



# EXPANDED FUNGAL REPORT <sup>TM</sup>

## Prepared Exclusively For

GeoEarth Env Sampling Prof (GEEPS)

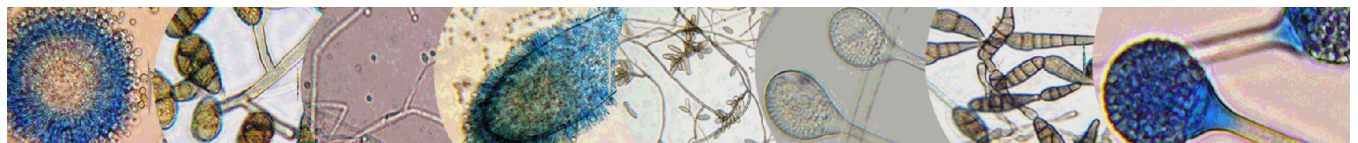
1717 East Vista Chino

Unit # 7-PMB215

Palm Springs, CA 92262

Phone:855-426-2742

**Report Date:** 2/24/2020  
**Project:** Linda 58137-PT-0220-2M  
**LA Testing Order:** 712000356



This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report. Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825

Fax: (909) 295-6826

Web: <http://www.LATesting.com>

Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

EMSL Order: 712000356  
Customer ID: 32GEPS26  
Collected: 2/21/2020  
Received: 2/21/2020  
Analyzed: 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## 1. Description of Analysis

### Analytical Laboratory

LA Testing (LA Testing) is a nationwide, full service, analytical testing laboratory network providing Asbestos, Mold, Indoor Air Quality, Microbiological, Environmental, Chemical, Forensic, Materials, Industrial Hygiene and Mechanical Testing services since 1981. Ranked as the premier independently owned environmental testing laboratory in the nation, LA Testing puts analytical quality as its top priority. This quality is recognized by many well-respected federal, state and private accrediting agencies, and assured by our high quality personnel, including many Ph.D. microbiologists and mycologists.

LA Testing is an independent laboratory that performed the analysis of these samples. LA Testing did not conduct the sampling or site investigation for this report. The samples referenced herein were analyzed under strict quality control procedures using state-of-the-art microbiological methods. The analytical methods used and the data presented are scientifically and legally defensible.

The laboratory data is provided in compliance with ISO-IEC 17025 guidelines for the particular test(s) requested, including any associated limitations for the methods employed. These data are intended for use by professionals having knowledge of the testing methods necessary to interpret them accurately.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report.

Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing. All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



## LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825

Fax: (909) 295-6826

Web: <http://www.LATesting.com>

Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

EMSL Order: 712000356  
Customer ID: 32GEPS26  
Collected: 2/21/2020  
Received: 2/21/2020  
Analyzed: 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

### Air Samples - Spore traps:

Spore traps are commercially available sampling devices that capture airborne particles on an adhesive slide. Air is pulled through the device using a vacuum pump. Spores, as well as other airborne particles, are impacted on the collection adhesive. Using spore trap collection methods has inherent limitations. These collection methods are biased towards larger spore sizes.

The analysis for total spore counts is a direct microscopic examination and does not include culturing or growing the fungi. Therefore, the results include both viable and non-viable spores. Some fungal groups produce similar spore types that cannot be distinguished by direct microscopic examination alone (i.e., *Aspergillus/Penicillium*, and others). Other spore types may lack distinguishing features that aid in their identification. These types are grouped into larger categories such as Ascospores or Basidiospores.

Fungal spores are identified and grouped by morphological characteristics including color, shape, septation, ornamentation, and fruiting structures (if present) which are compared to published mycological identification keys and texts. LA Testing reports provide spore counts per cubic meter of air to three significant figures. Please note that each spore category is reported to three significant figures. Due to rounding and the application of three significant figures the sum of the individual spore numbers may not equal the total spore count on the report. LA Testing does not maintain responsibility for final volume concentrations (counts/m<sup>3</sup>) since this volume is provided by the field collector and can not be verified by LA Testing.

LA Testing analyzes spore traps using phase contrast microscopy. There is a wide choice of collection devices (Air-O-Cell, Micro-5, Burkhard, etc.) on the market. Differences in analytical method may exist between spore trap devices.

Spore trap results are reported in spores per cubic meter of air. Due to the other airborne particles collected with the spores, LA Testing reports a background particle density. Background density is an indication of overall particulate matter present on the sample (i.e. dust in the air). High background concentrations may obscure spores such as the *Penicillium/Aspergillus* group. The rating system is from 1-5 with 1 = 1 - 25% of the background obscured by material, 2 = 26 - 50%, 3 = 51 - 75%, 4 = 76% - 99%, 5 = 100% or overloaded. A background rating of 4 or higher should be regarded as a minimum count since the actual concentrations may be higher than those reported. LA Testing will not be held responsible for overloading of samples. Sample volumes are left to the discretion of the company or persons conducting the fieldwork.

Skin fragment density is the percentage of skin cells making up the total background material, 1 = 1 - 25%, 2 = 26 - 50%, 3 = 51 - 75%, 4 = 76-100%. Skin fragment density is considered an indication of the general cleanliness in the area sampled. It has been estimated that up to 90% of household dust consists of dead skin cells.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report.

Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825 Fax: (909) 295-6826 Web: <http://www.LATesting.com> Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

EMSL Order: 712000356  
Customer ID: 32GEPS26  
Collected: 2/21/2020  
Received: 2/21/2020  
Analyzed: 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## 2. Analytical Results

See attached data reports and charts.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825

Fax: (909) 295-6826

Web: <http://www.LATesting.com>

Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

**EMSL Order:** 712000356  
**Customer ID:** 32GEPS26  
**Collected:** 2/21/2020  
**Received:** 2/21/2020  
**Analyzed:** 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	712000356-0001	712000356-0002	712000356-0003	712000356-0004	712000356-0005
Client Sample ID:	1X Ext Air	2X Ext Air	3 Int Air	4 Int Air	5 Int Air
Volume (L):	75	75	75	75	75
Sample Location:	Front of home	Back of home	Living room	Bath room	Master closet
Spore Types	Count/m <sup>3</sup>	Count/m <sup>3</sup>	Count/m <sup>3</sup>	Count/m <sup>3</sup>	Count/m <sup>3</sup>
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	40	-	-	-
Aspergillus/Penicillium	90	-	-	-	-
Basidiospores	-	90	-	-	-
Bipolaris++	-	-	-	-	-
Chaetomium	10*	-	-	-	-
Cladosporium	100	-	-	-	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	30*	-	-	-
Pithomyces++	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniell	10*	-	-	-	-
Unidentifiable Spores	-	90	-	40	-
Zygomycetes	-	-	-	-	-
<b>Total Fungi</b>	<b>210</b>	<b>250</b>	<b>None Detected</b>	<b>40</b>	<b>None Detected</b>
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	90	-	-	-
Pollen	90	-	-	-	-
Analyt. Sensitivity 600x	43	43	43	43	43
Analyt. Sensitivity 300x	13*	13*	13*	13*	13*
Skin Fragments (1-4)	1	2	1	1	1
Fibrous Particulate (1-4)	1	1	1	1	1
Background (1-5)	2	3	1	1	2

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.

Carolynn Tom, Laboratory Manager  
or Other Approved Signatory

Samples received in good condition unless otherwise noted. High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. \*\*\* Denotes particles found at 300X. \*\* Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL 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 EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the result, it will be noted on the report. Samples analyzed by LA Testing Ontario, CA

Initial report from: 02/24/2020 09:23:16

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report. Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825

Fax: (909) 295-6826

Web: <http://www.LATesting.com>

Email: [InlandEmpireLab@latestesting.com](mailto:InlandEmpireLab@latestesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

**EMSL Order:** 712000356  
**Customer ID:** 32GEPS26  
**Collected:** 2/21/2020  
**Received:** 2/21/2020  
**Analyzed:** 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

**Test Report: Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)**

<b>Lab Sample Number:</b>	<b>712000356-0006</b>			
<b>Client Sample ID:</b>	<b>6 Int Air</b>			
<b>Volume (L):</b>	<b>75</b>			
<b>Sample Location:</b>	<b>Master bedroom</b>			
<b>Spore Types</b>	Count/m <sup>3</sup>			
Alternaria (Ulocladium)	-			
Ascospores	-			
Aspergillus/Penicillium	40			
Basidiospores	-			
Bipolaris++	-			
Chaetomium	-			
Cladosporium	-			
Curvularia	-			
Epicoccum	-			
Fusarium	-			
Ganoderma	-			
Myxomycetes++	-			
Pithomyces++	-			
Rust	-			
Scopulariopsis/Microascus	-			
Stachybotrys/Memnoniell	-			
Unidentifiable Spores	-			
Zygomycetes	-			
<b>Total Fungi</b>	<b>40</b>			
Hyphal Fragment	-			
Insect Fragment	40			
Pollen	-			
Analyt. Sensitivity 600x	43			
Analyt. Sensitivity 300x	13*			
Skin Fragments (1-4)	1			
Fibrous Particulate (1-4)	1			
Background (1-5)	3			

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.

Carolynn Tom, Laboratory Manager  
or Other Approved Signatory

Samples received in good condition unless otherwise noted. High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. \*\*\* Denotes particles found at 300X. \*\* Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL 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 EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the result, it will be noted on the report. Samples analyzed by LA Testing Ontario, CA

Initial report from: 02/24/2020 09:23:16

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report. Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825

Fax: (909) 295-6826

Web: <http://www.LATesting.com>

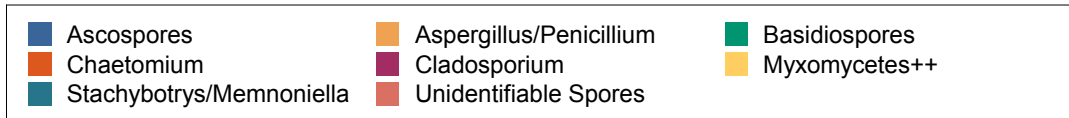
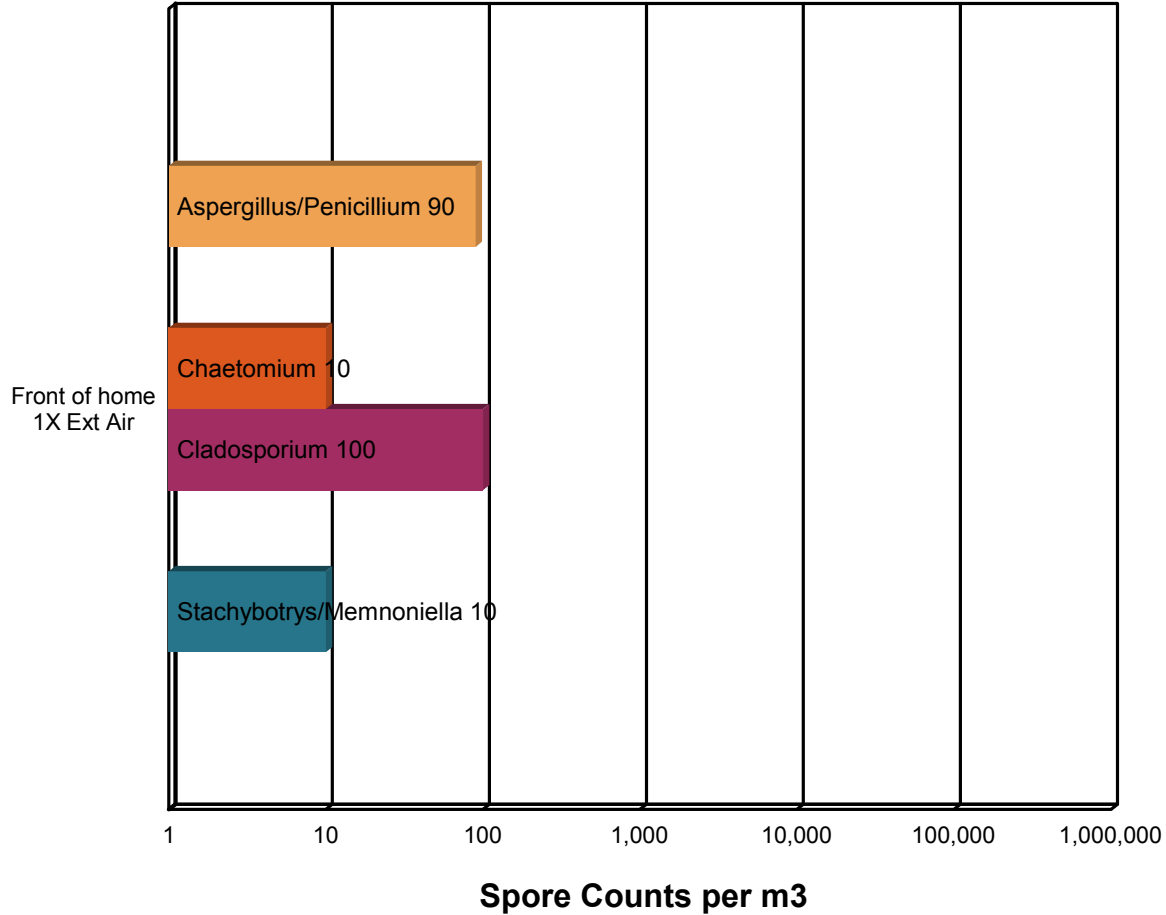
Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

**EMSL Order:** 712000356  
**Customer ID:** 32GEPS26  
**Collected:** 2/21/2020  
**Received:** 2/21/2020  
**Analyzed:** 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## Spore Trap Report: Total Counts



\* The chart is displayed using a logarithmic scale. Bar size is not directly proportional to the number of spores.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report. Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825

Fax: (909) 295-6826

Web: <http://www.LATesting.com>

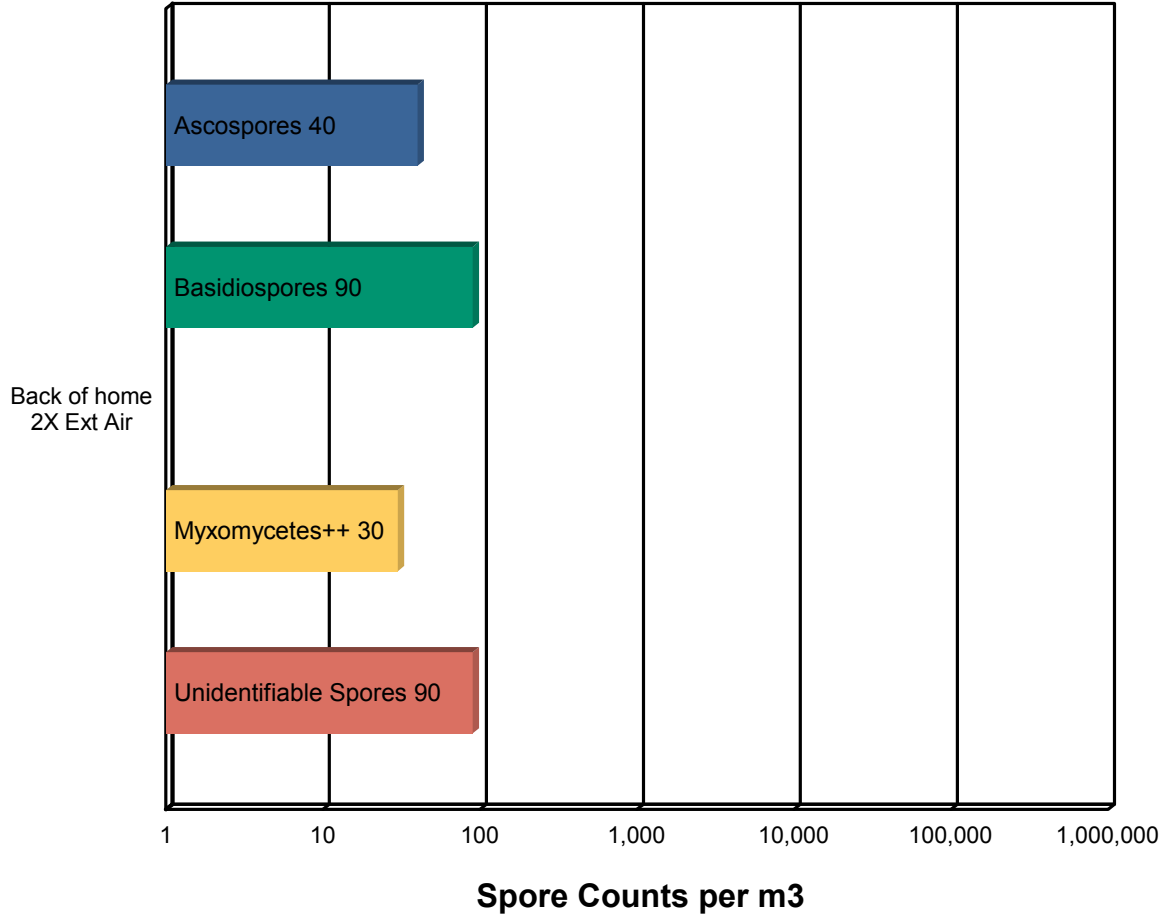
Email: [InlandEmpireLab@lateesting.com](mailto:InlandEmpireLab@lateesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

**EMSL Order:** 712000356  
**Customer ID:** 32GEPS26  
**Collected:** 2/21/2020  
**Received:** 2/21/2020  
**Analyzed:** 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## Spore Trap Report: Total Counts



Ascospores	Aspergillus/Penicillium	Basidiospores
Chaetomium	Cladosporium	Myxomycetes++
Stachybotrys/Memnoniella	Unidentifiable Spores	

\* The chart is displayed using a logarithmic scale. Bar size is not directly proportional to the number of spores.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report.

Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.





# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

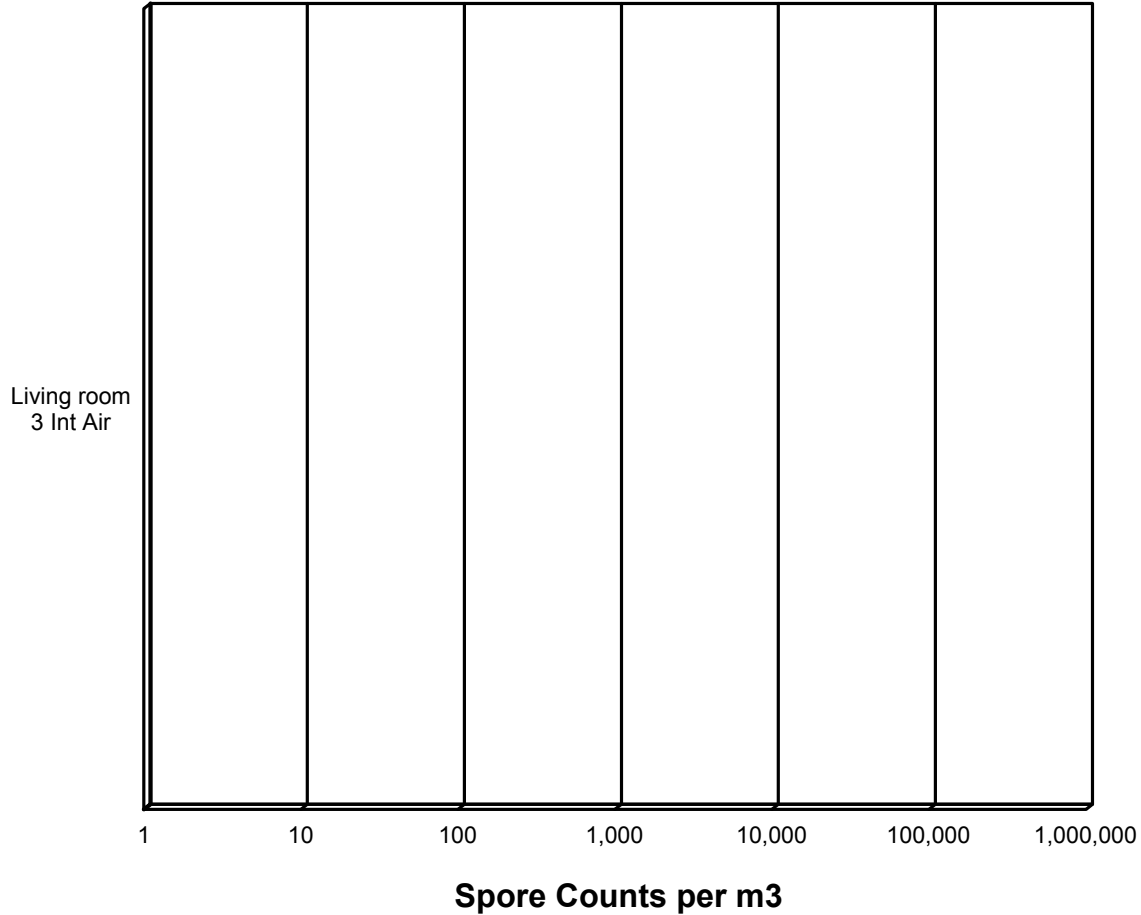
Phone: (909)-295-6825 Fax: (909) 295-6826 Web: <http://www.LATesting.com> Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

EMSL Order: 712000356  
Customer ID: 32GEPS26  
Collected: 2/21/2020  
Received: 2/21/2020  
Analyzed: 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## Spore Trap Report: Total Counts



■ Ascospores	■ Aspergillus/Penicillium	■ Basidiospores
■ Chaetomium	■ Cladosporium	■ Myxomycetes++
■ Stachybotrys/Memnoniella	■ Unidentifiable Spores	

\* The chart is displayed using a logarithmic scale. Bar size is not directly proportional to the number of spores.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report. Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

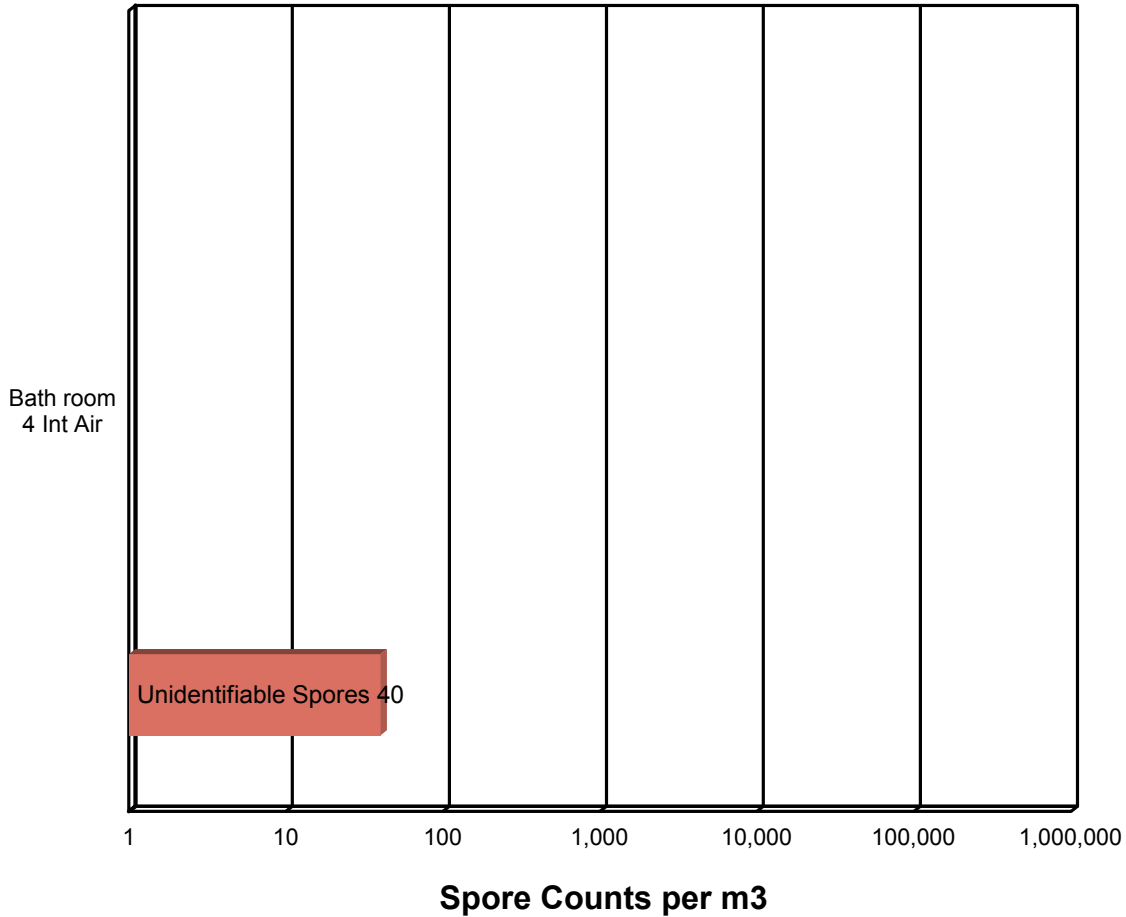
Phone: (909)-295-6825 Fax: (909) 295-6826 Web: <http://www.LATesting.com> Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

**EMSL Order:** 712000356  
**Customer ID:** 32GEPS26  
**Collected:** 2/21/2020  
**Received:** 2/21/2020  
**Analyzed:** 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## Spore Trap Report: Total Counts



■ Ascospores	■ Aspergillus/Penicillium	■ Basidiospores
■ Chaetomium	■ Cladosporium	■ Myxomycetes++
■ Stachybotrys/Memnoniella	■ Unidentifiable Spores	

\* The chart is displayed using a logarithmic scale. Bar size is not directly proportional to the number of spores.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report. Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

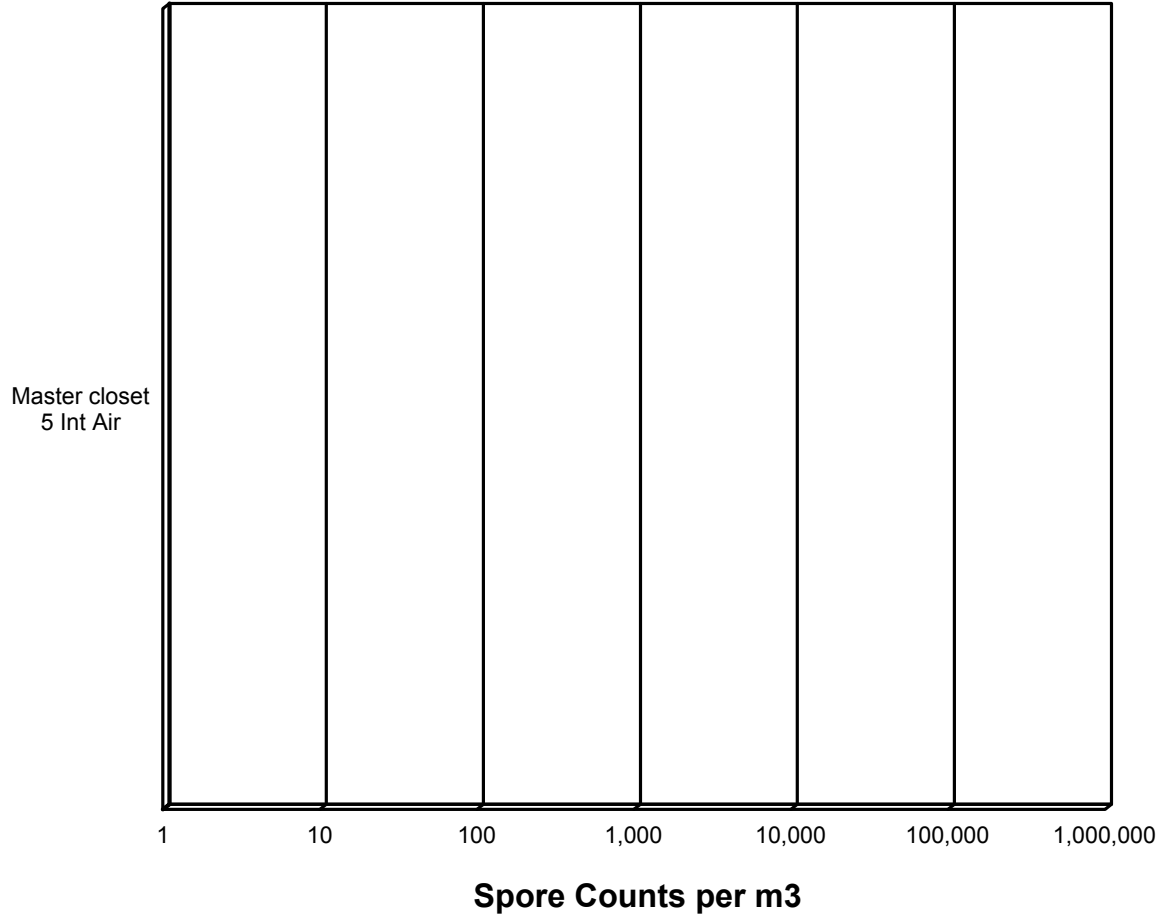
Phone: (909)-295-6825 Fax: (909) 295-6826 Web: <http://www.LATesting.com> Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

EMSL Order: 712000356  
Customer ID: 32GEPS26  
Collected: 2/21/2020  
Received: 2/21/2020  
Analyzed: 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## Spore Trap Report: Total Counts



■ Ascospores	■ Aspergillus/Penicillium	■ Basidiospores
■ Chaetomium	■ Cladosporium	■ Myxomycetes++
■ Stachybotrys/Memnoniella	■ Unidentifiable Spores	

\* The chart is displayed using a logarithmic scale. Bar size is not directly proportional to the number of spores.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report. Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

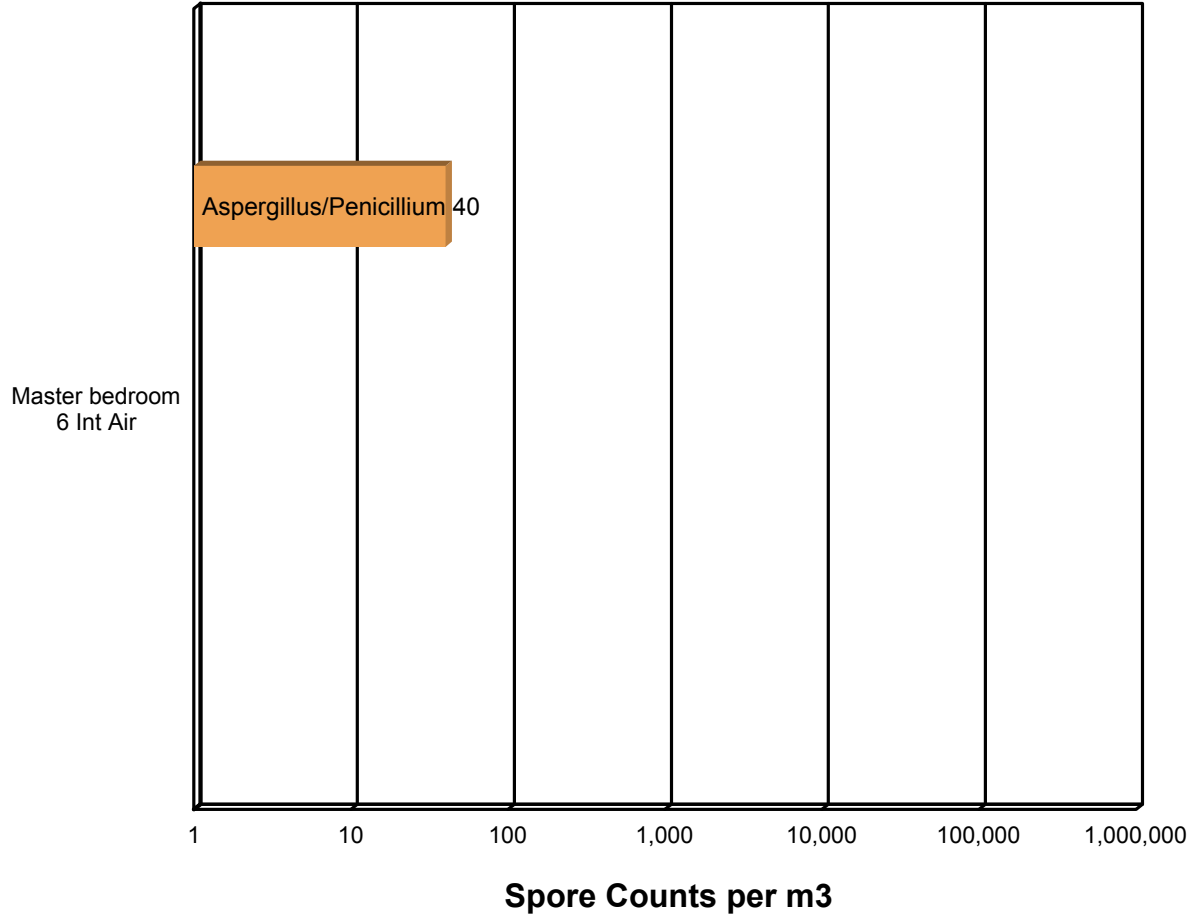
Phone: (909)-295-6825 Fax: (909) 295-6826 Web: <http://www.LATesting.com> Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

**EMSL Order:** 712000356  
**Customer ID:** 32GEPS26  
**Collected:** 2/21/2020  
**Received:** 2/21/2020  
**Analyzed:** 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## Spore Trap Report: Total Counts



Ascospores	Aspergillus/Penicillium	Basidiospores
Chaetomium	Cladosporium	Myxomycetes++
Stachybotrys/Memnoniella	Unidentifiable Spores	

\* The chart is displayed using a logarithmic scale. Bar size is not directly proportional to the number of spores.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report. Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825

Fax: (909) 295-6826

Web: <http://www.LATesting.com>

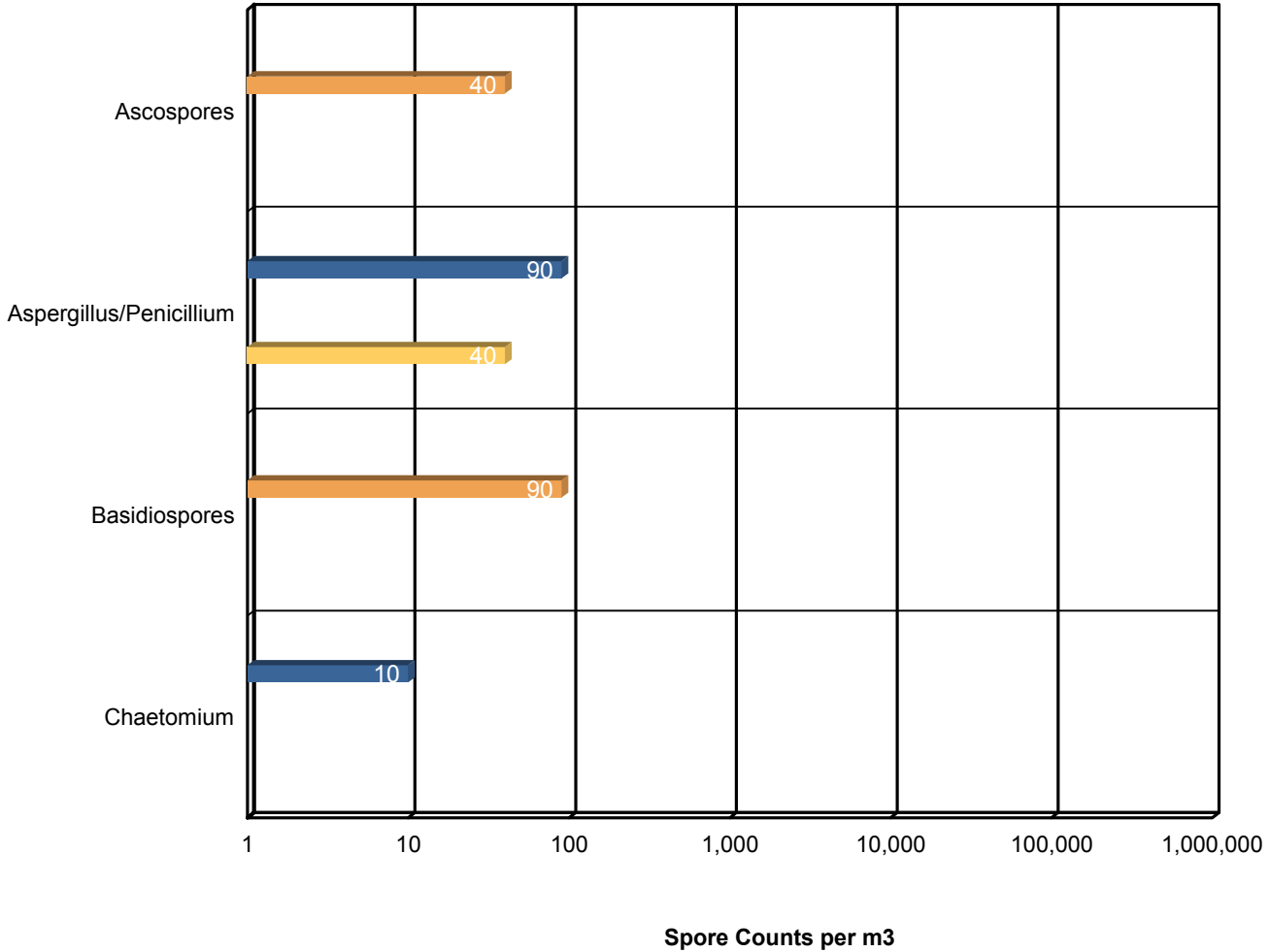
Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

EMSL Order: 712000356  
Customer ID: 32GEPS26  
Collected: 2/21/2020  
Received: 2/21/2020  
Analyzed: 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## Background Comparison Chart



1X Ext Air Front of home	2X Ext Air Back of home	3 Int Air Living room
4 Int Air Bath room	5 Int Air Master closet	6 Int Air Master bedroom

\* The chart is displayed using a logarithmic scale. The bar size is not directly proportional to the number of spores.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report.

Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

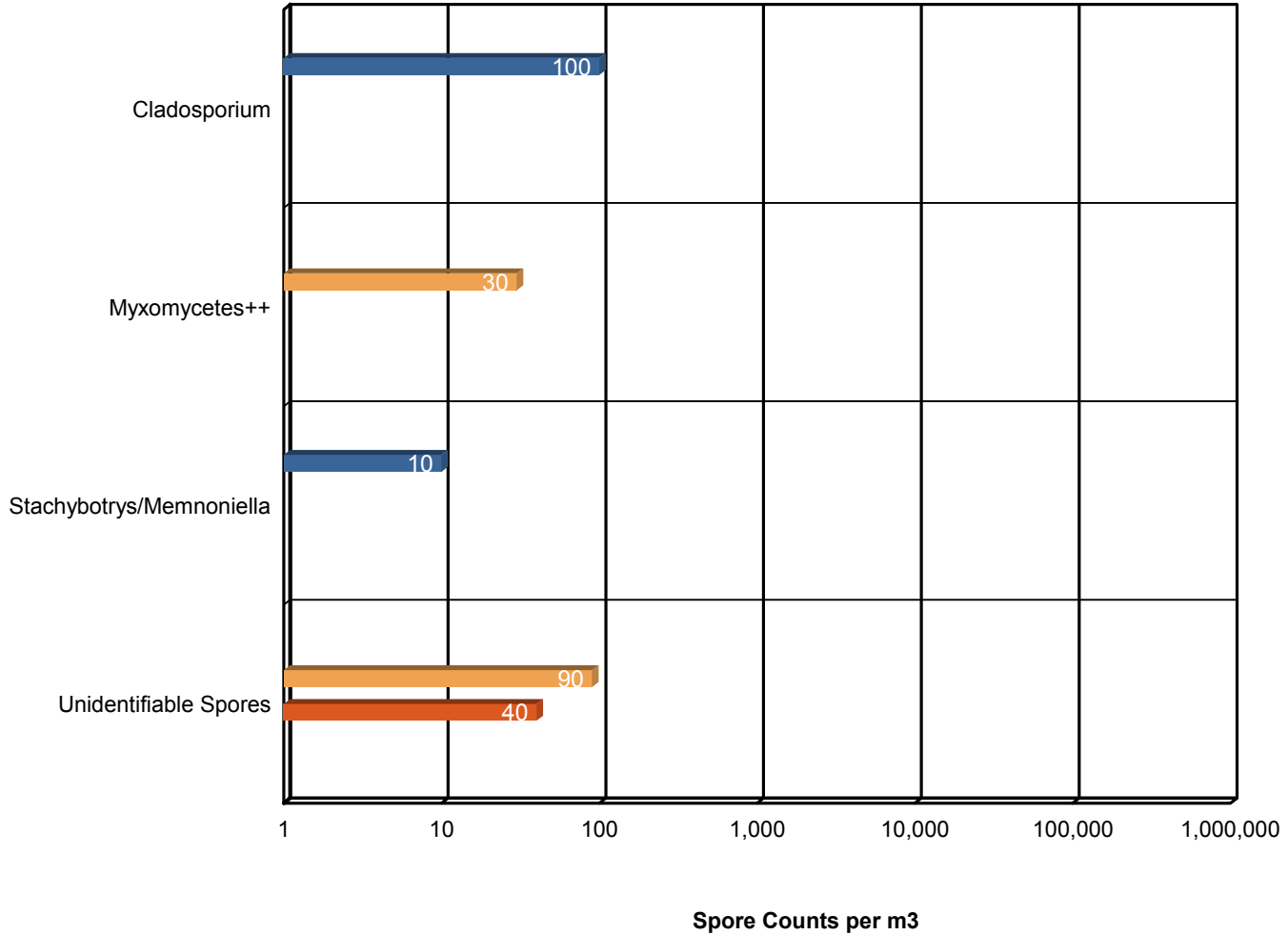
Phone: (909)-295-6825 Fax: (909) 295-6826 Web: <http://www.LATesting.com> Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

EMSL Order: 712000356  
Customer ID: 32GEPS26  
Collected: 2/21/2020  
Received: 2/21/2020  
Analyzed: 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## Background Comparison Chart



1X Ext Air Front of home	2X Ext Air Back of home	3 Int Air Living room
4 Int Air Bath room	5 Int Air Master closet	6 Int Air Master bedroom

\* The chart is displayed using a logarithmic scale. The bar size is not directly proportional to the number of spores.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report. Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



## LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825

Fax: (909) 295-6826

Web: <http://www.LATesting.com>

Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

EMSL Order: 712000356  
Customer ID: 32GEPS26  
Collected: 2/21/2020  
Received: 2/21/2020  
Analyzed: 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

### 3. Understanding the Results

LA Testing is an independent laboratory, providing unbiased and scientifically valid results. These data represent only a portion of an overall IAQ investigation. Visual information and environmental conditions measured during the site assessment (humidity, moisture readings, etc.) are crucial to any final interpretation of the results. Many factors impact the final results; therefore, result interpretation should only be conducted by qualified individuals. The American Conference of Governmental Industrial Hygienists (ACGIH) has published a good reference book covering sampling and data interpretation. It is entitled, Bioaerosols: Assessment and Control, 1999.

Fungal spores are found everywhere. Whether or not symptoms develop in people exposed to fungi depends on the nature of the fungal material (e.g., allergenic, toxic, or infectious), the exposure level, and the susceptibility of exposed persons. Susceptibility varies with the genetic predisposition (e.g., allergic reactions do not always occur in all individuals), age, pre-existing medical conditions (e.g., diabetes, cancer, or chronic lung conditions), use of immunosuppressive drugs, and concurrent exposures. These reasons make it difficult to identify dose/response relationships that are required to establish "safe" or "unsafe" levels (i.e., permissible exposure limits).

It is generally accepted in the industry that indoor fungal growth is undesirable and inappropriate, necessitating removal or other appropriate remedial actions. The New York City guidelines and EPA guidelines for mold remediation in schools and commercial buildings define the conditions warranting mold remediation. Always remember that water is the key. Preventing water damage or water condensation will prevent mold growth.

This report is not intended to provide medical advice or advice concerning the relative safety of an occupied space. Always consult an occupational or environmental health physician who has experience addressing indoor air contaminants if you have any questions.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report.

Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825

Fax: (909) 295-6826

Web: <http://www.LATesting.com>

Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

**EMSL Order:** 712000356  
**Customer ID:** 32GEPS26  
**Collected:** 2/21/2020  
**Received:** 2/21/2020  
**Analyzed:** 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## 4. Glossary of Fungi

<b>ASCOSPORES</b>	
<b>Natural Habitat</b>	Everywhere in nature.
<b>Suitable Substrates in the Indoor Environment</b>	Depends on genus and species.
<b>Water Activity</b>	Depends on genus and species.
<b>Mode of Dissemination</b>	Forcible ejection or passive release and dissemination by wind or insects.
<b>Allergic Potential</b>	Depends on genus and species.
<b>Potential or Opportunistic Pathogens</b>	Depends on genus and species.
<b>Industrial Uses</b>	Depends on genus and species.
<b>Potential Toxins Produced</b>	Depends on genus and species.
<b>Other Comments</b>	Ascospores are the result of sexual reproduction and produced in a saclike structure called an ascus. All ascospores belong to members of the Phylum Ascomycota, which encompasses a plethora of genera worldwide.

<b>ASPERGILLUS/PENICILLIUM</b>	
<b>Natural Habitat</b>	Plant debris ·Seed ·Cereal crops
<b>Suitable Substrates in the Indoor Environment</b>	Grows on a wide range of substrates indoors ·Prevalent in water damaged buildings ·Foods (blue mold on cereals, fruits, vegetables, dried foods) ·House dust ·Fabrics ·Leather ·Wallpaper ·Wallpaper glue
<b>Water Activity</b>	Aw=0.75-0.94
<b>Mode of Dissemination</b>	Wind ·Insects
<b>Allergic Potential</b>	Type I (hay fever, asthma) ·Type III (hypersensitivity)
<b>Potential or Opportunistic Pathogens</b>	Possible depending on the species.
<b>Industrial Uses</b>	Many depending on the species
<b>Potential Toxins Produced</b>	Possible depending on the species.
<b>Other Comments</b>	Spores of Aspergillus and Penicillium (including others such as Acremonium, Talaromyces, and Paecilomyces) are small and spherical with few distinguishing characteristics. They cannot be differentiated or speciated by non-viable impaction sampling methods. Some species with very small spores may be undercounted in samples with high background debris.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report.

Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.





# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825

Fax: (909) 295-6826

Web: <http://www.LATesting.com>

Email: [InlandEmpireLab@lateesting.com](mailto:InlandEmpireLab@lateesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

**EMSL Order:** 712000356  
**Customer ID:** 32GEPS26  
**Collected:** 2/21/2020  
**Received:** 2/21/2020  
**Analyzed:** 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

## BASIDIOSPORES

<b>Natural Habitat</b>	Forest floors. Lawns .Plants (saprobes or pathogens depending on genus)
<b>Suitable Substrates in the Indoor Environment</b>	Depends on genus. Wood products
<b>Water Activity</b>	Unknown.
<b>Mode of Dissemination</b>	Forcible ejection. Wind currents.
<b>Allergic Potential</b>	Type I allergies (hay fever, asthma) . Type III (hypersensitivity pneumonitis)
<b>Potential or Opportunistic Pathogens</b>	Depends on genus.
<b>Industrial Uses</b>	Edible mushrooms are used in the food industry.
<b>Potential Toxins Produced</b>	Amanitins. monomethyl-hydrazine. muscarine. ibotenic acid. psilocybin.
<b>Other Comments</b>	Basidiospores are the result of sexual reproduction and formed on a structure called the basidium. Basidiospores belong to the members of the Phylum Basidiomycota, which includes mushrooms, shelf fungi, rusts, and smuts.

## CHAETOMIUM

<b>Natural Habitat</b>	Dung. Seeds. Soil. Straw.
<b>Suitable Substrates in the Indoor Environment</b>	Paper. Sheetrock. Wallpaper.
<b>Water Activity</b>	Aw=0.84-0.89.
<b>Mode of Dissemination</b>	Wind. Insects. Water splash.
<b>Allergic Potential</b>	Type I (asthma and hay fever).
<b>Potential or Opportunistic Pathogens</b>	Onychomycosis. C. perlucidum recognized as a new agent of cerebral phaeoophomycosis.
<b>Industrial Uses</b>	Cellulase production, Textile testing.
<b>Potential Toxins Produced</b>	Chaetomin. Chaetoglobosins A,B,D and F are produced by Chaetomium globosum. Sterigmatocystin is produced by rare species

## CLADOSPORIUM

<b>Natural Habitat</b>	Dead plant matter. Straw. Soil. Woody plants
<b>Suitable Substrates in the Indoor Environment</b>	Fiberglass duct liner. Paint. Textiles. Found in high concentration in water-damaged building materials.
<b>Water Activity</b>	Aw 0.84-0.88
<b>Mode of Dissemination</b>	Air
<b>Allergic Potential</b>	Type I (asthma and hay fever).
<b>Potential or Opportunistic Pathogens</b>	Edema. keratitis. onychomycosis. pulmonary infections. Sinusitis.
<b>Industrial Uses</b>	Produces 10 antigens.
<b>Potential Toxins Produced</b>	Cladospurin and Emodin.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report.

Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



# LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825 Fax: (909) 295-6826 Web: <http://www.LATesting.com> Email: [InlandEmpireLab@lateesting.com](mailto:InlandEmpireLab@lateesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

**EMSL Order:** 712000356  
**Customer ID:** 32GEPS26  
**Collected:** 2/21/2020  
**Received:** 2/21/2020  
**Analyzed:** 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

<b>MYXOMYCETES++</b>	
<b>Natural Habitat</b>	Decaying logs, Dead leaves , Dung , Lawns , Mulched flower beds, Lawns
<b>Suitable Substrates in the Indoor Environment</b>	Rotting lumber
<b>Free moisture required for mold growth</b>	Unknown
<b>Mode of Dissemination</b>	Insects, Water, Wind
<b>Allergic Potential</b>	Type I
<b>Potential or Opportunistic Pathogens</b>	Unknown
<b>Industrial Uses</b>	
<b>Other Comments</b>	Includes Myxomycetes, Smut, and Periconia.

<b>STACHYBOTRYS/MEMNONIELLA</b>	
<b>Natural Habitat</b>	Decaying plant materials and Soil.
<b>Suitable Substrates in the Indoor Environment</b>	Water damaged building materials such as: ceiling tiles, gypsum board, insulation backing, sheet rock, and wall paper. Paper. Textiles.
<b>Water Activity</b>	Aw=0.94
<b>Mode of Dissemination</b>	Insects, Water, and Wind
<b>Allergic Potential</b>	Type I (hay fever, asthma)
<b>Potential or Opportunistic Pathogens</b>	Unknown.
<b>Industrial Uses</b>	Unknown.
<b>Potential Toxins Produced</b>	Mycotoxins produced by Stachybotrys include Roridin A, Roridin E, Roridin H, Roridin L-2, Satratoxin G, Satratoxin H, Isosatratoxin F, Verucarín A, Verucarín J, and Verrucariol.
<b>Other Comments</b>	Stachybotrys and Memnoniella are closely related and many Memnoniella species have been renamed under Stachybotrys. Mycologists are continuing to debate whether Stachybotrys and Memnoniella should be grouped or split apart (see references below). Stachybotrys may play a role in the development of sick building syndrome. The presence of this fungus can be significant due to its ability to produce mycotoxins. Exposure to the toxins can occur through inhalation, ingestion, or skin exposure.
<b>References</b>	Generic hyper-diversity in Stachybotriaceae. L. Lombard et al., Persoonia 36, 2016: 156–246. Overview of Stachybotrys (Memnoniella) and current species status. Y. Wang et al., Fungal Diversity, 2015: DOI: 10.1007/s13225-014-0319-0.

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report. Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



## LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825 Fax: (909) 295-6826 Web: <http://www.LATesting.com> Email: [InlandEmpireLab@lateesting.com](mailto:InlandEmpireLab@lateesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

EMSL Order: 712000356  
Customer ID: 32GEPS26  
Collected: 2/21/2020  
Received: 2/21/2020  
Analyzed: 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

### 5. References and Informational Links

#### Books

- Bioaerosols: Assessment and Control. Janet Macher, Ed., American Conference of Governmental Industrial Hygienists, Cincinnati, OH 1999.
- Exposure Guidelines for Residential Indoor Air Quality. Environmental Health Directorate, Health Protection Branch, Health Canada, Ottawa, Ontario, 1989.
- Fungal Contamination in Public Buildings: Health Effects and Investigation Methods. Health Canada, Ottawa, Ontario, 2004.
- IICRC: S500 Standard and Reference Guide for Professional Water Damage Restoration. 3rd Edition, Institute of Inspection, Cleaning, and Restoration Certification, Vancouver, WA, 2006
- IICRC: S520 Standard and Reference Guide for Professional Mold Remediation. 1st Edition, Institute of Inspection, Cleaning, and Restoration Certification, Vancouver, WA, 2004
- Field Guide for the Determination of Biological Contaminants in Environmental Samples. 2nd Edition, American Industrial Hygiene Association, 2005.

#### Consumer Links

Read the full text of AIHA's "The Facts About Mold" consumer brochure.

<http://www.aiha.org/get-involved/VolunteerGroups/Documents/Biosafety/VG-FactsAbout%20MoldDecember2011.pdf>

The Occupational Safety and Health Administration (OSHA)

<http://www.osha.gov/SLTC/molds/index.html>

CDC Mold Facts

<http://www.cdc.gov/mold/faqs.htm>

CDC Stachybotrys - Questions and answers on Stachybotrys chartarum and other molds

<http://www.cdc.gov/mold/stachy.htm>

IOM, NAS: Clearing the Air: Asthma and Indoor Air Exposures

<https://www.epa.gov/indoor-air-quality-iaq/should-you-have-air-ducts-your-home-cleaned>



## LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825 Fax: (909) 295-6826 Web: <http://www.LATesting.com> Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

EMSL Order: 712000356  
Customer ID: 32GEPS26  
Collected: 2/21/2020  
Received: 2/21/2020  
Analyzed: 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

---

National Library of Medicine-Mold website  
<http://www.nlm.nih.gov/medlineplus/molds.html>

California Department of Health Services (CADOHS)  
<https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/Mold.aspx>

Minnesota Department of Health  
<http://www.health.state.mn.us/divs/eh/indoorair/mold/index.html>

New York City Department of Health and Mental Hygiene  
<https://www1.nyc.gov/site/doh/health/health-topics/mold.page>

H.R.: The United States Toxic Mold Safety and Protection Act

### EPA

"Should You Have the Air Ducts in Your Home Cleaned?"  
<http://www.epa.gov/iaq/pubs/airduct.html>

General information about molds and actions that can be taken to clean up or prevent a mold problem.  
<http://www.epa.gov/asthma/molds.html>

"A Brief Guide to Mold, Moisture, and Your Home" - Includes basic information on mold, cleanup guidelines, and moisture and mold prevention  
<http://www.epa.gov/mold/moldguide.html>

"Mold Remediation in Schools and Commercial Buildings" - Information on remediation in schools and commercial property, references for potential mold and moisture remediators.  
<https://www.epa.gov/mold/mold-remediation-schools-and-commercial-buildings-guide>

### FEMA

"Homes That Were Flooded May Harbor Mold Problems" - Information and tips for cleaning mold.  
<http://www.fema.gov/news-release/homes-were-flooded-may-harbor-mold-problems>

"Dealing With Mold & Mildew in Your Flood Damaged Home."  
[http://www.fema.gov/pdf/rebuild/recover/fema\\_mold\\_brochure\\_english.pdf](http://www.fema.gov/pdf/rebuild/recover/fema_mold_brochure_english.pdf)



## LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825

Fax: (909) 295-6826

Web: <http://www.LATesting.com>

Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

EMSL Order: 712000356  
Customer ID: 32GEPS26  
Collected: 2/21/2020  
Received: 2/21/2020  
Analyzed: 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

### 6. Important Terms, Conditions, and Limitations

#### A. Sample Retention

Samples analyzed by LA Testing will be retained for 60 days after analysis date Storage beyond this period is available for a fee with written request prior to the initial 30 day period. Samples containing hazardous/toxic substances which require special handling will be returned to the client immediately. LA Testing reserves the right to charge a sample disposal fee or return samples to the client.

#### B. Change Orders and Cancellation

All changes in the scope of work or turnaround time requested by the client after sample acceptance must be made in writing and confirmed in writing by LA Testing. If requested changes result in a change in cost the client must accept payment responsibility. In the event work is cancelled by a client, LA Testing will complete work in progress and invoice for work completed to the point of cancellation notice. LA Testing is not responsible for holding times that are exceeded due to such changes.

#### C. Warranty

LA Testing warrants to its clients that all services provided hereunder shall be performed in accordance with established and recognized analytical testing procedures and with reasonable care in accordance with applicable federal, state and local laws. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied. LA Testing disclaims any other warranties, express or implied, including a warranty of fitness for particular purpose and warranty of merchantability.

#### D. Limits of Liability

In no event shall LA Testing be liable for indirect, special, consequential, or incidental damages, including, but not limited to, damages for loss of profit or goodwill regardless of the negligence (either sole or concurrent) of LA Testing and whether LA Testing has been informed of the possibility of such damages, arising out of or in connection with LA Testing's services thereunder or the delivery, use, reliance upon or interpretation of test results by client or any third party. We accept no legal responsibility for the purposes for which the client uses the test results. LA Testing will not be held responsible for the improper selection of sampling devices even if we supply the device to the user. The user of the sampling device has the sole responsibility to select the proper sampler and sampling conditions to insure that a valid sample is taken for analysis. Any resampling performed will be at the sole discretion of LA Testing, the cost of which shall be limited to the reasonable value of the original sample delivery group (SDG) samples. In no event shall LA Testing be liable to a

This report has been prepared by LA Testing at the request of and for the exclusive use of the client named in this report. Completely read the important terms, conditions, and limitations that apply to this report.

© 2006, LA Testing, All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of LA Testing.



## LA Testing

4335 E. Airport Dr. Unit 110 Ontario, CA 91761

Phone: (909)-295-6825 Fax: (909) 295-6826 Web: <http://www.LATesting.com> Email: [InlandEmpireLab@latesting.com](mailto:InlandEmpireLab@latesting.com)

---

**Attn:** Pete Torres  
GeoEarth Env Sampling Prof (GEEPS)  
1717 East Vista Chino  
Unit # 7-PMB215  
Palm Springs, CA 92262

EMSL Order: 712000356  
Customer ID: 32GEPS26  
Collected: 2/21/2020  
Received: 2/21/2020  
Analyzed: 2/24/2020

**Proj:** Linda 58137-PT-0220-2M

---

client or any third party, whether based upon theories of tort, contract or any other legal or equitable theory, in excess of the amount paid to LA Testing by client thereunder.

### E. Indemnification

Client shall indemnify LA Testing and its officers, directors and employees and hold each of them harmless for any liability, expense or cost, including reasonable attorney's fees, incurred by reason of any third party claim in connection with LA Testing services, the test result data or its use by client