



## Astex Environmental Services, Inc.

123 Catalpa · San Antonio, TX 78209  
Phone: (210) 828-9800 · Fax: (210) 829-4927

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May 9, 2008

Mr. Lucas Oliva  
Design Manager Real Estate Services  
San Antonio Housing Authority  
818 S. Flores  
San Antonio, Texas 78204  
Phone: (210) 477-6004  
Email: lucas\_oliva@saha.org

RE: Limited Mold Inspection, 1710 Villa Placer, San Antonio, Texas  
Astex Project #AES-08-J-4872

Dear Mr. Oliva,

Pursuant to your request, on May 6, 2008, Mr. Ron Greenberg of Astex Environmental Services, Inc. (AES), Texas Department of State Health Services (TDSHS) Mold Assessment Consultant MAC 0509 conducted a Limited Mold Inspection within the unoccupied home at 1710 Villa Placer, San Antonio, Texas to investigate the general microbial conditions in the home prior to sale.

It should be noted that Astex inspected three residences within the same block and the two outside comparison/control samples were taken in the front of 1515 and 1519 Villa Flores and in the backyard of 1710 Villa Placer and both samples are shown on all three reports since they are being used as control levels for all three properties.

### *Scope of Work*

The scope of work for this limited inspection included the collection of the following samples:

- Air samples (Allergenco brand cassettes) were collected in the following locations for the analysis of Total Bioaerosols:
  1. inside – at the return air intake - 1 sample
  2. inside – hallway between bedrooms - 1 sample

3. inside – master bedroom – 1 sample
4. outside comparison/control samples - 2 samples (see note above)

Note: These samples were delivered to the contract lab, Crisp Analytical Laboratories, LLC, 2081 Hutton Dr., Carrollton, Texas 75006, for analyses in accordance with the American Industrial Hygiene Association (AIHA) Environmental Microbiology Laboratory Accreditation Program (EMLAP) as well as following the Food and Drug Administration (FDA) Good Laboratory Practice Guidelines.

### ***Visual and Moisture Inspection Results***

No visible mold and/or evidence of water intrusion were observed within the house or garage and no indications of moisture within the wall materials was noted.

### ***Temperature and Humidity Levels***

Temperature readings within the house were from 82.4 to 84.7 degrees Fahrenheit and humidity was noted to be between 50.3 to 54.4 percent

### ***Analytical Results***

The Allergenco Air Samples were collected by Astex personnel on the morning of May 6, 2008 and were delivered to the contract lab for analysis of total bioaerosols with the results being made a part of this report. The data generated in this report is based on the samples and accompanying information provided and represents concentrations at a point in time under the conditions sampled. Keep in mind, sample values fluctuate widely and single point-in-time samples can be highly variable.

Currently, there are no regulations, federal or state, establishing action limits for mold spores and mold particulates in indoor air. Also, there are no species of molds identified to be hazards to public health. Current practice is to compare interior to exterior samples, noting the species present and the contrasting levels of spores and particle.

During this limited investigation, the following observations were noted:

#### **Fungal Spores (Allergenco):**

- Although the indoor air in general had acceptable levels of total fungal spores (3,408 to 4,848 count/M<sup>3</sup>) compared to outdoor air (4,272 to 8,448 count/M<sup>3</sup>) and the distribution of spores was typical of the outdoor air with *Cladosporium* being the dominant type, low levels of *Periconia/Myx* spores were detected inside (336 to 912 count/M<sup>3</sup>) versus 48 count/M<sup>3</sup> reported in the outside control samples however no (0) *Aspergillus/Penicillium*-like spores were detected indoors.

### ***Conclusions/Recommendations***

- *Smuts, Periconia, Myxomycetes* occur naturally outdoors on grasses, weeds, plants and flowers and is rarely found growing indoors, but will grow on host plants if present inside and is also often found in dust. It should be noted that this house was dusty on the day of the field inspection.

- Although the indoor air generally had acceptable levels of total fungal spores, the fact that there were *Perconia/Myx* spores detected inside, indicates that the residence should be scheduled for cleaning by a mold abatement company. An air scrubber should be placed in close proximity of the HVAC return and in the hallway between all of the bedrooms and at a minimum, those specific areas (including the living room) should HEPA vacuumed and sanitized.

Previous or future changes in mold concentrations cannot be inferred from these sample results. Please contact me at 210-828-9800 with any questions.

Very truly yours,



Ron Greenberg  
Texas Department of State Health Services (TDSHS)  
Mold Assessment Consultant No. MAC 0509

Attachments: Chain of Custody  
Laboratory Results

**Crisp Analytical Labs, L.L.C. / C.A. Labs, L.L.C. / Crisp Analytical Labs at Houston, L.L.C.**

Client: Astex Inc. Allergenic Particle Report CA Lab Project #: CAL08053140 Date: 05/07/08  
 Address: 123 Cataiba San Antonio, TX 7820 Analysis: Light Microscopy identification of pollen/fungal spore per CA Labs Air-o-cell method Villa Flores/Villa Placer AES-08-J-4871 page #1  
 Attn: Ron Greenburg Sample media : Air-o-cell / Cyclex D (airborne )

Sample # Location Volume	4871-01 Outside 1515-1519 VFMP 75			4871-02 Outside Rear 1710 VP 75			Total Cnts.	Per- cent	Total Cnts.	Per- cent	Total Cnts.	Per- cent		
	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent	Total Cnts.								
Alternaria	7	96	2.2	40	528	6.3								
Ascomycetes	22	288	6.7	72	960	11.4								
Basidiomycetes	18	240	5.6	32	432	5.1								
Botrytis														
Chaetomium														
Cladosporium	263	3,504	82.0	446	5,952	70.5								
Curvularia	4	48	1.1	4	48	0.6								
Drechslera/Bipolaris				11	144	1.7								
Epicoccum	4	48	1.1	7	96	1.1								
Oidium/Pero														
Nigrospora	4	48	1.1	7	96	1.1								
Penicillium/Asp				11	144	1.7								
Periconia/Myx				4	48	0.6								
Pithomyces														
Pseudo/Cercospora														
Rust														
Smut														
Stachybotrys														
Pollen	4	48		4	48									
Hyphae	7	96		11	144									
Particulate	4	48		4	48									
	320	4,272		634	8,448									
Total	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent

Crisp Analytical Labs, L.L.C. 2081 Hutton , Suite 301 Carrollton, TX 75006  
 Dallas Baton Rouge Houston

Analyst - Chad Lytle General Manager - Leslie Crisp

**INDOOR AIR QUALITY  
ALLERGENIC PARTICLE  
LABORATORY ANALYSIS REPORT**

Astex Inc.  
123 Catalpa  
San Antonio, TX 78209  
phone: 210-528-9800  
fax: 210-829-4927  
reference number: CAL08053140

PO #:  
Turnaround Time: 24 Hours  
Received: 05/07/08 8:30 am

**LABORATORY ANALYSIS METHOD:**

Summary of light microscopy analysis of allergenic particles in tape or air cassettes. Tape lift samples indicate presence or absence and identification of known allergenic particles. Air cassettes can be quantified in airborne concentrations (total counts/m<sup>3</sup>). Pollen and fungus type qualifications are based on keys and reference standards for known allergenic types. Sample analysis is performed by professionally trained individuals. This test report relates only to items tested. This report does not imply endorsement by any US Government agency. This report may not be reproduced except in full, without written permission from CA Labs. CA Labs - Dallas is accredited by AIHA for viable fungi analysis.

These results are submitted pursuant to CA Labs' current terms and condition of sale, including the company's standard warranty and limitation of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. If there are concerns about health aspects of known allergens, consult a physician. Pollen and spore types identified are all naturally occurring and may grow anywhere in a natural environment where water is present. While it is normal for fungi to be present inside buildings from outside sources, growth occurs in humid conditions. Fungi cannot spread from building to building, as it is always present, but may not be growing. To control allergens in an area, drying and use of HEPA filters are recommended. Bias is present in all types of spore trap cassettes by particle size, capture, spread and counting procedure used. Quantification is susceptible to variance of 100% and standard deviation to 200%. Unless notified in writing to return samples covered by this report, CA Labs will store the samples for thirty (30) days before discarding. A shipping and handling fee may be assessed for the return of any samples. This method is not covered by the scope of NVLAP or AIHA accreditation.

This report is intended for the recipient, only. Please notify us if you have received this document in error  
( we will advise you to destroy or return this document.)

Analysis performed at Crisp Analytical Labs, L.L.C. 2081 Hutton Dr. Suite 301  
Carrollton, TX 75006; phone (972)488-1414, fax (972)488-8006, after-hours  
mobile (214)564-8366.

**Crisp Analytical Labs, L.L.C. / C.A. Labs, L.L.C. / Crisp Analytical Labs at Houston, L.L.C.**

Client: Astex Inc. Allergenic Particle Report CA Lab Project #: CAL08053141 Date: 05/07/08  
 Address: 123 Catalpa San Antonio, TX 7820 Analysis: Light Microscopy identification of pollen/fungal spore per CA Labs Air-o-cell method Project name: 1710 Villa Placer AES-08-J-4872 page #1  
 Attn: Ron Greenburg Sample media : Air-o-cell / Cyclex D (airborne)

Sample # Location Volume	4872-11 Inside - Return 75			4872-12 Inside Hall between BR's 75			4872-13 Inside M. Bedroom 75										
	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent
Alternaria	50	672	13.9	14	192	4.6	14	192	5.6								
Ascomycetes	14	192	4.0	7	96	2.3	4	48	1.4								
Basidiomycetes	4	48	1.0	4	48	1.1	7	96	2.8								
Botrytis																	
Chaetomium																	
Cladosporium	187	2,496	51.5	216	2,880	69.0	169	2,256	66.2								
Curvularia	18	240	5.0	18	240	5.7	11	144	4.2								
Dreschlera/Bipolaris	11	144	3.0	11	144	3.4	7	96	2.8								
Epicoecum	11	144	3.0	4	48	1.1	7	96	2.8								
Oidium/Pero																	
Nigrospora				11	144	3.4											
Penicillium/Asp																	
Periconia/Myx	68	912	18.8	25	336	8.0	32	432	12.7								
Pithomyces				4	48	1.1	4	48	1.4								
Pseudo/Cercospora																	
Rust																	
Smut																	
Stachybotrys																	
Pollen																	
Hyphae	11	144		7	96		7	96									
Particulate	4	48		4	48		4	48									
	364	4,848		313	4,176		256	3,408									
Total	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent	Total Cnts.	Cnts./ m3	Per- cent

Crisp Analytical Labs, L.L.C. 2081 Hutton, Suite 301 Carrollton, TX 75006

Dallas Baton Rouge

Houston

Analyst - Chad Lytle

General Manager - Leslie Crisp

**INDOOR AIR QUALITY  
ALLERGENIC PARTICLE  
LABORATORY ANALYSIS REPORT**

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mobile (214)564-8366.



Crisp Analytical Laboratories, LLC.  
 2081 Hutton Dr.  
 Suite 301  
 Carrollton, TX 75006

Phone: 972-488-1414  
 Fax: 972-488-8006  
 After hours Mobile: 469-233-5282

Client Name: <u>ASTEX INC</u>	CA Labs Job # <u>CAL</u>
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Client Address: <u>123 CATALPA</u>	Billing Address: <u>SAME</u>
<u>SAN ANTONIO TX 78209</u>	(if different)

phone number: (210) 828 9800

Project Name: SATA

Project Number: 1710 VILLA PLACER

EMAIL ~~Send~~ Reports to: RONG@ASTEXINC.COM

Sample Number:	Sample Location:	Sample Date/Time:	Sample Volume (L)
<u>4872-F1</u>	<u>INSIDE RETURN</u>	<u>05/06/08 3:30</u>	<u>0.75 m<sup>3</sup></u>
<u>F2</u>	<u>HALL BETWEEN BR'S</u>	<u> </u>	<u> </u>
<u>F3</u>	<u>M. BEDROOM</u>	<u> </u>	<u> </u>
<u>24 HR</u>			

For internal use:  
 Any initial changes regarding project ( indicate yes by checking line )

Custody Information:  
 Samples relinquished: [Signature]  
 Signature / Date / Time

5-6-08  
 Samples received: [Signature]  
 Signature / Date / Time