb. Removal:

Encapsulation:

10. IS ASBESTOS PRESENT?

Demolition:

		 -	
(example: asbestos has fallen off of surface).			
	· · /		

Ln. Ft.

Sq. Ft.

Cu. Ft.*

WASTE TRANSPORTER 2:

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____

Age: _____ Present Use: _____ Prior Use: _____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of

"Ordered Demolition.") A copy of the official Order must accompany this

_____ Date Ordered to Begin: ____

Specific Location(s) in Facility:

7. DISPOSAL SITE:

City/State/Zip:

Location Address:

8. WASTE TRANSPORTER 1:

Address: _____

City/State/Zip:

Gov't Agency Ordering Demo:

Name/Title of Person Signing Order:

Non-friable ACM not

removed prior to demo.

Category I Category II

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure

Name:

Name:

Phone:

notification.

Date of Order:

RACM to be

Encapsulated

To be removed prior to demolition

RACM to be

Removed

Units of Measure

🗌 Ln. M.

🗌 Sq. M.

Cu.M.*

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continue

11.	1. 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) Tune of the second seco	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 se						
	carefully lower, etc.):					
	B) DEMOLITION: Describe the method of demolition of facility, bridge, et	c., and indicate if complete or partial. If partial, describe which part of facility				
	bridge, etc., will be demolished:					
10		pontrole used to provent visible emissions before during and ofter removal and				
12.	until proper disposal:					
13.	UNEXPECTED ASBESTOS: Describe the steps you intend to follow in becomes friable (crumbled, pulverized, reduced to powder, etc.) and there	the event that unexpected RACM is found or previously non-friable asbestos fore 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 s	survey:				
	C) Name, accreditation number of inspector, and date of inspection:					
15.	EMERGENCY RENOVATIONS: Date/time of emergency:	Describe the sudden, unexpected event:				
	Evolain 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 involvin 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 Pre Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance a linear feet/15 square feet or more of friable material which is perform have been advised by the contractor of my responsibility under Act	ssure Enclosures: (required by LARA) ir monitoring is required for any asbestos abatement project involving 10 med within a negative pressure enclosure. <i>I (the building owner or lessee)</i> <i>135 to have clearance air monitoring performed on this project.</i>				
	Signature of Building Owner or Lessee Date NOTE: It is not mandatory that a signed copy be sent to LARA unless reques and made part of your records before the project begins.	Signature of Asbestos Abatement Contractor Representative Date ted. For affected projects, this section of the notification form must be completed, signed,				
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 mail <u>http:</u>	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					
MIC LAF P.O Lan	OSHA Asbestos Program RA, CSHD . Box 30671 sing, MI 48909-8171	NESHAP Asbestos Program DEQ, AQD P.O. Box 30260 Lansing, MI 48909-7760				
517	.636.4551 (office), 517.322.1713 (fax)	517.284.6777 (Office)				


December 28, 2017

Ms. Roxanne Case Grant Manager Ingham County Land Bank 3024 Turner Street Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey 635 Brook St, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited predemolition regulated materials survey (RMS) performed at 635 Brook St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information				
Property Address	635 Brook St, Lansing, MI			
Parcel #	33-01-01-09-352-001			
No. Stories	2			
Square Footage (approx.)	1,150 SF			
Siding	Wood			
Basement	Yes			
Garage	No			



Asbestos Containing Material							
Location	Material Group	Friable/Non Friable	Asbestos	Quantity			
RM-8	Gold tile	Non friable	5% Chrysotile	85			
RM-7, RM-8	Vent wrap	Friable	40% Chrysotile	200 SF			
RM-2, RM-9	Multicolored linoleum	Non friable	20% Chrysotile	100 SF			
Exterior	Siding	Non friable	15% Chrysotile	900 SF			

Hazardous Materials					
Location	Material Description	Quantity			
Basement	Fuel tank 150 gallon empty	1			
Basement	Spray paint can	5			
Basement	1 Gallon paint stripper	1			

TECHNICAL SKILL. CREATIVE SPIRIT.

Universal Waste Inventory					
Location	Material Description	Quantity			
RM-7	Television	1			
RM-4	Thermostat	1			
RM-3	CFL bulb	1			

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 13, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (SHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I nonfriable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number

A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - o DOT Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - o IATA International Air Transport Association; Dangerous Goods Regulations;
 - o ICAO International Civil Aviation Organization; Technical Instructions; and
 - AF Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log.* The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified fourteen (14) homogenous materials that were suspect as asbestos containing during the ACM survey. Thirty-three (33) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found four (4)

homogenous materials (samples 9-1, 10-1, 11-1, and 14-1) contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the fourteen (14) homogenous materials collected as part of the ACM survey, four (4) homogenous materials contained asbestos greater than 1% (samples 9-1, 10-1, 11-1, and 14-1) with these four (4) homogenous materials being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe,

inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232. Sincerely,

Kory McKay Environmental Scientist Accreditation Number A47903

,10

Charlie Bush Senior Project Manager Accreditation Number A34293

Attachments





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721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com



Drawing not to scale

Room 2 Room 1 2-1 8-1, 2 9-1, 2 1-2 12-1, 2 14-1, 2 Room 3 7-1, 2 Room 4 1-1 2-2 Room 6 Room 5 3-1, 2 4-1, 2 5-1, 2 6-1, 2 1-3

1st Floor

Multicolored Linoleum (100 SF)

Vent with wrap (200 SF)



TECHNICAL SKILL. CREATIVE SPIRIT.

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com



#-# = Asbestos Sample

Gold Tile (85 SF)

2-3

1-5

Vent with wrap (200 SF)

Siding (900 SF)



TABLE 1 Asbestos Sampling Results

		1								
Client		Ingham Count	ty Land B	ank Authority						
Survey Loca	ation	635 Brook St.	2017							
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-4	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1500 SF
RM-1	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1500 SF
RM-5	1	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1500 SF
RM-8	2	AS 1-4	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1500 SF
RM-8	2	AS 1-5	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1500 SF
RM-1	1	AS 2-1	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	1500 SF
RM-6	1	AS 2-2	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	1500 SF
RM-8	2	AS 2-3	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	1500 SF
RM-6	1	AS 3-1	HA-3	Cream Linoleum	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-6	1	AS 3-2	HA-3	Cream Linoleum	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-6	1	AS 4-1	HA-4	White linoleum sandwich	Non-Friable	Good	Miscellaneous	No	No	200 SF
RM-6	1	AS 4-2	HA-4	White linoleum sandwich	Non-Friable	Good	Miscellaneous	No	No	200 SF
RM-6	1	AS 5-1	HA-5	Brown flooring	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-6	1	AS 5-2	HA-5	Brown flooring	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-6	1	AS 6-1	HA-6	White tile	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-6	1	AS 6-2	HA-6	White tile	Non-Friable	Good	Miscellaneous	No	No	100 SF

TABLE 1 Asbestos Sampling Results

Client		Ingham Coun	ty Land B	ank Authority						
Survey Loca	ation	635 Brook St.	2017							
Survey Da	ate	December 13	, 2017			1	554			
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-4	1	AS 7-1	HA-7	Yellow Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-4	1	AS 7-2	HA-7	Yellow Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-2	1	AS 8-1	HA-8	Cream tile	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-2	1	AS 8-2	HA-8	Cream tile	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-2	1	AS 9-1	HA-9	Multi colored Linoleum	Non-Friable	Good	Miscellaneous	Yes	20% Chrysotile	100 SF
RM-2	1	AS 9-2	HA-9	Multi colored Linoleum	Non-Friable	Good	Miscellaneous	Yes	NA	100 SF
RM-8	2	AS 10-1	HA-10	Vent wrap	Friable	Good	Miscellaneous	Yes	40% Chrysotile	200 SF
RM-8	2	AS 10-2	HA-10	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	200 SF
RM-7	2	AS 10-3	HA-10	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	200 SF
RM-8	2	AS 11-1	HA-11	Gold tile	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	85 SF
RM-8	2	AS 11-2	HA-11	Gold tile	Non-Friable	Good	Miscellaneous	Yes	NA	85 SF
Roof	E	AS 12-1	HA-12	Shingles	Non-Friable	Good	Miscellaneous	No	No	500 SF
Roof	E	AS 12-2	HA-12	Shingles	Non-Friable	Good	Miscellaneous	No	No	500 SF
Basement	В	AS 13-1	HA-13	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	В	AS 13-2	HA-13	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF
Exterior	E	AS 14-1	HA-14	Siding	Non-Friable	Good	Miscellaneous	Yes	15% Chrysotile	900 SF
Exterior	E	AS 14-2	HA-14	Siding	Non-Friable	Good	Miscellaneous	Yes	NA	900 SF

Table 2Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory635 Brook St.Lansing, Ingham County, Michigan

Universal Waste Inventory					
Location	Type of Waste	Approximate Quantity			
RM-7	Television	1			
RM-4	Thermostat	1			
RM-3	CFL bulb	1			
Hazardous Materials Inventory					
Location	Type of Waste	Approximate Quantity			
Basement	Fuel tank 150 gallon empty	1			
Basement	Spray paint can	5			
Basement	1 Gallon paint stripper	1			
Other Regulated Materials Inventory					
Location	Type of Waste	Approximate Quantity			
-	-	-			



Ingham County Land Bank 635 Brook St, Lansing, MI Photographs taken by: Kory McKay on 12/13/2017

Property Photos









Ingham County Land Bank 635 Brook St, Lansing, MI Photographs taken by: Kory McKay on 12/13/2017

Sample Photos







REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

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Regulated Materials Survey Limitations.Docx

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.



ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Test Method, Polarized Light Microscopy (PLM)

Project: 635 Brook St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73780

 Date Collected:
 12/13/17

 Date Received:
 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 01 Cust. #: AS2-3 Material: Plaster Finish Coat Location: Room 8 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73780 - 01a Cust. #: AS2-3 Material: Plaster Base Coat Location: Room 8 Appearance: beige,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73780 - 02 Cust. #: AS1-5 Material: Drywall Location: Room 8 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.

Robert T. Letarte Jr., Laboratory Director

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Test Method, Polarized Light Microscopy (PLM)

Project: 635 Brook St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
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 12/13/17

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 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 02a Cust. #: AS1-5 Material: Joint Compound Location: Room 8 Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73780 - 03 Cust. #: AS1-4 Material: Drywall Location: Room 8 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73780 - 04 Cust. #: AS11-1 Material: Glue Location: Room 8 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 04a Cust. #: AS11-1 Material: Gold Tile Location: Room 8 Appearance: beige,fibrous,homogenous Layer: 2 of 3	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 73780 - 04b Cust. #: AS11-1 Material: Mastic Location: Room 8 Appearance: brown,nonfibrous,homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73780 - 05 Cust. #: AS11-2 Material: Glue Location: Room 8 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 12/13/17

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 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 05a Cust. #: AS11-2 Material: Gold Tile	Asbestos Present:	
Location: Room 8 Appearance: Layer: 2 of 3	NOT ANALYZED	
Lab ID #: 73780 - 05b Cust. #: AS11-2 Material: Mastic Location: Room 8 Appearance: brown,nonfibrous,homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73780 - 06 Cust. #: AS10-1 Material: Vent Wrap Location: Room 8 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 40%	Other - 60%

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

Robert T. Letarte Jr., Laboratory Director

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 ARI Report #
 17-73780

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 12/13/17

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 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 07 Cust. #: AS10-2	Asbestos Present:	
Material: Vent Wrap Location: Room 8 Appearance: Layer: of	NOT ANALYZED	
Lab ID #: 73780 - 08 Cust. #: AS10-3 Material: Vent Wrap	Asbestos Present:	
Location: Room 7 Appearance: Layer: of	NOT ANALYZED	
Lab ID #: 73780 - 09 Cust. #: AS12-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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 17-73780

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 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 10 Cust. #: AS12-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73780 - 11 Cust. #: AS1-3 Material: Drywall Location: Room 5 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73780 - 12 Cust. #: AS2-2 Material: Plaster Base Coat Location: Room 6 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Perlite - 10% Other - 88%

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

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Project: 635 Brook St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

ARI Report # 17-73780 Date Collected: 12/13/17 Date Received: 12/15/17 Date Analyzed: 12/19/17 Date Reported: 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 13 Cust. #: AS3-1 Material: Cream Linoleum/Glue Location: Room 6 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 73780 - 14 Cust. #: AS3-2 Material: Cream Linoleum/Glue Location: Room 6 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 73780 - 15 Cust. #: AS4-1 Material: White Linoleum Sandwich/Glue Location: Room 6 Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 2% Other - 88%

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 17-73780 Date Collected: 12/13/17 Date Received: 12/15/17 Date Analyzed: 12/19/17 Date Reported: 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 15a Cust. #: AS4-1 Material: Linoleum Felt/Glue Location: Room 6 Appearance: beige,fibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%
Lab ID #: 73780 - 16 Cust. #: AS4-2 Material: White Linoleum Sandwich/Glue Location: Room 6 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 2% Other - 83%
Lab ID #: 73780 - 16a Cust. #: AS4-2 Material: Linoleum Felt/Glue Location: Room 6 Appearance: beige,fibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 2% Other - 83%
For Layered Samples, each component will be analyzed and reported separately.		

Robert T. Letarte Jr., Laboratory Director

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 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 17 Cust. #: AS5-1 Material: Brown Flooring Location: Room 6 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73780 - 18 Cust. #: AS5-2 Material: Brown Flooring Location: Room 6 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73780 - 19 Cust. #: AS6-1 Material: White Tile Location: Room 6 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 20 Cust. #: AS6-2 Material: White Tile Location: Room 6 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73780 - 21 Cust. #: AS1-1 Material: Drywall Location: Room 4 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73780 - 22 Cust. #: AS7-1 Material: Yellow Linoleum Location: Room 4 Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 23 Cust. #: AS7-2 Material: Yellow Linoleum Location: Room 4 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 73780 - 24 Cust. #: AS2-1 Material: Plaster Base Coat Location: Room 1 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 10% Other - 90%
Lab ID #: 73780 - 25 Cust. #: AS1-2 Material: Drywall Location: Room 1 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Test Method, Polarized Light Microscopy (PLM)

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 26 Cust. #: AS8-1 Material: Cream Tile/Linoleum/Glue Location: Room 2 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 2% Other - 83%
Lab ID #: 73780 - 27 Cust. #: AS8-2 Material: Cream Tile/Linoleum/Glue Location: Room 2 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 2% Other - 83%
Lab ID #: 73780 - 28 Cust. #: AS9-1 Material: Multicolored Linoleum Location: Room 2 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 20%	Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 29 Cust. #: AS9-2 Material: Multicolored Linoleum	Asbestos Present:	
Location: Room 2 Appearance: Layer: of	NOT ANALYZED	
Lab ID #: 73780 - 30 Cust. #: AS14-1 Material: Siding Location: Exterior Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 15%	Other - 85%
Lab ID #: 73780 - 31 Cust. #: AS14-2 Material: Siding	Asbestos Present:	
Location: Exterior Appearance: Layer: of	NOT ANALYZED	

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ARI Report # 17-73780 Date Collected: 12/13/17 Date Received: 12/15/17 Date Analyzed: 12/19/17 Date Reported: 12/19/17

Lab ID #: 73780 - 32 Asbestos Present: NO Hair - 2% Cust. #: AS13-1 No Asbestos Observed Other - 98% Material: Basement Cement Floor Location: Basement Appearance: beige,nonfibrous,homogenous Layer: 1 of 1 Asbestos Present: NO Hair - 2% Lab ID #: 73780 - 33 Asbestos Present: NO Hair - 2% Cust. #: AS13-2 No Asbestos Observed Other - 98% Material: Basement Cement Floor No Asbestos Observed Other - 98% Material: Basement Cement Floor No Asbestos Observed Other - 98% Lab ID #: 73780 - 33 Asbestos Present: NO Hair - 2% Cust. #: AS13-2 No Asbestos Observed Other - 98% Material: Basement Cement Floor Location: Basement Other - 98% Layer: 1 of 1 Asbestos Present: Material: Lab ID #: Asbestos Present: Cust. #: Material: Material: Material:	Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73780 - 33 Asbestos Present: NO Hair - 2% Cust. #: AS13-2 No Asbestos Observed Other - 98% Material: Basement Cement Floor Location: Basement Appearance: beige,nonfibrous,homogenous Layer: 1 of 1 Lab ID #: Asbestos Present: Cust. #: Material: Asbestos Present:	Lab ID #: 73780 - 32 Cust. #: AS13-1 Material: Basement Cement Floor Location: Basement Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: Asbestos Present: Cust. #: Material:	Lab ID #: 73780 - 33 Cust. #: AS13-2 Material: Basement Cement Floor Location: Basement Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Location: Appearance: Layer: of	Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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.

RV

NVLAP Lab Code 102118-0

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Address:	2193 Associ	ation Drive, Suite 200	Project #	11440002			Report:
City, St., Zip:	Oker	nos, MI, 48864	Contact Person:	Charlie Bu	ush		Fax:
Phone:	(517) 316-9232	Fax: (517) 316-9233	Email:	<u>cbush@m</u>	anniksmithgr	oup.com	Verbal:
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Lab ID	Customer ID #	Ma	aterial/Location		Volume	Area	Results
-	AS 2-3	R	CM-8 - Plaster		Bag	HA-2	
2	AS 1-5	R	M-8 - Drywall		Bag	HA-1	
3	AS 1-4	R	M-8 - Drywall		Bag	HA-1	
Lif	AS 11-1	RI	M-8 - Gold tile	-	Bag	HA-11	
5	AS 11-2	RJ	M-8 - Gold tile		Bag	HA-11	
6	AS 10-1	RN	4-8 - Vent wrap		Bag	HA-10	
7	AS 10-2	RN	1-8 - Vent wrap		Bag	HA-10	
5	AS 10-3	RN	1-7 - Vent wrap	:	Bag	HA-10	
9	AS 12-1	R	oof - Shingles		Bag	HA-12	
10	AS 12-2	R	.oof - Shingles	-	Bag	HA-12	
11	AS 1-3	R	M-5 - Drywall	:	Bag	HA-1	
12	AS 2-2	~ ^ ^F	RM-6 - Plaster	:	Bag	HA-2	
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City, St., Zip:	Oke	mos, MI, 4	8864	Contact Person:	Charlie B	ush		Fax:
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amples received after 3p ogged in next morning	m			TEM:	BulkNIOSH	EPA Level I	I Other	
Lab ID	Customer ID #		Mate	erial/Location		Volume	Area	Results
13	AS 3-1		RM-6 - (Cream Linoleum		Bag	HA-3	
14	AS 3-2		RM-6 - 0	Cream Linoleum		Bag	HA-3	
15	AS 4-1		RM-6 - Whit	te linoleum sandwich		Bag	HA-4	· · · · · · · · · · · · · · · · · · ·
16	AS 4-2		RM-6 - Whit	te linoleum sandwich		Bag	HA-4	
17-	AS 5-1		RM-6 -	Brown flooring		Bag	HA-5	
18	AS 5-2		RM-6 -	Brown flooring		Bag	HA-5	
19	AS 6-1		RM-	6 - White tile		Bag	HA-6	
20	AS 6-2		RM-	6 - White tile		Bag	HA-6	
21	AS 1-1		RM	-4 - Drywall		Bag	HA-1	
22	AS 7-1		RM-4 - Y	Yellow Linoleum		Bag	HA-7	
23	AS 7-2		RM-4 - Y	Yellow Linoleum		Bag	HA-7	
24	AS 2-1		RM	I-1 - Plaster		Bag	HA-2	
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City, St., Zip: Oke		emos, MI, 48864		Contact Person:	Charlie Bush		Fax:	
^o hone:	(517) 316-9232	Fax:	(517) 316-9233	Email:	<u>cbush@</u>	manniksmithgi	roup.com	Verbal:
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gged in next morning				TEM:	Bulk NIOSF	I EPA Level I	[] Other	
Lab ID	Customer ID #		Mate	rial/Location		Volume	Area	Results
25	AS 1-2		RM-	-1 - Drywall	4	Bag	HA-1	
26	AS 8-1		RM-2	2 - Cream tile		Bag	HA-8	
27	AS 8-2		RM-2	2 - Cream tile		Bag	HA-8	
26	AS 9-1		RM-2 - Mult	ti colored Linoleum		Bag	HA-9	
29	AS 9-2		RM-2 - Mult	ti colored Linoleum	:	Bag	HA-9	
20	AS 14-1		Exter	rior - Siding		Bag	HA-14	
31	AS 14-2		Exter	rior - Siding		Bag	HA-14	
32	AS 13-1		Basement - Ba	asement cement floor		Bag	HA-13	
33	AS 13-2		Basement - Ba	asement cement floor	:	Bag	HA-13	
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SEAPC Page3 of 3



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF IN	TENT TO RENOVATE/DEMOLISH
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUA (MDEQ) AIR QUALITY DIVISION NESHAP, 40 CFR Part 61, Subpart M	ALITY 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.	3. ABATEMENT CONTRACTOR: Internal Project #:
Calculate LARA Asbestos Project Fee: (1% Proje	ct Fee)
Total Project Cost: x 0.01 =	5. FACILITY OWNER: ("Facility" includes Bridges)
Type of Contractor: License No.:	Name:
Licensing Authority:	
1. NOTIFICATION:	E-mail:
	Contact: Dhone:

Contact:

6. FACILITY DESCRIPTION:

Location Address/Description: _____

Specific Location(s) in Facility:

City/State/Zip: _____

Gov't Agency Ordering Demo:

Name/Title of Person Signing Order:

Facility Name:

7. DISPOSAL SITE:

Name

Phone:

notification.

Date of Order:

Phone:

If Apt. # of units:

County: _____ Nearest Crossroad: _____

City/Twp. _____ State: _____ Zip Code: _____

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____

Age: _____ Present Use: _____ Prior Use: _____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of

"Ordered Demolition.") A copy of the official Order must accompany this

Date Ordered to Begin:

Date of Revision(s):

Notification Type: Original Revised Canceled Annual

START DATE

Mark appropriate boxes: (both DEQ and LARA may app	oly):
DEQ (NESHAP) [260 In. ft./160 sq. ft. or more is thresho	old]

Planned Renovation – 10 working days notice
Emergency Renovation
Scheduled Demolition – 10 working days notice

Interational Duma	40 mentalment der in estime
 Intentional Burn –	TU working days notice
Internal Barn	no montang dayo notico

□ 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:

* Renovation			Location Address:	
+Asb. Removal			City/State/Zip:	
+Demolition:			8. WASTE TRANSPORTER 1:	WASTE TR
Encapsulation:			Name:	
Work Schedule:	Please indicate the anticip	pated days of the week and	Address:	

END DATE

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

> Work Hours Days of the Week

Asb.	Removal:
ASD.	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.

It <u>must</u> be removed prior to demolition.)

10. IS ASBESTOS PRESENT?

IS ASBESTOS PRESENT?	🗌 Yes	🗌 No	To be remove	d prior to demolitio	n			
Estimate the amount of asbestos:	Include F	RACM	RACM to be	RACM to be	Non-friabl removed pi	e ACM <u>not</u> ior to demo.		
(Regulated Asbestos Containing Mat	terial) to l	be	Removed	Encapsulated	Category I	Category II	Units of I	Measure
removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that <u>will not</u> be removed prior to demolition. (NOTE: In a demolition, cementatious						🗌 Ln. Ft.	🗌 Ln. M.	
						🗌 Sq. Ft.	🗌 Sq. M.	
						🗌 Cu. Ft.*	🗌 Cu.M.*	
ACM <u>cannot</u> remain in a structure, as become regulated in the demolition/h	s it is like handling i	ly to process.	*) (aluma (aubia ft	(motoro) obouid by		nabla ta maaau	na hu linaar/agu	

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

WASTE TRANSPORTER 2:

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continue

11.	PROJECT DESCRIPTION: Complete A) for Renovation (asbestos remo	val/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) Tunnel (s) Tunnel (s)	Encapsulation (for LARA): Mark surfaces/types to be encapsulated: Piping Fittings Boiler(s) Tank(s) Beam(s) Duct(s) Tunnel(s) Ceiling Tile(Other (describe)	: (s)			
	Method of removal: Describe <u>how</u> 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, et	c., and indicate if complete or partial. If partial, describe which part of facility				
	bridge, etc., will be demolished:					
10		pantrale used to prevent visible opissions before during and offer removal op				
12.	until proper disposal:	controls used to prevent visible emissions before, during, and alter removal, an				
13.	UNEXPECTED ASBESTOS: Describe the steps you intend to follow in becomes friable (crumbled, pulverized, reduced to powder, etc.) and there	h the event that unexpected RACM is found or previously non-friable asbesto fore regulated:	os			
	· · · · · ·		_			
14.	PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS analytical sampling was used, describe method of analysis. (The determine a renovation/demolition notification.):	A) Indicate how you determined whether or not asbestos is in the facility. nation of the presence or absence of asbestos must be made prior to submittin	lf ng			
	B) Name, address, and phone number of company performing asbestos s	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, S RACM above the threshold and/or during an ordered demolition. Evide inspection at the renovation or demolition site.	Subpart M, will be on-site during the renovation and during demolition involvir ence that this person has completed the required training will be available f	ng for			
	Signature of Owner or Abatement Contractor Date	Signature of Owner or Demolition Contractor Date				
17.	Signature Requirements for Projects with Negative Prese Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance ai linear feet/15 square feet or more of friable material which is perform have been advised by the contractor of my responsibility under Act of	ssure Enclosures: (required by LARA) ir monitoring is required for any asbestos abatement project involving a med within a negative pressure enclosure. <i>I (the building owner or lesse</i> 135 to have clearance air monitoring performed on this project.	10 ⊯)			
	Signature of Building Owner or Lessee Date NOTE: It is not mandatory that a signed copy be sent to LARA unless reques and made part of your records before the project begins.	Signature of Asbestos Abatement Contractor Representative Date ted. For affected projects, this section of the notification form must be completed, signed,				
18.	I certify that the above information is correct:					
	Printed Name of Owner/Operator Date	Signature of Owner/Operator Date				
MA	ILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine v	which agency requirements/regulations are applicable to your project.)				
For mail <u>http</u>	Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), to address below. For more info visit: ://www.michigan.gov/asbestos	For NESHAP Demolitions/Renovations , 40 CFR , Part 61 , Subpart I please use the e-submittal process. For more information vis <u>http://www.michigan.gov/air</u> , under Air Links click on Asbestos NESHA Program.	M, sit ∖P			
MIC LAF P.O Lan	VSHA Asbestos Program A, CSHD . Box 30671 sing, MI 48909-8171	NESHAP Asbestos Program DEQ, AQD P.O. Box 30260 Lansing, MI 48909-7760				
517	517.636.4551 (office), 517.322,1713 (fax)					



December 29, 2017

Ms. Roxanne Case Grant Manager Ingham County Land Bank 3024 Turner Street Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey 621 Brook St, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited predemolition regulated materials survey (RMS) performed at 621 Brook St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information				
Property Address	621 Brook St, Lansing, MI			
Parcel #	33-01-01-09-352-211			
No. Stories	2			
Square Footage (approx.)	1,800 SF			
Siding	Asphalt and wood			
Basement	Yes			
Garage	No			



Asbestos Containing Material							
Location	Material Group	Friable/Non Friable	Asbestos	Quantity			
RM-3, RM-4, RM-6	Vent wrap	Friable	65% Chrysotile	210 SF			
RM-6	Tan tile	Non Friable	30% Chrysotile	180 SF			
RM-6	Dark brown tile	Non Friable	10% Chrysotile	20 SF			
RM-11	Sink under coating	Non Friable	5% Chrysotile	3 SF			
RM-13	Gold tile	Non Friable	5% Chrysotile	35 SF			



Universal Waste Inventory					
Location	Material Description	Quantity			
RM-1	Thermostat	1			

Hazardous Materials						
Location	Material Description	Quantity				
RM-8, Basement	1 Quart varnish	7				
Basement	1 Gallon antifreeze	2				
RM-8	1 Gallon bleach	2				
RM-8	Starting fluid can	3				

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 19, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (SHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I nonfriable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and

• Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - o DOT Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - o IATA International Air Transport Association; Dangerous Goods Regulations;
 - o ICAO International Civil Aviation Organization; Technical Instructions; and
 - AF Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and

disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log.* The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified twenty-three (23) homogenous materials that were suspect as asbestos containing during the ACM survey. Fifty-four (54) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found five (5) homogenous materials (samples 9-1, 10-1, 17-1, 19-1 and 22-1) contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the twenty-three (23) homogenous materials collected as part of the ACM survey, five (5) homogenous materials contained asbestos greater than 1% (samples 9-1, 10-1, 17-1, 19-1 and 22-1) with these five (5) homogenous materials being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232. Sincerely,

Kory McKay Environmental Scientist Accreditation Number A47903

-10

Charlie Bush Senior Project Manager Accreditation Number A34293

Attachments





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721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com



= Sink Under Coating (3 SF)



Client		Ingham Count	Ingham County Land Bank Authority							
Survey Loca	ation	621 Brook St	2017							
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	2000 SF
RM-6	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	2000 SF
RM-5	1	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	2000 SF
RM-10	2	AS 1-4	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	2000 SF
RM-9	2	AS 1-5	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	2000 SF
RM-4	1	AS 2-1	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	2000 SF
RM-6	1	AS 2-2	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	2000 SF
RM-3	1	AS 2-3	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	2000 SF
RM-10	2	AS 2-4	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	2000 SF
RM-9	2	AS 2-5	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	2000 SF
RM-6	1	AS 3-1	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	200 SF
RM-6	1	AS 3-2	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	200 SF
RM-7	1	AS 4-1	HA-4	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	200 SF
RM-7	1	AS 4-2	HA-4	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	200 SF
RM-7	1	AS 5-1	HA-5	Green 9x9 tile	Non-Friable	Good	Miscellaneous	No	No	40 SF
RM-7	1	AS 5-2	HA-5	Green 9x9 tile	Non-Friable	Good	Miscellaneous	No	No	40 SF
RM-7	1	AS 6-1	HA-6	White 9x9 tile	Non-Friable	Good	Miscellaneous	No	No	40 SF

Client		Ingham County Land Bank Authority								
Survey Loc	Irvey Location 621 Brook St									
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-7	1	AS 6-2	HA-6	White 9x9 tile	Non-Friable	Good	Miscellaneous	No	No	40 SF
RM-5	1	AS 7-1	HA-7	Cream Linoleum	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-5	1	AS 7-2	HA-7	Cream Linoleum	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-5	1	AS 8-1	HA-8	Brown tile	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-5	1	AS 8-2	HA-8	Brown tile	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-6	1	AS 9-1	HA-9	Tan tile	Non-Friable	Good	Miscellaneous	Yes	30% Chrysotile	180 SF
RM-6	1	AS 9-2	HA-9	Tan tile	Non-Friable	Good	Miscellaneous	Yes	NA	180 SF
RM-6	1	AS 10-1	HA-10	Vent wrap	Friable	Good	Miscellaneous	Yes	65% Chrysotile	210 SF
RM-4	1	AS 10-2	HA-10	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	210 SF
RM-4	1	AS 10-3	HA-10	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	210 SF
RM-4	1	AS 11-1	HA-11	Blue linoleum	Non-Friable	Good	Miscellaneous	No	No	20 SF
RM-4	1	AS 11-2	HA-11	Blue linoleum	Non-Friable	Good	Miscellaneous	No	No	20 SF
Roof	E	AS 12-1	HA-12	Shingles	Non-Friable	Good	Miscellaneous	No	No	850 SF
Roof	E	AS 12-2	HA-12	Shingles	Non-Friable	Good	Miscellaneous	No	No	850 SF
RM-11	2	AS 13-1	HA-13	Tan 9x9 tile	Non-Friable	Good	Miscellaneous	No	No	100 SF

Client		Ingham County Land Bank Authority								
Survey Loca	ation	n 621 Brook St								
Survey Da Functional Area	Floor	December 19, Sample ID	, 2017 HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-11	2	AS 13-2	HA-13	Tan 9x9 tile	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-10	2	AS 14-1	HA-14	Textured ceiling	Friable	Good	Miscellaneous	No	No	250 SF
RM-9	2	AS 14-2	HA-14	Textured ceiling	Friable	Good	Miscellaneous	No	No	250 SF
RM-9	2	AS 14-3	HA-14	Textured ceiling	Friable	Good	Miscellaneous	No	No	250 SF
RM-12	2	AS 15-1	HA-15	White linoleum	Non-Friable	Good	Miscellaneous	No	No	180 SF
RM-12	2	AS 15-2	HA-15	White linoleum	Non-Friable	Good	Miscellaneous	No	No	180 SF
RM-12	2	AS 16-1	HA-16	Turquoise Linoleum	Non-Friable	Good	Miscellaneous	No	No	180 SF
RM-12	2	AS 16-2	HA-16	Turquoise Linoleum	Non-Friable	Good	Miscellaneous	No	No	180 SF
RM-13	2	AS 17-1	HA-17	Gold tile	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	35 SF
RM-13	2	AS 17-2	HA-17	Gold tile	Non-Friable	Good	Miscellaneous	Yes	NA	35 SF
RM-13	2	AS 18-1	HA-18	Black tile	Non-Friable	Good	Miscellaneous	No	No	35 SF
RM-13	2	AS 18-2	HA-18	Black tile	Non-Friable	Good	Miscellaneous	No	No	35 SF
RM-6	1	AS 19-1	HA-19	Dark brown tile	Non-Friable	Good	Miscellaneous	Yes	10% Chrysotile	20 SF
RM-6	1	AS 19-2	HA-19	Dark brown tile	Non-Friable	Good	Miscellaneous	Yes	NA	20 SF
Basement	В	AS 20-1	HA-20	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF

		-								
Client	Client Ingham County Land Bank Authority									
Survey Loc	ation	621 Brook St	0017							
Functional Area	Floor	Sample ID	, 2017 HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
Basement	В	AS 20-2	HA-20	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	В	AS 21-1	HA-21	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	4 SF
Basement	В	AS 21-2	HA-21	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	4 SF
RM-11	2	AS 22-1	HA-22	Sink under coating	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	3 SF
RM-11	2	AS 22-2	HA-22	Sink under coating	Non-Friable	Good	Miscellaneous	Yes	NA	3 SF
Exterior	E	AS 23-1	HA-23	Siding	Non-Friable	Good	Miscellaneous	No	No	2600 SF
Exterior	E	AS 23-2	HA-23	Siding	Non-Friable	Good	Miscellaneous	No	No	2600 SF

Table 2Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory621 Brook St.Lansing, Ingham County, Michigan

Universal Waste Inventory							
Location	Type of Waste	Approximate Quantity					
RM-1	Thermostat	1					
Hazardous Materials Inventory							
Location	Type of Waste	Approximate Quantity					
RM-8, Basement	1 Quart varnish	7					
Basement	1 Gallon antifreeze	2					
RM-8	1 Gallon bleach	2					
RM-8	Starting fluid can	3					
Other Regulated Materials Inventory							
Location	Type of Waste	Approximate Quantity					
-	-	-					



Ingham County Land Bank 621 Brook St, Lansing, MI Photographs taken by: Kory McKay on 12/19/2017

Property Photos









Ingham County Land Bank 621 Brook St, Lansing, MI Photographs taken by: Kory McKay on 12/19/2017

Sample Photos



Ingham County Land Bank 621 Brook St, Lansing, MI Photographs taken by: Kory McKay on 12/19/2017

Sample Photos













REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

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Regulated Materials Survey Limitations.Docx

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.



ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Project: 621 Brook St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73858

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 01 Cust. #: AS 10-1 Material: Vent Wrap Location: Room 6 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 65%	Other - 35%
Lab ID #: 73858 - 02 Cust. #: AS 9-1 Material: Tan Tile Location: Room 6 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 30%	Other - 70%
Lab ID #: 73858 - 03 Cust. #: AS 9-2 Material: Tan Tile Location: Room 6 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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.

AD) NV

NVLAP Lab Code 102118-0



Project: 621 Brook St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73858

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 04 Cust. #: AS 1-2 Material: Drywall Location: Room 6 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73858 - 05 Cust. #: AS 2-2 Material: Plaster - Finish Coat Location: Room 6 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 05a Cust. #: AS 2-2 Material: Base Coat Location: Room 6 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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

Robert T. Letarte Jr., Laboratory Director

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Project: 621 Brook St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

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 17-73858

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 06 Cust. #: AS 3-1 Material: Window Glaze Location: Room 6 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 07 Cust. #: AS 3-2 Material: Window Glaze Location: Room 6 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 08 Cust. #: AS 19-1 Material: Dark Brown Tile Location: Room 6 Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 10%	Other - 90%

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.

AD) NV

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis



Test Method, Polarized Light Microscopy (PLM)

Project: 621 Brook St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73858

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 08a Cust. #: AS 19-1 Material: Mastic Location: Room 6 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 09 Cust. #: AS 19-2 Material: Dark Brown Tile Location: Room 6 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 73858 - 09a Cust. #: AS 19-2 Material: Mastic Location: Room 6 Appearance: clear,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.

AD) $\mathbb{N}\mathbb{V}$

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis



Test Method, Polarized Light Microscopy (PLM)

Project: 621 Brook St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73858

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 10 Cust. #: AS 7-1 Material: Cream Linoleum Location: Room 5 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 11 Cust. #: AS 7-2 Material: Cream Linoleum Location: Room 5 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 12 Cust. #: AS 8-1 Material: Brown Tile Location: Room 5 Appearance: grey,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%

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.

AD) $\mathbb{N}\mathbb{V}$

NVLAP Lab Code 102118-0



Project: 621 Brook St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73858

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 12a Cust. #: AS 8-1 Material: Mastic Location: Room 5 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 13 Cust. #: AS 8-2 Material: Brown Tile Location: Room 5 Appearance: grey,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 73858 - 13a Cust. #: AS 8-2 Material: Mastic Location: Room 5 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

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.

AD) NV

NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis



Test Method, Polarized Light Microscopy (PLM)

Project: 621 Brook St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73858

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 14 Cust. #: AS 1-3 Material: Drywall Location: Room 5 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73858 - 15 Cust. #: AS 4-1 Material: Faux Wood Linoleum Location: Room 7 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%
Lab ID #: 73858 - 16 Cust. #: AS 4-2 Material: Faux Wood Linoleum Location: Room 7 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%
For Layered Samples, each component will be analyzed and reported separately.		

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Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Project: 621 Brook St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73858

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 17 Cust. #: AS 5-1 Material: 9x9 Green Tile Location: Room 7 Appearance: green,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73858 - 18 Cust. #: AS 5-2 Material: 9x9 Green Tile Location: Room 7 Appearance: green,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73858 - 19 Cust. #: AS 6-1 Material: 9x9 White Tile Location: Room 7 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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

Robert T. Letarte Jr., Laboratory Director

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 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 20 Cust. #: AS 6-2 Material: 9x9 White Tile Location: Room 7 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73858 - 21 Cust. #: AS 2-1 Material: Plaster - Finish Coat Location: Room 4 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 21a Cust. #: AS 2-1 Material: Base Coat Location: Room 4 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Robert T. Letarte Jr., Laboratory Director

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 12/27/17

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 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 22 Cust. #: AS 10-2	Asbestos Present:	
Material: Vent Wrap Location: Room 4	NOT ANALYZED	
Appearance:		
Layer: of		
Lab ID #: 73858 - 23	Asbestos Present:	
Material: Vent Wrap	NOT ANALYZED	
Location: Room 4 Appearance:		
Layer: of		
Lab ID #: 73858 - 24	Asbestos Present: NO	Cellulose - 35%
Cust. #: AS II-1 Material: Blue Lineleum	No Asbestos Observed	Other - 65%
Location: Room 4		
Appearance: blue, fibrous, nonhomogenous		
Layer: 1 of 1		

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Robert T. Letarte Jr., Laboratory Director

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Project: 621 Brook St. Project # I1440002

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 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 25 Cust. #: AS 11-2 Material: Blue Linoleum Location: Room 4 Appearance: blue,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73858 - 26 Cust. #: AS 2-4 Material: Base Coat Location: Room 10 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73858 - 27 Cust. #: AS 1-4 Material: Drywall Location: Room 10 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Robert T. Letarte Jr., Laboratory Director

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Project: 621 Brook St. Project # I1440002

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 28 Cust. #: AS 12-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 73858 - 29 Cust. #: AS 12-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 73858 - 30 Cust. #: AS 14-1 Material: Textured Ceiling Location: Room 10 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%

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Robert T. Letarte Jr., Laboratory Director

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 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 31 Cust. #: AS 2-5 Material: Base Coat Location: Room 9 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73858 - 32 Cust. #: AS 14-2 Material: Textured Ceiling Location: Room 9 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 73858 - 33 Cust. #: AS 14-3 Material: Textured Ceiling Location: Room 9 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%

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Robert T. Letarte Jr., Laboratory Director

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 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 34 Cust. #: AS 1-5 Material: Drywall Location: Room 9 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73858 - 35 Cust. #: AS 13-1 Material: 9x9 Tan Tile Location: Room 11 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 35a Cust. #: AS 13-1 Material: Mastic Location: Room 11 Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 36 Cust. #: AS 13-2 Material: 9x9 Tan Tile Location: Room 11 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 36a Cust. #: AS 13-2 Material: Mastic Location: Room 11 Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 37 Cust. #: AS 22-1 Material: Sink Undercoating Location: Room 11 Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%

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

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 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 38 Cust. #: AS 22-2 Material: Sink Undercoating Location: Room 11 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73858 - 39 Cust. #: AS 15-1 Material: White Linoleum Location: Room 12 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73858 - 40 Cust. #: AS 15-2 Material: White Linoleum Location: Room 12 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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 17-73858

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 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 41 Cust. #: AS 16-1 Material: Turquoise Linoleum Location: Room 12 Appearance: blue,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73858 - 42 Cust. #: AS 16-2 Material: Turquoise Linoleum Location: Room 12 Appearance: blue,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73858 - 43 Cust. #: AS 17-1 Material: Gold Tile Location: Room 13 Appearance: beige,fibrous,homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 5%	Other - 95%

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Certificate of Laboratory Analysis



Test Method, Polarized Light Microscopy (PLM)

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 ARI Report #
 17-73858

 Date Collected:
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 43a Cust. #: AS 17-1 Material: Mastic Location: Room 13 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 44 Cust. #: AS 17-2 Material: Gold Tile Location: Room 13 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 73858 - 44a Cust. #: AS 17-2 Material: Mastic Location: Room 13 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 #: 73858 - 45 Cust. #: AS 18-1 Material: Black Tile Location: Room 13 Appearance: blue,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73858 - 46 Cust. #: AS 18-2 Material: Black Tile Location: Room 13 Appearance: blue,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73858 - 47 Cust. #: AS 20-1 Material: Cement Floor Location: Basement Appearance: grey,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 #: 73858 - 48 Cust. #: AS 20-2 Material: Cement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 49 Cust. #: AS 21-1 Material: Stack Cement Location: Basement Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 10% Other - 90%
Lab ID #: 73858 - 50 Cust. #: AS 21-2 Material: Stack Cement Location: Basement Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 10% Other - 90%

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

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 51 Cust. #: AS 23-1 Material: Siding Location: Exterior Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73858 - 52 Cust. #: AS 23-2 Material: Siding Location: Exterior Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73858 - 53 Cust. #: AS 1-1 Material: Drywall Location: Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Certificate of Laboratory Analysis



Test Method, Polarized Light Microscopy (PLM)

Project: 621 Brook St. Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

ARI Report # 17-73858 Date Collected: 12/19/17 Date Received: 12/21/17 Date Analyzed: 12/27/17 Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73858 - 54 Cust. #: AS 2-3 Material: Plaster - Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73858 - 54a Cust. #: AS 2-3 Material: Base Coat Location: Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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			Date of Survey:	12/19/201	7 5:00		Lab Use
Customer Nar	me: MANNIK	& SMITH GROUP	Project:	621 BROO	OK ST		Log-In:
Address:	2193 Assoc	tiation Drive, Suite 200	Project #	11440002			Report: _
City, St., Zip:	Oke	mos, MI, 48864	Contact Person:	Charlie Bu	ush		Fax:
Phone:	(517) 316-9232	Fax: <u>(517)</u> 316-9233	Email:	<u>cbush@m</u>	anniksmithgr	oup.com	Verbal:
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Lab ID	Customer ID #	Ν	Iaterial/Location		Volume	Area	Results
I	AS 10-1	R	M-6 - Vent wrap		Bag	HA-10	
2	AS 9-1		RM-6 - Tan tile		Bag	HA-9	
3	AS 9-2		RM-6 - Tan tile		Bag	HA-9	
4	AS 1-2		RM-6 - Drywall		Bag	HA-1	
2	AS 2-2		RM-6 - Plaster		Bag	HA-2	
6	AS 3-1	RM	I-6 - Window glaze		Bag	HA-3	
7	AS 3-2	RM	I-6 - Window glaze		Bag	HA-3	
8	AS 19-1	RM	-6 - Dark brown tile		Bag	HA-19	
9	AS 19-2	RM	-6 - Dark brown tile		Bag	HA-19	
10	AS 7-1	RM-	5 - Cream Linoleum		Bag	HA-7	
11	AS 7-2	RM-	5 - Cream Linoleum		Bag	HA-7	
•		R	M-5 - Brown tile		Bag	HA-8	Manufacture Second Second 71 5
12	AS 0-1						
12	AS 0-1	Pagainad Pur	zier	Palinguished Pro		Pageived D	N Charles Concerning

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			Date of Survey:	12/19/201	7 5:00		Lab Use Only
Customer Na	me: MANNIK	& SMITH GROUP	Project:	621 BRO	OK ST		Log-In:
Address:	2193 Assoc	iation Drive, Suite 200	Project #	11440002			Report:
City, St., Zip:	Oker	nos, MI, 48864	Contact Person:	Charlie Bu	ush		Fax:
Phone:	(517) 316-9232	Fax: (517) 316-9233	Email:	<u>cbush@m</u>	anniksmithgr	oup.com	Verbal:
Turn Around Tin	ne: (Circle one)***Terms and conditions on t	the other side.	Circle analyses requi	red, indicate type an	d quantity		Email:
Rush	24 Hour		Asbstos:	Bulk X Wipe	Point Coun	t PCM_	
48 Hour	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM) Bulk_	
Other:	TTP ves /)no (Test Till Positive)		Mold:	Bulk Air	BioSIS	S Tape_	
Samples received after 3p logged in next morning	m		TEM:	Bulk NIOSH	EPA Level I	I Other _	
Lab ID	Customer ID #	Mate	erial/Location		Volume	Area	Results
13	AS 8-2	RM-:	5 - Brown tile		Bag	HA-8	
14	AS 1-3	RM	-5 - Drywall		Bag	HA-1	
15	AS 4-1	RM-7 - Fa	ux wood Linoleum		Bag	HA-4	
16	AS 4-2	RM-7 - Fa	ux wood Linoleum		Bag	HA-4	
17	AS 5-1	RM-7 -	- Green 9x9 tile		Bag	HA-5	
18	AS 5-2	RM-7 -	- Green 9x9 tile		Bag	HA-5	
19	AS 6-1	RM-7 -	- White 9x9 tile		Bag	HA-6	
20	AS 6-2	RM-7 -	- White 9x9 tile		Bag	HA-6	
21	AS 2-1	RM	1-4 - Plaster		Bag	HA-2	
22	AS 10-2	RM-	4 - Vent wrap		Bag	HA-10	
23	AS 10-3	RM-4	4 - Vent wrap		Bag	HA-10	
24	AS 11-1	RM-4	- Blue linoleum		Bag	HA-11	
Relinquished By	Cerp	Received By:	Her	Relinquished By: _		_Received By	
Date: $\frac{12}{2}$	1/17	Time/Date: (212)	112	Date:	9.4	Time/Date:	DEC 2 1 2017
Revision R4 Date: May/201	7*					4	APEX RESE

Page2 of 5

	5 11054 Hi Tec	h Drive, Whitmore Lake, MI 48189. Phone:	(734) 449 - 9990, Fax (734) 449	- 9991 www.ApexMI.co	om			APEX
			Date of Survey:	12/19/20 ⁻	17 5:00	-		Lab Use Only
Customer Nar	me: MANNIK	& SMITH GROUP	Project:	621 BRO	OK ST			Log-In:
Address:	2193 Associ	ation Drive, Suite 200	Project #	11440002				Report:
City, St., Zip:	Oker	nos, MI, 48864	Contact Person:	Charlie B	ush			Fax:
Phone:	(517) 316-9232	Fax: <u>(517)</u> 316-9233	Email:	<u>cbush@n</u>	nanniksmithgr	oup.com		Verbal:
Turn Around Tim	e: (Circle One)***Terms and conditions on the	he other side.	Circle analyses requi	red, indicate type a	nd quantity			Email:
Rush	24 Hour		Asbstos:	Bulk X Wipe	Point Count	E PCM		
48 Hour	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM)	Bulk		
Samples received after 3pm	(Test Till Positive)		Mold:	Bulk Air	BioSIS	Tape		
logged in next morning	u 		I EIVI.	BuikNIOSH	EPA Level II	Uther		
Lab ID	Customer ID #	Mate	erial/Location		Volume	Area		Results
25	AS 11-2	RM-4	- Blue linoleum		Bag	HA-11		
26	AS 2-4	RM	I-10 - Plaster		Bag	HA-2		
27	AS 1-4	RM·	-10 - Drywall		Bag	HA-1		
28	AS 12-1	Roo	of - Shingles		Bag	HA-12		
29	AS 12-2	Ro	of - Shingles		Bag	HA-12		
30	AS 14-1	RM-10 -	- Textured ceiling		Bag	HA-14		
31	AS 2-5	RM	A-9 - Plaster		Bag	HA-2		
32	AS 14-2	RM-9 -	Textured ceiling		Bag	HA-14		
33	AS 14-3	RM-9 -	Textured ceiling		Bag	HA-14		
34	AS 1-5	RM	I-9 - Drywall		Bag	HA-1		
35	AS 13-1	RM-1	1 - Tan 9x9 tile		Bag	HA-13		
36	AS 13-2	RM-1	1 - Tan 9x9 tile		Bag	HA-13		- ACHIER
Relinquished By:	<u>Ccc</u>	Received By:	en	Relinquished By:		_Received By	y:	
Date: $\frac{12}{2}$	1/17	Time/Date: 12]2	112	Date:		Time/Date:	UE	U 2 1 2017

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			Date of Survey:	12/19/201	17 5:00		Lab Use Only
Customer N	ame: MANNIK	K & SMITH GROUP	Project:	621 BRO	OK ST		Log-In:
Address:	2193 Asso	ciation Drive, Suite 200	Project #	l1440002			Report:
City, St., Zip	o: Oke	emos, MI, 48864	Contact Person:	Charlie B	ush		Fax:
Phone:	(517) 316-9232	Fax: (517) 316-9233	Email:	<u>cbush@n</u>	nanniksmithgr	oup.com	Verbal:
Turn Around Ti	ime: (circle one)***Terms and conditions o	n the other side.	Circle analyses requi	red, indicate type ar	nd quantity		Email:
Rush	24 Hour		Asbstos:	Bulk X Wipe	Point Coun	t PCM	
48 Hour	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM) Bulk	
Other:	(Test Till Positive)		Mold:	Bulk Air	BioSIS	S Tape	
logged in next morning	spm		TEM:	BulkNIOSH	EPA Level I	I Other	<u> </u>
Lab ID	Customer ID #	Mater	rial/Location		Volume	Area	Results
37	AS 22-1	RM-11 - S	ink under coating		Bag	HA-22	·····
38	AS 22-2	RM-11 - S	ink under coating		Bag	HA-22	
39	AS 15-1	RM-12 -	White linoleum		Bag	HA-15	
40	AS 15-2	RM-12 -	White linoleum		Bag	HA-15	
4)	AS 16-1	RM-12 - Tu	urquoise Linoleum		Bag	HA-16	
42	AS 16-2	RM-12 - Tu	rquoise Linoleum		Bag	HA-16	
43	AS 17-1	RM-1	3 - Gold tile		Bag	HA-17	
44	AS 17-2	RM-1	3 - Gold tile	_	Bag	HA-17	
ųs	AS 18-1	RM-1	3 - Black tile		Bag	HA-18	
46	AS 18-2	RM-1	3 - Black tile		Bag	HA-18	
47	AS 20-1	Basement - Ba	asement cement floor		Bag	HA-20	
48	AS 20-2	Basement - Ba	asement cement floor		Bag	HA-20	
Relinquished By	y Company of the second s	Received By: 17 12	1/12	Relinquished By: _		_ Received By:	RECEIVE
Date: <u>2</u> Revision R4 Date: May/20	2/[/7	Time/Date: 21	21/12	Date:		Time/Date:	DEC 2 1 2017

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7385	- 6 11054 Hi Te	ch Drive, Whit	APEX Rese more Lake, MI 48189. Phone:	earch, Inc. (734) 449 - 9990, Fax (734) 449	- 9991 www.Ape	exMI.com		APEX
				Date of Survey:	12/19)/2017 5:00		Lab Use Only
Customer N	ame: MANNIK	& SMI	TH GROUP	Project:	621 E	BROOK ST		Log-In:
Address:	2193 Assoc	iation Dr	ive, Suite 200	Project #	[1440	0002		Report:
City, St., Zip	o: Oke	mos, MI,	48864	Contact Person:	Charl	ie Bush		Fax:
Phone:	(517) 316-9232	Fax:	(517) 316-9233	Email:	<u>cbus</u> ł	n@manniksmithg	roup.com	Verbal:
urn Around Ti	ime: (Circle one) •••• Terms and conditions on	the other side.		Circle analyses requi	red, indicate ty	pe and quantity		Email:
Rush	24 Hour			Asbstos:	Bulk X	Wipe Point Cou	nt PCM_	:
8 Hour	72 Hour			Lead / Cad / Chrome:	Air	Paint Wipe (ASTM	1) Bulk_	
amples received after 3	(Test Till Positive)			Mold:	Bulk	Air BioS	IS Tape	
ogged in next morning	•			I EIVI.		IOSH EPA Level	II Other_	
Lab ID	Customer ID #		Mater	rial/Location		Volume	Area	Results
49	AS 21-1		Basemen	t - Stack Cement		Bag	HA-21	
50	AS 21-2		Basemen	t - Stack Cement		Bag	HA-21	
51	AS 23-1		Exte	rior - Siding		Bag	HA-23	
52-	AS 23-2		Exter	rior - Siding		Bag	HA-23	
53	A31-1		Drywall					
54	AS Z-3		plaster					
								BECEN
Relinquished By	y: <u>C</u>	F	Received By:	ten	Relinquished	By:	_ Received By	
Date: $\frac{12/2}{2}$	1/17	Т	ime/Date: 1212	1/12	Date:		Time/Date:	DEC 2 1 201
evision R4 Date: May/20	ชาว							APEX RESEAR
								Pag



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF IN	TENT TO RENOVATE/DEMOLISH
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUA (MDEQ) AIR QUALITY DIVISION NESHAP, 40 CFR Part 61, Subpart M	ALITY 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.	3. ABATEMENT CONTRACTOR: Internal Project #:
Calculate LARA Asbestos Project Fee: (1% Proje	ct Fee)
Total Project Cost: x 0.01 =	5. FACILITY OWNER: ("Facility" includes Bridges)
Type of Contractor: License No.:	Name:
Licensing Authority:	
1. NOTIFICATION:	E-mail:
	Contact: Dhone:

Contact:

6. FACILITY DESCRIPTION:

Location Address/Description: _____

Specific Location(s) in Facility:

City/State/Zip: _____

Gov't Agency Ordering Demo:

Name/Title of Person Signing Order:

Facility Name:

7. DISPOSAL SITE:

Name

Phone:

notification.

Date of Order:

Phone:

If Apt. # of units:

County: _____ Nearest Crossroad: _____

City/Twp. _____ State: _____ Zip Code: _____

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____

Age: _____ Present Use: _____ Prior Use: _____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of

"Ordered Demolition.") A copy of the official Order must accompany this

Date Ordered to Begin:

Date of Revision(s):

Notification Type: Original Revised Canceled Annual

START DATE

Mark appropriate boxes: (both DEQ and LARA may app	oly):
DEQ (NESHAP) [260 In. ft./160 sq. ft. or more is thresho	old]

Planned Renovation – 10 working days notice
Emergency Renovation
Scheduled Demolition – 10 working days notice

Interational Duma	40 mentalment der in estime
 Intentional Burn –	TU working days notice
Internal Barn	no montang dayo notico

□ 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:

* Renovation			Location Address:	
+Asb. Removal			City/State/Zip:	
+Demolition:			8. WASTE TRANSPORTER 1:	WASTE TR
Encapsulation:			Name:	
Work Schedule:	Please indicate the anticip	pated days of the week and	Address:	

END DATE

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

> Work Hours Days of the Week

Asb.	Removal:
ASD.	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.

It <u>must</u> be removed prior to demolition.)

10. IS ASBESTOS PRESENT?

IS ASBESTOS PRESENT?	🗌 Yes	🗌 No	To be remove	d prior to demolitio	n			
Estimate the amount of asbestos:	Include F	RACM	RACM to be	RACM to be	Non-friabl removed pi	e ACM <u>not</u> ior to demo.		
(Regulated Asbestos Containing Mat	terial) to l	be	Removed	Encapsulated	Category I	Category II	Units of I	Measure
removed, encapsulated, etc. Also inc	clude the	amount					🗌 Ln. Ft.	🗌 Ln. M.
I and/or Category II ACM that will no	on-friable ot be rem	e Category loved prior					🗌 Sq. Ft.	🗌 Sq. M.
to demolition. (NOTE: In a demolition	n, cemer	ntatious					🗌 Cu. Ft.*	🗌 Cu.M.*
ACM <u>cannot</u> remain in a structure, as become regulated in the demolition/h	s it is like handling i	ly to process.	*) (aluma (aubia ft	(motoro) obouid by		nabla ta maaau	na hu linaar/agu	

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

WASTE TRANSPORTER 2:

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continue

11.	1. 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) Tunnel (s) Tunnel (s)	Encapsulation (for LARA): Mark surfaces/types to be encapsulated: Piping Fittings Boiler(s) Tank(s) Beam(s) Duct(s) Tunnel(s) Ceiling Tile(Other (describe)	: (s)								
	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, et	c., and indicate if complete or partial. If partial, describe which part of facility									
	bridge, etc., will be demolished:										
10		pantrale used to prevent visible opissions before during and offer removal op									
12.	until proper disposal:	controls used to prevent visible emissions before, during, and alter removal, an									
13.	UNEXPECTED ASBESTOS: Describe the steps you intend to follow in becomes friable (crumbled, pulverized, reduced to powder, etc.) and there	h the event that unexpected RACM is found or previously non-friable asbesto fore regulated:	os								
	· · · · · ·		_								
14.	4. 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 s	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 equi	pment damage and/or an unreasonable financial burden.	—								
			_								
16.	I certify that an individual trained in the provisions of 40 CFR Part 61, S RACM above the threshold and/or during an ordered demolition. Evide inspection at the renovation or demolition site.	Subpart M, will be on-site during the renovation and during demolition involvir ence that this person has completed the required training will be available f	ng for								
	Signature of Owner or Abatement Contractor Date	Signature of Owner or Demolition Contractor Date									
17.	Signature Requirements for Projects with Negative Prese Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance ai linear feet/15 square feet or more of friable material which is perform have been advised by the contractor of my responsibility under Act of	ssure Enclosures: (required by LARA) ir monitoring is required for any asbestos abatement project involving a med within a negative pressure enclosure. <i>I (the building owner or lesse</i> 135 to have clearance air monitoring performed on this project.	10 ⊯)								
	Signature of Building Owner or Lessee Date NOTE: It is not mandatory that a signed copy be sent to LARA unless reques and made part of your records before the project begins.	Signature of Asbestos Abatement Contractor Representative Date ted. For affected projects, this section of the notification form must be completed, signed,									
18.	I certify that the above information is correct:										
	Printed Name of Owner/Operator Date	Signature of Owner/Operator Date									
MA	ILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine v	which agency requirements/regulations are applicable to your project.)									
For mail <u>http</u>	Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), to address below. For more info visit: ://www.michigan.gov/asbestos	For NESHAP Demolitions/Renovations , 40 CFR , Part 61 , Subpart I please use the e-submittal process. For more information vis <u>http://www.michigan.gov/air</u> , under Air Links click on Asbestos NESHA Program.	M, sit ∖P								
MIC LAF P.O Lan	VSHA Asbestos Program A, CSHD . Box 30671 sing, MI 48909-8171	NESHAP Asbestos Program DEQ, AQD P.O. Box 30260 Lansing, MI 48909-7760									
517	517.284.6777 (Office) 517.636.4551 (office), 517.322.1713 (fax)										



December 29, 2017

Ms. Roxanne Case Grant Manager Ingham County Land Bank 3024 Turner Street Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey 910 N Chestnut St, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited predemolition regulated materials survey (RMS) performed at 910 N Chestnut St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information							
Property Address	910 N Chestnut St, Lansing, MI						
Parcel #	33-01-01-09-354-051						
No. Stories	2						
Square Footage (approx.)	1,300 SF						
Siding	Transite						
Basement	Yes						
Garage	No						



Asbestos Containing Material										
Location	Material Group	Friable/Non Friable	Asbestos	Quantity						
RM-1, RM-2, RM-3, RM-4, RM-5, RM- 6, RM-7, RM-8, RM-9, RM-10, RM-11	Plaster	Non Friable	2% Chrysotile	3,100 SF						
RM-1, RM-3, RM-5, RM-6	Vent wrap	Friable	65% Chrysotile	140 SF						
RM-4	Brown tile	Non Friable	10% Chrysotile	120 SF						
Exterior	Siding	Non Friable	20% Chrysotile	2,900 SF						

Hazardous Materials							
Location	Material Description	Quantity					
RM-4	Spray paint can	1					

TECHNICAL SKILL. CREATIVE SPIRIT.

Universal Waste Inventory							
Location Material Description Quantity							
RM-11	Smoke detector	1					
RM-1	Thermostat	1					
RM-4	Fire extinguisher	1					

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 19, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I nonfriable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number

A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - o DOT Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - o IATA International Air Transport Association; Dangerous Goods Regulations;
 - o ICAO International Civil Aviation Organization; Technical Instructions; and
 - AF Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log.* The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified sixteen (16) homogenous materials that were suspect as asbestos containing during the ACM survey. Thirty-six (36) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found four (4)

homogenous materials (samples 1-5, 7-3, 10-1 and 16-1) contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. A point count was conducted on sample 1-5.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the sixteen (16) homogenous materials collected as part of the ACM survey, four (4) homogenous materials contained asbestos greater than 1% (samples 1-5, 7-3, 10-1 and 16-1) with these four (4) homogenous materials being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe,

inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232. Sincerely,

Kory McKay Environmental Scientist Accreditation Number A47903

,10

Charlie Bush Senior Project Manager Accreditation Number A34293

Attachments





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721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com







721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address:	910 N Chestnut St	Date:	December 21, 2017

Drawing not to scale



Attic



Basement





TABLE 1 Asbestos Sampling Results

Client	Client Ingham County Land Bank Authority									
Survey Loca	ation	910 N Chestnut St								
Survey Da	ate	December 19,	2017							
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Plaster	Non-Friable	Good	Miscellaneous	Yes	NA	3100 SF
RM-3	1	AS 1-2	HA-1	Plaster	Non-Friable	Good	Miscellaneous	Yes	NA	3100 SF
RM-4	1	AS 1-3	HA-1	Plaster	Non-Friable	Good	Miscellaneous	Yes	NA	3100 SF
RM-11	2	AS 1-4	HA-1	Plaster	Non-Friable	Good	Miscellaneous	Yes	NA	3100 SF
RM-7	2	AS 1-5	HA-1	Plaster	Non-Friable	Good	Miscellaneous	Yes	2% Chrysotile	3100 SF
RM-5	1	AS 2-1	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	No	No	220 SF
RM-4	1	AS 2-2	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	No	No	220 SF
RM-2	1	AS 3-1	HA-3	Green red tile	Non-Friable	Good	Miscellaneous	No	No	60 SF
RM-2	1	AS 3-2	HA-3	Green red tile	Non-Friable	Good	Miscellaneous	No	No	60 SF
RM-2	1	AS 4-1	HA-4	Faux stone tile	Non-Friable	Good	Miscellaneous	No	No	240 SF
RM-2	1	AS 4-2	HA-4	Faux stone tile	Non-Friable	Good	Miscellaneous	No	No	240 SF
RM-1	1	AS 5-1	HA-5	Cream blue tile	Non-Friable	Good	Miscellaneous	No	No	600 SF
RM-1	1	AS 5-2	HA-5	Cream blue tile	Non-Friable	Good	Miscellaneous	No	No	600 SF
RM-3	1	AS 6-1	HA-6	Blue tile	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-3	1	AS 6-2	HA-6	Blue tile	Non-Friable	Good	Miscellaneous	No	No	150 SF

TABLE 1 Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Loca	ation	n 910 N Chestnut St								
Survey Da Functional Area	Floor	December 19 Sample ID	, 2017 HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-5	1	AS 7-1	HA-7	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	140 SF
RM-3	1	AS 7-2	HA-7	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	140 SF
RM-1	1	AS 7-3	HA-7	Vent wrap	Friable	Good	Miscellaneous	Yes	65% Chrysotile	140 SF
RM-4	1	AS 8-1	HA-8	White tile	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-4	1	AS 8-2	HA-8	White tile	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-4	1	AS 9-1	HA-9	Faux wood tile	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-4	1	AS 9-2	HA-9	Faux wood tile	Non-Friable	Good	Miscellaneous	No	Ν	120 SF
RM-4	1	AS 10-1	HA-10	Brown tile	Non-Friable	Good	Miscellaneous	Yes	10% Chrysotile	120 SF
RM-4	1	AS 10-2	HA-10	Brown tile	Non-Friable	Good	Miscellaneous	Yes	NA	120 SF
RM-10	2	AS 11-1	HA-11	Black white tile sandwich	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-10	2	AS 11-2	HA-11	Black white tile sandwich	Non-Friable	Good	Miscellaneous	No	No	100 SF
Roof	E	AS 12-1	HA-12	Shingles	Non-Friable	Good	Miscellaneous	No	No	500 SF
Roof	E	AS 12-2	HA-12	Shingles	Non-Friable	Good	Miscellaneous	No	No	500 SF
Basement	В	AS 13-1	HA-13	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	В	AS 13-2	HA-13	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF

TABLE 1 Asbestos Sampling Results

		-								
Client	Client Ingham County Land Bank Authority									
Survey Loc	ation	on 910 N Chestnut St								
Survey D	ate	December 19	, 2017		-					
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
Basement	В	AS 14-1	HA-14	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	4 SF
Basement	В	AS 14-2	HA-14	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	4 SF
RM-4	1	AS 15-1	HA-15	Sink coating	Non-Friable	Good	Miscellaneous	No	No	3 SF
RM-4	1	AS 15-2	HA-15	Sink coating	Non-Friable	Good	Miscellaneous	No	No	3 SF
Exterior	Е	AS 16-1	HA-16	Siding	Non-Friable	Good	Miscellaneous	Yes	20% Chrysotile	2900 SF
Exterior	Е	AS 16-2	HA-16	Siding	Non-Friable	Good	Miscellaneous	Yes	NA	2900 SF

Table 2Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory910 N Chestnut St.Lansing, Ingham County, Michigan

Universal Waste Inventory								
Location	Type of Waste	Approximate Quantity						
RM-11	Smoke detector	1						
RM-1	Thermostat	1						
RM-4	Fire extinguisher	1						
Hazardous Materials Inventory								
Location	Type of Waste	Approximate Quantity						
RM-4	Spray paint can	1						
Other Regulated Materials Inventory								
Location	Type of Waste	Approximate Quantity						
-	-	-						


Ingham County Land Bank 910 N Chestnut St, Lansing, MI Photographs taken by: Kory McKay on 12/19/2017

Property Photos









Ingham County Land Bank 910 N Chestnut St, Lansing, MI Photographs taken by: Kory McKay on 12/19/2017

Sample Photos



Ingham County Land Bank 910 N Chestnut St, Lansing, MI Photographs taken by: Kory McKay on 12/19/2017

Sample Photos











REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

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Regulated Materials Survey Limitations.Docx

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.



ANALYTICAL REPORTS AND CHAINS OF CUSTODY



APEX RESEARCH

Project: 910 N. Chestnut Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73862

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 01 Cust. #: AS 12-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 73862 - 02 Cust. #: AS 12-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 73862 - 03 Cust. #: AS 1-5 Material: Plaster - Base Coat Location: Room 7 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 2.0% POINT COUNT RESULT	Cellulose - 2% Other - 96%

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.

AD) NV

NVLAP Lab Code 102118-0

APEX

Project: 910 N. Chestnut Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73862

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 04	Asbestos Present:	
Material: Plaster - Base Coat	NOT ANALYZED	
Location: Room 11		
Appearance:		
Layer: of		
Lab ID #: 73862 - 05	Asbestos Present: NO	Other - 100%
Cust. #: AS 11-1	No Asbestos Observed	
Material: Black/White Tile		
Location: Room 10		
Appearance: black,nonlibrous,nomogenous		
Layer. 1 of 5		
	No	
Lab ID #: 73862 - 05a	Asbestos Present: NO	Other - 100%
Cust. #: AS 11-1	No Asbestos Observed	
Material: Mastic		
Location: Room 10		
Appearance: clear, nonfibrous, nomogenous		
Layer. 2 01 5		

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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 ARI Report #
 17-73862

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 05b Cust. #: AS 11-1 Material: Flooring Location: Room 10 Appearance: beige,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73862 - 06 Cust. #: AS 11-2 Material: Black/White Tile Location: Room 10 Appearance: black,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 06a Cust. #: AS 11-2 Material: Mastic Location: Room 10 Appearance: clear,nonfibrous,homogenous Layer: 2 of 3	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.

NV

NVLAP Lab Code 102118-0

APEX RESEARCH

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Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73862

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 06b Cust. #: AS 11-2 Material: Flooring Location: Room 10 Appearance: beige,fibrous,nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73862 - 07 Cust. #: AS 3-1 Material: Green/Red Tile Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 07a Cust. #: AS 3-1 Material: Mastic Location: Room 2 Appearance: clear,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.

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NVLAP Lab Code 102118-0

APEX RESEARCH

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 ARI Report #
 17-73862

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 08 Cust. #: AS 3-2 Material: Green/Red Tile Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 08a Cust. #: AS 3-2 Material: Mastic Location: Room 2 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 09 Cust. #: AS 4-1 Material: Faux Stone Tile Location: Room 2 Appearance: beige,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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NVLAP Lab Code 102118-0

APEX RESEARCH

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 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 09a Cust. #: AS 4-1 Material: Mastic Location: Room 2 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 10 Cust. #: AS 4-2 Material: Faux Stone Tile Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 10a Cust. #: AS 4-2 Material: Mastic Location: Room 2 Appearance: clear,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.

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NVLAP Lab Code 102118-0

APEX RESEARCH

Project: 910 N. Chestnut Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73862

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 11 Cust. #: AS 5-1 Material: Cream/Blue Tile Location: Room 1 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 11a Cust. #: AS 5-1 Material: Mastic Location: Room 1 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 12 Cust. #: AS 5-2 Material: Cream/Blue Tile Location: Room 1 Appearance: beige,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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NV

NVLAP Lab Code 102118-0

APEX RESEARCH

Project: 910 N. Chestnut Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73862

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 12a Cust. #: AS 5-2 Material: Mastic Location: Room 1 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 13 Cust. #: AS 7-3 Material: Vent Wrap Location: Room 1 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 65%	Other - 35%
Lab ID #: 73862 - 14 Cust. #: AS 1-1 Material: Plaster Location: Room 1 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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Robert T. Letarte Jr., Laboratory Director

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 $\mathbb{N}\mathbb{V}$

NVLAP Lab Code 102118-0

APEX RESEARCH

Project: 910 N. Chestnut Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73862

 Date Collected:
 12/19/17

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 12/21/17

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 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 15 Cust. #: AS 6-1 Material: Blue Tile Location: Room 3 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 15a Cust. #: AS 6-1 Material: Mastic Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 16 Cust. #: AS 6-2 Material: Blue Tile Location: Room 3 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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APEX RESEARCH

Project: 910 N. Chestnut Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73862

 Date Collected:
 12/19/17

 Date Received:
 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 16a Cust. #: AS 6-2 Material: Mastic Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 17 Cust. #: AS 7-2 Material: Vent Wrap	Asbestos Present: NOT ANALYZED	
Location: Room 3 Appearance: Layer: of		
Lab ID #: 73862 - 18 Cust. #: AS 1-2 Material: Plaster	Asbestos Present:	
Location: Room 3 Appearance: Layer: of		

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

Robert T. Letarte Jr., Laboratory Director

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 $\mathbb{N}\mathbb{V}$

Project: 910 N. Chestnut Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73862

 Date Collected:
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 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 19 Cust. #: AS 7-1 Material: Vent Wrap Location: Room 5 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73862 - 20 Cust. #: AS 2-1 Material: Window Glaze Location: Room 5 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 21 Cust. #: AS 2-2 Material: Window Glaze Location: Room 4 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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Project: 910 N. Chestnut Project # I1440002

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 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 22 Cust. #: AS 1-3 Material: Plaster Location: Room 4 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73862 - 23 Cust. #: AS 8-1 Material: White Tile Location: Room 4 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 23a Cust. #: AS 8-1 Material: Mastic Location: Room 4 Appearance: clear,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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PEX

Project: 910 N. Chestnut Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73862

 Date Collected:
 12/19/17

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 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 24 Cust. #: AS 8-2 Material: White Tile Location: Room 4 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 24a Cust. #: AS 8-2 Material: Mastic Location: Room 4 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 25 Cust. #: AS 9-1 Material: Faux Wood Tile Location: Room 4 Appearance: brown,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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PEX

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 ARI Report #
 17-73862

 Date Collected:
 12/19/17

 Date Received:
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 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 25a Cust. #: AS 9-1 Material: Mastic Location: Room 4 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 26 Cust. #: AS 9-2 Material: Faux Wood Tile Location: Room 4 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 26a Cust. #: AS 9-2 Material: Mastic Location: Room 4 Appearance: clear,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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M)

Project: 910 N. Chestnut Project # I1440002

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 ARI Report #
 17-73862

 Date Collected:
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 27 Cust. #: AS 10-1 Material: Brown Tile Location: Room 4 Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 10%	Other - 90%
Lab ID #: 73862 - 27a Cust. #: AS 10-1 Material: Mastic Location: Room 4 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 28 Cust. #: AS 10-2 Material: Brown Tile Location: Room 4 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	

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

Robert T. Letarte Jr., Laboratory Director

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APEX

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 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 28a Cust. #: AS 10-2 Material: Mastic Location: Room 4 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 29 Cust. #: AS 16-1 Material: Siding Location: Exterior Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 20%	Other - 80%
Lab ID #: 73862 - 30 Cust. #: AS 16-2 Material: Siding Location: Exterior Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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

Robert T. Letarte Jr., Laboratory Director

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NV

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 17-73862

 Date Collected:
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 12/21/17

 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 31 Cust. #: AS 15-1 Material: Sink Coating Location: Room 4 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 73862 - 32 Cust. #: AS 15-2 Material: Sink Coating Location: Room 4 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 73862 - 33 Cust. #: AS 13-1 Material: Cement Floor Location: Basement 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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PEX

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 Date Analyzed:
 12/27/17

 Date Reported:
 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73862 - 34 Cust. #: AS 13-2 Material: Cement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73862 - 35 Cust. #: AS 14-1 Material: Stack Cement Location: Basement Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 73862 - 36 Cust. #: AS 14-2 Material: Stack Cement Location: Basement Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%

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

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MANNIK & 2193 Associa Okem (517) 316-9232 e ORE)Terms and conditions on the 24 Hour 72 Hour TTP ves no	& SMITH GROUP ation Drive, Suite 200 los, MI, 48864 Fax: (517) 316-9233	Date of Survey: Project: Project # Contact Person: Email:	12/19/201 910 N Che I1440002 Charlie Bu	7 5:00 estnut St		La Lo
MANNIK & 2193 Associa Okem (517) 316-9232 e ORE)Terms and conditions on the 24 Hour 72 Hour TTP ves no	Ation Drive, Suite 200 105, Ml, 48864 Fax: (517) 316-9233	Project: Project # Contact Person: Email:	910 N Che I1440002 Charlie Bu	estnut St		Lo Be
2193 Associa Okem (517) 316-9232 e ORE)Terms and conditions on the 24 Hour 72 Hour TTP ves no	ation Drive, Suite 200 los, MI, 48864 Fax: (517) 316-9233	Project # Contact Person: Email:	I1440002 Charlie Bu	ich		Re
Okem (517) 316-9232 e ONE)Terms and conditions on the 24 Hour 72 Hour TTP ves no	nos, MI, 48864 Fax: <u>(517) 316-9233</u> e other side.	Contact Person: Email:	Charlie Bu	ich		_
(517) 316-9232 e ORE)***Terms and conditions on the 24 Hour 72 Hour TTP ves no	Fax: (517) 316-9233	Email:		1911		Fa
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24 Hour 72 Hour TTP ves Dno		Circle analyses require	ed, indicate type an	d quantity		En
72 Hour TTP ves no		Asbstos:	Bulk X Wipe	Point Count	t PCM	_
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(Test Thi Positive)		TEM:	Bulk NIOSH _	EPA Level I	I Other	_
ustomer ID #	Mate	erial/Location		Volume	Area	Res
AS 12-1	Roc	of - Shingles		Bag	HA-12	
AS 12-2	Roc	of - Shingles		Bag	HA-12	
AS 1-5	RM	1-7 - Plaster		Bag	HA-1	<u></u>
AS 1-4	RM	-11 - Plaster		Bag	HA-1	
AS 11-1	RM-10 - Blac	ck white tile sandwich		Bag	HA-11	
AS 11-2	RM-10 - Blac	ck white tile sandwich		Bag	HA-11	
AS 3-1	RM-2	- Green red tile		Bag	HA-3	
AS 3-2	RM-2	- Green red tile		Bag	HA-3	
AS 4-1	RM-2 -	- Faux stone tile		Bag	HA-4	
AS 4-2	RM-2 -	- Faux stone tile		Bag	HA-4	
AS 5-1	RM-1 -	Cream blue tile		Bag	HA-5	
AS 5-2	RM-1 -	Cream blue tile		Bag	HA-5	
	Received By:	in <u>çi</u>	Relinquished By: _		_ Received By:	
7	Time/Date: 22	117 UEC 2 1 201/	Date:		Time/Date:	
	TTP ves no Istomer ID # AS 12-1 AS 12-2 AS 1-5 AS 1-4 AS 1-1 AS 11-1 AS 3-1 AS 3-2 AS 4-1 AS 5-1 AS 5-2	TTP ves no (Test Till Positive) Mate Istomer ID # Mate AS 12-1 Roo AS 12-2 Roo AS 1-5 RM AS 1-4 RM AS 1-4 RM-10 - Blac AS 11-1 RM-10 - Blac AS 3-1 RM-2 AS 3-2 RM-2 AS 4-1 RM-2 AS 4-2 RM-1 AS 5-2 RM-1 AS 5-2 RM-1 Time/Date: \Z 12	TTP $\widehat{\text{(Test Till Positive)}}$ Mold: TEM:Istomer ID #Material/LocationAS 12-1Roof - ShinglesAS 12-2Roof - ShinglesAS 1-5RM-7 - PlasterAS 1-4RM-11 - PlasterAS 11-1RM-10 - Black white tile sandwichAS 3-1RM-2 - Green red tileAS 3-2RM-2 - Green red tileAS 4-1RM-2 - Faux stone tileAS 4-2RM-1 - Cream blue tileAS 5-1RM-1 - Cream blue tileAS 5-2RM-1 - Cream blue tile	TTP cs no (Test Till Positive)Mold: Bulk	TTP cession Mold: Bulk Air BioSts TEM: Bulk NIOSH EPA Level I Istomer ID # Material/Location Volume AS 12-1 Roof - Shingles Bag AS 12-2 Roof - Shingles Bag AS 1-5 RM-7 - Plaster Bag AS 1-4 RM-11 - Plaster Bag AS 11-1 RM-10 - Black white tile sandwich Bag AS 3-1 RM-2 - Green red tile Bag AS 3-2 RM-2 - Green red tile Bag AS 4-1 RM-2 - Faux stone tile Bag AS 4-1 RM-1 - Cream blue tile Bag AS 5-1 RM-1 - Cream blue tile Bag AS 5-2 RM-1 - Cream blue tile Bag	Mold: Bulk Air BioSIS Tape TEM: Bulk NIOSH EPA Level II Other istomer ID # Material/Location Volume Area AS 12-1 Roof - Shingles Bag HA-12 AS 12-2 Roof - Shingles Bag HA-12 AS 1-5 RM-7 - Plaster Bag HA-1 AS 1-4 RM-11 - Plaster Bag HA-1 AS 1-1 RM-10 - Black white tile sandwich Bag HA-11 AS 1-2 RM-10 - Black white tile sandwich Bag HA-11 AS 3-1 RM-2 - Green red tile Bag HA-3 AS 3-2 RM-2 - Green red tile Bag HA-3 AS 4-1 RM-2 - Faux stone tile Bag HA-4 AS 4-1 RM-2 - Faux stone tile Bag HA-4 AS 5-1 RM-1 - Cream blue tile Bag HA-4 AS 5-2 RM-1 - Cream blue tile Bag HA-5 Received By: AGU C2 I 2017 Relinquished By: Received By:

Apex #

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			Date of Survey:	12/19/201	17 5:00		Lab Use Only
Customer Na	ame: MANNIK	& SMITH GROUP	Project:	910 N Ch	estnut St		Log-In:
Address:	2193 Assoc	iation Drive, Suite 200	Project #	11440002			Report:
City, St., Zip:	: Oker	nos, MI, 48864	Contact Person:	Charlie B	ush		Fax:
Phone:	(517) 316-9232	Fax: (517) 316-9233	Email:	<u>cbush@n</u>	nanniksmithgr	oup.com	Verbal:
Turn Around Ti	me: (C <i>ircle ONe</i>)***Terms and conditions on f	the other side.	Circle analyses requi	red, indicate type a	nd quantity		Email:
Rush	24 Hour		Asbstos:	Bulk X Wipe	Point Count	t PCM_	
48 Hour	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM)) Bulk_	
Other:	TTP ves no		Mold:	Bulk Air	BioSIS	Tape	
Samples received after 3 logged in next morning	pm		TEM:	Bulk NIOSH	EPA Level I	I Other_	
Lab ID	Customer ID #	Mate	erial/Location		Volume	Area	Results
13	AS 7-3	RM-	1 - Vent wrap		Bag	HA-7	
14	AS 1-1	RM	1-1 - Plaster		Bag	HA-1	
15	AS 6-1	RM	-3 - Blue tile		Bag	HA-6	
16	AS 6-2	RM	-3 - Blue tile		Bag	HA-6	
17	AS 7-2	RM-2	3 - Vent wrap		Bag	HA-7	
18	AS 1-2	RM	1-3 - Plaster		Bag	HA-1	
19	AS 7-1	RM-:	5 - Vent wrap		Bag	HA-7	
20	AS 2-1	RM-5 -	- Window glaze		Bag	HA-2	
21	AS 2-2	RM-4 -	- Window glaze		Bag	HA-2	
るろ	AS 1-3	RM	1-4 - Plaster		Bag	HA-1	
2.3	AS 8-1	RM-	4 - White tile		Bag	HA-8	
24	AS 8-2	RM-	4 - White tile		Bag	HA-8	
Relinquished By	y: 622	Received By:	HELEVENVEL	Relinquished By:		_Received By	-
Date: <u>22</u>	21/17	Time/Date: 12 (2)	17DEC 2 1 2017	Date:		Time/Date:	
Revision R4 Date: May/20	017		APEX RESEARCH	ę			

7380	6 2 11054 Hi Tu	APEX Res	earch, Inc.	- 9991 MAMMA ADOMIC	m		
			Date of Survey:	12/19/20 ⁻	17 5:00		Lab Use Only
Customer N	ame: MANNIK	& SMITH GROUP	Project:	910 N Ch	estnut St		Log-In:
Address:	2193 Asso	ciation Drive, Suite 200	Project #	11440002			Report:
City, St., Zip	: Oke	mos, MI, 48864	Contact Person:	Charlie B	ush		Fax:
Phone:	(517) 316-9232	Fax: (517) 316-9233	Email:	<u>cbush@n</u>	nanniksmithgr	oup.com	Verbal:
Turn Around Ti	me: (Circle one) *** Terms and conditions o	the other side.	Circle analyses requii	red, indicate type ar	nd quantity		Email:
Rush	24 Hour		Asbstos:	Bulk X Wipe	Point Count	PCM	
48 Hour	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM)	Bulk	
Other:	TTP ves no (Test Till Positive)		Mold:	Bulk Air	BioSIS	Tape	
Samples received after 3 logged in next morning	pm		TEM:	Bulk NIOSH	EPA Level II	. Other	
Lab ID	Customer ID #	Mate	erial/Location		Volume	Area	Results
as	AS 9-1	RM-4 -	Faux wood tile		Bag	HA-9	
26	AS 9-2	RM-4 -	Faux wood tile		Bag	HA-9	
27	AS 10-1	RM-4	4 - Brown tile		Bag	HA-10	
28	AS 10-2	RM-4	4 - Brown tile		Bag	HA-10	
29	AS 16-1	Exte	rior - Siding		Bag	HA-16	
30	AS 16-2	Exte	erior - Siding		Bag	HA-16	
31	AS 15-1	RM-4	- Sink coating		Bag	HA-15	
32	AS 15-2	RM-4	- Sink coating		Bag	HA-15	
33	AS 13-1	Basement - B	asement cement floor		Bag	HA-13	
34	AS 13-2	Basement - B	asement cement floor		Bag	HA-13	
35	AS 14-1	Basemen	t - Stack Cement		Bag	HA-14	
3.6	AS 14-2	Basemen	t - Stack Cement		Bag	HA-14	
Relinquished By	. Clin	Received By: A	cer HECEIVE	Relinquished By: _		Received By	•
Date: <u>12</u> Revision R4 Date: May/20	21/17	Time/Date: 12(2)	117 DEC 2 1 201	Date:		Time/Date:	

APEX RESEARCH



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF IN	TENT TO RENOVATE/DEMOLISH
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUA (MDEQ) AIR QUALITY DIVISION NESHAP, 40 CFR Part 61, Subpart M	ALITY 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.	3. ABATEMENT CONTRACTOR: Internal Project #:
Calculate LARA Asbestos Project Fee: (1% Proje	ct Fee)
Total Project Cost: x 0.01 =	5. FACILITY OWNER: ("Facility" includes Bridges)
Type of Contractor: License No.:	Name:
Licensing Authority:	
1. NOTIFICATION:	E-mail:
	Contact: Dhone:

Contact:

6. FACILITY DESCRIPTION:

Location Address/Description: _____

Specific Location(s) in Facility:

City/State/Zip: _____

Gov't Agency Ordering Demo:

Name/Title of Person Signing Order:

Facility Name:

7. DISPOSAL SITE:

Name

Phone:

notification.

Date of Order:

Phone:

If Apt. # of units:

County: _____ Nearest Crossroad: _____

City/Twp. _____ State: _____ Zip Code: _____

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____

Age: _____ Present Use: _____ Prior Use: _____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of

"Ordered Demolition.") A copy of the official Order must accompany this

Date Ordered to Begin:

Date of Revision(s):

Notification Type: Original Revised Canceled Annual

START DATE

Mark appropriate boxes: (both DEQ and LARA may app	oly):
DEQ (NESHAP) [260 In. ft./160 sq. ft. or more is thresho	old]

Planned Renovation – 10 working days notice
Emergency Renovation
Scheduled Demolition – 10 working days notice

Intentional Dum	40 manufation and a second sections
 Intentional Burn –	TO WORKING DAVS NOTICE
Intonia Ban	no montang dayo notico

□ 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:

* Renovation			Location Address:	
+Asb. Removal			City/State/Zip:	
+Demolition:			8. WASTE TRANSPORTER 1:	WASTE TR
Encapsulation:			Name:	
Work Schedule:	Please indicate the anticip	pated days of the week and	Address:	

END DATE

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

> Work Hours Days of the Week

Asb.	Removal:
ASD.	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.

It <u>must</u> be removed prior to demolition.)

10. IS ASBESTOS PRESENT?

IS ASBESTOS PRESENT?	🗌 Yes	🗌 No	To be remove	d prior to demolitio	n			
Estimate the amount of asbestos	: Include F	RACM	RACM to be	RACM to be	Non-friabl removed p	e ACM <u>not</u> rior to demo.		
(Regulated Asbestos Containing Ma	aterial) to l	be	Removed	Encapsulated	Category I	Category II	Units of I	Measure
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						🗌 Ln. Ft.	🗌 Ln. M.	
						🗌 Sq. Ft.	🗌 Sq. M.	
to demolition. (NOTE: In a demoliti	ion, cemer	ntatious					🗌 Cu. Ft.*	🗌 Cu.M.*
ACM <u>cannot</u> remain in a structure, as it is likely to become regulated in the demolition/handling process.		*) (aluma (aubia ft	(motoro) should be		nable to manage	ro by linear/agy		

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

WASTE TRANSPORTER 2:

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continue

11.	1. 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) Tune of the second seco	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 <u>how</u> 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, et	c., and indicate if complete or partial. If partial, describe which part of facility			
	bridge, etc., will be demolished:				
10		pontrole used to provent visible emissions before during and ofter removal and			
12.	until proper disposal:				
13.	UNEXPECTED ASBESTOS: Describe the steps you intend to follow in becomes friable (crumbled, pulverized, reduced to powder, etc.) and there	the event that unexpected RACM is found or previously non-friable asbestos fore regulated:			
		-			
14.	PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS analytical sampling was used, describe method of analysis. (The determine a renovation/demolition notification.):	A) Indicate how you determined whether or not asbestos is in the facility. If nation of the presence or absence of asbestos must be made prior to submitting			
	B) Name, address, and phone number of company performing asbestos s	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 equi	pment damage and/or an unreasonable financial burden.			
16.	I certify that an individual trained in the provisions of 40 CFR Part 61, 5 RACM above the threshold and/or during an ordered demolition. Evid inspection at the renovation or demolition site.	Subpart M, will be on-site during the renovation and during demolition involving ence that this person has completed the required training will be available for			
	Signature of Owner or Abatement Contractor Date	Signature of Owner or Demolition Contractor Date			
17.	Signature Requirements for Projects with Negative Pre Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance a linear feet/15 square feet or more of friable material which is perform have been advised by the contractor of my responsibility under Act	ssure Enclosures: (required by LARA) ir monitoring is required for any asbestos abatement project involving 10 med within a negative pressure enclosure. <i>I (the building owner or lessee)</i> <i>135 to have clearance air monitoring performed on this project.</i>			
	Signature of Building Owner or Lessee Date NOTE: It is not mandatory that a signed copy be sent to LARA unless reques and made part of your records before the project begins.	Signature of Asbestos Abatement Contractor Representative Date ted. For affected projects, this section of the notification form must be completed, signed,			
18.	I certify that the above information is correct:				
	Printed Name of Owner/Operator Date	Signature of Owner/Operator Date			
MA	LING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine v	which agency requirements/regulations are applicable to your project.)			
For mail <u>http</u>	Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), to address below. For more info visit: //www.michigan.gov/asbestos	For NESHAP Demolitions/Renovations , 40 CFR , Part 61 , Subpart M , please use the e-submittal process. For more information visit <u>http://www.michigan.gov/air</u> , under Air Links click on Asbestos NESHAP Program.			
MIC LAF P.O Lan	OSHA Asbestos Program RA, CSHD . Box 30671 sing, MI 48909-8171	NESHAP Asbestos Program DEQ, AQD P.O. Box 30260 Lansing, MI 48909-7760			
517	.636.4551 (office), 517.322.1713 (fax)	517.284.6777 (Office)			



December 29, 2017

Ms. Roxanne Case Grant Manager Ingham County Land Bank 3024 Turner Street Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey 1527 Hull Ct, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited predemolition regulated materials survey (RMS) performed at 1527 Hull Ct, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information				
Property Address	1527 Hull Ct, Lansing, MI			
Parcel #	33-01-01-08-378-101			
No. Stories	2			
Square Footage (approx.)	700 SF			
Siding	Wood			
Basement	Yes			
Garage	Yes			



Asbestos Containing Material							
Location	Material Group	Friable/Non Friable	Asbestos	Quantity			
RM-7	White tile	Non friable	5% Chrysotile	240 SF			
RM-1, RM-2	Vent wrap	Friable	70% Chrysotile	80 SF			
RM-4	Tan tile	Non friable	5% Chrysotile	80 SF			
RM-2	Black tile	Non friable	15% Chrysotile	80 SF			
RM-3	Faux brick linoleum	Non friable	30% Chrysotile	50 SF			
RM-3	Red tile	Non friable	10% Chrysotile	50 SF			
Basement	Stack cement	Non friable	2% Chrysotile	4 SF			



Universal Waste Inventory					
Location Material Description Quantity					
RM-1	Thermostat	1			
RM-1, RM-2, RM-7	Smoke detector	3			

Hazardous Materials					
Location Material Description Quantity					
No hazardous materials were found on site					

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 13, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I nonfriable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);

- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - o IATA International Air Transport Association; Dangerous Goods Regulations;
 - o ICAO International Civil Aviation Organization; Technical Instructions; and
 - AF Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items

cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log.* The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified fifteen (15) homogenous materials that were suspect as asbestos containing during the ACM survey. Thirty-two (32) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found seven (7) homogenous materials to contain greater than 1% asbestos (samples 3-1, 5-1, 8-1, 10-1, 11-1, 12-1, and 15-1). The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the fifteen (15) homogenous materials collected as part of the ACM survey, seven (7) homogenous materials contained asbestos greater than 1% (samples 3-1, 5-1, 8-1, 10-1, 11-1, 12-1, and 15-1) with these seven (7) materials (samples 3-1, 5-1, 8-1, 10-1, 11-1, 12-1, and 15-1) being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.
Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100. Sincerely,

Kory McKay Environmental Scientist Accreditation Number A47903

-1-0

Charlie Bush Senior Project Manager Accreditation Number A34293

Attachments





TECHNICAL SKILL. CREATIVE SPIRIT.

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com







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Stack Cement (4 SF)



TABLE 1 Asbestos Sampling Results

Client		Ingham Coun	ty Land B	ank Authority						
Survey Loc	ation	1527 Hull Ct	2017							
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	Not Detected	1300 SF
RM-5	1	AS 1-2	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	Not Detected	1300 SF
RM-2	1	AS 1-3	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	Not Detected	1300 SF
RM-6	1	AS 2-1	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	No	Not Detected	10 SF
RM-6	1	AS 2-2	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	No	Not Detected	10 SF
RM-1	1	AS 3-1	HA-3	Vent wrap	Friable	Good	Miscellaneous	Yes	70% Chrysotile	150 SF
RM-1	1	AS 3-2	HA-3	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	150 SF
RM-2	1	AS 3-3	HA-3	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	150 SF
RM-1	1	AS 4-1	HA-4	Gray tile	Non-Friable	Good	Miscellaneous	No	Not Detected	10 SF
RM-1	1	AS 4-2	HA-4	Gray tile	Non-Friable	Good	Miscellaneous	No	Not Detected	10 SF
RM-4	1	AS 5-1	HA-5	Tan tile	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	80 SF
RM-4	1	AS 5-2	HA-5	Tan tile	Non-Friable	Good	Miscellaneous	Yes	NA	80 SF
RM-2	1	AS 6-1	HA-6	Yellow Linoleum	Non-Friable	Good	Miscellaneous	No	Not Detected	80 SF
RM-2	1	AS 6-2	HA-6	Yellow Linoleum	Non-Friable	Good	Miscellaneous	No	Not Detected	80 SF
RM-2	1	AS 7-1	HA-7	Brown Linoleum	Non-Friable	Good	Miscellaneous	No	Not Detected	80 SF
RM-2	1	AS 7-2	HA-7	Brown Linoleum	Non-Friable	Good	Miscellaneous	No	Not Detected	80 SF

TABLE 1 Asbestos Sampling Results

Client Ingham County Land Bank Authority										
Survey Loca	ation	December 13	2017							
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-2	1	AS 8-1	HA-8	Black tile	Non-Friable	Good	Miscellaneous	Yes	15% Chrysotile	80 SF
RM-2	1	AS 8-2	HA-8	Black tile	Non-Friable	Good	Miscellaneous	Yes	NA	80 SF
RM-3	1	AS 9-1	HA-9	White linoleum	Non-Friable	Good	Miscellaneous	No	Not Detected	50 SF
RM-3	1	AS 9-2	HA-9	White linoleum	Non-Friable	Good	Miscellaneous	No	Not Detected	50 SF
RM-3	1	AS 10-1	HA-10	Faux brick Linoleum	Non-Friable	Good	Miscellaneous	Yes	30% Chrysotile	50 SF
RM-3	1	AS 10-2	HA-10	Faux brick Linoleum	Non-Friable	Good	Miscellaneous	Yes	NA	50 SF
RM-3	1	AS 11-1	HA-11	Red tile	Non-Friable	Good	Miscellaneous	Yes	10% Chrysotile	50 SF
RM-3	1	AS 11-2	HA-11	Red tile	Non-Friable	Good	Miscellaneous	Yes	NA	50 SF
RM-7	2	AS 12-1	HA-12	White tile	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	240 SF
RM-7	2	AS 12-2	HA-12	White tile	Non-Friable	Good	Miscellaneous	Yes	NA	240 SF
Roof	E	AS 13-1	HA-13	Shingles	Non-Friable	Good	Miscellaneous	No	Not Detected	280 SF
Roof	E	AS 13-2	HA-13	Shingles	Non-Friable	Good	Miscellaneous	No	Not Detected	280 SF
Basement	В	AS 14-1	HA-14	Basement cement floor	Non-Friable	Good	Miscellaneous	No	Not Detected	100 SF
Basement	В	AS 14-2	HA-14	Basement cement floor	Non-Friable	Good	Miscellaneous	No	Not Detected	100 SF
Basement	В	AS 15-1	HA-15	Stack Cement	Non-Friable	Good	Miscellaneous	Yes	2% Chrysotile	4 SF
Basement	В	AS 15-2	HA-15	Stack Cement	Non-Friable	Good	Miscellaneous	Yes	NA	4 SF

Table 2Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory1527 Hull Ct.Lansing, Ingham County, Michigan

Universal Waste Inventory				
Location	Type of Waste	Approximate Quantity		
RM-1	Thermostat	1		
RM-1, RM-2, RM-7	Smoke detector	3		
Hazardous Materials Inventory				
Location	Type of Waste	Approximate Quantity		
-	-	-		
Other Regulated Materials Inventory				
Location	Type of Waste	Approximate Quantity		
· · · · ·				



Ingham County Land Bank 1527 Hull Ct, Lansing, MI Photographs taken by: Kory McKay on 12/13/2017

Property Photos





Ingham County Land Bank 1527 Hull Ct, Lansing, MI Photographs taken by: Kory McKay on 12/13/2017

Sample Photos



Ingham County Land Bank 1527 Hull Ct, Lansing, MI Photographs taken by: Kory McKay on 12/13/2017

Sample Photos













REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

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Regulated Materials Survey Limitations.Docx

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.



ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Test Method, Polarized Light Microscopy (PLM)

Project: 1527 Hull Ct Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73781

 Date Collected:
 12/13/17

 Date Received:
 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 01 Cust. #: AS12-1 Material: White Tile Location: Room 7 Appearance: yellow,fibrous,homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 73781 - 01a Cust. #: AS12-1 Material: Glue Location: Room 7 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 02 Cust. #: AS12-2 Material: White Tile Location: Room 7	Asbestos Present:	
Appearance: Layer: 1 of 2	NOT ANAL IZED	

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



Test Method, Polarized Light Microscopy (PLM)

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 12/13/17

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 12/15/17

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 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 02a Cust. #: AS12-2 Material: Glue Location: Room 7 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 03 Cust. #: AS13-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 73781 - 04 Cust. #: AS13-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%

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Robert T. Letarte Jr., Laboratory Director

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 17-73781

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 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 05 Cust. #: AS1-2 Material: Plaster Finish Coat Location: Room 5 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 05a Cust. #: AS1-2 Material: Plaster Base Coat Location: Room 5 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO Chrysotile - <1%	Hair - 5% Other - >94%
Lab ID #: 73781 - 06 Cust. #: AS4-1 Material: Grey Tile Location: Room 1 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 06a Cust. #: AS4-1 Material: Glue Location: Room 1 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 73781 - 07 Cust. #: AS4-2 Material: Grey Tile Location: Room 1 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 07a Cust. #: AS4-2 Material: Glue Location: Room 1 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Test Method, Polarized Light Microscopy (PLM)

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 ARI Report #
 17-73781

 Date Collected:
 12/13/17

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 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 08 Cust. #: AS1-1 Material: Plaster Finish Coat Location: Room 1 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 08a Cust. #: AS1-1 Material: Plaster Base Coat Location: Room 1 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Hair - 2% Other - 97%
Lab ID #: 73781 - 09 Cust. #: AS3-1 Material: Vent Wrap Location: Room 1 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 70%	Other - 30%

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

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 17-73781

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 12/13/17

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 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 10 Cust. #: AS3-2 Mataziali Vant Waan	Asbestos Present:	
Location: Room 1 Appearance: Layer: of	NOT ANALYZED	
Lab ID #: 73781 - 11 Cust. #: AS5-1 Material: Tan Tile Location: Room 4 Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 73781 - 11a Cust. #: AS5-1 Material: Mastic Location: Room 4 Appearance: black,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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Test Method, Polarized Light Microscopy (PLM)

Project: 1527 Hull Ct Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

ARI Report # 17-73781 Date Collected: 12/13/17 Date Received: 12/15/17 Date Analyzed: 12/19/17 Date Reported: 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 12 Cust. #: AS5-2	Asbestos Present:	
Material: Tan Tile Location: Room 4 Appearance: Layer: 1 of 2	NOT ANALYZED	
Lab ID #: 73781 - 12a Cust. #: AS5-2 Material: Mastic Location: Room 4 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 13 Cust. #: AS6-1 Material: Yellow Linoleum Location: Room 2 Appearance: yellow,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
For Lawrad Samples, each component will be analyzed and reported separately		

Robert T. Letarte Jr., Laboratory Director

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 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 14 Cust. #: AS6-2 Material: Yellow Linoleum Location: Room 2 Appearance: yellow,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73781 - 15 Cust. #: AS7-1 Material: Brown Linoleum Location: Room 2 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 73781 - 16 Cust. #: AS7-2 Material: Brown Linoleum Location: Room 2 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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

Robert T. Letarte Jr., Laboratory Director

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 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 17 Cust. #: AS8-1 Material: Black Tile Location: Room 2 Appearance: black,fibrous,homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 15%	Other - 85%
Lab ID #: 73781 - 17a Cust. #: AS8-1 Material: Mastic Location: Room 2 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 18 Cust. #: AS8-2 Material: Black Tile	Asbestos Present:	
Appearance: Layer: 1 of 2	NUI ANALIZED	

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

Robert T. Letarte Jr., Laboratory Director

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Test Method, Polarized Light Microscopy (PLM)

Project: 1527 Hull Ct Project # I1440002

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 ARI Report #
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 12/13/17

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 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 18a Cust. #: AS8-2 Material: Mastic Location: Room 2 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 19 Cust. #: AS1-3 Material: Plaster Base Coat Location: Room 2 Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - <1%	Hair - 2% Other - >97%
Lab ID #: 73781 - 20 Cust. #: AS3-3 Material: Vent Wrap Location: Room 2 Appearance:	Asbestos Present: NOT ANALYZED	
Layer: of		

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

Robert T. Letarte Jr., Laboratory Director

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 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 21 Cust. #: AS2-1 Material: Window Glaze Location: Room 6 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 22 Cust. #: AS2-2 Material: Window Glaze Location: Room 6 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 23 Cust. #: AS9-1 Material: White Linoleum Location: Room 3 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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 Date Analyzed:
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 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 24 Cust. #: AS9-2 Material: White Linoleum Location: Room 3 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73781 - 25 Cust. #: AS10-1 Material: Faux Brick Linoleum Location: Room 3 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 30%	Other - 70%
Lab ID #: 73781 - 26 Cust. #: AS10-2 Material: Faux Brick Linoleum	Asbestos Present:	
Location: Room 3 Appearance: Layer: of	NOI ANALYZED	

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Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 27 Cust. #: AS11-1 Material: Red Tile Location: Room 3 Appearance: red,fibrous,homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 10%	Other - 90%
Lab ID #: 73781 - 27a Cust. #: AS11-1 Material: Mastic Location: Room 3 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 28 Cust. #: AS11-2 Material: Red Tile Location: Room 3 Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	

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

Robert T. Letarte Jr., Laboratory Director

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RV

NVLAP Lab Code 102118-0



Test Method, Polarized Light Microscopy (PLM)

Project: 1527 Hull Ct Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73781

 Date Collected:
 12/13/17

 Date Received:
 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 28a Cust. #: AS11-2 Material: Mastic Location: Room 3 Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 29 Cust. #: AS14-1 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73781 - 30 Cust. #: AS14-2 Material: Basement Cement Floor Location: Basement 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

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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 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73781 - 31 Cust. #: AS15-1 Material: Stack Cement Location: Basement Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 2%	Other - 98%
Lab ID #: 73781 - 32 Cust. #: AS15-2 Material: Stack Cement Location: Basement Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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

		11054 Hi Tec	h Drive, Whitmore Lake, MI 48189. Phone:	: (734) 449 - 9990, Fax (734) 449	- 9991 www.ApexMI.cor	n		APEX
				Date of Survey:	12/13/201	7 5:00		Lab Use Only
Customer Na	ame:	MANNIK	& SMITH GROUP	Project:	1527 Hull	Ct		Log-In:
Address:		2193 Assoc	iation Drive, Suite 200	Project #	11440002			Report:
City, St., Zip:		Oker	nos, MI, 48864	Contact Person:	Charlie Bu	ısh		Fax:
^{>} hone:		(517) 316-9232	Fax: (517) 316-9233	Email:	<u>cbush@m</u>	anniksmithgr	oup.com	Verbal:
furn Around Tir	ne: (circle	e ONe)***Terms and conditions on t	he other side.	Circle analyses requir	ed, indicate type an	d quantity		Email:
tush		24 Hour		Asbstos:	Bulk X Wipe	Point Coun	t PCM	
8 Hour	<	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM) Bulk_	
Other:		TTP ves //no (Test Till Positive)		Mold:	Bulk Air	BioSI	S Tape_	
amples received after 3p	m			IEM:	Bulk NIOSH	EPA Level I	I Other	
Lab ID	C	ustomer ID #	Mat	erial/Location		Volume	Area	Results
Ì		AS 12-1	RM	-7 - White tile		Bag	HA-12	111111 11111
2		AS 12-2	RM	-7 - White tile		Bag	HA-12	: :
3		AS 13-1	Ro	of - Shingles		Bag	HA-13	And
4		AS 13-2	. Ro	of - Shingles		Bag	HA-13	
S		AS 1-2	R	M-5 - Plaster		Bag	HA-1	
6		AS 4-1	RM	1-1 - Gray tile		Bag	HA-4	· · · · · · · · · · · · · · · · · · ·
7		AS 4-2	RN	1-1 - Gray tile		Bag	HA-4	
B		AS 1-1	R	M-1 - Plaster		Bag	HA-1	
9		AS 3-1	RM-	-1 - Vent wrap		Bag	HA-3	
10		AS 3-2	RM-	-1 - Vent wrap		Bag	HA-3	-
21		AS 5-1	RM	Л-4 - Tan tile		Bag	HA-5	: ·
12		AS 5-2		Л-4 - Tan tile		Bag	HA-5	
Relinquished By	\mathcal{P}	gent.	Received By:	Heer	Relinquished By:		Received By	REGENE
)ate: 12/	15/1	1	Time/Deter 12 11	5/12				DEC 1 5 2017

Apex #

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		:	Date of Survey:	12/13/20	17 5:00		Lab Use Only
Customer Na	ame: MANNIE	K & SMITH GROUP	Project:	1527 Hu	ll Ct		Log-In:
Address:	2193 Asso	ociation Drive, Suite 200	Project #	l1440002	2		Report:
City, St., Zip	: Oke	emos, MI, 48864	Contact Person:	Charlie E	Bush		Fax:
^{>} hone:	(517) 316-9232	Fax: (517) 316-9233	Email:	cbush@i	manniksmithgr	oup.com	Verbal:
urn Around Ti	me: (Circle One)***Terms and conditions	on the other side.	Circle analyses requir	ed, indicate type a	and quantity		Email:
Rush	24 Hour		Asbstos:	Bulk X Wipe	e Point Coun	PCM	
8 Hour	72 Hour		Lead / Cad / Chrome:	Air Pain	tWipe (ASTM)	Bulk	
Other:	TTP ves /)no (Test Till Positive)	-	Mold:	Bulk Ai	r BioSIS	Tape	
amples received after 3 ogged in next morning	pm		TEM:	Bulk NIOSH	H EPA Level I	Other	
Lab ID	Customer ID #	Ма	terial/Location		Volume	Area	Results
13	AS 6-1	RM-2	- Yellow Linoleum		Bag	HA-6	
14	AS 6-2	RM-2	- Yellow Linoleum		Bag	HA-6	
is	AS 7-1	RM-2	- Brown Linoleum		Bag	HA-7	
16	AS 7-2	RM-2	- Brown Linoleum		Bag	HA-7	
17	AS 8-1	RN	1-2 - Black tile		Bag	HA-8	
r4	AS 8-2	RN	1-2 - Black tile		Bag	HA-8	
79	AS 1-3	R	M-2 - Plaster		Bag	HA-1	
20	AS 3-3	RM	I-2 - Vent wrap		Bag	HA-3	
21	AS 2-1	RM-6	5 - Window glaze		Bag	HA-2	
22	AS 2-2	RM-6	5 - Window glaze		Bag	HA-2	
22	AS 9-1	RM-3	- White linoleum		Bag	HA-9	
Jif	AS 9-2	RM-3	- White linoleum	AUTO 1. 1.1. U.U.	Bag	HA-9	- Chief
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73781	11054 Hi Ta	APEX Res ech Drive, Whitmore Lake, MI 48189. Phone:	Search, Inc. : (734) 449 - 9990, Fax (734) 449	- 9991 www.ApexMI.	com		APEX
			Date of Survey:	12/13/20	17 5:00		Lab Use Only
Customer Na	me: MANNIK	& SMITH GROUP	Project:	1527 Hu	ll Ct		Log-In:
Address:	2193 Asso	ciation Drive, Suite 200	_ Project #	l1440002	2		Report:
Jity, St., ∠ip:	Oke	emos, MI, 48864	Contact Person:	Charlie E	Bush		Fax:
none:	(517) 316-9232	Fax: (517) 316-9233	Email:	<u>cbush@</u> ı	manniksmithgr	oup.com	Verbal:
Urn Around Tim Lush 8 Hour 2 Hour	e: (circle one) ***Terms and conditions of 24 Hour 72 Hour TTP ves no (Test Till Positive)	n the other side.	Circle analyses require Asbstos: Lead / Cad / Chrome: Mold: TEM:	ed, indicate type a Bulk <u>X</u> Wipe Air <u>Paim</u> Bulk Ain Bulk NIOSH	e Point Coun Wipe (ASTM BioSIS EPA Level I	t PCM) Bulk 5 Tape I Other	Email:
Lab ID	Customer ID #	Mate	erial/Location		Volume	Area	Results
26	AS 10-1	RM-3 - Fa	aux brick Linoleum		Bag	HA-10	
26	AS 10-2	RM-3 - Fa	aux brick Linoleum		Bag	HA-10	
97	AS 11-1	RM	I-3 - Red tile		Bag	HA-11	
25	AS 11-2	RM	I-3 - Red tile		Bag	HA-11	
29	AS 14-1	Basement - B	asement cement floor		Bag	HA-14	
20	AS 14-2	Basement - B	asement cement floor		Bag	HA-14	
31	AS 15-1	Basemen	nt - Stack Cement		Bag	HA-15	
32	AS 15-2	Basemen	nt - Stack Cement		Bag	HA-15	
2linquished By:	5/17	Received By: Time/Date:\2 (5	Heel	Relinquished By: _		Received By: Time/Date:	DEC 1 5 2017



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF IN	TENT TO RENOVATE/DEMOLISH
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUA (MDEQ) AIR QUALITY DIVISION NESHAP, 40 CFR Part 61, Subpart M	ALITY 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	3. ABATEMENT CONTRACTOR: Internal Project #:
Calculate LARA Asbestos Project Fee: (1% Proje	ct Fee)
Total Project Cost: x 0.01 =	5. FACILITY OWNER: ("Facility" includes Bridges)
Type of Contractor: License No.:	Name:
Licensing Authority:	
1. NOTIFICATION:	E-mail:
	Contact: Dhone:

Contact:

6. FACILITY DESCRIPTION:

Location Address/Description: _____

Specific Location(s) in Facility:

City/State/Zip: _____

Gov't Agency Ordering Demo:

Name/Title of Person Signing Order:

Facility Name:

7. DISPOSAL SITE:

Name

Phone:

notification.

Date of Order:

Phone:

If Apt. # of units:

County: _____ Nearest Crossroad: _____

City/Twp. _____ State: _____ Zip Code: _____

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____

Age: _____ Present Use: _____ Prior Use: _____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of

"Ordered Demolition.") A copy of the official Order must accompany this

Date Ordered to Begin:

Date of Revision(s):

Notification Type: Original Revised Canceled Annual

START DATE

Mark appropriate boxes: (both DEQ and LARA may app	oly):
DEQ (NESHAP) [260 In. ft./160 sq. ft. or more is thresho	old]

Planned Renovation – 10 working days notice
Emergency Renovation
Scheduled Demolition – 10 working days notice

Interational Dum	40 manufation and a second second
 Intentional Burn –	TO WORKING DAVS NOTICE
Intonia Ban	no montang dayo notico

□ 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:

* Renovation			Location Address:			
+Asb. Removal			City/State/Zip:			
+Demolition:			8. WASTE TRANSPORTER 1:	WASTE TR		
Encapsulation:			Name:			
Work Schedule:	Please indicate the anticip	pated days of the week and	Address:			

END DATE

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

> Work Hours Days of the Week

Asb.	Removal:
ASD.	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.

It <u>must</u> be removed prior to demolition.)

10. IS ASBESTOS PRESENT?

IS ASBESTOS PRESENT?	🗌 Yes	🗌 No	o							
Estimate the amount of asbestos	: Include F	RACM	RACM to be	RACM to be	Non-friabl removed p	e ACM <u>not</u> rior to demo.				
(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			Removed	Encapsulated	Category I	Category II	Units of Measure			
							🗌 Ln. Ft.	🗌 Ln. M.		
							🗌 Sq. Ft.	🗌 Sq. M.		
to demolition. (NOTE: In a demoliti	ion, cemer	ntatious					🗌 Cu. Ft.*	🗌 Cu.M.*		
ACM <u>cannot</u> remain in a structure, as it is likely to become regulated in the demolition/handling process.			*) (aluma (aubia ft	(motoro) should be		nable to manage	ro by linear/agy			

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

WASTE TRANSPORTER 2:
NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continue

11.	1. 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) Tunnel (s) Tunnel (s)	Encapsulation (for LARA): Mark surfaces/types to be encapsulated: Piping Fittings Boiler(s) Tank(s) Beam(s) Duct(s) Tunnel(s) Ceiling Tile(Other (describe)	: (s)							
	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, et	c., and indicate if complete or partial. If partial, describe which part of facility								
	bridge, etc., will be demolished:									
10		pantrale used to prevent visible opissions before during and offer removal op								
12.	until proper disposal:	controls used to prevent visible emissions before, during, and alter removal, an								
13.	UNEXPECTED ASBESTOS: Describe the steps you intend to follow in becomes friable (crumbled, pulverized, reduced to powder, etc.) and there	h the event that unexpected RACM is found or previously non-friable asbesto fore regulated:	os							
	· · · · · ·		_							
14.	PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS analytical sampling was used, describe method of analysis. (The determine a renovation/demolition notification.):	A) Indicate how you determined whether or not asbestos is in the facility. nation of the presence or absence of asbestos must be made prior to submittin	lf ng							
	B) Name, address, and phone number of company performing asbestos s	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 equi	pment damage and/or an unreasonable financial burden.	—							
			_							
16.	I certify that an individual trained in the provisions of 40 CFR Part 61, S RACM above the threshold and/or during an ordered demolition. Evide inspection at the renovation or demolition site.	Subpart M, will be on-site during the renovation and during demolition involvir ence that this person has completed the required training will be available f	ng for							
	Signature of Owner or Abatement Contractor Date	Signature of Owner or Demolition Contractor Date								
17.	Signature Requirements for Projects with Negative Prese Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance ai linear feet/15 square feet or more of friable material which is perform have been advised by the contractor of my responsibility under Act of	ssure Enclosures: (required by LARA) ir monitoring is required for any asbestos abatement project involving a med within a negative pressure enclosure. <i>I (the building owner or lesse</i> 135 to have clearance air monitoring performed on this project.	10 ⊯)							
	Signature of Building Owner or Lessee Date NOTE: It is not mandatory that a signed copy be sent to LARA unless reques and made part of your records before the project begins.	Signature of Asbestos Abatement Contractor Representative Date ted. For affected projects, this section of the notification form must be completed, signed,								
18.	I certify that the above information is correct:									
	Printed Name of Owner/Operator Date	Signature of Owner/Operator Date								
MA	ILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine v	which agency requirements/regulations are applicable to your project.)								
For mail <u>http</u>	Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), to address below. For more info visit: ://www.michigan.gov/asbestos	For NESHAP Demolitions/Renovations , 40 CFR , Part 61 , Subpart I please use the e-submittal process. For more information vis <u>http://www.michigan.gov/air</u> , under Air Links click on Asbestos NESHA Program.	M, sit ∖P							
MIC LAF P.O Lan	VSHA Asbestos Program A, CSHD . Box 30671 sing, MI 48909-8171	NESHAP Asbestos Program DEQ, AQD P.O. Box 30260 Lansing, MI 48909-7760								
517.636.4551 (office), 517.322.1713 (fax)										



December 29, 2017

Ms. Roxanne Case Grant Manager Ingham County Land Bank 3024 Turner Street Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey 1222 West Ottawa St, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited predemolition regulated materials survey (RMS) performed at 1222 West Ottawa St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information					
Property Address	1222 W Ottawa St, Lansing, MI				
Parcel #	33-01-01-17-258-082				
No. Stories	2				
Square Footage (approx.)	1,700 SF				
Siding	Vinyl				
Basement	Yes				
Garage	Yes				



Asbestos Containing Material							
Location Material Group Friable/Non Friable Asbestos Quantity							
RM-8	Tan tile	Non Friable	5% Chrysotile	100 SF			
RM-1, RM-3, RM-4, RM-7, RM-10	Vent wrap	Friable	50% Chrysotile	300 SF			

Hazardous Materials						
Location Material Description Quantity						
RM-7	Spray paint can	5				
Basement	1 Gallon paint can	15				



Universal Waste Inventory							
Location	Material Description	Quantity					
RM-1, RM-4, RM-7, RM-8, RM-10, Basement	Smoke detector	8					
RM-1, RM-10	Thermostat	2					

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 7, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I nonfriable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number

A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - o IATA International Air Transport Association; Dangerous Goods Regulations;
 - o ICAO International Civil Aviation Organization; Technical Instructions; and
 - AF Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log.* The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified twelve (12) homogenous materials that were suspect as asbestos containing during the ACM survey. Thirty-one (31) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found two (2)

homogenous materials (samples 7-1 and 10-1) contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the twelve (12) homogenous materials collected as part of the ACM survey, two (2) homogenous materials contained asbestos greater than 1% (samples 7-1 and 10-1) with these two (2) homogenous materials being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232. Sincerely,

My

Kory McKay Environmental Scientist Accreditation Number A47903

-LP

Charlie Bush Senior Project Manager Accreditation Number A34293

Attachments





TECHNICAL SKILL. CREATIVE SPIRIT.

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com



Drawing not to scale

1-1 5-1, 2 2-5 Room 1





Vent with wrap (300 SF)



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721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com



Tan Tile (100 SF)





TABLE 1 Asbestos Sampling Results

Client		Ingham Count	ty Land Ba	ank Authority						
Survey Loca	ation	1222 W Ottaw	<u>/a St.</u> 2017							
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-1	1	AS 1-2	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-1	1	AS 1-3	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-9	2	AS 1-4	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-8	2	AS 1-5	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-1	1	AS 2-1	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-3	1	AS 2-2	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-1	1	AS 2-3	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-9	2	AS 2-4	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-7	2	AS 2-5	HA-2	Drywall	Non-friable	Good	Miscellaneous	No	No	1700 SF
RM-5	1	AS 3-1	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	175 SF
RM-5	1	AS 3-2	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	175 SF
RM-3	1	AS 4-1	HA-4	Beige tile	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-2	1	AS 4-2	HA-4	Beige tile	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-1	1	AS 5-1	HA-5	Brown Linoleum	Non-Friable	Good	Miscellaneous	No	No	25 SF
RM-1	1	AS 5-2	HA-5	Brown Linoleum	Non-Friable	Good	Miscellaneous	No	No	25 SF

TABLE 1 Asbestos Sampling Results

Client		Ingham County Land Bank Authority										
Survey Location		1222 W Ottaw	/a St.									
Survey D	ate	December 7, 2	Jecember 7, 2017									
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity		
RM-9	2	AS 6-1	HA-6	White tile	Non-Friable	Good	Miscellaneous	No	No	140 SF		
RM-8	2	AS 6-2	HA-6	White tile	Non-Friable	Good	Miscellaneous	No	No	140 SF		
RM-8	2	AS 7-1	HA-7	Tan tile	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	100 SF		
RM-8	2	AS 7-2	HA-7	Tan tile	Non-Friable	Good	Miscellaneous	Yes	NA	100 SF		
RM-10	2	AS 8-1	HA-8	Beige Linoleum	Non-Friable	Good	Miscellaneous	No	No	144 SF		
RM-10	2	AS 8-2	HA-8	Beige Linoleum	Non-Friable	Good	Miscellaneous	No	No	144 SF		
RM-8	2	AS 9-1	HA-9	Multicolored Linoleum	Non-Friable	Good	Miscellaneous	No	No	20 SF		
RM-8	2	AS 9-2	HA-9	Multicolored Linoleum	Non-Friable	Good	Miscellaneous	No	No	20 SF		
RM-10	2	AS 10-1	HA-10	Vent wrap	Friable	Good	Miscellaneous	Yes	50% Chrysotile	300 SF		
RM-3	1	AS 10-2	HA-10	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	300 SF		
RM-4	1	AS 10-3	HA-10	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	300 SF		
Basement	В	AS 11-1	HA-11	Basement concrete	Non-Friable	Good	Miscellaneous	No	No	400 SF		
Basement	В	AS 11-2	HA-11	Basement concrete	Non-Friable	Good	Miscellaneous	No	No	400 SF		
Roof	E	AS 12-1	HA-12	Roof Shingle	Non-Friable	Good	Miscellaneous	No	No	400 SF		
Roof	E	AS 12-2	HA-12	Roof Shingle	Non-Friable	Good	Miscellaneous	No	No	400 SF		

Table 2Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory1222 W. Ottawa St..Lansing, Ingham County, Michigan

Universal Waste Inventory					
Location	Type of Waste	Approximate Quantity			
Basement,RM-1,RM-4,RM-7, RM-8, RM-10	Smoke detector	8			
RM-1,RM-10	Thermostat	2			
Hazardous Materials Inventory					
Location	Type of Waste	Approximate Quantity			
RM-7	Spray paint	5			
Basement	1 Gallon paint can	15			
Other Regulated Materials Inventory					
Location	Type of Waste	Approximate Quantity			
-	-	-			



Ingham County Land Bank 1222 West Ottawa St, Lansing, MI Photographs taken by: Kory McKay on 12/07/2017

Property Photos





Ingham County Land Bank 1222 West Ottawa St, Lansing, MI Photographs taken by: Kory McKay on 12/07/2017

Sample Photos







REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

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Regulated Materials Survey Limitations.Docx

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.



ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Project: 1222 W. Ottawa St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73613

 Date Collected:
 12/07/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/13/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73613 - 01 Cust. #: AS1-1 Material: Plaster Base Coat Location: Room 1 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73613 - 02 Cust. #: AS1-2 Material: Plaster Base Coat Location: Room 1 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73613 - 03 Cust. #: AS1-3 Material: Plaster Base Coat Location: Room 1 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

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.



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 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73613 - 04 Cust. #: AS1-4 Material: Plaster Texture Location: Room 9 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73613 - 04a Cust. #: AS1-4 Material: Plaster Base Coat Location: Room 9 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73613 - 05 Cust. #: AS1-5 Material: Plaster Base Coat Location: Room 8 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

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Robert T. Letarte Jr., Laboratory Director

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ARI Report # 17-73613 Date Collected: 12/07/17 Date Received: 12/08/17 Date Analyzed: 12/13/17 Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73613 - 06 Cust. #: AS2-4 Material: Drywall Location: Room 9 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 2% Other - 78%
Lab ID #: 73613 - 07 Cust. #: AS2-1 Material: Drywall Location: Room 1 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 2% Other - 78%
Lab ID #: 73613 - 08 Cust. #: AS2-2 Material: Drywall Location: Room 3 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 2% Other - 78%
For I averad Samples, each component will be analyzed and reported separately		

Robert T. Letarte Jr., Laboratory Director

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 12/13/17

Sample Information Asbestos Type/Percent		Non-Asbestos
Lab ID #: 73613 - 09 Cust. #: AS2-3 Material: Drywall Location: Room 1 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 2% Other - 78%
Lab ID #: 73613 - 10 Cust. #: AS3-1 Material: Window Glaze Location: Room 5 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73613 - 11 Cust. #: AS3-2 Material: Window Glaze Location: Room 5 Appearance: beige,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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 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73613 - 12 Cust. #: AS4-1 Material: Beige Tile Location: Room 3 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73613 - 12a Cust. #: AS4-1 Material: Mastic Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73613 - 13 Cust. #: AS4-2 Material: Beige Tile Location: Room 2 Appearance: beige,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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 12/13/17

 Date Reported:
 12/13/17

Sample Information	mple InformationAsbestos Type/Percent	
Lab ID #: 73613 - 13a Cust. #: AS4-2 Material: Mastic Location: Room 2 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73613 - 14 Cust. #: AS5-1 Material: Brown Linoleum Location: Room 1 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 73613 - 15 Cust. #: AS5-2 Material: Brown Linoleum Location: Room 1 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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.



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 Date Analyzed:
 12/13/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos	
Lab ID #: 73613 - 16 Cust. #: AS6-1 Material: White Tile Location: Room 9 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%	
Lab ID #: 73613 - 16a Cust. #: AS6-1 Material: Mastic Location: Room 9 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%	
Lab ID #: 73613 - 17 Cust. #: AS6-2 Material: White Tile Location: Room 8 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.



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 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73613 - 17a Cust. #: AS6-2 Material: Mastic Location: Room 8 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73613 - 18 Cust. #: AS7-1 Material: Tan Tile Location: Room 8 Appearance: beige,fibrous,homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 73613 - 18a Cust. #: AS7-1 Material: Mastic Location: Room 8 Appearance: brown,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.



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 Date Analyzed:
 12/13/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73613 - 19 Cust. #: AS7-2 Material: Tan Tile	Asbestos Present:	
Location: Room 8 Appearance: Layer: 1 of 2	NOT ANALYZED	
Lab ID #: 73613 - 19a Cust. #: AS7-2 Material: Mastic Location: Room 8 Appearance: black,nonfibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73613 - 20 Cust. #: AS8-1 Material: Beige Linoleum Location: Room 10 Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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.



Project: 1222 W. Ottawa St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73613

 Date Collected:
 12/07/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/13/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73613 - 21 Cust. #: AS8-2 Material: Beige Linoleum Location: Room 10 Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 73613 - 22 Cust. #: AS9-1 Material: Multicolored Linoleum Location: Room 8 Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 73613 - 23 Cust. #: AS9-2 Material: Multicolored Linoleum Location: Room 8 Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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.



Project: 1222 W. Ottawa St Project # I1440002

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 Date Collected:
 12/07/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/13/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73613 - 24 Cust. #: AS10-1 Material: Vent Wrap Location: Room 10 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 50%	Cellulose - 25% Other - 25%
Lab ID #: 73613 - 25 Cust. #: AS10-2 Material: Vent Wrap Location: Room 3 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73613 - 26 Cust. #: AS10-3 Material: Vent Wrap Location: Room 4 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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

Robert T. Letarte Jr., Laboratory Director

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Project: 1222 W. Ottawa St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73613

 Date Collected:
 12/07/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/13/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos	
Lab ID #: 73613 - 27 Cust. #: AS11-1 Material: Basement Concrete Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%	
Lab ID #: 73613 - 28 Cust. #: AS11-2 Material: Basement Concrete Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%	
Lab ID #: 73613 - 29 Cust. #: AS12-1 Material: Roof Shingle Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%	

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.



Project: 1222 W. Ottawa St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73613

 Date Collected:
 12/07/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/13/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73613 - 30 Cust. #: AS12-2 Material: Roof Shingle Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 73613 - 31 Cust. #: AS2-5 Material: Drywall Location: Appearance: beige,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73613 - 31a Cust. #: AS2-5 Material: Plaster Base Coat Location: Appearance: grey,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.

	11054 Hi Te	APEX Reso ach Drive, Whitmore Lake, MI 48189. Phone:	earch, Inc. (734) 449 - 9990, Fax (734) 449	- 9991 www.ApexMI.com	n		AP
			Date of Survey:	12/7/2017	5:00	-	Lab Use
ustomer Na	me: MANNIK	& SMITH GROUP	Project:	1222 W O	TTAWA ST		Log-In:_
ddress:	2193 Assoc	ciation Drive, Suite 200	Project #	11440002			Report:
ity, St., Zip:	Oke	mos, MI, 48864	Contact Person:	Charlie Bu	ısh		Fax:
hone:	(517) 316-9232	Fax: <u>(517) 316-9233</u>	Email:	<u>cbush@m</u>	anniksmithg	roup.com	Verbal:_
Irn Around Tim	e: (Circle One)***Terms and conditions or	1 the other side.	Circle analyses requi	red, indicate type an	d quantity		Email:
ısh	24 Hour		Asbstos:	Bulk X Wipe	Point Cour	nt PCM	
Hour	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM	l) Bulk	
her:	(Test Till Positive)		Mold:	Bulk Air	BioSI	S Tape	
nples received after 3pn ged in next morning	n		TEM:	Bulk NIOSH	EPA Level	II Other	
Lab ID	Customer ID #	Mate	rial/Location		Volume	Area	Results
ę.	AS 1-1	RM	I-1 - Plaster		Bag	HA-1	
2	AS 1-2	RM	I-1 - Plaster		Bag	HA-1	
3	AS 1-3	RM	I-1 - Plaster		Bag	HA-1	
4	AS 1-4	RM	I-9 - Plaster		Bag	HA-1	
ςÌ	AS 1-5	RM	I-8 - Plaster		Bag	HA-1	
G	AS 2-4	RM-	-9 - Drywall		Bag	HA-2	
7	AS 2-1	RM-	-1 - Drywall		Bag	HA-2	
8	AS 2-2	RM-	-3 - Drywall		Bag	HA-2	
9	AS 2-3	RM-	-1 - Drywall		Bag	HA-2	
10	AS 3-1	RM-5 -	Window glaze		Bag	HA-3	
VJ	AS 3-2	RM-5 -	Window glaze		Bag	HA-3	
()	AS 4-1	RM-:	3 - Beige tile	r	Bag	HA-4	canada ana ana ana a
elinquished By:	Tach	Received By:	tien	Relinquished By:	Tana Tana	Received By	: The St.
ata: 12/-	7/17	Time/Date: 17 7 1	7	Date:			DEC 0 8

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APEX	RESEARCH Page1 of 3
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73613	11054 Hi Te	APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com						
					12/7/2017 5:00		Lab Use Only	
Customer Name: MANNI		K & SMITH GROUP		Project:	1222 W OTTAWA ST		Log-In:	
Address:	2193 Assoc	ociation Drive, Suite 200		Project #	11440002		Report:	
City, St., Zip:	Oker	emos, MI, 48864		Contact Person:	Charlie Bush		Fax:	
Phone:	(517) 316-9232	Fax:	(517) 316-9233	Email:	<u>cbush@rr</u>	nanniksmithg	roup.com	Verbal:
Turn Around Tim	e: (Circle One)***Terms and conditions on	the other side.		Circle analyses requi	red. indicate type an	d quantity		Email:
Rush	24 Hour			(Asbstos:)	Point Count PCM			
48 Hour	72 Hour			Lead / Cad / Chrome:	Air Paint	Wipe (ASTM	l) Bulk	
Other:	TTP ves no			Mold:	Bulk Air	BioSI	S Tape	
Samples received after 3pr logged in next morning	n			TEM:	BulkNIOSH_	EPA Level	II Other	
Lab ID	Customer ID #		Mate	rial/Location		Volume	Area	Results
12	AS 4-2		RM-2	2 - Beige tile		Bag	HA-4	
.) 14	AS 5-1		RM-1 - E	Brown Linoleum		Bag	HA-5	
2(AS 5-2		RM-1 - E	Brown Linoleum		Bag	HA-5	
16	AS 6-1		RM-9	9 - White tile		Bag	HA-6	
F	AS 6-2		RM-8	3 - White tile		Bag	HA-6	
16	AS 7-1		RM	-8 - Tan tile		Bag	HA-7	
iq	AS 7-2		RM	-8 - Tan tile		Bag	HA-7	
20	AS 8-1	-	RM-10 -	Beige Linoleum		Bag	HA-8	
21	AS 8-2		RM-10 -	Beige Linoleum		Bag	HA-8	
22	AS 9-1		RM-8 - Mul	ticolored Linoleum		Bag	HA-9	
23	AS 9-2		RM-8 - Mul	ticolored Linoleum		Bag	HA-9	
24	AS 10-1		RM-10	0 - Vent wrap		Bag	HA-10	warman unterstate attillity approxime
دelinquished By:	Cal	Į	Received By:	Hiv	Relinquished By:		Received By	REPE
Date: $12/2$	7/17	1	Fime/Date:17]	7 (17	Date:		Time/Date:	DEC 0 8 2017

APEX RESEAR Page2 of 3
7361	2 11054 Ні Тес	APEX Res ch Drive, Whitmore Lake, MI 48189. Phone:	earch, Inc. (734) 449 - 9990, Fax (734) 449	9 - 9991 www.ApexMI.cc	m		
Customer Na Address: City, St., Zip: Phone: Turn Around Tir Rush	Ame: MANNIK 2193 Assoc Oker (517) 316-9232 ne: (circle one)Terms and conditions on 24 Hour	& SMITH GROUP iation Drive, Suite 200 mos, MI, 48864 Fax: (517) 316-9233 the other side.	Date of Survey: Project: Project # Contact Person: Email: Circle analyses requi	2 - 9991 www.apexMl.cc 12/7/2017 1222 W C 11440002 Charlie Bu cbush@m fred, indicate type ar Bulk X Wipe	m 2 5:00 DTTAWA ST ush nanniksmithgr nd quantity Point Coun	<u>oup.com</u>	Lab Use On Log-In: Report: Fax: Verbal: Email:
48 Hour Other: Samples received after 3p logged in next morning	TTP ves no (Test Till Positive)		Lead / Cad / Chrome: Mold: TEM:	Air Paint Bulk Air Bulk NIOSH	Wipe (ASTM BioSIS EPA Level I) Bulk S Tape I Other	s
Lab ID	Customer ID #	Mate	rial/Location		Volume	Area	Results
25	AS 10-2	RM-3	3 - Vent wrap		Bag	HA-10	
26	AS 10-3	RM-4	RM-4 - Vent wrap			HA-10	
27	AS 11-1	Basement -	Basement concrete		Bag	HA-11	
29	AS 11-2	Basement -	Basement concrete		Bag	HA-11	
29	AS 12-1	Roof -	Roof Shingle		Bag	HA-12	
30	AS 12-2	Roof -	Roof Shingle		Bag	HA-12	
31	AS 2-5	D)rywall			HA-2	
Relinquished By	$\frac{2}{2/17}$	Received By: Time/Date:2 (7-1)	17-	Relinquished By: _ Date:		_ Received B Time/Date:	y: <u>DEC 0 8 201</u>

Page3 of	3	
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NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF IN	TENT TO RENOVATE/DEMOLISH
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUA (MDEQ) AIR QUALITY DIVISION NESHAP, 40 CFR Part 61, Subpart M	ALITY 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.	3. ABATEMENT CONTRACTOR: Internal Project #:
Calculate LARA Asbestos Project Fee: (1% Proje	ct Fee)
Total Project Cost: x 0.01 =	5. FACILITY OWNER: ("Facility" includes Bridges)
Type of Contractor: License No.:	Name:
Licensing Authority:	
1. NOTIFICATION:	E-mail:
	Contact: Dhone:

Contact:

6. FACILITY DESCRIPTION:

Location Address/Description: _____

Specific Location(s) in Facility:

City/State/Zip: _____

Gov't Agency Ordering Demo:

Name/Title of Person Signing Order:

Facility Name:

7. DISPOSAL SITE:

Name

Phone:

notification.

Date of Order:

Phone:

If Apt. # of units:

County: _____ Nearest Crossroad: _____

City/Twp. _____ State: _____ Zip Code: _____

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____

Age: _____ Present Use: _____ Prior Use: _____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of

"Ordered Demolition.") A copy of the official Order must accompany this

Date Ordered to Begin:

Date of Revision(s):

Notification Type: Original Revised Canceled Annual

START DATE

Mark appropriate boxes: (both DEQ and LARA may app	oly):
DEQ (NESHAP) [260 In. ft./160 sq. ft. or more is thresho	old]

Planned Renovation – 10 working days notice
Emergency Renovation
Scheduled Demolition – 10 working days notice

_	Interational Duma	40 mentalment der in estime
	Intentional Burn –	TU working days notice
	Internal Barn	no montang dayo notico

□ 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:

* Renovation			Location Address:	
+Asb. Removal			City/State/Zip:	
+Demolition:			8. WASTE TRANSPORTER 1:	WASTE TR
Encapsulation:			Name:	
Work Schedule:	Please indicate the anticip	pated days of the week and	Address:	

END DATE

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

> Work Hours Days of the Week

Asb.	Removal:
ASD.	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.

It <u>must</u> be removed prior to demolition.)

10. IS ASBESTOS PRESENT?

IS ASBESTOS PRESENT?	🗌 Yes	🗌 No	To be remove	d prior to demolitio	n			
Estimate the amount of asbestos:	Include F	RACM	RACM to be	RACM to be	Non-friabl removed pi	e ACM <u>not</u> ior to demo.		
(Regulated Asbestos Containing Mat	terial) to l	be	Removed	Encapsulated	Category I	Category II	Units of I	Measure
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						🗌 Ln. Ft.	🗌 Ln. M.	
						🗌 Sq. Ft.	🗌 Sq. M.	
to demolition. (NOTE: In a demolition	n, cemer	ntatious					🗌 Cu. Ft.*	🗌 Cu.M.*
ACM <u>cannot</u> remain in a structure, as it is likely to become regulated in the demolition/handling process.			*) (aluma (aubia ft	(motoro) obouid by		nabla ta maaau	na hu linaar/agu	

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

WASTE TRANSPORTER 2:

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continue

11.	PROJECT DESCRIPTION: Complete A) for Renovation (asbestos remo	val/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) Tunnel (s) Tunnel (s)	Encapsulation (for LARA): Mark surfaces/types to be encapsulated: Piping Fittings Boiler(s) Tank(s) Beam(s) Duct(s) Tunnel(s) Ceiling Tile(Other (describe)	: (s)				
	Method of removal: Describe <u>how</u> 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, et	c., and indicate if complete or partial. If partial, describe which part of facility					
	bridge, etc., will be demolished:						
10		pantrale used to prevent visible opissions before during and offer removal op					
12.	until proper disposal:	controls used to prevent visible emissions before, during, and alter removal, an					
13.	UNEXPECTED ASBESTOS: Describe the steps you intend to follow in becomes friable (crumbled, pulverized, reduced to powder, etc.) and there	h the event that unexpected RACM is found or previously non-friable asbesto fore regulated:	os				
	· · · · · ·		_				
14.	PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS analytical sampling was used, describe method of analysis. (The determine a renovation/demolition notification.):	A) Indicate how you determined whether or not asbestos is in the facility. nation of the presence or absence of asbestos must be made prior to submittin	lf ng				
	B) Name, address, and phone number of company performing asbestos s	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 upsafe conditions, and/or would cause equinment damage and/or an upreasonable financial burden.						
			_				
16.	I certify that an individual trained in the provisions of 40 CFR Part 61, S RACM above the threshold and/or during an ordered demolition. Evide inspection at the renovation or demolition site.	Subpart M, will be on-site during the renovation and during demolition involvir ence that this person has completed the required training will be available f	ng for				
	Signature of Owner or Abatement Contractor Date	Signature of Owner or Demolition Contractor Date					
17.	Signature Requirements for Projects with Negative Prese Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance ai linear feet/15 square feet or more of friable material which is perform have been advised by the contractor of my responsibility under Act of	ssure Enclosures: (required by LARA) ir monitoring is required for any asbestos abatement project involving a med within a negative pressure enclosure. <i>I (the building owner or lesse</i> 135 to have clearance air monitoring performed on this project.	10 ⊯)				
	Signature of Building Owner or Lessee Date NOTE: It is not mandatory that a signed copy be sent to LARA unless reques and made part of your records before the project begins.	Signature of Asbestos Abatement Contractor Representative Date ted. For affected projects, this section of the notification form must be completed, signed,					
18.	I certify that the above information is correct:						
	Printed Name of Owner/Operator Date	Signature of Owner/Operator Date					
MA	ILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine v	which agency requirements/regulations are applicable to your project.)					
For mail <u>http</u>	Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), to address below. For more info visit: ://www.michigan.gov/asbestos	For NESHAP Demolitions/Renovations , 40 CFR , Part 61 , Subpart I please use the e-submittal process. For more information vis <u>http://www.michigan.gov/air</u> , under Air Links click on Asbestos NESHA Program.	M, sit ∖P				
MIC LAF P.O Lan	VSHA Asbestos Program A, CSHD . Box 30671 sing, MI 48909-8171	NESHAP Asbestos Program DEQ, AQD P.O. Box 30260 Lansing, MI 48909-7760					
517	636 4551 (office) 517 322 1713 (fax)	517.284.6777 (Office)					



December 29, 2017

Ms. Roxanne Case Grant Manager Ingham County Land Bank 3024 Turner Street Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey 1220 W Ottawa, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited predemolition regulated materials survey (RMS) performed at 1220 W Ottawa, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information				
Property Address	1220 W Ottawa, Lansing, MI			
Parcel #	33-01-01-17-258-091			
No. Stories	2			
Square Footage (approx.)	1,500 SF			
Siding	Vinyl			
Basement	Yes			
Garage	Yes			



Asbestos Containing Material							
Location	Asbestos	Quantity					
RM-9	Green linoleum	Non friable	20% Chrysotile	70 SF			
RM-7	Yellow linoleum	Non friable	20% Chrysotile	100 SF			
RM-7, RM-10, Basement	Vent wrap	Friable	30% Chrysotile	300 SF			

Universal Waste Inventory					
Location	Material Description	Quantity			
RM-1, Basement	Tire	4			
RM-2, RM-10	Thermostat	3			
RM-10, Basement	Smoke detector	4			



Hazardous Materials					
Location	Material Description	Quantity			
RM-10, RM-7	1 Gallon paint can	3			
Garage	Car	1			

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 7, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (SHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I nonfriable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number

A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - o IATA International Air Transport Association; Dangerous Goods Regulations;
 - o ICAO International Civil Aviation Organization; Technical Instructions; and
 - AF Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log.* The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified eighteen (18) homogenous materials that were suspect as asbestos containing during the ACM survey. Forty-four (44) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found three (3)

materials to contain greater than 1% asbestos (samples 8-1, 9-1, and 15-1). The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the eighteen (18) homogenous materials collected as part of the ACM survey, three (3) materials contained asbestos greater than 1% (samples 8-1, 9-1, and 15-1) with these three (3) materials (samples 8-1, 9-1, and 15-1) being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100. Sincerely,

14

Kory McKay Environmental Scientist Accreditation Number A47903

-LP

Charlie Bush Senior Project Manager Accreditation Number A34293

Attachments





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721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com





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721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com





TABLE 1 Asbestos Sampling Results

Client		Ingham Count	ty Land B	ank Authority						
Survey Loca	ation	1220 W Ottaw	<u>/a St.</u>							
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-2	1	AS 1-2	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-4	1	AS 1-3	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-10	2	AS 1-4	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-8	2	AS 1-5	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-1	1	AS 2-1	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-2	1	AS 2-2	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-3	1	AS 2-3	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-3	1	AS 2-4	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-10	2	AS 2-5	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-2	1	AS 3-1	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	165 SF
RM-4	1	AS 3-2	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	165 SF
RM-5	1	AS 4-1	HA-4	Brown Linoleum	Non-Friable	Good	Miscellaneous	No	No	75 SF
RM-5	1	AS 4-2	HA-4	Brown Linoleum	Non-Friable	Good	Miscellaneous	No	No	75 SF
RM-3	1	AS 5-1	HA-5	Beige tile	Non-Friable	Good	Miscellaneous	No	No	90 SF

TABLE 1 Asbestos Sampling Results

Client		Ingham Count	y Land Ba	ank Authority						
Survey Loca	ation	1220 W Ottaw December 7	<u>/a St.</u> 2017							
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-3	1	AS 5-2	HA-5	Beige tile	Non-Friable	Good	Miscellaneous	No	No	90 SF
RM-2	1	AS 6-1	HA-6	Ceiling tile	Non-Friable	Good	Miscellaneous	No	No	450 SF
RM-2	1	AS 6-2	HA-6	Ceiling tile	Non-Friable	Good	Miscellaneous	No	No	450 SF
RM-1	1	AS 7-1	HA-7	White linoleum on stairs	Non-Friable	Good	Miscellaneous	No	No	30 SF
RM-1	1	AS 7-2	HA-7	White linoleum on stairs	Non-Friable	Good	Miscellaneous	No	No	30 SF
RM-9	2	AS 8-1	HA-8	Green linoleum	Non-Friable	Good	Miscellaneous	Yes	20% Chrysotile	70 SF
RM-9	2	AS 8-2	HA-8	Green linoleum	Non-Friable	Good	Miscellaneous	Yes	NA	70 SF
RM-7	2	AS 9-1	HA-9	Yellow Linoleum	Non-Friable	Good	Miscellaneous	Yes	20% Chrysotile	100 SF
RM-7	2	AS 9-2	HA-9	Yellow Linoleum	Non-Friable	Good	Miscellaneous	Yes	NA	100 SF
RM-7	2	AS 10-1	HA-10	Brown flooring	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-7	2	AS 10-2	HA-10	Brown flooring	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-7	2	AS 11-1	HA-11	Flooring paper	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-7	2	AS 11-2	HA-11	Flooring paper	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-7	2	AS 12-1	HA-12	Textured ceiling	Friable	Good	Miscellaneous	No	No	550 SF
RM-7	2	AS 12-2	HA-12	Textured ceiling	Friable	Good	Miscellaneous	No	No	550 SF
RM-7	2	AS 12-3	HA-12	Textured ceiling	Friable	Good	Miscellaneous	No	No	550 SF
RM-8	2	AS 13-1	HA-13	Tan linoleum	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-8	2	AS 13-2	HA-13	Tan linoleum	Non-Friable	Good	Miscellaneous	No	No	100 SF

TABLE 1 Asbestos Sampling Results

Client		Ingham Count	ty Land B	ank Authority						
Survey Loc	Location 1220 W Ottawa St.									
Survey D	ate	December /, 201 /								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-6	2	AS 14-1	HA-14	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-6	2	AS 14-2	HA-14	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-10	2	AS 15-1	HA-15	Vent wrap	Friable	Good	Miscellaneous	Yes	30% Chrysotile	300 SF
RM-3	1	AS 15-2	HA-15	Vent wrap	Friable	Good	Miscellaneous	Yes	30% Chrysotile	300 SF
RM-3	1	AS 15-3	HA-15	Vent wrap	Friable	Good	Miscellaneous	Yes	30% Chrysotile	300 SF
Roof	E	AS 16-1	HA-16	Shingles	Non-Friable	Good	Miscellaneous	No	No	620 SF
Roof	E	AS 16-2	HA-16	Shingles	Non-Friable	Good	Miscellaneous	No	No	620 SF
Basement	В	AS 17-1	HA-17	Basement cement	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	В	AS 17-2	HA-17	Basement cement	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	В	AS 18-1	HA-18	Faux brick Linoleum	Non-Friable	Good	Miscellaneous	No	No	20 SF
Basement	В	AS 18-2	HA-18	Faux brick Linoleum	Non-Friable	Good	Miscellaneous	No	No	20 SF

Table 2Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory1220 W OttawaLansing, Ingham County, Michigan

Universal Waste Inventory					
Location	Type of Waste	Approximate Quantity			
RM-1,Basement	Tires	4			
RM-2,RM-10	Thermostat	3			
RM-10,Basement	Smoke detector	4			
Hazardous Materials Inventory					
Location	Type of Waste	Approximate Quantity			
RM-10, RM-7	1 Gallon paint can	3			
Garage	Car	1			
Other Regulated Materials Inventory					
Location	Type of Waste	Approximate Quantity			
-	-	-			



Ingham County Land Bank 1220 West Ottawa St, Lansing, MI Photographs taken by: Kory McKay on 12/07/2017

Property Photos









Ingham County Land Bank 1220 West Ottawa St, Lansing, MI Photographs taken by: Kory McKay on 12/07/2017

Sample Photos



Ingham County Land Bank 1220 West Ottawa St, Lansing, MI Photographs taken by: Kory McKay on 12/07/2017

Sample Photos













REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

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Regulated Materials Survey Limitations.Docx

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.



ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Project: 1220 W. Ottawa St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73612

 Date Collected:
 12/07/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/13/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 01 Cust. #: AS1-1 Material: Plaster Texture Location: Room 1 Appearance: beige,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 73612 - 01a Cust. #: AS1-1 Material: Plaster Base Coat Location: Room 1 Appearance: beige,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73612 - 02 Cust. #: AS1-2 Material: Plaster Base Coat Location: Room 2 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

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.



Project: 1220 W. Ottawa St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73612

 Date Collected:
 12/07/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/13/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 03 Cust. #: AS1-3 Material: Plaster Base Coat Location: Room 4 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73612 - 04 Cust. #: AS1-4 Material: Plaster Texture Location: Room 10 Appearance: beige,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 73612 - 04a Cust. #: AS1-4 Material: Plaster Base Coat Location: Room 10 Appearance: beige,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

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.



Project: 1220 W. Ottawa St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73612

 Date Collected:
 12/07/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/13/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 05 Cust. #: AS1-5 Material: Plaster Texture Location: Room 8 Appearance: beige,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 73612 - 05a Cust. #: AS1-5 Material: Plaster Base Coat Location: Room 8 Appearance: beige,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73612 - 06 Cust. #: AS2-5 Material: Drywall Location: Room 10 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	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

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.



Project: 1220 W. Ottawa St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

ARI Report # 17-73612 Date Collected: 12/07/17 Date Received: 12/08/17 Date Analyzed: 12/13/17 Date Reported: 12/13/17

Lab ID #: 73612 - 07Asbestos Present: NOCellulose - 2	
Cust. #: AS2-1 No Asbestos Observed Other - 80% Material: Drywall Location: Room 1 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1 Other - 80%	20%
Lab ID #: 73612 - 08Asbestos Present: NOCellulose -Cust. #: AS2-2No Asbestos ObservedFiberglass -Material: DrywallOther - 83%Location: Room 2Appearance: beige,fibrous,nonhomogenousLayer: 1 of 1	15% 2%
Lab ID #: 73612 - 09Asbestos Present: NOCellulose -Cust. #: AS2-3No Asbestos ObservedFiberglass -Material: DrywallOther - 83%Location: Room 3Appearance: beige,fibrous,nonhomogenousLayer: 1 of 1	15% 2%

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.



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 ARI Report #
 17-73612

 Date Collected:
 12/07/17

 Date Received:
 12/08/17

 Date Analyzed:
 12/13/17

 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 10 Cust. #: AS2-4 Material: Drywall Location: Room 3 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73612 - 10a Cust. #: AS2-4 Material: Plaster Base Coat Location: Room 3 Appearance: beige,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73612 - 11 Cust. #: AS3-1 Material: Window Glaze Location: Room 2 Appearance: beige,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 #
 17-73612

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 Date Analyzed:
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 Date Reported:
 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 12 Cust. #: AS3-2 Material: Window Glaze Location: Room 4 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73612 - 13 Cust. #: AS4-1 Material: Brown Linoleum Location: Room 5 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73612 - 14 Cust. #: AS4-2 Material: Brown Linoleum Location: Room 5 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 15 Cust. #: AS5-1 Material: Beige Tile Location: Room 3 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73612 - 15a Cust. #: AS5-1 Material: Glue Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73612 - 16 Cust. #: AS5-2 Material: Beige Tile Location: Room 3 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 16a Cust. #: AS5-2 Material: Glue Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73612 - 17 Cust. #: AS6-1 Material: Ceiling Tile/Glue Pod Location: Room 2 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73612 - 18 Cust. #: AS6-2 Material: Ceiling Tile/Glue Pod Location: Room 2 Appearance: brown,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 #: 73612 - 19 Cust. #: AS7-1 Material: White Linoleum on Stairs Location: Room 1 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73612 - 20 Cust. #: AS7-2 Material: White Linoleum on Stairs Location: Room 1 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73612 - 21 Cust. #: AS8-1 Material: Green Linoleum Location: Room 9 Appearance: green,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 20%	Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 22 Cust. #: AS8-2 Matarial: Green Linelaum	Asbestos Present:	
Location: Room 9 Appearance: Layer: of	NOT ANALYZED	
Lab ID #: 73612 - 23 Cust. #: AS9-1 Material: Yellow Linoleum Location: Room 7 Appearance: yellow,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 20%	Other - 80%
Lab ID #: 73612 - 24 Cust. #: AS9-2 Material: Yellow Linoleum	Asbestos Present:	
Location: Room 7 Appearance: Layer: of	NOT ANALYZED	

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

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 25 Cust. #: AS10-1 Material: Brown Flooring Location: Room 7 Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%
Lab ID #: 73612 - 26 Cust. #: AS10-2 Material: Brown Flooring Location: Room 7 Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%
Lab ID #: 73612 - 27 Cust. #: AS11-1 Material: Flooring Paper Location: Room 7 Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%

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

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 28 Cust. #: AS11-2 Material: Flooring Paper Location: Room 7 Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 73612 - 29 Cust. #: AS12-1 Material: Textured Ceiling Location: Room 7 Appearance: beige,nonfibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73612 - 30 Cust. #: AS12-2 Material: Textured Ceiling Location: Room 7 Appearance: beige,nonfibrous,nonhomogenous 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 #: 73612 - 31 Cust. #: AS12-3 Material: Textured Ceiling Location: Room 7 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73612 - 32 Cust. #: AS13-1 Material: Tan Linoleum Location: Room 8 Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73612 - 33 Cust. #: AS13-2 Material: Tan Linoleum Location: Room 8 Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 34 Cust. #: AS14-1 Material: Faux Wood Linoleum Location: Room 6 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73612 - 35 Cust. #: AS14-2 Material: Faux Wood Linoleum Location: Room 6 Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73612 - 36 Cust. #: AS15-1 Material: Vent Wrap Location: Room 10 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 30%	Other - 70%

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

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 37 Cust. #: AS16-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 73612 - 38 Cust. #: AS16-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 73612 - 39 Cust. #: AS15-2 Material: Vent Wrap	Asbestos Present:	
Appearance: Layer: of	NOT ANALIZED	

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

Robert T. Letarte Jr., Laboratory Director

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 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 40 Cust. #: AS15-3 Material: Vent Wran	Asbestos Present:	
Location: Room 3 Appearance: Layer: of	NOT ANALYZED	
Lab ID #: 73612 - 41 Cust. #: AS17-1 Material: Basement Cement Location: Basement Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73612 - 42 Cust. #: AS17-2 Material: Basement Cement Location: Basement Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73612 - 43 Cust. #: AS18-1 Material: Faux Brick Linoleum Location: Basement Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Synthetic - 10% Other - 80%
Lab ID #: 73612 - 44 Cust. #: AS18-2 Material: Faux Brick Linoleum Location: Basement Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Synthetic - 10% Other - 80%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
For Layered Samples, each component will be analyzed and reported separately.		

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Robert T. Letarte Jr., Laboratory Director

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Customer Name	e: MANNIK	& SMITH GROUP	Project:	1220 W O	TTAWA ST		Log-lı
Address:	2193 Assoc	iation Drive, Suite 200	Project #	11440002			Repor
City, St., Zip:	Oke	mos, MI, 48864	Contact Person:	Charlie Bu	ısh		Fax: _
Phone:	(517) 316-9232	Fax: (517) 316-9233	Email:	<u>cbush@m</u>	anniksmithgr	roup.com	Verba
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4	AS 1-4	RM	-10 - Plaster		Bag	HA-1	
S	AS 1-5	RM	1-8 - Plaster		Bag	HA-1	
£	AS 2-5	RM-10 - Drywall			Bag	HA-2	
7	AS 2-1	RM-1 - Drywall			Bag	HA-2	
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9	AS 2-3	RM-3 - Drywall			Bag	HA-2	
10	AS 2-4	RM-3 - Drywall Bag			Bag	HA-2	
	AS 3-1	RM-2	- Window glaze		Bag	HA-3	
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			Date of Survey:	12/7/20	017 5:00		Lab Use
Customer Name	MANNIK	& SMITH GROUP	Project:	1220 V	V OTTAWA ST		Log-In:
Address:	2193 Assoc	ation Drive, Suite 200	Project #	14400	02		Report: _
City, St., Zip:	Oke	mos, MI, 48864	Contact Person:	Charlie	Bush		Fax:
Phone:	(517) 316-9232	Fax: (517) 316-9233	Email:	cbush(@manniksmithgr	oup.com	Verbal:
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imples received after 3pm gged in next morning			TEM:	BulkNIO	SH EPA Level I	I Other	
Lab ID	Customer ID #	Mate	erial/Location	·······.	Volume	Area	Results
-13	AS 4-1	RM-5 - I	Brown Linoleum		Bag	HA-4	
14	AS 4-2	RM-5 - J	Brown Linoleum		Bag	HA-4	
19	AS 5-1	RM-	3 - Beige tile		Bag	HA-5	
16	AS 5-2	RM-	3 - Beige tile		Bag	HA-5	
17	AS 6-1	RM-2	2 - Ceiling tile		Bag	HA-6	
ĸ	AS 6-2	RM-2 - Ceiling tile			Bag	HA-6	
19	AS 7-1	RM-1 - White linoleum on stairs			Bag	HA-7	
20	AS 7-2	RM-1 - White linoleum on stairs			Bag	HA-7	
21	AS 8-1	RM-9 - Green linoleum			Bag	HA-8	
22	AS 8-2	RM-9 - Green linoleum			Bag	HA-8	
22	AS 9-1	RM-7 - Yellow Linoleum		Bag	HA-9		
24	AS 9-2	RM-7 - 1	Yellow Linoleum		Bag	HA-9	
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City, St., Zip:	Okei	mos, MI,	48864	Contact Person:	Charlie B	ush		Fax:
Phone:	(517) 316-9232	Fax:	(517) 316-9233	Email:	<u>cbush@n</u>	nanniksmithgr	oup.com	Verbal:
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Lab ID	Customer ID #		Mate	erial/Location		Volume	Area	Results
25	AS 10-1		RM-7 -	Brown flooring		Bag	HA-10	
26	AS 10-2		RM-7 -	Brown flooring		Bag	HA-10	
27	AS 11-1		RM-7 -	Flooring paper		Bag	HA-11	
28	AS 11-2		RM-7 -	Flooring paper		Bag	HA-11	
29	AS 12-1		RM-7 -	Textured ceiling		Bag	HA-12	
20	AS 12-2		RM-7 -	Textured ceiling		Bag	HA-12	
31	AS 12-3		RM-7 - 1	Textured ceiling		Bag	HA-12	
32	AS 13-1		RM-8 - Tan linoleum Bag HA-13				HA-13	
33	AS 13-2		RM-8 - Tan linoleum Bag HA-13					
34	AS 14-1	RM-6 - Faux wood Linoleum Bag HA-14						
35	AS 14-2		RM-6 - Fa	ux wood Linoleum		Bag	HA-14	
36	AS 15-1		RM-1	0 - Vent wrap		Bag	HA-15	RECEIVE
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Date:/2/	TIT]	Time/Date: 12	7-17	Date:		Time/Date:	DEC 0 8 2017

					······································			
73612	11054 Hi Te	ch Drive, Whi	APEX Res tmore Lake, MI 48189. Phone:	earch, Inc. (734) 449 - 9990, Fax (734) 449	- 9991 www.ApexMI.	com		APEX
		_		Date of Survey:	12/7/201	7 5:00		Lab Use Only
Customer Na	me: MANNIK	: & SMI	TH GROUP	Project:	1220 W	OTTAWA ST		Log-In:
ddress:	2193 Asso	ciation D	rive, Suite 200	Project #	1144000	2		Report:
ity, St., Zip:	Oke	mos, MI,	48864	Contact Person:	Charlie E	Bush		Fax:
hone:	(517) 316-9232	Fax:	(517) 316-9233	Email:	<u>cbush@</u>	manniksmithgr	oup.com	Verbal:
rn Around Tim	e: (Circle one)***Terms and conditions or	the other side.		Circle analyses requi	red, indicate type a	and quantity		Email:
ısh	24 Hour			Asbstos:	Bulk X Wip	e Point Coun	t PCM	
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nples received after 3pm	(Test Till Positive)			Mold:	Bulk Ai	rBioSIS	5 Tape	
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Lab ID	Customer ID #		Mate	erial/Location		Volume	Area	Results
37	AS 16-1		Roc	of - Shingles		Bag	HA-16	
26	AS 16-2		Roc	of - Shingles		Bag	HA-16	
39	AS 15-2		RM-3	3 - Vent wrap		Bag	HA-15	
40	AS 15-3		RM-3	3 - Vent wrap		Bag	HA-15	
41	AS 17-1		Basement -	- Basement cement		Bag	HA-17	
i G	AS 17-2	Basement - Basement cement				Bag	HA-17	
43	AS 18-1		Basement - I	Faux brick Linoleum		Bag	HA-18	
LYLY	AS 18-2	Basement - Faux brick Linoleum				Bag	ΗΔ_18	
						<u>_</u>		
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NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF IN	TENT TO RENOVATE/DEMOLISH
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUA (MDEQ) AIR QUALITY DIVISION NESHAP, 40 CFR Part 61, Subpart M	ALITY 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.	3. ABATEMENT CONTRACTOR: Internal Project #:
Calculate LARA Asbestos Project Fee: (1% Proje	ct Fee)
Total Project Cost: x 0.01 =	5. FACILITY OWNER: ("Facility" includes Bridges)
Type of Contractor: License No.:	Name:
Licensing Authority:	
1. NOTIFICATION:	E-mail:
	Contact: Dhone:

Contact:

6. FACILITY DESCRIPTION:

Location Address/Description: _____

Specific Location(s) in Facility:

City/State/Zip: _____

Gov't Agency Ordering Demo:

Name/Title of Person Signing Order:

Facility Name:

7. DISPOSAL SITE:

Name

Phone:

notification.

Date of Order:

Phone:

If Apt. # of units:

County: _____ Nearest Crossroad: _____

City/Twp. _____ State: _____ Zip Code: _____

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____

Age: _____ Present Use: _____ Prior Use: _____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of

"Ordered Demolition.") A copy of the official Order must accompany this

Date Ordered to Begin:

Date of Revision(s):

Notification Type: Original Revised Canceled Annual

START DATE

Mark appropriate boxes: (both DEQ and LARA may app	oly):
DEQ (NESHAP) [260 In. ft./160 sq. ft. or more is thresho	old]

Planned Renovation – 10 working days notice
Emergency Renovation
Scheduled Demolition – 10 working days notice

Interational Duma	40 mentalment der in esting
 Intentional Burn –	TO WORKING DAVS NOTICE
Internal Barn	no montang dayo notico

□ 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:

* Renovation			Location Address:	
+Asb. Removal			City/State/Zip:	
+Demolition:			8. WASTE TRANSPORTER 1:	WASTE TR
Encapsulation:			Name:	
Work Schedule:	Please indicate the anticip	pated days of the week and	Address:	

END DATE

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

> Work Hours Days of the Week

Asb.	Removal:
ASD.	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.

It <u>must</u> be removed prior to demolition.)

10. IS ASBESTOS PRESENT?

IS ASBESTOS PRESENT?	🗌 Yes	🗌 No	To be remove	d prior to demolitio	n			
Estimate the amount of asbestos:	Include F	RACM	RACM to be	RACM to be	Non-friabl removed pi	e ACM <u>not</u> ior to demo.		
(Regulated Asbestos Containing Mat	terial) to l	be	Removed	Encapsulated	Category I	Category II	Units of I	Measure
removed, encapsulated, etc. Also inc	clude the	amount					🗌 Ln. Ft.	🗌 Ln. M.
I and/or Category II ACM that will no	on-friable ot be rem	e Category loved prior					🗌 Sq. Ft.	🗌 Sq. M.
to demolition. (NOTE: In a demolition	n, cemer	ntatious					🗌 Cu. Ft.*	🗌 Cu.M.*
ACM <u>cannot</u> remain in a structure, as become regulated in the demolition/h	s it is like handling i	ly to process.	*) (aluma (aubia ft	(motoro) obouid by		nabla ta maaau	na hu linaar/agu	

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

WASTE TRANSPORTER 2:

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continue

11.	PROJECT DESCRIPTION: Complete A) for Renovation (asbestos remo	val/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) Tunnel (s) Tunnel (s)	Encapsulation (for LARA): Mark surfaces/types to be encapsulated: Piping Fittings Boiler(s) Tank(s) Beam(s) Duct(s) Tunnel(s) Ceiling Tile(Other (describe)	: (s)		
	Method of removal: Describe <u>how</u> 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, et	c., and indicate if complete or partial. If partial, describe which part of facility			
	bridge, etc., will be demolished:				
10		pantrale used to prevent visible opissions before during and offer removal op			
12.	until proper disposal:	controls used to prevent visible emissions before, during, and alter removal, an			
13.	UNEXPECTED ASBESTOS: Describe the steps you intend to follow in becomes friable (crumbled, pulverized, reduced to powder, etc.) and there	h the event that unexpected RACM is found or previously non-friable asbesto fore regulated:	os		
	· · · · · ·		_		
14.	PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS analytical sampling was used, describe method of analysis. (The determine a renovation/demolition notification.):	A) Indicate how you determined whether or not asbestos is in the facility. nation of the presence or absence of asbestos must be made prior to submittin	lf ng		
	B) Name, address, and phone number of company performing asbestos s	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, S RACM above the threshold and/or during an ordered demolition. Evide inspection at the renovation or demolition site.	Subpart M, will be on-site during the renovation and during demolition involvir ence that this person has completed the required training will be available f	ng for		
	Signature of Owner or Abatement Contractor Date	Signature of Owner or Demolition Contractor Date			
17.	Signature Requirements for Projects with Negative Prese Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance ai linear feet/15 square feet or more of friable material which is perform have been advised by the contractor of my responsibility under Act of	ssure Enclosures: (required by LARA) ir monitoring is required for any asbestos abatement project involving a med within a negative pressure enclosure. <i>I (the building owner or lesse</i> 135 to have clearance air monitoring performed on this project.	10 ⊯)		
	Signature of Building Owner or Lessee Date NOTE: It is not mandatory that a signed copy be sent to LARA unless reques and made part of your records before the project begins.	Signature of Asbestos Abatement Contractor Representative Date ted. For affected projects, this section of the notification form must be completed, signed,			
18.	I certify that the above information is correct:				
	Printed Name of Owner/Operator Date	Signature of Owner/Operator Date			
MA	ILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine v	which agency requirements/regulations are applicable to your project.)			
For mail <u>http</u>	Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), to address below. For more info visit: ://www.michigan.gov/asbestos	For NESHAP Demolitions/Renovations , 40 CFR , Part 61 , Subpart I please use the e-submittal process. For more information vis <u>http://www.michigan.gov/air</u> , under Air Links click on Asbestos NESHA Program.	M, sit ∖P		
MIC LAF P.O Lan	VSHA Asbestos Program A, CSHD . Box 30671 sing, MI 48909-8171	NESHAP Asbestos Program DEQ, AQD P.O. Box 30260 Lansing, MI 48909-7760			
517	517.636.4551 (office), 517.322.1713 (fax)				



January 2, 2018

Ms. Roxanne Case Grant Manager Ingham County Land Bank 3024 Turner Street Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey 403 Beaver St, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited predemolition regulated materials survey (RMS) performed at 403 Beaver St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information				
Property Address	403 Beaver St, Lansing, MI			
Parcel #	33-01-01-09-276-043			
No. Stories	2			
Square Footage (approx.)	1,200 SF			
Siding	Wood			
Basement	Yes			
Garage	No			



Asbestos Containing Material						
Location	Material Group	Friable/Non Friable	Asbestos	Quantity		
RM-1, RM-2, RM-3	Vent wrap	Friable	45% Chrysotile	180 SF		
RM-1, RM-2, RM-3, RM-6, RM-7, RM-9 (including ceilings)	Plaster	Non friable	2% Chrysotile	2,000 SF		
RM-3	Sink under coating	Non friable	2% Chrysotile	4 SF		
Basement	Stack cement	Non friable	2% Chrysotile	4 SF		

Hazardous Materials				
Location	Material Description	Quantity		
Basement	1 Gallon paint can	5		

TECHNICAL SKILL. CREATIVE SPIRIT.

Universal Waste Inventory				
Location	Material Description	Quantity		
RM-1, RM-2	Smoke detector	2		
RM-1, RM-4, RM-7	Television	3		
RM-2, RM-4	CFL bulb	2		
RM-6	Computer	1		

Other Regulated Materials Inventory								
Location Material Description Quantity								
RM-2, RM-7	Air-conditioning unit	2						

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 13, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (SHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I nonfriable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;

- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - o IATA International Air Transport Association; Dangerous Goods Regulations;
 - o ICAO International Civil Aviation Organization; Technical Instructions; and
 - AF Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) List of Hazardous Substances and Reportable Quantities, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log.* The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified twenty-two (22) homogenous materials that were suspect as asbestos containing during the ACM survey. Forty-eight (48) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found four (4) homogenous materials to contain greater than 1% asbestos (samples 2-1, 5-1, 19-1 and 22-1). The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the twenty-two (22) homogenous materials collected as part of the ACM survey, four (4) homogenous materials (plaster, vent wrap, stack cement and sink under coating) contained asbestos greater than 1% (samples 2-1, 5-1, 19-1 and 22-1) with these four (4) materials (samples 2-1, 5-1, 19-1, and 22-1) being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,

Kory McKay Environmental Scientist Accreditation Number A47903

Attachments

 $\sim L \rho$

Charlie Bush Senior Project Manager Accreditation Number A34293





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721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com





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Plaste

Plaster Walls and Ceilings (2,000 SF)

Stack Cement (4 SF)

Vent with Wrap (180 SF)



TABLE 1 Asbestos Sampling Results

Client	Client Ingham County Land Bank Authority									
Survey Location 403 Beaver St.										
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1500 SF
RM-2	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1500 SF
RM-5	1	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1500 SF
RM-3	1	AS 2-1	HA-2	Plaster	Non-Friable	Good	Miscellaneous	Yes	2% Chrysotile	2000 SF
RM-9	2	AS 2-2	HA-2	Plaster	Non-Friable	Good	Miscellaneous	Yes	NA	2000 SF
RM-9	2	AS 2-3	HA-2	Plaster	Non-Friable	Good	Miscellaneous	Yes	NA	2000 SF
RM-2	1	AS 3-1	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	160 SF
RM-2	1	AS 3-2	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	160 SF
RM-2	1	AS 4-1	HA-4	Textured ceiling	Friable	Good	Miscellaneous	No	No	400 SF
RM-2	1	AS 4-2	HA-4	Textured ceiling	Friable	Good	Miscellaneous	No	No	400 SF
RM-1	1	AS 4-3	HA-4	Textured ceiling	Friable	Good	Miscellaneous	No	No	400 SF
RM-2	1	AS 5-1	HA-5	Vent wrap	Friable	Good	Miscellaneous	Yes	45% Chrysotile	180 SF
RM-2	1	AS 5-2	HA-5	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	180 SF
RM-7	2	AS 5-3	HA-5	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	180 SF
RM-2	1	AS 6-1	HA-6	Diamond Linoleum	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-2	1	AS 6-2	HA-6	Diamond Linoleum	Non-Friable	Good	Miscellaneous	No	No	120 SF

TABLE 1 Asbestos Sampling Results

Client Ingham County Land Bank Authority										
Survey Location		403 Beaver St.								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-2	1	AS 7-1	HA-7	Red and white linoleum	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-2	1	AS 7-2	HA-7	Red and white linoleum	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-2	1	AS 8-1	HA-8	Multi colored Linoleum	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-2	1	AS 8-2	HA-8	Multi colored Linoleum	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-3	1	AS 9-1	HA-9	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	300 SF
RM-3	1	AS 9-2	HA-9	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	300 SF
RM-3	1	AS 10-1	HA-10	Tan linoleum	Non-Friable	Good	Miscellaneous	No	No	180 SF
RM-3	1	AS 10-2	HA-10	Tan linoleum	Non-Friable	Good	Miscellaneous	No	No	180 SF
RM-3	1	AS 11-1	HA-11	Spotted linoleum	Non-Friable	Good	Miscellaneous	No	No	180 SF
RM-3	1	AS 11-2	HA-11	Spotted linoleum	Non-Friable	Good	Miscellaneous	No	No	180 SF
RM-4	1	AS 12-1	HA-12	Green and brown Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-4	1	AS 12-2	HA-12	Green and brown Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-4	1	AS 13-1	HA-13	Gray Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-4	1	AS 13-2	HA-13	Gray Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-4	1	AS 14-1	HA-14	Brown Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-4	1	AS 14-2	HA-14	Brown Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF

TABLE 1 Asbestos Sampling Results

Client Ingham County Land Bank Authority											
Survey Location		403 Beaver St.									
Survey Da	rey Date December 13, 2017										
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity	
RM-7	2	AS 15-1	HA-15	White spotted Linoleum	Non-Friable	Good	Miscellaneous	No	No	80 SF	
RM-7	2	AS 15-2	HA-15	White spotted Linoleum	Non-Friable	Good	Miscellaneous	No	No	80 SF	
RM-7	2	AS 16-1	HA-16	Beige Linoleum	Non-Friable	Good	Miscellaneous	No	No	80 SF	
RM-7	2	AS 16-2	HA-16	Beige Linoleum	Non-Friable	Good	Miscellaneous	No	No	80 SF	
RM-8	2	AS 17-1	HA-17	White tile	Non-Friable	Good	Miscellaneous	No	No	40 SF	
RM-8	2	AS 17-2	HA-17	White tile	Non-Friable	Good	Miscellaneous	No	No	40 SF	
Basement	В	AS 18-1	HA-18	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF	
Basement	В	AS 18-2	HA-18	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF	
Basement	В	AS 19-1	HA-19	Stack Cement	Non-Friable	Good	Miscellaneous	Yes	2% Chrysotile	4 SF	
Basement	В	AS 19-2	HA-19	Stack Cement	Non-Friable	Good	Miscellaneous	Yes	NA	4 SF	
Roof	E	AS 20-1	HA-20	Shingles	Non-Friable	Good	Miscellaneous	No	No	420 SF	
Roof	E	AS 20-2	HA-20	Shingles	Non-Friable	Good	Miscellaneous	No	No	420 SF	
Exterior	E	AS 21-1	HA-21	Siding paper	Non-Friable	Good	Miscellaneous	No	No	2000 SF	
Exterior	E	AS 21-2	HA-21	Siding paper	Non-Friable	Good	Miscellaneous	No	No	2000 SF	
RM-3	1	AS 22-1	HA-22	Sink under coating	Non-Friable	Good	Miscellaneous	Yes	2% Chrysotile	4 SF	
RM-3	1	AS 22-2	HA-22	Sink under coating	Non-Friable	Good	Miscellaneous	Yes	NA	4 SF	

Table 2Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory403 Beaver St.Lansing, Ingham County, Michigan

Universal Waste Inventory								
Location	Approximate Quantity							
RM-1,RM-2	Smoke detector	2						
RM-1,RM-7,RM-4	Television	3						
RM-2,RM-4	CFL bulb	2						
RM-6	Computer	1						
Hazardous Materials Inventory								
Location	Type of Waste	Approximate Quantity						
Basement	1 Gallon paint can	5						
Other Regulated Materials Inventory								
Location	Type of Waste	Approximate Quantity						
RM-2,RM-7	Air-conditioning unit	2						



Ingham County Land Bank 403 Beaver St, Lansing, MI Photographs taken by: Kory McKay on 12/13/2017

Property Photos









Ingham County Land Bank 403 Beaver St, Lansing, MI Photographs taken by: Kory McKay on 12/13/2017

Sample Photos



Ingham County Land Bank 403 Beaver St, Lansing, MI Photographs taken by: Kory McKay on 12/13/2017

Sample Photos







REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

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Regulated Materials Survey Limitations.Docx

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.



ANALYTICAL REPORTS AND CHAINS OF CUSTODY




Project: 403 Beaver St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73779

 Date Collected:
 12/13/17

 Date Received:
 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 01 Cust. #: AS1-1 Material: Drywall Location: Room 1 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73779 - 02 Cust. #: AS4-3 Material: Textured Ceiling Location: Room 1 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73779 - 03 Cust. #: AS3-1 Material: Window Glaze Location: Room 2 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%

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

Robert T. Letarte Jr., Laboratory Director

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RV

NVLAP Lab Code 102118-0



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 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 04 Cust. #: AS3-2 Material: Window Glaze Location: Room 2 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 1% Other - 99%
Lab ID #: 73779 - 05 Cust. #: AS6-1 Material: Diamond Linoleum Location: Room 2 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73779 - 06 Cust. #: AS6-2 Material: Diamond Linoleum Location: Room 2 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 07 Cust. #: AS7-1 Material: Red/White Linoleum Location: Room 2 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 73779 - 08 Cust. #: AS7-2 Material: Red/White Linoleum Location: Room 2 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 73779 - 09 Cust. #: AS8-1 Material: Multi Colored Linoleum Location: Room 2 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 10 Cust. #: AS8-2 Material: Multi Colored Linoleum Location: Room 2 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%
Lab ID #: 73779 - 11 Cust. #: AS5-1 Material: Vent Wrap Location: Room 2 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 45%	Other - 55%
Lab ID #: 73779 - 12 Cust. #: AS5-2 Material: Vent Wrap Location: Room 2 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 13 Cust. #: AS1-2 Material: Drywall Location: Room 2 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73779 - 14 Cust. #: AS4-1 Material: Textured Ceiling Location: Room 2 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 73779 - 15 Cust. #: AS4-2 Material: Textured Ceiling Location: Room 2 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 16 Cust. #: AS12-1 Material: Green/Brown Linoleum Location: Room 4 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73779 - 17 Cust. #: AS12-2 Material: Green/Brown Linoleum Location: Room 4 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73779 - 18 Cust. #: AS13-1 Material: Grey Linoleum Location: Room 4 Appearance: green,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 19 Cust. #: AS13-2 Material: Grey Linoleum Location: Room 4 Appearance: green,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73779 - 20 Cust. #: AS14-1 Material: Brown Linoleum Location: Room 4 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73779 - 21 Cust. #: AS14-2 Material: Brown Linoleum Location: Room 4 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 22 Cust. #: AS9-1 Material: Faux Wood Linoleum Location: Room 3 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73779 - 23 Cust. #: AS9-2 Material: Faux Wood Linoleum Location: Room 3 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73779 - 24 Cust. #: AS10-1 Material: Tan Linoleum Location: Room 3 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 25 Cust. #: AS10-2 Material: Tan Linoleum Location: Room 3 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73779 - 26 Cust. #: AS11-1 Material: Spotted Linoleum Location: Room 3 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73779 - 27 Cust. #: AS11-2 Material: Spotted Linoleum Location: Room 3 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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

Robert T. Letarte Jr., Laboratory Director

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 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 28 Cust. #: AS2-1 Material: Plaster Finish Coat Location: Room 3 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73779 - 28a Cust. #: AS2-1 Material: Plaster Base Coat Location: Room 3 Appearance: grey,fibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 2%	Cellulose - 2% Hair - 1% Other - 95%
Lab ID #: 73779 - 29 Cust. #: AS1-3 Material: Drywall Location: Room 5 Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%

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Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 30 Cust. #: AS22-1 Material: Sink Undercoating Location: Room 3 Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 2%	Other - 98%
Lab ID #: 73779 - 31 Cust. #: AS22-2 Material: Sink Undercoating Location: Room 3 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73779 - 32 Cust. #: AS20-1 Material: Shingles Location: Roof Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%

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

Robert T. Letarte Jr., Laboratory Director

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RV



Project: 403 Beaver St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73779

 Date Collected:
 12/13/17

 Date Received:
 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 33 Cust. #: AS20-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 73779 - 34 Cust. #: AS21-1 Material: Siding Paper Location: Exterior Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 75% Other - 25%
Lab ID #: 73779 - 35 Cust. #: AS21-2 Material: Siding Paper Location: Exterior Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 75% Other - 25%

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Robert T. Letarte Jr., Laboratory Director

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 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 36 Cust. #: AS18-1 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73779 - 37 Cust. #: AS18-2 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73779 - 38 Cust. #: AS19-1 Material: Stack Cement Location: Basement Appearance: grey,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 2%	Cellulose - 2% Other - 96%

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RV

NVLAP Lab Code 102118-0



Project: 403 Beaver St Project # I1440002

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 ARI Report #
 17-73779

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 12/13/17

 Date Received:
 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 39 Cust. #: AS19-2	Asbestos Present:	
Material: Stack Cement Location: Basement Appearance: Layer: of	NOT ANALYZED	
Lab ID #: 73779 - 40 Cust. #: AS2-2 Material: Plaster Base Coat	Asbestos Present:	
Location: Room 9 Appearance: Layer: of	NOT ANALYZED	
Lab ID #: 73779 - 41 Cust. #: AS15-1 Material: White Spotted Linoleum Location: Room 7 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 42 Cust. #: AS15-2 Material: White Spotted Linoleum Location: Room 7 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73779 - 43 Cust. #: AS16-1 Material: Beige Linoleum Location: Room 7 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 73779 - 44 Cust. #: AS16-2 Material: Beige Linoleum Location: Room 7 Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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Robert T. Letarte Jr., Laboratory Director

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 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 45 Cust. #: AS17-1 Material: White Tile/Flooring Location: Room 8 Appearance: black,nonfibrous,homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73779 - 45a Cust. #: AS17-1 Material: Glue Location: Room 8 Appearance: clear,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73779 - 45b Cust. #: AS17-1 Material: Flooring Location: Room 8 Appearance: black,nonfibrous,homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 Date Analyzed:
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 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 45c Cust. #: AS17-1 Material: Glue Location: Room 8 Appearance: clear,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73779 - 46 Cust. #: AS17-2 Material: White Tile/Flooring Location: Room 8 Appearance: black,nonfibrous,homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73779 - 46a Cust. #: AS17-2 Material: Glue Location: Room 8 Appearance: clear,nonfibrous,homogenous Layer: 2 of 4	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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 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 46b Cust. #: AS17-2 Material: Flooring Location: Room 8 Appearance: black,nonfibrous,homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73779 - 46c Cust. #: AS17-2 Material: Glue Location: Room 8 Appearance: clear,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73779 - 47 Cust. #: AS2-3 Material: Plaster Finish Coat Location: Room 9 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



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 Date Analyzed:
 12/19/17

 Date Reported:
 12/19/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73779 - 47a Cust. #: AS2-3 Material: Plaster Base Coat Location: Room 9 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73779 - 48 Cust. #: AS5-3 Material: Vent Wrap Location: Room 7 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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NVLAP Lab Code 102118-0

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				Date of Survey:	12/13/201	7 5:00		Lab Use Onl
Customer Nar	me: MANNIK	& SMI	TH GROUP	Project:	403 BEA\	/ER ST		Log-In:
Address:	2193 Assoc	ciation Dr	rive, Suite 200	Project #	11440002			Report:
City, St., Zip:	Oke	mos, MI,	48864	Contact Person:	Charlie Bu	ush		Fax:
Phone:	(517) 316-9232	Fax:	(517) 316-9233	Email:	<u>cbush@m</u>	nanniksmithgr	oup.com	Verbal:
Turn Around Time	e: (Circle One)***Terms and conditions or	the other side.		Circle analyses requir	red, indicate type an	d quantity		Email:
Rush	24 Hour			Asbstos:	Bulk X Wipe	Point Count	t PCM	
48 Hour	72 Hour			Lead / Cad / Chrome:	Air Paint	Wipe (ASTM)) Bulk	
Other:	TTP ves no (Test Till Positive)			Mold:	Bulk Air_	BioSIS	S Tape	
Samples received after 3pm logged in next morning				TEM:	BulkNIOSH_	EPA Level I	I Other	
Lab ID	Customer ID #		Ma	terial/Location		Volume	Area	Results
1	AS 1-1		RI	M-1 - Drywall		Bag	HA-1	
2	AS 4-3		RM-1	- Textured ceiling		Bag	HA-4	
3	AS 3-1		RM-2	2 - Window glaze		Bag	HA-3	
4	AS 3-2		RM-2	2 - Window glaze		Bag	HA-3	
5	AS 6-1		RM-2 -	Diamond Linoleum		Bag	HA-6	
6	AS 6-2		RM-2 -	Diamond Linoleum		Bag	HA-6	
7	AS 7-1		RM-2 - R	ed and white linoleum		Bag	HA-7	
G	AS 7-2		RM-2 - R	ed and white linoleum		Bag	HA-7	
9	AS 8-1		RM-2 - M	ulti colored Linoleum		Bag	HA-8	
10	AS 8-2		RM-2 - M	ulti colored Linoleum		Bag	HA-8	
11	AS 5-1		RM	I-2 - Vent wrap		Bag	HA-5	-
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-13-7	70	APEX Re	search, Inc.				
T > t	<u>+9</u> 11054 Hi Te	ech Drive, Whitmore Lake, MI 48189. Phor	ie: (734) 449 - 9990, Fax (734) 449	- 9991 www.ApexMI.co	m		AREX
	- -		Date of Survey:	12/13/201	7 5:00		
Customer Na	ame: MANNIK	& SMITH GROUP	Project:	403 BEAV	/ER ST		
Address:	2193 Asso	ciation Drive, Suite 200	Project #	11440002			Кероп:
City, St., Zip:	Oke	emos, MI, 48864	Contact Person:	Charlie B	ush		Fax:
Phone:	(517) 316-9232	Fax: (517) 316-9233	Email:	cbush@n	nanniksmithgr	oup.com	Verbal:
Turn Around Tir	me: (Circle One)***Terms and conditions o	n the other side.	Circle analyses requi	red, indicate type ar	nd quantity		Email:
Rush	24 Hour		Asbstos:	Bulk X Wipe	Point Count	PCM	
48 Hour	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM)	Bulk	
Other:	(Test Till Positive)		Mold:	Bulk Air	BioSIS	Tape	
Samples received after 3p logged in next morning	pm		TEM:	Bulk NIOSH	EPA Level I	Other	
Lab ID	Customer ID #	М	aterial/Location		Volume	Area	Results
.13	AS 1-2	R	M-2 - Drywall		Bag	HA-1	
14	AS 4-1	RM-2	- Textured ceiling		Bag	HA-4	
15	AS 4-2	RM-2	- Textured ceiling		Bag	HA-4	
16	AS 12-1	RM-4 - Gre	en and brown Linoleum		Bag	HA-12	
17	AS 12-2	RM-4 - Gre	en and brown Linoleum		Bag	HA-12	
14	AS 13-1	RM-	4 - Gray Linoleum		Bag	HA-13	
19	AS 13-2	RM-	4 - Gray Linoleum		Bag	HA-13	
20	AS 14-1	RM-4	- Brown Linoleum		Bag	HA-14	
21	AS 14-2	RM-4	- Brown Linoleum		Bag	HA-14	
22	AS 9-1	RM-3 -	Faux wood Linoleum		Bag	HA-9	
23	AS 9-2	RM-3 -	Faux wood Linoleum		Bag	HA-9	1
24	AS 10-1	RM	-3 - Tan linoleum		Bag	HA-10	
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Page2 of 4

MANNIK 2193 Associ Oker (517) 316-9232 (cone) ***Terms and conditions on the 24 Hour 72 Hour 72 Hour TTP yes no (Test Till Positive) Customer ID #	& SMITH GROUP iation Drive, Suite 200 nos, MI, 48864 Fax: (517) 316-9233 the other side.	Date of Survey: Project: Project # Contact Person: Email: Circle analyses requir Asbstos: Lead / Cad / Chrome: Mold: TEM:	12/13/20 403 BEA 11440002 Charlie B cbush@n red, indicate type at Bulk X Wipe Air Paint Bulk NIOSH	17 5:00 VER ST Sush manniksmithgr nd quantity Point Coun Wipe (ASTM BioSIS EPA Level I	TOUP.COM t PCM) Bulk S Tape I Other	Lab Use Only Log-In: Report: Fax: Verbal: Email:
MANNIK 2193 Associ Oker (517) 316-9232 (517) 316-9232 (51	& SMITH GROUP iation Drive, Suite 200 mos, MI, 48864 Fax: (517) 316-9233 the other side.	Project: Project # Contact Person: Email: Circle analyses requin Asbstos: Lead / Cad / Chrome: Mold: TEM: terial/Location	403 BEA 11440002 Charlie B cbush@n red, indicate type at Bulk X Wipe Air Paint Bulk Air Air Bulk NIOSH	VER ST Push manniksmithgr nd quantity Point Coun Wipe (ASTM BioSIS EPA Level I	TOUP.COM t PCM) Bulk S Tape I Other	Log-In: Report: Fax: Verbal: Email:
2193 Associ Oker (517) 316-9232 de one)Terms and conditions on the 24 Hour 72 Hour TTP ves no (Test Till Positive)	iation Drive, Suite 200 nos, MI, 48864 Fax: <u>(517) 316-9233</u> the other side. Ma	Project # Contact Person: Email: Circle analyses requin Asbstos: Lead / Cad / Chrome: Mold: TEM:	I1440002 Charlie B <u>cbush@n</u> red, indicate type at Bulk X Wipe Air Paint Bulk Air Bulk NIOSH	2 Bush manniksmithgr nd quantity Point Coun Point Coun Wipe (ASTM BioSIS EPA Level I	TOUD.COM t PCM) Bulk S Tape I Other	Report: Fax: Verbal: Email:
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Customer ID #	Ma	TEM:	BulkNIOSH	EPA Level I	I Other_	
Customer ID #	Ma	terial/Location				
				Volume	Area	Results
AS 10-2	RM-	3 - Tan linoleum		Bag	HA-10	
AS 11-1	RM-3	- Spotted linoleum		Bag	HA-11	
AS 11-2	RM-3	- Spotted linoleum		Bag	HA-11	
AS 2-1	R	M-3 - Plaster		Bag	HA-2	
AS 1-3	R	M-5 - Drywall		Bag	HA-1	-
AS 22-1	RM-3 -	Sink under coating		Bag	HA-22	
AS 22-2	RM-3 -	Sink under coating		Bag	HA-22	
AS 20-1	R	oof - Shingles		Bag	HA-20	
AS 20-2	R	oof - Shingles		Bag	HA-20	
AS 21-1	Exter	ior - Siding paper		Bag	HA-21	
AS 21-2	Exteri	or - Siding paper		Bag	HA-21	
AS 18-1	Basement -	Basement cement floor		Bag	HA-18	
<u> </u>	Received By:	-Her	Relinquished By: _		Received By:	
17	Time/Date:して	15/17	Date:		Time/Date:	NEC 1 5 201
	AS 10-2 AS 11-1 AS 11-2 AS 2-1 AS 2-1 AS 22-1 AS 22-2 AS 20-1 AS 20-2 AS 21-1 AS 21-2 AS 18-1	AS 10-2 RM- AS 11-1 RM-3 AS 11-2 RM-3 AS 2-1 R AS 1-3 R AS 22-1 RM-3 AS 22-2 RM-3 AS 20-1 R AS 20-2 R AS 21-1 Exter AS 21-2 Exter AS 18-1 Basement - Image: Imag	AS 10-2RM-3 - Tan linoleumAS 11-1RM-3 - Spotted linoleumAS 11-2RM-3 - Spotted linoleumAS 2-1RM-3 - Spotted linoleumAS 2-1RM-3 - PlasterAS 1-3RM-5 - DrywallAS 22-1RM-3 - Sink under coatingAS 22-2RM-3 - Sink under coatingAS 20-1Roof - ShinglesAS 20-2Roof - ShinglesAS 21-1Exterior - Siding paperAS 21-2Exterior - Siding paperAS 18-1Basement - Basement cement floorMarceived By: $M = M = M = M = M = M = M = M = M = M =$	AS 10-2RM-3 - Tan linoleumAS 11-1RM-3 - Spotted linoleumAS 11-2RM-3 - Spotted linoleumAS 2-1RM-3 - PlasterAS 1-3RM-5 - DrywallAS 22-1RM-3 - Sink under coatingAS 22-2RM-3 - Sink under coatingAS 20-1Roof - ShinglesAS 21-1Exterior - Siding paperAS 21-2Exterior - Siding paperAS 18-1Basement - Basement cement floorReceived By: $1 \leq 1 \leq 1 \leq 2$ Time/Date: $1 \leq 1 \leq 1 \leq 2$ Date: $2 \leq 1 \leq 1 \leq 2$	AS 10-2RM-3 - Tan linoleumBagAS 11-1RM-3 - Spotted linoleumBagAS 11-2RM-3 - Spotted linoleumBagAS 2-1RM-3 - PlasterBagAS 1-3RM-5 - DrywallBagAS 22-1RM-3 - Sink under coatingBagAS 22-2RM-3 - Sink under coatingBagAS 20-1Roof - ShinglesBagAS 21-1Exterior - Siding paperBagAS 21-2Exterior - Siding paperBagAS 18-1Basement - Basement cement floorBagMarcel Py:National Patient - State PaperBagMarcel Py:National PaperBagMarcel Py: <td>AS 10-2RM-3 - Tan linoleumBagHA-10AS 11-1RM-3 - Spotted linoleumBagHA-11AS 11-2RM-3 - Spotted linoleumBagHA-11AS 11-2RM-3 - Spotted linoleumBagHA-21AS 2-1RM-3 - PlasterBagHA-2AS 1-3RM-5 - DrywallBagHA-22AS 22-1RM-3 - Sink under coatingBagHA-22AS 22-2RM-3 - Sink under coatingBagHA-22AS 20-1Roof - ShinglesBagHA-20AS 20-2Roof - ShinglesBagHA-21AS 21-1Exterior - Siding paperBagHA-21AS 18-1Basement - Basement cement floorBagHA-18Marcel By:A - HawRelinquished By:Received By:Marcel AS 18-1Received By:A - HawRelinquished By:Received By:Marcel AS 18-1Received By:A - HawRelinquished By:Time/Date:</td>	AS 10-2RM-3 - Tan linoleumBagHA-10AS 11-1RM-3 - Spotted linoleumBagHA-11AS 11-2RM-3 - Spotted linoleumBagHA-11AS 11-2RM-3 - Spotted linoleumBagHA-21AS 2-1RM-3 - PlasterBagHA-2AS 1-3RM-5 - DrywallBagHA-22AS 22-1RM-3 - Sink under coatingBagHA-22AS 22-2RM-3 - Sink under coatingBagHA-22AS 20-1Roof - ShinglesBagHA-20AS 20-2Roof - ShinglesBagHA-21AS 21-1Exterior - Siding paperBagHA-21AS 18-1Basement - Basement cement floorBagHA-18Marcel By:A - HawRelinquished By:Received By:Marcel AS 18-1Received By:A - HawRelinquished By:Received By:Marcel AS 18-1Received By:A - HawRelinquished By:Time/Date:

73770	11054 Hi Te	APEX Re ech Drive, Whitmore Lake, MI 48189. Phor	esearch, Inc. e: (734) 449 - 9990, Fax (734) 449	9 - 9991 www.ApexMI.cc	m		APEX
			Date of Survey:	12/13/201	7 5:00		Lab Use Only
Customer Na	ame: MANNIK	& SMITH GROUP	Project:	403 BEA\	/ER ST		Log-In:
Address:	2193 Asso	ciation Drive, Suite 200	Project #	11440002			
City, St., Zip:	Oke	emos, MI, 48864	Contact Person:	Charlie B	ush		Fax:
Phone:	(517) 316-9232	Fax: (517) 316-9233	Email:	<u>cbush@m</u>	nanniksmithgi	oup.com	Verbal:
Furn Around Tin Rush	ne: (Circle one)***Terms and conditions or 24 Hour	Circle analyses requi	red, indicate type an	nd quantity	t DOM	Email:	
48 Hour	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM) Bulk	
Other:	TTP ves no		Mold:	Bulk Air	BioSI	5 Tape	
Samples received after 3p ogged in next morning	m		TEM:	BulkNIOSH	EPA Level 1	I Other	
Lab ID	Customer ID #	Ma	aterial/Location		Volume	Area	Results
37	AS 18-2	Basement -	Basement cement floor		Bag	HA-18	
38	AS 19-1	Basem	ent - Stack Cement		Bag	HA-19	
39	AS 19-2	Basem	ent - Stack Cement		Bag	HA-19	
40	AS 2-2	R	M-9 - Plaster		Bag	HA-2	
41	AS 15-1	RM-7 - W	hite spotted Linoleum		Bag	HA-15	
42	AS 15-2	RM-7 - W	hite spotted Linoleum		Bag	HA-15	
43	AS 16-1	RM-7	- Beige Linoleum		Bag	HA-16	
44	AS 16-2	RM-7	- Beige Linoleum		Bag	HA-16	
45	AS 17-1	RN	1-8 - White tile		Bag	HA-17	
46	AS 17-2	RN	4-8 - White tile		Bag	HA-17	
47	AS 2-3	R	M-9 - Plaster		Bag	HA-2	:
43	AS 5-3	RAV	1-7 - Vent wrap		Bag	HA-5	·
Relinquished By:	Carf	Received By:	e Her	Relinquished By:		Received By:	TEGEIVE
Date: 12/1	5/17	Time/Date: LZ	lislip	Date:	414	Time/Date:	DEC 1 5 201
evision K4 Date: May/2017	, ·					4	



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF IN	TENT TO RENOVATE/DEMOLISH
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUA (MDEQ) AIR QUALITY DIVISION NESHAP, 40 CFR Part 61, Subpart M	ALITY 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.	3. ABATEMENT CONTRACTOR: Internal Project #:
Calculate LARA Asbestos Project Fee: (1% Proje	ct Fee)
Total Project Cost: x 0.01 =	5. FACILITY OWNER: ("Facility" includes Bridges)
Type of Contractor: License No.:	Name:
Licensing Authority:	
1. NOTIFICATION:	E-mail:
	Contact: Dhone:

Contact:

6. FACILITY DESCRIPTION:

Location Address/Description: _____

Specific Location(s) in Facility:

City/State/Zip: _____

Gov't Agency Ordering Demo:

Name/Title of Person Signing Order:

Facility Name:

7. DISPOSAL SITE:

Name

Phone:

notification.

Date of Order:

Phone:

If Apt. # of units:

County: _____ Nearest Crossroad: _____

City/Twp. _____ State: _____ Zip Code: _____

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____

Age: _____ Present Use: _____ Prior Use: _____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of

"Ordered Demolition.") A copy of the official Order must accompany this

Date Ordered to Begin:

Date of Revision(s):

Notification Type: Original Revised Canceled Annual

START DATE

Mark appropriate boxes: (both DEQ and LARA may app	oly):
DEQ (NESHAP) [260 In. ft./160 sq. ft. or more is thresho	old]

Planned Renovation – 10 working days notice
Emergency Renovation
Scheduled Demolition – 10 working days notice

Interational Duma	40 mentalment der in estime
 Intentional Burn –	TU working days notice
Internal Barn	no montang dayo notico

□ 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:

* Renovation			Location Address:	
+Asb. Removal			City/State/Zip:	
+Demolition:			8. WASTE TRANSPORTER 1:	WASTE TR
Encapsulation:			Name:	
Work Schedule:	Please indicate the anticip	pated days of the week and	Address:	

END DATE

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

> Work Hours Days of the Week

Asb.	Removal:
ASD.	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.

It <u>must</u> be removed prior to demolition.)

10. IS ASBESTOS PRESENT?

IS ASBESTOS PRESENT?	🗌 Yes	🗌 No	To be remove	d prior to demolitio	n			
Estimate the amount of asbestos:	Include F	RACM	RACM to be	RACM to be	Non-friabl removed pi	e ACM <u>not</u> ior to demo.		
(Regulated Asbestos Containing Mat	terial) to l	be	Removed	Encapsulated	Category I	Category II	Units of I	Measure
removed, encapsulated, etc. Also inc	clude the	amount					🗌 Ln. Ft.	🗌 Ln. M.
I and/or Category II ACM that will no	on-friable ot be rem	e Category loved prior					🗌 Sq. Ft.	🗌 Sq. M.
to demolition. (NOTE: In a demolition	n, cemer	ntatious					🗌 Cu. Ft.*	🗌 Cu.M.*
ACM <u>cannot</u> remain in a structure, as become regulated in the demolition/h	s it is like handling i	ly to process.	*) (aluma (aubia ft	(motoro) obouid by		nabla ta maaau	na hu linaar/agu	

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

WASTE TRANSPORTER 2:

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continue

11.	PROJECT DESCRIPTION: Complete A) for Renovation (asbestos remo	val/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) Tunnel (s) Tunnel (s)	Encapsulation (for LARA): Mark surfaces/types to be encapsulated: Piping Fittings Boiler(s) Tank(s) Beam(s) Duct(s) Tunnel(s) Ceiling Tile(Other (describe)	: (s)	
	Method of removal: Describe <u>how</u> 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, et	c., and indicate if complete or partial. If partial, describe which part of facility		
	bridge, etc., will be demolished:			
10		pantrale used to prevent visible opissions before during and offer removal op		
12.	until proper disposal:	controls used to prevent visible emissions before, during, and alter removal, an		
13.	UNEXPECTED ASBESTOS: Describe the steps you intend to follow in becomes friable (crumbled, pulverized, reduced to powder, etc.) and there	h the event that unexpected RACM is found or previously non-friable asbesto fore regulated:	os	
	· · · · · ·		_	
14.	PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS analytical sampling was used, describe method of analysis. (The determine a renovation/demolition notification.):	A) Indicate how you determined whether or not asbestos is in the facility. nation of the presence or absence of asbestos must be made prior to submittin	lf ng	
	B) Name, address, and phone number of company performing asbestos s	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 equi	pment damage and/or an unreasonable financial burden.	—	
			_	
16.	I certify that an individual trained in the provisions of 40 CFR Part 61, S RACM above the threshold and/or during an ordered demolition. Evide inspection at the renovation or demolition site.	Subpart M, will be on-site during the renovation and during demolition involvir ence that this person has completed the required training will be available f	ng for	
	Signature of Owner or Abatement Contractor Date	Signature of Owner or Demolition Contractor Date		
17.	Signature Requirements for Projects with Negative Prese Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance ai linear feet/15 square feet or more of friable material which is perform have been advised by the contractor of my responsibility under Act of	ssure Enclosures: (required by LARA) ir monitoring is required for any asbestos abatement project involving a med within a negative pressure enclosure. <i>I (the building owner or lesse</i> 135 to have clearance air monitoring performed on this project.	10 ⊯)	
	Signature of Building Owner or Lessee Date NOTE: It is not mandatory that a signed copy be sent to LARA unless reques and made part of your records before the project begins.	Signature of Asbestos Abatement Contractor Representative Date ted. For affected projects, this section of the notification form must be completed, signed,		
18.	I certify that the above information is correct:			
	Printed Name of Owner/Operator Date	Signature of Owner/Operator Date		
MA	ILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine v	which agency requirements/regulations are applicable to your project.)		
For mail <u>http</u>	Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), to address below. For more info visit: ://www.michigan.gov/asbestos	For NESHAP Demolitions/Renovations , 40 CFR , Part 61 , Subpart I please use the e-submittal process. For more information vis <u>http://www.michigan.gov/air</u> , under Air Links click on Asbestos NESHA Program.	M, sit ∖P	
MIC LAF P.O Lan	VSHA Asbestos Program A, CSHD . Box 30671 sing, MI 48909-8171	NESHAP Asbestos Program DEQ, AQD P.O. Box 30260 Lansing, MI 48909-7760		
517	636 4551 (office) 517 322 1713 (fax)	517.284.6777 (Office)		



December 29, 2017

Ms. Roxanne Case Grant Manager Ingham County Land Bank 3024 Turner Street Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey 1031 N Larch St, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited predemolition regulated materials survey (RMS) performed at 1031 N Larch St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information				
Property Address	1031 N Larch St, Lansing, MI			
Parcel #	33-01-01-09-430-311			
No. Stories	2			
Square Footage (approx.)	1,000 SF			
Siding	Vinyl			
Basement	Yes			
Garage	Yes			



Asbestos Containing Material						
Location Material Group Friable/Non Friable Asbestos Quantity						
RM-1, RM-2, RM-3	Vent wrap	Friable	40% Chrysotile	140 SF		
RM-3	Sink coating	Non friable	5% Chrysotile	3 SF		
Basement	Stack cement	Non friable	5% Chrysotile	4 SF		

Hazardous Materials				
Location	Material Description	Quantity		
RM-3, RM-6	5 Gallon paint can	3		
Basement	1 Gallon paint can	5		
RM-3	1 Gallon bleach	4		
Garage	Spray paint can	5		
Garage	1 Quart oil container	4		

TECHNICAL SKILL. CREATIVE SPIRIT.

Universal Waste Inventory				
Location	Material Description	Quantity		
RM-5, RM-6	Television	3		
RM-1	CFL bulb	1		
Basement	Smoke detector	1		

Other Regulated Materials Inventory		
Location	Material Description	Quantity
RM-5	Air-conditioning unit	1

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 13, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I nonfriable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - o IATA International Air Transport Association; Dangerous Goods Regulations;
 - o ICAO International Civil Aviation Organization; Technical Instructions; and
 - AF Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) List of Hazardous Substances and Reportable Quantities, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal

Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent leadacid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log.* The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified nine (9) homogenous materials that were suspect as asbestos containing during the ACM survey. Twenty-one (21) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found three (3) homogenous materials (samples 3-1, 7-1, and 9-1) contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory.*

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the nine (9) homogenous materials collected as part of the ACM survey, three (3) homogenous materials contained asbestos greater than 1% (samples 3-1, 7-1, and 9-1) with these three (3) homogenous materials being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232. Sincerely,

Kory McKay Environmental Scientist Accreditation Number A47903

Che

Charlie Bush Senior Project Manager Accreditation Number A34293

Attachments





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721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com



Drawing not to scale

6-1, 2 Room 1 Room 8 1-1 3-1 9-1, 2 1-3 Room 2 Room 3 3-2, 3 2-1, 2 1-2 Room 9 Sink Coating (3 SF) Vent with wrap (140 SF)

1st Floor





721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com



Drawing not to scale

2nd Floor







Stack Cement (4 SF)


TABLE 1 Asbestos Sampling Results

Client		Ingham Count	y Land Ba	ank Authority						
Survey Loca	ation	1031 N Larch	St							
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1300 SF
RM-2	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1300 SF
RM-3	1	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1300 SF
RM-2	1	AS 2-1	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-2	1	AS 2-2	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-1	1	AS 3-1	HA-3	Vent wrap	Friable	Good	Miscellaneous	Yes	40% Chrysotile	140 SF
RM-2	1	AS 3-2	HA-3	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	140 SF
RM-2	1	AS 3-3	HA-3	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	140 SF
RM-5	2	AS 4-1	HA-4	Plaster	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-6	2	AS 4-2	HA-4	Plaster	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-4	2	AS 4-3	HA-4	Plaster	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-7	2	AS 5-1	HA-5	Tan tile	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-7	2	AS 5-2	HA-5	Tan tile	Non-Friable	Good	Miscellaneous	No	No	50 SF
Roof	E	AS 6-1	HA-6	Shingles	Non-Friable	Good	Miscellaneous	No	No	375 SF
Roof	E	AS 6-2	HA-6	Shingles	Non-Friable	Good	Miscellaneous	No	No	375 SF

TABLE 1 Asbestos Sampling Results

Client		Ingham Count	ty Land B	ank Authority						
Survey Loc	ation	1031 N Larch	St							
Survey Da	ate	December 13	, 2017			-				
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
Basement	В	AS 7-1	HA-7	Stack Cement	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	4 SF
Basement	В	AS 7-2	HA-7	Stack Cement	Non-Friable	Good	Miscellaneous	Yes	NA	4 SF
Basement	В	AS 8-1	HA-8	Basement floor cement	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	В	AS 8-2	HA-8	Basement floor cement	Non-Friable	Good	Miscellaneous	No	No	400 SF
RM-3	1	AS 9-1	HA-9	Sink coating	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	3 SF
RM-3	1	AS 9-2	HA-9	Sink coating	Non-Friable	Good	Miscellaneous	Yes	NA	3 SF

Table 2Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory1031 N Larch StLansing, Ingham County, Michigan

Universal Waste Inventory						
Location	Type of Waste	Approximate Quantity				
RM-5, RM-6	Television	3				
RM-1	CFL bulb	1				
Basement	Smoke detector	1				
	Hazardous Materials Inventory					
Location	Type of Waste	Approximate Quantity				
RM-3, RM-6	5 Gallon paint can	3				
Basement	1 Gallon paint can	5				
RM-3	1 Gallon bleach	4				
Garage	Spray paint can	5				
Garage	1 Quart oil container	4				
Oth	Other Regulated Materials Inventory					
Location	Type of Waste	Approximate Quantity				
RM-5	Air-conditioning unit	1				



Ingham County Land Bank 1031 N Larch St, Lansing, MI Photographs taken by: Kory McKay on 12/13/2017

Property Photos









Ingham County Land Bank 1031 N Larch St, Lansing, MI Photographs taken by: Kory McKay on 12/13/2017

Sample Photos







REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

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Regulated Materials Survey Limitations.Docx

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.



ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Project: 1031 N Larch St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73782

 Date Collected:
 12/13/17

 Date Received:
 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/20/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73782 - 01 Cust. #: AS4-3 Material: Plaster Base Coat Location: Room 4 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73782 - 02 Cust. #: AS5-1 Material: Tan Tile Location: Room 7 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73782 - 02a Cust. #: AS5-1 Material: Glue Location: Room 7 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

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.

RV

NVLAP Lab Code 102118-0



Project: 1031 N Larch St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73782

 Date Collected:
 12/13/17

 Date Received:
 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/20/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73782 - 03 Cust. #: AS5-2 Material: Tan Tile Location: Room 7 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73782 - 03a Cust. #: AS5-2 Material: Glue Location: Room 7 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73782 - 04 Cust. #: AS4-1 Material: Plaster Base Coat Location: Room 5 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

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Project: 1031 N Larch St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73782

 Date Collected:
 12/13/17

 Date Received:
 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/20/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73782 - 05 Cust. #: AS4-2 Material: Plaster Base Coat Location: Room 6 Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73782 - 06 Cust. #: AS6-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 73782 - 07 Cust. #: AS6-2 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%

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

Robert T. Letarte Jr., Laboratory Director

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 17-73782

 Date Collected:
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 12/19/17

 Date Reported:
 12/20/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73782 - 08 Cust. #: AS1-1 Material: Drywall Location: Room 1 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73782 - 09 Cust. #: AS3-1 Material: Vent Wrap Location: Room 1 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 40%	Other - 60%
Lab ID #: 73782 - 10 Cust. #: AS1-2 Material: Drywall Location: Room 2 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	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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Project: 1031 N Larch St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73782

 Date Collected:
 12/13/17

 Date Received:
 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/20/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73782 - 11 Cust. #: AS3-2	Asbestos Present:	
Material: Vent Wrap Location: Room 2 Appearance: Laver: of	NOT ANALYZED	
Lab ID #: 73782 - 12 Cust. #: AS3-3	Asbestos Present:	
Material: Vent Wrap Location: Room 2 Appearance:	NOT ANALYZED	
Layer: of		
Lab ID #: 73782 - 13 Cust. #: AS2-1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Material: Window Glaze Location: Room 2		
Appearance: beige,nonfibrous,nonhomogenous Layer: 1 of 1		

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

Robert T. Letarte Jr., Laboratory Director

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Project: 1031 N Larch St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

 ARI Report #
 17-73782

 Date Collected:
 12/13/17

 Date Received:
 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/20/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73782 - 14 Cust. #: AS2-2 Material: Window Glaze Location: Room 2 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73782 - 15 Cust. #: AS1-3 Material: Drywall Location: Room 3 Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73782 - 16 Cust. #: AS9-1 Material: Sink Coating Location: Room 3 Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%

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

Robert T. Letarte Jr., Laboratory Director

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

RV

NVLAP Lab Code 102118-0



Project: 1031 N Larch St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864
 ARI Report #
 17-73782

 Date Collected:
 12/13/17

 Date Received:
 12/15/17

 Date Analyzed:
 12/19/17

 Date Reported:
 12/20/17

Lab ID #: 73782 - 17Asbestos Present:Cust. #: AS9-2Material: Sink CoatingLocation: Room 3NOT ANALYZED	
Location: Room 3 NOT ANALYZED	
Appearance: Layer: of	
Lab ID #: 73782 - 18Asbestos Present: YESOther - 95%Cust. #: AS7-1Chrysotile - 5%Material: Stack CementLocation: BasementAppearance: grey,fibrous,homogenousLayer: 1 of 1	
Lab ID #: 73782 - 19 Asbestos Present: Cust. #: AS7-2 Material: Stack Cement	
Location: Basement NOT ANALYZED Appearance: Layer: of	

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

Robert T. Letarte Jr., Laboratory Director

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Project: 1031 N Larch St Project # I1440002

Report To: Mr. Charlie Bush Mannik & Smith Group 2193 Association Drive, Suite 200 Okemos, MI, 48864

ARI Report # 17-73782 Date Collected: 12/13/17 Date Received: 12/15/17 Date Analyzed: 12/19/17 Date Reported: 12/20/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73782 - 20 Cust. #: AS8-1 Material: Basement Floor Cement Location: Basement Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73782 - 21 Cust. #: AS8-2 Material: Basement Floor Cement Location: Basement Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
For Lavered 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.

RV

NVLAP Lab Code 102118-0

			Date of Survey:	12/13/201	7 5:00		
ustomer Nan	ne: MANNIK	& SMITH GROUP	Project:	1031 N LA	RCH ST		- Report:
ddress:	2193 Asso	2193 Association Drive, Suite 200		11440002			- Eax:
ity, St., Zip:	Oke	mos, MI, 48864	Contact Person:	Charlie Bu	sh		- Verbal:
hone:	(517) 316-9232	Fax: (517) 316-9233	_ Email:	<u>cbush@m</u>	anniksmithgro	oup.com	
urn Around Time	: (Circle one)***Terms and conditions o	n the other side.	Circle analyses requi	red, indicate type an	d quantity		······
ush	24 Hour		Asbstos:	Bulk X Wipe	Point Count	PCM	
3 Hour	72 Hour		Lead / Cad / Chrome:	Air Paint Air	Wipe (ASTM)	Bulk	_
mples received after 3pm	(Test Till Positive)		TEM:	BulkNIOSH_	EPA Level II	Other	
Lab ID	Customer ID #	Ma	terial/Location		Volume	Area	Results
ÿ	AS 4-3	R	M-4 - Plaster		Bag	HA-4	
2	AS 5-1	RI	M-7 - Tan tile		Bag	HA-5	
3	AS 5-2	RI	M-7 - Tan tile		Bag	HA-5	
4	AS 4-1	R	M-5 - Plaster		Bag	HA-4	
Ś	AS 4-2	R	M-6 - Plaster		Bag	HA-4	
6	AS 6-1	Ro	oof - Shingles		Bag	HA-6	
7	AS 6-2	Ro	oof - Shingles		Bag	HA-6	
9	AS 1-1	RI	M-1 - Drywall		Bag	HA-1	
9	AS 3-1	RM	I-1 - Vent wrap		Bag	HA-3	
10	AS 1-2	RI	M-2 - Drywall		Bag	HA-1	
11	AS 3-2	RM	I-2 - Vent wrap		Bag	HA-3	
R	AS 3-3	RM	1-2 - Vent wrap		Bag	HA-3	and the states of the second
Relinquished By:	Cert	Received By:	Acer_	Relinquished By: _	ene a commence acompensaria e a commensaria dan	Received By:	Ince BOH
Date: 12/1	5-117	Time/Date: (2)	15/12	Date:		Time/Date:	DEC 1 5 20

7378	2 11054 Hi T	APEX Re ech Drive, Whitmore Lake, MI 48189. Pho	esearch, Inc. ne: (734) 449 - 9990, Fax (734) 449	- 9991 www.ApexMI.c	om		APEX
			Date of Survey: 12/13/20		17 5:00	Lab Use Only	
Customer Na	ame: MANNIE	K & SMITH GROUP	Project: Project # Contact Person:	1031 N L	Log-In:		
Address:	2193 Asso	ciation Drive, Suite 200		l1440002	11440002		
City, St., Zip:	Oke	emos, MI, 48864		Charlie B	Fax:		
Phone:	(517) 316-9232	(517) 316-9232 Fax: (517) 316-9233		<u>cbush@r</u>	nanniksmithgro	oup.com	Verbal:
urn Around Ti	me: (Circle One)***Terms and conditions	on the other side.	Circle analyses requir	ed, indicate type a	nd quantity		Email:
Rush	24 Hour		Asbstos:	Bulk X Wipe	Point Count	PCM	
8 Hour	72 Hour		Lead / Cad / Chrome:	Air Paint	Wipe (ASTM)	Bulk	
other:	(Test Till Positive)		Mold:	Bulk Air	BioSIS	Tape	
ogged in next morning				BuikNIOSH	EPA Level II	Other	
Lab ID	Customer ID #	М	aterial/Location		Volume	Area	Results
13	AS 2-1	RM-	2 - Window glaze		Bag	HA-2	
<u> </u>	AS 2-2	RM-	2 - Window glaze		Bag	HA-2	
1Ġ	AS 1-3	R	M-3 - Drywall		Bag	HA-1	
16	AS 9-1	RM	-3 - Sink coating		Bag	HA-9	
17	AS 9-2	RM	I-3 - Sink coating		Bag	HA-9	
16	AS 7-1	Basen	nent - Stack Cement		Bag	HA-7	
19	AS 7-2	Basen	nent - Stack Cement		Bag	HA-7	
20	AS 8-1	Basement	Basement floor cement		Bag	HA-8	
21	AS 8-2	Basement	- Basement floor cement		Bag	HA-8	
	-						
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	2	n					Ó Estent si
Relinguished By	ller	Received By:	Hen	Relinquished By:		Received By:	- Martin Martin
Date: 12	luglin	Time/Date: (2/15/12	Dote:		Time/Deter	- DEC 1 5 20
evision R4 Date: May/20	17			Date		1 me/Date:	ABEV DECENT



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NUTIFICATION OF INTENT	I U RENUVATE/DEMULISH		
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. /	3. ABATEMENT CONTRACTOR: Internal Project #: Name:		
FOLLOW OP/ Spoke w/ Comments:	4. DEMOLITION CONTRACTOR: Internal Project #: Name: Mailing Address: City/State/Zip: E-mail:		
Coloulate LAPA Aphaetea Project Fact	Contact: Phone:		
Total Project Cost:	5. FACILITY OWNER: ("Facility" includes Bridges) Name: Mailing Address:		
1. NOTIFICATION:	City/State/Zip: E-mail:		

Contact:

6. FACILITY DESCRIPTION:

Location Address/Description: _____

Specific Location(s) in Facility:

City/State/Zip:

Gov't Agency Ordering Demo:

Name/Title of Person Signing Order:

If Apt. # of units:

County: _____ Nearest Crossroad: _____

City/Twp. _____ State: _____ Zip Code: _____

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____ Age: _____ Present Use: _____ Prior Use: _____

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of

"Ordered Demolition.") A copy of the official Order must accompany this

Date Ordered to Begin:

Facility Name:

7. DISPOSAL SITE:

Phone:

notification.

Date of Order:

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
П	Scheduled Demolition – 10 working days notice

Scheduled Demonition -	10	working	uays nu
Intentional Burn – 10 wo	rki	na davs	notice

I Urdered Demolition	

LARA (MIOSH	A) [<i>Wil</i> .	l noi	t acce	pt ann	ual notific	ations	1
	_	_						

Demo, Reno, Encap. (>10 In. ft./15 sq. ft.) 10 calendar days notice Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE	Name:
* Renovation			Location Address:
+Asb. Removal			City/State/Zip:
+Demolition:			8. WASTE TRANSPORTER 1:
Encapsulation:			Name:
Work Schedule:	Please indicate the anticipation	ated days of the week and	Address:

work hours for the purpose of scheduling a compliance inspection.

Days of the Week Work Hours

Asb. R	temoval

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.

It <u>must</u> be removed prior to demolition.)

10. IS ASBESTOS PRESENT?

. .

IS ASBESTOS PRESENT?	🗌 Yes	🗌 No	To be remove	d prior to demolitio	n			
Estimate the amount of asbestos:	: Include F	RACM	RACM to be	RACM to be	Non-friable removed pr	e ACM <u>not</u> ior to demo.	Linite of I	Maasura
removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that <u>will not</u> be removed prior to demolition. (NOTE: In a demolition, cementatious		Removed	Lincapsulated	Category I				
						🗌 Sq. Ft.	🗌 Sq. M.	
						🗌 Cu. Ft.*	🗌 Cu.M.*	
ACM cannot remain in a structure, a								
become regulated in the demolition/handling process.			*\/aluma /aubia ft	(motoro) chould be		achla ta maaau	ra hulingar/agu	

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

WASTE TRANSPORTER 2:

Phone:

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continue

11.	PROJECT DESCRIPTION: Complete A) for Renovation (asbestos remo	val/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) Tune of the second seco	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 <u>how</u> 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, et	c., and indicate if complete or partial. If partial, describe which part of facility
	bridge, etc., will be demolished:	
10		pontrole used to provent visible emissions before during and ofter removal and
12.	until proper disposal:	
13.	UNEXPECTED ASBESTOS: Describe the steps you intend to follow in becomes friable (crumbled, pulverized, reduced to powder, etc.) and there	the event that unexpected RACM is found or previously non-friable asbestos fore regulated:
		-
14.	PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS analytical sampling was used, describe method of analysis. (The determine a renovation/demolition notification.):	A) Indicate how you determined whether or not asbestos is in the facility. If nation of the presence or absence of asbestos must be made prior to submitting
	B) Name, address, and phone number of company performing asbestos s	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 equi	pment damage and/or an unreasonable financial burden.
16.	I certify that an individual trained in the provisions of 40 CFR Part 61, 5 RACM above the threshold and/or during an ordered demolition. Evid inspection at the renovation or demolition site.	Subpart M, will be on-site during the renovation and during demolition involving ence that this person has completed the required training will be available for
	Signature of Owner or Abatement Contractor Date	Signature of Owner or Demolition Contractor Date
17.	Signature Requirements for Projects with Negative Pre Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance a linear feet/15 square feet or more of friable material which is perform have been advised by the contractor of my responsibility under Act	ssure Enclosures: (required by LARA) ir monitoring is required for any asbestos abatement project involving 10 med within a negative pressure enclosure. <i>I (the building owner or lessee)</i> <i>135 to have clearance air monitoring performed on this project.</i>
	Signature of Building Owner or Lessee Date NOTE: It is not mandatory that a signed copy be sent to LARA unless reques and made part of your records before the project begins.	Signature of Asbestos Abatement Contractor Representative Date ted. For affected projects, this section of the notification form must be completed, signed,
18.	I certify that the above information is correct:	
	Printed Name of Owner/Operator Date	Signature of Owner/Operator Date
MA	LING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine v	which agency requirements/regulations are applicable to your project.)
For mail <u>http</u>	Public Act 135 of 1986, as amended, Section 220 (1-4) or (8), to address below. For more info visit: //www.michigan.gov/asbestos	For NESHAP Demolitions/Renovations , 40 CFR , Part 61 , Subpart M , please use the e-submittal process. For more information visit <u>http://www.michigan.gov/air</u> , under Air Links click on Asbestos NESHAP Program.
MIC LAF P.O Lan	OSHA Asbestos Program RA, CSHD . Box 30671 sing, MI 48909-8171	NESHAP Asbestos Program DEQ, AQD P.O. Box 30260 Lansing, MI 48909-7760
517	.636.4551 (office), 517.322.1713 (fax)	517.284.6777 (Office)