

**REPORT OF THE NESHAP PRE-DEMOLITION SURVEY, SAMPLING
AND EVALUATION OF ASBESTOS-CONTAINING MATERIALS**

at the

**COMMERCIAL STRUCTURE
618-620 DREW STREET
CLEARWATER, FLORIDA**

**February 22, 2023
GE Project Number 1071-6024**

Submitted to:

**Stantec
Ms. Shawn Lasseter
Senior Project Manager
380 Park Place Boulevard, Suite 300
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Prepared by:

**Greenfield Environmental, Inc.
432 3rd Street North
St. Petersburg, Florida 33701**

EXECUTIVE SUMMARY

The pre-demolition asbestos survey and laboratory analysis conducted at the commercial structure located at 618-620 Drew Street in Clearwater, Florida indicated that seven (7) of the materials sampled were found to contain asbestos in amounts greater than one percent (1%). These materials are five (5) types of friable (Regulated) vinyl floor sheetings and two (2) types of Category I non-friable vinyl floor tile.

These asbestos containing materials must be properly removed by a Florida Licensed Asbestos Abatement Contractor prior to future demolition activities. Proper notification must be provided to the Pinellas County Air Quality Division prior to any asbestos removal or demolition activities.

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION.....	1
2.0 FACILITY DESCRIPTION.....	2
3.0 SURVEY METHODS AND LABORATORY ANALYSIS.....	3
4.0 SUSPECTED ASBESTOS-CONTAINING MATERIALS.....	4
5.0 DESCRIPTION OF MATERIALS.....	5
6.0 CONCLUSION	12

LIST OF APPENDICES

APPENDIX A-	POLARIZED LIGHT MICROSCOPY LABORATORY ANALYTICAL RESULTS
APPENDIX B-	CERTIFICATIONS

1.0 INTRODUCTION

The pre-demolition survey for asbestos-containing materials (ACMs) was conducted by Greenfield Environmental, Inc. (GE) at the commercial structure located at 618-620 Drew Street in Clearwater, Florida. The survey was performed on February 10 and 21, 2023 by Max Adamski and Sage Wilkerson, Accredited EPA Inspectors for GE. GE is a Florida Licensed Asbestos Consulting Firm with a corresponding license number of ZA-0000268. We were notified the potential exists that the structure may be renovated.

Our survey was conducted in order to identify any asbestos-containing materials which may exist prior to potential demolition activities in accordance with the National Emissions Standard for Hazardous Air Pollutants (NESHAP) Regulation. More specifically, our scope of services for this project consisted of the five (5) following steps:

- Site Walk-Through and Observations,
- Bulk Sampling of Suspect ACMs,
- Polarized Light Microscopy (PLM) Analysis of Bulk Samples,
- Hazard Assessment and Evaluation, and
- Final Report Development.

The findings of this report represent GE's best professional judgement and no other warranty is expressed or implied. This report is intended only for the use of **STANTEC** and its agents. The contents should not be relied upon by any other parties without the expressed written consent of GE.

2.0 FACILITY DESCRIPTION

The two-story commercial structure was constructed out of concrete, wood, and metal on a concrete slab foundation. The interior finishes consist of a drywall system, vinyl floor tile, vinyl cove baseboards, carpeted areas, ceramic floor tile, ceramic wall tile, terrazzo, cork flooring, ceiling texture, wall coverings, and ceiling tile. The HVAC system consists of split systems with flex duct, metal duct and duct board. The doors were either metal and glass, solid wood, or hollow wood. The roof areas consist of flat roof systems and roofing mastics. The carport roof consists of a metal roof system. The building exterior areas consist of stucco, brick and mortar, glazing, concrete, asphalt and poured concrete.

3.0 SURVEY METHODS AND LABORATORY ANALYSIS

The sampling conducted in this asbestos survey was performed in accordance with Title 40, Code of Federal Regulations (CFR), Part 763 for suspect ACMs. The EPA regulations require that sample locations be randomly selected. All suspect asbestos-containing materials and PACM (materials presumed to contain asbestos under the OSHA Asbestos Rule, 29 CFR 1910) were identified and samples of each different material were obtained.

The bulk sampling procedure utilized for collection of suspect samples required the establishment of homogeneous sampling areas. A homogeneous sampling area is defined as an area of friable or non-friable material of similar type that appeared to be applied or installed during the same general period of time. All sample locations were identified with numbers corresponding to those listed in Section 5.0 "Description of Materials" of this report.

Samples which were collected from these pre-determined homogeneous sampling areas were labeled and transported to Air Quality Environmental, Inc. (NVLAP No. 200957-0) for analysis. All samples were analyzed using EPA approved Polarized Light Microscopy (PLM) coupled with dispersion staining. Properties such as refractive indices, birefringence, sign of elongation and extinction angle are unique to crystalline asbestos forms and are used to identify the type of asbestos mineral as chrysotile, amosite, crocidolite, anthophyllite, tremolite or actinolite. Percentages of the identified types of asbestos are determined by visual estimation. Attempts are made to mix the sample thoroughly to provide a more accurate percentage. Any material containing greater than one percent (1%) by weight of any type of asbestos is considered by the EPA to be an ACM and if disturbed must be handled according to specific regulations.

4.0 SUSPECTED ASBESTOS-CONTAINING MATERIALS

The following is a summary of the materials sampled and tested during the survey and evaluation at the commercial structure:

- Drywall System
- Stucco
- Concrete
- Caulk
- Carpet Mastic
- Ceramic Tile and Grout/Thinset
- Ceiling Tile
- Vinyl Cove Baseboard
- Duct Board Insulation
- Flex Duct Insulation
- Vinyl Floor Tile with Mastic
- Terrazzo
- Vinyl Floor Sheeting with Mastic
- Roofing System
- Roofing Mastic
- Upper Ceiling Insulation
- Foam
- Asphalt
- Fiberglass Insulations
- Sink Mastic

5.0 DESCRIPTION OF MATERIALS

The following is a description of the materials sampled at the commercial structure:

Homo. Area	Sample Number	Description/ Location	Asbestos Content	Friability	Condition	Approx. Quantity
01	01 02 03 04 05 06 07	Grey High Pile Stucco Located at Building Exterior	No Asbestos Detected	Friable	Good	-----
02	08 09 10 11 12	Grey Smooth Stucco Located at Building Exterior	No Asbestos Detected	Friable	Good	-----
03	13 14	Caulk Located at Exterior Trim and Seams	No Asbestos Detected	Non – Friable	Good	-----
04	15 16 17	Poured Concrete Located at Stairs and Loading Dock	No Asbestos Detected	Non – Friable	Good	-----
05	18 19	Brick and Mortar Located at Loading Dock Area	No Asbestos Detected	Non-Friable	Good	-----
06	20 21 22	Window Glazing at Original Window Exterior Areas	No Asbestos Detected	Friable	Good	-----
07	23 24 25	Cement Board Siding Located at Select Exterior Wall Areas	No Asbestos Detected	Non-Friable	Good	-----
08	26 27 28	Red Brick and Mortar Located at Select Exterior Walls	No Asbestos Detected	Non-Friable	Good	-----
09	29 30 31	Asphalt Located at Parking Lot Surface	No Asbestos Detected	Non-Friable	Good	-----

Homo. Area	Sample Number	Description/ Location	Asbestos Content	Friability	Condition	Approx. Quantity
10	32 33 34	Green Insulation Located at Overhang and Select Upper Ceiling Areas	No Asbestos Detected	Friable	Good	-----
11	35 36 37	Foam with Yellow Mastic Located Under Carport Metal Roof System	No Asbestos Detected	Friable	Good	-----
12	38 39	Black Asphalt Flat Roof System with Black Mastic Located at Northern Lower Flat Roof System	No Asbestos Detected	Non-Friable	Good	-----
13	40 41	Black Shingles with Black Mastic Located at Air Handler Unit Roof Penetrations	No Asbestos Detected	Non-Friable	Good	-----
14	42 43	White Mastic Located at Select Roof Penetrations	No Asbestos Detected	Non-Friable	Good	-----
15	44 45	Black Asphalt Flat Roof System with Black Mastic Located at Upper Roof Areas	No Asbestos Detected	Non-Friable	Good	-----
16	46 47	Black Mastic Located at Upper Roof Perimeter Areas	No Asbestos Detected	Non-Friable	Good	-----
17	48 49	Grey Caulk Located at Lower Roof Flashing Areas	No Asbestos Detected	Non-Friable	Good	-----
18	50 51	Silver and Black Mastic Located Air Handler Units	No Asbestos Detected	Non-Friable	Good	-----
19	52 53	Black Mastic Located at Crawl Space Wall Areas	No Asbestos Detected	Non-Friable	Good	-----
20	54 55 56	Fibrous Material Located at Select Crawlspace Wall Areas	No Asbestos Detected	Friable	Good	-----
21	57 58 59	Terrazzo Located at 1 st Floor Foundation Areas	No Asbestos Detected	Non-Friable	Good	-----

Homo. Area	Sample Number	Description/ Location	Asbestos Content	Friability	Condition	Approx. Quantity
22	60 61 62	Brown Vinyl Floor Sheeting with Yellow Mastic Located at 1 st Floor Southeast Office Under Carpeted Floor Areas	15% Chrysotile Asbestos	Friable	Good	150 Square Feet
23	63 64 65	Pebble Pattern Brown Vinyl Floor Sheeting with Yellow Mastic Located at West Entrance and Paint Room Floor Areas	20% Chrysotile Asbestos	Friable	Good	400 Square Feet
24	66 67 68	Brown Vinyl Floor Sheeting with Yellow Mastic Located Behind Reception Desk Under Carpeted Floor Areas	20% Chrysotile Asbestos	Friable	Good	75 Square Feet
25	69 70	Tan 12" x 12" Vinyl Floor Tile with Yellow Mastic Located at Southwest Office Under Carpeted Floor Areas	Tile - 2% Chrysotile Asbestos	Non-Friable	Good	125 Square Feet
26	71 72	Tan 12" x 12" Ceramic Floor Tile with Grout and Thinset Located at 1 st Floor Main Lobby Floor Areas	No Asbestos Detected	Non-Friable	Good	-----
27	73 74	Grey Sink Mastic Located at Select Sink Areas	No Asbestos Detected	Non-Friable	Good	-----
28	75 76	Tan Multi-Colored 6" x 36" Ceramic Floor Tile with Grout and Thinset Located at 1 st Floor Kitchen Floor Areas	No Asbestos Detected	Non-Friable	Good	-----
29	77 78 79 80 81 82 83	Wall Covering with Yellow Mastic Located at Select 1 st and 2 nd Floor Wall Areas	No Asbestos Detected	Friable	Good	-----

Homo. Area	Sample Number	Description/ Location	Asbestos Content	Friability	Condition	Approx. Quantity
30	84 85 86	Faux Wood Vinyl Floor Sheeting with Yellow Mastic Located at 1 st Floor Select Floor Areas	No Asbestos Detected	Friable	Good	-----
31	87 88 89	Brown Vinyl Floor Sheeting with Yellow Mastic Located Below HA# 30 at Select Floor Areas	15% Chrysotile Asbestos	Friable	Good	1,000 Square Feet
32	90 91	Carpet Mastic Located at Select 1 st and 2 nd Floor Carpeted Floor Areas	No Asbestos Detected	Non-Friable	Good	-----
33	92 93	Grey Vinyl Cove Baseboard with Yellow Mastic Located at Select 1 st and 2 nd Floor Wall Areas	No Asbestos Detected	Non-Friable	Good	-----
34	94 95 96	Brown Vinyl Floor Sheeting with Yellow Mastic Located at Drafting Room Below Carpeted Floor Areas	15% Chrysotile Asbestos	Friable	Good	150 Square Feet
35	97 98	White Vinyl Cove Baseboard with Yellow Mastic Located at Select 1 st and 2 nd Floor Wall Areas	No Asbestos Detected	Non-Friable	Good	-----
36	99 100 101	Wall Covering with Yellow Mastic Located at Select 1 st and 2 nd Floor Wall Areas	No Asbestos Detected	Friable	Good	-----
37	102 103 104	Yellow Insulation with Foil Wrap Duct Board Located at Upper Ceiling and Mechanical Room Areas	No Asbestos Detected	Friable	Good	-----
38	105 106 107	Yellow Insulation with Foil Wrap on Flex Duct Located at Upper Ceiling and Mechanical Room Areas	No Asbestos Detected	Friable	Good	-----

Homo. Area	Sample Number	Description/ Location	Asbestos Content	Friability	Condition	Approx. Quantity
39	108 109	White 4" x 4" Ceramic Floor Tile with Grout and Thinset Located at Select Bathroom Floor Areas	No Asbestos Detected	Non-Friable	Good	-----
40	110 111	White 2" x 2" Ceramic Tile with Grout and Mastic Located at Select Bathroom Wall Areas	No Asbestos Detected	Non-Friable	Good	-----
41	112 113 114	White 2' x 2' Pinhole Ceiling Tile Located at Select Ceiling Areas	No Asbestos Detected	Friable	Good	-----
42	115 116 117	White 2' x 2' Textured Ceiling Tile Located at 1 st Floor Entrance Ceiling Area	No Asbestos Detected	Friable	Good	-----
43	118 119 120	Tan 9"x 9" Ceiling Tile Located above HA# 42	No Asbestos Detected	Friable	Good	-----
44	121 122 123	Yellow Insulation with Foil Wrap on Flex Duct Located at Select Upper Ceiling Areas	No Asbestos Detected	Friable	Good	-----
45	124 125 126	White 2' x 2' Smooth Ceiling Tile Located at Select 1 st Floor Ceiling Areas	No Asbestos Detected	Friable	Good	-----
46	127 128 129	White 2' x 4' Pin Hole Ceiling Tile Located at Select 1 st Floor Office Ceiling Areas	No Asbestos Detected	Friable	Good	-----
47	130 131 132 133 134 135 136	Drywall, Tape and Joint Compound Located at Wall and Select Ceiling Areas	No Asbestos Detected	Friable	Good	-----

Homo. Area	Sample Number	Description/ Location	Asbestos Content	Friability	Condition	Approx. Quantity
48	137 138 139 140 141	Yellow Insulation with Brown Backing and Black Mastic Located at Select Upper Ceiling Areas	No Asbestos Detected	Friable	Good	-----
49	142 143	Grey Vinyl Cove Baseboard with Yellow Mastic Located at 2 nd Floor Storage Room Wall Area	No Asbestos Detected	Non-Friable	Good	-----
50	144 145 146	Cork Flooring Located at 2 nd Floor Storage Room Floor Areas	No Asbestos Detected	Friable	Good	-----
51	147 148	Black Vinyl Cove Baseboard with Yellow Mastic Located at Select 2 nd Floor Wall Areas	No Asbestos Detected	Non-Friable	Good	-----
52	149 150 151	White 2' x 4' Fiberglass Ceiling Tile Located at Select 2 nd Floor Ceiling Areas	No Asbestos Detected	Friable	Good	-----
53	152 153 154	Orange Peel Texture Located at Select Second Floor Ceiling Areas	No Asbestos Detected	Friable	Good	-----
54	155 156	Tan 12" x 12" Vinyl Floor Tile with Yellow Mastic Located at Stairwell and Select Corridor Floor Areas	Tile – 2% Chrysotile Asbestos	Non-Friable	Good	250 Square Feet
55	157 158	Concrete Located at Foundation	No Asbestos Detected	Non-Friable	Good	-----
56	159 160	Brick and Mortar Located at Select Wall Areas	No Asbestos Detected	Non-Friable	Good	-----
57	161 162	Cement Board Located at Mechanical Room Wall Areas	No Asbestos Detected	Non-Friable	Good	-----

Homo. Area	Sample Number	Description/ Location	Asbestos Content	Friability	Condition	Approx. Quantity
58	163 164 165	Tan Vinyl Floor Sheeting with Yellow Mastic Located at 2 nd Floor Storage Room Floor Areas	No Asbestos Detected	Friable	Good	-----
59	166 167	Brown Carpet Mastic Located at 2 nd Floor Carpeted Floor Areas	No Asbestos Detected	Non-Friable	Good	-----

Note - Quantities are provided for convenience and should not be used for future asbestos contractor bidding purposes.

6.0 CONCLUSION

The pre-demolition asbestos survey and laboratory analysis conducted at the commercial structure located at 618-620 Drew Street in Clearwater, Florida indicated that of the one hundred and sixty-seven (167) samples collected, seven (7) of the materials sampled were found to contain asbestos in amounts greater than one percent (1%).

Category I non-friable asbestos-containing materials were discovered during our survey in the form of two (2) types of vinyl floor tile. Category I non-friable ACMs are materials which contain 1% asbestos or greater and cannot be crumbled, pulverized or reduced to powder by hand pressure. Category I non-friable ACMs are those in which the asbestos fibers are bound with other materials in such a way that the release of those fibers into the air from casual contact or normal wear is unlikely.

Friable (Regulated) materials were discovered during our survey in the form of five (5) types of vinyl floor sheetings. Friable ACMs are materials that which contain 1% asbestos or greater and when dry may be crumbled or reduced to powder by hand pressure. Friable ACMs pose the greatest threat to human health because of the tendency to release harmful asbestos fibers into the air when disturbed. Friable (Regulated) materials should not be removed or impacted in any way as these actions may result in a significant fiber release episode.

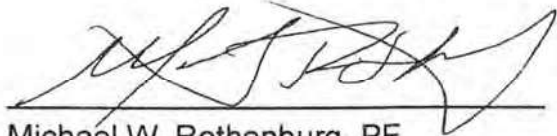
These asbestos containing materials must be properly removed by a Florida Licensed Asbestos Abatement Contractor prior to demolition activities. Proper notification must be provided to the Pinellas County Air Quality Division prior to any future asbestos removal or demolition activities.

PROFESSIONAL CERTIFICATIONS

The discussions and conclusions contained in this asbestos survey have been prepared and reviewed by the following certified professionals.



Max Adamski
Project Manager
AHERA Inspector #03292204AM



Michael W. Rothenburg, PE
Florida Licensed Asbestos Consultant
#EA0000041

APPENDIX A

PLM LABORATORY ANALYTICAL RESULTS



Air Quality Environmental, Inc.

Laboratory Services

9325 Seminole Boulevard, Seminole, Florida 33772 (727) 398-0900 FAX (727) 398-0996

Client Name: Greenfield Environmental
432 3rd Street North
St. Petersburg, Florida 33701

Project Name: Stantec
618 Drew St, Clearwater, FL
Date Analyzed: February 14, 2023

Asbestos, Bulk Sample Analysis Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

Lab #	Client #	Sample Type	Description	% Asbestos	% Other Fibers	% Binders
590339	1	Stucco	grey	NAD		100% Quartz and Binders
590340	2	Stucco	grey	NAD		100% Quartz and Binders
590341	3	Stucco	grey	NAD		100% Quartz and Binders
590342	4	Stucco	grey	NAD		100% Quartz and Binders
590343	5	Stucco	grey	NAD		100% Quartz and Binders
590344	6	Stucco	grey	NAD		100% Quartz and Binders
590345	7	Stucco	grey	NAD		100% Quartz and Binders
590346	8	Stucco	grey	NAD		100% Quartz and Binders
590347	9	Stucco	grey	NAD		100% Quartz and Binders
590348	10	Stucco	grey	NAD		100% Quartz and Binders
590349	11	Stucco	grey	NAD		100% Quartz and Binders
590350	12	Stucco	grey	NAD		100% Quartz and Binders
590351	13	Caulk	white	NAD		100% Carbonates and Binders
590352	14	Caulk	white	NAD		100% Carbonates and Binders
590353	15	Building Material	grey	NAD		100% Quartz and Binders
590354	16	Building Material	grey	NAD		100% Quartz and Binders
590355	17	Building Material	grey	NAD		100% Quartz and Binders
590356	18	Brick	tan	NAD		100% Quartz and Binders
590357	19	Brick	tan	NAD		100% Quartz and Binders

†These samples were analyzed by layers. Specific layer or component asbestos content is indicated when relevant. The EPA considers a material to be asbestos containing only if it contains more than 1% asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also indicate that Regulated Asbestos Containing Materials which are friable or may become friable, be further analyzed by point counting when the results indicate less than 10% asbestos by CVAE. Air Quality Environmental utilizes CVAE on a routine basis and does not include point counting unless specifically requested. Additionally, these results may not be reproduced except in full. This report data is to be interpreted only by the person (s) whom have collected the samples. Furthermore, this report may not be used as a claim to product certification, approval or endorsement by NVLAP, NIST or any other agency of the Federal Government.

†Floor Tile and other resinously bound materials, when analyzed by EPA method, may yield false negative results because of limitations in separating closely bound fibers and in detecting fibers of small length and diameter. When a definitive result is required, AQE recommends utilizing alternative methods of identification, including Transmission Electron Microscopy.

Analyzed by:

Giancarlo Aramburo
Microscopist

Lab File Number: 65599

Analysis Pages 1 of 11

NVLAP Lab Code 200759-0

Client Name: Greenfield Environmental
432 3rd Street North
St. Petersburg, Florida 33701

Project Name: Stantec
618 Drew St, Clearwater, FL
Date Analyzed: February 14, 2023

Asbestos, Bulk Sample Analysis Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

Lab #	Client #	Sample Type	Description	% Asbestos	% Other Fibers	% Binders
590358	20	Building Material	grey	NAD		100% Carbonates and Binders
590359	21	Building Material	grey	NAD		100% Carbonates and Binders
590360	22	Building Material	grey	NAD		100% Carbonates and Binders
590361	23	Fiberboard	grey	NAD	20% Cellulose	80% Quartz and Binders
590362	24	Fiberboard	grey	NAD	20% Cellulose	80% Quartz and Binders
590363	25	Fiberboard	grey	NAD	20% Cellulose	80% Quartz and Binders
590364	26	Brick and Mortar	red brick grey mortar	NAD NAD		100% Quartz and Binders 100% Quartz and Binders
590365	27	Brick and Mortar	red brick grey mortar	NAD NAD		100% Quartz and Binders 100% Quartz and Binders
590366	28	Brick and Mortar	red brick grey mortar	NAD NAD		100% Quartz and Binders 100% Quartz and Binders
590367	29	Roofing Material	black mastic	NAD		100% Bitumen, Quartz, Binders
590368	30	Roofing Material	black mastic	NAD		100% Bitumen, Quartz, Binders
590369	31	Roofing Material	black mastic	NAD		100% Bitumen, Quartz, Binders
590370	32	Building Material	green	NAD	100% Mineral Wool	
590371	33	Building Material	green	NAD	100% Mineral Wool	
590372	34	Building Material	green	NAD	100% Mineral Wool	
590373	35	Insulation	white insulate yellow mastic	NAD NAD		100% Synthetics and Binders 100% Binders
590374	36	Insulation	white insulate yellow mastic	NAD NAD		100% Synthetics and Binders 100% Binders
590375	37	Insulation	white insulate yellow mastic	NAD NAD		100% Synthetics and Binders 100% Binders

†These samples were analyzed by layers. Specific layer or component asbestos content is indicated when relevant. The EPA considers a material to be asbestos containing only if it contains more than 1% asbestos by Calibrated Visual Area Estimation (CVAE). EPA regulations also indicate that Regulated Asbestos Containing Materials which are friable or may become friable, be further analyzed by point counting when the results indicate less than 10% asbestos by CVAE. Air Quality Environmental utilizes CVAE on a routine basis and does not include point counting unless specifically requested. Additionally, these results may not be reproduced except in full. This report data is to be interpreted only by the person (s) whom have collected the samples. Furthermore, this report may not be used as a claim to product certification, approval or endorsement by NVLAP, NIST or any other agency of the Federal Government.

‡Floor Tile and other resinously bound materials, when analyzed by EPA method, may yield false negative results because of limitations in separating closely bound fibers and in detecting fibers of small length and diameter. When a definitive result is required, AQE recommends utilizing alternative methods of identification, including Transmission Electron Microscopy.

Analyzed by:



Giancarlo Arambulo
Microscopist

Lab File Number: 65599

NVLAP Lab Code 200759-0

Client Name: Greenfield Environmental
432 3rd Street North
St. Petersburg, Florida 33701

Project Name: Stantec
618 Drew St, Clearwater, FL
Date Analyzed: February 14, 2023

Asbestos, Bulk Sample Analysis Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

Lab #	Client #	Sample Type	Description	% Asbestos	% Other Fibers	% Binders
590376	38	Roofing Material	white wrap	NAD		100% Foil and Binders
			black mastic	NAD		100% Bitumen and Binders
			black shingle	NAD	20% Glass Fibers	80% Bitumen and Binders
590377	39	Roofing Material	white wrap	NAD		100% Foil and Binders
			black mastic	NAD		100% Bitumen and Binders
			black shingle	NAD	20% Glass Fibers	80% Bitumen and Binders
590378	40	Roofing Material	black mastic	NAD		100% Bitumen and Binders
590379	41	Roofing Material	black mastic	NAD		100% Bitumen and Binders
590380	42	Caulk	grey caulk	NAD	4% Cellulose	96% Carbonates and Binders
			silver mastic	NAD		100% Bitumen and Binders
590381	43	Caulk	grey caulk	NAD	4% Cellulose	96% Carbonates and Binders
			silver mastic	NAD		100% Bitumen and Binders
590382	44	Roofing Material	black shingle	NAD	30% Glass Fibers	70% Bitumen and Binders
			black mastic	NAD		100% Bitumen and Binders
590383	45	Roofing Material	black shingle	NAD	30% Glass Fibers	70% Bitumen and Binders
			black mastic	NAD		100% Bitumen and Binders
590384	46	Roofing Material	black mastic	NAD	5% Cellulose	95% Bitumen and Binders
590385	47	Roofing Material	black mastic	NAD	5% Cellulose	95% Bitumen and Binders
590386	48	Caulk	grey	NAD	5% Cellulose	95% Carbonates and Binders
590387	49	Caulk	grey	NAD	5% Cellulose	95% Carbonates and Binders
590388	50	Roofing Material	silver mastic	NAD		100% Carbonates and Binders
			black mastic	NAD	4% Cellulose	96% Bitumen and Binders
			silver mastic	NAD		100% Bitumen and Binders
590389	51	Roofing Material	silver mastic	NAD		100% Carbonates and Binders
			black mastic	NAD	4% Cellulose	96% Bitumen and Binders
			silver mastic	NAD		100% Bitumen and Binders
590390	52	Mastic	black	NAD		100% Bitumen and Binders
590391	53	Mastic	black	NAD		100% Bitumen and Binders

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†Floor Tile and other resinously bound materials, when analyzed by EPA method, may yield false negative results because of limitations in separating closely bound fibers and in detecting fibers of small length and diameter. When a definitive result is required, AOE recommends utilizing alternative methods of identification, including Transmission Electron Microscopy.

Analyzed by



Giancarlo Arambulo
Microscopist

Lab File Number: 65599

NVLAP Lab Code 200759-0

Client Name: Greenfield Environmental
432 3rd Street North
St. Petersburg, Florida 33701

Project Name: Stantec
618 Drew St, Clearwater, FL
Date Analyzed: February 14, 2023

Asbestos, Bulk Sample Analysis Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

Lab #	Client #	Sample Type	Description	% Asbestos	% Other Fibers	% Binders
590392	54	Vapor Barrier	black barrier black mastic	NAD NAD	40% Cellulose	60% Bitumen and Binders 100% Bitumen and Binders
590393	55	Vapor Barrier	black barrier black mastic	NAD NAD	40% Cellulose	60% Bitumen and Binders 100% Bitumen and Binders
590394	56	Vapor Barrier	black barrier black mastic	NAD NAD	40% Cellulose	60% Bitumen and Binders 100% Bitumen and Binders
590395	57	Building Material	tan	NAD		100% Quartz and Binders
590396	58	Building Material	tan	NAD		100% Quartz and Binders
590397	59	Building Material	tan	NAD		100% Quartz and Binders
590398	60	Sheet Vinyl	brown vinyl yellow mastic	15% Chrysotile NAD	5% Cellulose	80% Carbonates and Binders 100% Binders
590399	61	Sheet Vinyl	Not Analyzed, Stop At First Positive			
590400	62	Sheet Vinyl	Not Analyzed, Stop At First Positive			
590401	63	Sheet Vinyl	yellow mastic brown vinyl yellow mastic	NAD 20% Chrysotile NAD	2% Cellulose	100% Binders 78% Carbonates and Binders 100% Binders
590402	64	Sheet Vinyl	Not Analyzed, Stop At First Positive			
590403	65	Sheet Vinyl	Not Analyzed, Stop At First Positive			
590404	66	Sheet Vinyl	yellow mastic brown vinyl yellow mastic	NAD 20% Chrysotile NAD	2% Cellulose	100% Binders 78% Carbonates and Binders 100% Binders
590405	67	Sheet Vinyl	Not Analyzed, Stop At First Positive			
590406	68	Vinyl Tile	Not Analyzed, Stop At First Positive			
590407	69	Vinyl Tile	green vinyl tan vinyl yellow mastic	NAD 2% Chrysotile NAD		100% Binders 98% Carbonates and Binders 100% Binders
590408	70	Vinyl Tile	Not Analyzed, Stop At First Positive			

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Analyzed by:



Giancarlo Arambulo
Microscopist

Lab File Number: 65599

Analysis Pages 4 of 11

NVLAP Lab Code 200759-0

Client Name: Greenfield Environmental
432 3rd Street North
St. Petersburg, Florida 33701

Project Name: Stantec
618 Drew St, Clearwater, FL
Date Analyzed: February 14, 2023


Asbestos, Bulk Sample Analysis Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

Lab #	Client #	Sample Type	Description	% Asbestos	% Other Fibers	% Binders
590409	71	Ceramic Tile	tan tile	NAD		100% Quartz and Binders
			grey thinset	NAD		100% Quartz and Binders
			yellow mastic	NAD		100% Binders
			grey grout	NAD		100% Quartz and Binders
590410	72	Ceramic Tile	tan tile	NAD		100% Quartz and Binders
			grey thinset	NAD		100% Quartz and Binders
			yellow mastic	NAD		100% Binders
			grey grout	NAD		100% Quartz and Binders
590411	73	Sink Undercoat	grey	NAD		100% Wollastonite and Binders
590412	74	Sink Undercoat	grey	NAD		100% Wollastonite and Binders
590413	75	Ceramic Tile	tan tile	NAD		100% Quartz and Binders
			grey thinset	NAD		100% Quartz and Binders
			yellow mastic	NAD		100% Binders
			purple grout	NAD		100% Quartz and Binders
590414	76	Ceramic Tile	tan tile	NAD		100% Quartz and Binders
			grey thinset	NAD		100% Quartz and Binders
			yellow mastic	NAD		100% Binders
			purple grout	NAD		100% Quartz and Binders
590415	77	Wallpaper	tan paper	NAD	40% Cellulose	60% Carbonates and Binders
			yellow mastic	NAD		100% Binders
590416	78	Wallpaper	tan paper	NAD	40% Cellulose	60% Carbonates and Binders
			yellow mastic	NAD		100% Binders
590417	79	Wallpaper	tan paper	NAD	40% Cellulose	60% Carbonates and Binders
			yellow mastic	NAD		100% Binders
590418	80	Wallpaper	tan paper	NAD	40% Cellulose	60% Carbonates and Binders
			yellow mastic	NAD		100% Binders
590419	81	Wallpaper	tan paper	NAD	40% Cellulose	60% Carbonates and Binders
			yellow mastic	NAD		100% Binders
590420	82	Wallpaper	tan paper	NAD	40% Cellulose	60% Carbonates and Binders
			yellow mastic	NAD		100% Binders

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Analyzed by:



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Microscopist

Lab File Number: 65599

NVLAP Lab Code 200759-0

Client Name: Greenfield Environmental
432 3rd Street North
St. Petersburg, Florida 33701

Project Name: Stantec
618 Drew St, Clearwater, FL
Date Analyzed: February 14, 2023

Asbestos, Bulk Sample Analysis Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

Lab #	Client #	Sample Type	Description	% Asbestos	% Other Fibers	% Binders
590421	83	Wallpaper	tan paper yellow mastic	NAD NAD	40% Cellulose	60% Carbonates and Binders 100% Binders
590422	84	Flooring	wood vinyl	NAD		100% Carbonates and Binders
590423	85	Flooring	wood vinyl	NAD		100% Carbonates and Binders
590424	86	Flooring	wood vinyl	NAD		100% Carbonates and Binders
590425	87	Sheet Vinyl	yellow mastic brown vinyl yellow mastic	NAD 15% Chrysotile NAD	5% Cellulose	100% Binders 80% Carbonates and Binders 100% Binders
590426	88	Sheet Vinyl	Not Analyzed, Stop At First Positive			
590427	89	Sheet Vinyl	Not Analyzed, Stop At First Positive			
590428	90	Mastic	yellow	NAD		100% Binders
590429	91	Mastic	yellow	NAD		100% Binders
590430	92	Vinyl Covebase	tan vinyl yellow mastic	NAD NAD		100% Carbonates and Binders 100% Binders
590431	93	Vinyl Covebase	tan vinyl yellow mastic	NAD NAD		100% Carbonates and Binders 100% Binders
590432	94	Sheet Vinyl	yellow mastic brown vinyl yellow mastic	NAD 15% Chrysotile NAD	5% Cellulose	100% Binders 80% Carbonates and Binders 100% Binders
590433	95	Sheet Vinyl	Not Analyzed, Stop At First Positive			
590434	96	Sheet Vinyl	Not Analyzed, Stop At First Positive			
590435	97	Vinyl Covebase	white vinyl yellow mastic	NAD NAD		100% Carbonates and Binders 100% Binders
590436	98	Vinyl Covebase	white vinyl yellow mastic	NAD NAD		100% Carbonates and Binders 100% Binders

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Microscopist

Lab File Number: 65599

Analysis Pages 6 of 11

NVLAP Lab Code 200759-0

Client Name: Greenfield Environmental
432 3rd Street North
St. Petersburg, Florida 33701

Project Name: Stantec
618 Drew St, Clearwater, FL
Date Analyzed: February 14, 2023


Asbestos, Bulk Sample Analysis Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

Lab #	Client #	Sample Type	Description	% Asbestos	% Other Fibers	% Binders
590437	99	Building Material	brown	NAD	100% Cellulose	
590438	100	Building Material	brown	NAD	100% Cellulose	
590439	101	Building Material	brown	NAD	100% Cellulose	
590440	102	Insulation	foil wrap	NAD	20% Cellulose 5% Glass Fibers	75% Foil and Binders
			yellow insulate	NAD	100% Mineral Wool	
590441	103	Insulation	foil wrap	NAD	20% Cellulose 5% Glass Fibers	75% Foil and Binders
			yellow insulate	NAD	100% Mineral Wool	
590442	104	Insulation	foil wrap	NAD	20% Cellulose 5% Glass Fibers	75% Foil and Binders
			yellow insulate	NAD	100% Mineral Wool	
590443	105	Insulation	foil wrap	NAD	5% Glass Fibers	95% Foil and Binders
			yellow insulate	NAD	100% Mineral Wool	
590444	106	Insulation	foil wrap	NAD	5% Glass Fibers	95% Foil and Binders
			yellow insulate	NAD	100% Mineral Wool	
590445	107	Insulation	foil wrap	NAD	5% Glass Fibers	95% Foil and Binders
			yellow insulate	NAD	100% Mineral Wool	
590446	108	Ceramic Tile	white tile	NAD		100% Quartz and Binders
			grey thinset	NAD		100% Quartz and Binders
			grey grout	NAD		100% Quartz and Binders
590447	109	Ceramic Tile	white tile	NAD		100% Quartz and Binders
			grey thinset	NAD		100% Quartz and Binders
			grey grout	NAD		100% Quartz and Binders
590448	110	Ceramic Tile	white tile	NAD		100% Quartz and Binders
			yellow mastic	NAD		100% Binders
			white grout	NAD		100% Quartz and Binders

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Microscopist

Lab File Number: 65599

Analysis Pages 7 of 11

NVLAP Lab Code 200759-0

Client Name: Greenfield Environmental
432 3rd Street North
St. Petersburg, Florida 33701

Project Name: Stantec
618 Drew St, Clearwater, FL
Date Analyzed: February 14, 2023

Asbestos, Bulk Sample Analysis Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

Lab #	Client #	Sample Type	Description	% Asbestos	% Other Fibers	% Binders
590449	111	Ceramic Tile	white tile	NAD		100% Quartz and Binders
			yellow mastic	NAD		100% Binders
			white grout	NAD		100% Quartz and Binders
590450	112	Ceiling Tile	white	NAD	50% Cellulose 20% Mineral Wool	30% Perlite and Binders
590451	113	Ceiling Tile	white	NAD	50% Cellulose 20% Mineral Wool	30% Perlite and Binders
590452	114	Ceiling Tile	white	NAD	50% Cellulose 20% Mineral Wool	30% Perlite and Binders
590453	115	Ceiling Tile	white	NAD	70% Mineral Wool	30% Binders
590454	116	Ceiling Tile	white	NAD	70% Mineral Wool	30% Binders
590455	117	Ceiling Tile	white	NAD	70% Mineral Wool	30% Binders
590456	118	Ceiling Tile	white	NAD	80% Cellulose	20% Binders
590457	119	Ceiling Tile	white	NAD	80% Cellulose	20% Binders
590458	120	Ceiling Tile	white	NAD	80% Cellulose	20% Binders
590459	121	Insulation	foil wrap	NAD	5% Glass Fibers	95% Foil and Binders
			yellow insulate	NAD	100% Mineral Wool	
590460	122	Insulation	foil wrap	NAD	5% Glass Fibers	95% Foil and Binders
			yellow insulate	NAD	100% Mineral Wool	
590461	123	Insulation	foil wrap	NAD	5% Glass Fibers	95% Foil and Binders
			yellow insulate	NAD	100% Mineral Wool	
590462	124	Ceiling Tile	white	NAD	35% Cellulose 35% Mineral Wool	30% Perlite and Binders
590463	125	Ceiling Tile	white	NAD	35% Cellulose 35% Mineral Wool	30% Perlite and Binders
590464	126	Ceiling Tile	white	NAD	35% Cellulose 35% Mineral Wool	30% Perlite and Binders

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Analyzed by:



Giancarlo Arambulo
Microscopist

Lab File Number: 65599

NVLAP Lab Code 200759-0

Client Name: Greenfield Environmental
432 3rd Street North
St. Petersburg, Florida 33701

Project Name: Stantec
618 Drew St, Clearwater, FL
Date Analyzed: February 14, 2023

Asbestos, Bulk Sample Analysis Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

Lab #	Client #	Sample Type	Description	% Asbestos	% Other Fibers	% Binders
590465	127	Ceiling Tile	white	NAD	50% Cellulose 20% Mineral Wool	30% Perlite and Binders
590466	128	Ceiling Tile	white	NAD	50% Cellulose 20% Mineral Wool	30% Perlite and Binders
590467	129	Ceiling Tile	white	NAD	50% Cellulose 20% Mineral Wool	30% Perlite and Binders
590468	130	Drywall System	drywall mat drywall powder	NAD NAD	100% Cellulose 5% Cellulose	95% Gypsum and Binders
590469	131	Drywall System	joint compound drywall mat drywall powder	NAD NAD NAD	100% Cellulose 5% Cellulose	100% Carbonates and Binders 95% Gypsum and Binders
590470	132	Drywall System	joint compound drywall mat drywall powder	NAD NAD NAD	100% Cellulose 5% Cellulose	100% Carbonates and Binders 95% Gypsum and Binders
590471	133	Drywall System	joint compound drywall mat drywall powder	NAD NAD NAD	100% Cellulose 5% Cellulose	100% Carbonates and Binders 95% Gypsum and Binders
590472	134	Drywall System	joint compound drywall mat drywall powder	NAD NAD NAD	100% Cellulose 5% Cellulose	100% Carbonates and Binders 95% Gypsum and Binders
590473	135	Drywall System	joint compound drywall mat drywall powder	NAD NAD NAD	100% Cellulose 5% Cellulose	100% Carbonates and Binders 95% Gypsum and Binders
590474	136	Drywall System	drywall mat drywall powder	NAD NAD	100% Cellulose 5% Cellulose	95% Gypsum and Binders
590475	137	Insulation	yellow insulate black mastic brown backing	NAD NAD NAD	100% Mineral Wool 100% Cellulose	100% Bitumen and Binders
590476	138	Insulation	yellow insulate black mastic brown backing	NAD NAD NAD	100% Mineral Wool 100% Cellulose	100% Bitumen and Binders

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Microscopist

Lab File Number: 65599

Analysis Pages 9 of 11

NVLAP Lab Code 200759-0

Client Name: Greenfield Environmental
432 3rd Street North
St. Petersburg, Florida 33701

Project Name: Stantec
618 Drew St, Clearwater, FL
Date Analyzed: February 14, 2023

Asbestos, Bulk Sample Analysis Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

Lab #	Client #	Sample Type	Description	% Asbestos	% Other Fibers	% Binders
590477	139	Insulation	yellow insulate black mastic brown backing	NAD NAD NAD	100% Mineral Wool 100% Cellulose	100% Bitumen and Binders
590478	140	Insulation	yellow insulate black mastic brown backing	NAD NAD NAD	100% Mineral Wool 100% Cellulose	100% Bitumen and Binders
590479	141	Insulation	yellow insulate black mastic brown backing	NAD NAD NAD	100% Mineral Wool 100% Cellulose	100% Bitumen and Binders
590480	142	Vinyl Covebase	tan vinyl yellow mastic	NAD NAD		100% Carbonates and Binders 100% Binders
590481	143	Vinyl Covebase	tan vinyl yellow mastic	NAD NAD		100% Carbonates and Binders 100% Binders
590482	144	Cork	tan	NAD		100% Cork
590483	145	Cork	tan	NAD		100% Cork
590484	146	Cork	tan	NAD		100% Cork
590485	147	Vinyl Covebase	tan vinyl yellow mastic	NAD NAD		100% Carbonates and Binders 100% Binders
590486	148	Vinyl Covebase	tan vinyl yellow mastic	NAD NAD		100% Carbonates and Binders 100% Binders
590487	149	Ceiling Tile	white	NAD	80% Mineral Wool	20% Binders
590488	150	Ceiling Tile	white	NAD	80% Mineral Wool	20% Binders
590489	151	Ceiling Tile	white	NAD	80% Mineral Wool	20% Binders
590490	152	Texture	white	NAD		100% Carbonates and Binders
590491	153	Texture	white	NAD		100% Carbonates and Binders
590492	154	Texture	white	NAD		100% Carbonates and Binders

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Client Name: Greenfield Environmental
432 3rd Street North
St. Petersburg, Florida 33701

Project Name: Stantec
618 Drew St, Clearwater, FL
Date Analyzed: February 14, 2023

Asbestos, Bulk Sample Analysis Test Method: PLM / DS - EPA Method - 600/R-93/116 - EPA Appx E to Subpart E of Part 763

Lab #	Client #	Sample Type	Description	% Asbestos	% Other Fibers	% Binders
590493	155	Vinyl Tile	tan vinyl yellow mastic	2% Chrysotile NAD		98% Carbonates and Binders 100% Binders
590494	156	Vinyl Tile	Not Analyzed, Stop At First Positive			
590495	157	Building Material	grey	NAD		100% Quartz and Binders
590496	158	Building Material	grey	NAD		100% Quartz and Binders
590497	159	Brick and Mortar	grey brick	NAD		100% Quartz and Binders
			grey mortar	NAD		100% Quartz and Binders
590498	160	Brick and Mortar	grey brick	NAD		100% Quartz and Binders
			grey mortar	NAD		100% Quartz and Binders
590499	161	Building Material	black	NAD	3% Cellulose	97% Bitumen and Binders
590500	162	Building Material	black	NAD	3% Cellulose	97% Bitumen and Binders
590501	163	Building Material	tan	NAD		100% Carbonates and Binders
590502	164	Building Material	tan	NAD		100% Carbonates and Binders
590503	165	Building Material	tan	NAD		100% Carbonates and Binders
590504	166	Building Material	brown	NAD	100% Cellulose	
590505	167	Building Material	brown	NAD	100% Cellulose	

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NVLAP Lab Code 200759-0

APPENDIX B

CERTIFICATIONS

VRET

Vern Roberts Environmental Training, Inc.
13987 94th Avenue N Seminole, FL 33776
727-239-1445

Certifies that

MAXWELL D. ADAMSKI-CASTON

Has satisfactorily completed the requisite training for asbestos accreditation under TSCA TITLE II, EPA Model Accreditation Plan (40CFR763 E) for the 4-hour Inspector (Survey & Mechanical) Refresher Course on 3/29/2022, and in testimony whereof, we do confer this certificate at Seminole, Florida on 3/29/2022.

Date of Course: 3/29/2022 Expiration Date 3/29/2023

Certificate # 03292204AM

Course # FL49-0006322 Provider # FL49-0003810



INSTRUCTOR



Ron DeSantis, Governor

Julie I. Brown, Secretary



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
ASBESTOS LICENSING UNIT

THE ASBESTOS BUSINESS ORGANIZATION HEREIN IS LICENSED UNDER THE
PROVISIONS OF CHAPTER 469, FLORIDA STATUTES

GREENFIELD ENVIRONMENTAL INC

MICHAEL ROTHENBURG
432 3RD STREET NORTH
ST. PETERSBURG FL 33701

LICENSE NUMBER: ZA0000268

EXPIRATION DATE: NOVEMBER 30, 2023

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