



Joseph Fuller &lt;jay\_fuller@abss.k12.nc.us&gt;

**FW: Invoice 1559 from A.L.I.S. Environmental, Inc.**

1 message

Jim McManus &lt;jmcmanus@alisenvironmental.com&gt;

Fri, Nov 23, 2018 at 2:12 PM

Reply-To: JMcManus@alisenvironmental.com

To: Joseph Fuller &lt;jay\_fuller@abss.k12.nc.us&gt;, Todd Thorpe &lt;todd\_thorpe@abss.k12.nc.us&gt;

Jay, Todd,

Please find the attached report and invoice for Newlin ES airborne fungal testing. Please look it over and call me if you have any questions. I will check my schedule and call you regarding availability for the Eastern HS testing.

Respectfully,

*James P. McManus, VP**ALIS Environmental, Inc.**P.O. Box 6**Pinnacle, NC 27043**Off: 336.368.4500**Mobile: 336.575.2343***From:** Debi McManus <Debi.McManus@ALISEnvironmental.com>**Sent:** Friday, November 23, 2018 12:25 PM**To:** jmcmanus@alisenvironmental.com**Subject:** Invoice 1559 from A.L.I.S. Environmental, Inc.

A.L.I.S. Environmental, Inc.

**Invoice** *Due: 11/23/2018*  
1559Amount Due: **\$1,800.00**

Dear Jay :

Your invoice is attached. Please remit payment at your earliest convenience.

Thank you for your business - we appreciate it very much.

Sincerely,

Jim  
A.L.I.S. Environmental, Inc.

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**2 attachments**

 **Inv\_1559\_from\_A.L.I.S.\_Environmental\_Inc.\_13732.pdf**  
110K

 **201-1811-02 Newlin final.pdf**  
1504K



**Environmental, Inc.**  
PO Box 6 Pinnacle, NC 27043

# Invoice

DATE	INVOICE #
11/23/2018	1559

<b>BILL TO</b>
Alamance-Burlington School System Jay Fuller 307 Prison Camp Road Graham, NC 27253

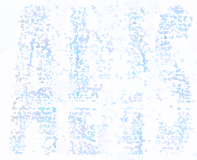
<b>PROJECT LOCATION</b>
Harvey R Newlin ES 316 Carden Street Burlington, NC
CLIENT PROJECT ID # / P.O. #

<b>PROJECT NAME</b>	<b>PROJECT #</b>	<b>TERMS</b>	<b>DUE DATE</b>
IAQ:Airborne Mold Testing	201-1811-02	Due on receipt	11/23/2018

PROJECT DATE(S)	DESCRIPTION	# of DAYS / QTY	RATE	AMOUNT
11/10/2018	Airborne Mold Testing/Building-Wide Sampling and Reporting Time	2	450.00	900.00
11/10/2018	Lab Charges / Sample Analysis	18	50.00	900.00

A late charge of 1.5% (18% APR) will be added each month to all invoices 30 days past due.

<b>Total</b>	\$1,800.00
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Office: 336.368.4500  
Mobile: 336.575.2343  
jmcmanus@alisenvironmental.com

November 21, 2018

Jay Fuller  
Director of Facilities and Maintenance

Alamance-Burlington School System  
307 Prison Camp Road  
Graham, North Carolina 27253

Subject: Report of Airborne Microbial Sampling  
Harvey R. Newlin Elementary School  
316 Cardin Street  
Burlington, North Carolina 27215  
Project No.: 201-1811-02

Dear Mr. Fuller:

ALIS has completed our airborne microbial sampling at Harvey R. Newlin Elementary School in Burlington, North Carolina. On November 10, 2018, we conducted air sampling for the presence of airborne fungi at the subject property. The purpose of our sampling was to determine the presence and species of airborne fungi and the degree of concentration within the complaint and non-complaint areas of the building. Air sampling pumps were calibrated and placed in the following locations: 1<sup>st</sup> floor classrooms 102, 108, 115, 109, 105 General Office, 302-Library, 305 and Cafeteria, 2<sup>nd</sup> floor rooms 200, 208, 207, 213, 216 and reading room. Two samples were collected from outside the building as a reference for comparison to the inside conditions. Musty odors were not detected in the sampled rooms. Temperature and relative humidity measurements collected from each indoor sampled area indicated lower 70° F and lower 40% RH.

#### Results

There are no indications that abnormal conditions exist within the sampled locations. The laboratory results show no elevated levels of indoor airborne fungi when compared to levels found on the outside sample except room 200. One spore belonging to the Chaetomium species was detected in room 200 which, when calculated, results in 7 spores per cubic meter of air collected. Potted plants and/or aquariums located in the immediate environment can be a viable food source and a natural habitat for this species. Sample results are attached to this report: "Spore Trap Analysis"

#### **Sampling Methodology**

Non-viable samples were collected with a spore trap slide using Allergenco-D Cassettes mounted to a sampling pump. The cassettes contain glass slides that are coated with a sticky substance that captures airborne

November 21, 2018

particulates that impinge on the slides. The air samples were collected at 15 liters per minute for 10 minutes. Calibration of sampling equipment was performed with a precision rotameter (a secondary calibration source). Rotameters are calibrated against a primary standard. Field calibration was performed before and after sampling. The air samples were sealed for transport to Hayes Microbial Consulting in Midlothian, Virginia for analysis. Hayes Microbial is a participant in the American Industrial Hygiene Association, Laboratory Accreditation Program (AIHA-LAP) for Environmental Microbiology.

#### **Background Information on Mold in Buildings**

Mold spores exist normally in outdoor and indoor air and can be measured in air and carpets of normal homes, office buildings, hospitals and schools. Naturally occurring sources of mold spores include soil, plants and other sources. The air concentration of these normally occurring mold spores is dependent on the season, environmental conditions and other factors. Elevated levels of mold in building materials may occur if chronic moist conditions from water leaks, floods, chronic high relative humidity, or malfunctioning heating, ventilation or air conditioning systems, allow moisture to remain for prolonged periods on organic matter in the presence of warm ambient temperatures. Under these conditions, low levels of fungal spores in air, plants or other sources, may proliferate on cellulose containing materials such as carpets, wallboard, wood, paper or dusty surfaces (which may serve as a food source), and result in mold contamination. Many fungal spores are allergenic to susceptible persons exposed, though individual susceptibility varies greatly. There is no practical way to eliminate all mold and mold spores in the indoor environment; the way to control indoor mold growth is to control moisture.

ALIS appreciates the opportunity to be of service to you on this project. We would welcome the opportunity to discuss at your convenience, any of the results contained in this report. Please contact us if you have any questions or if we may be of further service.

Sincerely,  
ALIS ENVIRONMENTAL, INC.



James P. McManus  
Vice-President

Attachment: "Spore Trap Analysis"

HMC #18042452



3005 East Boundary Terrace, #F  
Middleham, VA 23112, USA  
804.862.3436 Fax: 804.447.5662

contact@hayesmicrobial.com  
<http://hayesmicrobial.com/>

Analysis Report prepared for

## ALIS Environmental Inc.

1027 Koontz Haven Rd  
Pinnacle, NC. 27043  
Phone: (336) 368-4500

Job Number: 201-1811-02

Job Name: Harvey Newlin Elementary School  
316 Garden St.  
Burlington, NC

Date Sampled: 11-10-2018  
Date Analyzed: 11-13-2018  
Report Date: 11-13-2018

EPA Laboratory ID# VA01419



AIHA EMPAT Lab ID# 188863

Mold License: LAB1021

License: #PH-0198



**HAYES**  
MICROBIAL CONSULTING  
3006 East Boundary Terrace, #F  
Microthian, VA 23112, USA  
804.862.3436 Fax: 804.447.8662

HMC #18042452

ALIS Environmental Inc.  
1027 Koontz Haven Rd  
Pinnacle, NC 27043

November 13, 2018

Client Job Number: 201-1811-02  
Client Job Name: Harvey Newlin Elementary School  
316 Carden St.  
Burlington, NC

Dear ALIS Environmental Inc.,

We would like to thank you for trusting Hayes Microbial for your analytical needs. On November 13, 2018 we received 18 samples by FedEx for the job referenced above. 18 samples were received in good condition.

The results in this analysis pertain only to this job, collected on the stated date and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC.

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial Consulting. In no event, shall Hayes Microbial Consulting or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of your use of the test results.

Steve Hayes, BSMIT (ASCP)  
Laboratory Director  
Hayes Microbial Consulting, LLC



# HAYES

**MICROBIAL CONSULTING**  
3008 East Boundary Terrace, #F  
Middleham, VA 23112, USA  
804.862.3438 Fax: 804.447.8682

**ALIS Environmental Inc.**  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 368-4500

**Spore Trap Analysis**  
SOP #HMC101  
**HMC #18042452**

Job Number: 201-1811-02  
Collected by: Jim McManus  
Email: jmcmanus@alisenvironmental.com  
Job Name: Harvey Newlin Elementary School  
316 Garden St  
Burlington, NC  
Date Collected: 11/10/2018  
Date Received: 11/13/2018  
Date Reported: 11/13/2018

Organism	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total
Ascospores	64	427	22.5%	30	200	12.1%	1	7	6.5%	1	7	35.0%
Aspergillus/ Penicillium	4	27	1.4%	3	20	1.2%	4	27	25.2%			
Basidiospores	160	1067	56.3%	192	1280	77.7%	9	60	56.1%	2	13	65.0%
Bipolaris/Drechslera	3	20	1.1%	1	7	< 1%						
Chaetomium												
Cladosporium	48	320	16.9%	14	93	5.6%	2	13	12.1%			
Curvularia	3	20	1.1%									
Epigeum												
Fusarium												
Mermisella												
Myxomycetes	1	7	< 1%	7	47	2.9%						
Pestalotiopsis	1	7	< 1%									
Pitheciopsis												
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Total	284	1895		247	1647		16	107		3	20	

Water Damage Indicator: Common Allergen: Slightly Higher than Outside Air: Significantly Higher than Outside Air: Ratio Abnormality

Signature: P. Ramo

Date: 11/13/2018

Reviewed by:

Stephen T. Hayes

Date: 11/13/2018





**HAYES**

**MICROBIAL CONSULTING**  
3005 East Boundary Terrace, #F  
Middleton, VA 23112, USA  
804.562.3438 Fax: 804.447.8662

**ALIS Environmental Inc.**  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 369-4500

**Spore Trap Analysis**  
SOP #HMC101

**HMC #18042452**

Job Number: 201-1811-02	Job Name: Harvey Newlin Elementary School	Date Collected: 11/10/2018
Collected by: Jim McManus	316 Carden St	Date Received: 11/13/2018
Email: jmcmanus@alisenvironmental.com	Burlington, NC	Date Reported: 11/13/2018

Organism	18042452 - 5				18042452 - 6				18042452 - 7				18042452 - 8			
	Raw Count	Count / M3	% of Total	Water Damage Indicator	Raw Count	Count / M3	% of Total	Water Damage Indicator	Raw Count	Count / M3	% of Total	Water Damage Indicator	Raw Count	Count / M3	% of Total	Water Damage Indicator
Alternaria	2	13	14.9%	Common/Allergen	1	7	11.7%	Slightly Higher than Outside Air	1	7	25.0%	Significantly Higher than Outside Air	2	13	39.4%	Ratio Abnormally
Ascospores	1	7	8.0%	Common/Allergen	3	20	33.3%	Common/Allergen				Common/Allergen				Common/Allergen
Aspergillus/Penicillium	10	67	77.0%	Common/Allergen	5	33	55.0%	Common/Allergen	1	7	25.0%	Common/Allergen	1	7	21.2%	Common/Allergen
Basidiospores				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Bipolaris/Drechslera				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Chaetomium				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Cladosporium				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Quinvalaria				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Epilobocarpus				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Fusarium				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Mormoniella				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Myxomycetes				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Pestalotiopsis				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Pitheciopsis				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Stachybotrys				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Stemphylium				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Torula				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Ulodendrium				Common/Allergen				Common/Allergen				Common/Allergen				Common/Allergen
Total	13	87		Common/Allergen	9	60		Common/Allergen	4	28		Common/Allergen	5	33		Common/Allergen

Water Damage Indicator: Common/Allergen, Slightly Higher than Outside Air, Significantly Higher than Outside Air, Ratio Abnormally

Signature: P. Ramo Date: 11/13/2018 Reviewed by: Stephen T. Hayes Date: 11/13/2018



**HAYES**

**MICROBIAL CONSULTING**  
3005 East Boundary Terrace, #F  
Middleham, VA 23112, USA  
804.662.3436 Fax: 804.447.3662

**ALIS Environmental Inc.**  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 368-4500

**Spore Trap Analysis**  
SOP #HMC101

**HMC #18042452**

Job Number: 201-1811-02	Job Name: Harvey Newlin Elementary School	Date Collected: 11/10/2018
Collected by: Jim McManus	316 Carden St	Date Received: 11/13/2018
Email: jmcmanus@allsenvironmental.com	Burlington, NC	Date Reported: 11/13/2018

Organism	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total
Alternaria												
Ascospores												
Aspergillus/Penicillium				1	7	25.9%	1	7	20.6%			
Basidiospores	5	33	82.5%	2	13	48.1%	4	27	79.4%			
Bipolaris/Drechslera												
Chaetomium												
Cladosporium												
Curvularia	1	7	17.5%									
Epicoceum												
Fusarium												
Mormonella												
Myxomycetes				1	7	25.9%						
Pestalotiopsis												
Pitheomyces												
Stachybotrys												
Stemphylium												
Torula												
Ulodendium												
Total	6	40		4	27		5	34		ND	ND	

Water Damage Indicator	Common Allergen	Slightly Higher than Outside Air	Significantly Higher than Outside Air	Ratio Abnormality
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Signature: P. Ramo Date: 11/13/2018 Reviewed by: Stephen T. Hayes Date: 11/13/2018



**HAYES**

**MICROBIAL CONSULTING**  
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**ALIS Environmental Inc.**  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 369-4500

**Spore Trap Analysis**  
SOP #HMC101

**HMC #18042452**

Job Number: 201-1811-02	Job Name: Harvey Newlin Elementary School	Date Collected: 11/10/2018
Collected by: Jim McManus	316 Carden St.	Date Received: 11/13/2018
Email: jmcmanus@alisenvironmental.com	Burlington, NC	Date Reported: 11/13/2018

Organism	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total	Raw Count	Count / M3	% of Total
Alternaria												
Ascospores	1	7	6.5%							1	7	20.6%
Aspergillus/Penicillium	8	53	49.5%									
Basidiospores	5	33	30.8%	4	27	> 99%	1	7	35.0%	3	20	58.8%
Bipolaris/Drechslera												
Chaetomium	1	7	6.5%									
Cladosporium												
Cunylaria												
Epicoecium												
Fusarium												
Membranella												
Myxomycetes	1	7	6.5%				2	13	65.0%	1	7	20.6%
Pestalotiopsis												
Pithomyces												
Stachybotrys												
Sternophyllum												
Torula												
Ulocladium												
Total	16	107		4	27		3	20		5	34	

Water Damage Indicator	Common Allergen	Slightly Higher than Outside Air	Significantly Higher than Outside Air	Ratio Abnormality
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Signature: P. Rameck Date: 11/13/2018 Reviewed by: Stephen T. Hayes Date: 11/13/2018



**HAYES**

**MICROBIAL CONSULTING**  
3005 East Boundary Terrace, #F  
Midlothian, VA 23112, USA  
804.562.3435 Fax: 804.447.8862

**ALIS Environmental Inc.**  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 369-4500

**Spore Trap Analysis**  
SOP #H-MC101

**HMC #18042452**

Job Number:	201-1811-02	Job Name:	Harvey Newlin Elementary School	Date Collected:	11/10/2018
Collected by:	Jim McManus		316 Garden St.	Date Received:	11/13/2018
Email:	Jimcmanus@alisenvironmental.com		Burlington, NC	Date Reported:	11/13/2018

Organism	18042452 - 17		18042452 - 18		Ratio Abnormality
	Raw Count	Count / M3	Raw Count	Count / M3	
Alternaria					
Ascospores	1	7			
Aspergillus/ Penicillium					
Basidiospores	1	7	1	7	35.0%
Bipolaris/ Drechslera					
Chaetomium					
Cladospidium					
Curvularia					
Epicoecium					
Fusarium					
Memnoniella					
Myxomycetes			2	13	65.0%
Pestalotiopsis					
Pitheomyces					
Stachybotrys					
Stemphylium					
Torula					
Ulodacium					
Total	2	14	3	20	

Water Damage Indicator	Common Allergen	Slightly Higher than Outside Air	Significantly Higher than Outside Air	Ratio Abnormality
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Signature: P. Ramoels Date: 11/13/2018 Reviewed by: Stephen T. Hayes Date: 11/13/2018



**HAYES**

**MICROBIAL CONSULTING**  
3006 East Boundary Terrace, #F  
Mechothan, VA 23112, USA  
804.582.3430 Fax: 804.447.9882

**ALIS Environmental Inc.**  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 368-4500

**Spore Trap Information**

**HMC #18042452**

**Reporting Limit** The Reporting Limit is the lowest number of spores that can be detected based on the total volume of the sample collected and the percentage of the slide that is counted. At Hayes Microbial, 100% of the slide is read so the LOD is based solely on the total volume. Raw spore counts that exceed 500 spores will be estimated.

**Blanks** Results have not been corrected for field or laboratory blanks.

**Background** The Background is the amount of debris that is present in the sample. This debris consists of skin cells, dirt, dust, pollen, drywall dust and other organic and non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of Aspergillus and Penicillium may be obscured. The background is rated on a scale of 1 to 4 and each level is determined as follows:

- ND** : No background detected. (Pump or cassette malfunction.) Recollect sample.
- 1** : <5% of field occluded. No spores will be uncounrtable.
- 2** : 5-25% of field occluded.
- 3** : 25-75% of field occluded.
- 4** : 75-90% of field occluded.
- 5** : >90% of field occluded. Suggest recollection of sample.

**Fragments** Fragments are small pieces of fungal mycelium or spores. They are not identifiable as to type and when present in very large numbers, may indicate the presence of mold amplification.

**Indoor/Outdoor Comparisons** There are no national standards for the numbers of fungal spores that may be present in the indoor environment. As a general rule and guideline that is widely accepted in the indoor air quality field, the numbers and types of spores that are present in the indoor environment should not exceed those that are present outdoors at any given time. There will always be some mold spores present in "normal" indoor environments. The purpose of sampling and counting spores is to help determine whether an abnormal condition exists within the indoor environment and if it does, to help pinpoint the area of contamination. Spore counts should not be used as the sole determining factor of mold contamination. There are many factors that can cause anomalies in the comparison of indoor and outdoor samples due to the dynamic nature of both of those environments.

**Water Damage Indicators** These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.

**Common Allergens** Although all molds are potential allergens, these are the most common allergens that may be found indoors.

**Slightly Higher than Outside Air** The spore count is slightly higher than the outside count and may or may not indicate a source of contamination.

**Significantly Higher than Outside Air** The spore count is significantly higher than the outdoor count and probably indicates a source of contamination.

**Ratio Abnormality** The types of spores found indoors should be similar to the ones that were identified in the outdoor sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors.

**Color Note** Fungi that are present in indoor samples at levels lower than 200 per cubic meter are not color coded on the report, unless they are one of the water damage indicators.



**HAYES**

**MICROBIAL CONSULTING**  
3006 East Boundary Terrace, #F  
Midlothian, VA 23112, USA  
804.562.3438 Fax: 804.447.8882

**ALIS Environmental Inc.**  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 368-4500

## Organism Descriptions

**HMC #18042452**

### **Alternaria**

**Habitat:** Commonly found outdoors in soil and decaying plants. Indoors, it is commonly found on window sills and other horizontal surfaces.

**Health Effects:** A common allergen and has been associated with hypersensitivity pneumonitis. *Alternaria* is capable of producing toxic metabolites which may be associated with disease in humans or animals. Occasionally an agent of onychomycosis, ulcerated cutaneous infection and chronic sinusitis, principally in the immunocompromised patient.

### **Ascospores**

**Habitat:** A large group consisting of more than 3000 species of fungi. Common plant pathogens and outdoor numbers become very high following rain. Most of the genera are indistinguishable by spore trap analysis and are combined on the report.

**Health Effects:** Health affects are poorly studied, but many are likely to be allergenic.

### **Aspergillus/Penicillium**

**Habitat:** The most common fungi isolated from the environment. Very common in soil and on decaying plant material. Are able to grow well indoors on a wide variety of substrates.

**Health Effects:** This group contains common allergens and many can cause hypersensitivity pneumonitis. They may cause extrinsic asthma, and many are opportunistic pathogens. Many species produce mycotoxins which may be associated with disease in humans and other animals. Toxin production is dependent on the species, the food source, competition with other organisms, and other environmental conditions.

### **Basidiospores**

**Habitat:** A common group of Fungi that includes the mushrooms and bracket fungi. They are saprophytes and plant pathogens. In wet conditions they can cause structural damage to buildings.

**Health Effects:** Common allergens and are also associated with hypersensitivity pneumonitis.

### **Bipolaris/Drechslera**

**Habitat:** They are found in soil and as plant pathogens. Can grow indoors on a variety of substrates.

**Health Effects:** They may be allergenic and are very commonly involved in allergic fungal sinusitis. They are opportunistic pathogens but occasionally infect healthy individuals, causing keratitis, sinusitis and osteomyelitis.

### **Chaetomium**

**Habitat:** Ascomycete fungus, commonly isolated from soil and decaying plant materials. It is cellulolytic and grows well indoors on damp sheetrock and other paper substrates. It is often found growing with *Stachybotrys*.

**Health Effects:** It is reported to be allergenic and may produce toxins.

### **Cladosporium**

**Habitat:** One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts.

**Health Effects:** A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis.



**HAYES**

**MICROBIAL CONSULTING**  
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804.562.3438 Fax: 804.447.9962

**ALIS Environmental Inc.**  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 368-4500

**HMC #18042452**

**Organism Descriptions**

**Curvularia**

**Habitat:** They exist in soil and plant debris, and are plant pathogens.

**Health Effects:** They are allergenic and a common cause of allergic fungal sinusitis. An occasional cause of human infection, including keratitis, sinusitis, onychomycosis, mycetoma, pneumonia, endocarditis and disseminated infection, primarily in the immunocompromised.

**Myxomycetes**

**Habitat:** Found on decaying plant material and as a plant pathogen.

**Health Effects:** Some allergenic properties reported, but generally pose no health concerns to humans.

**Pestalotiopsis**

**Habitat:** Found in soil and occasionally on plants. Some species can break down plastics.

**Health Effects:** No known health effects. Allergenic properties are poorly studied.



**HAYES**

MICROBIAL CONSULTING  
3008 East Boundary Terrace, #F  
Middleham, VA 23112 USA  
804.862.3435 Fax: 804.447.5662

ALIS Environmental Inc.  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 368-4500

HMC #18042452

Graph Addendum

Job Number: 201-1811-02  
Collected by: Jim McManus  
Email: jmcmanus@allisenvironmental.com

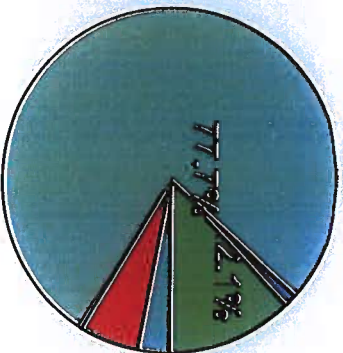
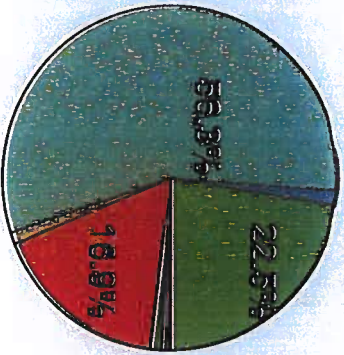
Job Name: Harvey Newlin Elementary School  
316 Carden St  
Burlington, NC

Date Collected: 11/10/2018  
Date Received: 11/13/2018  
Date Reported: 11/13/2018

### Organism Percentages For Each Sample

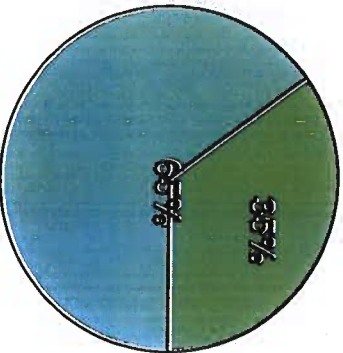
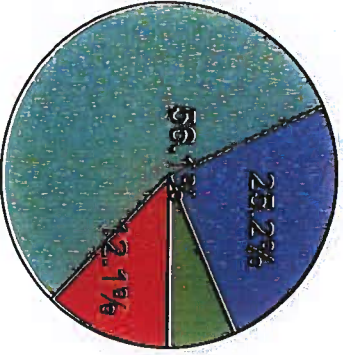
Outside Building/Pre-K 1st Floor

Outside Bldg/Cafeteria



Room 102

Room 108



- Ascospores
- Aspergillus|Penicillium
- Basidiospores
- Bipolaris|Drechslera
- Cladosporium
- Curvularia
- Myxomycetes
- Pestalotiopsis





**HAYES**

MICROBIAL CONSULTING  
3005 East Boundary Terrace, #F  
Middleham, VA, 23112, USA  
804.662.3435 Fax: 804.447.5562

ALIS Environmental Inc.  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 368-4500

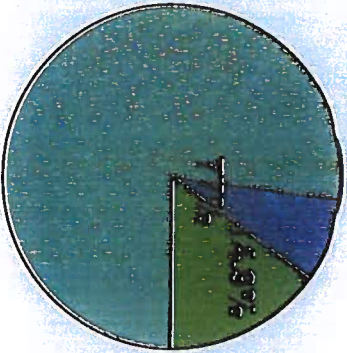
HMC #18042452

Graph Addendum

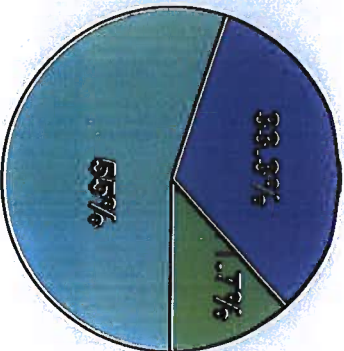
Job Number: 201-1811-02	Job Name: Harvey Newlin Elementary School	Date Collected: 11/10/2018
Collected by: Jim McMannus	316 Carden St.	Date Received: 11/13/2018
Email: jmcmanus@alisenvironmental.com	Burlington, NC	Date Reported: 11/13/2018

### Organism Percentages For Each Sample

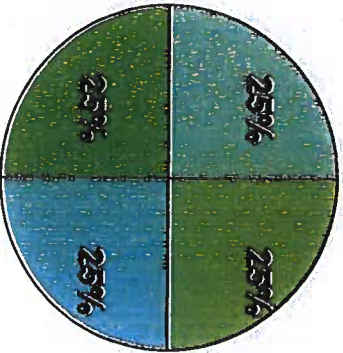
Room 115



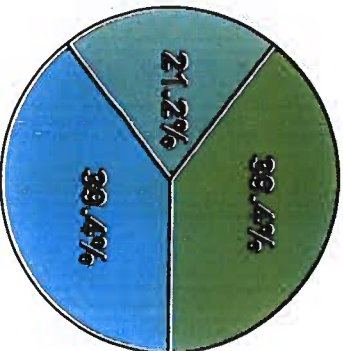
Room 109



Room 105



General Office



- Ascospores
- Aspergillus|Penicillium
- Basidiospores
- Bipolaris|Drechslera
- Cladosporium
- Curvularia
- Myxomycetes
- Pestalotiopsis



**HAYES**

MICROBIAL CONSULTING  
3005 East Boundary Terrace, #F  
Middleham, VA 23112, USA  
804.562.2435 Fax: 804.447.5552

ALIS Environmental Inc.  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 368-4500

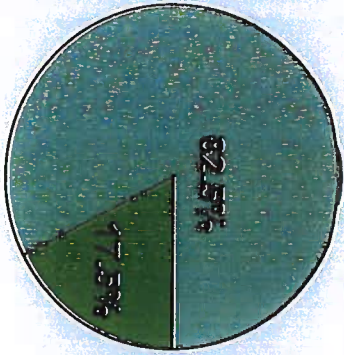
HMC #18042452

Graph Addendum

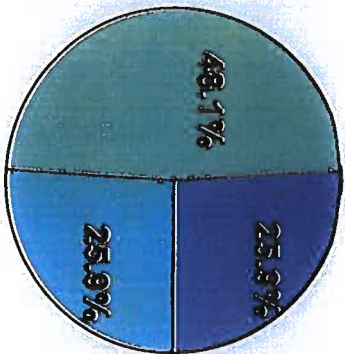
Job Number: 201-1811-02	Job Name: Harvey Newlin Elementary School	Date Collected: 11/10/2018
Collected by: Jim McManus	316 Carden St.	Date Received: 11/13/2018
Email: jmcmanus@galleenvironmental.com	Burlington, NC	Date Reported: 11/13/2018

### Organism Percentages For Each Sample

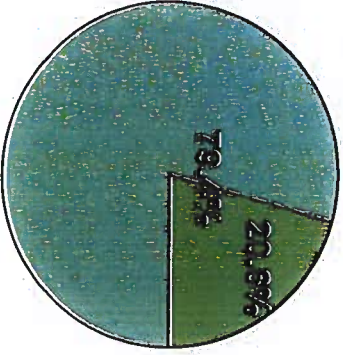
Room 302 Library



Room 305



Cafeteria



Blank

- Ascospores
- Aspergillus|Penicillium
- Basidiospores
- Bipolaris|Drechslera
- Cladosporium
- Curvularia
- Myxomycetes
- Pestalotiopsis



**HAYES**

MICROBIAL CONSULTING  
3008 East Boundary Terrace, #F  
Midlothian, VA 23112 USA  
804.662.3435 Fax: 804.447.5862

ALIS Environmental Inc.  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 368-4500

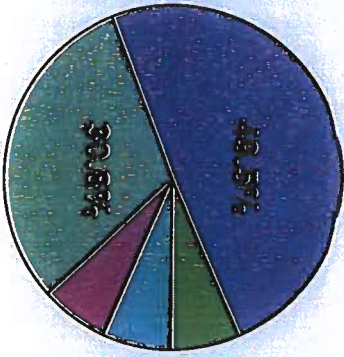
HMC #18042452

Graph Addendum

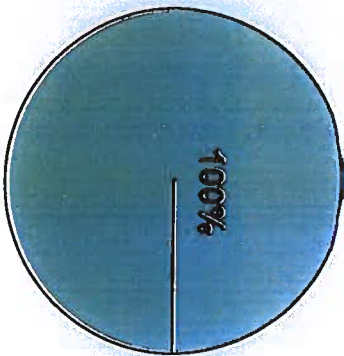
Job Number:	201-1811-02	Job Name:	Harvey Newlin Elementary School	Date Collected:	11/10/2018
Collected by:	Jim McManus		316 Carden St.	Date Received:	11/13/2018
Email:	jimcmanus@gallsenvironmental.com		Burlington, NC	Date Reported:	11/13/2018

### Organism Percentages For Each Sample

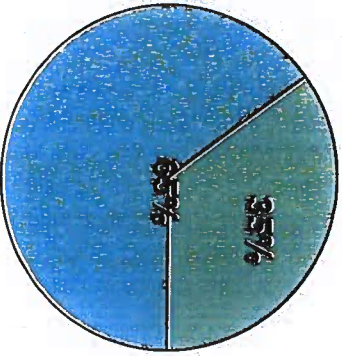
Room 200 - 2nd Floor



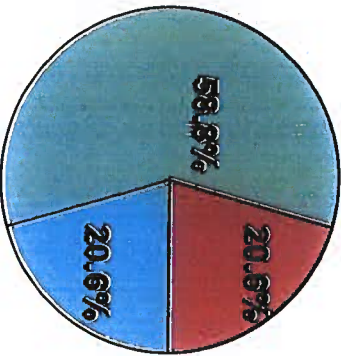
Room 208 - 2nd Floor



Room 207 - 2nd Floor



Room 213 - 2nd Floor



- Alternaria
- Ascospores
- Aspergillus/Penicillium
- Basidiospores
- Bipolaris/Drechslera
- Chaetomium
- Cladosporium
- Curvularia
- Myxomycetes
- Pestalotiopsis



**HAYES**

MICROBIAL CONSULTING  
3005 East Boundary Terrace, #F  
Midlothian, VA 23112, USA  
804.582.3436 Fax: 804.447.8882

ALLIS Environmental Inc.  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 368-4500

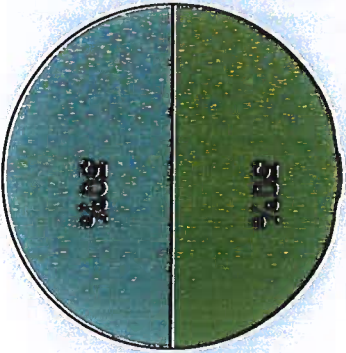
HMC #18042452

Graph Addendum

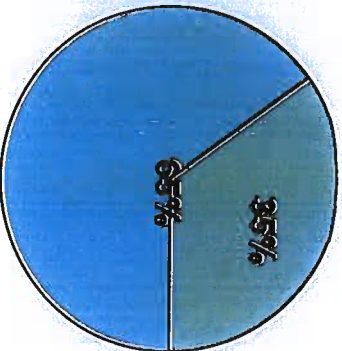
Job Number: 201-1811-02	Job Name: Harvey Newlin Elementary School	Date Collected: 11/10/2018
Collected by: Jim McMannus	316 Carden St Burlington, NC	Date Received: 11/13/2018
Email: jmcmanus@allsenvironmental.com		Date Reported: 11/13/2018

### Organism Percentages For Each Sample

Room 216 - 2nd Floor



Reading Room - 2nd Floor



- Alternaria
- Ascospores
- Aspergillus|Penicillium
- Basidiospores
- Bipolaris|Drechslera
- Chaetomium
- Cladosporium
- Curvularia
- Myxomycetes
- Pestalotiopsis



**HAYES**

MICROBIAL CONSULTING  
3005 East Boundary Terrace, #F  
Midlothian, VA 23112, USA  
804.562.3435 Fax: 804.447.5662

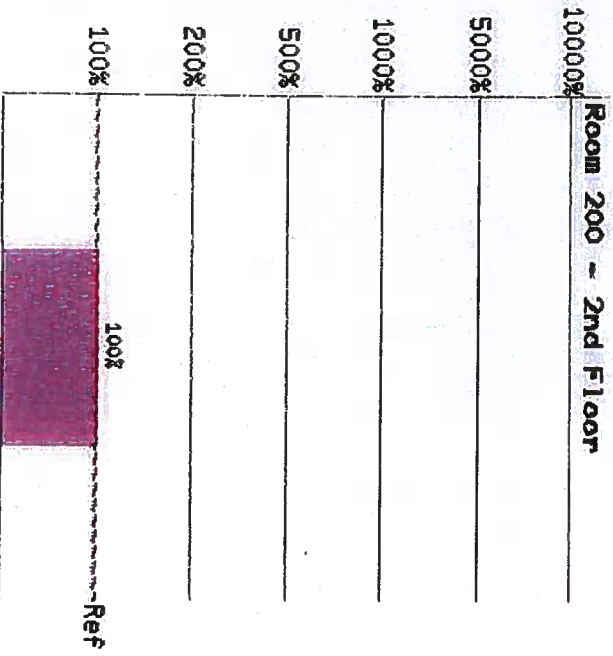
ALIS Environmental Inc.  
1027 Koontz Haven Rd  
Pinnacle, NC 27043  
Phone: (336) 368-4500

HMC #18042452

Graph Addendum

Job Number:	201-1811-02	Job Name:	Harvey Newlin Elementary School	Date Collected:	11/10/2018
Collected by:	Jim McManus		316 Carden St.	Date Received:	11/13/2018
Email:	jmcmanus@alisenvironmental.com		Burlington, NC	Date Reported:	11/13/2018

### Indoor Samples Compared to Outdoor Reference



Legend (100% = Outdoor Reference)  
■ Chaetomium



**HAYES**  
MICROBIAL CONSULTING

**Chain of Custody**  
3005 East Boundary Terrace / Suite F  
Middleham, VA 23112  
Ph. 804.562.3435 Fax. 804.447.5562

HMC Report #  
**042452**

ALIS Environmental, Inc.  
1037 Koonz Haven Rd  
Pinnacle, NC 27043  
Job Number: 201-1811-02  
Harvey Newlin Elementary School  
316 Garden St.  
Burlington, NC  
Date Collected: 11/10/2018  
Collected by: J. McManus  
Email: jmcmanus@alisenvironmental.com

Sample #	Sample Name	Analysis Type	Volume	Turn Around Time	Start / Stop Time
2760765	OUTSIDE BUILDING / BREAK 1ST FLOOR	S	150 LTR	48 HRS	12:02 / 12:32
2760766	OUTSIDE BUILDING / CAFETERIA	S	150 LTR		12:16 / 12:26
2760768	ROOM 102		150 LTR		11:03 / 11:23
2760775	ROOM 108		150		11:20 / 11:30
2760807	ROOM 115		150		11:34 / 11:44
2760776	ROOM 109		150		11:41 / 11:51
2760816	ROOM 105		150		11:56 / 12:00
2760766	GENERAL OFFICE		150		11:55 / 12:05
2760768	ROOM 302 - LIBRARY		150		12:07 / 12:17
2760754	ROOM 305		150		12:14 / 12:24
2127216	CAFETERIA		150		12:03 / 12:13
2760770	Blank				

PAGE 1 OF 2

Analysis Type	Description	Turn Around Time	Acceptable Samples Types
Spore Trap	S Identification & Enumeration of Fungal Spores	24 hours	Spore Trap cassettes, Impact slides
	S+ I & E of Fungal Spores + total dander, fiber and pollen count	24 hours	Spore Trap cassettes, Impact slides
Direct ID	D ID and Semi-quantitative enumeration of spores and mycelium	24 hours	Tape, Bio-tape, swab, bulk, agar plate for ID only
	D+ ID and Enumeration with spore count	24 hours	Tape, Bio-tape, swab, bulk, agar plate for ID only
Culture	C1 Identification & Enumeration of Mold only	7 days	Anderson Air Plate Swab, Bulk
	C2 Identification & Enumeration of Bacteria only	4 days	Anderson Air Plate Swab, Bulk
	C3 Identification & Enumeration of Mold and Bacteria	7 days	Anderson Air Plate Swab, Bulk
Dust Mite	A1 Semi-quantitative analysis of dust mite allergen	24 hours	Bulk Dust

Relinquished By: J. McManus Date: 11/12/2018 Rcvd. By: [Signature] Date: [Signature] Time: [Signature]



**HAYES**  
MICROBIAL CONSULTING

Chain of Custody  
3005 East Boundary Terrace / Suite F  
Midlothian, VA 23112  
Ph. 804.562.3435 Fax: 804.447.5562

HMC Report #  
**042452**

ALIS Environmental, Inc. 1027 Koontz Haven Rd Pinnacle, NC 27043	Job Number: 201-1811-02	Job Name: Harvey Newlin Elementary School 316 Garden St. Burlington, NC	Date Collected: 11/10/2018
Ph: 336.575.2343	Fax:	Collected by: <b>D. McMANUS</b>	Email: <a href="mailto:dmcmannus@alisenvironmental.com">dmcmannus@alisenvironmental.com</a>

Sample #	Sample Name	Analysis Type	Volume	Turn Around Time	Start / Stop Time
2127218	Room 200	S	150 Liters	48 hrs	11:10 / 11:20
2127210	Room 200	S	150 Liters		11:13 / 11:23
2127215	Room 207	S	150 Liters		11:16 / 11:26
2127209	Room 213	S	150 Liters		11:30 / 11:40
2127208	Room 216	S	150 Liters		11:32 / 11:42
2127205	Reading's Room	S	150 Liters		11:35 / 11:45
PAGE 2 of 2					

Analysis Type	Description	Turn Around Time	Acceptable Samples Types
Spore Trap	S Identification & Enumeration of Fungal Spores	24 hours	Spore Trap cassettes, Impact slides
	S+ I & E of Fungal Spores + total dander, fiber, and pollen count	24 hours	Spore Trap cassettes, Impact slides
Direct ID	D ID and Semi-quantitative enumeration of spores and mycelium	24 hours	Tape, Bio-tape, swab, bulk, agar plate for ID only
	D+ ID and Enumeration with spore count	24 hours	Tape, Bio-tape, swab, bulk, agar plate for ID only
Culture	C1 Identification & Enumeration of Mold only	7 days	Anderson Air Plate, Swab, Bulk
	C2 Identification & Enumeration of Bacteria only	4 days	Anderson Air Plate, Swab, Bulk
	C3 Identification & Enumeration of Mold and Bacteria	7 days	Anderson Air Plate, Swab, Bulk
Dust Mite	A1 Semi-quantitative analysis of dust mite allergen	24 hours	Bulk Dust

Notes:

Relinquished By: *[Signature]* Date: *11/13/18* Rcvd. By: *[Signature]* Date: \_\_\_\_\_ Time: \_\_\_\_\_

Temp RH  
76.8 60.8  
69.4 55.4  
70.3 44.2  
71.2 44.1  
71.7 43.5  
72.5 43.9

Corrections by *[Signature]*



Joseph Fuller <jay\_fuller@abss.k12.nc.us>

**Fwd: Just FYI**

4 messages

**Todd Thorpe** <todd\_thorpe@abss.k12.nc.us> Wed, Oct 31, 2018 at 8:20 PM  
To: William Perry <william\_perry@abss.k12.nc.us>, Joseph Fuller <jay\_fuller@abss.k12.nc.us>  
Cc: Jean Maness <jean\_maness@abss.k12.nc.us>

William please check the air quality in the room

Jay have our HVAC guys check this room out again. If they dont find anything contract someone to check it out

----- Forwarded message -----

From: Lawrence Conte <lawrence\_conte@abss.k12.nc.us>  
Date: Wed, Oct 31, 2018, 5:43 PM  
Subject: Fwd: Just FYI  
To: <jean\_maness@abss.k12.nc.us>, Todd Thorpe <todd\_thorpe@abss.k12.nc.us>

Sent from my iPhone

Begin forwarded message:

**From:** Crystal Goddard <crystal\_goddard@abss.k12.nc.us>  
**Date:** October 31, 2018 at 3:29:19 PM EDT  
**To:** Lawrence Conte <lawrence\_conte@abss.k12.nc.us>, Rickeya Jones <rickeya\_jones@abss.k12.nc.us>  
**Subject: Just FYI**

Ms. Michele and I are both sick with sore throats, headaches, and generally unwell. So we went looking through the room again and found mold again. Some in the same spots and some in others. Michele did mention that Mr. Conte came by and asked earlier this week, but we are just seeing it. We have the dehumidifier on all day and it is now being emptied every day.

--  
Crystal Goddard  
Pre-K Teacher  
Harvey R. Newlin Elementary

**2 attachments**



**IMG\_3099.jpg**  
2524K





IMG\_3096.jpg  
1546K

**william\_perry@abss.k12.nc.us** <william\_perry@abss.k12.nc.us>  
To: Todd Thorpe <todd\_thorpe@abss.k12.nc.us>  
Cc: Joseph Fuller <jay\_fuller@abss.k12.nc.us>, Jean Maness <jean\_maness@abss.k12.nc.us>

Thu, Nov 1, 2018 at 6:21 AM

I'll be glad to if I had a room number, so I'll go seek and find

Sent from my iPhone

[Quoted text hidden]

<IMG\_3099.jpg>

<IMG\_3096.jpg>

**Todd Thorpe** <todd\_thorpe@abss.k12.nc.us>  
To: William Perry <william\_perry@abss.k12.nc.us>  
Cc: Joseph Fuller <jay\_fuller@abss.k12.nc.us>, Jean Maness <jean\_maness@abss.k12.nc.us>

Thu, Nov 1, 2018 at 6:31 AM

We'll put your hound dog nose on and run it down. PreK classroom where we had problems earlier.

Todd

[Quoted text hidden]

**william\_perry@abss.k12.nc.us** <william\_perry@abss.k12.nc.us>  
To: Todd Thorpe <todd\_thorpe@abss.k12.nc.us>  
Cc: Joseph Fuller <jay\_fuller@abss.k12.nc.us>, Jean Maness <jean\_maness@abss.k12.nc.us>

Thu, Nov 1, 2018 at 6:41 AM

Headed there now, tail wagging

Sent from my iPhone

[Quoted text hidden]



Joseph Fuller <jay\_fuller@abss.k12.nc.us>

## Mold

2 messages

**william\_perry@abss.k12.nc.us** <william\_perry@abss.k12.nc.us>

Fri, Apr 8, 2016 at 4:57 PM

To: Jay fuller <jay\_fuller@abss.k12.nc.us>

Cc: Steve Williams <steve\_williams@abss.k12.nc.us>

Hi Jay,

This is definitely mold in the fine arts hall and art room. In the art room there is also water stains inside the light, this may be coming from a roof leak. It will have to be checked out.

Thanks,

William

Sent from my iPhone

### 2 attachments



**IMG\_0141.JPG**  
88K



**IMG\_0140.JPG**  
84K

**jay\_fuller@abss.k12.nc.us** <jay\_fuller@abss.k12.nc.us>

Fri, Apr 8, 2016 at 5:08 PM

To: william\_perry@abss.k12.nc.us

Cc: Steve Williams <steve\_williams@abss.k12.nc.us>

Thanks, we will check it out.

Jay Fuller  
Director of Facilities and Maintenance  
Alamance-Burlington School System  
Office-336-570-6482  
Cell-336-516-3322

[Quoted text hidden]

<IMG\_0141.JPG>

<IMG\_0140.JPG>

Sent from my iPhone



Joseph Fuller <jay\_fuller@abss.k12.nc.us>

---

## Mildew Smell in New Building

5 messages

---

**Gregory Holland** <gregory\_holland@abss.k12.nc.us>  
To: Joseph Fuller <jay\_fuller@abss.k12.nc.us>

Mon, Mar 14, 2016 at 11:02 AM

Jay,

We are noticing a very strong mildew in the "Brave Cave" (new 8th grade wing). It was noticeable Friday, and it is stronger today. Please have someone come out and check on the air quality and see if the source of the smell can be located. I don't want our kids or staff exposed to mold or mildew.

I can put in a work order also if needed, I just thought this might be quicker.

Thank You!

—  
Greg Holland  
Principal  
Western Middle School

---

**jay\_fuller@abss.k12.nc.us** <jay\_fuller@abss.k12.nc.us>  
To: Gregory Holland <gregory\_holland@abss.k12.nc.us>

Mon, Mar 14, 2016 at 11:24 AM

Greg,

Contacted the plumbing crew, they will check it out.

Jay Fuller  
Director  
of Facilities and Maintenance  
Alamance-Burlington School System  
Office-336-570-6482  
Cell-336-516-3322

[Quoted text hidden]

---

**Gregory Holland** <gregory\_holland@abss.k12.nc.us>  
To: Joseph Fuller <jay\_fuller@abss.k12.nc.us>

Mon, Mar 14, 2016 at 11:26 AM

I appreciate the quick response. Thanks Jay!

[Quoted text hidden]

---

**jay\_fuller@abss.k12.nc.us** <jay\_fuller@abss.k12.nc.us>  
To: Gregory Holland <gregory\_holland@abss.k12.nc.us>

Mon, Mar 14, 2016 at 11:32 AM

They have another work order for a hot water pump, made a work order for the smell.

Jay Fuller  
Director  
of Facilities and Maintenance

**Alamance-Burlington School System**

Office-336-570-6482

Cell-336-516-3322

[Quoted text hidden]

---

**Greg Holland** <gregory\_holland@abss.k12.nc.us>

To: jay\_fuller@abss.k12.nc.us

Mon, Mar 14, 2016 at 12:00 PM

**Thanks**

**Greg Holland**

**Principal**

**Western Middle School**

[Quoted text hidden]