COUNTY OF ALAMEDA

ADDENDUM No. 1

to

ALAMEDA COUNTY BID #902109

for

LAKESIDE BUILDING SECURITY IMPROVEMENTS

This County of Alameda, General Services Agency (GSA), Addendum has been electronically issued to potential bidders via e-mail. This Addendum is also posted on the GSA Contracting Opportunities website located at https://gsa.acgov.org/do-business-with-us/contracting-opportunities/

County of Alameda, General Services Agency
Bid No. 902109
Addendum No. 1

TO ALL PROSPECTIVE BIDDERS for the above project, notice is hereby given that the following changes, modifications, corrections, clarifications, and additions, as herein set forth, shall apply to the specifications herein and shall be made part thereof and subject to all requirements as if originally specified or drawn. **Receipt of this Addendum No. 1 must be acknowledged on the Document 00 41 13 Bid Form, Page 29.**

Below are the following items issued as part of Addendum No. 1:

ITEM	DESCRIPTION
1.	Exhibit B – Existing Conditions Reports
2.	Exhibit C – Insurance Requirements
3.	Exhibit D - Epoxy Terrazzo Specifications
4.	Exhibit E - Optical Turnstile Specifications
5.	Exhibit F - Sample Phasing Schedule

EXHIBIT B

EXISTING CONDITIONS REPORTS

The following existing conditions reports are attached included as part of this Exhibit D:

1. Bulk Asbestos Analysis – Polarized Light Microscopy (PLM) Reports

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1033
Matthew Reed
County of Alameda - GSA
Engineering & Environmental
Management Department
1401 Lakeside Drive, Suite 800
Oakland, CA 94612

PROJECT:
LAKESIDE PLAZA
1401 LAKESIDE DR.
BLDG. NO. 04430
OAKLAND, CA

Micro Log In	**291880**
Total Samples	6
Date Sampled	05/25/2022
Date Received	05/25/2022
Date Analyzed	05/25/2022

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND Is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: 04430-220525-1A Micro #: 291880-01 Analyst: SS BK TILE GROUT - TAN - 1ST FLOOR - LOBBY FLOOR	ND	NFM: GLASS FRAGMENTS, BINDER.
Client #: 04430-220525-1B Micro #: 291880-02 Analyst: SS TILE GROUT - TAN - 1ST FLOOR - LOBBY FLOOR	ND	NFM: GLASS FRAGMENTS, BINDER.
Client #: 04430-220525-2A Micro #: 291880-03 Analyst: SS STONE TILE - VARIONS - OFF-WHITE 1ST FLOOR - LOBBY FLOOR	ND	NFM: GLASS FRAGMENTS, BINDER.
Client #: 04430-220525-2B Micro #: 291880-04 Analyst: SS STONE TILE - VARIONS - OFF-WHITE 1ST FLOOR - LOBBY FLOOR	ND	NFM: GLASS FRAGMENTS, BINDER.
Client #: 04430-220525-3A Micro #: 291880-05 Analyst: SS SETTING COMPOUND - GRAY 1ST FLOOR - LOBBY FLOOR	ND	2 % CELLULOSE NFM: ROCK FRAGMENTS, CARBONATE, BINDER

Technical Supervisor: _____ 5/25/2022
Baojia Ke, Ph.D. Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1033
Matthew Reed
County of Alameda - GSA
Engineering & Environmental
Management Department
1401 Lakeside Drive, Suite 800
Oakland, CA 94612

PROJECT:
LAKESIDE PLAZA
1401 LAKESIDE DR.
BLDG. NO. 04430
OAKLAND, CA

Micro Log In	**291880**
Total Samples	6
Date Sampled	05/25/2022
Date Received	05/25/2022
Date Analyzed	05/25/2022

SAMPLE IDENTIFICATION	ASBESTOS QUANTITY (AREA %) / TYPES / LAYERS If absent, ND Is Reported (No Asbestos Detected)	DOMINANT OTHER MATERIALS
Client #: 04430-220525-3B Micro #: 291880-06 Analyst: SS **SETTING COMPOUND - GRAY** **1ST FLOOR - LOBBY FLOOR**	**ND**	2 % CELLULOSE NFM: ROCK FRAGMENTS, CARBONATE, BINDER

Technical Supervisor: _____ 5/25/2022
Baojia Ke, Ph.D. Date Reported

NVLAP Lab Code 101872-0 (TESTING). Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow EPA – Appendix E to Subpart E of 40 CFR Part 763; Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (originally published 1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers: Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. NFM = Non-fibrous materials.

BULK SAMPLE TRACKING FORM 291EEO

COUNTY OF ALAMEDA, GSA-CPED
1401 LAKESIDE DRIVE, STE. 800
OAKLAND, CA 94612

Contact: Matthew Reed
Analysis Type: PLM
TAT: ___hr 12hr 24hr (48hr) >48hr

FACILITY NAME	Lakeside Plaza	BLDG. NO.	04430
FACILITY ADDRESS	1401 Lakeside Dr., Oakland		
SAMPLE TAKEN BY	Matthew Reed	DATE	5/25/22

	SAMPLE NUMBER (Bldg #.- yymmdd - #)*	04430-220525-1A		MATERIAL TYPE.	Tile Grout		
1	MATERIAL DESC.	SIZE	—	COLOR	tan		
	SAMPLE LOCATION	FLOOR	1st Floor	ROOM NO.	Lobby	AREA	Floor

	SAMPLE NUMBER	"	-1B	MATERIAL TYPE.	Tile Grout		
2	MATERIAL DESC.	SIZE	—	COLOR	tan		
	SAMPLE LOCATION	FLOOR	1st Floor	ROOM NO.	Lobby	AREA	Floor

	SAMPLE NUMBER	"	-2A	MATERIAL TYPE.	Stone Tile		
3	MATERIAL DESC.	SIZE	— Various	COLOR	off-White		
	SAMPLE LOCATION	FLOOR	1st Floor	ROOM NO.	Lobby	AREA	Floor

RELINQUISHED BY	Matt	DATE/TIME	5/25/22 10:12A
RECEIVED BY	P.T	DATE/TIME	5/25/22 10:44

Distribution:
1) Lab
2) GSA-CPED QIC 26006
3) Retain One Copy for your files

Lab must submit this form and test results to GSA-CPED,. 1401 Lakeside Dr., Suite 800 Oakland, CA 94612, attn: Matthew Reed, Before invoice will be paid.

* - Sample numbers are generated by Building Number followed by the date, year, month, day, and then sample number. For example, a sample collected from Building 1901 on April 30, 1999, would be numbered 1901-990430-01. Please adhere to this numbering method. For samples other than asbestos, insert a sample type indicator after the date and before the sample number. For example 1901-990430-Pb-01, would be a lead sample.

291880

BULK SAMPLE TRACKING FORM

COUNTY OF ALAMEDA, GSA-CPED
1401 LAKESIDE DRIVE, STE. 800
OAKLAND, CA 94612

Contact: Matthew Reed
Analysis Type: PLM
TAT: ___hr 12hr 24hr (48hr) >48hr

FACILITY NAME:	Lakeside Plaza	BLDG. NO.:	04430
FACILITY ADDRESS:	1401 Lakeside Dr., Oakland		
SAMPLE TAKEN BY:	Matthew Reed	DATE:	5/25/22

	SAMPLE NUMBER* (Bldg # - yymmdd - #)*	04430-220525-2B			MATERIAL TYPE:	Stone Tile	
4	MATERIAL DESC.	SIZE:	– Various		COLOR:	off-White	
	SAMPLE LOCATION	FLOOR:	1st Floor	ROOM NO.:	Lobby	AREA:	Floor

	SAMPLE NUMBER	"	-3A		MATERIAL TYPE:	Setting Compound	
5	MATERIAL DESC.	SIZE:	–		COLOR:	Gray	
	SAMPLE LOCATION	FLOOR:	1st Floor	ROOM NO.:	Lobby	AREA:	Floor

	SAMPLE NUMBER		-3B		MATERIAL TYPE:	Setting Compound	
6	MATERIAL DESC.	SIZE:	–		COLOR:	Gray	
	SAMPLE LOCATION	FLOOR:	1st Floor	ROOM NO.:	Lobby	AREA:	Floor

RELINQUISHED BY:	[signature]	DATE/TIME:	5/25/22 10:12A
RECEIVED BY:	P.T	DATE/TIME:	5/25/22 10:44

Distribution:
1) Lab
2) GSA-CPED QIC 26006
3) Retain One Copy for your files

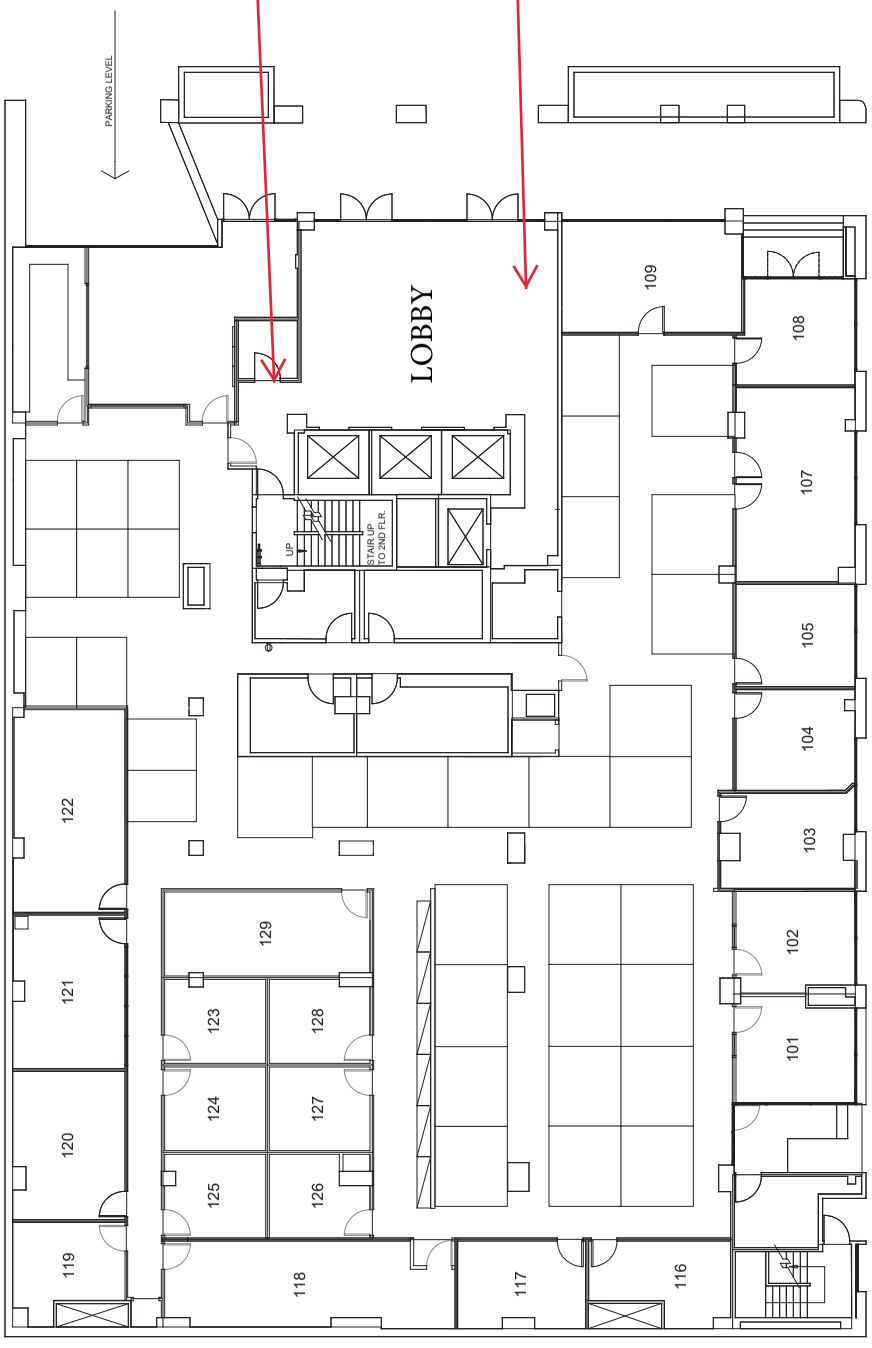
Lab must submit this form and test results to GSA-CPED,. 1401 Lakeside Dr., Suite 800 Oakland, CA 94612, attn: Matthew Reed, Before invoice will be paid.

* - Sample numbers are generated by Building Number followed by the date, year, month, day, and then sample number. For example, a sample collected from Building 1901 on April 30, 1999, would be numbered 1901-990430-01. Please adhere to this numbering method. For samples other than asbestos, insert a sample type indicator after the date and before the sample number. For example 1901-990430-Pb-01, would be a lead sample.

04430-220525-2A, 2B, 3B

04430-220525-1A, 2A, 3A

Bldg #-Drawing Name-Floor:	04430-Lakeside-1st Flr	**USF:**	10,699
Building Name:	Lakeside Plaza	**Print Date:**	12/20/2007
Street Address:	1401 Lakeside Drive	**City:**	Oakland



BLDG. 1931

ENTERED 4/17/08 JS

MICRO ANALYTICAL LABORATORIES. INC.

BULK ASBESTOS ANALYSIS - PLM (EPA/600/R-93/116, 1993)

1023
Steff Steiner
RGA Environmental, Inc.
1466 66th Street
Emeryville, CA 94608

PROJECT:
1401 LAKESIDE DRIVE
12TH FLOOR
PROJECT NO. COAL17358

Micro Log In **102386**
Total Samples 15
Date Sampled 08/24/2007
Date Received 08/24/2007
Date Analyzed 08/27/2007

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client: **1401-12-1A** Micro: 102386-01 Analyst: KM **TAN MASTIC FOR BLUE CARPET CLOSET AREA**	**NONE DETECTED**	Matrix Type: SYNTHETIC MATERIAL
Client: **1401-12-1B** Micro: 102386-02 Analyst: KM **TAN MASTIC FOR BLUE CARPET FRONT OFFICE**	**NONE DETECTED**	Matrix Type: SYNTHETIC MATERIAL
Client: **1401-12-1C** Micro: 102386-03 Analyst: KM **TAN MASTIC FOR BLUE CARPET NORTHEAST OFFICE**	**NONE DETECTED**	Matrix Type: SYNTHETIC MATERIAL
Client: **1401-12-2A** Micro: 102386-04 Analyst: KM **COVE BASE, 4", TAN MASTIC CLOSET AREA**	**MASTIC (TAN): NONE DETECTED** **BACKING: NONE DETECTED**	20 % CELLULOSE Matrix Type: SYNTHETIC MATERIAL
Client: **1401-12-2B** Micro: 102386-05 Analyst: KM **COVE BASE, 4", TAN MASTIC FRONT OFFICE**	**MASTIC (TAN): NONE DETECTED** **BACKING: NONE DETECTED**	20 % CELLULOSE Matrix Type: SYNTHETIC MATERIAL

Technical Supervisor: for Frank Raviola, Laboratory Director — 8/27/2007 Date Reported

Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM is recommended. Only dominant non-asbestos materials are indicated. Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. Layers are analyzed separately when feasible; if asbestos is detected, asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC) Codes: A1/A2 = results within acceptance limits; B = no asbestos in lab blank; R = resolved after review. Accreditation by NIST / NVLAP (Lab Code 101872-0). CA ELAP Certification #1037. EPA 1993 method is based on EPA Interim Method (1982), with improved analytical techniques. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced without the approval of Micro Analytical Laboratories, Inc., shall not be reproduced except in full, and pertains only to the samples analyzed. ND = NO ASBESTOS DETECTED.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - PLM (EPA/600/R-93/116, 1993)

1023
Steff Steiner
RGA Environmental, Inc.
1466 66th Street
Emeryville, CA 94608

PROJECT:
1401 LAKESIDE DRIVE
12TH FLOOR
PROJECT NO. COAL17358

Micro Log In **102386**
Total Samples 15
Date Sampled 08/24/2007
Date Received 08/24/2007
Date Analyzed 08/27/2007

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client: **1401-12-2C** Micro: 102386-06 Analyst: KM **COVE BASE, 4", TAN MASTIC NORTHEAST OFFICE**	**MASTIC (TAN): NONE DETECTED** **BACKING: NONE DETECTED**	20 % CELLULOSE Matrix Type: SYNTHETIC MATERIAL
Client: **1401-12-3A** Micro: 102386-07 Analyst: KM **DRYWALL WITH TAPING COMPOUND CLOSET AREA**	**DRYWALL: NONE DETECTED** **TAPING COMPOUND: NONE DETECTED**	10 % CELLULOSE 3 % FIBROUS GLASS Matrix Type: MIXED CARBONATE - GYPSUM
Client: **1401-12-3B** Micro: 102386-08 Analyst: KM **DRYWALL WITH TAPING COMPOUND NORTHEAST OFFICE**	**DRYWALL: NONE DETECTED** **TAPING COMPOUND: NONE DETECTED**	10 % CELLULOSE 3 % FIBROUS GLASS Matrix Type: MIXED CARBONATE - GYPSUM
Client: **1401-12-3C** Micro: 102386-09 Analyst: KM **DRYWALL WITH TAPING COMPOUND FRONT OFFICE**	**DRYWALL: NONE DETECTED** **TAPING COMPOUND: NONE DETECTED**	10 % CELLULOSE 3 % FIBROUS GLASS Matrix Type: MIXED CARBONATE - GYPSUM
Client: **1401-12-3A** Micro: 102386-10 Analyst: KM **COVE BASE MASTIC FILE ROOM FOR HR**	**MASTIC: NONE DETECTED** **BACKING: NONE DETECTED**	20 % CELLULOSE Matrix Type: SYNTHETIC MATERIAL

Technical Supervisor: Sandra Hein 8/27/2007
for Frank Raviola, Laboratory Director Date Reported

Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM is recommended. Only dominant non-asbestos materials are indicated. Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. Layers are analyzed separately when feasible; if asbestos is detected, asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC) Codes: A1/A2 = results within acceptance limits; B = no asbestos in lab blank; R = resolved after review. Accreditation by NIST / NVLAP (Lab Code 101872-0). CA ELAP Certification #1037. EPA 1993 method is based on EPA Interim Method (1982), with improved analytical techniques. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced without the approval of Micro Analytical Laboratories, Inc., shall not be reproduced except in full, and pertains only to the samples analyzed. ND = NO ASBESTOS DETECTED.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - PLM (EPA/600/R-93/116, 1993)

1023
Steff Steiner
RGA Environmental, Inc.
1466 66th Street
Emeryville, CA 94608

PROJECT:
1401 LAKESIDE DRIVE
12TH FLOOR
PROJECT NO. COAL17358

Micro Log In **102386**
Total Samples 15
Date Sampled 08/24/2007
Date Received 08/24/2007
Date Analyzed 08/27/2007

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client: **1401-12-3B** Micro: 102386-11 Analyst: KM **COVE BASE MASTIC** **SOUTHWEST CORNER OF ROOM**	**MASTIC: NONE DETECTED** **BACKING: NONE DETECTED**	20 % CELLULOSE Matrix Type: SYNTHETIC MATERIAL
Client: **1401-12-3C** Micro: 102386-12 Analyst: KM **COVE BASE MASTIC**	**MASTIC: NONE DETECTED** **BACKING: NONE DETECTED**	20 % CELLULOSE Matrix Type: SYNTHETIC MATERIAL
Client: **1401-12-5A** Micro: 102386-13 Analyst: KM **CARPET MASTIC** **FILE ROOM HR**	**NONE DETECTED**	Matrix Type: SYNTHETIC MATERIAL
Client: **1401-12-5B** Micro: 102386-14 Analyst: KM **CARPET MASTIC** **SOUTHWEST CORNER**	**NONE DETECTED**	Matrix Type: SYNTHETIC MATERIAL
Client: **1401-12-5C** Micro: 102386-15 Analyst: KM **CARPET MASTIC** **NORTH SIDE**	**MASTIC: NONE DETECTED** **LEVELING COMPOUND: NONE DETECTED**	Matrix Type: CARBONATE SYNTHETIC MATERIAL

Technical Supervisor: Sandra Hew 8/27/2007
for Frank Raviola, Laboratory Director Date Reported

Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM is recommended. Only dominant non-asbestos materials are indicated. Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. Layers are analyzed separately when feasible; If asbestos is detected, asbestos percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC) Codes: A1/A2 = results within acceptance limits; B = no asbestos in lab blank; R = resolved after review. Accreditation by NIST / NVLAP (Lab Code 101872-0). CA ELAP Certification #1037. EPA 1993 method is based on EPA Interim Method (1982), with improved analytical techniques. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced without the approval of Micro Analytical Laboratories, Inc., shall not be reproduced except in full, and pertains only to the samples analyzed. ND = NO ASBESTOS DETECTED.

RGA ENVIRONMENTAL

X PM - S. Steiner Steff@rgaenv.com fax: 510 899.7051
__PM – K. Schroeter karin@rgaenv.com fax: 510.899.7063
__PM-K. Pilgrim ken@rgaenv.com fax: 510.899.7053
__PM – B. Weisbrod brent.weisbrod@rgaenv.com fax: 510.899.7062
__PM – T. Kattchee tedd@rgaenv.com fax: 510.899.7070
__PM – B. Gils bob@rgaenv.com fax: 510.899.7050

ACM BULK SAMPLE DATA SHEET

* PLM Analysis

_X_ Stop Analysis at First Positive
__ Analyze All Samples
__ Point Count Analysis (400-point)

PAGE __ OF __

102386

Project Name/Address: 1401 LAKESIDE DR 12TH FLOOR PO #

RGA Project #: OAL17358 Sampled By: KEVIN REEVE Sampling Date: 8/24/07

Sample(s) Sent To: X RGA ___ EMSL ___ Other: TAT: ___Rush X 24Hrs ___3-5 Days

FAX OR E-MAIL REPORT TO: *SEE ABOVE PROJECT MANAGER (PM) ***

***ADDITIONAL REPORT RECIPIENT(S): ***

	HM#	Material Description: TAN MASTIC FOR BLUE CARPET
	Sample ID	Sample Location & Material Location — Quantity:
01	1401-12-1A	CLOSET AREA
02	1B	FRONT OFFICE
03	1C	NE OFFICE
	HM#	Material Description: COVE BASE, 4", TAN MASTIC
	Sample ID	Sample Location & Material Location — Quantity:
04	1401-12-2A	CLOSET AREA
05	2B	FRONT OFFICE
06	2C	NE OFFICE
	HM#	Material Description: DRYWALL W/ TAPING COMPOUND
	Sample ID	Sample Location & Material Location — Quantity:
07	1401-12-3A	CLOSET AREA
08	3B	NE OFFICE
09	3C	FRONT OFFICE
	HM#	Material Description: COVE BASE MASTIC,
	Sample ID	Sample Location & Material Location — Quantity:
10	1401-12-4A	FILE RM FOR HR
11	4B	SW CORNER of ROOM
12	4C	
	HM#	Material Description: CARPET MASTIC
	Sample ID	Sample Location & Material Location — Quantity:
13	5A	FILE RM HR
14	5B	SW CORNER
15	5C	N SIDE

Bill directly to Alameda Attn: Jason G

Relinquished By: KEVIN REEVE Signature: Date/Time: 8/24/07

Received By: Kao Saelee Signature: Date/Time: 8/24/07 3:40pm

Relinquished By: Signature: Date/Time:

Received By: Signature: Date/Time:

04430 / 1931

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - PLM (EPA/600/R-93/116, 1993)

1098
Mike Benefield
IHI Environmental
1260 45th Street, Suite L
Emeryville, CA 94608

PROJECT:
COA - 3 BUILDINGS
LTD SAMPLING
1401 LAKESIDE DRIVE
OAKLAND, CA
08B-2172

Micro Log In **113886**
Total Samples 14
Date Sampled 07/15/2008
Date Received 07/15/2008
Date Analyzed 07/15/2008

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client: 2172-7/15-201-1 Micro: 113886-01 Analyst: DA CERAMIC WALL TILE ADHESIVE & GROUT MENS 3 NEAR DOOR	ADHESIVE (YELLOW): NONE DETECTED GROUT (WHITE): NONE DETECTED	6 % CELLULOSE Matrix Type: ROCK FRAGMENTS SYNTHETIC MATERIAL
Client: 2172-7/15-202-1 Micro: 113886-02 Analyst: DA CERAMIC WALL TILE ADHESIVE & GROUT MENS 3 AT DOOR THRESHOLD	ADHESIVE: NONE DETECTED GROUT: NONE DETECTED	Matrix Type: CARBONATE ROCK FRAGMENTS
Client: 2172-7/15-201-2 Micro: 113886-03 Analyst: DA CERAMIC WALL TILE ADHESIVE & GROUT WOMEN 1 AT SOUTH WALL	ADHESIVE: NONE DETECTED GROUT: NONE DETECTED PAPER: NONE DETECTED	20 % CELLULOSE Matrix Type: CARBONATE ROCK FRAGMENTS
Client: 2172-7/15-202-2 Micro: 113886-04 Analyst: DA CERAMIC WALL TILE ADHESIVE & GROUT WOMEN 1 AT DOOR THRESHOLD	ADHESIVE: NONE DETECTED GROUT: NONE DETECTED TILE: NONE DETECTED	Matrix Type: CLAY ROCK FRAGMENTS
Client: 2172-7/15-201-3 Micro: 113886-05 Analyst: DA CERAMIC WALL TILE ADHESIVE & GROUT WOMEN 4 BY DOOR	ADHESIVE: NONE DETECTED GROUT: NONE DETECTED PAPER: NONE DETECTED	20 % CELLULOSE Matrix Type: CARBONATE SYNTHETIC MATERIAL

Technical Supervisor: _____ 7/16/2008
Gamini Ranatunga, Ph.D. Date Reported

Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM is recommended. Only dominant non-asbestos materials are indicated, interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. Layers are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC) Codes: A1/A2 = results within acceptance limits; F = false positive or negative corrected, reanalysis within acceptance limits; M = Method error resolved (for trace amounts); R = Other, resolved after review. Accreditation: NIST / NVLAP (Lab Code 101872-0), CA ELAP Certification #1037. EPA 1993 method is based on EPA Interim Method (1982), with improved analytical techniques. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced without the approval of Micro Analytical Laboratories, Inc., shall not be reproduced except in full, and pertains only to the samples analyzed. ND = NO ASBESTOS DETECTED.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - PLM (EPA/600/R-93/116, 1993)

1098
Mike Benefield
IHI Environmental
1260 45th Street, Suite L
Emeryville, CA 94608

PROJECT:
COA - 3 BUILDINGS
LTD SAMPLING
1401 LAKESIDE DRIVE
OAKLAND, CA
08B-2172

Micro Log In **113886**
Total Samples 14
Date Sampled 07/15/2008
Date Received 07/15/2008
Date Analyzed 07/15/2008

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client: 2172-7/15-202-3 Micro: 113886-06 Analyst: DA CERAMIC WALL TILE ADHESIVE & GROUT WOMEN 4 AT DOOR THRESHOLD	ADHESIVE: NONE DETECTED GROUT: NONE DETECTED	2 % CELLULOSE Matrix Type: CARBONATE ROCK FRAGMENTS
Client: 2172-7/15-203-1 Micro: 113886-07 Analyst: DA GR GYPSUM WALLBOARD SYSTEM MENS 3 BEHIND DOOR	WALLBOARD: NONE DETECTED TEXTURE: NONE DETECTED PAINT: NONE DETECTED (NO TAPE IN THE SAMPLE)	10 % CELLULOSE 2 % FIBROUS GLASS Matrix Type: MIXED CARBONATE - GYPSUM QC: A2
Client: 2172-7/15-204-1 Micro: 113886-08 Analyst: DA COVEBASE & ADHESIVE BREAKROOM 122 NORTHEAST	COVE BASE: NONE DETECTED ADHESIVE: NONE DETECTED	Matrix Type: CARBONATE SYNTHETIC MATERIAL
Client: 2172-7/15-205-1 Micro: 113886-09 Analyst: DA GYPSUM WALLBOARD SYSTEM BREAKROOM 122 NORTHWEST	WALLBOARD: NONE DETECTED JOINT COMPOUND: NONE DETECTED TEXTURE / PAINT: NONE DETECTED	10 % CELLULOSE 2 % FIBROUS GLASS Matrix Type: MIXED CARBONATE - GYPSUM
Client: 2172-7/15-205-2 Micro: 113886-10 Analyst: DA GYPSUM WALLBOARD SYSTEM BREAKROOM 122 NORTHEAST	WALLBOARD: NONE DETECTED JOINT COMPOUND: NONE DETECTED TEXTURE / PAINT: NONE DETECTED	10 % CELLULOSE 2 % FIBROUS GLASS Matrix Type: MIXED CARBONATE - GYPSUM

Technical Supervisor: Gamini Ranatunga, Ph.D. 7/16/2008 Date Reported

Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 µm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM). The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM is recommended. Only dominant non-asbestos materials are indicated. Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. Layers are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. Composite asbestos percentages are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC) Codes: A1/A2 = results within acceptance limits; F = false positive or negative corrected, reanalysis within acceptance limits; M = Method error resolved (for trace amounts); R = Other, resolved after review. Accreditation: NIST / NVLAP (Lab Code 101872-0). CA ELAP Certification #1037. EPA 1993 method is based on EPA Interim Method (1982), with improved analytical techniques. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced without the approval of Micro Analytical Laboratories, Inc., shall not be reproduced except in full, and pertains only to the samples analyzed. ND = NO ASBESTOS DETECTED.

MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - PLM (EPA/600/R-93/116, 1993)

1098
Mike Benefield
IHI Environmental
1260 45th Street, Suite L
Emeryville, CA 94608

PROJECT:
COA - 3 BUILDINGS
LTD SAMPLING
1401 LAKESIDE DRIVE
OAKLAND, CA
08B-2172

Micro Log In **113886**
Total Samples 14
Date Sampled 07/15/2008
Date Received 07/15/2008
Date Analyzed 07/15/2008

SAMPLE IDENTIFICATION	ASBESTOS INFORMATION QUANTITY (AREA %) / TYPES / LAYERS / DISTINCT SAMPLES	DOMINANT OTHER MATERIALS
Client: 2172-7/15-205-3 Micro: 113886-11 Analyst: DA GYPSUM WALLBOARD SYSTEM BREAKROOM 122 NORTHEAST	WALLBOARD: NONE DETECTED JOINT COMPOUND: NONE DETECTED PAINT: NONE DETECTED	20 % CELLULOSE Matrix Type: MIXED CARBONATE - GYPSUM
Client: 2172-7/15-206-1 Micro: 113886-12 Analyst: DA GR SKIM COAT BREAKROOM 122 NORTHWEST	SKIM COAT: NONE DETECTED PAINT: NONE DETECTED TAPE: NONE DETECTED	15 % CELLULOSE Matrix Type: CARBONATE SYNTHETIC MATERIAL QC: A2
Client: 2172-7/15-206-2 Micro: 113886-13 Analyst: DA SKIM COAT BREAKROOM 122 NORTHEAST	SKIM COAT: NONE DETECTED PAINT: NONE DETECTED TAPE: NONE DETECTED	15 % CELLULOSE Matrix Type: CARBONATE SYNTHETIC MATERIAL
Client: 2172-7/15-206-3 Micro: 113886-14 Analyst: DA SKIM COAT BREAKROOM 122 NORTHEAST	SKIM COAT: NONE DETECTED PAINT: NONE DETECTED TAPE: NONE DETECTED	15 % CELLULOSE Matrix Type: CARBONATE SYNTHETIC MATERIAL

Technical Supervisor: _____ 7/16/2008
Gamini Ranatunga, Ph.D. Date Reported

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113980

IHI Environmental

Bulk Sample Data Sheet and Chain of Custody

Project Name: COA 3 BLDGS LTD SAMPLING	Date: 7/15/08	Notes:	
Project Number: 08R-2172	(PLM) Pt.Cnt. / AA		
Address: 1401 LAKESIDE DR, OAKLAND	Turn Around Time		
Sampled By: M. BENEFIELD	Rush (24hr) Std		

	Sample ID#	Material Description	Sample Location	Photo
01	2172-7/15-201-1	Ceramic Wall Tile Adhesive & Grout	MENS (3) INT. DOOR	
02	2172-7/15-202-1	Ceramic Floor Tile Adhesive & Grout	MEN'S (3) @ DOOR THRESHOLD	
03	2172-7/15-201-2	Ceramic Wall Tile Adhesive & Grout	WOMEN (1) SOUTH WALL	
04	2172-7/15-202-2	Ceramic Wall Tile Adhesive & Grout	WOMEN (1) @ DOOR THRESHOLD	
05	2172-7/15-201-3	Ceramic Wall Tile Adhesive & Grout	WOMEN (4) BY DOOR	
06	2172-7/15-202-3	Ceramic Floor Tile Adhesive & Grout	WOMEN (4) @ DOOR THRESHOLD	
07	2172-7/15-203-1	GYPSUM WALLBOARD SYSTEM	Mens (3) Behind Door	
08	2172-7/15-204-1	COVEBASE & ADHESIVE	BREAK RM (12) NORTH EAST	
09	2172-7/15-205-1	GYPSUM WALLBOARD SYSTEM	BREAK RM (12) NW	
10	2172-7/15-205-2	GYPSUM WALLBOARD SYSTEM	" " NE	
11	2172-7/15-205-3	GYPSUM WALLBOARD SYSTEM	" " NE	
12	2172-7/15-206-1	SKIM COAT	" " NW	
13	2172-7/15-206-2	SKIM COAT	" " NE	
14	2172-7/15-206-3	SKIM COAT	" " NE	
		Bill to Co. Alameda		

Relinquished By:	Date//Time 7/15/08 1:40	Relinquished By:	Date//Time
Received By:	Date//Time 7-15-08 13:41	Received By:	Date//Time

RGA ENVIRONMENTAL
1730 Minor Avenue, Suite 900, Seattle, WA 98101
OFFICE: (206) 281-8858 FAX: (206) 281-8922 email: laboratory@rgaenv.com

Bulk Asbestos Fiber Analysis
(EPA 600/R-93/116)

NVLAP LAB CODE 200613-0

County of Alameda

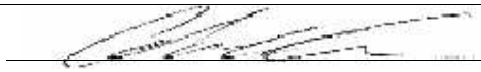
Project Location: Parking Garage
1401 Lakeside
Oakland, CA

RGA Batch Number: **13-0112**
RGA Project Number: **COAL31970**
Number of Samples: **4**

Report Key

Client Sample ID / RGA Lab ID	Layer ID (if applicable) / Layer Description / **Layer Comments (if applicable)**	**Asbestos Components**	Non-Asbestos Fibrous Components	Non-Fibrous Components
1-A 13001144	L-1 Gray concrete	**No Asbestos Detected**		50% Sand 30% Mineral Particles 20% Rocks
1-B 13001145	L-1 Gray concrete	**No Asbestos Detected**		50% Sand 30% Mineral Particles 20% Rocks
2-A 13001146	L-1 Red Granular material	**No Asbestos Detected**		40% Sand 40% Mineral Particles 20% Rust
	L-2 Gray concrete	**No Asbestos Detected**		50% Sand 30% Mineral Particles 20% Rocks
2-B 13001147	L-1 Gray concrete	**No Asbestos Detected**		50% Sand 30% Mineral Particles 20% Rocks

Sampled By: Steve Rogers
Received By: Abdulrazzak Mansur 1/17/2013
Reviewed By: Aruna Turaga 1/18/2013



Analyzed By: Adam Kinch 1/18/2013

Sample Log
Chain of Custody

RGA Laboratory Services
INTERNAL

Client:	Client Contact
Company:	County of Alameda
Client Address:	neral Services Agency / 1401 Lakeside Dr., 11th Fl
Oakland (City)	CA (State) 94612 (Zip)
Phone #:	
2nd or Cell #:	
Fax #:	
e-mail Address:	
Project Manager:	Steff Steiner

RGA Batch #:	13-0112
RGA Project #:	COAL31970
Client Job #:	
Number of Samples:	4

TYPE OF ANALYSIS		
ASBESTOS:	**METALS:**	
____ PCM (air)	____ Paint	____ Soil
__X__ PLM (bulk)	____ Wipe	____ Air
____ Pt. Count (bulk)	____ TCLP	____ Water
MOLD: P&K ___ 100 ___ 101 ___ 102 ___ 105 ___ 117		
Other Method:		

Project Location:	Parking Garage
	1401 Lakeside
	Oakland, CA

Turn Around Time (other): 24 hour		
2 hour / 4 hour	Same Day	~~One Day~~
Two Day	3-5 days	10 days
Price per Sample:	$_____	

Condition: X Good _____Damaged _____Severe Damage

#	Client Sample ID	RGA Laboratory ID	Comments	#	Client Sample ID	RGA Laboratory ID	Comments
1	1-A	13001144		11			
2	1-B	13001145		12			
3	2-A	13001146		13			
4	2-B	13001147		14			
5				15			
6				16			
7				17			
8				18			
9				19			
10				20			

	Signature	Date	Time
Sampled by:	S. ROGERS	1/16/13	
Relinquished by:			
Received by:	DUANE FLOHRA	1/16/13	1440
Relinquished by:			
Received for Laboratory by:		1/17/13	1311
Analyzed by:			
Preliminary Results Reported to P.M. by:		1/18/13	
Final Report to P.M. by:			

Special Instructions:
Analyze all samples
Due by 1/18/2013

13-0112

RGA
ENVIRONMENTAL

PM – S. Steiner steff@rgaenv.com fax: 510.899.7051
PM – K. Schroeter karin@rgaenv.com fax: 510.899.7063
PM – K. Pilgrim ken@rgaenv.com fax: 510.899.7053
PM – T. Kattchee tedd@rgaenv.com fax: 510.899.7070
PM – B. Gils bob@rgaenv.com fax: 510.899.7050
PM – Marlin Bryant marlin.bryant@rgaenv.com fax:510.899.7062

ACM BULK SAMPLE DATA SHEET

* PLM Analysis
___ Stop Analysis at First Positive
✓ Analyze All Samples
___ Point Count Analysis (400-point)

PAGE 1 OF 1

Project Name/Address/Building No. : 1401 Lakeside, Oakland CA (Parking garage)

RGA Project: COAL-31970 **Sampled By:** S Rogers **Sample Date** 1-16-13

Sample(s) Sent To: ✓ RGA ___ EMSL ___ Other: _____ TAT: ___ Rush ✓ 24Hrs ___ 3-5 Days

***FAX OR E-MAIL REPORT TO: *SEE ABOVE PROJECT MANAGER (PM)* ***

***ADDITIONAL REPORT RECIPIENT(S): _____ ***

HM# 1	Material Description: Concrete wall	
Sample ID	Sample Location & Material Location	Quantity:
1-A	P-1 Parking garage South wall at water main	
1-B	P-2 Parking garage South wall at sprinkler system main	

HM# 2	Material Description: Concrete Floor	
Sample ID	Sample Location & Material Location	Quantity:
2-A	P-1 Parking garage at South wall water main	
2-B	P-2 Parking garage at South wall sprinkler main	

HM#	Material Description:	
Sample ID	Sample Location & Material Location	Quantity:
A		
B		
C		

HM#	Material Description:	
Sample ID	Sample Location & Material Location	Quantity:
A		
B		
C		

HM#	Material Description:	
Sample ID	Sample Location & Material Location	Quantity:
A		
B		
C		
D		
E		
F		
G		

Relinquished By: Steve Rogers Signature: _____ Date/Time: 1-16-13 1730

Received By: Duane Flohra Signature: _____ Date/Time: JAN 16 2013/1440

Relinquished By: _____ Signature: _____ Date/Time: _____

Received By: RAZ MANSURD Signature: _____ Date/Time: 1/17/13

04430 /1931
Ent 3/2/16

ASBESTOS TEM LABORATORIES, INC.

EPA Interim Method
Polarized Light Microscopy
Analytical Report

Laboratory Job # 338360

600 Bancroft Way, Ste. A
Berkeley, CA. 94710
(510) 704-8930
FAX (510) 704-8429
www.asbestostemlabs.com

With Branch Offices Located At:
1350 FREEPORT BLVD. UNIT 104, SPARKS, NV 89431
Ph. (775) 359-3377

ASBESTOS TEM LABORATORIES, INC

CA DPH ELAP
Lab No. 1866

NVLAP®
NVLAP Lab Code: 101891-0
Berkeley, CA

Dec-24-15

Steffan Steiner
Terracon Consultants, Inc.
1260 45th Street
Emeryville, CA 94608

RE: LABORATORY JOB # 338360
Polarized light microscopy analytical results for 7 bulk sample(s).
Job Site: 1401 Lakeside Drive Oakland, California
Job No.: R1158379

Enclosed please find the bulk material analytical results for one or more samples submitted for asbestos analysis. The analyses were performed in accordance with EPA Method 600/R-93/116 or 600/M4-82-020 for the determination of asbestos in bulk building materials by polarized light microscopy (PLM). Please note that while PLM analysis is commonly performed on non-friable and fine grained materials such as floor tiles and dust, the EPA method recognizes that PLM is subject to limitations. In these situations, accurate results may only be obtainable through the use of more sophisticated and accurate techniques such as transmission electron microscopy (TEM) or X-ray diffraction (XRD).

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Each sample is opened in a class 100 HEPA negative air hood. A representative sampling of the material is selected and placed onto a glass microscope slide containing a drop of refractive index oil. The glass slide is placed under a polarizing light microscope where standard mineralogical techniques are used to analyze and quantify the various materials present, including asbestos. The data is then compiled into a standard report format and reviewed by the authorized signatory before being released to the client.

Sincerely Yours,

Lab Manager
ASBESTOS TEM LABORATORIES, INC.

Note: Test samples will be stored for three months after data of receipt, after which they will be properly disposed unless client makes other arrangements with the laboratory.

POLARIZED LIGHT MICROSCOPY
ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Steffan Steiner

Address: Terracon Consultants, Inc.
1260 45th Street
Emeryville, CA 94608

Samples Indicated: 7
Reg. Samples Analyzed: 7
Split Layers Analyzed: 0

Report No. **338360**
Date Submitted: Dec-23-15
Date Reported: Dec-24-15

Job Site / No. 1401 Lakeside Drive Oakland, California
R1158379

SAMPLE ID	ASBESTOS % TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD / LAB
01-SP5-01	**None Detected**	1) 2-10% Cellulose, Fiberglass 2) 90-98% Calc	1st floor electrical room
Lab ID # 1434-00642-001		3) Dec-23-15 4) Dec-24-15	Insulation-Off-White/Grey
01-SP5-02	**None Detected**	1) 2-10% Cellulose, Fiberglass 2) 90-98% Calc	4th floor electrical room
Lab ID # 1434-00642-002		3) Dec-23-15 4) Dec-24-15	Insulation-Off-White/Grey
01-SP5-03	**None Detected**	1) 2-10% Cellulose, Fiberglass 2) 90-98% Calc	7th floor electrical room
Lab ID # 1434-00642-003		3) Dec-23-15 4) Dec-24-15	Insulation-Off-White/Grey
01-SP5-04	**None Detected**	1) 2-10% Cellulose, Fiberglass 2) 90-98% Calc	9th floor electrical room
Lab ID # 1434-00642-004		3) Dec-23-15 4) Dec-24-15	Insulation-Off-White/Grey
01-SP5-05	**None Detected**	1) 2-10% Cellulose, Fiberglass 2) 90-98% Calc	10th floor electrical room
Lab ID # 1434-00642-005		3) Dec-23-15 4) Dec-24-15	Insulation-Off-White/Grey
01-SP5-06	**None Detected**	1) 2-10% Cellulose, Fiberglass 2) 90-98% Calc	11th floor electrical room
Lab ID # 1434-00642-006		3) Dec-23-15 4) Dec-24-15	Insulation-Off-White/Grey
01-SP5-07	**None Detected**	1) 2-10% Cellulose, Fiberglass 2) 90-98% Calc	12th floor electrical room
Lab ID # 1434-00642-007		3) Dec-23-15 4) Dec-24-15	Insulation-Off-White/Grey
Lab ID #		1) 2) 3) 4)	
Lab ID #		1) 2) 3) 4)	
Lab ID #		1) 2) 3) 4)	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hnatko

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemlabs.com

600 Bancroft Way, Ste. A, Berkeley CA 94710 (510) 704-8930
With Offices in Reno, NV (775) 359-3377

Terracon

■ PM – S. Steiner sjsteiner@terracon.com	☐ PM – K. Schroeter kmschroeter@terracon.com	☐ PM – K. Pilgrim kmpilgrim@terracon.com
☐ PM – M. Bryant mvbryant@terracon.com	☐ PM – T. Kattchee takattchee@terracon.com	☐ PM – B. Gils regils@terracon.com
☐ PM- M. Benefield msbenefield@terracon.com	☐ PM D. Ufferfilge dufferfilge@terracon.com	☐ PM – M. Bishop mrbishop@terracon.com
☐ PM – W. Frieszell wmfrieszell@terracon.com	X send copy of results to jason.garrison@acgov.org	

ACM BULK SAMPLE DATA SHEET
☒ PLM Analysis (Analyze all samples)
☐ Stop Analysis at First Positive
☐ Point Count Analysis (400-point)

PAGE 1 OF 1

Project Name/ Address/ Building No. 1401 Lakeside Drive Oakland, California

Project# R1158379 Sampled By: John Urban Sampling Date: 12-23-15

Sample(s) sent to: ☐ RGA ☐ EMSL ☒ Other _____ TAT ☒ Rush ☐ 24HRS ☐ 3-5 days

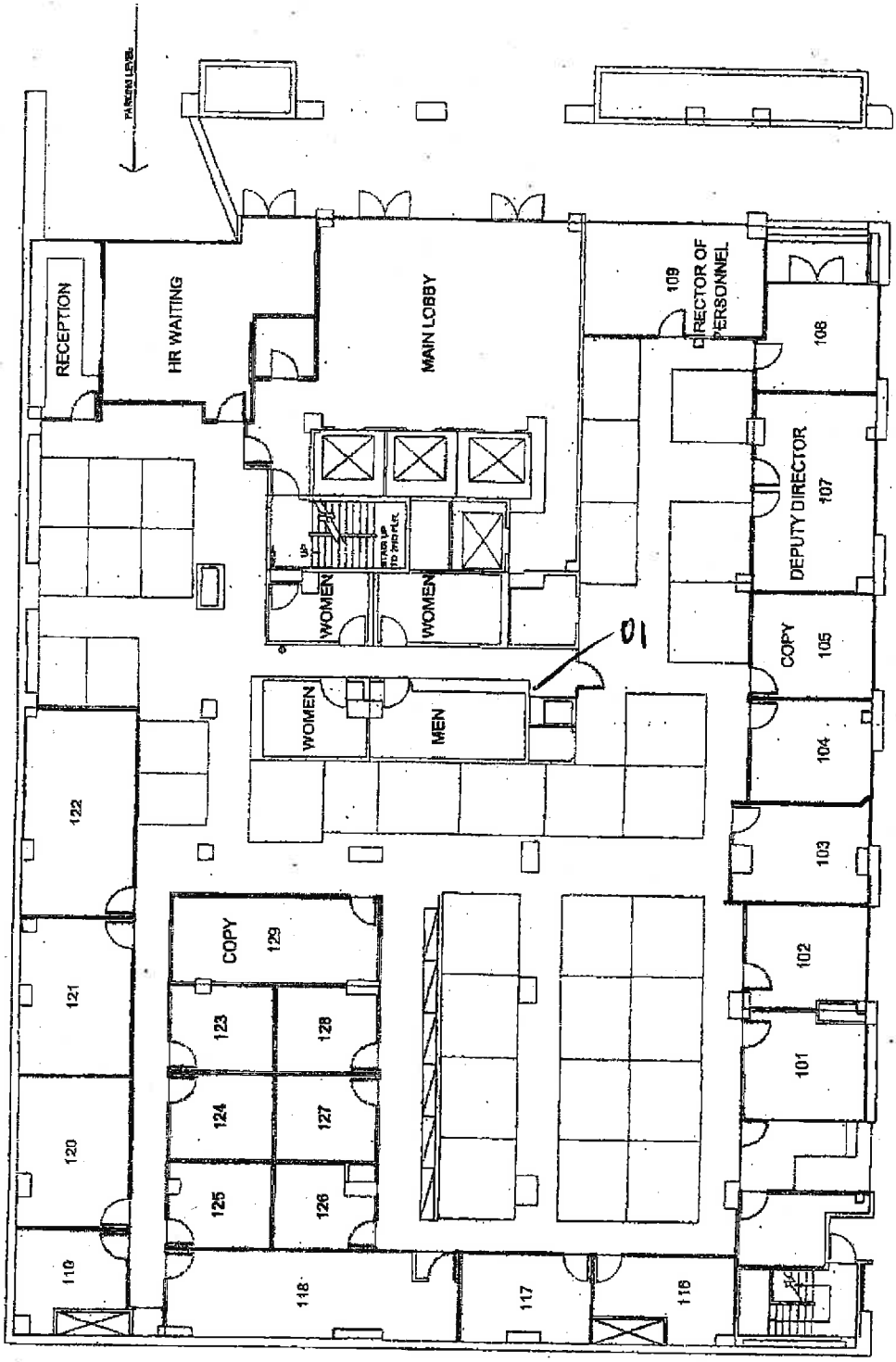
FAX OR E-MAIL REPORT TO: *SEE ABOVE PROJECT MANAGER (PM)**

***ADDITIONAL REPORT RECIPIENT(S): John@rgaenv.com ***

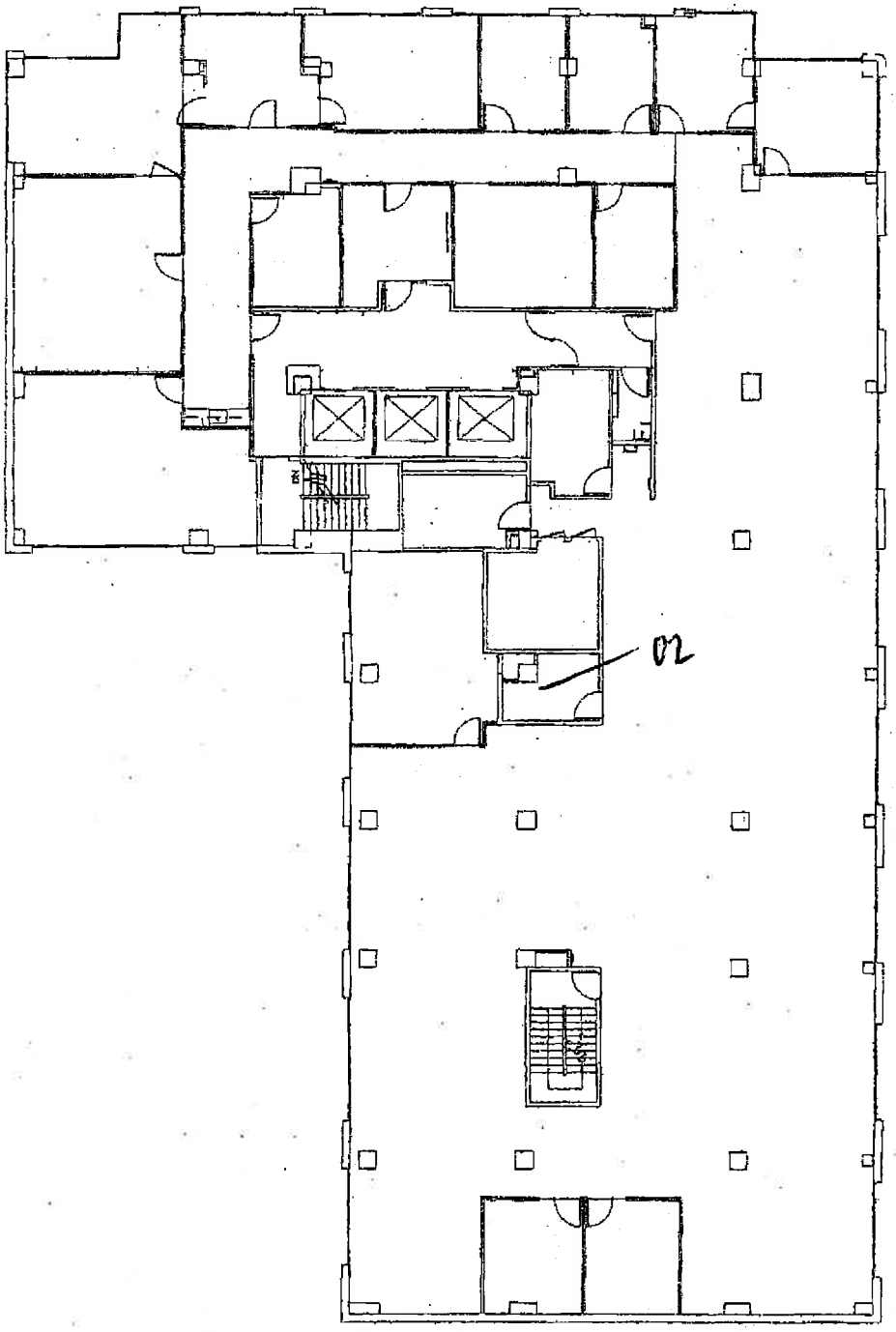
HM# 1	Material Description: Concrete	
Sample ID	Sample Location & Material Location	Quantity:
01-SP5-01	1st floor electrical room	
01-SP5-02	4th floor electrical room	
01-SP5-03	7th floor electrical room	
HM# 1	Material Description: Concrete	
Sample ID	Sample Location & Material Location	Quantity:
01-SP5 -04	9th floor electrical room	
01-SP5-05	10th floor electrical room	
01-SP5-06	11th floor electrical room	
HM# 1	Material Description: Concrete	
Sample ID	Sample Location & Material Location	Quantity:
01-SP5-07	12th floor electrical room	
HM#	Material Description:	
Sample ID	Sample Location & Material Location	Quantity:

Relinquished By:	John Urban	Signature:	John Urban	Date/Time:	12-23-15
Received By:	Chase Aguirre	Signature:		Date/ Time:	
Relinquished By:		Signature:		Date/Time:	
Received By:		Signature:		Date/Time:	

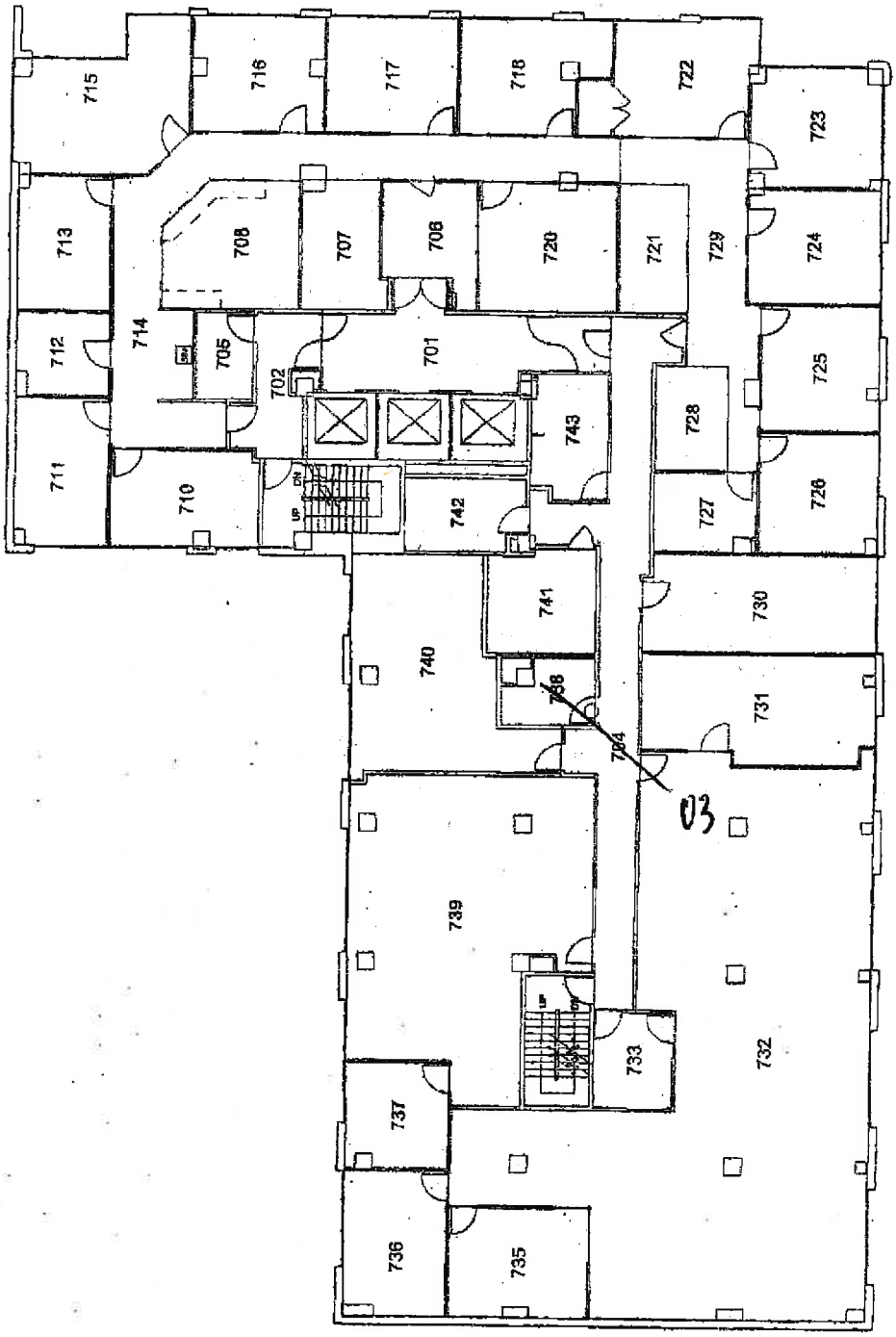
Bldg # Drawing Name Floor:	04430-Lakeside-1st Flr	USF:	10,699
Building Name:	Lakeside Plaza	Print Date:	6/19/2007
Street Address:	1401 Lakeside Drive	City:	Oakland



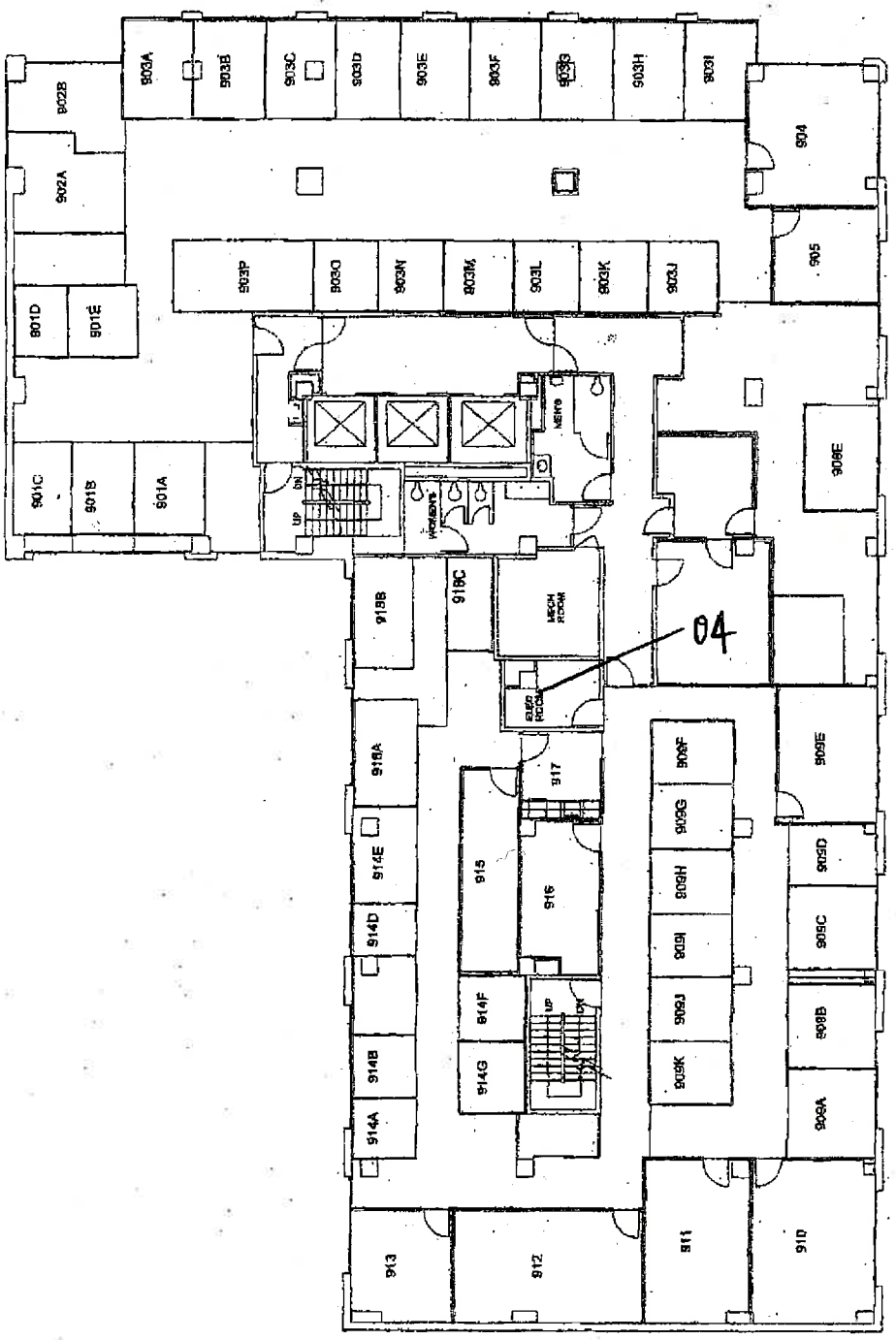
Bldg # Drawing Name Floor:	04430-Lakeside-4th Flr	USF:	9,728
Building Name:	Lakeside Plaza	Print Date:	6/19/2007
Street Address:	1401 Lakeside Drive	City:	Oakland



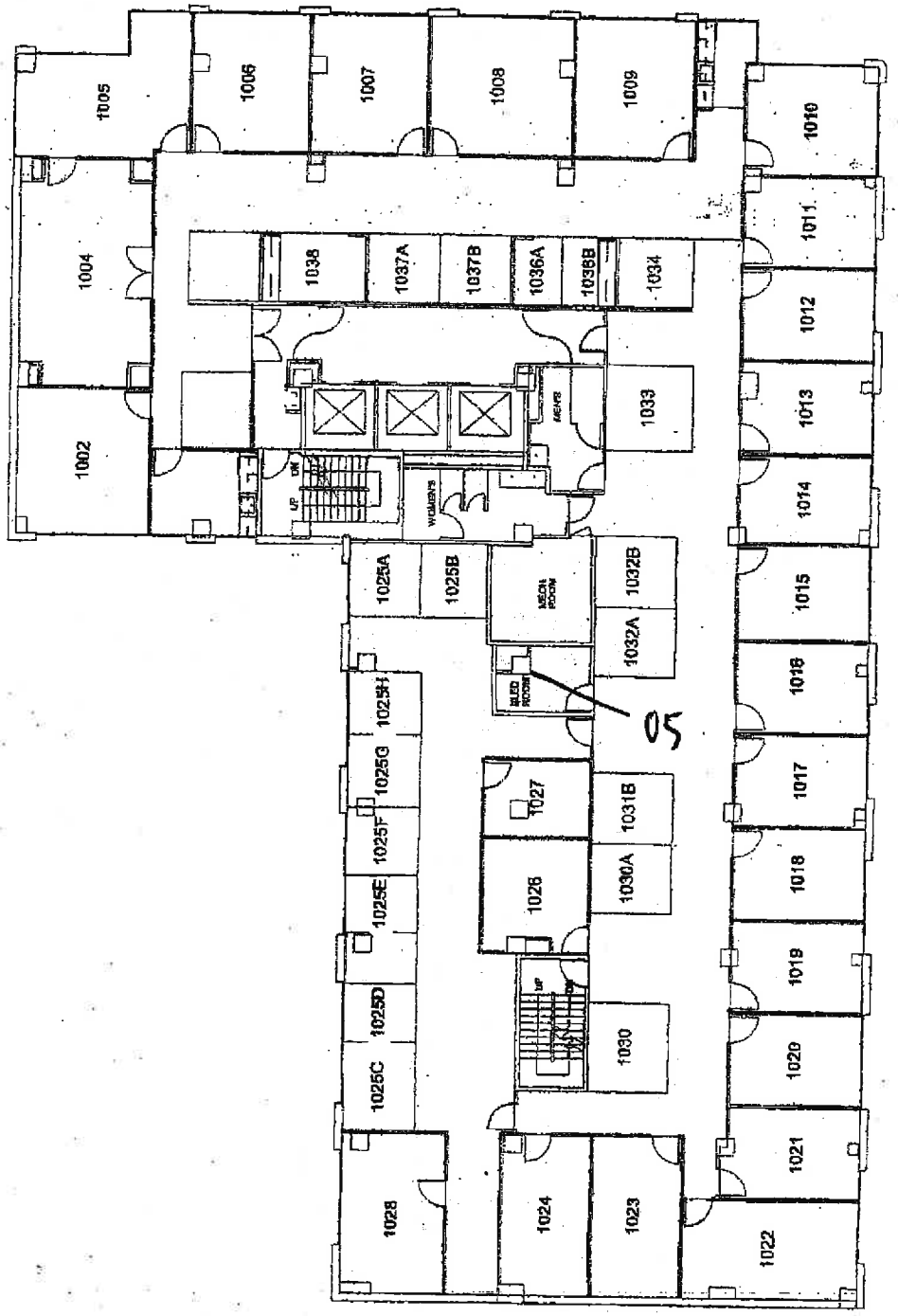
Bldg # Drawing Name Floor:	04430-Lakeside-7th Flr	USF:	9,882
Building Name:	Lakeside Plaza	Print Date:	6/19/2007
Street Address:	1401 Lakeside Drive	City:	Oakland



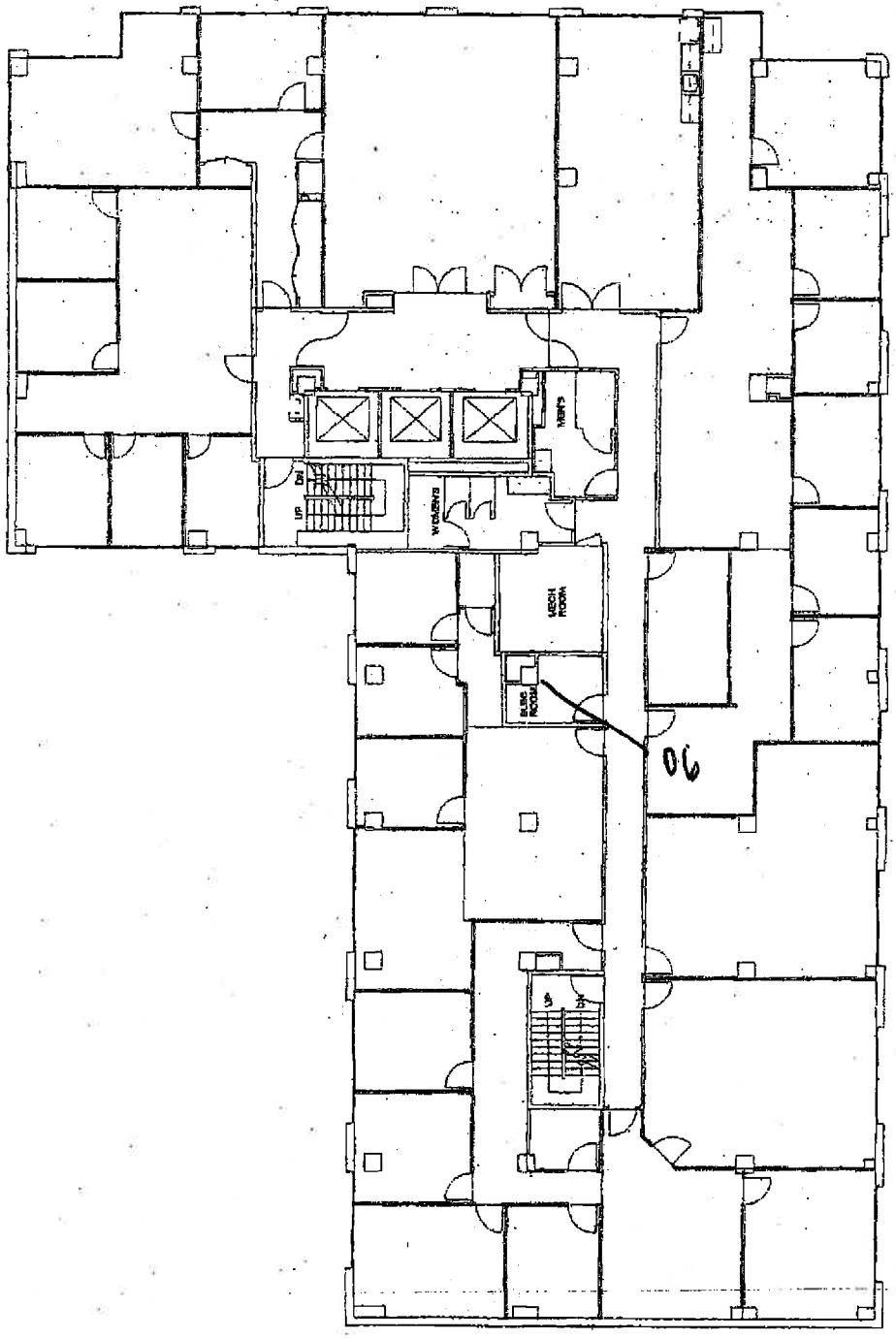
Bldg # Drawing Name Floor:	04430-Lakeside-9th Flr	USF:	9,369
Building Name:	Lakeside Plaza	Print Date:	6/19/2007
Street Address:	1401 Lakeside Drive	City:	Oakland



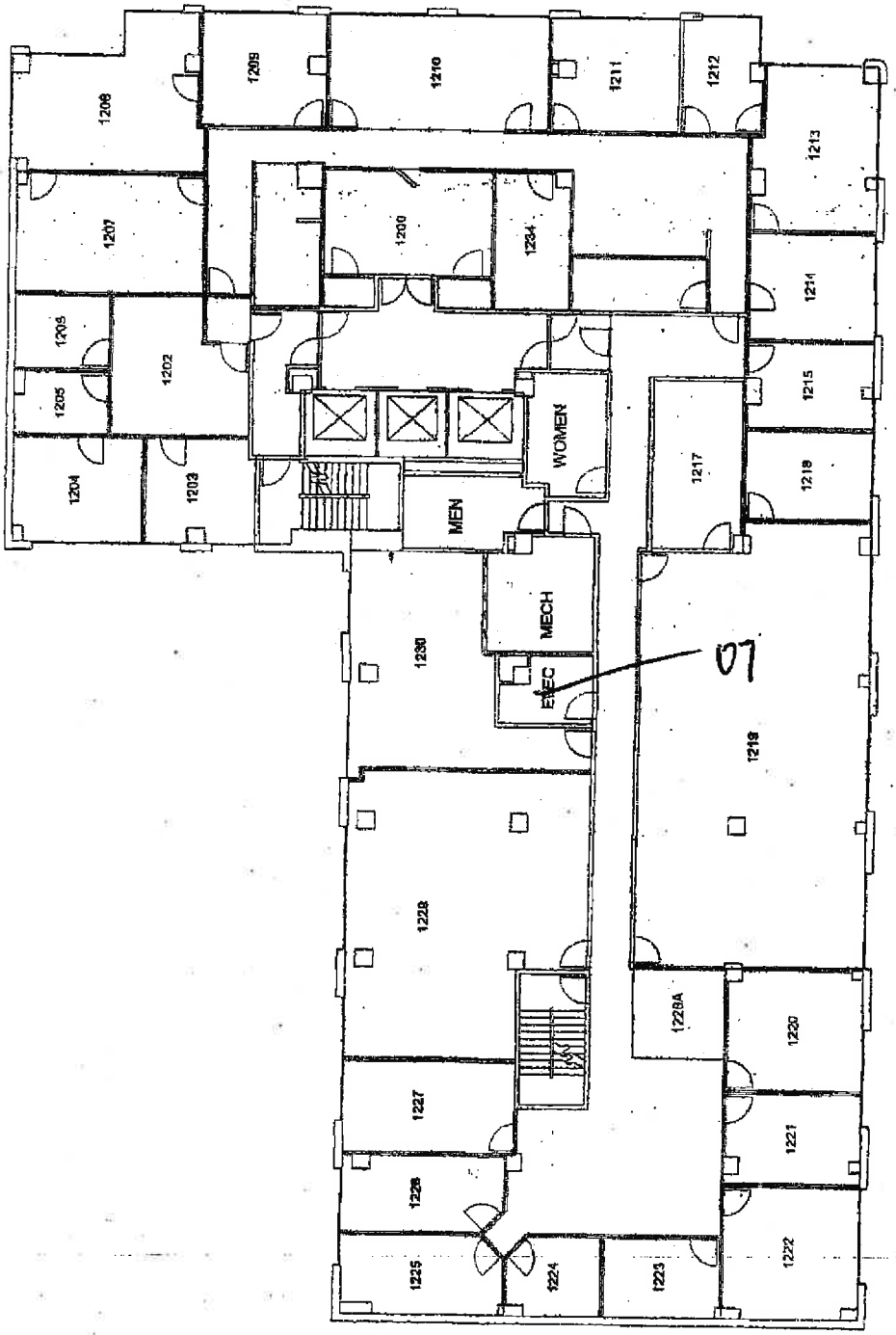
Bldg # Drawing Name Floor:	04430-Lakeside-10th Flr.	USF:	9,471
Building Name:	Lakeside Plaza	Print Date:	6/19/2007
Street Address:	1401 Lakeside Drive	City:	Oakland



Bldg # Drawing Name Floor:	04430-Lakeside-11th Flr	USF:	6,874
Building Name:	Lakeside Plaza	Print Date:	6/19/2007
Street Address:	1401 Lakeside Drive	City:	Oakland



Bldg # Drawing Name Floor:	04430-Lakeside-12th Flr	USF:	10,120
Building Name:	Lakeside Plaza	Print Date:	6/19/2007
Street Address:	1401 Lakeside Drive	City:	Oakland



BLDG. 04430/1931
ENT. 1/30/17

ASBESTOS TEM LABORATORIES, INC.

EPA Interim Method
Polarized Light Microscopy
Analytical Report

Laboratory Job # 346489

600 Bancroft Way, Ste. A
Berkeley, CA 94710
(510) 704-8930
FAX (510) 704-8429
www.asbestostemlabs.com

With Branch Offices Located At:
1350 FREEPORT BLVD. UNIT 104, SPARKS, NV 89431
Ph. (775) 359-3377

ASBESTOS TEM LABORATORIES, INC

CA DPH ELAP
Lab No. 1866

NVLAP®
NVLAP Lab Code: 101891-0
Berkeley, CA

Dec-23-16

S. Steiner
Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

RE: LABORATORY JOB # 346489
Polarized light microscopy analytical results for 4 bulk sample(s) with 2 sample split(s)
Job Site: 1401 Lakeside Rm 1028
Job No.: R1167F47

Enclosed please find the bulk material analytical results for one or more samples submitted for asbestos analysis. The analyses were performed in accordance with EPA Method 600/R-93/116 or 600/M4-82-020 for the determination of asbestos in bulk building materials by polarized light microscopy (PLM). Please note that while PLM analysis is commonly performed on non-friable and fine grained materials such as floor tiles and dust, the EPA method recognizes that PLM is subject to limitations. In these situations, accurate results may only be obtainable through the use of more sophisticated and accurate techniques such as transmission electron microscopy (TEM) or X-ray diffraction (XRD).

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Each sample is opened in a class 100 HEPA negative air hood. A representative sampling of the material is selected and placed onto a glass microscope slide containing a drop of refractive index oil. The glass slide is placed under a polarizing light microscope where standard mineralogical techniques are used to analyze and quantify the various materials present, including asbestos. The data is then compiled into a standard report format and reviewed by the authorized signatory before being released to the client.

Sincerely Yours,

Lab Manager
ASBESTOS TEM LABORATORIES, INC.

Note: Test samples will be stored for three months after data of receipt, after which they will be properly disposed unless client makes other arrangements with the laboratory.

POLARIZED LIGHT MICROSCOPY
ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020 **Page: 1 of**

Contact: S. Steiner

Address: Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

Samples Indicated: 4
Reg. Samples Analyzed: 4
Split Layers Analyzed: 2

Job Site / No. 1401 Lakeside Rm 1028
R1167F47

Report No. **346489**
Date Submitted: Dec-22-16
Date Reported: Dec-23-16

SAMPLE ID	ASBESTOS % TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD LAB
1401-01A	**None Detected**	1) 1-5% Cellulose 2) 95-99% Gyp, Opq, Other m.p.	DW+JC - RM 1028 SE Corner
Lab ID # 1434-01940-001A		3) 4) Dec-23-16	Drywall-Off-White
1401-01A	**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Mica, Other m.p.	DW+JC - RM 1028 SE Corner
Lab ID # 1434-01940-001B		3) 4) Dec-23-16	JointCom/Text-Off-White
1401-01B	**None Detected**	1) 1-5% Cellulose 2) 95-99% Gyp, Opq, Other m.p.	DW+JC - RM 1028 E Wall at Col.
Lab ID # 1434-01940-002A		3) 4) Dec-23-16	Drywall-Off-White
1401-01B	**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Bndr, Mica, Other m.p.	
Lab ID # 1434-01940-002B		3) 4) Dec-23-16	JointCom/Text-Off-White
1401-02A	**None Detected**	1) None Detected 2) 99-100% Calc, Bndr	Yellow Cove Glue - Rm 1028
Lab ID # 1434-01940-003		3) 4) Dec-23-16	Mastic-Yellow
1401-02B	**None Detected**	1) None Detected 2) 99-100% Calc, Bndr	Yellow Cove Glue - Rm 1028
Lab ID # 1434-01940-004		3) 4) Dec-23-16	Mastic-Yellow
Lab ID #		1) 2) 3) 4)	
Lab ID #		1) 2) 3) 4)	
Lab ID #		1) 2) 3) 4)	
Lab ID #		1) 2) 3) 4)	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hunter

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemlabs.com

600 Bancroft Way, Ste. A, Berkeley CA 94710 (510) 704-8930
With Offices in Reno, NV (775) 359-3377

340189 Terracon

☑ PM – S. Steiner spsteiner@terracon.com	☐ PM – K. Schroeter kmschroeter@terracon.com	☐ PM – K. Pilgrim kmpilgrim@terracon.com
☐ PM – M. Bryant mvbryant@terracon.com	☐ PM – T. Kattchee tekattchee@terracon.com	☐ PM – W. Frieszell wmfrieszell@terracon.com
☐ PM- M. Benefield msbenefield@terracon.com	☐ PM D. Ufferfilge dufferfilge@terracon.com	☐ PM – M. Bishop mrbishop@terracon.com

ACM BULK SAMPLE DATA SHEET

☑ PLM Analysis (Analyze all samples)
☐ Stop Analysis at First Positive
☐ Point Count Analysis (400-point)

PAGE 1 OF 1

Project Name/ Address/ Building No. 1401 Lakeside Rm 10256

Project# 21167147 **Sampled By:** Mike B **Sampling Date:** 12/22/16

Sample(s) sent to: ☐ MAL ☐ AERO ☐ EMLAB ☐ Other

TAT ☐ Rush ☒ 24HRS ☐ 48HR ☐ 3-5 days

HM# 1401-01	Material Description: DW + JC	
Sample ID	**Sample Location & Material Location**	**Quantity:**
1401-01A	Rm 10256 SE Corner	
1401-01B	" " E wall at Col.	

HM# 1401-02	Material Description: Yellow Cove Base	
Sample ID	**Sample Location & Material Location**	**Quantity:**
1401-02A	Rm 10256	
1401-02B	" "	

HM#	Material Description:	
Sample ID	**Sample Location & Material Location**	**Quantity:**

HM#	Material Description:	
Sample ID	**Sample Location & Material Location**	**Quantity:**

HM#	Material Description:	
Sample ID	**Sample Location & Material Location**	**Quantity:**

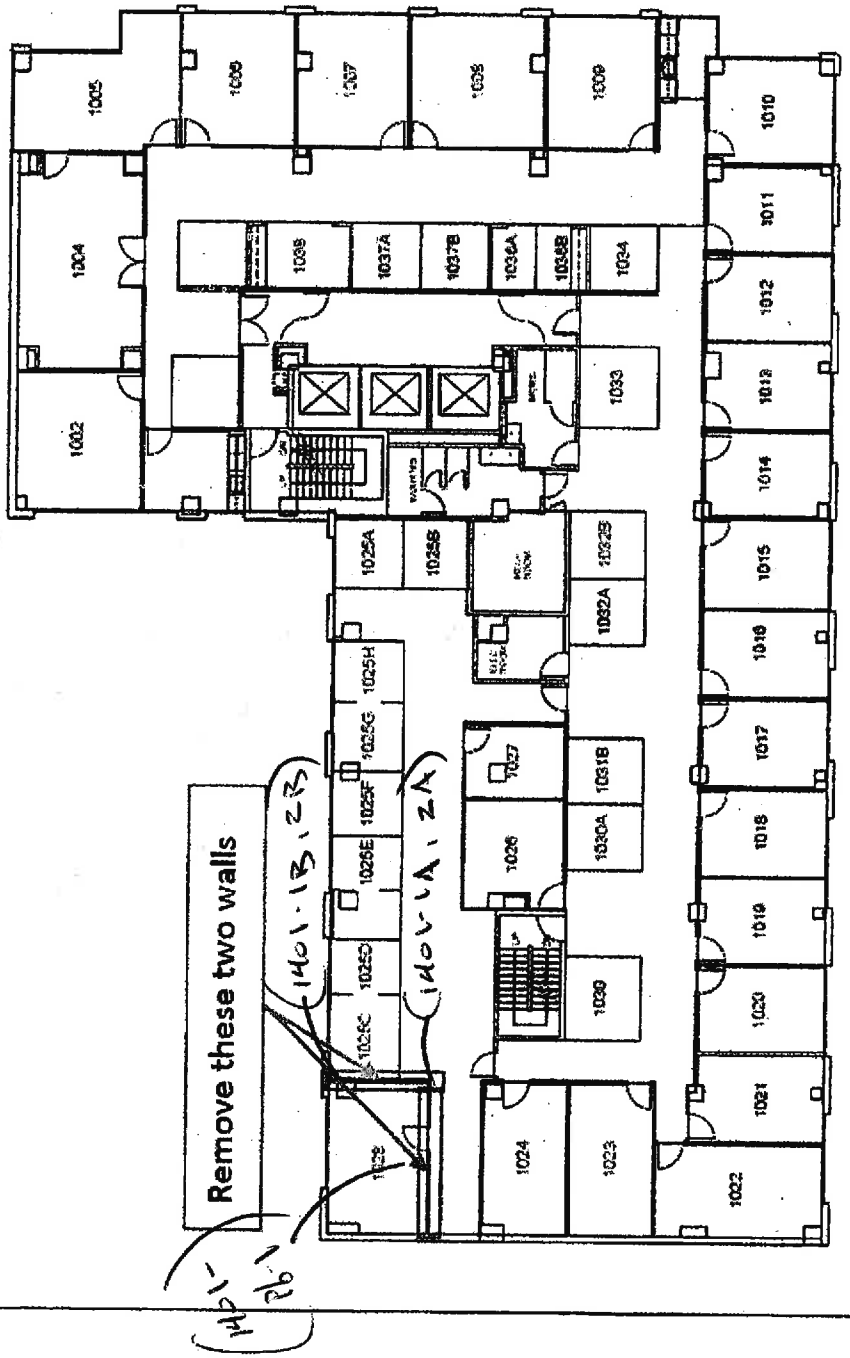
Relinquished By:	Mike B	**Signature:**		**Date/Time:**	12/22/16
Received By:		**Signature:**		**Date/ Time:**	
Relinquished By:		**Signature:**		**Date/Time:**	
Received By:		**Signature:**		**Date/Time:**	

1466 66th Street Emeryville CA 94608 Tel: (510) 547-7771 Fax: (510) 547-1983

12-22-16 P02:27 IN

R1167 F47
12/22/14

Bldg #-Drawing Name-Floor:	04430-Lakeside-10th Flr	USF:	9,471
Building Name:	Lakeside Plaza	Print Date:	12/20/2007
Street Address:	1401 Lakeside Drive	City:	Oakland



MICRO ANALYTICAL LABORATORIES, INC.

BULK ASBESTOS ANALYSIS - POLARIZED LIGHT MICROSCOPY (PLM)

1023
Steff Steiner
Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

PROJECT:
JOB NO. R1177890
1401 LAKESIDE DRIVE

Micro Log In **235364**
Total Samples 4
Date Sampled 08/02/2017
Date Received 08/02/2017
Date Analyzed 08/02/2017

SAMPLE IDENTIFICATION	QUANTITY (AREA %) / TYPES / LAYERS ASBESTOS INFORMATION ND = NO ASBESTOS DETECTED	DOMINANT OTHER MATERIALS
Client #: **1401-01A** Micro #: 235364-01 Analyst: EK GR **HM #1401-01 - 12" GREY TILE WITH BLACK MASTIC IT SERVER ROOM - 1ST FLOOR**	**FLOOR TILE: ND** **BLACK MASTIC: ND**	NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: **1401-01B** Micro #: 235364-02 Analyst: EK **HM #1401-01 - 12" GREY TILE WITH BLACK MASTIC IT SERVER ROOM - 1ST FLOOR**	**FLOOR TILE: ND** **BLACK MASTIC: ND**	NFM: SYNTHETIC MATERIAL, CARBONATE, ADHESIVE.
Client #: **1401-02A** Micro #: 235364-03 Analyst: EK **HM #1401-02 - CONCRETE IT SERVER ROOM - 1ST FLOOR**	**CONCRETE: ND**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER
Client #: **1401-02B** Micro #: 235364-04 Analyst: EK **HM #1401-02 - CONCRETE IT SERVER ROOM - 1ST FLOOR**	**CONCRETE: ND**	NFM: ROCK FRAGMENTS, CARBONATE, BINDER

Technical Supervisor: _____ 8/2/2017
Gamini Ranatunga, Ph.D. Date Reported

NVLAP Lab Code 101872-0. CA ELAP Certification #1037. Analyses use Polarized Light Microscopy (PLM), Micro Analytical SOP PLM-101. Basic techniques follow the EPA Interim Method for Bulk Insulation Samples (1982), and EPA-600/R93-116 (1993). The 1993 method covers all types of bulk materials and is based on the 1982 Method, with improved analytical techniques for layered samples as required for NESHAP compliance. Asbestos is quantified by calibrated visual estimation. Detection limit is material dependent. Detection of asbestos traces (much less than 1%) may not be reliable or reproducible by PLM. Weight % cannot be determined by PLM. Asbestos with diameter below ~1 μm may not be detected by PLM. Absence of asbestos in dust, debris, and some compact materials, including floor tiles, cannot be conclusively established by PLM, and should be confirmed by Transmission Electron Microscopy (TEM).Interferences may prevent detection of small asbestos fibers, and hinder determination of some optical properties.Tremolite-asbestos or actinolite- asbestos may be indistinguishable by PLM from some similar, non-regulated amphiboles (e.g. the "Libby Amphiboles" richterite and winchite), and should be confirmed by TEM. The lower quantitation limit (reporting limit) of PLM estimation is 1%. The Cal-OSHA definition of asbestos-containing construction material is 0.1% asbestos; however, reliable determination of asbestos percent at this level cannot be done by PLM estimation; PLM Point Counting or TEM weight percent analysis are recommended. Only dominant non-asbestos materials (fibrous and non-fibrous) are listed. This analysis shall not be construed as conclusive for the presence of any reported materials other than asbestos, or for the absence of any non-asbestos material. Common interferences include, but are not limited to: cellulose, fibrous glass, other man-made vitreous fibers, synthetic fibers, elongate fragments of calcium sulfate, talc, wollastonite, animal hair, and other miscellaneous elongate particles. Sample heterogeneity is indicated by listing more than one distinct layer or material on the report. If more than one distinct sample is received in the same container, samples shall be marked with letters and analyzed separately. Layers within a sample are analyzed separately when feasible; if asbestos is detected, percentages are reported for individual layers. Interlayer contamination is possible among any layers in a sample. The notation ND (or "NONE DETECTED") indicates a result of "NO ASBESTOS DETECTED" in a homogeneous sample, or in a layer of a heterogeneous sample. Composite asbestos percentages from multiple layers are applicable only to wallboard / joint compound systems; compositing is based on customers' descriptions of material as "joint compound". Customers are solely responsible for identification and description of bulk materials listed on field forms. Laboratory descriptions may differ from those given by customers. Quality Control (QC): all results have been determined to be within acceptance limits prior to reporting. Reanalyzed samples are denoted by two sets of analyst initials. Unless otherwise stated herein, all samples were received in acceptable condition for analysis. This report must not be used to claim product endorsement by NIST or any U.S. Government agency. This report shall not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed. NFM = Non-fibrous materials.

2353364

Terracon

1466 66th Street Emeryville CA 94608 Tel: (510) 547-7771 Fax: (510) 547-1983

X PM – S. Steiner spsteiner@terracon.com
__PM – K. Schroeter kmschroeter@terracon.com
__PM – K. Pilgrim kmpilgrim@terracon.com
__PM- M. Benefield msbenefield@terracon.com
__PM – T. Kattchee takattchee@terracon.com
__PM – W. Frieszell wmfrieszell@terracon.com

ACM BULK SAMPLE DATA SHEET

X PLM Analysis (Analyze all samples)
___ Stop Analysis at First Positive
___ Point Count Analysis (400-point)

Project Name/Address/Building No. : 1401 LAKESIDE DR

Project #: R1177890 **Sampled By:** MC **Sampling Date:** 8/2/17

Sample(s) Sent To: __ Emlab ___MAL ___ other: _____ TAT: __ Rush (X)24Hrs ___ 48Hrs __ 3-5 Days

	HM# 1401-01	Material Description 12" GREY TILE w/ BLACK MASTIC	
	Sample ID	Sample Location & Material Location	Quantity:
1	1401-01A	IT SERVER ROOM - 1ST FLOOR	
2	-01B	✓	✓

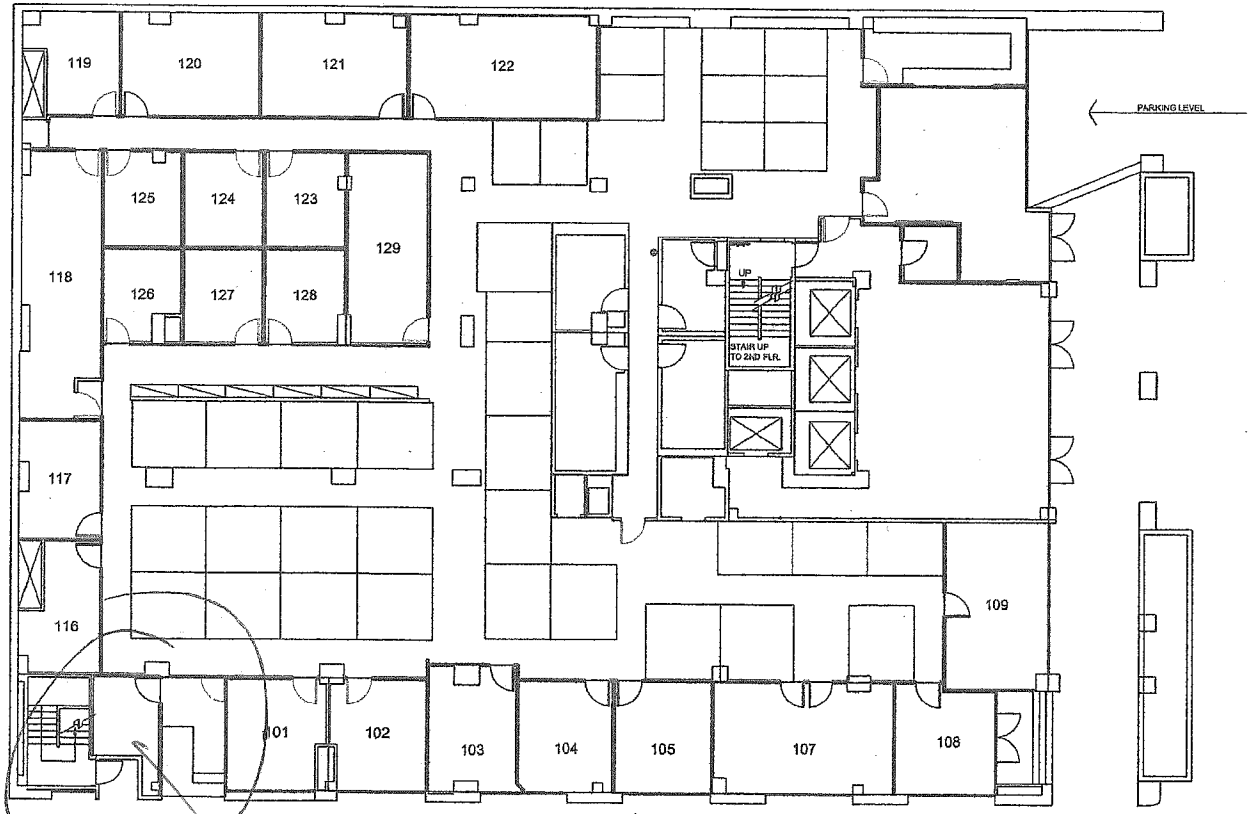
	HM# 1401-02	Material Description: CONCRETE	
	Sample ID	Sample Location & Material Location	Quantity:
3	1401-02A	IT SERVER ROOM - 1ST FLOOR	
4	02B	✓	

HM#	Material Description:	
Sample ID	Sample Location & Material Location	Quantity:

HM#	Material Description:	
Sample ID	Sample Location & Material Location	Quantity:

HM#	Material Description:	
Sample ID	Sample Location & Material Location	Quantity:

Relinquished By: M. Chi Signature: _____ Date/Time: 8/2/17
Received By: _____ Signature: _____ Date/Time: 8/2/17 13:57
Relinquished By: _____ Signature: _____ Date/Time: _____
Received By: _____ Signature: _____ Date/Time: _____



Bldg #-Drawing Name-Floor:	04430-Lakeside-1st Flr
Building Name:	Lakeside Plaza
Street Address:	1401 Lakeside Drive
Print Date:	12/20/2007
City:	Oakland
USF:	10,699

Server room needs tile
Checked if it contains asbestos.

EMLab P&K
A TestAmerica Company

Report for:

Mr. Steffen Steiner
RGA Environmental, Inc.
1466 66th Street
Emeryville, CA 94608

Regarding: Project: R1167B67; 1405 Lakeside, 14th St. Side Door Alcoves/Oakland, CA
EML ID: 1818335

Approved by:

Renee Luna-Trepczynski

Approved Signatory
Renee Luna-Trepczynski

Dates of Analysis:
Asbestos PLM: 10-25-2017

Service SOPs: Asbestos PLM (EPA Methods 600/R-93/116 & 600/M4-82-020, SOP EM-AS-S-1267)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

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.

EMLab P&K
1501 West Knudsen Drive, Phoenix, AZ 85027
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: RGA Environmental, Inc.
C/O: Mr. Steffen Steiner
Re: R1167B67; 1405 Lakeside, 14th St. Side Door Alcoves/Oakland, CA

Date of Sampling: 10-20-2017
Date of Receipt: 10-23-2017
Date of Report: 10-25-2017

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted:	16
Total Samples Analyzed:	16
Total Samples with Layer Asbestos Content > 1%:	0

Location: 1405-01A, Concrete Floor;Southwest Alcove East Side Floor Lab ID-Version‡: 8514994-1

Sample Layers	Asbestos Content
Gray Concrete with Gray Coating	ND
Sample Composite Homogeneity:	Moderate

Location: 1405-01B, Concrete Floor;Southwest Alcove West Side Floor Lab ID-Version‡: 8514995-1

Sample Layers	Asbestos Content
Gray Concrete with Multilayered Coating	ND
Sample Composite Homogeneity:	Moderate

Location: 1405-02A, Building Expansion Sealant;Southwest Alcove East Side Wall Lab ID-Version‡: 8514996-1

Sample Layers	Asbestos Content
White Sealant with Gray Surface	ND
Off-White Sealant	ND
Yellow Foam	ND
Sample Composite Homogeneity:	Moderate

Location: 1405-02B, Building Expansion Sealant;Southwest Alcove West Side Wall Lab ID-Version‡: 8514997-1

Sample Layers	Asbestos Content
Multicolored Coating	ND
White Sealant	ND
Off-White Sealant	ND
Sample Composite Homogeneity:	Poor

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K
1501 West Knudsen Drive, Phoenix, AZ 85027
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: RGA Environmental, Inc.
C/O: Mr. Steffen Steiner
Re: R1167B67; 1405 Lakeside, 14th St. Side Door Alcoves/Oakland, CA

Date of Sampling: 10-20-2017
Date of Receipt: 10-23-2017
Date of Report: 10-25-2017

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 1405-03A, Exterior Stucco With Aggregate;Southwest Alcove East Side Wall

Lab ID-Version‡: 8514998-1

Sample Layers	Asbestos Content
White Stucco with White Paint	ND
Gray Cementitious Material	ND
Dark Gray Cementitious Material	ND
Composite Non-Asbestos Content:	< 1% Synthetic Fibers < 1% Vermiculite
Sample Composite Homogeneity:	Poor

Location: 1405-03B, Exterior Stucco With Aggregate;Southwest Alcove East Side Wall

Lab ID-Version‡: 8514999-1

Sample Layers	Asbestos Content
Gray Coating	ND
White Stucco	ND
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Synthetic Fibers 2% Vermiculite
Sample Composite Homogeneity:	Poor

Location: 1405-03C, Exterior Stucco With Aggregate;Southwest Alcove West Side Wall

Lab ID-Version‡: 8515000-1

Sample Layers	Asbestos Content
Gray Coating	ND
White Stucco	ND
Gray Cementitious Material	ND
Composite Non-Asbestos Content:	2% Synthetic Fibers 2% Vermiculite
Sample Composite Homogeneity:	Poor

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K
1501 West Knudsen Drive, Phoenix, AZ 85027
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: RGA Environmental, Inc.
C/O: Mr. Steffen Steiner
Re: R1167B67; 1405 Lakeside, 14th St. Side Door Alcoves/Oakland, CA

Date of Sampling: 10-20-2017
Date of Receipt: 10-23-2017
Date of Report: 10-25-2017

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 1405-04A, Exterior Stucco;Southwest Alcove Central Wall Lab ID-Version‡: 8515001-1

Sample Layers	Asbestos Content
White Stucco with Tan Paint	ND
Gray Stucco	ND
Gray Cementitious Material	ND
Sample Composite Homogeneity:	Poor

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K
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(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: RGA Environmental, Inc.
C/O: Mr. Steffen Steiner
Re: R1167B67; 1405 Lakeside, 14th St. Side Door Alcoves/Oakland, CA

Date of Sampling: 10-20-2017
Date of Receipt: 10-23-2017
Date of Report: 10-25-2017

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 1405-04B, Exerior Stucco;Southwest Alcove East Side Wall Lab ID-Version‡: 8515002-1

Sample Layers	Asbestos Content
White Stucco with Tan Paint	ND
Gray Stucco	ND
Composite Non-Asbestos Content:	2% Glass Fibers
Sample Composite Homogeneity:	Moderate

Location: 1405-04C, Exerior Stucco;Southwest Alcove West Side Wall Lab ID-Version‡: 8515003-1

Sample Layers	Asbestos Content
Multicolored Coating	ND
White Stucco	ND
Gray Stucco	ND
Composite Non-Asbestos Content:	2% Glass Fibers
Sample Composite Homogeneity:	Poor

Location: 1405-05A, Wallboard With Taping Mud;Southwest Electrical Room South Wall Lab ID-Version‡: 8515004-1

Sample Layers	Asbestos Content
Cream Tape	ND
White Joint Compound	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	15% Cellulose < 1% Glass Fibers
Sample Composite Homogeneity:	Poor

Location: 1405-05B, Wallboard With Taping Mud;Southwest Electrical Room East Wall Lab ID-Version‡: 8515005-1

Sample Layers	Asbestos Content
White Joint Compound	ND
White Drywall with Brown Paper	ND
Composite Non-Asbestos Content:	10% Cellulose < 1% Glass Fibers
Sample Composite Homogeneity:	Moderate

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K
1501 West Knudsen Drive, Phoenix, AZ 85027
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: RGA Environmental, Inc.
C/O: Mr. Steffen Steiner
Re: R1167B67; 1405 Lakeside, 14th St. Side Door Alcoves/Oakland, CA

Date of Sampling: 10-20-2017
Date of Receipt: 10-23-2017
Date of Report: 10-25-2017

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 1405-06A, 4" Gray Base Cove With Yellow Adhesive;Southwest Electrical Room South Wall

Lab ID-Version‡: 8515006-1

Sample Layers	Asbestos Content
Yellow Mastic	ND
Sample Composite Homogeneity:	Good

Location: 1405-06B, 4" Gray Base Cove With Yellow Adhesive;Southwest Electrical Room East Wall

Lab ID-Version‡: 8515007-1

Sample Layers	Asbestos Content
Gray Baseboard	ND
Yellow Mastic	ND
Sample Composite Homogeneity:	Moderate

Location: 1405-07A, 12" Gray VFT With Black Mastic;Southwest Electrical Room Floor 80 Square Feet

Lab ID-Version‡: 8515008-1

Sample Layers	Asbestos Content
Gray Floor Tile	ND
Black Mastic	ND
Composite Non-Asbestos Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 1405-07B, 12" Gray VFT With Black Mastic;Southwest Electrical Room Floor 80 Square Feet

Lab ID-Version‡: 8515009-1

Sample Layers	Asbestos Content
Gray Floor Tile	ND
Black Mastic	ND
Composite Non-Asbestos Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

001818335

Terracon

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☐ PM D. Ufferfige dufferfige@terracon.com

SAMPLE DATA SHEET

☑ PLM Analysis (Analyze all samples)
☐ Stop Analysis at First Positive
☐ Point Count Analysis (400-point)

PAGE 1 OF 2

Project Name/ Address/ Building No. 1405 Lakeside, 14th St. Side Door Alcove/ Oakland CA
Project# R116786 7 **Sampled By:** J. Alexander **Sampling Date:** 10/20/17
Sample(s) sent to: ☐ MAL ☐ AERO ☑ EMLAB ☐ Other
TAT ☐ Rush ☐ 24HRS ☐ 48HR ☑ 3-5 days

HM# 1405-01	Material Description: Concrete Floor	
Sample ID	Sample Location & Material Location	Quantity:
1405-01A	Southwest Alcove East Side Floor	
1405-01B	Southwest Alcove West Side Floor	

HM# 1405-02	Material Description: Building Expansion Sealant	
Sample ID	Sample Location & Material Location	Quantity:
1405-02A	Southwest Alcove East Side Wall	
1405-02B	Southwest Alcove West Side Wall	

HM# 1405-03	Material Description: Exterior Stucco with Aggregate	
Sample ID	Sample Location & Material Location	Quantity:
1405-03A	Southwest Alcove East Side Wall	
1405-03B	Southwest Alcove East Side Wall	
1405-03C	Southwest Alcove West Side Wall	

HM# 1405-04	Material Description: Exterior Stucco	
Sample ID	Sample Location & Material Location	Quantity:
1405-04A	Southwest Alcove Ceiling Wall	
1405-04B	Southwest Alcove East Side Wall	
1405-04C	Southwest Alcove West Side Wall	

HM# 1405-05	Material Description: Wallboard with Taping Mud	
Sample ID	Sample Location & Material Location	Quantity:
1405-05A	Southwest Electrical Room South Wall	
1405-05B	Southwest Electrical Room East Wall	

Relinquished By:	John Alexander	Signature:		Date/Time:	10/20/17
Received By:	Heidi Santos	Signature:		Date/ Time:	OCT 20 2017
Relinquished By:	FedEx 935	Signature:		Date/Time:	10/23/17
Received By:		Signature:		Date/Time:	

001818335

Terracon

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☐ PM D. Ufferfige dufferfige@terracon.com

K SAMPLE DATA SHEET

☑ PLM Analysis (Analyze all samples)
☐ Stop Analysis at First Positive
☐ Point Count Analysis (400-point)

Project Name/ Address/ Building No. 1405 LaKeside, 14th St. Side Door Alcove/Oakland/CA
Project# R1167867 **Sampled By:** J. Alexander **Sampling Date:** 10/20/17
Sample(s) sent to: ☐ MAL ☐ AERO ☑ EMLAB ☐ Other
TAT ☐ Rush ☐ 24HRS ☐ 48HR ☑ 3-5 days

HM# 1405-06	**Material Description** 9" Gray Base Cove with Yellow Adhesive
Sample ID	**Sample Location & Material Location** **Quantity:**
1405-06A	Southwest Electrical Room South wall
1405-06B	Southwest Electrical Room East wall

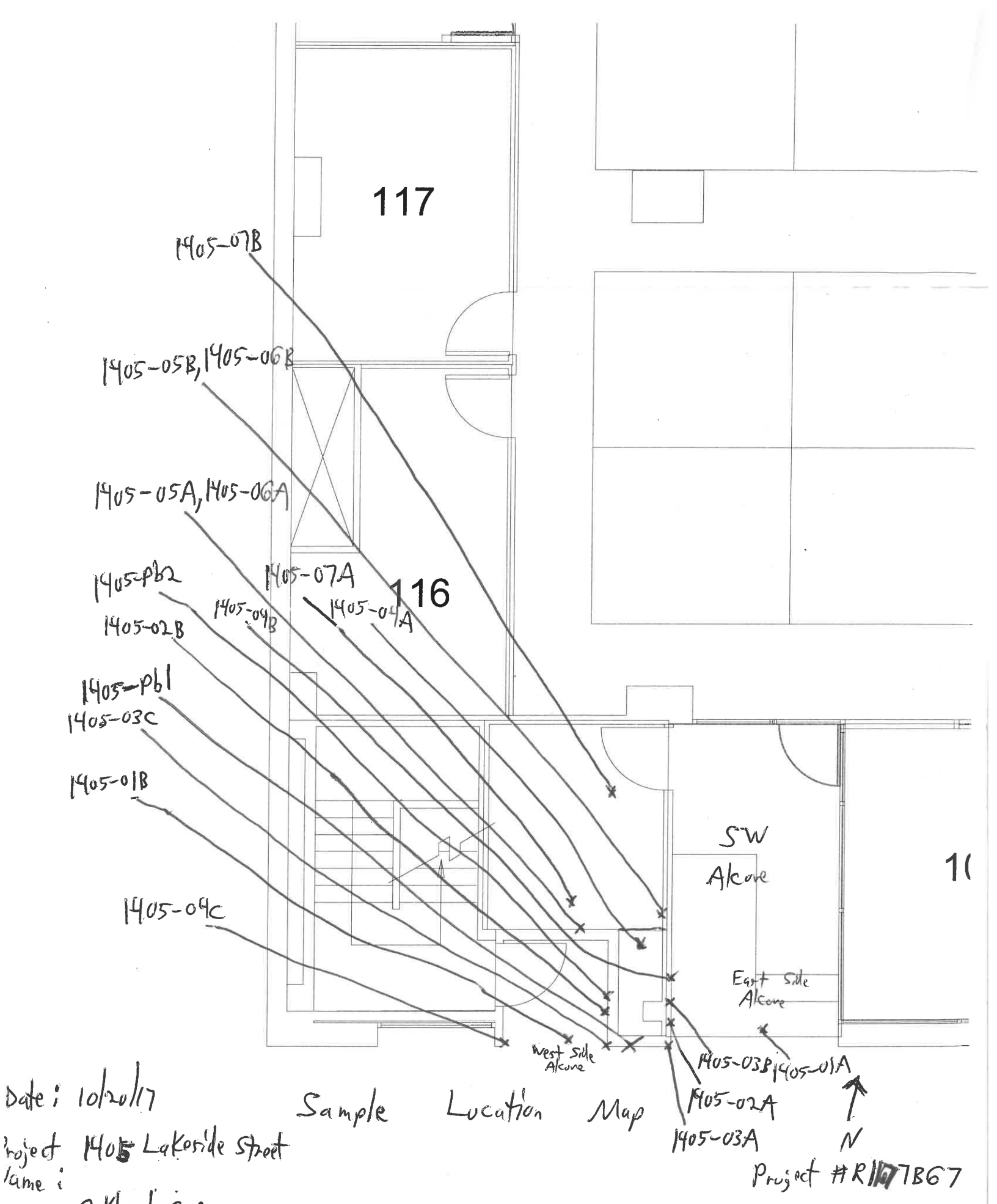
HM# 1405-07	**Material Description:** 12" Gray VFT with Black Mastic
Sample ID	**Sample Location & Material Location** **Quantity:**
1405-07A	Southwest Electrical Room Floor 80 square feet
1405-07B	Southwest Electrical Room Floor

HM#	**Material Description:**
Sample ID	**Sample Location & Material Location** **Quantity:**

HM#	**Material Description:**
Sample ID	**Sample Location & Material Location** **Quantity:**

HM#	**Material Description:**
Sample ID	**Sample Location & Material Location** **Quantity:**

Relinquished By:	Jyhe Alexander	Signature:	Date/Time: 10/20/17
Received By:	Heidi Santos	Signature:	Date/Time: OCT 20 2017
Relinquished By:	FedEx 935	Signature:	Date/Time: 10/23/17
Received By:		Signature:	Date/Time:

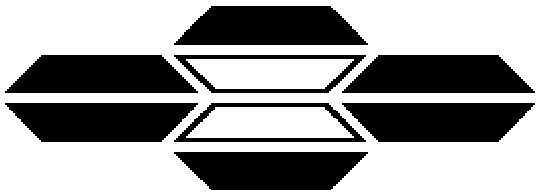


Date: 10/20/17

Sample Location Map

Project Name: 1405 Lakeside Street
Oakland, CA
Southwest Alcove

Project #R17B67



ASBESTOS TEM LABORATORIES, INC.

EPA Interim Method
Polarized Light Microscopy
Analytical Report

Laboratory Job # 359739

600 Bancroft Way, Ste. A
Berkeley, CA 94710
(510) 704-8930
FAX (510) 704-8429
www.asbestostemlabs.com

With Branch Offices Located At:
1350 FREEPORT BLVD. UNIT 104, SPARKS, NV 89431
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ASBESTOS TEM LABORATORIES, INC

CA DPH ELAP
Lab No. 1866

NVLAP Lab Code: 101891-0
Berkeley, CA

Aug-20-18

Steff Steiner
Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

RE: LABORATORY JOB # 359739
Polarized light microscopy analytical results for 8 bulk sample(s) with 6 sample split(s)
Job Site: 1401 Lakeside Dt. - 12th Floor
Job No.: R1187902

Enclosed please find the bulk material analytical results for one or more samples submitted for asbestos analysis. The analyses were performed in accordance with EPA Method 600/R-93/116 or 600/M4-82-020 for the determination of asbestos in bulk building materials by polarized light microscopy (PLM). Please note that while PLM analysis is commonly performed on non-friable and fine grained materials such as floor tiles and dust, the EPA method recognizes that PLM is subject to limitations. In these situations, accurate results may only be obtainable through the use of more sophisticated and accurate techniques such as transmission electron microscopy (TEM) or X-ray diffraction (XRD).

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Each sample is opened in a class 100 HEPA negative air hood. A representative sampling of the material is selected and placed onto a glass microscope slide containing a drop of refractive index oil. The glass slide is placed under a polarizing light microscope where standard mineralogical techniques are used to analyze and quantify the various materials present, including asbestos. The data is then compiled into a standard report format and reviewed by the authorized signatory before being released to the client.

Sincerely Yours,

Lab Manager
ASBESTOS TEM LABORATORIES, INC.

Note: Test samples will be stored for three months after data of receipt, after which they will be properly disposed unless client makes other arrangements with the laboratory.

POLARIZED LIGHT MICROSCOPY
ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Steff Steiner

Address: Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

Samples Indicated: 8
Reg. Samples Analyzed: 8
Split Layers Analyzed: 6

Report No. **359739**
Date Submitted: Aug-20-18
Date Reported: Aug-20-18

Job Site / No. 1401 Lakeside Dt. - 12th Floor
R1187902

SAMPLE ID	ASBESTOS % TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD LAB
1401-12-1A Lab ID # 1434-03766-001	**None Detected**	1) 1-5% Fiberglass 2) 95-99% GlassFoam, Opq 3) Aug-20-18 4) Aug-20-18	2'x4' White Pinhole Fissure Act - 12th Floor - #1219 A - (S) Ceiling Tile-Grey
1401-12-1B Lab ID # 1434-03766-002	**None Detected**	1) 1-5% Fiberglass 2) 95-99% GlassFoam, Opq 3) Aug-20-18 4) Aug-20-18	2'x4' White Pinhole Fissure Act - 12th Floor - #1219 A - (N) Ceiling Tile-Grey
1401-12-2A Lab ID # 1434-03766-003A	**None Detected**	1) 1-5% Cellulose 2) 95-99% Opq, Gyp 3) Aug-20-18 4) Aug-20-18	DW with Joint Comp. - 12th Floor - #1219A - (N) Drywall-White
1401-12-2A Lab ID # 1434-03766-003B	**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Opq 3) 4) Aug-20-18	DW with Joint Comp. - 12th Floor - #1219A - (N) JointCom/Text-Off-White
1401-12-2B Lab ID # 1434-03766-004A	**None Detected**	1) 1-5% Cellulose 2) 95-99% Opq, Gyp 3) Aug-20-18 4) Aug-20-18	DW with Joint Comp. - 12th Floor - #1219A - (S) Drywall-White
1401-12-2B Lab ID # 1434-03766-004B	**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Opq 3) 4) Aug-20-18	 JointCom/Text-Off-White
1401-12-3A Lab ID # 1434-03766-005A	**None Detected**	1) None Detected 2) 99-100% Opq, Calc, Bndr 3) Aug-20-18 4) Aug-20-18	4" Black Base Cove with Glue - 12th Floor - #1219A - (N) Baseboard-Black
1401-12-3A Lab ID # 1434-03766-005B	**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) Aug-20-18	4" Black Base Cove with Glue - 12th Floor - #1219A - (N) Mastic-White
1401-12-3B Lab ID # 1434-03766-006A	**None Detected**	1) None Detected 2) 99-100% Opq, Calc, Bndr 3) Aug-20-18 4) Aug-20-18	4" Black Base Cove with Glue - 12th Floor - #1219A - (S) Baseboard-Black
1401-12-3B Lab ID # 1434-03766-006B	**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) Aug-20-18	 Mastic-White

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hewitt

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemlabs.com

600 Bancroft Way, Ste. A, Berkeley CA 94710 (510) 704-8930
With Offices in Reno, NV (775) 359-3377

POLARIZED LIGHT MICROSCOPY
ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Steff Steiner

Address: Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

Samples Indicated: 8
Reg. Samples Analyzed: 8
Split Layers Analyzed: 6

Report No. **359739**
Date Submitted: Aug-20-18
Date Reported: Aug-20-18

Job Site / No. 1401 Lakeside Dt. - 12th Floor
R1187902

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA (1) Non-Asbestos Fibers (2) Matrix Materials (3) Date/Time Collected (4) Date Analyzed	DESCRIPTION FIELD / LAB
1401-12-4A		**None Detected**	1) None Detected 2) 99-100% Glue	Carpet Sq 2'x2' - Glue - 12th Floor - #1219A - N
Lab ID # 1434-03766-007A			3) Aug-20-18 4) Aug-20-18	Mastic-Yellow
1401-12-4A		**None Detected**	1) 1-5% Cellulose 2) 95-99% Gyp, Opq	Carpet Sq 2'x2' - Glue - 12th Floor - #1219A - N
Lab ID # 1434-03766-007B			3) 4) Aug-20-18	LevelCmpd-Off-White
1401-12-4B		**None Detected**	1) None Detected 2) 99-100% Glue	Carpet Sq 2'x2' - Glue - 12th Floor - #1219A - (S)
Lab ID # 1434-03766-008A			3) Aug-20-18 4) Aug-20-18	Mastic-Yellow
1401-12-4B		**None Detected**	1) 1-5% Cellulose 2) 95-99% Gyp, Opq	
Lab ID # 1434-03766-008B			3) 4) Aug-20-18	LevelCmpd-Off-White
			1) 2)	
Lab ID #			3) 4)	
			1) 2)	
Lab ID #			3) 4)	
			1) 2)	
Lab ID #			3) 4)	
			1) 2)	
Lab ID #			3) 4)	
			1) 2)	
Lab ID #			3) 4)	
			1) 2)	
Lab ID #			3) 4)	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hewitt

359739

Terracon

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☐ PM – M. Bryant mvbryant@terracon.com	☐ PM – T. Kattchee takattchee@terracon.com	☐ PM – W. Frieszell wmfrieszell@terracon.com
☐ PM- M. Benefield msbenefield@terracon.com	☐ PM D. Ufferfilge dufferfilge@terracon.com	☐ PM – M. Bishop mrbishop@terracon.com

ACM BULK SAMPLE DATA SHEET

☒ PLM Analysis (Analyze all samples)
☐ Stop Analysis at First Positive
☐ Point Count Analysis (400-point)

PAGE 1 OF

Project Name/ Address/ Building No. 1401 Lakeside Dr. - 12TH FLOOR

Project# R1187902 **Sampled By:** M. Reed **Sampling Date:** 8-20-18

Sample(s) sent to: ☐ MAL ☐ AERO ☐ EMLAB ☐ Other

TAT ☐ Rush ☑ 24HRS ☐ 48HR ☐ 3-5 days

HM# 1401-12-01	Material Description 2'x4' WHITE PINHOLE FISSURE ACT	
Sample ID	Sample Location & Material Location	Quantity:
1401-12-1A	12TH FLOOR - #1219A - (S)	
1B	" " (N)	

HM# 1401-12-02	Material Description: DW WITH JOINT COMP.	
Sample ID	Sample Location & Material Location	Quantity:
1401-12-2A	12TH FLOOR - #1219A - (N)	
- 2B	" " (S)	

HM# 1401-12-03	Material Description: 4" BLACK BASE COVE WITH GLUE	
Sample ID	Sample Location & Material Location	Quantity:
1401-12-3A	12TH FLOOR - #1219A - (N)	
3B	12TH FLOOR - #1219A (S)	

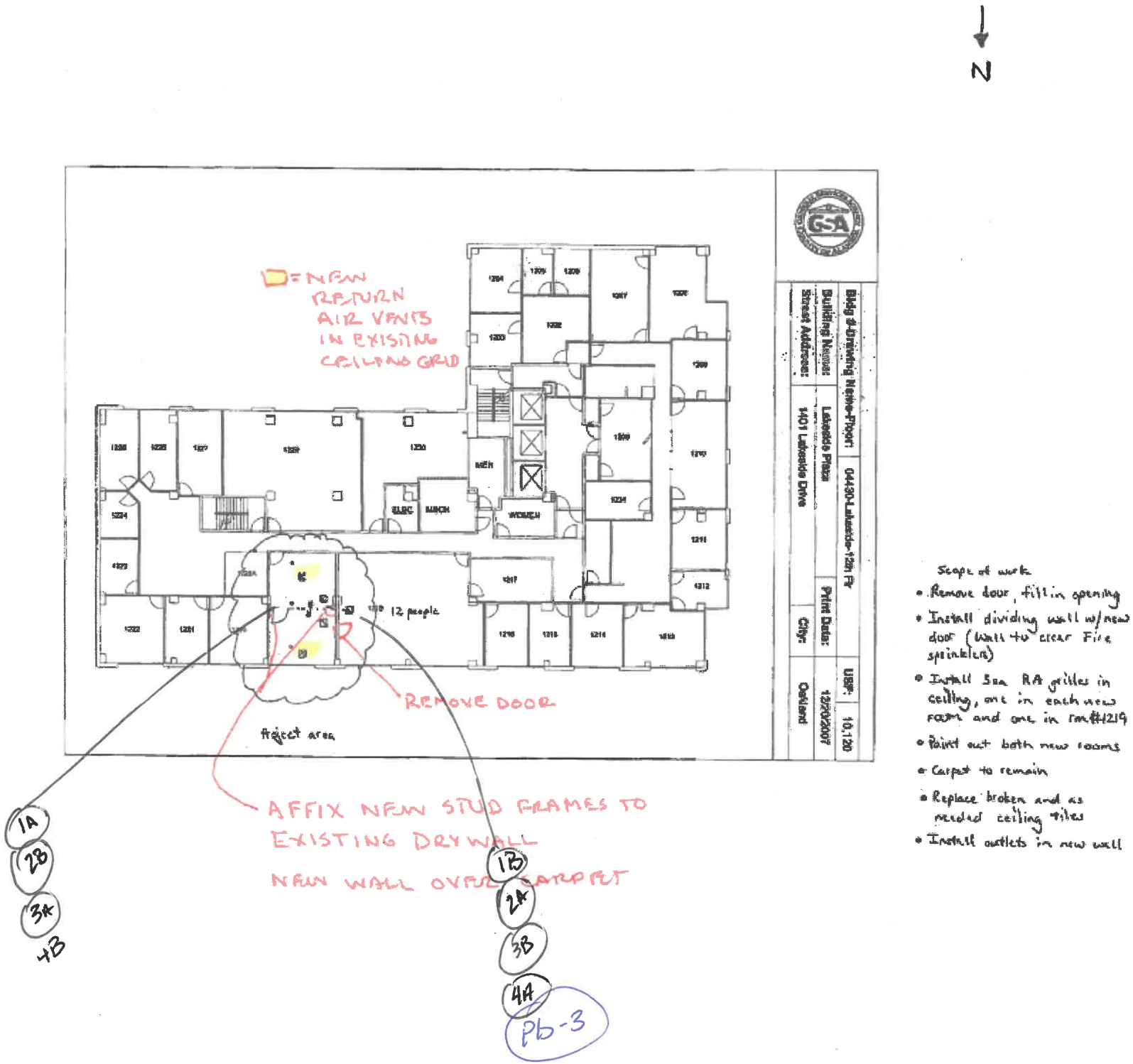
HM# 1401-12-04	Material Description: CARPET SQ 2'x2' - GLUE	
Sample ID	Sample Location & Material Location	Quantity:
1401-12-4A	12TH FLOOR - #1219A - N	
1401-12-4B	" " -(S)	

HM#	Material Description:	
Sample ID	Sample Location & Material Location	Quantity:

Relinquished By:	M. Reed	**Signature:**	M. R	**Date/Time:**	8-20-18
Received By:	MB	**Signature:**		**Date/ Time:**	
Relinquished By:		**Signature:**		**Date/Time:**	AUG20 18 1435PM
Received By:		**Signature:**		**Date/Time:**	

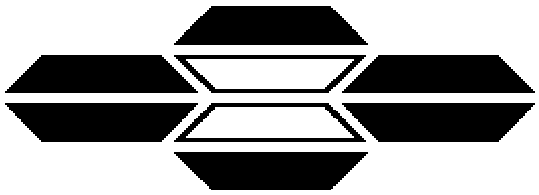
1466 66th Street Emeryville CA 94608 Tel: (510) 547-7771 Fax: (510) 547-1983

R11B7902 - 8-20-18



Scope of work

- Remove door, fill in opening
- Install dividing wall w/new door (wall to clear Fire sprinklers)
- Install 5ea RA grilles in ceiling, one in each new room and one in rm#1219
- Paint out both new rooms
- Carpet to remain
- Replace broken and as needed ceiling tiles
- Install outlets in new wall



ASBESTOS TEM LABORATORIES, INC.

EPA Interim Method
Polarized Light Microscopy
Analytical Report

Laboratory Job # 360736

600 Bancroft Way, Ste. A
Berkeley, CA 94710
(510) 704-8930
FAX (510) 704-8429
www.asbestostemlabs.com

With Branch Offices Located At:
1350 FREEPORT BLVD. UNIT 104, SPARKS, NV 89431
Ph. (775) 359-3377

ASBESTOS TEM LABORATORIES, INC

CA DPH ELAP
Lab No. 1866

NVLAP Lab Code: 101891-0
Berkeley, CA

Oct-05-18

Steff Steiner
Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

RE: LABORATORY JOB # 360736
Polarized light microscopy analytical results for 16 bulk sample(s) with 5 sample split(s)
Job Site: 1401 Lakeside Dr, Oakland, CA
Job No.: R1187B79

Enclosed please find the bulk material analytical results for one or more samples submitted for asbestos analysis. The analyses were performed in accordance with EPA Method 600/R-93/116 or 600/M4-82-020 for the determination of asbestos in bulk building materials by polarized light microscopy (PLM). Please note that while PLM analysis is commonly performed on non-friable and fine grained materials such as floor tiles and dust, the EPA method recognizes that PLM is subject to limitations. In these situations, accurate results may only be obtainable through the use of more sophisticated and accurate techniques such as transmission electron microscopy (TEM) or X-ray diffraction (XRD).

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Each sample is opened in a class 100 HEPA negative air hood. A representative sampling of the material is selected and placed onto a glass microscope slide containing a drop of refractive index oil. The glass slide is placed under a polarizing light microscope where standard mineralogical techniques are used to analyze and quantify the various materials present, including asbestos. The data is then compiled into a standard report format and reviewed by the authorized signatory before being released to the client.

Sincerely Yours,

Lab Manager
ASBESTOS TEM LABORATORIES, INC.

Note: Test samples will be stored for three months after data of receipt, after which they will be properly disposed unless client makes other arrangements with the laboratory.

POLARIZED LIGHT MICROSCOPY
ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Steff Steiner

Address: Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

Samples Indicated: 16
Reg. Samples Analyzed: 16
Split Layers Analyzed: 5

Report No. **360736**
Date Submitted: Oct-03-18
Date Reported: Oct-05-18

Job Site / No. 1401 Lakeside Dr, Oakland, CA
R1187B79

SAMPLE ID	ASBESTOS % TYPE	OTHER DATA (1) Non-Asbestos Fibers (2) Matrix Materials (3) Date/Time Collected (4) Date Analyzed	DESCRIPTION FIELD / LAB
01A Lab ID # 1434-03916-001A	**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Opq 3) 4) Oct-05-18	Room#123 South wall Drywall-White
01A Lab ID # 1434-03916-001B	**None Detected**	1) None Detected 2) 99-100% Opq, Calc 3) 4) Oct-05-18	Room#123 South wall JointCom/Text-Off-White
01B Lab ID # 1434-03916-002A	**None Detected**	1) 1-5% Cellulose 2) 95-99% gyp, Opq 3) 4) Oct-05-18	Room#128 North wall Drywall-White
01B Lab ID # 1434-03916-002B	**None Detected**	1) None Detected 2) 99-100% Opq, Calc 3) 4) Oct-05-18	JointCom/Text-Off-White
02A Lab ID # 1434-03916-003A	**None Detected**	1) 1-5% Cellulose 2) 95-99% gyp, Opq 3) 4) Oct-05-18	Room#123 South wall Drywall-White
02A Lab ID # 1434-03916-003B	**None Detected**	1) None Detected 2) 99-100% Opq, Calc 3) 4) Oct-05-18	JointCom/Text-Off-White
02B Lab ID # 1434-03916-004	**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) Oct-05-18	Room#128 North wall Mastic-Yellow
03A Lab ID # 1434-03916-005	**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) Oct-05-18	Room#123 South Mastic-Yellow
03B Lab ID # 1434-03916-006	**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) Oct-05-18	Room#123 North Mastic-Yellow
04A Lab ID # 1434-03916-007	**None Detected**	1) None Detected 2) 99-100% Qtz, Calc 3) 4) Oct-05-18	Room#123 CerTile-Grey

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hewitt

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemlabs.com

600 Bancroft Way, Ste. A, Berkeley CA 94710 (510) 704-8930
With Offices in Reno, NV (775) 359-3377

POLARIZED LIGHT MICROSCOPY
ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Steff Steiner

Address: Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

Samples Indicated: 16
Reg. Samples Analyzed: 16
Split Layers Analyzed: 5

Report No. **360736**
Date Submitted: Oct-03-18
Date Reported: Oct-05-18

Job Site / No. 1401 Lakeside Dr, Oakland, CA
R1187B79

SAMPLE ID	ASBESTOS % TYPE	OTHER DATA (1) Non-Asbestos Fibers (2) Matrix Materials (3) Date/Time Collected (4) Date Analyzed	DESCRIPTION FIELD / LAB
04B Lab ID # 1434-03916-008	**None Detected**	1) None Detected 2) 99-100% Qtz, Calc 3) 4) Oct-05-18	Room#128 CerTile-Grey
05A Lab ID # 1434-03916-009A	**None Detected**	1) 1-5% Cellulose 2) 95-99% Gyp, Opq 3) 4) Oct-05-18	Room#228 West wall Drywall-White
05A Lab ID # 1434-03916-009B	**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Opq 3) 4) Oct-05-18	Room#228 West wall JointCom/Text-Off-White
05B Lab ID # 1434-03916-010A	**None Detected**	1) 1-5% Cellulose 2) 95-99% Gyp, Opq 3) 4) Oct-05-18	Room#222 East wall Drywall-White
05B Lab ID # 1434-03916-010B	**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Opq 3) 4) Oct-05-18	 JointCom/Text-Off-White
06A Lab ID # 1434-03916-011	**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) Oct-05-18	Room#228 West wall Mastic-White
06B Lab ID # 1434-03916-012	**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) Oct-05-18	Room#222B East wall Mastic-White
07A Lab ID # 1434-03916-013	**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) Oct-05-18	Room#228 West Mastic-Yellow
07B Lab ID # 1434-03916-014	**None Detected**	1) None Detected 2) 99-100% Glue 3) 4) Oct-05-18	Room#222B East Mastic-Yellow
08A Lab ID # 1434-03916-015	**None Detected**	1) 5-10% Cellulose 2) 90-95% Opq, GlassFoam 3) 4) Oct-05-18	Room#228 Ceiling Tile-Grey

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hewitt

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemlabs.com
600 Bancroft Way, Ste. A, Berkeley CA 94710 (510) 704-8930
With Offices in Reno, NV (775) 359-3377

POLARIZED LIGHT MICROSCOPY
ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Steff Steiner

Address: Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

Samples Indicated: 16
Reg. Samples Analyzed: 16
Split Layers Analyzed: 5

Job Site / No. 1401 Lakeside Dr, Oakland, CA
R1187B79

Report No. **360736**
Date Submitted: Oct-03-18
Date Reported: Oct-05-18

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA: 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD / LAB
08B Lab ID # 1434-03916-016		**None Detected**	1) 5-10% Cellulose 2) 90-95% Opq, GlassFoam 3) 4) Oct-05-18	Room#222B / Ceiling Tile-Grey
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hunter

#360736

Terracon

***E-MAIL REPORT TO:
*SEE BELOW PROJECT MANAGER (PM)****
ADDITIONAL RECIPIENTS
☐ denise.wallen@terracon.com ☐ eric.dyer@terracon.com

☑ PM – S. Steiner sbsteiner@terracon.com
☐ PM – K. Schroeter kmschroeter@terracon.com
☐ PM – K. Pilgrim kmpilgrim@terracon.com
☐ PM- M. Benefield msbenefield@terracon.com
☐ PM – T. Kattchee takattchee@terracon.com
☐ PM – W. Frieszell wmfrieszell@terracon.com

ACM BULK SAMPLE DATA SHEET

☑ PLM Analysis (Analyze all samples)
☐ Stop Analysis at First Positive
☐ Point Count Analysis (400-point)

PAGE 1 OF 2

Project Name/ Address/ Building No. 1401 Lakeside dr, Oakland CA
Project# R1187B79 Sampled By: Steve R. Sampling Date: 10/3/18
Sample(s) sent to: ☐ MAL ☐ AERO ☐ EMLAB ☒ Other TEM
TAT ☐ Rush ☐ 24HRS ☒ 48HR ☐ 3-5 days

HM# 1	Material Description: Drywall with J/C	
Sample ID	Sample Location & Material Location	Quantity:
01A	Room #123 South wall	
01B	Room #128 North wall	

HM# 2	Material Description: Coveboard mastic	
Sample ID	Sample Location & Material Location	Quantity:
02A	Room #123 South wall	
02B	Room #128 North wall	

HM# 3	Material Description: Carpet mastic - yellow	
Sample ID	Sample Location & Material Location	Quantity:
03A	Room #123 South	
03B	Room #128 North	

HM# 4	Material Description: 2x4 lay in ceil. mytile	
Sample ID	Sample Location & Material Location	Quantity:
04A	Room #123	
04B	Room #128	

HM# 5	Material Description: Drywall with J/C	
Sample ID	Sample Location & Material Location	Quantity:
05A	Room #228 west wall	
05B	Room #228 East wall	

Relinquished By:	Steve Rogers	Signature:		Date/Time: 10/3/18
Received By:		Signature:		Date/ Time:
Relinquished By:		Signature:		Date/Time:
Received By:		Signature:		Date/Time:

Terracon

***E-MAIL REPORT TO:
*SEE BELOW PROJECT MANAGER (PM)****
ADDITIONAL RECIPIENTS
☐ denise.wallen@terracon.com ☐ eric.dyer@terracon.com
☑ PM – S. Steiner sdsteiner@terracon.com
☐ PM – K. Schroeter kmschroeter@terracon.com
☐ PM – K. Pilgrim kmpilgrim@terracon.com
☐ PM- M. Benefield msbenefield@terracon.com
☐ PM – T. Kattchee takattchee@terracon.com
☐ PM – W. Frieszell wmfrieszell@terracon.com

ACM BULK SAMPLE DATA SHEET
☑ PLM Analysis (Analyze all samples)
☐ Stop Analysis at First Positive
☐ Point Count Analysis (400-point)
PAGE 2 OF 2

Project Name/ Address/ Building No. 1461 Lakeside dr, Oakland Cft
Project# R1187B79 Sampled By: Steve R. Sampling Date: 10/3/18
Sample(s) sent to: ☐ MAL ☐ AERO ☐ EMLAB ☐ Other
TAT ☐ Rush ☐ 24HRS ☐ 48HR ☐ 3-5 days

HM# 6	Material Description Cove base mast.
Sample ID	Sample Location & Material Location — Quantity:
06A	Room #228 west wall
06B	Room #228 East wall

HM# 7	Material Description: Carpet mastic yellow
Sample ID	Sample Location & Material Location — Quantity:
07A	Room #228 west
07B	Room #228 East

HM# 8	Material Description: 2x4 lay in ceiling tile
Sample ID	Sample Location & Material Location — Quantity:
08A	Room #228
08B	Room #228

HM#	Material Description:
Sample ID	Sample Location & Material Location — Quantity:

HM#	Material Description:
Sample ID	Sample Location & Material Location — Quantity:

Relinquished By: Steve Roscoe Signature: [signature] Date/Time: 10/5/18
Received By: Signature: Date/ Time: OCT '18 4:11PM
Relinquished By: Signature: Date/Time:
Received By: Signature: Date/Time:

= RECARPET AREA

= REMOVE WALL

= CORE FLOOR FOR OUTLET

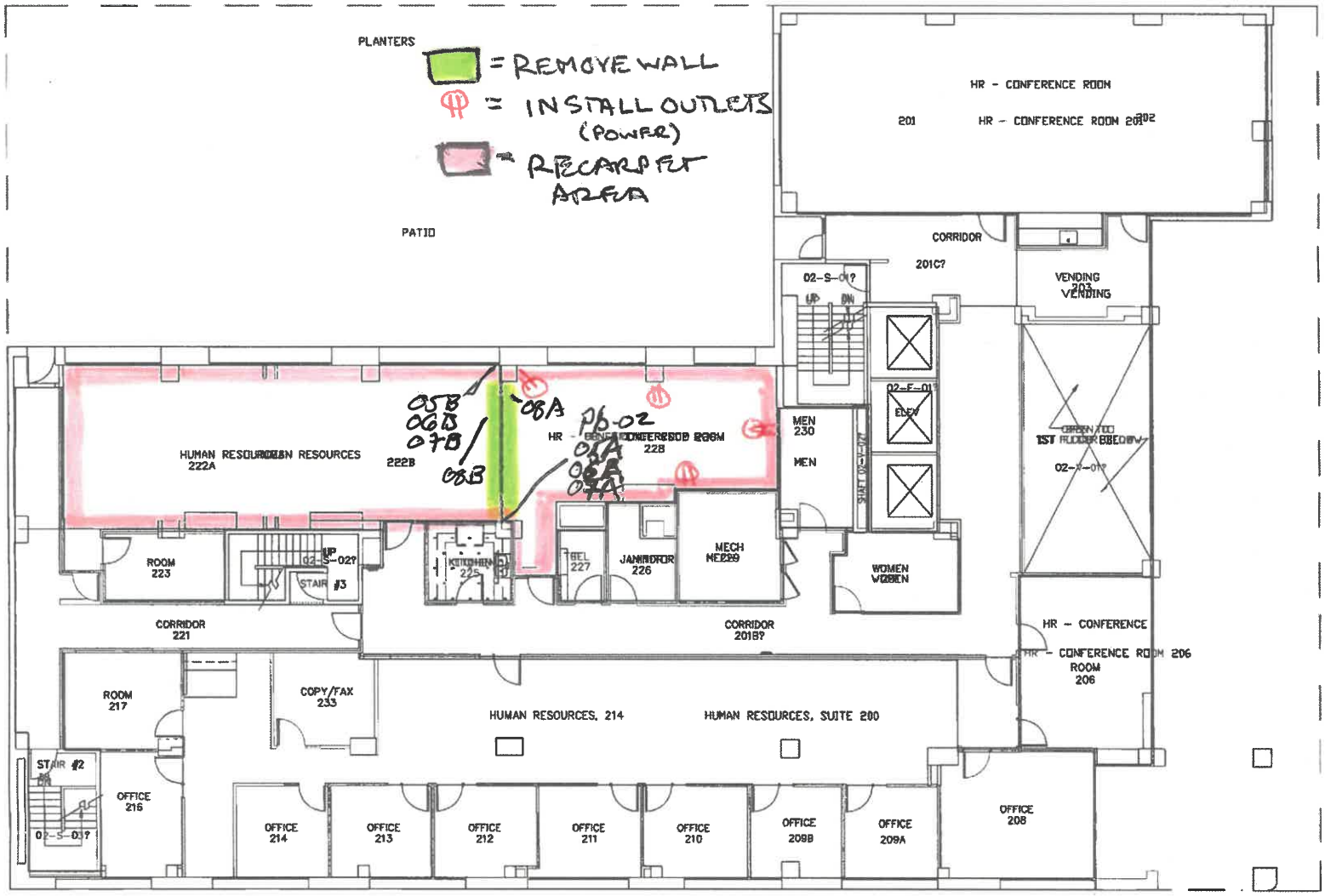
= NEW POWER OUTLET

IDSO# 580578

04430 - LAKESIDE PLAZA BUILDING - 1401 LAKESIDE DRIVE
FIRST FLOOR PLAN

COORDINATE WITH JASMIN ALVAREZ 570.208.9594 IN ADVANCE TO BOOK ROOMS

IDSO# 580578



04430 - LAKESIDE PLAZA BUILDING - 1401 LAKESIDE DRIVE
SECOND FLOOR PLAN

PLAN NORTH

EMSL Analytical, Inc.

464 McCormick Street San Leandro, CA 94577

Tel/Fax: (510) 895-3675 / (510) 895-3680

http://www.EMSL.com / sanleandrolab@emsl.com

EMSL Order:	091823311
Customer ID:	32VEOK25
Customer PO:	180062021
Project ID:	

Attention:	CHRIS BURNS	**Phone:**	(510) 346-8860
	Vista Environmental Consulting, Inc.	**Fax:**	
	2984 Teagarden St	**Received Date:**	10/24/2018 8:00 AM
	San Leandro, CA 94577	**Analysis Date:**	10/25/2018
		Collected Date:	10/23/2018

Project: 180062021 - 13-5037 - COA-GSA - 1401 LAKESIDE, OAKLAND, CA ROOM #730 - 7TH FLOOR

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
401-A-01-Wallboard *91823311-0001*	WB/JC WHITE/ WHITE WALLS	White Non-Fibrous Homogeneous	2% Cellulose	80% Gypsum 18% Non-fibrous (Other)	None Detected
401-A-01-Joint Compound *91823311-0001A*	WB/JC WHITE/ WHITE WALLS	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	None Detected
401-A-01-Texture *91823311-0001B*	WB/JC WHITE/ WHITE WALLS	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	None Detected
401-A-02-Drywall *91823311-0002*	WB/JC WHITE/ WHITE WALLS	Gray Non-Fibrous Homogeneous	2% Cellulose	80% Gypsum 18% Non-fibrous (Other)	None Detected
401-A-02-Joint Compound *91823311-0002A*	WB/JC WHITE/ WHITE WALLS	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	None Detected
401-A-02-Texture *91823311-0002B*	WB/JC WHITE/ WHITE WALLS	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	None Detected
1401-B-01-Cove Base *091823311-0003*	BC/ MASTIC - 4" BLACK/ OFF WHITE	Black Non-Fibrous Homogeneous		20% Ca Carbonate 80% Matrix	None Detected
1401-B-01-Mastic *091823311-0003A*	BC/ MASTIC - 4" BLACK/ OFF WHITE	White Non-Fibrous Homogeneous		70% Matrix 30% Non-fibrous (Other)	None Detected
1401-B-01-Compound *091823311-0003B*	BC/ MASTIC - 4" BLACK/ OFF WHITE	White Non-Fibrous Homogeneous		70% Ca Carbonate 30% Non-fibrous (Other)	None Detected
1401-B-02-Cove Base *091823311-0004*	BC/ MASTIC - 4" BLACK/ OFF WHITE	Black Non-Fibrous Homogeneous		20% Ca Carbonate 80% Matrix	None Detected
1401-B-02-Mastic *091823311-0004A*	BC/ MASTIC - 4" BLACK/ OFF WHITE	White Non-Fibrous Homogeneous		70% Matrix 30% Non-fibrous (Other)	None Detected
401-C-01 *91823311-0005*	ACT - 2X4 WHITE, PINHOLE FISSURE - DROP CEILING	Gray Fibrous Homogeneous	45% Cellulose 45% Min. Wool	10% Perlite	None Detected
401-C-02 *91823311-0006*	ACT - 2X4 WHITE, PINHOLE FISSURE - DROP CEILING	Gray Fibrous Homogeneous	45% Cellulose 45% Min. Wool	10% Perlite	None Detected

Initial report from: 10/25/2018 16:35:59

EMSL Analytical, Inc.

464 McCormick Street San Leandro, CA 94577

Tel/Fax: (510) 895-3675 / (510) 895-3680

http://www.EMSL.com / sanleandrolab@emsl.com

EMSL Order:	091823311
Customer ID:	32VEOK25
Customer PO:	180062021
Project ID:	

Analyst(s)

Jared Martin (13)

Matthew Batongbacal
or Other Approved Signatory

Initial report from: 10/25/2018 16:35:59

OrderID: 091823311

№091823311

VISTA ENVIRONMENTAL CONSULTING

ASBESTOS BULK SAMPLE LOG

2984 TEAGARDEN STREET
SAN LEANDRO, CA 94577
OFFICE 510.346.8860
FAX 888.653.8889

CLIENT: COA-GSA DATE: 10/23/18

LOCATION: 1401 Lakeside, Oakland, CA. PROJECT NUMBER: 180062021

SAMPLED BY: CT ROOM #730 (7TH FLOOR) CAC OR SST NO: 13-5037

BUILDING	HOMO AREA ID	NUMBER	MATERIAL	DESCRIPTION	LOCATION	QUANTITY (SF/LF/EA)
1401	A	01	WB/JC	WHITE/WHITE, WALLS		
1401	A	02	↓	↓		
1401	B	01	BC/MASTIC	4" BLACK/OFF WHITE		
1401	B	02	↓	↓		
1401	C	01	ACT	2' x 4' WHITE, PINHOLE FISSURE	(DROP CEILING)	
1401	C	02	↓	↓	↓	
			6 SAMPLES			

ANALYTICAL METHOD: PLM ~~400 PT COUNT~~ TURNAROUND TIME: SAME DAY 24HR (48 HR) 3 DAY

DATA SENT TO: CHRISTOPHER BURNS VIA E-MAIL: CHRISBURNS@VISTA-ENV.COM
QUESTIONS CALL: 510.658.8860

SPECIAL INSTRUCTIONS: _____

CHAIN OF CUSTODY:

1. _____ (TRANSFER SIGNATURE) Chris Trayer (PRINTED NAME) 10/23/18 14:00 (DATE/TIME)
2. _____ (TRANSFER SIGNATURE) _____ (PRINTED NAME) _____ (DATE/TIME)
3. _____ (TRANSFER SIGNATURE) _____ (PRINTED NAME) _____ (DATE/TIME)

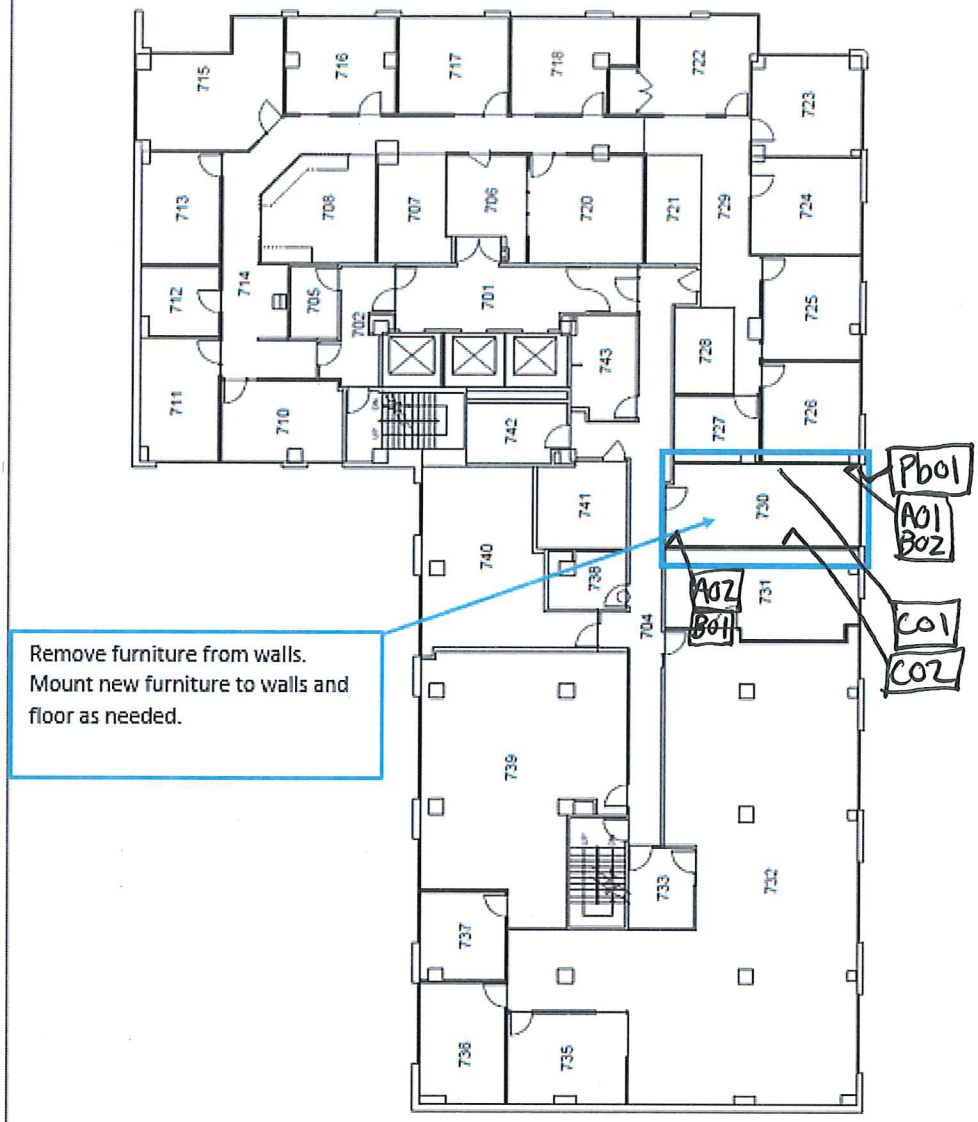
PAGE 1 OF 1

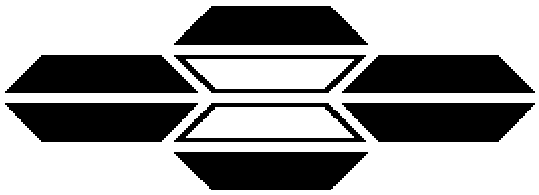
NT - 10/24/18 - 8:00 AM

PB

FLOOR PLAN OF LOCATION TO BE TESTED/ABATED

Bldg #-Drawing Name-Floor:	04430-Lakeside-7th Flr	**USF:**	9,882
Building Name:	Lakeside Plaza	**Print Date:**	12/20/2007
Street Address:	1401 Lakeside Drive	**City:**	Oakland





ASBESTOS TEM LABORATORIES, INC.

EPA Interim Method
Polarized Light Microscopy
Analytical Report

Laboratory Job # 363482

600 Bancroft Way, Ste. A
Berkeley, CA 94710
(510) 704-8930
FAX (510) 704-8429
www.asbestostemlabs.com

With Branch Offices Located At:
1350 FREEPORT BLVD. UNIT 104, SPARKS, NV 89431
Ph. (775) 359-3377

ASBESTOS TEM LABORATORIES, INC

CA DPH ELAP
Lab No. 1866

NVLAP Lab Code: 101891-0
Berkeley, CA

Apr-17-19

Steff Steiner
Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

RE: LABORATORY JOB # 363482
Polarized light microscopy analytical results for 9 bulk sample(s) with 9 sample split(s)
Job Site: 1401 Lakeside - Room #629 Art. Comm.
Job No.: R1197409

Enclosed please find the bulk material analytical results for one or more samples submitted for asbestos analysis. The analyses were performed in accordance with EPA Method 600/R-93/116 or 600/M4-82-020 for the determination of asbestos in bulk building materials by polarized light microscopy (PLM). Please note that while PLM analysis is commonly performed on non-friable and fine grained materials such as floor tiles and dust, the EPA method recognizes that PLM is subject to limitations. In these situations, accurate results may only be obtainable through the use of more sophisticated and accurate techniques such as transmission electron microscopy (TEM) or X-ray diffraction (XRD).

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Each sample is opened in a class 100 HEPA negative air hood. A representative sampling of the material is selected and placed onto a glass microscope slide containing a drop of refractive index oil. The glass slide is placed under a polarizing light microscope where standard mineralogical techniques are used to analyze and quantify the various materials present, including asbestos. The data is then compiled into a standard report format and reviewed by the authorized signatory before being released to the client.

Sincerely Yours,

Lab Manager
ASBESTOS TEM LABORATORIES, INC.

Note: Test samples will be stored for three months after data of receipt, after which they will be properly disposed unless client makes other arrangements with the laboratory.

POLARIZED LIGHT MICROSCOPY
ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Steff Steiner

Address: Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

Samples Indicated: 9
Reg. Samples Analyzed: 9
Split Layers Analyzed: 9

Report No. **363482**
Date Submitted: Apr-12-19
Date Reported: Apr-17-19

Job Site / No. 1401 Lakeside - Room #629 Art. Comm.
R1197409

SAMPLE ID	ASBESTOS % TYPE	OTHER DATA 1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	DESCRIPTION FIELD LAB
1A Lab ID # 1434-04261-001A	None Detected	1) 1-5% Cellulose 2) 95-99% Gyp, Opq 3) Apr-12-19 4) Apr-17-19	Drywall With Joint Comp. - South Wall #629 Drywall-White
1A Lab ID # 1434-04261-001B	None Detected	1) 1-5% Cellulose 2) 95-99% Opq, Calc 3) 4) Apr-17-19	Drywall With Joint Comp. - South Wall #629 JointCom/Text-Off-White
1B Lab ID # 1434-04261-002A	None Detected	1) 1-5% Cellulose 2) 95-99% Gyp, Opq 3) Apr-12-19 4) Apr-17-19	Drywall With Joint Comp. - North Wall #629 Drywall-White
1B Lab ID # 1434-04261-002B	None Detected	1) 1-5% Cellulose 2) 95-99% Opq, Calc 3) 4) Apr-17-19	 JointCom/Text-Off-White
1C Lab ID # 1434-04261-003A	None Detected	1) 1-5% Cellulose 2) 95-99% Gyp, Opq 3) Apr-12-19 4) Apr-17-19	Drywall With Joint Comp. - East Wall #629 Drywall-White
1C Lab ID # 1434-04261-003B	None Detected	1) 1-5% Cellulose 2) 95-99% Opq, Calc 3) 4) Apr-17-19	 JointCom/Text-Off-White
2A Lab ID # 1434-04261-004A	None Detected	1) None Detected 2) 99-100% Calc, Bndr 3) Apr-12-19 4) Apr-17-19	4" Black Base Cove Glue (Yellow) - South Wall - #629 Baseboard-Black
2A Lab ID # 1434-04261-004B	None Detected	1) None Detected 2) 99-100% Glue 3) 4) Apr-17-19	4" Black Base Cove Glue (Yellow) - South Wall - #629 Mastic-Yellow
2B Lab ID # 1434-04261-005A	None Detected	1) None Detected 2) 99-100% Calc, Bndr 3) Apr-12-19 4) Apr-17-19	4" Black Base Cove Glue (Yellow) - North Wall - #629 Baseboard-Black
2B Lab ID # 1434-04261-005B	None Detected	1) None Detected 2) 99-100% Glue 3) 4) Apr-17-19	 Mastic-Yellow

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hewitt

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With Offices in Reno, NV (775) 359-3377

POLARIZED LIGHT MICROSCOPY
ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Steff Steiner

Address: Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

Samples Indicated: 9
Reg. Samples Analyzed: 9
Split Layers Analyzed: 9

Report No. **363482**
Date Submitted: Apr-12-19
Date Reported: Apr-17-19

Job Site / No. 1401 Lakeside - Room #629 Art. Comm.
R1197409

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA (1) Non-Asbestos Fibers (2) Matrix Materials (3) Date/Time Collected (4) Date Analyzed	DESCRIPTION FIELD / LAB
2C Lab ID # 1434-04261-006A		None Detected	1) None Detected 2) 99-100% Calc, Bndr 3) Apr-12-19 4) Apr-17-19	4" Black Base Cove Glue (Yellow) - East Wall - #629 Baseboard-Black
2C Lab ID # 1434-04261-006B		None Detected	1) None Detected 2) 99-100% Glue 3) 4) Apr-17-19	 Mastic-Yellow
3A Lab ID # 1434-04261-007A		None Detected	1) None Detected 2) 99-100% Calc, Bndr, Opq 3) Apr-12-19 4) Apr-17-19	Carpet Glue on Wht . VFT w/ Yellow Mastic - Room # 629 Floor Tile-White
3A Lab ID # 1434-04261-007B		None Detected	1) None Detected 2) 99-100% Glue 3) 4) Apr-17-19	Carpet Glue on Wht . VFT w/ Yellow Mastic - Room # 629 Mastic-Yellow
3B Lab ID # 1434-04261-008A		None Detected	1) None Detected 2) 99-100% Calc, Bndr, Opq 3) Apr-12-19 4) Apr-17-19	Carpet Glue on Wht . VFT w/ Yellow Mastic - Room # 629 B Floor Tile-White
3B Lab ID # 1434-04261-008B		None Detected	1) None Detected 2) 99-100% Glue 3) 4) Apr-17-19	 Mastic-Yellow
3C Lab ID # 1434-04261-009A		None Detected	1) None Detected 2) 99-100% Calc, Bndr, Opq 3) Apr-12-19 4) Apr-17-19	Carpet Glue on Wht . VFT w/ Yellow Mastic - Room # 629 A Floor Tile-White
3C Lab ID # 1434-04261-009B		None Detected	1) None Detected 2) 99-100% Glue 3) 4) Apr-17-19	 Mastic-Yellow
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hewitt

363402

Terracon

E-MAIL REPORT TO: *SEE BELOW PROJECT MANAGER (PM)*

☒ PM – S. Steiner sjsteiner@terracon.com	☐ PM – K. Schroeter kmschroeter@terracon.com	☐ PM – K. Pilgrim kmpilgrim@terracon.com
☐ PM- M. Benefield msbenefield@terracon.com	☐ PM – T. Kattchee tskattchee@terracon.com	☐ PM – W. Frieszell wmfrieszell@terracon.com
☐ PM- D. Block David.block@terracon.com	☐ denise.wallen@terracon.com Engineering Assistant	☐ eric.dyer@terracon.com Engineering Assistant

ACM BULK SAMPLE DATA SHEET

☒ PLM Analysis (Analyze all samples)
☐ Stop Analysis at First Positive
☐ Point Count Analysis (400-point)

Project Name/ Address/ Building No. 1401 LAKESIDE - ROOM #629 ART. COMM.

Project# R1197409 **Sampled By:** M. REED **Sampling Date:** 4-12-19

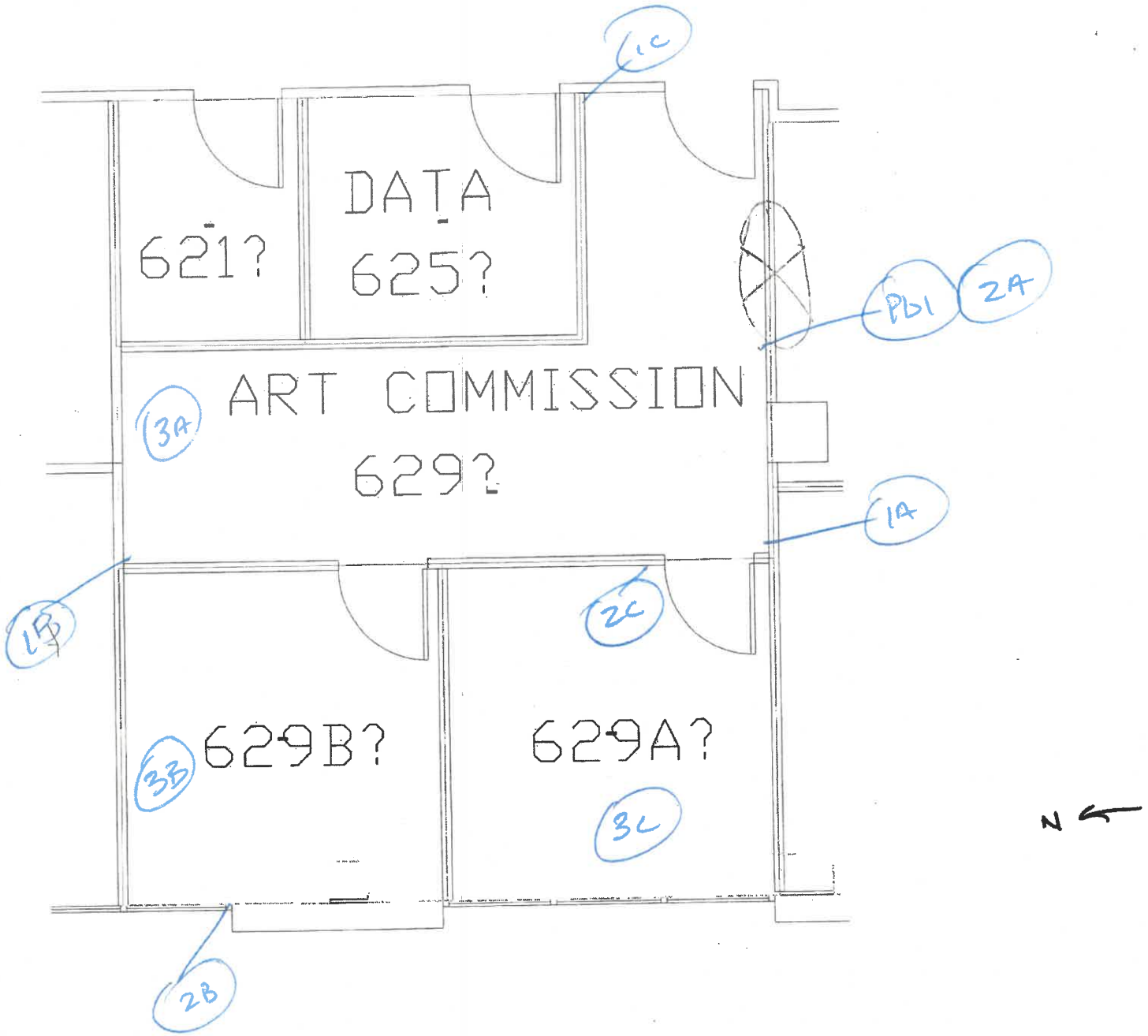
Sample(s) sent to: ☐ MAL ☐ ASB TEM ☐ EMLAB ☒ Other ASBESTOS TEM

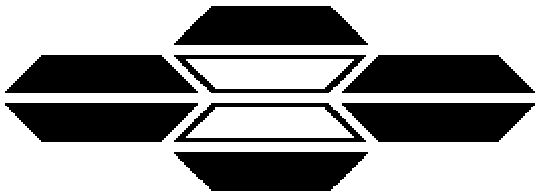
TAT ☐ Rush ☐ 24HRS ☑ 3 DAY

HM# 01	Material Description DRYWALL WITH JOINT COMP.	
Sample ID	**Sample Location & Material Location**	**Quantity:**
1A	SOUTH WALL # 629	
1B	NORTH WALL # 629	
1C	EAST WALL # 629	
HM# 02	**Material Description:** 4" BLACK BASE COVE GLUE (YELLOW)	
Sample ID	**Sample Location & Material Location**	**Quantity:**
2A	SOUTH WALL - # 629	
2B	NORTH WALL - ↓	
2C	EAST WALL - ↓	
HM# 03	**Material Description:** CARPET GLUE ON WHT. VFT W/ YELLOW MASTIC	
Sample ID	**Sample Location & Material Location**	**Quantity:**
3A	ROOM - # 629	
3B	↓ - # 629 B	
3C	↓ - # 629 A	
HM#	**Material Description:**	
Sample ID	**Sample Location & Material Location**	**Quantity:**
HM#	**Material Description:**	
Sample ID	**Sample Location & Material Location**	**Quantity:**

Relinquished By:	M. REED	**Signature:**	M. Reed	**Date/Time:**	4-12-19
Received By:	MTD	**Signature:**	MTD	**Date/ Time:**	
Relinquished By:		**Signature:**		**Date/Time:**	
Received By:		**Signature:**		**Date/Time:**	APR 12 '19 5:17PM

1401 LAKESIDE





ASBESTOS TEM LABORATORIES, INC.

EPA Interim Method
Polarized Light Microscopy
Analytical Report

Laboratory Job # 363645

600 Bancroft Way, Ste. A
Berkeley, CA 94710
(510) 704-8930
FAX (510) 704-8429
www.asbestostemlabs.com

With Branch Offices Located At:
1350 FREEPORT BLVD. UNIT 104, SPARKS, NV 89431
Ph. (775) 359-3377

ASBESTOS TEM LABORATORIES, INC

CA DPH ELAP
Lab No. 1866

NVLAP Lab Code: 101891-0
Berkeley, CA

Apr-25-19

Steff Steiner
Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

RE: LABORATORY JOB # 363645
Polarized light microscopy analytical results for 1 bulk sample(s) with 1 sample split(s)
Job Site: Alameda County - 1401 Lakeside Dr. Rm 623
Job No.: R1197460

Enclosed please find the bulk material analytical results for one or more samples submitted for asbestos analysis. The analyses were performed in accordance with EPA Method 600/R-93/116 or 600/M4-82-020 for the determination of asbestos in bulk building materials by polarized light microscopy (PLM). Please note that while PLM analysis is commonly performed on non-friable and fine grained materials such as floor tiles and dust, the EPA method recognizes that PLM is subject to limitations. In these situations, accurate results may only be obtainable through the use of more sophisticated and accurate techniques such as transmission electron microscopy (TEM) or X-ray diffraction (XRD).

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Each sample is opened in a class 100 HEPA negative air hood. A representative sampling of the material is selected and placed onto a glass microscope slide containing a drop of refractive index oil. The glass slide is placed under a polarizing light microscope where standard mineralogical techniques are used to analyze and quantify the various materials present, including asbestos. The data is then compiled into a standard report format and reviewed by the authorized signatory before being released to the client.

Sincerely Yours,

Lab Manager
ASBESTOS TEM LABORATORIES, INC.

Note: Test samples will be stored for three months after data of receipt, after which they will be properly disposed unless client makes other arrangements with the laboratory.

POLARIZED LIGHT MICROSCOPY
ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Contact: Steff Steiner

Address: Terracon Consultants, Inc.
1466 66th Street
Emeryville, CA 94608

Samples Indicated: 1
Reg. Samples Analyzed: 1
Split Layers Analyzed: 1

Report No. **363645**
Date Submitted: Apr-24-19
Date Reported: Apr-25-19

Job Site / No. Alameda County - 1401 Lakeside Dr. Rm 623
R1197460

SAMPLE ID	ASBESTOS %	ASBESTOS TYPE	OTHER DATA (1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed)	DESCRIPTION FIELD / LAB
1401-01A		**None Detected**	1) 1-5% Cellulose 2) 95-99% Gyp, Opq	Drywall with Joint Compound - Rm 623 -North Wall @ East Side
Lab ID # 1434-04281-001A			3) Apr-24-19 4) Apr-25-19	Drywall-White
1401-01A		**None Detected**	1) 1-5% Cellulose 2) 95-99% Calc, Opq	Drywall with Joint Compound - Rm 623 -North Wall @ East Side
Lab ID # 1434-04281-001B			3) 4) Apr-25-19	JointCom/Text-Off-White
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	
Lab ID #			1) 2) 3) 4)	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique

Analyst Jo Ann Hewette

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemlabs.com

600 Bancroft Way, Ste. A, Berkeley CA 94710 (510) 704-8930
With Offices in Reno, NV (775) 359-3377

363645

Terracon

E-MAIL REPORT TO: *SEE BELOW PROJECT MANAGER (PM)*

☒ PM – S. Steiner spsteiner@terracon.com	☐ PM – K. Schroeter kmschroeter@terracon.com	☐ PM – K. Pilgrim kmpilgrim@terracon.com
☐ PM- M. Benefield msbenefield@terracon.com	☐ PM – T. Kattchee takattchee@terracon.com	☐ PM – W. Frieszell wmfrieszell@terracon.com
☐ PM- D. Block David.block@terracon.com	☐ denise.wallen@terracon.com Engineering Assistant	☐ eric.dyer@terracon.com Engineering Assistant

ACM BULK SAMPLE DATA SHEET

☒ PLM Analysis (Analyze all samples)
☐ Stop Analysis at First Positive
☐ Point Count Analysis (400-point)

Project Name/ Address/ Building No. Alameda County - 1401 Lakeside Dr. Rm 623

Project# R1197460 **Sampled By:** Steiner **Sampling Date:** 4/24/19

Sample(s) sent to: ☐ MAL ☒ ASB TEM ☐ EMLAB ☐ Other

TAT ☐ Rush ☐ 24HRS ☒ 48HR ☐ 3-5 days

HM# 01	Material Description: Drywall w/ Joint Compound	
Sample ID	Sample Location & Material Location	Quantity:
1401-01A	Rm 623 - North Wall @ East Side	

HM#	Material Description:	
Sample ID	Sample Location & Material Location	Quantity:

HM#	Material Description:	
Sample ID	Sample Location & Material Location	Quantity:

HM#	Material Description:	
Sample ID	Sample Location & Material Location	Quantity:

HM#	Material Description:	
Sample ID	Sample Location & Material Location	Quantity:

Relinquished By:	Steff Steiner MB	**Signature:**	Steff S	**Date/Time:** 4/24/19
Received By:		**Signature:**		**Date/ Time:** APR 24 '19 3:50PM
Relinquished By:		**Signature:**		**Date/Time:**
Received By:		**Signature:**		**Date/Time:**

Bldg #-Drawing Name-Floor:	04430-Lakeside-6th Flr		**USF:** 8,991
Building Name:	Lakeside Plaza	**Print Date:**	12/20/2007
Street Address:	1401 Lakeside Drive	**City:**	Oakland

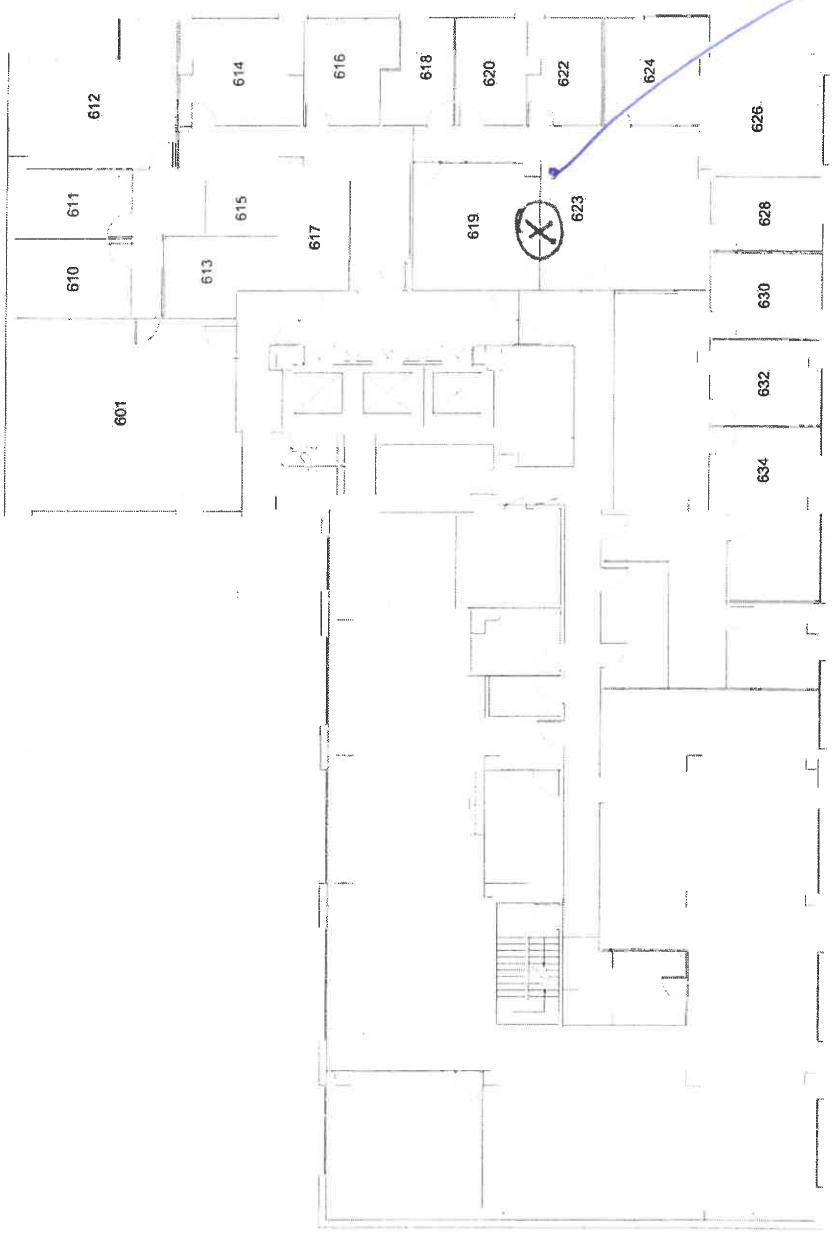


EXHIBIT C

COUNTY OF ALAMEDA MINIMUM INSURANCE REQUIREMENTS

Without limiting any other obligation or liability under this Agreement, the Contractor, at its sole cost and expense, shall secure and keep in force during the entire term of the Agreement or longer, as may be specified below, the following minimum insurance coverage, limits and endorsements:

	TYPE OF INSURANCE COVERAGES	MINIMUM LIMITS
A	**Commercial General Liability** Premises Liability; Products and Completed Operations; Contractual Liability; Personal Injury and Advertising Liability	$1,000,000 per occurrence (CSL) Bodily Injury and Property Damage
B	**Commercial or Business Automobile Liability** All owned vehicles, hired or leased vehicles, non-owned, borrowed and permissive uses.	$1,000,000 per occurrence (CSL) Any Auto Bodily Injury and Property Damage
C	**Workers' Compensation (WC) and Employers Liability (EL)** Required for all contractors with employees	WC: Statutory Limits EL: $1,000,000 per accident for bodily injury or disease
D	**Course of Construction /Builder's Risk or Installation Floater when applicable**	$ Value of Completed project or materials
E	**Endorsements and Conditions**:	

1. **ADDITIONAL INSURED:** All insurance required above with the exception of Commercial or Business Automobile Liability, Workers' Compensation and Employers Liability, shall be endorsed to name as additional insured: County of Alameda, its Board of Supervisors, the individual members thereof, and all County officers, agents, employees, volunteers, and representatives. The Additional Insured endorsement shall be at least as broad as ISO Form Number CG 20 38 04 13. Builder's Risk/Installation floater shall name Alameda County as loss payee.
2. **DURATION OF COVERAGE:** All required insurance shall be maintained during the entire term of the Agreement. In addition, Insurance policies and coverage(s) written on a claims-made basis shall be maintained during the entire term of the Agreement and until 3 years following the later of termination of the Agreement and acceptance of all work provided under the Agreement, with the retroactive date of said insurance (as may be applicable) concurrent with the commencement of activities pursuant to this Agreement.
3. **REDUCTION OR LIMIT OF OBLIGATION:** All insurance policies, including excess and umbrella insurance policies, shall include an endorsement and be primary and non-contributory and will not seek contribution from any other insurance (or self-insurance) available to the County. The primary and non-contributory endorsement shall be at least as broad as ISO Form 20 01 04 13. Pursuant to the provisions of this Agreement insurance effected or procured by the Contractor shall not reduce or limit Contractor's contractual obligation to indemnify and defend the Indemnified Parties.
4. **INSURER FINANCIAL RATING:** Insurance shall be maintained through an insurer with a A.M. Best Rating of no less than A:VII or equivalent, shall be admitted to the State of California unless otherwise waived by Risk Management, and with deductible amounts acceptable to the County. Acceptance of Contractor's insurance by County shall not relieve or decrease the liability of Contractor hereunder. Any deductible or self-insured retention amount or other similar obligation under the policies shall be the sole responsibility of the Contractor.
5. **SUBCONTRACTORS:** Contractor shall include all subcontractors as an insured (covered party) under its policies or shall verify that the subcontractor, under its own policies and endorsements, has complied with the insurance requirements in this Agreement, including this Exhibit. The additional Insured endorsement shall be at least as broad as ISO Form Number CG 20 38 04 13.
6. **JOINT VENTURES:** If Contractor is an association, partnership or other joint business venture, required insurance shall be provided by one of the following methods:
   - Separate insurance policies issued for each individual entity, with each entity included as a "Named Insured" (covered party), or at minimum named as an "Additional Insured" on the other's policies. Coverage shall be at least as broad as in the ISO Forms named above.
   - Joint insurance program with the association, partnership or other joint business venture included as a "Named Insured".
7. **CANCELLATION OF INSURANCE:** All insurance shall be required to provide thirty (30) days advance written notice to the County of cancellation.
8. **CERTIFICATE OF INSURANCE:** Before commencing operations under this Agreement, Contractor shall provide Certificate(s) of Insurance and applicable insurance endorsements, in form and satisfactory to County, evidencing that all required insurance coverage is in effect. The County reserves the rights to require the Contractor to provide complete, certified copies of all required insurance policies. The required certificate(s) and endorsements must be sent as set forth in the Notices provision.

EXHIBIT D

EPOXY TERRAZO SPECIFICATIONS

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Epoxy terrazzo with divider and accessory strips.
2. Precast terrazzo units.

1.02 DEFINITIONS

A. NTMA: National Terrazzo and Mosaic Association, Inc.

1.03 PREINSTALLATION MEETINGS

A. Pre installation Conference: The General Contractor shall conduct a conference at project site before Terrazzo Contractor begins installation.

1. The General Contractor shall invite Terrazzo Contractor and representatives of the County.
2. Review methods and procedures related to terrazzo including, but not limited to, the following:

    a. Inspect and discuss condition of substrate and other preparatory work performed by other trades.
    b. Review and finalize construction schedule and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
    c. Review terrazzo mixes and patterns.
    d. Review custom terrazzo mixes, designs and patterns.
    e. Coordination with the work of other installers.

1.04 ACTION SUBMITTALS

A. Product Data: Terrazzo Contractor shall submit Product Data for each type of product required for installation including:

1. Strip materials.
2. Sealer.

B. Shop Drawings: Terrazzo Contractor shall prepare and submit Shop Drawings that include plans, elevations, sections, component details and attachments to other work. Include terrazzo installation requirements. Show layout of the following:

1. Divider strips.
2. Expansion joint strips.
3. Terrazzo patterns.

C. Samples:

1. Terrazzo Contractor shall prepare and submit a maximum of three samples, sizes 12 by 12 inches for each color and type of terrazzo specified.
2. Terrazzo Contractor shall submit three samples, sizes 12 by 12 inches for each color and type of terrazzo tile specified.

D. Samples for Initial Selection: Terrazzo Contractor shall submit NTMA "Color Palette Brochure" showing full range of colors and patterns available for each terrazzo type.

1.05 INFORMATIONAL SUBMITTALS

A. Qualification Data: Terrazzo Contractor shall submit two copies of qualification data.

1. Include list of projects indicating name and location of project, name of Owner, name and contact information for General Contractor.

B. Material Certificates:

1. Epoxy Resin: For each type of resin required indicating that materials meet specification requirements, by manufacturer.
2. Aggregate: For each type of aggregate required indicating compatibility with terrazzo mix, signed by aggregate supplier.

1.06 CLOSEOUT SUBMITTALS

A. Maintenance Literature: Terrazzo Contractor shall submit two copies of maintenance recommendations from NTMA.

1.07 QUALITY ASSURANCE

A. Acceptable Epoxy Resin Manufacturer: with a record of successful in-service performance as well as sufficient production capacity to produce required materials.

B. Acceptable Terrazzo Contractor: whose work has resulted in construction with a record of successful in-service performance.

1. Installer shall have completed terrazzo installations within the past 5 years of scale and complexity similar to the proposed installation.

C. Source Limitations for Aggregates: Terrazzo Contractor shall obtain each color, grade, type and variety of granular materials from sources with resources to provide materials of consistent quality in appearance and physical properties.

1.08 DELIVERY, STORAGE AND HANDLING

A. Materials shall be delivered to Project site in supplier's original wrappings and containers, labeled with source or manufacturer's name, material or product brand name, and lot number if any.

B. Materials shall be stored in their original, undamaged packages and containers, in a location where they will not be exposed to direct sunlight.

1. Epoxy components shall be stored in a space where the ambient temperature can be maintained 60 and 90 deg. F before use.

1.09 PROJECT CONDITIONS

A. General Contractor shall provide sufficient water, temporary heat and light, and adequate electric power with suitable outlets connected and distributed for use within 100 feet of any working space.

B. General Contractor shall provide temporary enclosures and other suitable methods to protect adjacent spaces from damage during installation.

1. Maintain ambient temperatures in the area to receive terrazzo at not less than 60 deg. F.
2. Maintain adequate ventilation in the area to receive terrazzo.

C. Terrazzo Contractor shall protect other adjacent work from water and dust generated by grinding operations.

1.10 GUARANTEE

A. One year from date of substantial completion of terrazzo installation.

PART 2 - PRODUCTS

2.01 PERFORMANCE

A. Epoxy Resin:

1. Test Specimens: Mix resin materials according to manufacturer's recommendation without aggregate added and cure for 7 days at 75 degrees plus or minus 2 deg. F and 50 percent plus / minus 2 percent relative humidity.
2. Cured test specimens shall meet or exceed the following requirements:

    a. Hardness: 60 to 85 per ASTM D 2240, Shore D.
    b. Minimum Tensile Strength: 3000 psi per ASTM D 638 for a 2-inch specimen made using a "C" die per ASTM D 412.
    c. Minimum Compressive Strength: 10,000 psi per ASTM D 695, Specimen B cylinder.
    d. Chemical Resistance: No deleterious effects by contaminants listed below after seven-day immersion at room temperature per ASTM D 1308.
        1) Distilled Water.
        2) Mineral Oil.
        3) Isopropanol.
        4) Ethanol.
        5) Soap solution at 1 percent.
        6) Sodium hydroxide at 10 percent solution.
        7) Hydrochloric acid at 10 percent solution.
        8) Hydrochloric acid at 30 percent solution.
        9) Detergent Solution at 0.025.
        10) Acetic Acid at 5 percent solution.

B. Epoxy Resin with Aggregate:

1. Test Specimens:

    a. Mix epoxy resin according to manufacturer's recommendations and blend one volume of epoxy resin with 3 volumes of marble aggregate, consisting of:
        1) 60 percent No. 1 chip.
        2) 40 percent No. 0 chip.

    b. Grind and grout with epoxy resin finished to a nominal 1/4-inch thickness.
    c. Cure specimens 7 days at 75 deg. F plus / minus 2 deg. and 50 percent plus / minus 2 percent relative humidity.

2. Cured epoxy terrazzo specimens shall nominally meet the following requirements:

    a. Flammability: Self- extinguishing, extent of burning 1/4 inch maximum according to ASTM D 635.
    b. Coefficient of Linear Thermal Expansion: 0.000025 inch/inch per deg F for temperature range of minus 12 to plus 140 deg F per ASTM D 696.

C. Bond Strength of Epoxy Terrazzo: 300 psi in concrete according to ASTM D7234 (modified to cut slightly into concrete).

2.02 MATERIALS

A. Epoxy Resin Matrix: Two-component, high solids product complying with specified performance requirements.

1. Color: As required for mix indicated.

B. Primer: As recommended, manufactured and supplied by epoxy resin manufacturer.

C. Aggregates:

1. Comply with NTMA gradation standards.
2. Abrasion and Impact Resistance: Loss of 40 percent or less when tested according to ASTM C 131 (LA Abrasion).
3. Aggregates shall contain no deleterious or foreign matter.

D. Divider Strips:
1. Strip Thickness: 16 gauge.
2. Type: "L" strip: 3/8 inch by 1/2 inch.

2.03 MISCELLANEOUS ACCESSORIES

A. Sealer: Terrazzo Contractor shall provide a non-ambering, clear sealer that is chemically neutral; does not impair terrazzo aesthetics or physical properties; is recommended by terrazzo matrix manufacturer. Sealers shall comply with the following:

1. Comply with requirements of authorities having jurisdiction.

2. Comply with ASTM D 2047.
3. Water Based Sealer Properties: With pH factor between 7 and 10.

B. Proportions for Epoxy Terrazzo Topping: Comply with resin supplier's recommendations.

C. Mixing of Terrazzo Topping: Mix epoxy components with aggregates in accordance with manufacturer's recommendations.

PART 3 - EXECUTION

3.01 EXAMINATION

A. The General Contractor and County shall examine substrates and areas, with Terrazzo Contractor present, for compliance with requirements for installation tolerances and other conditions affecting performance of the work.

1. Slab Flatness Tolerance: Subfloor is not to vary more than 1/4 inch from true plane in a 10 foot span.
2. Cracks: Locate cracks and joints in concrete substrates. Verify location of control joints and expansion joints in epoxy terrazzo flooring.

    a. If required to prevent cracks in concrete substrates transmitting through epoxy terrazzo flooring, the Terrazzo Contractor shall make a written recommendation to install a crack suppression membrane and include specific recommendations on type and location.

B. The General Contractor shall be responsible for correcting non-conforming concrete substrates using materials compatible with epoxy terrazzo flooring system and as approved by the Terrazzo Contractor.

1. Materials used to correct nonconforming conditions must be compatible with the selected epoxy system and be approved by the manufacturer of epoxy resin materials and Terrazzo Contractor.

C. Terrazzo Contractor shall proceed with installation only after unsatisfactory conditions, including flatness tolerances, cracking, and excessive moisture vapor transmission have been corrected.

3.02 PREPARATION

A. General Contractor shall broom clean area to receive terrazzo to remove loose chips and all foreign matter.

B. Terrazzo Contractor shall mechanically abrade concrete surface.

3.03 POURED-IN-PLACE TERRAZZO INSTALLATION

A. Strip Materials: Terrazzo Contractor shall install strip materials as follows:

1. Divider and Control-Joint Strips:

    a. Locate divider strips in locations indicated.
    b. Install control joint strips back to back in locations indicated.
    c. Install strips in epoxy adhesive without voids below strips.

B. Placing Terrazzo:

1. Prime subfloor in accordance with manufacturer's recommendations.
2. Proportion and thoroughly blend the materials.
3. Place mixture to achieve specified thickness.

C. Poured in Place Terrazzo Base: Terrazzo Contractor shall provide mix color for terrazzo base to match **approved sample**.

1. Terrazzo Contractor shall place and finish terrazzo base at the same time the terrazzo floor is being installed.

D. Finishing: Terrazzo Contractor shall finish the terrazzo topping as follows:

1. Rough Grinding:

a. Grind with 24 or finer grit stones or with comparable diamond abrasives.
b. Follow initial grind with 60/80 grit stones or with comparable diamond abrasives.

2. Grouting:

a. Clean terrazzo with clean water and rinse. Allow to dry.
b. Apply epoxy grout per manufacturer's instructions.
c. Allow grout to cure.

3. Fine Grinding/Polishing: Grind with 120 grit or with comparable diamond abrasives until all grout is removed from surface.

E. Terrazzo Cleaning: Terrazzo Contractor shall clean finished terrazzo as follows:

1. Remove grinding residue from terrazzo surface.
2. Wash terrazzo surfaces immediately after final grinding of terrazzo flooring with water and allow surfaces to dry thoroughly.

F. Sealing: Terrazzo Contractor shall seal terrazzo according to sealer manufacturer’s written instructions.

3.04 PRECAST TERRAZZO INSTALLATION

A. Terrazzo Contractor shall install precast terrazzo units as follows:

1. Precast Terrazzo Base: Use **epoxy adhesive** to install precast terrazzo base over substrates indicated according to **ANSI 108.6**.

3.05 REPAIR

A. Terrazzo Contractor shall repair terrazzo areas that evidence lack of bond between topping and underbed according to NTMA's written recommendations.

3.06 PROTECTION

A. After application of the sealer, the Work shall be ready for final inspection and acceptance by the Owner or his agent.

B. The General Contractor shall protect the finished floor after the Terrazzo Contractor has completed final grinding and applied sealer to terrazzo surfaces.

END OF SECTION

Exhibit E – Optical Turnstile Specification

PART I – GENERAL

1.01 CSI MASTER FORMAT SECTIONS

A. Section 11 14 00 Pedestrian Control Equipment (Gates/Turnstiles)
B. Section 28 10 00 Electronics Access Control and Intrusion Detection
C. Section 28 16 00 Intrusion Detection

1.02 REFERENCES

A. The Power supply unit (PSU) shall be UL certified

1.03 QUALITY ASSURANCE

A. Installer shall have a minimum of three (3) years experience installing optical turnstiles or similar equipment or shall supply a manufacturer-trained technician for Site Certification & Training following installation of the Optical Turnstiles.

1.04 SUBMITTALS

A. Submit manufacturer's product literature including datasheet and drawing pack for specific model, including options.
B. Provide high resolution photo.
C. Provide Installation & Maintenance manual.
D. Provide site specific drawings detailing product placement, arrangement, and wiring.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver equipment and materials to specified location in manufacturer's packaging undamaged, complete with installation instructions.
B. Store off ground, under cover, protected from weather and construction activities. For periods of extended storage the equipment will be kept in an environment that regulates temperature and humidity. Use forklift, pallet jack, or specified number of personnel for moving equipment, observing manufacturer's safety instructions at all times.

1.06 PROJECT/SITE CONDITIONS

A. Install Optical Turnstile on level, finished floor, and in strict accordance with manufacturer's installation chapter in the provided Installation & Maintenance manual.

1.07 WARRANTY:

A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of optical turnstile system that fails in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following: faulty circuit boards (PCB), infrared beams and power supply modules. Warranty Period: 1 year.

PART II - PRODUCTS

2.01 MANUFACTURER

A. Product must be able to be serviced, in warranty, by a company based in Alameda County.
B. Product must have no more than a 90 calendar day lead time, order to delivery.
C. Replacement parts to be available within 1 week, including shipping

2.02 PRODUCT

A. Optical Turnstile, with waist high barrier
B. Alvarado SU5000 Optical Turnstile

2.03 CONSTRUCTION

A. Exterior:
   1. End Panels: stainless steel or polyurethane.
   2. Side Panels: stainless steel or polyurethane with polycarbonate filter windows for the infrared beams.
   3. Encasement: stainless steel or polyurethane
B. Decorative Tops:
   1. Stainless steel or polyurethane, with AMAG reader mounting locations.
C. Turnstile Status Display
   1. Located on the Right Hand Side of each lane viewed from the entrance/exit
   2. The Indicator is provided by RGB LEDs
F. Enclosure:
   1. Dimensions- Two (2) ADA accessable lane, side-by-side, total width no more than 96"
   2. Pedestal weight approx. 103lbs (47Kg) maximum.
   3. Unit enclosure shall provide an Ingress Protection rating of IP40.
G. Movable Panels- etched with County Seal. County to provide graphic.

2.04 EQUIPMENT

A. General: Three adjacent pedestals utilizing pulsed infrared beams to create an invisible electronic field between pedestals, monitoring the passage of individuals entering and leaving a facility, discriminating between people and nuisances (such as common briefcases, umbrellas, and rolling carts), to deter unauthorized individuals from passing through the lane. Lane widths to be 36” (914mm) may be accommodated subject to the application. All calibrations, feature set selections and diagnostics are built into the unit managed on board by the relevant processor cards. Must not require a Windows based PC to operate.
B. Types of units: The system shall consist of a Transmit Pedestal (TX) and a Receive Pedestal (RX) to provide a single lane, and Interlane Pedestals (INT) to form additional lanes between the RX and TX pedestals.
C. Capabilities:
   1. Detect and deter unauthorized persons from entering into the protected area.
   2. Detect unauthorized persons more than 1/4 inch (5 mm) at waist height, behind an authorized person, that is “tailgating” or “piggybacking.”
   3. Detect direction of movement, that is, entry and exit.
   4. Verify entry into the protected area following authorization.
   5. Provide alarm outputs on detection of a violation by means of:
      a. Local sounders and indicators
   6. Operate in bi-directional, single direction, no entry or free access modes.
   7. Minimize false alarms through the use of infrared beams connected to intelligent detection algorithms.
   8. Process a high number of people without security guard intervention, unless access is rejected by the system or a system anomaly occurs.
   9. Ensure a fast throughput, up to one person per second, subject to the access control system.
   10. Buffering multiple inputs from an access control system to maximize throughput.
   11. Easy to use.
   12. Allow free movement for wheelchair users with ADA width lanes.
   13. Allow safe emergency egress through a fire alarm input to open the glass panels.

14. Entry and exit with an authorized card, biometric, or other credential.
15. Entry and exit that is unauthorized causing an alarm.
16. Authorized card being read by the system but no entry or exit taking place using an optional alarm configuration.
17. Card presented for entry but exit occurring causing an alarm.
18. Barrier Breakaway function- pressure on panels can force an emergency exit, with sound and visual alarms.

D. Optical System
   1. Intelligently monitored infrared beam matrix: minimum 20 beam paths per lane.
      a. Superfluous user behavior tolerated by the software without generating an alarm condition due to:
         i. Partial passage through the beams and moving back out again.
         ii. Hesitation in the beam field for less than a pre-selected number of seconds.
         iii. Presenting a card for authorization while within the beam-field, but before completing passage through it.
   2. Access request transaction speed: Time delay of no greater than 100ms in signaling passage through the beams and readying the turnstile for the next user except when a greater delay is caused by the attached access control system.
      a. The optical system must be capable of throughput of up to 1 person per second.

E. Inputs:
   1. Entry Visitor Request: Normally Open momentary closing switch contacts

F. Outputs:
   1. Voltage-free relay contacts rated 24Vdc @ 500mA for the following functions for alarm indicators, and to provide turnstile and entry and exit door emulation.
   2. Output to Access control System:
      a. Access monitoring (used as confirmation of access after authorization)
         i. Entry: Normally closed (opening for 1s)
         ii. Exit: Normally closed. (opening for 1s)
      b. Alarm 1: Normally closed.(closing for a minimum of 1s)
      c. Alarm 2: Normally open (closing for 1s)
   3. Two-Stage Audio/Visual Alarm System
      a. First stage notifies user and guard that someone has entered the lane without authorization.
         i. Allows user to back up and attempt authorization, before going into a full alarm.
         ii. Guard becomes aware that a lane violation may occur.
      b. Second stage notifies user and guard that someone has passed through the lane without authorization.
         i. Notifies the user that they have passed through the lane without authorization.
         ii. Guard becomes aware that a lane violation has occurred and to take appropriate action.
   4. Audible Alarms: Provide for each lane triggered in an alarm condition.
      a. Local alarm sounders.
      b. Relay Contact: utilized to trigger external alarm systems.
      c. Secondary sounder can be activated in response to an alarm event.
   5. Status Display: Provide for each lane a visual indication of the status of the lane.
      a. Standby
      b. Please Proceed
      c. Lane Closed

d. Alarm.

G. Power Requirements:
1. Pedestal: Low voltage 24Vdc supply current 0.5A per lane.
a. Hazardous voltage must not be present at pedestal to ensure user safety.
2. Power Supply Unit:
a. PSU to be remotely installed.
b. PSU input voltage 100Vac to 240Vac at 60/50Hz, connection by 5A fused spur.

2.05 FACTORY TESTING

A. Optical Turnstile shall be fully assembled and staged as a system at the factory to accommodate soak testing for a period of 48 hours at a minimum to ensure proper operation and electrical connectivity. System shall be inspected for mechanical, electrical and aesthetic condition prior to packaging and shipment.

2.06 SECURITY EQUIPMENT

A. Card Readers: System compatible with AMAG control technologies for owner-provided card readers of suitable dimensions to be mounted onto pedestals. Must support integration of multiple card readers at each mounting location by manufacturer.
1. Card Reader Mounting at pedestal ends:
a. Under, or surface-mounted
b. Option at pedestal ends behind acrylic window or surface-mounted.

2.07 ENVIRONMENTAL

A. Product use: Provide:
1. Energy consumption per lane
2. Maintenance Interval minimum.

2.08 SUSTAINABILITY

A. The product is recyclable at end of life. Provide documentation of the materials to be distributed to appropriate recycling facilities resulting in a very low residual waste of non-recyclable material.
1. Stainless Steel (sheet material 1mm to 1.5mm thickness)
2. Mild Steel (sheet material 1.2 to 3mm thickness)
3. Plastics
4. Printed circuit boards
5. Special components e.g. power supply modules

B. The product shall be supplied on reusable plastic pallets with recyclable carton packaging comprising of the following materials.
1. Corrugated fiber board
2. Foam
3. Polyethylene

PART III – EXECUTION

3.01 SITE EXAMINATION

A. Inspection: Installer / Integrator shall examine the installation and advise the contractor of any site conditions unacceptable for proper installation of product.
1. Finished floor substrate must be dead level within the footprint of the turnstile.
2. Main supply service for power supply and low voltage power out & control wiring must be installed.

B. Installation: Turnstiles shall be installed in accordance with manufacturer’s Installation & Maintenance manual.

C. Setup & Adjustment: Installer / Integrator shall perform initial equipment electronic adjustments to ensure proper performance after installation.
D. Instruction: Installer / Integrator with a minimum of 3 years experience installing optical turnstiles shall furnish operator training for end user, or provide for Site Certification & Training services during installation.
E. Cleaning: Clean metal, acrylic and glass surfaces carefully after installation to remove excess caulk, dirt, and labels.

END OF SECTION