

**Soquel Creek Water District
Contract Documents**

**CWO 15-126, HEADQUARTERS PARKING LOT EXPANSION &
INTERIOR OFFICE REMODELS**

APPENDICES

**Appendix A: Limited Asbestos & Lead Paint Survey Report,
September 26, 2014, Revised October 10, 2014.**

Limited Asbestos & Lead Paint Survey Report

Commercial Property

Site: 5180 Soquel Drive, Soquel, California

Prepared for: Soquel Creek Water District

S Tech Project: 14177 & 14192

September 26, 2014, Revised October 10, 2014

S Tech Consulting was retained by the Soquel Creek Water District to conduct a limited asbestos and lead-based paint survey at their district offices located at 5180 Soquel Drive in Soquel, California. Minor renovations are planned for two buildings at the site. The upcoming work will impact suspect asbestos containing materials and components that may be coated with lead-based paint.

The EPA and Cal-OSHA require the sampling of suspect asbestos containing materials prior to conducting renovation or demolition. If asbestos is present, it must be properly handled and disposed of. Lead paint is regulated by EPA and OSHA to prevent creating a lead exposure hazard for workers and future occupants of the space. The EPA Renovation, Repair, and Painting Rule (RRP), requires either assuming pre-1978 structures have lead-based paints or testing to prove lead-based paint is not present.

The site visit took place September 18, 2014 by Sean Tillema, a State of California Division of Occupational Safety and Health Certified Asbestos Consultant (07-4257), and California Department of Public Health Certified Lead Related Construction Inspector / Risk Assessor (1646). A second site visit occurred on October 3, 2014 to inspect the HVAC system.

Background, Property Description, & Scope of Work

There are two buildings at the site where renovations will occur. The administration building is the older of the two buildings, likely constructed prior to 1980. The water conservation building was constructed post-2000.

The scope of the improvement work in the administrative building includes adding a doorway and demising wall in the boardroom. The work will impact the drywall on either side of the existing demising wall as well as the cove base/mastic and ceiling tiles. Additionally, in the printer room a new window will be added. The work will impact the drywall and the exterior wood siding.

The scope of the improvement work in the conservation building is to remove drywall in the storage room to conduct various improvements. The work is expected to impact the drywall. Flooring is bare concrete and there are no other suspect materials of concern in this room.

On the second site visit, we inspected the HVAC system from three accessible areas. Ducting was observed to be a combination of metal rigid duct and plastic flex duct. The ducting is insulated in fiberglass.

Our scope of work was to perform a limited asbestos and lead paint survey of the accessible materials anticipated to be disturbed by the renovations, as explained to S Tech by the client. The asbestos survey was in compliance with the Monterey Bay Unified Air Pollution Control District's requirements. Lead testing was for compliance with EPA RRP Rule and for the Cal-OSHA Lead in Construction Standard



Asbestos Containing Materials

Asbestos-containing material (ACM) is defined by the Federal Environmental Protection Agency (EPA) as material containing **more than one percent asbestos** as determined by Polarized Light Microscopy (PLM), however, the California Department of Occupational Safety and Health (Cal-OSHA) classifies any material as having greater than one tenth of one percent (>0.1%) asbestos as asbestos-containing construction material (ACCM). Asbestos containing material is divided into friable or non-friable categories. Friability refers to the likelihood of the material readily releasing airborne fibers when disturbed. Materials found to contain trace levels of asbestos, below 1% must either be assumed to be asbestos containing material or further analyzed by the more precise Point Count method for confirmation purposes.

The following conclusions were arrived at from the field inspection and the analytical results:

- * **In the administrative building, the joint compound, associated with the drywall system on all walls expected to be impacted by the renovations, contains 2% Chrysotile asbestos. The removal of drywall in this building will generate friable, Regulated Asbestos Containing Material (RACM). The ultimate quantity of removal will be determined by the contractor performing the renovation work.**

Analysis was performed by Ameri-Sci Los Angeles on a standard lab turnaround. Seven samples were collected from the subject space. Once at the lab, the submitted samples were further separated into thirteen individual materials for analysis. The table below is a summary of materials identified to contain asbestos. Following the summary table is a table which lists all samples submitted to the laboratory, with samples in red containing asbestos. The full laboratory results are attached at the end of this document. See the summary for additional information.

Asbestos Summary Table				
Asbestos Material	Locations	Analytical Results	Classification	Approximate Quantity for Removal
Drywall / Joint Compound	Printer Room Board Room Passage (opposite board room) Note: Based on the results, all drywall in the administrative building should be considered to be asbestos containing unless future comprehensive testing is conducted.	Joint Compound: 2% Chrysotile	RACM	To be determined by scope of renovations

Asbestos Containing Materials - continued

Asbestos Bulk Sample Table			
Sample Number	Material Sampled	Sample Location	Analytical Results NAD = No Asbestos Detected
001	Drywall / Joint Compound	Board Room	Drywall: NAD JC: 2% Chrysotile
002	Cove Base / Mastic	Board Room	NAD
003	Ceiling Tile 2' x 4'	Board Room	NAD
004	Drywall / Joint Compound	Passage Wall (Opposite Board Room)	Drywall: NAD JC: 2% Chrysotile
005	Drywall / Joint Compound	Printer Room	Drywall: NAD JC: 2% Chrysotile
006	Drywall / Joint Compound	Conservation Building - Perimeter Wall in Storage Room	NAD
007	Drywall / Joint Compound	Conservation Building - Demising Wall in Storage Room	NAD

Lead-Based Paint

Lead-Based Paint (LBP), as defined by EPA, is of concern both as a source of direct exposure through ingestion of paint chips, and as a contributor to lead interior dust and exterior soil. Lead was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Lead compounds continued to be used as corrosion inhibitors, pigments and drying agents from the early 1950's. In 1972, the Consumer Products Safety Commission limited lead content in new paint to 0.5% (5000 ppm) and, in 1978, to 0.06% (600 ppm). Currently, for purposes of lead-based paint inspection, EPA defines LBP as paint containing greater than 0.5% (5000 ppm) lead by weight or greater than 1.0 mg/cm² by surface area.

There are a number of state and federal regulations meant to ensure a lead health risk hazard is not created during the course of construction or maintenance activities. The EPA Renovation, Repair, and Painting Rule (RRP) requires contractor certification, educational handouts to tenants/owners and lead-safe work practices be employed when impacting LBP in pre-1978 residential of childcare facilities. LBP must be assumed to be present unless extensive testing is completed at the facility to prove LBP is not present in the coatings. The RRP requirements can be reviewed by following this link <http://www.epa.gov/lead/pubs/renovation.htm>.

While EPA regulates LBP mainly for childhood lead poisoning prevention. OSHA regulates lead in any material (not solely paints) to protect employees from excessive lead exposure during routine occupational and construction activities. Maintenance personnel and contract staff may conduct repetitive tasks, where even low levels of lead in paint could result in significant exposure to the individual. For this reason, OSHA does not define a lower 'safe' lead content. The term 'Lead Containing Paint (LCP)' refers to paints containing any level of paint above the analytical limits of detection. The presence of LCP requires contractor compliance with [Title 8, California Code of Regulations, Chapter 4, Subchapter 4, Article 4, Section 1532.1\(p\)](#). The Cal-OSHA Lead in Construction Standard details specific actions the contractor must take to determine the exposure to their employees. Based on the exposure assessment or historical data from similar tasks, various engineering and personal protective measures must be implemented. High exposure levels are typically generated from torching, sand blasting, and grinding activities.

Sampling on this project was conducted by X-ray Fluorescence (XRF), which provides instant analysis penetrating all layers of paint. A state of the art Innov-X Delta Dynamic XRF was utilized to conduct the lead paint testing. For statistical precision, the Innov-X reports a maximum lead content of 'greater than (>) 5.0 mg/cm²'.

The following conclusions were arrived at from the testing:

- * **EPA defined Lead-Based Paint (>1.0 mg/cm² by XRF) was not identified in any coating anticipated to be impacted by the scope of the renovations.**
- * **For compliance with the Cal-OSHA Lead in Construction Standard, any impact to lead can trigger certain OSHA compliance requirements on behalf of the employer to protect employees from exposure to lead during the course of the task being performed. Contractor's should either have historical data on file, from similar projects, or should implement an exposure monitoring program for employees.**

See the summary for additional information. A table listing the lead paint results is provided on the following page.

Lead-Paint - continued

The table below lists the components tested by the XRF device. *EPA Lead-Based Paint is lead content in excess of 5,000 ppm by bulk analysis or **greater than 1.0 mg / cm² by XRF**.* Sampling is representative, meaning if one painted component is found to contain lead, other like components are assumed to also be lead containing, unless otherwise noted. Note that the presence of lead in any amount may have Cal-OSHA implications.

Lead in Paint Analysis by X-ray Fluorescence				
Analysis	Area	Component	Substrate	Lead Content mg/cm²
XRF	Board Room	Lower Wall	Drywall	<0.01
XRF	Board Room	Upper Wall	Drywall (Wallpapered)	0.02
XRF	Board Room	Chair Rail	Wood	0.06
XRF	Passage Wall (Opposite Board Room)	Wall	Drywall	<0.01
XRF	Printer Room	Wall	Drywall	0.02
XRF	Exterior	Siding - Opposite Printer Room Wall	Wood	0.15
XRF	Conservation Storage Room	Demising Wall	Drywall	<0.01
XRF	Conservation Storage Room	Perimeter Wall	Drywall	<0.01
XRF	Conservation Storage Room	Exterior Siding	Stucco	<0.01

Summary of Findings

Asbestos

A State of California, Division of Occupational Safety & Health (DOSH) licensed asbestos removal contractor must be used to handle any materials with an asbestos content of greater than 0.1% ([Asbestos Containing Construction Material](#)). All work must be conducted in strict accordance with Cal-OSHA's asbestos standard, [8 CCR 1529](#) and the requirements of the Monterey Bay Unified Air Pollution Control District's (MBUAPCD) [Rule 424](#). Waste must be disposed of in the correct landfill for the classification of asbestos being removed.

If greater than 160 square feet of RACM will be removed as part of the renovations, a notification to Monterey Bay Unified Air Pollution Control District (MBUAPCD) must be submitted ten day prior to beginning the work. **All asbestos removal and disposal must occur in strict accordance with EPA (MBUAPCD) and OSHA requirements, regardless of whether a notification is required. This report must remain onsite for the duration of the renovation project.**

Any time asbestos removal occurs from an occupied area, it is recommended third party contractor oversight and air monitoring occur, along with a final clearance inspection, prior to removal of the negative pressure enclosures.

Contractors should be aware that concealed spaces may harbor additional suspect material. Asbestos cement pipes may be concealed within wall cavities. Should any additional suspect materials be identified during the course of the renovation work, stop and contact us to assess and sample if necessary. This was a limited asbestos survey of specific materials. This was not a comprehensive asbestos assessment of all suspect materials in either building in the scope of work.

Note, we had limited access to the HVAC system, though all ducting appears to be insulated in fiberglass. Should future impact to the HVAC system occur, it should be noted that white tape or white corrugated cardboard type material may contain asbestos. See the plan attached to this report for our inspection locations. If any additional suspect material is observed, do not disturb it until S Tech can assess the material.

Lead

Lead-Based Paint was not identified in any of the coatings expected to be impacted by the scope of the renovations. No further action is required with regards to LBP.

As is common with all paints, even newer paints, trace lead was identified in the coatings sampled. For employee protection, Cal-OSHA has not set a lower 'safe' threshold for lead content in regards to occupational exposure for workers involved in the construction industry. Employers who task employees with occupational tasks that could result in high exposure to lead, must follow the requirements of the Lead in Construction Standard to ensure their employees are protected. Contractors should collect exposure data on their employees or have historical data from similar tasks or projects. Employers not familiar with the requirements of the Lead in Construction standard can download a short Cal-OSHA fact sheet by following this link http://www.dir.ca.gov/dosh/dosh_publications/lead-fct-sheet-rev.pdf. Note, tasks that typically result in high lead exposure include abrasive blasting, torching, and mechanical grinding.

This was a limited survey focusing on specific locations and materials. Other suspect materials may be present in a building of this age. If the scope of work expands, suspect materials must be tested prior to disturbing. If you have any questions please feel free to call us at 831.883.8415

STech Consulting



Sean P. Tillema

**Certified Asbestos Consultant (CAC) #07-4257
Certified Lead Inspector / Risk Assessor (CDPH) #1646**

Limitations

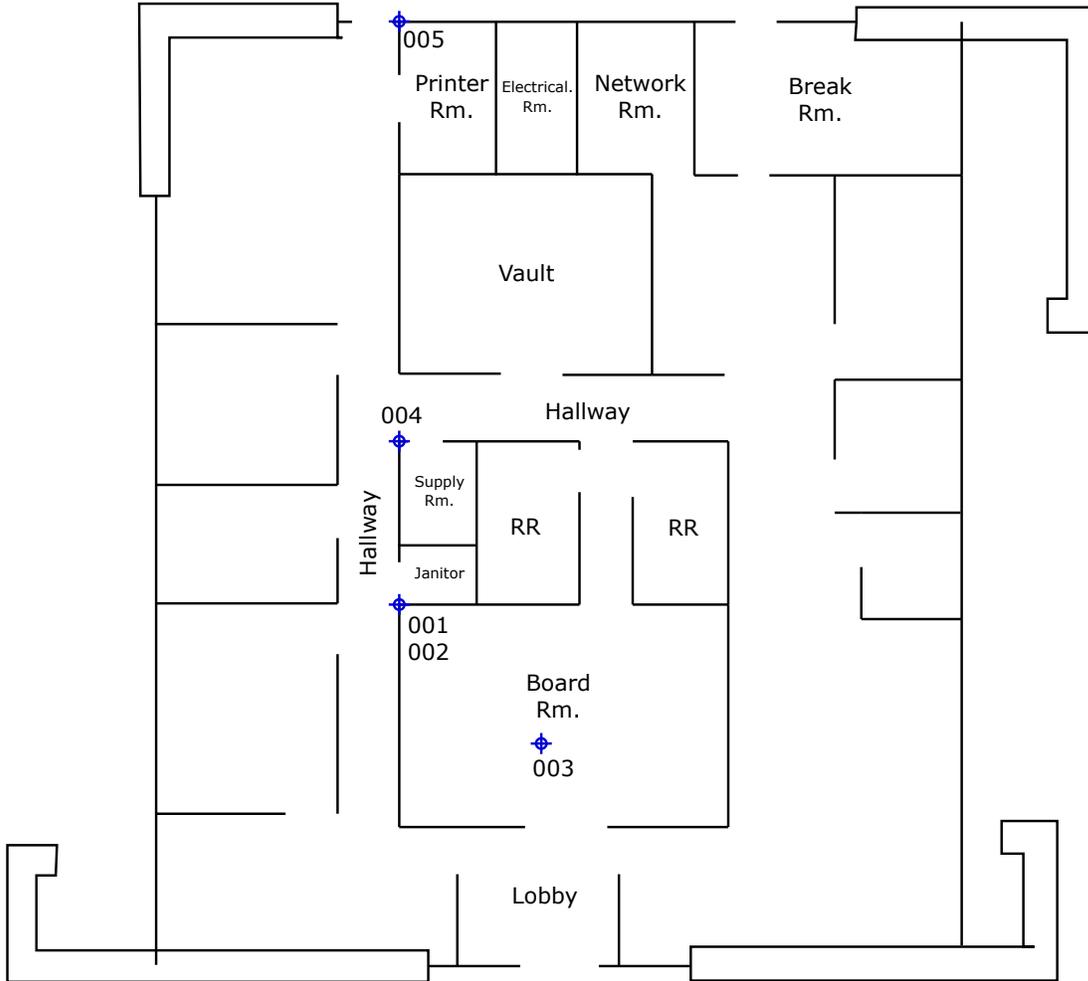
This report is not intended to identify all hazards or unsafe conditions or to imply that others do not exist. This survey was planned and implemented on the basis of a mutually agreed scope of work and S Tech's experience in performing this type of assessment.

Areas and materials outside our scope or inaccessible areas are excluded from this report. Concealed materials requiring extensive demolition to identify are excluded from the scope of this assessment. This survey was conducted for EPA NESHAP compliance and is not necessarily meant to be a full AHERA protocol assessment.

S Tech Consulting has performed this survey in a professional manner using the degree of skill and care exercised for similar projects under similar conditions, by reputable and competent environmental consultants. S Tech Consulting shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time that this survey was conducted.

S Tech Consulting further states that no warranties, expressed or implied, are made regarding the quality, fitness, or results to be achieved as a consequence of this report or impacted by information not properly disclosed to S Tech at the time of this report. It further states that no responsibility is assumed for the control or correction of conditions or practices existing at the premises of the client.

Site Plan - Admin. Building



- ◆ Indicates Interior Sample Location
- ▽ Indicates Exterior Sample Location



DATE PREPARED: 9/25/14	DRAWN BY: D.T.
REVISION:	REVISION DATE:
PROJECT NO: 14177	SCALE: NTS

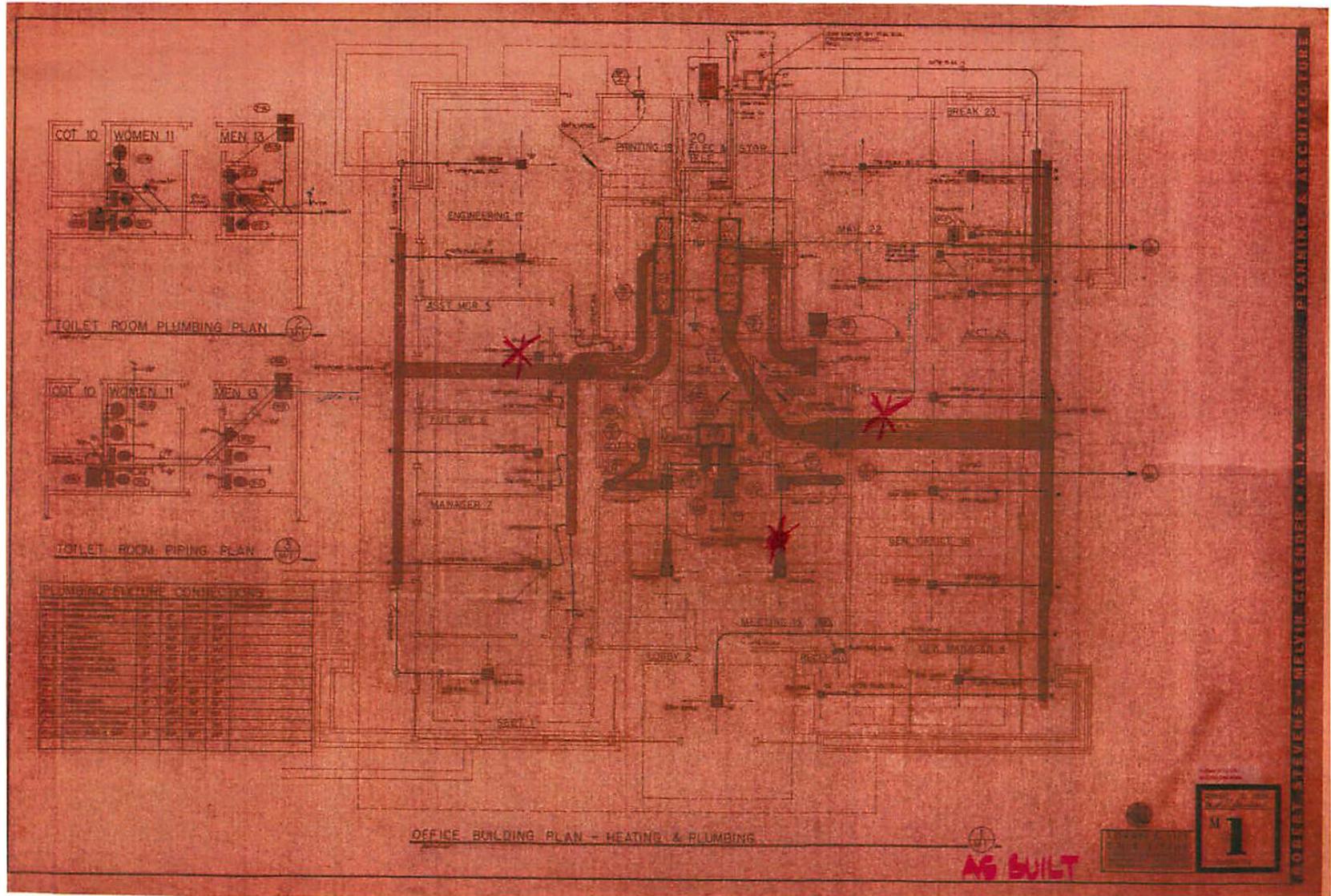
DRAWING TITLE:
Asbestos Site Sample Location Plan

PROJECT NAME:
5180 Soquel Drive, Soquel, California

CLIENT:
Soquel Creek Water District

FIGURE NO. **1**

Limited Asbestos & Lead-Based Paint Assessment - 5180 Soquel Drive, Soquel, California



* Inspection Location

Asbestos Analytical Data

Please Reply To:



AmeriSci Los Angeles

24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

FACSIMILE TELECOPY TRANSMISSION

To: Sean Tillema STech Consulting LLC	From: David Espique
Fax #:	AmeriSci Job #: 914091766
Email: Sean@stechconsulting.com, labresults@stechconsulting.com	Subject: PLM 5 day Results
	Client Project: 14177; Soquel Creek Water District; 5180 Soquel Drive, Soquel CA

Date: Wednesday, September 24, 2014
Time: 14:34:00
Comments:

Number of Pages: 5
(including cover sheet)

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PLM Bulk Asbestos Report

STech Consulting LLC
Attn: Sean Tillema
484B Washington Street, #401
Monterey, CA 93940

Date Received 09/19/14 **AmeriSci Job #** 914091766
Date Examined 09/24/14 **P.O. #**
Page 1 of 3
RE: 14177; Soquel Creek Water District; 5180 Soquel Drive,
Soquel CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
001 Location: Drywall / Joint Compound / Board Room Analyst Description: White/Beige, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Chrysotile 2.0 % Other Material: Non-fibrous 98 %	914091766-01.1	Yes	2 % (by CVES) by David Espique on 09/24/14
001 Location: Drywall / Joint Compound / Board Room Analyst Description: White/Tan/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 10 %, Fibrous glass 2 %, Non-fibrous 88 %	914091766-01.2	No	NAD (by CVES) by David Espique on 09/24/14
002 Location: Cove Base w/ Mastic / Board Room Analyst Description: Teal, Homogeneous, Non-Fibrous, Cove Base Asbestos Types: Other Material: Non-fibrous 100 %	914091766-02L1	No	NAD (by CVES) by David Espique on 09/24/14
002 Location: Cove Base w/ Mastic / Board Room Analyst Description: White, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Non-fibrous 100 %	914091766-02L2	No	NAD (by CVES) by David Espique on 09/24/14
003 Location: Ceiling 2'x4' / Board Room Analyst Description: White/Brown, Heterogeneous, Fibrous, Ceiling Tile Asbestos Types: Other Material: Cellulose 80 %, Non-fibrous 20 %	914091766-03	No	NAD (by CVES) by David Espique on 09/24/14

PLM Bulk Asbestos Report

14177; Soquel Creek Water District; 5180 Soquel Drive,
 Soquel CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
004	914091766-04.1	Yes	2 %
Location: Drywall / Joint Compound / Passage Wall (Opposite Board Room)			(by CVES) by David Espique on 09/24/14
Analyst Description: White/Beige, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Chrysotile 2.0 % Other Material: Non-fibrous 98 %			
004	914091766-04.2	No	NAD
Location: Drywall / Joint Compound / Passage Wall (Opposite Board Room)			(by CVES) by David Espique on 09/24/14
Analyst Description: White/Tan/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 10 %, Fibrous glass 2 %, Non-fibrous 88 %			
005	914091766-05.1	Yes	2 %
Location: Drywall / Joint Compound / Printer Room			(by CVES) by David Espique on 09/24/14
Analyst Description: White/Beige, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Chrysotile 2.0 % Other Material: Non-fibrous 98 %			
005	914091766-05.2	No	NAD
Location: Drywall / Joint Compound / Printer Room			(by CVES) by David Espique on 09/24/14
Analyst Description: White/Tan, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 10 %, Fibrous glass 2 %, Non-fibrous 88 %			
006	914091766-06.1	No	NAD
Location: Drywall / Joint Compound / Conservation Building Perimeter Wall			(by CVES) by David Espique on 09/24/14
Analyst Description: White/Beige, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Non-fibrous 100 %			
006	914091766-06.2	No	NAD
Location: Drywall / Joint Compound / Conservation Building Perimeter Wall			(by CVES) by David Espique on 09/24/14
Analyst Description: White/Tan/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 10 %, Fibrous glass 2 %, Non-fibrous 88 %			

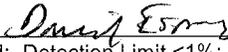
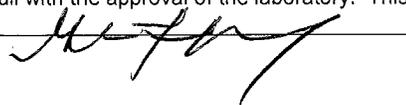
Client Name: STech Consulting LLC

PLM Bulk Asbestos Report

14177; Soquel Creek Water District; 5180 Soquel Drive,
Soquel CA

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
007	914091766-07.1	No	NAD
Location: Drywall / Joint Compound / Conservation Building Partition Wall			(by CVES) by David Espique on 09/24/14
Analyst Description: White/Beige, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Non-fibrous 100 %			
007	914091766-07.2	No	NAD
Location: Drywall / Joint Compound / Conservation Building Partition Wall			(by CVES) by David Espique on 09/24/14
Analyst Description: White/Tan/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 10 %, Fibrous glass 2 %, Non-fibrous 88 %			

Reporting Notes:

Analyzed By: David Espique ; Date Analyzed: 9/24/2014 ~~09/29/2014~~
 *NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; NVA = No Visible Asbestos; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0, CA ELAP lab #2322); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.
 Reviewed By: 

S
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T 831.883.8415
F 877.984.5495

date: 9-18-14 project#: 14177

client: Saguel Creek Water District inspector: Sean Tillena

site: 5180 Sagel Drive, Saguel, CA

914091764

asbestos bulk sampling log

sample #	material	sample location	condition	friable
001	Drywall / Joint Compound	Board Room	G	F
002	Corebase w/ Mastic			NP
003	Cerly Tile 2' x 4'			F
004	Drywall / Joint Compound	Passage Wall (opposite Board Room)		F
005		Printer Room		F
006	Drywall / Joint Compound	Conservation Building Perimeter Wall		
007		Partition Wall		

turn around requested: standard / 24HR. / RUSH

Page 1 of 1

analysis: PLM

chain of custody

results to: labresults@stechconsulting.com

relinquished by: [Signature] date: _____ time: 1800

received by: [Signature] date: 9/19/14 time: 1010