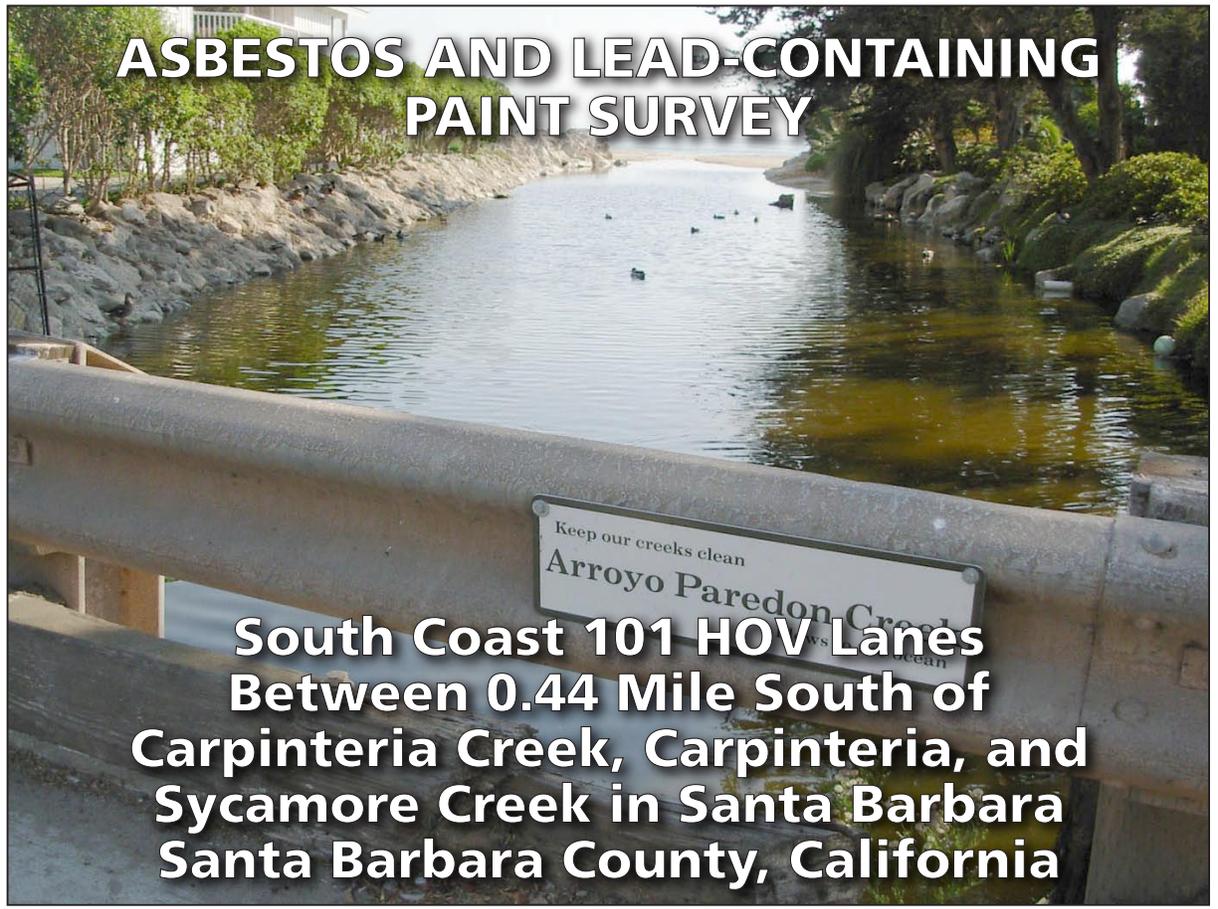


ASBESTOS AND LEAD-CONTAINING PAINT SURVEY



**South Coast 101 HOV Lanes
Between 0.44 Mile South of
Carpinteria Creek, Carpinteria, and
Sycamore Creek in Santa Barbara
Santa Barbara County, California**

PREPARED FOR:

**CALIFORNIA DEPARTMENT OF TRANSPORTATION – DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CALIFORNIA 93401**



PREPARED BY:

**GEOCON CONSULTANTS, INC.
3160 GOLD VALLEY DRIVE, SUITE 800
RANCHO CORDOVA, CALIFORNIA 95742**



**GEOCON PROJECT NO. S9200-06-81
TASK ORDER NO. 81, EA 05-0N7000**

FEBRUARY 2010



Project No. S9200-06-81
February 26, 2010

Mr. James Tkach, Task Order Manager
Caltrans District 5
50 Higuera Street
San Luis Obispo, California 93401

Subject: SOUTH COAST 101 HOV LANES
BETWEEN 0.44 MILE SOUTH OF CARPINTERIA CREEK, CARPINTERIA, AND
SYCAMORE CREEK IN SANTA BARBARA
SANTA BARBARA COUNTY, CALIFORNIA
CONTRACT NO. 06A1141
TASK ORDER NO. 81, EA NO. 05-0N7000
ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT

Dear Mr. Tkach:

In accordance with California Department of Transportation Contract No. 06A1141 and Task Order No. 81, we have performed an asbestos and lead-containing paint (LCP) survey of the project location in Santa Barbara County, California. The scope of services included surveying various structures (bridges, a pedestrian undercrossing, and culverts) for suspect asbestos-containing materials and LCP, collecting bulk samples, and submitting the samples to laboratories for analyses.

The accompanying report summarizes the services performed and laboratory analysis.

The contents of this report reflect the views of Geocon Consultants, Inc., who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

Please contact us if you have questions concerning the contents of this report or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.


David A. Watts, CAC
Senior Project Scientist


John E. Juhrend, PE, CEG
Project Manager

DAW:JEJ:krh

(6 + 2 CD) Addressee

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FIGURES

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- B. Analytical Laboratory Reports and Chain-of-custody Documentation

ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT

1.0 INTRODUCTION

This asbestos and lead-containing paint (LCP) survey report was prepared by Geocon Consultants, Inc. under Caltrans Contract No. 06A1141, Task Order No. 81 (TO-81).

1.1 Project Description

The project consists of the Santa Barbara High Occupancy Vehicle (HOV) Lane (EA 05-0N7000) in Santa Barbara County, California. We performed asbestos and LCP survey activities on various structures (bridges, a pedestrian undercrossing, and culverts) at the project location. The project location is depicted on the Vicinity Map, Figure 1, and Site Plans, Figures 2A and 2B. A listing of structures included in our survey are presented in Appendix A.

1.2 General Objectives

The primary purpose of the scope of services outlined in TO-81 was to determine the presence and quantity of asbestos construction materials and deteriorated LCP at the project location prior to demolition activities. The information obtained from this investigation will be used by Caltrans for waste profiling, determining California Occupational Safety and Health Administration (Cal/OSHA) applicability, and coordinating asbestos and LCP disturbance activities.

It was not Geocon's intent during this inspection to conduct an evaluation of lead-based paint hazards in accordance with U.S. Department of Housing and Urban Development (HUD) guidelines.

2.0 BACKGROUND

2.1 Asbestos

The *Code of Federal Regulations (CFR)*, 40 CFR 61, Subpart M, National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Federal Occupational Safety and Health Administration (FED OSHA) classify asbestos-containing material (ACM) as any material or product that contains *greater than 1%* asbestos. Nonfriable ACM is classified by NESHAP as either Category I or Category II material defined as follows:

- **Category I** – asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products.
- **Category II** – all remaining types of nonfriable asbestos-containing material not included in Category I that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Regulated asbestos-containing material (RACM), a hazardous waste when friable, is classified as any manufactured material that contains *greater than 1%* asbestos by dry weight *and* is:

- Friable (can be crumbled, pulverized, or reduced to powder by hand pressure); or
- Category I material that has become friable; or
- Category I material that has been subjected to sanding grinding, cutting or abrading; or
- Category II nonfriable material that has a high probability of becoming crumbled, pulverized, or reduced to a powder during demolition or renovation activities.

Activities that disturb materials containing *any* amount of asbestos are subject to certain requirements of the Cal/OSHA asbestos standard contained in Title 8, CCR Section 1529. Typically, removal or disturbance of more than 100 square feet of material containing more than 0.1% asbestos must be performed by a registered asbestos abatement contractor, but associated waste labeling is not required if the material contains 1% or less asbestos. When the asbestos content of a material exceeds 1%, virtually all requirements of the standard become effective.

Materials containing greater than 1% asbestos are also subject to NESHAP regulations (40 CFR Part 61, Subpart M). RACM (friable ACM and nonfriable ACM that will become friable during demolition operations) must be removed from structures prior to demolition. Certain nonfriable ACM and materials containing 1% or less asbestos may remain in structures during demolition; however, there are waste handling/disposal issues and Cal/OSHA work requirements that must be addressed. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

With respect to potential worker exposure, notification, and registration requirements, Cal/OSHA defines asbestos-containing construction material (ACCM) as construction material that contains greater than 0.1% asbestos (Title 8, CCR 341.6).

2.2 Lead Paint

Construction activities (including demolition) that disturb materials or paints containing *any* amount of lead are subject to certain requirements of the Cal/OSHA lead standard contained in Title 8, CCR, Section 1532.1. Deteriorated paint is defined by Title 17, CCR, Division 1, Chapter 8, §35022 as a surface coating that is cracking, chalking, flaking, chipping, peeling, non-intact, failed, or otherwise separated from a component. Demolition of a deteriorated LCP component would require waste characterization and appropriate disposal. Intact LCP on a component is currently accepted by most landfill facilities; however, contractors are responsible for segregating and characterizing waste streams prior to disposal.

For a solid waste containing lead, the waste is classified as California hazardous when: 1) the total lead content equals or exceeds the respective Total Threshold Limit Concentration (TTLC) of 1,000 milligrams per kilogram (mg/kg); or 2) the soluble lead content equals or exceeds the respective Soluble Threshold Limit Concentration (STLC) of 5 milligrams per liter (mg/l) based on the standard Waste Extraction Test (WET). A waste has the potential for exceeding the lead STLC when the waste's total lead content is greater than or equal to ten times the respective STLC value since the WET uses a 1:10 dilution ratio. Hence, when total lead is detected at a concentration greater than or equal to 50 mg/kg, and assuming that 100 percent of the total lead is soluble, soluble lead analysis is required. Lead-containing waste is classified as "Resource, Conservation, and Recovery Act" (RCRA) hazardous, or Federal hazardous, when the soluble lead content equals or exceeds the Federal regulatory level of 5 mg/l based on the Toxicity Characteristic Leaching Procedure (TCLP).

The above regulatory criteria are based on chemical concentrations. Wastes may also be classified as hazardous based on other criteria such as ignitability; however, for the purposes of this investigation, toxicity (i.e., lead concentrations) is the primary factor considered for waste classification since waste generated during the construction activities would not likely warrant testing for ignitability or other criteria. Waste that is classified as either California hazardous or RCRA hazardous requires management as a hazardous waste.

Potential hazards exist to workers who remove or cut through LCP coatings during demolition. Dust containing hazardous concentrations of lead may be generated during scraping or cutting materials coated with lead-containing paint. Torching of these materials may produce lead oxide fumes. Therefore, air monitoring and/or respiratory protection may be required during the demolition of materials coated with LCP. Guidelines regarding regulatory provisions for construction work where workers may be exposed to lead are presented in the Title 8, CCR, Section 1532.1.

2.3 Architectural Drawings and Previous Survey Activities

Architectural drawings or previous survey reports for the project were not available for our review.

3.0 SCOPE OF SERVICES

Mr. David Watts, a California-Certified Asbestos Consultant (CAC), certification No. 98-2404 (expiration September 16, 2010), and Certified Lead Paint Inspector/Assessor and Project Monitor with the California Department of Public Health (DPH), certification numbers I-1734 and M-1734 (expiration December 4, 2010), performed the asbestos and LCP survey at the project location on September 23, 2009. The structures listed in Appendix A were surveyed. Samples were collected from only those structures that exhibited evidence of suspect ACM or LCP.

3.1 Asbestos

Suspect ACM were grouped into homogeneous areas with representative samples randomly collected from each. In addition, each potential ACM was evaluated for friability. A total of 53 bulk asbestos samples representing 29 material types were collected.

Our procedures for inspection and sampling in accordance with TO-81 are discussed below:

- Collected bulk asbestos samples after first wetting suspect material with a light mist of water. The samples were then cut from the substrate and transferred to a labeled container. Note that when multiple samples were collected, the sampling locations were distributed throughout the homogeneous area (spaces where the material was observed).
- Relinquished bulk asbestos samples under chain-of-custody protocol to EMSL Analytical, Inc., a California-licensed and Caltrans-approved subcontractor, for asbestos analysis in accordance with United States Environmental Protection Agency (EPA) Test Method 600/R-93/116 using polarized light microscopy (PLM). EMSL Analytical, Inc. is a laboratory accredited by the National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NIST-NVLAP) for bulk asbestos fiber analysis. The laboratory analyses were requested on a five-day turn-around-time.

Sample group identification numbers, material descriptions, approximate quantities, friability assessments, and photo references are summarized on Table 1. Approximate sample locations are presented on Figures 2A and 2B. Materials represented by the samples collected are shown in the attached photographs.

We observed no suspect materials at the Sheffield Undercrossing (51-0189R), Greenwell Avenue steel culvert, Arroyo Parida Creek Bridge (51-0049L), Santa Monica Creek Bridge (51-0050L), or Franklin Creek Bridge (51-0051L/R). Consequently, we collected no asbestos samples at these locations.

3.2 Lead Paint

Two bulk paint samples were collected from suspect LCP observed at the project location. We did not observe deteriorated LCP during our survey. Our sampling procedures in accordance with TO-81 are discussed below:

- Collected bulk samples of suspect LCP using techniques presented in HUD guidelines. In addition, the painted areas were evaluated for evidence of deterioration such as flaking or cracking.
- Relinquished bulk LCP samples under chain-of-custody protocol to Advanced Technology Laboratories, a California-licensed and Caltrans-approved subcontractor, for lead analysis in accordance with EPA Test Method 6010B. Advanced Technology Laboratories is accredited by the DPH for lead analysis. The laboratory analysis was requested on a five-day turn-around-time.

Paint sample identification numbers, descriptions, peeling and flaking quantities, and photo references are summarized on Table 2. Approximate sample locations are presented on Figures 2A and 2B. Materials represented by the samples collected are shown in the attached photographs.

4.0 INVESTIGATIVE RESULTS

4.1 Asbestos Analytical Results

A summary of the analytical laboratory test results for asbestos is presented on Table 1. Reproductions of the laboratory report and chain-of-custody documentation are presented in Appendix B.

Chrysotile asbestos at concentrations ranging from 30% to 40% was detected in samples representing approximately 25 square feet of nonfriable asbestos cement drainpipe inserts on the Cabrillo Boulevard Undercrossing (51-0086R).

Chrysotile asbestos at a concentration of 70% was detected in samples representing a total of approximately 45 square feet of nonfriable asbestos sheet packing used as barrier rail shims on the Evans Avenue Undercrossing (51-0226L/R), South Padaro Lane Undercrossing (51-0228L/R), and the Santa Monica Creek Bridge (51-0050R). Asbestos is assumed to be present in approximately one square foot of barrier rail shim material observed on the Arroyo Parida Creek Bridge (51-0049R); however, we were unable to safely access the shims due to safety concerns (i.e., traffic).

Amosite asbestos at concentrations ranging from 0.75% to 1.00% was detected (using PLM point counting) in samples representing approximately 65 square feet of nonfriable asphalt pipe coating (8-inch-diameter) on the Santa Monica Creek Bridge (51-0050Y).

When the results obtained by point counting and visual estimation are different, the point count result must be used.

No asbestos was detected in samples of the remaining suspect materials collected during our survey.

4.2 Paint Analytical Results

A summary of the analytical laboratory test results for paint is presented on Table 2. Reproductions of the laboratory reports and chain-of-custody documentation are presented in Appendix B.

A sample representing intact gray paint on the Butterfly Lane Pedestrian Undercrossing (51-0188) exhibited a total lead concentration of 28 mg/kg.

A sample representing intact white paint on the Arroyo Parida Creek Bridge (51-0049Y) barrier rail posts exhibited a total lead concentration of 400,000 mg/kg and a TCLP lead concentration of 480 mg/l.

5.0 RECOMMENDATIONS

Based on our findings, we recommend the following:

5.1 Asbestos

NESHAP regulations require that asbestos cement drainpipe inserts (a Category II nonfriable/nonhazardous material) on the Cabrillo Boulevard Undercrossing (51-0086R) be removed and disposed of prior to demolition or other activities that would disturb the material. We recommend that a licensed contractor registered with Cal/OSHA for asbestos-related work (or trained in accordance with Cal/OSHA requirements for asbestos cement pipe disturbance activities) perform the asbestos cement pipe removal and disposal.

NESHAP regulations do not require that asbestos-containing sheet piling (a Category I nonfriable/nonhazardous material) used in barrier rail systems on the Evans Avenue Undercrossing (51-0226L/R), South Padaro Lane Undercrossing (51-0228L/R), Arroyo Parida Creek Bridge (51-0049R), and the Santa Monica Creek Bridge (51-0050R) or materials containing 1% or less asbestos (i.e., asphalt pipe coating on the Santa Monica Creek Bridge [51-0050Y]) identified during our survey be removed prior to demolition or treated as hazardous waste. However, the disturbance of these materials is still covered by the Cal/OSHA asbestos standard (Title 8, CCR Section 1529). We recommend that a licensed contractor registered with Cal/OSHA for asbestos-related work perform activities that would disturb these asbestos-containing materials. Contractors are responsible for informing the landfill of the contractor's intent to dispose of asbestos-containing waste. Some landfills may require additional waste characterization. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

We also recommend written notification to contractors that will be conducting related activities of the presence of asbestos (i.e., provide the contractor[s] with a copy of this report and a list of asbestos removed by a licensed contractor[s] during subsequent abatement activities). Contractors not trained for asbestos work should be instructed not to disturb asbestos.

In accordance with Santa Barbara County Air Pollution Control District, Rule 1001, written notification is required ten working-days prior to commencement of *any* demolition activity (whether asbestos is present or not). In accordance with Title 8, CCR 341.9, written notification to the nearest Cal/OSHA district office is required at least 24 hours prior to certain asbestos-related work.

5.2 Lead Paint

Paint identified on the Arroyo Parida Creek Bridge (51-0049Y) during our survey would be classified as California and Federal hazardous based on lead content if stripped, blasted, or otherwise separated from the substrate.

Paint identified on the Butterfly Lane Pedestrian Undercrossing (51-0188) during our survey would not be classified as California or Federal hazardous based on lead content.

Geocon recommends that all paints at the project location (graffiti, graffiti abatement, signage, traffic striping, etc.) be treated as lead-containing for purposes of determining the applicability of the Cal/OSHA lead standard during any future maintenance, renovation, and demolition activities. This recommendation is based on LCP sample results and the fact that lead was a common ingredient of paints manufactured before 1978 and is still an ingredient of some paints. In accordance with Title 8, CCR, Section 1532.1(p), written notification to the nearest Cal/OSHA district office is required at least 24 hours prior to certain lead-related work.

6.0 REPORT LIMITATIONS

This asbestos and LCP survey was conducted in conformance with generally accepted standards of practice for identifying and evaluating asbestos and LCP in structures. The survey addressed only the structures identified in Section 1.1. Due to the nature of structure surveys, asbestos and LCP use, and laboratory analytical limitations, some ACM or LCP at the project location may not have been identified. Spaces such as cavities, voids, crawlspaces, and pipe chases may have been concealed to our investigator. Previous renovation work may have concealed or covered spaces or materials or may have partially demolished materials and left debris in inaccessible areas. Additionally, renovation activities may have partially replaced ACM with indistinguishable non-ACM. Asbestos and/or LCP may exist in areas of the structures that were not accessible or sampled in conjunction with this TO.

During renovation or demolition operations, suspect materials may be uncovered which are different from those accessible for sampling during this assessment. Personnel in charge of renovation/demolition should be alerted to note materials uncovered during such activities that differ substantially from those included in this or previous assessment reports. If suspect ACM and/or LCP are found, additional sampling and analysis should be performed to determine if the materials contain asbestos or lead.

This report has been prepared exclusively for Caltrans. The information contained herein is only valid as of the date of the report and will require an update to reflect additional information obtained.

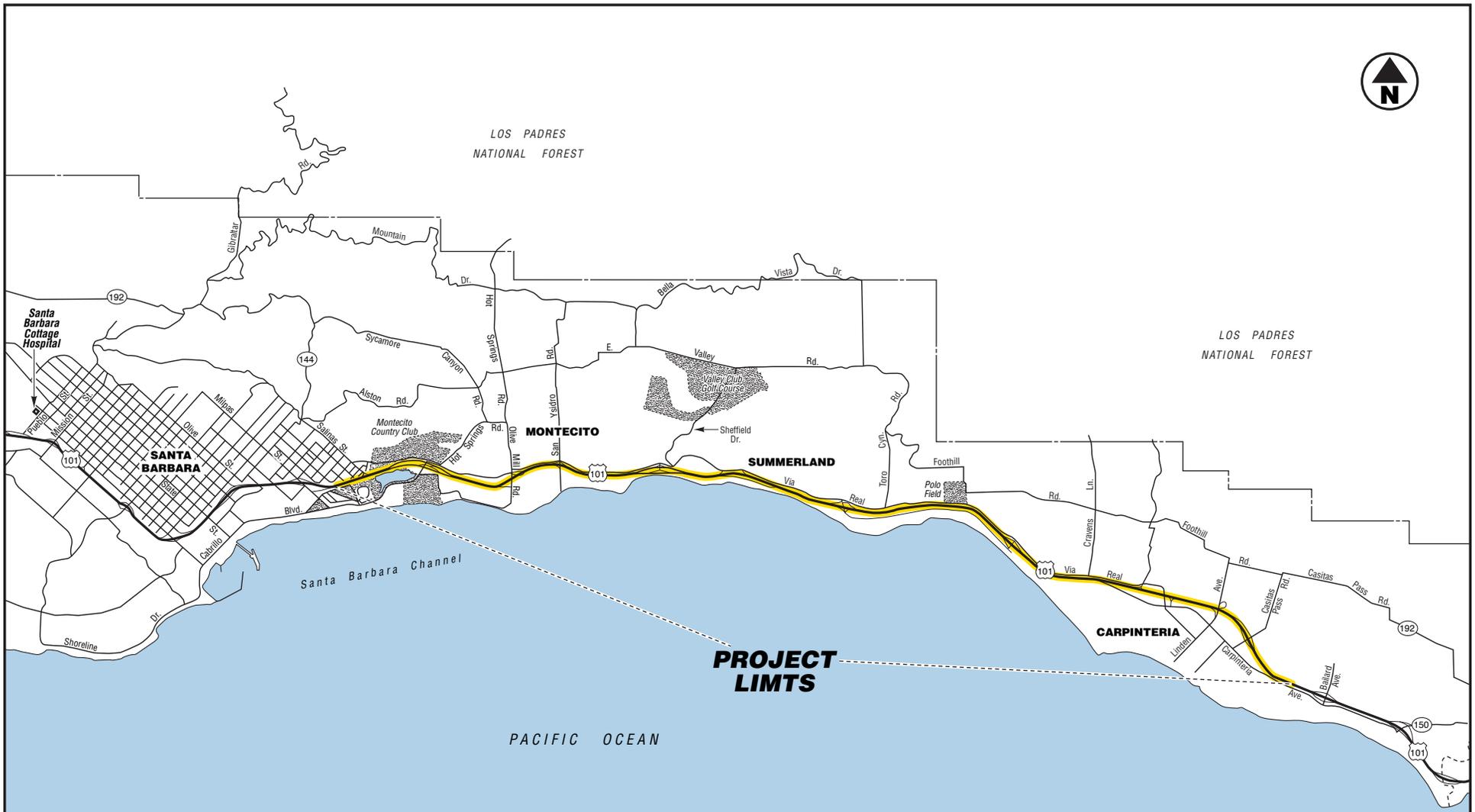
This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. Geocon strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.

The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification or regulation.



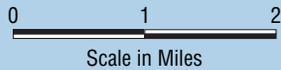
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NATIONAL FOREST

LOS PADRES
NATIONAL FOREST



**PROJECT
LIMITS**

PACIFIC OCEAN



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South Coast 101 HOV Lanes

Santa Barbara County,
California

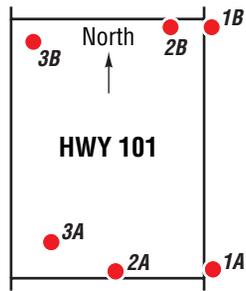
VICINITY MAP

GEOCON Proj. No. S9200-06-81

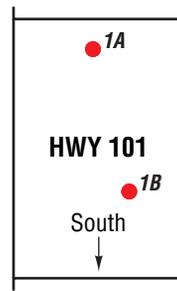
Task Order No. 81, EA 05-0N7000

February 2010

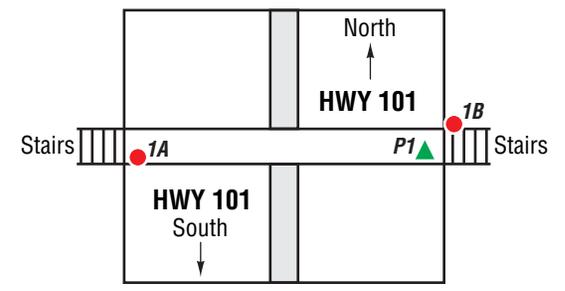
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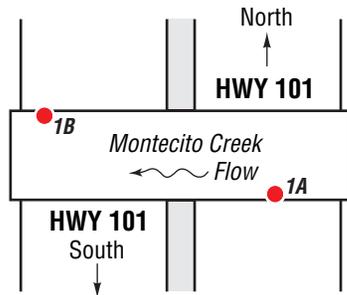
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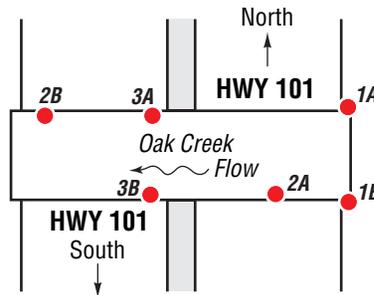
Cabrillo Boulevard UC (51-0086L)



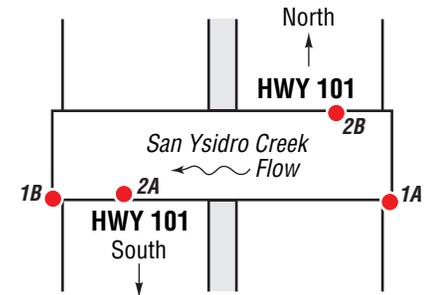
Butterfly Lane Pedestrian UC (51-0188)



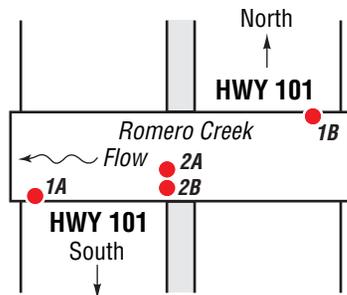
Montecito Creek Bridge (51-0187)



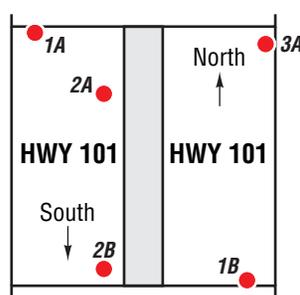
Oak Creek Bridge (51-0133)



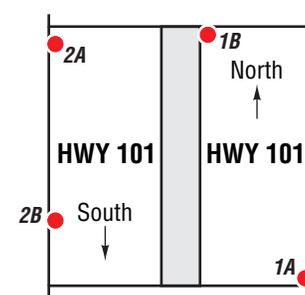
San Ysidro Creek Bridge (51-0047)



Romero Creek Bridge (51-0053)



Evans Avenue UC (51-0226L/R)



Torro Canyon Creek Bridge (51-0054L/R)

LEGEND:

- Approximate Asbestos Sample Location
- ▲ Approximate Paint Sample Location

NOT TO SCALE



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South Coast 101 HOV Lanes

Santa Barbara County,
California

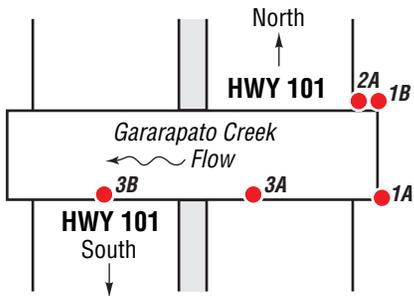
SITE PLAN

GEOCON Proj. No. S9200-06-81

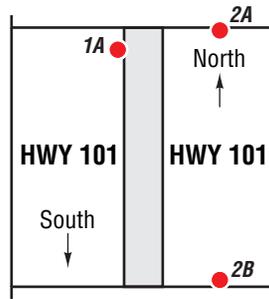
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February 2010

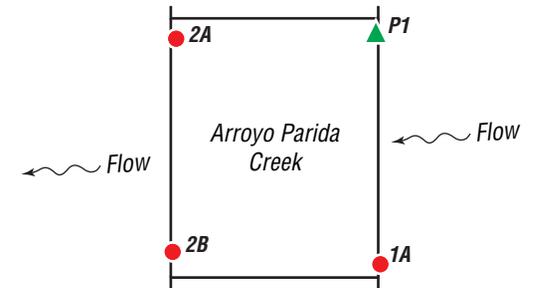
Figure 2A



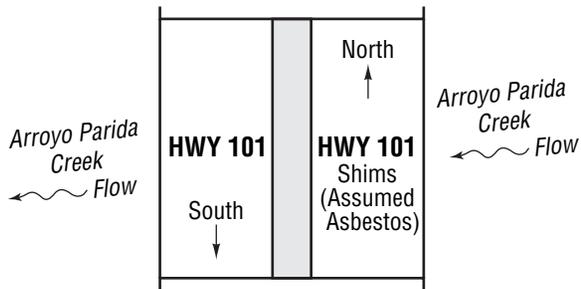
Gararapato Creek Box Culvert



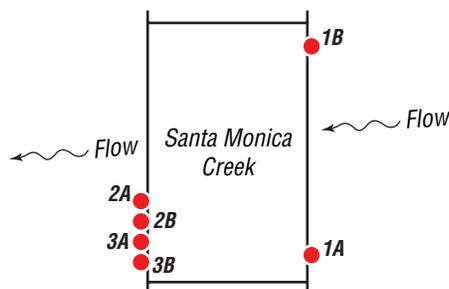
South Padaro Lane UC (51-0228L/R)



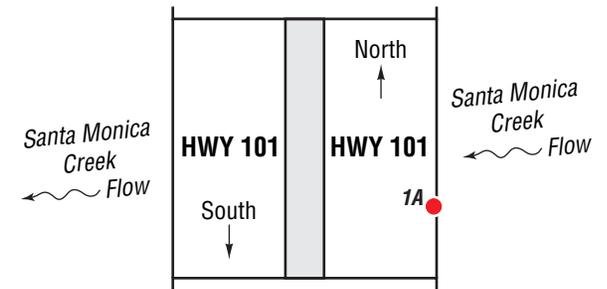
Arroyo Parida Creek Bridge (51-0049Y)



Arroyo Parida Creek Bridge (51-0049L/R)



Santa Monica Creek Bridge (51-0050Y)



Santa Monica Creek Bridge (51-0050L/R)

LEGEND:

- Approximate Asbestos Sample Location
- ▲ Approximate Paint Sample Location

NOT TO SCALE



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South Coast 101 HOV Lanes

Santa Barbara County,
California

SITE PLAN

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Task Order No. 81, EA 05-0N7000

February 2010

Figure 2B

TABLE 1
 SUMMARY OF ASBESTOS ANALYTICAL RESULTS
 SOUTH COAST 101 HOV LANES
 CALTRANS CONTRACT 06A1141, TASK ORDER NO. 81, EA 05-0N7000
 SANTA BARBARA COUNTY, CALIFORNIA

Polarized Light Microscopy (PLM) - EPA Test Method 600/R-93/116

Structure No.	Structure Name	Sample Group No.	Description of Material	Approximate Quantity	Friable	Site Photo	Asbestos Content
51-0086R	Cabrillo Boulevard UC	0086R-1	Joint fill material	NA	NA	2	ND
		0086R-2	Drainpipe (headwalls)	NA	NA	3	ND
		0086R-3	Cementitious inserts (box girders drains)	25 square feet	No	4	30% - 40%
51-0086L	Cabrillo Boulevard UC	0086L-1	Joint fill material	NA	NA	8	ND
51-0188	Butterfly Lane PUC	0188-1	Textured concrete	NA	NA	13	ND
51-0187	Montecito Creek Bridge	0187-1	Drainpipe	NA	NA	17	ND
51-0133	Oak Creek Bridge	0133-1	Joint fill material	NA	NA	21	ND
		0133-2	Drainpipe	NA	NA	22	ND
		0133-3	Asphalt pipe coating	NA	NA	23	ND
51-0047	San Ysidro Creek Bridge	0047-1	Joint fill material	NA	NA	25	ND
		0047-2	Drainpipe	NA	NA	26	ND
51-0053	Romero Creek Bridge	0053-1	Drainpipe	NA	NA	29	ND
		0053-2	Asphalt pipe coating	NA	NA	30	ND
51-0226L/R	Evans Avenue UC	0226L/R-1	Joint fill material	NA	NA	35	ND
		0226L/R-2	Drainpipe	NA	NA	36	ND
		0226L/R-3	Asbestos sheet packing (barrier rail shims)	20 square feet	No	37	70%

TABLE 1
SUMMARY OF ASBESTOS ANALYTICAL RESULTS
SOUTH COAST 101 HOV LANES
CALTRANS CONTRACT 06A1141, TASK ORDER NO. 81, EA 05-0N7000
SANTA BARBARA COUNTY, CALIFORNIA

Polarized Light Microscopy (PLM) - EPA Test Method 600/R-93/116

Structure No.	Structure Name	Sample Group No.	Description of Material	Approximate Quantity	Friable	Site Photo	Asbestos Content
51-0054L/R	Torro Canyon Creek Bridge	0054L/R-1	Joint fill material	NA	NA	44	ND
		0054L/R-2	Vapor barrier	NA	NA	45	ND
Box culvert	Gararapato Creek	BC-1	Joint fill material	NA	NA	48	ND
		BC-2	Drainpipe	NA	NA	48	ND
		BC-3	Vapor barrier	NA	NA	49	ND
51-0228L/R	South Padaro Lane UC	0228L/R-1	Asbestos sheet packing (barrier rail shims)	20 square feet	No	52	70%
		0228L/R-2	Drainpipe	NA	NA	53	ND
51-0049Y	Arroyo Parida Creek Bridge	0049Y-1	Joint fill material	NA	NA	56	ND
		0049Y-2	Asphalt pipe coating	NA	NA	57	ND
51-0049R	Arroyo Parida Creek Bridge	Not sampled	Asbestos sheet packing (barrier rail shims)	1 square foot	No	60	Assumed ACM
51-0050Y	Santa Monica Creek Bridge	0050Y-1	Asphalt pipe coating (8-inch)	65 square feet	No	62	0.75% - 1.00%*
		0050Y-2	Asphalt pipe coating (4-inch)	NA	NA	63	ND
		0050Y-3	Asphalt pipe coating (3-inch)	NA	NA	64	ND
51-0050R	Santa Monica Creek Bridge	0050R-1	Asbestos sheet packing (barrier rail shims)	5 square feet	No	66	70%

Notes:

NA = Not applicable (no asbestos detected)

ND = Not detected

* Material analyzed using PLM Point Count Methodology (400 points)

TABLE 2
SUMMARY OF PAINT ANALYTICAL RESULTS - TOTAL AND SOLUBLE LEAD
SOUTH COAST 101 HOV LANES
CALTRANS CONTRACT 06A1141, TASK ORDER NO. 81, EA 05-0N7000
SANTA BARBARA COUNTY, CALIFORNIA

Structure No.	Structure Name	Paint Sample No.	Paint Description	Approximate Quantity Peeling/Flaking	Site Photo	Total Lead (mg/kg)	TCLP Lead (mg/l)
51-0188	Butterfly Lane PUC	0188-P1	Gray (entrances and tunnel walls)	Intact	13	28	---
51-0049Y	Arroyo Parida Creek Bridge	0049Y-P1	White (barrier rail supports)	Intact	55	400,000	480

Notes:
mg/kg = milligrams per kilogram (EPA Test Method 6010B)
mg/l = milligrams per liter
TCLP = Toxicity Characteristic Leaching Procedure (EPA Test Method 1311)



Photo 1 – Cabrillo Boulevard UC (51-0086R)



Photo 2 – Bridge 51-0086R joint fill material



Photo 3 – Bridge 51-0086R bearings, headwall, and headwall drainpipe



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PHOTOGRAPHS 1, 2, & 3

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Photo 4 – Bridge 51-0086R box girder drains (inserts are asbestos cement)



Photo 5 – Bridge 51-0086R



Photo 6 – Bridge 51-0086R deck seal (non-suspect)



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PHOTOGRAPHS 4, 5, & 6

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Photo 7 – Cabrillo Boulevard UC (51-0086L)



Photo 8 – Bridge 51-0086L joint fill material



Photo 9 – Bridge 51-0086L span joint fill material (non-suspect)



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Photo 10 – Bridge 51-0086L



Photo 11 – Bridge 51-0086L



Photo 12 – Bridge 51-0086L deck seal (non-suspect)



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Photo 13 – Butterfly Lane PUC (51-0188)



Photo 14 – Bridge 51-0188 deck seal (non-suspect)



Photo 15 – Bridge 51-0188 corridor



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Photo 16 – Montecito Creek Bridge (51-0187)



Photo 17 – Bridge 51-0187 drainpipe



Photo 18 – Bridge 51-0187



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PHOTOGRAPHS 16, 17, & 18

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Photo 19 – Oak Creek Bridge (51-0133)



Photo 20 – Bridge 51-0133



Photo 21 – Bridge 51-0133 abutment joint



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PHOTOGRAPHS 19, 20, & 21

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Photo 22 – Bridge 51-0133 drainpipe



Photo 23 – Bridge 51-0133 asphalt pipe wrap



Photo 24 – San Ysidro Creek Bridge (51-0047)



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PHOTOGRAPHS 22, 23, & 24

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Photo 25 – Bridge 51-0047 abutment joint



Photo 26 – Bridge 51-0047 drainpipe



Photo 27 – Bridge 51-0047



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PHOTOGRAPHS 25, 26, & 27

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Photo 28 – Romero Creek Bridge (51-0053)



Photo 29 – Bridge 51-0053 drainpipe



Photo 30 – Bridge 51-0053 asphalt pipe wrap



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PHOTOGRAPHS 28, 29, & 30

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Photo 31 – Sheffield UC (51-0189R)



Photo 32 – Bridge 51-0189R deck joint (non-suspect)



Photo 33 – Bridge 51-0189R concrete girder system



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PHOTOGRAPHS 31, 32, & 33

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Photo 34 – Evans Avenue UC (51-0226L/R)



Photo 35 – Bridge 51-0226L/R abutment joint



Photo 36 – Bridge 51-0226L/R drainpipe



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PHOTOGRAPHS 34, 35, & 36

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Photo 37 – Bridge 51-0226L/R barrier rail shims



Photo 38 – Bridge 51-0226L/R headwall



Photo 39 – Bridge 51-0226L/R deck joint (non-suspect)



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Photo 40 – Corrugated steel culvert (72-inch diameter) at postmile 7.72 (near Greenwell Avenue)



Photo 41 – Corrugated steel culvert (72-inch diameter) at postmile 7.72 (non-suspect)



Photo 42 – Corrugated steel culvert (72-inch diameter) at postmile 7.72 (non-suspect)



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Photo 43 – Torro Canyon Creek Bridge (51-0054L/R)



Photo 44 – Bridge 51-0054L/R abutment joint



Photo 45 – Bridge 51-0054L/R vapor barrier



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Photo 46 – Bridge 51-0054L/R deck joint (non-suspect)



Photo 47 – Gararapato Creek box culvert at postmile 6.24



Photo 48 – Box culvert at postmile 6.24 (drainpipe)



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PHOTOGRAPHS 46, 47, & 48

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Photo 49 – Box culvert at postmile 6.24 (vapor barrier)



Photo 50 – Box culvert at postmile 6.24



Photo 51 – South Padaro Lane UC (51-0228L/R)



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PHOTOGRAPHS 49, 50, & 51

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Photo 52 – Bridge 51-0228L/R barrier rail shims



Photo 53 – Bridge 51-0228L/R drainpipe



Photo 54 – Bridge 51-0228L/R conduit (non-suspect)



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PHOTOGRAPHS 52, 53, & 54

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Photo 55 – Arroyo Parida Creek Bridge (51-0049Y)



Photo 56 – Bridge 51-0049Y joint fill material



Photo 57 – Bridge 51-0049Y barrier rails and asphalt pipe wrap



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PHOTOGRAPHS 55, 56, & 57

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Photo 58 – Bridge 51-0049Y



Photo 59 – Arroyo Parida Creek Bridge (51-0049L/R)



Photo 60 – Bridge 51-0049R barrier rail shims (assumed to contain asbestos)



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PHOTOGRAPHS 58, 59, & 60

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Photo 61 – Santa Monica Creek Bridge (51-0050Y)



Photo 62 – Bridge 51-0050Y asphalt pipe wrap (8-inch)



Photo 63 – Bridge 51-0050Y asphalt pipe wrap (4-inch)



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PHOTOGRAPHS 61, 62, & 63

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Photo 64 – Bridge 51-0050Y asphalt pipe wrap (3-inch)



Photo 65 – Santa Monica Creek Bridge (51-0050L/R)



Photo 66 – Bridge 51-0050R barrier rail shims



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PHOTOGRAPHS 64, 65, & 66

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Photo 67 – Bridge 51-0050L/R



Photo 68 – Bridge 51-0050L/R deck joint (non-suspect)



Photo 69 – Franklin Creek Bridge (51-0051L/R)



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PHOTOGRAPHS 67, 68, & 69

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Photo 70 – Bridge 51-0051L/R



Photo 71 – Bridge 51-0051L/R



Photo 72 – Bridge 51-0051L/R deck joint (non-suspect)



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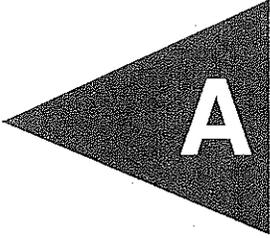
PHOTOGRAPHS 70, 71, & 72

South Coast 101 HOV Lanes
Santa Barbara County, California

S9200-06-81

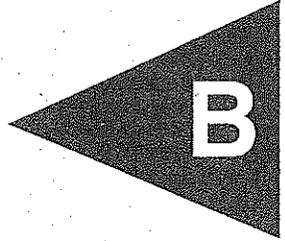
February 2010

APPENDIX



List of Structures					
<u>Structure type</u>	<u>Structure name</u>	<u>Structure number</u>	<u>Postmile</u>	<u>complete demo?</u>	<u>Modification</u>
reinforced concrete	Franklin Creek Br.	51-0051L	3.30	yes***	replacement for suspected structural inadequacy
reinforced concrete	Franklin Creek Br.	51-0051R	3.30	yes***	replacement for suspected structural inadequacy
reinforced concrete	Santa Monica Creek Br.	51-0050L	3.77	yes***	replacement for suspected structural inadequacy
reinforced concrete	Santa Monica Creek Br.	51-0050R	3.77	yes***	replacement for suspected structural inadequacy
reinforced concrete	Santa Monica Creek Br.	51-0050Y	3.77	yes***	replacement for suspected structural inadequacy
reinforced concrete	S. Padaro Lane UC	51-0228L	5.28	no	remove inside railings, close gap in median by widening both bridges to inside
reinforced concrete	S. Padaro Lane UC	51-0228R	5.28	no	remove inside railings, close gap in median by widening both bridges to inside
reinforced concrete	Arroyo Parida Creek Br.	51-0049L	5.63	yes***	replacement for suspected structural inadequacy
reinforced concrete	Arroyo Parida Creek Br.	51-0049R	5.63	yes***	replacement for suspected structural inadequacy
reinforced concrete	Arroyo Parida Creek Br.	51-0049Y	5.63	yes***	replacement for suspected structural inadequacy
reinforced concrete	Gararapato Crk culvert	Box Culvert	6.24	yes***	replacement for suspected structural inadequacy
reinforced concrete	Torro Canyon Creek Br.	51-0054L	6.79	yes***	replacement for suspected structural inadequacy
reinforced concrete	Torro Canyon Creek Br.	51-0054R	6.79	yes***	replacement for suspected structural inadequacy
corrugated steel	Greenwell	Steel Culvert (72")	7.72	yes***	replacement for suspected structural inadequacy
reinforced concrete	Evans Ave UC	51-0226L	8.26	no	remove inside railings, close gap in median by widening both bridges to inside
reinforced concrete	Evans Ave UC	51-0226R	8.26	no	remove inside railings, close gap in median by widening both bridges to inside
reinforced concrete	Sheffield UC (rt)	51-0189R	9.00	no	remove south railing, widen existing structure to the south
reinforced concrete	Romero Creek Br.	51-0053	9.34	yes	replacement for hydraulic reasons
reinforced concrete	San Ysidro Creek Br.	51-0047	9.56	yes	replacement for hydraulic reasons
reinforced concrete	Oak Creek Br.	51-0133	9.66	yes	replacement for hydraulic reasons
reinforced concrete	Montecito Creek Br.	51-0187	10.18	yes*	replacement for suspected hydraulic reasons
reinforced concrete	Butterfly Ln Ped UC	51-0188	11.01	no	**remove inside and outside railing, widen existing structure both ends, partially close median
reinforced concrete	Cabrillo Blvd UC	51-0086L	11.43	no	**remove inside and outside railing, widen existing structure both ends, partially close median
reinforced concrete	Cabrillo Blvd UC	51-0086R	11.43	yes***	may be widened on either or both sides or be replaced completely dependant upon alternative chosen
NOTES - Final evaluations not completed as follows:					
* Assume full replacement for hydraulic capacity to be conservative, may not be touched.					
** Assume both railings being removed for widening (to be conservative), may only widen to one side.					
*** Assume full replacement, pending evaluations					

APPENDIX



B



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Customer ID: GECN21
Customer PO: S9200-06-81
Received: 09/25/09 9:45 AM
EMSL Order: 090907883

Fax: (925) 371-5915 Phone: (925) 371-5900

EMSL Proj: S9200-06-**

Project: **S9200-06-81: Santa Barbara HOV**

Analysis Date: 10/4/2009

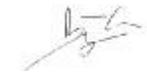
Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
0086R1A-Joint Fill Material <i>090907883-0001</i>	Joint Fill Material (JFM)	Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
0086R1B-Joint Fill Material <i>090907883-0002</i>	Joint Fill Material (JFM)	Brown/Black Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
0086R2A-Drain Pipe <i>090907883-0003</i>	Drain Pipe (Headwalls)	Black Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (other)	None Detected
0086R2B-Drain Pipe <i>090907883-0004</i>	Drain Pipe (Headwalls)	Black Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (other)	None Detected
0086R3A-Drain Pipe <i>090907883-0005</i>	Drain Pipe (Box Girders)	Gray Non-Fibrous Homogeneous		60% Non-fibrous (other)	40% Chrysotile
0086R3B-Drain Pipe <i>090907883-0006</i>	Drain Pipe (Box Girders)	Gray Non-Fibrous Homogeneous		70% Non-fibrous (other)	30% Chrysotile
0086L1A-JFM <i>090907883-0007</i>	JFM	Brown/Black Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (other)	None Detected

Analyst(s)

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Grant Mays (4)

Jorge Leon (15)
Michael Schaumloeffel (25)


Baojia Ke, Laboratory Manager
or other approved signatory

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Received: 09/25/09 9:45 AM
EMSL Order: 090907883

Fax: (925) 371-5915 Phone: (925) 371-5900
Project: **S9200-06-81: Santa Barbara HOV**

EMSL Proj: S9200-06-**
Analysis Date: 10/4/2009

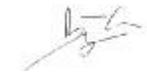
Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
0086L1B-JFM <i>090907883-0008</i>	JFM	Brown/Black Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (other)	None Detected
01881A-Textured Concrete <i>090907883-0009</i>	Textured Concrete	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
01881B-TExtured Concrete <i>090907883-0010</i>	Textured Concrete	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
01871A-Drain Pipe <i>090907883-0011</i>	Drain Pipe	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
01871B-Drain Pipe <i>090907883-0012</i>	Drain Pipe	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
01331A-JFM <i>090907883-0013</i>	JFM	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
01331B-JFM <i>090907883-0014</i>	JFM	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

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Jorge Leon (15)
Michael Schaumloeffel (25)


Baojia Ke, Laboratory Manager
or other approved signatory

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Fax: (925) 371-5915 Phone: (925) 371-5900
Project: **S9200-06-81: Santa Barbara HOV**

EMSL Proj: S9200-06-**
Analysis Date: 10/4/2009

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
01332A-Drain Pipe <i>090907883-0015</i>	Drain Pipe	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
01332B-Drain Pipe <i>090907883-0016</i>	Drain Pipe	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
01333A-Asphalt Pipe Wrap <i>090907883-0017</i>	Asphalt Pipe Wrap (APW)	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
01333B-Asphalt Pipe Wrap <i>090907883-0018</i>	Asphalt Pipe Wrap (APW)	Black Non-Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (other)	None Detected
00471A-JFM <i>090907883-0019</i>	JFM	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
00471B-JFM <i>090907883-0020</i>	JFM	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
00472A-Drain Pipe <i>090907883-0021</i>	Drain Pipe	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577

Phone: (510) 895-3675 Fax: (510) 895-3680 Email: milpitaslab@emsl.com

Attn: **David Watts**
Geocon Consultants
6671 Brisa Street
Livermore, CA 94550

Customer ID: GECN21
Customer PO: S9200-06-81
Received: 09/25/09 9:45 AM
EMSL Order: 090907883
EMSL Proj: S9200-06-**
Analysis Date: 10/4/2009

Fax: (925) 371-5915 Phone: (925) 371-5900
Project: **S9200-06-81: Santa Barbara HOV**

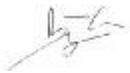
Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
00472B-Drain Pipe <i>090907883-0022</i>	Drain Pipe	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
00531A-Drain Pipe <i>090907883-0023</i>	Drain Pipe	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
00531B-Drain Pipe <i>090907883-0024</i>	Drain Pipe	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
00532A-APW <i>090907883-0025</i>	APW	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
00532B-Asphalt Pipe Wrap <i>090907883-0026</i>	APW	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
0226L/R1A-JFM <i>090907883-0027</i>	JFM	Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
0226L/R1B-JFM <i>090907883-0028</i>	JFM	Gray/Black Non-Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (other)	None Detected

Analyst(s)

Alan Tahrán (9)
Grant Mays (4)

Jorge Leon (15)
Michael Schaumloeffel (25)


Baojia Ke, Laboratory Manager
or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. Samples reported as <1% or none detected may require additional testing by TEM to confirm asbestos quantities. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.
Samples analyzed by EMSL Analytical, Inc San Leandro 2235 Polvorosa Ave , Suite 230, San Leandro CA NVLAP Lab Code 101048-3, MA AA000201, WA C2007



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Analysis Date: 10/4/2009

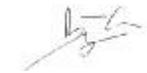
Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
0226L/R2A-Drain Pipe <i>090907883-0029</i>	Drain Pipe	Black Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (other)	None Detected
0226L/R2B-Drain Pipe <i>090907883-0030</i>	Drain Pipe	Black Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
0226L/R3A-Barrier Rail Shims <i>090907883-0031</i>	Barrier Rail Shims	Gray/White Fibrous Homogeneous		30% Non-fibrous (other)	70% Chrysotile
0054L/R1A-JFM <i>090907883-0032</i>	JFM	Brown/Black Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
0054L/R1B-JFM <i>090907883-0033</i>	JFM	Brown/Black Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
0054L/R2A-Vapor Barrier Paper <i>090907883-0034</i>	Vapor Barrier Paper	Brown Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (other)	None Detected

Analyst(s)

Alan Tahrán (9)
Grant Mays (4)

Jorge Leon (15)
Michael Schaumloeffel (25)


Baojia Ke, Laboratory Manager
or other approved signatory

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Received: 09/25/09 9:45 AM
EMSL Order: 090907883

Fax: (925) 371-5915 Phone: (925) 371-5900
Project: **S9200-06-81: Santa Barbara HOV**

EMSL Proj: S9200-06-**
Analysis Date: 10/4/2009

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
0054L/R2B-Vapor Barrier 090907883-0035	Vapor Barrier Paper	Brown Fibrous Homogeneous	40% Cellulose	60% Non-fibrous (other)	None Detected
BC1A-JFM 090907883-0036	JFM	Black Non-Fibrous Heterogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
BC1B-JFM 090907883-0037	JFM	Black Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
BC2A-Drain Pipe 090907883-0038	Drain Pipe	Black Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
BC3A-Vapor Barrier Paper 090907883-0039	Vapor Barrier Paper	Brown/Black Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
BC3B-Vapor Barrier Paper 090907883-0040	Vapor Barrier Paper	Brown/Black Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected

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Project: **S9200-06-81: Santa Barbara HOV**

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
0228L/R1A-Barrier Rail Shims <i>090907883-0041</i>	Barrier Rail Shims	Gray/White Fibrous Homogeneous		30% Non-fibrous (other)	70% Chrysotile
0228L/R2A-Drain Pipe <i>090907883-0042</i>	Drain Pipe	Black Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
0228L/R2B-Drain Pipe <i>090907883-0043</i>	Drain Pipe	Black Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
0049Y1A- JFM <i>090907883-0044</i>	JFM	Brown/Black Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
0049Y2A-APW <i>090907883-0045</i>	APW	Gray/White Fibrous Homogeneous	60% Glass	40% Non-fibrous (other)	None Detected
0049Y2B-APW <i>090907883-0046</i>	APW	Gray/White Fibrous Homogeneous	60% Glass	40% Non-fibrous (other)	None Detected
0050Y1A-APW (8") <i>090907883-0047</i>	APW (8")	Black/Silver Fibrous Heterogeneous		98% Non-fibrous (other)	2% Amosite

Analyst(s)

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Grant Mays (4)

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Project: **S9200-06-81: Santa Barbara HOV**

EMSL Proj: S9200-06-**
Analysis Date: 10/4/2009

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

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
0050Y1B-APW (8") <i>090907883-0048</i>	APW (8")	Black/Silver Fibrous Heterogeneous		98% Non-fibrous (other)	2% Amosite
0050Y2A-APW (4") <i>090907883-0049</i>	APW (4")	Gray Fibrous Homogeneous	75% Glass	25% Non-fibrous (other)	None Detected
0050Y2B-APW (4") <i>090907883-0050</i>	APW (4")	Gray Fibrous Homogeneous	85% Glass	15% Non-fibrous (other)	None Detected
0050Y3A-APW (3") <i>090907883-0051</i>	APW (3")	Various Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
0050Y3B-APW (3") <i>090907883-0052</i>	APW (3")	Various Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
0050R1A-Barrier Rail Shims <i>090907883-0053</i>	Barrier Rail Shims	White Fibrous Homogeneous		30% Non-fibrous (other)	70% Chrysotile

Analyst(s)

Alan Tahrán (9)
Grant Mays (4)

Jorge Leon (15)
Michael Schaumloeffel (25)


Baojia Ke, Laboratory Manager
or other approved signatory

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EMSL Order: 090907883

Fax: (925) 371-5915 Phone: (925) 371-5900
Project: **S9200-06-81: Santa Barbara HOV**

EMSL Proj: S9200-06-**
Analysis Date: 10/8/2009

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantitation using 400 Point Count Procedure.

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
0050Y1A-APW (8") <i>090907883-0047</i>	APW (8")	Black, Silver Fibrous Heterogeneous		99.25% Non-fibrous (other)	0.75% Amosite
0050Y1B-APW (8") <i>090907883-0048</i>	APW (8")	Black, Silver Fibrous Heterogeneous		99.00% Non-fibrous (other)	1.00% Amosite

Analyst(s) _____
Jorge Leon (2)



Baojia Ke, Laboratory Manager
or other approved signatory

Samples received in good condition unless otherwise noted.
Samples analyzed by EMSL Analytical, Inc San Leandro 2235 Polvorosa Ave , Suite 230, San Leandro CA NVLAP Lab Code 101048-3, MA AA000201, WA C2007

090907883

Chain of Custody Form

89206

Analyze sample sets until position... Yes No

Project No.: \$9200-06-81 Client Name: Green

Report Results to: D. WATTS Office Location: LIVERMORE, CA Analytical Fee (per sample): \$ STD Date(s) Inspected: 23 SEP 2009

Consultants Ph. #: (925) 785-5340 Consultants Fax #: (925) 391-5915 Other Comments: PLM (STD TRIT)

Site Name: SANTA BARBARA HOV Building No. Site Address: SANTA BARBARA CO., CA

Material Code	Sample Number	Samples Collected											Not Sampled	Material Description
		A	B	C	D	E	F	G	H	I	J	K		
	0544													J F M
	0544													VAPOR BARRIER PAPER
	0544													J F M
	0544													DRAIN PIPE
	0544													VAPOR BARRIER PAPER
	0544													BARRETT RAIL SHIMS
	0544													DRAIN PIPE
	0544													J F M
	0544													A P W (8")
	0544													A P W (4")
	0544													A P W (3")
	0544													BARRETT RAIL SHIMS

Relinquished by: D. Watts Print Name: D. Watts Date/Time: 23 SEP 2009 1830

Signature: [Signature]

Relinquished by: [Signature] Print Name: [Signature] Date/Time: [Signature]

Received by: M. Edwards Print Name: M. Edwards Date/Time: 9/25/09 9:45 AM

Signature: [Signature]

Received by: [Signature] Print Name: [Signature] Date/Time: [Signature]

Legend:

- ACDU - Textured acoustical (sprayed) (S)
- BBM - Baseboard material (M)
- CS - Ceiling (unspecified type) (S)
- CP - Ceiling panel - Lay-in (M)
- GMAS - Ceiling gasket (M)
- CTG - Ceiling tile - Gland (M)
- CWT - Ceramic wall tile grout & mastic (M)
- DEBM - Debris (unspecified) (M)
- DEBT - Debris (unspecified) (TSI)
- DOOR - Door core insulation - Fire door (M)
- ORM - Other friable material (M)
- OFM - Other nonfriable material (M)
- OHFM - Other nonfriable material (S)
- OHFS - Other nonfriable material (S)
- PL - Plaster (wall or ceiling) (S)
- STR - Strengthening joint compound (M)
- STRUC - Structural (S)
- STUC - Surface texture on wall/ceiling (S)
- FP - Fiberglass facing (S)
- TRAN - Transite panel (M)
- TX - Wall (unspecified type) (S)
- WS - Wall tile - Splined or nailed (M)
- WTG - Wall tile - Gland on (M)
- MGSKT - Mech. equipment Gasket (M)
- MTANK - Mech. equipment Tank insulation (TSI)
- PI - Pipe insulation (type not specified) (TSI)
- PICIW - Pipe insulation - Chilled water system (TSI)
- PICON - Pipe insulation - Condensate (TSI)
- PIDCW - Pipe insulation - Domestic cold water (TSI)
- PIDIW - Pipe insulation - Domestic hot water (TSI)
- PIHIW - Pipe insulation - Heating hot water (TSI)
- FISTN - Duct insulation (TSI)
- DI - Duct insulation (TSI)
- DITAP - HVAC - Duct joint tape/compound (M)
- DIFLEX - HVAC - Flexible duct/flex duct joint (M)
- DELVE - Mech. equipment - Flue insulation (TSI)
- RF - Roofing material (M)
- RFAG - Asphalt roof tile (M)
- REFT - Felt material (M)
- REFT - Felt material (S)
- RFRAS - Roofed sheet type (M)
- RFRON - Roofed sheet type (S)
- RTRAN - Transite (M)
- RTRAN - Transite (S)
- MI - Miscellaneous material (M)
- SI - Surfacing material (S)
- TI - Thermal System Insulation (TSI)

October 02, 2009



Dave Watts
Geocon Consultants, Inc.
6671 Brisa Street
Livermore, CA 94550
TEL: (925) 371-5900
FAX: (925) 371-5915

ELAP No.: 1838
NELAP No.: 02107CA
NEVADA.: CA-401
CSDLAC No.: 10196

Workorder No.: 107703

RE: SANTA BARBARA HOV, S9200-06-81

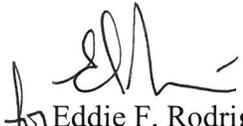
Attention: Dave Watts

Enclosed are the results for sample(s) received on September 25, 2009 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,


Eddie F. Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.



CLIENT: Geocon Consultants, Inc.
Project: SANTA BARBARA HOV, S9200-06-81
Lab Order: 107703

CASE NARRATIVE

Analytical Comments for Method 6010

Dilution was necessary for sample 107703-002A, due to sample matrix.

RPD for Duplicate (DUP) is outside criteria for sample 107828-009ADUP; however, the Laboratory Control Sample (LCS) validated the analytical batch.



Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 02-Oct-09

CLIENT: Geocon Consultants, Inc.
Project: SANTA BARBARA HOV, S9200-06-81

Lab Order: 107703

Lab ID: 107703-001 **Collection Date:** 9/23/2009 9:11:00 AM
Client Sample ID: 0188 - P1 **Matrix:** PAINT CHIPS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
----------	--------	-----	------	-------	----	---------------

ICP METALS

EPA 3050B

EPA 6010B

RunID: ICP8_091001C QC Batch: 58613 PrepDate: 10/1/2009 Analyst: **CL**
Lead 28 4.0 mg/Kg 1 10/1/2009 05:49 PM

Lab ID: 107703-002 **Collection Date:** 9/23/2009 2:41:00 PM
Client Sample ID: 0049Y - P1 **Matrix:** PAINT CHIPS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
----------	--------	-----	------	-------	----	---------------

ICP METALS

EPA 3050B

EPA 6010B

RunID: ICP8_091001C QC Batch: 58613 PrepDate: 10/1/2009 Analyst: **CL**
Lead 400000 330 mg/Kg 5 10/2/2009 11:37 AM

Qualifiers: B Analyte detected in the associated Method Blank E Value above quantitation range
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified
DO Surrogate Diluted Out



Advanced Technology
Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

CLIENT: Geocon Consultants, Inc.
Work Order: 107703
Project: SANTA BARBARA HOV, S9200-06-81

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: MB-58613	SampType: MBLK	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/1/2009	RunNo: 113513
Client ID: PBS	Batch ID: 58613	TestNo: EPA 6010B EPA 3050B	Analysis Date: 10/1/2009	SeqNo: 1796150	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	ND	1.0			
------	----	-----	--	--	--

Sample ID: LCS-58613	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/1/2009	RunNo: 113513
Client ID: LCSS	Batch ID: 58613	TestNo: EPA 6010B EPA 3050B	Analysis Date: 10/1/2009	SeqNo: 1796151	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	52.696	1.0	50.00	0	105 80 120
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Sample ID: 107828-009ADUP	SampType: DUP	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/1/2009	RunNo: 113513
Client ID: ZZZZZZ	Batch ID: 58613	TestNo: EPA 6010B EPA 3050B	Analysis Date: 10/1/2009	SeqNo: 1796155	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	12.322	1.0			8.191 40.3 20 R
------	--------	-----	--	--	-----------------

Sample ID: 107828-009AMS	SampType: MS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/1/2009	RunNo: 113513
Client ID: ZZZZZZ	Batch ID: 58613	TestNo: EPA 6010B EPA 3050B	Analysis Date: 10/1/2009	SeqNo: 1796156	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

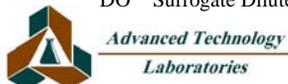
Lead	119.877	1.0	125.0	8.191	89.3 33 120
------	---------	-----	-------	-------	-------------

Sample ID: 107828-009AMSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 10/1/2009	RunNo: 113513
Client ID: ZZZZZZ	Batch ID: 58613	TestNo: EPA 6010B EPA 3050B	Analysis Date: 10/1/2009	SeqNo: 1796164	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Lead	119.268	1.0	125.0	8.191	88.9 33 120 119.9 0.509 20
------	---------	-----	-------	-------	----------------------------

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



CHAIN OF CUSTODY RECORD



**Advanced Technology
Laboratories**

3275 Walnut Avenue
Signal Hill, CA 90755
(562) 989-4045 • Fax (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____
Logged By: [Signature] Date: 9/25/07

Method of Transport

Client
ATL
CA OverN
FEDEX
Other: UPS

Sample Condition Upon Receipt

1. CHILLED Y N 4. SEALED Y N
2. HEADSPACE (VOA) ^{1/2} Y N 5. # OF SPLS MATCH COC Y N
3. CONTAINER INTACT Y N 6. PRESERVED Y N

Client: GECON Address: 6671 BRISA ST. TEL: (925) 371-5900
Attn: D. WATTS City: LIVERMORE State: CA Zip Code: 94550 FAX: (") " 5915

Project Name: SANTA BARBARA HOV Project #: \$9200-06-81 Sampler: (Printed Name) D. WATTS (Signature) [Signature]
Relinquished by: (Signature and Printed Name) [Signature] Date: 9/23/09 Time: 1830 Received by: (Signature and Printed Name) UPS Date: 9/23/09 Time: 1830
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____ Received by: (Signature and Printed Name) [Signature] Date: 9/23/09 Time: 7:45
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____ Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr / Submitter: D. WATTS 9/23/09
Print Name Date
[Signature]
Signature

Send Report To:
Attn: _____
Co: SEE "CLIENT"
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments:
PAINT CHIPS - TOTAL Pb
(ANTICIPATE SOLUBLE REQUESTS)
(\$9200-06-81)
PLEASE RETURN ALL GECON COOLERS

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.
Storage Fees (applies when storage is requested):
• Sample : \$2.00 / sample / mo (after 45 days)
• Records : \$1.00 / ATL workorder / mo (after 1 year)

ITEM	LAB USE ONLY:				Sample Description	Circle or Add Analysis(es) Requested	SPECIFY APPROPRIATE MATRIX										PRESERVATION	REMARKS					
	Batch #:	Lab No.	Sample I.D. / Location	Date			Time																
								8091A (Pesticides)	8092 (PCB)	8200B (Volatiles)	8270C (BNA)	6070B (Total Metal)	8015B (GRO) / 8020 (BTX)	8015B (DRO)	8021 (BTX)	TITLE 22 / CAM 17 (6010 / 7000)			SOIL	WATER	GROUND WATER	WASTEWATER	TAT
	<u>107703-01</u>	<u>0188-P1</u>	<u>0188-P1</u>	<u>9/23/09</u>	<u>0911</u>					<input checked="" type="checkbox"/>									<input checked="" type="checkbox"/>	<u>E</u>	<u>1</u>	<u>Bg P</u>	<u>\$9200</u>
	<u>L-2</u>	<u>0049Y-P1</u>	<u>0049Y-P1</u>	<u>↓</u>	<u>1441</u>					<input checked="" type="checkbox"/>									<input checked="" type="checkbox"/>	<u>E</u>	<u>1</u>	<u>Bg P</u>	<u>"</u>

• TAT starts 8 a.m. following day if samples received after 3 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Preservatives: H=Hcl N=HNO₃ S=H₂SO₄ C=4°C Z=Zn(AC)₂ O=NaOH T=Na₂S₂O₃

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

October 14, 2009



Dave Watts
Geocon Consultants, Inc.
6671 Brisa Street
Livermore, CA 94550
TEL: (925) 371-5900
FAX: (925) 371-5915

ELAP No.: 1838
NELAP No.: 02107CA
NEVADA.: CA-401
CSDLAC No.: 10196

Workorder No.: 107703

RE: SANTA BARBARA HOV, S9200-06-81

Attention: Dave Watts

Enclosed are the results for sample(s) received on September 25, 2009 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

This is an addendum report. Please incorporate with documentation previously submitted.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Rodriguez".

Eddie F. Rodriguez
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.



CLIENT: Geocon Consultants, Inc.
Project: SANTA BARBARA HOV, S9200-06-81
Lab Order: 107703

CASE NARRATIVE

Analytical Comments for Method 7420

Dilution was necessary for sample 107703-002A, due to sample matrix.



**LEAD BY ATOMIC ABSORPTION (TCLP)
EPA 1311/ 7420**

ANALYTICAL RESULTS

CLIENT:	Geocon Consultants, Inc.	Lab Order:	107703
Project:	SANTA BARBARA HOV, S9200-06-81	Date Received	9/25/2009 9:45:00 AM
Project No:		Matrix:	Paint Chips
Analyte:	Lead	Analyst:	IL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
107703-002A	0049Y - P1	480	mg/L	58978	50	40	9/23/2009	10/14/2009

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		



CLIENT: Geocon Consultants, Inc.
Work Order: 107703
Project: SANTA BARBARA HOV, S9200-06-81

ANALYTICAL QC SUMMARY REPORT

TestCode: 7420_TC

Sample ID: 108041-001A-MSD	SampType: MSD	TestCode: 7420_TC	Units: mg/L	Prep Date: 10/14/2009	RunNo: 113956						
Client ID: ZZZZZZ	Batch ID: 58978	TestNo: EPA 1311/ 74 EPA3010A		Analysis Date: 10/14/2009	SeqNo: 1803982						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	2.694	0.25	2.500	0	108	70	130	2.678	0.614	20	

Qualifiers:

- | | | | | | |
|----|---|---|--------------------------------------|---|--|
| B | Analyte detected in the associated Method Blank | E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| ND | Not Detected at the Reporting Limit | R | RPD outside accepted recovery limits | S | Spike/Surrogate outside of limits due to matrix interference |
| DO | Surrogate Diluted Out | | Calculations are based on raw values | | |



Diane Galvan

From: David Watts [watts@geoconinc.com]

Sent: Friday, October 02, 2009 5:11 PM

To: Diane Galvan

Subject: RE: Results/EDD - SANTA BARBARA HOV (107703)

TCLP please on 0049Y - P1. Standard TAT.

