

MICHIGAN STATE UNIVERSITY

ASBESTOS INSPECTION REPORT FOR

CHEMISTRY BUILDING

MAY 2016



NOVA
ENVIRONMENTAL, INC.
5300 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105
734-930-0995

June 16, 2016

Mr. Daniel Lyons
Environmental Coordinator
Environmental Health and Safety
Michigan State University
Giltner Hall 150
293 Farm Lane
East Lansing, MI 48824

Dear Mr. Lyons:

The following is the Asbestos Inspection Report of The Chemistry Building, prepared for Michigan State University.

The Asbestos Inspection, conducted by Nova Environmental, Inc., is separated into the following sections:

Section I	Background/Inspection Information
Section II	Inspection Results
Section III	Laboratory Results
Section IV	Facility Information/Diagram
Section V	Homogenous Area Picture Log
Section VI	Qualifications/Certifications/General Disclaimer Statement

If you have any questions or concerns regarding the information presented within this report, please feel free to contact me at (734) 930-0995.

Thank you for choosing Nova Environmental, Inc.

Sincerely,

NOVA ENVIRONMENTAL, INC.



Jeff Benya
Senior Environmental Consultant

JB/ab



**Michigan State University
The Chemistry Building**

**Section I
Background/Inspection Information**

Background:

In May, 2016 representatives of Nova Environmental, Inc. conducted an in-depth Asbestos Inspection within The Chemistry Building. The intent of this inspection was to determine potential asbestos content within interior and exterior accessible building materials/components.

During the on-site inspection phase, Nova collected a total of 252 bulk samples. Each of these samples was analyzed under Polarizing Light Microscopy (PLM) by EMSL Analytical, Inc., an accredited laboratory, utilizing EPA 600/R-93/116 Method. Bulk samples analyzed <1% asbestos were subsequently analyzed using the point count method. All laboratory result sheets are located in Section III of this report.

It should be noted that the following limitations were realized during the inspection phase:

- Nova Environmental, Inc. collected bulk samples of accessible suspect asbestos-containing material (ACM).
- No roofing materials were bulk sampled or included as part of this report.
- Nova Environmental, Inc. inspected only visibly accessible building components. No destructive investigation or sampling was conducted as part of this ACM Inspection. Therefore, previously hidden suspect ACM could be found during renovation or demolition activities.
- Nova Environmental, Inc. only quantified accessible suspect ACM, therefore, all quantities are estimates of the actual amounts.
- Due to owner space utilization, most spaces had limited access/visibility.
- Further inspection of inaccessible areas will be necessary before any renovation or demolition takes place.
- Lab counter tops, drying racks, ovens and fume hood liners were not sampled, per building owner.
- Several spaces were in various stages of remodel. Inspection data reflects conditions within the space on the date of inspection.
- Room 138 was not inspected, per building owner.
- Relatively few tagged fire rated doors/frames were noted during the inspection. Several untagged doors exist with suspect material inside. Doors/frames should be considered and sampled on a case by case basis.
- Duct sealant red is positive ACM. Several locations were noted where sampled non-ACM duct sealants of different colors were applied over the ACM duct sealant red. This condition should be considered before any renovation/demolition activities.

A General Disclaimer Statement regarding this asbestos inspection is located in Section V of this Report.

Inspection Information:

All bulk samples were collected by Michigan Accredited Asbestos Inspectors in accordance with 40CFR Part 763 of the EPA's AHERA regulation. This sampling strategy is required according to 29 CFR Part 1926.1101 of the OSHA Asbestos Construction Standard for public and commercial buildings.

There are several terms/phrases that are identified in the various EPA and OSHA asbestos regulations, which are used within this ACM Survey report. They are as follows:

- ***Asbestos-Containing Material (ACM):***
Refers to a material, which contains more than 1% asbestos. If a given material contains over 1% asbestos, it is considered asbestos by all federal and state government agencies. If the material contains less than or equal to 1% asbestos, it is legally non-asbestos.
- ***Friable:***
Refers to the ability of the material to crumble or pulverize under hand pressure when dry.
- ***Functional Space (FS):***
Means a room, group of rooms or separate independent area, such as hallways, restrooms, etc.
- ***Functional Space Number:***
A number, assigned to each functional space by either the building owner or Nova.
- ***Homogeneous Area (HA):***
Refers to a material that is uniform in color and texture.
- ***Homogeneous Area Number:***
A number, assigned to each homogeneous area by the Nova Inspector(s).
- ***Miscellaneous Material:***
Any material, which is not classified as thermal system insulation or surfacing material.
- ***Surfacing Material:***
Means material that is sprayed trowelled-on or otherwise applied to surfaces, (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes).
- ***Thermal System Insulation (TSI):***
Means ACM applied to pipes, fittings, boilers, breeching, tanks, ducts or other structural components to prevent heat loss or gain.
- ***Units:***
Units of measurement in either square feet, linear feet or totals, such as a total count of a given material or component.



**Michigan State University
The Chemistry Building**

**Section II
Inspection Results**

This section is delineated into three separate sub-sections. Included in each sub-section are FS# or functional space numbers, FS Description, Material Description, amount of material present, whether the material is positive, negative or assumed asbestos and its present status. Please note that within the sub-sections all materials tested **positive** or **assumed** to be asbestos are in bold, while all materials tested negative for asbestos are in regular type.

A listing and description of each sub-section follows:

- ***Homogeneous Area Listing***
This listing provides a complete material listing as well as whether the material contains asbestos, is assumed or is negative for asbestos-containing material.
- ***List by Functional Space Number***
This listing provides all inspection information organized by functional space.
- ***List by Homogeneous Areas***
This listing provides all inspection information organized by homogeneous area, or material description.

The laboratory results are located in Section III of this Report.

Chemistry Building
Homogeneous Area List

Homogeneous Area Description	HA#	Asbestos
Concrete	1	Negative
Cinderblock	2	Negative
Cinderblock Mortar	3	Negative
Door Caulk - White	4	Negative
Window Glaze - Old Gray	5	Negative
Window Caulk Remnants - Black	6	Negative
2'x 2' Ceiling Panel - Dots/Gouges	7	Negative
9" x 9" Floor Tile - Tan w/ Brown & White Streaks	8	Positive
Mastic for 9" x 9" Floor Tile - Tan w/ Brown & White Streaks	9	Negative
4" Covebase - Black	10	Negative
Mastic for 4" Covebase - Black	11	Negative
Gluepod for Chalkboards	12	Negative
Fiberglass Pipe Insulation - New	13	Negative
Fiberglass Pipe Insulation - Old	14	Negative
Mud Fitting/Hanger on Fiberglass Pipe Insulation - Old	15	Positive
Lab Counter Top - Old	16	Assumed
Fiberglass Window Panel - Aluminum	17	Negative
Fiberglass Sill Vent Packing - Black	18	Negative
Spray - on Insulation - Gray	19	Positive
Tagged Fire Door	20	Assumed
Tagged Fire Door Frame	21	Assumed
Duct Sealant - Tan	22	Negative
Duct Sealant - Red	23	Positive
Duct Sealant - Gray	24	Negative
2'x 2' Ceiling Panel - Dots/Small Gouges	25	Negative
Lab Counter Top - New	26	Assumed
4" Covebase - Tan	27	Negative
Mastic for 4" Covebase - Tan	28	Negative
12" x 12" Floor Tile - Tan Marble	29	Negative
Mastic for 12" x 12" Floor Tile - Tan Marble	30	Negative
12" x 12" Floor Tile - Brown Marble	31	Negative
Mastic for 12" x 12" Floor Tile - Brown Marble	32	Negative
Fiberglass Duct Insulation - Aluminum	33	Negative
Duct Sealant - Green	34	Negative
Pipe/Deck Packing	36	Positive
Vinyl Sheeting -Tan w/ Brown & White Streaks	37	Negative
Mastic for Vinyl Sheeting -Tan w/ Brown & White Streaks	38	Negative
Door Caulk - New Gray	39	Negative
Stairtread - Tan w/ Brown & White Streaks	40	Negative
Mastic for Stairtread - Tan w/ Brown & White Streaks	41	Negative
Terrazzo	42	Negative
Roof Drain Packing	43	Negative
Window Assembly Caulk - Brown	44	Positive
Smooth Plaster Finishcoat	45	Negative
Smooth Plaster Browncoat	46	Negative
Ceramic Tile Wall - Beige	47	No Sample
Ceramic Tile Wall - Beige - Grout	48	Negative
Ceramic Tile Wall - Beige - Bedding	49	Negative
Ceramic Tile Floor - Brown	50	No Sample
Ceramic Tile Floor - Brown - Grout	51	Assumed
Ceramic Tile Floor - Brown - Bedding	52	Assumed

Chemistry Building
Homogeneous Area List

Homogeneous Area Description	HA#	Asbestos
Browncoat Wall	53	Positive
2'x 2' Ceiling Panel - Textured	54	Negative
Drywall	55	Negative
Drywall Tape	56	Negative
Drywall Mud	57	Negative
Fume Hood Liner - New White	59	Assumed
Firestop - Red	60	Negative
Vinyl Sheeting - Brown Marble	61	Negative
Mastic for Vinyl Sheeting - Brown Marble	62	Negative
2'x 2' Ceiling Panel - Dots and Long Gouges	63	Negative
12" x 12" Floor Tile - Gray with White and Grey Specks	64	Negative
Mastic for 12" x 12" Floor Tile - Gray with White and Grey Specks	65	Negative
Fume Hood Liner - Old	66	Assumed
Drying Rack - Old	67	Assumed
Duct Sealant - Thick Gray	68	Negative
Vinyl Sheet - Beige Pebbles	69	Negative
Mastic for Vinyl Sheet - Beige Pebbles	70	Negative
12" x 12" Floor Tile - Orange Mottled	71	Negative
Mastic for 12" x 12" Floor Tile - Orange Mottled	72	Negative
4" Covebase - Brown	73	Negative
Mastic for 4" Covebase - Brown	74	Negative
2'x 2' Ceiling Panel - Fabric	75	Negative
Cabinet Liner - Gray	76	Negative
Swirled Plaster - Finishcoat	77	Negative
Swirled Plaster - Browncoat	78	Negative
Door Panel	79	Assumed
Plasterboard Deck	80	Negative
Cementitious Drywall Tape	81	Positive
1' x 1' Ceiling Tile - Random Microdots	82	Negative
Gluepod for 1' x 1' Ceiling Tile - Random Microdots	83	Negative
12" x 12" Floor Tile - Beige Mottled	84	Negative
Mastic for 12" x 12" Floor Tile - Beige Mottled	85	Negative
Transite Oven	86	Assumed
9" x 9" Floor Tile - Grey/Tan	87	Positive
Mastic for 9" x 9" Floor Tile - Grey/Tan	88	Negative
4" Covebase - Gray	89	Negative
Mastic for 4" Covebase - Gray	90	Negative
Drain Pipe Paper Wrap	91	Positive
Sink Undercoating - Gray	92	Negative
Carpet Glue - Yellow	93	Negative
Fire Stop - Sprayed Red	94	Assumed
9" x 9" Floor Tile - Gray Streaks	95	Positive
Mastic for 9" x 9" Floor Tile - Gray Streaks	96	Negative
12" x 12" Floor Tile - Gray Mottled	97	Negative
Mastic for 12" x 12" Floor Tile - Gray Mottled	98	Negative
Unknown Black Mastic	99	Negative
2' x 2' Ceiling Panel - Textured Microdots	100	Negative
Vinyl Sheet - Gray Specks	101	Negative
Mastic for Vinyl Sheet - Gray Specks	102	Negative
12" x 12" Floor Tile - Green Mottled	103	Negative
Mastic for 12" x 12" Floor Tile - Green Mottled	104	Negative

Chemistry Building
Homogeneous Area List

Homogeneous Area Description	HA#	Asbestos
2' x 4' Ceiling Panel - Smooth White	105	Negative
Sink Undercoating - White	106	Negative
Ceramic Tile Wall - Gray	107	No Sample
Ceramic Tile Wall - Gray - Grout	108	Assumed
Ceramic Tile Wall - Gray - Bedding	109	Assumed
12" x 12" Floor Tile - White with Gray Specks	110	Negative
Mastic for 12" x 12" Floor Tile - White with Gray Specks	111	Negative
Wall Joint Caulk	112	Negative
Drying Oven	113	Assumed
12" x 12" Floor Tile - Cream Mottled	114	Negative
Mastic for 12" x 12" Floor Tile - Cream Mottled	115	Negative
Sink Undercoating - Black	116	Negative
12" x 12" Floor Tile - Tan Mottled	117	Negative
Mastic for 12" x 12" Floor Tile - Tan Mottled	118	Negative
2' x 2' Ceiling Panel - Pattern Microdots	119	Negative
12" x 12" Floor Tile - Cork	120	Assumed
Mastic for 12" x 12" Floor Tile - Cork	121	Assumed
12" x 12" Floor Tile - Olive with Cream Streaks	122	Negative
Mastic for 12" x 12" Floor Tile - Olive with Cream Streaks	123	Negative
12" x 12" Floor Tile - Tan with Rust	124	Negative
Mastic for 12" x 12" Floor Tile - Tan with Rust	125	Negative
Unknown Floor Tile	126	Negative
Mastic for Unknown Floor Tile	127	Negative
Duct Sealant - White	128	Negative
HVAC Fabric - Black	129	Negative
2' x 2' Ceiling Panel - Moonscape	130	Negative
2' x 2' Ceiling Panel - Textured Long Gouges	131	Negative
Canvas Fiberglass Duct Insulation	132	Negative
Concrete Texture	133	Negative
HVAC Fabric - White	134	Negative
Wall Coating - Black	135	Negative
Old Roof Flashing - Black	136	Positive
Exterior Window Caulk - Gray	137	Negative
Exterior Window Glaze - Gray	138	Negative
Exterior Window Panel	139	Assumed
Exterior Concrete Column	140	Negative
Exterior Concrete Column Caulk - Gray	141	Negative
Exterior Concrete Column Caulk - Tan (mortar)	142	Negative
Exterior Stone Wall Mortar	143	Negative
Exterior Brick	144	Negative
Exterior Brick Mortar	145	Negative
Exterior Overhang - Concrete	146	Negative
Exterior Louvre Caulk - Gray	147	Negative
Exterior Penthouse Flashing	148	Negative
Exterior Penthouse Flashing Caulk - Black	149	Negative
Exterior Penthouse Metal Wall Caulk - Gray	150	Negative
Exterior Penthouse Louvre Caulk - Gray	151	Negative
9" x 9" Floor Tile - Brown	152	Positive
Mastic for 9" x 9" Floor Tile - Brown	153	Negative
12" x 12" Floor Tile - Brown	154	Negative
Mastic for 12" x 12" Floor Tile - Brown	155	Negative

Chemistry Building
Homogeneous Area List

Homogeneous Area Description	HA#	Asbestos
Vinyl Sheeting - Orange	156	Negative
Mastic for Vinyl Sheeting - Orange	157	Negative
Vinyl Sheeting - Peach	158	Negative
Mastic for Vinyl Sheeting - Peach	159	Negative
Exterior Door Caulk - Gray	160	Negative
Fiberglass AHU Backing - Black	161	Negative