TABLE 1
SUMMARY OF Q-TRAK AND SIDEPAK TESTING RESULTS

AIR QUALITY PARAMETER	MINIMUM / MAXIMUM OF MEASURED VALUES	AVERAGE OF MEASURED VALUES	GUIDELINES
Temperature (T)	63.6 / 76.7 °F	73.1 °F	68 – 75 °F [a,b] 73 – 79 °F (summer)
Relative Humidity (rH)	43.5 / 56.8 %	45.3 %	30 – 60% [a,b]
Carbon Dioxide (CO_2)	464 / 882 ppm	518 ppm	≤ 800 ppm [b,c]
Carbon Monoxide (CO)	0.1 / 0.8 ppm	0.25 ppm	9 ppm [a,b]/50 ppm [d]
Volatile Organic Compounds (VOC)	86 / 456 ppb	305 ppb	300 ppb [b, e]
Total Airborne Particulate	0 / 0.04 mg/m^3	0.102 mg/m^3	15.0 mg/m^3 [d]

[a] ASHRAE 55-2013 Std. (American Society of Heating, Refrigerating & Air Conditioning Engineers).
[b] ≤ means less than or equal to, °F = degrees Fahrenheit, % = percent, ppm = parts per million, ppb = parts per billion, mg/m^3 = milligrams per cubic meter; TWA = Time Weighted Average over 8-hours
[c] Occupational Safety & Health Administration (OSHA) proposed indoor air quality (IAQ) rule (59 FR 15968).
[d] OSHA (Occupational Safety and Health Administration) Permissible Exposure Limit.
[e] Refer to attached Total VOC summary table in Attachment 5.

Attachment 1 includes the field recording forms and the SidePak data and graph are in Attachment 2.

3. Air Testing for Non-Culturable Mold (Fungi)

Table 3 provides a summary of the spore trap air sampling results, and the complete lab report are provided in Attachment 3.

TABLE 3
SUMMARY OF AIRBORNE FUNGAL SPORE TESTING RESULTS

SAMPLE NUMBER	LOCATION	TOTAL FUNGI (S/m^3)[1]	MOLD SPORE TYPE
4360362	Registry of Probate Office	200	Alternaria, Aspergillus/Penicillium, Basidiospores, Myxomycetes
4360343	Hall Outside Room 427	40	Basidiospores
3978519	Hall at Superior Courtrooms #1 & #4	240	Aspergillus/Penicillium, Basidiospores
4360352	Outside Room 386	40	Basidiospores
4360342	Upper Lobby Outside District	80	Myxomycetes
4360356	Hall Outside Superior Courtroom #7	920	Aspergillus/Penicillium
4360364	Center of Main Lobby	140	Ascospores, Basidiospores
4360353	Hall Next to Room 144A	120	Basidiospores, Myxomycetes
4360357	Center of Snack Bar	40	Myxomycetes
4360348	Garage by Ramp & Stairs	4,180	Basidiospores, Cladosporium

SAMPLE NUMBER	LOCATION	TOTAL FUNGI (S/m^3)[1]	MOLD SPORE TYPE
4360363	Outside near Main Entrance	9,150	Basidiospores, Myxomycetes
4360347	Outside near Main Entrance	9,460	Ascospores, Basidiospores, Cladosporium

[1] *S/m^3 = spore counts per cubic meter of air*

Airborne fungi below 250 S/m^3 are normally not a concern for indoor environments[2]. Airborne levels outdoors are normally between 500 and 1,000 S/m^3, but, can easily exceed 10,000 S/m^3 during the spring and summer months. Indoor airborne levels between 250 and 1,000 S/m^3 are typically considered to be moderate and levels that exceed 1,000 S/m^3 are considered elevated[3] and often result in active mold growth.

It is important to note that bioaerosols (fungi/mold) are always present and it is the excess quantity of microorganisms that can be of concern. By comparing the microbiological profiles of indoor sample results to outside samples, it is often possible to determine if amplification of microorganisms is occurring within the building.

Comparing the microbial profiles of the direct-read fungal spore air samples collected, AXIOM has concluded that the airborne fungal spore levels on the days of the sampling were not elevated, and amplification was not occurring.

In summary, based on the results of the air quality testing described herein, AXIOM did not identify any air quality conditions or levels for measured parameters that were significantly outside acceptable levels of indoor air quality.

Although the TVOC levels are considered acceptable, it should be noted that as a result of increased cleaning and sanitizing inside building due to Covid-19, reports of higher-than-normal levels of VOCs inside buildings have been on the rise.

Please do not hesitate to call us if you have any questions.

Sincerely,

Evan MacArthur
Project Manager/Sr.
Industrial Hygienist

Stephen E. Minassian
Principal

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Principal

Attachments: A1, Field data forms
A2, Side Pak data
A3, Fungi/mold testing report
A4, Sample location floor plans
A5, TVOC reference table

[2] New York Committee for Occupational Safety and Health
[3] Occupational Safety and Health Administration Technical Manual, Section III, Chapter 2, § IV (c)