

# LIMITED ASBESTOS SURVEY REPORT

South Greenville Recreation Center  
851 Howell Street  
Greenville, Pitt County, North Carolina

May 13, 2015  
Terracon Project No. 72157028



**Prepared For:**  
City of Greenville  
Greenville, North Carolina

**Prepared By:**  
Terracon Consultants, Inc.  
Winterville, North Carolina

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May 13, 2015

City of Greenville  
Greenville Recreation and Parks Department  
PO Box 7207  
Greenville, NC 27835-7207

Attn: Mr. Lamarco Morrison, MSCM

Subject: Limited Asbestos Survey Report  
South Greenville Recreation Center  
851 Howell Street  
Greenville, Pitt County, NC  
Terracon Project No.: 72157028

Dear Mr. Morrison:

The purpose of this report is to present the results of the limited asbestos survey performed on April 10, 2015 at the South Greenville Recreation Center building located at 851 Howell Street in Greenville, Pitt County, North Carolina. This limited asbestos survey was conducted in general accordance with Terracon Proposal No. P72150110 dated April 2, 2015. We understand that this survey was requested prior to a planned flooring (including base boards) and windows replacement project.

**Asbestos was detected in the samples collected.** Please refer to the attached report for details.

Terracon appreciates the opportunity to provide this service to City of Greenville. If you have any questions regarding this report, please contact the undersigned at 252.353.1600.

Sincerely,  
**Terracon Consultants Inc.**

Allen McColl  
Staff Professional  
Environmental Services  
NC Asbestos Inspector # 12649

for:  
George K. Flores, P.E.  
Environmental Department Manager



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# LIMITED ASBESTOS SURVEY REPORT

**SOUTH GREENVILLE RECREATION CENTER  
851 HOWELL STREET  
GREENVILLE, PITT COUNTY, NORTH CAROLINA  
TERRACON PROJECT NO. 72157028  
REPORT DATE: MAY 13, 2015**

## **1.0 INTRODUCTION**

Terracon conducted a limited asbestos survey of the South Greenville Recreation Center building located at 851 Howell Street in Greenville, Pitt County, North Carolina. A North Carolina Accredited Asbestos Building Inspector (Mr. Allen McColl) conducted the limited survey on April 10, 2015 and April 29, 2015 in general accordance with Terracon Proposal No. P72150110 dated April 2, 2015. At the direction of our client, Terracon's scope of services was limited to the collection of suspect asbestos-containing materials (ACM) from the flooring (including base boards) and windows in the interior of the building prior to a potential renovation. Other suspect materials, including the exterior components and the roof were not included in this limited asbestos survey. Interior flooring and windows were surveyed and homogeneous areas of suspect ACM were visually identified and documented. Although reasonable effort was made to survey accessible suspect materials, additional suspect but un-sampled materials could be located in voids or in other concealed areas. Suspect ACM samples were collected in general accordance with the sampling protocols outlined in EPA regulation 40 CFR 763 (Asbestos Hazard Emergency Response Act, AHERA). Samples were delivered to an accredited laboratory for analysis by Polarized Light Microscopy (PLM).

EPA regulation 40 CFR 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP), prohibits the release of asbestos fibers to the atmosphere during renovation or demolition activities. The asbestos NESHAP requires that potentially regulated asbestos-containing building materials be identified, classified and quantified prior to planned disturbances, renovation or demolition activities.

## **2.0 BUILDING DESCRIPTION**

The site is developed with an approximately 18,000 sq/ft single-story recreation center with a gym that was reportedly constructed in 1957. The building was occupied at the time of our asbestos survey and has been operated as a recreation center by the City of Greenville. Based upon the age and observations made during our limited asbestos survey, it appears as if multiple renovations have occurred. As the scope of our survey was limited to flooring materials and windows, our observations were largely limited to those materials, although a general building description is provided below.

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The building is constructed with a brick or concrete masonry unit (CMU) frame on a concrete slab. The interior walls of the building are finished with painted CMU, CMU covered with ceramic tile or brick. Insulation was not observed during our survey; however, walls were not dismantled. Ceilings consist of drop-in ceiling tiles or are open to the roof deck. Floors are finished with carpet, ceramic tiles, terracotta tiles or vinyl floor tiles; multiple layers of flooring were observed in several locations.

### 3.0 FIELD ACTIVITIES

North Carolina licensed Asbestos Building Inspector Mr. Kenneth Allen McColl (NC Inspector 12649) conducted the limited survey. At the direction of the client, our survey was limited to the suspect flooring materials (including baseboards) and caulk/glazing at windows. Survey methods were conducted in general accordance with the sample collection protocols established in EPA regulation 40 CFR 763 (ASHERA). A summary of our activities is provided below.

#### 3.1.1 Visual Assessment

Our limited survey activities began with visual observation of the finished flooring and windows in the building to identify homogeneous areas of suspect ACM; others suspect materials were not evaluated as part of this scope of work. A homogeneous area consists of building materials that appear similar throughout in terms of color, texture and date of application. Building materials identified as concrete, glass, wood, masonry, metal or rubber were not considered suspect.

#### 3.1.2 Physical Assessment

A physical assessment of selected homogeneous areas of suspect ACM was conducted to assess the friability and condition of the materials. A friable material is defined by the EPA as a material, which can be crumbled, pulverized or reduced to powder by hand pressure when dry. Friability was assessed by physically touching suspect materials.

#### 3.1.3 Sample Collection

Terracon personnel initially mobilized to the site on April 10, 2015 to perform the limited asbestos survey. Based on results of the visual observation, bulk samples of suspect ACM were collected in general accordance with ASHERA sampling protocols. Random samples of suspect materials were collected in selected homogeneous areas. Sample team members collected bulk samples using wet methods as applicable to reduce the potential for fiber release. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker.

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Please note that on April 10, 2015, the following areas were locked and inaccessible: the kid's area office, the PALs office in the kid's area, the mechanical room (HVAC room) and a storage area beside the kid's area office.

Initially, 36 bulk samples were collected from 13 homogeneous areas of suspect ACM in the building.

Due to some inconsistent analysis on flooring materials sampled, Terracon returned to the site on April 29, 2015 (with the permission of the client) to collect additional samples to attempt to further delineate where areas of asbestos-containing flooring materials are located.

On April 29, 2015, Terracon was able to access the kid's area office. The PALs office in the kid's area, the mechanical room (HVAC room) and a storage area beside the kid's area office were still inaccessible.

During the second site visit, 29 additional bulk samples were collected from 6 homogeneous areas of suspect flooring ACM in the building.

A summary of suspect ACM samples collected during the survey is included as Appendix A. Site photographs are included in Appendix D.

### 3.1.4 Sample Analysis

Bulk samples were submitted under chain of custody to EMSL Analytical, Inc. (EMSL) of Morrisville, North Carolina for analysis by Polarized Light Microscopy (PLM) with dispersion staining techniques per EPA methodology (40 CFR 763, Subpart F). The percentage of asbestos, where applicable, was determined by microscopic visual estimation. EMSL is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP Accreditation Number 200671-0).

## 4.0 REGULATORY OVERVIEW

The EPA and asbestos NESHAP (40 CFR Part 61, Subpart M) regulates asbestos fiber emissions and asbestos waste disposal practices. It requires the identification and classification of friable and non-friable asbestos-containing materials in each building, or area of each building, where demolition or renovation activities will be conducted. Under NESHAP, asbestos-containing building materials are classified as either friable, Category I non-friable or Category II non-friable ACM. Friable materials are those that, when dry, may be crumbled, pulverized or reduced to powder by hand pressure. Category I non-friable ACM includes packings, gaskets, resilient floor coverings and asphalt roofing products containing more than 1% asbestos. Category II non-friable ACM are any materials other than Category I materials that contain more than 1% asbestos.

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In the state of North Carolina, asbestos activities are regulated by the North Carolina Department of Health and Human Services, Health Hazards Control Unit (HHCU) under 10A NCAC 41C Section .0600 – Asbestos Hazard Management Program (AHMP). The AHMP requires that any asbestos-related activity conducted in a public building be performed by personnel accredited by the HHCU.

Friable ACM, Category I and Category II non-friable ACM which is in poor condition and has become friable or which will be subjected to drilling, sanding, grinding, cutting or abrading and which could be crushed or pulverized during anticipated renovation or demolition activities are considered regulated ACM (RACM).

Asbestos abatement must be conducted under the direct supervision of a North Carolina accredited supervisor, except that permitted removals of roofing products may be conducted under the direct supervision of a North Carolina accredited roofing supervisor. An asbestos abatement design must be prepared by a North Carolina accredited abatement designer for each individually permitted removal of more than 3,000 square feet (281 square meters), 1,500 linear feet (462 meters) or 656 cubic feet (18 cubic meters), of RACM conducted in public areas. Third-party air monitoring must be conducted during the abatement activities in accordance with AHMP requirements.

AHMP requires that no person remove more than 35 cubic feet (1 cubic meter), 160 square feet (15 square meters), or 260 linear feet (80 linear meters) of RACM, without a permit issued by the HHCU. Applications must be postmarked or received by the HHCU at least 10 working days prior to the scheduled removal start date.

The OSHA asbestos standard for construction (29 CFR 1926.1101) regulates workplace exposure to asbestos. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter of air (0.1 f/cc). The OSHA standard classifies construction and maintenance activities which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work. States which administer their own federally-approved state OSHA programs may require additional precautions.

## 5.0 FINDINGS AND RECOMMENDATIONS

Samples of the following materials were identified to contain asbestos:

- Light gray vinyl floor tile (tile only) under carpet in the gym;
- Old center court orange vinyl tile (tile only) under carpet in the gym near center court;
- The bottom layer of white vinyl floor tile (tile only) in the weight room under black rubber matting;

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- Black mastic under white floor tile (mastic only) in the kid's area of the building. This includes the main kid's area, the computer room in the kid's area, the storage rooms in the kid's area and the break room (kitchen) in the kid's area;
- The top layer of white vinyl floor tile and associated black mastic and the black mastic associated with the bottom gray vinyl floor tile layer under the purple carpet in the gym office; and,
- The bottom layer of white vinyl floor tile (tile only) under a layer of purple carpet and a top layer of white floor tile in the gym office.

The above materials are classified as NESHAP Category I Non-friable materials that were observed to be in mostly good condition with some localized damage. A summary of the classification and condition of identified ACMs is presented in Appendix B. Laboratory analytical reports are included in Appendix C.

In some cases where carpeting or a top layer of flooring is adhered to asbestos-containing floor tile, the removal of the top layer could break or dislodge the asbestos-containing floor tiles. Therefore, this activity could be considered as a friable (or regulated) removal and, of so, asbestos air monitoring would be required. In addition, the white floor tiles in the kids' area of the building should be considered to be contaminated with asbestos fibers (from the underlying mastic) and managed appropriately. The bottom layer of gray floor tile in the gym office should be similarly managed. A qualified asbestos abatement contractor should remove the identified asbestos-containing materials prior to their disturbance. Several qualified asbestos abatement contractors may be contacted to obtain competitive bids for removal of the materials.

Please note that that samples of the bottom layer of floor tile mastic (HA #16) in the gym office were analyzed to contain <1% Chrysotile. Materials containing less than one percent asbestos are not regulated by the NCDHHS (or the US EPA) for removal or disposal; however, OSHA regulates occupational exposure to asbestos during the removal or disturbance of these materials. Applicable provisions of the OSHA asbestos in construction standard (29 CFR 1926.1101) should be followed during disturbances of this material and employee exposure to airborne asbestos fibers should be maintained below 0.1 asbestos fibers per cubic centimeter of air (0.1 f/cc). Terracon recommends that this material also be removed by a qualified asbestos abatement contractor.

As this was a limited survey, other suspect ACMs may be present in the building. If additional materials (not listed herein) are discovered during renovation activities, or if the scope of the renovations is expanded to include other areas, systems, or components, samples of all potentially impacted suspect materials should be collected by a NC-accredited building inspector or they should be assumed to be asbestos containing until laboratory analysis demonstrates otherwise. Results of this sampling will dictate the



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required response action. Federal, state, and local regulations should be referred to in order to verify compliance before any actions are initiated on an ACM.

## 6.0 GENERAL COMMENTS

This limited asbestos survey was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions and recommendations expressed in this report are based on conditions observed during our survey of the building. The information contained in this report is relevant to the date on which this survey was performed, and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by the City of Greenville for specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories or other third parties supplying information, which may have been used in the preparation of this report. No warranty, expressed or implied is made.

**APPENDIX A**

**ASBESTOS SURVEY SAMPLE SUMMARY**

**APPENDIX A**  
**LIMITED ASBESTOS SURVEY SAMPLE SUMMARY**  
**South Greenville Recreation Center**  
**851 Howell Street**  
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HOMOGENEOUS AREA	SAMPLE NO.	DESCRIPTION	SAMPLE LOCATION	LAB RESULTS
1	01	Light gray floor tile w/ mastic	Gym	Tile = 5% Chrysotile; Mastic = None Detected
1	02	Light gray floor tile w/ mastic	Gym	Tile = 5% Chrysotile; Mastic = None Detected
1	03	Light gray floor tile w/ mastic	Gym	Tile = 3% Chrysotile; Mastic = None Detected
2	04	Yellow carpet glue under blue carpet	Gym	None Detected
2	05	Yellow carpet glue under blue carpet	Gym	None Detected
2	06	Yellow carpet glue under blue carpet	Gym	None Detected
3	07	Black cove board w/ mastic	Gym	None Detected
3	08	Black cove board w/ mastic	Gym	None Detected
3	09	Black cove board w/ mastic	Gym Office	None Detected
4	10	Yellow carpet glue under purple carpet	Gym Office	None Detected
4	11	Yellow carpet glue under purple carpet	Gym Office	None Detected
4	12	Yellow carpet glue under purple carpet	Gym Office	None Detected
5	13	Grout around terracotta tiles	Men's Bathroom Floor	None Detected
5	14	Grout around terracotta tiles	Men's Bathroom Floor	None Detected
5	15	Grout around terracotta tiles	Women's Bathroom Floor	None Detected
6	16	Shower tile grout	Men's Bathroom Shower	None Detected
6	17	Shower tile grout	Men's Bathroom Shower	None Detected
6	18	Shower tile grout	Men's Bathroom Shower	None Detected

**Appendix A Continued**

<b>HOMOGENEOUS AREA</b>	<b>SAMPLE NO.</b>	<b>DESCRIPTION</b>	<b>SAMPLE LOCATION</b>	<b>LAB RESULTS</b>
7	19	Old center court orange tile with mastic	Gym Center Court	Tile = 5% Chrysotile; Mastic = None Detected
7	20	Old center court orange tile with mastic	Gym Center Court	Tile = 5% Chrysotile; Mastic = None Detected
7	21	Old center court orange tile with mastic	Gym Center Court	Tile = 5% Chrysotile; Mastic = None Detected
8	22	Window glaze	Weight Room	None Detected
8	23	Window glaze	Weight Room	None Detected
8	24	Window glaze	Kid's Room	None Detected
9	25	Window caulk	Kid's Room	None Detected
9	26	Window caulk	Kid's Room	None Detected
9	27	Window caulk	Kid's Room	None Detected
10	28	Two layers of white floor tile with mastic	Weight Room	Floor Tile 1 = None Detected, Mastic 1 = None Detected Floor Tile 2 = 5% Chrysotile; Mastic 2 = None Detected
10	037T	White floor tile (top layer)	Weight Room	Tile = None Detected; Mastic = Insufficient Material
10	037B	White floor tile (bottom layer)	Weight Room	Tile = 3% Chrysotile; Mastic = None Detected
10	038T	White floor tile (top layer)	Weight Room	Tile = None Detected; Mastic = None Detected

**Appendix A Continued**

<b>Homogeneous Area</b>	<b>Sample No.</b>	<b>Description</b>	<b>Sample Location</b>	<b>Lab Results</b>
<b>10</b>	<b>038B</b>	<b>White floor tile (bottom layer)</b>	<b>Weight Room</b>	<b>Tile = 2% Chrysotile; Mastic = None Detected</b>
10	039T	White floor tile (top layer)	Weight Room	Tile = None Detected; Mastic = None Detected
<b>10</b>	<b>039B</b>	<b>White floor tile (bottom layer)</b>	<b>Weight Room</b>	<b>Tile = 3% Chrysotile; Mastic = None Detected</b>
11	29	Two layers of white floor tile with mastic	Hallway	None Detected
11	30	Two layers of white floor tile with mastic	Hallway	None Detected
11	049T	White floor tile (top layer)	Hallway (Outside of Weight Room)	None Detected
11	049B	White floor tile (bottom layer)	Hallway (Outside of Weight Room)	None Detected
<b>12</b>	<b>31</b>	<b>Single layer of white floor tile with mastic</b>	<b>Bathroom in Kid's Area</b>	<b>None Detected</b>
<b>12</b>	<b>32</b>	<b>Single layer of white floor tile with mastic</b>	<b>Storage Closet in Kid's Area</b>	<b>Tile = 5% Chrysotile; Mastic = None Detected</b>
<b>12</b>	<b>33</b>	<b>Single layer of white floor tile with mastic</b>	<b>Kid's Main Area</b>	<b>None Detected</b>
12	040M	Black mastic under white floor tile	Kid's Room Area (Outside of Storage Closet)	<1% Chrysotile
12	041M	Black mastic under white floor tile	Kitchen in Kid's Room Area (Outside of Storage Closet)	<1% Chrysotile
<b>12</b>	<b>042M</b>	<b>Black mastic under white floor tile</b>	<b>Computer Room in Kid's Room Area</b>	<b>3% Chrysotile</b>
<b>12</b>	<b>043M</b>	<b>Black mastic under white floor tile</b>	<b>Kid's Area Office</b>	<b>2% Chrysotile</b>
<b>12</b>	<b>044M</b>	<b>Black mastic under white floor tile</b>	<b>Kid's Room Area (Outside of PAL Office)</b>	<b>2% Chrysotile</b>
12	045M	Black mastic under white floor tile	Kid's Room Main Area (Near Red Pole)	<1% Chrysotile

**Appendix A Continued**

<b>Homogeneous Area</b>	<b>Sample No.</b>	<b>Description</b>	<b>Sample Location</b>	<b>Lab Results</b>
13	34	Tan cove board with mastic	Hallway	None Detected
13	35	Tan cove board with mastic	Hallway	None Detected
13	36	Tan cove board with mastic	Hallway	None Detected
14	046	Yellow carpet glue under blue carpet	Kid's Area Office	None Detected
14	047	Yellow carpet glue under blue carpet	Kid's Area Office	None Detected
14	048	Yellow carpet glue under blue carpet	Kid's Area Office	None Detected
<b>15</b>	<b>050T</b>	<b>White floor tile w/ mastic (top layer)</b>	<b>Gym Office</b>	<b>Tile = 3% Chrysotile; Mastic = 5% Chrysotile</b>
15	050B	Light gray floor tile w/ mastic (bottom layer)	Gym Office	Tile = None Detected; Mastic = <1% Chrysotile
<b>15</b>	<b>051T</b>	<b>White floor tile w/ mastic (top layer)</b>	<b>Gym Office</b>	<b>Tile = 2% Chrysotile; Mastic = 3% Chrysotile</b>
15	051B	Light gray floor tile w/ mastic (bottom layer)	Gym Office	Tile = None Detected; Mastic = 2% Chrysotile
<b>15</b>	<b>052T</b>	<b>White floor tile w/ mastic (top layer)</b>	<b>Gym Office</b>	<b>Tile = 2% Chrysotile; Mastic = 2% Chrysotile</b>
15	052B	Light gray floor tile w/ mastic (bottom layer)	Gym Office	Tile = None Detected; Mastic = 3% Chrysotile

**Appendix A Continued**

<b>Homogeneous Area</b>	<b>Sample No.</b>	<b>Description</b>	<b>Sample Location</b>	<b>Lab Results</b>
16	053T	White floor tile w/ mastic (top layer)	Gym Office	Tile = None Detected; Mastic = None Detected
<b>16</b>	<b>053B</b>	<b>White floor tile w/ mastic (bottom layer)</b>	<b>Gym Office</b>	<b>Tile = 2% Chrysotile; Mastic = None Detected</b>
16	054T	White floor tile w/ mastic (top layer)	Gym Office	Tile = None Detected; Mastic = None Detected
16	054B	White floor tile w/ mastic (bottom layer)	Gym Office	<b>Tile = 3% Chrysotile; Mastic = &lt;1% Chrysotile</b>
16	055T	White floor tile w/ mastic (top layer)	Gym Office	Tile = None Detected; Mastic = Insufficient Material
<b>16</b>	<b>055B</b>	<b>White floor tile w/ mastic (bottom layer)</b>	<b>Gym Office</b>	<b>Tile = 3% Chrysotile; Mastic = &lt;1% Chrysotile</b>

**APPENDIX B**

**IDENTIFIED ASBESTOS-CONTAINING MATERIAL**



**APPENDIX B**  
**IDENTIFIED ASBESTOS-CONTAINING MATERIALS**  
**South Greenville Recreation Center**  
**851 Howell Street**  
**Greenville, Pitt County, NC**

<b>SAMPLE NO.</b>	<b>DESCRIPTION</b>	<b>MATERIAL LOCATION</b>	<b>PERCENT/TYPE ASBESTOS</b>	<b>NESHAP CLASSIFICATION</b>	<b>CONDITION</b>	<b>ESTIMATED QUANTITY**</b>
001; 002; 003	Light gray floor tile w/ mastic	Gym (under carpet)	Tile = 3% to 5% Chrysotile; Mastic = None Detected	Category I Non-friable	Good	8,000 square feet
19; 20; 21	Old center court orange tile with mastic	Gym (under carpet)	Tile = 5% Chrysotile; Mastic = None Detected	Category I Non-friable	Good	200 square feet
28; 37B, 38B, 39B	Bottom layer of white floor tile	Under rubber floor mats and a top layer of white floor tile in weight room	Top Floor Tile = None Detected Bottom Floor Tile = 2% to 5% Chrysotile; Mastic = None Detected	Category I Non-friable	Good	300 square feet
32, 42M, 43M, 44M	Black mastic under white floor tile	Kid's Room Area	Tile = None Detected; Mastic = 2% to 5% Chrysotile	Category I Non-friable	Good	1,100 square feet
050T, 051T, 051B, 052T, 052B	Top layer of white floor tile and black mastic and black mastic under bottom layer of gray floor tile	Gym Office (rear)	Top Layer Tile = 2% to 3% Chrysotile; Top Layer Mastic = 2% to 5% Chrysotile; Bottom Layer Tile = None Detected; Bottom Layer Mastic = <1% to 3% Chrysotile	Category I Non-friable	Good	100 square feet
053B, 054B, 055B	Bottom layer of white floor tile	Gym Office (front)	Top Layer Tile = None Detected; Top Layer Mastic = None Detected; Bottom Layer Tile = 2% to 3% Chrysotile; Bottom Layer Mastic = <1% Chrysotile	Category I Non-friable	Good	100 square feet

**\*\*Quantities listed above are estimates to be used for inspection purposes only and should be field-verified for all other uses. Under no circumstances should these quantities be assumed for bidding purposes; the contractor is responsible for developing its own material estimates.**

**APPENDIX C**

**ASBESTOS ANALYTICAL LABORATORY DATA**



# EMSL Analytical, Inc.

2500 Gateway Centre Blvd., Suite 600, Morrisville, NC 27560

Phone/Fax: (919) 465-3900 / (919) 465-3950

<http://www.EMSL.com>

[raleighlab@emsl.com](mailto:raleighlab@emsl.com)


EMSL Order:	291501992
CustomerID:	TIAG22
CustomerPO:	
ProjectID:	

Attn: <b>Allen McColl</b> <b>Terracon Consultants, Inc.</b> <b>314 Beacon Dr.</b> <b>Winterville, NC 28590</b>	Phone: (252) 353-1600 Fax: (252) 353-0002 Received: 04/14/15 10:00 AM Analysis Date: 4/16/2015 Collected:
Project: <b>South Greenville Rec Ctr.</b>	

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
001-Floor Tile 291501992-0001	Gym - Light Gray Floor Tile w/ Mastic	Gray Fibrous Homogeneous	2% Cellulose	93% Non-fibrous (other)	5% Chrysotile
001-Mastic 291501992-0001A	Gym - Light Gray Floor Tile w/ Mastic	Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	None Detected
002-Floor Tile 291501992-0002	Gym - Light Gray Floor Tile w/ Mastic	Gray Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
002-Mastic 291501992-0002A	Gym - Light Gray Floor Tile w/ Mastic	Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	None Detected
003-Floor Tile 291501992-0003	Gym - Light Gray Floor Tile w/ Mastic	Blue Fibrous Homogeneous	2% Cellulose	95% Non-fibrous (other)	3% Chrysotile
003-Mastic 291501992-0003A	Gym - Light Gray Floor Tile w/ Mastic	Black Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
004 291501992-0004	Gym - Yellow Carpet Glue Under blue Carpet	Yellow Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
005 291501992-0005	Gym - Yellow Carpet Glue Under blue Carpet	Yellow Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected

Analyst(s)  
 \_\_\_\_\_  
 Billy Barnes (48)  
 Essie Spencer (12)

  
 \_\_\_\_\_  
 Essie Spencer, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. Morrisville, NC NVLAP Lab Code 200671-0, VA 3333 000278, WVA LT000296

Initial report from 04/16/2015 17:27:03

**EMSL Analytical, Inc.**

2500 Gateway Centre Blvd., Suite 600, Morrisville, NC 27560

Phone/Fax: (919) 465-3900 / (919) 465-3950

<http://www.EMSL.com>[raleighlab@emsl.com](mailto:raleighlab@emsl.com)

EMSL Order:	291501992
CustomerID:	TIAG22
CustomerPO:	
ProjectID:	

Attn: **Allen McColl**  
**Terracon Consultants, Inc.**  
**314 Beacon Dr.**  
**Winterville, NC 28590**


Phone: (252) 353-1600  
 Fax: (252) 353-0002  
 Received: 04/14/15 10:00 AM  
 Analysis Date: 4/16/2015  
 Collected:

Project: **South Greenville Rec Ctr.**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
006 <i>291501992-0006</i>	Gym - Yellow Carpet Glue Under blue Carpet	Yellow Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	None Detected
007-Cove Base <i>291501992-0007</i>	Gym - Black Cove Board w/ Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
007-Mastic <i>291501992-0007A</i>	Gym - Black Cove Board w/ Mastic	Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
008-Cove Base <i>291501992-0008</i>	Gym - Black Cove Board w/ Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
008-Mastic <i>291501992-0008A</i>	Gym - Black Cove Board w/ Mastic	Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
009-Cove Base <i>291501992-0009</i>	Gym Office - Black Cove Board w/ Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
009-Mastic <i>291501992-0009A</i>	Gym Office - Black Cove Board w/ Mastic	Tan Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
010 <i>291501992-0010</i>	Gym Office - Yellow Carpet Glue Under Purple Carpet	Yellow Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	None Detected

Analyst(s)  
 \_\_\_\_\_  
 Billy Barnes (48)  
 Essie Spencer (12)

  
 \_\_\_\_\_  
 Essie Spencer, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. Morrisville, NC NVLAP Lab Code 200671-0, VA 3333 000278, WVA LT000296

Initial report from 04/16/2015 17:27:03



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EMSL Order:	291501992
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Attn: <b>Allen McColl</b> <b>Terracon Consultants, Inc.</b> <b>314 Beacon Dr.</b> <b>Winterville, NC 28590</b>	Phone: (252) 353-1600 Fax: (252) 353-0002 Received: 04/14/15 10:00 AM Analysis Date: 4/16/2015 Collected:
Project: <b>South Greenville Rec Ctr.</b>	

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
011 291501992-0011	Gym Office - Yellow Carpet Glue Under Purple Carpet	Yellow Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
012 291501992-0012	Gym Office - Yellow Carpet Glue Under Purple Carpet	Yellow Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
013 291501992-0013	Men's Bathroom Floor - Grout Around Terracotta Tiles	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
014 291501992-0014	Men's Bathroom Floor - Grout Around Terracotta Tiles	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
015 291501992-0015	Women's Bathroom Floor - Grout Around Terracotta Tiles	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
016 291501992-0016	Men's Bathroom Shower - Shower Tile Grout	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
017 291501992-0017	Men's Bathroom Shower - Shower Tile Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)  
 \_\_\_\_\_  
 Billy Barnes (48)  
 Essie Spencer (12)

  
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 Essie Spencer, Laboratory Manager  
 or other approved signatory

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Project: <b>South Greenville Rec Ctr.</b>	

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
018 <i>291501992-0018</i>	Men's Bathroom Shower - Shower Tile Grout	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	<b>None Detected</b>
019-Floor Tile <i>291501992-0019</i>	Gym Center Court - Old Center Court Orange Tile w/ Mastic	Orange Fibrous Homogeneous		95% Non-fibrous (other)	<b>5% Chrysotile</b>
019-Mastic <i>291501992-0019A</i>	Gym Center Court - Old Center Court Orange Tile w/ Mastic	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	<b>None Detected</b>
020-Floor Tile <i>291501992-0020</i>	Gym Center Court - Old Center Court Orange Tile w/ Mastic	Orange Fibrous Homogeneous		95% Non-fibrous (other)	<b>5% Chrysotile</b>
020-Mastic <i>291501992-0020A</i>	Gym Center Court - Old Center Court Orange Tile w/ Mastic	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	<b>None Detected</b>
021-Floor Tile <i>291501992-0021</i>	Gym Center Court - Old Center Court Orange Tile w/ Mastic	Red Fibrous Homogeneous	5% Cellulose	90% Non-fibrous (other)	<b>5% Chrysotile</b>
021-Mastic <i>291501992-0021A</i>	Gym Center Court - Old Center Court Orange Tile w/ Mastic	Brown/Black Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	<b>None Detected</b>

Analyst(s)  
 \_\_\_\_\_  
 Billy Barnes (48)  
 Essie Spencer (12)

  
 \_\_\_\_\_  
 Essie Spencer, Laboratory Manager  
 or other approved signatory

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Initial report from 04/16/2015 17:27:03



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**Terracon Consultants, Inc.**  
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**Winterville, NC 28590**


Phone: (252) 353-1600  
 Fax: (252) 353-0002  
 Received: 04/14/15 10:00 AM  
 Analysis Date: 4/16/2015  
 Collected:

Project: **South Greenville Rec Ctr.**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
022 291501992-0022	Weight Room - Window Glaze	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
023 291501992-0023	Weight Room - Window Glaze	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
024 291501992-0024	Kids Room - Window Glaze	White/Blue Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
025 291501992-0025	Kids Room - Window Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
026 291501992-0026	Kids Room - Window Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
027 291501992-0027	Kids Room - Window Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
028-Floor Tile 1 291501992-0028	Weight Room - Two Layers of White Floor Tile w/ Mastic	White Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
028-Mastic 1 291501992-0028A	Weight Room - Two Layers of White Floor Tile w/ Mastic	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected

Analyst(s)  
 \_\_\_\_\_  
 Billy Barnes (48)  
 Essie Spencer (12)

  
 \_\_\_\_\_  
 Essie Spencer, Laboratory Manager  
 or other approved signatory

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Attn: <b>Allen McColl</b> <b>Terracon Consultants, Inc.</b> <b>314 Beacon Dr.</b> <b>Winterville, NC 28590</b>	Phone: (252) 353-1600 Fax: (252) 353-0002 Received: 04/14/15 10:00 AM Analysis Date: 4/16/2015 Collected:
Project: <b>South Greenville Rec Ctr.</b>	

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
028-Floor Tile 2 291501992-0028B	Weight Room - Two Layers of White Floor Tile w/ Mastic	White Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
028-Mastic 2 291501992-0028C	Weight Room - Two Layers of White Floor Tile w/ Mastic	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
029-Floor Tile 1 291501992-0029	Hallway - Two Layers of White Floor Tile w/ Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
029-Mastic 1 291501992-0029A	Hallway - Two Layers of White Floor Tile w/ Mastic	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
029-Floor Tile 2 291501992-0029B	Hallway - Two Layers of White Floor Tile w/ Mastic	White Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
029-Mastic 2 291501992-0029C	Hallway - Two Layers of White Floor Tile w/ Mastic	Yellow Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
030-Floor Tile 1 291501992-0030	Hallway - Two Layers of White Floor Tile w/ Mastic	White Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
030-Mastic 1 291501992-0030A	Hallway - Two Layers of White Floor Tile w/ Mastic	Yellow Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	None Detected

Analyst(s)  
 \_\_\_\_\_  
 Billy Barnes (48)  
 Essie Spencer (12)

  
 \_\_\_\_\_  
 Essie Spencer, Laboratory Manager  
 or other approved signatory

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Project: <b>South Greenville Rec Ctr.</b>	

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
030-Floor Tile 2 291501992-0030B	Hallway - Two Layers of White Floor Tile w/ Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
030-Mastic 2 291501992-0030C	Hallway - Two Layers of White Floor Tile w/ Mastic	Brown/Black Fibrous Heterogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
031-Floor Tile 291501992-0031	Bathroom in Kids Area - Single Layer of White Floor Tile w/ Mastic	Beige Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
031-Mastic 291501992-0031A	Bathroom in Kids Area - Single Layer of White Floor Tile w/ Mastic	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
032-Floor Tile 291501992-0032	Storage Closet in Kids Area - Single Layer of White Floor Tile w/ Mastic	White Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
032-Mastic 291501992-0032A	Storage Closet in Kids Area - Single Layer of White Floor Tile w/ Mastic	Black Fibrous Homogeneous	3% Cellulose	92% Non-fibrous (other)	5% Chrysotile
033-Floor Tile 291501992-0033	Kids Main Area - Single Layer of White Floor Tile w/ Mastic	White Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	None Detected

Analyst(s)  
 \_\_\_\_\_  
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 Essie Spencer (12)

  
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Project: <b>South Greenville Rec Ctr.</b>	

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
033-Mastic 291501992-0033A	Kids Main Area - Single Layer of White Floor Tile w/ Mastic	Brown/Black Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
034-Cove Base 291501992-0034	Hallway - Tan Cove Board w/ Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
034-Mastic 291501992-0034A	Hallway - Tan Cove Board w/ Mastic	Yellow Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
035-Cove Base 291501992-0035	Hallway - Tan Cove Board w/ Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
035-Mastic 291501992-0035A	Hallway - Tan Cove Board w/ Mastic	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
036-Cove Base 291501992-0036	Hallway - Tan Cove Board w/ Mastic	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
036-Mastic 291501992-0036A	Hallway - Tan Cove Board w/ Mastic	Yellow Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected

Analyst(s)  
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 ville, NC 27560  
 E: 919-465-3900  
 FAX: 919-465-3950

Terracon Consultants, Inc.  
 South Greenville Rec Ctr.  
 4/14/2015 10:0  
 PLM

TAT: 72 Hour  
 Bulk

Order ID: 291501992  
 No Samples: 36  
 Due: 04/17 10 00 AM  
 Fax: 252-353-0002

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Company : Terracon		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 314 Beacon Drive		Third Party Billing requires written authorization from third party	
City: Winterville	State/Province: NC	Zip/Postal Code: 28590	Country: United States
Report To (Name): Allen McColl		Telephone #: 252-353-1600	
Email Address: kamccoll@terracon.com		Fax #:	Purchase Order: 72157028
Project Name/Number: South Greenville Rec Ctr		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: NC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
<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"/> 48 Hour <input checked="" type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week			
*For TEM Air 3 hr through 6 hr, please call ahead to schedule *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide			
<b>PLM - Bulk (reporting limit)</b>		<b>TEM - Bulk</b>	
<input checked="" 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 in NY) <input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY) <input type="checkbox"/> OSHA ID-191 Modified <input type="checkbox"/> Standard Addition Method		<input type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1 <input type="checkbox"/> NY ELAP Method 198.4 (TEM) <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</b>	
		<input type="checkbox"/>	
<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		Date Sampled:	
Samplers Name:		Samplers Signature:	
Sample #	HA #	Sample Location	Material Description
001	1	Gym	Light gray floor tile w/ mastic
002	1	Gym	Light gray floor tile w/ mastic
003	1	Gym	Light gray floor tile w/ mastic
004	2	Gym	Yellow carpet glue under blue carpet
005	2	Gym	Yellow carpet glue under blue carpet
006	2	Gym	Yellow carpet glue under blue carpet
007	3	Gym	Black cove board w/ mastic
008	3	Gym	Black cove board w/ mastic
009	3	Gym Office	Black cove board w/ mastic
010	4	Gym Office	Yellow carpet glue under purple carpet
Client Sample # (s): 001 - 036		Total # of Samples: 36	
Relinquished (Client): <i>Allen McColl</i>		Date: 4/13/15	Time:
Received (Lab): <i>[Signature]</i>		Date: 4/14/15	Time: <i>Da</i>
Comments/Special Instructions:			



**Terracon Consultants, Inc.**  
South Greenville Rec Ctr  
4/14/2015 10:0  
PLM

**Asbestos Bulk Building Material**

**TAT:** 72 Hour  
Bulk

**Order ID:** 291501992  
**No Samples:** 36  
**Due:** 04/17 10.00 AM  
**Fax:** 252-353-0002

ille, NC 27560  
919-465-3900  
919-465-3950

*Additional Pages of the Chain of Custody are only necessary if needed for additional sample information*

Sample #	HA #	Sample Location	Material Description
011	4	Gym Office	Yellow carpet glue under purple carpet
012	4	Gym Office	Yellow carpet glue under purple carpet
013	5	Men's Bathroom Floor	Grout around terracotta tiles
014	5	Men's Bathroom Floor	Grout around terracotta tiles
015	5	Women's Bathroom Floor	Grout around terracotta tiles
016	6	Men's Bathroom Shower	Shower tile grout
017	6	Men's Bathroom Shower	Shower tile grout
018	6	Men's Bathroom Shower	Shower tile grout
019	7	Gym Center Court	Old center court orange tile with mastic
020	7	Gym Center Court	Old center court orange tile with mastic
021	7	Gym Center Court	Old center court orange tile with mastic
022	8	Weight Room	Window glaze
023	8	Weight Room	Window glaze
024	8	Kid's Room	Window glaze
025	9	Kid's Room	Window caulk
026	9	Kid's Room	Window caulk
027	9	Kid's Room	Window caulk
028	10	Weight Room	Two layers of white floor tile with mastic
029	10	Hallway	Two layers of white floor tile with mastic
030	10	Hallway	Two layers of white floor tile with mastic
031	11	Bathroom in Kid's Area	Single layer of white floor tile with mastic
032	11	Storage Closet in Kid's Area	Single layer of white floor tile with mastic
033	11	Kid's Main Area	Single layer of white floor tile with mastic
034	12	Hallway	Tan cove board with mastic
*Comments/Special Instructions:			



**EMSL Analytical, Inc.**

2500 Gateway Centre Blvd., Suite 600, Morrisville, NC 27560

Phone/Fax: (919) 465-3900 / (919) 465-3950

<http://www.EMSL.com>[raleighlab@emsl.com](mailto:raleighlab@emsl.com)

EMSL Order: 291502392

CustomerID: TIAG22

CustomerPO:

ProjectID:

Attn: **Allen McColl**  
**Terracon Consultants, Inc.**  
**314 Beacon Dr.**  
**Winterville, NC 28590**

Phone: (252) 353-1600  
 Fax: (252) 353-0002  
 Received: 04/30/15 10:00 AM  
 Analysis Date: 5/1/2015  
 Collected:

Project: **South Greenville Rec. Ctr.**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
037T 291502392-0001	Weight Room - White Floor Tile (Top Layer)	Tan Fibrous Homogeneous	<1% Cellulose	35% Ca Carbonate 65% Non-fibrous (other)	<b>None Detected</b>
Mastic insufficient for analysis.					
037B-Floor Tile 291502392-0002	Weight Room - White Floor Tile (Bottom Layer)	White Fibrous Homogeneous		40% Ca Carbonate 57% Non-fibrous (other)	<b>3% Chrysotile</b>
037B-Mastic 291502392-0002A	Weight Room - White Floor Tile (Bottom Layer)	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	<b>None Detected</b>
038T-Floor Tile 291502392-0003	Weight Room - White Floor Tile (Top Layer)	Tan Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (other)	<b>None Detected</b>
038T-Mastic 291502392-0003A	Weight Room - White Floor Tile (Top Layer)	Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	<b>None Detected</b>
038B-Floor Tile 291502392-0004	Weight Room - White Floor Tile (Bottom Layer)	White Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (other)	<b>2% Chrysotile</b>
038B-Mastic 291502392-0004A	Weight Room - White Floor Tile (Bottom Layer)	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	<b>None Detected</b>
039T-Floor Tile 291502392-0005	Weight Room - White Floor Tile (Top Layer)	Tan Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (other)	<b>None Detected</b>

Analyst(s)

Anupriya Tyagi (45)

Essie Spencer, Laboratory Manager  
or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. Morrisville, NC NVLAP Lab Code 200671-0, VA 3333 000278, WVA LT000296

Initial report from 05/01/2015 16:54:07



# EMSL Analytical, Inc.

2500 Gateway Centre Blvd., Suite 600, Morrisville, NC 27560

Phone/Fax: (919) 465-3900 / (919) 465-3950

<http://www.EMSL.com>

[raleighlab@emsl.com](mailto:raleighlab@emsl.com)


EMSL Order:	291502392
CustomerID:	TIAG22
CustomerPO:	
ProjectID:	

Attn: <b>Allen McColl</b> <b>Terracon Consultants, Inc.</b> <b>314 Beacon Dr.</b> <b>Winterville, NC 28590</b>	Phone: (252) 353-1600 Fax: (252) 353-0002 Received: 04/30/15 10:00 AM Analysis Date: 5/1/2015 Collected:
Project: <b>South Greenville Rec. Ctr.</b>	

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
039T-Mastic 291502392-0005A	Weight Room - White Floor Tile (Top Layer)	Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	None Detected
039B-Floor Tile 291502392-0006	Weight Room - White Floor Tile (Bottom Layer)	White Fibrous Homogeneous		35% Ca Carbonate 62% Non-fibrous (other)	3% Chrysotile
039B-Mastic 291502392-0006A	Weight Room - White Floor Tile (Bottom Layer)	Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	None Detected
040M 291502392-0007	Kids Room Area (Outside of Storage Closet) - Black Mastic	Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	<1% Chrysotile
041M 291502392-0008	Kitchen in Kids Room Area (Outside of Storage Clos - Black Mastic	Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	<1% Chrysotile
042M 291502392-0009	Computer Room in Kids Room Area - Black Mastic	Black Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile
043M 291502392-0010	Kids Area Office - Black Mastic	Black Fibrous Homogeneous	2% Cellulose	96% Non-fibrous (other)	2% Chrysotile
044M 291502392-0011	Kids Room Are (Outside of PAL Office) - Black Mastic	Black Fibrous Homogeneous	2% Cellulose	96% Non-fibrous (other)	2% Chrysotile

Analyst(s)  
Anupriya Tyagi (45)

  
Essie Spencer, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Morrisville, NC NVLAP Lab Code 200671-0, VA 3333 000278, WVA LT000296

Initial report from 05/01/2015 16:54:07



# EMSL Analytical, Inc.

2500 Gateway Centre Blvd., Suite 600, Morrisville, NC 27560

Phone/Fax: (919) 465-3900 / (919) 465-3950

<http://www.EMSL.com>

[raleighlab@emsl.com](mailto:raleighlab@emsl.com)


EMSL Order:	291502392
CustomerID:	TIAG22
CustomerPO:	
ProjectID:	

Attn: <b>Allen McColl</b> <b>Terracon Consultants, Inc.</b> <b>314 Beacon Dr.</b> <b>Winterville, NC 28590</b>	Phone: (252) 353-1600 Fax: (252) 353-0002 Received: 04/30/15 10:00 AM Analysis Date: 5/1/2015 Collected:
Project: <b>South Greenville Rec. Ctr.</b>	

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
045M 291502392-0012	Kids Room Main Area (Near Red Pole) - Black Mastic	Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	<1% Chrysotile
046 291502392-0013	Kids Area Office - Yellow Carpet Glue	Yellow Fibrous Homogeneous	2% Cellulose 2% Synthetic	96% Non-fibrous (other)	None Detected
047 291502392-0014	Kids Area Office - Yellow Carpet Glue	Yellow Fibrous Homogeneous	2% Cellulose <1% Synthetic	98% Non-fibrous (other)	None Detected
048 291502392-0015	Kids Area Office - Yellow Carpet Glue	Yellow Fibrous Homogeneous	2% Cellulose <1% Synthetic	98% Non-fibrous (other)	None Detected
049T 291502392-0016	Hallway (Outside of Weight Room) - White Floor Tile (Top Layer)	White Fibrous Homogeneous	<1% Cellulose	40% Ca Carbonate 60% Non-fibrous (other)	None Detected
049B 291502392-0017	Hallway (Outside of Weight Room) - White Floor (Bottom Layer)	White Fibrous Homogeneous	<1% Cellulose	35% Ca Carbonate 65% Non-fibrous (other)	None Detected
050T-Floor Tile 291502392-0018	Gym Office - White Floor Tile w/ Mastic (Top Layer)	White Fibrous Homogeneous		30% Ca Carbonate 67% Non-fibrous (other)	3% Chrysotile
050T-Mastic 291502392-0018A	Gym Office - White Floor Tile w/ Mastic (Top Layer)	Black Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile

Analyst(s) \_\_\_\_\_  
Anupriya Tyagi (45)

  
Essie Spencer, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Morrisville, NC NVLAP Lab Code 200671-0, VA 3333 000278, WVA LT000296

Initial report from 05/01/2015 16:54:07





# EMSL Analytical, Inc.

2500 Gateway Centre Blvd., Suite 600, Morrisville, NC 27560

Phone/Fax: (919) 465-3900 / (919) 465-3950

<http://www.EMSL.com>

[raleighlab@emsl.com](mailto:raleighlab@emsl.com)


EMSL Order:	291502392
CustomerID:	TIAG22
CustomerPO:	
ProjectID:	

Attn: <b>Allen McColl</b> <b>Terracon Consultants, Inc.</b> <b>314 Beacon Dr.</b> <b>Winterville, NC 28590</b>	Phone: (252) 353-1600 Fax: (252) 353-0002 Received: 04/30/15 10:00 AM Analysis Date: 5/1/2015 Collected:
Project: <b>South Greenville Rec. Ctr.</b>	

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
050B-Floor Tile 291502392-0019	Gym Office - Light Gray Floor Tile w/Mastic (Bottom Layer)	Gray Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (other)	None Detected
050B-Mastic 291502392-0019A	Gym Office - Light Gray Floor Tile w/Mastic (Bottom Layer)	Black Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
051T-Floor Tile 291502392-0020	Gym Office - White Floor Tile w/Mastic (Top Layer)	White Fibrous Homogeneous		30% Ca Carbonate 68% Non-fibrous (other)	2% Chrysotile
051T-Mastic 291502392-0020A	Gym Office - White Floor Tile w/Mastic (Top Layer)	Black Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile
051B-Floor Tile 291502392-0021	Gym Office - Light Gray Floor Tile w/Mastic (Bottom Layer)	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (other)	None Detected
051B-Mastic 291502392-0021A	Gym Office - Light Gray Floor Tile w/Mastic (Bottom Layer)	Black Fibrous Homogeneous	2% Cellulose	96% Non-fibrous (other)	2% Chrysotile
052T-Floor Tile 291502392-0022	Gym Office - White Floor Tile w/Mastic (Top Layer)	White Fibrous Homogeneous		40% Ca Carbonate 58% Non-fibrous (other)	2% Chrysotile
052T-Mastic 291502392-0022A	Gym Office - White Floor Tile w/Mastic (Top Layer)	Black Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile

Analyst(s)  
Anupriya Tyagi (45)

  
Essie Spencer, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Morrisville, NC NVLAP Lab Code 200671-0, VA 3333 000278, WVA LT000296

Initial report from 05/01/2015 16:54:07

**EMSL Analytical, Inc.**

2500 Gateway Centre Blvd., Suite 600, Morrisville, NC 27560

Phone/Fax: (919) 465-3900 / (919) 465-3950

<http://www.EMSL.com>[raleighlab@emsl.com](mailto:raleighlab@emsl.com)

EMSL Order: 291502392

CustomerID: TIAG22

CustomerPO:

ProjectID:

Attn: **Allen McColl**  
**Terracon Consultants, Inc.**  
**314 Beacon Dr.**  
**Winterville, NC 28590**

Phone: (252) 353-1600  
 Fax: (252) 353-0002  
 Received: 04/30/15 10:00 AM  
 Analysis Date: 5/1/2015  
 Collected:

Project: **South Greenville Rec. Ctr.**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
052B-Floor Tile 291502392-0023	Gym Office - Light Gray Floor Tile w/Mastic (Bottom Layer)	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (other)	<b>None Detected</b>
052B-Mastic 291502392-0023A	Gym Office - Light Gray Floor Tile w/Mastic (Bottom Layer)	Black Fibrous Homogeneous		97% Non-fibrous (other)	<b>3% Chrysotile</b>
053T-Floor Tile 291502392-0024	Gym Office - White Floor Tile w/Mastic (Top Layer)	White Fibrous Homogeneous	<1% Cellulose	40% Ca Carbonate 60% Non-fibrous (other)	<b>None Detected</b>
053T-Mastic 291502392-0024A	Gym Office - White Floor Tile w/Mastic (Top Layer)	Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	<b>None Detected</b>
053B-Floor Tile 291502392-0025	Gym Office - White Floor Tile w/Mastic (Bottom Layer)	White Fibrous Homogeneous		40% Ca Carbonate 58% Non-fibrous (other)	<b>2% Chrysotile</b>
053B-Mastic 291502392-0025A	Gym Office - White Floor Tile w/Mastic (Bottom Layer)	Black Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	<b>None Detected</b>
054T-Floor Tile 291502392-0026	Gym Office - White Floor Tile w/Mastic (Top Layer)	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (other)	<b>None Detected</b>

Analyst(s)

Anupriya Tyagi (45)

Essie Spencer, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Morrisville, NC NVLAP Lab Code 200671-0, VA 3333 000278, WVA LT000296

Initial report from 05/01/2015 16:54:07



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[raleighlab@emsl.com](mailto:raleighlab@emsl.com)

EMSL Order:	291502392
CustomerID:	TIAG22
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Attn: **Allen McColl**  
**Terracon Consultants, Inc.**  
**314 Beacon Dr.**  
**Winterville, NC 28590**


Phone: (252) 353-1600  
 Fax: (252) 353-0002  
 Received: 04/30/15 10:00 AM  
 Analysis Date: 5/1/2015  
 Collected:

Project: **South Greenville Rec. Ctr.**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
054T-Mastic 291502392-0026A	Gym Office - White Floor Tile w/Mastic (Top Layer)	Black Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (other)	None Detected
054B-Floor Tile 291502392-0027	Gym Office - White Floor Tile w/ Mastic (Bottom Layer)	White Fibrous Homogeneous		40% Ca Carbonate 57% Non-fibrous (other)	3% Chrysotile
054B-Mastic 291502392-0027A	Gym Office - White Floor Tile w/ Mastic (Bottom Layer)	Black Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
055T-Floor Tile 291502392-0028	Gym Office - White Floor Tile w/ Mastic (Top Layer)	White Fibrous Homogeneous	<1% Cellulose	35% Ca Carbonate 65% Non-fibrous (other)	None Detected
055T-Mastic 291502392-0028A	Gym Office - White Floor Tile w/ Mastic (Top Layer)				Insufficient Material
055B-Floor Tile 291502392-0029	Gym Office - White Floor Tile w/ Mastic (Bottom Layer)	White Fibrous Homogeneous		35% Ca Carbonate 62% Non-fibrous (other)	3% Chrysotile
055B-Mastic 291502392-0029A	Gym Office - White Floor Tile w/ Mastic (Bottom Layer)	Black Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile

Analyst(s) \_\_\_\_\_  
 Anupriya Tyagi (45)

  
 Essie Spencer, Laboratory Manager  
 or other approved signatory

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 Samples analyzed by EMSL Analytical, Inc. Morrisville, NC NVLAP Lab Code 200671-0, VA 3333 000278, WVA LT000296

Initial report from 05/01/2015 16:54:07



**Chain of Custody**  
**EMSL Order Number (Lab Use Only):**

Morrisville, NC 27560  
 PHONE: 919-465-3900  
 FAX: 919-465-3950

Company : Terracon		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 314 Beacon Drive		Third Party Billing requires written authorization from third party	
City: Winterville	State/Province: NC	Zip/Postal Code: 28590	Country: United States
Report To (Name): Allen McColl		Telephone #: 252-353-1600	
Email Address: kamccoll@terracon.com		Fax #:	Purchase Order: 72157028
Project Name/Number: South Greenville Rec Ctr		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken: NC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour  
  6 Hour  
  24 Hour  
  48 Hour  
 72 Hour  
 96 Hour  
 1 Week  
 2 Week

\*For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

<b>PLM - Bulk (reporting limit)</b>		<b>TEM - Bulk</b>	
<input checked="" 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 in NY) <input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY) <input type="checkbox"/> OSHA ID-191 Modified <input type="checkbox"/> Standard Addition Method		<input type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1 <input type="checkbox"/> NY ELAP Method 198.4 (TEM) <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</b>	
		<input type="checkbox"/>	

Check For Positive Stop - Clearly Identify Homogenous Group      Date Sampled: 4/29/30

Samplers Name: **Allen McColl**      Samplers Signature: *Allen McColl*

Sample #	HA #	Sample Location	Material Description
037T	13	Weight Room	White Floor Tile (top layer)
037B	13	Weight Room	White Floor Tile (bottom layer)
038T	13	Weight Room	White Floor Tile (top layer)
038B	13	Weight Room	White Floor Tile (bottom layer)
039T	13	Weight Room	White Floor Tile (top layer)
039B	13	Weight Room	White Floor Tile (bottom layer)
040M	14	Kids Room Area (outside of storage closet)	Black Mastic
041M	14	Kitchen in Kids Room Area (outside of storage closet)	Black Mastic
042M	14	Computer Room in Kids Room Area	Black Mastic
043M	14	Kids Area Office	Black Mastic

Client Sample # (s): 037T - 039B      Total # of Samples: 29

Relinquished (Client): *Allen McColl*      Date: 4/29/30      Time:

Received (Lab): *AW*      Date: 4/30/15      Time: 10:00am

Comments/Special Instructions:  
 Please only analyze mastic in HA# 14 samples (Sample #s 040M, 041M, 042M, 043M, 044M and 045M).



EMSL ANALYTICAL, INC.  
 LABORATORY PRODUCTS TRAINING

**Chain of Custody**  
**EMSL Order Number** (Lab Use Only):

Morrisville, NC 27560  
 PHONE 919-465-3900  
 FAX 919-465-3950

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	HA #	Sample Location	Material Description
044M	14	Kids Room Area (outside of PAL Office)	Black Mastic
045M	14	Kids Room Main Area (near red pole)	Black Mastic
046	15	Kids Area Office	Yellow Carpet Glue
047	15	Kids Area Office	Yellow Carpet Glue
048	15	Kids Area Office	Yellow Carpet Glue
049T	10	Hallway (outside of weight room)	White Floor Tile (Top Layer)
049B	10	Hallway (outside of weight room)	White Floor (Bottom Layer)
050T	16	Gym Office	White Floor Tile w/ mastic (Top Layer)
050B	16	Gym Office	Light Gray Floor Tile w/ mastic (Bottom Layer)
051T	16	Gym Office	White Floor Tile w/ mastic (Top Layer)
051B	16	Gym Office	Light Gray Floor Tile w/ mastic (Bottom Layer)
052T	16	Gym Office	White Floor Tile w/ mastic (Top Layer)
052B	16	Gym Office	Light Gray Floor Tile w/ mastic (Bottom Layer)
053T	17	Gym Office	White Floor Tile w/ mastic (Top Layer)
053B	17	Gym Office	White Floor Tile w/ mastic (Bottom Layer)
054T	17	Gym Office	White Floor Tile w/ mastic (Top Layer)
054B	17	Gym Office	White Floor Tile w/ mastic (Bottom Layer)
055T	17	Gym Office	White Floor Tile w/ mastic (Top Layer)
055B	17	Gym Office	White Floor Tile w/ mastic (Bottom Layer)
<b>*Comments/Special Instructions:</b>			
Please only analyze mastic in HA# 14 samples (Sample #s 040M, 041M, 042M, 043M, 044M and 045M).			



**APPENDIX D**  
**PHOTOGRAPHS**

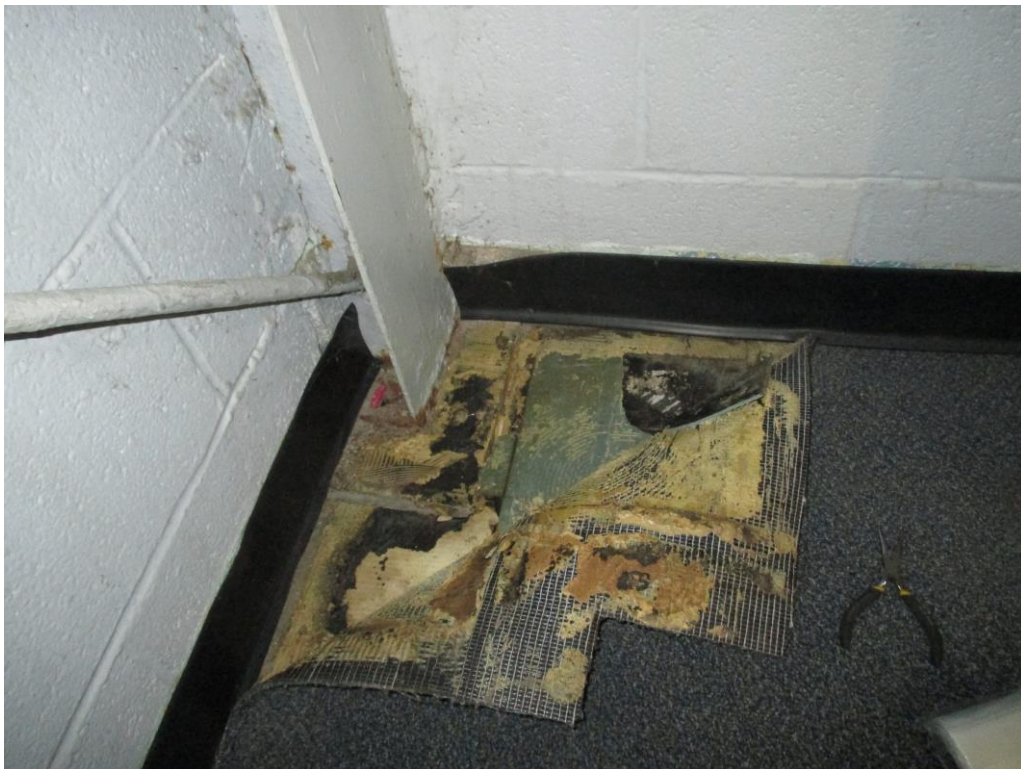
**Limited Asbestos Survey Report**

South Greenville Recreation Center ■ Greenville, NC

Photos Taken: April 10, 2015 ■ Terracon Project No. 72157028



**Photo 1** Typical view across the gym. Showing the blue carpet covering the gym floor. Floor tiles under this carpet were positive for asbestos.



**Photo 2** View of the light gray floor tile that was positive for asbestos under the carpet in the gym.



**Photo 3** View of the orange center court tile under the carpet in the gym that is positive for asbestos.



**Photo 4** View across the kid's area. Showing floor tile observed in this area. The mastic under the floor tile in this area is positive for asbestos.





**Photo 5** Typical view across the kid's area. Mastic under the floor tile in this area is positive for asbestos.



**Photo 6** An additional view across the kid's area. Showing a window commonly observed in the building.

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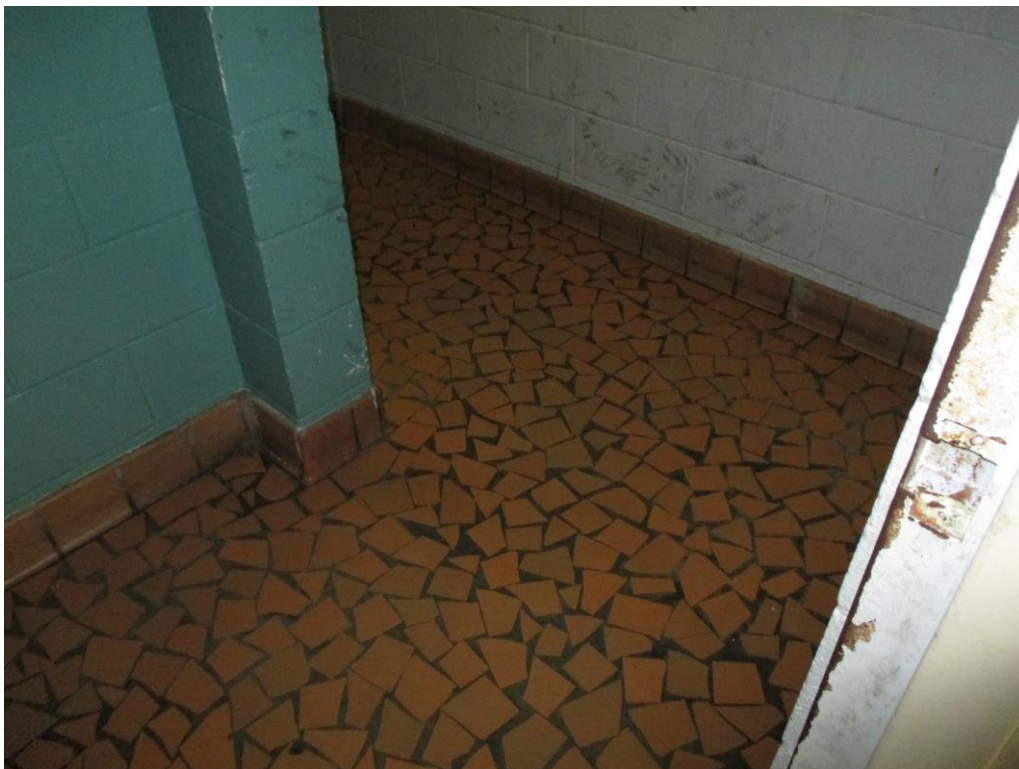
**Photo 7** Close up view of the window frame. Showing window caulk and window glaze.



**Photo 8** Typical view of the floor tile and cove board in the hallway area. There were two layers of floor tile (the visible top layer and a second layer underneath the visible layer) in the hallway areas. Both layers of tile and mastic associated with both tile layers are negative for asbestos.



**Photo 9** View across weight room. There are two layers of white floor tile located underneath the black rubber matting in the weight room. The bottom layer of floor tile is positive for asbestos.



**Photo 10** Terracotta floor tile and grout observed in the Men's and Women's bathroom areas.