

**Background Asbestos Fiber Sampling
Greenville County
Health Department Buildings**

Prepared for:

***Mr. Perry Swearingen
Greenville County
301 University Ridge - Suite 3920
Greenville, SC 29601***

May 9, 2012

Prepared by:

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I. Introduction

Environmental Testing and Management, Inc. (ETM) was retained by Mr. Perry Swearingen of Greenville County to conduct background asbestos fiber sampling in the Health Department buildings located at 200 University Ridge, Greenville, S.C. The scope of this investigation consisted of the following:

1. Monitoring of background asbestos fiber levels in the 4-story building.
2. Monitoring of background asbestos fiber levels in the original building.
3. Monitoring of background asbestos fiber levels in the original building addition.

II. Results

The results from the air sampling, conducted May 5, 2012, are found in the attached Table I. This table lists the sample number, the location where the sample was collected, and the resulting fiber level.

III. Discussion, Conclusions and Recommendations

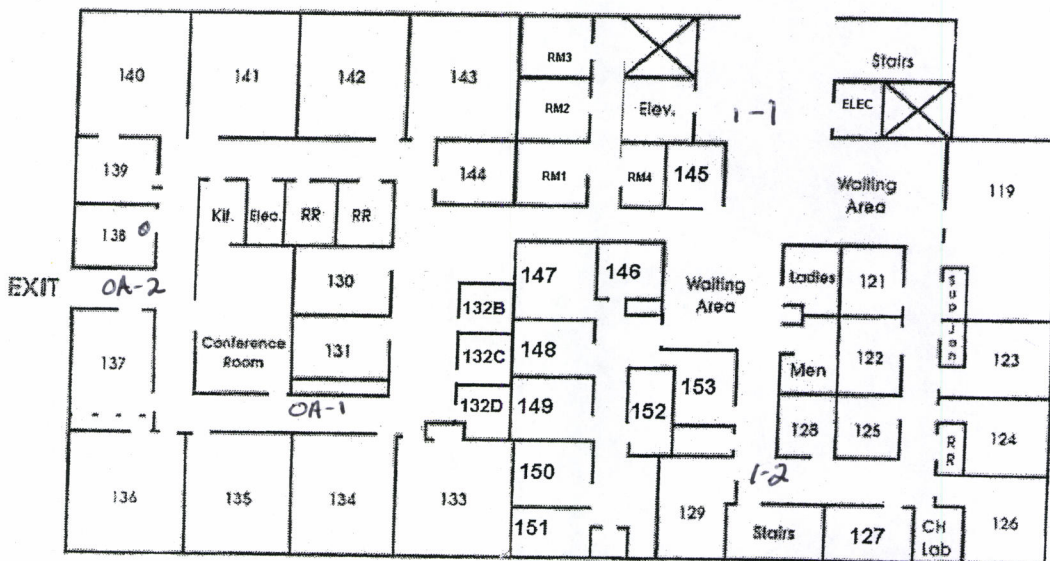
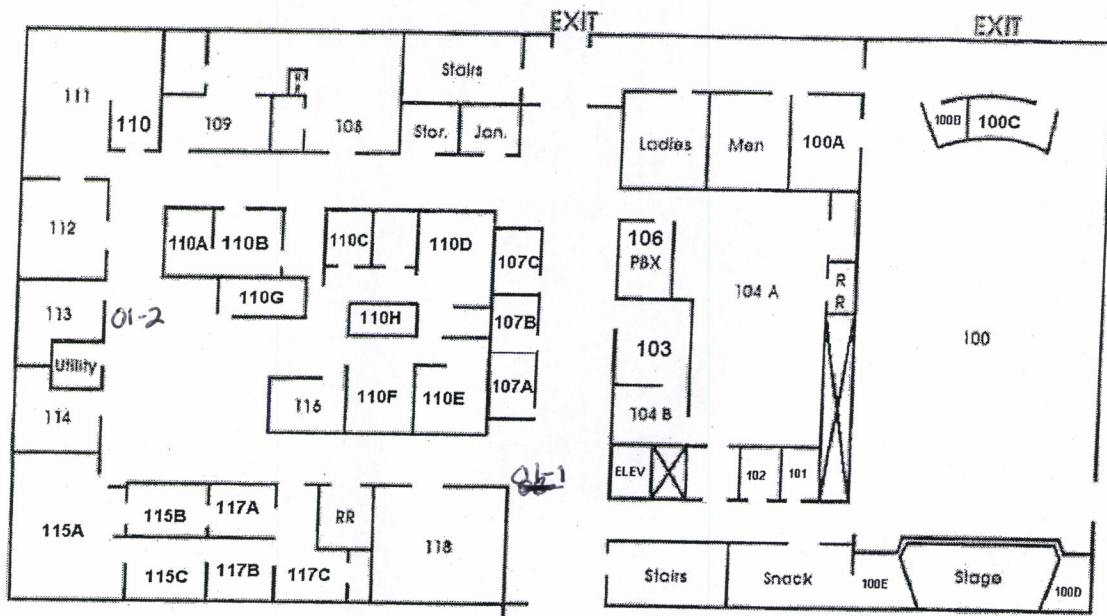
This study was prompted by concerns expressed by SCDHEC personnel that drilling into the sheetrock to place fire alarm pulls being installed as part of the fire alarm system upgrade, might release asbestos fibers. Previous sampling has shown the sheetrock in each of the Health Department buildings to be negative for asbestos. However, the joint compound associated with the sheetrock is asbestos-containing.

Based upon these concerns, it was determined that up to two samples would be taken on each floor of each building in order to document background levels of asbestos fibers in the air. Samples were collected using high flow pumps and 25 millimeter PCM (phase contrast microscopy) cowed filters. Pump flow was measured using a calibrated rotameter at both the start and conclusion of the sampling period. Filters were subsequently read using NIOSH method 7400. All samples returned at less than 0.001 fibers per cubic centimeter of air (f/cc).

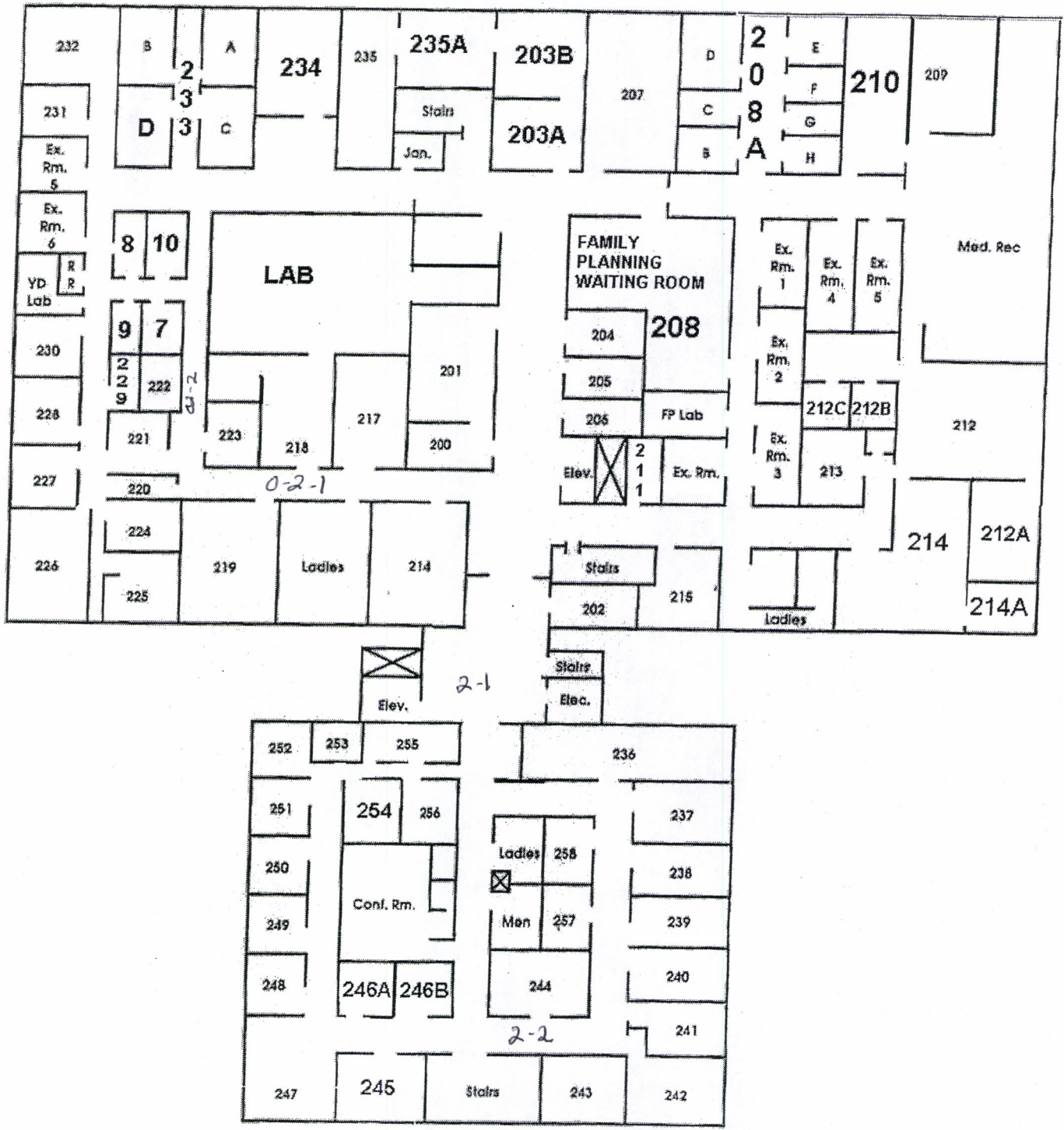
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To put these results into perspective, the OSHA Permissible Exposure Limit (PEL) for workers exposed to asbestos fibers over an eight hour period is 0.1 f/cc. Clearance following asbestos abatement projects is generally accepted at 0.01 f/cc. The results obtained in the Health Department buildings are less than 0.001 f/cc on every floor and are thus multiples less than either the OSHA PEL or the clearance level of 0.01 f/cc.

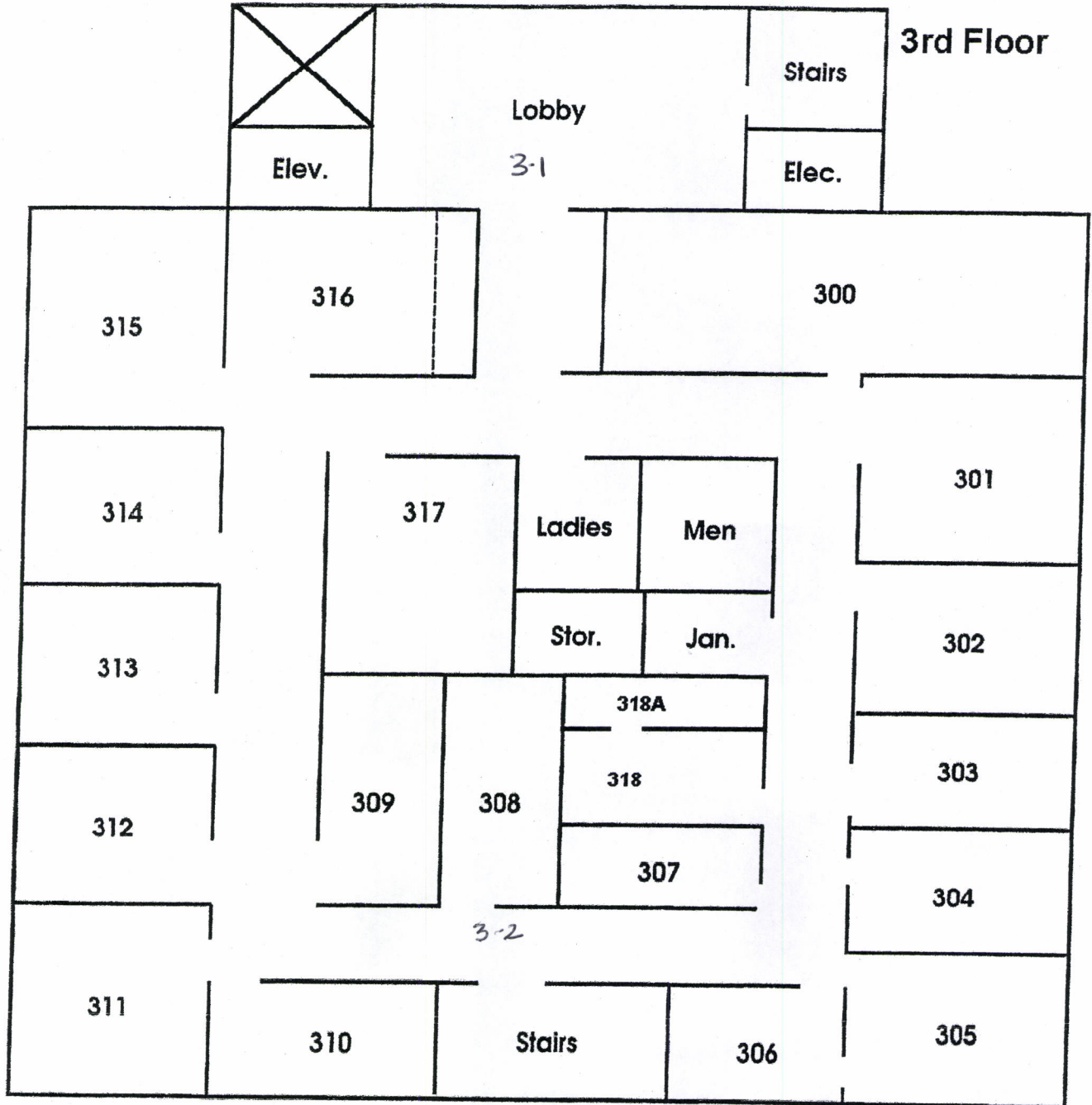
FIRST FLOOR



2nd Floor



3rd Floor



4th Floor

Stairs

Lobby

4-1

Elev.

Elec.

400A

400B

412

413

401

411

Conference

402

410

407

A

B

406

403

4-2

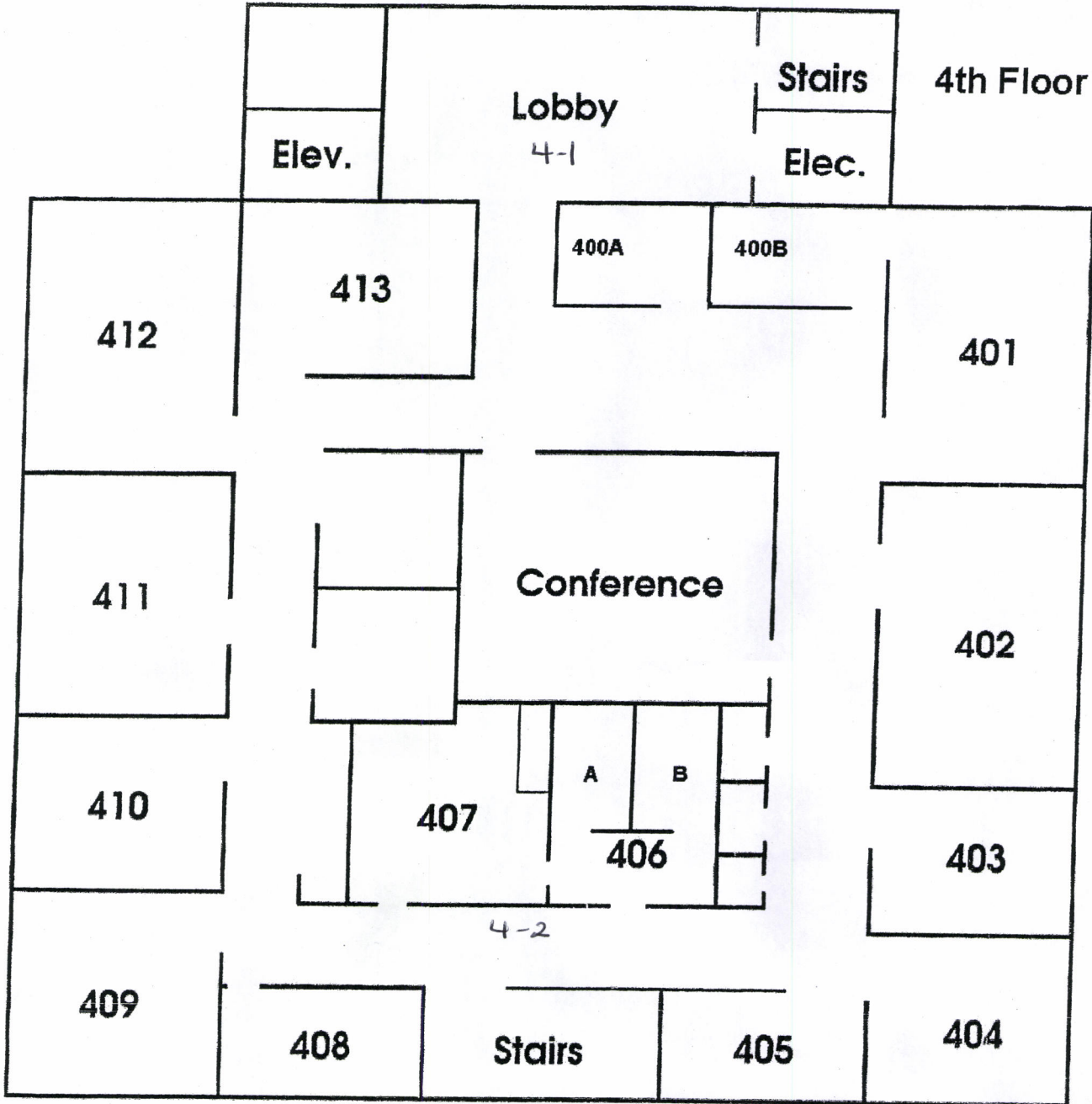
409

408

Stairs

405

404



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Table I

Background Asbestos Air Sample Results

Sample #	Building	Floor	Result (f/cc)
4-1	4-Story Tower	4th	<0.001
4-2	4-Story Tower	4th	<0.001
3-1	4-Story Tower	3rd	<0.001
3-2	4-Story Tower	3rd	<0.001
2-1	4-Story Tower	2nd	<0.001
2-2	4-Story Tower	2nd	<0.001
1-1	4-Story Tower	1st	<0.001
1-2	4-Story Tower	1st	<0.001
B-1	4-Story Tower	Basement	<0.001
B-2	4-Story Tower	Basement	<0.001
OB-1	Original Bldg.	Basement	<0.001
O1-1	Original Bldg.	1st	<0.001
O1-2	Original Bldg.	1st	<0.001
O2-1	Original Bldg.	2nd	<0.001
O2-2	Original Bldg.	2nd	<0.001
OA-1	Original Bldg. Addition	1st	<0.001
OA-2	Original Bldg. Addition	1st	<0.001

FIBER COUNT RESULTS

Client Information	Name: Greenville County		Project Information	Date Sampled: May 5, 2012	
	Address: Greenville, SC			Name: Health Department	
	ETM Analyst : Roxane Schauder			Location: 4 Story Tower	
	File Name: Greenville Cnty Health .126	ETM Date Generated: May 9, 2012			
Blank Fiber Count 0			Blank Field Count 100		
			Field Area		Filter Area
			0.00785 sq.mm.		385 sq.mm.

Comments: Background air sampling

Sample	Location	Type	Time On HH:MM	Time Off HH:MM	Tot Mins	Flow (LPM)	Vol (L)	Fiber Count	Fiber/ Sqmm	Field Count	Fiber/ CC
4-1	Lobby (4th floor)	Background	8 : 16	12 : 46	270	3.6	972	0.0	0.0	100	<0.001
4-2	Between room 406 & 407 (4th floor)	Background	8 : 20	12 : 48	268	5.2	1394	0.0	0.0	100	<0.001
3-1	Lobby (3rd floor)	Background	8 : 25	12 : 51	266	5.4	1436	1.0	1.3	100	<0.001
3-2	Between room 308 & 307 (3rd floor)	Background	8 : 30	12 : 53	263	5.7	1499	1.0	1.3	100	<0.001
2-1	Lobby (2nd floor)	Background	8 : 35	12 : 55	260	5.3	1378	0.0	0.0	100	<0.001
2-2	By room 244 (2nd floor)	Background	8 : 39	12 : 56	257	4.3	1105	0.0	0.0	100	<0.001
1-1	Lobby (1st floor)	Background	8 : 45	12 : 58	253	4.8	1214	0.0	0.0	100	<0.001
1-2	By room 128 (1st floor)	Background	8 : 50	13 : 00	250	7.0	1750	0.0	0.0	100	<0.001

Roxane Schauder

ETM Analyst Signature

FIBER COUNT RESULTS

Client Information	Name: Greenville County		Project Information	Date Sampled: May 5, 2012	
	Address: Greenville, SC			Name: Health Department	
	ETM Analyst : Roxane Schauder			Location: Basement	
	File Name: Greenville Cnty Health Basement.126	ETM Date Generated: May 9, 2012			
Blank Fiber Count 0		Blank Field Count 100		Field Area	Filter Area
				0.00785 sq.mm.	385 sq.mm.

Comments: Background air sampling

Sample	Location	Type	Time On HH:MM	Time Off HH:MM	Tot Mins	Flow (LPM)	Vol (L)	Fiber Count	Fiber/ Sqmm	Field Count	Fiber/ CC
B-1	(Basement)	Background	8 : 58	13 : 03	245	5.0	1225	0.0	0.0	100	<0.001
B-2	Acros from room B-16 (Basement)	Background	9 : 02	13 : 04	242	4.9	1186	0.0	0.0	100	<0.001

Roxane Schauder

ETM Analyst Signature

FIBER COUNT RESULTS

Client Information	Name: Greenville County		Project Information	Date Sampled: May 5, 2012	
	Address: Greenville SC			Name: Health Department	
	ETM Analyst : Roxane Schauder			Location: Original Bldg.	
	File Name: Greenville Cnty original Bldg.126	ETM Date Generated: May 9, 2012			

Blank Fiber Count 0	Blank Field Count 100	Field Area	Filter Area
		0.00785 sq.mm.	385 sq.mm.

Comments: Background air sampling

Sample	Location	Type	Time On HH:MM	Time Off HH:MM	Tot Mins	Flow (LPM)	Vol (L)	Fiber Count	Fiber/ Sqmm	Field Count	Fiber/ CC
0B-1	Hallway: by room B-4 (basement)	Background	9 : 10	13 : 06	236	4.7	1109	0.0	0.0	100	<0.001
01-1	Lobby - across from elevator (1st floor)	Background	9 : 14	13 : 10	236	4.9	1156	0.0	0.0	100	<0.001
01-2	Between rooms : "utility" & 113 (1st floor)	Background	9 : 19	13 : 12	233	3.7	862	0.0	0.0	100	<0.001
02-1	Across from room 216 (2nd floor)	Background	9 : 26	13 : 15	229	7.8	1786	0.0	0.0	100	<0.001
02-2	By room 222 (2nd floor)	Background	9 : 30	13 : 16	226	7.8	1763	1.0	1.3	100	<0.001

Roxane Schauder

ETM Analyst Signature

FIBER COUNT RESULTS

Client Information	Name: Greenville County		Project Information	Date Sampled: May 5th, 2012	
	Address: Greenville, SC			Name: Health Department	
	ETM Analyst :Roxane Schauder			Location: Original addition	
	File Name: Greenville Health original addition.126	ETM Date Generated: May 9, 2012			
Blank Fiber Count 0		Blank Field Count 100		Field Area	Filter Area
				0.00785 sq.mm.	385 sq.mm.

Comments: Background air sampling

Sample	Location	Type	Time On HH:MM	Time Off HH:MM	Tot Mins	Flow (LPM)	Vol (L)	Fiber Count	Fiber/ Sqmm	Field Count	Fiber/ CC
OA-1	By room 131	Background	9 : 37	13 : 20	223	8.1	1806	0.0	0.0	100	<0.001
OA-2	At area leading to outside; close to room 138	Background	9 : 40	13 : 21	221	8.2	1812	1.0	1.3	100	<0.001

Roxane Schauder

ETM Analyst Signature

W

Exit #10

