



**TTI ENVIRONMENTAL, INC.**  
Consulting & Contracting

1253 North Church Street, Moorestown, NJ 08057  
www.ttienv.com o 856-840-8800 f 856-840-8815

October 15, 2021

Mr. Lou Crisci  
Sr. Vice President  
Director of Operations  
AllRisk Property Damage Experts  
801 E Clements Bridge Rd.  
Runnemede, NJ 08078

Reference: Initial Mold Inspection and Testing.  
Stafford Branch Library  
29 N Main St, Manahawkin, NJ 08050  
TTI Project Number 21-1596

Dear Mr. Crisci:

Thank you for selecting TTI Environmental, Inc. (TTI) for your environmental needs. This correspondence is being forwarded to provide the findings and results of the initial mold inspection conducted at the above referenced property.

#### **1.0 Background**

TTI arrived on site on October 7, 2021 and was provided general information on the areas of concern. The property is a branch Library owned and operated by the County of Ocean (Ocean County) and is located at 29 N. Main Street in Manahawkin, NJ. The mold inspection was conducted during normal working hours and was performed throughout the facility. According to information provided to TTI, water enters the lower level during heavy rainstorms and is quickly vacuumed up by an outside vendor. TTI's inspection was performed using a high lumen flashlight, humidity/temperature meter, and a thermal camera.

TTI collected a total of 14 air samples from inside the building and one (1) air sample from outside the building as a comparison sample. In addition to the air samples, TTI collected four (4) direct read swabs samples from various building components with possible mold growth. The onsite assessment was conducted by the following personnel: Mr. James A. Guilardi, Certified Microbial Consultant (CMC) for TTI.

#### **Observations**

##### **Lower Level**

The lower level is constructed of sheetrock walls/ block walls, lay-in ceiling tiles over a concrete ceiling and carpeting over concrete floor. Floor tile was observed in the Storage Room. The lower level houses Library Offices, Meeting Room, Storage Rooms, Computer Lab, Electrical, Staff Lounge and Mechanical Rooms. The visual inspection revealed possible mold growth on the HVAC diffusers and adjacent ceiling tiles, concrete ceiling expansion joints and block walls above ceiling tiles adjacent to HVAC duct work. Water stained ceiling tiles and water stained carpeting was observed throughout the lower level. Temperature and relative humidity readings were within acceptable standards.

##### **Upper Level**

The upper level is constructed of a combination of sheetrock walls over block walls, lay-in ceiling tiles over a sheetrock ceiling and carpeting over concrete floor. The upper level houses Library Offices and Public Access/Reading Areas. The visual inspection revealed possible mold growth/dirt on the HVAC diffusers and adjacent ceiling tiles. A water diverter system which drained into a trash can was observed near the front circulation desk. TTI was informed this was created due to a roof leak which has since been repaired. Water stained ceiling tiles were observed throughout the upper level. Temperature and relative humidity readings were within acceptable standards.



Room/Area	Temperature	Relative Humidity	CO
Lower Level Staff Lounge	71.1	54.0	NA
Meeting Room	73.3	51.2	NA
Lower Level Staff Offices	71.3	54.4	NA
Librarians Office	71.4	53.7	NA
Computer Lab	72.0	54.2	NA
Lower Level Storage Room	71.1	55.0	NA
Lower Level Hallway/Foyer	71.0	55.1	NA
Upper Level– Main Public Reading Area	70.1	55.8	NA
Supervisor’s Office	72.1	56.3	NA
Children’s Area	67.3	58	NA
<b>Recommended Ranges</b>	<b>68-79</b>	<b>&gt;30 &amp; &lt;60%</b>	<b>50 ppm</b>

**2.0 Sampling Methods and Sample Locations**

Fungal spore trap air samples were collected from throughout the building. A fungal spore trap air sample was also collected from the exterior as a comparison sample. All laboratory analysis was performed by EMSL Analytical Inc. Cinnaminson, New Jersey, a certified AIHA NVLAP Laboratory. The analytical test reports are attached in Appendix A. A description of sample methodology is described below:

**Fungal Spore Trap Air Samples**

Fungal spore trap air samples are collected by using an Air-O-Cell™ cassette attached to a high-volume vacuum pump. A volume of air is drawn through the cassette and the contents of the air are deposited upon a specially treated glass slide, which is then analyzed by a mycologist who identifies fungal types and quantity. Fungal spore trap air samples measure both viable and non-viable fungal spores as well as fungal parts and fragments. Fungal spore trap air samples are collected from the outdoors to be used as a comparison to the inside samples. There are currently no standards of reference ranges for acceptable levels of airborne microorganisms when interpreting fungal air sample results. It is generally accepted that indoor airborne fungal concentrations should be approximately the same or below those found outdoors and display similar genus distribution. Elevated indoor airborne fungal concentrations as compared to outdoor concentrations are often an indicator of a fungal amplification source due to a moisture condition.

Sample Number	Location	Total Airborne Fungal Concentration (fs per m <sup>3</sup> )	Dominant Fungi Detected			Fungal Genera of Concern Detected		
			Fungal Species and/or Fungal Parts	Concentration (fs per m <sup>3</sup> )	Percent of Total Sample	Fungal Species	Concentration (fs per m <sup>3</sup> )	% of Total Sample
A-1	Outside	108,200	Basidiospores	105,000	97	Aspergillus Penicillium	100	<1
A-2	Break Room	610	Basidiospores	400	66	Aspergillus Penicillium	200	33
A-3	Meeting Room	1,930	Basidiospores	1,500	78	Aspergillus Penicillium	200	10
A-4	Staff Office	870	Basidiospores	400	46	Aspergillus Penicillium	200	23
A-5	Librarian’s Office	1,510	Aspergillus Penicillium	620	41	Aspergillus Penicillium	570	41
A-6	Computer Lab	1,140	Aspergillus Penicillium	570	50	Aspergillus Penicillium	620	50
A-7	Storage	370	Basidiospores	100	27	Aspergillus Penicillium	100	27
A-8	Elect. Room	460	Basidiospores	300	65	Aspergillus Penicillium	40	9



fs/m<sup>3</sup>: fungal structures per cubic meter

**Table 2.0: Fungal Spore Trap Air Sample Results Summary (continued)**

Sample Number	Location	Total Airborne Fungal Concentration (fs per m <sup>3</sup> )	Dominant Fungi Detected			Fungal Genera of Concern Detected		
			Fungal Species and/or Fungal Parts	Concentration (fs per m <sup>3</sup> )	Percent of Total Sample	Fungal Species	Concentration (fs per m <sup>3</sup> )	% of Total Sample
A-9	LL H/W & Foyer	3.080	Aspergillus Penicillium	2,000	65	Aspergillus Penicillium	2,000	65
A-10	Upper Level Front Desk	620	Basidiospores	570	92	Aspergillus Penicillium	40	7
A-11	Teen Zone	180	Aspergillus Penicillium	100	56	Aspergillus Penicillium	100	56
A-12	Teresa's Office	1,240	Basidiospores	750	61	Aspergillus Penicillium	400	32
A-13	Main Office	870	Basidiospores	530	61	Aspergillus Penicillium	300	35
A-14	Children's area	590	Basidiospores	200	34	Aspergillus Penicillium	40	7
A-15	Biography Area	100	Basidiospores	10	50	Basidiospores	10	50

fs/m<sup>3</sup>: fungal structures per cubic meter

The total airborne fungal concentration level of the samples collected inside the building were lower than the outside sample and were within acceptable industry standards, with the exception of sample A-9. Sample A-9 was collected from the lower level hallway and foyer area and was slightly elevated with Aspergillus/Penicillium mold spores.

**Fungal Swab Samples**

Swab samples are collected using a sterile swab, which is wiped on one (1) square inch of a surface, to collect suspected fungi. The sample is then sent to an accredited microbiology lab, wet mounted and analyzed by an experienced mycologist. Swab samples are collected to confirm visual suspect mold, concentration, and species to assist in the mitigation of potential mold issues.

**Table 2.0: Fungal Swab Sample Results Summary**

Sample ID	Date	Sample Location	Fungal ID	Category	Comment
Swab-16	10/7/2021	Break Room - Ceiling Tile by HVAC Diffuser	Aspergillus/Penicillium	High	Mold Growth at High Levels.
Swab-17		Break Room – Sheetrock Wall	ND	ND	ND
Swab-18		Staff Office -Block Wall/Ceiling Expansion Joint	Cladosporium	High	Mold Growth at High Levels
			Aspergillus/Penicillium	Medium	
Swab-19	Lower Level Storage HAVC Diffuser	Aspergillus/Penicillium	Low	Mold Growth at Low Levels	

**Category: Count/per area analyzed; ND: Not detected Rare: 1- 10, Low: 11 - 100, Medium: 101 - 1000, High: >1000**

The swab samples confirmed mold growth at high levels on ceiling tiles near HVAC diffusers and block wall/ceiling expansion joints above drop ceiling in lower level. The swab samples also confirmed mold growth at low levels on HVAC diffusers.



### Conclusions & Recommendations

- Clean all mold growth on concrete expansion joint/block walls in basement and replace all dirty ceiling tiles adjacent to HVAC diffusers. Replace all water stained ceiling tiles. Perform a general clean of the lower level hallway/foyer area. All work should be performed by a professional remediation contractor in general accordance with the Institute of Inspection, Cleaning & Restoration Certification (IICRC) S500.
- Clean all diffusers and, at arm's length, all HVAC branches.
- To reduce the possibility of mold growth, it is important to keep moisture from penetrating the building envelope and to correct all dew points which create moisture impact to building components. Any moisture that does penetrate the area should be eliminated promptly to reduce the potential for microbial growth.
- Document all indoor air quality complaints including room number, reason for the complaint and symptoms. Documented complaints and response actions should be maintained in the building's indoor air quality plan.

We appreciate the opportunity for allowing TTI to provide you with environmental consulting services. If you should have any questions, please feel free to contact us at any time.

Sincerely,  
TTI ENVIRONMENTAL, INC.

James A. Guilardi  
Senior Project Manager, CMC



Appendix A:  
Analytical Test Reports



EMSL ANALYTICAL, INC. LABORATORY PRODUCTS TRAINING

Microbiology Chain of Custody Form

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc. 200 Route 130 North

Cinnaminson, NJ 08077 PHONE: 1-800-220-3675 EMAIL: c@emsl.com

372117187

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

21 OCT -7 PM 3:37

Customer Information and Billing Information sections with fields for Customer ID, Company Name, Contact Name, Street Address, City, State, Zip, Country, Phone, and Email(s) for Report/Invoice.

Project Information section including Project Name/No (21-1596 Stafford Library), Purchase Order (033669), State (NJ), and Sampled By Name (Jim Guilardi).

Public Water Supply Samples section with Turn-Around-Time (TAT) options: 3 Hour, 6 Hour, 24 Hour (checked), 32 Hour, 48 Hour, 72 Hour, 96 Hour, 1 Week, 2 Week.

Table of Microbiology Test Codes including M001 Air-O-Cell, M030 Micro 5, M041 Fungal Direct Examination, M115 Sewage Screen - Water, etc.

Table with columns: Sample #, Sample Location/Description, Sample Type (Matrix), Potable / Non-Potable (Only for Water), Test Code, Volume/Area, Date / Time Collected, Temperature (Lab Use Only). Includes handwritten 'See page 2'.

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.) BillTo: TTI Environmental Inc., 1253 N. Church Street, Moorestown, NJ, 08057, US

Method of Shipment and Sample Condition Upon Receipt section with fields for Relinquished by, Date/Time, Received by, and Date/Time.

Controlled Document - COC-34 Micro R13 03/02/2021 and AGREE TO ELECTRONIC SIGNATURE checkbox.

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety.



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Microbiology Chain of Custody Form

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.  
200 Route 130 North  
Cinnaminson, NJ 08077  
PHONE: 1-800-220-3675  
EMAIL: c@emsl.com

RECEIVED  
EMSL  
CINNAMINSON, NJ  
21 OCT - 7 PM 3:37

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

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

BillTo: TTI Environmental Inc., 1253 N. Church Street, Moorestown, NJ, 08057, US

Attention: James Guilardi Phone: 16093141683 Email: jimg@ttienv.com Purchase Order:

Sample #	Sample Location/Description	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
A-0	Outside	Air	N/A	m001	75 L	10/7/2021	
A-2	Break Room	Air					
A-3	Meeting Rm.	Air					
A-4	STAFF OFFICE	Air					
A-5	LIBRARIAN OFFICE	Air					
A-6	Computer LAB	Air					
A-7	Lower level STORAGE	Air					
A-8	ELECT. ROOM	Air					
A-9	Lower level H/W + Foyer	Air					
A-10	Upper level by Desk	Air					
A-11	Upper level - Teen	Air					
A-12	Therese's office	Air					
A-13	Main office	Air					
A-14	Children's Area	Air					
A-15	Biography	Air					
SWAB-16	Ceiling Tile - Break Room	Room Swab		m041	N/A		
SWAB-17	Wall - Break Room	SWAB					
SWAB-18	STAFF OFFICE Concrete CAULK	SWAB					
SWAB-19	STORAGE DIFFUSER	SWAB					

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by: <i>Jim Guilardi</i>	Date/Time: 10/7/2021	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

Controlled Document - COC-34 Micro R13 3/02/2021

AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077  
Tel/Fax: (800) 220-3675 / (856) 786-0262  
<http://www.EMSL.com> / [cinmicrolab@emsl.com](mailto:cinmicrolab@emsl.com)

**EMSL Order:** 372117181  
**Customer ID:** TTIE54  
**Customer PO:** 033669  
**Project ID:**

**Attention:** James Guilardi  
TTI Environmental Inc.  
1253 North Church Street  
Moorestown, NJ 08057

**Phone:** (856) 840-8800  
**Fax:** (856) 840-8815

**Collected Date:**  
**Received Date:** 10/07/2021 03:40 PM  
**Analyzed Date:** 10/09/2021

**Project:** 21-1596 Stafford Library

### Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	372117181-0001 A-1 75 Outside			372117181-0002 A-2 75 Break Room			372117181-0003 A-3 75 Meeting Room			
	Spore Types	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-	-
Ascospores	35	1500	1.4	-	-	-	1	40	2.1	-
Aspergillus/Penicillium	3	100	0.1	5	200	32.8	5	200	10.4	-
Basidiospores	2380	105000	97	8	400	65.6	35	1500	77.7	-
Bipolaris++	-	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-	-
Cladosporium	6	300	0.3	-	-	-	2	90	4.7	-
Curvularia	-	-	-	-	-	-	1	40	2.1	-
Epicoccum	-	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-	-
Ganoderma	23	1000	0.9	-	-	-	-	-	-	-
Myxomycetes++	4	200	0.2	-	-	-	1	40	2.1	-
Pithomyces++	1*	10*	0	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	1*	10*	0.5	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	2	90	0.1	-	-	-	1*	10*	0.5	-
Zygomycetes	-	-	-	-	-	-	-	-	-	-
Acremonium++	-	-	-	-	-	-	-	-	-	-
Blakeslea/Choanephora	-	-	-	-	-	-	-	-	-	-
Pestalotia++	-	-	-	1*	10*	1.6	-	-	-	-
<b>Total Fungi</b>	<b>2454</b>	<b>108200</b>	<b>100</b>	<b>14</b>	<b>610</b>	<b>100</b>	<b>47</b>	<b>1930</b>	<b>100</b>	
Hyphal Fragment	-	-	-	-	-	-	2	90	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	1	40	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-	-
Skin Fragments (1-4)	-	1	-	-	2	-	-	2	-	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-	-
Background (1-5)	-	1	-	-	1	-	-	2	-	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.



Vincent Iuzzolino, M.S., Laboratory Manager  
or other Approved Signatory

No discernable field blank was submitted with this group of samples.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "\*" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC-EMLAP Accredited #100194

Initial report from: 10/09/2021 11:44 AM

For information on the fungi listed in this report, please visit the Resources section at [www.emsl.com](http://www.emsl.com)





# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077  
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<http://www.EMSL.com> / [cinmicrolab@emsl.com](mailto:cinmicrolab@emsl.com)

**EMSL Order:** 372117181  
**Customer ID:** TTIE54  
**Customer PO:** 033669  
**Project ID:**

**Attention:** James Guilardi  
TTI Environmental Inc.  
1253 North Church Street  
Moorestown, NJ 08057

**Phone:** (856) 840-8800  
**Fax:** (856) 840-8815

**Collected Date:**  
**Received Date:** 10/07/2021 03:40 PM  
**Analyzed Date:** 10/09/2021

**Project:** 21-1596 Stafford Library

### Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	372117181-0004 A-4 75 Staff Office			372117181-0005 A-5 75 Librarian Office			372117181-0006 A-6 75 Computer Lab			
	Spore Types	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-	-
Ascospores	1	40	4.4	-	-	-	-	-	-	-
Aspergillus/Penicillium	5	200	22	14	620	41.1	13	570	50	
Basidiospores	10	440	48.4	12	530	35.1	10	440	38.6	
Bipolaris++	-	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	2	90	6	2	90	7.9	
Curvularia	1*	10*	1.1	2	90	6	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-	-
Ganoderma	1	40	4.4	-	-	-	-	-	-	-
Myxomycetes++	1	40	4.4	3*	40*	2.6	-	-	-	-
Pithomyces++	2	90	9.9	3	100	6.6	-	-	-	-
Rust	1	40	4.4	3*	40*	2.6	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	1	40	3.5	
Zygomycetes	-	-	-	-	-	-	-	-	-	-
Acremonium++	-	-	-	-	-	-	-	-	-	-
Blakeslea/Choanephora	1*	10*	1.1	-	-	-	-	-	-	-
Pestalotia++	-	-	-	-	-	-	-	-	-	-
<b>Total Fungi</b>	<b>23</b>	<b>910</b>	<b>100</b>	<b>39</b>	<b>1510</b>	<b>100</b>	<b>26</b>	<b>1140</b>	<b>100</b>	
Hyphal Fragment	-	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	2	-	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-	-
Background (1-5)	-	2	-	-	2	-	-	2	-	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.



Vincent Iuzzolino, M.S., Laboratory Manager  
or other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC-EMLAP Accredited #100194

Initial report from: 10/09/2021 11:44 AM

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## Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	372117181-0007			372117181-0008			372117181-0009		
	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total
A-7 75 Lower Level Storage				A-8 75 Elect. Room			A-9 75 Lower Level H/W and Foyer		
<b>Spore Types</b>									
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	3	100	27	1	40	8.7	46	2000	64.9
Basidiospores	3	100	27	7	300	65.2	18	800	26
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	1	40	8.7	-	-	-
Curvularia	1	40	10.8	-	-	-	3	100	3.2
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	2	90	24.3	-	-	-	1*	10*	0.3
Pithomyces++	1*	10*	2.7	-	-	-	2*	30*	1
Rust	2*	30*	8.1	1	40	8.7	3	100	3.2
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	1	40	1.3
Zygomycetes	-	-	-	-	-	-	-	-	-
Acremonium++	-	-	-	-	-	-	-	-	-
Blakeslea/Choanephora	-	-	-	-	-	-	-	-	-
Pestalotia++	-	-	-	1	40	8.7	-	-	-
<b>Total Fungi</b>	<b>12</b>	<b>370</b>	<b>100</b>	<b>11</b>	<b>460</b>	<b>100</b>	<b>74</b>	<b>3080</b>	<b>100</b>
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	1	40	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	2	-	-	3	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

### Preliminary Report

Vincent Iuzzolino, M.S., Laboratory Manager  
or other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC-EMLAP Accredited #100194

Initial report from: 10/09/2021 11:44 AM

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**EMSL Order:** 372117181  
**Customer ID:** TTIE54  
**Customer PO:** 033669  
**Project ID:**

**Attention:** James Guilardi  
TTI Environmental Inc.  
1253 North Church Street  
Moorestown, NJ 08057  
**Phone:** (856) 840-8800  
**Fax:** (856) 840-8815  
**Collected Date:**  
**Received Date:** 10/07/2021 03:40 PM  
**Analyzed Date:** 10/09/2021  
**Project:** 21-1596 Stafford Library

### Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	372117181-0010 A-10 75 Upper Level by Desk			372117181-0011 A-11 75 Upper Level - Teen Room			372117181-0012 A-12 75 Theresa's Office			
	Spore Types	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	1	40	6.5	3	100	55.6	8	400	32.3	
Basidiospores	13	570	91.9	1	40	22.2	17	750	60.5	
Bipolaris++	-	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	1*	10*	0.8	
Epicoccum	1*	10*	1.6	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	3*	40*	22.2	1	40	3.2	
Pithomyces++	-	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	1	40	3.2	
Zygomycetes	-	-	-	-	-	-	-	-	-	-
Acremonium++	-	-	-	-	-	-	-	-	-	-
Blakeslea/Choanephora	-	-	-	-	-	-	-	-	-	-
Pestalotia++	-	-	-	-	-	-	-	-	-	-
<b>Total Fungi</b>	<b>15</b>	<b>620</b>	<b>100</b>	<b>7</b>	<b>180</b>	<b>100</b>	<b>28</b>	<b>1240</b>	<b>100</b>	
Hyphal Fragment	-	-	-	-	-	-	1	40	-	
Insect Fragment	-	-	-	-	-	-	-	-	-	-
Pollen	1*	10*	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-	
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-	
Skin Fragments (1-4)	-	3	-	-	2	-	-	2	-	
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-	
Background (1-5)	-	1	-	-	1	-	-	2	-	

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.



Vincent Iuzzolino, M.S., Laboratory Manager  
or other Approved Signatory

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**Project:** 21-1596 Stafford Library

### Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	372117181-0013 A-13 75 Main Office			372117181-0014 A-14 75 Children's Area			372117181-0015 A-15 75 Biography			
	Spore Types	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total	Raw Count	Count/M³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	6	300	34.5	1	40	6.8	-	-	-	-
Basidiospores	12	530	60.9	4	200	33.9	1*	10*	50	-
Bipolaris++	-	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	3*	40*	6.8	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	1*	10*	1.7	-	-	-	-
Pithomyces++	1	40	4.6	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	1*	10*	50	-
Zygomycetes	-	-	-	-	-	-	-	-	-	-
Acremonium++	-	-	-	6	300	50.8	-	-	-	-
Blakeslea/Choanephora	-	-	-	-	-	-	-	-	-	-
Pestalotia++	-	-	-	-	-	-	-	-	-	-
<b>Total Fungi</b>	<b>19</b>	<b>870</b>	<b>100</b>	<b>15</b>	<b>590</b>	<b>100</b>	<b>2</b>	<b>20</b>	<b>100</b>	<b>-</b>
Hyphal Fragment	-	-	-	-	-	-	1	40	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	1	-	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-	-
Background (1-5)	-	2	-	-	1	-	-	1	-	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.



Vincent Iuzzolino, M.S., Laboratory Manager  
or other Approved Signatory

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**Project:** 21-1596 Stafford Library

## Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Swab Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number: Client Sample ID: Sample Location:	372117181-0016 Swab-16 Ceiling Tile - Break Room	372117181-0017 Swab-17 Wall - Break Room	372117181-0018 Swab-18 Staff Office Concrete Caulk	372117181-0019 Swab-19 Storage Diffuser	
Spore Types	Category	Category	Category	Category	
Alternaria (Ulocladium)	-	-	-	-	
Ascospores	-	-	-	-	
Aspergillus/Penicillium	-	-	Medium	Low	
Basidiospores	-	-	-	Rare	
Bipolaris++	-	-	-	-	
Chaetomium++	-	-	-	-	
Cladosporium	-	-	High	Rare	
Curvularia	-	-	-	-	
Epicoccum	-	-	-	-	
Fusarium++	-	-	-	-	
Ganoderma	-	-	-	-	
Myxomycetes++	-	-	-	Rare	
Pithomyces++	-	-	-	-	
Rust	-	-	-	Rare	
Scopulariopsis/Microascus	-	-	-	-	
Stachybotrys/Memnoniella	-	-	-	-	
Unidentifiable Spores	-	-	-	-	
Zygomycetes	-	-	-	-	
Aspergillus	*High*	-	-	-	
Nigrospora	-	-	-	Rare	
Hyphal Fragment	-	-	Rare	-	
Insect Fragment	-	-	-	Rare	
Pollen	-	-	-	-	
Fibrous Particulate	-	Rare	-	Rare	

Category: Count/per area analyzed - Rare: 1 to 10 Low: 11 to 100 Medium: 101 to 1000 High: >1000

- Denotes Not Detected.

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

\* = Sample contains fruiting structures and/or hyphae associated with the spores.



Actual final results may differ.

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Appendix B:  
Photo Log

Mold on Block Wall Lower Level



Mold Growth on Ceiling Tile – Lower Level



Mold on Expansion Joint – Lower Level



Water Intrusion Evidence – Lower Level



Dirt on HVAC Diffuser and Ceiling Tile – Upper Level



Dirt on HVAC Diffuser and Ceiling Tile – Upper Level



Stafford Branch Library  
29 North Main Street  
Manahawkin, NJ

TTI Environmental, Inc.  
Project #21-1596  
October 15, 2021

Break Room Lower Level Sheetrock  
No Mold Growth



Lower Level Staff Office – Mold on Block Wall



Lower Level - Diffuser



Mold on block wall/expansion joint – Lower Level

