



# Liberty OHM

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September 14<sup>th</sup>, 2015

Mr. Marty Foutch  
Facilities Director  
Bixby Public Schools  
109 N. Armstrong  
Bixby, OK 74008

CC: Jarred Doubrava  
Operations Support Manager/District Safety Coordinator

**RE: Focused Inspection of:**

- **Bixby North Elementary – Rooms 229, 230, 231 and 232**

Dear Mr. Foutch:

On September 4<sup>th</sup>, 2015, Liberty OHM visited Bixby North Elementary to conduct quality assurance testing. The testing at the above location was in response to concerns expressed by parents of Bixby Public Schools students.

The following observations were noted:

- Approval for inspections/sampling was relayed to Liberty OHM through Marty Foutch pertaining to Rooms 229, 230, 231, and 232 at North Elementary. An inspection of the rooms was conducted. No signs of water intrusion or damage were present. No staining or visible mold was found on building materials (walls, floors, ceilings, etc.).
- An air sample was taken in each of the above mentioned rooms as well as an outside reference. Lab results from the September 4<sup>th</sup> sampling did not reveal any significantly elevated airborne fungi in the selected rooms. No significantly elevated concentrations of the water intrusion/indicator molds *Penicillium*/*Aspergillus*, *Chaetomium*, *Stachybotrys*, or other water intrusion/indicator molds were found in the rooms.

Lab results are provided below.

**Recommendations**

- No recommendations are provided at this time.

**Disclaimer**

Bixby North Elementary – Focused IAQ Inspection  
Liberty OHM File Number 15-183  
Survey Date: 9/4/2015  
Page 2

Liberty OHM makes no assertion as to the health risks associated with the levels reported in this report. We make no correlation that the levels reported are safe for occupancy or do not pose a risk from exposure. We advise you, our client to consult with an Occupational Health or other qualified physician for additional information and guidance.

If you have questions or need additional information, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Jack Kerr", written over a light blue horizontal line.

Jack Kerr, B.S.  
EH&S Project Manager  
Liberty OHM

<b>Table 1</b> <b>Bixby North Elementary</b> <b>Spore Trap Analysis</b> <b>Sampling Date: 9/4/2015</b>					
<b>Location</b>	<b>Total spores/m3</b>	<b>Species</b>	<b>Raw count</b>	<b>Calc. count</b>	<b>% of total</b>
1: 232	860	Cladosporium	44	290	34
		Penicillium/Aspergillus types	22	150	17
		Basidiospores	17	110	13
		Pithomyces	11	73	9
		Bipolaris/Drechslera group	8	53	6
		Curvularia	7	47	5
		Smuts, Periconia, Myxomycetes	6	40	5
		Other brown	4	27	3
		Ascospores	4	27	3
		Alternaria	4	27	3
		Nigrospora	2	13	2
2: 230	830	Penicillium/Aspergillus types	63	420	51
		Cladosporium	19	130	15
		Pithomyces	16	110	13
		Bipolaris/Drechslera group	8	53	6
		Other brown	5	33	4
		Curvularia	4	27	3
		Basidiospores	4	27	3
		Ascospores	3	20	2
		Nigrospora	1	7	1
		Alternaria	1	7	1
3: 229	260	Penicillium/Aspergillus types	17	110	44
		Cladosporium	11	73	28
		Pithomyces	7	47	18
		Smuts, Periconia, Myxomycetes	2	13	5
		Basidiospores	1	7	3
		Ascospores	1	7	3

<b>Table 1</b> <b>Bixby North Elementary</b> <b>Spore Trap Analysis</b> <b>Sampling Date: 9/4/2015</b>					
<b>Location</b>	<b>Total spores/m3</b>	<b>Species</b>	<b>Raw count</b>	<b>Calc. count</b>	<b>% of total</b>
4: 231	540	Penicillium/Aspergillus types	46	310	57
		Cladosporium	17	110	21
		Pithomyces	8	53	10
		Other brown	2	13	2
		Bipolaris/Drechslera group	2	13	2
		Alternaria	2	13	2
		Torula	1	7	1
		Curvularia	1	7	1
		Basidiospores	1	7	1
		Ascospores	1	7	1
5: Outside Reference	6,500	Cladosporium	67	4,500	69
		Basidiospores	149	990	15
		Ascospores	68	450	7
		Penicillium/Aspergillus types	56	370	6
		Smuts, Periconia, Myxomycetes	18	120	2
		Cercospora	13	87	1
		Curvularia	2	13	< 1
		Bipolaris/Drechslera group	1	7	< 1
		Alternaria	1	7	< 1



Liberty OHM

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## **APPENDIX A**

## **LABORATORY RESULTS**



Report for:

**Jack Kerr**  
**Liberty OHM**  
1211 E 39th St  
Tulsa, OK 74105

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Regarding: Project: 15-183; Bixby North Elementary  
EML ID: 1420792

Approved by:

Dates of Analysis:  
Spore trap analysis: 09-10-2015

Operations Manager  
Joshua Cox

Service SOPs: Spore trap analysis (EM-MY-S-1038)  
AIHA-LAP, LLC accredited service, Lab ID #102297

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All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Liberty OHM  
C/O: Jack Kerr  
Re: 15-183; Bixby North Elementary

Date of Sampling: 09-04-2015  
Date of Receipt: 09-08-2015  
Date of Report: 09-10-2015

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	1: 232				2: 230				3: 229			
Comments (see below)	None				None				None			
Lab ID-Version‡:	6544479-1				6544480-1				6544481-1			
Analysis Date:	09/10/2015				09/10/2015				09/10/2015			
Sample volume (liters)	150				150				150			
Background debris (1-4+)††	3+				3+				3+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments	10	67	7	n/a	15	100	7	n/a	3	20	7	n/a
Pollen									1	7	7	n/a
<b>§ TOTAL FUNGAL SPORES</b>	129	860	n/a	100	124	830	n/a	100	39	260	n/a	100
Alternaria	4	27	7	3	1	7	7	1				
Ascospores	4	27	7	3	3	20	7	2	1	7	7	3
Basidiospores	17	110	7	13	4	27	7	3	1	7	7	3
Bipolaris/Drechslera group	8	53	7	6	8	53	7	6				
Chaetomium												
Cladosporium	44	290	7	34	19	130	7	15	11	73	7	28
Curvularia	7	47	7	5	4	27	7	3				
Nigrospora	2	13	7	2	1	7	7	1				
Other brown	4	27	7	3	5	33	7	4				
Penicillium/Aspergillus types	22	150	7	17	63	420	7	51	17	110	7	44
Pithomyces	11	73	7	9	16	110	7	13	7	47	7	18
Smuts, Periconia, Myxomycetes	6	40	7	5					2	13	7	5
Stachybotrys												

#### Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

\*The DL/m3 has been rounded to a whole number.

††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher then reported. It is important to account for samples volumes when evaluating dust levels.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

§ Total Fungal Spores has been rounded to two significant figures to reflect analytical precision.

Client: Liberty OHM  
C/O: Jack Kerr  
Re: 15-183; Bixby North Elementary

Date of Sampling: 09-04-2015  
Date of Receipt: 09-08-2015  
Date of Report: 09-10-2015

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	4: 231				5: Outside Reference			
Comments (see below)	None				None			
Lab ID-Version‡:	6544482-1				6544483-1			
Analysis Date:	09/10/2015				09/10/2015			
Sample volume (liters)	150				150			
Background debris (1-4+)††	3+				2+			
	Count	Count/m3	DL/m3*	%	Count	Count/m3	DL/m3*	%
Hyphal fragments	3	20	7	n/a	10	67	7	n/a
Pollen	1	7	7	n/a	1	7	7	n/a
<b>§ TOTAL FUNGAL SPORES</b>	81	540	n/a	100	375	6,500	n/a	100
Alternaria	2	13	7	2	1	7	7	< 1
Ascospores	1	7	7	1	68	450	7	7
Basidiospores	1	7	7	1	149	990	7	15
Bipolaris/Drechslera group	2	13	7	2	1	7	7	< 1
Cercospora					13	87	7	1
Chaetomium								
Cladosporium	17	110	7	21	67	4,500	67	69
Curvularia	1	7	7	1	2	13	7	< 1
Other brown	2	13	7	2				
Penicillium/Aspergillus types	46	310	7	57	56	370	7	6
Pithomyces	8	53	7	10				
Smuts, Periconia, Myxomycetes					18	120	7	2
Stachybotrys								
Torula	1	7	7	1				

**Comments:**

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

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Weather	Fog	Rain	Snow	Wind	Clear
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Light	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Moderate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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REQUESTED SE  
(Use checkboxes)

Non-Culturable		Culturable		Other Requests
Spore Trap	Bo-Cassette™, Andersen, SAS, Swab, Water, Bulk, Dust, Soil, Contact Plates	Bo-Cassette™, Andersen, SAS, Swab, Water, Bulk, Dust, Soil, Contact Plates		
Spore Trap	1-Media Surface Fungi (Genus ID + Asp. spp.)	1-Media Surface Fungi (Genus ID + Asp. spp.)		
Spore Trap	2-Media Surface Fungi (Genus ID + Asp. spp.)	2-Media Surface Fungi (Genus ID + Asp. spp.)		
Spore Trap	3-Media Surface Fungi (Genus ID + Asp. spp.)	3-Media Surface Fungi (Genus ID + Asp. spp.)		
Spore Trap	Culturable Air Fungi (Genus ID + Asp. spp.)	Culturable Air Fungi (Genus ID + Asp. spp.)		
Spore Trap	Gram Stain & Counts (Culturable Air & Surface Bacteria)	Gram Stain & Counts (Culturable Air & Surface Bacteria)		
Spore Trap	Legionella culture	Legionella culture		
Spore Trap	Total Coliform, E. coli (Preservative/Absence)	Total Coliform, E. coli (Preservative/Absence)		
Spore Trap	Membrane Filtration (specify organism)	Membrane Filtration (specify organism)		
Spore Trap	MFCN Bacteria (specify organism)	MFCN Bacteria (specify organism)		
Spore Trap	QuantTray - Bewage Screen	QuantTray - Bewage Screen		
Spore Trap	Asbestos Analysis - PCM Airborne Fiber Count (NIOSH 7400)	Asbestos Analysis - PCM Airborne Fiber Count (NIOSH 7400)		
Spore Trap	Asbestos Analysis - PLM (EPA method 800/R-93-116)	Asbestos Analysis - PLM (EPA method 800/R-93-116)		
Spore Trap	PCR (specify test)	PCR (specify test)		

CONTACT INFORMATION			
Company	Liberty OHM (12589)		
Contact	Jack Kerr		
Phone	918-742-1567		
Special Instructions:			
PROJECT INFORMATION		TURN AROUND TIME CODES (TAT)	
Project ID:	15-103	STD - Standard (DEFAULT)	Business received after 2 pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.
Project Description:	Barry North Elementary	ND - Next Business Day	
Project Zip Code:		SD - Same Business Day Rush	
PO Number:		WH - Weekend / Holiday	
Sample ID	Description	Sample Type (Batch)	Total Volume / Area (as applicable)
1	232	ST	160L
3	230		
4	229		
5	231		
	Outside Reference		

SAMPLE TYPE CODES				RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
BC - BioCassette™	ST - Spore Trap, Zefon, Allergenco, Burkard ...	T - Tape	D - Dust	[Signature]	9/15/15	[Signature]	9/15/15
AS - Andersen	P - Potable Water	SW - Swab	SO - Soil				
SAS - Surface Air Sampler	NP - Non-Potable Water	B - Bulk					
CP - Contact Plate		O - Other:					

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Doc. #152 Rev. 28 Revised 05/10 Page 1 of 1, 04