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**BioMax Environmental**  
*Environmental Consulting and Industrial Hygiene Services*

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April 29<sup>th</sup>, 2008

Mr. Doug Button  
Deputy Director  
Real Estate Services Division  
707 Third Street - 8th Floor  
West Sacramento, CA 95605

**Mitigation Procedures for 24<sup>th</sup> Floor Rooms 2427 and 2428**  
**Department of General Services Board of Equalization Building**  
450 N. Street  
Sacramento, California

Dear Mr. Button,

BioMax Environmental, LLC (BioMax) is pleased to provide the Department of General Services (DGS) with this letter summary report detailing BioMax's findings and recommendations pertaining to our inspection and microbial sampling assessment services provided within the newly identified moisture and mold impacted areas located within the 24<sup>th</sup> Floor of your 450 N Street Building (subject building) located in Sacramento, California. BioMax understands that these microbial inspection and sampling assessment services were requested in an effort to evaluate the recently discovered visible microbial growth identified within a conference room and adjacent open cubicle area noted on attached site maps as 2428 and 2427, respectively. These areas were first identified as potential areas of concern by the site mitigation contractor, JLS during their assigned scope of work during baseboard and carpet removal activities performed on 4/21/08. BioMax was immediately contacted by JLS and performed a site inspection and surface sampling assessment of the impacted materials on 4/22/08 which are hereby summarized in this report. As an interim protective measure, all visibly impacted wall and flooring materials have been covered and sealed in plastic containment until appropriate forthcoming mitigative activities are scheduled and initiated.

Hence, these microbial inspection and assessment services are intended to provide physical information pertaining to the current environmental conditions present within the affected interior areas and impacted materials identified. A site assessment was performed on Tuesday, April 22<sup>nd</sup>, 2008 by Mr. Michael A. Polkabla, CIH, REA of BioMax Environmental, LLC. On this date, Mr. Polkabla performed a site inspection and surface sampling assessment within the impacted areas and materials of concern as visually identified by JLS representative, Mr. Rick Boggs. Based on information provided and our visual observations gathered at this time, BioMax collected a series of surface microbial samples of the representative affected materials

and areas to evaluate and assess the current environmental microbial conditions within the impacted materials.

## SITE OBSERVATIONS

On-site inspection and sampling assessment activities were performed by Mr. Michael A. Polkabila, CIH, REA, of BioMax in accordance with currently recognized microbial assessment and sampling guideline procedures. Mr. Polkabila has been certified in the Comprehensive Practice of Industrial Hygiene by the American Board of Industrial Hygiene and holds the right to the designation "Certified Industrial Hygienist" (CIH) under certification number CP 7104. Mr. Polkabila is also certified by the California Environmental Protection Agency (Cal/EPA) as a Class I Registered Environmental Assessor (REA) under Cal/EPA certification number 05011. A summary of significant notations and observations gathered during BioMax's site inspection and assessment of the subject areas are compiled as follows:

1. At the time of our preliminary site inspection performed on April 22<sup>nd</sup>, 2008 interior environmental conditions within the subject area consisted of a temperature of 77 degrees F with relative humidity of 31 %. Working crews contracted by DGS included workers from JLS and its furniture removal subcontractor who were observed performing localized carpet removal activities throughout the vacant 24<sup>th</sup> floor.
2. All 24<sup>th</sup> Floor workers were observed performing their assigned duties at the time of BioMax's inspection wearing personal protective equipment (PPE) consisting of a minimum regimen of Tyvek suit and N95 dust mask type respirator. Such PPE regimen was previously specified as a precautionary measure as developed in BioMax's April 10<sup>th</sup>, 2008 report entitled Recommended Mitigation Procedures for Floor 24 – Supplement. Additional detail pertaining to site conditions present at the time of these activities may be referenced within this noted document as necessary. As such, all 24<sup>th</sup> Floor HVAC systems remained quiescent during the performance of these noted procedures
3. Observations noted within each of the subject areas are as follows:

**Conference Room (# 2428)** – At the time of our assessment, the vinyl baseboards located along the western interior wall which had been removed and indicated evidence of mold like staining were observed taped back onto the wall and carpet surfaces with adhesive tape material. Upon localized removal (for inspection), approximately 2 linear feet of "spotty" visible mold growth was observed present beneath the baseboard materials located along the western interior wall (shared wall with the adjacent cubicle area). At this time, two surface BioTape samples were collected from the stained wallboard material utilizing aseptic sample collection techniques. Following the collection of samples, baseboard materials were promptly re taped along the wall and carpet junctions.

**Cubicle Area (# 2427)** - BioMax observed similar conditions within this area immediately adjacent to the impacted 2428 materials. As such, it was noted that the vinyl baseboards

located along the eastern wall indicated evidence of similar prior removal and were observed taped back onto the wall and carpet surfaces with adhesive tape material. Upon localized removal (for inspection), an additional approximately 2 linear feet of "spotty" visible mold growth was observed present beneath the baseboard materials located along the eastern interior wall (shared wall with the adjacent conference room). Two surface BioTape samples were similarly collected from the stained wallboard material utilizing aseptic sample collection techniques. Following the collection of samples, baseboard materials were also re-taped along the wall and carpet junction.

4. The collection of surface samples from representative impacted building materials and surfaces located within the visibly affected interior materials noted above were performed to assess their current microbial condition as noted in Table 1 below. Utilization of hand-held moisture detection equipment indicated normal moisture content within the affected wall materials surveyed at the time of our assessment.
5. A series of digital images were also collected during BioMax's inspection and sampling assessment activities. Images are attached to this summary report for further reference, as necessary. A detailed site map sketch indicating the extent of visibly affected areas noted at the time of this assessment and relative surface sampling locations is also provided as an attachment to this report for further reference.

## **SAMPLING PROCEDURES**

On-site inspection and sampling assessment activities were conducted by Mr. Michael A. Polkaba, CIH, REA, of BioMax Environmental on April 22<sup>nd</sup>, 2008. All sampling equipment, supplies, calibration materials, and collection media were provided by BioMax as part of the performance of this scope of work. Sample collection procedures and methods were performed using aseptic sampling methods following techniques prescribed by the contracted analytical laboratory.

### **BioTape Surface Sampling:**

During our site inspection and sampling assessment activities, representative surface material samples were collected from interior areas and materials of concern noted within in Table 1 below. All surface samples were collected using "same-lot" BioTape collection media prepared and supplied by SKC International. Disposable gloves were changed prior to collection of each sample and were collected in accordance with manufacturers sampling guidelines as well as applicable professional certified industrial hygiene microbial investigation practices. Written sampling procedural guidance material prepared by the analytical laboratory and/or sample media manufacturer may also be provided upon request. A summary of surface material sampling locations are provided in Table 1. Specific sample locations may also be referenced within the digital image attachment and site map diagram provided at the conclusion of this report, as necessary.

**Table 1. BioTape Surface Sample Locations:**

Sample Number	Material Sampling Location
S01	Conference Room 2428 sub-baseboard wall surface (left side)
S02	Conference Room 2428 sub-baseboard wall surface (right side)
S03	Cubicle Room 2427 sub-baseboard wall surface (left side)
S04	Cubicle Room 2427 sub-baseboard wall surface (right side)
S05	Field Method Control Blank

Following collection, samples were subsequently labeled and placed within individual plastic Ziploc storage bags for transportation via Federal Express Priority Mail to the analytical laboratory noted below. Preparation and shipping of the collected samples were accomplished in accordance with standard industrial hygiene chain of custody (COC) documentation procedures and quality assurance/quality control QA/QC practices. Once collected, labeled, and recorded, the samples were double sealed within airtight plastic Ziploc bag containers and transported via Federal Express Priority Mail to Environmental Microbial Laboratories (EMLabs) of San Bruno, California. EMLabs holds current analytical accreditation and specializes in microbial analytical procedures. Sampling and chain of custody records are provided as an attachment to this letter report for further reference.

## **ANALYTICAL FINDINGS AND CONCLUSIONS**

### **Surface Sample Material Findings:**

Laboratory analytical methods for the identification and enumeration of microbial taxa were conducted in accordance with prescribed analytical procedures and quality control/assurance measures. Laboratory analytical methods for the identification and enumeration of microbial fungal contaminants within the collected surface material samples were achieved through direct microscopic analysis using bright field microscopy.

Original laboratory results including the identification of recognizable microbial taxa are provided as an attachment to this letter report for further reference. Sampling and chain of custody records are provided as an attachment to this report for further reference. A summary of analytical findings pertaining to the collected bulk material samples is presented in Table 2 below:

Table 2. Summary of Surface Material Findings:

Sample Number	Sample Material and Location	Mold Genera Identified Present
S01	Conference Room 2428 sub-baseboard wall surface (left side)	Elevated Penicillium/Aspergillus, Sepedonium, and Ulocladium Spores detected
S02	Conference Room 2428 sub-baseboard wall surface (right side)	Elevated Penicillium/Aspergillus, Alternaria, and Ulocladium Spores detected
S03	Cubicle Room 2427 sub-baseboard wall surface (left side)	Elevated Penicillium/Aspergillus Spores detected
S04	Cubicle Room 2427 sub-baseboard wall surface (right side)	Elevated Penicillium/Aspergillus Spores detected
S05	Field Method Control Blank	No Mold Spores Detected

Noted relative levels should be used for comparative purposes only and are not intended to establish "safe" or "acceptable" indoor levels/conditions.

Analytical findings as presented in Table 2 above clearly indicated the presence of unique microbial fragments (spores) present in each of the building materials sampled where staining was noted. The identified hydrophilic (moisture loving) mold taxa, such as Penicillium/Aspergillus, Ulocladium, Alternaria, and Sepedonium identified within the visibly "stained" materials sampled, represent what BioMax believes to be likely indicative of prior mold colonization and growth. Sample S05, which represents a field method control blank, appropriately verifies the absence of microbial contaminants within sample media, sampling technique, and/or analytical methods in accordance with prudent quality assurance / quality control practices.

Although there are currently no regulatory standards or limits pertaining to allowable surface fungal concentrations (for any mold taxa) present on interior working environment surfaces, there is a general consensus among indoor air quality and microbial experts that significant visible microbial contamination found within occupied space building materials should be treated, removed, and/or otherwise minimized wherever practicable. Hence, BioMax believes that the findings detailed in this report warrant the implementation of the recommended precautions, continued area controls, and the performance of mitigative measures pertaining to the areas of identified visible microbial contamination.

## RECOMMENDATIONS

Based on our preliminary observations within the impacted areas of concern and review of current analytical findings available at this time, BioMax recommends that the following corrective measures and mitigative actions be considered as follows:

1. Due to the confirmed findings of elevated microbial contamination present within the sampled building materials and areas noted in this report, BioMax recommends that additional deconstructive inspection and appropriate mitigation the affected interior structures, walls, and wall cavities within the subject areas be performed as noted below. The purpose of these activities should be to adequately assess and evaluate the full extent of any moisture intrusion and microbial damages within each of the noted areas under appropriate microbial mitigative protective containment systems.
2. In performing such mitigative measures, BioMax recommends that a qualified and experienced microbial abatement contractor be selected to erect critical containment barriers within Rooms 2427 and 2428 and perform microbial mitigative measures within each of the interior areas noted. The selected contractor must be specifically trained in the field of microbial abatement techniques and methods as well as maintain demonstrated proficiency in the establishment and use of appropriate barriers, personal protective equipment, abatement techniques and methods in the removal and decontamination of microbial affected and impacted materials.
3. The selected contractor should be directed to install a series of fully enclosed negative pressure environmental containment barriers encompassing each of the water damaged and mold affected areas during removal, inspection, and treatment. These containment systems shall be designed for the purposes of containing and controlling possible fugitive emissions of airborne fungal spore contaminants during all forthcoming deconstruction, inspection, and mitigative activities within the premises. All critical containment systems shall be constructed of plastic and/or otherwise airtight materials so as to create a negative pressure system within the noted areas of concern. Due to physical constraints, all negative air pressure shall be maintained within the critical areas with the use of a High Efficiency Particulate Aerosol (HEPA) filtered "negative air machine" vented to the outside adjacent workspace environment. An adequate supply of HEPA filtered intake air shall also be established to allow an adequate supply of "clean" filtered make-up air into the critical containment.
4. Clear translucent plastic observation windows shall be placed on the critical containment barrier within direct sight of the affected areas for the purposes of inspection during the performance of prescribed mitigative measures. As an additional precautionary measure, HEPA filtered air scrubber units will be operated in the hallway and room 1014 for the duration of mitigative activities. BioMax is prepared to provide your selected contractor with additional and ongoing detail pertaining to the establishment maintenance, and specific locations of critical containment barriers, as necessary. Once, containment parameters have been established, the site contractor shall maintain an "as built" record of exact containment locations and materials for further review and historical reference.

5. A series of similar plastic and/or otherwise impermeable zippered entry chambers shall also be erected at the entrance of each containment systems for the purpose of establishing worker entrance/exit and clean personal protective equipment donning and decontamination area. HEPA filtered vacuum equipment capable of the effective removal of particulate contaminants from tools and personal protective equipment shall be placed within each of the zippered chambers closest to the working area. During such measures, appropriate signage and warnings must be posted on the exterior of containment entrances to preclude uninformed access from unauthorized personnel. Data logging monitoring equipment employed to record pressure differentials on a 24-hour basis shall be used for the duration of functional barrier use.
6. Upon establishment of critical containment barriers, BioMax recommends that the selected microbial abatement contractor also places and maintains appropriate HEPA filtered air-scrubbing units within the affected areas as space allows. All Heating Ventilation and Air Conditioning (HVAC) supply vents and ceiling or wall mounted recessed lighting/ fan penetrations within the containment systems shall be deactivated and covered within similar plastic barrier systems. All appropriate wall and ceiling penetrations present within the containment systems shall also be sealed and/or otherwise rendered airtight and inoperable so as to minimize unfiltered particulate intrusion into and out of the established containment systems. It is specifically recommended that the ceiling tile level materials be critically sealed off from the working areas within each of the noted containment rooms so as to preclude fugitive emissions from exiting the noted containments. Any smoke detectors and/or fire suppression systems shall NOT be covered nor rendered inoperable within the subject building unless authorized to do so under the direction and supervision of personnel.
7. Workers engaged in mold remediation/mitigation activities must be adequately trained and equipped with properly selected personal protective equipment (PPE) including, at minimum, hooded Tyvek coveralls, air purifying full face respirators with N100 minimum HEPA filter rating or similar PAPR systems, nitrile or latex gloves, chemical resistant boots or boot covers, with taped joints. Site control zones shall be established with exclusion, contaminant reduction (decontamination), and support zones in accordance with published Environmental Protection Agency (EPA) and California Department of Occupational Safety and Health (Cal/OSHA) guidelines. BioMax would be happy in providing the selected contractor with further site-specific detail regarding PPE regimen and appropriate site control zones, as necessary.
8. BioMax specifically recommends that sheetrock and wallboard materials within each noted room where visual evidence of potential moisture intrusion and damages has been identified, be removed from floor to ceiling for inspection of the interior and adjacent ceiling, wall cavities/underlayment. As verified through inspection, any affected interior sheetrock and building materials should be removed, wherever feasible, to the extent of visible staining, at a minimum. Carpeting present within the rooms shall also be removed under containment controls for appropriate inspection of subflooring. Removal of moisture impacted and mold damaged materials may also employ the use of appropriate item-specific containment methods and systems (such as sealed plastic glove-bag containment systems, or equivalent)

applicable to the materials being removed at the option of the mitigation contractor. BioMax currently anticipates that all visually affected sheetrock and floor covering materials present within the noted rooms shall be removed for physical inspection of wall cavities and underlayment materials. Any underlayment materials exhibiting visible signs of moisture staining shall also be removed or decontaminated (as noted below), as necessary.

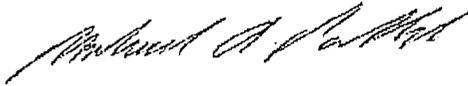
9. The mitigation contractor is specifically required to collect and maintain detailed digital images of each phase of this activity and specifically upon physical removal of any building materials where visual indications of moisture and or mold-like staining are identified to be present. Such digital images will be provided to the Project CIH upon discovery for appropriate review and action.
10. Other potentially affected areas and building materials encountered during these deconstructive and investigative stages, such as adjacent wall studs, underlayment, etc., must be thoroughly inspected during these deconstructive stages to identify any potential signs of additional microbial related materials and water damage indicators. In general, all microbial impacted materials shall be removed to the extent of visible staining and at least 2 feet beyond such identified perimeters, wherever possible.
11. All remaining moisture/mold affected porous and non-porous building materials deemed infeasible for removal and/or disposal (due to structural integrity concerns) shall be inspected and receive a series of decontamination treatment measures designed to minimize and control the presence of microbial related substances. Decontamination methods employed shall, at a minimum, include treatment of all identified surfaces with a series of thorough chlorine based mildicide (minimum 10 parts water to 1 part chlorine soln.) applications followed by a series of thorough HEPA filtered vacuuming procedures using power sanding and/or brush agitation. The duration and frequency of mildicide and HEPA sanding/brushing applications employed may vary depending on local material contamination but shall be sufficient in removing and decontaminating all visible surface staining to levels deemed by BioMax to be consistent with representative background levels. Reasonable additional mitigative measures and controls may be required, as necessary, upon discovery of additional contaminated materials as well as BioMax's site inspection findings and observations performed during this scope of work. BioMax would be happy to provide ongoing consultation with the contractor pertaining to these measures and site/material specific decontamination measures upon request.
12. Upon completion of mitigation efforts performed by the selected microbial abatement contractor, BioMax recommends the performance of a visual inspection conducted by the Project CIH to verify that all significant mold related staining and moisture indicators have been removed and/or treated and that all prescribed mitigative efforts and measures have been appropriately achieved. Once established, the Project CIH will collect a series of post mitigation microbial "clearance" air samples to verify that all affected interior areas have been appropriately decontaminated to acceptable background airborne levels and that the affected areas within the subject building are verified as "acceptable" for forthcoming reconstruction. Additional "punch-list" action items may be provided to the contractor

following the performance of this site clearance inspection prior to receipt of analytical results, as deemed necessary.

13. Upon review of analytical sampling results by the Project CIH and achievement of acceptable clearance criteria, BioMax recommends that the mitigation/reconstruction contractor to apply a mildicide-based sealant onto all remaining organic-based building materials and treated surfaces. Use of a recognized commercially available encapsulant/sealant product with microbial growth inhibitors in accordance with manufacturer's application and use instructions is believed to be currently acceptable for these purposes. Following the achievement of acceptable clearance criteria, the provision of appropriate access shall be provided to BOE and its consultants for inspection of affected areas and materials prior to final encapsulation and reconstruction.
14. Following the performance of these mitigative measures, DGS and/or the designated site reconstruction contractor is strongly encouraged to verify that repairs to any faulty and/or deficient building penetration, drainage, plumbing and/or building envelop sealing systems have been appropriately inspected, replaced/repared, and function tested prior to the reconstruction of the affected interior structures and cavities. Certainly, the repair/replacement and/or establishment of any such additional engineering controls (as recommended through additional professional consultation) must be performed and implemented in accordance with applicable standards, building codes, and ordinances, as necessary.
15. Upon completion, reconstruction of interior structural materials should be undertaken utilizing visibly clean (hand selected) construction grade materials in accordance with applicable building codes and requirements. The reconstruction contractor shall be required to only select materials which are obtained from reputable commercial sources and which are believed and visually verified to be free from elevated microbial contamination and/or elevated moisture content. New building materials, which are notably moist and/or visibly stained, shall NOT be used during the reconstruction of the subject structure. BioMax specifically recommends that reconstruction materials identified be specifically selected based on their moisture deterrent and anti-microbial properties wherever feasible.
16. Reasonable additional assessment and mitigative measures may also be required upon the identification of new or previously undiscovered materials and/or information related to moisture/microbial impacts, as necessary. Any reoccurrence of moisture intrusion following reconstruction should certainly be reviewed and addressed through further professional consultation, as necessary. BioMax would be happy to provide additional microbial consultative services pertaining to the mitigation of such structures so as to minimize any adverse impacts to the interior environment during the performance of any such activities upon request..

Once again, it has been a pleasure working with DGS on these important matters. If you have any additional questions, comments, or require further assistance, please do not hesitate to contact me directly at (510) 724-3100.

Sincerely,



Michael A. Polkabra, CIH, REA  
Vice President, Principal



## LIMITATIONS

Please note that the professional opinions presented in this review are intended for the sole use of DGS and their designated beneficiaries. No other party should rely on the information contained herein without the prior written consent of BioMax Environmental and DGS. The professional opinions provided herein are based on BioMax's review and understanding of current site information and observed site conditions present within the areas inspected at the time these services were performed. Professional recommendations provided as part of this limited scope of work are intended for client consideration only and are not intended as a professional or regulatory mandate. Implementation of any of the above measures or recommendations does not, in any way, warrant the day-to-day health and/or safety of building occupants, residents, site workers, nor regulatory or building code compliance status during normal and changing environmental conditions. As microbial contamination, by nature, may change over time due to additional moisture intrusion, favorable growth conditions, and changing environments, the findings of this report are subject to change in the event that such conditions and/or environments arise. Also, the professional opinions expressed here are subject to revision in the event that new or previously undiscovered information is obtained or uncovered.

The information contained in this and any other applicable report communication is intended for consideration purposes only. It is not intended, nor should it be construed as providing legal advice or warranting any level of safety or regulatory compliance. The sole purpose of such information is to assist with the identification, evaluation and control of potential contamination or unnecessary physical, chemical, and/or biological hazards. Any action taken based on this information, including but not limited to opinions, suggestions and recommendations, whether implied or expressed, is the sole responsibility of the individual taking the action. Risk management and safety is criteria dependent and situation specific requiring extensive knowledge and value assessments to be properly determined by competent professionals.

These services were performed by BioMax in accordance with generally accepted professional industrial hygiene principals, practices, and standards of care. Under the existing Industrial Hygiene Definition and Registration Act, all reports, opinions or official documents prepared by a Certified Industrial Hygienist (CIH) constitutes an expression of professional opinion regarding those facts or findings which are subject of a certification and does not constitute a warranty or guarantee, either expressed or implied.

**EMLab P&K**

Report for:

**Mr. Michael Polkaba**  
**Biomax Environmental**  
775 San Pablo Ave.  
Pinole, CA 94564

Regarding: Project: DGS Project; 24th Floor, Rooms 2427 and 2428  
EMI ID: 414204

Approved by:

A handwritten signature in black ink, appearing to read "Dr. Kamashwaran Ramanathan".

Lab Manager  
Dr. Kamashwaran Ramanathan

Dates of Analysis:

Quantitative spore count direct exam: 04-24-2008

Project SOPs: Quantitative spore count direct exam (I100006)

This cover sheet is included with your report in order to comply with AIHA and ISO accreditation requirements.

For clarity, we report the number of significant digits as calculated; but, due to the nature of this type of biological data, the number of significant digits that is used for interpretation should generally be one or two. 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 corrections of results is not a standard practice. 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.

Document Number: 200091 - Revision Number: 5

**EMLab P&K**

1150 Bayhill Drive, Suite 100, San Bruno, CA 94066  
 (650) 829-5800 Fax (650) 829-5852 www.emlab.com

Client: Biomax Environmental

Date of Sampling: 04-22-2008

C/O: Mr. Michael Polkabila

Date of Receipt: 04-23-2008

Re: DGS Project; 24th Floor, Rooms 2427 and 2428

Date of Report: 04-24-2008

**QUANTITATIVE SPORE COUNT REPORT**

Location:	S01: Rm 2428 Wall Under Baseboard L		S02: Rm 2428 Wall Under Baseboard R		S03: Rm 2427 Wall Under Baseboard L		S04: Rm 2427 Wall Under Baseboard R		S05: Rm 2400 FB	
Comments (see below)	None		None		None		None		None	
Sample type	Tape sample		Tape sample		Tape sample		Tape sample		Tape sample	
Lab ID-Version†:	1820478-1		1820479-1		1820480-1		1820481-1		1820482-1	
	raw ct.	spores/unit	raw ct.	spores/unit						
Alternaria			1	0.053						
Aspergillus										
Ascospores*										
Aureobasidium										
Basidiospores*										
Bipolaris/Drechslera group										
Botrytis										
Chaetomium										
Cladosporium										
Curvularia										
Epicoccum										
Fusarium										
Myrothecium										
Nigrospora										
Other colorless										
Penicillium/Aspergillus types†	496	410	880	730	7,280	6,100	4,104	3,400		
Pithomyces										
Rusts*										
Sepedonium	72	60								
Smuts*, Periconia, Myxomycetes*										
Stachybotrys										
Stemphylium										
Torula										
Ulocladium	640	530	34	1.8						
Zygomycetes										
Background debris (1-4+)††	2+		2+		2+		2+		None	
Sample size	100		100		100		100		100	
Unit	1 mm2		1 mm2		1 mm2		1 mm2		1 mm2	
<b>TOTAL SPORES/UNIT</b>		1,000		731.853		6,100		3,400		< 0.01

Comments:

\* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as nonsporulating colonies. Most of the basidiospores are 'mushroom' spores while the rusts and smuts are plant pathogens.

† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paeclomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

†† Background debris is an indication of the amount of non-biological particulate matter present on the slide (dust in the air) and is graded from 1+ to 4+ with 4+ indicating the largest amounts. This background material is also an indication of visibility for the analyst and resultant difficulty reading the slide. For example, high background debris may obscure the small spores such as the *Penicillium/Aspergillus* group. Counts from areas with 4+ background debris should be regarded as minimal counts and may actually be higher than reported.

‡ A "Version" greater than 1 indicates amended data.

EMLab ID: 414204, Page 1 of 1

# BULK / SURFACE SAMPLING RECORD BIOMAX ENVIRONMENTAL, LLC

775 San Pablo Avenue, Pinole, CA 94564

Phone: (510) 724-3100 Fax (510) 724-31435 [biomaxenv@aol.com](mailto:biomaxenv@aol.com)

Project Name and Location: DGS Project - 24th Floor Rms 2427 + 2428

Analytical Laboratory: EM Labs Date of Sampling: 4/22/08 Required Turn Around: 24 HR

Analysis Requested: Fungal ID w/ Quantification in cfs per mm  
Sampled By: MAF *Michael A. Faller*

Sample ID	Sample Type B/S	Area/Volume Sampled	Location/Description
S01	2.10 Tape Surface	1.01 "	Rm 2428 Wall under Baseboard L
S02	↓	↓	Rm 2428 Wall under Baseboard R
S03	↓	↓	Rm 2427 Wall under Baseboard L
S04	↓	↓	Rm 2427 wall under Baseboard R
S05	↓	↓	Rm 2400 FB



Instructions and Comments: Fungal ID w/ Quantification in cfs/mm

Please sign this form below acknowledging sample receipt and return executed form with laboratory reports. Fax, send and e-mail results to BioMax Environmental at (510) 724-3145 [biomaxenv@aol.com](mailto:biomaxenv@aol.com)

Relinquished by: <i>Michael Faller</i>	Received By: <i>Wynne Par</i>
Method of Transportation: <i>FoDEX</i>	Time/Date Received: <i>4/23/08 9:15</i>
Time/Date Sent: <i>4:40 4/22/08</i>	

4/22/08

(21)

(22)

(21)

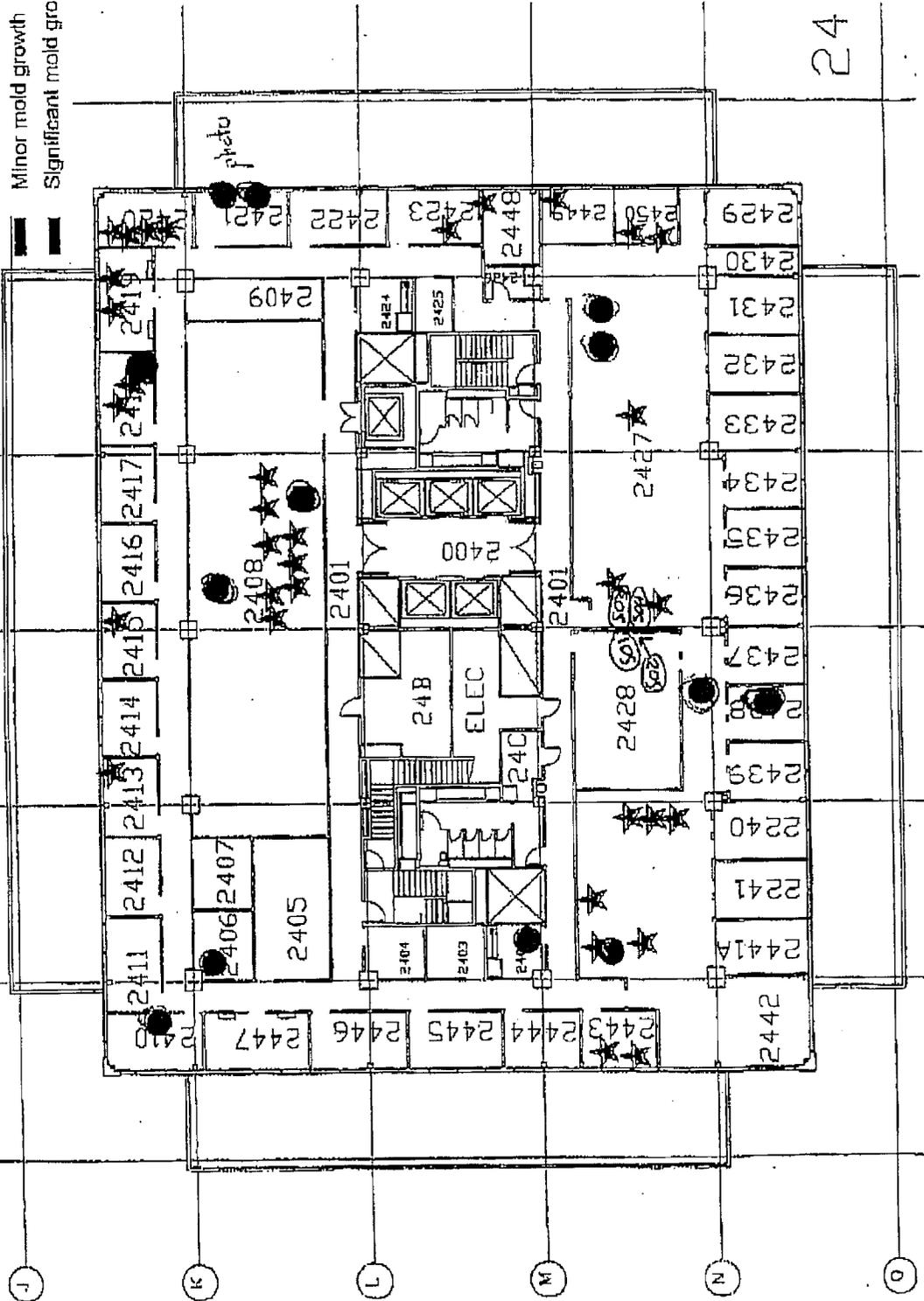
(20)

(19)

(18)

# 24TH FLOOR

- ★ Plant
- Ceiling water / cutting oil stain
- Ceiling stain / minor water leak
- ▨ Destructive testing
- ▩ Minor mold growth
- ▬ Significant mold growth



24

**Attachment A: Digital Images**April 22<sup>nd</sup>, 2008BOE Building 24<sup>th</sup> Floor Rooms 2427 + 2428  
Sacramento, CA

Page 1 of 3

[Click here for color photos](#)

- 1) Image of doorway leading into Conference Room 2428 located on the 24<sup>th</sup> Floor of the BOE Building (Subject Building) located at 450 N Street, Sacramento, California at time of assessment.



- 2) Image of staining "yellow splatter" from unknown origin present within room 2428 at time of assessment.

April 22<sup>nd</sup>, 2008  
BOE Building 24<sup>th</sup> Floor Rooms 2427 + 2428  
Sacramento, CA

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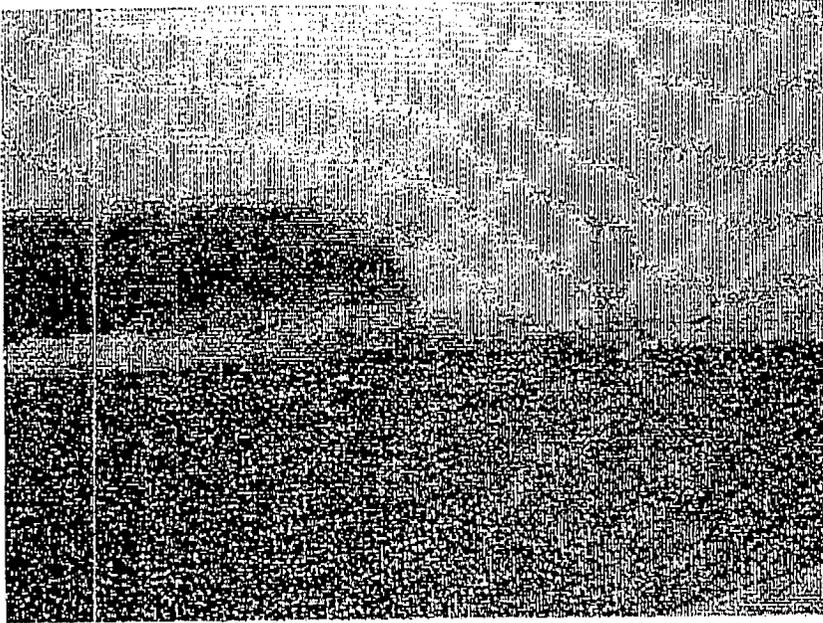
3) Close-up image of stained wallboard material following baseboard removal within 2428 conference room. Eastern interior wall subject.



4) Image of adjacent affected wall within room 2427 at time of assessment. Western interior wall subject.

April 22<sup>nd</sup>, 2008  
BOE Building 24<sup>th</sup> Floor Rooms 2427 + 2428  
Sacramento, CA

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- 5) Close-up image of wallboard material following vinyl baseboard removal within room 2427 at time of assessment.