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## LIMITED INDOOR AIR QUALITY ASSESSMENT

## **Paramount Elementary School**

409 West Paramount Street

City of Azusa County of Los Angeles State of California

Project Number: Atch-211879

August 12, 2021

PREPARED FOR:

**Azusa Unified School District** 

# PRIVILEGED & CONFIDENTIAL

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Atch-211879 Limited Indoor Air Quality Assessment 409 West Paramount Street Azusa, California 91702

August 12, 2021

Azusa Unified School District 546 South Citrus Avenue Azusa, California 91702

Attn: Mr. Brian Allen

Re: Paramount Elementary School

409 West Paramount Street, Various Areas

Azusa, California 91702

Pursuant to your request, A-Tech Consulting, Inc. has completed a Limited Indoor Air Quality (IAQ) Assessment in various areas of Paramount Elementary School located at 409 West Paramount Street, in Azusa, California. The following report summarizes the findings of this assessment.

#### 1.0 BACKGROUND

On July 13, 2021, July 14, 2021 and August 5, 2021, Industrial Hygiene Technician Krizia Kolakowski, under the supervision of Certified Industrial Hygienist (CIH) Roosevelt Ward with A-Tech Consulting, Inc. performed a Limited Indoor Air Quality (IAQ) Assessment in various areas of the subject site. This assessment was performed due to concerns raised by occupants of Paramount Elementary School regarding poor indoor air quality. These concerns were limited to the twenty-nine (29) areas surveyed during this assessment: Classroom 1/Computer Lab, Classroom 2/Library, Classrooms 4 through 19 and Classrooms 20 through 30.

At the time of the assessment, the areas were inspected and samples were collected to assess a) inside temperature and relative humidity as indicators of comfort, b) carbon dioxide levels as indicator of air flow, c) carbon monoxide, d) HVAC filtration efficiency and e) fungal spore exposure in the work areas to determine the IAQ impact in the various areas of concern. This IAQ assessment was performed in accordance with the scope of services authorized by Mr. Brian Allen with the Azusa Unified School District.

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#### 2.0 METHODOLOGY

As a precautionary measure, sampling of relative humidity (RH), temperature (T), carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), particle distribution and airborne fungal distribution was performed at the subject site to ensure that levels are within acceptable parameters for occupancy.

Continuous datalogged sampling was performed at stationary locations at approximate breathing zone height. The following table details the parameters monitored, sampling intervals and sampling durations of the two (2) continuous datalogging units used in this assessment:

<u>Unit</u>	Parameter(s)	Interval (seconds)	Sampling Duration (min)
TSI 7545 IAQCalc	Temperature Relative Humidity CO <sub>2</sub> CO	5	10
ThermoScientific pDR1500	Aerosols	60	10

In addition, exterior continuous measurements were taken by each instrument upwind of the building or by HVAC exterior air intakes, for comparison.

#### 2.1 Carbon Dioxide (CO<sub>2</sub>), Carbon Monoxide (CO), Air Temperature and Relative Humidity

Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), air temperature and relative humidity were recorded using a TSI Model 7545 IAQCalc unit. Calibration on the IAQCalc unit was performed on December 21, 2020. Measurement ranges, accuracy and resolution for CO<sub>2</sub>, CO, air temperature and relative humidity can be found in the following table.

<u>Parameter</u>	Range	<u>Accuracy</u>	<u>Resolution</u>
Carbon Dioxide (CO <sub>2</sub> )	0 to 5,000 ppm	±3% or ±50ppm (whichever is greater)	1 ppm
Carbon Monoxide (CO)	0 to 500 ppm	±3% or ±3ppm (whichever is greater)	0.1 ppm
Air Temperature	32 to 140°F	±1.0°F	0.1° F
Relative Humidity	5.0 to 95.0%	±3.0%	0.1%

The results can be found on the attached tables. Carbon dioxide and carbon monoxide levels are reported in parts per million (ppm), air temperature in degrees Fahrenheit (°F) and relative humidity in percentages (%).

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#### 2.2 Aerosol Particle Concentration

Aerosol particle (respirable dust <4.0  $\mu$ m in diameter) concentration was measured using a ThermoScientific pDR-1500 unit, along with an aluminum respirable dust cyclone. Calibration on the pDR-1500 unit was performed on December 7, 2020. Measurement range, accuracy and resolution for the aerosol monitor of the pDR1500 unit can be found in the following table.

<u>Parameter</u>	Range	<u>Accuracy</u>	<u>Resolution</u>
Aerosol	$0.001 \text{ to } 400 \text{ mg/m}^3$	±5%	$0.01~\mu g/m^3$

The results can be found on the attached tables. Aerosol concentration levels are reported in micrograms per cubic meter ( $\mu g/m^3$ ).

#### 2.3 <u>Non-Viable Mold Air Sampling</u>

Air sampling was performed inside and outside of the subject building to characterize mold spore levels. The air sampling was performed using Air-O-Cell cassettes. High air volume air pump (Buck BioAire<sup>TM</sup> Bioaerosol sampling pump) was used to pull air through the cassettes for five (interior) to ten (exterior) minutes at flow rates of approximately 15 L/min. The cassette pump air sampling trains were calibrated before and after each use against a rotameter.

The thirty-three (33) air samples were collected and submitted using chain-of-custody procedures to AIH Laboratory located at 2556 W. Woodland Drive, Anaheim, California 92801 for analysis of mold spores. This analytical method gives measured airborne levels of total (non-viable) mold spores in units of spores per cubic meter of air (spores/m³). This laboratory has been certified in environmental microbiology by the Laboratory Accreditation Program administered by the American Industrial Hygiene Association (AIHA) lab code #LAP-203769.

#### 3.0 DISCUSSION

#### 3.1 <u>Indoor Air Quality</u>

The substances sampled are commonly known indoor air quality contaminants of concern in nonindustrial environments. Currently, there are no regulations pertaining to indoor air quality. However, the limits recommended by ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers), National Institute for Occupational Safety and Health (NIOSH), Cal-OSHA (California Occupation Safety and Health Administration), Regional Exposure Levels (REL) as established by the California Office of Environmental Health Hazard Assessment (OEHHA), California Ambient Air Quality Standard (CAAQS), Regional Screening Levels (RSLs) as established by the Environmental Protection Agency (EPA) and LEED (Leadership in Energy and Environmental Design) are used for the evaluations of IAQ concerns. Keep in mind, concentrations that are within the recommended limits do not ensure freedom from sensory irritation or from all adverse health effects for all occupants.

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#### 3.2 Mold

Currently, there are no regulations or guidelines that quantify acceptable or unacceptable levels of mold spore content in the air or on surfaces for either total mold spore count or mold spore count for individual genre. The current general industry standard of mold content in air samples states that "typically mold levels should be lower indoors than outdoors and similar in diversity of genera". In cases where the exterior samples are abnormally low or high for mold content (typical instances include where a day can be windy, raining or there is snow cover) the Certified Indoor Environmental Consultant (CIEC) reviews each sample analysis by genre and overall mold content and makes final determination of potential mold exposure and activity.

When collecting fungal species and spore counts there are no set exposure limits for the safe number of spores from a particular genus or species. Common practice is to compare the species and spore counts of the air samples collected indoors to those collected outdoors. All indoor air will contain some degree of mold with variations in species and spore counts. For indoor air quality to be considered "normal" the species present in the indoor air should be similar to those found in the exterior ambient air. There are two ways to interpret mold data.

- 1. The first is to compare the total spores per cubic meter (spores/m³) reported from the interior to the total spores/m³ reported from the exterior. The total interior spore count should not exceed the total exterior spore count concentration by any excessive magnitudes.
- 2. The second is to compare the concentration of each spore type in exterior air to the indoor air samples. Each spore type should not exceed the exterior result for that genus/species of mold. In buildings without mold problems, the qualitative diversity of interior and exterior airborne fungi should be similar.

If remedial recommendations are provided, they will be based on a combined analysis of data including but not limited to, a review of the air and surface analytical results (as applicable), review of on-site conditions including building use, building history, moisture/water intrusion activity, visible water damage and/or mold conditions, length of water exposure, occupant health related symptoms (as applicable), and any other information obtained during the assessment combined with historical professional experience with similar projects. Fungal spores are present in almost all environments and do not proliferate indoors unless environmental requirements exist. Fungal activity varies by genre, with differing needs for light, dampness, consumables (building materials, food), and temperature. In general, fungi require air, moisture content above 15%, and cellulose-based materials such as wood, glue, paper products (drywall backing), carpet, clothing, etc.

#### 4.0 ANALYTICAL RESULTS

#### 4.1 Air Flow and Carbon Dioxide (CO<sub>2</sub>) Levels

The National Institute for Occupational Safety and Health (NIOSH) has determined that the most common of indoor air quality complaints are related to inadequate ventilation. Building Heating, Ventilation and Air Conditioning (HVAC) systems need to function properly in order to control temperature, humidity, odor, and general air quality. Carbon dioxide levels are an indicator on whether adequate outside air is entering the building because building occupants produce carbon dioxide, water vapor, particulates, biological aerosols, and other contaminants during metabolic activities. CO<sub>2</sub> concentrations increase as a result of human occupancy and the lower the amount of outside air entering the room, the higher the CO<sub>2</sub> levels indoors.

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The American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE) Standard 62.1-2016: Ventilation for Acceptable Indoor Air Quality recommends that indoor CO<sub>2</sub> concentrations no greater than 700 parts per million (ppm) above exterior CO<sub>2</sub> concentrations will satisfy a substantial majority (about 80%) of occupants (assuming exterior supply rate of 15 cfm/person). Thus, to determine if CO<sub>2</sub> levels are a concern, a CO<sub>2</sub> differential is calculated by subtracting the average interior CO<sub>2</sub> concentration from the exterior CO<sub>2</sub> concentration for each inspected area of concern.

For all surveyed interior areas of concern, the average indoor carbon dioxide (CO<sub>2</sub>) levels **did not exceed** the carbon dioxide concentration of the exterior control sample by more than **700 ppm**. This indicates that indoor air quality concerns related to carbon dioxide are unlikely to exist in the areas inspected/tested. Please refer to the attached table (Appendix A) for detailed information on the sample results.

#### 4.2 Air Temperature

Based on the experience of A-Tech Consulting, Inc., the air temperatures perceived as comfortable by most persons in interior environments and recommended by ASHRAE (Standard 55-2017) for occupant comfort, range between 67° and 82°F.

For all surveyed interior areas of concern, the average air temperatures recorded **were within** the ASHRAE recommended comfort ranges. This indicates that indoor air quality concerns related to temperature are unlikely to exist in the areas inspected/tested. Please refer to the attached table (Appendix A) for detailed information on the sample results.

#### 4.3 Relative Humidity

For all surveyed interior areas of concern, recorded average relative humidity levels **were within** the 20-65 percent relative humidity range recommended by ASHRAE (Standard 62.1-2016) for occupant comfort. This indicates that indoor air quality concerns related to humidity are unlikely to exist in the areas inspected/tested. Please refer to the attached table (Appendix A) for detailed information on the sample results. Note that A-Tech Consulting, Inc. recommends that the relative humidity in buildings not exceed 50 percent in order to limit the potential for fungal growth.

#### 4.4 Airborne Toxic, Flammable and Combustion Product Measurements (CO)

Carbon Monoxide is an indicator of a combustion by-product and is measured to confirm that no combustion sources are contained within, or are immediately adjacent to, the facility. It is frequently associated with headaches. Notable combustion sources include natural gas-fired furnaces, boilers, water heaters, cooking stoves or unvented combustion appliances as well as vehicular traffic, including all types of fossil-fueled industrial trucks. Depending on fuel sources present in interior locations, levels of carbon monoxide are normally less than exterior levels, unless a significant interior source exists. The Cal-OSHA 8-hour time weighted average Permissible Exposure Limit (PEL) for carbon monoxide is **25 ppm**. The OEHHA Regional Exposure Level (REL) for carbon monoxide is 31.2 ppm.

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For all surveyed interior areas of concern, carbon monoxide was not detected, or was detected at low levels. These levels are **below** the Cal-OSHA PEL of **25 ppm** (8-hour time weighted average) and are less than common indoor levels (<4 ppm). This indicates that indoor air quality concerns related to carbon monoxide are unlikely to exist in the areas inspected/tested. Please refer to the attached table (Appendix A) for detailed information on the sample results.

#### 4.5 <u>Airborne Particle Concentration</u>

A mass concentration aerosol monitor was used to determine the air quality by quantifying the concentration of particles in the air. Inhalable airborne particulate matter (PM2.5) is defined by the EPA as fine particulate matter with aerodynamic diameters of  $2.5\mu m$  or smaller. Ultrafine Particles (particles with aerodynamic diameters less than  $1~\mu m$ ) are the result of combustion by-products or chemical reactions, which can help indicate the presence of a substance or its source. Though there is no standard for airborne ultra-fine particles, it is expected to find lower amounts of particles interior versus exterior, due to the Heating Ventilation and Air Conditioning (HVAC) filtering mechanism.

There are currently no Federal government standards for PM2.5 in indoor air environments. However, the Cal-OSHA 8-Hour Time Weighted Average Permissible Exposure Limits for total dust and the respirable fraction of total dust are 10 mg/m³ and 5 mg/m³ respectively.

For all surveyed interior areas of concern, the results of the continuous sampling indicated that average respirable particle concentrations **were lower** than 5 mg/m $^3$  (5,000  $\mu$ g/m $^3$ ), indicating an efficient HVAC filtering system. Please refer to the attached table (Appendix B) for detailed information on the sample results.

#### 4.6 <u>Non-Viable Mold Air Sampling</u>

Results for fungal air sampling are reported as spores per cubic meter (spores/m³), per industrial genre is identified. The individual results are then totaled into total spores per cubic meter (spores/m³). To determine if mold proliferation exists, counts of indicator spores are compared to counts present in the outdoor, exterior environments.

A total of thirty-three (33) mold air samples, including four (4) exterior samples, were obtained during this assessment. It was determined that the interior samples contained low spore content, the levels of which **were below** the control (exterior) comparison sample. These results indicate that a microbial hazard does not exist in the areas inspected/tested. Please refer to the attached Mold Air Sample Summary table (Appendix C) for detailed information on the sample results.

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#### 5.0 CONCLUSIONS

Based on this assessment and analytical data, it is A-Tech Consulting, Inc.'s professional opinion that at the time of the assessment, all parameters sampled for indoor air quality were below or within acceptable limits. Following are the conclusions for these parameters:

- Temperature and relative humidity levels were within the recommended American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) standard recommended ranges.
- Elevated levels of carbon monoxide **were not** detected by the continuous monitoring instrument utilized during this assessment.
- Carbon dioxide concentrations were within the recommended ranges, based on building occupancy.
- Particulate levels monitored indicate concentrations **less than** typical ambient exterior concentrations, and **less than** comparable Environmental Exposure Limits or Occupation Exposure Limits.
- When compared to the maximum exterior control sample, the lab results indicate total airborne
  fungal spore counts detected indoor were lower than exterior counts and are considered
  indicative of a "normal indoor fungal ecology". Airborne levels of mold spores were not
  elevated in the area tested at this time.

#### 6.0 RECOMMENDATIONS

Based on the conditions at the time of the inspection and the analytical results, no recommendations for indoor air quality are made at this time. If site conditions change or have changed a reinspection should be performed.

If occupant concerns about indoor air quality persist, then it is recommended to increase the ventilation within the areas of concern. The HVAC systems that service the areas of concern should be regularly maintained and inspected to reduce the risk of air quality concerns. It is also recommended to check the HVAC filters to ensure that they are properly maintained and changed out according to the appropriate preventative maintenance schedule.

#### 7.0 **DEFINTIONS**

- A) AIHA The American Industrial Hygiene Association is a non-profit organization that works to provide resources and information to occupational health professionals to better protect worker health.
- B) ASHRAE The American Society of Heating and Air-Conditioning Engineers is a global professional association seeking to advance heating, ventilation, air conditioning and refrigeration systems design and construction.
- C) Bioaerosols A general term for particles of biological origins such as microbes, airborne organisms, and/or viable pathogenic aerosols.
- D) Cal-OSHA The Division of Occupational Safety and Health (DOSH), better known as Cal-OSHA, protects and improves the health and safety of working men and women in California.
- E) EPA The Environmental Protection Agency is an independent agency of the United States federal government for environmental protection.

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- F) HVAC refers to the different systems such as heating, ventilation and air conditioning which is used for moving air between indoor and exterior areas, along with heating and cooling both residential and commercial buildings.
- G) Indoor Air Quality Pollutants refers to the air quality within and around building and structures, especially as it relates to the health and comfort of building occupants. Some of the common pollutants are carbon monoxide, formaldehyde, indoor particulate matter, volatile organic compounds, VOCs, radon, and biological contaminants such as dust, mites, and pollen.
- H) Optical Microscopy Techniques used to magnify images of samples using visible light, often paired with illumination of the sample with polarized and reflected light.
- I) Particulate Matter (PM10 and PM 2.5) PM10 is particulate matter 10 micrometers or less in diameter, PM 2.5 is particulate matter of 2.5 micrometers or less in diameter.
- J) Relative Humidity The ratio of the amount of water vapor actually present in the air to the greatest amount possible at the same temperature.
- K) Volatile Organic Compounds (VOCs) Emitted gasses from certain solids or liquids. VOCs include a variety of chemicals, some which may have short -and long-term adverse health effects.

#### 8.0 LIMITATIONS

Keep in mind, the conclusions presented in this report are professional opinions based solely upon visual observations at the site and direct reading measurements, for the timeframe tested. They are intended exclusively for the purpose outlined herein, and for the site location and project indicated.

This report is intended for the sole use of the contracted client. The use or re-use of this document or the findings, conclusion or recommendations presented herein, by any other party or parties, is at the sole risk of said user.

Recognizing that even the most comprehensive inspection may fail to detect IAQ concerns at a particular site, this study was not intended to identify all potential IAQ pollutants present in the building or at the site for such reasons as (1) the possible existence of buried, covered and inaccessible areas and features; and (2) the limited number and type of samples collected.

No guarantee is expressed or implied that all IAQ concerns have been identified. A-Tech Consulting, Inc. assumes no responsibility for the identification of suspect and potential IAQ pollutants, which are concealed and/or inaccessible (i.e. locked rooms, etc.).

Services performed by A-Tech Consulting, Inc. were performed in a manner consistent with that of the care and skill ordinarily and currently exercised by members of the same profession that even the most comprehensive Scope of Services might fail to detect environmental liabilities on a particular site. Therefore, A-Tech Consulting, Inc. cannot act as insurers and cannot "certify" that a site is free of IAQ pollutant concentrations.

No expressed or implied representation or warranty is included or intended in our reports, except that our services were performed, within the limits prescribed by the scope of services, with the customary thoroughness and competence of our profession.

Information and opinions presented herein apply to the existing and reasonable foreseeable site conditions at the time of our investigation. They cannot necessarily apply to site changes of which this office is unaware and has not had the opportunity to review.

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Changes in the conditions of this property may occur with time due to natural processes or works of man on the subject property or on adjacent properties. Changes in applicable standards may also occur as a result of legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond our control.

A-Tech Consulting, Inc. trusts that the information presented herein provides the data you require. Should you have any questions or comments, please contact A-Tech Consulting, Inc.

Respectfully submitted,

A-TECH CONSULTING, INC.

Roosevelt Ward, CIH, CSP, QISP

CIH 11208 CP





# Continuous Air Temperature, Humidity, Carbon Dioxide and Carbon Monoxide Monitoring Measurements (TSI 7545 IAQCalc)

Client Name: Azusa Unified School District

A-Tech Project Number: 211879

Location: Paramount Elementary School, 409 West Paramount Street

				CO2 Concentration (ppm)			CO Concentration (ppm)		Temperature (°F)			Humidity (%)			
Sample Number	Start Time	End Time	<u>Duration</u> (min)	Sample Location	Min.	<u>Max.</u>	Average	Max.	Average	Min.	Max.	Average	Min.	<u>Max.</u>	Average
211879- I-0001	9:32 AM	9:42 AM	10	Exterior	406	447	409	0.0	0.0	76.0	84.1	82.4	47.2	63.3	53.1
211879- I-0002	9:47 AM	9:57 AM	10	Classroom 4	416	442	425	0.0	0.0	70.5	78.7	75.2	41.0	52.3	47.4
211879- I-0003	10:10 AM	10:20 AM	10	Classroom 2/Library	415	495	433	0.0	0.0	75.8	78.5	76.6	43.1	46.4	45.2
211879- I-0004	10:22 AM	10:32 AM	10	Classroom 5	421	445	429	0.0	0.0	73.6	79.5	76.8	45.5	50.4	48.4
211879- I-0005	10:39 AM	10:49 AM	10	Classroom 7	405	498	422	0.0	0.0	75.4	79.0	76.5	38.2	44.7	42.3



					CO2 Concentration (ppm)			CO Concentration (ppm) Temperature (°F)			Humidity (%)				
Sample Number	Start Time	End Time	<u>Duration</u> (min)	Sample Location	Min.	Max.	Average	Max.	Average	Min.	Max.	Average	Min.	Max.	Average
211879- I-0006	10:53 AM	11:03 AM	10	Classroom 8	439	649	443	0.0	0.0	70.8	75.4	72.2	45.6	49.0	47.4
211879- I-0007	11:20 AM	11:30 AM	10	Classroom 12	411	452	419	0.6	0.0	82.3	83.1	82.8	51.8	53.6	52.3
211879- I-0008	11:34 AM	11:44 AM	10	Classroom 14	404	433	414	0.0	0.0	76.4	79.9	77.4	35.4	42.1	40.3
211879- I-0009	11:47 AM	11:57 AM	10	Classroom 15	425	461	439	0.0	0.0	65.7	76.1	68.2	41.5	58	52.6
211879- I-0010	12:00 PM	12:10 PM	10	Classroom 13	433	450	439	0.0	0.0	70.6	75.1	72.2	47.5	50.9	48.5
211879- I-0011	12:26 PM	12:36 PM	10	Classroom 20	424	455	435	0.0	0.0	74.2	77.7	74.9	53.1	69.4	63.5
211879- I-0012	12:41 PM	12:51 PM	10	Classroom 19	424	459	444	0.0	0.0	74.8	77.4	75.9	49.0	51.9	50.9



					CO2 Concentration (ppm)			CO Concentration (ppm) Tempe			mperature (°F)		Humidity (%)		<u>y (%)</u>
Sample Number	Start Time	End Time	<u>Duration</u> (min)	Sample Location	Min.	Max.	Average	Max.	Average	Min.	Max.	Average	Min.	Max.	<u>Average</u>
211879- I-0013	1:00 PM	1:10 PM	10	Classroom 18	418	448	435	0.0	0.0	74.6	76.4	75.5	48.2	52.3	50.4
211879- I-0014	1:15 PM	1:25 PM	10	Classroom 17	431	446	433	0.0	0.0	71.1	77.3	73.5	47.4	51.6	50.2
211879- I-0015	2:35 PM	2:45 PM	10	Classroom 6	442	544	454	0.3	0.0	74.1	80.0	76.8	38.8	50.0	46.0
211879- I-0016	2:48 PM	2:58 PM	10	Classroom 9	433	471	439	0.0	0.0	71.6	80.1	76.0	41.0	47.2	44.8
211879- I-0017	3:10 PM	3:20 PM	10	Classroom 10	444	482	449	0.0	0.0	71.3	77.2	73.9	51.9	56.3	53.7
211879- I-0018	3:24 PM	3:34 PM	10	Exterior	418	496	419	2.0	0.8	86.2	90.1	89.0	40.0	51.2	43.9
211879- I-0019	9:32 AM	9:42 AM	10	Exterior	413	495	424	0.0	0.0	75.1	78.8	77.5	53.2	65.0	55.8



					CO2 Concentration (ppm)			CO Concentration (ppm) Temperature (°F)			Humidity (%)				
Sample Number	Start Time	End Time	<u>Duration</u> (min)	Sample Location	Min.	Max.	Average	Max.	Average	Min.	Max.	Average	Min.	Max.	Average
211879- I-0020	9:45 AM	9:55 AM	10	Classroom 16	425	439	432	0.0	0.0	75.7	77.8	76.4	54.2	57.8	56.7
211879- I-0021	10:00 AM	10:10 AM	10	Classroom 11	458	476	468	0.0	0.0	75.1	76.5	75.5	57.0	60.2	59.3
211879- I-0022	10:15 AM	10:25 AM	10	Classroom1/Computer Lab	427	464	441	0.0	0.0	74.5	76.0	74.9	45.8	50.3	48.6
211879- I-0023	10:34 AM	10:48 AM	14	Classroom 21	415	679	437	0.4	0.0	73.8	78.0	76.7	41.1	46.9	44.7
211879- I-0024	10:50 AM	11:00 AM	10	Classroom 22	418	459	425	0.0	0.0	73.2	76.7	75.4	46.6	49.1	48.0
211879- I-0025	11:21 AM	11:35 AM	14	Classroom 27	439	476	455	1.8	0.0	71.0	75.4	73.5	44.0	55.1	49.8
211879- I-0026	11:38 AM	11:48 PM	12:10	Classroom 26	417	495	427	0.0	0.0	75.2	80.1	76.5	37.4	41.7	40.5



					CO2 Concentration (ppm)			CO Concentration (ppm) Temperature (°F)			Humidity (%)				
Sample Number	Start Time	End Time	<u>Duration</u> (min)	Sample Location	Min.	Max.	Average	Max.	Average	Min.	Max.	Average	Min.	Max.	<u>Average</u>
211879- I-0027	11:55 AM	12:05 PM	10	Classroom 25	419	464	432	0.0	0.0	75.7	77.0	76.2	40.0	41.4	40.9
211879- I-0028	12:08 PM	12:18 PM	10	Classroom 24	479	516	496	0.2	0.0	72.8	80.8	77.1	35.0	42.1	38.2
211879- I-0029	12:24 PM	12:34 PM	10	Classroom 30	416	432	424	0.0	0.0	71.5	77.5	73.4	48.4	56.8	52.9
211879- I-0030	12:39 PM	12:50 PM	11	Classroom 29	416	449	432	0.0	0.0	70.4	77.2	74.5	45.5	49.4	47.2
211879- I-0031	1:03 PM	1:13 PM	10	Classroom 28	419	514	431	0.0	0.0	71.1	75.6	74.3	48.3	53.6	49.8
211879- I-0032	1:21 PM	1:31 PM	10	Classroom 23	406	447	423	0.3	0.0	72.0	79.3	75.4	33.7	41.4	38.7
211879- I-0033	1:32 PM	1:42 PM	10	Exterior	335	481	405	5.0	2.3	78.5	93.9	90.7	32.5	58.6	37.3



# **Continuous Aerosol Monitoring Measurements (ThermoScientific pDR1500)**

Client Name: Azusa Unified School District

A-Tech Project Number: 211879

Location: Paramount Elementary School, 409 West Paramount Street

					<u>Aerosol Concentration (μg/m<sup>2</sup></u>		
Sample Number	Start Time	End Time	<u>Duration</u> (min)	Sample Location	Max.	<u>Average</u>	
211879-P-0001	9:32 AM	9:42 AM	10	Exterior	29.46	27.05	
211879-P-0002	9:47 AM	9:57 AM	10	Classroom 4	7.72	4.65	
211879-P-0003	10:10 AM	10:20 AM	10	Classroom 2/Library	4.97	3.92	
211879-P-0004	10:22 AM	10:32 AM	10	Classroom 5	5.25	4.05	
211879-P-0005	10:39 AM	10:49 AM	10	Classroom 7	2.92	1.95	
211879-P-0006	10:53 AM	11:03 AM	10	Classroom 8	3.50	2.31	
211879-P-0007	11:20 AM	11:30 AM	10	Classroom 12	3.62	2.66	
211879-P-0008	11:34 AM	11:44 AM	10	Classroom 14	7.90	6.37	
211879-P-0009	11:47 AM	11:57 AM	10	Classroom 15	8.70	7.04	
211879-P-0010	12:00 PM	12:10 PM	10	Classroom 13	6.12	2.53	



					Aerosol Concentration (µg/m		
Sample Number	Start Time	End Time	<u>Duration</u> (min)	Sample Location	Max.	<u>Average</u>	
211879-P-0011	12:26 PM	12:36 PM	10	Classroom 20	3.40	2.52	
211879-P-0012	12:41 PM	12:51 PM	10	Classroom 19	6.12	4.88	
211879-P-0013	1:00 PM	1:10 PM	10	Classroom 18	14.17	13.14	
211879-P-0014	1:15 PM	1:25 PM	10	Classroom 17	15.71	13.81	
211879-P-0015	2:35 PM	2:45 PM	10	Classroom 6	11.7	8.39	
211879-P-0016	2:58 PM	3:08 PM	10	Classroom 9	5.10	3.83	
211879-P-0017	3:10 PM	3:20 PM	10	Classroom 10	4.54	3.14	
211879-P-0018	3:24 PM	3:34 PM	10	Exterior	33.46	30.50	
211879-P-0019	9:32 AM	9:42 AM	10	Exterior	24.07	21.37	
211879-P-0020	9:45 AM	9:55 AM	10	Classroom 16	13.91	12.51	
211879-P-0021	10:00 AM	10:10 AM	10	Classroom 11	3.68	2.13	
211879-P-0022	10:15 AM	10:25 AM	10	Classroom1/Computer Lab	12.79	11.27	



					Aerosol Concentration (µg/m		
Sample Number	Start Time	End Time	<u>Duration</u> (min)	Sample Location	<u>Max.</u>	<u>Average</u>	
211879-P-0023	10:34 AM	10:48 AM	14	Classroom 21	5.62	4.28	
211879-P-0024	10:50 AM	11:00 AM	10	Classroom 22	4.79	3.85	
211879-P-0025	11:21 AM	11:35 AM	14	Classroom 27	3.92	2.27	
211879-P-0026	11:38 AM	11:48 AM	10	Classroom 26	6.51	5.26	
211879-P-0027	11:55 AM	12:05 PM	10	Classroom 25	2.69	1.78	
211879-P-0028	12:08 PM	12:18 PM	10	Classroom 24	2.17	1.48	
211879-P-0029	12:24 PM	12:34 PM	10	Classroom 30	4.96	3.03	
211879-P-0030	12:39 PM	12:50 PM	11	Classroom 29	2.25	1.38	
211879-P-0031	1:03 PM	1:13 PM	10	Classroom 28	2.23	1.34	
211879-P-0032	1:21 PM	1:31 PM	10	Classroom 23	2.78	1.63	
211879-P-0033	1:32 PM	1:42 PM	10	Exterior	24.5	19.89	

Legend:

N/A = Not Applicable



## **Mold Air Sample Summary**

Location: Paramount Elementary School, 409 West Paramount Street Client Name: Azusa Unified School District

**Area:** Various Areas

Sample Number	Sample Date & <u>Time</u>	Sample Location	Sample Description	Sampling Time	<u>Liters</u> <u>Per</u> <u>Min</u>	Temp./Humidity	<u>Prominent Mold - Genre Level</u> (spores/m³)	Total Mold Spores (spores/m³)
211879- MA-0001	7/13/2021 9:32 AM	Exterior	Ambient	10 Min.	15	83.5 °F / 50.7%	Aspergillus/Penicillium - 1,560 Cladosporium - 1,500 Chaetomium - 20 Alternaria - 60 Ascospores - 60 Basidiospores - 180 Epicoccum - 20 Periconia, Myxomycetes, Smuts - 100 Miscellaneous Spores - 40	3,640*
211879- MA-0002	7/13/2021 9:47 AM	Classroom 4	Background	5 Min.	15	71.0 °F / 52.3%	Aspergillus/Penicillium - 120 Cladosporium - 200 Alternaria - 40 Periconia, Myxomycetes, Smuts - 80	440
211879- MA-0003	7/13/2021 10:10 AM	Classroom 2, Library	Background	5 Min.	15	77.2 °F / 44.2%	Aspergillus/Penicillium - 200 Cladosporium - 120 Ascospores - 40 Basidiospores - 40 Periconia, Myxomycetes, Smuts - 40	440
211879- MA-0004	7/13/2021 10:22 AM	Classroom 5	Background	5 Min.	15	76.1 °F / 50.2%	Aspergillus/Penicillium - 440 Cladosporium - 80 Basidiospores - 160 Periconia, Myxomycetes, Smuts - 40	720



Sample Number	<u>Sample Date &amp;</u> <u>Time</u>	Sample Location	Sample Description	Sampling Time	<u>Liters</u> <u>Per</u> <u>Min</u>	Temp./Humidity	<u>Prominent Mold - Genre Level</u> (spores/m³)	Total Mold Spores (spores/m³)
211879- MA-0005	7/13/2021 10:39 AM	Classroom 7	Background	5 Min.	15	75.5 °F / 44.2%	Aspergillus/Penicillium - 80 Cladosporium - 80 Ascospores - 40 Basidiospores - 40 Epicoccum - 40 Periconia, Myxomycetes, Smuts - 40	320
211879- MA-0006	7/13/2021 10:53 AM	Classroom 8	Background	5 Min.	15	71.2 °F / 46.4%	Aspergillus/Penicillium - 160 Cladosporium - 160	320
211879- MA-0007	7/13/2021 11:08 AM	Classroom 12	Background	5 Min.	15	83.1 °F / 51.8%	Aspergillus/Penicillium - 1,160 Cladosporium - 160 Ascospores - 120 Basidiospores - 80 Periconia, Myxomycetes, Smuts - 120	1,640
211879- MA-0008	7/13/2021 11:34 AM	Classroom 14	Background	5 Min.	15	76.6 °F / 41.8%	Aspergillus/Penicillium - 280 Cladosporium - 160 Alternaria – 40	480
211879- MA-0009	7/13/2021 11:48 AM	Classroom 15	Background	5 Min.	15	66.7 °F / 54.5%	Aspergillus/Penicillium - 520 Cladosporium - 200 Periconia, Myxomycetes, Smuts - 80	800
211879- MA-0010	7/13/2021 12:01 PM	Classroom 13	Background	5 Min.	15	71.0 °F / 47.5%	Aspergillus/Penicillium - 560 Cladosporium - 440 Basidiospores - 40 Miscellaneous Spores – 40	1,080
211879- MA-0011	7/13/2021 12:26 PM	Classroom 20	Background	5 Min.	15	74.4 °F / 64.9%	Aspergillus/Penicillium – 80	80
211879- MA-0012	7/13/2021 12:42 PM	Classroom 19	Background	5 Min.	15	75.5 °F / 51.4%	Aspergillus/Penicillium - 80 Cladosporium - 240 Basidiospores – 40	360
211879- MA-0013	7/13/2021 12:59 PM	Classroom 18	Background	5 Min.	15	75.9 °F / 52.0%	Aspergillus/Penicillium - 200 Cladosporium - 400	600



Sample Number	Sample Date & <u>Time</u>	Sample Location	Sample Description	Sampling Time	<u>Liters</u> <u>Per</u> <u>Min</u>	Temp./Humidity	<u>Prominent Mold - Genre Level</u> (spores/m³)	Total Mold Spores (spores/m³)
211879- MA-0014	7/13/2021 1:15 PM	Classroom 17	Background	5 Min.	15	71.5 °F / 51.4%	Aspergillus/Penicillium - 320 Cladosporium - 440 Basidiospores – 40	800
211879- MA-0015	7/13/2021 2:35 PM	Classroom 6	Background	5 Min.	15	76.5 °F / 44.8%	Cladosporium - 160 Chaetomium - 40 Basidiospores - 80 Periconia, Myxomycetes, Smuts - 80	360
211879- MA-0016	7/13/2021 2:48 PM	Classroom 9	Background	5 Min.	15	75.0 °F / 46.9%	Aspergillus/Penicillium - 600 Cladosporium - 240 Periconia, Myxomycetes, Smuts - 40	1,040
211879- MA-0017	7/13/2021 3:10 PM	Classroom 10	Background	5 Min.	15	71.9 °F / 52.4%	Aspergillus/Penicillium - 200 Cladosporium - 80 Chaetomium - 40 Alternaria - 40 Ascospores - 80 Basidiospores - 40	520
211879- MA-0018	7/13/2021 3:24 PM	Exterior	Ambient	10 Min.	15	89.3 °F / 43.1%	Aspergillus/Penicillium - 1,940 Cladosporium - 1,020 Chaetomium - 20 Alternaria - 20 Ascospores - 140 Basidiospores - 100 Epicoccum - 0 Periconia, Myxomycetes, Smuts - 40 Miscellaneous Spores - 20	3,340*

<sup>\*</sup>Note: Total mold spore count reflects all genres detected in the exterior sample, including the genres not detected in the interior sample obtained.

#### LEGEND:

- (1) P = Present, NP = Not Present
- (2) **RED** = Elevated Spore Concentrations of Specific Genres
- (3) **BLUE** = Genre Found Inside at Low Levels but not found Outside
- (4) N/A = Not Applicable



## **Mold Air Sample Summary**

Location: Paramount Elementary School, 409 West Paramount Street Client Name: Azusa Unified School District

Sample Number	Sample Date & Time	Sample Location	<u>Sample</u> <u>Description</u>	Sampling Time	<u>Liters</u> <u>Per</u> <u>Min</u>	<u>Temp./</u> <u>Humidity</u>	<u>Prominent Mold - Genre Level</u> ( <u>spores/m</u> ³)	Total Mold Spores (spores/m³)
211879-MA-0019	8/5/2021 9:32 AM	Exterior	Ambient	10 Min.	15	78.6 °F / 54.7%	Aspergillus/Penicillium - 940 Cladosporium - 700 Alternaria - 20 Ascospores - 100 Basidiospores - 100 Curvularia - 20 Periconia, Myxomycetes, Smuts - 60 Ganoderma - 140	2,080*
211879-MA-0020	8/5/2021 9:44 AM	Classroom 16	Background	5 Min.	15	75.8 °F / 57.2%	Aspergillus/Penicillium - 960 Cladosporium - 280 Ascospores - 40 Basidiospores - 80 Periconia, Myxomycetes, Smuts - 80	1,440
211879-MA-0021	8/5/2021 9:59 AM	Classroom 11	Background	5 Min.	15	75.7 °F / 58.1%	Aspergillus/Penicillium - 160 Cladosporium - 240 Bipolaris - 40 Periconia, Myxomycetes, Smuts - 120	560
211879-MA-0022	8/5/2021 10:14 AM	Room 1 / Old Computer Lab	Background	5 Min.	15	74.7 °F / 49.2%	Aspergillus/Penicillium - 440 Cladosporium - 200 Basidiospores - 40	680
211879-MA-0023	8/5/2021 10:33 AM	Classroom 21	Background	5 Min.	15	73.0 °F / 44.3%	Aspergillus/Penicillium - 960 Cladosporium - 80 Basidiospores - 40 Epicoccum - 40 Periconia, Myxomycetes, Smuts - 80	1,200



Sample Number	Sample Date & Time	Sample Location	<u>Sample</u> <u>Description</u>	Sampling Time	<u>Liters</u> <u>Per</u> <u>Min</u>	<u>Temp./</u> <u>Humidity</u>	<u>Prominent Mold - Genre Level</u> (spores/m³)	Total Mold Spores (spores/m³)
211879-MA-0024	8/5/2021 10:47 AM	Classroom 22	Background	5 Min.	15	74.9 °F / 49.0%	Aspergillus/Penicillium - 440 Cladosporium - 80	520
211879-MA-0025	8/5/2021 11:21 AM	Classroom 27	Background	5 Min.	15	73.0 °F / 51.2%	Aspergillus/Penicillium - 360 Cladosporium - 40 Epicoccum - 40 Periconia, Myxomycetes, Smuts - 80	520
211879-MA-0026	8/5/2021 11:38 AM	Classroom 26	Background	5 Min.	15	75.9 °F / 41.1%	Aspergillus/Penicillium - 160 Basidiospores - 40	200
211879-MA-0027	8/5/2021 11:55 AM	Classroom 25	Background	5 Min.	15	76.0 °F / 41.1%	Aspergillus/Penicillium - 280 Cladosporium - 200 Basidiospores - 40	520
211879-MA-0028	8/5/2021 12:08 PM	Classroom 24	Background	5 Min.	15	70.0 °F / 45.9%	Aspergillus/Penicillium - 240 Cladosporium - 160 Ascospores - 80 Basidiospores - 40 Epicoccum - 40 Periconia, Myxomycetes, Smuts - 40	600
211879-MA-0029	8/5/2021 12:24 PM	Classroom 30	Background	5 Min.	15	73.2 °F / 55.4%	Aspergillus/Penicillium - 240 Cladosporium - 80 Basidiospores - 40	360
211879-MA-0030	8/5/2021 12:39 PM	Classroom 29	Background	5 Min.	15	75.9 °F / 46.4%	Aspergillus/Penicillium - 240 Cladosporium - 80 Ascospores - 40	360
211879-MA-0031	8/5/2021 1:03 PM	Classroom 28	Background	5 Min.	15	70.3 °F / 51.1%	Aspergillus/Penicillium - 400 Cladosporium - 40 Basidiospores - 40 Curvularia - 40 Miscellaneous Spores - 40	560



Sample Number	Sample Date & Time	Sample Location	<u>Sample</u> <u>Description</u>	Sampling Time	Liters Per Min	Temp./ Humidity	<u>Prominent Mold - Genre Level</u> (spores/m³)	Total Mold Spores (spores/m³)
211879-MA-0032	8/5/2021 1:21 PM	Classroom 23	Background	5 Min.	15	70.6 °F / 42.2%	Aspergillus/Penicillium - 280 Cladosporium - 320 Ascospores - 40 Basidiospores - 40 Epicoccum - 40	720
211879-MA-0033	8/5/2021 1:32 PM	Exterior	Ambient	10 Min.	15	89.5 °F/ 38.8%	Aspergillus/Penicillium - 2,360 Cladosporium - 3,080 Alternaria - 80 Ascospores - 40 Basidiospores - 200 Bipolaris - 40 Periconia, Myxomycetes, Smuts - 200 Ganoderma - 80	6,080*

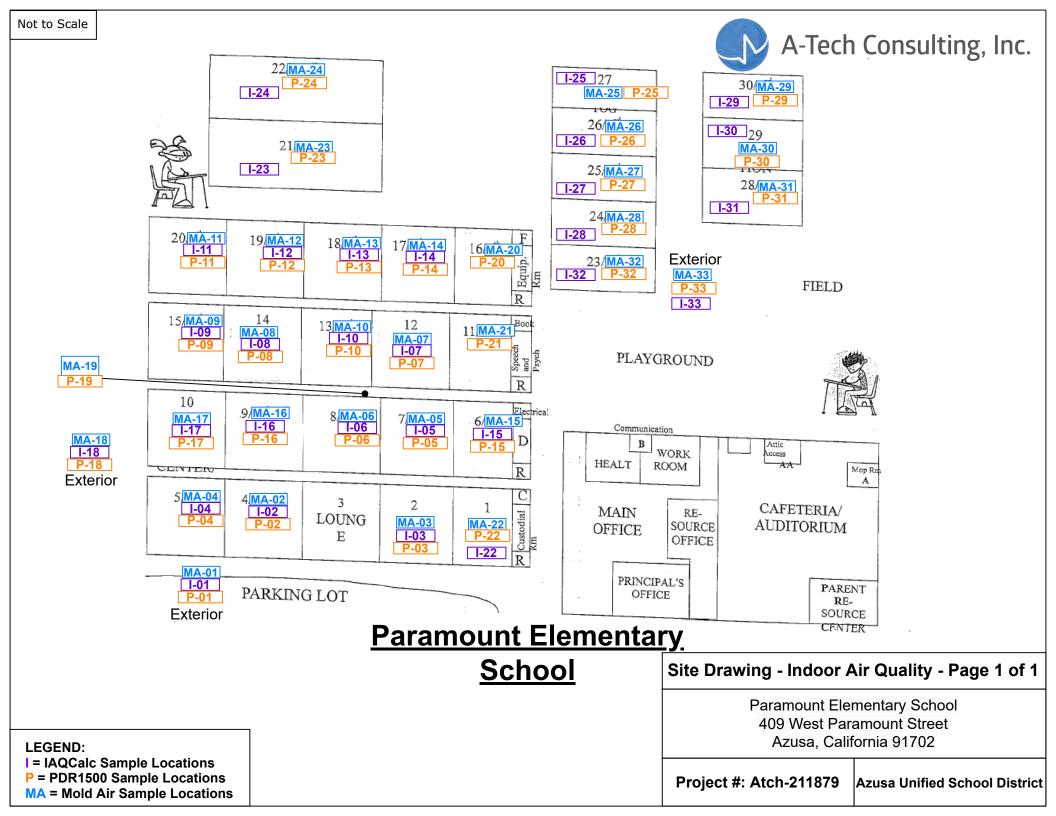
<sup>\*</sup>Note: Total mold spore count reflects all genres detected in the exterior sample, including the genres not detected in the interior sample obtained.

#### LEGEND:

- (1) P = Present, NP = Not Present
- (2) **RED** = Elevated Spore Concentrations of Specific Genres
- (3) **BLUE** = Genre Found Inside at Low Levels but not found Outside
- (4) N/A = Not Applicable

Mold Air Sample Summary

Page 6 of 6



Client Name: Azusa Unified School District



# **Digital Photographs - IAQ**

Locations: Paramount Elementary School, 409 West Paramount Street



View of Room 1



View of Room 1



View of Room 9



View of Room 9

# A-Tech Consulting, Inc.



View of Room 11



View of Room 12



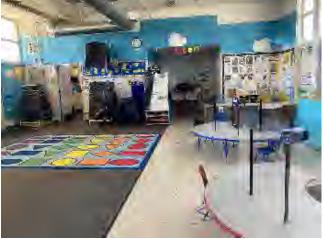
View of Room 12



View of Room 16



View of Room 21



View of Room 22



View of Room 23



View of Room 24



View of Room 25



View of Room 26



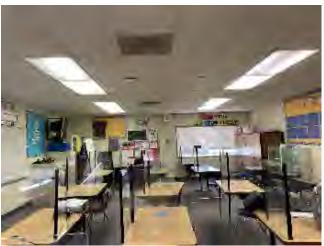
View of Room 27



View of Room 28



View of Room 29



View of Room 30



View of Exterior Sampling



Phone:(562) 860-2201 www.aihlab.com

2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report **AIHA EMPAT#: 203769** 

Lab Batch Number: 2111276

Samples Received: 18

Samples Analyzed: 18

Laboratory Sample ID:	211127601	211127602	211127603
Client Sample ID:	MA-0001	MA-0002	MA-0003
Sample Location:	Exterior	1st Floor, Classroom 4	1st Floor, Classroom 2/Library
Comments:	None	None	None

Quantitative Analysis

		Raw Counts	Spores/m <sup>3</sup>	% Total	Raw Counts	Spores/m³	% Total	Raw Counts	Spores/m³	% Total
Inside/Outside	Aspergillus/Penicillium-like	78	1560	42.9	3	120	27.3	5	200	45.5
inside/Outside	Cladosporium	75	1500	41.2	5	200	45.5	3	120	27.3
	Chaetomium	1	20	0.5	ı	ı	ı	-	-	-
Water Damage	Stachybotrys	-	-	-	ı	ı	ı	-	-	-
Indication	Trichoderma	-	-	-	-	ı	ı	-	-	-
	Ulocladium	-	-	-	-	ı	•	-	-	-
	Alternaria	3	60	1.6	1	40	9.1	-	-	-
	Ascospores	3	60	1.6	-	-	-	1	40	9.1
	Basidiospores	9	180	4.9	-	-	-	1	40	9.1
	Bipolaris	1	20	0.5	-	-	-	-	-	-
	Curvularia	-	-	-	-	-	-	-	-	-
	Epicoccum	1	20	0.5	-	-	-	-	-	-
	Nigrospora	-	-	-	-	-	-	-	-	-
	Periconia/Myxo/Smut	5	100	2.7	2	80	18.2	1	40	9.1
<b>Outdoor Environment</b>	Pithomyces	-	-	-	-	-	-	-	-	-
	Rust	-	-	-	-	-	-	-	-	-
	Spegazzinia	-	-	-	-	-	-	-	-	-
	Tetraploa	-	-	-	-	-	-/	-	-	-
	Torula	-	-	-	-	-	-	-	- 7	
	Miscellaneous Spores	2	40	1.1	-	- 7	-	// - ·	70 <del>-</del>	- /
	Oidium	1	20	0.5	-	- //	-			- 1
	Ganoderma	3	60	1.6	-	-/	1	-	-	-
							1			111/0
	Total	182	3640	100	11	440	100	11	440	100



Phone:(562) 860-2201 www.aihlab.com

2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

**Project Number: 211879** 

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report **AIHA EMPAT#: 203769** 

Lab Batch Number: 2111276

Samples Received: 18

Samples Analyzed: 18

Laboratory Sample ID:	211127601	211127602	211127603
Client Sample ID:	MA-0001	MA-0002	MA-0003
Sample Location:	Exterior	1st Floor, Classroom 4	1st Floor, Classroom 2/Library
Sample Collection Data			
Total Time:			
Flow Rate:			
Volume:	150	75	75
Qualitative Analysis			
Skin Fragments- 1 to 5 (low to high):	1	2	1
Background/m3- 1 to 5 (low to high):	5	3	3
Hyphal Fragments- 1 to 5 (low to high):	1	1	1





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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

**Project Number: 211879** 

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report

**AIHA EMPAT#: 203769** 

Lab Batch Number: 2111276

Samples Received: 18

Samples Analyzed: 18

Laboratory Sample ID:	211127604	211127605	211127606
Client Sample ID:	MA-0004	MA-0005	MA-0006
Sample Location:	1st Floor, Classroom 5	1st Floor, Classroom 7	1st Floor, Classroom 8
Comments:	None	None	None

#### **Quantitative Analysis**

		Raw Counts	Spores/m <sup>3</sup>	% Total	Raw Counts	Spores/m <sup>3</sup>	% Total	Raw Counts	Spores/m <sup>3</sup>	% Total
Inside/Outside	Aspergillus/Penicillium-like	11	440	61.1	2	80	25	4	160	50
iliside/Outside	Cladosporium	2	80	11.1	2	80	25	4	160	50
	Chaetomium	-	-	-	-			-	-	-
Water Damage	Stachybotrys	-	-	-	-	-	-	-	-	-
Indication	Trichoderma	-	-	-	1	ı		-	-	-
	Ulocladium	-	-	-	1	-	ı	1	-	-
	Alternaria	-	-	-	1	1	-	-	-	-
	Ascospores	-	-	-	1	40	12.5	-	-	-
	Basidiospores	4	160	22.2	1	40	12.5	-	-	-
	Bipolaris	-	-	-	-	-	-	-	-	-
	Curvularia	-	-	-	-	1	-	-	-	-
	Epicoccum	-	-	-	1	40	12.5	1	-	-
	Nigrospora	-	-	-	-	-	-	-	-	-
	Periconia/Myxo/Smut	1	40	5.6	1	40	12.5	1	-	-
Outdoor Environment	Pithomyces	-	-	-	-	-	-	-	-	-
	Rust	-	-	-	1	1	-	1	-	-
	Spegazzinia	-	-	-	•	-	-	-	-	-
	Tetraploa	-	-	-	1	ı	<b>-</b> , _	-	-	<u> </u>
	Torula	-	-	-	1	-	-	-	-	-
	Miscellaneous Spores	-	-	-	ı	- //	-	-	-	\ <u>-</u>
	Oidium	-	-	-	-	-/	-		-	-
	Ganoderma	-	-	-	-	/ -			- 3 -	-
	Total	18	720	100	8	320	100	8	320	100



Phone:(562) 860-2201 www.aihlab.com

2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

**Project Number: 211879** 

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report

**AIHA EMPAT#: 203769** 

Lab Batch Number: 2111276

Samples Received: 18

Samples Analyzed: 18

Laboratory Sample ID:	211127604	211127605	211127606
Client Sample ID:	MA-0004	MA-0005	MA-0006
Sample Location:	1st Floor, Classroom 5	1st Floor, Classroom 7	1st Floor, Classroom 8

#### Sample Collection Data

Total Time:			
Flow Rate:			
Volume:	75	75	75

#### **Qualitative Analysis**

Skin Fragments- 1 to 5 (low to high):	1	2	2
Background/m3- 1 to 5 (low to high):	3	3	3
Hyphal Fragments- 1 to 5 (low to high):	1	1	1





Phone:(562) 860-2201 www.aihlab.com

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report

**AIHA EMPAT#: 203769** 

Lab Batch Number: 2111276

Samples Received: 18 Samples Analyzed: 18

Laboratory Sample ID:	211127607	211127608	211127609		
Client Sample ID:	MA-0007	MA-0008	MA-0009		
Sample Location:	1st Floor, Classroom 12	1st Floor, Classroom 14	1st Floor, Classroom 15		
Comments:	None	None	None		

### **Quantitative Analysis**

<u>Quantitative Analysis</u>		Raw Counts	Spores/m³	% Total	Raw Counts	Spores/m³	% Total	Raw Counts	Spores/m³	% Total
Inside/Outside -	Aspergillus/Penicillium-like	29	1160	70.7	7	280	58.3	13	520	65
	Cladosporium	4	160	9.8	4	160	33.3	5	200	25
Water Damage Indication	Chaetomium	-	-	-	-	-	-	-	-	-
	Stachybotrys	-	-	1	-	-	-	1	-	-
	Trichoderma	-	-	•	-	-	•	1	-	-
	Ulocladium	-	-	-	-	-	-	-	-	-
	Alternaria	-	-	-	1	40	8.3	-	-	-
	Ascospores	3	120	7.3	-	-	-	-	-	-
	Basidiospores	2	80	4.9	-	-	-	-	-	-
	Bipolaris	-	-	-	-	-	-	-	-	-
	Curvularia	-	-	-	-	-	-	-	-	-
	Epicoccum	-	-	-	-	-	-	-	-	-
	Nigrospora	-	-	-	-	-	-	-	-	-
	Periconia/Myxo/Smut	3	120	7.3	-	-	-	2	80	10
Outdoor Environment	Pithomyces	-	-	-	-	-	-	-	-	-
	Rust	-	-	-	-	-	-	-	-	
	Spegazzinia	-	-	-	-	-	-	-		-
	Tetraploa	-	-	-	-	-	_	-	-	-
	Torula	-	-	-	-	- /	-	-	-	<u></u>
	Miscellaneous Spores	-	-	-	-	-/	- /	-	-	-
	Oidium	-	-	-	-	-	<u>-/-/_</u>		-	-
	Ganoderma	-	-	-	-	-	//-	-	-	-
						18 1 /	7	1 // kg		
	Total	41	1640	100	12	480	100	20	800	100



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2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report

**AIHA EMPAT#: 203769** 

Lab Batch Number: 2111276

Samples Received: 18

Samples Analyzed: 18

Laboratory Sample ID: Client Sample ID: Sample Location:	211127607 MA-0007 1st Floor, Classroom 12	211127608 MA-0008 1st Floor, Classroom 14	211127609 MA-0009 1st Floor, Classroom 15	
Sample Collection Data  Total Time: Flow Rate: Volume:	75	75	75	
Qualitative Analysis  Skin Fragments- 1 to 5 (low to high):  Background/m3- 1 to 5 (low to high):  Hyphal Fragments- 1 to 5 (low to high):	2 4 1	2 3 1	2 4 1	





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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

**Project Number: 211879** 

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report

**AIHA EMPAT#: 203769** 

Lab Batch Number: 2111276

Samples Received: 18

	Laboratory Sample ID: Client Sample ID:			211127611 MA-0011			211127612 MA-0012			
	Sample Location:	1st Floor Classroom		1st Floor, Classroom 20			1st Floor, Classroom 19		room	
	Comments:	None		None			None			
Quantitative Analysis										
	Aspergillus/Penicillium-like	Raw Counts	Spores/m³	% Total 51.9	Raw Counts	Spores/m³	% Total 100	Raw Counts	Spores/m³	% Total 22.2
Inside/Outside	Cladosporium	11	440	40.7	-	-	-	6	240	66.7
	Chaetomium	-	-	-	-	-	-	-	-	-
Water Damage	Stachybotrys	-	-	-	-	-	-	-	-	-
Indication	Trichoderma	-	-	-	-	-	-	-	-	-

Inside/Outside	Aspergillus/Penicillium-like	14	560	51.9	2	80	100	2	80	22.2
inside/Outside	Cladosporium	11	440	40.7	1	-	-	6	240	66.7
	Chaetomium	-	-	-	-	-	-	-	-	-
Water Damage	Stachybotrys	-	-	-	-	-	-	-	-	-
Indication	Trichoderma	-	-	-	ı	-	-	-	-	-
	Ulocladium	-	-	-	1	-	-	-	-	-
	Alternaria	-	-	-	-	-	-	-	-	-
	Ascospores	1	-	-	-	-	-	-	-	-
	Basidiospores	1	40	3.7	-	-	-	1	40	11.1
	Bipolaris	-	-	-	-	-	-	-	-	-
	Curvularia	-	-	-	-	-	-	-	-	-
	Epicoccum	-	-	-	-	-	-	-	-	-
	Nigrospora	-	-	-	-	-	-	-	-	-
	Periconia/Myxo/Smut	-	-	-	-	-	-	-	-	-
Outdoor Environment	Pithomyces	-	-	-	-	-	-	-	-	-
	Rust	-	-	-	-	-	-	-	-	-
	Spegazzinia	-	-	-	-	-	-	_	<u> </u>	-
	Tetraploa	-	-	-	-	-	-	-	-	-
	Torula	-	-	-	-	-	-		-	<u> </u>
	Miscellaneous Spores	1	40	3.7	-	-/	- /	-	-	-
	Oidium	-	-	-	-	/-			-	1
	Ganoderma	-	-	-	-	/ -	// -	2 -	11 -	-
	Total	28	1080	100	2	80	100	9	360	100



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2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

**Project Number: 211879** 

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report

**AIHA EMPAT#: 203769** 

Lab Batch Number: 2111276 Samples Received: 18

Samples Analyzed: 18

Laboratory Sample ID:	211127610	211127611	211127612
Client Sample ID:	MA-0010	MA-0011	MA-0012
Sample Location:	1st Floor, Classroom 13	1st Floor, Classroom 20	1st Floor, Classroom 19

# Sample Collection Data

Total Time:			
Flow Rate:			
Volume:	75	75	75

#### **Qualitative Analysis**

Skin Fragments- 1 to 5 (low to high):	1	1	1
Background/m3- 1 to 5 (low to high):	2	1	2
Hyphal Fragments- 1 to 5 (low to high):	1	1	1





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Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report

**AIHA EMPAT#: 203769** 

Lab Batch Number: 2111276

Samples Received: 18

Samples Analyzed: 18

Laboratory Sample ID:	211127613	211127614	211127615
Client Sample ID:	MA-0013	MA-0014	MA-0015
Sample Location:	1st Floor, Classroom 18	1st Floor, Classroom 17	1st Floor, Classroom 6
Comments:	None	None	None

# **Quantitative Analysis**

<u>Quantitative Analysis</u>		Raw Counts	Spores/m³	% Total	Raw Counts	Spores/m³	% Total	Raw Counts	Spores/m³	% Total
Incido/Outoido	Aspergillus/Penicillium-like	5	200	33.3	8	320	40	9	-	-
Inside/Outside	Cladosporium	10	400	66.7	11	440	55	4	160	44.4
	Chaetomium	-	-	-	-	-	-	1	40	11.1
Water Damage	Stachybotrys	-	-	-	-	-	-	-	-	-
Indication	Trichoderma	-	-	-	ı	-	1	-	-	-
	Ulocladium	-	-	-	ı	-	1	-	1	-
	Alternaria	-	-	-	-	-	1	-	-	-
	Ascospores	-	-	-	-	-	-	-	-	-
	Basidiospores	-	-	-	1	40	5	2	80	22.2
	Bipolaris	-	-	-	-	-	-	-	-	-
	Curvularia	-	-	-	-	-	-	-	-	-
	Epicoccum	-	-	-	-	-	-	-	-	-
	Nigrospora	-	-	-	-	-	-	-	-	-
	Periconia/Myxo/Smut	-	-	-	-	-	-	2	80	22.2
Outdoor Environment	Pithomyces	-	-	-	-	-	-	-	-	-
	Rust	-	-	-	-	-	-	-	-	-
	Spegazzinia	-	-	-	-	-	-	-	_	-
	Tetraploa	-	-	-	-	-	<del>-</del>	-	-	-
	Torula	-	-	-	-	- /	-		-	\ -
	Miscellaneous Spores	-	-	-	-	-/	-/		-	1//-
	Oidium	-	-	-	-	/-	//-		- \	1 -
	Ganoderma	-	-	-	-	V - /	// - ·	-	-	-
								1/3/2		
	Total	15	600	100	20	800	100	18	360	100



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**Project Number: 211879** 

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report

**AIHA EMPAT#: 203769** 

Lab Batch Number: 2111276

Samples Received: 18 Samples Analyzed: 18

Laboratory Sample ID:	211127613	211127614	211127615
Client Sample ID:	MA-0013	MA-0014	MA-0015
Sample Location:	1st Floor, Classroom 18	1st Floor, Classroom 17	1st Floor, Classroom 6

# Sample Collection Data

Total Time:			
Flow Rate:			
Volume:	75	75	75

# **Qualitative Analysis**

Skin Fragments- 1 to 5 (low to high):	1	1	1
Background/m3- 1 to 5 (low to high):	2	2	3
Hyphal Fragments- 1 to 5 (low to high):	1	1	1





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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report

**AIHA EMPAT#: 203769** Lab Batch Number: 2111276

Samples Received: 18

Samples Analyzed: 18

Laboratory Sample ID:	211127616	211127617	211127618
Client Sample ID:	MA-0016	MA-0017	MA-0018
Sample Location:	1st Floor, Classroom 9	1st Floor, Classroom 10	Exterior
Comments:	None	None	None

# **Quantitative Analysis**

		Raw Counts	Spores/m <sup>3</sup>	% Total	Raw Counts	Spores/m <sup>3</sup>	% Total	Raw Counts	Spores/m <sup>3</sup>	% Total
Inside/Outside	Aspergillus/Penicillium-like	15	600	57.7	5	200	38.5	97	1940	58.1
inside/Outside	Cladosporium	6	240	23.1	2	80	15.4	51	1020	30.5
	Chaetomium	-	-	-	1	40	7.7	1	20	0.6
Water Damage Indication	Stachybotrys	-	-	-	ı	ı	1	-	-	-
water Damage indication	Trichoderma	-	-	•	1	ı	-	-	-	-
	Ulocladium	-	-	-	-	-	-	-	-	-
	Alternaria	-	-	-	1	40	7.7	1	20	0.6
	Ascospores	-	-	-	2	80	15.4	7	140	4.2
	Basidiospores	-	-	-	1	40	7.7	5	100	3
	Bipolaris	-	-	-	ı	ı	1	2	40	1.2
	Curvularia	-	-	-	-	1	-	-	-	-
	Epicoccum	-	-	-	ı	ı	1	-	-	-
	Nigrospora	-	-	-	-	-	-	-	-	-
	Periconia/Myxo/Smut	1	40	3.8	-	-	-	2	40	1.2
Outdoor Environment	Pithomyces	-	-	-	-	-	-	-	-	-
	Rust	4	160	15.4	1	40	7.7	-	-	-
	Spegazzinia	-	-	-	-	ı	-	-	-	-
	Tetraploa	-	-	-	ı	ı	-	-	-	-
	Torula	-	-	-	-	-	-	-	-	-
	Miscellaneous Spores	-	-	-	-	-/	-	1	20	0.6
	Oidium	-	-	-	-	-	7-		-	<u></u>
	Ganoderma	-	-	-	1	- /	/	-		-
					/				n	
	Total	26	1040	100	13	520	100	167	3340	100

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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Hyphal Fragments- 1 to 5 (low to high):

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report

**AIHA EMPAT#**: 203769

Lab Batch Number: 2111276

Samples Received: 18

Samples Analyzed: 18

1

Laboratory Sample ID:		211127617	211127618
Client Sample ID:	MA-0016	MA-0017	MA-0018
Sample Location:	1st Floor, Classroom 9	1st Floor, Classroom 10	Exterior
Sample Collection Data			
Total Time:			
Flow Rate:			
Volume:	75	75	150
Qualitative Analysis			
Skin Fragments- 1 to 5 (low to high):	2	1	1
Background/m3- 1 to 5 (low to high):	4	2	4

Signature: Emayay Date: 07-20-2021 Analyzed by: Emily Chang

Signature: ( ) Date: 07-21-2021 Reviewed by: Zubair Ahmed

No accepted regulatory standards currently exit by which to assess the health risks related to mold exposure. Molds have been associated with a variety of health effects and sensitivity varies from person. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. High levels of background particulate can obscure spores and other particulates leading to underestimation. "-" Denotes not detected. Background levels of 4 or 5 indicate an overload of background particulates, prohibiting accurate detection and quantification. AIH Laboratory maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by AIH Laboratory. AIH Laboratory bears no responsibility for sample collection activities or analytical method limitations. Spores/m³ calculation based on volume information provided by client. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. All report format and design are copyright of AIH Laboratory 2021.

AIHA LAP, LLC Accredited Laboratory for Microbiology Laboratory ISO/IEC 17025:2005, Lab ID# 203769



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Client Name: A-Tech Consulting Inc

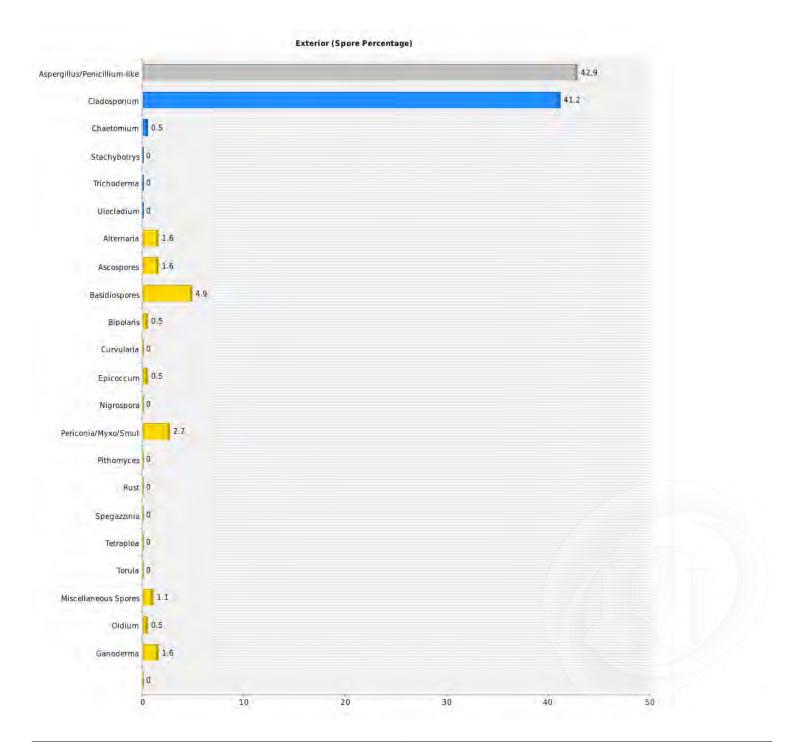
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

**AIHA EMPAT#: 203769** Lab Batch Number: 2111276 Samples Received: 18

Report Status: Final Report





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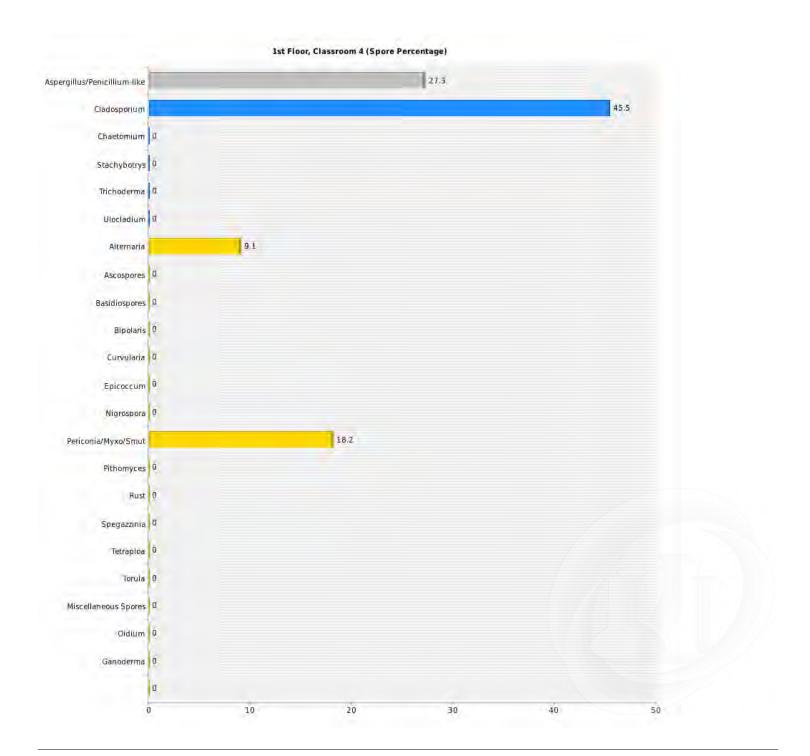
Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report **AIHA EMPAT#: 203769** Lab Batch Number: 2111276





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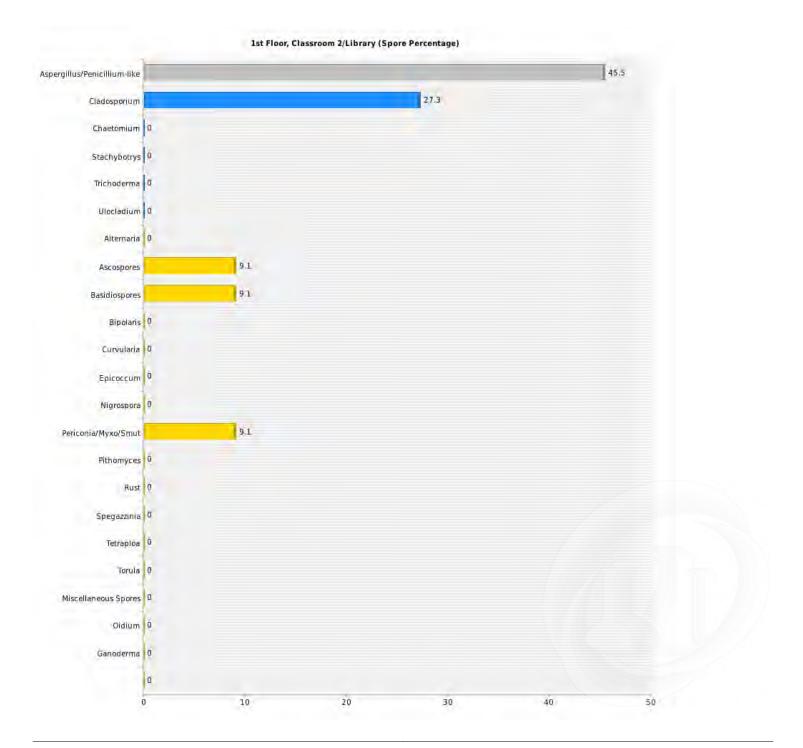
Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report **AIHA EMPAT#: 203769** Lab Batch Number: 2111276





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2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

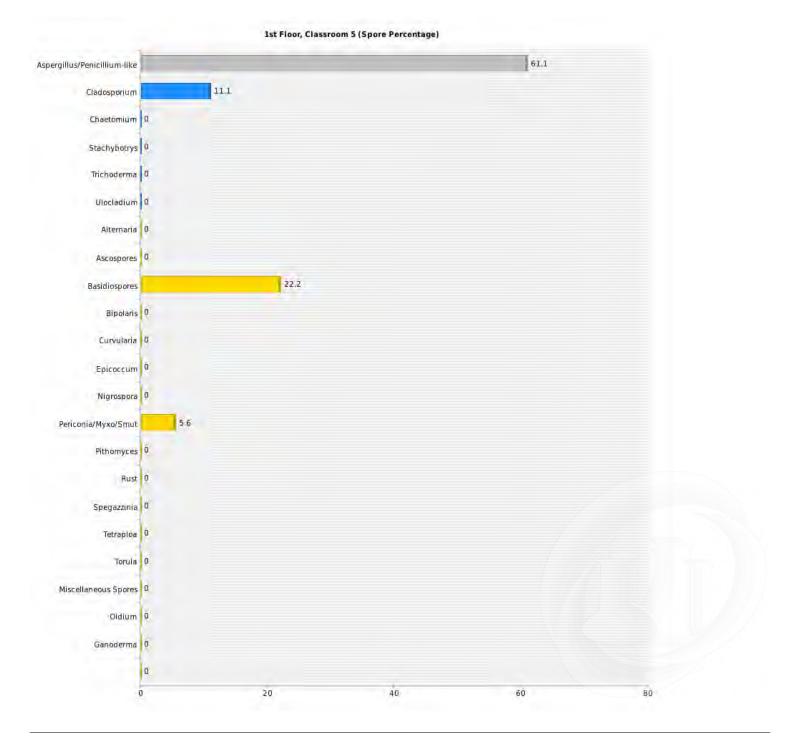
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

**AIHA EMPAT#: 203769** Lab Batch Number: 2111276

Report Status: Final Report





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Client Name: A-Tech Consulting Inc

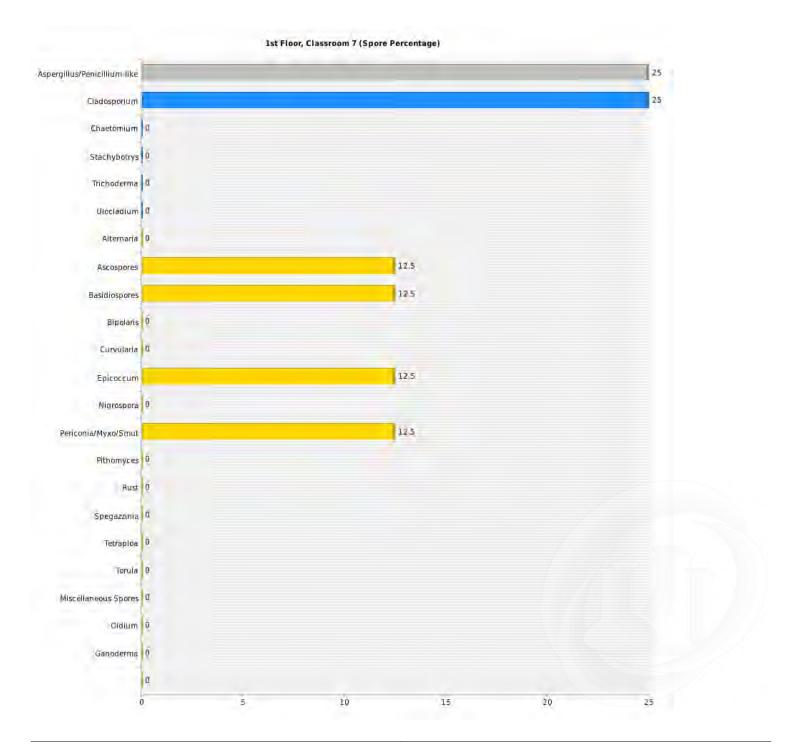
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

**AIHA EMPAT#: 203769** Lab Batch Number: 2111276

Report Status: Final Report





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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

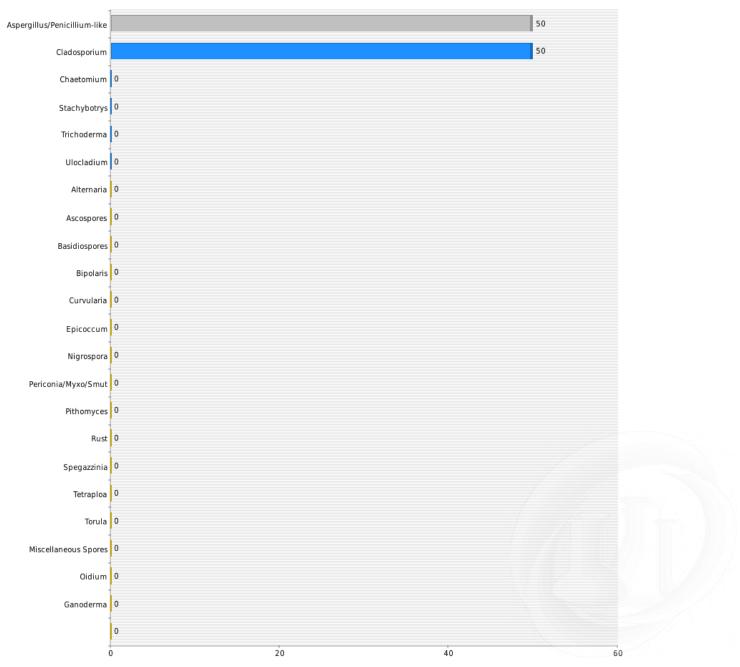
**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report **AIHA EMPAT#: 203769** 

Lab Batch Number: 2111276

Samples Received: 18 Samples Analyzed: 18

#### 1st Floor, Classroom 8 (Spore Percentage)





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Client Name: A-Tech Consulting Inc

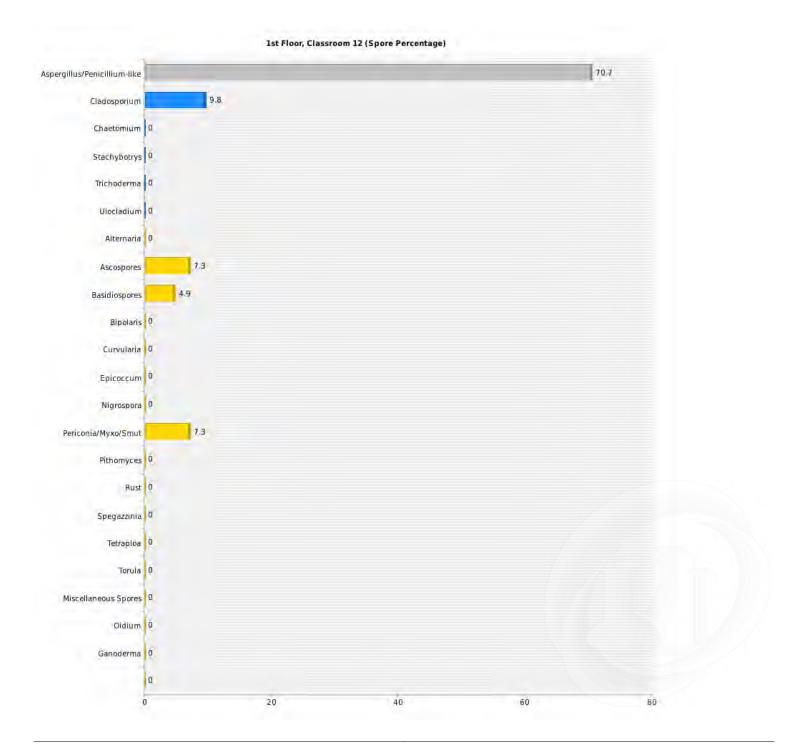
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

**AIHA EMPAT#: 203769** Lab Batch Number: 2111276 Samples Received: 18

Report Status: Final Report





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Client Name: A-Tech Consulting Inc

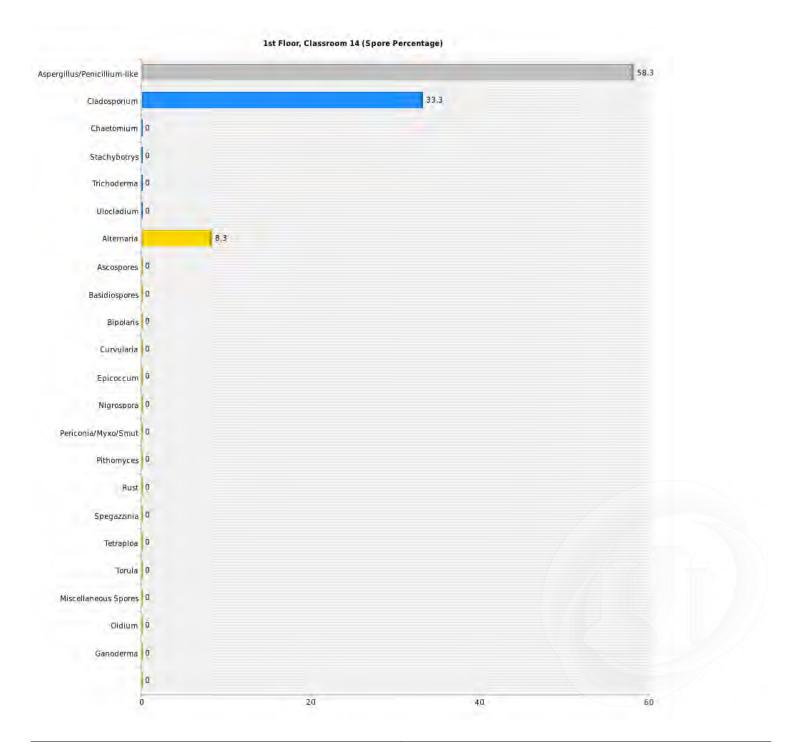
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

**AIHA EMPAT#: 203769** Lab Batch Number: 2111276

Report Status: Final Report





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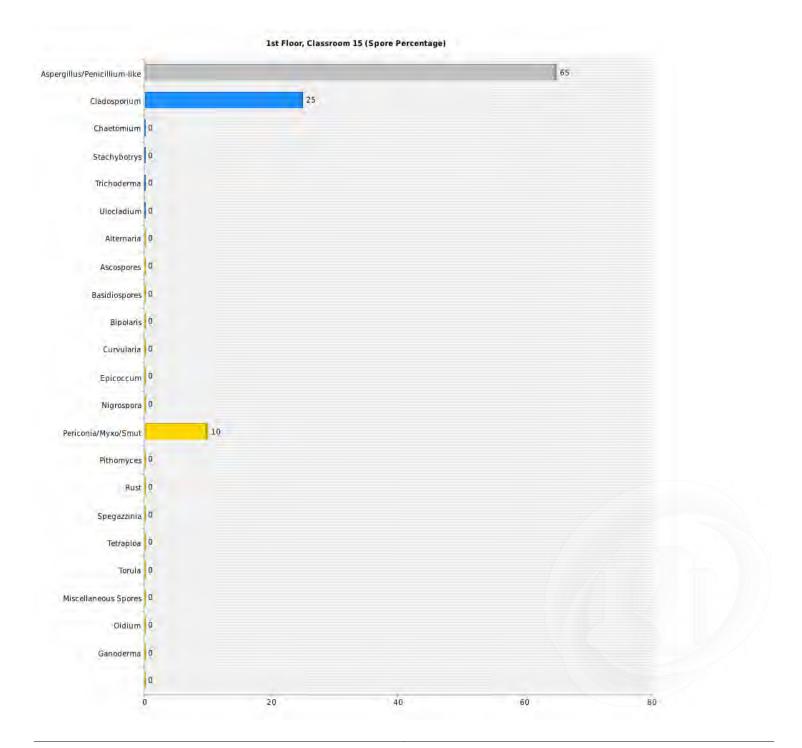
Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report **AIHA EMPAT#: 203769** Lab Batch Number: 2111276 Samples Received: 18





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Client Name: A-Tech Consulting Inc

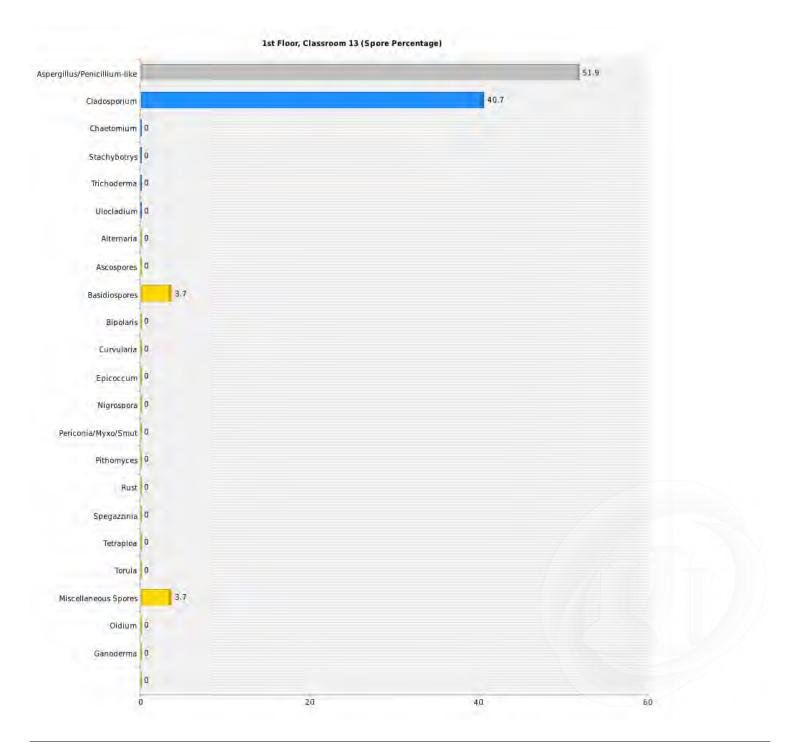
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

**AIHA EMPAT#: 203769** Lab Batch Number: 2111276 Samples Received: 18

Report Status: Final Report





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Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

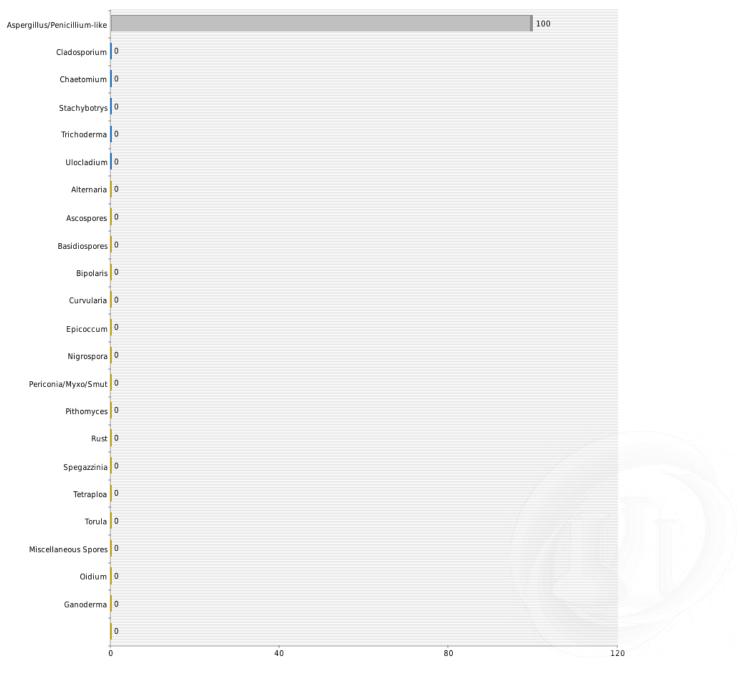
Report Status: Final Report

**AIHA EMPAT#: 203769** Lab Batch Number: 2111276

Samples Received: 18

Samples Analyzed: 18

# 1st Floor, Classroom 20 (Spore Percentage)





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Client Name: A-Tech Consulting Inc

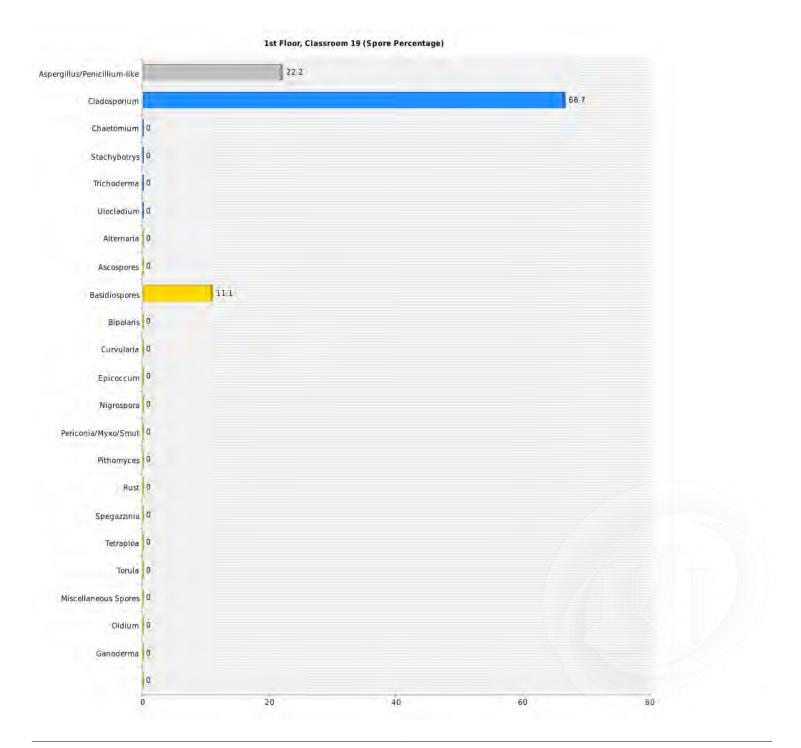
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

**AIHA EMPAT#: 203769** Lab Batch Number: 2111276 Samples Received: 18

Report Status: Final Report





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Client Name: A-Tech Consulting Inc

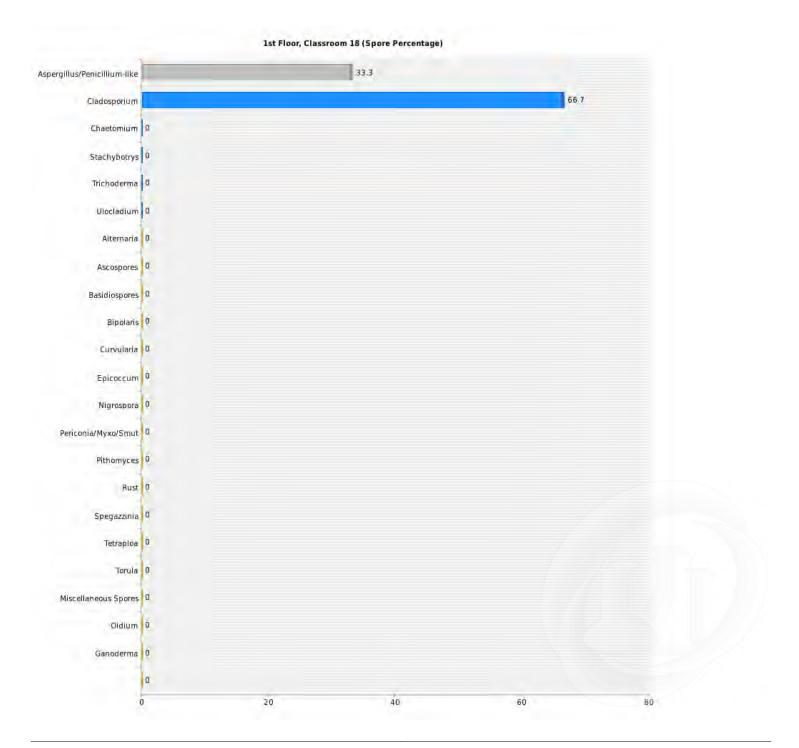
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

**AIHA EMPAT#: 203769** Lab Batch Number: 2111276 Samples Received: 18

Report Status: Final Report





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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

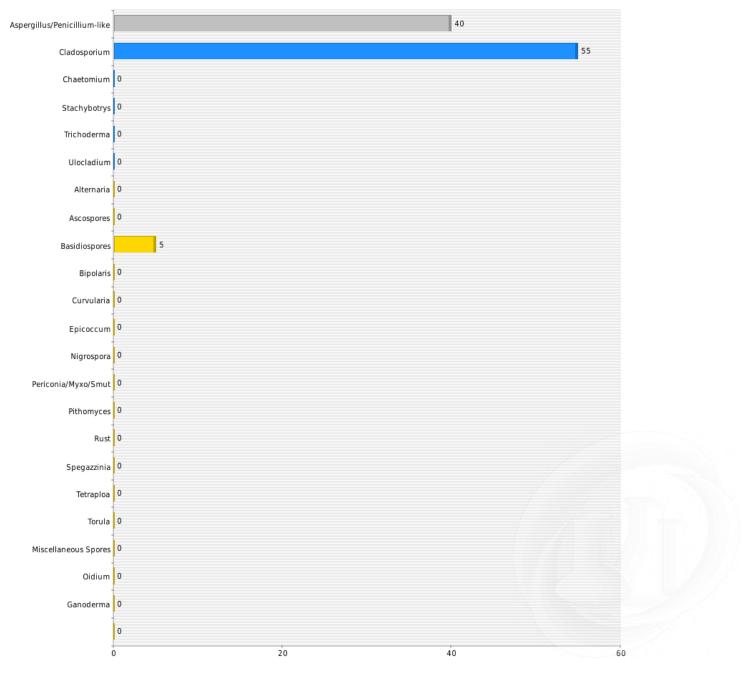
Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report **AIHA EMPAT#: 203769** Lab Batch Number: 2111276

Samples Received: 18 Samples Analyzed: 18

#### 1st Floor, Classroom 17 (Spore Percentage)





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Client Name: A-Tech Consulting Inc

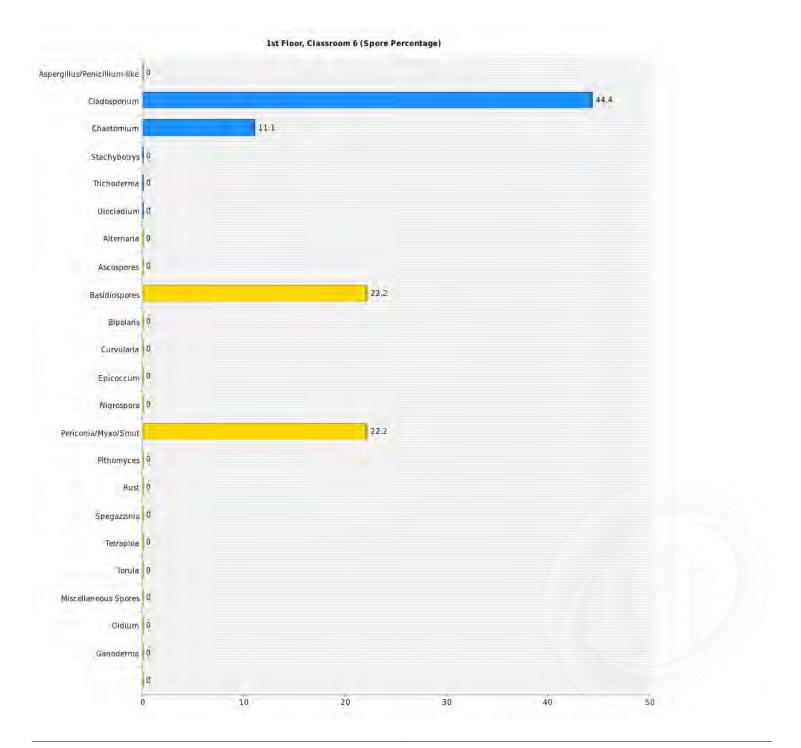
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

**AIHA EMPAT#: 203769** Lab Batch Number: 2111276 Samples Received: 18

Report Status: Final Report





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Client Name: A-Tech Consulting Inc

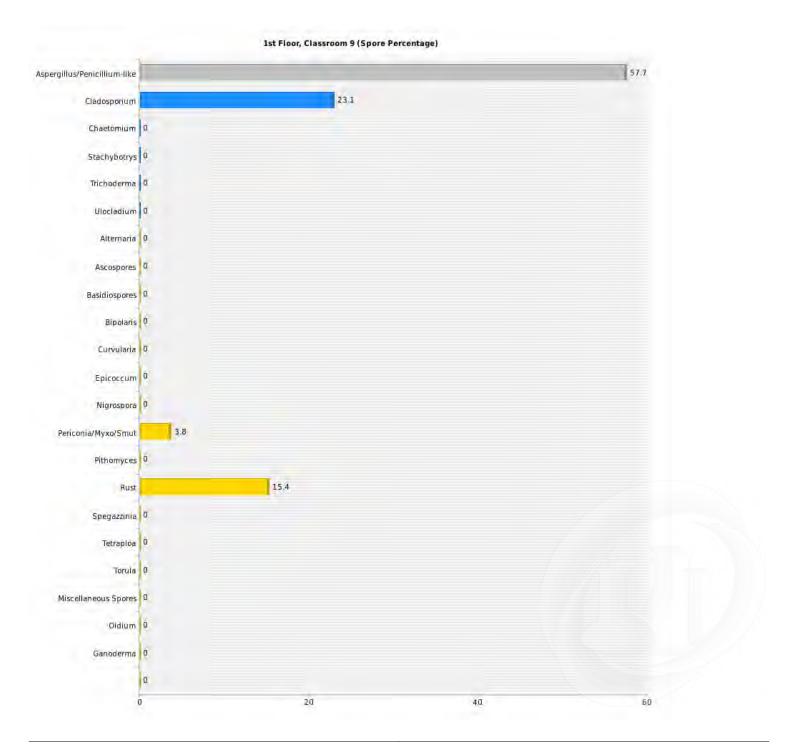
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

**AIHA EMPAT#: 203769** Lab Batch Number: 2111276 Samples Received: 18

Report Status: Final Report





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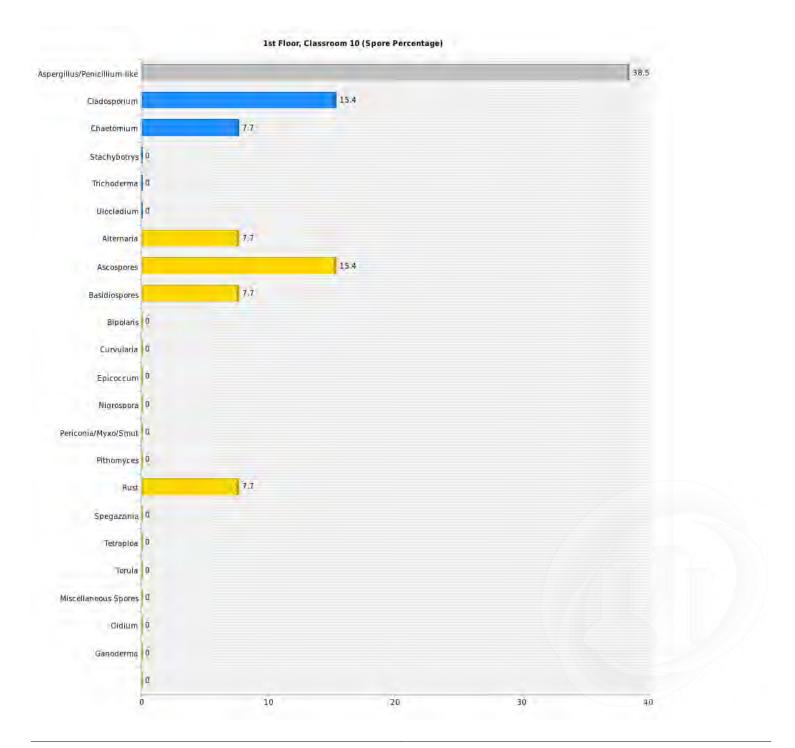
Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report **AIHA EMPAT#: 203769** Lab Batch Number: 2111276





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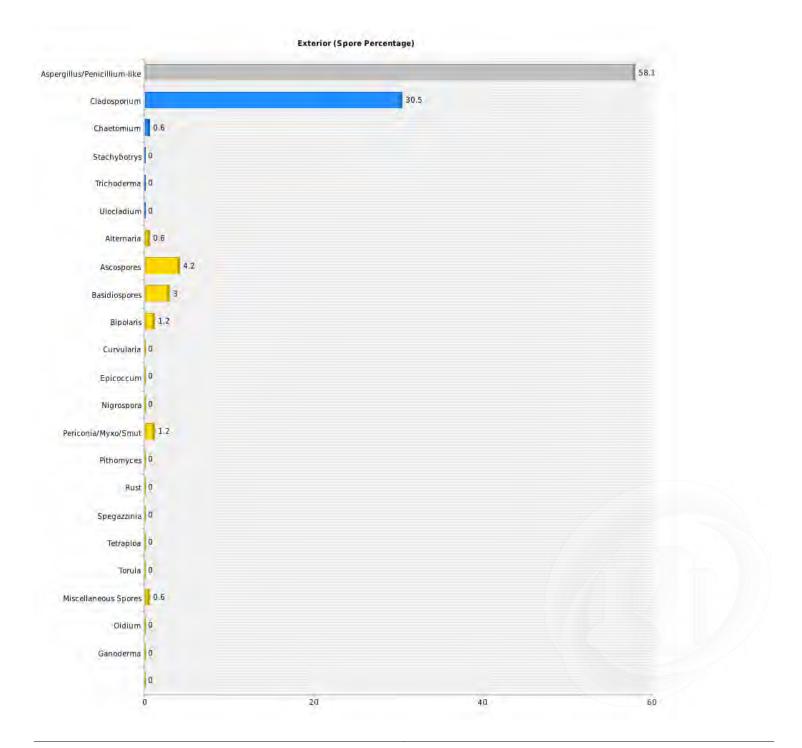
Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report **AIHA EMPAT#: 203769** Lab Batch Number: 2111276





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2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report **AIHA EMPAT#: 203769** Lab Batch Number: 2111276 Samples Received: 18







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Project Number: 211879

**Project Location:** 409 West Paramount Street, Azusa, CA 91702-4423

Report Status: Final Report

**AIHA EMPAT#**: 203769 Lab Batch Number: 2111276

Samples Received: 18

Samples Analyzed: 18

# **Understanding Sampling and Laboratory Methodologies**

Spore Trap Cassettes (Air Sampling media) are unique air sampling cassettes specifically designed for the rapid collection of a wide range of airborne aerosols including mold spores, pollen, insect parts, skin cell fragments, and inorganic particulate. The analytical results obtained from include both viable and non-viable spores. Some fungal groups produce similar spore types that are difficult to be distinguished only by direct microscopic examination like Aspergillus/Penicillium, or other identical spore. Similarly other spore types may lack distinguishing features that aid in their identification like hyphae. To avoid any confusion these types are grouped into larger categories such as Ascospores or Basidiospores.

### Examination Technique:

AIH Laboratory Fungal Air Sample Reports data results are provided in spore counts per cubic meter of air. Fungal spores are identified and grouped by morphological characteristics including color, shape, size, and fruiting structures (if present) which are compared to published mycological identification keys and texts.

#### Qualitative Analysis:

It is difficult to precisely measure some analytical findings which aid in assessing the overall sample condition and density. Qualitative analysis is used to determine concentration of Skin Fragments, Background and Hyphal fragments. A number between 1-5 is used to rate the concentrations. Each number increase in rate adds a range of 1-20% Please understand that higher the number of skin fragments and background particle it may obscure small spore. Overloaded in comments indicate that sample failed to meet visibility density criteria and thus the quantitate analysis was not performed on the particular sample.

### Analysis:

This data is gathered by visual and statistical analysis performed on the specimen. The quantitative data is adhered to strict quality control procedures. This strict quality is achieved by reanalyzing at least 10% of samples. The results from original analysis and re-read must be close with only minor variation. If results do not fall under minor variation criteria, then all samples must be analyzed again. The quantitative data is used to produce the final result in spore(s) per meter cube.

### **About AIH Laboratory**

AIH Laboratory is renowned laboratory located in Anaheim, CA. The staff at AIH Laboratory is recognized by State, Federal agencies and International Accrediting Bodies. AIH Laboratory employs sophisticated techniques, strong professional experience along with recognized testing procedures in the industry. AIH Laboratory participates in Inter-laboratory testing program with various national laboratories to ensure conformance with newly adapted technologies, research and methodologies. The samples received by AIH Laboratory are processed under strict quality control procedures to avoid any discrepancy in results. The data generated by the laboratory from the analytical observation of the specimens is presented in a format that is easily understood by anyone with a science background. An environmental expert will accurately interpret the data and findings detailed in this report.



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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report

**AIHA EMPAT#: 203769** Lab Batch Number: 2112561

Samples Received: 15

Samples Analyzed: 15

Laboratory Sample ID:	211256101	211256102	211256103		
Client Sample ID:	MA-0019	MA-0020	MA-0021		
Sample Location:	Exterior	1st Floor, Classroom 16	1st Floor, Classroom 11		
Comments:	None	None	None		

# **Quantitative Analysis**

		Raw Counts	Spores/m <sup>3</sup>	% Total	Raw Counts	Spores/m <sup>3</sup>	% Total	Raw Counts	Spores/m <sup>3</sup>	% Total
Inside/Outside	Aspergillus/Penicillium-like	47	940	45.2	24	960	66.7	4	160	28.6
inside/Outside	Cladosporium	35	700	33.7	7	280	19.4	6	240	42.9
	Chaetomium	-	-	-	-	1	ı	1	-	-
Water Damage	Stachybotrys	-	-	-	ı	1	ı	-	-	-
Indication	Trichoderma	-	-	-	-	ı	ı	1	-	-
	Ulocladium	-	-	-	ı	1	ı	1	-	-
	Alternaria	1	20	1	-	-	ı	-	-	-
	Ascospores	5	100	4.8	1	40	2.8	-	-	-
	Basidiospores	5	100	4.8	2	80	5.6	-	-	-
	Bipolaris	-	-	-	1	1	ı	1	40	7.1
	Curvularia	1	20	1	-	-	-	-	-	-
	Epicoccum	-	-	-	-	-	-	-	-	-
	Nigrospora	-	-	-	-	-	-	-	-	-
	Periconia/Myxo/Smut	3	60	2.9	2	80	5.6	3	120	21.4
Outdoor Environment	Pithomyces	-	-	-	-	-	-	-	-	-
	Rust	-	-	-	-	-	-	-	-	-
	Spegazzinia	-	-	-	-	-	-	-	-	-
	Tetraploa	-	-	-	-	-	-	-	_	-
	Torula	-	-	-	-	-	1	-	-	-
	Miscellaneous Spores	-	-	-	-	- /	-	-	-	-
	Ganoderma	7	140	6.7	-	-	-		-	<u></u>
						/		- 3	3	
						/				
	Total	104	2080	100	36	1440	100	14	560	100



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Client Name: A-Tech Consulting Inc Report Status: Final Report

Client Address: 1640 N. Batavia Street, Orange, CA 92867 AIHA EMPAT#: 203769

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Lab Batch Number: 2112561

Samples Received: 15

Samples Analyzed: 15

Laboratory Sample ID:	211256101	211256102	211256103
Client Sample ID:	MA-0019	MA-0020	MA-0021
Sample Location:	Exterior	1st Floor, Classroom 16	1st Floor, Classroom 11

Sample Collection Data

Total Time:			
Flow Rate:			
Volume:	150	75	75

**Qualitative Analysis** 

Skin Fragments- 1 to 5 (low to high):	2	1	3
Background/m3- 1 to 5 (low to high):	5	2	4
Hyphal Fragments- 1 to 5 (low to high):	2	1	1





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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report

AIHA EMPAT#: 203769

Lab Batch Number: 2112561

Samples Received: 15

Samples Analyzed: 15

Laboratory Sample ID:	211256104	211256105	211256106	
Client Sample ID:	MA-0022	MA-0023	MA-0024	
Sample Location: 1st Floor, Room 1 / Old Computer Lab		1st Floor, Classroom 21	1st Floor, Classroom 22	
Comments:	None	None	None	

# Quantitative Analysis

		Raw Counts	Spores/m³	% Total	Raw Counts	Spores/m³	% Total	Raw Counts	Spores/m³	% Total
Incido/Outoido	Aspergillus/Penicillium-like	11	440	64.7	24	960	80	11	440	84.6
Inside/Outside	Cladosporium	5	200	29.4	2	80	6.7	2	80	15.4
	Chaetomium	-	-	-	-	-	-	-	-	-
Water Damage	Stachybotrys	-	-	-	-	-	-	-	-	-
Indication	Trichoderma	-	-	-	-	-	-	-	-	-
	Ulocladium	-	-	-	-	-	ı	-	-	-
	Alternaria	-	-	-	-	-	ı	-	-	-
	Ascospores	-	-	-	-	-	ı	-	-	-
	Basidiospores	1	40	5.9	1	40	3.3	-	-	-
	Bipolaris	-	-	-	-	-	-	-	-	-
	Curvularia	-	-	-	-	-	ı	-	-	-
	Epicoccum	-	-	-	1	40	3.3	-	-	-
	Nigrospora	-	-	-	-	-	-	-	-	-
	Periconia/Myxo/Smut	-	-	-	2	80	6.7	-	-	
<b>Outdoor Environment</b>	Pithomyces	-	-	-	-	-	-	-	-	-
	Rust	-	-	-	-	-	ı	-	-	-
	Spegazzinia	-	-	-	-	-	-	-	-	-
	Tetraploa	-	-	-	-	- /	-	-	-	-
	Torula	-	-	-	-	-/	-	-	-	-
	Miscellaneous Spores	-	-	-	-	/-	-	-	-	-
	Ganoderma	-	-	-	-	-	4	j.	<u></u>	-
							70			
						1 41		A 19		11/7
	Total	17	680	100	30	1200	100	13	520	100



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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Sample Collection Data

**Qualitative Analysis** 

Project Location: 409 West Paramount Street, Azusa, CA 91702

Hyphal Fragments- 1 to 5 (low to high):

Report Status: Final Report

**AIHA EMPAT#:** 203769

Lab Batch Number: 2112561

Samples Received: 15

Samples Analyzed: 15

Laboratory Sample ID:	211256104	211256105	211256106
Client Sample ID:	MA-0022	MA-0023	MA-0024
Sample Location:	1st Floor, Room 1 / Old Computer Lab	1st Floor, Classroom 21	1st Floor, Classroom 22
ion Data			
Total Time:			
Flow Rate:			
Volume:	75	75	75
l <u>ysis</u>			
Skin Fragments- 1 to 5 (low to high):	2	2	1
Background/m3- 1 to 5 (low to high):	3	3	3
<del>-</del>			

1





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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report

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AIHA EMPAT#: 203769 Lab Batch Number: 2112561

Samples Received: 15

Samples Analyzed: 15

Laboratory Sample ID:	211256107	211256108	211256109
Client Sample ID:	MA-0025	MA-0026	MA-0027
Sample Location:	1st Floor, Classroom 27	1st Floor, Classroom 26	1st Floor, Classroom 25
Comments:	None	None	None

# **Quantitative Analysis**

<u>Quantitative Analysis</u>		Raw Counts	Spores/m³	% Total	Raw Counts	Spores/m³	% Total	Raw Counts	Spores/m³	% Total
In aida /Outaida	Aspergillus/Penicillium-like	9	360	69.2	4	160	80	7	280	53.8
Inside/Outside	Cladosporium	1	40	7.7	-	-	-	5	200	38.5
	Chaetomium	-	-	-	-	-	-	-	-	-
Water Damage	Stachybotrys	-	-	-	-	-	-	-	-	-
Indication	Trichoderma	-	-	•	-	-	-	-	-	-
	Ulocladium	-	-	ı	-	-	-	-	-	-
	Alternaria	-	-	ı	-	-	-	-	-	-
	Ascospores	-	-	ı	-	-	-	1	-	-
	Basidiospores	-	-	-	1	40	20	1	40	7.7
	Bipolaris	-	-	ı	-	-	-	-	-	-
	Curvularia	-	-	-	-	-	-	-	-	-
	Epicoccum	1	40	7.7	-	-	-	-	-	
	Nigrospora	-	-	-	-	-	-	-	-	-
	Periconia/Myxo/Smut	2	80	15.4	-	-	-	-	-	-
Outdoor Environment	Pithomyces	-	-	-	-	-	-	-	-	-
	Rust	-	-	-	-	-	-	-	-	-
	Spegazzinia	-	-	-	-	-	-	-	<u> </u>	-
	Tetraploa	-	-	-	-	-		-	-	-
	Torula	-	-	-	-	- /	<u> </u>	-	-	<b>\</b> -
	Miscellaneous Spores	-	-	-	-	-/	- /	-	-	-
	Ganoderma	-	-	-	-	-	//		- \	11-4
								2		
								1/1/		
	Total	13	520	100	5	200	100	14	520	100



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Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report

**AIHA EMPAT#:** 203769

Lab Batch Number: 2112561

**Samples Received:** 15 **Samples Analyzed:** 15

Laboratory Sample ID:	211256107	211256108	211256109
Client Sample ID:	MA-0025	MA-0026	MA-0027
Sample Location:	1st Floor, Classroom 27	1st Floor, Classroom 26	1st Floor, Classroom 25

# Sample Collection Data

Total Time:			
Flow Rate:			
Volume:	75	75	75

# **Qualitative Analysis**

Skin Fragments- 1 to 5 (low to high):	1	2	1
Background/m3- 1 to 5 (low to high):	2	3	2
Hyphal Fragments- 1 to 5 (low to high):	1	1	1





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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report

**AIHA EMPAT#: 203769** Lab Batch Number: 2112561

Samples Received: 15

Samples Analyzed: 15

Laboratory Sample ID:	211256110	211256111	211256112
Client Sample ID:	MA-0028	MA-0029	MA-0030
Sample Location:	1st Floor, Classroom 24	1st Floor, Classroom 30	1st Floor, Classroom 29
Comments:	None	None	None

# Quantitative Analysis

Quantitative Analysis		Raw Counts	Spores/m³	% Total	Raw Counts	Spores/m <sup>3</sup>	% Total	Raw Counts	Spores/m <sup>3</sup>	% Total
1 11 6 4 11	Aspergillus/Penicillium-like	6	240	40	6	240	66.7	6	240	66.7
Inside/Outside	Cladosporium	4	160	26.7	2	80	22.2	2	80	22.2
	Chaetomium	-	-	-	-	-	-	-	-	-
Water Damage	Stachybotrys	-	-	-	-	-	-	-	-	-
Indication	Trichoderma	-	-	-	-	-	-	-	-	-
	Ulocladium	-	-	1	-	-	1	-	-	-
	Alternaria	-	-	-	-	-	-	-	-	-
	Ascospores	2	80	13.3	-	-	-	1	40	11.1
	Basidiospores	1	40	6.7	1	40	11.1	-	-	-
	Bipolaris	-	-	-	-	-	-	-	-	-
	Curvularia	-	-	-	-	-	-	-	-	-
	Epicoccum	1	40	6.7	-	-	-	-	-	-
	Nigrospora	-	-	-	-	-	-	-	-	-
	Periconia/Myxo/Smut	1	40	6.7	-	-	-	-	-	-
Outdoor Environment	Pithomyces	-	-	-	-	-	-	-	-	-
	Rust	-	-	-	-	-	-	-	-	-
	Spegazzinia	-	-	-	-	-	-	-	-	-
	Tetraploa	-	-	-	-	-	<del>-</del>	-	-	-
	Torula	-	-	-	-	- /	-	-	-	-
	Miscellaneous Spores	-	-	-	-	7	-/	-	-	-
	Ganoderma	-	-	-	-	/ -	// <del>-</del>		- \	1 -
								2		
								1717		
	Total	15	600	100	9	360	100	9	360	100



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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Sample Collection Data

**Qualitative Analysis** 

Project Location: 409 West Paramount Street, Azusa, CA 91702

Hyphal Fragments- 1 to 5 (low to high):

Report Status: Final Report

**AIHA EMPAT#**: 203769

Lab Batch Number: 2112561

Samples Received: 15

Samples Analyzed: 15

Laboratory Comple ID.	244250440	244255444	244256442
Laboratory Sample ID:	211256110	211256111	211256112
Client Sample ID:	MA-0028	MA-0029	MA-0030
Sample Location:	1st Floor, Classroom 24	1st Floor, Classroom 30	1st Floor, Classroom 29
<u>Data</u>			
Total Time:			
Flow Rate:			
Volume:	75	75	75
<u>s</u>			
Skin Fragments- 1 to 5 (low to high):	1	1	1
Background/m3- 1 to 5 (low to high):	4	2	3

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Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report

**AIHA EMPAT#**: 203769

Lab Batch Number: 2112561

Samples Received: 15

Samples Analyzed: 15

Laboratory Sample ID:	211256113	211256114	211256115
Client Sample ID:	MA-0031	MA-0032	MA-0033
Sample Location:	1st Floor, Classroom 28	1st Floor, Classroom 23	Exterior
Comments:	None	None	None

# **Quantitative Analysis**

-		D		% Total	D0	3	0/ T-/-I	D 0		lo. T - 1 - 1
	A	Raw Counts	Spores/m <sup>3</sup>		Raw Counts	Spores/m <sup>3</sup>		Raw Counts	_	
Inside/Outside	Aspergillus/Penicillium-like	10	400	71.4	7	280	38.9	59	2360	38.8
	Cladosporium	1	40	7.1	8	320	44.4	77	3080	50.7
	Chaetomium	-	-	-	-	-	-	-	-	-
Water Damage	Stachybotrys	-	-	-	-	-	-	-	-	-
Indication	Trichoderma	-	-	-	-	-	-	-	-	-
	Ulocladium	-	-	ı	1	ı	ı	-	-	-
	Alternaria	-	-	-	-	-	-	2	80	1.3
	Ascospores	-	-		1	40	5.6	1	40	0.7
	Basidiospores	1	40	7.1	1	40	5.6	5	200	3.3
	Bipolaris	-	-	-	-	-	-	1	40	0.7
	Curvularia	1	40	7.1	-	-	-	-	-	-
	Epicoccum	-	-	-	1	40	5.6	-	-	-
	Nigrospora	-	-	-	-	-	-	-	-	-
	Periconia/Myxo/Smut	-	-	-	-	-	-	5	200	3.3
Outdoor Environment	Pithomyces	-	-	-	-	-	-	-	-	-
	Rust	-	-	-	-	-	-	-	-	-
	Spegazzinia	-	-	-	-	-	-	-	-	-
	Tetraploa	-	-	-	-	-	-	-	-	-
	Torula	-	-	-	-	-	-	-	-	-
	Miscellaneous Spores	1	40	7.1	-	-/	-	-	-	-
	Ganoderma	-	-	-	-	-	-	2	80	1.3
					14	/		3		
					/				B	
	Total	14	560	100	18	720	100	152	6080	100

# **EXAMPLABORATORY**

2556 W Woodland Dr Anaheim, CA 92801

#### **MOLD AIR SAMPLE REPORT**

Phone:(562) 860-2201 www.aihlab.com

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report

**AIHA EMPAT#**: 203769

Lab Batch Number: 2112561

Samples Received: 15

Samples Analyzed: 15

Laboratory Sample ID:	211256113	211256114	211256115
Client Sample ID:	MA-0031	MA-0032	MA-0033
Sample Location:	1st Floor, Classroom 28	1st Floor, Classroom 23	Exterior

Sample Collection Data

Total Time:			
Flow Rate:			
Volume:	75	75	75

Qualitative Analysis

Skin Fragments- 1 to 5 (low to high):	2	2	1
Background/m3- 1 to 5 (low to high):	3	4	4
Hyphal Fragments- 1 to 5 (low to high):	1	1	2

Analyzed by: Emily Chang Signature: Emily Date: 08-10-2021

Reviewed by: Zubair Ahmed Signature: Date: 08-10-2021

No accepted regulatory standards currently exit by which to assess the health risks related to mold exposure. Molds have been associated with a variety of health effects and sensitivity varies from person to person. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. High levels of background particulate can obscure spores and other particulates leading to underestimation. "-" Denotes not detected. Background levels of 4 or 5 indicate an overload of background particulates, prohibiting accurate detection and quantification. AIH Laboratory maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by AIH Laboratory. AIH Laboratory bears no responsibility for sample collection activities or analytical method limitations. Spores/m³ calculation based on volume information provided by client. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. All report format and design are copyright of AIH Laboratory 2021.

AIHA LAP, LLC Accredited Laboratory for Microbiology Laboratory ISO/IEC 17025:2005, Lab ID# 203769



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2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

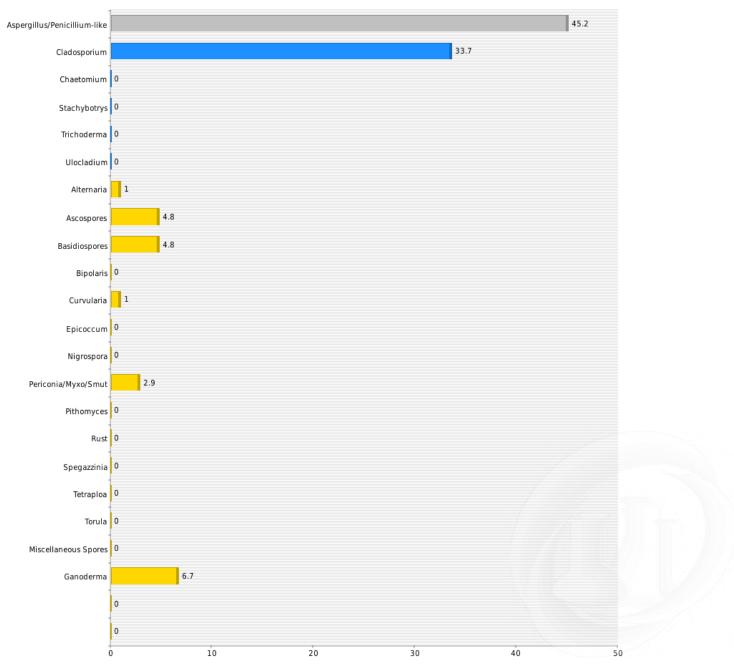
Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report AIHA EMPAT#: 203769 Lab Batch Number: 2112561

Samples Received: 15

Samples Analyzed: 15

## Exterior (Spore Percentage)





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2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

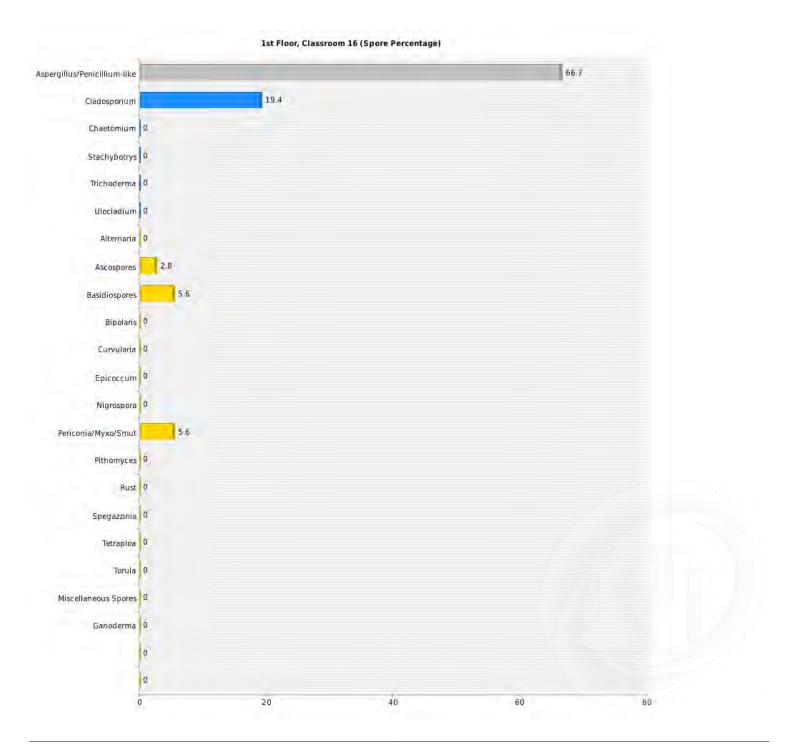
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report AIHA EMPAT#: 203769 Lab Batch Number: 2112561

Samples Received: 15





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2556 W Woodland Dr Anaheim, CA 92801

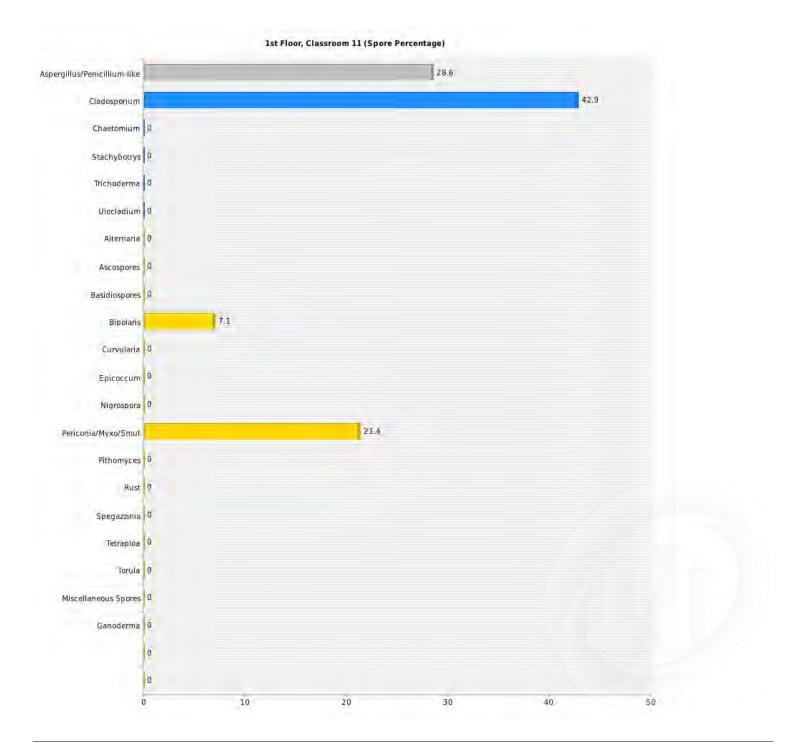
Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report AIHA EMPAT#: 203769 Lab Batch Number: 2112561





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2556 W Woodland Dr Anaheim, CA 92801

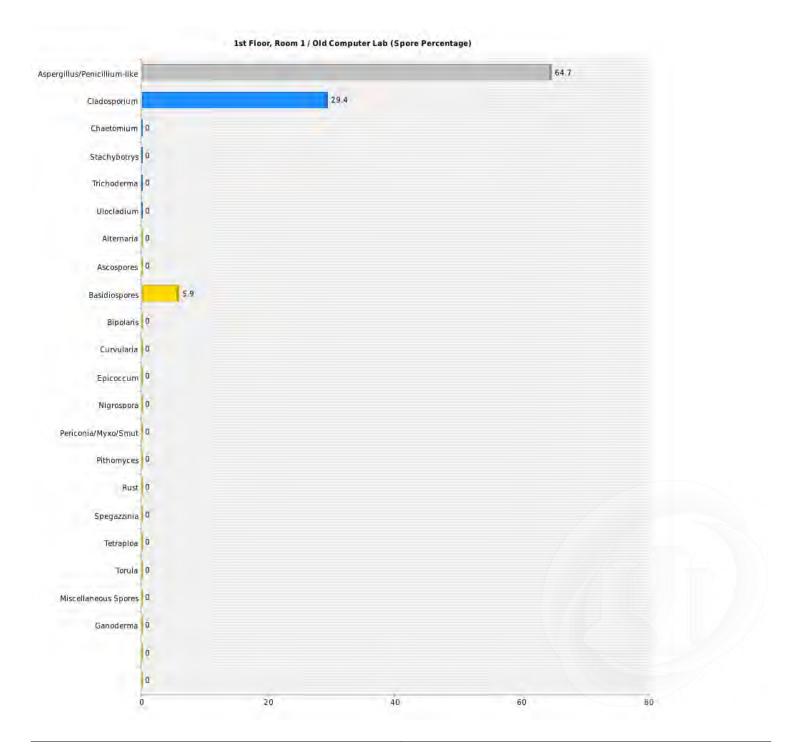
Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report AIHA EMPAT#: 203769 Lab Batch Number: 2112561





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2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

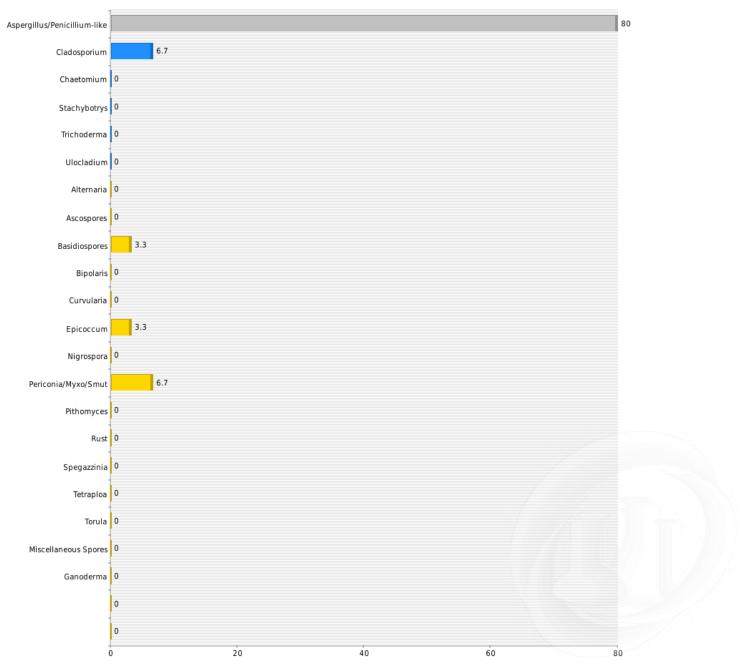
Report Status: Final Report

**AIHA EMPAT#:** 203769

Lab Batch Number: 2112561

Samples Received: 15 Samples Analyzed: 15

# 1st Floor, Classroom 21 (Spore Percentage)





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2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

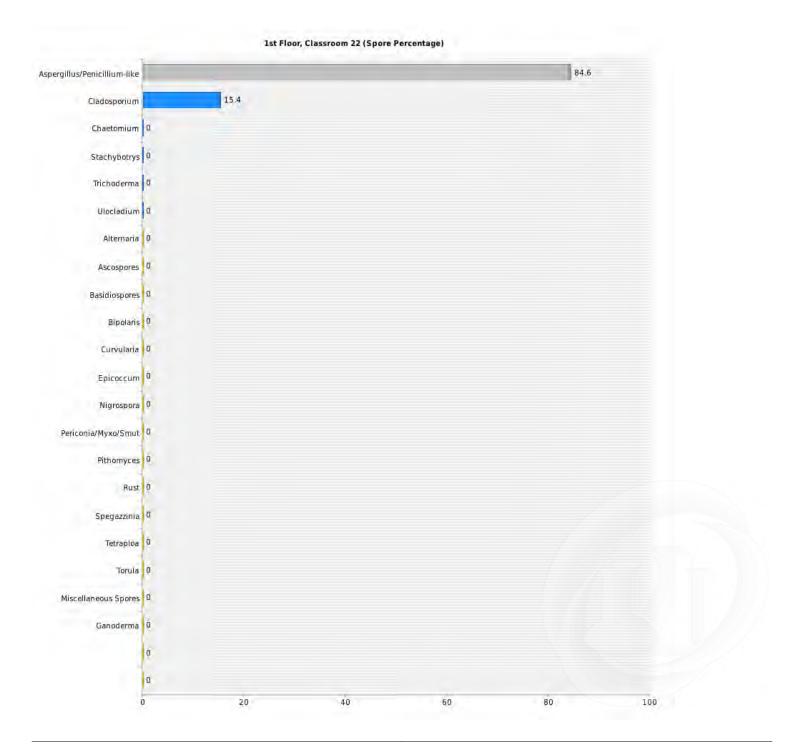
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report AIHA EMPAT#: 203769

Lab Batch Number: 2112561 Samples Received: 15





Phone:(562) 860-2201 www.aihlab.com

2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

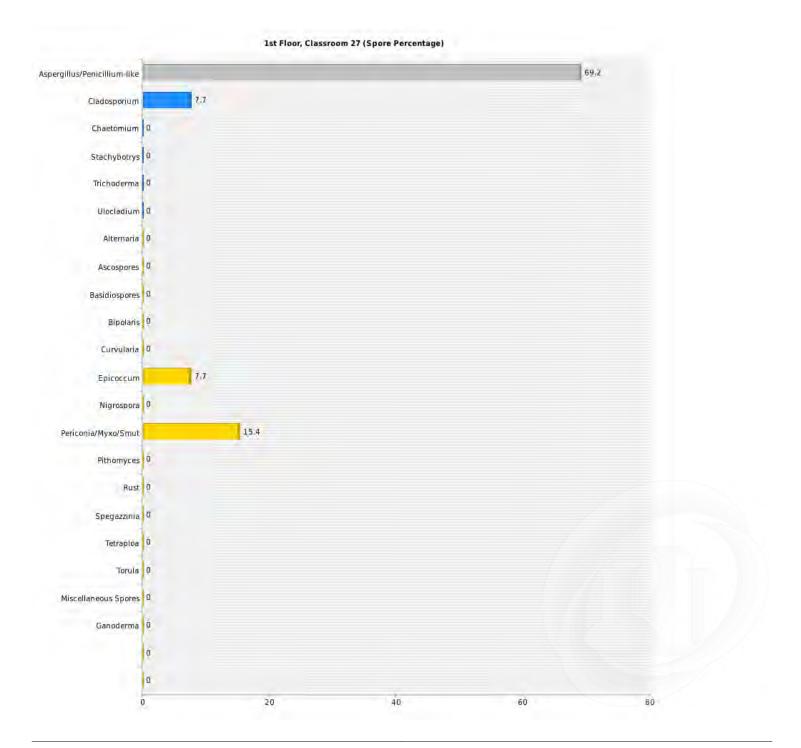
Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report

AIHA EMPAT#: 203769 Lab Batch Number: 2112561

Samples Received: 15





Phone:(562) 860-2201 www.aihlab.com

2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

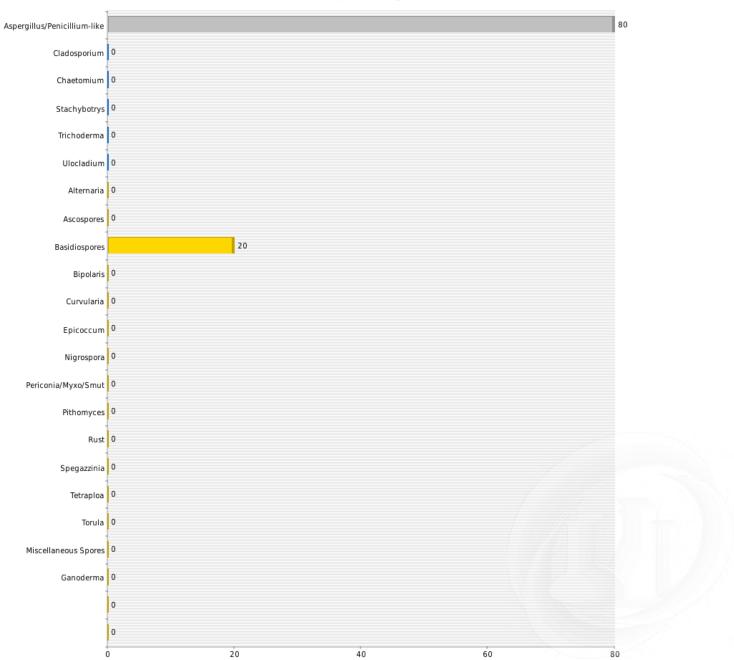
Report Status: Final Report

**AIHA EMPAT#:** 203769

Lab Batch Number: 2112561 Samples Received: 15

Samples Analyzed: 15

# 1st Floor, Classroom 26 (Spore Percentage)





Phone:(562) 860-2201 www.aihlab.com

2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc

Client Address: 1640 N. Batavia Street, Orange, CA 92867

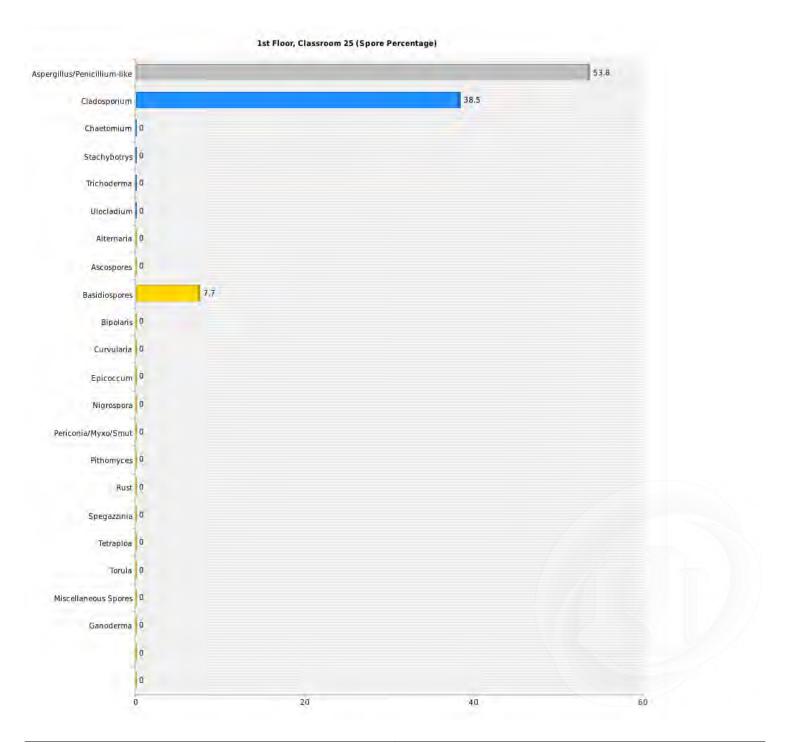
Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Report Status: Final Report

AIHA EMPAT#: 203769 Lab Batch Number: 2112561

Samples Received: 15





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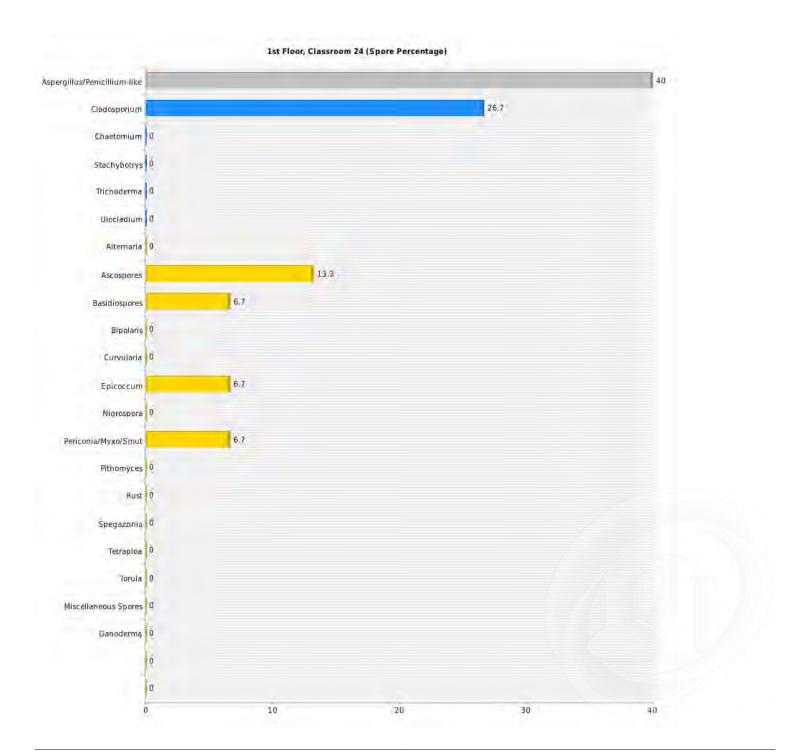
Client Address: 1640 N. Batavia Street, Orange, CA 92867

Project Number: 211879

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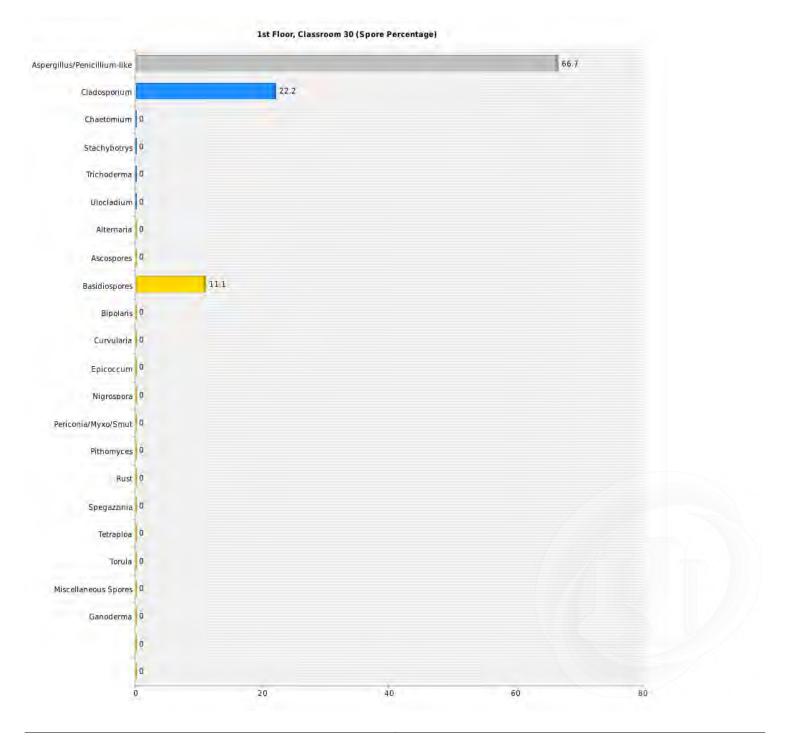
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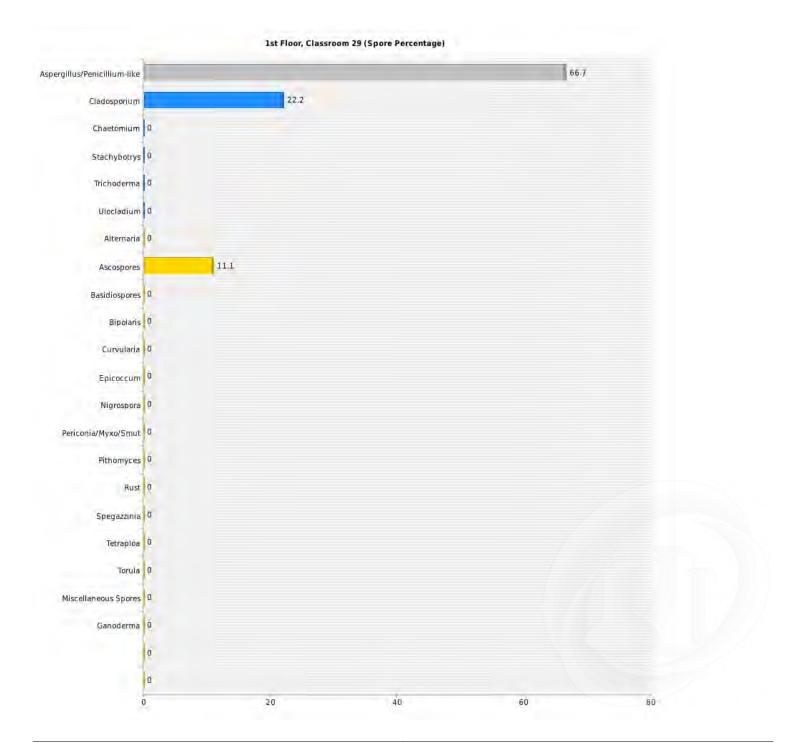
Client Name: A-Tech Consulting Inc

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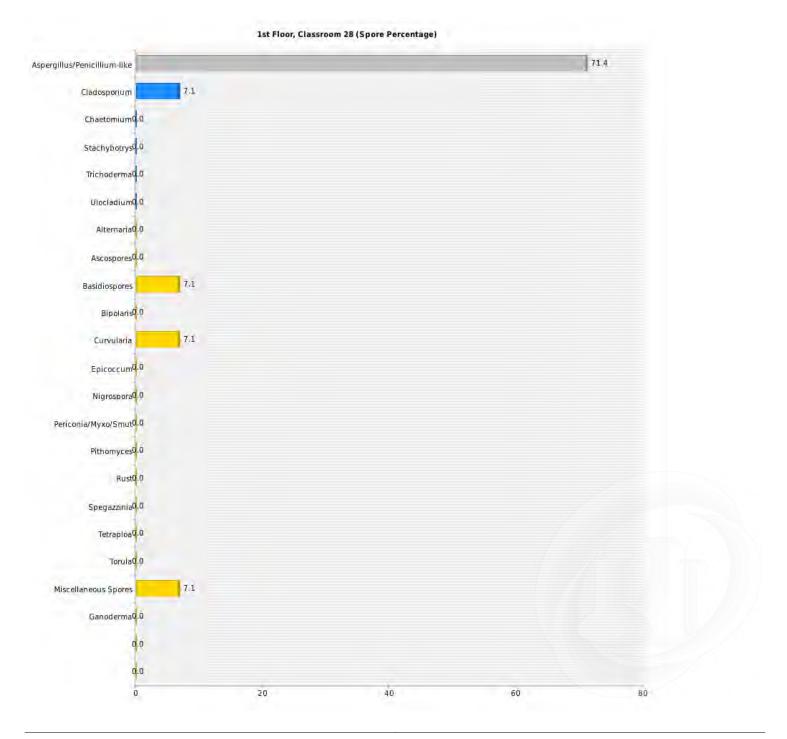
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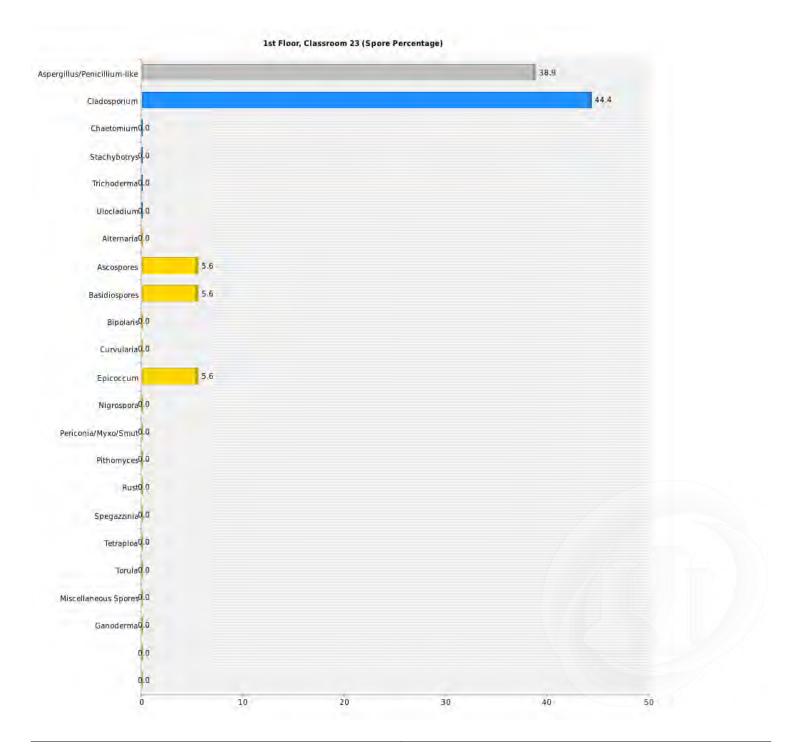
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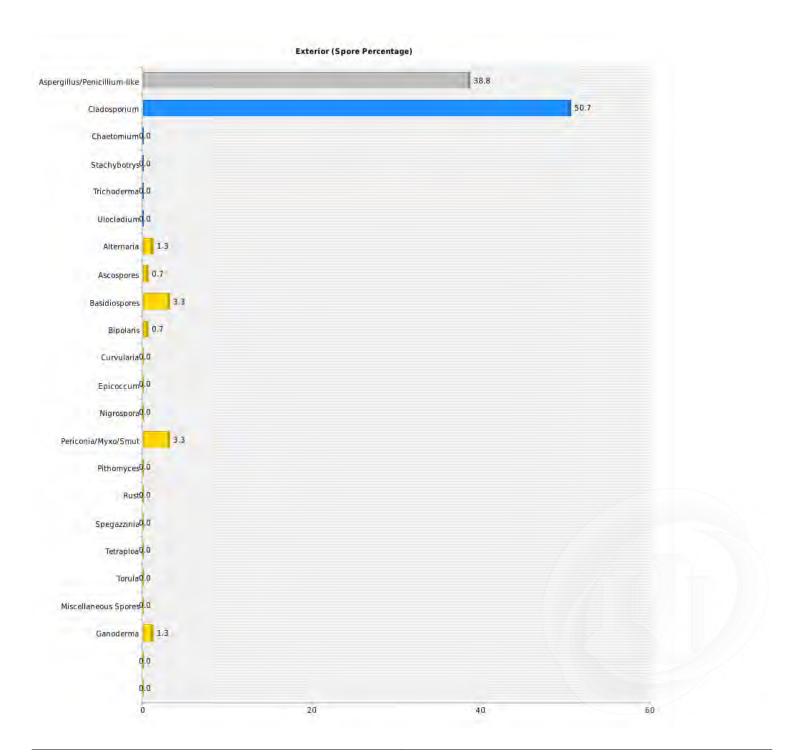
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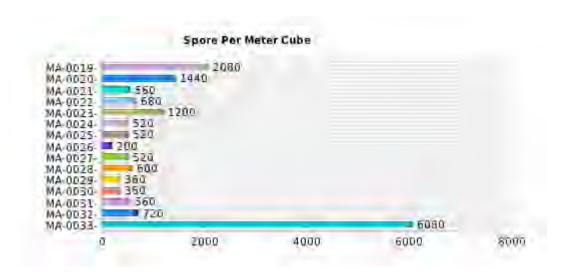
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**AIHA EMPAT#:** 203769

Lab Batch Number: 2112561

Samples Received: 15







Phone:(562) 860-2201 www.aihlab.com

2556 W Woodland Dr Anaheim, CA 92801

Client Name: A-Tech Consulting Inc Report Status: Final Report

Client Address: 1640 N. Batavia Street, Orange, CA 92867

AIHA EMPAT#: 203769

Project Number: 211879

Project Location: 409 West Paramount Street, Azusa, CA 91702

Lab Batch Number: 2112561

Samples Received: 15

Samples Analyzed: 15

# **Understanding Sampling and Laboratory Methodologies**

Spore Trap Cassettes (Air Sampling media) are unique air sampling cassettes specifically designed for the rapid collection of a wide range of airborne aerosols including mold spores, pollen, insect parts, skin cell fragments, and inorganic particulate. The analytical results obtained from include both viable and non-viable spores. Some fungal groups produce similar spore types that are difficult to be distinguished only by direct microscopic examination like Aspergillus/Penicillium, or other identical spore. Similarly other spore types may lack distinguishing features that aid in their identification like hyphae. To avoid any confusion these types are grouped into larger categories such as Ascospores or Basidiospores.

# Examination Technique:

AIH Laboratory Fungal Air Sample Reports data results are provided in spore counts per cubic meter of air. Fungal spores are identified and grouped by morphological characteristics including color, shape, size, and fruiting structures (if present) which are compared to published mycological identification keys and texts.

# Qualitative Analysis:

It is difficult to precisely measure some analytical findings which aid in assessing the overall sample condition and density. Qualitative analysis is used to determine concentration of Skin Fragments, Background and Hyphal fragments. A number between 1-5 is used to rate the concentrations. Each number increase in rate adds a range of 1-20% Please understand that higher the number of skin fragments and background particle it may obscure small spore. Overloaded in comments indicate that sample failed to meet visibility density criteria and thus the quantitate analysis was not performed on the particular sample.

# Analysis:

This data is gathered by visual and statistical analysis performed on the specimen. The quantitative data is adhered to strict quality control procedures. This strict quality is achieved by reanalyzing at least 10% of samples. The results from original analysis and re-read must be close with only minor variation. If results do not fall under minor variation criteria, then all samples must be analyzed again. The quantitative data is used to produce the final result in spore(s) per meter cube.

# **About AIH Laboratory**

AIH Laboratory is renowned laboratory located in Anaheim, CA. The staff at AIH Laboratory is recognized by State, Federal agencies and International Accrediting Bodies. AIH Laboratory employs sophisticated techniques, strong professional experience along with recognized testing procedures in the industry. AIH Laboratory participates in Inter-laboratory testing program with various national laboratories to ensure conformance with newly adapted technologies, research and methodologies. The samples received by AIH Laboratory are processed under strict quality control procedures to avoid any discrepancy in results. The data generated by the laboratory from the analytical observation of the specimens is presented in a format that is easily understood by anyone with a science background. An environmental expert will accurately interpret the data and findings detailed in this report.



2111276

# MOLD AIR SAMPLE CHAIN OF CUSTODY

Analysis: Non-Viable Spore Trap (Air-O-Cell)(ID Fungal Count & Phone Number: (714) 434-6360 Genus; Direct Exam)

Fax Number: (714) 221-6360 Turn Around Time: 72 Hour

Attn: Robert Williams

Results: Email to labs@atechinc.net

Project Number and Name:	Sampled By:			
211879 - Azusa USD Paramount Elementary School	Krizia Kolakowski			
Project Address:	City:	State:	Zip:	
409 West Paramount Street	Azusa	CA	91702-4423	

Notes:

Sample Date	Sample ID	Sample Location	Sample Volume (L)
7/13/2021 9:32 AM	211879-MA-0001	Exterior	150
7/13/2021 9:47 AM	211879-MA-0002	1st Floor, Classroom 4	75
7/13/2021 10:10 AM	211879-MA-0003	1st Floor, Classroom 2/Library	75
7/13/2021 10:22 AM	211879-MA-0004	1st Floor, Classroom 5	75
7/13/2021 10:39 AM	211879-MA-0005	1st Floor, Classroom 7	75
7/13/2021 10:53 AM	211879-MA-0006	1st Floor, Classroom 8	75
7/13/2021 11:08 AM	211879-MA <b>-</b> 0007	1st Floor, Classroom 12	75
7/13/2021 11:34 AM	211879-MA-0008	1st Floor, Classroom 14	75
7/13/2021 11:48 AM	211879-MA-0009	1st Floor, Classroom 15	75
7/13/2021 12:01 PM	211879-MA-0010	1st Floor, Classroom 13	75
7/13/2021 12:26 PM	211879-MA-0011	1st Floor, Classroom 20	75
7/13/2021 12:42 PM	211879-MA-0012	1st Floor, Classroom 19	75
7/13/2021 12:59 PM	211879-MA-0013	1st Floor, Classroom 18	75

Client Sample Number: 2118	Total: 18		
Relinquished By:	John John Mills of the Control of th	Date: 7/16/2021	Time: 10:52 AM
Samples Received By: Jean	nc Bacg O. L. B	aez Date: 7/16/21	Time: 10:58am
Relinquished By:		Date:	Time:
Samples Received By:		Date:	Time:

1640 North Batavia Street, Orange, CA 92867-3509 Phone: 714-434-6360 Fax 714-221-6360

Web Address: www.atechinc.net



A-Tech Project Number: 211879 Client Reference Number:

2111276

# MOLD AIR SAMPLE CHAIN OF CUSTODY

211879-MA-0014	1st Fioor, Classroom 17	75
211879-MA-0015	1st Floor, Classroom 6	75
211879-MA-0016	1st Floor, Classroom 9	75
211879-MA-0017	1st Floor, Classroom 10	75
211879-MA-0018	Exterior	150
	211879-MA-0015 211879-MA-0016	211879-MA-0015       1st Floor, Classroom 6         211879-MA-0016       1st Floor, Classroom 9         211879-MA-0017       1st Floor, Classroom 10

Client Sample Number: 211879-	Total: 18		
Relinquished By:	J.P.	Date: 7/16/2021	Time: 10:52 AM
Samples Received By: Jeann	e Raes O. Ca	Bar Date: 7/16/21	Time: 10153am
Relinquished By:		Date:	Time:
Samples Received By:		Date:	Time:



# MOLD AIR SAMPLE CHAIN OF CUSTODY

Sampled By:

Krizia Kolakowski

2112561

Analysis: Non-Viable Spore Trap (Air-O-Cell)(ID Fungal Count &

211879 - Azusa USD Paramount Elementary School

Genus; Direct Exam)

Turn Around Time: 72 Hour

Project Number and Name:

Phone Number: (714) 434-6360

Fax Number: (714) 221-6360 Attn: Robert Williams

Results: Email to labs@atechinc.net

Project Address:		City:	Zip:		
409 West Paramount Street		Azusa CA		91702-4423	
Notes:		-			
Sample Date	Sample ID	Samp	le Location	Sample Volume (L)	
8/5/2021 9:32 AM	211879-MA-0019	E	xterior	150	
8/5/2021 9:44 AM	211879-MA-0020	1st Floor,	, Classroom 16	75	
8/5/2021 9:59 AM	211879-MA-0021	1st Floor	, Classroom 11	75	
8/5/2021 10:14 AM	211879-MA-0022	1st Floor, Room	1 / Old Computer Lab	75	
8/5/2021 10:33 AM	211879-MA-0023	1st Floor	, Classroom 21	75	
8/5/2021 10:47 AM	211879-MA-0024	1st Floor	, Classroom 22	75	
8/5/2021 11:21 AM	211879-MA-0025	1st Floor	, Classroom 27	75	
8/5/2021 11:38 AM	211879-MA-0026	1st Floor	, Classroom 26	75	
8/5/2021 11:55 AM	211879-MA-0027	1st Floor	r, Classroom 25	75	
8/5/2021 12:08 PM	211879-MA-0028	1st Floor	r, Classroom 24	75	
8/5/2021 12:24 PM	211879-MA-0029	1st Floor	r, Classroom 30	75	
8/5/2021 12:39 PM	211879-MA-0030	1st Floo	r, Classroom 29	75	
8/5/2021 1:03 PM	211879-MA-0031	1st Floo	r, Classroom 28	75	

Client Sample Number: 211879-MA-0019 to 211879-MA-003	3	Total: 15
Relinquished By:	Date: 8/5/2021	<b>Time:</b> 2:43 PM
Samples Received By: Sarah Tran 87—	Date: 8 S V	Time: 3:40 pm
Relinquished By:	Date:	Time:
Samples Received By:	Date:	Time:

Total: 15



211256

# MOLD AIR SAMPLE CHAIN OF CUSTODY

8/5/2021 1:21 PM	211879-MA-0032	1st Floor, Classroom 23	75
8/5/2021 1:32 PM	211879-MA-0033	Exterior	150

Client Sample Number: 211879-MA-0019 to 211879-MA-003	3	Total: 15
Relinquished By:	Date: 8/5/2021	Time: 2:43 PM
Samples Received By: Sarah Tran 8	Date: 8/5/71	Time: 3:40pm
Relinquished By:	Date:	Time:
Samples Received By:	Date:	Time:

# INSTRUMENT CALIBRATION REPORT



# A-Tech Testing

Instrument ID T75451842011

Description TSI 7545 IAQ-Calc

Calibrated 12/21/2020

Manufacturer TSI

Model Number 7545

Serial Number T75451842011

Location New Jersey

Temp 68

Classification

Status Pass

Frequency Yearly EOM

Department Lab Humidity 25

		Calil	oration Specific	cations			
Group	oup # 1 Name Tempera Accy Plus/M			Range Acc % Reading Acc % Plus/Minus	0.0000		
Nom In Val / In Val 20.00 / 17.70	In Type °C	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
20.00 / 17_/0	C	17.70	°C	17.80	17.70	0.00%	Pass
Group !	oup# 2 Name Relative Accy Plus/M	The second secon		Range Acc % Reading Acc % Plus/Minus	0.0000		
Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
30.00 / 29.40	%	29.40	%	31,10	29.40	0.00%	Pass
Group I	oup # 3 Name Carbon I Accy Pct of Re			Range Acc % Reading Acc % Plus/Minus	3.0000		
Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	LftAs	Dev%	Pass/Fail
0.00 / 0.00	ppm	0.00	ppm	6.00	0.00	0.00%	Pass
1000.00 / 1000.00	ppm	1000.00	ppm	970.00	1,002.00	0.20%	Pass
Group N	oup # 4 Name Carbon N Accy Pct of Re			Range Acc % Reading Acc % Plus/Minus	3.0000		
Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.00 / 0.00	ppm	0.00	ppm	0.40	0.00	0.00%	Pass
100.00 / 100.00	ppm	100.00	ppm	67.30	100.40	0.40%	Pass
Group N	up # 5 ame Barometr Accy Pet of Re			Range Acc % Reading Acc % Plus/Minus	3.0000		
Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Day9/	Dans/E-11
		29.71	2000	A 444 / XO	Luc Ma	Dev%	Pass/Fail

# INSTRUMENT CALIBRATION REPORT



# A-Tech Testing

Instrument ID T75451842011 Description TSI 7545 IAQ-Calc Calibrated 12/21/2020

Test Instrument 1D	Description	N. 6		(As Of Ca	l Entry Date)
A Section of the sect	The state of the s	Manufacturer	Serial Number	Last Cal Date	Next Cal Date
CO/CO2_105L- 375	100ppm CO, 1000ppm CO	2 Specialty Gases of America, Inc.	MBI-375-2	12/1/2018	12/11/2022
MICHELL DM-509-TX-01	Relative Humidity Meter	Michell	273296	11/3/2020	11/3/2021
NITROGEN_U HP	Nitrogen 99,999%	Liquid Technology	31821	12/1/2018	12/1/2023
OMEGA HX93AC/DP25- E	Omega HX93AC/DP25-E	Omega Engineering	1010368 035025 035026	11/25/2020	11/25/2022
DMEGA PX02K1-16A5T DP25-E-A	Omega PX02K1-16A5T/DP25-E-A	Omega Engineering	168377/8375030	11/25/2020	11/25/2022
OMEGA WT4401-D	Omega WT4401-D	Omega Engineering	101105	11/25/2020	11/25/2022
ZERO_AIR	Zero Grade Air THC <1.0 PPM	Liquid Technology	31845	3/1/2019	3/21/2023

# Notes about this calibration

Calibration Result Calibration Successful Who Calibrated Kevin Cole

Advanced Labs, Inc. hereby certifies that this instrument is calibrated and functions to meet the manufacture's specifications using NIST traceable standards, or is derived from accepted values of physical constants.

# INSTRUMENT CALIBRATION REPORT



# **A-Tech Testing**

Instrument ID CM19362009

Description Thermo PDR-1500 Aerosol Monitor

Calibrated 12/7/2020

Manufacturer Thermo

Model Number PDR-1500

Serial Number CM19362009

Location New Jersey

Temp 70

Classification

Status Pass

Frequency Yearly

Department Lab

**Humidity 25** 

# **Calibration Specifications**

Group # 1

Group Name Arizona Road Test Dust

Test Performed: Yes

As Found Result: Pass

As Left Result: Pass

# Test Instruments Used During the Calibration

Test Instrument ID

Description

Thermo DataRAM-4000

**Manufacturer** 

Thermo

Serial Number

D780

(As Of Cal Entry Date)

Last Cal Date 3/6/2020

Next Cal Date

3/6/2021

DR-4 MASTER D780

Master

Notes about this calibration

Calibration Ratio: 1.15

Calibration Result Calibration Successful

Who Calibrated David Galego

Advanced Labs, Inc. hereby certifies that this instrument is calibrated and functions to meet the manufacture's specifications using NIST traceable standards, or is derived from accepted values of physical constants.