952 School Street #111
Napa, CA 94559
707-205-5706
mmichie@fitenvironmental.com

March 5, 2020

Mr. Jaime Rico
Cabrillo Unified School District
498 Kelly Avenue
Half Moon Bay, CA 94109

RE: Spores in Air Comparison Sampling at Farallone View Elementary School Library located at 1100 Le Conte Ave. in Montara, California

F.I.T. Job # 20-016

Dear Mr. Rico,

F.I.T. Environmental Services (FIT) is pleased to present this letter report for the reporting of spores in air comparison sampling performed at Farallone View Elementary School inside the Multi-Purpose Room, Principals Office, Classrooms B-3, and C-1 located at 1100 Le Conte Ave. in Montara, California.

Overview

On February 28, 2020, FIT mobilized to the above-mentioned site to collect microbial spores in air samples from the locations designated above and outside the building. The sampling was conducted at the request of the Cabrillo Unified School District.

Methodology

Airborne mold spore sampling was accomplished by using a spore trap method. Air O Cell/Allergenco cassettes were used to collect approximately 75 liters of air at a calibrated flow rate of 15 liters per minute. Air O Cell/Allergenco samples provide rapid collection and analysis by microscopic examination and allow identification of fungal spores, plant pollens and other particulates. Airborne particulate is collected by the spore trap cassette and analyzed by the non-viable, direct microscopic examination method. Spores are counted and identified by species type. Results are expressed in spores per cubic meter of air sampled. Samples are collected both inside the building areas to be evaluated and at one or more locations outside the building. The inside building sample results are compared with the outside ambient air result(s) to determine if any elevated levels are present for one or more spore types in the building area of concern.

Typically, in buildings with a filtered HVAC system, interior samples in a normal non-problem building would be anticipated to be 30-80% of the outside levels. Indoor levels that are significantly higher than outdoor levels would suggest an indoor mold contamination source may be present requiring further investigation and possible remedial action.

All samples were sent to Micro Analytical Laboratories (MAL), located in Emeryville, California for analysis under chain of custody procedures. MAL specializes in air sample analysis of fungi (mold) and is a successful participant in the American Industrial Hygiene Association (AIHA) EMPAT proficiency program.

Results of Comparison Sampling and Recommendations

The February 28, 2020 samples collected inside the Multi-Purpose Room, Principals Office, and Classrooms were reported by the laboratory as follows, Spore counts in the Multi-Purpose Room were 347 total spores per cubic meter of air (spores/m^3), Spore Counts in the Principal's Office were 67 total spores/m^3, Spore Counts in Classroom B-3 were 360 total spores/m^3, Spore Counts in Classroom C-1 were 373 total spores/m^3. Outside comparison spore counts were 1,293 total spores/m^3. All the individual species were below their counterpart outdoor species. The results are summarized in Table I below.

Table I

Sampling Location and Date	Total Spores/m^3	% of Outdoor
Multi-Purpose Room – 2/28/2020	347	27%
Principal's Office	67	5%
Classroom B-3	360	28%
Classroom C-1	373	29%
Outside the Building	1,293	N/A

Conclusion

Based upon the 2/28/2020 certified laboratory report of the air samples conducted at Farallone View Elementary School, F.I.T. Environmental Services has determined that the indoor air quality in the rooms noted above are that of a "normal building environment" in the Multi-Purpose Room, Principal's Office, Classroom B-3 and Classroom C-1 in accordance with industry standard indoor air quality protocols and state of the art indoor air quality assessment.

FIT appreciates the opportunity to provide our microbial services. Please contact Michael Michie at (707) 205-5706 if you have any questions.

Respectfully submitted,

Patrick Garrett, CAC (# 15-5359) CDPH (#110)
Certified Commercial Mold Inspector
Vice President/Principal Consultant

Michael Michie, CAC (#11-4729)
Certified Commercial Mold Inspector
President/Principal Consultant

Attachments: Certified Analytical Report
Chain of Custody

MICRO ANALYTICAL LABORATORIES, INC.

Air Sample Analysis - Non-Viable Spore Trap Report

PROJECT:

1072
Michael Michie
F.I.T. Services
952 School Street, Unit #111
Napa, CA 94559

PROJECT NO. 20-016
CUSD - FARALLONE VIEW E.S.
1100 LE CONTE AVENUE

Micro Log In **269332**
Total Samples 5
Date Sampled 2/28/2020
Date Received 3/4/2020
Date Analyzed 3/4/2020

Sample ID Number	269332-01		269332-02		269332-03		269332-04	
	29160730		29160733		29160717		29160709	
Sample Description	MULTI-USE ROOM		PRINCIPAL'S OFFICE		CLASSROOM B-3		CLASSROOM C-1	
Volume (Liters)	75.0		75.0		75.0		75.0	
Spore Type	Count	Spores / m^3	Count	Spores / m^3	Count	Spores / m^3	Count	Spores / m^3
Alternaria								
Arthrinium								
Ascospores	3	40					1	13
Basidiospores	15	200	3	40	22	293	14	187
Botrytis								
Chaetomium								
Cladosporium	8	107	2	27	4	53	9	120
Curvularia								
Drechslera / Bipolaris								
Epicoccum								
Fusarium								
Nigrospora								
Oidium								
Penicillium / Aspergillus							3	40
Pithomyces								
Rusts					1	13		
Smuts, Periconia, Myxo.								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unidentifiable								
Scopulariopsis							1	13
Total Spores / m^3		347		67		360		373
Comments:	AS = 13.3 spores/m3.		AS = 13.3 spores/m3.		AS = 13.3 spores/m3.		AS = 13.3 spores/m3.	

Microbiology Manager: _____ 3/4/2020 Analysts: KG KG LKN LKN
Nasser Kashani, Ph.D. Date Reported

AIHA-LAP, LLC EMLAP ACCREDITATION ID #101768. Samples are analyzed by light microscopy, using Micro Analytical Laboratories SOP F19-7 (equivalent to ASTM D7391-17). Explanations: 1) Spore count is calculated using fraction of the sample trace analyzed. The actual number of spores on the sample trace may vary. 2) Spores per m3 are extrapolated based on spore counts. The actual number may vary depending on chosen travere and the fraction of sample analyzed. 3) The genera Aspergillus and Penicillium are placed in the same category. Spores of these fungi and others such as Gliocladium have little size variability and few distinguishing features. 4) A spore is unidentifiable when its morphological features are insufficient for conclusive identification. 5) Although spores are assumed to be randomly distributed on the sample trace, scarce spores may be present but not countable if not within the chosen traverse. 6) This analysis does not evaluate background debris; however, high levels of background particulates can obscure small spores (e.g., Penicillium / Aspergillus) and bias counts. Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. This report must not be reproduced except in full, without the approval of Micro Analytical Laboratories, inc., and pertains only to the samples analyzed. Micro Analytical Laboratories, Inc. shall not be responsible for clients' deviations from any prescribed sampling parameters. Air volumes are based on client data. The lab's verifiability of results is limited to spore counts. N/A = not applicable. Myxo = Myxomycetes. Results of ND (No Spores Detected) are reported as less than (<) the Analytical Sensitivity (AS), which is the concentration calculated from the lowest possible raw count, i.e. 1 spore. The Practical Quantitation Limit (PQL) is approximately four times the analytical sensitivity. Results are field-blank corrected where applicable.

MICRO ANALYTICAL LABORATORIES, INC.

Air Sample Analysis - Non-Viable Spore Trap Report

PROJECT:

1072

Michael Michie
F.I.T. Services
952 School Street, Unit #111
Napa, CA 94559

PROJECT NO. 20-016
CUSD - FARALLONE VIEW E.S.
1100 LE CONTE AVENUE

Micro Log In **269332**
Total Samples 5
Date Sampled 2/28/2020
Date Received 3/4/2020
Date Analyzed 3/4/2020

Sample ID Number	269332-05							
	29160731							
Sample Description	OUTSIDE BUILDINGS							
Volume (Liters)	150.0							
Spore Type	Count	Spores / m³	Count	Spores / m³	Count	Spores / m³	Count	Spores / m³
Alternaria	1	7						
Arthrinium								
Ascospores	15	100						
Basidiospores	76	507						
Botrytis	3	20						
Chaetomium								
Cladosporium	23	153						
Curvularia								
Drechslera / Bipolaris								
Epicoccum								
Fusarium								
Nigrospora								
Oidium								
Penicillium / Aspergillus	73	487						
Pithomyces								
Rusts								
Smuts, Periconia, Myxo.	2	13						
Stachybotrys								
Stemphylium								
Torula	1	7						
Ulocladium								
Unidentifiable								
Scopulariopsis								
Total Spores / m³		1293						
Comments:	AS = 6.7 spores/m3.							

Microbiology Manager: _____ 3/4/2020 Analysts: LKN

Nasser Kashani, Ph.D. Date Reported

AIHA-LAP, LLC EMLAP ACCREDITATION ID #101768. Samples are analyzed by light microscopy, using Micro Analytical Laboratories SOP F19-7 (equivalent to ASTM D7391-17). Explanations: 1) Spore count is calculated using fraction of the sample trace analyzed. The actual number of spores on the sample trace may vary. 2) Spores per m3 are extrapolated based on spore counts. The actual number may vary depending on chosen travere and the fraction of sample analyzed. 3) The genera Aspergillus and Penicillium are placed in the same category. Spores of these fungi and others such as Gliocladium have little size variability and few distinguishing features. 4) A spore is unidentifiable when its morphological features are insufficient for conclusive identification. 5) Although spores are assumed to be randomly distributed on the sample trace, scarce spores may be present but not countable if not within the chosen traverse. 6) This analysis does not evaluate background debris; however, high levels of background particulates can obscure small spores (e.g., Penicillium / Aspergillus) and bias counts. Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. This report must not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. Micro Analytical Laboratories, Inc. shall not be responsible for clients' deviations from any prescribed sampling parameters. Air volumes are based on client data. The lab's verifiability of results is limited to spore counts. N/A = not applicable. Myxo = Myxomycetes. Results of ND (No Spores Detected) are reported as less than (<) the Analytical Sensitivity (AS), which is the concentration calculated from the lowest possible raw count, i.e. 1 spore. The Practical Quantitation Limit (PQL) is approximately four times the analytical sensitivity. Results are field-blank corrected where applicable.

F.I.T. Environmental Services

RUSH!

Microbial SAMPLE DATA SHEET

269332

PAGE 1 OF 1

☐ 952 School St. #111
Napa, CA 94559

Project Name/Address: Farallone View Elementary School 1100 Le Conte Ave. ***Report Recipient*** :

Client Name: CUSD F.I.T. Project #: 20-016 Sampled By: M Michie/P. Garrett Sampling Date: 2-28-2020

Sample(s) Sent To: ■ MAL ☐ EM Lab ☐ Other: Turnaround Time: X Rush ___ Standard

Email Report To: ☐ **mmichie@fitenvironmental.com** ☐ **pgarrett@fitenvironmental.com**

	Sample I.D. #	Date	Type	Sample Description					Sample Location	Volume Liters	Analysis					
				Air	Bulk	Swab	Water	Tape Lift			Culture	Culture Screen	Direct Exam	Legionella		
1	29160730	2-28-2020	Spore Trap	X					Multi-Use Room	75						
2	29160733	2-28-2020	Spore Trap	X					Principal's Office	75						
3	29160717	2-28-2020	Spore Trap	X					Classroom B-3	75						
4	29160709	2-28-2020	Spore Trap	X					Classroom C-1	75						
5	29160731	2-28-2020	Spore Trap	X					Outside Buildings	150						

	NAME:	SIGNATURE:	DATE:	REMARKS:
Relinquished By:	Michael Michie		3-4-2020	
Received By:	S. Sibapasay		3/4/20	
Relinquished By:				
Received By:				