



December 28, 2018

Project No. 1765901

Mr. Craig Bartley  
Lucas Metropolitan Housing Authority  
201 Belmont Avenue  
Toledo, Ohio 43604

**NESHAP Asbestos Survey Report  
Port Lawrence Homes  
834 14<sup>th</sup> Street  
Toledo, Ohio**

Dear Mr. Bartley:

TTL Associates, Inc. (TTL) performed a United States Environmental Protection Agency (U.S. EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) asbestos survey at Port Lawrence Homes located at 834 14th Street in Toledo, Ohio on December 7, 2018. TTL understands the unit is scheduled for renovation to repair damage caused by a fire. The asbestos survey was performed for Lucas Metropolitan Housing Authority (LMHA), in accordance with TTL Proposal Number 1765901.

The purpose of the NESHAP asbestos regulation is to protect human health and the environment by minimizing the release of asbestos when facilities that contain asbestos-containing materials (ACM) are renovated or demolished. The U.S. EPA defines an ACM as a material that contains greater than one-percent asbestos by visual estimation or weight.

**SURVEY, SAMPLING, AND ANALYSIS**

The objective of this project was to collect the data necessary to comply with the NESHAP renovation/demolition inspection requirements. To meet this objective, Mr. George Albert of TTL conducted a non-destructive NESHAP asbestos survey of the accessible areas of the residential structure. Mr. Albert is certified by the Ohio Environmental Protection Agency (OEPA) as an Asbestos Hazard Evaluation Specialist (AHES). A copy of Mr. Albert's certification is included in Attachment A.

The asbestos survey included the identification of suspect materials and the definition of homogeneous sampling areas (HSAs), assessment of the condition of each material, estimation of approximate quantity of the suspect ACM, and collection and analysis of bulk samples from each identified HSA. An HSA is defined as a material that exhibited similar physical characteristics (e.g., texture, surface color, and appearance) and was applied or installed at the same time (if known) as observed by the inspection team utilizing professional judgment and experience.

The samples were collected using a coring device or other means, as appropriate, to collect a cross section of the suspect material. The samples were placed into clean and unused sealable bags marked with unique sample identification numbers. The samples of suspect ACM were transported to TTL's asbestos laboratory for analysis by Polarized Light Microscopy (PLM). TTL's laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), No. 101594-0, which is administered by the National Institute of Standards and Technology (NIST). The laboratory accreditation number is included in the attached analytical report.

### **SURVEY RESULTS**

A total of 9 suspect ACM were identified in accessible areas of the residential structure from which 26 samples were collected and 62 sample layers were analyzed.

No ACM was identified.

Refer to the NESHAP Asbestos Survey Summary Table in Attachment B for a listing of the materials identified and the analytical results. The laboratory analytical report is located in Attachment C. A map identifying sample locations is included in Attachment D.

### **CONCLUSIONS/RECOMMENDATIONS**

No ACM was identified.

The U.S. EPA defines regulated asbestos-containing material (RACM) as: (a) Friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable ACM 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 NESHAP asbestos regulations require the removal of all RACM from a facility being demolished or renovated prior to beginning any activity that may damage or disturb the material. The U.S. EPA requires written notification if the combined amount of RACM to be removed is at least 260 linear feet, at least 160 square feet, or at least one cubic meter of facility components where length or area could not be measured. A written Notification of Intent to Renovate/Demolish form is required to be submitted to the U.S. EPA or their designated authority at least ten business days prior to beginning any asbestos abatement and/or demolition project.

### **LIMITATIONS**

TTL has made reasonable efforts to identify and quantify suspect ACM based upon the standard of care in the environmental industry existing at the time of the survey.

Mr. Craig Bartley  
Lucas Metropolitan Housing Authority

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Additional material disturbed during renovation or demolition activities should be evaluated on a case-by-case basis, especially materials that were previously hidden, obscured, or inaccessible, to determine if the material is included in this survey. If a given material is not described in this survey or cannot be identified as a non-suspect material, the material should be assumed to contain asbestos and renovation and/or demolition activities should be halted until sampling and analysis can be accomplished. Parties conducting renovation and/or demolition activities should follow all applicable federal, state, and local regulations in handling identified and suspect ACM.

The information contained in this report was based upon specific parameters and regulations in force at the time of the survey. The information herein is only for the specific use of LMHA and TTL, unless written authorization is obtained from TTL. TTL accepts no responsibility for the use, interpretation, or reliance by other parties on the information contained herein, nor does this report represent an instrument of regulatory compliance or an asbestos abatement specification.

TTL appreciates the continued opportunity to provide LMHA with our consulting and testing services and we look forward to working with you in the future. Should you have any questions concerning this report, please contact Ms. Sara Vogelpohl at (419) 214-5090.

Sincerely,

**TTL Associates, Inc.**



George Albert  
Asbestos Hazard Evaluation Specialist  
ES36301



Sara Vogelpohl, CIH  
Manager, Asbestos and Hazardous Materials Services

**ATTACHMENT A**  
**TTL CERTIFICATION**

**State of Ohio**  
Environmental Protection Agency  
Asbestos Program

Asbestos Hazard Evaluation Specialist



**George T. Albert**  
TTL Associates Inc.  
1915 North 12th St.  
Toledo OH 43604

**Ohio**  
Environmental Protection Agency

<b>DOB:</b> 04/12/1988	<b>Certification Number</b> ES36301	<b>Expiration Date</b> 06/11/2019
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This certification is issued pursuant to Revised Code Chapter 3710 and Administrative Code Chapter 3745-22. This card is not valid if altered.

**ATTACHMENT B**  
**NESHAP ASBESTOS SURVEY SUMMARY TABLE**

NESHAP Asbestos Survey Summary Table  
 Port Lawrence Homes  
 834 14th Street  
 Toledo, OH

HSA #	Material Description	Friability	Functional Area	Quantity	Units	Sample Number	Sample Results
01	Plaster With Texture	NF-II	Bedroom 1	647	s.f.	01C	Negative
01	Plaster With Texture	NF-II	Hallway	189	s.f.	01A	Negative
01	Plaster With Texture	NF-II	Bathroom	204	s.f.		Negative
01	Plaster With Texture	NF-II	Bedroom 2	418	s.f.	01B	Negative
01	Plaster With Texture	NF-II	Living Room	473	s.f.	01D	Negative
01	Plaster With Texture	NF-II	Kitchen	498	s.f.	01E,01G	Negative
01	Plaster With Texture	NF-II	Maintenance Room	162	s.f.		Negative
01	Plaster With Texture	NF-II	Walk In Closet	162	s.f.	01F	Negative
			Total	2,753	s.f.		
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Bedroom 1	132	s.f.	02A	Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Hallway	18	s.f.		Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Bathroom	28	s.f.		Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Bedroom 2	90	s.f.		Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Living Room	121	s.f.		Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Kitchen	130	s.f.		Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Maintenance Room	18	s.f.	02B	Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Walk In Closet	18	s.f.		Negative
			Total	555	s.f.		
03	4" Brown Covebase and Mastic	NF-II	Bedroom 1	132	I.f.	03A	Negative
03	4" Brown Covebase and Mastic	NF-II	Hallway	18	I.f.		Negative
03	4" Brown Covebase and Mastic	NF-II	Bedroom 2	90	I.f.		Negative
03	4" Brown Covebase and Mastic	NF-II	Living Room	121	I.f.		Negative
03	4" Brown Covebase and Mastic	NF-II	Kitchen	130	I.f.	03B	Negative
03	4" Brown Covebase and Mastic	NF-II	Maintenance Room	18	I.f.		Negative
03	4" Brown Covebase and Mastic	NF-II	Walk In Closet	18	I.f.		Negative
			Total	527	I.f.		
04	Drywall with Texture and Joint Compound	NF-II	Bedroom 1	12	s.f.	04A	Negative
04	Drywall with Texture and Joint Compound	NF-II	Bathroom	40	s.f.		Negative
04	Drywall with Texture and Joint Compound	NF-II	Bedroom 2	12	s.f.	04B	Negative
04	Drywall with Texture and Joint Compound	NF-II	Living Room	80	s.f.		Negative
04	Drywall with Texture and Joint Compound	NF-II	Kitchen	800	s.f.	04D,04E	Negative
04	Drywall with Texture and Joint Compound	NF-II	Walk In Closet	144	s.f.	04C	Negative
			Total	1,088	s.f.		
05	Window Frame Caulk (White)	NF-II	Bedroom 1	14	I.f.	05A	Negative
05	Window Frame Caulk (White)	NF-II	Bedroom 2	12	I.f.		Negative
05	Window Frame Caulk (White)	NF-II	Living Room	15	I.f.		Negative
05	Window Frame Caulk (White)	NF-II	Kitchen	18	I.f.	05B	Negative
			Total	59	s.f.		
06	6" Brown Covebase and Mastic	NF-II	Bathroom	28	s.f.	06A,06B	Negative
			Total	28	s.f.		
07	White Caulk	NF-II	Bathroom	28	s.f.	07A,07B	Negative
			Total	28	s.f.		
08	White Sink Undercoating	NF-II	Kitchen	1	Each	08A,08B	Negative

NESHAP Asbestos Survey Summary Table  
Port Lawrence Homes  
834 14th Street  
Toledo, OH

HSA #	Material Description	Friability	Functional Area	Quantity	Units	Sample Number	Sample Results
		Total		1	Each		



NESHAP Asbestos Survey Summary Table  
 Port Lawrence Homes  
 834 14th Street  
 Toledo, OH

HSA #	Material Description	Friability	Functional Area	Quantity	Units	Sample Number	Sample Results
09	Brown Stair Tread and Mastic	NF-II	Stairway	156	s.f.	09A,09B	Negative
			Total	156	s.f.		

**ATTACHMENT C**  
**ASBESTOS ANALYTICAL REPORT**

1915 North 12th Street  
Toledo, OH 43604-5305  
T 419-324-2222  
F 419-241-1808  
www.tlassoc.com



# TEST REPORT

**CLIENT:** Lucas Metropolitan Housing Authority  
Housing Authority  
201 Belmont Avenue

**DATE:** December 11, 2018

Toledo, Ohio 43604

**ATTN:**

**Project No.:** 1765901.01

**Lab Receiving No.:** 18-12-205608

**Date Received:** December 7, 2018

**Date Sampled:** December 7, 2018

**Project Location:** Port Lawrence Homes  
834 14th Street  
Toledo, Ohio

**Sample Point(s):** see analytical results

**Analysis Performed:** Asbestos Analysis by PLM

**DISCLAIMER**

This report is "PROPRIETARY AND CONFIDENTIAL" and delivered to, and intended for the exclusive use of the above named client only. TTL Associates, Inc., assumes no responsibility or liability for the reliance hereon or use hereof by anyone other than the above named client.

Reviewed by: Myron V. Gasiorowski Date: 12/10/2018  
Myron V. Gasiorowski, Lab Supervisor

Approved by: Sara Vogelpohl Date: 12/11/2018  
Sara Vogelpohl, Technical Manager

## ANALYTICAL NARRATIVE

The note(s) below pertain to the sample(s) and analytical data reported herein:

Quantitative results are listed as approximate % asbestos. Results are based on calibrated visual estimation of materials. All results <1% asbestos (Trace) have been confirmed by the analysis of a duplicate slide. As per the method, all "negative" or BDL samples have been confirmed by triplicate analyses. Due to the nature of the samples the following measurements of uncertainty may apply:

% Asbestos	Uncertainty
1%	± 2%
5%	± 4%
10%	± 5%
>20%	± 10%

Due to the complexity of analyzing floor tile by PLM, the client may want to consider having "negative" floor tiles analyzed further by an alternative method such as TEM.

Samples are archived by TTL Associates for a period of thirty days. Samples may be retained for a longer period of time or returned to the client upon written request.

### Laboratory Accreditation:

U.S. Department of Commerce, National Institute of Standards and Technology(NIST), National Voluntary Laboratory Accreditation Program (NVLAP), Lab #101594-0. Accredited to the Interim Method for the Determination of Asbestos in Bulk Insulation Samples, EPA Method EPA-600/M4-82-020 and the Method for the Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116.

This report may not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested, and may not be reproduced, except in full, without the written approval of the laboratory.

### Report Key:

BDL = Below Detection Level  
n/a = not applicable  
HSA = Homogeneous Sampling Area

Detection Level: 1% asbestos fibers greater than one micrometer in length.

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

**METHOD NUMBER:** EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299  
**BATCH NUMBER:** 2PLM020818, 2PLM021018  
**DATE ANALYZED:** December 10, 2018  
**ANALYST:** Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
237431	1765901-01A	01	Hallway, plaster with texture	Beige/Grey Plaster	100% Binder	BDL
237432	1765901-01B Layer A	01	Bedroom 2, plaster with texture	Beige Plaster	100% Binder	BDL
237432	1765901-01B Layer B	01	same	White/Multi Color Paint	100% Binder	BDL
237433	1765901-01C Layer A	01	Bedroom 1, plaster with texture	Beige Plaster	100% Binder	BDL
237433	1765901-01C Layer B	01	same	White/Multi Color Paint/Skim Coat Plaster	100% Binder	BDL
237434	1765901-01D Layer A	01	Living room, plaster with texture	Beige Plaster	100% Binder	BDL
237434	1765901-01D Layer B	01	same	White/Multi Color Paint	100% Binder	BDL
237435	1765901-01E Layer A	01	Kitchen, plaster with texture	Grey Plaster	100% Binder	BDL
237435	1765901-01E Layer B	01	same	White Plaster	100% Binder	BDL
237435	1765901-01E Layer C	01	same	White/Multi Color Paint/Skim Coat Plaster	100% Binder	BDL

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**ANALYST:** Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
237436	1765901-01F Layer A	01	Walk-in closet, plaster with texture	Beige Plaster	100% Binder	BDL
237436	1765901-01F Layer B	01	same	White Plaster	100% Binder	BDL
237436	1765901-01F Layer C	01	same	White/Multi Color Paint/Skim Coat Plaster	100% Binder	BDL
237437	1765901-01G Layer A	01	Kitchen, plaster with texture	Grey Plaster	100% Binder	BDL
237437	1765901-01G Layer B	01	same	Beige Plaster	100% Binder	BDL
237437	1765901-01G Layer C	01	same	White/Multi Color Paint/Skim Coat Plaster	100% Binder	BDL
237438	1765901-02A Layer A	02	Bedroom 1, 12" x 12" beige floor tile and mastic	Beige/Tan Floor Tile	100% Binder	BDL
237438	1765901-02A Layer B	02	same	Black Mastic	100% Binder, <1% Cellulose	BDL
237439	1765901-02B Layer A	02	Maintenance room, 12" x 12" beige floor tile and mastic	Beige/Tan Floor Tile	100% Binder	BDL
237439	1765901-02B Layer B	02	same	Black Mastic	100% Binder, <1% Cellulose	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

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LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
237440	1765901-03A Layer A	03	Bedroom 1, 4" brown cove base and mastic	Brown Molding	100% Binder	BDL
237440	1765901-03A Layer B	03	same	Yellow Glue	100% Binder	BDL
237441	1765901-03B Layer A	03	Kitchen, 4" brown cove base and mastic	Brown Molding	100% Binder	BDL
237441	1765901-03B Layer B	03	same	Yellow Glue	100% Binder	BDL
237442	1765901-04A Layer A	04	Bedroom 1, drywall and textured joint compound	White Gypsum Board	100% Binder, <1% Cellulose	BDL
237442	1765901-04A Layer B	04	same	Tan Backing	100% Cellulose	BDL
237442	1765901-04A Layer C	04	same	Off White Caulk	100% Binder	BDL
237442	1765901-04A Layer D	04	same	White Skim Coat Plaster	100% Binder	BDL
237442	1765901-04A Layer E	04	same	White Paint	100% Binder	BDL
237443	1765901-04B Layer A	04	Bedroom 2, drywall and textured joint compound	White Gypsum Board	100% Binder, <1% Cellulose	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

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LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
237443	1765901-04B Layer B	04	same	Tan Backing	100% Cellulose	BDL
237443	1765901-04B Layer C	04	same	White Caulk	100% Binder	BDL
237443	1765901-04B Layer D	04	same	White Joint Compound	100% Binder	BDL
237443	1765901-04B Layer E	04	same	White Paint	100% Binder	BDL
237444	1765901-04C Layer A	04	Walk-in closet, drywall and textured joint compound	White Gypsum Board	100% Binder, <1% Cellulose	BDL
237444	1765901-04C Layer B	04	same	Tan Backing	100% Cellulose	BDL
237444	1765901-04C Layer C	04	same	White Joint Tape	100% Cellulose	BDL
237444	1765901-04C Layer D	04	same	White Joint Compound	100% Binder	BDL
237444	1765901-04C Layer E	04	same	White Paint	100% Binder	BDL
237445	1765901-04D Layer A	04	Kitchen, drywall and textured joint compound	White Gypsum Board	100% Binder, <1% Cellulose	BDL



**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

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LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
237445	1765901-04D Layer B	04	same	Tan Backing	100% Cellulose	BDL
237445	1765901-04D Layer C	04	same	White Joint Tape	100% Cellulose	BDL
237445	1765901-04D Layer D	04	same	White Joint Compound	100% Binder	BDL
237445	1765901-04D Layer E	04	same	White Paint	100% Binder	BDL
237446	1765901-04E Layer A	04	Kitchen, drywall and textured joint compound	White Gypsum Board	100% Binder, <1% Cellulose	BDL
237446	1765901-04E Layer B	04	same	Tan Backing	100% Cellulose	BDL
237446	1765901-04E Layer C	04	same	White Joint Tape	100% Cellulose	BDL
237446	1765901-04E Layer D	04	same	White Joint Compound	100% Binder	BDL
237447	1765901-05A	05	Bedroom 1, white window caulk	Light Grey Caulk	100% Binder	BDL
237448	1765901-05B	05	Kitchen, white window caulk	Light Grey Caulk	100% Binder	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

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LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
237449	1765901-06A Layer A	06	Bathroom, 6" brown cove base and mastic	Brown Molding	100% Binder	BDL
237449	1765901-06A Layer B	06	same	Beige Glue	100% Binder	BDL
237450	1765901-06B Layer A	06	Bathroom, 6" brown cove base and mastic	Brown Molding	100% Binder	BDL
237450	1765901-06B Layer B	06	same	Beige Glue	100% Binder	BDL
237451	1765901-07A	07	Bathroom, white caulk	White Caulk	100% Binder	BDL
237452	1765901-07B	07	Bathroom, white caulk	White Caulk	100% Binder	BDL
237453	1765901-08A	08	Kitchen, white sink undercoating	White Undercoating	99% Binder, 1% Cellulose	BDL
237454	1765901-08B	08	Kitchen, white sink undercoating	White Undercoating	99% Binder, 1% Cellulose	BDL
237455	1765901-09A Layer A	09	Stairs, brown stair tread and mastic	Brown Stair Tread	100% Binder	BDL
237455	1765901-09A Layer B	09	same	Tan Glue	100% Binder	BDL

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LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
237456	1765901-09B Layer A	09	Stairs, brown stair tread and mastic	Brown Stair Tread	100% Binder	BDL
237456	1765901-09B Layer B	09	same	Yellow Glue	100% Binder	BDL



1915 North 12th St., Toledo, OH 43604-5305; Voice 419-324-2222, Fax 419-241-1808  
 Ship To Address: ATTN: RECEIVING LAB, 1915 North 12th St., Toledo, OH 43604-5305  
 Sent From:  Toledo  Plymouth  Detroit  Other

# Chain of Custody Record

No. 27694 Page 1 of 3

Project No.: 1765401		Client: LMHA		Total No. of Containers		Parameters		LAB USE ONLY	
PO. No.:		Project/Location: Port Lawrence Homes 834 14th Street Toledo, OH		Total No. of Containers		Parameters		LAB USE ONLY	
Project Mgr.: Sara Vogelwohl		Sampler's Name: George Albert		Total No. of Containers		Parameters		LAB USE ONLY	
Phone No. 419-214-5040		Sampler's Signature: <i>George Albert</i>		Total No. of Containers		Parameters		LAB USE ONLY	
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location	Preserved Yes/No	Lab #	Comments
1	176590601A	12-7-18	N/A	Drill	Solid	Plaster with texture hallway		237431	
2	01B					Bedroom 2		237432	
3	01C					Bedroom 1		237433	
4	01D					Living Room		237434	
5	01E					Kitchen		237435	
6	01F					Walk-in Closet		237436	
7	01G					Kitchen		237437	
8	02A					13 x 12 Beige ft acoustic Bedroom 1		237438	
9	02B					Maint room		237439	
10	03A					4" Brown Cove Base acoustic Bedroom 1		237440	
Item No. 1-10	Relinquished By: George Albert	Date: 12/7/18	Time: 11:30	Date: 12/7/18	Time: 14:30	Received By: <i>V. Johnson</i>	Were samples delivered: <input checked="" type="checkbox"/> in person <input type="checkbox"/> in lab <input type="checkbox"/> in field	Temp of samples: <i>11/10/18</i>	Were samples packaged properly for contents? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Item No.	Relinquished By:	Date / Time	Date / Time	Date / Time	Date / Time	Received By:	Were samples preserved: <input type="checkbox"/> in lab <input type="checkbox"/> in field	Did samples arrive intact and sealed? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	Were proper containers used? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Item No.	Relinquished By:	Date / Time	Date / Time	Date / Time	Date / Time	Received By:	Was container labeled properly for contents? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	Were samples packaged properly for type of material? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	Was shipping label completed properly per regulations? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Item No.	Relinquished By:	Date / Time	Date / Time	Date / Time	Date / Time	Received By:	Samples were: <input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected	Comments:	



1915 North 12th St., Toledo, OH 43604-5305; Voice 419-324-2222, Fax 419-241-1808  
 Ship To Address: ATTN: RECEIVING LAB, 1915 North 12th St., Toledo, OH 43604-5305  
 Sent From:  Toledo  Plymouth  Detroit  Other

# Chain of Custody Record

No. 27693 Page 2 of 3

Project No: 1765901		Client: LARA		Project/Location: Port Warehouse Homes 834 14th Street Toledo Ohio		
P.O. No:		Sampler's Name: George Albert		Sampler's Signature: <i>George Albert</i>		
Project Mgr: Steve Vogelzohel		Sample Location		Total No. of Containers		
Phone No: 419-214-5000		Matrix		Pth-Asbestos		
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location
1	1765901030	12-7-18	N/A	SOIL	SOLID	4" Brown Corrugated + plastic Kitchen
2	04A					Ony wall and texture and joint and Bedroom
3	04B					Bedroom 2
4	04C					Walkin Close
5	04D					Kitchen
6	04E					Kitchen
7	05A					Bedroom 1
8	05B					Kitchen
9	06A					Bathroom
10	06B					Bathroom

Item No.	Relinquished By:	Date / Time	Received By:	Date / Time
1-10	George Albert	12-7-18 1:30	<i>George Albert</i>	12/7/18 1:30
Item No.	Relinquished By:	Date / Time	Received By:	Date / Time
Item No.	Relinquished By:	Date / Time	Received By:	Date / Time
Item No.	Relinquished By:	Date / Time	Received By:	Date / Time

LAB USE ONLY	
Were samples delivered	<input checked="" type="checkbox"/> in person <input type="checkbox"/> by courier
Were samples preserved	<input type="checkbox"/> in field <input checked="" type="checkbox"/> in lab
Temp of samples	NA
Did samples arrive intact and sealed?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Were proper containers used?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Was container labeled properly for contents?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Were samples packaged properly for type of material?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Was shipping label completed properly per regulations? (49 CFR 170, etc.)	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Samples were	<input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected
Comments:	TAT 570

Distribution: Original plus one accompanies shipment (white and yellow); copy to coordinator field files (pink)



1915 North 12th St., Toledo, OH 43604-5305; Voice 419-324-2222, Fax 419-241-1808  
 Ship To Address: ATTN: RECEIVING LAB, 1915 North 12th St., Toledo, OH 43604-5305  
 Sent From:  Toledo  Plymouth  Detroit  Other

# Chain of Custody Record

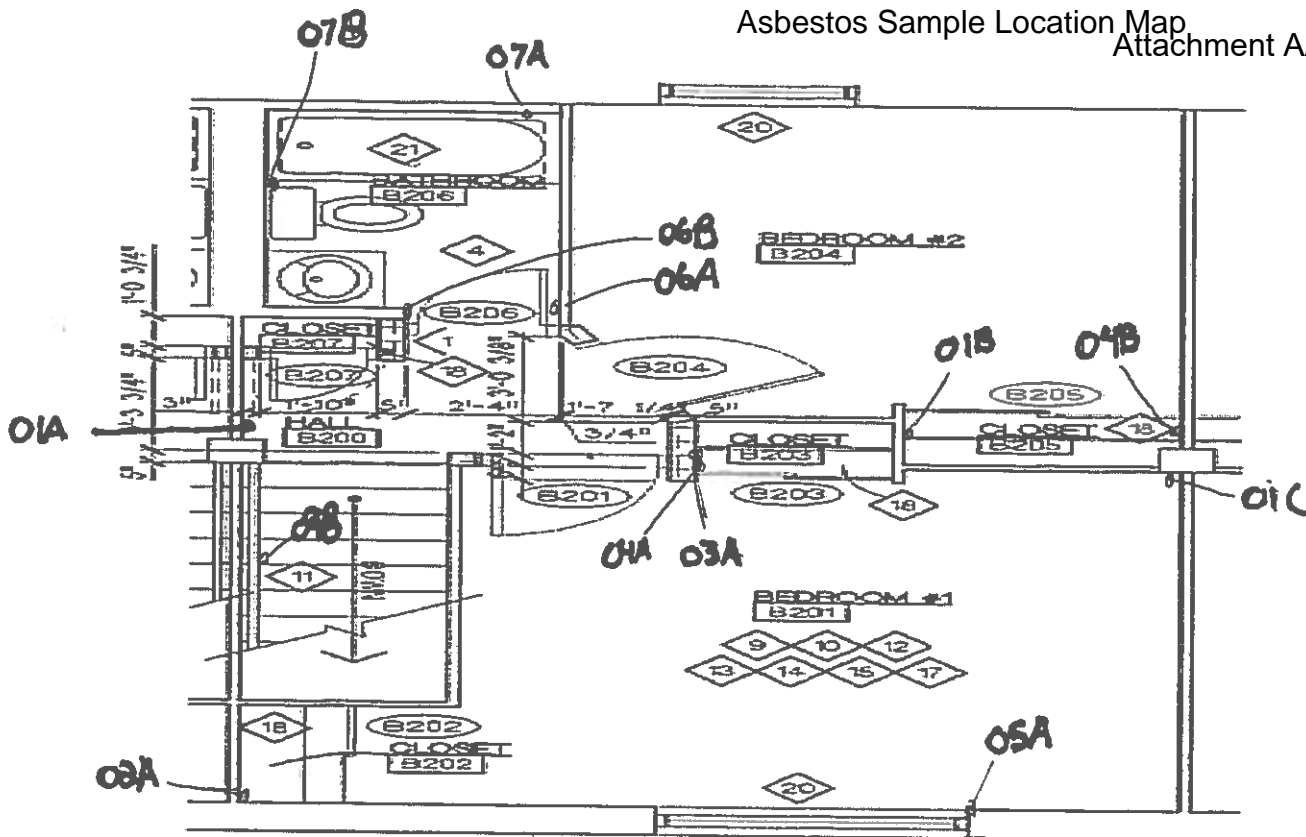
No. 27695 Page 3 of 3

Project No.: 1765401		Client: L M H A		Project/Location: Pull in Warehouse times 834 14th Street Toledo Ohio		Parameters: KPH# 56286	
P.O. No.:		Sampler's Name: George Albert		Sampler's Signature: <i>George Albert</i>		LAB USE ONLY	
Project Mgr.: Sara Vayelaphi		Sample Location		Total No. of Containers		Preserved Yes/No	
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	LAB USE ONLY	Lab #
1	1765401 08A	12-7-18	NA	Solid	Solid		237451
2	08B				Bathroom		237452
3	08A				Bedroom		237453
4	08B				Kitchen		237454
5	09A				Kitchen		237455
6	09B				Break room + office		237456
7							
8							
9							
10							

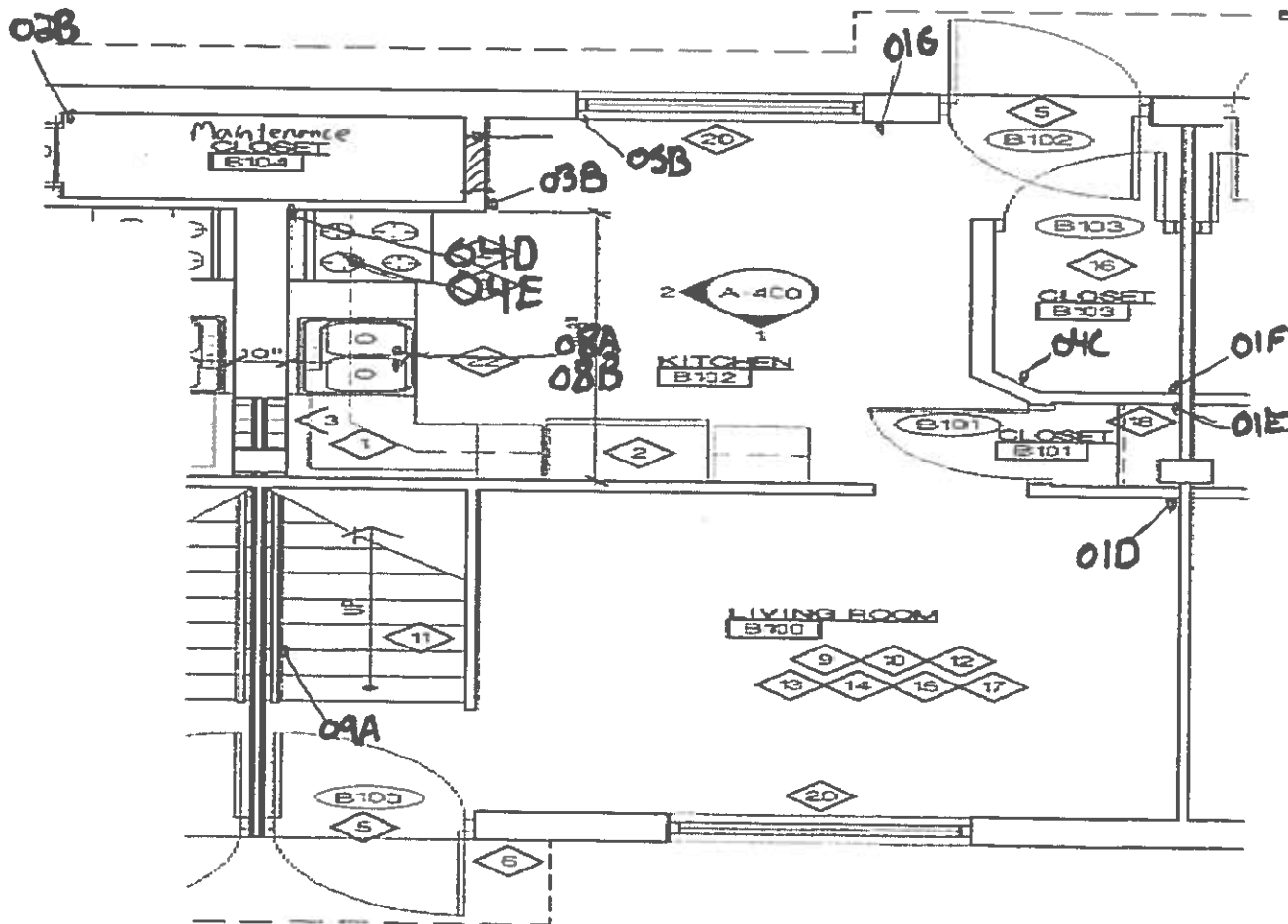
  

Item No.	Relinquished By:	Date / Time	Received By:	Date / Time	LAB USE ONLY
1-6	George Albert	12-7-18 14:30	<i>V. Vayelaphi</i>	12/7/18 14:30	Were samples delivered <input checked="" type="checkbox"/> in person <input type="checkbox"/> by courier <input type="checkbox"/> Were samples preserved <input type="checkbox"/> in lab <input type="checkbox"/> in field <input checked="" type="checkbox"/> Temp of samples <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Did samples arrive intact and sealed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Were proper containers used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Was container labeled properly for contents? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Were samples packaged properly for type of material? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Was shipping label completed properly per regulations? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Samples were <input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected <input type="checkbox"/> TAT 570
Item No.	Relinquished By:	Date / Time	Received By:	Date / Time	Comments:
Item No.	Relinquished By:	Date / Time	Received By:	Date / Time	

**ATTACHMENT D**  
**SAMPLE LOCATION MAP**



BLDGS. 2,







February 4, 2020

Project No. 1920701

Mr. Craig Bartley  
Lucas Metropolitan Housing Authority  
201 Belmont Avenue  
Toledo, Ohio 43604

**NESHAP Asbestos Survey Report  
Birmington Terrace  
Unit 37  
2100 Consaul Street  
Toledo, Ohio**

Dear Mr. Bartley:

TTL Associates, Inc. (TTL) performed a United States Environmental Protection Agency (U.S. EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) asbestos survey at Unit 37 located at 2100 Consaul Street in Toledo, Ohio on January 24, 2020. TTL understands the Unit will be renovated due to a fire. The asbestos survey was performed for Lucas Metropolitan Housing Authority (LMHA), in accordance with Proposal Number 1920701, dated January 22, 2020.

The purpose of the NESHAP asbestos regulation is to protect human health and the environment by minimizing the release of asbestos when facilities that contain asbestos-containing materials (ACM) are renovated or demolished. The U.S. EPA defines an ACM as a material that contains greater than one-percent asbestos by visual estimation or weight.

**SURVEY, SAMPLING, AND ANALYSIS**

The objective of this project was to collect the data necessary to comply with the NESHAP renovation/demolition inspection requirements. To meet this objective, Mr. Obed Ombongi of TTL conducted a non-destructive NESHAP asbestos survey of the accessible interior of Unit 37. Mr. Ombongi is certified by the Ohio Environmental Protection Agency (OEPA) as an Asbestos Hazard Evaluation Specialist (AHES). A copy of Mr. Ombongi's certification is included in Attachment A.

The asbestos survey included the identification of suspect materials and the definition of homogeneous sampling areas (HSA's), assessment of the condition of each material, estimation of approximate quantity of the suspect ACM, and collection and analysis of bulk samples from each identified HSA.

An HSA is defined as a material that exhibited similar physical characteristics (e.g., texture, surface color, and appearance) and was applied or installed at the same time (if known) as observed by the inspector utilizing professional judgment and experience.

The samples were collected using a coring device or other means, as appropriate, to collect a cross section of the suspect material. The samples were placed into clean and unused sealable bags marked with unique sample identification numbers. The samples of suspect ACM were transported to TTL's asbestos laboratory for analysis by Polarized Light Microscopy (PLM). TTL's laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), which is administered by the National Institute of Standards and Technology (NIST). The laboratory accreditation number is included in the attached analytical report.

### **SURVEY RESULTS**

A total of eight suspect ACM were identified in accessible areas of the interior of Unit 37, from which 22 samples were collected and 47 sample layers were analyzed.

No ACM was identified, however, one material (black mastic associated with 12"x12" tan with brown specks floor tile) contains less than one percent asbestos.

Refer to the NESHAP Asbestos Survey Summary Table in Attachment B for a listing of the materials identified and the analytical results. The laboratory analytical report is located in Attachment C. A map identifying sample locations is located in Attachment D.

### **CONCLUSIONS/RECOMMENDATIONS**

The U.S. EPA defines regulated asbestos-containing material (RACM) as: (a) Friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable ACM 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 NESHAP asbestos regulations require the removal of all RACM from a facility being demolished or renovated prior to beginning any activity that may damage or disturb the material.

No ACM was identified, however, one material (black mastic associated with 12"x12" tan with brown specks floor tile) contains less than one percent asbestos. TTL recommends the material be treated as asbestos-containing or further analysis be conducted by transmission electronic microscopy (TEM) to determine asbestos content.

The U.S. EPA requires written notification if the combined amount of RACM to be removed is at least 260 linear feet, at least 160 square feet, or at least one cubic meter of facility components where length or area could not be measured. A written Notification of Intent to Renovate/Demolish form is required to be submitted to the U.S. EPA or their designated authority at least ten business days prior to beginning any asbestos abatement and/or demolition project.

The OEPA requires a written notification if the RACM to be removed is at least 160 square feet or 260 linear feet, or at least 35 cubic feet of facility components where length or area could not be measured. This notification is to be submitted at least ten working days prior to beginning any asbestos abatement.

TTL recommends the removal of the identified ACM that may become RACM by a licensed abatement contractor prior to building renovation or demolition activities which may disturb or damage the materials.

### **LIMITATIONS**

TTL has made reasonable efforts to identify and quantify suspect ACM based upon the standard of care in the environmental industry existing at the time of the survey.

Additional material disturbed during renovation or demolition activities should be evaluated on a case-by-case basis, especially materials that were previously hidden, obscured, or inaccessible, to determine if the material is included in this survey. If a given material is not described in this survey or cannot be identified as a non-suspect material, the material should be assumed to contain asbestos and renovation and/or demolition activities should be halted until sampling and analysis can be accomplished. Parties conducting renovation and/or demolition activities should follow all applicable federal, state, and local regulations in handling identified and suspect ACM.

The information contained in this report was based upon specific parameters and regulations in force at the time of the survey. The information herein is only for the specific use of LMHA and TTL. TTL accepts no responsibility for the use, interpretation, or reliance by other parties on the information contained herein, nor does this report represent an instrument of regulatory compliance or an asbestos abatement specification.

Mr. Craig Bartley  
Lucas Metropolitan Housing Authority

Project No. 1920701  
Page 4

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TTL appreciates the continued opportunity to provide LMHA with our consulting and testing services and we look forward to working with you in the future. Should you have any questions concerning this report, please contact Ms. Sara Vogelpohl at (419) 214-5090.

Sincerely,

**TTL Associates, Inc.**



Obed Ombongi  
Associate Hazard Evaluation Specialist  
ES35641



Sara Vogelpohl, CIH  
Project Manager

V:\Toledo\Lucas County\Lucas Metropolitan Housing Authority\BirminghamTerrace\Unit 37 Asbestos Survey\Report\1920701 NESHAP  
Asbestos Survey Report.docx

**ATTACHMENT A**  
**TTL CERTIFICATION**

State of Ohio  
Environmental Protection Agency  
Asbestos Program

**Evaluation Specialist**

**Obed  
Ombongi**

TTL Associates, Inc.  
1915 North 12th Street  
Toledo OH 43604



**Certification Number** **Expiration Date**

**ES35641** **07/23/20**

DOB: 08/29/82  
Card not Valid  
if Altered

**ATTACHMENT B**  
**NESHAP ASBESTOS SURVEY SUMMARY TABLE**

Homogeneous Sampling Areas Table  
 Lucas Metropolitan Housing Authority  
 2100 Consaul Street, Unit 37  
 Toledo, Ohio

HSA #	Material Description	Friability	Functional Area	Quantity	Units	Sample Results
01	Drywall and Associated Joint Compound	NF-II	Throughout	1,288	s.f.	Negative
			<b>Total</b>	<b>1,288</b>	<b>s.f.</b>	
02	Plaster	NF-II	Throughout	2,850	s.f.	Negative
			<b>Total</b>	<b>2,850</b>	<b>s.f.</b>	
03	12"x12" Tan with Brown Specks Floor Tile and Black Mastic	NF-I	Throughout	1,110	s.f.	<1% Chrysotile
			<b>Total</b>	<b>1,110</b>	<b>s.f.</b>	
04	4" Brown Cove Base and Associated Mastic	NF-II	Throughout	385	l.f.	Negative
			<b>Total</b>	<b>385</b>	<b>l.f.</b>	
05	<b>White Sink Undercoating</b>	NF-II	Room 2	2 Sinks	Units	Negative
				<b>2 Sinks</b>	Units	
06	White Window Glazing	NF-II	Windows	100	l.f.	Negative
				<b>100</b>	l.f.	
07	Brown Window Caulk	NF-II	Windows	100	l.f.	Negative
				<b>100</b>		
08	Brown Door Caulk	NF-II	Exterior Doors	40	l.f.	Negative
				<b>40</b>	l.f.	



**ATTACHMENT C**  
**ASBESTOS ANALYTICAL REPORT**



1915 North 12th Street  
Toledo, OH 43604-5305  
T 419-324-2222  
F 419-241-1808  
www.tlassoc.com

# TEST REPORT

**CLIENT:** Lucas Metropolitan Housing Authority  
Housing Authority  
201 Belmont Avenue

**DATE:** January 27, 2020

Toledo, Ohio 43604

**ATTN:** Mr. Craig Bartley

**Project No.:** 1920701.01

**Lab Receiving No.:** 20-01-205938

**Date Received:** January 24, 2020

**Date Sampled:** January 24, 2020

**Project Location:** Birmingham Terrace  
Unit 37  
2100 Consaul Street  
Toledo, Ohio

**Sample Point(s):** see analytical results

**Analysis Performed:** Asbestos Analysis by PLM

**DISCLAIMER**

This report is "PROPRIETARY AND CONFIDENTIAL" and delivered to, and intended for the exclusive use of the above named client only. TTL Associates, Inc. assumes no responsibility or liability for the reliance hereon or use hereof by anyone other than the above named client.

Reviewed by: Myron V. Gasiorowski Date: 01/27/2020  
Myron V. Gasiorowski, Lab Supervisor

Approved by: Sara Vogelwohl Date: 01/27/2020  
Sara Vogelwohl, Technical Manager

## ANALYTICAL NARRATIVE

The note(s) below pertain to the sample(s) and analytical data reported herein:

Quantitative results are listed as approximate % asbestos. Results are based on calibrated visual estimation of materials. All results <1% asbestos (Trace) have been confirmed by the analysis of a duplicate slide. As per the method, all "negative" or BDL samples have been confirmed by triplicate analyses. Due to the nature of the samples the following measurements of uncertainty may apply:

% Asbestos	Uncertainty
1%	± 2%
5%	± 4%
10%	± 5%
>20%	± 10%

Due to the complexity of analyzing floor tile by PLM, the client may want to consider having "negative" floor tiles analyzed further by an alternative method such as TEM.

Samples are archived by TTL Associates for a period of thirty days. Samples may be retained for a longer period of time or returned to the client upon written request.

### Laboratory Accreditation:

U.S. Department of Commerce, National Institute of Standards and Technology(NIST), National Voluntary Laboratory Accreditation Program (NVLAP), Lab #101594-0. Accredited to the Interim Method for the Determination of Asbestos in Bulk Insulation Samples, EPA Method EPA-600/M4-82-020 and the Method for the Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116.

This report may not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested, and may not be reproduced, except in full, without the written approval of the laboratory.

### Report Key:

BDL = Below Detection Level  
n/a = not applicable  
HSA = Homogeneous Sampling Area

Detection Level: 1% asbestos fibers greater than one micrometer in length.

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM000820, 2PLM000920
<b>DATE ANALYZED:</b>	January 27, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
241850	1920701-01A Layer A	01	Room 2	White Gypsum Board	100% Binder, <1% Cellulose	BDL
241850	1920701-01A Layer B	01	same	Brown Backing	100% Cellulose	BDL
241851	1920701-01B Layer A	01	Room 2	White Gypsum Board	100% Binder, <1% Fiberglass	BDL
241851	1920701-01B Layer B	01	same	Tan Backing	100% Cellulose	BDL
241851	1920701-01B Layer C	01	same	White Joint Compound	100% Binder	BDL
241851	1920701-01B Layer D	01	same	White Paint	100% Binder	BDL
241852	1920701-01C Layer A	01	Room 3	White Gypsum Board	100% Binder, <1% Cellulose	BDL
241852	1920701-01C Layer B	01	same	Beige Backing	100% Cellulose	BDL
241852	1920701-01C Layer C	01	same	White Joint Tape	100% Cellulose	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

**METHOD NUMBER:** EPA600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299  
**BATCH NUMBER:** 2PLM000820, 2PLM000920  
**DATE ANALYZED:** January 27, 2020  
**ANALYST:** Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
241852	1920701-01C Layer D	01	same	White Joint Compound	100% Binder	BDL
241853	1920701-01D Layer A	01	Room 5	White Gypsum Board	100% Binder, <1% Cellulose	BDL
241853	1920701-01D Layer B	01	same	Beige Backing	100% Cellulose	BDL
241853	1920701-01D Layer C	01	same	White Joint Tape	100% Cellulose	BDL
241853	1920701-01D Layer D	01	same	White Joint Compound	100% Binder	BDL
241853	1920701-01D Layer E	01	same	White Paint	100% Binder	BDL
241854	1920701-01E Layer A	01	Room 7	White Gypsum Board	100% Binder, <1% Cellulose	BDL
241854	1920701-01E Layer B	01	same	Beige Backing	100% Cellulose	BDL
241854	1920701-01E Layer C	01	same	White Joint Tape	100% Cellulose	BDL
241854	1920701-01E Layer D	01	same	White Joint Compound	100% Binder	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM000820, 2PLM000920
<b>DATE ANALYZED:</b>	January 27, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
241854	1920701-01E Layer E	01	same	Beige Paint	100% Binder	BDL
241855	1920701-02A	02	Room 1	Grey Plaster	100% Binder	BDL
241856	1920701-02B	02	Room 2	Tan/Multi Color Plaster/Paint	100% Binder	BDL
241857	1920701-02C Layer A	02	Room 4	Grey Plaster	100% Binder	BDL
241857	1920701-02C Layer B	02	same	Tan Plaster	100% Binder	BDL
241857	1920701-02C Layer C	02	same	White/Multi Color Paint/Skim Coat Plaster	100% Binder	BDL
241858	1920701-02D Layer A	02	Room 1	Grey Plaster	100% Binder, <1% Cellulose	BDL
241858	1920701-02D Layer B	02	same	White Plaster	100% Binder	BDL
241858	1920701-02D Layer C	02	same	White/Multi Color Paint/Skim Coat Plaster	100% Binder	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM000820, 2PLM000920
<b>DATE ANALYZED:</b>	January 27, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
241859	1920701-02E Layer A	02	Room 9	Grey Plaster	100% Binder, <1% Horse Hair	BDL
241859	1920701-02E Layer B	02	same	White Plaster	100% Binder	BDL
241859	1920701-02E Layer C	02	same	White/Multi Color Paint/Skim Coat Plaster	100% Binder	BDL
241860	1920701-03A Layer A	03	Room 2	White Floor Tile	100% Binder	BDL
241860	1920701-03A Layer B	03	same	Black/Tan Mastic	100% Binder	<1% Chrysotile
241861	1920701-03B Layer A	03	Room 9	White Floor Tile	100% Binder	BDL
241861	1920701-03B Layer B	03	same	Black/Tan Mastic	100% Binder	<1% Chrysotile
241862	1920701-04A Layer A	04	Room 2	Brown Molding	100% Binder	BDL
241862	1920701-04A Layer B	04	same	Yellow Glue	100% Binder	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM000820, 2PLM000920
<b>DATE ANALYZED:</b>	January 27, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
241863	1920701-04B Layer A	04	Room 5	Brown Molding	100% Binder	BDL
241863	1920701-04B Layer B	04	same	Yellow Glue	100% Binder	BDL
241864	1920701-05A	05	Room 2	Beige Undercoating	99% Binder, 1% Cellulose	BDL
241865	1920701-05B	05	Room 2	Beige Undercoating	99% Binder, 1% Cellulose	BDL
241866	1920701-06A	06	Windows	Black Glazing Material	100% Binder	BDL
241867	1920701-06B	06	Windows	Black Glazing Material	100% Binder	BDL
241868	1920701-07A	07	Windows	Dark Brown Caulk	100% Binder	BDL
241869	1920701-07B	07	Windows	Dark Brown Caulk	100% Binder	BDL
241870	1920701-08A	08	Front door	Brown Caulk	100% Binder	BDL



**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

**METHOD NUMBER:** EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299  
**BATCH NUMBER:** 2PLM000820, 2PLM000920  
**DATE ANALYZED:** January 27, 2020  
**ANALYST:** Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
241871	1920701-08B	08	Back door	Brown Caulk	100% Binder	BDL

COC Number: 1920701-01

Sent from:		<input checked="" type="checkbox"/> Toledo		<input type="checkbox"/> Plymouth		<input type="checkbox"/> Washington D.C.		<input type="checkbox"/> Other		
Project No.:		1920701		Client:		LMHA		Parameters		
P.O. No.:		2100 Consaul Street, Toledo, OH - Unit 37		Project/Location:		2100 Consaul Street, Toledo, OH - Unit 37		PLM - Asbestos		
Project Manager:		Obed Ombongi		Sampler's Name:		Obed Ombongi		Preserved Yes/No		
Phone No.:		419-309-8126		Sampler's Signature:				Lab Use Only		
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location	Total No. of Containers	PLM - Asbestos	Preserved Yes/No	Lab #:
1	1920701-01A	1/24/2020	NA	Bulk	Solid	Room 2	1 X	1 X		241850
2	1920701-01B	1/24/2020	NA	Bulk	Solid	Room 2	1 X	1 X		241851
3	1920701-01C	1/24/2020	NA	Bulk	Solid	Room 3	1 X	1 X		241852
4	1920701-01D	1/24/2020	NA	Bulk	Solid	Room 5	1 X	1 X		241853
5	1920701-01E	1/24/2020	NA	Bulk	Solid	Room 7	1 X	1 X		241854
6	1920701-02A	1/24/2020	NA	Bulk	Solid	Room 1	1 X	1 X		241855
7	1920701-02B	1/24/2020	NA	Bulk	Solid	Room 2	1 X	1 X		241856
8	1920701-02C	1/24/2020	NA	Bulk	Solid	Room 4	1 X	1 X		241857
9	1920701-02D	1/24/2020	NA	Bulk	Solid	Room 1	1 X	1 X		241858
10	1897402-02E	1/24/2020	NA	Bulk	Solid	Room 9	1 X	1 X		241859

Item No.	Relinquished By:	Date	Time	Received By:	Date	Time
1-10		1/24/20	1630		1/24/20	1630
	Relinquished By:	Date	Time	Received By:	Date	Time
	Relinquished By:	Date	Time	Received By:	Date	Time
	Relinquished By:	Date	Time	Received By:	Date	Time

**LAB USE ONLY:**

Were the samples delivered:  in person  by courier  in lab  N/A

Were the samples preserved:  in field  in lab  N/A

Temp of samples: NA °C  yes  no  N/A

Did the samples arrive intact and sealed:  yes  no  N/A

Were the proper containers used?  yes  no  N/A

Was container labeled properly for contents?  yes  no  N/A

Were samples packaged properly for type of material?  yes  no  N/A

Was shipping label completed properly per regulations? (19 CFR 170, etc.)  yes  no  N/A

Samples were:  accepted  rejected  TAT: 24 hrs

Comments: -\$FD

COC Number: 1920701-02

Sent from:		<input checked="" type="checkbox"/> Toledo	<input type="checkbox"/> Plymouth	<input type="checkbox"/> Washington D.C.	<input type="checkbox"/> Other							
Project No.:	1920701	Client: LMHA										
P.O. No.:		Project/Location: 2100 Consaul Street, Toledo, OH - Unit 37										
Project Manager:	Obed Ombongi	Sampler's Name: Obed Ombongi										
Phone No.:	419-309-8126	Sampler's Signature:										
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location	Total No. of Containers	PLM - Asbestos	Parameters	Preserved Yes/No	Lab Use Only	Lab #:
1	1920701-03A	1/24/2020	NA	Bulk	Solid	Room 2	1X				241860	
2	1920701-03B	1/24/2020	NA	Bulk	Solid	Room 9	1X				241861	
3	1920701-04A	1/24/2020	NA	Bulk	Solid	Room 2	1X				241862	
4	1920701-04B	1/24/2020	NA	Bulk	Solid	Room 5	1X				241863	
5	1920701-05A	1/24/2020	NA	Bulk	Solid	Room 2	1X				241864	
6	1920701-05B	1/24/2020	NA	Bulk	Solid	Room 2	1X				241865	
7	1920701-06A	1/24/2020	NA	Bulk	Solid	Windows	1X				241866	
8	1920701-06B	1/24/2020	NA	Bulk	Solid	Windows	1X				241867	
9	1920701-07A	1/24/2020	NA	Bulk	Solid	Windows	1X				241868	
10	1920701-07B	1/24/2020	NA	Bulk	Solid	Windows	1X				241869	
Item No. 1-10	Relinquished By:	Date: 1/24/20	Time: 1630	Received By:	Date: 01/24/20	Time: 1630	LAB USE ONLY:					
Item No.	Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Were the samples delivered: <input checked="" type="checkbox"/> in person <input type="checkbox"/> by courier					
Item No.	Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Were the samples preserved: <input type="checkbox"/> in field <input type="checkbox"/> in lab <input checked="" type="checkbox"/> N/A					
Item No.	Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Temp of samples: <u>NA</u> °C					
Item No.	Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Did the samples arrive intact and sealed: <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A					
Item No.	Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Were the proper containers used? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no					
Item No.	Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Was container labeled properly for contents? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no					
Item No.	Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Were samples packaged properly for type of material? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no					
Item No.	Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Were shipping label completed properly per regulations? (19 CFR 170, etc.) <input checked="" type="checkbox"/> yes <input type="checkbox"/> no					
Item No.	Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Samples were: <input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected					
Item No.	Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Comments: TAT: 24 hrs					

1915 North 12th St., Toledo OH 43604-5305; Voice: 419-324-2222, Fax: 419-241-1808  
Ship to Address: ATTN: RECEIVING LAB, 1915 North 12th St., Toledo, OH 43604-5305

COC Number: 1920701-03

Sent from:		<input checked="" type="checkbox"/> Toledo	<input type="checkbox"/> Plymouth	<input type="checkbox"/> Washington D.C.	<input type="checkbox"/> Other	Parameters	
Project No.:	1920701	Client: LMHA			PLM - Asbestos	Preserved Yes/No	Lab Use Only
P.O. No.:		Project/Location: 2100 Consaul Street, Toledo, OH - Unit 37					Lab #:
Project Manager:	Obed Ombongi	Sampler's Name: Obed Ombongi					241870
Phone No.:	419-309-8126	Sampler's Signature: <i>[Signature]</i>					241871
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location	Total No. of Containers
1	1920701-08A	1/24/2020	NA	Bulk	Solid	Front door	1 X
2	1920701-08B	1/24/2020	NA	Bulk	Solid	Back door	1 X
3							
4							
5							
6							
7							
8							
9							
10							

Item No.	Relinquished By:	Date	Time	Received By:	Date	Time
1-2	<i>[Signature]</i>	1/24/20	1630	<i>[Signature]</i>	1/24/20	1630
	Relinquished By:	Date	Time	Received By:	Date	Time
	Relinquished By:	Date	Time	Received By:	Date	Time
	Relinquished By:	Date	Time	Received By:	Date	Time

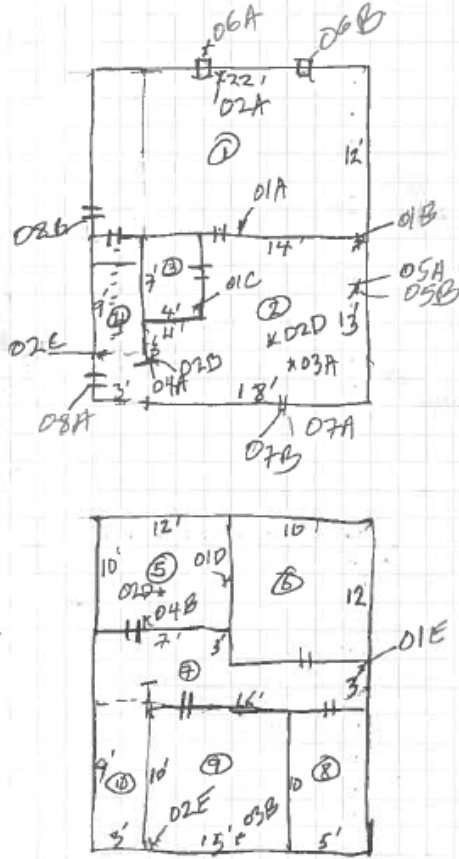
LAB USE ONLY:	
Were the samples delivered:	<input checked="" type="checkbox"/> in person <input type="checkbox"/> by courier
Were the samples preserved:	<input type="checkbox"/> in field <input type="checkbox"/> in lab <input checked="" type="checkbox"/> N/A
Temp of samples:	NA °C <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A
Did the samples arrive intact and sealed:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A
Were the proper containers used?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A
Was container labeled properly for contents?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A
Were samples packaged properly for type of material?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A
Was shipping label completed properly per regulations? (19 CFR 170, etc.)	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A
Samples were:	<input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected
Comments:	TAT: 24 hrs

**ATTACHMENT D**  
**SAMPLE LOCATION MAP**



Date 1/24/20  
Page 1 of 1

Project Name LMHA-UNIT 37 Project No. 1920701  
By Obed Ombongi Checked by/Date \_\_\_\_\_  
Subject Asbestos Survey Sample Location Map



\*01 – Sample Location

10 – Room Number



Not to Scale:

**ASBESTOS SAMPLE LOCATION DIAGRAM**  
LUCAS METROPOLITAN HOUSING AUTHORITY  
2100 CONSAL STREET, UNIT 37, TOLEDO, OHIO  
TTL PROJECT NUMBER 1920701





May 1, 2020

Project No. 1956301

Mr. Craig Bartley  
Lucas Metropolitan Housing Authority  
201 Belmont Avenue  
Toledo, Ohio 43604

**NESHAP Asbestos Survey Report  
Ravine Park  
Unit 124  
55 Poplar Street  
Toledo, Ohio**

Dear Mr. Bartley:

TTL Associates, Inc. (TTL) performed a United States Environmental Protection Agency (U.S. EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) asbestos survey at Ravine Park Unit 124 located at 55 Poplar Street in Toledo, Ohio on April 22, 2020. TTL understands the unit is scheduled for renovation to repair damage caused by a fire. The asbestos survey was performed for Lucas Metropolitan Housing Authority (LMHA), in accordance with TTL Proposal Number 1956301.

The purpose of the NESHAP asbestos regulation is to protect human health and the environment by minimizing the release of asbestos when facilities that contain asbestos-containing materials (ACM) are renovated or demolished. The U.S. EPA defines an ACM as a material that contains greater than one-percent asbestos by visual estimation or weight.

**SURVEY, SAMPLING, AND ANALYSIS**

The objective of this project was to collect the data necessary to comply with the NESHAP renovation/demolition inspection requirements. To meet this objective, Ms. Sara Vogelpohl of TTL conducted a non-destructive NESHAP asbestos survey of the accessible areas of the residential structure. Ms. Vogelpohl is certified by the Ohio Environmental Protection Agency (OEPA) as an Asbestos Hazard Evaluation Specialist (AHES). A copy of Ms. Vogelpohl's certification is included in Attachment A.

The asbestos survey included the identification of suspect materials and the definition of homogeneous sampling areas (HSAs), assessment of the condition of each material, estimation of approximate quantity of the suspect ACM, and collection and analysis of bulk samples from each identified HSA. An HSA is defined as a material that exhibited similar physical characteristics (e.g., texture, surface color, and appearance) and was applied or installed at the same time (if known) as observed by the inspection team utilizing professional judgment and experience.

The samples were collected using a coring device or other means, as appropriate, to collect a cross section of the suspect material. The samples were placed into clean and unused sealable bags marked with unique sample identification numbers. The samples of suspect ACM were transported to TTL's asbestos laboratory for analysis by Polarized Light Microscopy (PLM). TTL's laboratory participates in the American Industrial Hygiene Association (AIHA) Industrial Hygiene Proficiency Accreditation Program (IHPAT). The black mastic associated with 12" x 12" beige with brown and beige specks floor tile were further analyzed by transmission electron microscopy (TEM) by EMSL Analytical, Inc. (EMSL).

### **SURVEY RESULTS**

A total of 9 suspect ACM were identified in accessible areas of the residential structure from which 22 samples were collected and 64 sample layers were analyzed. One material (black mastic associated with 12" x 12" beige with brown and beige streaks floor tile) contains less than one percent asbestos. The samples were further analyzed by TEM analysis and are not considered asbestos-containing.

No ACM was identified.

Refer to the NESHAP Asbestos Survey Summary Table in Attachment B for a listing of the materials identified and the analytical results. The laboratory analytical reports are located in Attachment C. A map identifying sample locations is included in Attachment D.

### **CONCLUSIONS/RECOMMENDATIONS**

No ACM was identified.

The U.S. EPA defines regulated asbestos-containing material (RACM) as: (a) Friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable ACM 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.

### **LIMITATIONS**

TTL has made reasonable efforts to identify and quantify suspect ACM based upon the standard of care in the environmental industry existing at the time of the survey.

Additional material disturbed during renovation or demolition activities should be evaluated on a case-by-case basis, especially materials that were previously hidden, obscured, or inaccessible, to determine if the material is included in this survey. If a given material is not described in this survey or cannot be identified as a non-suspect material, the material should be assumed to contain asbestos and renovation and/or demolition activities should be halted until sampling and



Mr. Craig Bartley  
Lucas Metropolitan Housing Authority

Project No. 1956301  
Page 3

analysis can be accomplished. Parties conducting renovation and/or demolition activities should follow all applicable federal, state, and local regulations in handling identified and suspect ACM.

The information contained in this report was based upon specific parameters and regulations in force at the time of the survey. The information herein is only for the specific use of LMHA and TTL, unless written authorization is obtained from TTL. TTL accepts no responsibility for the use, interpretation, or reliance by other parties on the information contained herein, nor does this report represent an instrument of regulatory compliance or an asbestos abatement specification.

TTL appreciates the continued opportunity to provide LMHA with our consulting and testing services and we look forward to working with you in the future. Should you have any questions concerning this report, please contact Ms. Sara Vogelpohl at (419) 214-5090.

Sincerely,

**TTL Associates, Inc.**



Sara Vogelpohl, CIH  
Asbestos Hazard Evaluation Specialist  
ES34683



Susan E. Yarger CPG  
Manager, Environmental and IH Services

V:\Toledo\Lucas County\Lucas Metropolitan Housing Authority\Ravine Park\Unit 124 Asbestos Survey\Report\1956301 NESHAP Asbestos Survey Report.docx

**ATTACHMENT A**  
**TTL CERTIFICATION**

State of Ohio  
Environmental Protection Agency  
Asbestos Program

**Asbestos Hazard Evaluation Specialist**

**Sara M  
Vogelpohl**



Ohio Environmental  
Protection Agency

2315 County Squire  
Toledo OH 43615



**Certification Number**   **Expiration Date**   **DOB: 7/21/77**

ES34683   3/7/21

Card not Valid  
if Altered

**ATTACHMENT B**  
**NESHAP ASBESTOS SURVEY SUMMARY TABLE**

NESHAP Asbestos Survey Summary Table  
 Ravine Park  
 Unit 124  
 55 Poplar Street  
 Toledo, OH

HSA #	Material Description	Friability	Functional Area	Quantity	Units	Sample Number	Sample Results
01	Drywall and Associated Joint Compound	NF-II	Kitchen	350	s.f.	01A	Negative
01	Drywall and Associated Joint Compound	NF-II	Living Room	420	s.f.	01D	Negative
01	Drywall and Associated Joint Compound	NF-II	Hall	150	s.f.		Negative
01	Drywall and Associated Joint Compound	NF-II	Bathroom	290	s.f.	01B	Negative
01	Drywall and Associated Joint Compound	NF-II	Bedroom 2	350	s.f.	01C	Negative
01	Drywall and Associated Joint Compound	NF-II	Bedroom 1	370	s.f.	01D	Negative
			<b>Total</b>	<b>1,930</b>	<b>s.f.</b>		
02	Plaster Ceiling	NF-II	Kitchen	120	s.f.		Negative
02	Plaster Ceiling	NF-II	Living Room	160	s.f.	02A	Negative
02	Plaster Ceiling	NF-II	Bathroom	77	s.f.	02B	Negative
02	Plaster Ceiling	NF-II	Bedroom 1	126	s.f.	02C	Negative
02	Plaster Ceiling	NF-II	Bedroom 2	120	s.f.		Negative
02	Plaster Ceiling	NF-II	Hall	24	s.f.		Negative
			<b>Total</b>	<b>627</b>	<b>s.f.</b>		
03	4" Black Covebase and Mastic	NF-II	Kitchen	44	l.f.		Negative
03	4" Black Covebase and Mastic	NF-II	Living Room	52	l.f.	03A	Negative
03	4" Black Covebase and Mastic	NF-II	Hall	19	l.f.		Negative
03	4" Black Covebase and Mastic	NF-II	Bedroom 2	44	l.f.		Negative
03	4" Black Covebase and Mastic	NF-II	Bedroom 1	46	l.f.		Negative
03	4" Black Covebase and Mastic	NF-II	Bathroom	36	l.f.	03B	Negative
			<b>Total</b>	<b>241</b>	<b>l.f.</b>		
04	12" x 12" Beige with Brown and Beige Specks Floor Tile and Associated Black Mastic	NF-I	Kitchen	120	s.f.		Negative*
04	12" x 12" Beige with Brown and Beige Specks Floor Tile and Associated Black Mastic	NF-I	Living Room	160	s.f.		Negative*
04	12" x 12" Beige with Brown and Beige Specks Floor Tile and Associated Black Mastic	NF-I	Hall	24	s.f.		Negative*
04	12" x 12" Beige with Brown and Beige Specks Floor Tile and Associated Black Mastic	NF-I	Bathroom	77	s.f.		Negative*
04	12" x 12" Beige with Brown and Beige Specks Floor Tile and Associated Black Mastic	NF-I	Bedroom 2	120	s.f.	04B	Negative*
04	12" x 12" Beige with Brown and Beige Specks Floor Tile and Associated Black Mastic	NF-I	Bedroom 1	126	s.f.	04A	Negative*
			<b>Total</b>	<b>627</b>	<b>s.f.</b>		
05	Black Felt Paper	NF-II	Attic	627	s.f.	05A, 05B	Negative
			<b>Total</b>	<b>627</b>	<b>s.f.</b>		
06	Blow-In Insulation	F	Attic	265	c.f.	06A, 06B	Negative
			<b>Total</b>	<b>39</b>	<b>c.f.</b>		
07	Brown Asphalt Roof Shingles	NF-I	Roof	1,000	s.f.	07A, 07B	Negative
			<b>Total</b>	<b>1,000</b>	<b>s.f.</b>		
08	Exterior Door Caulk	NF-II	Doors	30	l.f.	08A, 08B	Negative
			<b>Total</b>	<b>30</b>	<b>l.f.</b>		
09	Exterior Window Caulk	NF-II	Windows	58	l.f.	09A, 09B	Negative
			<b>Total</b>	<b>58</b>	<b>l.f.</b>		
	*confirmed through TEM analysis						

**ATTACHMENT C**  
**ASBESTOS ANALYTICAL REPORTS**



1915 North 12th Street  
Toledo, OH 43604-5305  
T 419-324-2222  
F 419-241-1808  
www.tlassoc.com

# TEST REPORT

Page 1 of 9

**CLIENT:** Lucas Metropolitan Housing Authority  
Housing Authority  
201 Belmont Avenue

**DATE:** April 23, 2020

Toledo, Ohio 43604

**ATTN:** Mr. Craig Bartley

**Project No.:** 1956301.01

**Lab Receiving No.:** 20-04-205979

**Date Received:** April 23, 2020

**Date Sampled:** April 22, 2020

**Project Location:** Ravine Park Village  
Unit 124  
55 Poplar Street  
Toledo, Ohio

**Sample Point(s):** see analytical results

**Analysis Performed:** Asbestos Analysis by PLM

### DISCLAIMER

This report is "PROPRIETARY AND CONFIDENTIAL" and delivered to, and intended for the exclusive use of the above named client only. TTL Associates, Inc., assumes no responsibility or liability for the reliance hereon or use hereof by anyone other than the above named client.

Reviewed by: Myron V. Gasiorowski Date: 04/23/2020  
Myron V. Gasiorowski, Lab Supervisor

Approved by: Sara Vogelpohl Date: 04/23/2020  
Sara Vogelpohl, Technical Manager

## ANALYTICAL NARRATIVE

The note(s) below pertain to the sample(s) and analytical data reported herein:

Quantitative results are listed as approximate % asbestos. Results are based on calibrated visual estimation of materials. All results <1% asbestos (Trace) have been confirmed by the analysis of a duplicate slide. As per the method, all "negative" or BDL samples have been confirmed by triplicate analyses. Due to the nature of the samples the following measurements of uncertainty may apply:

% Asbestos	Uncertainty
1%	± 2%
5%	± 4%
10%	± 5%
>20%	± 10%

Due to the complexity of analyzing floor tile by PLM, the client may want to consider having "negative" floor tiles analyzed further by an alternative method such as TEM.

Samples are archived by TTL Associates for a period of thirty days. Samples may be retained for a longer period of time or returned to the client upon written request.

### Laboratory Accreditation:

TTL participates in the American Industrial Hygiene Association (AIHA) Industrial Hygiene Proficiency Analytical Testing (IHPAT) Program, Number PAT-100872.

This report may not be used by the client to claim product endorsement by AIHA or any agency of the U.S. Government. This report relates only to the items tested, and may not be reproduced, except in full, without the written approval of the laboratory.

### Report Key:

BDL = Below Detection Level  
 n/a = not applicable  
 HSA = Homogeneous Sampling Area

Detection Level: 1% asbestos fibers greater than one micrometer in length.



**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003420, 2PLM003520
<b>DATE ANALYZED:</b>	April 23, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
242344	1956301-01A Layer A	01	Kitchen, drywall	Grey Gypsum Board	100% Binder, <1% Fiberglass	BDL
242344	1956301-01A Layer B	01	same	Tan Backing	100% Cellulose	BDL
242344	1956301-01A Layer C	01	same	White Joint Tape	100% Cellulose	BDL
242344	1956301-01A Layer D	01	same	White Joint Compound	100% Binder	BDL
242345	1956301-01B Layer A	01	Bathroom, drywall	Brown Gypsum Board	100% Binder, <1% Cellulose	BDL
242345	1956301-01B Layer B	01	same	Tan Backing	100% Cellulose	BDL
242345	1956301-01B Layer C	01	same	White Joint Tape	100% Cellulose	BDL
242345	1956301-01B Layer D	01	same	White Joint Compound	100% Binder	BDL
242345	1956301-01B Layer E	01	same	White Paint	100% Binder	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003420, 2PLM003520
<b>DATE ANALYZED:</b>	April 23, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
242346	1956301-01C Layer A	01	Bedroom 2, drywall	Grey Gypsum Board	100% Binder, <1% Fiberglass	BDL
242346	1956301-01C Layer B	01	same	Tan Backing	100% Cellulose	BDL
242346	1956301-01C Layer C	01	same	White Joint Tape	100% Cellulose	BDL
242346	1956301-01C Layer D	01	same	White Joint Compound	100% Binder	BDL
242346	1956301-01C Layer E	01	same	White Paint	100% Binder	BDL
242347	1956301-01D Layer A	01	Bedroom 1, drywall	Grey Gypsum Board	100% Binder, <1% Fiberglass	BDL
242347	1956301-01D Layer B	01	same	Tan Backing	100% Cellulose	BDL
242347	1956301-01D Layer C	01	same	White Joint Tape	100% Cellulose	BDL
242347	1956301-01D Layer D	01	same	White Joint Compound	100% Binder	BDL
242347	1956301-01D Layer E	01	same	White Paint	100% Binder	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003420, 2PLM003520
<b>DATE ANALYZED:</b>	April 23, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
242348	1956301-01E Layer A	01	Living room, drywall	Grey Gypsum Board	100% Binder, <1% Cellulose	BDL
242348	1956301-01E Layer B	01	same	Tan Backing	100% Cellulose	BDL
242348	1956301-01E Layer C	01	same	White Joint Tape	100% Cellulose	BDL
242348	1956301-01E Layer D	01	same	White Joint Compound	100% Binder	BDL
242348	1956301-01E Layer E	01	same	White Paint	100% Binder	BDL
242349	1956301-02A Layer A	02	Living room, plaster	Grey Plaster	100% Binder, <1% Cellulose	BDL
242349	1956301-02A Layer B	02	same	White Plaster	100% Binder	BDL
242349	1956301-02A Layer C	02	same	White/Multi Color Paint	100% Binder	BDL
242349	1956301-02A Layer D	02	same	White Skim Coat Plaster	100% Binder	BDL
242350	1956301-02B Layer A	02	Bathroom, plaster	Grey Plaster	100% Binder, <1% Cellulose	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003420, 2PLM003520
<b>DATE ANALYZED:</b>	April 23, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
242350	1956301-02B Layer B	02	same	White Plaster	100% Binder	BDL
242350	1956301-02B Layer C	02	same	White Skim Coat Plaster	100% Binder	BDL
242350	1956301-02B Layer D	02	same	White Paint	100% Binder	BDL
242350	1956301-02B Layer E	02	same	White Skim Coat Plaster	100% Binder	BDL
242350	1956301-02B Layer F	02	same	White Paint	100% Binder	BDL
242351	1956301-02C Layer A	02	Bedroom 1, plaster	Grey Plaster	100% Binder, <1% Cellulose	BDL
242351	1956301-02C Layer B	02	same	White Plaster	100% Binder	BDL
242351	1956301-02C Layer C	02	same	White Skim Coat Plaster	100% Binder	BDL
242351	1956301-02C Layer D	02	same	White Paint	100% Binder	BDL
242351	1956301-02C Layer E	02	same	White Skim Coat Plaster	100% Binder	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003420, 2PLM003520
<b>DATE ANALYZED:</b>	April 23, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
242351	1956301-02C Layer F	02	same	White Paint	100% Binder	BDL
242352	1956301-03A Layer A	03	Living room, black cove base	Black/Brown Molding	100% Binder	BDL
242352	1956301-03A Layer B	03	same	White Glue	100% Binder	BDL
242353	1956301-03B Layer A	03	Bathroom, black cove base	Black/Brown Molding	100% Binder	BDL
242353	1956301-03B Layer B	03	same	White Glue	100% Binder	BDL
242354	1956301-04A Layer A	04	Bedroom 1, beige floor tile	Beige Floor Tile	100% Binder	BDL
242354	1956301-04A Layer B	04	same	Black Mastic	100% Binder, <1% Cellulose	<1% Chrysotile
242355	1956301-04B Layer A	04	Bedroom 2, beige floor tile	Beige Floor Tile	100% Binder	BDL
242355	1956301-04B Layer B	04	same	Black Mastic	100% Binder, <1% Cellulose	<1% Chrysotile

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003420, 2PLM003520
<b>DATE ANALYZED:</b>	April 23, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
242356	1956301-05A	05	Living room, black felt paper	Black Tar Paper	65% Binder, 35% Cellulose	BDL
242357	1956301-05B	05	Bathroom, black felt paper	Black Tar Paper	65% Binder, 35% Cellulose	BDL
242358	1956301-06A Layer A	06	Living room, blown-in insulation	Grey Insulation	5% Binder, 95% Mineral Wool	BDL
242358	1956301-06A Layer B	06	same	Pink Insulation	4% Binder, 96% Fiberglass	BDL
242358	1956301-06A Layer C	06	same	Tan Insulation	2% Binder, 98% Cellulose	BDL
242359	1956301-06B Layer A	06	Bathroom, blown-in insulation	Grey Insulation	5% Binder, 95% Mineral Wool	BDL
242359	1956301-06B Layer B	06	same	Pink Insulation	4% Binder, 96% Fiberglass	BDL
242360	1956301-07A Layer A	07	Northwest side, brown shingles	Tan/Brown Shingle	96% Binder, 4% Fiberglass	BDL
242360	1956301-07A Layer B	07	same	Black Tar Fabric	94% Binder, 6% Fiberglass	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003420, 2PLM003520
<b>DATE ANALYZED:</b>	April 23, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
242361	1956301-07B Layer A	07	Southwest side, brown shingles	Tan/Brown Shingle	96% Binder, 4% Fiberglass	BDL
242361	1956301-07B Layer B	07	same	Black Tar Fabric	94% Binder, 6% Fiberglass	BDL
242362	1956301-08A	08	West door, exterior door caulk	Beige Caulk	100% Binder	BDL
242363	1956301-08B Layer A	08	West door, exterior door caulk	Beige Caulk	100% Binder	BDL
242363	1956301-08B Layer B	08	same	Brown Caulk	100% Binder	BDL
242364	1956301-09A	09	Bedroom 2, exterior window caulk	Beige Caulk	100% Binder	BDL
242365	1956301-09B	09	Bathroom, exterior window caulk	Beige Caulk	100% Binder	BDL



COC Number: 1950301-02 <sup>1</sup> MG  
 RR# 5979

Sent from: <input checked="" type="checkbox"/> Toledo <input type="checkbox"/> Plymouth <input type="checkbox"/> Washington D.C. <input type="checkbox"/> Other							Parameters													
Project No.: 19563601		Client: LMHA					Total No. of Containers	PLM % asbestos												
P.O. No.:		Project/Location: Ravine Park, Unit 124						Preserved Yes/No												
Project Manager: Sara Vogelpohl		Sampler's Name: Sara Vogelpohl						Lab Use Only												
Phone No.: 419-214-5090		Sampler's Signature: <i>Sara</i>						Lab #:												
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location														
1	01A	4/22/2020	NA	Bulk	Solid	Drywall/kitchen	1	X												242344
2	01B	4/22/2020	NA	Bulk	Solid	drywall/bathroom	1	X												242345
3	01C	4/22/2020	NA	Bulk	Solid	drywall/bedroom 2	1	X												242346
4	01D	4/22/2020	NA	Bulk	Solid	drywall/bedroom 1	1	X												242347
5	01E	4/22/2020	NA	Bulk	Solid	drywall/living room	1	X												242348
6	02A	4/22/2020	NA	Bulk	Solid	plaster/living room	1	X												242349
7	02B	4/22/2020	NA	Bulk	Solid	plaster/bathroom	1	X												242350
8	02C	4/22/2020	NA	Bulk	Solid	plaster/bedroom 1	1	X												242351
9	03A	4/22/2020	NA	Bulk	Solid	black cove base/living room	1	X												242352
10	03B	4/22/2020	NA	Bulk	Solid	black cove base/bathroom	1	X												242353
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time	LAB USE ONLY:											
1-10	<i>Sara</i>		4/22/20	1700	<i>Myron V. Zaworotki</i>		4/23/20	0900	Were the samples delivered: <input checked="" type="checkbox"/> in person <input type="checkbox"/> by courier Were the samples preserved: <input type="checkbox"/> in field <input type="checkbox"/> in lab <input checked="" type="checkbox"/> N/A Temp of samples: <i>NA</i> °C Did the samples arrive intact and sealed: <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A Were the proper containers used? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Was container labeled properly for contents? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Were samples packaged properly for type of material? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Was shipping label completed properly per regulations? (19 CFR 170, etc.) <input type="checkbox"/> yes <input type="checkbox"/> no Samples were: <input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected Comments:											
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time	TAT: 24-hr											
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time												
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time												





COC Number: 1956301-032  
 PR# 5979

Sent from: <input checked="" type="checkbox"/> Toledo <input type="checkbox"/> Plymouth <input type="checkbox"/> Washington D.C. <input type="checkbox"/> Other							Parameters														
Project No.: 19563601		Client: LMHA					Total No. of Containers	PLM % asbestos										Preserved Yes/No	Lab Use Only	Lab #:	M6 04/23/20
P.O. No.:		Project/Location: Ravine Park, Unit 124																			
Project Manager: Sara Vogelpohl		Sampler's Name: Sara Vogelpohl																			
Phone No.: 419-214-5090		Sampler's Signature: <i>Sara Vogelpohl</i>																			
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location															
1	04A	4/22/2020	NA	Bulk	Solid	beige floor tile/bedroom 1	1	X												242354	
2	04B	4/22/2020	NA	Bulk	Solid	beige floor tile/bedroom 2	1	X												242355	
3	05A	4/22/2020	NA	Bulk	Solid	black felt paper/living room	1	X												242356	
4	05B	4/22/2020	NA	Bulk	Solid	black felt paper/bathroom	1	X												242357	
5	06A	4/22/2020	NA	Bulk	Solid	blown in insulation/living room	1	X												242358	
6	06B	4/22/2020	NA	Bulk	Solid	blown in insulation/bathroom	1	X												242359	
7	07A	4/22/2020	NA	Bulk	Solid	brown shingles/northwest side	1	X												242360	
8	07B	4/22/2020	NA	Bulk	Solid	brown shingles/southwest side	1	X												242361	
9	08A	4/22/2020	NA	Bulk	Solid	ext door caulk/west door	1	X												242362	
10	08B	4/22/2020	NA	Bulk	Solid	ext door caulk/west door	1	X												242363	
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time	LAB USE ONLY:												
1-10	<i>Sara Vogelpohl</i>		4/22/20	1700	<i>M. Jasirowicz</i>		4/23/20	0900	Were the samples delivered: <input checked="" type="checkbox"/> in person <input type="checkbox"/> by courier Were the samples preserved: <input type="checkbox"/> in field <input type="checkbox"/> in lab <input checked="" type="checkbox"/> N/A Temp of samples: <u>NA</u> °C Did the samples arrive intact and sealed: <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A Were the proper containers used? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Was container labeled properly for contents? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Were samples packaged properly for type of material? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Was shipping label completed properly per regulations? (19 CFR 170, etc.) <input type="checkbox"/> yes <input type="checkbox"/> no Samples were: <input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected Comments: TAT: 24-hr												
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time													
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time													
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time													



COC Number: 1956301-03

Sent from: <input checked="" type="checkbox"/> Toledo <input type="checkbox"/> Plymouth <input type="checkbox"/> Washington D.C. <input type="checkbox"/> Other							Parameters															
Project No.: 19563601		Client: LMHA					Total No. of Containers	PLM % asbestos											Preserved Yes/No	Lab Use Only	Lab #:	R# 85979 MG 04/23/20
P.O. No.:		Project/Location: Ravine Park, Unit 124																				
Project Manager: Sara Vogelpohl		Sampler's Name: Sara Vogelpohl																				
Phone No.: 419-214-5090		Sampler's Signature: <i>[Signature]</i>																				
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location																
1	09A	4/22/2020	NA	Bulk	Solid	ext window caulk/bedroom 2	1	X													242364	
2	09B	4/22/2020	NA	Bulk	Solid	ext window caulk/bathroom	1	X													242365	
3																					24	
4																						
5																						
6																						
7																						
8																						
9																						
10																						
Item No.	Relinquished By: <i>[Signature]</i>		Date: 4/20/20	Time: 1700	Received By: <i>[Signature]</i>		Date: 4/23/20	Time: 0900	LAB USE ONLY:													
Item No.	Relinquished By:		Date:	Time:	Received By:		Date:	Time:	Were the samples delivered: <input checked="" type="checkbox"/> in person <input type="checkbox"/> by courier													
Item No.	Relinquished By:		Date:	Time:	Received By:		Date:	Time:	Were the samples preserved: <input type="checkbox"/> in field <input type="checkbox"/> in lab <input checked="" type="checkbox"/> N/A													
Item No.	Relinquished By:		Date:	Time:	Received By:		Date:	Time:	Temp of samples: <u>NA</u> °C													
Item No.	Relinquished By:		Date:	Time:	Received By:		Date:	Time:	Did the samples arrive intact and sealed: <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A													
Item No.	Relinquished By:		Date:	Time:	Received By:		Date:	Time:	Were the proper containers used? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no													
Item No.	Relinquished By:		Date:	Time:	Received By:		Date:	Time:	Was container labeled properly for contents? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no													
Item No.	Relinquished By:		Date:	Time:	Received By:		Date:	Time:	Were samples packaged properly for type of material? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no													
Item No.	Relinquished By:		Date:	Time:	Received By:		Date:	Time:	Was shipping label completed properly per regulations? (19 CFR 170, etc.) <input type="checkbox"/> yes <input type="checkbox"/> no													
Item No.	Relinquished By:		Date:	Time:	Received By:		Date:	Time:	Samples were: <input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected													
Comments:																		TAT: 24-hr				



# EMSL Analytical, Inc.

15111 Northville Rd Plymouth, MI 48170  
Tel/Fax: (734) 668-6810 / (734) 668-8532  
<http://www.EMSL.com> / [annarborlab@emsl.com](mailto:annarborlab@emsl.com)

EMSL Order: 082000826  
Customer ID: TTL63  
Customer PO: 013864  
Project ID: Attachment AA-4

**Attention:** Sara Vogelpohl  
TTL Associates, Inc.  
1915 North 12th Street  
Toledo, OH 43604


**Phone:** (419) 698-6397  
**Fax:** (419) 321-6252  
**Received Date:** 04/27/2020 8:30 AM  
**Analysis Date:** 04/29/2020  
**Collected Date:**

**Project:** Ravine Park Village Unit 124/ 1956301

## Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

Sample ID	Description	Appearance	% Matrix Material	% Non-Asbestos Fibers	Asbestos Types
1956301-04A 082000826-0001	Bedroom 1 Mastic Only	Black Non-Fibrous Homogeneous	100.0 Other	None	<0.1% Chrysotile
Sample below method recommended minimum weight; analyzed at client's request.					
1956301-04A 082000826-0002	Bedroom 2 Mastic Only	Black Non-Fibrous Homogeneous	100.0 Other	None	<0.1% Chrysotile
Sample below method recommended minimum weight; analyzed at client's request.					

Analyst(s)  
Eric Budai (2)

  
Ryan Shannon, Laboratory Manager  
or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Plymouth, MI

Initial report from: 04/29/2020 15:35:54



# Asbestos Bulk Building Material Chain of Custody

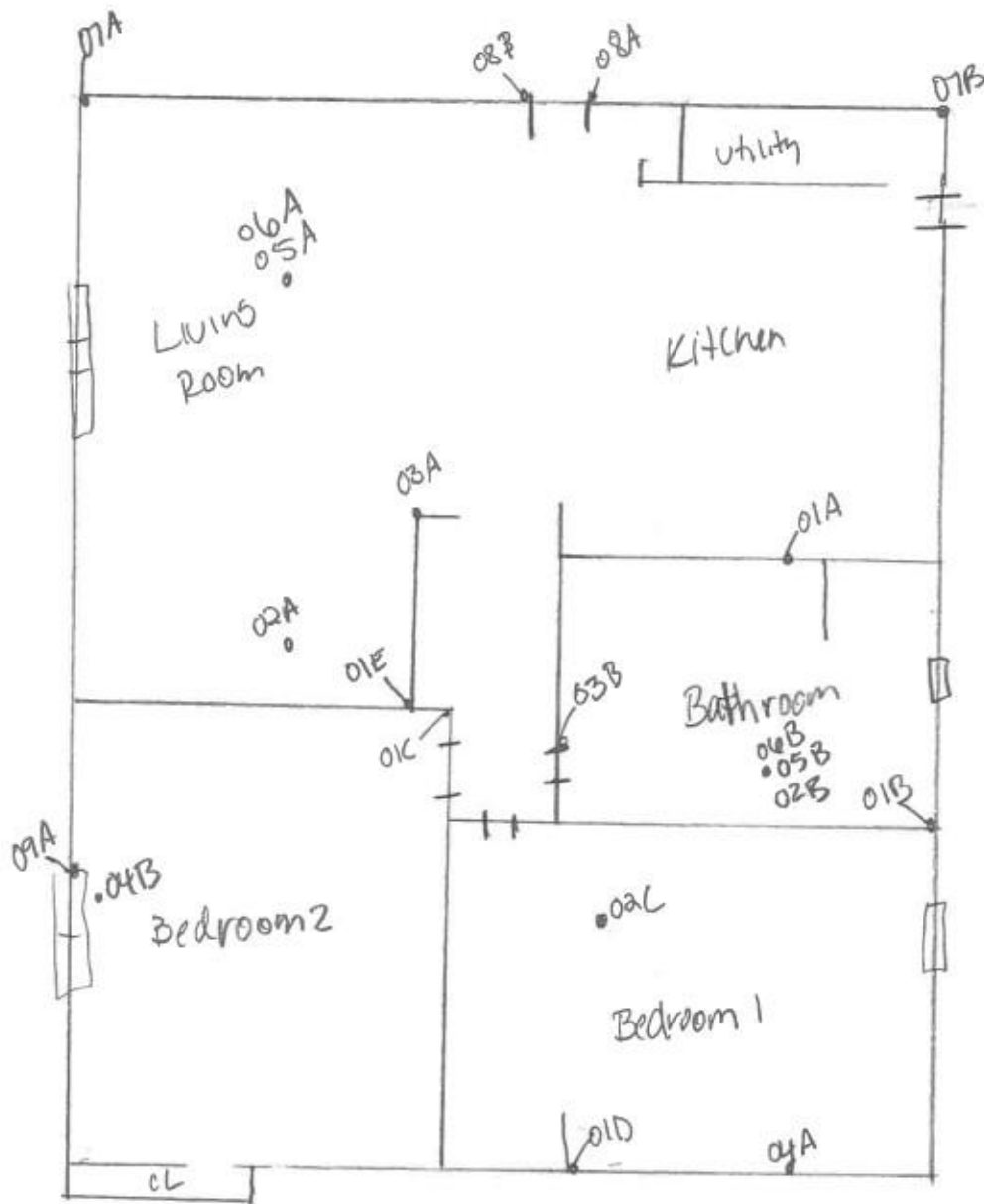
**EMSL ANALYTICAL, INC.**  
LABORATORY • PRODUCTS • TRAINING

**EMSL Order Number** *(lab use only):*

082000826

<b>Company Name :</b> TTL Associates, Inc.		<b>EMSL Customer ID:</b> TTL63	
<b>Street:</b> 1915 North 12th Street		<b>City:</b> Toledo	<b>State or Province:</b> OH
<b>Zip/Postal Code:</b> 43604-5305	<b>Country:</b> USA	<b>Telephone #:</b> (419) 214-5090	<b>Fax #:</b> (419) 214-5091
<b>Report To (Name):</b> Sara Vogelpohl		<b>Please Provide Results via:</b> <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
<b>email Address:</b> LabResults@tlassociates.com		<b>Purchase Order Number:</b> 013864	
<b>Client Project ID:</b> Ravine Park Village Unit 124 / 1956301		<b>EMSL Project ID</b> <i>(internal use only):</i>	
<b>State or Province Collected:</b> Ohio		<b>CT only</b> <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
<b>EMSL-Bill to:</b> <input type="checkbox"/> Same <input type="checkbox"/> Different - <i>If bill to is different note instructions in comment. Third party billing requires written authorization from third party</i>			
<b>Turnaround Time (TAT) Options Please Check</b>			
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 32 Hour* <input type="checkbox"/> 48 Hour <input checked="" type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week
*32 Hour TAT available for select tests only; samples must be submitted by 11:30am. Please call ahead for large projects and/or turnaround times 6 hours or less.			
<b>PLM - Bulk (reporting limit)</b>		<b>TEM - Bulk</b>	
<input type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NY ELAP Method 198.1- friable - NY <input type="checkbox"/> NY ELAP Method 198.6 NOB- non-friable - NY <input type="checkbox"/> NY ELAP Method 198.8- Vermiculite Surfacing Material <input type="checkbox"/> OSHA ID-191 Modified <input type="checkbox"/> EMSL Standard Addition Method		<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1 <input type="checkbox"/> NY ELAP Method 198.4 non-friable - NY <input type="checkbox"/> Chatfield Protocol (semi-quantitative) <input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2 <input type="checkbox"/> TEM Qualitative via Filtration Prep Technique <input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique <b>Other tests (please specify)</b> <input type="checkbox"/>	
<input type="checkbox"/> <b>Positive Stop - Clearly Identify Homogenous Areas (HA)</b>		<b>Date Sampled:</b> 04/22/2020	
<b>Sampler's Name:</b> Sara Vogelpohl		<b>Sampler's Signature:</b>	
<b>Sample #</b>	<b>HA #</b>	<b>Sample Location</b>	<b>Material Description</b>
1956301-04A	04	Bedroom 1	beige floor tile
1956301-04A	04	Bedroom 2	beige floor tile
<b>Client Sample # (s):</b> 1956301-04A - 1956301-04B		<b>Total # of Samples:</b> 2	
<b>Relinquished by (Client):</b>		<b>Date:</b>	<b>Time:</b>
<b>Received by (Lab):</b> G3 ENSLFE 77585461 722		<b>Date:</b> 4/27/20	<b>Time:</b> 9:30
<b>Comments/Special Instructions:</b> Analyze Black Mastic only.			

**ATTACHMENT D**  
**SAMPLE LOCATION MAP**



Not to Scale

### ASBESTOS SAMPLE LOCATION DIAGRAM

Unit 124  
55 Poplar  
Toledo, Ohio  
TTL PROJECT NUMBER 1956301





April 9, 2020

Project No. 1984601

Mr. Craig Bartley  
Lucas Metropolitan Housing Authority  
201 Belmont Avenue  
Toledo, Ohio 43604

**NESHAP Asbestos Survey Report  
Port Lawrence Homes  
820 14<sup>th</sup> Street  
Toledo, Ohio**

Dear Mr. Bartley:

TTL Associates, Inc. (TTL) performed a United States Environmental Protection Agency (U.S. EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) asbestos survey at Port Lawrence Homes located at 820 14th Street in Toledo, Ohio on April 3, 2020. TTL understands the unit is scheduled for renovation to repair damage caused by a fire. The asbestos survey was performed for Lucas Metropolitan Housing Authority (LMHA), in accordance with TTL Proposal Number 1984601.

The purpose of the NESHAP asbestos regulation is to protect human health and the environment by minimizing the release of asbestos when facilities that contain asbestos-containing materials (ACM) are renovated or demolished. The U.S. EPA defines an ACM as a material that contains greater than one-percent asbestos by visual estimation or weight.

**SURVEY, SAMPLING, AND ANALYSIS**

The objective of this project was to collect the data necessary to comply with the NESHAP renovation/demolition inspection requirements. To meet this objective, Ms. Sara Vogelpohl of TTL conducted a non-destructive NESHAP asbestos survey of the accessible areas of the residential structure. Ms. Vogelpohl is certified by the Ohio Environmental Protection Agency (OEPA) as an Asbestos Hazard Evaluation Specialist (AHES). A copy of Ms. Vogelpohl's certification is included in Attachment A.

The asbestos survey included the identification of suspect materials and the definition of homogeneous sampling areas (HSAs), assessment of the condition of each material, estimation of approximate quantity of the suspect ACM, and collection and analysis of bulk samples from each identified HSA. An HSA is defined as a material that exhibited similar physical characteristics (e.g., texture, surface color, and appearance) and was applied or installed at the same time (if known) as observed by the inspection team utilizing professional judgment and experience.

The samples were collected using a coring device or other means, as appropriate, to collect a cross section of the suspect material. The samples were placed into clean and unused sealable bags marked with unique sample identification numbers. The samples of suspect ACM were transported to TTL's asbestos laboratory for analysis by Polarized Light Microscopy (PLM). TTL's laboratory participates in the American Industrial Hygiene Association (AIHA) Industrial Hygiene Proficiency Accreditation Program (IHPAT).

### **SURVEY RESULTS**

A total of 8 suspect ACM were identified in accessible areas of the residential structure from which 21 samples were collected and 47 sample layers were analyzed.

No ACM was identified.

Refer to the NESHAP Asbestos Survey Summary Table in Attachment B for a listing of the materials identified and the analytical results. The laboratory analytical report is located in Attachment C. A map identifying sample locations is included in Attachment D.

### **CONCLUSIONS/RECOMMENDATIONS**

No ACM was identified.

The U.S. EPA defines regulated asbestos-containing material (RACM) as: (a) Friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable ACM 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 NESHAP asbestos regulations require the removal of all RACM from a facility being demolished or renovated prior to beginning any activity that may damage or disturb the material. The U.S. EPA requires written notification if the combined amount of RACM to be removed is at least 260 linear feet, at least 160 square feet, or at least one cubic meter of facility components where length or area could not be measured. A written Notification of Intent to Renovate/Demolish form is required to be submitted to the U.S. EPA or their designated authority at least ten business days prior to beginning any asbestos abatement and/or demolition project.

### **LIMITATIONS**

TTL has made reasonable efforts to identify and quantify suspect ACM based upon the standard of care in the environmental industry existing at the time of the survey.



Mr. Craig Bartley  
Lucas Metropolitan Housing Authority

Project No. 1984601  
Page 3

Additional material disturbed during renovation or demolition activities should be evaluated on a case-by-case basis, especially materials that were previously hidden, obscured, or inaccessible, to determine if the material is included in this survey. If a given material is not described in this survey or cannot be identified as a non-suspect material, the material should be assumed to contain asbestos and renovation and/or demolition activities should be halted until sampling and analysis can be accomplished. Parties conducting renovation and/or demolition activities should follow all applicable federal, state, and local regulations in handling identified and suspect ACM.

The information contained in this report was based upon specific parameters and regulations in force at the time of the survey. The information herein is only for the specific use of LMHA and TTL, unless written authorization is obtained from TTL. TTL accepts no responsibility for the use, interpretation, or reliance by other parties on the information contained herein, nor does this report represent an instrument of regulatory compliance or an asbestos abatement specification.

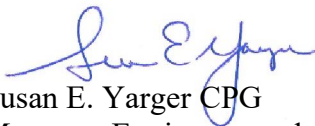
TTL appreciates the continued opportunity to provide LMHA with our consulting and testing services and we look forward to working with you in the future. Should you have any questions concerning this report, please contact Ms. Sara Vogelpohl at (419) 214-5090.

Sincerely,

**TTL Associates, Inc.**



Sara Vogelpohl, CIH  
Asbestos Hazard Evaluation Specialist  
ES34683



Susan E. Yarger CPG  
Manager, Environmental and IH Services

**ATTACHMENT A**  
**TTL CERTIFICATION**

State of Ohio  
Environmental Protection Agency  
Asbestos Program

**Asbestos Hazard Evaluation Specialist**

**Sara M  
Vogelpohl**



Ohio Environmental  
Protection Agency

2315 County Squire  
Toledo OH 43615



**Certification Number**   **Expiration Date**

**ES34683**                      **3/7/21**

**DOB: 7/21/77**

Card not Valid  
if Altered

**ATTACHMENT B**  
**NESHAP ASBESTOS SURVEY SUMMARY TABLE**

NESHAP Asbestos Survey Summary Table  
 Port Lawrence Homes  
 820 14th Street  
 Toledo, OH

HSA #	Material Description	Friability	Functional Area	Quantity	Units	Sample Number	Sample Results
01	Texture Ceiling	F	Kitchen	195	s.f.	01A	Negative
01	Texture Ceiling	F	Living Room	143	s.f.	01C	Negative
01	Texture Ceiling	F	Utility	9	s.f.	01B	Negative
01	Texture Ceiling	F	Closet	21	s.f.		Negative
01	Texture Ceiling	F	Hall	32	s.f.	01D	Negative
01	Texture Ceiling	F	Bedroom 1	154	s.f.		Negative
01	Texture Ceiling	F	Bedroom 2	88	s.f.		Negative
01	Texture Ceiling	F	Bedroom 3	108	s.f.		Negative
01	Texture Ceiling	F	Bathroom	24	s.f.		Negative
01	Texture Ceiling	F	Stairs	39	s.f.		Negative
			Total	813	s.f.		
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Kitchen	195	s.f.		Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Living Room	132	s.f.		Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Closet	21	s.f.		Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Utility	18	s.f.	02A	Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Bedroom 2	98	s.f.		Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Bedroom 1	164	s.f.		Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Bedroom 3	118	s.f.		Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Hall	32	s.f.	02B	Negative
02	12"x12" Beige Speckled Floor Tile and Black Mastic	NF-I	Bathroom	24	s.f.		Negative
			Total	802	s.f.		
03	4" Brown Covebase and Mastic	NF-II	Kitchen	56	l.f.	03A	Negative
03	4" Brown Covebase and Mastic	NF-II	Living Room	48	l.f.		Negative
03	4" Brown Covebase and Mastic	NF-II	Utility	18	l.f.		Negative
03	4" Brown Covebase and Mastic	NF-II	Closet	20	l.f.		Negative
03	4" Brown Covebase and Mastic	NF-II	Bedroom 2	48	l.f.		Negative
03	4" Brown Covebase and Mastic	NF-II	Bedroom 1	65	l.f.	03B	Negative
03	4" Brown Covebase and Mastic	NF-II	Bedroom 3	52	l.f.		Negative
03	4" Brown Covebase and Mastic	NF-II	Hall	24	l.f.		Negative
03	4" Brown Covebase and Mastic	NF-II	Bathroom	20	l.f.		Negative
			Total	351	l.f.		
04	White Sink Undercoating	NF-II	Kitchen	2	each	04A, 04B	Negative
			Total	2	each		
05	Plaster	NF-II	Kitchen	448	s.f.	05A	Negative
05	Plaster	NF-II	Living Room	384	s.f.	05C	Negative
05	Plaster	NF-II	Closet	160	s.f.	05B	Negative
05	Plaster	NF-II	Utility	144	s.f.		Negative
05	Plaster	NF-II	Bedroom 2	304	s.f.	05C	Negative
05	Plaster	NF-II	Bedroom 1	400	s.f.		Negative
05	Plaster	NF-II	Bedroom 3	336	s.f.	05D	Negative
05	Plaster	NF-II	Hall	192	s.f.		Negative
05	Plaster	NF-II	Bathroom	160	s.f.		Negative
			Total	2,528	s.f.		
06	Brown Stair Treads	NF-II	Stairs	39	s.f.	06A, 06B	Negative
			Total	39	s.f.		
07	Interior Window Caulk	NF-II	Kitchen	14	l.f.	07B	Negative
07	Interior Window Caulk	NF-II	Living Room	14	l.f.		Negative
07	Interior Window Caulk	NF-II	Bedroom 2	14	l.f.	07A	Negative
07	Interior Window Caulk	NF-II	Bedroom 1	14	l.f.		Negative
07	Interior Window Caulk	NF-II	Bedroom 3	14	l.f.		Negative
			Total	70	l.f.		
08	Exterior Window Caulk	NF-II	Kitchen	14	l.f.	08B	Negative
08	Exterior Window Caulk	NF-II	Living Room	14	l.f.	08A	Negative
08	Exterior Window Caulk	NF-II	Bedroom 2	14	l.f.		Negative

NESHAP Asbestos Survey Summary Table  
 Port Lawrence Homes  
 820 14th Street  
 Toledo, OH

HSA #	Material Description	Friability	Functional Area	Quantity	Units	Sample Number	Sample Results
08	Exterior Window Caulk	NF-II	Bedroom 1	14	l.f.		Negative
08	Exterior Window Caulk	NF-II	Bedroom 3	14	l.f.		Negative
Total				70	l.f.		

**ATTACHMENT C**  
**ASBESTOS ANALYTICAL REPORT**



1915 North 12th Street  
Toledo, OH 43604-5305  
T 419-324-2222  
F 419-241-1808  
www.ttlassoc.com

# TEST REPORT

Page 1 of 8

**CLIENT:** Lucas Metropolitan Housing Authority  
Housing Authority  
201 Belmont Avenue

**DATE:** April 6, 2020

Toledo, Ohio 43604

**ATTN:** Mr. Craig Bartley

**Project No.:** 1948601.01

**Lab Receiving No.:** 20-04-205971

**Date Received:** April 3, 2020

**Date Sampled:** April 3, 2020

**Project Location:** Port Lawrence Homes  
820 14th Street  
Toledo, Ohio

**Sample Point(s):** see analytical results

**Analysis Performed:** Asbestos Analysis by PLM

### DISCLAIMER

This report is "PROPRIETARY AND CONFIDENTIAL" and delivered to, and intended for the exclusive use of the above named client only. TTL Associates, Inc., assumes no responsibility or liability for the reliance hereon or use hereof by anyone other than the above named client.

Reviewed by: Myron V. Gasiorowski Date: 04/06/2020  
Myron V. Gasiorowski, Lab Supervisor

Approved by: Sara Vogelpohl Date: 04/06/2020  
Sara Vogelpohl, Technical Manager



## ANALYTICAL NARRATIVE

The note(s) below pertain to the sample(s) and analytical data reported herein:

Quantitative results are listed as approximate % asbestos. Results are based on calibrated visual estimation of materials. All results <1% asbestos (Trace) have been confirmed by the analysis of a duplicate slide. As per the method, all "negative" or BDL samples have been confirmed by triplicate analyses. Due to the nature of the samples the following measurements of uncertainty may apply:

% Asbestos	Uncertainty
1%	± 2%
5%	± 4%
10%	± 5%
>20%	± 10%

Due to the complexity of analyzing floor tile by PLM, the client may want to consider having "negative" floor tiles analyzed further by an alternative method such as TEM.

Samples are archived by TTL Associates for a period of thirty days. Samples may be retained for a longer period of time or returned to the client upon written request.

### Laboratory Accreditation:

TTL participates in the American Industrial Hygiene Association (AIHA) Industrial Hygiene Proficiency Analytical Testing (IHPAT) Program, Number PAT-100872.

This report may not be used by the client to claim product endorsement by AIHA or any agency of the U.S. Government. This report relates only to the items tested, and may not be reproduced, except in full, without the written approval of the laboratory.

### Report Key:

BDL = Below Detection Level  
 n/a = not applicable  
 HSA = Homogeneous Sampling Area

Detection Level: 1% asbestos fibers greater than one micrometer in length.

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003220
<b>DATE ANALYZED:</b>	April 6, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
242273	1948601-01A Layer A	01	Kitchen, texture ceiling	Beige Texture Plaster	100% Binder	BDL
242273	1948601-01A Layer B	01	same	Multi Color Paint	100% Binder	BDL
242274	1948601-01B Layer A	01	Utility room, texture ceiling	Beige Texture Plaster	100% Binder	BDL
242274	1948601-01B Layer B	01	same	Multi Color Paint	100% Binder	BDL
242275	1948601-01C Layer A	01	Living room, texture ceiling	White Texture Plaster	100% Binder	BDL
242275	1948601-01C Layer B	01	same	White Paint	100% Binder	BDL
242276	1948601-01D Layer A	01	Hallway, texture ceiling	White Texture Plaster	100% Binder	BDL
242276	1948601-01D Layer B	01	same	White Paint	100% Binder	BDL
242277	1948601-02A Layer A	02	Utility room, beige floor tile	Beige Floor Tile	100% Binder	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003220
<b>DATE ANALYZED:</b>	April 6, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
242277	1948601-02A Layer B	02	same	Black Mastic	100% Binder	BDL
242278	1948601-02B Layer A	02	Hallway, beige floor tile	Beige Floor Tile	100% Binder	BDL
242278	1948601-02B Layer B	02	same	Black Mastic	100% Binder, <1% Cellulose, <1% Polyethylene	BDL
242279	1948601-03A Layer A	03	Kitchen, brown covebase	Brown Molding	100% Binder	BDL
242279	1948601-03A Layer B	03	same	Beige Glue	100% Binder	BDL
242280	1948601-03B Layer A	03	Bedroom 1, closet, brown covebase	Brown Molding	100% Binder	BDL
242280	1948601-03B Layer B	03	same	Beige Glue	100% Binder	BDL
242281	1948601-04A	04	Kitchen, white sink undercoating	Off White Undercoating	99% Binder, 1% Cellulose	BDL
242282	1948601-04B	04	Kitchen, white sink undercoating	Off White Undercoating	99% Binder, 1% Cellulose	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003220
<b>DATE ANALYZED:</b>	April 6, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
242283	1948601-05A Layer A	05	Kitchen, plaster	White Gypsum Board	100% Binder, <1% Cellulose	BDL
242283	1948601-05A Layer B	05	same	Tan Backing	100% Cellulose	BDL
242283	1948601-05A Layer C	05	same	White Joint Compound	100% Binder	BDL
242283	1948601-05A Layer D	05	same	Tan Joint Tape	100% Cellulose	BDL
242283	1948601-05A Layer E	05	same	White Paint	100% Binder	BDL
242284	1948601-05B Layer A	05	Closet, plaster	White Gypsum Board	100% Binder, <1% Cellulose	BDL
242284	1948601-05B Layer B	05	same	Tan Backing	100% Cellulose	BDL
242284	1948601-05B Layer C	05	same	White Joint Compound	100% Binder	BDL
242284	1948601-05B Layer D	05	same	White Joint Tape	100% Cellulose	BDL
242284	1948601-05B Layer E	05	same	White Paint	100% Binder	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003220
<b>DATE ANALYZED:</b>	April 6, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
242285	1948601-05C Layer A	05	Living room, plaster	White Gypsum Board	100% Binder, <1% Cellulose	BDL
242285	1948601-05C Layer B	05	same	Tan Backing	100% Cellulose	BDL
242285	1948601-05C Layer C	05	same	White Joint Compound	100% Binder	BDL
242285	1948601-05C Layer D	05	same	White Joint Tape	100% Cellulose	BDL
242285	1948601-05C Layer E	05	same	White/Multi Color Paint	100% Binder	BDL
242286	1948601-05D Layer A	05	Bedroom 2, closet, plaster	Beige Plaster	100% Binder	BDL
242286	1948601-05D Layer B	05	same	White Skim Coat Plaster	100% Binder	BDL
242286	1948601-05D Layer C	05	same	White Paint	100% Binder	BDL
242287	1948601-05E Layer A	05	Bedroom 3, closet, plaster	White Gypsum Board	100% Binder, <1% Cellulose	BDL
242287	1948601-05E Layer B	05	same	Tan Backing	100% Cellulose	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003220
<b>DATE ANALYZED:</b>	April 6, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
242287	1948601-05E Layer C	05	same	White Skim Coat Plaster	100% Binder	BDL
242287	1948601-05E Layer D	05	same	White Paint	100% Binder	BDL
242288	1948601-06A	06	Top, brown stair tread	Brown Stair Tread	100% Binder	BDL
242289	1948601-06B Layer A	06	Middle, brown stair tread	Brown Stair Tread	100% Binder	BDL
242289	1948601-06B Layer B	06	same	Tan Glue	100% Binder	BDL
242290	1948601-07A	07	Bedroom 2, interior window caulk	Light Grey Caulk	100% Binder	BDL
242291	1948601-07B	07	Kitchen, interior window caulk	Light Grey Caulk	100% Binder	BDL
242292	1948601-08A	08	Kitchen, exterior beige caulk	Light Grey Caulk	100% Binder	BDL
242293	1948601-08B	08	Living room, exterior beige caulk	Light Grey Caulk	100% Binder	BDL

**POLARIZED LIGHT MICROSCOPY  
ANALYTICAL RESULTS**

<b>METHOD NUMBER:</b>	EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299
<b>BATCH NUMBER:</b>	2PLM003220
<b>DATE ANALYZED:</b>	April 6, 2020
<b>ANALYST:</b>	Myron Gasiorowski

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
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COC Number: 1948601-01

Sent from: <input checked="" type="checkbox"/> Toledo <input type="checkbox"/> Plymouth <input type="checkbox"/> Washington D.C. <input type="checkbox"/> Other						Parameters														
Project No.: 1948601		Client: LMHA				<div style="text-align: right;">RR#5971</div> <div style="text-align: center;"> <p>116</p> <p>04/03/20</p> </div>														
P.O. No.:		Project/Location: 820 14th Street, Toledo, OH																		
Project Manager: Sara Vogelpohl		Sampler's Name: Sara Vogelpohl																		
Phone No.: 419-214-5090		Sampler's Signature: <i>[Signature]</i>																		
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location	Total No. of Containers	PLM % asbestos										Preserved Yes/No	Lab Use Only	Lab #:
1	01A	4/3/2020	NA	Bulk	Solid	Texture ceiling/kitchen	1 x													242273
2	01B	4/3/2020	NA	Bulk	Solid	texture ceiling/utility	1 x													242274
3	01C	4/3/2020	NA	Bulk	Solid	texture ceiling/living room	1 x													242275
4	01D	4/3/2020	NA	Bulk	Solid	texture ceiling/hall	1 x													242276
5	02A	4/3/2020	NA	Bulk	Solid	Beige FT/utility	1 x													242277
6	02B	4/3/2020	NA	Bulk	Solid	Beige FT/hall	1 x													242278
7	03A	4/3/2020	NA	Bulk	Solid	brown covebase/kitchen	1 x													242279
8	03B	4/3/2020	NA	Bulk	Solid	brown covebase/BR1 closet	1 x													242280
9	04A	4/3/2020	NA	Bulk	Solid	white sink undercoat/kitchen	1 x													242281
10	04B	4/3/2020	NA	Bulk	Solid	white sink undercoat/kitchen	1 x													242282
Item No. 1-10	Relinquished By: <i>[Signature]</i>		Date: 4/3/20	Time: 1200	Received By: <i>[Signature]</i>		Date: 4/3/20	Time: 1800	<b>LAB USE ONLY:</b> Were the samples delivered: <input checked="" type="checkbox"/> in person <input type="checkbox"/> by courier Were the samples preserved: <input type="checkbox"/> in field <input type="checkbox"/> in lab <input checked="" type="checkbox"/> N/A Temp of samples: <u>NA</u> °C Did the samples arrive intact and sealed: <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A Were the proper containers used? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Was container labeled properly for contents? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Were samples packaged properly for type of material? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Was shipping label completed properly per regulations? (19 CFR 170, etc.) <input type="checkbox"/> yes <input type="checkbox"/> no Samples were: <input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected Comments:											
Item No.	Relinquished By:		Date:	Time:	Received By:		Date:	Time:	TAT: <u>24 hr</u>											
Item No.	Relinquished By:		Date:	Time:	Received By:		Date:	Time:												
Item No.	Relinquished By:		Date:	Time:	Received By:		Date:	Time:												





COC Number: 1948601-02

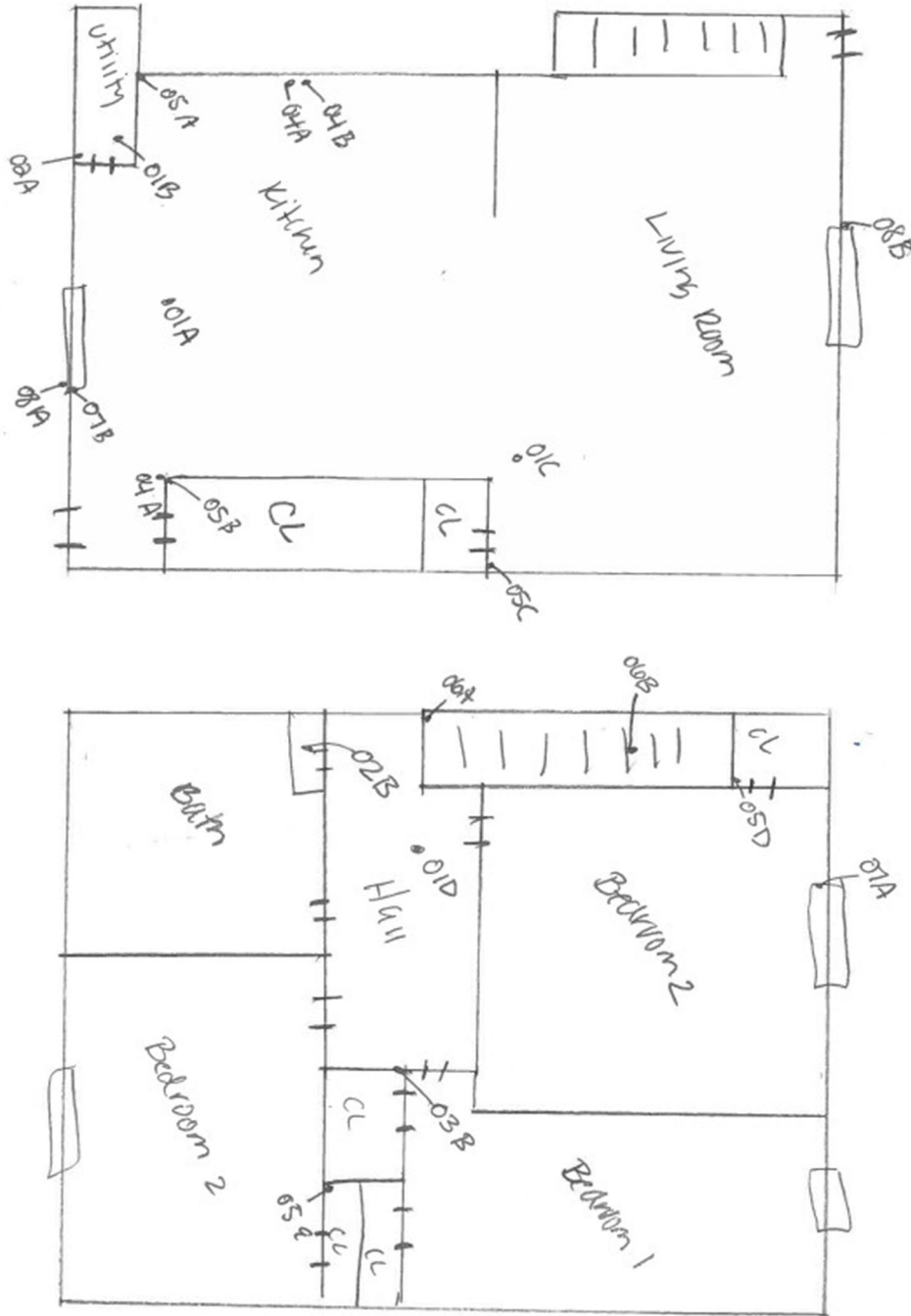
Sent from: <input checked="" type="checkbox"/> Toledo <input type="checkbox"/> Plymouth <input type="checkbox"/> Washington D.C. <input type="checkbox"/> Other							Parameters													
Project No.:		Client:		Project/Location:			Total No. of Containers	PLM % asbestos									Preserved Yes/No	Lab Use Only	Lab #:	
1948601		LMHA		820 14th Street, Toledo, OH																
P.O. No.:		Sara Vogelpohl			Sara Vogelpohl															
419-214-5090		Sara Vogelpohl			Sara Vogelpohl															
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location														
1	05A	4/3/2020	NA	Bulk	Solid	Plaster/kitchen	1	x										242283		
2	05B	4/3/2020	NA	Bulk	Solid	plaster/closet	1	x										242284		
3	05C	4/3/2020	NA	Bulk	Solid	plaster/living room	1	x										243285		
4	05D	4/3/2020	NA	Bulk	Solid	plaster/BR2 closet	1	x										243286		
5	05E	4/3/2020	NA	Bulk	Solid	plaster/BR3 closet	1	x										243287		
6	06A	4/3/2020	NA	Bulk	Solid	brown stair tread/top	1	x										243288		
7	06B	4/3/2020	NA	Bulk	Solid	brown stair tread/middle	1	x										243289		
8	07A	4/3/2020	NA	Bulk	Solid	interior window caulk/BR2	1	x										243290		
9	07B	4/3/2020	NA	Bulk	Solid	interior window caulk/kitchen	1	x										243291		
10	08A	4/3/2020	NA	Bulk	Solid	exterior beige caulk/kitchen	1	x										243292		
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time	LAB USE ONLY:											
1-10	[Signature]		4/3/20	1200	[Signature]		4/3/20	1200	Were the samples delivered: <input checked="" type="checkbox"/> in person <input type="checkbox"/> by courier Were the samples preserved: <input type="checkbox"/> in field <input type="checkbox"/> in lab <input checked="" type="checkbox"/> N/A Temp of samples: NA °C Did the samples arrive intact and sealed: <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A Were the proper containers used? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Was container labeled properly for contents? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Were samples packaged properly for type of material? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Was shipping label completed properly per regulations? (19 CFR 170, etc.) <input type="checkbox"/> yes <input type="checkbox"/> no Samples were: <input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected Comments:											
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time	TAT: 24hr											
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time												
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time												



COC Number: 1948601-03

Sent from: <input checked="" type="checkbox"/> Toledo <input type="checkbox"/> Plymouth <input type="checkbox"/> Washington D.C. <input type="checkbox"/> Other							Parameters <u>RR# 5971</u>													
Project No.: 1948601		Client: LMHA					Total No. of Containers	PLM % asbestos										Preserved Yes/No	Lab Use Only	Lab #:
P.O. No.:		Project/Location: 820 14th Street, Toledo, OH																		
Project Manager: Sara Vogelpohl		Sampler's Name: Sara Vogelpohl																		
Phone No.: 419-214-5090		Sampler's Signature: <u>[Signature]</u>																		
Item No.	Sample I.D.	Date Sampled	Time Sampled	Type	Matrix	Sample Location														
1	08B	4/3/2020	NA	Bulk	Solid	exterior beige caulk/living room	1 x												242293	
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
Item No.	Relinquished By: <u>[Signature]</u>		Date	Time	Received By: <u>[Signature]</u>		Date	Time	LAB USE ONLY:											
			4/3/20	1200			4/3/20	1200	Were the samples delivered: <input checked="" type="checkbox"/> in person <input type="checkbox"/> by courier Were the samples preserved: <input type="checkbox"/> in field <input type="checkbox"/> in lab <input checked="" type="checkbox"/> N/A Temp of samples: <u>NA</u> °C Did the samples arrive intact and sealed: <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> N/A Were the proper containers used? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Was container labeled properly for contents? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Were samples packaged properly for type of material? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Was shipping label completed properly per regulations? (19 CFR 170, etc.) <input type="checkbox"/> yes <input type="checkbox"/> no Samples were: <input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected Comments: _____ TAT: 24 hr											
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time												
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time												
Item No.	Relinquished By:		Date	Time	Received By:		Date	Time												

**ATTACHMENT D**  
**SAMPLE LOCATION MAP**



Not to Scale

**ASBESTOS SAMPLE LOCATION DIAGRAM**  
820 14<sup>th</sup> Street  
Toledo, Ohio  
TTL PROJECT NUMBER 1984301





October 16, 2020

Project No. 2013101

Mr. Craig Bartley  
Lucas Metropolitan Housing Authority  
201 Belmont Avenue  
Toledo, Ohio 43604

**NESHAP Asbestos Survey Report  
Flory Gardens  
Unit 154  
3425 Nebraska Avenue  
Toledo, Ohio**

Dear Mr. Bartley:

TTL Associates, Inc. (TTL) performed a United States Environmental Protection Agency (U.S. EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP) asbestos survey for Unit 154 located at 3425 Nebraska Avenue in Toledo, Ohio on October 5, 2020. TTL understands the unit is scheduled for renovation to repair damage caused by a fire. The asbestos survey was performed by your verbal authorization on October 5, 2020.

The purpose of the NESHAP asbestos regulation is to protect human health and the environment by minimizing the release of asbestos when facilities that contain asbestos-containing materials (ACM) are renovated or demolished. The U.S. EPA defines an ACM as a material that contains greater than one-percent asbestos by visual estimation or weight.

**SURVEY, SAMPLING, AND ANALYSIS**

The objective of this project was to collect the data necessary to comply with the NESHAP renovation/demolition inspection requirements. To meet this objective, Ms. Sara Vogelpohl of TTL conducted a non-destructive NESHAP asbestos survey of the accessible interior of Unit 154. Ms. Vogelpohl is certified by the Ohio Environmental Protection Agency (OEPA) as an Asbestos Hazard Evaluation Specialist (AHES). A copy of Ms. Vogelpohl's certification is included in Attachment A.

The asbestos survey included the identification of suspect materials and the definition of homogeneous sampling areas (HSAs), assessment of the condition of each material, estimation of approximate quantity of the suspect ACM, and collection and analysis of bulk samples from each identified HSA. An HSA is defined as a material that exhibited similar physical characteristics (e.g., texture, surface color, and appearance) and was applied or installed at the same time (if known) as observed by the inspection team utilizing professional judgment and experience.

The samples were collected using a coring device or other means, as appropriate, to collect a cross section of the suspect material. The samples were placed into clean and unused sealable bags marked with unique sample identification numbers. The samples of suspect ACM were transported to International Asbestos Testing Laboratory (IATL) for analysis by Polarized Light Microscopy (PLM). IATL is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), which is administered by the National Institute of Standards and Technology (NIST). The laboratory accreditation number is included in the attached analytical report.

## **SURVEY RESULTS**

A total of seven suspect ACM were identified in accessible areas of Unit 154, from which 18 samples were collected and 27 sample layers were analyzed. The following materials were identified as ACM as defined by the U.S. EPA:

- Approximately 1,500 square feet (s.f.) of joint compound associated with drywall (HSA 2013101-01).
- Approximately 366 s.f. of texture on ceiling (HSA 2013101-02)

Refer to the NESHAP Asbestos Survey Summary Table in Attachment B for a listing of the materials identified and the analytical results. The laboratory analytical report is located in Attachment C. A map identifying sample locations is included in Attachment D.

## **CONCLUSIONS/RECOMMENDATIONS**

The U.S. EPA defines regulated asbestos-containing material (RACM) as: (a) Friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable ACM 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 following friable ACM was identified and requires removal prior to renovation activities that would disturb the material:

- Approximately 366 s.f. of texture on ceiling (HSA 2013101-02)

The following Category II non-friable ACM was identified and requires removal prior to renovation activities that would disturb the material:

- Approximately 1,500 s.f. of joint compound associated with drywall (HSA 2013101-01).

---

The NESHAP asbestos regulations require the removal of all RACM from a facility being demolished or renovated prior to beginning any activity that may damage or disturb the material. The U.S. EPA requires written notification if the combined amount of RACM to be removed is at least 260 linear feet, at least 160 square feet, or at least one cubic meter of facility components where length or area could not be measured. A written Notification of Intent to Renovate/Demolish form is required to be submitted to the U.S. EPA or their designated authority at least ten business days prior to beginning any asbestos abatement and/or demolition project.

TTL recommends the removal of the identified ACM that may become RACM by a licensed abatement contractor prior to building renovation or demolition activities which may disturb or damage the materials.

### **LIMITATIONS**

TTL has made reasonable efforts to identify and quantify suspect ACM based upon the standard of care in the environmental industry existing at the time of the survey.

Additional material disturbed during renovation or demolition activities should be evaluated on a case-by-case basis, especially materials that were previously hidden, obscured, or inaccessible, to determine if the material is included in this survey. If a given material is not described in this survey or cannot be identified as a non-suspect material, the material should be assumed to contain asbestos and renovation and/or demolition activities should be halted until sampling and analysis can be accomplished. Parties conducting renovation and/or demolition activities should follow all applicable federal, state, and local regulations in handling identified and suspect ACM.

The information contained in this report was based upon specific parameters and regulations in force at the time of the survey. The information herein is only for the specific use of LMHA and TTL, unless written authorization is obtained from TTL. TTL accepts no responsibility for the use, interpretation, or reliance by other parties on the information contained herein, nor does this report represent an instrument of regulatory compliance or an asbestos abatement specification.

Mr. Crag Bartley  
Lucas Metropolitan Housing Authority

Project No. 2013101  
Page 4

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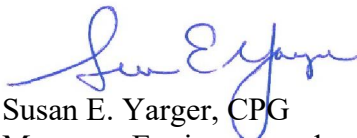
TTL appreciates the continued opportunity to provide LMHA with our consulting and testing services and we look forward to working with you in the future. Should you have any questions concerning this report, please contact Ms. Sara Vogelpohl at (419) 214-5090.

Sincerely,

**TTL Associates, Inc.**



Sara Vogelpohl, CIH  
Asbestos Hazard Evaluation Specialist  
ES34683



Susan E. Yarger, CPG  
Manager, Environmental and IH Services

V:\Toledo\Lucas Metropolitan Housing Authority\Flory Gardens\Asbestos Survey Unit 154\Report\2013101 NESHAP Asbestos Survey Report.docx



**ATTACHMENT A**  
**TTL CERTIFICATION**

State of Ohio  
Environmental Protection Agency  
Asbestos Program

**Asbestos Hazard Evaluation Specialist**

**Sara M  
Vogelpohl**



Ohio Environmental  
Protection Agency

2315 County Squire  
Toledo OH 43615

**Certification Number**   **Expiration Date**

**ES34683**                      **3/7/21**



**DOB: 7/21/77**

Card not Valid  
if Altered

**ATTACHMENT B**  
**NESHAP ASBESTOS SURVEY SUMMARY TABLE**

NESHAP Asbestos Survey Summary Table  
 Lucas Metropolitan Housing Authority  
 Flory Gardens  
 Unit 154  
 3425 Nebraska Avenue  
 Toledo, Ohio

HSA	HSA Description	Friability	Functional Area	Units	Unit	Sample Location	Results
1	Drywall and associated joint compound	NF-II	Kitchen/Dining Room	655	sf	01A, 01B	Positive
1	Drywall and associated joint compound	NF-II	Living Room	395	sf	01C, 01D	Positive
1	Drywall and associated joint compound	NF-II	Bath	120	sf	01D	Positive
1	Drywall and associated joint compound	NF-II	Closets	330	sf		Positive
<b>Total</b>				<b>1,500</b>	<b>sf</b>		
2	Texture on Ceiling	F	Kitchen/Dining Room	190	sf	02A	Positive
2	Texture on Ceiling	F	Living Room	88	sf	02B	Positive
2	Texture on Ceiling	F	Bath	48	sf	02C	Positive
2	Texture on Ceiling	F	Closets	40	sf		Positive
<b>Total</b>				<b>366</b>	<b>sf</b>		
3	12" x 12" Beige with brown and white specks floor tile and associated mastic	NF I	Kitchen/Dining Room	190	sf	03A	Negative
3	12" x 12" Beige with brown and white specks floor tile and associated mastic	NF I	Living Room	88	sf	03B	Negative
3	12" x 12" Beige with brown and white specks floor tile and associated mastic	NF I	Bath	48	sf		Negative
3	12" x 12" Beige with brown and white specks floor tile and associated mastic	NF I	Closets	40	sf		Negative
<b>Total</b>				<b>366</b>	<b>sf</b>		
4	White sink undercoating	NF II	Kitchen	1	Each	04A, 04B	Negative
<b>Total</b>				<b>1</b>	<b>Each</b>		
5	6" Brown covebase and associated glue	NF II	Bath	25	lf	05A, 05B	Negative
<b>Total</b>				<b>25</b>	<b>lf</b>		
6	Cellulose insulation	F	Attic throughout	500	sf	06A, 06B	Negative
<b>Total</b>				<b>500</b>	<b>sf</b>		
7	White window caulk	NF II	Exterior	25	lf	07A, 07B	Negative
<b>Total</b>				<b>25</b>	<b>lf</b>		

**ATTACHMENT C**  
**ASBESTOS ANALYTICAL REPORT**

CERTIFICATE OF ANALYSIS

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 7073721      **Analyst Observation:** Lt Tan Drywall      **Location:** Kitchen  
**Client No.:** 2013101-1A      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      20 Cellulose      80

**Lab No.:** 7073721(L2)      **Analyst Observation:** White Joint Compound      **Location:** Kitchen  
**Client No.:** 2013101-1A      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100


**Lab No.:** 7073722      **Analyst Observation:** Lt Tan Drywall      **Location:** Dining  
**Client No.:** 2013101-1B      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      20 Cellulose      80

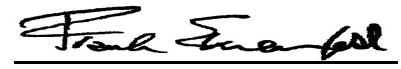
**Lab No.:** 7073722(L2)      **Analyst Observation:** White Joint Compound      **Location:** Dining  
**Client No.:** 2013101-1B      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*PC 1.3 Chrysotile*      None Detected      98.7

**Lab No.:** 7073723      **Analyst Observation:** Lt Tan Drywall      **Location:** Living Room  
**Client No.:** 2013101-1C      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      20 Cellulose      80

**Lab No.:** 7073723(L2)      **Analyst Observation:** Off-White Joint Compound      **Location:** Living Room  
**Client No.:** 2013101-1C      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*PC 1.5 Chrysotile*      None Detected      98.5

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/6/2020  
Date Analyzed: 10/06/2020  
Signature:   
Analyst: Ellen Smith

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 7073724      **Analyst Observation:** Lt Tan Drywall      **Location:** Bath  
**Client No.:** 2013101-1D      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      10 Cellulose      90

**Lab No.:** 7073724(L2)      **Analyst Observation:** White Joint Compound      **Location:** Bath  
**Client No.:** 2013101-1D      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100


**Lab No.:** 7073725      **Analyst Observation:** Lt Tan Drywall      **Location:** Living Room  
**Client No.:** 2013101-1E      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      20 Cellulose      80

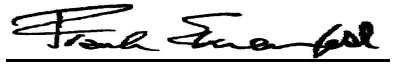
**Lab No.:** 7073725(L2)      **Analyst Observation:** White Joint Compound      **Location:** Living Room  
**Client No.:** 2013101-1E      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*PC 1.4 Chrysotile*      None Detected      98.6

**Lab No.:** 7073726      **Analyst Observation:** Off-White Ceiling Texture      **Location:** Kitchen/Dining  
**Client No.:** 2013101-2A      **Client Description:** Ceiling Texture      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*PC 1.2 Chrysotile*      None Detected      98.8

**Lab No.:** 7073727      **Analyst Observation:** Lt Tan Ceiling Texture      **Location:** Living Room  
**Client No.:** 2013101-2B      **Client Description:** Ceiling Texture      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*PC 1.4 Chrysotile*      None Detected      98.6

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/6/2020  
Date Analyzed: 10/06/2020  
Signature:   
Analyst: Ellen Smith

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 7073728      **Analyst Observation:** White Ceiling Texture      **Location:** Bath  
**Client No.:** 2013101-2C      **Client Description:** Ceiling Texture      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*PC 0.75 Chrysotile*      None Detected      99.25

**Lab No.:** 7073729      **Analyst Observation:** Tan Floor Tile      **Location:** Dining  
**Client No.:** 2013101-3A      **Client Description:** Beige Floor tile      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100


**Lab No.:** 7073729(L2)      **Analyst Observation:** Black Mastic      **Location:** Dining  
**Client No.:** 2013101-3A      **Client Description:** Beige Floor tile      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      1 Cellulose      99

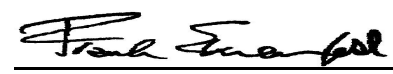
**Lab No.:** 7073730      **Analyst Observation:** Tan Floor Tile      **Location:** Living Room  
**Client No.:** 2013101-3B      **Client Description:** Beige Floor tile      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100

**Lab No.:** 7073730(L2)      **Analyst Observation:** Black Mastic      **Location:** Living Room  
**Client No.:** 2013101-3B      **Client Description:** Beige Floor tile      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      1 Cellulose      99

**Lab No.:** 7073731      **Analyst Observation:** Off-White Sink Undercoating      **Location:** Kitchen  
**Client No.:** 2013101-4A      **Client Description:** White Sink Undercoat      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      3 Cellulose      97

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/6/2020  
Date Analyzed: 10/06/2020  
Signature:   
Analyst: Ellen Smith

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director



CERTIFICATE OF ANALYSIS

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 7073732      **Analyst Observation:** Off-White Sink Undercoating      **Location:** Kitchen  
**Client No.:** 2013101-4B      **Client Description:** White Sink Undercoat      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      3 Cellulose      97

**Lab No.:** 7073733      **Analyst Observation:** Brown Cove Base      **Location:** Bath  
**Client No.:** 2013101-5A      **Client Description:** Brown Cove Base      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100


**Lab No.:** 7073733(L2)      **Analyst Observation:** Off-White Mastic      **Location:** Bath  
**Client No.:** 2013101-5A      **Client Description:** Brown Cove Base      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100


**Lab No.:** 7073734      **Analyst Observation:** Brown Cove Base      **Location:** Bath  
**Client No.:** 2013101-5B      **Client Description:** Brown Cove Base      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100

**Lab No.:** 7073734(L2)      **Analyst Observation:** Off-White Mastic      **Location:** Bath  
**Client No.:** 2013101-5B      **Client Description:** Brown Cove Base      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100

**Lab No.:** 7073735      **Analyst Observation:** Tan/Pink Insulation      **Location:** Dining  
**Client No.:** 2013101-6A      **Client Description:** Cellulose Insulation      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      95 Cellulose      None Detected  
5 Fibrous Glass

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/6/2020  
Date Analyzed: 10/06/2020  
Signature:   
Analyst: Ellen Smith

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 7073736      **Analyst Observation:** Tan/Pink Insulation      **Location:** Living Room  
**Client No.:** 2013101-6B      **Client Description:** Cellulose Insulation      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      80 Cellulose      None Detected  
20 Fibrous Glass

**Lab No.:** 7073737      **Analyst Observation:** White Caulk      **Location:** Exterior  
**Client No.:** 2013101-7A      **Client Description:** Window Caulk      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100

**Lab No.:** 7073738      **Analyst Observation:** White Caulk      **Location:** Exterior  
**Client No.:** 2013101-7B      **Client Description:** Window Caulk      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/6/2020  
Date Analyzed: 10/06/2020  
Signature:   
Analyst: Ellen Smith

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

---

CERTIFICATE OF ANALYSIS

---

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

## Appendix to Analytical Report

**Customer Contact:** Sara Vogelpohl

**Method:** 40 CFR Appendix E to Subpart E of Part 763, interim method for the Determination of Asbestos in Bulk Insulation Samples, and USEPA 600, R93-116 as needed.

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

**iATL Customer Service:** customerservice@iatl.com

**iATL Office Manager:** wchampion@iatl.com

**iATL Account Representative:** Kelly Klippel

**Sample Login Notes:** See Batch Sheet Attached

**Sample Matrix:** Bulk Building Materials

**Exceptions Noted:** See Following Pages

### General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at [www.iATL.com](http://www.iATL.com) and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

### Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

### Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

---

CERTIFICATE OF ANALYSIS

---

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)  
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

### Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at [customerservice@iatl.com](mailto:customerservice@iatl.com).

- 1) Note: No mastic provided for analysis.
- 2) Note: Insufficient mastic provided for analysis.
- 3) Note: Insufficient material provided for analysis.
- 4) Note: Insufficient sample provided for QC reanalysis.
- 5) Note: Different material than indicated on Sample Log / Description.
- 6) Note: Sample not submitted.
- 7) Note: Attached to asbestos containing material.
- 8) Note: Received wet.
- 9) Note: Possible surface contamination.
- 10) Note: Not building material. 1% threshold may not apply.
- 11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
- 12) Note: Asbestos detected but not quantifiable.
- 13) Note: Multiple identical samples submitted, only one analyzed.
- 14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
- 15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
- 16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

### Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites). Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: "ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite."

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) [www.atsdr.cdc.gov](http://www.atsdr.cdc.gov), United States Geological Survey (USGS) [www.minerals.usgs.gov/minerals/](http://www.minerals.usgs.gov/minerals/), US EPA [www.epa.gov/asbestos](http://www.epa.gov/asbestos). The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional. NYS customers please follow current NYSDOH ELAP requirements per policy on subject of surfacing and vermiculite, May 6, 2016, Testing Requirements for Surfacing Material Containing Vermiculite ([https://www.wadsworth.org/sites/default/files/WebDoc/I198\\_8\\_02\\_2.pdf](https://www.wadsworth.org/sites/default/files/WebDoc/I198_8_02_2.pdf))

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

- 1) **Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116  
**Requirements/Comments:** Minimum of 0.1 g of sample. ~0.25% for most samples.

---

CERTIFICATE OF ANALYSIS

---

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004  
**Requirements/Comments:** Minimum 50g\*\* of dry sample. Analysis of "Sinks" only.

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004  
**Requirements/Comments:** Minimum 50g\*\* of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004  
**Requirements/Comments:** Minimum 50g\*\* of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004  
**Requirements/Comments:** Minimum 50g\*\* of dry sample. Analysis of "Suspension" only.  
\*With advance notice and confirmation by the laboratory.

\*\*Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

## Chain of Custody

–Bulk Asbestos –

### Contact Information

**Client Company:** TTL Associates, Inc.  
**Office Address:** 1915 N. 12th Street  
**City, State, Zip:** Toledo, OH 43604  
**Fax Number:** 419-214-5090  
**Email Address:** svogelpohl@tlassoc.com

**Project Number:** 2013101  
**Project Name:** LMHA Flory Gardens Unit 154  
**Primary Contact:** Sara Vogelpohl  
**Office Phone:** 419-214-5090  
**Cell Phone:** 734-812-6162

### PLM Instructions:

- PLM: Bulk Asbestos Building Materials EPA 600 R-93/116, 1993
- PLM: Bulk Asbestos Building Materials EPA 600 M-4/82-020, 1982
- PLM: Bulk Asbestos Building Materials NIOSH 9002, 1985
- PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.1, 2002
- PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.6, 2010
- TEM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.4, 2009
  
- PLM: Point Counting
  - PC: via ELAP 198.1
  - PC: 400 Points
  - PC: 800 Points \*
  - PC: 1600 Points \*
- PLM: Analyze Until Positive (Positive Stop)
  - AUP: by Homogenous Area as Noted
  - AUP: by Material Type as Noted
- PLM: NOB via 198.6
  - PLM: Friable via EPA 600 2.3
  - If <1% by PLM, to TEM via 198.4 \*
  - If <1% by PLM, Hold for Instructions
- PLM: Instructions for Multi-Layered Samples
  - Analyze and Report All Separable Layers per EPA 600
  - Report Composite for Drywall Systems per NESHAP
  - Report All Layers and Composite Where Applicable
  - Only Analyze and Report Specifically Noted Layer
- PLM: Non-Building Material \*\*\* (Dust, Wipe, Tape)
  - Soil or Vermiculite Analysis \*
  - CARB 435

**Special Instructions:** Use PO 014094

\* Additional charge and turnaround may be required

\*\* Alternative Method (ex: EPA 600/R-04/004) may be recommended by Laboratory

### Turnaround Time

Preliminary Results Requested Date: \_\_\_\_\_  
Specific date / time

Verbal    Email    Fax

10 Day    5 Day    3 Day    2 Day    1 Day\*    12 Hour\*\*    6 Hour\*\*    RUSH\*\*

\* End of next business day unless otherwise specified. \*\* Matrix Dependent. \*\*\*Please notify the lab before shipping\*\*\*

### Chain of Custody

Relinquished (Name/Organization): <u>[Signature]</u>	Date: <u>10/5/20</u>	Time: <u>1525</u>
Received (Name / iATL): _____	Date: _____	Time: _____
Sample Login (Name / iATL): _____	Date: _____	Time: _____
Analysis(Name(s) / iATL): <u>[Signature]</u>	Date: <u>10/6/24</u>	Time: _____
QA/QC Review (Name / iATL): _____	Date: _____	Time: _____
Archived / Released: _____	QA/QC InterLAB Use: _____	Date: _____

## Sample Log

–Bulk Asbestos –

Client: TTL Associates, Inc. Project: LMHA Flory Gardens, Unit 154

Sampling Date/Time: 10/5/2020

Bulk Asbestos Sample Log			
Client Sample #	iATL #	Location/Description	Notes
2013101-01A	7073721	drywall/kitchen	
2013101-01B	7073722	drywall/dining	
2013101-01C	7073723	drywall/living room	
2013101-01D	7073724	drywall/bath	
2013101-01E	7073725	drywall/living room	
2013101-02A	7073726	ceiling texture/kitching/dining	
2013101-02B	7073727	ceiling texture/living room	
2013101-02C	7073728	ceiling texture/bath	
2013101-03A	7073729	beige floor tile/dining	
2013101-03B	7073730	beige floor tile/living room	
2013101-04A	7073731	white sink undercoat/kitchen	
2013101-04B	7073732	white sink undercoat/kitchen	
2013101-05A	7073733	brown covebase/bath	
2013101-05B	7073734	brown covebase/bath	
2013101-06A	7073735	cellulose insulation/dining	
2013101-06B	7073736	cellulose insulation/living room	

**Sample Log**  
-Bulk Asbestos -

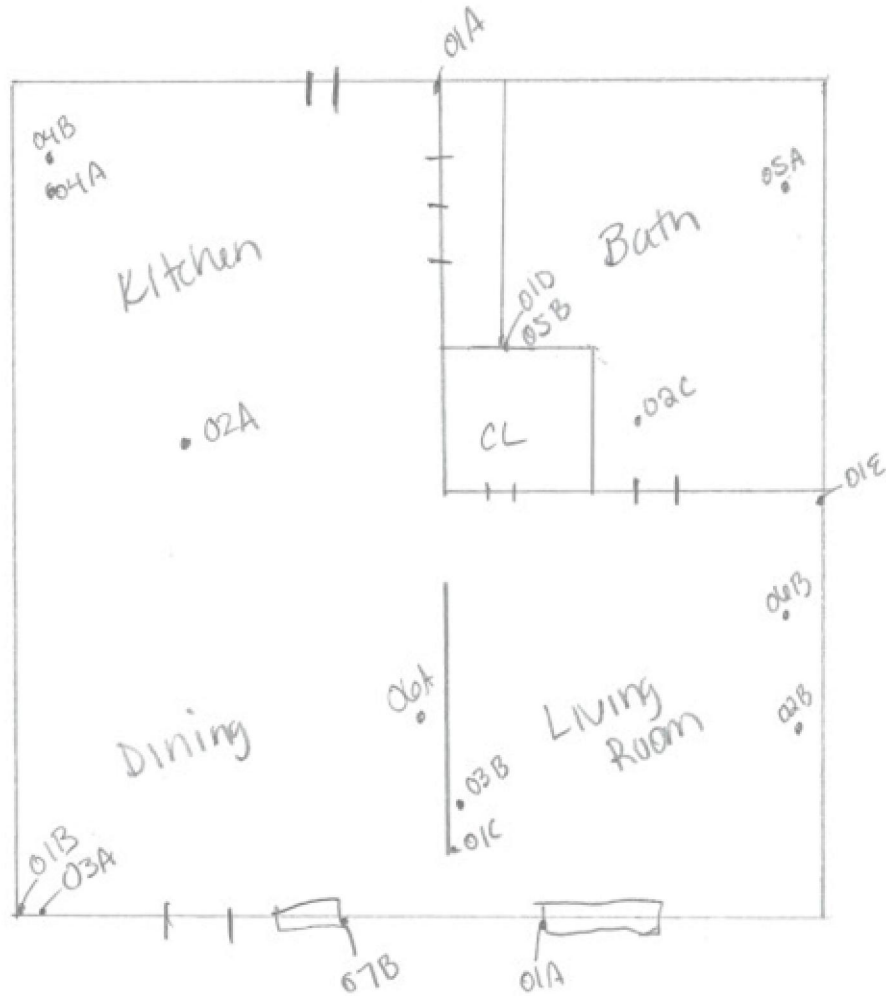
Client: TTL Associates, Inc. Project: LMHA Flory Gardens, Unit 154

Sampling Date/Time: 10/5/2020

Bulk Asbestos Sample Log			
Client Sample #	iATL #	Location/Description	Notes
2013101-07A	7073737	window caulk/exterior	
2013101-07B	7073738	window caulk/exterior	



**ATTACHMENT D**  
**SAMPLE LOCATION MAP**



Not to Scale



**ASBESTOS SAMPLE LOCATION DIAGRAM**

FLORY GARDENS UNIT 154  
3425 NEBRASKA AVENUE  
TOLEDO, OHIO  
TTL PROJECT NUMBER 2013101



CERTIFICATE OF ANALYSIS

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 7073721      **Analyst Observation:** Lt Tan Drywall      **Location:** Kitchen  
**Client No.:** 2013101-1A      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      20 Cellulose      80

**Lab No.:** 7073721(L2)      **Analyst Observation:** White Joint Compound      **Location:** Kitchen  
**Client No.:** 2013101-1A      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100


**Lab No.:** 7073722      **Analyst Observation:** Lt Tan Drywall      **Location:** Dining  
**Client No.:** 2013101-1B      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      20 Cellulose      80

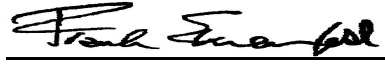
**Lab No.:** 7073722(L2)      **Analyst Observation:** White Joint Compound      **Location:** Dining  
**Client No.:** 2013101-1B      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*PC 1.3 Chrysotile*      None Detected      98.7

**Lab No.:** 7073723      **Analyst Observation:** Lt Tan Drywall      **Location:** Living Room  
**Client No.:** 2013101-1C      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      20 Cellulose      80

**Lab No.:** 7073723(L2)      **Analyst Observation:** Off-White Joint Compound      **Location:** Living Room  
**Client No.:** 2013101-1C      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*PC 1.5 Chrysotile*      None Detected      98.5

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/6/2020  
Date Analyzed: 10/06/2020  
Signature:   
Analyst: Ellen Smith

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 7073724      **Analyst Observation:** Lt Tan Drywall      **Location:** Bath  
**Client No.:** 2013101-1D      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      10 Cellulose      90

**Lab No.:** 7073724(L2)      **Analyst Observation:** White Joint Compound      **Location:** Bath  
**Client No.:** 2013101-1D      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100


**Lab No.:** 7073725      **Analyst Observation:** Lt Tan Drywall      **Location:** Living Room  
**Client No.:** 2013101-1E      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      20 Cellulose      80

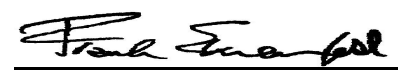
**Lab No.:** 7073725(L2)      **Analyst Observation:** White Joint Compound      **Location:** Living Room  
**Client No.:** 2013101-1E      **Client Description:** Drywall      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*PC 1.4 Chrysotile*      None Detected      98.6

**Lab No.:** 7073726      **Analyst Observation:** Off-White Ceiling Texture      **Location:** Kitchen/Dining  
**Client No.:** 2013101-2A      **Client Description:** Ceiling Texture      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*PC 1.2 Chrysotile*      None Detected      98.8

**Lab No.:** 7073727      **Analyst Observation:** Lt Tan Ceiling Texture      **Location:** Living Room  
**Client No.:** 2013101-2B      **Client Description:** Ceiling Texture      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*PC 1.4 Chrysotile*      None Detected      98.6

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/6/2020  
Date Analyzed: 10/06/2020  
Signature:   
Analyst: Ellen Smith

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 7073728  
**Client No.:** 2013101-2C  
**Analyst Observation:** White Ceiling Texture  
**Client Description:** Ceiling Texture  
**Location:** Bath  
**Facility:**  
Percent Asbestos:  
*PC 0.75 Chrysotile*  
Percent Non-Asbestos Fibrous Material:  
None Detected  
Percent Non-Fibrous Material:  
99.25

**Lab No.:** 7073729  
**Client No.:** 2013101-3A  
**Analyst Observation:** Tan Floor Tile  
**Client Description:** Beige Floor tile  
**Location:** Dining  
**Facility:**  
Percent Asbestos:  
*None Detected*  
Percent Non-Asbestos Fibrous Material:  
None Detected  
Percent Non-Fibrous Material:  
100


**Lab No.:** 7073729(L2)  
**Client No.:** 2013101-3A  
**Analyst Observation:** Black Mastic  
**Client Description:** Beige Floor tile  
**Location:** Dining  
**Facility:**  
Percent Asbestos:  
*None Detected*  
Percent Non-Asbestos Fibrous Material:  
1 Cellulose  
Percent Non-Fibrous Material:  
99

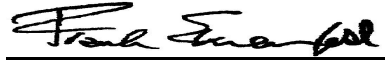
**Lab No.:** 7073730  
**Client No.:** 2013101-3B  
**Analyst Observation:** Tan Floor Tile  
**Client Description:** Beige Floor tile  
**Location:** Living Room  
**Facility:**  
Percent Asbestos:  
*None Detected*  
Percent Non-Asbestos Fibrous Material:  
None Detected  
Percent Non-Fibrous Material:  
100

**Lab No.:** 7073730(L2)  
**Client No.:** 2013101-3B  
**Analyst Observation:** Black Mastic  
**Client Description:** Beige Floor tile  
**Location:** Living Room  
**Facility:**  
Percent Asbestos:  
*None Detected*  
Percent Non-Asbestos Fibrous Material:  
1 Cellulose  
Percent Non-Fibrous Material:  
99

**Lab No.:** 7073731  
**Client No.:** 2013101-4A  
**Analyst Observation:** Off-White Sink Undercoating  
**Client Description:** White Sink Undercoat  
**Location:** Kitchen  
**Facility:**  
Percent Asbestos:  
*None Detected*  
Percent Non-Asbestos Fibrous Material:  
3 Cellulose  
Percent Non-Fibrous Material:  
97

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/6/2020  
Date Analyzed: 10/06/2020  
Signature:   
Analyst: Ellen Smith

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

PLM BULK SAMPLE ANALYSIS SUMMARY

**Lab No.:** 7073732      **Analyst Observation:** Off-White Sink Undercoating      **Location:** Kitchen  
**Client No.:** 2013101-4B      **Client Description:** White Sink Undercoat      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      3 Cellulose      97

**Lab No.:** 7073733      **Analyst Observation:** Brown Cove Base      **Location:** Bath  
**Client No.:** 2013101-5A      **Client Description:** Brown Cove Base      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100


**Lab No.:** 7073733(L2)      **Analyst Observation:** Off-White Mastic      **Location:** Bath  
**Client No.:** 2013101-5A      **Client Description:** Brown Cove Base      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100

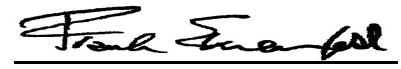
**Lab No.:** 7073734      **Analyst Observation:** Brown Cove Base      **Location:** Bath  
**Client No.:** 2013101-5B      **Client Description:** Brown Cove Base      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100

**Lab No.:** 7073734(L2)      **Analyst Observation:** Off-White Mastic      **Location:** Bath  
**Client No.:** 2013101-5B      **Client Description:** Brown Cove Base      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100

**Lab No.:** 7073735      **Analyst Observation:** Tan/Pink Insulation      **Location:** Dining  
**Client No.:** 2013101-6A      **Client Description:** Cellulose Insulation      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      95 Cellulose      None Detected  
5 Fibrous Glass

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/6/2020  
Date Analyzed: 10/06/2020  
Signature:   
Analyst: Ellen Smith

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381


PLM BULK SAMPLE ANALYSIS SUMMARY

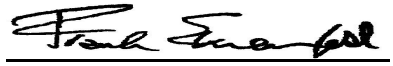
**Lab No.:** 7073736      **Analyst Observation:** Tan/Pink Insulation      **Location:** Living Room  
**Client No.:** 2013101-6B      **Client Description:** Cellulose Insulation      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      80 Cellulose      None Detected  
20 Fibrous Glass

**Lab No.:** 7073737      **Analyst Observation:** White Caulk      **Location:** Exterior  
**Client No.:** 2013101-7A      **Client Description:** Window Caulk      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100

**Lab No.:** 7073738      **Analyst Observation:** White Caulk      **Location:** Exterior  
**Client No.:** 2013101-7B      **Client Description:** Window Caulk      **Facility:**  
Percent Asbestos:      Percent Non-Asbestos Fibrous Material:      Percent Non-Fibrous Material:  
*None Detected*      None Detected      100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/6/2020  
Date Analyzed: 10/06/2020  
Signature:   
Analyst: Ellen Smith

Approved By:   
Frank E. Ehrenfeld, III  
Laboratory Director

---

CERTIFICATE OF ANALYSIS

---

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

## Appendix to Analytical Report

**Customer Contact:** Sara Vogelpohl

**Method:** 40 CFR Appendix E to Subpart E of Part 763, interim method for the Determination of Asbestos in Bulk Insulation Samples, and USEPA 600, R93-116 as needed.

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

**iATL Customer Service:** customerservice@iatl.com

**iATL Office Manager:** wchampion@iatl.com

**iATL Account Representative:** Kelly Klippel

**Sample Login Notes:** See Batch Sheet Attached

**Sample Matrix:** Bulk Building Materials

**Exceptions Noted:** See Following Pages

### General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at [www.iATL.com](http://www.iATL.com) and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

### Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

### Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)



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CERTIFICATE OF ANALYSIS

---

Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

Client: TTL381

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)  
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

### Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at [customerservice@iatl.com](mailto:customerservice@iatl.com).

- 1) Note: No mastic provided for analysis.
- 2) Note: Insufficient mastic provided for analysis.
- 3) Note: Insufficient material provided for analysis.
- 4) Note: Insufficient sample provided for QC reanalysis.
- 5) Note: Different material than indicated on Sample Log / Description.
- 6) Note: Sample not submitted.
- 7) Note: Attached to asbestos containing material.
- 8) Note: Received wet.
- 9) Note: Possible surface contamination.
- 10) Note: Not building material. 1% threshold may not apply.
- 11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
- 12) Note: Asbestos detected but not quantifiable.
- 13) Note: Multiple identical samples submitted, only one analyzed.
- 14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
- 15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
- 16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

### Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites). Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: "ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite."

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) [www.atsdr.cdc.gov](http://www.atsdr.cdc.gov), United States Geological Survey (USGS) [www.minerals.usgs.gov/minerals/](http://www.minerals.usgs.gov/minerals/), US EPA [www.epa.gov/asbestos](http://www.epa.gov/asbestos). The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional. NYS customers please follow current NYSDOH ELAP requirements per policy on subject of surfacing and vermiculite, May 6, 2016, Testing Requirements for Surfacing Material Containing Vermiculite ([https://www.wadsworth.org/sites/default/files/WebDoc/I198\\_8\\_02\\_2.pdf](https://www.wadsworth.org/sites/default/files/WebDoc/I198_8_02_2.pdf))

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

- 1) **Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116  
**Requirements/Comments:** Minimum of 0.1 g of sample. ~0.25% for most samples.

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CERTIFICATE OF ANALYSIS

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Client: TTL Associates Inc.  
1915 N. 12th Street  
Toledo OH 43604

Client: TTL381

Report Date: 10/6/2020  
Report No.: 620713 - PLM  
Project: LHMA Flory Gardens Unit 154  
Project No.: 2013101

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004  
**Requirements/Comments:** Minimum 50g\*\* of dry sample. Analysis of "Sinks" only.

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004  
**Requirements/Comments:** Minimum 50g\*\* of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004  
**Requirements/Comments:** Minimum 50g\*\* of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004  
**Requirements/Comments:** Minimum 50g\*\* of dry sample. Analysis of "Suspension" only.  
\*With advance notice and confirmation by the laboratory.

\*\*Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).



9000 Commerce Parkway, Suite B • Mount Laurel, NJ 08054  
Phone: 877-428-4285/856-231-9449 • Fax: 856-231-9818

## Chain of Custody

–Bulk Asbestos –

### Contact Information

<b>Client Company:</b> <u>TTL Associates, Inc.</u>	<b>Project Number:</b> <u>2013101</u>
<b>Office Address:</b> <u>1915 N. 12th Street</u>	<b>Project Name:</b> <u>LMHA Flory Gardens Unit 154</u>
<b>City, State, Zip:</b> <u>Toledo, OH 43604</u>	<b>Primary Contact:</b> <u>Sara Vogelpohl</u>
<b>Fax Number:</b> <u>419-214-5090</u>	<b>Office Phone:</b> <u>419-214-5090</u>
<b>Email Address:</b> <u>svogelpohl@tlassoc.com</u>	<b>Cell Phone:</b> <u>734-812-6162</u>

### PLM Instructions:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> PLM: Bulk Asbestos Building Materials EPA 600 R-93/116, 1993<br><input checked="" type="checkbox"/> PLM: Bulk Asbestos Building Materials EPA 600 M-4/82-020, 1982<br><input type="checkbox"/> PLM: Bulk Asbestos Building Materials NIOSH 9002, 1985<br><input type="checkbox"/> PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.1, 2002<br><input type="checkbox"/> PLM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.6, 2010<br><input type="checkbox"/> TEM: Bulk Asbestos Building Materials NYSDOH-ELAP 198.4, 2009<br><br><input type="checkbox"/> PLM: Point Counting<br><input type="checkbox"/> PC: via ELAP 198.1<br><input type="checkbox"/> PC: 400 Points<br><input type="checkbox"/> PC: 800 Points *<br><input type="checkbox"/> PC: 1600 Points *<br><br><input type="checkbox"/> PLM: Instructions for Multi-Layered Samples<br><input type="checkbox"/> Analyze and Report All Separable Layers per EPA 600<br><input type="checkbox"/> Report Composite for Drywall Systems per NESHAP<br><input type="checkbox"/> Report All Layers and Composite Where Applicable<br><input type="checkbox"/> Only Analyze and Report Specifically Noted Layer | <input type="checkbox"/> PLM: Analyze Until Positive (Positive Stop)<br><input type="checkbox"/> AUP: by Homogenous Area as Noted<br><input type="checkbox"/> AUP: by Material Type as Noted<br><input type="checkbox"/> PLM: NOB via 198.6<br><input type="checkbox"/> PLM: Friable via EPA 600 2.3<br><input type="checkbox"/> If <1% by PLM, to TEM via 198.4 *<br><input type="checkbox"/> If <1% by PLM, Hold for Instructions<br><br><input type="checkbox"/> PLM: Non-Building Material*** (Dust, Wipe, Tape)<br><input type="checkbox"/> Soil or Vermiculite Analysis *<br><input type="checkbox"/> CARB 435 |
|--|--|

**Special Instructions:** Use PO 014094

\* Additional charge and turnaround may be required

\*\* Alternative Method (ex: EPA 600/R-04/004) may be recommended by Laboratory

### Turnaround Time

Preliminary Results Requested Date: \_\_\_\_\_  
Specific date / time

Verbal     Email     Fax

10 Day     5 Day     3 Day     2 Day     1 Day\*     12 Hour\*\*     6 Hour\*\*     RUSH\*\*

\* End of next business day unless otherwise specified. \*\* Matrix Dependent. \*\*\*Please notify the lab before shipping\*\*\*

### Chain of Custody

Relinquished (Name/Organization): <u>[Signature]</u>	Date: <u>10/5/20</u>	Time: <u>1525</u>
Received (Name / iATL): _____	Date: _____	Time: _____
Sample Login (Name / iATL): _____	Date: _____	Time: _____
Analysis(Name(s) / iATL): <u>[Signature]</u>	Date: <u>10/6/24</u>	Time: _____
QA/QC Review (Name / iATL): _____	Date: _____	Time: _____
Archived / Released: _____	QA/QC InterLAB Use: _____	Date: _____



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## Sample Log

–Bulk Asbestos –

Client: TTL Associates, Inc. Project: LMHA Flory Gardens, Unit 154

Sampling Date/Time: 10/5/2020

Bulk Asbestos Sample Log			
Client Sample #	iATL #	Location/Description	Notes
2013101-01A	7073721	drywall/kitchen	
2013101-01B	7073722	drywall/dining	
2013101-01C	7073723	drywall/living room	
2013101-01D	7073724	drywall/bath	
2013101-01E	7073725	drywall/living room	
2013101-02A	7073726	ceiling texture/kitching/dining	
2013101-02B	7073727	ceiling texture/living room	
2013101-02C	7073728	ceiling texture/bath	
2013101-03A	7073729	beige floor tile/dining	
2013101-03B	7073730	beige floor tile/living room	
2013101-04A	7073731	white sink undercoat/kitchen	
2013101-04B	7073732	white sink undercoat/kitchen	
2013101-05A	7073733	brown covebase/bath	
2013101-05B	7073734	brown covebase/bath	
2013101-06A	7073735	cellulose insulation/dining	
2013101-06B	7073736	cellulose insulation/living room	



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## Sample Log

–Bulk Asbestos–

Client: TTL Associates, Inc. Project: LMHA Flory Gardens, Unit 154

Sampling Date/Time: 10/5/2020

Bulk Asbestos Sample Log			
Client Sample #	iATL #	Location/Description	Notes
2013101-07A	7073737	window caulk/exterior	
2013101-07B	7073738	window caulk/exterior	