

FOR CONTRACT NO.: 05-0N4004

INFORMATION HANDOUT

PERMITS

CALIFORNIA COASTAL COMMISSION

MATERIALS INFORMATION

SITE INVESTIGATION REPORT

ROUTE: 05-SLO-1-R36.7/39.6



DEPARTMENT OF PLANNING AND BUILDING

Date: May 11, 2012

To: Project File

From: Paul Sittig, Project Planner

Subject: California Coastal Commission Appeal Period for County File DRC2011-00038

The following message was received from California Coastal Commission staff via email on Friday, May 11, 2012 at 10:31 AM:

No appeals were received on County File Number DRC2011-00038 as of 5pm on May 10, 2012.

The County approval is thus considered final.

The Commission reference number for this project FLAN is 3-SLO-12-088.

Cheers,

Daniel

Daniel Robinson

Coastal Planner

PRELIMINARY SITE INVESTIGATION REPORT



SLO-1 ESTERO BLUFFS ENHANCEMENT PROJECT PM R36.7/39.7

SAN LUIS OBISPO COUNTY, CALIFORNIA

PREPARED FOR:

CALIFORNIA DEPARTMENT OF TRANSPORTATION
DISTRICT 5
OFFICE OF ENVIRONMENTAL PLANNING
BRANCH/UNIT 1403
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401



PREPARED BY:

GEOCON CONSULTANTS, INC.
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GEOCON PROJECT NO. S9525-06-37
CALTRANS EA 05-0N4001
CALTRANS PROJECT # 05-0000-0213-1

APRIL 2012

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REPORT LIMITATIONS

This report has been prepared exclusively for the State of California Department of Transportation (Caltrans) District 5. 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.

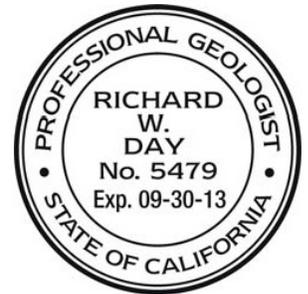
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Baojia Ke 510.895.3675 510.895.3680 fax sanleandrolab@emsl.com	EMSL Analytical, Inc. 2235 Polvorosa Ave., Suite 230 San Leandro, CA 94577 (<i>Geocon Subcontractor</i>)	Soil Sample Analysis

PRELIMINARY SITE INVESTIGATION REPORT

1.0 INTRODUCTION

This Preliminary Site Investigation Report for the Estero Bluffs Enhancement Project along State Route 1 (SR-1) in San Luis Obispo County, California was prepared by Geocon Consultants, Inc. under California Department of Transportation (Caltrans) Contract No. 06A1580, Task Order No. 37 (TO-37), and Expenditure Authorization (EA) 05-0N4001.

1.1 Project Description and Proposed Improvements

The project location consists of Caltrans right-of-way (ROW) along the southbound shoulders of SR-1 between Post Miles R36.7 and R39.7 north of the city of Cayucos in San Luis Obispo County, California. Caltrans proposes to remove several maintenance spoil soil stockpiles and re-grade selected vehicle maintenance pullouts in the project area. The soil is presumed to have been generated as a result of landslides in the project area. The project location is depicted on the attached Vicinity Map, Figure 1.

1.2 General Objectives

The purpose of the site investigation was to evaluate concentrations of CAM 17 metals and naturally-occurring asbestos (NOA) which may be present in the native soils.

Proposed construction activities will require the disturbance of soil at the project location, which may be impacted with metals or contain NOA originating from ultra basic rocks likely present in the native soils of the project area. The investigative results will be used by Caltrans to inform the construction contractor if soil impacted with metals and/or NOA is present within the project limits for construction worker health and safety, soil reuse evaluation and waste management/disposal purposes.

2.0 BACKGROUND

2.1 Hazardous Waste Determination Criteria

Regulatory criteria to classify a waste as California hazardous for handling and disposal purposes are contained in the CCR, Title 22, Division 4.5, Chapter 11, Article 3, §66261.24. Criteria to classify a waste as Resource, Conservation, and Recovery Act (RCRA) hazardous are contained in Chapter 40 of the Code of Federal Regulations (40 CFR), Section 261.

For waste containing metals, the waste is classified as California hazardous when: 1) the representative total metal content equals or exceeds the respective Total Threshold Limit Concentration (TTLC); or 2) the representative soluble metal content equals or exceeds the respective Soluble Threshold Limit Concentration (STLC) based on the standard Waste Extraction Test (WET). A waste has the potential of exceeding the STLC when the waste's total metal content is greater than or equal to ten times the

respective STLC value since the WET uses a 1:10 dilution ratio. Hence, when a total metal is detected at a concentration greater than or equal to ten times the respective STLC, and assuming that 100 percent of the total metals are soluble, soluble metal analysis is required. A material is classified as RCRA hazardous, or Federal hazardous, when the representative soluble metal content equals or exceeds the Federal regulatory level 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 and corrosivity; however, for the purposes of this investigation, toxicity (i.e., representative 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.

2.2 Environmental Screening Levels

The San Francisco Bay Regional Water Quality Control Board (SFRWQCB) has prepared a technical report entitled *Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater, Interim Final* (May 2008), which presents Environmental Screening Levels (ESLs) for soil, groundwater, soil gas, and surface water, to assist in evaluating sites impacted by releases of hazardous chemicals. The ESLs are conservative values for more than 100 commonly detected contaminants, which may be used to compare with environmental data collected at a site. ESLs are strictly risk assessment tools and “not regulatory clean up standards.” The presence of a chemical at concentrations in excess of an ESL does not necessarily indicate that adverse impacts to human health or the environment are occurring; this simply indicates that a potential for adverse risk may exist and that additional evaluation is or “may be” warranted (SFRWQCB, 2008).

The most conservative ESL table was used for this characterization: Table A – Shallow Soil (≤ 3 meters below ground surface; bgs) – Groundwater is a Current or Potential Source of Drinking Water. The respective ESLs are listed at the end of Table 2 for comparative purposes.

2.3 Naturally Occurring Asbestos

As defined in current California Air Resources Board (CARB) rules, serpentine material refers to any material that contains at least 10% serpentine, and asbestos-containing serpentine refers to serpentine materials with an asbestos content greater than 5% as determined by CARB Test Method 435. The CARB has mitigation practices for construction, grading, quarrying, and surface mining operations that may disturb natural occurrences of asbestos as outlined in Title 17 California Code of Regulations (CCR), Section 93105, Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (ATCM 93105).

NOA potentially poses a health hazard when it becomes an airborne particulate. Mitigation practices can reduce the risk of exposure to asbestos-containing dust. The primary mitigation practice used for controlling exposure to potentially asbestos-containing dust is the implementation of engineering controls including wetting the materials being disturbed. If engineering controls do not adequately control exposure to potentially asbestos-containing dust, the use of personal protective equipment including wearing air purifying respirators with High Efficiency Particulate Air (HEPA) filters is required during construction activities. Dust control methods similar to those in ATCM 93105 are outlined in Title 17 CCR, Section 93106, Asbestos Airborne Toxic Control Measure (ATCM) for Surfacing Application (ATCM 93106), for airborne asbestos in road surfacing applications.

Using surfacing material with 0.25% or more asbestos material is not permitted and wetting of the material or the application of a surface sealant is recommended to minimize disturbance of the asbestos material. The use of serpentine material for road surfacing is prohibited in California by ATCM 93106, unless the material has been tested and determined to have an asbestos content of less than 0.25%. Materials found to contain asbestos of 0.25% or more are considered to be designated waste if transported offsite, requiring disposal at a landfill facility designated to accept asbestos waste. Alternatively, soil containing NOA may be reused onsite if buried beneath a minimum 6 inches of clean soil or pavement.

3.0 SCOPE OF SERVICES

The scope of services performed under TO-37, EA 05-0N4001 included the following:

3.1 Pre-field Activities

- Prepared a site *Health and Safety Plan* dated February 2012.
- Retained the services of Advanced Technology Laboratories (ATL), a Caltrans-approved and California-certified analytical laboratory, to perform the chemical analyses of soil samples.
- Retained the services of EMSL Analytical, Inc. (EMSL), a Caltrans-approved and California-certified analytical laboratory, to perform the asbestos analyses of soil samples.

3.2 Field Activities

The field investigation was performed on February 8, 2012, by Geocon staff. The following field activities were performed during the sampling efforts:

- Collected 8 soil samples for CAM 17 metals analysis.
- Collected 39 soil samples for NOA analysis.
- Transported samples to a California-certified environmental laboratory for analysis under standard chain-of-custody (COC) documentation.

4.0 INVESTIGATIVE METHODS

4.1 Sampling Procedures

Soil samples were collected from eight stockpile and seven maintenance vehicle pullout locations identified by the Caltrans TO Manager. Geocon recorded the sample locations using Differential Global Positioning System (DGPS) equipment. Sample location coordinates are presented on Table 1 and sample locations are shown on the Site Plan, Figure 2.

The soil samples for analysis of CAM 17 metals were collected in glass jars. Soil samples for NOA analysis were collected into new resealable plastic bags. Sample containers were labeled and transported to a Caltrans-approved, State-certified environmental laboratory using standard COC documentation.

Geocon provided QA/QC procedures during the field activities. These procedures included washing the sampling equipment with a Liqui-Nox® solution followed by a double rinse with deionized water. Decontamination water was disposed of to the ground surface within Caltrans right-of-way in a manner not to create runoff, away from drain inlets or potential water bodies.

4.2 Laboratory Analyses

Laboratory analyses were performed by ATL under 5-day turnaround-time (TAT). The laboratory reports and COC documentation are included in Appendix B.

The soil samples were analyzed as follows:

- 8 samples for CAM 17 metals according to Title 22 CCR, EPA Test Methods 6010 ICAP and 7471A.
- 6 samples were further analyzed for WET chromium using EPA Test Method 7420.
- 2 samples were further analyzed for WET nickel using EPA Test Method 7420.
- 39 samples for NOA using CARB Test Method 435.

4.3 Laboratory QA/QC

QA/QC procedures were performed for each method of analysis with specificity for each analyte listed in the test method's QA/QC. The laboratory QA/QC procedures included the following:

- One method blank for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One spiked sample for every ten samples, batch of samples or type of matrix; whichever was more frequent, with the spike made at ten times the detection limit or at the analyte level.

Prior to submitting the samples to the laboratory, the COC documentation was reviewed for accuracy and completeness.

5.0 INVESTIGATIVE RESULTS

5.1 Soil Conditions

Observations during field activities indicated that soil encountered in the stockpiles and maintenance vehicle pullout areas generally consists of predominately sandy material or silty sandy material with some coarser gravel.

5.2 Laboratory Analytical Results

The analytical results are summarized in Tables 2 and 3 and are summarized below:

- The following metals were not detected above their respective laboratory reporting limits: beryllium, cadmium, mercury, molybdenum, selenium, silver, and thallium.
- Total chromium was reported at concentrations ranging from 35 mg/l to 200 mg/kg.
- WET chromium was not detected at or above the reporting limit of 1.0 mg/l.
- Total nickel was reported at concentrations ranging from 57 mg/kg to 290 mg/kg.
- WET nickel was reported at concentrations of 1.9 mg/l and 3.2 mg/l.
- Remaining CAM 17 metals were reported in the samples at total concentrations below ten times their respective STLCS.
- NOA was detected in one sample at a concentration of 0.50% Chrysotile.

5.3 Laboratory Quality Assurance/Quality Control

We reviewed the QA/QC results provided with the laboratory analytical reports. The data indicate non-detect results for the method blanks at or above reporting limits. The Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) were outside recovery criteria for one sample. The relative percent differences (RPD) for MS/MSD was outside of recovery limits for one duplicate sample. The data were validated by Laboratory Control Samples (LCS). Remaining samples and internal laboratory QA/QC samples showed acceptable recoveries and relative percent differences (RPDs). Based on this limited data review, no additional qualifications of the soil data are necessary, and the data are of sufficient quality for the purposes of this report.

6.0 CONCLUSIONS

6.1 CAM 17 Metals in Soil

With the exceptions of chromium and nickel, CAM 17 metals were reported in the samples at total concentrations below ten times their respective STLCs. The maximum total chromium and nickel concentrations were less than the respective TTLCs of 2,500 mg/kg and 2,000 mg/kg, and the maximum WET chromium and WET nickel concentrations were less than the respective STLCs of 5.0 mg/l and 20 mg/l. Accordingly, soil would be classified as non-hazardous based on CAM 17 metals content.

The CAM 17 metals concentrations in site soil were compared to ESLs (SFRWQCB, May 2008, Tables A and K-3) and published background levels typically present in California soils as presented in *Background Concentrations of Trace and Major Elements in California Soils* (Kearney Foundation of Soil Science, Division of Agriculture and Natural Resources, University of California, March, 1996.

Arsenic, nickel, and vanadium were reported with concentrations equal to or greater than one or more of their respective ESL values. ESLs and published background concentrations for these metals are summarized in the table below:

Metal	Mean	Maximum	Shallow Soil Residential ESL	Shallow Soil Commercial/Industrial ESL	Worker Direct Exposure ESL	PUBLISHED BACKGROUND MEAN ¹	PUBLISHED BACKGROUND RANGE ¹
Arsenic	3.3	4.9	0.39	1.6	15	3.5	0.6 to 11.0
Nickel	138	290	150	150	260	57	9.0 to 509
Vanadium	35.5	42	16	200	770	112	39 to 288

Concentrations reported in mg/kg

1 Kearney Foundation of Soil Science, March 1996

The maximum reported arsenic concentrations in the soil samples exceed the shallow soil residential and commercial/industrial land use ESLs; however, it is within the published background range and below the construction worker direct exposure ESL. The SFRWQCB *Update to Environmental Screening Levels (ESLs) Technical Document (November 2007, Revised May 2008)* states that ambient background concentrations of arsenic typically exceed risk-based screening levels. In such instances, it may be more appropriate to compare site data to regionally-specific established background levels.

The maximum reported nickel concentrations in soil exceed the residential, commercial/industrial, and construction worker direct exposure ESLs, but are within reported background ranges.

The maximum reported vanadium concentrations detected in the soil samples exceed the shallow soil residential land use ESL; however, the concentrations are below the commercial/industrial and construction exposure ESLs and within the published background range.

Based on the reported arsenic, nickel or vanadium concentrations, offsite reuse or disposal of excavated soil may be restricted based on metals content depending on proposed use.

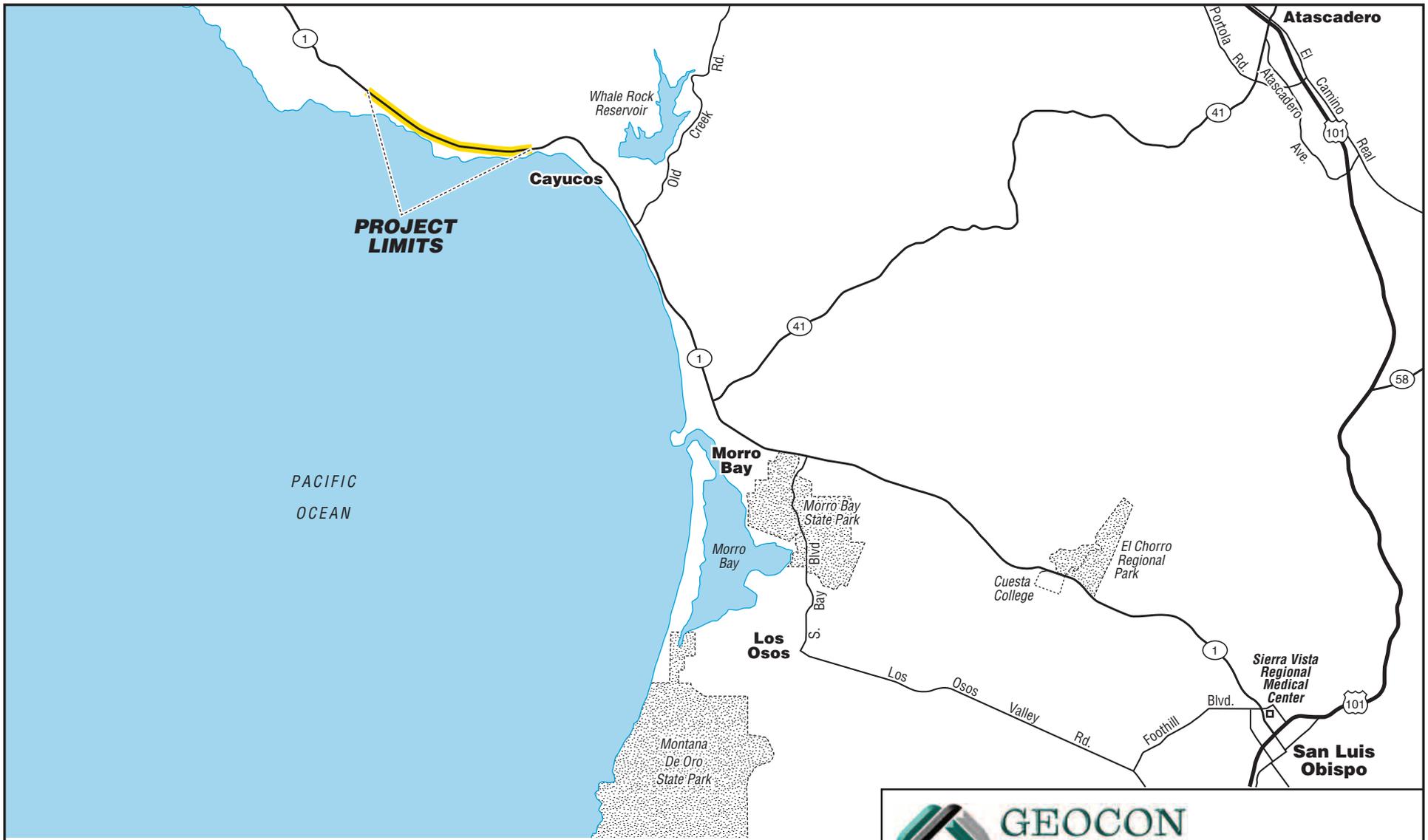
6.2 Naturally-Occurring Asbestos

Four soil samples were collected from stockpile SP3 and analyzed for asbestos by CARB Test Method 435 using polarized light microscopy (PLM) and at a reporting limit of 0.25% asbestos. Chrysotile asbestos was reported at 0.50% in one of four samples (SP3A) collected from stockpile SP3. Three of the four samples collected from stockpile SP3 (SP3B, SP3C, and SP3D) were reported to be non-detect for asbestos. ATCM 93105 sets forth measures to be followed for the investigation and control of naturally occurring asbestos for construction sites. ATCM 93105 allows for the mathematical averaging of analytical results from a soil mass in order to determine the average asbestos content. Convention is to use one-half of the reporting or detection limit as the assumed contaminant content for soils when averaging results. Thus for averaging purposes, the three samples reported as non-detect were assumed to contain 0.125% asbestos, and the average of the four samples collected from stockpile SP3 is assumed to be 0.22875, less than the 0.25% regulatory threshold. Seven samples from pullout locations were also reported to contain chrysotile asbestos at trace (i.e., less than 0.25%) asbestos.

There are no restrictions on the reuse of soil containing NOA at less than 0.25% asbestos if it stays on the site. If soil known to contain NOA at less than 0.25% is disposed of offsite, we recommend that the receiver be notified that the material contains NOA at less than 0.25%. Additionally, it is Caltrans policy that a contractor have an asbestos compliance plan in place on projects where personnel may be in contact with materials known to contain NOA and that wet methods be employed to minimize the potential for airborne asbestos. A summary of NOA results is included in Table 3.

6.3 Worker Protection

The contractor(s) should prepare a project-specific health and safety plan to prevent or minimize worker exposure to metals and asbestos in soil. The plan should include protocols for environmental and personnel monitoring, requirements for personal protective equipment, and other health and safety protocols and procedures for the handling of soil.



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State Route 1 Estero Bluffs

Post Mile R36.7/39.7
San Luis Obispo, California

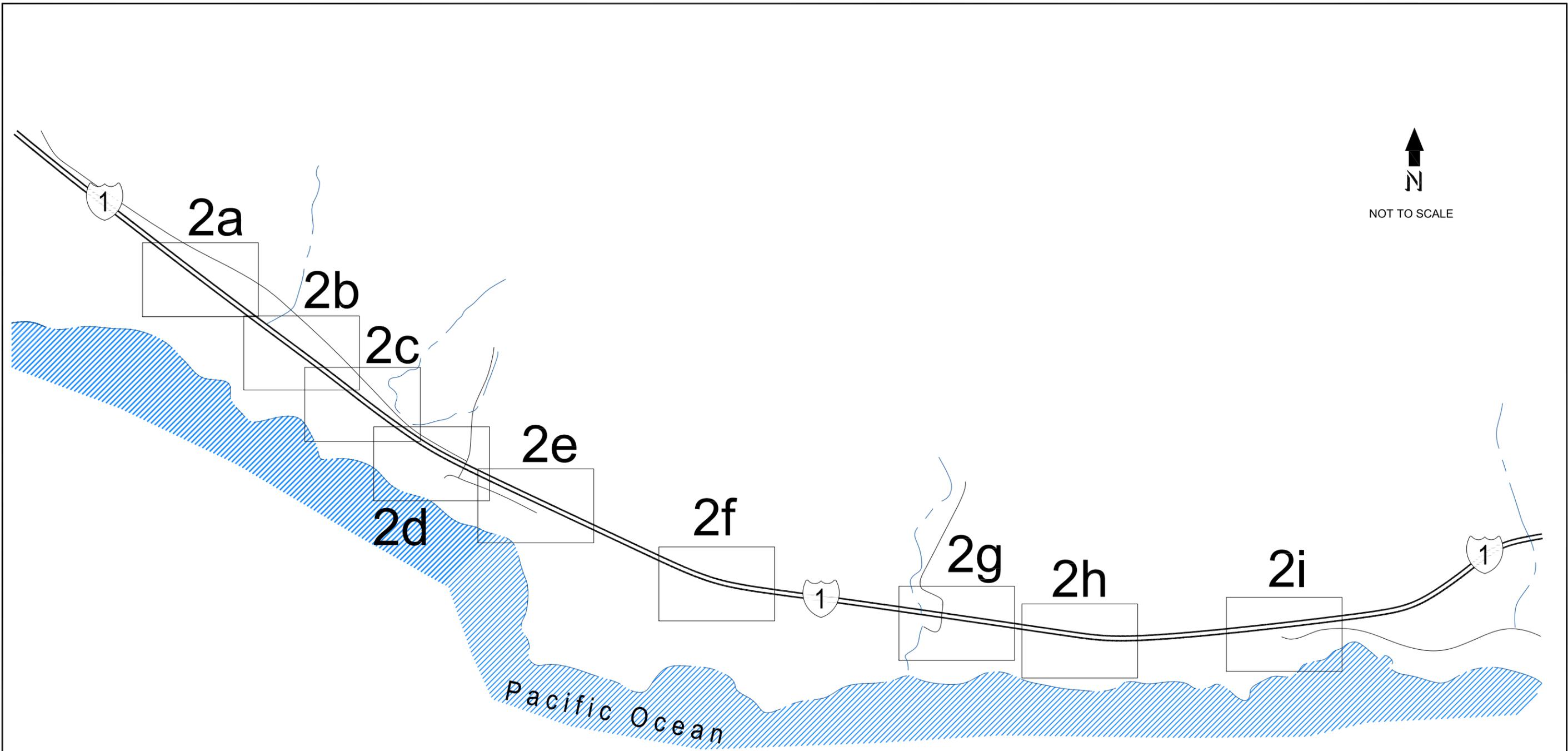
VICINITY MAP

GEOCON Proj. No. S9525-06-37

Task Order No. 37

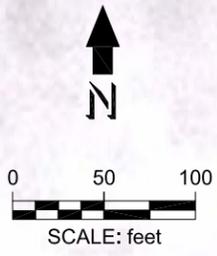
April 2012

Figure 1



 6671 BRISA STREET, LIVERMORE, CA 94550; PHONE 925 371-5900 - FAX 925 371-5915	
State Route 1 Estero Bluffs	
Post Mile R36.7/39.7, San Luis Obispo, CA	KEY MAP
GEOCON Proj. No. S9525-06-37	
Task Order No. 37	April 2012
	Figure 2

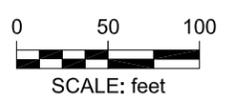
LEGEND:
 Boring Location



	
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State Route 1 Estero Bluffs	
Post Mile R36.7/39.7, San Luis Obispo, CA	SITE PLAN
<small>GEOCON Proj. No. S9525-06-37</small>	
<small>Task Order No. 37</small>	<small>April 2012</small>
	<small>Figure 2a</small>



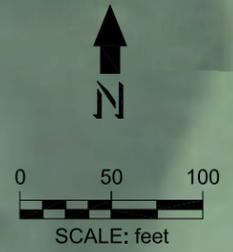
LEGEND:
 Boring Location



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State Route 1 Estero Bluffs	
Post Mile R36.7/39.7, San Luis Obispo, CA	SITE PLAN
GEOCON Proj. No. S9525-06-37	April 2012
Task Order No. 37	Figure 2b



LEGEND:
 Boring Location



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State Route 1 Estero Bluffs	
Post Mile R36.7/39.7, San Luis Obispo, CA	SITE PLAN
GEOCON Proj. No. S9525-06-37	
Task Order No. 37	April 2012 Figure 2c



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State Route 1 Estero Bluffs	
Post Mile R36.7/39.7, San Luis Obispo, CA	SITE PLAN
GEOCON Proj. No. S9525-06-37	April 2012
Task Order No. 37	Figure 2d



LEGEND:
 Boring Location

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<p>State Route 1 Estero Bluffs</p>	
<p>Post Mile R36.7/39.7, San Luis Obispo, CA</p>	<p>SITE PLAN</p>
<p>GEOCON Proj. No. S9525-06-37</p>	
<p>Task Order No. 37</p>	<p>April 2012 Figure 2e</p>

LEGEND:
● Boring Location



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State Route 1 Estero Bluffs

Post Mile R36.7/39.7,
San Luis Obispo, CA

SITE PLAN

GEOCON Proj. No. S9525-06-37

Task Order No. 37

April 2012

Figure 2f



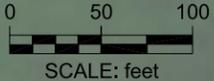
LEGEND:
 ⊕ Boring Location

PL2A

PL2B

PL2C

SR 1



SCALE: feet



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State Route 1 Estero Bluffs

Post Mile R36.7/39.7,
 San Luis Obispo, CA

SITE PLAN

GEOCON Proj. No. S9525-06-37

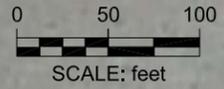
Task Order No. 37

April 2012

Figure 2g



LEGEND:
 Boring Location



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State Route 1 Estero Bluffs	
Post Mile R36.7/39.7, San Luis Obispo, CA	SITE PLAN
GEOCON Proj. No. S9525-06-37	
Task Order No. 37	April 2012 Figure 2h



LEGEND:
● Boring Location

SR 1

PL7A

PL7B

PL7C



0 50 100
SCALE: feet

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State Route 1 Estero Bluffs		
Post Mile R36.7/39.7, San Luis Obispo, CA	SITE PLAN	
GEOCON Proj. No. S9525-06-37		
Task Order No. 37	April 2012	Figure 2i

TABLE 1
Boring Coordinates
SLO-1 Estero Bluffs Enhancement Project
San Luis Obispo County, California

Boring	Northing	Easting	Latitude	Longitude
SP6A	2,367,582.272	5,678,098.741	35.462185790	-120.967382058
SP6B	2,367,574.453	5,678,112.662	35.462165449	-120.967334558
SP5A	2,367,468.923	5,678,227.912	35.461885006	-120.966937274
SP5B	2,367,440.022	5,678,233.531	35.461806099	-120.966915551
SP4A	2,367,425.356	5,678,349.390	35.461775218	-120.966525228
SP4B	2,367,410.701	5,678,353.706	35.461735327	-120.966509290
SP3A	2,367,100.548	5,678,703.210	35.460911970	-120.965305500
SP3B	2,367,063.365	5,678,755.884	35.460814133	-120.965125025
SP3C	2,367,021.217	5,678,789.936	35.460701153	-120.965006561
SP3D	2,366,978.951	5,678,844.464	35.460589507	-120.964819359
SP2A	2,366,386.985	5,679,659.947	35.459029997	-120.962023749
SP2B	2,366,364.633	5,679,696.918	35.458971610	-120.961897455
SP2C	2,366,299.747	5,679,731.221	35.458796208	-120.961775903
PL6A	2,366,284.556	5,679,807.413	35.458760660	-120.961518679
PL6B	2,366,226.588	5,679,879.352	35.458607300	-120.961271500
SP7A	2,365,437.290	5,680,838.746	35.456517463	-120.957973536
SP7B	2,365,455.760	5,680,892.011	35.456572487	-120.957796592
PL5A	2,364,947.310	5,681,608.174	35.455234131	-120.955342826
PL5B	2,364,895.037	5,681,703.087	35.455098254	-120.955019125
SP1A	2,364,761.235	5,681,908.990	35.454747453	-120.954314886
SP1B	2,364,763.997	5,681,945.291	35.454757968	-120.954193328
PL4A	2,364,412.244	5,682,726.092	35.453855049	-120.951538191
PL4B	2,364,371.626	5,682,827.868	35.453751719	-120.951192619
SP8A	2,364,183.357	5,683,136.260	35.453259592	-120.950139080
SP8B	2,364,208.846	5,683,164.736	35.453331881	-120.950046027
PL3A	2,363,450.946	5,684,807.882	35.451382996	-120.944456982
PL3B	2,363,364.474	5,685,021.315	35.451162712	-120.943732205
PL3C	2,363,240.260	5,685,365.670	35.450849311	-120.942564348
PL3D	2,363,207.837	5,685,514.611	35.450772253	-120.942061320
PL3E	2,363,164.441	5,685,699.075	35.450667913	-120.941438003
PL3F	2,363,128.468	5,685,941.871	35.450588643	-120.940619653
PL2A	2,362,775.804	5,688,372.188	35.449815235	-120.932429051
PL2B	2,362,745.156	5,688,556.999	35.449745883	-120.931805833
PL2C	2,362,721.199	5,688,715.503	35.449692794	-120.931271562
PL1A	2,362,557.175	5,689,988.157	35.449344244	-120.926984578
PL1B	2,362,525.344	5,690,166.708	35.449271112	-120.926382264
PL7A	2,362,604.479	5,692,489.900	35.449673959	-120.918593512
PL7B	2,362,612.771	5,692,556.407	35.449702035	-120.918371125
PL7C	2,362,615.291	5,692,639.899	35.449715613	-120.918091177

Northing and easting coordinates shown in feet, NAD 83, Zone 5

TABLE 2
Summary of CAM 17 Metals Results
SLO-1 Estero Bluffs Enhancement Project
San Luis Obispo County, California

Sample ID	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
PL2B	<2.0	4.9	420	<1.0	<1.0	110 <i><1.0</i>	21	39	6.7	<0.10	<1.0	160	<1.0	<1.0	<1.0	40	49
PL3C	2.1	3.0	170	<1.0	<1.0	130 <i><1.0</i>	18	30	4.5	<0.10	<1.0	200 <i>1.9</i>	<1.0	<1.0	<1.0	31	36
PL5A	3.2	3.7	210	<1.0	1.0	200 <i><1.0</i>	25	37	5.5	<0.10	<1.0	290 <i>3.2</i>	<1.0	<1.0	<1.0	41	45
PL7B	<2.0	2.0	130	<1.0	<1.0	44	13	20	7.3	<0.10	<1.0	67	<1.0	<1.0	<1.0	41	28
SP1A	<2.0	4.1	160	<1.0	<1.0	52 <i><1.0</i>	13	28	6.5	<0.10	<1.0	79	<1.0	<1.0	<1.0	42	40
SP2C	<2.0	3.7	120	<1.0	<1.0	96 <i><1.0</i>	18	31	7.3	<0.10	<1.0	140	<1.0	<1.0	<1.0	29	42
SP3B	<2.0	1.4	77	<1.0	<1.0	35	9.0	8.4	3.7	<0.10	<1.0	57	<1.0	<1.0	<1.0	23	13
SP6A	<2.0	3.6	79	<1.0	<1.0	72 <i><1.0</i>	15	33	5.4	<0.10	<1.0	110	<1.0	<1.0	<1.0	37	47
ESLs (mg/kg)																	
Residential Land Use	6.3	0.39	750	4.0	1.7	750	40	230	200	1.3	40	150	10	20	1.3	16	600
Comm/Ind Land Use	40	1.6	1,500	8.0	7.4	750	80	230	750	10	40	150	10	40	16	200	600
Construction Exposure	310	15	2,600	98	39	1,200,000	94	310,000	750	58	78	260	3,900	3,900	62	770	230,000
Hazardous Waste Criteria																	
TTLC (mg/kg)	500	500	10,000	75	100	2,500*	8,000	2,500	1,000	20	3,500	2,000	100	500	700	2,400	5,000
STLC (mg/l)	15	5.0	100	0.75	1.0	5.0*	80	25	5.0	0.2	350	20	1.0	5.0	7.0	24	250
TCLP (mg/l)	---	5.0	100	---	1.0	6.0	---	---	5.0	0.2	---	---	1.0	5.0	---	---	---

Notes:

Total metal results are shown in milligrams per kilogram (mg/kg).
 * = ESL Values listed for chromium are for Chromium III, as there is no standard for total chromium
 < = Analyte was not detected above the stated laboratory reporting limit.
 ESLs = Environmental Screening Levels, Tables A and K-3, SFRWQCB, Revised May 2008.
 TTLC = total threshold limit concentration
 STLC = soluble threshold limit concentration
 TCLP = toxicity characteristic leaching procedure
 --- = not analyzed or no standard exists for this compound
 Values shown in italics represent STLC chromium and nickel results in milligrams per liter (mg/l)

TABLE 3
Summary of NOA Results
SLO-1 Estero Bluffs Enhancement Project
San Luis Obispo County, California

Sample ID	Asbestos Content (% dry weight)
PL1A	ND
PL1B	ND
PL2A	<0.25%
PL2B	ND
PL2C	ND
PL3A	<0.25%
PL3B	<0.25%
PL3C	<0.25%
PL3D	ND
PL3E	ND
PL3F	ND
PL4A	ND
PL4B	ND
PL5A	<0.25%
PL5B	<0.25%
PL6A	ND
PL6B	ND
PL7A	ND
PL7B	ND
PL7C	<0.25%
SP1A	ND
SP1B	ND
SP2A	ND
SP2B	ND
SP2C	ND
SP3A	0.50%
SP3B	ND
SP3C	ND
SP3D	ND
SP4A	ND
SP4B	<0.25%
SP5A	ND
SP5B	ND
SP6A	ND
SP6B	ND
SP7A	ND
SP7B	ND
SP8A	ND
SP8B	ND

ND = None detected at 0.25% target analytical sensitivity