September 23, 2021

Mr. Charles O'Brien
Director of Facilities Management and Capital Planning
Massachusetts Trial Courts
Suffolk County Courthouse
3 Pemberton Square, Suite 106
Boston, MA 02108

Ref: Indoor Air Quality and Mold Assessments
Roderick L. Ireland Courthouse, 50 State Street, Springfield, Massachusetts
August 25 – September 15, 2021
TRC Project 458085

Dear Mr. O'Brien:

Attached please find the report of indoor air quality and mold assessments conducted by TRC Environmental Corporation (TRC) during the period from 8/25/21 to 9/15/21.

Please don't hesitate to contact us if you have questions or if we may be of further assistance.

Sincerely,
TRC

Ann D. Eckmann

Ann D. Eckmann, CIH
Industrial Hygiene Group Leader

Reviewed by:

Harry M. Neill

Harry M. Neill, CIH
Director, Indoor Air Quality and Microbiological Services

Enc.

Indoor Air Quality and Microbial Assessment Report

Roderick L. Ireland Courthouse
50 State Street
Springfield, Massachusetts

Prepared for:
Facilities Management and Capital Planning
Massachusetts Trial Courts
Suffolk County Courthouse
3 Pemberton Square, Suite 106
Boston, Massachusetts 02108

Prepared by:
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Report Date:
September 23, 2021

TRC Project:
458085.0000.0000

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EXECUTIVE SUMMARY

TRC Environmental Corporation (TRC) was retained by Massachusetts Trial Courts/Facilities Management and Capital Planning to investigate concerns regarding indoor air quality and potential mold contamination in the Roderick L. Ireland Courthouse, 50 State Street, Springfield, Massachusetts. This report includes the findings of consulting services provided by TRC during the period from 8/25/21 to 9/15/21.

TRC initially visited the Courthouse on 8/25/21 and investigated nine locations including: six courtrooms on floors 1 – 4; the Commissioner's conference room on floor 2; a holding cell on the ground floor; and a basement location. Both indoor air quality measurements and mold[1] samples, including microbial air and surface (tape-lift) samples were collected. At that time, mold growth was identified on the majority of the tested building surfaces such as books and wood-paneled walls. At the same time, relative humidity measurements were above levels that may facilitate mold growth due to the potential for building materials to absorb moisture from the air and/or due to moisture condensation on cool building surfaces. The mold spore types identified in air and surface samples can typically grow on surfaces in high humidity conditions. There was no evidence of widespread flooding or water intrusion at the time of this assessment, although previous water leaks were reported by building management, and no mold spore types consistent with long-term water damage were identified in either the air or surface samples. Other than elevated relative humidity, no other indoor air quality measurements, including temperature, carbon monoxide, carbon dioxide, particulate matter and volatile organic compounds were outside acceptable ranges.

Note that the microbial air samples were collected in the same locations where surface samples were collected. Indoor air sample results were evaluated by comparing them with outdoor mold concentrations. Despite the presence of mold on the surface samples, air sampling results indicated that airborne concentrations of mold were elevated only in only one location and were slightly elevated in a second location.

Building management contracted with U.S. Ecology, a microbial remediation firm, initially to clean the impacted surfaces in the courtrooms, public areas and holding cells. In TRC's opinion, cleaning performed by U.S. Ecology was well-supervised and performed according to the standards of care in the mold remediation industry.

The cleaning by U.S. Ecology progressed and expanded from courtrooms and public areas to various office spaces. TRC conducted post-cleaning visual inspections of affected surfaces, and collected microbial air and surface samples on 9/2, 9/3, 9/4, 9/6, 9/8, 9/10, 9/13 and 9/15/21. A total of approximately 83 surface and 45 indoor air samples were collected during this period (on days that indoor air samples were collected, outdoor air samples were also collected for comparison as outdoor air concentrations may vary significantly from day to day). The majority of the post-cleaning sample results indicated that the building to be in a satisfactory condition for occupancy; however, based on all visual inspections and test results, additional cleaning and follow-up testing were recommended in several locations, including rooms that were locked and inaccessible for cleaning until on or after 9/10/2021. Minor amounts of possible mold and/or lint in the grooves of wood-paneling in the courtrooms can be addressed by routine cleaning.

At this time, all locations sampled by TRC are suitable for occupancy based on the air and surface sampling results except for Room 332, scheduled for post-cleaning sampling on 9/20/21. Further actions are warranted to maintain and document the acceptable building conditions as follows:

- TRC understands that additional efforts to evaluate building conditions, including, but not limited to an engineering study of the heating, ventilating and air conditioning (HVAC) system have been initiated in an effort to identify and correct building conditions conducive to mold growth.
- These efforts also include an assessment to determine a) the condition of the building envelope[2], and b) to identify corrective actions, if needed.
- Any additional potential sources of fluid leaks should be investigated (e.g., piping systems).
- Until these efforts have been completed, TRC recommends periodic inspections to document conditions in the building environment with respect mold and relative humidity.

[1] For the purposes of TRC's assessment and reporting, the terms "mold" and "fungi" may be used interchangeably.
[2] The building envelope includes windows, doors, roof ,floor, foundation etc. that separate the interior from the exterior of the building.

1.0 INTRODUCTION AND BACKGROUND INFORMATION

During the period from August 25 through September 15, 2021, TRC Environmental Corporation (TRC) conducted indoor air quality and microbial assessments at the Roderick L. Ireland Courthouse, 50 State Street, Springfield, Massachusetts (the Courthouse). The assessments were requested by Facilities Management and Capital Planning/ Massachusetts Trial Courts due to concerns about indoor air quality and visible suspect mold on surfaces such as wood wall panels, benches and metal panels.

TRC conducted both initial assessments that identified mold[1] growth and post-cleaning assessments in various locations throughout the Courthouse during this period. The initial assessments included visual inspections of accessible interior compartments of air handling units servicing the courtrooms and various occupant offices and common areas throughout the building.

The Project Chronology and Scope, Investigative Strategy, Results and Discussion, Conclusions and Recommendations, Limitations and References are presented in the following sections. A summary of the microbial air and surface sampling results, analytical laboratory reports and resumes of key personnel for the project are included as appendices.

Additional background information and TRC comments are noted below:

There are four primary air handling units, AHU-1, AHU-2, AHU-3 and AHU-4 that service the Courthouse. AHU-1 services all of the courtrooms. AHU-2 services all Floor 4 locations outside of the Floor 4 courtrooms. AHU-3 services the west side of building locations outside of the courtrooms on the Ground floor through Floor 3, and AHU-4 services the east side of building locations outside of the courtrooms on the Ground floor through Floor 3. TRC understands that supply and return air moved by these air handling units are fully ducted. Exhaust fans, smaller ventilation units and fan coil units may also serve specific areas throughout the Courthouse.

Based on site observations and relative humidity measurements, it is believed that visible mold growth observed during TRC's assessments were related to elevated relatively humidity in addition to ventilation equipment operating conditions. A plausible reason for mold developing on building surfaces is due to increased outdoor air flow through the air handling equipment to manage COVID-19 risks; the increased outdoor air flow may have exceeded the mechanical capacity of the air handling equipment to extract moisture from incoming outdoor air during seasonal wet and humid outdoor conditions, particularly during mid-August, 2021.

With assistance of DCAMM, TRC understands that an engineering study of the heating, ventilating and air-conditioning system has been initiated by building management, in addition to an evaluation of the building envelope.

[1]For the purposes of this report, the terms "mold" and "fungi "may be used interchangeably

2.0 PROJECT CHRONOLOGY AND SCOPE

The table below summarizes the site visits and sampling conducted by TRC, as well as follow-up recommendations during the period from August 25 through September 15, 2021. A table summarizing the analytical results is included as Appendix 1, and the laboratory analytical reports are included as Appendix 2.

Project Chronology and Scope by Day		
Date	**Locations Investigated/Scope of Work**	**Finding and Recommended Follow-up**
8/25/21	Initial visual inspection and air and surface sampling for determination of mold content: Floor 4 – Courtroom 2 Floor 3 – Courtroom 1 Floor 3 – Courtroom 4 Floor 2 – Commissioner's Conference Room Floor 2 – Courtroom 9 Floor 1 – Courtroom 2 Floor 1 – Courtroom 1 Ground floor – Holding Cell #14 Conduct indoor air quality measurements for temperature, relative humidity, carbon dioxide, carbon monoxide, particulate matter and volatile organic compounds.	Elevated airborne concentrations of Aspergillus / Penicillium spore types detected in Floor 3 – Courtroom 4. Slightly elevated concentrations of Aspergillus / Penicillium spore types in Floor 2 – Commissioner's Conference Room. Suspect visible mold growth observed and confirmed by surface sampling in: Floor 3 – Courtroom 1; Floor 3 – courtroom 4; Floor 1 – Courtroom 2; Ground floor – Holding Cell #14; and Floor 2 Courtroom 9 Indoor air quality measurements in acceptable ranges except for relative humidity, considered to be elevated. Facilities Management and Capital Planning contracted US Ecology to begin surface cleaning.
9/2/21	Walk-through above courtrooms and public areas; Inspect interior of air handling unit (AHU 1), which services all of the courtrooms; Observe cleaning procedures; Inspect discoloration/suspect mold at supply air diffuser collar and adjacent cleaned ceiling tiles, collect representative surface samples (Floor 3 Conference Room)	Schedule surface and air sampling of cleaned courtroom and public areas. Schedule inspections of interior compartments of additional air handling units. Tape lift sample results indicate the presence of *Cladosporium* sp. on supply air diffuser collar and cleaned, discolored ceiling tile adjacent to supply air diffuser. Mold reservoirs not noted in accessible compartments of AHU-1, although evidence of corrosion likely associated with moisture was noted.

Project Chronology and Scope by Day		
Date	**Locations Investigated/Scope of Work**	**Finding and Recommended Follow-up**
9/3/21	Visual inspection and sampling of cleaned areas: Floor 4 – Courtroom 1 – surface sampling Floor 4 – Courtroom 2 – air and surface sampling Floor 4 – Courtroom 3 – surface sampling Floor 4 – Courtroom 3 conference room – air sampling Floor 4 – Courtroom 4 – surface sampling Floor 1, Courtroom 2 – air and surface sampling Plaza, Main Lobby – air sampling Visual inspections of interior compartments of AHU-2, AHU-3 and AHU-4	Recommended additional spot cleaning underneath shelving and some furnishings (e.g., chair arms). All air and surface sampling results acceptable in these locations after spot cleaning. Mold reservoirs not noted in accessible compartments of AHU-2, AHU-3 and AHU-4, although evidence of corrosion likely associated with moisture was noted.
9/4/2021	Visual inspection and surface sampling of cleaned areas: Floor 3 – Courtroom 1 Floor 3 – Courtroom 2 Floor 3 – Courtroom 3 Floor 3 – Courtroom 4 Floor 3 – Courtroom 5 Floor 3 – Courtroom 6 Floor 3 – Lawyer's Lounge	All visual and surface sampling results acceptable with one condition: Minor amounts of suspect mold were noted in grooves in some locations in wood wall panels. This should be part of on-going cleaning and maintenance of the Floor 3 courtrooms.
9/6/2021	Visual inspection and surface sampling of cleaned areas: Floor 2 – Courtroom 3 Floor 2 – Courtroom 4 Floor 2 – Courtroom 5 Floor 2 – Courtroom 6 Floor 2 – Courtroom 7 Floor 2 – Courtroom 8 Floor 2 – Courtroom 9 Floor 2 – Courtroom 10 Floor 2 – Courtroom 11 Ground floor – Mail/Break Room G37C Ground floor – Holding Cell #1 Ground floor – Holding Cell #4 Ground floor – Holding Cell #7 Ground floor – Holding Cell #11 Ground floor – Room G02 Air sampling only in these cleaned areas: Floor 3 – Courtroom 1 Floor 3 – Courtroom 3 Floor 3 – Courtroom 6 Floor 3 – Judge's Lobby Floor 3 – Records Room Floor 2 – Courtroom 4 Floor 2 – Courtroom 6 Floor 2 – Courtroom 7 Floor 2 – Courtroom 9 Floor 2 – Commissioner's Conference Room Ground floor – Mail/Break Room G37C Ground floor – cell block area hallway	All visual and surface sampling results acceptable. All air sampling results acceptable, except as follows: Floor 3 – Courtroom 3 – re-clean, operate air scrubbers and re-sample Floor 3 – Records Room – re-clean, operate air scrubber and re-sample Ground floor - Mail/Break Room G37C - very slightly increased results, re-clean and re-sample

Project Chronology and Scope by Day		
Date	**Locations Investigated/Scope of Work**	**Finding and Recommended Follow-up**
9/8/2021	Visual inspection and sampling of cleaned areas: Floor 3 – Courtroom 3 – air sampling Floor 3 – Records Room – air sampling Ground floor – Mail/Break Room G37C – air sampling Locations not previously sampled: Floor 1 – Main lobby – surface sampling Floor 1 – Courtroom 1 – surface sampling	All visual and surface sampling results acceptable. All air sampling results acceptable, except as follows: Floor 3 – Records Room – slightly increased results, re-clean, operate air scrubber and re-sample Ground floor - Mail/Break Room G37C - slightly increased results, re-clean / remove water-damaged pipe insulation above suspended ceiling and re-sample
9/10/2021	Initial assessment: Floor 1 – Room 140 fan coil unit – surface sampling Visual inspection and sampling of cleaned areas: Floor 3 – Records room – air sampling Floor 3 – DA hallway at Rooms 364 / 370 – air sampling Floor 3 – DA Room 370 – surface sampling Floor 3 – DA Room 371 – surface sampling Floor 3 – DA Room 374C – air and surface sampling Floor 3 – DA Room 385 – air and surface sampling	All surface sampling results acceptable. All air sampling results acceptable except as follows. Floor 3 – Records Room – increased results, re-clean, operate air scrubber and re-sample No mold reservoir noted in Room 140 fan coil unit.
9/13/2021	Visual inspection and sampling of cleaned areas: Floor 4 – Registry of Probate – air sampling Floor 3 – Room 332 (previously inaccessible for cleaning) – air and surface sampling Floor 3 – Records Room – air sampling Floor 3 – Room 315B – air and surface sampling Floor 3 – Courtroom 4 – air sampling Floor 1 – Room 101 – air and surface sampling Floor 1 – Room 103 – air and surface sampling Floor 1 – Room 109 – air and surface sampling Ground floor - Mail/Break Room G37C – air and surface sampling Envelope provided by John Gay – bulk sample – tape lift sampling at the analytical laboratory.	All surface sampling results acceptable, except as follows: Room 332, table and computer All air sampling results acceptable, except as follows: Room 332 – re-clean, operate air scrubber and re-sample Floor 3 – Records Room – very slightly increased results, re-clean, operate air scrubber and re-sample. Bulk sample of envelope – mold growth detected.

Project Chronology and Scope by Day		
Date	**Locations Investigated/Scope of Work**	**Finding and Recommended Follow-up**
9/15/2021	Visual inspection and sampling of cleaned areas: Floor 4 – Vault – air and surface sampling Floor 3 – Records Room – air and surface sampling Floor 3 – Room 332 – air and surface sampling Floor 2 – Room 204 – air and surface sampling Ground floor – Holding Cell #14 – surface sampling	All surface sampling results acceptable. All air sampling results acceptable, except as follows: Room 332 – re-clean, operate air scrubber and re-sample. NOTE: re-sampling scheduled for 9-20-2021.

3.0 INVESTIGATIVE STRATEGY

3.1 Visual Inspection and Observations

The readily accessible surfaces were visually evaluated for evidence of water staining, water damage, suspect fungal growth (mold). A reasonable effort was made to identify fungal-impacted building materials, including the underside of furnishings in occupied areas.

TRC recorded other conditions of note during the assessment.

3.2 Indoor Air Quality Measurements

TRC used a TSI® 9565-P Q-Trak instrument to monitor relative humidity, temperature, carbon monoxide (CO), and carbon dioxide (CO_2) levels on August 25, 2021. This instrument was used to repeat the relative humidity measurements on September 2, 2021.

3.2.1 Temperature and Relative Humidity

ASHRAE Standard 55-2020, *Thermal Environmental Conditions for Human Occupancy* bases occupant thermal comfort on a combination of metabolic rate, clothing insulation, air temperature (dry bulb temperature as a substitute for operative temperature), radiant temperature, air speed, and relative humidity. Conditions are considered to be satisfactory when a substantial majority of occupants (80% or more) are not expressing dissatisfaction with thermal comfort.

ASHRAE Standard 62.1-2019, recommends that relative humidity in occupied spaces should be maintained below 65%. The U.S. EPA recommends that RH be maintained below 60% to prevent mold growth on indoor surfaces and building materials.

In general, relative humidity should be maintained within 30% to 60% for human comfort according to the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) guidelines and below 65% to minimize the potential for building materials to absorb moisture from the air, or to prevent significant moisture condensation on cold building surfaces.

3.2.2 Carbon Dioxide

Carbon dioxide is exhaled by people and is a useful indicator of the amount of adequate make-up (fresh) air supply per occupant within a building. ASHRAE Standard 62.1-2019, *Ventilation for Acceptable Indoor Air Quality*, recommends the difference between indoor and outdoor CO_2 concentrations be maintained at 700 parts per million (ppm) or less. Maintaining this condition equates to approximately 15 cubic feet per minute of supply air per occupant. Under this condition, a substantial majority of visitors entering a space will be satisfied with respect to human bioeffluents (body odor). The Massachusetts Department of Public Health (MA DPH) uses a guideline of 800 ppm of CO_2 for publicly occupied buildings[2] Note that while indoor CO_2 levels are useful for evaluating the amount of outdoor air ventilation provided to a building, these levels are typically well below concentrations that might pose a CO_2-related health risk (greater than 5,000 ppm). Ambient concentrations of CO_2 generally range from 300 – 500 ppm.

[2]MA DPH "Carbon Dioxide and Its Use in Evaluating Adequacy of Ventilation in Buildings", www.mass.gov/eohhs/docs/dph/environmental/iaq/appendices/carbon-dioxide.pdf

3.2.3 Carbon Monoxide

Carbon monoxide is a colorless, odorless gas which is typically associated with combustion sources that can cause fatigue or drowsiness, nausea, headache, and difficulty breathing when present at elevated levels. ASHRAE Standard 62.1-2019 recommends carbon monoxide concentrations less than 9 ppm indoors as an eight-hour average.

3.2.4 Airborne Particulate Matter (Total Particulate)

Airborne particulate in indoor environments originates from various sources including building materials and furnishings, occupant activities, cleaning, construction and renovation activities, and from outdoors. High concentrations of airborne dust may also cause irritation of the eyes, skin and respiratory tract.

TRC used a TSI® DRX Aerosol Monitor to measure total particulate matter in the surveyed locations. The USGBC LEED for New Construction-2009 requirements specify a maximum concentration of airborne particulate as PM_{10} (particulate matter less than 10 micrometers) of 0.050 mg/m^3 in newly constructed areas, and this value is used in this report as a guideline for evaluating indoor air quality. Note that this guideline is a stringent comparison with total particulate matter concentrations.

3.2.5 Volatile Organic Compounds (VOCs)

Direct-reading measurements of VOCs were performed using the RAE Systems ppbRAE 3000. The instrument is a photoionization detector that detects VOCs by ionization of the molecules from an internal 10.6 eV ultraviolet lamp. The instrument response to a particular VOC depends on the ionization energy of the VOC relative to the energy of the ultraviolet lamp. The instrument cannot distinguish different VOCs in the sampled air and provides a cumulative response. The instrument is calibrated prior to use in the field using standard isobutylene calibration gas.

VOC measurements were taken to determine if unusually elevated concentrations of this group of air contaminants existed in the Courthouse. VOCs have many sources, including, but not limited to: the evaporation of paint solvents; cleaning products, office or personal products that are used in the building, cleaners, deodorizers and hand sanitizers.

Although the VOC instrument used in this study is a useful screening method for detecting indoor VOCs, it provides no information on the identities and relative amounts of individual compounds that may be present.

The U.S. Green Building Council Leadership in Energy and Environmental Design (USGBC LEED) for New Construction-2009 requirements specify a maximum VOC concentration of 0.500 milligrams per cubic meter of air (mg/m^3) in newly constructed areas, and this value is used in this report as a guideline for evaluating indoor air quality. Assuming an average VOC molecular weight similar to that of n-hexane, this corresponds to approximately 0.140 ppm VOCs.

3.3 Surface Sampling

Surface (tape-lift) sampling of potential or suspect mold contamination on building surfaces was conducted using the tape-lift method. Tape-lift sampling is a non-destructive sampling technique that is used to determine the presence of fungal growth on a surface. Tape-lift sampling was performed using clear transparent tape, which was applied to a suspect surface and then transferred to a microscopic slide or

using Environmental Monitoring Systems mold tape slides which utilize the sample principle. The samples were submitted to EMSL Analytical, Inc. (EMSL) in Woburn, Massachusetts where they were using direct microscopic fungal examination methods. EMSL participates in the American Industrial Hygiene Association (AIHA) Environmental Microbiology Laboratory Accreditation Program (EMLAP), certification #180179).

The laboratory reports the quantity of spores detected on the samples, and the presence of mold growth structures. Mold growth is present when growth structures are reported on the laboratory report and are indicated by asterisks (*---*) on the report results.

The following information was used to interpret the surface sampling results.

Tape-Lift Samples – Laboratory Report Interpretation		
Estimated Result	**Number of Spores Observed on Sample Area**	**Indication of Growth**
Rare	1 – 10	Not likely, especially if no growth structures detected on sample
Low	11 - 100	Possible, not necessarily likely if no growth structures detected on sample
Medium	101 – 1,000	A probable source, not necessarily at the test location if no growth structures detected on sample
High	> 1,000	A likely source, not necessarily at the test location if no growth structures detected on sample
Notes: A potential source exists if growth structures are detected on the sample; however, small, isolated findings of mold growth structures may be due to tracking or carrying into the building. The spore population mix is also important in results interpretation. When one type of spore predominates, or species consistent with long-term water damage are reported, an indoor source may exist.		

Additional notes on spore types:

Note that certain spore types (e.g., *Stachybotrys* sp., *Ulocladium* sp.) are associated with long-term water damage in buildings. None of these spore types were detected in either the air or surface samples during this assessment.

***Aspergillus/Penicillium* sp.**

Very common fungi that can be found in decaying plant materials and soils. They can grow well on a wide range of building materials in indoor environments and are spore types consistent with high humidity conditions and/or water-damaged building materials.

Basidiospores

Very common outdoor fungi associated with wood or wooded areas and also includes the mushrooms and shelf fungi. Spores can easily be spread with wind/airflow. The spores are released in the outdoor environment, especially during periods of high humidity and following rain.

***Cladosporium* sp.**

One of the most common indoor and outdoor species. Commonly found in soil and plant debris as well as on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. It can grow well on a wide range of building materials in indoor environments and is a spore type consistent with periodic condensation conditions.

3.4 Air Sampling

Sampling for airborne concentrations of total fungal spores was conducted using Air-O-Cell™ or Allergenco D sampling cassettes; samples were collected at 15 liters per minute for five-minute sampling periods using a BioPump Plus or a Buck BioAire sampling pump. Airborne particulates are drawn through the cassette and directly impacted onto an adhesive collection media. The samples were delivered to EMSL in Woburn, Massachusetts where they were analyzed to determine the quantity and identity of fungal spore types using bright field microscopy (magnification 300x and 600x). The Air-O-Cell™ and Allergenco D cassettes collect both viable and non-viable fungal spores, and the laboratory can identify some of the collected spores down to the genus level.

There is currently little information available on total airborne fungal spore dose-response relationships, and there are no recommended allowable exposure limits established for airborne spores. The American Conference of Governmental Industrial Hygienists (ACGIH) publication Bioaerosols: Assessment and Control, indicates that an exposure may be considered unusual when indoor concentrations are significantly higher than those outdoors, or when the types of mold detected indoors vs. outdoors differ markedly. Additionally, the genera or species of mold detected is relevant for assessing mold contamination (e.g., spores associated with outdoor sources vs. spores associated with long-term moisture in buildings). TRC collected representative air samples in selected indoor locations and outdoors, for comparison.

4.0 RESULTS AND DISCUSSION

4.1 Visual Inspection and Observations

During the 8/25/21 initial assessment and occasionally during visual inspections, TRC noted visible suspect mold on walls, furnishings, books, etc., consisting of a pale blue-green color consistent with growth of *Penicillium / Aspergillus* spore types detected on many of the surface samples. This generally appeared to be superficial on the affected surfaces and was removed by cleaning.

Cleaning methods employed by US Ecology were observed to include:

- U.S. Ecology supervisors first inspected each area that required cleaning;
- Long-handled wall/ceiling mops used to wet-wipe wall and ceiling locations, including doors and door frames, using a Fiberlock Shockwave disinfectant/sanitizer solution, to include locations behind movable furnishings and wall hangings;
- Where loose dust, debris or visible suspect mold spores were noted, used high efficiency particulate air (HEPA)-filtered vacuums to clean surfaces before and/or after wet-wiping;
- Wet-wipe and/or HEPA vacuum all upholstered chairs, couches, papers, desk and table tops, benches and books; remove each book from shelving, hand-wipe the surfaces of each book and wet-wipe shelving prior to replacing the books;
- Final cleaning of floors by HEPA vacuum methods for carpeting and wet-cleaning for hard surfaces; and
- Post-cleaning inspection by U.S. Ecology supervisors.

TRC recommended the use of air-scrubbing using HEPA-filtered air cleaning devices during and following cleaning, which was then implemented by U.S. Ecology.

TRC visually inspected the cleaned areas and indicated occasional areas that required additional spot cleaning. Following visual inspection, TRC tested the areas by microbial air and/or surface sampling and additional cleaning and/or air scrubbing was conducted as needed to obtain acceptable test results.

TRC noted that small, intermittent amounts of suspect *Penicillium / Aspergillus* mold, in addition to potential lint from cleaning materials, may be present in the grooves in wood-paneled walls in the courtrooms. Based on the microbial air sampling results in these locations, these are not considered to be problematic as long as the grooves are systematically and regularly inspected and cleaned by building management.

Darkened areas were noted on supply air diffusers and ceiling tiles in some locations. Darkened areas in these locations may have several causes, including but not necessarily limited to: outdoor dust and urban soot introduced into the system, and deteriorating components such as fan belt residue, insulation, etc. Mold is also a potential source of the visible darkening at and near the supply air diffusers. One location where TRC collected surface samples from the supply diffuser collar and an adjacent cleaned ceiling tile indicated the presence of *Cladosporium* sp. mold growth, and interim measures were recommended to address this as discussed in 4.3.1 below.

Evidence of water leaks were noted in a few locations, particularly where water stains are present on suspended ceiling tiles. Overall these did not appear to be wet or to contain visible suspect mold growth except for isolated locations in the Ground floor holding cell hallway, and on the Ground floor near the employee elevator. These were addressed by cleaning and applying an anti-microbial encapsulant and removing and replacing the affected ceiling tile, respectively.

TRC observed the locations of the outdoor air intakes for AHU-1, AHU-2, AHU-3 and AHU-4, on the roof or at street level, and observed them to be free of excess plant matter, soil and/or water accumulation. Accessible interior compartments of AHU-1, AHU-2, AHU-3 and AHU-4 were observed by TRC. No unusual wetness or reservoirs of mold growth were noted, although apparent moisture-related corrosion was noted in these units. A full inspection of all heating, ventilating and air-conditioning systems was outside the scope of TRC's assessment and should be addressed by the engineering assessment of these systems.

4.2 Indoor Air Quality Measurements

The results of the indoor air quality measurements on 8/25/2021, and additional relative humidity measurements on 9/2/2021 after implementation of additional relative humidity controls, are presented in the table below in the following units: temperature measurements are presented in degrees Fahrenheit (ºF); relative humidity measurements are presented as percent relative humidity (%RH); CO_2, CO and total VOC measurements are presented in concentration units of parts of each constituent per million parts of air, by volume (ppm); and PM_{10} measurements are presented in concentration units of milligrams of particulates per cubic meter of air (mg/m^3).

Reference values are shown in the bottom row of the table. Reference values are derived from industry and public health guidelines established by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE); the U.S. Green Building Council Leadership in Energy and Environmental Design (USGBC LEED) 2009 criteria for *New Construction and Major Renovations*; and the Massachusetts Department of Public Health (MA DPH). These are guidelines aimed at optimizing occupant comfort and well-being, since indoor air quality parameters in administrative buildings and outside of manufacturing workplaces are typically not in ranges considered to be a health hazard.

Summary of Indoor Air Quality Screening Results
Roderick L. Ireland Courthouse, Springfield, Massachusetts
August 25 and September 2, 2021

IAQ Test	Floor 4, Courtroom 2	Floor 3, Courtroom 1	Floor 3, Courtroom 4	Floor 2, Commissioner's Conference Room	Floor 2, Courtroom 2	Floor 1, Courtroom 2	Floor 1, Courtroom 1	Ground Floor, Cell #14	Basement, G-48	IAQ Guideline/ Acceptable Range
Temperature (°F)	71	70	70	74	72	70	71	70	74	68 to 78
Relative Humidity on 8/25/21 (%)	78	80	82	62	72	82	77	78	---	< 60% to 65%
Relative Humidity on 9/2/21 (%)	61	61	61	52	65	66	62	62	70	
Carbon Dioxide (ppm)	536	490	515	480	455	481	471	525	590	Less than 800 to ~1,150

Summary of Indoor Air Quality Screening Results
Roderick L. Ireland Courthouse, Springfield, Massachusetts
August 25 and September 2, 2021

IAQ Test	Floor 4, Courtroom 2	Floor 3, Courtroom 1	Floor 3, Courtroom 4	Floor 2, Commissioner's Conference Room	Floor 2, Courtroom 2	Floor 1, Courtroom 2	Floor 1, Courtroom 1	Ground Floor, Cell #14	Basement, G-48	IAQ Guideline/ Acceptable Range
Carbon Monoxide (ppm)	Non-detect (< 3)	Non-detect (< 3)	Non-detect (< 3)	Non-detect (< 3)	Non-detect (< 3)	Non-detect (< 3)	Non-detect (< 3)	Non-detect (< 3)	Non-detect (< 3)	< 9
Total Particulate (mg/m^3)	0.010	0.011	0.013	0.015	0.010	0.011	0.010	0.018	0.035	≤ 0.050
Volatile Organic Compounds (ppm)	Non-detect	Non-detect	Non-detect	Non-detect	Non-detect	Non-detect	Non-detect	Non-detect	Non-detect	≤ 0.140

Sources of indoor air quality guidelines include:

- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
- U.S. Green Building Council Leadership in Energy and Environmental Design (USGBC LEED) for New Construction-2009
- Massachusetts Department of Public Health

ppm = parts per million parts of air, by volume mg/m^3 = milligrams per cubic meter of air

Mold – there should be no mold growth or excess mold detected on surfaces, and airborne mold concentrations should be less than concurrent outdoor concentrations and represent a similar population mix.

Notes:

1 Excess spores but no growth structures reported.
2 Spores detected but normal spore deposition.

Green = within acceptable range Orange – borderline/caution **Red** = outside acceptable range

The only concern identified by the 8/25/21 indoor air quality screening was relative humidity. The relative humidity ranged from 72% to 82% in the courtrooms, was 78% in the ground floor holding cell and ranged from 62% to 66% in the other test locations. In general, relative humidity should be maintained within 30% to 60% for human comfort according to the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) guidelines and below 65% to minimize the potential for building materials to absorb moisture from the air, or to prevent significant moisture condensation on cold building surfaces.

On 9/2/2021, with building management efforts to promote removal of excess moisture from the air, including the installation of temporary dehumidification equipment and adjustments to the air handling equipment, TRC's relative humidity measurements in the same locations tested the previous week showed improvement (52% to 70% on 9/2 vs. 62% to 82% the previous week).

Based on these results, TRC recommended that building management continue with efforts to dehumidify the affected areas. Relative humidity is expected to improve with continued dehumidification efforts and changing seasonal conditions.

4.3 Surface and Air Sampling Results

A summary of the surface and air sampling results are included as Appendix 1 and the laboratory analytical reports are included as Appendix 2.

4.3.1 Surface Sampling Results

The initial assessment results on 8/25/21 confirmed the presence of mold growth in several of these locations, primarily consisting of *Penicillium/Aspergillus* spore types. These spore types can and typically grow on surfaces in high humidity conditions, which is consistent with the elevated relative humidity measurements and recent seasonal conditions at that time.

On 9/2/21, TRC collected surface samples of suspect mold from a supply air diffuser collar in a Floor 3 conference room associated with the courtrooms, and from an adjacent ceiling tile that had been cleaned by US Ecology supply air diffuser. The samples indicated the presence of *Cladosporium* sp. spore types.

Based on these results, TRC recommended cleaning affected surfaces as thoroughly as possible in the areas. In addition, as an interim measure, TRC recommended cleaning of darkened supply air diffusers, and after cleaning of darkened areas of ceiling tile in the vicinity of supply air diffusers, application of an anti-microbial encapsulant to the affected ceiling tiles. These are intended to be interim protective measures pending the engineering assessment of the heating, ventilating and air-conditioning systems within the building.

TRC also collected initial assessment surface samples from areas in or around the fan coil unit in Floor 1, Room 140 as requested by the occupant and results were acceptable.

During the period from 9/3 to 9/15/2021, following visual inspections of cleaned areas, TRC collected surface samples in various representative room locations listed in Appendix 1. Many of these results were acceptable based on the analytical results of no spores or rare to low spores, without growth structures, detected on the surface samples. Where indicated based on the surface sampling results, areas were re-cleaned and re-sampled until acceptable results were obtained.

The only exception to this is for small, suspect mold and possible lint from cleaning materials in intermittent locations in the grooves between wood panels in the courtrooms, which are difficult to clean. TRC recommended an on-going cleaning program to address these grooves systematically. Based on the air sampling results that are consistent with acceptable building conditions (see 4.3.2 below), small, intermittent amounts of suspect mold in these wood panel grooves is considered to be acceptable as long as the grooves are being systematically inspected and cleaned by building management.

4.3.2 Air Sampling Results

During the initial assessment on 8/25/21, air samples were collected in the same locations where tape-lift samples were collected. Air sample results were evaluated by comparing them with the results of outdoor mold samples collected on the same day. Despite the presence of mold growth identified on the tape-lift samples, airborne concentrations of mold (particularly *Penicillium/ Aspergillus*-type spores) were clearly elevated only in one location, which was on Floor 3 in Courtroom 4, and were slightly elevated in the Floor 2 Commissioner's Conference Room. Cleaning of all affected areas was recommended based on the

visual assessment and surface sampling results, in addition to the elevated or slightly elevated air sampling results in Floor 3 Courtroom 4 and in the Floor 2 Commissioner's Conference Room.

During the period from 9/3 to 9/15/2021, following visual inspections of cleaned areas, TRC collected microbial air samples in various representative room locations listed in Appendix 1. Many of these results were acceptable based on analytical results of indoor spore concentrations being less than the results of outdoor samples collected on the same day, or indoor mold spore concentrations considered to be relatively low and not uncommon in indoor environments.

Several locations were re-cleaned, to include wet-wiping, HEPA vacuuming and/or air scrubbing as follows based on failed air sampling results after cleaning:

- Floor 3, Courtroom 1 – air sampling results acceptable after one re-cleaning

- Floor 3, Records Room – air sampling results acceptable after multiple re-cleaning efforts, likely due to the amount of surface area involved based on the records present and possible the relatively smaller amount of ventilation based on the small room size

- Floor 3, Room 332 – this room was locked and inaccessible for cleaning until approximately 9/10/21 and re-cleaning has been repeated – follow-up air sampling scheduled for 9/20/2021 and the room will not be re-opened until acceptable results are achieved

- Ground floor, G37B – air sampling results acceptable after multiple re-cleaning efforts, resolved by removing water-damaged pipe insulation above the suspended ceiling.

Based on the air sampling results after initial and/or repeat cleaning, all locations sampled by TRC are suitable for occupancy based on the air sampling results, pending acceptable results for Room 332.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the air sampling results after initial and/or repeat cleaning, all locations sampled by TRC are suitable for occupancy based on the air sampling results, pending acceptable results for Room 332.

In TRC's opinion, excess relative humidity during unfavorable seasonal conditions combined with increased outdoor supply air for COVID-19 management is a plausible and likely cause for the mold observed on surfaces and cleaned by US Ecology; however, further actions are warranted to maintain and document the acceptable building conditions, including:

- TRC understands that additional efforts to evaluate building conditions, including, but not limited to an engineering study of the heating, ventilating and air conditioning (HVAC) system have been initiated in an effort to identify and correct building conditions conducive to mold growth.

- These efforts also include an assessment to determine a) the condition of the building envelope[3], and b) to identify corrective actions, if needed.

- Any additional potential sources of fluid leaks should be investigated (e.g., piping systems).

- Until these efforts have been completed, TRC recommends periodic inspections to document conditions in the building environment with respect to mold and relative humidity.

[3] The building envelope includes windows, doors, roof ,floor, foundation etc. that separate the interior from the exterior of the building.

6.0 LIMITATIONS

The primary purpose of TRC's investigations was to confirm acceptable conditions with respect to surface mold observed in the Courthouse and subsequent cleaning efforts. TRC did not prepare work specifications for cleaning conducted by US Ecology. TRC's inspections were conducted in courtrooms, public areas and additional office areas as requested by building management.

The visual inspection performed by TRC is limited to representative areas that were accessible at the time of inspection. Destructive and/or invasive inspections were not within the scope of our investigation. The sampling results reflect conditions at the time of sampling.

TRC has performed the tasks set forth above in a thorough and professional manner consistent with industry standards. TRC cannot guarantee and does not warrant that this limited assessment has revealed all potential adverse environmental conditions affecting the site.

No expressed or implied representation or warranty is included in this report except that the services were performed within the limits of the scope of work authorized by the client and the encountered site conditions.

7.0 REFERENCES

References used by TRC for interpreting laboratory analytical results and developing recommendations include, but are not limited to, the following:

1. Bioaerosols Assessment and Control; American Conference of Governmental Industrial Hygienists, 1999. (Ref. 1)

2. Field Guide for the Determination of Biological Contaminants in Environmental Samples; American Industrial Hygiene Association Publications, 2005. (Ref. 2)

3. Guidelines on Assessment and Remediation of Fungi in Indoor Environments, New York City Department of Health

4. Microorganisms In Home and Indoor Work Environments Diversity, Health Impacts Investigation and Control; edited by Brian Flannigan, Robert A. Samson and J. David Miller, 2001. (Ref. 5)

5. Recognition, Evaluation, and Control of Indoor Mold; edited by Bradley Prezant, Donald M. Weekes, and J. David Miller; American Industrial Hygiene Association, 2008. (Ref. 6).

6. Sampling and Analysis of Indoor Microorganisms; edited by Chin S. Yang and Patricia Heinsohn, 2007. (Ref. 6)

7. Institute of Inspection Cleaning and Restoration Certification (IICRC) S520 Standard and Reference Guide for Professional Mold Remediation, Second Edition. (Rf. 7)

8. Assessment, Remediation and Post-Remediation Verification of Mold in Buildings, American Industrial Hygiene Association Publications, 2004 (Rf. 8)

9. Centers for Disease Control and Prevention: Mold - General Information - Basic Facts, www.cdc.gov/mold/faqs.htm. (Rf 9)

Appendix 1 Summary of the Microbial Air and Surface Sampling Results

Date	Floor	Location	Purpose	Sample Type	Sample ID	Result	General impression
9/3/2021	4	Courtroom 4	Post-cleaning	Surface	PC4-A	Acceptable	Good - book
9/3/2021	4	Courtroom 4	Post-cleaning	Surface	PC4-B	Acceptable	Good - Judge's table top
9/3/2021	4	Courtroom 3	Post-cleaning	Surface	PC3-A	Acceptable	Good - wall behind benches
9/3/2021	4	Courtroom 3	Post-cleaning	Surface	PC3-B	Acceptable	Good - book
9/3/2021	4	Courtroom 3, Conf Room A	Post-cleaning	Air	3297 5876	Acceptable	Good
8/25/2021	4	Courtroom 2	Initial assessment	Surface	TL-1	Pen/asp mold growth	Requires cleaning
8/25/2021	4	Courtoom 2	Initial assessment	Air	3297 5937	Acceptable	Good
9/3/2021	4	Courtroom 2	Post-cleaning	Air	3297 5900	Acceptable	Good
9/3/2021	4	Courtroom 2	Post-cleaning	Surface	PC2-A	Acceptable	Good - behind rail
9/3/2021	4	Courtroom 2	Post-cleaning	Surface	PC2-B	Acceptable	Good - under chair
9/3/2021	4	Courtoom 1	Post-cleaning	Surface	PC1-A	Acceptable	Good - wall behind rail
9/3/2021	4	Courtoom 1	Post-cleaning	Surface	PC1-B	Acceptable	Good - chair
9/13/2021	4	Registry of Probate - north	Post-cleaning	Air	3297-5862	Acceptable	Good
9/13/2021	4	Registry of Probate - north	Post-cleaning	Surface	TL-4	Acceptable	Good - from diffuser
9/13/2021	4	Registry of Probate - south	Post-cleaning	Air	3297-5859	Acceptable	Good
9/13/2021	4	Registry of Probate - south	Post-cleaning	Surface	TL-5	Acceptable	Good - from diffuser
		Appendix 1					
9/15/2021	4	Vault	Post cleaning	Air	3318 8814	Acceptable	Good
9/15/2021	4	Vault	Post cleaning	Surface	TL-2	Acceptable	Good - from ceiling tile
9/2/2021	not specified	likely 3rd floor, Courtroom 2, Conf Room B	Evaluate response actions	Surface	A	Cladosporium mold growth	Sample of cleaned ceiling tile - encapsulate after cleaning
9/2/2021	not specified	likely 3rd floor, Courtroom 2, Conf Room B	Evaluate response actions	Surface	B	Cladosporium mold growth	Sample from diffuser fitting - clean diffusers and collars
8/25/2021	3	Courtroom 1	Initial assessment	Air	3297 5853	Acceptable	Good
8/25/2021	3	Courtroom 1	Initial assessment	Surface	TL-2	Asp mold growth	Requires cleaning
9/4/2021	3	Courtroom 1	Post-cleaning	Surface	09043FlC1-1	Acceptable	Good - wall under clock
9/4/2021	3	Courtroom 1	Post-cleaning	Surface	09043FlC1-2	Acceptable	Good - under gallery bench
9/6/2021	3	Courtroom 1	Post-cleaning	Air	3297 5999	Acceptable	Good
9/4/2021	3	Courtroom 6	Post-cleaning	Surface	09043FlC6-1	Acceptable	Good - wall jury area
9/4/2021	3	Courtroom 6	Post-cleaning	Surface	09043FlC6-2	Acceptable	Good - court office desk
9/6/2021	3	Courtroom 6	Post-cleaning	Air	3297 5996	Acceptable	Good
9/4/2021	3	Courtroom 5	Post-cleaning	Surface	09043FlC5-1	Acceptable	Good - painting
9/4/2021	3	Courtroom 5	Post-cleaning	Surface	09043FlC5-2	Acceptable	Good - Judge's desk
9/4/2021	3	Courtroom 5	Post-cleaning	Surface	09043FlC5-3	Acceptable	Good - wall behind rail jury area
8/25/2021	3	Courtroom 4	Initial assessment	Air	3297 5908	Elevated	Requires cleaning
8/25/2021	3	Courtroom 4	Initial assessment	Surface	TL-3	Asp mold growth	Requires cleaning
9/4/2021	3	Courtroom 4	Post-cleaning	Surface	09043FlC4-1	Acceptable	Good - rail jury area
9/4/2021	3	Courtroom 4	Post-cleaning	Surface	09043FlC4-2	Acceptable	Good - book
9/13/2021	3	Courtroom 4	Post-cleaning	Air	3318-8779	Acceptable	Good
9/4/2021	3	Courtroom 3	Post-cleaning	Surface	09043FlC3-1	Acceptable	Good - wall behind rail
9/4/2021	3	Courtroom 3	Post-cleaning	Surface	09043FlC3-2	Acceptable - see comment	Acceptable with cleaning program

NOTES: Pen/Asp = Penicillium/Aspergillus spore types Asp = Aspergillus spore types spores/m3 = spores per cubic meter of air
Cladosporium = Cladosporium sp.

Date	Floor	Location	Purpose	Sample Type	Sample ID	Result	General impression
9/4/2021	3	Courtroom 3	Post-cleaning	Surface	09043FlC3-3	Acceptable	Good -rear door
9/6/2021	3	Courtroom 3	Post-cleaning	Air	3297 3838	Elevated	Re-clean
9/8/2021	3	Courtroom 3	Post-cleaning	Air	3297 6064	Acceptable	
9/4/2021	3	Courtroom 2	Post-cleaning	Surface	09043FlC2-1	Acceptable	Good - Book
9/4/2021	3	Courtroom 2	Post-cleaning	Surface	09043FlC2-2	Acceptable	Good - Counsel desk
9/4/2021	3	Attorney's Lounge	Post-cleaning	Surface	09043Flcon-1	Acceptable	Good - table
9/6/2021	3	Judge's Lobby	Post-cleaning	Air	3297 5480	Acceptable	Good
9/6/2021	3	Records Room	Post-cleaning	Air	3297 5481	Elevated	Re-clean
9/8/2021	3	Records Room	Post-cleaning	Air	3297 3840	Slightly elevated	Re-clean
9/10/2021	3	Records Room	Post-cleaning	Air	3971 599	Elevated	Re-clean
9/13/2021	3	Records Room	Post-cleaning	Air	3297-5864	Slightly elevated	Review procedures / re-clean and re-sample as a precaution
9/15/2021	3	Records Room	Post-HEPA vacuuming and air scrub	Air	3318 8739	Acceptable	Good - no further cleaning required
9/15/2021	3	Records Room	Post-HEPA vacuuming and air scrub	Air	TL-1	Acceptable	Good - from shelf
9/10/2021	3	Room 374C - DA Office	Post-cleaning	Surface	01	Acceptable	Acceptable
9/10/2021	3	Room 374C - DA Office	Post-cleaning	Air	3971 592	Acceptable	Good
9/10/2021	3	Room 370 - DA Office	Post-cleaning	Surface	02	Acceptable	Good
9/10/2021	3	Room 371 - DA Office	Post-cleaning	Surface	03	Acceptable	Good
9/10/2021		Hall at Room 364/370 - DA Office	Post-cleaning	Air	3971 598	Acceptable	Good
9/10/2021	3	Room 385 - DA Office	Post-cleaning	Surface	04	Acceptable	Acceptable
9/10/2021	3	Room 385 - DA Office	Post-cleaning	Air	3971 587	Acceptable	Good
9/13/2021	3	Room 332 - Attorney's office room	Post-cleaning	Air	3297-5888	Elevated	Requires re-cleaning / air scrubbing
9/13/2021	3	Room 332 - Attorney's office room	Post-cleaning	Surface	TL-6	Cladosporium mold growth	Requires re-cleaning
9/15/2021	3	Room 332 - Attorney's office room	Post-cleaning	Air	3318 8755	Elevated	Requires re-cleaning / air scrubbing
9/15/2021	3	Room 332 - Attorney's office room	Post-cleaning	Surface	TL-3	Acceptable	Acceptable - from Computer and table
9/13/2021	3	Room 315B	Post-cleaning	Air	3318-1743	Acceptable - see comment	Pen-Asp on sample but a low count. Precautionary re-clean
9/13/2021	3	Room 315B	Post-cleaning	Surface	TL-7	Acceptable	Good - from diffuser
9/6/2021	2	Courtroom 11	Post-cleaning	Surface	09062FlC11-1	Acceptable	Good - wall under clock
9/6/2021	2	Courtroom 11	Post-cleaning	Surface	09062FlC11-2	Acceptable	Good - conference table
9/6/2021	2	Courtroom 3	Post-cleaning	Surface	09062FlC3-1	Acceptable	Good - book
9/6/2021	2	Courtroom 3	Post-cleaning	Surface	09062FlC3-2	Acceptable	Good - gallery bench
9/6/2021	2	Courtroom 4	Post-cleaning	Surface	09062FlC4-1	Acceptable	Good - Judges's desk
9/6/2021	2	Courtroom 4	Post-cleaning	Surface	09062FlC4-2	Acceptable	Good - wall behind gallery
9/6/2021	2	Courtroom 4	Post-cleaning	Air	3297 5885	Acceptable	Good
9/6/2021	2	Courtroom 5	Post-cleaning	Surface	09062FlC5-1	Acceptable	Good - Book shelf
9/6/2021	2	Courtroom 5	Post-cleaning	Surface	09062FlC5-2	Acceptable	Good - wall near flag
9/6/2021	2	Courtroom 6	Post-cleaning	Surface	09062FlC6-1	Acceptable	Good - book
9/6/2021	2	Courtroom 6	Post-cleaning	Surface	09062FlC6-2	Acceptable	Good - Counsel desk

NOTES: Pen/Asp = Penicillium/Aspergillus spore types Asp = Aspergillus spore types spores/m3 = spores per cubic meter of air
Cladosporium = Cladosporium sp.

Date	Floor	Location	Purpose	Sample Type	Sample ID	Result	General impression
9/6/2021	2	Courtroom 6	Post-cleaning	Air	3297 6016	Acceptable	Good
9/6/2021	2	Courtroom 7	Post-cleaning	Surface	09062FlC7-1	Acceptable	Good - wall behind rail jury area
9/6/2021	2	Courtroom 7	Post-cleaning	Surface	09062FlC7-2	Acceptable	Good - rail behind bookcase
9/6/2021	2	Courtroom 7	Post-cleaning	Air	3297 5995	Acceptable	Good
9/6/2021	2	Courtroom 8	Post-cleaning	Surface	09062FlC8-1	Acceptable	Good - bookshelf
9/6/2021	2	Courtroom 8	Post-cleaning	Surface	09062FlC8-2	Acceptable	Good - gallery bench
8/25/2021	2	Courtroom 9	Initial assessment	Air	3297 5835	Acceptable	Good
8/25/2021	2	Courtroom 9	Initial assessment	Surface	TL-9	Asp mold growth	Requires cleaning
9/6/2021	2	Courtroom 9	Post-cleaning	Surface	09062FlC9-1	Acceptable	Good - wall behind gallery
9/6/2021	2	Courtroom 9	Post-cleaning	Surface	09062FlC9-2	Acceptable	Good - court office desk
9/6/2021	2	Courtroom 9	Post-cleaning	Air	3297 3836	Acceptable	Good
9/6/2021	2	Courtroom 10	Post-cleaning	Surface	09062FlC10-1	Acceptable	Good - wall behind rail
9/6/2021	2	Courtroom 10	Post-cleaning	Surface	09062FlC10-2	Acceptable	Good - portrait frame
8/25/2021	2	Commissioner's Conf Room	Initial assessment	Air	3297 5868	Slightly elevated pen/asp	Sligthly elevated - cleaning recommended
8/25/2021	2	Commissioner's Conf Room	Initial assessment	Surface	TL-8	Acceptable	Rare spores associated with outdoor species
9/6/2021	2	Commissioner's Conf Room	Post-cleaning	Air	3297 5987	Acceptable	Good
9/15/2021	2	Room 204	Post-cleaning	Air	3318 8804	Acceptable	Good
9/15/2021	2	Room 204	Post-cleaning	Surface	TL-5	Acceptable	Good - from file cabinet
8/25/2021	1 (Plaza)	Courtroom 1	Initial assessment	Air	3297 5863	Acceptable	Good
8/25/2021	1 (Plaza)	Courtroom 1	Initial assessment	Surface	TL-6	Acceptable	Good - no spores detected
9/8/2021	1 (Plaza)	Courtroom 1	Post-cleaning	Surface	0908PC1-1	Acceptable	
9/8/2021	1 (Plaza)	Courtroom 1	Post-cleaning	Surface	0908PC1-2	Acceptable	
8/25/2021	1 (Plaza)	Courtroom 2	Initial assessment	Air	3297 5836	Acceptable	Acceptable - similar to outdoors
8/25/2021	1 (Plaza)	Courtroom 2	Initial assessment	Surface	TL-4	Asp mold growth	Requires cleaning
9/3/2021	1 (Plaza)	Courtroom 2	Post-cleaning	Surface	DC2-A	Acceptable	Acceptable - wall behind rail
9/3/2021	1 (Plaza)	Courtroom 2	Post-cleaning	Surface	DC2-B	Acceptable	Good - underside of book shelf
9/3/2021	1 (Plaza)	Courtroom 2	Post-cleaning	Air	3297 5839	Acceptable	Good
9/3/2021	1 (Plaza)	Main Lobby	Post-cleaning	Air	3297 5880	Acceptable	Good - Pen/asp present but low concentration
9/8/2021	1 (Plaza)	Main Lobby	Post-cleaning	Surface	0908PL-1	Acceptable	Good - behind bench
9/8/2021	1 (Plaza)	Main Lobby	Post-cleaning	Surface	0908PL-2	Acceptable	Good - witness desk
9/9/2021	1 (Plaza)	Room 140 - Health Clinic	Initial assessment	Surface	0909PL140-1	Acceptable	Good - wood underneath grate
9/9/2021	1 (Plaza)	Room 140 - Health Clinic	Initial assessment	Surface	0909PL140-2	Acceptable	Good - corrosion area on window sill
9/9/2021	1 (Plaza)	Room 140 - Health Clinic	Initial assessment	Surface	0909PL140-3	Acceptable	Good - inside ventilation unit
9/13/2021	1 (Plaza)	Room 101	Post-cleaning	Air	3318-8835	Acceptable	Good
9/13/2021	1 (Plaza)	Room 101	Post-cleaning	Surface	TL-3	Acceptable	Good - from fan coil unit
9/13/2021	1 (Plaza)	Room 101	Bulk paper provided by John Gay	Bulk - paper	Bulk 1	Pen/asp mold growth	Mold growth on paper - dispose or consult on cleaning methods
9/13/2021	1 (Plaza)	Room 103	Post-cleaning	Air	3318-8807	Acceptable	Good

NOTES: Pen/Asp = Penicillium/Aspergillus spore types Asp = Aspergillus spore types spores/m3 = spores per cubic meter of air
Cladosporium = Cladosporium sp.

Date	Floor	Location	Purpose	Sample Type	Sample ID	Result	General impression
9/13/2021	1 (Plaza)	Room 103	Post-cleaning	Surface	TL-2	Acceptable	Good - from window sill
9/13/2021	1 (Plaza)	Room 109	Post-cleaning	Air	3318-8839	Acceptable	Good
9/13/2021	1 (Plaza)	Room 109	Post-cleaning	Surface	TL-1	Acceptable	Good - from fan coil unit
8/25/2021	G	Cell #14	Initial assessment	Surface	TL-7	Pen/asp + Cladosporium mold grow	Requires cleaning
8/25/2021	G	Cell #14	Initial assessment	Air	3297 5870	Acceptable	Acceptable - similar to outdoors
9/15/2021	G	Cell #14	Post-cleaning	Surface	TL-4	Acceptable	Good - from bars
9/6/2021	G	Cell #1	Post-cleaning	Surface	0906GFCB-1	Acceptable	Good - air vent
9/6/2021	G	Cell #4	Post-cleaning	Surface	0906GFCB-3	Acceptable	Good - bars
9/6/2021	G	Cell #7	Post-cleaning	Surface	0906GFCB-5	Acceptable	Good - bars
9/6/2021	G	Cell # 11	Post-cleaning	Surface	0906GFCB-4	Acceptable	Good - bars
9/6/2021	G	Cell block hall	Post-cleaning	Air	3297 5906	Acceptable	Good
9/6/2021	G	G02	Post-cleaning	Surface	0906GFJC-1	Acceptable	Good - door
9/6/2021	G	G37C Mail / Break Room	Post-cleaning	Surface	0906GFMR-1	Acceptable	Good - conference table
9/6/2021	G	G37C Mail / Break Room	Post-cleaning	Air	3297 5842	Slightly elevated pen/asp	Re-clean
9/8/2021	G	G37C Mail / Break Room	Post-cleaning	Air	3297 5989	Slightly elevated pen/asp	Remove pipe insulation above ceiling
9/13/2021	G	G37C Mail / Break Room	Post-cleaning	Air	3318-8751	Acceptable	Good
9/13/2021	G	G37C Mail / Break Room	Post-cleaning	Surface	TL-8	Acceptable	Good
8/25/2021	outdoors 1		Initial assessment	Air	3297 5860	N/A	5,900 spores/m3 total fungal spores
8/25/2021	outdoors 2		Initial assessment	Air	3297 5869	N/A	6,170 spores/m3 total fungal spores
9/3/2021	outdoors 1		N/A	Air	3297 5886	N/A	3,190 spores/m3 total fungal spores
9/3/2021	outdoors 2		N/A	Air	3297 5898	N/A	1,160 spores/m3 total fungal spores
9/6/2021	outdoors 1		N/A	Air	3297 6017	N/A	4,920 spores/m3 total fungal spores
9/6/2021	outdoors 2		N/A	Air	3297 5991	N/A	4,960 spores/m3 total fungal spores
9/8/2021	outdoors 1		N/A	Air	3297 6055	N/A	18,140 spores/m3 total fungal spores
9/8/2021	outdoors 2		N/A	Air	3297 3839	N/A	8,150 spores/m3 total fungal spores
9/10/2021	outdoors 1		N/A	Air	3971 600	N/A	13,410 spores/m3 total fungal spores
9/10/2021	outdoors 2		N/A	Air	3971 601	N/A	18,060 spores/m3 total fungal spores
9/13/2021	outdoors 1		N/A	Air	3318 8745	N/A	6,360 spores/m3 total fungal spores
9/13/2021	outdoors 2		N/A	Air	3318 8818	N/A	4,720 spores/m3 total fungal spores
9/15/2021	outdoors 1		N/A	Air	3318 8747	N/A	13,260 spores/m3 total fungal spores
9/15/2021	outdoors 2		N/A	Air	3318 8796	N/A	12,220 spores/m3 total fungal spores

NOTES: Pen/Asp = Penicillium/Aspergillus spore types Asp = Aspergillus spore types spores/m3 = spores per cubic meter of air
Cladosporium = Cladosporium sp.

Appendix 2 Analytical Laboratory Reports

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106153
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085 - Springfield

Phone: (781) 933-2555
Fax:
Collected Date: 08/25/2021
Received Date: 08/26/2021 10:00 AM
Analyzed Date: 08/26/2021

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

Lab Sample Number:	132106153-0010			132106153-0011			132106153-0012		
Client Sample ID:	3297 5937			3297 5853			3297 5908		
Volume (L):	75			75			75		
Sample Location:	Floor 4 - Courtroom 2			Floor 3 - Courtroom 1			Floor 3 - Courtroom 4		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Bipolaris-like	-	-	-	-	-	-	-	-	-
Chaetomium/Botryotrichum-like	-	-	-	-	-	-	-	-	-
Myxomycetes-like	-	-	-	-	-	-	-	-	-
Pithomyces-like	-	-	-	-	-	-	-	-	-
Ascospores	1	40	11.1	-	-	-	-	-	-
Aspergillus/Penicillium	5	200	55.6	-	-	-	249	10500	99.2
Basidiospores	2	80	22.2	1	40	100	-	-	-
Cladosporium	1	40	11.1	-	-	-	2	80	0.8
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora-like	-	-	-	-	-	-	-	-	-
Fusarium-like	-	-	-	-	-	-	-	-	-
Paecilomyces-like	-	-	-	-	-	-	-	-	-
Phoma-like	-	-	-	-	-	-	-	-	-
Total Fungi	**9**	**360**	**100**	**1**	**40**	**100**	**251**	**10580**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	-	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	-	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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

Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 08/26/2021 01:43 PM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106153
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date: 08/25/2021
Received Date: 08/26/2021 10:00 AM
Analyzed Date: 08/26/2021

Project: 458085 - Springfield

This is at 80 State Street
ADE 9-14-2021

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

Lab Sample Number:	132106153-0013			132106153-0014			132106153-0015		
Client Sample ID:	3297 5836			3297 5892			3297 5863		
Volume (L):	75			75			75		
Sample Location:	Floor 1 - Courtroom 2			Basement - Room B-47			Floor 1 - Courtroom 1		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Bipolaris-like	-	-	-	-	-	-	-	-	-
Chaetomium/Botryotrichum-like	-	-	-	-	-	-	-	-	-
Myxomycetes-like	-	-	-	-	-	-	-	-	-
Pithomyces-like	-	-	-	-	-	-	1	40	50
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	12	500	100	-	-	-	-	-	-
Basidiospores	-	-	-	1	40	100	1	40	50
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora-like	-	-	-	-	-	-	-	-	-
Fusarium-like	-	-	-	-	-	-	-	-	-
Paecilomyces-like	-	-	-	-	-	-	-	-	-
Phoma-like	-	-	-	-	-	-	-	-	-
Total Fungi	**12**	**500**	**100**	**1**	**40**	**100**	**2**	**80**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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

Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 08/26/2021 01:43 PM

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EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106153
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085 - Springfield

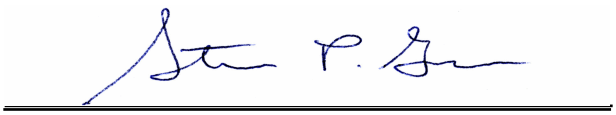
Phone: (781) 933-2555
Fax:
Collected Date: 08/25/2021
Received Date: 08/26/2021 10:00 AM
Analyzed Date: 08/26/2021

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

Lab Sample Number:	132106153-0016			132106153-0017			132106153-0018		
Client Sample ID:	3297 5870			3297 5860			3297 5869		
Volume (L):	75			75			75		
Sample Location:	Ground Floor - Cell #14			Outdoors, Ramp to Garage, #1			Outdoors, Ramp to Garage, #2		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	1	40	0.7	-	-	-
Bipolaris-like	-	-	-	-	-	-	-	-	-
Chaetomium/Botryotrichum-like	-	-	-	-	-	-	-	-	-
Myxomycetes-like	1	40	6.9	2	80	1.4	3	100	1.6
Pithomyces-like	-	-	-	1	40	0.7	-	-	-
Ascospores	-	-	-	10	420	7.1	5	200	3.2
Aspergillus/Penicillium	11	460	79.3	6	300	5.1	15	630	10.2
Basidiospores	1	40	6.9	35	1500	25.4	66	2800	45.4
Cladosporium	-	-	-	71	3000	50.8	50	2100	34
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	4	200	3.4	7	300	4.9
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	1	40	0.7	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora-like	1	40	6.9	1	40	0.7	-	-	-
Fusarium-like	-	-	-	1	40	0.7	-	-	-
Paecilomyces-like	-	-	-	5	200	3.4	-	-	-
Phoma-like	-	-	-	-	-	-	1	40	0.6
Total Fungi	**14**	**580**	**100**	**138**	**5900**	**100**	**147**	**6170**	**100**
Hyphal Fragment	-	-	-	4	200	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	1	40	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	2	-	-	1	-

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

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



Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 08/26/2021 01:43 PM

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5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106153
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085 - Springfield

Phone: (781) 933-2555
Fax:
Collected Date: 08/25/2021
Received Date: 08/26/2021 10:00 AM
Analyzed Date: 08/26/2021

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

	132106153-0019			132106153-0020		
Lab Sample Number:						
Client Sample ID:	3297 5868			3297 5835		
Volume (L):	75			75		
Sample Location:	Floor 2 - Commissioners Conference Room			Floor 2 - ~~Courtroom 2~~ Courtroom 9 ADE 9-14-21		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-
Bipolaris-like	-	-	-	-	-	-
Chaetomium/Botryotrichum-like	-	-	-	-	-	-
Myxomycetes-like	1	40	3	-	-	-
Pithomyces-like	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-
Aspergillus/Penicillium	32	1300	97	2	80	100
Basidiospores	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-
Rust	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-
Cercospora-like	-	-	-	-	-	-
Fusarium-like	-	-	-	-	-	-
Paecilomyces-like	-	-	-	-	-	-
Phoma-like	-	-	-	-	-	-
Total Fungi	**33**	**1340**	**100**	**2**	**80**	**100**
Hyphal Fragment	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-
Pollen	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-

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

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

Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 08/26/2021 01:43 PM

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http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106153
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085 - Springfield

Phone: (781) 933-2555
Fax:
Collected Date: 08/25/2021
Received Date: 08/26/2021
Analyzed Date: 08/26/2021

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

This is at 80 State Street
ADE 9-14-2021

Lab Sample Number:	132106153-0001	132106153-0002	132106153-0003	132106153-0004	132106153-0005
Client Sample ID:	TL-1	TL-2	TL-3	TL-4	TL-5
Sample Location:	Floor 4 - Courtroom 2	Floor 3 - Courtroom 1	Floor 3 - Courtroom 4	Floor 1 - Courtroom 2	Basement - Room B-47
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Bipolaris-like	-	-	-	-	-
Chaetomium/Botryotrichum-like	-	-	-	-	-
Myxomycetes-like	-	-	-	-	-
Pithomyces-like	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	High	-	-	-	-
Basidiospores	-	-	-	-	-
Cladosporium	-	-	-	-	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Ganoderma	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Aspergillus	-	*High*	*Medium*	*High*	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-

Sample Comment: 132106153-0005 - None Detected

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.

Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 08/26/2021 01:43 PM

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Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106153
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085 - Springfield

Phone: (781) 933-2555
Fax:
Collected Date: 08/25/2021
Received Date: 08/26/2021
Analyzed Date: 08/26/2021

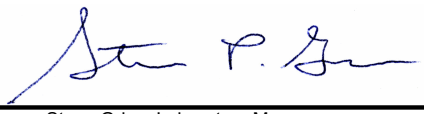
Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number:	132106153-0006	132106153-0007	132106153-0008	132106153-0009	
Client Sample ID:	TL-6	TL-7	TL-8	TL-9	
Sample Location:	Floor 1 - Courtroom 1	Ground Floor - Cell #14	Floor 2 - Commissioners Conference Room	Floor 2 - Courtroom ~~2~~ Courtroom 9 - ADE 9/14/2021	
Spore Types	Category	Category	Category	Category	
Alternaria (Ulocladium)	-	-	-	-	
Bipolaris-like	-	-	-	-	
Chaetomium/Botryotrichum-like	-	-	-	-	
Myxomycetes-like	-	-	Rare	-	
Pithomyces-like	-	-	-	-	
Ascospores	-	-	-	-	
Aspergillus/Penicillium	-	Medium	-	-	
Basidiospores	-	-	Rare	-	
Cladosporium	-	*High*	-	-	
Curvularia	-	-	-	-	
Epicoccum	-	-	-	-	
Ganoderma	-	-	-	-	
Rust	-	-	-	-	
Scopulariopsis/Microascus	-	-	-	-	
Stachybotrys/Memnoniella	-	-	-	-	
Unidentifiable Spores	-	-	-	-	
Zygomycetes	-	-	-	-	
Aspergillus	-	-	-	*Medium*	
Hyphal Fragment	-	-	Low	-	
Insect Fragment	-	-	-	-	
Pollen	-	-	-	-	
Fibrous Particulate	-	-	-	-	

Sample Comment: 132106153-0006 - None Detected

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.



Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 08/26/2021 01:43 PM

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OrderID: 132106153

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*):

132106153

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX:(856) 786-0262

Company Name: TRC

Street: 300 Wildwood Ave

City: Woburn **State/Province:** MA

Report To (Name): Ann Eckmann / Mike McCarter

Email Address: aeckmann@trcompanies.com; mmccarter@trcompanies.com

Project Name/Number: 458085 Springfield

U.S. State Samples Taken: M **Project Zip Code:**

EMSL-Bill to: ☐ Same ☐ Different If Bill to is Different note instructions in Comments

Third Party Billing requires written authorization from third party.

Zip/Postal Code: **Country:**

Telephone #:

Fax #: **Purchase Order:** C458085

Please Provide Results: ☐ Fax ☐ Email

Connecticut Samples: ☐ Commercial ☐ Residential

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ **Biocide Used in Source (specify):** ☐

Public Water Supply Samples: ☐ **Note: All results may automatically be reported to DOH if required by state.**

Turnaround Time (TAT) Options - Please Check

☐ 3 Hour	☒ 6 Hour !	☐ 24 Hour	☐ 48 Hour	☐ 72 Hour	☐ 96 Hour	☐ 1 Week	☐ 2 Week

Microbiology Test Codes

M001 Air-O-Cell
M174 MoldSnap
M030 Micro 5
M032 Allergenco-D
M041 Fungal Direct Examination
M169 Pollen ID & Enumeration
M280 Dust Characterization Level-1
M281 Dust Characterization Level-2
M005 Viable Fungi- Air Samples (Genus ID & Count)
M006 Viable Fungi- Air Samples (Includes *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)
M007 Culturable fungi - Surface Samples (Genus ID & Count)
M008 Culturable fungi - Surface Samples (Includes *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)
M009 Bacteria Culture Gram Stain & Count
M010 Bacteria Count & ID - 3 Most Prominent
M011 Bacteria Count & ID - 5 Most Prominent

M012 *Pseudomonas aeruginosa* (P/A***)
M024 *Pseudomonas aeruginosa* (MFT*)
M015 Heterotrophic Plate Count
M017 Total Coliform & *E. coli* (Colilert P/A***)
M018 Total Coliform & *E. coli* (MFT*)
M114 Total Coliform & *E. coli* Enumeration (Colilert MPN**)
M019 Fecal Coliform (MFT*)
M020 Fecal *Streptococcus* (MFT*)
M029 *Enterococci* (MFT*)
M129 *Enterococci* (Enterolert P/A***)
M180 Real Time qPCR-ERMI 36 Panel
M025 Sewage Screen –Water (MFT*)

M115 Sewage Screen - Water (P/A***)
M116 Sewage Screen - Water (MPN**)
M117 Sewage Screen - Swab (P/A***)
M013 Sewage Screen - Swab (MFT*)
M133 *Methicillin-resistant Staph. aureus* (MRSA)
M031 Rapid-growing non-TB *Mycobacteria* Detection & Enumeration
M014 Endotoxin Analysis
M044 Group Allergen (Cat, Dog, Cockroach, Dust Mite)
Other See Analytical Price Guide .
***Legionella* Analysis** Please use EMSL *Legionella* COC

*MFT= Membrane Filtration Technique
**MPN= Most Probable Number
***P/A= Presence/Absence

Name of Sampler: **Signature of Sampler:**

Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (Only for Waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
Example A1	Kitchen Sink/Tap	Water	☒ P ☐ NP	M017	100 mL	9/1/13 4:00 PM	
TL-1	Flr 4-Courtroom 2	M041	☐ P ☐ NP	M041	N/A	8/25/21	
TL-2	Flr 3-Courtroom 1	↓	☐ P ☐ NP	↓	↓	↓	
TL-3	Flr 3-Courtroom 4	↓	☐ P ☐ NP	↓	↓	↓	
TL-4	Flr 1-Courtroom 2	↓	☐ P ☐ NP	↓	↓	↓	
TL-5	Bsmt-Rm B-47	↓	☐ P ☐ NP	↓	↓	↓	

Client Sample # (s): -

Total # of Samples: 20

Samples Received Chilled? Yes / No (Lab Use Only)

Relinquished (Client): A. Eckmann for Mike McCarter **Date:** 8/26/21 **Time:** ~9:45 am

Received (Lab): **Date:** **Time:**

Comments/Special Instructions:

REC'D EMSL-BOSTON AUG 26 2021

Controlled Document – COC-34 Micro R8 11/14/2017

OrderID: 132106153

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*):

132106153

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX:(856) 786-0262

Courtroom 9 ADE 9/14/2021

Additional pages of the chain of custody are only necessary if needed for additional sample information.

Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (Only for Waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
TL-6	Flr 1 - Courtroom 1	M041	☐ P ☐ NP	M041	N/A	8/25/21	
TL-7	Ground flr - Cell #14	↓	☐ P ☐ NP	↓	↓	↓	
TL-8	Flr 2 - Commissioners Conf. Rm		☐ P ☐ NP				
TL-9	Flr 2 - Courtroom 2	↓	☐ P ☐ NP	↓	↓		
~~32975853~~	~~Same as TL-1~~	M001	☐ P ☐ NP	M001	75L	↓	
32975937	Same as TL-1	↓	☐ P ☐ NP	↓	↓		
32975853	" " TL-2		☐ P ☐ NP				
32975908	" " TL-3		☐ P ☐ NP				
32975836	" " TL-4		☐ P ☐ NP				
32975892	" " TL-5		☐ P ☐ NP				
32975863	" " TL-6		☐ P ☐ NP				
32975870	" " TL-7		☐ P ☐ NP				
32975860	outdoors, ramp to Garage, #1		☐ P ☐ NP				
32975869	outdoors, ramp to Garage, #2	↓	☐ P ☐ NP	↓	↓		
32975868	Same as TL-8		☐ P ☐ NP				
32975835	Same as TL-9	↓	☐ P ☐ NP	↓	↓		
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				

Comments/Special Instructions:

REC'D EMSL-BOSTON AUG 26 2021

Page 2 of 2

Controlled Document – COC-34 Micro R8 11/14/2017

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106440
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085 - Courthouse

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/03/2021
Analyzed Date: 09/03/2021

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

Lab Sample Number:	132106440-0001	132106440-0002			
Client Sample ID:	A	B			
Sample Location:	Ceiling Tile (Cleaned)	Collar Fitting for Vent			
Spore Types	Category	Category			
Alternaria (Ulocladium)	-	-			
Ascospores	-	-			
Aspergillus/Penicillium	-	-			
Basidiospores	-	-			
Bipolaris-like	-	-			
Chaetomium/Botryotrichum-like	-	-			
Cladosporium	*High*	*High*			
Curvularia	-	-			
Epicoccum	-	-			
Ganoderma	-	-			
Myxomycetes-like	-	-			
Pithomyces-like	-	-			
Rust	-	-			
Scopulariopsis/Microascus	-	-			
Stachybotrys/Memnoniella	-	-			
Unidentifiable Spores	-	-			
Zygomycetes	-	-			
Hyphal Fragment	-	-			
Insect Fragment	-	-			
Pollen	-	-			
Fibrous Particulate	-	-			

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.

Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 09/03/2021 01:45 PM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

OrderID: 132106440

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Microbiology Chain of Custody Form

EMSL Order Number / Lab Use Only

132106440

EMSL Analytical, Inc.
5A Constitution Way
Woburn, MA 01801

PHONE: (781) 933-8411
EMAIL: bostonlab@emsl.com

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

Customer Information		Billing Information	
Customer ID:		Billing ID:	
Company Name:	TRC	Company Name:	on file
Contact Name:	Ann Gukmann	Billing Contact:	
Street Address:	300 Wildwood Ave	Street Address:	
City, State, Zip:	Woburn, MA 01801	City, State, Zip:	Country:
Country:			
Phone:	781.706.7315	Phone:	
Email(s) for Report:	agukmann@trcompanies.com	Email(s) for Invoice:	

Project Information

Project Name/No:	458085 Courthouse	Purchase Order:	C458085
EMSL LIMS Project ID: (If applicable, EMSL will provide)		State Samples Collected: MA / Zip Code Samples Collected::	State of Connecticut (CT) must select project location: ☐ ☐
Sampled By Name:		Sampled By Signature:	No. of Samples in Shipment

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ **Biocide Used in Source (specify)**

Public Water Supply Samples: ☐ **Note: All results may automatically be reported to DOH if required by State.**

Turn-Around-Time (TAT) Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

☐ 3 Hour ☒ 6 Hour ☐ 24 Hour ☐ 32* Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

MICROBIOLOGY TEST CODES

M001 Air-O-Cell	**M174** MoldSnap	**M012** *Pseudomonas aeruginosa* (P/A***)	**M115** Sewage Screen - Water (P/A***)
M030 Mold Snap	**M032** Allergenco-D	**M024** *Pseudomonas aeruginosa* (MFT*)	**M116** Sewage Screen - Water (MPN**)
M041 Fungal Direct Examination		**M015** Heterotrophic Plate Count	**M117** Sewage Screen - Swab (P/A***)
M169 Pollen ID & Enumeration		**M017** Total Coliform & *E. Coli* (Colilert P/A***)	**M013** Sewage Screen - Swab (MFT*)
M280 Dust Characterization Level-1		**M018** Total Coliform & *E. Coli* (MFT*)	**M730** *Methicillin-resistant Staph, aureus* (MRSA)
M281 Dust Characterization Level-2		**M114** Total Coliform & *E. Coli Enumeration (Colilert MPN**)*	**M031** Rapid-growing non-TB *Mycobacteria* Detection & Enumeration
M005 Viable Fungi-Air Samples (Genus ID & Count)		**M019** Fecal Coliform (MFT*)	
M006 Viable Fungi-Air Samples (Includes *Penicillum, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)		**M020** Fecal *Streptococcus* (MFT*)	**M014** Endotoxin Analysis
		M029 *Enterococci* (MFT*)	**M044** Group Allergen (Cat, Dog, Cockroach, Dust Mite)
M007 Culturable Fungi-Surface Samples (Genus ID & Count)		**M129** *Enterococci* (Enterolert P/A***)	**M095** Bacteroides
M008 Culturable Fungi-Surface Samples (Includes *Penicillum, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)		**M180** Real Time qPCR-ERMI 36 Panel	**Other** - See Analytical Price Guide for Test Code
		M025 Sewage Screen - Water (MFT*)	***Legionella Analysis*** Please use EMSL *Legionella* COC
M009 Bacteria Culture Gram Stain & Count		***MFT=** Membrane Filtration Technique	
M010 Bacteria Count & ID - 3 Most Prominent		****MPN** = Most Probable Number	
M011 Bacteria Count & ID - 5 Most Prominent		*****P/A** = Presence/Absence	

Sample #	Sample Location/Description	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
Example: Sample 1	Kitchen	Water	Potable	M017	1,000 ml	1/1/2021 3:30pm	
A	ceiling tile (cleaned)			M041			
B	collar fitting for vent			↓			

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

Method of Shipment:	hand delivered	Sample Condition Upon Receipt:	
Relinquished by: A. Gukmann	Date/Time: 9/3/21 ~11:55am	Received by: RCVD EMSL-BOSTON SEP 03 2021	Date/Time: 1200
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-34 Micro R11 1/26/2021

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.

Page 1 of

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106456
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085

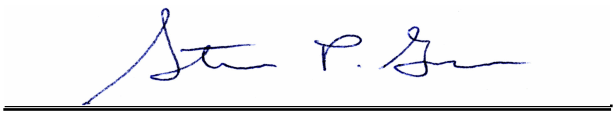
Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/05/2021 08:30 AM
Analyzed Date: 09/05/2021

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

Lab Sample Number:	132106456-0001			132106456-0002			132106456-0003		
Client Sample ID:	3297 5900			3297 5876			3297 5839		
Volume (L):	75			75			75		
Sample Location:	PC2, Judges Desk			PC3-A			DC2, Judges Desk		
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	-	-	-	-	-	-	-	-	-
Basidiospores	-	-	-	2	80	66.7	1	40	100
Bipolaris-like	-	-	-	-	-	-	-	-	-
Chaetomium/Botryotrichum-like	-	-	-	-	-	-	-	-	-
Cladosporium	1	40	100	1	40	33.3	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes-like	-	-	-	-	-	-	-	-	-
Pithomyces-like	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**1**	**40**	**100**	**3**	**120**	**100**	**1**	**40**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	-	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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



Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/05/2021 08:17 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106456
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/05/2021 08:30 AM
Analyzed Date: 09/05/2021

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

Lab Sample Number:	132106456-0004			132106456-0005			132106456-0006		
Client Sample ID:	3297 5880			3297 5886			3297 5898		
Volume (L):	75			75			75		
Sample Location:	Plaza, Main Lobby			Exterior			Exterior		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	4	200	6.3	5	200	17.2
Aspergillus/Penicillium	3	100	100	-	-	-	-	-	-
Basidiospores	-	-	-	51	2100	65.8	19	800	69
Bipolaris-like	-	-	-	-	-	-	-	-	-
Chaetomium/Botryotrichum-like	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	3	100	3.1	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	4	200	6.3	2	80	6.9
Myxomycetes-like	-	-	-	14	590	18.5	2	80	6.9
Pithomyces-like	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**3**	**100**	**100**	**76**	**3190**	**100**	**28**	**1160**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	-	-	-	-	-
Fibrous Particulate (1-4)	-	-	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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

Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/05/2021 08:17 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106456
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/05/2021
Analyzed Date: 09/05/2021

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

Lab Sample Number: / Client Sample ID: / Sample Location:	132106456-0007 PC2-A Behind Handrail	132106456-0008 PC2-B Under Armchair	132106456-0009 PC3-A Wall Behind Benches	132106456-0010 PC3-B Book Cover	132106456-0011 PC1-A Wall Behind Rail
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-
Basidiospores	-	-	Rare	Rare	-
Bipolaris-like	-	-	-	-	-
Chaetomium/Botryotrichum-like	-	-	-	-	-
Cladosporium	-	-	-	Rare	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes-like	-	-	-	-	Rare
Pithomyces-like	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Hyphal Fragment	-	-	-	-	Rare
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-

Sample Comment: 132106456-0007 - None Detected
Sample Comment: 132106456-0008 - None Detected

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.

Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 09/05/2021 08:17 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106456
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/05/2021
Analyzed Date: 09/05/2021

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

Lab Sample Number:	132106456-0012	132106456-0013	132106456-0014	132106456-0015	132106456-0016
Client Sample ID:	PC1-B	PC4-B	PC4-A	DC2-B	DC2-A
Sample Location:	Armchair	Judges Table Top	Book Cover	Bookshelf, Underneath	Wall Behind Handrail
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	Low
Basidiospores	-	-	-	-	-
Bipolaris-like	-	-	-	-	-
Chaetomium/Botryotrichum-like	-	-	-	-	-
Cladosporium	-	-	-	-	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes-like	-	-	-	-	-
Pithomyces-like	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-

Sample Comment: 132106456-0012 - None Detected
Sample Comment: 132106456-0013 - None Detected
Sample Comment: 132106456-0014 - None Detected
Sample Comment: 132106456-0015 - None Detected

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.

Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 09/05/2021 08:17 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

OrderID: 132106456

Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*): **132106456**

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX:(856) 786-0262

Company Name: TRC	**EMSL-Bill to:** ☐ Same ☐ Different If Bill to is Different note instructions in Comments
Street:	*Third Party Billing requires written authorization from third party.*
City: / **State/Province:**	**Zip/Postal Code:** / **Country:**
Report To (Name): Ann Eckmann	**Telephone #:**
Email Address:	**Fax #:** / **Purchase Order:**
Project Name/Number: 458085	**Please Provide Results:** ☐ Fax ☐ Email
U.S. State Samples Taken: / **Project Zip Code:**	**Connecticut Samples:** ☐ Commercial ☐ Residential

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ **Biocide Used in Source (specify):** ☐

Public Water Supply Samples: ☐ **Note: All results may automatically be reported to DOH if required by state.**

Turnaround Time (TAT) Options - Please Check

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

Microbiology Test Codes

M001 Air-O-Cell
M030 Micro 5
M174 MoldSnap
M032 Allergenco-D
M041 Fungal Direct Examination
M169 Pollen ID & Enumeration
M280 Dust Characterization Level-1
M281 Dust Characterization Level-2
M005 Viable Fungi- Air Samples (Genus ID & Count)
M006 Viable Fungi- Air Samples (Includes *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)
M007 Culturable fungi - Surface Samples (Genus ID & Count)
M008 Culturable fungi - Surface Samples (Includes *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)
M009 Bacteria Culture Gram Stain & Count
M010 Bacteria Count & ID - 3 Most Prominent
M011 Bacteria Count & ID - 5 Most Prominent

M012 *Pseudomonas aeruginosa* (P/A***)
M024 *Pseudomonas aeruginosa* (MFT*)
M015 Heterotrophic Plate Count
M017 Total Coliform & *E. coli* (Colilert P/A***)
M018 Total Coliform & *E. coli* (MFT*)
M114 Total Coliform & *E. coli* Enumeration (Colilert MPN**)
M019 Fecal Coliform (MFT*)
M020 Fecal *Streptococcus* (MFT*)
M029 *Enterococci* (MFT*)
M129 *Enterococci* (Enterolert P/A***)
M180 Real Time qPCR-ERMI 36 Panel
M025 Sewage Screen –Water (MFT*)

M115 Sewage Screen - Water (P/A***)
M116 Sewage Screen - Water (MPN**)
M117 Sewage Screen - Swab (P/A***)
M013 Sewage Screen - Swab (MFT*)
M133 *Methicillin-resistant Staph. aureus* (MRSA)
M031 Rapid-growing non-TB *Mycobacteria* Detection & Enumeration
M014 Endotoxin Analysis
M044 Group Allergen (Cat, Dog, Cockroach, Dust Mite)
Other See Analytical Price Guide
***Legionella* Analysis** Please use EMSL *Legionella* COC

*MFT= Membrane Filtration Technique
**MPN= Most Probable Number
***P/A= Presence/Absence

Name of Sampler: Marley Cunell **Signature of Sampler:** MC

Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (Only for Waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
Example A1	Kitchen Sink/Tap	Water	☒ P ☐ NP	M017	100 mL	9/1/13 4:00 PM	
32975860	PC2, Judges desk	Air	☐ P ☐ NP	Mod	75L	9/3/21	
32975876	PC3-A		☐ P ☐ NP				
32975839	PC2, Judges desk		☐ P ☐ NP				
32975880	Plaza, main lobby		☐ P ☐ NP				
32975886	Exterior		☐ P ☐ NP				

Client Sample # (s): -

Total # of Samples: 6

Samples Received Chilled? Yes / No (Lab Use Only)

Relinquished (Client): Marley Cunell **Date:** MC **Time:** 3:51pm

Received (Lab): **Date:** **Time:**

Comments/Special Instructions: 9/3/21 @ 3:55pm SAMPLES GIVEN TO MICHAEL CLANE

REC'D EMSL-BOSTON SEP 05 2021 0830

OrderID: 132106456

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*):

132106456

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX:(856) 786-0262

Additional pages of the chain of custody are only necessary if needed for additional sample information.

Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (Only for Waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
5247 5898	Exterior	Air	☐ P ☐ NP	Mold	75L	9/3/21	
PC2-A	Behind handrail	Surface	☐ P ☐ NP	Mold	NA		
PC2-B	Under arm chair		☐ P ☐ NP				
PC3-A	Wall behind benches		☐ P ☐ NP				
PC3-B	Book cover		☐ P ☐ NP				
PC1-A	wall behind rail		☐ P ☐ NP				
PC1-B	Arm chair		☐ P ☐ NP				
PC4-#B amb	Judges table top		☐ P ☐ NP				
PC4-#A amb	Book cover		☐ P ☐ NP				
DC2-B	Bookshelf, underneath		☐ P ☐ NP				
DC2-A	Wall behind handrail		☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				

Comments/Special Instructions:

Controlled Document – COC-34 Micro R8 11/14/2017

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106457
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: Springfield District Courthouse

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/05/2021
Analyzed Date: 09/05/2021

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

Lab Sample Number:	132106457-0001	132106457-0002	132106457-0003	132106457-0004	132106457-0005
Client Sample ID:	09043F1C1-1	09043F1C1-2	09043F1C2-1	09043F1C2-2	09043F1C3-1
Sample Location:	Wall Under Clock	Under Gallery Bench	Book	Councel Desk	Wall Behind Railing
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-
Basidiospores	-	Rare	-	-	-
Bipolaris-like	-	-	-	-	-
Chaetomium/Botryotrichum-like	-	-	-	-	-
Cladosporium	Rare	Rare	-	-	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes-like	Rare	Rare	-	-	-
Pithomyces-like	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-

Sample Comment: 132106457-0003 - None Detected
Sample Comment: 132106457-0004 - None Detected
Sample Comment: 132106457-0005 - None Detected

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.

Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 09/05/2021 08:19 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.
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Project: Springfield District Courthouse

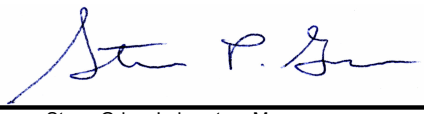
Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number:	132106457-0006	132106457-0007	132106457-0008	132106457-0009	132106457-0010
Client Sample ID:	09043F1C3-2	09043F1C3-3	09043F1C4-1	09043F1C4-2	09043F1C5-1
Sample Location:	Wall Between Slats	Rear Door	Jury Railing	Book	Painting - Jury
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	Medium	-	-	-	Low
Basidiospores	-	-	-	-	Rare
Bipolaris-like	-	-	-	-	-
Chaetomium/Botryotrichum-like	-	-	-	-	-
Cladosporium	-	-	-	-	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes-like	-	-	-	-	-
Pithomyces-like	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-

Sample Comment: 132106457-0007 - None Detected
Sample Comment: 132106457-0008 - None Detected
Sample Comment: 132106457-0009 - None Detected

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.



Steve Grise, Laboratory Manager
or other Approved Signatory

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

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Phone: (781) 933-2555
Fax:
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Received Date: 09/05/2021
Analyzed Date: 09/05/2021

Project: Springfield District Courthouse

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

Lab Sample Number:	132106457-0011	132106457-0012	132106457-0013	132106457-0014	132106457-0015
Client Sample ID:	09043F1C5-2	09043F1C5-3	09043F1C6-1	09043F1C6-2	09043F1Con-1
Sample Location:	Judges Desk	Wall Behind Railing Jury	Wall Next to Jury	Court Office desk	Table Lounge
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	Rare
Basidiospores	-	Rare	Rare	-	Rare
Bipolaris-like	-	-	-	-	-
Chaetomium/Botryotrichum-like	-	-	-	-	-
Cladosporium	-	Rare	-	-	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes-like	-	-	-	-	-
Pithomyces-like	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-

Sample Comment: 132106457-0011 - None Detected
Sample Comment: 132106457-0014 - None Detected

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.

Steve Grise, Laboratory Manager
or other Approved Signatory

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Microbiology Chain of Custody

EMSL Order Number *(Lab Use Only)*:

132106457

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX:(856) 786-0262

Company Name: TRC Companies	**EMSL-Bill to:** ☐ Same ☐ Different If Bill to is Different note instructions in Comments
Street:	*Third Party Billing requires written authorization from third party.*
City: Woburn **State/Province:** MA	**Zip/Postal Code:** **Country:** USA
Report To (Name): Ann Eckmann	**Telephone #:**
Email Address: AEckmann@trccompanies.com	**Fax #:** **Purchase Order:**
Project Name/Number: Springfield District Court	**Please Provide Results:** ☐ Fax ☒ Email
U.S. State Samples Taken: MA **Project Zip Code:**	**Connecticut Samples:** ☐ Commercial ☐ Residential

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ **Biocide Used in Source (specify):** ☐

Public Water Supply Samples: ☐ **Note: All results may automatically be reported to DOH if required by state.**

Turnaround Time (TAT) Options - Please Check

☒ 3 Hour | ☒ 6 Hour | ☐ 24 Hour | ☐ 48 Hour | ☐ 72 Hour | ☐ 96 Hour | ☐ 1 Week | ☐ 2 Week

please analyze 9/5/21!

Microbiology Test Codes

M001 Air-O-Cell
M174 MoldSnap
M030 Micro 5
M032 Allergenco-D
M041 Fungal Direct Examination
M169 Pollen ID & Enumeration
M280 Dust Characterization Level-1
M281 Dust Characterization Level-2
M005 Viable Fungi- Air Samples (Genus ID & Count)
M006 Viable Fungi- Air Samples (Includes *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)
M007 Culturable fungi - Surface Samples (Genus ID & Count)
M008 Culturable fungi - Surface Samples (Includes *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)
M009 Bacteria Culture Gram Stain & Count
M010 Bacteria Count & ID - 3 Most Prominent
M011 Bacteria Count & ID - 5 Most Prominent

M012 *Pseudomonas aeruginosa* (P/A***)
M024 *Pseudomonas aeruginosa* (MFT*)
M015 Heterotrophic Plate Count
M017 Total Coliform & *E. coli* (Colilert P/A***)
M018 Total Coliform & *E. coli* (MFT*)
M114 Total Coliform & *E. coli* Enumeration (Colilert MPN**)
M019 Fecal Coliform (MFT*)
M020 Fecal *Streptococcus* (MFT*)
M029 *Enterococci* (MFT*)
M129 *Enterococci* (Enterolert P/A***)
M180 Real Time qPCR-ERMI 36 Panel
M025 Sewage Screen –Water (MFT*)

M115 Sewage Screen - Water (P/A***)
M116 Sewage Screen - Water (MPN**)
M117 Sewage Screen - Swab (P/A***)
M013 Sewage Screen - Swab (MFT*)
M133 *Methicillin-resistant Staph. aureus* (MRSA)
M031 Rapid-growing non-TB *Mycobacteria* Detection & Enumeration
M014 Endotoxin Analysis
M044 Group Allergen (Cat, Dog, Cockroach, Dust Mite)
Other See Analytical Price Guide
***Legionella* Analysis** Please use EMSL *Legionella* COC

*MFT= Membrane Filtration Technique
**MPN= Most Probable Number
***P/A= Presence/Absence

most important ADE

Name of Sampler: **Signature of Sampler:**

Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (Only for Waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
Example A1	Kitchen Sink/Tap	Water	☒ P ☐ NP	M017	100 mL	9/1/13 4:00 PM	
09043F1C1-1	Wall under Clock	M041	☐ P ☐ NP	Tape	2 sq in	09/04/21 13:00	
09043F1C1-2	Under gallery bench	M041	☐ P ☐ NP	Tape	2 sq in	09/04/21 13:04	
09043F1C2-1	Book	Tape	☐ P ☐ NP	M041	"	09/04/21 13:15	
09043F1C2-2	Council Desk	Tape	☐ P ☐ NP	M041	"	09/04/21 13:29	
09043F1C3-1	Wall behind railing	Tape	☐ P ☐ NP	M041	"	09/04/21 13:40	

Client Sample # (s): -	**Total # of Samples:**	**Samples Received Chilled?** Yes / No (Lab Use Only)
Relinquished (Client): Timothy Kiesel	**Date:** 09/04/21	**Time:**
Received (Lab):	**Date:**	**Time:**

Comments/Special Instructions:

tkiesel@trccompanies.com

see page 2

Tim Kiesel gave to Michael Lane for delivery to Woburn, ~7pm. ADE

Page 1 of 2

Controlled Document – COC-34 Micro R8 11/14/2017

REC'D EMSL-BOSTON SEP 05 2021 AT 0830

OrderID: 132106457

EMSL ANALYTICAL, INC.
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Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*):

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CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX:(856) 786-0262

Additional pages of the chain of custody are only necessary if needed for additional sample information.

Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (Only for Waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
✓ 09043F1C3-2	Wall between slats	Tape	☐P ☐NP	M041	25qin	09/04/21 13	;45
09043F1C3-3	rear door	Tape	☐P ☐NP	M041	11	09/04/21 13	;50
09043F1C4-1	jury railing	Tape	☐P ☐NP	M041	11	09/04/21	4;10
✓ 09043F1C4-2	Book	Tape	☐P ☐NP	M041	11	09/04/21	4;17
09043F1C5-1	painting - jury	Tape	☐P ☐NP	M041	11	09/04/21	4;31
✓ 09043F1C5-2	judge desk	Tape	☐P ☐NP	M041	11	09/04/21	4;36
✓ 09043F1C5-3	wall behind railing jury	Tape	☐P ☐NP	M041	11	09/04/21	4;43
✓ 09043F1C6-1	wall next to jury	Tape	☐P ☐NP	M041	11	09/04/21	4;50
09043F1C6-2	court officer desk	Tape	☐P ☐NP	M041	11	09/04/21	4;55
✓ 09043F1C6-3	table lounge	Tape	☐P ☐NP	M041	11	09/04/21	15;05
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				

Comments/Special Instructions:
If you are tight on time, the checked (✓) samples are the greatest priority.

Page 2 of 2

Controlled Document – COC-34 Micro R8 11/14/2017

EMSL Analytical, Inc.

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Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106486
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/07/2021
Analyzed Date: 09/07/2021

Project: 458085 Springfiled District Court

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

Lab Sample Number:	132106486-0001	132106486-0002	132106486-0003	132106486-0004	132106486-0005
Client Sample ID:	09062FLC11-1	09062FLC11-2	09062FLC3-1	09062FLC3-2	09062FLC4-1
Sample Location:	Wall Under Clock	Conf Table	Book	Gallery Bench	Judge desk
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-
Basidiospores	-	-	-	-	-
Bipolaris++	-	-	-	-	-
Chaetomium++	-	-	-	-	-
Cladosporium	-	-	-	-	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium++	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	-	-	-	-
Pithomyces++	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-

Sample Comment: 132106486-0001 - None Detected
Sample Comment: 132106486-0002 - None Detected
Sample Comment: 132106486-0003 - None Detected
Sample Comment: 132106486-0004 - None Detected
Sample Comment: 132106486-0005 - None Detected

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.

Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 09/07/2021 07:59 AM

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Project: 458085 Springfiled District Court

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/07/2021
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0906FI2C5-1
ADE 9-14-2021

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

Lab Sample Number:	132106486-0006	132106486-0007	132106486-0008	132106486-0009	132106486-0010
Client Sample ID:	09062FLC4-2	09062FLC5-11	09062FLC5-2	09062FLC6-1	09062FLC6-2
Sample Location:	Wall Behind Gallery	Book Shelf	Wall Near Flag	Book	Councel desk
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-
Basidiospores	-	-	-	-	Rare
Bipolaris++	-	-	-	-	-
Chaetomium++	-	-	-	-	-
Cladosporium	-	Rare	-	-	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium++	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	-	-	-	-
Pithomyces++	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-

Sample Comment: 132106486-0006 - None Detected
Sample Comment: 132106486-0008 - None Detected
Sample Comment: 132106486-0009 - None Detected

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.
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or other Approved Signatory

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Project: 458085 Springfiled District Court

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

Lab Sample Number:	132106486-0011	132106486-0012	132106486-0013	132106486-0014	132106486-0015
Client Sample ID:	09062FLC7-1	09062FLC7-2	09062FLC8-1	09062FLC8-2	09062FLC9-1
Sample Location:	Wall Behind Rail Near Jury	Railing Behind Bookcase	Bookshelf	Gallery Bench	Wall Behind Gallery
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	Rare	-
Basidiospores	-	-	-	-	-
Bipolaris++	-	-	-	-	-
Chaetomium++	-	-	-	-	-
Cladosporium	Rare	-	-	Rare	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium++	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	-	-	-	-
Pithomyces++	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-

Sample Comment: 132106486-0012 - None Detected
Sample Comment: 132106486-0013 - None Detected
Sample Comment: 132106486-0015 - None Detected

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.

Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 09/07/2021 07:59 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106486
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/07/2021
Analyzed Date: 09/07/2021

Project: 458085 Springfiled District Court

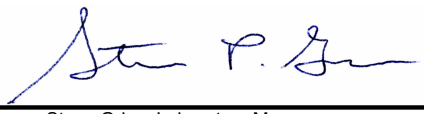
Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number:	132106486-0016	132106486-0017	132106486-0018	132106486-0019	132106486-0020
Client Sample ID:	09062FLC9-2	09062FLC10-1	09062FLC10-2	0906GFMR-1	0906GFCB-1
Sample Location:	Couirt office desk	Wall Behind railing	Portratit Frame	Conf Table Mailroom	Vent
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-
Basidiospores	-	-	-	-	-
Bipolaris++	-	-	-	-	-
Chaetomium++	-	-	-	-	-
Cladosporium	-	Rare	-	-	Rare
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium++	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	-	-	-	-
Pithomyces++	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-

Sample Comment: 132106486-0016 - None Detected
Sample Comment: 132106486-0018 - None Detected
Sample Comment: 132106486-0019 - None Detected

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.



Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 09/07/2021 07:59 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
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EMSL Order: 132106486
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/07/2021
Analyzed Date: 09/07/2021

Project: 458085 Springfiled District Court

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

Lab Sample Number:	132106486-0021	132106486-0022	132106486-0023	132106486-0024	
Client Sample ID:	0906GFCB-3	0906GFCB-4	0906GFCB-5	0906GFJC-1	
Sample Location:	Cell 4 Bars	Cell 11 Bars	Cell 7 Bars	G02 Door	
Spore Types	Category	Category	Category	Category	
Alternaria (Ulocladium)	-	-	-	-	
Ascospores	-	-	-	-	
Aspergillus/Penicillium	-	-	-	-	
Basidiospores	-	Rare	-	-	
Bipolaris++	-	-	-	-	
Chaetomium++	-	-	-	-	
Cladosporium	-	Rare	-	-	
Curvularia	-	-	-	-	
Epicoccum	-	-	-	-	
Fusarium++	-	-	-	-	
Ganoderma	-	-	-	-	
Myxomycetes++	-	-	-	-	
Pithomyces++	-	-	-	-	
Rust	-	-	-	-	
Scopulariopsis/Microascus	-	-	-	-	
Stachybotrys/Memnoniella	-	-	-	-	
Unidentifiable Spores	-	-	-	-	
Zygomycetes	-	-	-	-	
Hyphal Fragment	-	-	-	-	
Insect Fragment	-	-	-	-	
Pollen	-	-	-	-	
Fibrous Particulate	-	-	-	-	

Sample Comment: 132106486-0021 - None Detected
Sample Comment: 132106486-0023 - None Detected
Sample Comment: 132106486-0024 - None Detected

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.

Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 09/07/2021 07:59 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

OrderID: 132106486

Microbiology Chain of Custody Form

EMSL Order Number / Lab Use Only

132106486

EMSL Analytical, Inc.
5A Constitution Way
Woburn, MA 01801

PHONE: (781) 933-8411
EMAIL: bostonlab@emsl.com

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

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

Customer Information		Billing Information	
Customer ID:		Billing ID:	
Company Name:	TRC	Company Name:	
Contact Name:	Ann Gelmann	Billing Contact:	
Street Address:	300 Wildwood Drive	Street Address:	
City, State, Zip:	Woburn MA 01801	City, State, Zip:	Country:
Country:			
Phone:	781.706.7315	Phone:	
Email(s) for Report:	agelmann@trcompanies.com tkiesel@trcompanies.com	Email(s) for Invoice:	

Project Information

Project Name/No:	458085 Springfield District Court	Purchase Order:	C458085
EMSL LIMS Project ID: (If applicable, EMSL will provide)	State Samples Collected:	Zip Code Samples Collected::	State of Connecticut (CT) must select project location: ☐ ☐
Sampled By Name:	All tape lifts – Tim Kiesel	Sampled By Signature:	A. Gelmann for Tim Kiesel
No. of Samples in Shipment	24		

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ Biocide Used in Source (specify)

Public Water Supply Samples: ☐ Note: All results may automatically be reported to DOH if required by State.

Turn-Around-Time (TAT) Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

As soon as feasible

☒ 3 Hour ☒ 6 Hour ☐ 24 Hour ☐ 32* Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

MICROBIOLOGY TEST CODES

M001 Air-O-Cell	**M012** *Pseudomonas aeruginosa* (P/A***)	**M115** Sewage Screen - Water (P/A***)
M174 MoldSnap	**M024** *Pseudomonas aeruginosa* (MFT*)	**M116** Sewage Screen - Water (MPN**)
M030 Mold Snap	**M015** Heterotrophic Plate Count	**M117** Sewage Screen - Swab (P/A***)
M032 Allergenco-D	**M017** Total Coliform & *E. Coli* (Colilert P/A***)	**M013** Sewage Screen - Swab (MFT*)
M041 Fungal Direct Examination	**M018** Total Coliform & *E. Coli* (MFT*)	**M730** *Methicillin-resistant Staph, aureus* (MRSA)
M169 Pollen ID & Enumeration	**M114** Total Coliform & *E. Coli Enumeration (Colilert MPN**)*	**M031** Rapid-growing non-TB *Mycobacteria* Detection & Enumeration
M280 Dust Characterization Level-1	**M019** Fecal Coliform (MFT*)	
M281 Dust Characterization Level-2	**M020** Fecal *Streptococcus* (MFT*)	**M014** Endotoxin Analysis
M005 Viable Fungi-Air Samples (Genus ID & Count)	**M029** *Enterococci* (MFT*)	**M044** Group Allergen (Cat, Dog, Cockroach, Dust Mite)
M006 Viable Fungi-Air Samples (Includes *Penicillum, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)	**M129** *Enterococci* (Enterolert P/A***)	**M095** Bacteroides
M007 Culturable Fungi-Surface Samples (Genus ID & Count)	**M180** Real Time qPCR-ERMI 36 Panel	**Other** - See Analytical Price Guide for Test Code
M008 Culturable Fungi-Surface Samples (Includes *Penicillum, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)	**M025** Sewage Screen - Water (MFT*)	***Legionella Analysis*** Please use EMSL *Legionella* COC
M009 Bacteria Culture Gram Stain & Count	*MFT= Membrane Filtration Technique	
M010 Bacteria Count & ID - 3 Most Prominent	**MPN = Most Probable Number	
M011 Bacteria Count & ID - 5 Most Prominent	***P/A = Presence/Absence	

Sample #	Sample Location/Description	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
Example: Sample 1	Kitchen	Water	Potable	M017	1,000 ml	1/1/2021 3:30pm	
	See attached sheets						

RUSH 0830 PLDP

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

REC'D EMSL-BOSTON SEP 07 2021 BLF

Method of Shipment:	drop box hand delivery	Sample Condition Upon Receipt:	
Relinquished by:	A. Gelmann	Date/Time: 9/6/21 ~9:15pm	Received by: / Date/Time
Relinquished by:		Date/Time:	Received by: / Date/Time

Controlled Document - COC-34 Micro R11 1/26/2021

p. 1 of 3

OrderID: 132106486

EMSL ANALYTICAL, INC.
LABORATORY•PRODUCTS•TRAINING

Microbiology Chain of Custody

EMSL Order Number *(Lab Use Only)*:

132106486

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
Phone: (800) 220-3675
Fax: (856) 786-0262

Additional pages of the chain of custody are only necessary if needed for additional sample information.

	Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (Only for Waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
1	09062F1C11-1	Wall under clock	tape	☐ P ☐ NP	M041	2sq in	12:01	
2	09062F1C11-2	Conf table	tape	☐ P ☐ NP	"	"	12:09	
3	09062f1C3-1	Book	tape	☐ P ☐ NP	"	"	12:15	
4	09062f1C3-2	gallery bench	tape	☐ P ☐ NP	"	"	12:22	
5	09062f1C4-1	Judge desk	tape	☐ P ☐ NP	"	"	12:36	
6	09062f1C4-2	Wall behind gallery	tape	☐ P ☐ NP	"	"	12:40	
7	09062f1C5-1	bookshelf	tape	☐ P ☐ NP	"	"	12:51	
8	09062f1C5-2	wall near flag	tape	☐ P ☐ NP	"	"	12:58	
9	09062f1C6-1	book	tape	☐ P ☐ NP	"	"	13:06	
10	09062f1C6-2	Counsel desk	tape	☐ P ☐ NP	"	"	13:10	
11	09062f1C7-1	Wall behind rail near jury	tape	☐ P ☐ NP	"	"	14:03	
12	09062F1C7-2	railing behind bookcase	tape	☐ P ☐ NP	"	"	14:11	
13	09062f1C8-1	book shelf	tape	☐ P ☐ NP	"	"	14:20	
14	09062f1C8-2	gallery bench	tape	☐ P ☐ NP	"	"	14:25	
15	09062f1C9-1	Wall behind Gallery	tape	☐ P ☐ NP	"	"	14:31	
16	09062f1C9-2	court officer desk	tape	☐ P ☐ NP	"	"	14:34	
17	09062f1C10-1	Wall behind railing	tape	☐ P ☐ NP	"	"	14:40	
18	09062f1C10-2	Portrait frame	tape	☐ P ☐ NP	"	"	14:42	
19	0906GFMR-1	Conf table Mailroom	tape	☐ P ☐ NP	"	"	15:30	
20	0906GFCB-1	Vent	tape	☐ P ☐ NP	"	"	15:34	
21	0906GFCB-2	~~Ceiling tile~~ missing ADU	tape	☐ P ☐ NP	"	"	15:38	
22	0906GFCB-3	Cell 4 Bars	tape	☐ P ☐ NP	"	"	15:40	
23	0906GFCB-4	Cell 11 Bars	tape	☐ P ☐ NP	"	"	15:42	

Comments/Special Instructions:

of 25 tape lift slides entered 1 is missing - decided not to use contractor cleaning tomorrow.

drop box

p. 2 of 3

A. Gilman ~9:15 pm 9/6/21

Page ~~tape~~ of 2 apa

Controlled Document – COC-34 Micro R8 11/14/2017

REC'D RHS 0830 SEP 07 2021
EMSL-BOSTON

OrderID: 132106486

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

132106486

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-0262

Additional pages of the chain of custody are only necessary if needed for additional sample information.

	Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (Only for Waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
24	0906GFCB-5	Cell 7 bars	tape	☐ P ☐ NP	M041	2in	15:45	
25	0906GFJC-1	G02 Door	tape	☐ P ☐ NP	M041	"	15:48	
	32975906	Cell block Hall	Air ocell	☐ P ☐ NP		75L	16:20	
	32975842	Mail Room	Air ocell	☐ P ☐ NP		75L	16:25	
	32975996	3RD FL SC-6		☐ P ☐ NP		75L	12:38	transferred to another COC (ADW)
	32975480	3RdFL Judges Lobby		☐ P ☐ NP			12:51p.	
	32975999	3rD FL SC-1		☐ P ☐ NP			12:59p.	
	32973838	3rd FL SC-3		☐ P ☐ NP			1:09p.	
	32975481 (97 ADW)	3rd FL & Records Room		☐ P ☐ NP			1:17p.	
	32976017	Outdoors, Roof		☐ P ☐ NP			1:38p.	
	32975991	Outdoors, State St.		☐ P ☐ NP			1:59p.	
	32975995	2ndFL SC-7		☐ P ☐ NP			3:03p	
	32973836	2ndFL DC-9		☐ P ☐ NP			3:22p	
	32975987	2ndFL Commissioners Conf. Room		☐ P ☐ NP			3:34p.	
	32976016	2nd Fl, DC-6		☐ P ☐ NP			3:52p.	
	32975885	2nd Fl, DC-4		☐ P ☐ NP			4:15p.	
				☐ P ☐ NP				
				☐ P ☐ NP				
				☐ P ☐ NP				
				☐ P ☐ NP				
				☐ P ☐ NP				
				☐ P ☐ NP				
				☐ P ☐ NP		tape lifts		

Comments/Special Instructions:
Transferred airs to separate COC. Please do ~~airs first~~ + send results. Then do ~~tape lifts~~ airs + send. (ADE)

drop box a. Celimam 9/6/21 ~9:15pm

Page 23 of 23 ADW

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.

Controlled Document – COC-34 Micro R8 11/14/2017

REC'D RJB 0830 EMSL-BOSTON SEP 07 2021

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106487
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/07/2021 08:30 AM
Analyzed Date: 09/07/2021

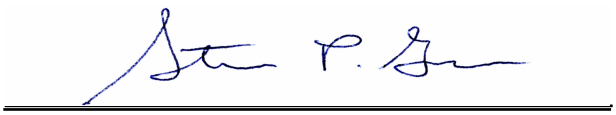
Project: 458085 Springfield District Courtthouse

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

Lab Sample Number:	132106487-0001			132106487-0002			132106487-0003		
Client Sample ID:	32975906			32975842			32975996		
Volume (L):	75			75			75		
Sample Location:	G-Cellblock Hall			G-Mailroom			3rd Fl, SC-6		
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	-	-	-	16	670	94.4	-	-	-
Basidiospores	1	40	100	1	40	5.6	1	40	100
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Phoma-like	-	-	-	-	-	-	-	-	-
Total Fungi	**1**	**40**	**100**	**17**	**710**	**100**	**1**	**40**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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



Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/07/2021 08:57 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

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Fax:
Collected Date:
Received Date: 09/07/2021 08:30 AM
Analyzed Date: 09/07/2021

Project: 458085 Springfield District Courtthouse

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

Lab Sample Number:	132106487-0004			132106487-0005			132106487-0006		
Client Sample ID:	32975480			32975999			32973838		
Volume (L):	75			75			75		
Sample Location:	3rd Fl, Judges Lobby			3rd Fl, SC-1			3rd Fl, SC-3		
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	-	-	-	-	-	-	193	8100	99
Basidiospores	3	100	55.6	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	2	80	44.4	1	40	100	2	80	1
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Phoma-like	-	-	-	-	-	-	-	-	-
Total Fungi	**5**	**180**	**100**	**1**	**40**	**100**	**195**	**8180**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	-	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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

Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/07/2021 08:57 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106487
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/07/2021 08:30 AM
Analyzed Date: 09/07/2021

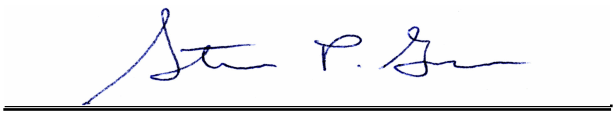
Project: 458085 Springfield District Courtthouse

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

Lab Sample Number:	132106487-0007			132106487-0008			132106487-0009		
Client Sample ID:	32975481			32976017			32975991		
Volume (L):	75			75			75		
Sample Location:	3rd Fl, Records room			Outdoors, Roof			Outdoors, State St.		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	2	80	1.6
Ascospores	-	-	-	4	200	4.1	9	400	8.1
Aspergillus/Penicillium	253	10600	98.1	-	-	-	-	-	-
Basidiospores	-	-	-	47	2000	40.7	45	1900	38.3
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	4	200	1.9	56	2400	48.8	54	2300	46.4
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	2	80	1.6	-	-	-
Ganoderma	-	-	-	2	80	1.6	4	200	4
Myxomycetes++	-	-	-	2	80	1.6	1	40	0.8
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	1	40	0.8	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Phoma-like	-	-	-	1	40	0.8	1	40	0.8
Total Fungi	**257**	**10800**	**100**	**115**	**4920**	**100**	**116**	**4960**	**100**
Hyphal Fragment	-	-	-	1	40	-	2	80	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	-	-	-	-	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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



Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/07/2021 08:57 AM

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5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

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EMSL Order: 132106487
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/07/2021 08:30 AM
Analyzed Date: 09/07/2021

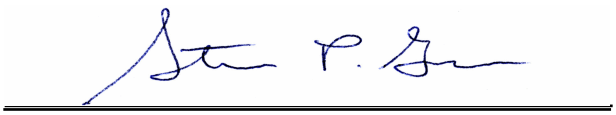
Project: 458085 Springfield District Courtthouse

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

Lab Sample Number:	132106487-0010			132106487-0011			132106487-0012		
Client Sample ID:	32975995			32973836			32975987		
Volume (L):	75			75			75		
Sample Location:	2nd Fl, SC-7			2nd Fl, DC-9			2nd Fl, Commissioner's Conf. Rm.		
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	-	-	-	-	-	-	-	-	-
Basidiospores	-	-	-	2	80	40	1	40	100
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	1*	10*	50	1	40	20	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	1	40	20	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	1*	10*	50	1	40	20	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Phoma-like	-	-	-	-	-	-	-	-	-
Total Fungi	**2**	**20**	**100**	**5**	**200**	**100**	**1**	**40**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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



Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/07/2021 08:57 AM

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EMSL Order: 132106487
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
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300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/07/2021 08:30 AM
Analyzed Date: 09/07/2021

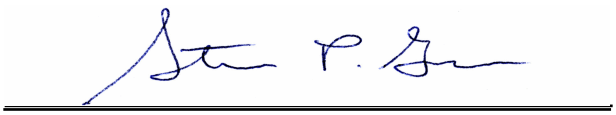
Project: 458085 Springfield District Courtthouse

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

Lab Sample Number:	132106487-0013			132106487-0014		
Client Sample ID:	32976016			32975885		
Volume (L):	75			75		
Sample Location:	2nd Fl, DC-6			2nd Fl, DC-4		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-
Basidiospores	1	40	50	3	100	71.4
Bipolaris++	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-
Cladosporium	-	-	-	1	40	28.6
Curvularia	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-
Pithomyces++	1	40	50	-	-	-
Rust	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-
Phoma-like	-	-	-	-	-	-
Total Fungi	**2**	**80**	**100**	**4**	**140**	**100**
Hyphal Fragment	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-
Pollen	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-

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

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



Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/07/2021 08:57 AM

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OrderID: 132106487

Microbiology Chain of Custody Form

EMSL Order Number / Lab Use Only

132106487

EMSL Analytical, Inc.
5A Constitution Way
Woburn, MA 01801

PHONE: (781) 933-8411
EMAIL: bostonlab@emsl.com

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

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

Customer Information		Billing Information	
Customer ID:		Billing ID:	
Company Name:	TRC	Company Name:	
Contact Name:	A. Eckmann	Billing Contact:	
Street Address:	300 Wildwood Ave	Street Address:	
City, State, Zip:	Woburn MA 01801	City, State, Zip:	Country:
Country:			
Phone:	781.706.7315	Phone:	
Email(s) for Report:	aeckmann@trcompanies.com tkiesel@trccompanies.com	Email(s) for Invoice:	

Project Information

Project Name/No:	Springfield District Court	Purchase Order:	C458085
EMSL LIMS Project ID: (If applicable, EMSL will provide)		State Samples Collected: / Zip Code Samples Collected::	State of Connecticut (CT) must select project location: ☐ ☐
Sampled By Name:	Eckmann/ Kiesel	Sampled By Signature:	A. Eckmann
No. of Samples in Shipment			

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ **Biocide Used in Source (specify)**

Public Water Supply Samples: ☐ **Note: All results may automatically be reported to DOH if required by State.**

Turn-Around-Time (TAT) Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

☒ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32* Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

MICROBIOLOGY TEST CODES

M001 Air-O-Cell	**M012** *Pseudomonas aeruginosa* (P/A***)	**M115** Sewage Screen - Water (P/A***)
M174 MoldSnap		
M030 Mold Snap	**M024** *Pseudomonas aeruginosa* (MFT*)	**M116** Sewage Screen - Water (MPN**)
M032 Allergenco-D		
M041 Fungal Direct Examination	**M015** Heterotrophic Plate Count	**M117** Sewage Screen - Swab (P/A***)
M169 Pollen ID & Enumeration	**M017** Total Coliform & *E. Coli* (Colilert P/A***)	**M013** Sewage Screen - Swab (MFT*)
M280 Dust Characterization Level-1	**M018** Total Coliform & *E. Coli* (MFT*)	**M730** *Methicillin-resistant Staph, aureus* (MRSA)
M281 Dust Characterization Level-2	**M114** Total Coliform & *E. Coli Enumeration (Colilert MPN**)*	**M031** Rapid-growing non-TB *Mycobacteria* Detection & Enumeration
M005 Viable Fungi-Air Samples (Genus ID & Count)	**M019** Fecal Coliform (MFT*)	
M006 Viable Fungi-Air Samples (Includes *Penicillum, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)	**M020** Fecal *Streptococcus* (MFT*)	**M014** Endotoxin Analysis
	M029 *Enterococci* (MFT*)	**M044** Group Allergen (Cat, Dog, Cockroach, Dust Mite)
M007 Culturable Fungi-Surface Samples (Genus ID & Count)	**M129** *Enterococci* (Enterolert P/A***)	**M095** Bacteroides
M008 Culturable Fungi-Surface Samples (Includes *Penicillum, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)	**M180** Real Time qPCR-ERMI 36 Panel	**Other** - See Analytical Price Guide for Test Code
	M025 Sewage Screen - Water (MFT*)	***Legionella Analysis*** Please use EMSL *Legionella* COC
M009 Bacteria Culture Gram Stain & Count	*MFT= Membrane Filtration Technique	
M010 Bacteria Count & ID - 3 Most Prominent	**MPN = Most Probable Number	
M011 Bacteria Count & ID - 5 Most Prominent	***P/A = Presence/Absence	

Sample #	Sample Location/Description	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
Example: Sample 1	Kitchen	Water	Potable	M017	1,000 ml	1/1/2021 3:30pm	
32975906	G-cellblock hall			M001	75 l	16:20	
32975842	G-mail room			↓	↓	16:25	
32975996	3rd Fl, SC-6						
32975980	3rd Fl, Judges Lobby						
32975999	3rd Fl, SC-1						
32973838	3rd Fl, SC-3						

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

REC'D EMSL-BOSTON SEP 07 2021 0830

Method of Shipment: brought by ADE to drop box (ADE 9:15)

Relinquished by: A. Eckmann Date/Time: 9/6/21 2:30pm

Relinquished by: Date/Time:

Sample Condition Upon Receipt:

Received by: Date/Time

Received by: Date/Time

Controlled Document - COC-34 Micro R11 1/26/2021

page 1 of 2

OrderID: 132106487

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Microbiology Chain of Custody Form

EMSL Order Number / Lab Use Only
132106487

EMSL Analytical, Inc.
5A Constitution Way
Woburn, MA 01801

PHONE: (781) 933-8411
EMAIL: bostonlab@emsl.com

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.)

Sample #	Sample Location/Description	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
39							
32975481	3rd Fl, Records Room						
32976017	Outdoors, Roof						
32975991	Outdoors, State St.						
32975995	2nd Fl, SC-7						
32973836	2nd Fl, DC-9						
32975987	2nd. Fl, Commissioner's Conf. Rm.						
32976016	2nd Fl, DC-6						
32975885	2nd F, DC-4						

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by: A. Uhlmann	Date/Time: 9/6/21 ~~8:30~~ 9:15 p.	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-34 Micro R10 12/28/2020

RECD EMSL-BOSTON SEP 07 2021 0830

page 2 of 2

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801

Tel/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106558
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date: 09/08/2021
Received Date: 09/08/2021 01:00 PM
Analyzed Date: 09/08/2021

Project: 458085 - Springfield, MA; Office Court Management

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

Lab Sample Number:	132106558-0001			132106558-0002			132106558-0003		
Client Sample ID:	3297 6055			3297 6064			3297 3840		
Volume (L):	75			75			75		
Sample Location:	Outdoors Near Ramp			3rd Floor Court 3			3rd Floor Court 1 Conf. A		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	2	80	0.4	-	-	-	-	-	-
Ascospores	38	1600	8.8	-	-	-	-	-	-
Aspergillus/Penicillium	3	100	0.6	-	-	-	11	460	85.2
Basidiospores	318	13300	73.3	1	40	50	1	40	7.4
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	55	2300	12.7	1	40	50	1	40	7.4
Curvularia	1	40	0.2	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	6	300	1.7	-	-	-	-	-	-
Myxomycetes++	10	420	2.3	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora++	-	-	-	-	-	-	-	-	-
Total Fungi	**433**	**18140**	**100**	**2**	**80**	**100**	**13**	**540**	**100**
Hyphal Fragment	2	80	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	1	40	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	-	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	-	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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

Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/08/2021 02:03 PM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

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Project ID:

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Fax:
Collected Date: 09/08/2021
Received Date: 09/08/2021 01:00 PM
Analyzed Date: 09/08/2021

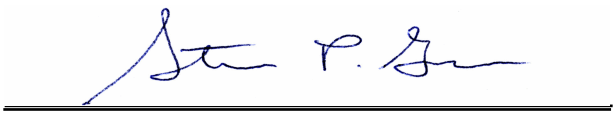
Project: 458085 - Springfield, MA; Office Court Management

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

Lab Sample Number:	132106558-0004			132106558-0005		
Client Sample ID:	3297 5989			3297 3839		
Volume (L):	75			75		
Sample Location:	Ground Floor Mail Room			Outdoor, State Street Near Air Intake		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-
Ascospores	-	-	-	6	300	3.7
Aspergillus/Penicillium	11	460	100	-	-	-
Basidiospores	-	-	-	156	6550	80.4
Bipolaris++	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-
Cladosporium	-	-	-	20	840	10.3
Curvularia	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-
Ganoderma	-	-	-	8	300	3.7
Myxomycetes++	-	-	-	2	80	1
Pithomyces++	-	-	-	-	-	-
Rust	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	1	40	0.5
Zygomycetes	-	-	-	-	-	-
Cercospora++	-	-	-	1	40	0.5
Total Fungi	**11**	**460**	**100**	**194**	**8150**	**100**
Hyphal Fragment	-	-	-	2	80	-
Insect Fragment	-	-	-	-	-	-
Pollen	-	-	-	1	40	-
Analyt. Sensitivity 600x	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	-	-
Fibrous Particulate (1-4)	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-

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

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



Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/08/2021 02:03 PM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106558
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date: 09/08/2021
Received Date: 09/08/2021
Analyzed Date: 09/08/2021

Project: 458085 - Springfield, MA; Office Court Management

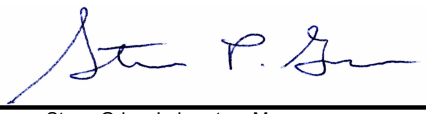
Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number:	132106558-0006	132106558-0007	132106558-0008	132106558-0009	
Client Sample ID:	0908PL-1	0908PL-2	0908PC1-1	0908PC1-2	
Sample Location:	Behind Bench	Witness Desk	Wall Near Gallery	Book	
Spore Types	Category	Category	Category	Category	
Alternaria (Ulocladium)	-	-	-	-	
Ascospores	-	-	-	-	
Aspergillus/Penicillium	-	-	-	-	
Basidiospores	-	-	-	-	
Bipolaris++	-	-	-	-	
Chaetomium++	-	-	-	-	
Cladosporium	Rare	-	-	Rare	
Curvularia	-	-	-	-	
Epicoccum	-	-	-	-	
Fusarium++	-	-	-	-	
Ganoderma	-	-	-	-	
Myxomycetes++	Rare	-	Rare	-	
Pithomyces++	-	-	-	-	
Rust	-	-	-	-	
Scopulariopsis/Microascus	-	-	-	-	
Stachybotrys/Memnoniella	-	-	-	-	
Unidentifiable Spores	-	-	-	-	
Zygomycetes	-	-	-	-	
Hyphal Fragment	-	-	-	-	
Insect Fragment	-	-	-	-	
Pollen	-	-	-	-	
Fibrous Particulate	-	-	-	-	

Sample Comment: 132106558-0007 - None Detected

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.



Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 09/08/2021 02:03 PM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

132106558

TRC
300 Wildwood Woburn MA 01801

MICROBIAL SAMPLE CHAIN OF CUSTODY FORM

Client:	Project Number: 458085	Sampling Technician(s): Timothy Kiesel
Project Name: Springfield MA Office Court Management	Tracking Number:	Requested TAT: 3 HR

MICROBIAL SAMPLE INFORMATION

Sample Date	Sample Identification	Sample Type	Sample Location	Volume / Area Collected	Laboratory Analysis Requested
09/08/2021	32976055	Spore Trap	Outdoors Near ramp	75 L	
09/08/2021	32976064	Spore Trap	3rd floor court 3	75 L	
09/08/2021	32973840	Spore Trap	3rd floor court 1 conf A	75 L	
09/08/2021	32975989	Spore Trap	Ground floor mail room	75 L	
09/08/2021	32973839	Spore Trap	Outdoor state st near air intake	75 L	
09/08/2021	0908PL-1	Tape Lift	Behind bench	N/A	Direct Microscopic Exam (Qualitative)
09/08/2021	0908PL-2	Tape Lift	Witness desk	N/A	Direct Microscopic Exam (Qualitative)
09/08/2021	0908PC1-1	Tape Lift	wall near gallery	N/A	Direct Microscopic Exam (Qualitative)
09/08/2021	0908PC1-2	Tape Lift	Book	N/A	Direct Microscopic Exam (Qualitative)

Special Instruction to Laboratory:

CHAIN OF CUSTODY INFORMATION AND LABORATORY INFORMATION

Relinquished By:	Date and Time	Received By:	Date and Time
1. (Print): Timothy Kiesel	09/08/2021 9:39 am America/New_York		

REC'D SEP 08 2021
EMSL-BOSTON

Page 1 of 2 2

. (Sign):			
II. (Print):			
(Sign):			
Email Results to: AEckmann@trccompanies.com	**Lab Comments:**		

Page 2 of 2

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5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106645
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date: 09/10/2021
Received Date: 09/10/2021
Analyzed Date: 09/10/2021

Project: 458085 - Springfield, MA; Office Court Management

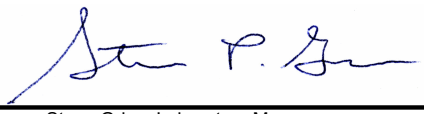
Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number: **Client Sample ID:** **Sample Location:**	**132106645-0001** **0909P140-1** Room 140 - Wood Underneath Grate	**132106645-0002** **0909P140-2** Room 140 - Window Sill	**132106645-0003** **0909P140-3** Room 140 - Inside of AC Unit		
Spore Types	Category	Category	Category		
Alternaria (Ulocladium)	-	-	-		
Ascospores	-	-	-		
Aspergillus/Penicillium	-	-	-		
Basidiospores	-	-	-		
Bipolaris++	-	-	-		
Chaetomium++	-	-	-		
Cladosporium	-	-	-		
Curvularia	-	-	-		
Epicoccum	-	-	-		
Fusarium++	-	-	-		
Ganoderma	-	-	-		
Myxomycetes++	-	-	-		
Pithomyces++	-	-	-		
Rust	-	-	-		
Scopulariopsis/Microascus	-	-	-		
Stachybotrys/Memnoniella	-	-	-		
Unidentifiable Spores	-	-	-		
Zygomycetes	-	-	-		
Hyphal Fragment	-	-	-		
Insect Fragment	-	-	-		
Pollen	-	-	-		
Fibrous Particulate	-	-	-		

Sample Comment: 132106645-0001 - None Detected
Sample Comment: 132106645-0002 - None Detected
Sample Comment: 132106645-0003 - None Detected

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.



Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 09/10/2021 02:46 PM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

132106645

TRC
300 Wildwood Woburn MA 01801

MICROBIAL SAMPLE CHAIN OF CUSTODY FORM

Client:	Project Number: 458085	Sampling Technician(s): Timothy Kiesel
Project Name: Springfield MA Office Court Management	Tracking Number:	Requested TAT: 3 HR

MICROBIAL SAMPLE INFORMATION

Sample Date	Sample Identification	Sample Type	Sample Location	Volume / Area Collected	Laboratory Analysis Requested
09/10/2021	0909P140-1	Tape Lift	Room 140 Wood underneath grate	N/A	Direct Microscopic Exam (Qualitative)
09/10/2021	0909P140-2	Tape Lift	Room 140 window sill	N/A	Direct Microscopic Exam (Qualitative)
09/10/2021	0909P140-3	Tape Lift	Room 140 inside of ac unit	N/A	Direct Microscopic Exam (Qualitative)

Special Instruction to Laboratory:

CHAIN OF CUSTODY INFORMATION AND LABORATORY INFORMATION

Relinquished By:	Date and Time	Received By:	Date and Time
1. (Print): Timothy Kiesel	09/10/2021 12:08 pm America/New_York		
. (Sign): T Kiesel			
II. (Print):			
(Sign):			

Email Results to:
AEckmann@trccompanies.com

Lab Comments:

REC'D SEP 10 2021
EMSL-BOSTON

8m 1310
fx 2835.1206
2648

Page 1 of 1

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106674
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date: 09/10/2021
Received Date: 09/10/2021
Analyzed Date: 09/12/2021

Project: 458085 - Springfield Courthouse

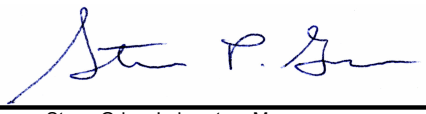
Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number:	132106674-0007	132106674-0008	132106674-0009	132106674-0010	
Client Sample ID:	01	02	03	04	
Sample Location:	374C - Supply Reg	370 - Supply Reg	371 - Supply Reg	385 - Supply Reg	
Spore Types	Category	Category	Category	Category	
Alternaria (Ulocladium)	-	-	-	-	
Ascospores	-	-	-	-	
Aspergillus/Penicillium	-	-	-	-	
Basidiospores	Rare	-	Rare	Rare	
Bipolaris++	-	-	-	-	
Chaetomium++	-	-	-	-	
Cladosporium	Low	-	Rare	Low	
Curvularia	-	-	-	-	
Epicoccum	-	-	-	-	
Fusarium++	-	-	-	-	
Ganoderma	-	-	-	-	
Myxomycetes++	-	-	-	-	
Pithomyces++	-	-	-	-	
Rust	-	-	-	-	
Scopulariopsis/Microascus	-	-	-	-	
Stachybotrys/Memnoniella	-	-	-	-	
Unidentifiable Spores	-	-	-	-	
Zygomycetes	-	-	-	-	
Hyphal Fragment	-	-	-	-	
Insect Fragment	-	-	-	-	
Pollen	-	-	-	-	
Fibrous Particulate	-	-	-	-	

Sample Comment: 132106674-0008 - None Detected

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.



Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 09/12/2021 06:42 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106674
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date: 09/10/2021
Received Date: 09/10/2021
Analyzed Date: 09/12/2021

Project: 458085 - Springfield Courthouse

Test Report: Allergenco-D(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

	132106674-0001			132106674-0002			132106674-0003		
Lab Sample Number:									
Client Sample ID:	3971600			3971599			3971592		
Volume (L):	75			75			75		
Sample Location:	Outdoor (West)			3rd Floor, Court #1 Records			DA-374C		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	16	670	5	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	56	2400	90.9	-	-	-
Basidiospores	278	11700	87.2	4	200	7.6	1	40	28.6
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	2	80	0.6	-	-	-	3	100	71.4
Curvularia	-	-	-	1	40	1.5	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	12	500	3.7	-	-	-	-	-	-
Myxomycetes++	7	300	2.2	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	2	80	0.6	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora++	2	80	0.6	-	-	-	-	-	-
Dicranidion	-	-	-	-	-	-	-	-	-
Fusicladium/Venturia	-	-	-	-	-	-	-	-	-
Total Fungi	**319**	**13410**	**100**	**61**	**2640**	**100**	**4**	**140**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	1	40	-	1	40	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	-	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	2	-	-	1	-

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

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

Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/12/2021 06:42 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.

5 Constitution Way, Unit A Woburn, MA 01801
Tel/Fax: (781) 933-8411 / (781) 933-8412
http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106674
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date: 09/10/2021
Received Date: 09/10/2021
Analyzed Date: 09/12/2021

Project: 458085 - Springfield Courthouse

Test Report: Allergenco-D(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	132106674-0004			132106674-0005			132106674-0006		
Client Sample ID:	3971587			3971598			3971601		
Volume (L):	75			75			75		
Sample Location:	DA-385 Cubicles			DA Hall at 364/370			Outdoor (East)		
Spore Types	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**	**Raw Count**	**Count/m³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	39	1600	8.9
Aspergillus/Penicillium	2	80	66.7	-	-	-	-	-	-
Basidiospores	-	-	-	-	-	-	360	15100	83.6
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	1	40	33.3	2	80	100	4	200	1.1
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	19	800	4.4
Myxomycetes++	-	-	-	-	-	-	4	200	1.1
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	2	80	0.4
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora++	-	-	-	-	-	-	-	-	-
Dicranidion	-	-	-	-	-	-	1	40	0.2
Fusicladium/Venturia	-	-	-	-	-	-	1	40	0.2
Total Fungi	**3**	**120**	**100**	**2**	**80**	**100**	**430**	**18060**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	-	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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

Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/12/2021 06:42 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

OrderID: 132106674

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Microbiology Chain of Custody Form

EMSL Order Number / Lab Use Only

132106674

EMSL Analytical, Inc.
5A Constitution Way
Woburn, MA 01801

PHONE: (781) 933-8411
EMAIL: bostonlab@emsl.com

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

Customer Information

Customer ID:	
Company Name:	TRC
Contact Name:	Ann Eckmann
Street Address:	300 Wildwood Ave.
City, State, Zip:	Woburn, MA 01801
Country:	
Phone:	781.706.7315
Email(s) for Report:	aeckmann@trccompanies.com
	tkliesel@trccompanies.com; osmaracko@trccompanies.com

Billing Information

Billing ID:	
Company Name:	
Billing Contact:	on file
Street Address:	
City, State, Zip:	
Country:	
Phone:	
Email(s) for Invoice:	

Project Information

Project Name/No:	458085 Springfield Courthouse
Purchase Order:	C458085
EMSL LIMS Project ID: (If applicable, EMSL will provide)	
State Samples Collected:	MA
Zip Code Samples Collected::	
State of Connecticut (CT) must select project location:	☐ ☐
Sampled By Name:	
Sampled By Signature:	
No. of Samples in Shipment	

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ **Biocide Used in Source (specify)**

Public Water Supply Samples: ☐ **Note: All results may automatically be reported to DOH if required by State.**

Turn-Around-Time (TAT) Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

☑ **3 Hour** ☐ **6 Hour** ☐ **24 Hour** ☐ **32* Hour** ☐ **48 Hour** ☐ **72 Hour** ☐ **96 Hour** ☐ **1 Week** ☐ **2 Week**

MICROBIOLOGY TEST CODES

M001 Air-O-Cell	**M174** MoldSnap	**M012** *Pseudomonas aeruginosa* (P/A***)	**M115** Sewage Screen - Water (P/A***)
M030 Mold Snap	**M032** Allergenco-D	**M024** *Pseudomonas aeruginosa* (MFT*)	**M116** Sewage Screen - Water (MPN**)
M041 Fungal Direct Examination		**M015** Heterotrophic Plate Count	**M117** Sewage Screen - Swab (P/A***)
M169 Pollen ID & Enumeration		**M017** Total Coliform & *E. Coli* (Colilert P/A***)	**M013** Sewage Screen - Swab (MFT*)
M280 Dust Characterization Level-1		**M018** Total Coliform & *E. Coli* (MFT*)	**M730** *Methicillin-resistant Staph, aureus* (MRSA)
M281 Dust Characterization Level-2		**M114** Total Coliform & *E. Coli Enumeration (Colilert MPN**)*	**M031** Rapid-growing non-TB *Mycobacteria* Detection & Enumeration
M005 Viable Fungi-Air Samples (Genus ID & Count)		**M019** Fecal Coliform (MFT*)	
M006 Viable Fungi-Air Samples (Includes *Penicillum, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)		**M020** Fecal *Streptococcus* (MFT*)	**M014** Endotoxin Analysis
		M029 *Enterococci* (MFT*)	**M044** Group Allergen (Cat, Dog, Cockroach, Dust Mite)
M007 Culturable Fungi-Surface Samples (Genus ID & Count)		**M129** *Enterococci* (Enterolert P/A***)	**M095** Bacteroides
M008 Culturable Fungi-Surface Samples (Includes *Penicillum, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)		**M180** Real Time qPCR-ERMI 36 Panel	**Other** - See Analytical Price Guide for Test Code
		M025 Sewage Screen - Water (MFT*)	***Legionella Analysis*** Please use EMSL *Legionella* COC
M009 Bacteria Culture Gram Stain & Count		*MFT= Membrane Filtration Technique	
M010 Bacteria Count & ID - 3 Most Prominent		**MPN = Most Probable Number	
M011 Bacteria Count & ID - 5 Most Prominent		***P/A = Presence/Absence	

Sample #	Sample Location/Description	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
Example: Sample 1	Kitchen	Water	Potable	M017	1,000 ml	1/1/2021 3:30pm	
3971600	Outdoor (west)	Air		M041	75 L	9/10/21	
3971599	3rd Fl, Cart #1 Records	Air		M041	75 L		
3971592	DA-374C	Air		M041	75 L		
3971587	DA-385 Cubicles	Air		M041	75 L		
3971598	DA-Hall at 364/370	Air		M041	75 L		
3971601	Outdoor (east)	Air		M041	75 L		

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

JM 530pm W1

Method of Shipment:		Sample Condition Upon Receipt: RECD	
Relinquished by:	Date/Time: 9/10/21 1415	Received by: EMSL-BOSTON	Date/Time: SEP 10 2021
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-34 Micro R11 1/26/2021

OrderID: 132106674

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Microbiology Chain of Custody Form

EMSL Order Number / Lab Use Only
132106674

EMSL Analytical, Inc.
5A Constitution Way
Woburn, MA 01801

PHONE: (781) 933-8411
EMAIL: bostonlab@emsl.com

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.)

Sample #	Sample Location/Description	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
01	374C-Supply Reg	Tape		M041		9/10/21	
02	370 - Supply Reg	Tape		M041		↓	
03	371 - Supply Reg	Tape		M041			
04	385-Supply Reg	Tape		M041			

Method of Shipment:		Sample Condition Upon Receipt: REC'D JM 530pm 01	
Relinquished by:	Date/Time: 9/10/21 1415	Received by: EMSL-BOSTON SEP 10 2021	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-34 Micro R11 1/26/2021

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EMSL Order: 132106711
Customer ID: COVI50
Customer PO:
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Phone: (781) 933-2555
Fax:
Collected Date:
Received Date: 09/14/2021 08:30 AM
Analyzed Date: 09/14/2021

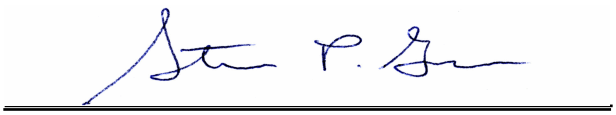
Project: 458085 - Springfield - 50 State Street

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

Lab Sample Number:	132106711-0009			132106711-0010			132106711-0011		
Client Sample ID:	3318-8807			3318-8835			3318-8839		
Volume (L):	75			75			75		
Sample Location:	Rm 109			Rm 103			Rm 101		
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	-	-	-	-	-	-	-	-	-
Basidiospores	2	80	50	2	80	40	2	80	66.7
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	2	80	50	1	40	20	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	2	80	40	1	40	33.3
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**4**	**160**	**100**	**5**	**200**	**100**	**3**	**120**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	2	-	-	2	-

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

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



Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/14/2021 10:53 AM

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Fax:
Collected Date:
Received Date: 09/14/2021 08:30 AM
Analyzed Date: 09/14/2021

Project: 458085 - Springfield - 50 State Street

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

Lab Sample Number:	132106711-0012			132106711-0013			132106711-0014		
Client Sample ID:	3297-5862			3297-5859			3297-5888		
Volume (L):	75			75			75		
Sample Location:	4th - Registry of Probate - North End			4th - Registry of Probate - South End			Rm 332		
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	-	-	-	-	-	-	998	41900	99.4
Basidiospores	1	40	50	1	40	18.2	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	3	100	45.5	5	200	0.5
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	1	40	50	-	-	-	-	-	-
Myxomycetes++	-	-	-	2	80	36.4	1	40	0.1
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**2**	**80**	**100**	**6**	**220**	**100**	**1004**	**42140**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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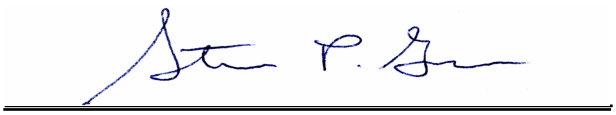

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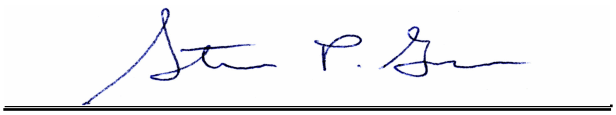
Project: 458085 - Springfield - 50 State Street

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

Lab Sample Number:	132106711-0015			132106711-0016			132106711-0017		
Client Sample ID:	3297-5864			3318-1743			3318-8779		
Volume (L):	75			75			75		
Sample Location:	3rd Fl - Records Rm			Rm 315B			3rd Fl Courtroom 4		
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	11	460	100	8	300	88.2	-	-	-
Basidiospores	-	-	-	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	1	40	11.8	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**11**	**460**	**100**	**9**	**340**	**100**	**-**	**None Detect**	**-**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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



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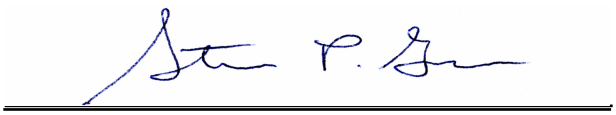
Project: 458085 - Springfield - 50 State Street

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

Lab Sample Number:	132106711-0018			132106711-0019			132106711-0020		
Client Sample ID:	3318-8751			3318-8745			3318-~~8745~~ -8818		
Volume (L):	75			75			75 ADE 9-14-2021		
Sample Location:	G27C - Conference Rm			Outdoors			Outdoors		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	7	300	4.7	10	420	8.9
Aspergillus/Penicillium	-	-	-	3	100	1.6	-	-	-
Basidiospores	-	-	-	126	5290	83.2	96	4000	84.7
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	13	550	8.6	7	300	6.4
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	2	80	1.3	-	-	-
Myxomycetes++	-	-	-	1	40	0.6	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**-**	**None Detect**	**-**	**152**	**6360**	**100**	**113**	**4720**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	1	40	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	-	-	-	-	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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



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Analyzed Date: 09/14/2021

Project: 458085 - Springfield - 50 State Street

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

Lab Sample Number:	**132106711-0021**				
Client Sample ID:	**Bulk 1**				
Sample Location:	**Envelope Provided by Joh Gay**				
Spore Types	Category				
Alternaria (Ulocladium)	-				
Ascospores	-				
Aspergillus/Penicillium	*High*				
Basidiospores	-				
Bipolaris++	-				
Chaetomium++	-				
Cladosporium	Low				
Curvularia	-				
Epicoccum	-				
Fusarium++	-				
Ganoderma	-				
Myxomycetes++	-				
Pithomyces++	-				
Rust	-				
Scopulariopsis/Microascus	-				
Stachybotrys/Memnoniella	-				
Unidentifiable Spores	-				
Zygomycetes	-				
Hyphal Fragment	-				
Insect Fragment	-				
Pollen	-				
Fibrous Particulate	-				

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.

Steve Grise, Laboratory Manager
or other Approved Signatory

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Initial report from: 09/14/2021 10:53 AM

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Received Date: 09/14/2021
Analyzed Date: 09/14/2021

Project: 458085 - Springfield - 50 State Street

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

Lab Sample Number:	132106711-0001	132106711-0002	132106711-0003	132106711-0004	132106711-0005
Client Sample ID:	TL-1	TL-2	TL-3	TL-4	TL-5
Sample Location:	Rm 109 - Fan Coil Unit	Room 103 - Window Sill	Room 101 - Fan Coil Unit	4th - Registry of Probate North Side Diffuser	4th - Registry of Probate South Side Diffuser
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	Rare
Basidiospores	-	-	-	-	-
Bipolaris++	-	-	-	-	-
Chaetomium++	-	-	-	-	-
Cladosporium	Rare	-	-	-	Rare
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium++	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	Rare	-	-	-	-
Pithomyces++	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-

Sample Comment: 132106711-0002 - None Detected
Sample Comment: 132106711-0003 - None Detected
Sample Comment: 132106711-0004 - None Detected

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.

Steve Grise, Laboratory Manager
or other Approved Signatory

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Project: 458085 - Springfield - 50 State Street

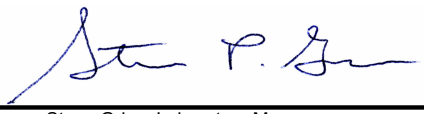
Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number:	132106711-0006	132106711-0007	132106711-0008		
Client Sample ID:	TL-6	TL-7	TL-8		
Sample Location:	Rm 332 - Table & Computer	Rm 315B - Diffuser	Rm G27C - Conference Rm		
Spore Types	Category	Category	Category		
Alternaria (Ulocladium)	-	-	-		
Ascospores	-	-	-		
Aspergillus/Penicillium	-	-	-		
Basidiospores	-	-	-		
Bipolaris++	-	-	-		
Chaetomium++	-	-	-		
Cladosporium	*Medium*	-	-		
Curvularia	-	-	-		
Epicoccum	-	-	-		
Fusarium++	-	-	-		
Ganoderma	-	-	-		
Myxomycetes++	-	-	-		
Pithomyces++	-	-	-		
Rust	-	-	-		
Scopulariopsis/Microascus	-	-	-		
Stachybotrys/Memnoniella	-	-	-		
Unidentifiable Spores	-	-	-		
Zygomycetes	-	-	-		
Hyphal Fragment	-	-	-		
Insect Fragment	-	-	-		
Pollen	-	-	-		
Fibrous Particulate	-	-	-		

Sample Comment: 132106711-0007 - None Detected
Sample Comment: 132106711-0008 - None Detected

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.



Steve Grise, Laboratory Manager
or other Approved Signatory

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

Initial report from: 09/14/2021 10:53 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

OrderID: 132106711

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Microbiology Chain of Custody Form

EMSL Order Number / Lab Use Only

132106711

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077

PHONE (800) 220-3675
EMAIL CinnMicroLab@emsl.com

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

Customer Information		Billing Information	
Customer ID:		Billing ID:	
Company Name:	TRC	Company Name:	
Contact Name:	AM Echmann	Billing Contact:	
Street Address:	Wobur N MA	Street Address:	Same
City, State, Zip:	MA	City, State, Zip:	
Country:		Country:	
Phone:		Phone:	
Email(s) for Report:	AEchmaN@TRCcompanies.com	Email(s) for Invoice:	

Project Information

Project Name/No:	458085 - Springfield - 50 State St
Purchase Order:	458085
EMSL LIMS Project ID: (If applicable, EMSL will provide)	
State Samples Collected:	
Zip Code Samples Collected::	
State of Connecticut (CT) must select project location:	☐ Commercial (Taxable) ☐ Residential (Non-taxable)
Sampled By Name:	Michael McCarter
Sampled By Signature:	
No. of Samples in Shipment	

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ Biocide Used in Source (specify)

Public Water Supply Samples: ☐ Note: **All results may automatically be reported to DOH if required by State.**

Turn-Around-Time (TAT) Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

☒ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32* Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

MICROBIOLOGY TEST CODES

M001 Air-O-Cell	**M174** MoldSnap	**M012** *Pseudomonas aeruginosa* (P/A***)	**M115** Sewage Screen - Water (P/A***)
M030 Micro 5	**M032** Allergenco-D	**M024** *Pseudomonas aeruginosa* (MFT*)	**M116** Sewage Screen - Water (MPN**)
M041 Fungal Direct Examination		**M015** Heterotrophic Plate Count	**M117** Sewage Screen - Swab (P/A***)
M169 Pollen ID & Enumeration		**M017** Total Coliform & *E. Coli* (Colilert P/A***)	**M013** Sewage Screen - Swab (MFT*)
M280 Dust Characterization Level-1		**M018** Total Coliform & *E. Coli* (MFT*)	**M730** *Methicillin-resistant Staph. aureus* (MRSA)
M281 Dust Characterization Level-2		**M114** Total Coliform & *E. Coli Enumeration (Colilert MPN***)	**M031** Rapid-growing non-TB *Mycobacteria* Detection & Enumeration
M005 Viable Fungi-Air Samples (Genus ID & Count)		**M019** Fecal Coliform (MFT*)	
M006 Viable Fungi-Air Samples (Includes *Penicillum, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)		**M020** Fecal *Streptococcus* (MFT*)	**M014** Endotoxin Analysis
		M029 *Enterococci* (MFT*)	**M044** Group Allergen (Cat, Dog, Cockroach, Dust Mite)
M007 Culturable Fungi-Surface Samples (Genus ID & Count)		**M129** *Enterococci* (Enterolert P/A***)	**M095** Bacteroides
M008 Culturable Fungi-Surface Samples (Includes *Penicillum, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)		**M180** Real Time qPCR-ERMI 36 Panel	**Other** - See Analytical Price Guide for Test Code
		M025 Sewage Screen - Water (MFT*)	***Legionella Analysis*** Please use EMSL *Legionella* COC
M009 Bacteria Culture Gram Stain & Count		*MFT= Membrane Filtration Technique	
M010 Bacteria Count & ID - 3 Most Prominent		**MPN = Most Probable Number	
M011 Bacteria Count & ID - 5 Most Prominent		***P/A = Presence/Absence	

Sample #	Sample Location/Description	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
Example: Sample 1	Kitchen	Water	Potable	M017	1,000 ml	1/1/2021 3:30pm	

See next page

REC'D EMSL-BOSTON SEP 14 2021

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

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time: 9-13-21	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-34 Micro R13 03/02/2021

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EMAIL: CinnMicroLab@emsl.com

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

Sample #	Sample Location/Description JO State St	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
TL-1	Rm 109 - FAN Coil unit	M041	-	M041	NA	9-13-21	
TL-2	Room 103 - under S.V						
TL-3	Room 101 - FAN Coil unit						
TL-4	4th - Registry of probate North S.V Diffuser						
TL-5	4th - Registry of probate South Side Diffuser						
TL-6	Rm 332 - Table + Computer						
TL-7	Rm 315B - Diffuser						
TL-8	Rm G27C - Conference Rm						
3318-8809	Rm 109	M001		M001	MT		
3318-8833	Rm 103						
3318-8839	Rm 101						
3297-5862	4th - Registry of Probate - North End						
3297-5859	↓ - South End						
3297-5888	Rm 332						
3297-5864	3rd Fl - Records Rm						
3318-1743	Rm 315B						
3318-8779	3rd Fl Court Rm 4						
3318-8751	G27C - Conference Rm						
3318-8745	Out Doors						
3318-8818	↓						
Bulk 1	Envelope provided by John Gay	M041		M041	NA	Sample not provided by client	

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Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time: 9-13-21	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

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Page 2 of 2

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http://www.EMSL.com / bostonlab@emsl.com

EMSL Order: 132106809
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085 - Springfield

Phone: (781) 933-2555
Fax:
Collected Date: 09/15/2021
Received Date: 09/16/2021 08:30 AM
Analyzed Date: 09/16/2021

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

Lab Sample Number:	132106809-0006			132106809-0007			132106809-0008		
Client Sample ID:	3318 8739			3318 8814			3318 8755		
Volume (L):	75			75			75		
Sample Location:	3rd Floor Records Room			4th Floor Vault			3rd Floor Room 332		
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	2	80	22.2	2	80	100	52	2200	87.3
Basidiospores	4	200	55.6	-	-	-	2	80	3.2
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	4	200	7.9
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	1	40	1.6
Pithomyces++	1	40	11.1	-	-	-	-	-	-
Rust	1	40	11.1	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora++	-	-	-	-	-	-	-	-	-
Paecilomyces++	-	-	-	-	-	-	-	-	-
Total Fungi	**8**	**360**	**100**	**2**	**80**	**100**	**59**	**2520**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	1	40	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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

Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/16/2021 11:25 AM

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

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EMSL Order: 132106809
Customer ID: COVI50
Customer PO: 458085
Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085 - Springfield

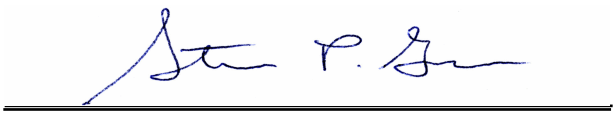
Phone: (781) 933-2555
Fax:
Collected Date: 09/15/2021
Received Date: 09/16/2021 08:30 AM
Analyzed Date: 09/16/2021

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

Lab Sample Number:	132106809-0009			132106809-0010			132106809-0011		
Client Sample ID:	3318 8804			3318 8747			3318 8796		
Volume (L):	75			75			75		
Sample Location:	Room 204			Outdoors			Outdoors		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	2	80	0.6	-	-	-
Ascospores	-	-	-	6	300	2.3	11	460	3.8
Aspergillus/Penicillium	-	-	-	-	-	-	-	-	-
Basidiospores	1	40	100	290	12200	92	258	10800	88.2
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	5	200	1.5	9	400	3.3
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	4	200	1.5	2	80	0.7
Myxomycetes++	-	-	-	2	80	0.6	11	460	3.8
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora++	-	-	-	-	-	-	1	40	0.3
Paecilomyces++	-	-	-	5	200	1.5	-	-	-
Total Fungi	**1**	**40**	**100**	**314**	**13260**	**100**	**292**	**12240**	**100**
Hyphal Fragment	-	-	-	1	40	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	-	-	-	-	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

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



Steve Grise, Laboratory Manager
or other Approved Signatory

Initial report from: 09/16/2021 11:25 AM

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EMSL Order: 132106809
Customer ID: COVI50
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Project ID:

Attention: Ann D. Eckmann
TRC
300 Wildwood Avenue
Woburn, MA 01801

Project: 458085 - Springfield

Phone: (781) 933-2555
Fax:
Collected Date: 09/15/2021
Received Date: 09/16/2021
Analyzed Date: 09/16/2021

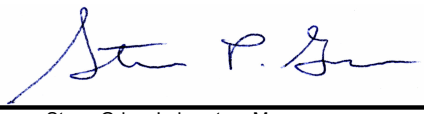
Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number:	132106809-0001	132106809-0002	132106809-0003	132106809-0004	132106809-0005
Client Sample ID:	TL-1	TL-2	TL-3	TL-4	TL-5
Sample Location:	3rd Floor Records Room - Shelf	4th Floor Vault - Ceiling Tile	3rd Floor Room 332 - Computer & Table	Ground Floor Holding Cell H14 - Bars	Room 204 - File Cabinet
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	-	-	Rare	-	-
Basidiospores	Rare	-	-	-	Rare
Bipolaris++	-	-	-	-	-
Chaetomium++	-	-	-	-	-
Cladosporium	Rare	-	Rare	Rare	Rare
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium++	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	-	-	Rare	-
Pithomyces++	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-

Sample Comment: 132106809-0002 - None Detected

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.



Steve Grise, Laboratory Manager
or other Approved Signatory

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Initial report from: 09/16/2021 11:25 AM

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Cinnaminson, NJ 08077

PHONE: (800) 220-3675
EMAIL: CinnMicroLab@emsl.com

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

Customer Information		Billing Information	
Customer ID:		Billing ID:	
Company Name: TRC		Company Name:	
Contact Name: Ann Eckmann / Mike McCarter		Billing Contact: Ann Eckmann	
Street Address: 300 Wildwood Ave		Street Address:	
City, State, Zip: Woburn MA 01801	Country:	City, State, Zip:	Country:
Phone: 603 396 2600		Phone:	
Email(s) for Report: aeckmann@TRCcompanies.com MMcCarter@TRCcompanies.com		Email(s) for Invoice:	

Project Information

Project Name/No: 458085 Springfield			Purchase Order:
EMSL LIMS Project ID: (If applicable, EMSL will provide)	State Samples Collected:	Zip Code Samples Collected::	State of Connecticut (CT) must select project location: ☐ Commercial (Taxable) ☐ Residential (Non-taxable)
Sampled By Name: Michael McCarter	Sampled By Signature: [signature]		No. of Samples in Shipment

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ **Biocide Used in Source (specify)**

Public Water Supply Samples: ☐ **Note: All results may automatically be reported to DOH if required by State.**

Turn-Around-Time (TAT) Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

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MICROBIOLOGY TEST CODES

M001 Air-O-Cell / **M174** MoldSnap	**M012** *Pseudomonas aeruginosa* (P/A***)	**M115** Sewage Screen - Water (P/A***)
M030 Micro 5 / **M032** Allergenco-D	**M024** *Pseudomonas aeruginosa* (MFT*)	**M116** Sewage Screen - Water (MPN**)
M041 Fungal Direct Examination	**M015** Heterotrophic Plate Count	**M117** Sewage Screen - Swab (P/A***)
M169 Pollen ID & Enumeration	**M017** Total Coliform & *E. Coli* (Colilert P/A***)	**M013** Sewage Screen - Swab (MFT*)
M280 Dust Characterization Level-1	**M018** Total Coliform & *E. Coli* (MFT*)	**M730** *Methicillin-resistant Staph, aureus* (MRSA)
M281 Dust Characterization Level-2	**M114** Total Coliform & *E. Coli Enumeration* (Colilert MPN**)	**M031** Rapid-growing non-TB *Mycobacteria* Detection & Enumeration
M005 Viable Fungi-Air Samples (Genus ID & Count)	**M019** Fecal Coliform (MFT*)	
M006 Viable Fungi-Air Samples (Includes *Penicillum, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)	**M020** Fecal *Streptococcus* (MFT*)	**M014** Endotoxin Analysis
	M029 *Enterococci* (MFT*)	**M044** Group Allergen (Cat, Dog, Cockroach, Dust Mite)
M007 Culturable Fungi-Surface Samples (Genus ID & Count)	**M129** *Enterococci* (Enterolert P/A***)	**M095** Bacteroides
M008 Culturable Fungi-Surface Samples (Includes *Penicillum, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)	**M180** Real Time qPCR-ERMI 36 Panel	**Other** - See Analytical Price Guide for Test Code
	M025 Sewage Screen - Water (MFT*)	***Legionella Analysis*** Please use EMSL *Legionella* COC
M009 Bacteria Culture Gram Stain & Count	***MFT**= Membrane Filtration Technique	
M010 Bacteria Count & ID - 3 Most Prominent	****MPN** = Most Probable Number	
M011 Bacteria Count & ID - 5 Most Prominent	*****P/A** = Presence/Absence	

Sample #	Sample Location/Description	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
Example: Sample 1	Kitchen	Water	Potable	M017	1,000 ml	1/1/2021 3:30pm	
TL-1	3rd Fl. Records Rm - Shelf	M041	—	M041	—	9-15-21 330pm	
TL-2	4th Floor vault - Ceiling tile	↓		↓		345 pm	
TL-3	3rd Fl, Rm 332 - Computer + table	↓		↓		415 pm	
TL-4	Ground Fl. Holding Cell #14 - Bars	↓		↓		445 pm	
TL-5	Room 204 - File cabinet	↓		↓		525 pm	
			Next	Page			

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

REC'D RHRS 0830 SEP 16 2021 EMSL BOSTON DKW 3 pm

Method of Shipment: Drop Box		Sample Condition Upon Receipt:	
Relinquished by: [signature]	Date/Time: 9-15-21 815pm	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

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THE PO# 458085

Sample #	Sample Location/Description	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
3318-8739	3rd fl Records Rm	M001		M001	675	9-15-21 330pm	
3318-8814	4th fl. vault					345pm	
3318-8755	3rd fl. Rm 332					415pm	
331.8804	RM 204					525pm	
3318-8747	outdoors					550pm	
3318-8796	outdoors					555pm	

Method of Shipment: Drop Box		Sample Condition Upon Receipt: REC'D KIPS 0830	
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Appendix 3 Resumes of Key Project Personnel

ANN D. ECKMANN, CIH

EDUCATION

M.S., Environmental Health Sciences (Industrial Hygiene/Safety), Harvard School of Public Health, Boston, Massachusetts, 1983
B.S., Chemistry, University of Wisconsin-Madison, 1979

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

Certified in the Comprehensive Practice of Industrial Hygiene by the American Board of Industrial Hygiene, 1987 (Certification #3566)

AREAS OF EXPERTISE

- Industrial hygiene program development - chemical hygiene, hazard communication, respiratory protection and PPE, job hazard assessments
- Educate employers and employees about workplace hazards and health and safety requirements
- Industrial hygiene and indoor air quality services
- Mold and moisture assessments
- Compliance with OSHA health standards
- Building hazard assessments, including hazardous building materials,

REPRESENTATIVE EXPERIENCE

Ms. Eckmann has over 30 years of experience in a variety of industrial hygiene-related roles—industrial hygiene manager, operations manager, an accredited asbestos analytical laboratory director, and as a Compliance Safety and Health Officer for the U.S. Department of Labor-OSHA. Ms. Eckmann's professional background includes broad experience in comprehensive industrial hygiene practice and indoor air quality. Industrial hygiene projects include: monitoring for a variety of workplace air contaminants and noise; design and/or review of engineering and/or administrative controls; observing workplace conditions to develop job hazard assessments; developing PPE and training programs; and evaluating hazardous materials handling and storage in a range of client industries and facility types. Indoor air quality assessments have considered operation and design of building ventilation systems, air contaminants related to sources inside and outside the building, comfort parameters, and construction-related air contaminants such as respirable crystalline silica. Ms. Eckmann also addresses building-related hazards and chemical surface contaminants due to past building uses or events such as fire-related chemical releases. Ms. Eckmann has performed or overseen microbial assessments in buildings with moisture incursion due to building-related or flood conditions and designs remediation measures. Ms. Eckmann works well with employees, employers, tenants and building owners to attain useful observations and information for enhancing environmental and workplace health and safety.

Confidential Boston Area Hospital – Boston, MA (Project Manager/Lead Consultant: 2019)
Provided project oversight, field investigation and developed a remediation work plan for removal of hidden mold contamination in an infection-controlled area of a major urban hospital. Worked with hospital management, remediation contractor and manufacturers of building materials and treatment products to facilitate effective remediation while minimizing impacts to hospital operations to the extent possible.

Confidential Multi-story Hotel Renovation Site – Boston, MA ((Project Manager/Lead Consultant: 2020)
Oversaw mold assessment services throughout an HVAC systems in a multi-story hotel undergoing construction renovations. Prepared duct cleaning work specifications, oversaw field staff conducting post-remediation verification assessments and reported on final inspection results.

Keolis, Job Hazard Assessments and Indoor Air Quality Services – MA (Project Manager/Project Review: 2016 to present)
Provided oversight and review of job hazard assessments for tasks such as Lavatory Servicing and Engine Maintenance. Reviewed and commented on Standard Operating Procedures as requested. Oversaw and reported on indoor air quality assessments and mold concerns at various Keolis facilities.

Resins Manufacturing, Industrial Hygiene Programs – MA (Project Manager/ Lead Consultant: 2006 to present)
Provides/oversees industrial hygiene assessments for the Massachusetts plant of this multi-national specialty resins manufacturer. Service areas have included noise, dust, methylene chloride, supplied air respiratory protection, combustible dust sampling and OSHA compliance assistance.

Resins Fabrication, Industrial Hygiene Programs – RI (Project Manager/Lead Consultant: 2019)
In coordination with the EHS Manager, developed a comprehensive exposure monitoring program including noise, dust and chemical constituents for the Rhode Island plant of this multi-national resin specialty fabricator. Planned and participated in the execution of the monitoring program. Results are used to inform employer's decision-making on personal protective equipment, OSHA compliance and overall employee well-being.

Tufts University Epitaxial Core Facility – Medford, MA (Project Manager/ Lead Consultant: 2016-2017)
Team member for developing health and safety-related Standard Operating Procedures for a 6,900-gallon bulk liquid nitrogen storage tank and hazardous gases at the Epitaxial Core Facility, located in a densely populated area. Researched/reviewed/developed basis for procedures related to safety and emergency response, incorporating contributions of team members. At the client's request, formatted procedures based on Process Safety Management principles.

Tufts University Gantcher Field House – Medford, MA (Project Manager/ Lead Consultant: 2016)
Reviewed contractor procedures and made recommendations regarding contractor's application of surface coatings containing isocyanates and flammable liquids during resilient flooring replacement in the 70,000 square foot field house. Provided as-needed air monitoring services in occupied areas of the building during the work.

Dartmouth College, Industrial Hygiene Services – Hanover, NH (Project Manager/Certified Industrial Hygienist: various projects, 2000 to present)
Technical assistance or oversight for various projects, including laboratory decommissioning, indoor air quality, abatement of mercury contamination, microbial remediation, and application of coating systems that contain flammable liquids during application. Resolved air quality complaints in an academic building by identifying mold contamination in the air handling system.

SPECIALIZED TRAINING

- On-going professional training and development as needed to maintain certification in comprehensive industrial hygiene practice since 1987. Certified Industrial Hygienist #3566.

PROFESSIONAL AFFILIATIONS

- Full Member, American Industrial Hygiene Association and New England American Industrial Hygiene Association

HARRY M. NEILL, CIH

Director of Indoor Air Quality and Microbiological Services

EDUCATION

M.S., Industrial Hygiene, Temple University, Philadelphia, PA – 1987
B.S., Environmental Engineering Technology, Temple University, Philadelphia, PA-1986

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

Certified Industrial Hygienist (CIH) in Comprehensive Practice by the American Board of Industrial Hygiene - 1993 - Certificate No. 5997

AREAS OF EXPERTISE

Mr. Neill has program management and technical experience in the following general areas:

- Building Moisture and Microbiological Investigations and Remediation Plan Development
- Indoor Air Quality Survey Assessments, Planned Program Development and Remediation
- Industrial Hygiene Program Development and Sampling
- Environmentally Related Infection Control Investigations and Cancer/Illness Cluster Investigations
- *Legionella* Bacteria Sampling and Control Plans and Legionnaires Disease Investigations
- Response to Catastrophic/Emergency Events such as Building Fires, Sewage Releases, Floods, and Building Evacuations.

REPRESENTATIVE EXPERIENCE

Mr. Neill has over 34 years of experience and progressive responsibility in industrial hygiene, indoor air quality and microbiological consulting. His qualifications include complex field investigations, HVAC evaluations and sampling plan development and implementation. Mr. Neill's background includes extensive service to schools K thru 12 and Colleges and Universities, healthcare, pharmaceutical companies, commercial, industrial, insurance company clients. In addition to, litigation prep, expert consultation and development of expert reports for law firms. He currently serves in the capacity of Director Indoor Air Quality and Microbiological Services with responsibility for quality, financial, administrative operations, and staff performance and development.

Building Microbiological and Moisture Investigations and Remediation Plan Development

Performed multiple microbiological and moisture investigations in residential structures, commercial buildings and healthcare facilities in response to water release, fires, sewage back-ups, construction defects and for insurance claims management and plaintiff case development. Worked with architects and structural and mechanical engineers, medical professionals and mycologists and counsel. Developed expert reports identifying cause and origin of microbiological growth, contamination and/or amplification with recommendations for remediation efforts and post remediation sampling parameters. Assessed appropriateness of remediation efforts proposed by other experts and their opinions on mold growth cause and origin.

Indoor Air Quality Survey Assessments, Planned Program Development and Remediation

Indoor Air Quality during Construction and Duct Cleaning, School Districts and Healthcare Facilities Pennsylvania and Delaware. Proactive Indoor Air Quality Survey Programs School Districts and Office Buildings, Pennsylvania, New Jersey, and Delaware. Investigative Indoor Air Quality Surveys in Response to OSHA Letters of Complaint, Pennsylvania, Delaware, and New Jersey

Industrial Hygiene Program Development and Implementation

Performed multiple industrial hygiene sampling surveys in histology, toxicology and cytology laboratories in Pennsylvania and New Jersey. Policy, Program and Training Development, Industrial Clients for US Operating Units.

Environmental Infection Control Investigations

Legionella Outbreak Investigations and Control Programs, Confidential Hospital and Manufacturing Clients, East Coast and Mid-West, USA. Aspergillosis Outbreak Investigations, Confidential Hospital Clients, East Coast and Mid-West, USA. *Tuberculosis* Engineering Controls Evaluations, Confidential Healthcare Clients, Pennsylvania. *Bacillus cereus* outbreak investigation at a Delaware hospital in the Neonatal Intensive Care Unit.

SARs-CoV-2 (COVID-19) Evaluations

Evaluating a multi-state power distribution company's Power Distribution Control Rooms in response to a COVD-19 outbreak in one (1) Control Room and proactive evaluations in twenty-two (22) other Control Rooms. The work included indoor air quality sampling, surface sampling for COVID-19, HVAC system evaluations in relation to relative COVID-19 guidance documents from ASHRAE, CDC, WHO, EPA and OSHA and disinfection and cleaning evaluations. Recommendations were provided to enhance the HVAC systems, provide supplemental filtration and disinfection and cleaning improvements.

PROFESSIONAL REFERENCES

Emy Malmstrom, Laboratory Manager, Genesis Laboratory Management, LLC
Phone: 732-389-1530 Email: emalmstrom@labofchoice.com

Lauren Moser, Esq., Regional Counsel, Toll Brothers Inc.
Phone: 215-938-8047 Email: lmoser@tollbrothers.com

Amy Braulein, EHS Specialist, QVC
Phone: 484-701-1289 Email: amy.braulein@qvc.com

DEAN W. LAMBORN, CIH, CSP

EDUCATION

B.S., Ceramic Science and Engineering, Pennsylvania State University, 1985

PROFESSIONAL CERTIFICATIONS

Certified Industrial Hygienist (CIH), American Board of Industrial Hygienists (ABIH), 2003 – Present

Certified Safety Professional (CSP), Board of Certified Safety Professionals (BCSP), 2014 – Present

AREAS OF EXPERTISE

Mr. Dean W. Lamborn, CIH, CSP, has technical experience in the following general areas:

- Microbiological Assessments
- Mold and Moisture Evaluations
- Industrial Hygiene Sampling Surveys
- Indoor Air Quality Evaluations
- Noise Sampling and Evaluations
- Qualitative and Quantitative Respirator Fit Testing
- Chemical Exposure Management
- Project Management
- Technical Report Writing
- Proposal Development
- Health and Safety Audits/Programs
- Job Safety Analysis
- Accident/Incident Investigation.

REPRESENTATIVE EXPERIENCE

Mr. Lamborn has over 25 years of experience and progressive responsibility in industrial hygiene sampling, indoor air quality evaluations, microbiological assessments, mold and moisture evaluations and noise surveys in the health and safety consulting industry. His qualifications include extensive project management, sampling surveys and technical report writing. Mr. Lamborn's background includes extensive service to public and private-sector clientele including the University of Pennsylvania, St. Mary's Medical Center, Christiana Care Health Services, Nazareth Area School District, Wilson Area School District, Stroudsburg Area School District, Exelon Power, GAF Materials, BASF, PA Departments of Agriculture, Labor and Industry and Liquor Control Board, Toll Brothers, GlaxoSmithKline, Sanofi-Aventis. He currently serves in the capacity of Project Manager with responsibility for industrial hygiene and microbiological services.

GAF, Industrial Hygiene Sampling, Multiple Sites (Industrial Hygienist: 2010 – Present)

Mr. Lamborn serves as industrial hygienist to perform industrial hygiene sampling surveys for chemical and physical contaminants for a large-scale roofing manufacturing company located in 14 states. Sample results and database are subsequently used to establish baseline exposure levels as well as defend the company from worker complaints filed with OSHA.

BASF, Industrial Hygiene Sampling – Bristol, PA (Industrial Hygienist: 2017 – Present)

Mr. Lamborn serves as industrial hygienist to perform industrial hygiene sampling for respirable crystalline silica, respirable dust, noise and other contaminants. Sample results are used to determine type of respiratory and hearing protection that workers are required to wear and determine compliance with current OSHA regulations.

University of Pennsylvania, Mold Remediation – Philadelphia, PA (Project Manager: 2008 – 2009)

Mr. Lamborn served as project manager for a large-scale mold remediation project at the university's on-campus hotel that required work to be performed using proper engineering controls and meeting cleanliness standards. Hotel subsequently used documentation from the project to pursue legal action against the builder.

Delaware Valley Insurance Trust, Methane Gas Leak Detection Surveys – Southeast WWTFs, PA (Industrial Hygienist: 2011)

Mr. Lamborn served as industrial hygienist to identify methane gas leaks at wastewater treatment facilities (WWTFs) at risk of experiencing an explosion. The insurance company improved risk reduction and provided Mr. Lamborn's contact information and company affiliation in an industry trade magazine article on how to identify and reduce explosion risks at WWTFs.

Johnson Matthey, Chemical Exposure Management – Wayne, PA, (Industrial Hygienist: 2014 – 2017)

Mr. Lamborn served as industrial hygienist to analyze health hazards associated with chemicals used to develop control band categories for all chemicals being used and prioritize chemicals from being the most hazardous to the least hazardous at their manufacturing facility.

Pennsylvania State Agencies, Health and Safety Program Needs Assessment – PA (Health and Safety Specialist: 2001 – 2012)

Mr. Lamborn served as health and safety specialist to provide a health and safety program needs assessment for various state agencies to identify areas that need evaluation and/or program development in order for agencies to be compliant with state mandated health and safety standards.

Stroudsburg, Bethlehem, Nazareth, Northampton Wilson, Neshaminay School Districts, Indoor Air Quality Testing, Evaluation and Analysis – PA (Project Manager: 2000 – 2014)

Mr. Lamborn served as project manager to test the indoor air quality and enter the sampling data into a database to evaluate trends or problem areas. He analyzed data and provided recommendations to improve overall air quality and perception of the indoor environment. He was commended from school district facility personnel on the organization and ease of understanding the reports.

Insurance Companies, School Districts, Facility Managers, Homeowners; Microbiological Assessments and Technical Writing – PA, NJ, MD, DE, FL (Industrial Hygienist: 2000 – Present)

Mr. Lamborn served as industrial hygienist to identify mold contamination issues, water intrusion areas, and building moisture history for multiple clients located in various states. He provided a report of findings and recommendations so information could be used to properly address the identified conditions.

Sanofi-Aventis, Legionella Sampling – Malvern, PA (Industrial Hygienist: 2009 – 2011)

Mr. Lamborn served as industrial hygienist to perform periodic sampling of potable and non-potable water systems at various facilities to evaluate the presence of *Legionella* bacteria. Recommendations were provided to either maintain current water treatment systems or address the concentrations of *Legionella* bacteria found in the water.

Exelon Power, Lead Based Paint Sampling – Philadelphia, PA (Industrial Hygienist: 2014)

Mr. Lamborn served as an industrial hygienist by utilizing a *Niton* X-ray Fluorescence (XRF) analyzer to identify the presence of lead-based paint on surfaces that would be impacted by renovation and/or demolition work at an electrical substation. Company utilized the survey to properly remove lead-based paint from surfaces that would be impacted by welding, cutting, or grinding operations.

Johnson Matthey, Incident/Accident Investigations – Wayne, PA (Health and Safety Specialist: 2014 – 2017)

Mr. Lamborn served as health and safety specialist to assist the in-house health and safety department perform incident/accident investigations. Findings based on a root cause analysis were subsequently used to develop a corrective action plan to reduce the potential for the same injury occurring in the future.

Johnson Matthey, Lab Hood Face Velocity Testing – Wayne, PA (Industrial Hygienist: 2014 – 2017).

Mr. Lamborn served as industrial hygienist to conduct face velocity testing of lab hoods to determine if the proper airflow was being exhausted from chemical fume hoods. Measurements were used to make adjustments to the exhaust ventilation to ensure proper laboratory hood performance was being maintained.

Johnson Controls, MBNA, Noise Analysis – MD, TX (Industrial Hygienist: 2014 – 2019; 2004)

Mr. Lamborn served as industrial hygienist using an octave band analyzer to determine the predominant frequencies contributing to the overall noise levels. Analysis of noise frequencies was subsequently provided to a noise abatement contractor to develop a strategy for implementing noise reduction controls. In addition, he developed 'noise maps' to identify areas of the facility where employees were required to wear hearing protection.

SPECIALIZED TRAINING

- OSHA 10-Hour General Industry Training – October 2015
- Lead Inspector/Risk Assessor (LI/RA), Access Training Services, 2000 – Present
- Adult and Pediatric First Aid/CPR/AED – September 2020

PROFESSIONAL AFFILIATIONS

American Industrial Hygiene Association (AIHA) National Member, 2004 – Present

CHRISTIAN M. SCHNEIDER, CIH

Senior Director, Office Practice Leader-Building Sciences & Industrial Hygiene

EDUCATION

MA, Occupational Health and Safety, New York University, 1979
MS, Environmental Biology, Kutztown University, 1977
BS, Biology, Kutztown University, 1974

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

Certified Industrial Hygienist (CIH), 1986

AREAS OF EXPERTISE

Mr. Schneider has 42 years of experience encompassing:

- Industrial Hygiene and Safety Program Development and Implementation
- Indoor Air Quality Survey Assessments and Planned Program Development
- Quality Control Planning and Documentation
- Odor and Odor Perception Investigations
- Mold and Moisture investigations
- Program and Training Development
- HAZWOPER
- Response to Catastrophic Events such as Building Fires and Floods, Building Evacuations
- Management Audits of Health and Safety Programs
- Microbiological and Moisture Assessments
- Construction Safety Management
- Industrial Hygiene Database Software Design
- LEEDs Surveys and Assessments

REPRESENTATIVE EXPERIENCE

Mr. Schneider has over 42 years of experience in occupational safety and health, of which 35 years have been in consulting and assisting clients protect the health and safety of their employees and tenants. He has held upper management positions in several consulting firms until starting his own firm and managing it for more than 20 years before being acquired by TRC in 2020. His focus has been on providing cost effective and highly technical services to clients in all market sectors and sizes which has resulted in DuPont awarding his firm major contracts to manage and implement programs for asbestos, lead, indoor air quality, industrial hygiene, mold, hazardous materials for their research campuses in Wilmington and Newark, DE. Mr. Schneider currently is a senor director and office practice leader at TRC and provides management of staff, quality control and technical oversight.

DuPont Specialty Products, Wilmington, DE

Oversee management of staff of 11 TRC health and safety professionals who conduct assessments for asbestos, lead, indoor air quality, HAZWOPER, hazardous materials and potential exposure to other chemical hazards. Our onsite staff conducts more than 120 projects per month throughout more than 50 buildings on two campuses that house research laboratories and all support facilities. Interacts with DuPont Procurement, contract management and facility environmental, health and safety staff to ensure goals and timelines are met. In addition, he oversees all capital projects

JCPL, New Jersey

Manages and provides technical oversight of TRC staff who provide industrial hygiene, indoor air quality, mold, asbestos and lead services for JCPL / First Energy facilities in New Jersey. Assists in developing programs and developing survey and sampling plans.

Educational Testing Services (ETS) Princeton, NJ

Provided technical guidance in the development and implementation of a proactive indoor air quality survey for 20 buildings. Data was collected both in the morning and afternoon to identify the effect of occupant loading on the building systems. A data management system was used to evaluate the data and establish a benchmark for future surveys. The survey was successful in identifying deficiencies in HVAC design and operation.

PROFESSIONAL AFFILIATIONS

American Industrial Hygiene Association - National and Philadelphia Section Member

American Board of Industrial Hygiene, Diplomat

EXPERT TESTIMONY

Provided expert industrial hygiene testimony on behalf of the Cape May and Lewes Ferry, part of the Delaware River and Bay Authority. The case involved an alleged employee's illness. The case has settled.

PROFESSIONAL REFERENCES

Ed Lipka, Contract Administrator – DuPont Specialty Products
Phone: 302-304-6900 Email: Edward.A.Lipka@dupont.com

Tom Klopp, Corporate Manager – Greene Tweed & Company, SH&E
Phone: 267-228-2216 Email: tklopp@gtweed.com

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