



**ENVIRONMENTAL BIO-SYSTEMS, INC.**  
Innovative Solutions for a Better Environment

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1:29 pm, May 04, 2009

Alameda County  
Environmental Health

**1. INTRODUCTION**

Environmental Bio-Systems, Inc. (EBS) provides this report describing subsurface soil and ground water exploration performed for Thomas D. Meek, M.D. (the client) at 16660 E. 14th Street, San Leandro, CA (the site). The principal site contacts are:

**Client Contact** - Thomas D. Meek, M.D., Commercial Property Services, 2345 50th Street, Suite 100, Lubbock, Texas 79407, (806) 763-8004.

**Consultant** - Environmental Bio-Systems, Inc., 30028 Industrial Parkway Southwest, Suite C, Hayward, CA 94544, (510) 429-9988. Mr. Dave A. Sadoff - Project Manager

**2. PURPOSE AND SCOPE OF WORK**

This report describes the installation and sampling of 4 exploratory boreholes at the site. The scope of work described below has been composed to evaluate subsurface conditions associated with former underground storage tanks (USTs) reported to have been present during the previous tenure of a former Texaco service station at the site.

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San Leandro, California

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An itemized list of tasks performed and outlined in this report includes:

- Geophysical survey of accessible portions of the property (i.e. portions not covered by structures).
- Preparation of site specific work and safety plans.
- Procurement of permits.
- Drilling of 4 exploratory boreholes, one boring at each of the following locations:
  - S1- The former fuel UST location.
  - S2- The former fueling island along E. 14th Street.
  - S3- The former fueling island along 167th Avenue.
  - S4- The former waste oil UST location.
- Logging of subsurface conditions by an EBS project geologist.
- Collection of soil samples at 5-foot intervals from surface to the depth at which ground water was encountered and at the soil/ground water interface.
- Field screening of collected soil samples will be performed using a portable organic vapor meter (OVM).
- Laboratory analysis of 2 soil samples from each boring.
- Analysis of four soil samples for one or more of the following analytes:
  - 1- Total petroleum hydrocarbons as gasoline (TPHg) with distinction for benzene, toluene, ethylbenzene, and xylenes (BTEX) using Environmental Protection Agency (EPA) Methods 5030, and modified Methods 8015 and 8020.
  - 2- Total petroleum hydrocarbons as diesel (TPHd) using EPA Methods 3550 and modified 8015.
  - 3- Total oil and grease (TOG) using Standard Method 5520B&F.
- Containment of all soil drill cuttings in Department of Transportation (DOT) approved 55-gallon drums.
- Containment of all waste water (from decontamination and well purging) in DOT approved 55-gallon drums.

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### 3. SITE LOCATION AND DESCRIPTION

The site is located at 16660 E. 14th Street in San Leandro, California. This location lies within an un-incorporated section of Alameda County. A site location map is included in this report as Figure 1.

The Alameda County Public Works Agency well survey shows the site to be located in 40-acre parcel C, Section 8, Township 3 south, Range 2 west of the San Mount Diablo Base and Meridian. The subject site is situated approximately 17,200-feet east of San Francisco Bay's east shoreline, and lies at an elevation of approximately 48-feet above mean sea level. The topography of the site dips gently to the west.

Figure 2 shows a general overview of the property on which the site is located. The site encompasses approximately 28,500-square feet, and is bounded to the southwest by E. 14th Street, to the northwest by Carl Kuper Motors, to the northeast by Bayfair Manor Apartments, and to the southeast by 167th Avenue. The site is currently occupied by a Chief Auto Parts store, the Old South BBQ, and Raja Markets.

A 7,800-square foot single-story structure, located on the northeast property border, houses the three businesses operating at the site. The remainder of the site is primarily asphalt-paved parking area with the exception of several planter areas.

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### 3.1. REGIONAL GEOLOGY

The site is located in the East Bay Plain Area of the San Francisco Bay drainage basin. The Hayward Fault lies approximately 1,000-feet east-northeast of the site.

The flat, alluviated lowlands of this area are bounded to the north by the San Pablo Bay, to the east by the Hayward Fault and the Coast Range foothills, and to the south and west by the San Francisco Bay. Older alluvium in the area consists of Pliocene and Pleistocene clay, silt, sand, and gravel. These sediments were derived mainly from the hills to the east and southeast, and represent successive coalescing alluvial fans.

### 3.2. HYDROGEOLOGICAL SETTING

The subject site is situated above the San Lorenzo Cone sub-area, which consists of various sand and gravel strata within the older alluvium. Three shallow (to 400-feet bgs) aquifers have been identified for this area. These aquifers are correlative to the Niles cone sub-area Newark, Centerville, and Fremont aquifers (shallowest to deepest). Well yields from these aquifers range from a few tens of gallons per minute to over one thousand-gallons per minute.

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### 3.3. METEOROLOGICAL SETTING

The site is located within the San Francisco Bay Area, which is considered a "Mediterranean" type climate. Warm to hot, dry summers, along with cool, wet winters are typical for this area. Mean annual precipitation in the form of rainfall near this site is approximately 13.7-inches. The prevailing wind at the site in general is from the northwest.

### 4. PREVIOUS ENVIRONMENTAL WORK

EBS performed a Phase I Environmental Audit of the site in a report dated 11 March 1994. The limited documentation found regarding past environmental work performed at the site is discussed and referenced in the Phase I report.

### 5. PROCEDURES

Drilling of four exploratory boreholes, sampling, and field screening of soil samples was performed on 4 March 1994. The borings were designated as S1 through S4. A site diagram displaying the locations of the boreholes is presented as Figure 2.

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### 5.1. DRILLING OF EXPLORATORY BOREHOLES

Four soil borings were drilled by Bayland Drilling of Menlo Park, California (C-57 license #374152). The boreholes were drilled using a truck mounted CME 75 drill rig equipped with 8-inch diameter hollow stem augers. The logs of soil borings and well construction details are presented in Appendix A.

Soil lithologies encountered in the four borings were similar. Conditions encountered included clayey silty sand to approximately eight-feet bgs underlain by fine to medium and coarse sand. A stiff black clay was found at approximately 19-feet bgs in borings EB1 and EB3.

Exploratory borings S1 through S4 were drilled to total depths of 20, 15, 20, and 20-feet bgs, respectively. Appendix A contains the logs of soil borings with descriptions of subsurface conditions encountered.

#### 5.1.1. Field Screening of Soil Samples

Soil samples were field screened using a portable Thermo Environmental Instruments organic vapor meter (OVM) Model OVM 580B at each sampling interval. Approximately 50 to 100-grams of soil were placed into a sampling chamber consisting of a brass sampling tube with a plastic cap fitted over one end. A plastic cap, with a hole through which the OVM intake tube could be inserted, was then placed over the open end of the tube. The sample tube was then shaken for approximately 30-seconds before inserting the OVM intake tube into the sample chamber and

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recording the maximum value attained as parts per million (ppm) soil vapor.

An OVM reading was taken from the empty sampling chamber prior to each soil sample. The chamber and plastic caps were replaced if background concentrations were found.

The results of OVM field screening of soil were recorded in the field and are displayed in Table 1. None of the field screened samples yielded positive results.

#### 5.1.2. Soil Sample Collection

Soil samples were collected from the borings at 5-foot intervals using a California modified split-spoon sampler. For collection, the sampler was driven 18-inches (the total sampler length) into the soil by a 140-pound weight falling a distance of approximately 30-inches. The number of blows required to drive the sampler each 6-inches was counted as an indicator of the relative density of the soil.

Soil samples were removed from the sampler as soon as it was opened. The ends of all tubes submitted to the laboratory were covered with Teflon<sup>®</sup> sheets and sealed with plastic end caps. The sample tubes were labeled, stored in a cooler on crushed ice, and transported to American Environmental Network (AEN) of Pleasant Hill, California. AEN is certified by the State of California to perform the stated analyses.

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### 5.2. DECONTAMINATION PROCEDURES

The California modified split-spoon sampler was washed with Alqinox detergent and triple rinsed with distilled water between the collection of soil cores and samples. The augers used to drill the borings were steam cleaned prior to, and after each boring.

### 5.3. CONTAINMENT OF DRILL CUTTINGS AND DECONTAMINATION WATER

Soil from the exploratory borings and water generated from the decontamination of equipment was contained in 55-gallon drums approved by the Department of Transportation (DOT) for this use. The drums were labeled, and placed against the southern wall of the garbage dumpster bay.

## 6. SAMPLE ANALYSIS AND RESULTS

Selected soil samples collected from borings S1, S2, and S4 were analyzed for TPHg and BTEX using EPA Method 5030, and modified Methods 8015 and 8020 and TPHd using EPA Methods 3550 and modified 8015. Soil samples collected from boring S3 were analyzed for TOG using Standard Method 5520F. Table 2 displays the results of analyses performed on soil samples.

None of the analyzed samples were found to contain detectable concentrations of the selected analytes. Samples S2-5' and S4-5' were reported by the laboratory to contain concentrations of a



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compound heavier than diesel. The compound was identified by the laboratory to be TPH as motor oil (TPHmo), and was found in these samples at 8 and 9-mg/kg, respectively.

## 7. CONCLUSIONS

1. Soils encountered during the drilling of the exploratory borings typically included clayey silty sand to approximately eight-foot bgs underlain by fine to medium and coarse sand. A stiff black clay was found at approximately 19-foot bgs in borings S1 and S3.
2. Screening of soil samples using an OVM showed no detectable concentrations of organic vapor.
3. None of the analyzed samples were found to contain reportable concentrations of the chosen analytes.
4. Samples S2-5' and S4-5' were reported by the laboratory to contain concentrations of a compound heavier than diesel. The compound was identified by the laboratory to be TPHmo and was found in these samples at 8 and 9-mg/kg, respectively.

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## 8. LIMITATIONS

The recommendations in this report were developed in accordance with generally accepted standards of current environmental practice in California. These recommendations are time-dependent and should not be considered valid after a 1-year period from the issue of this report. After 1-year from the issue of this report, site conditions and recommendations contained within this report should be reviewed.

This study was performed solely for the purpose of evaluating environmental conditions of the site subsurface relative to hydrocarbon impact at the subject site. No engineering or geotechnical references are implied or should be inferred.

Evaluation of the condition of the site, for the purpose of this study, was made from a limited number of observation points. Subsurface conditions may deviate away from these points. Additional work, including further study of the subsurface, can reduce the inherent uncertainties associated with this type of work.

This study was performed, and the report was prepared for the sole use of our client, Thomas D. Meek, M.D. This report and the findings contained herein shall not be disclosed to nor used by any other party without the prior written consent of Environmental Bio-Systems, Inc. It is the responsibility of the client to convey these recommendations to regulatory agencies and other parties, as appropriate.

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The recommendations herein are professional opinions that our firm has endeavored to provide with competence and reasonable care. We are not able to eliminate the risks associated with environmental work. No guarantees or warranties, express or implied, are provided regarding our recommendations

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## 9. REFERENCES

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Environmental Bio-Systems, Inc., Phase I Environmental  
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Professional Paper 943, Flatland Deposits - Their Geology and  
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**TABLE 1: OVM FIELD SCREENING OF SOIL  
SAMPLES**

BORING #	DEPTH (FEET)	SOIL VAPOR (ppm) <sup>1</sup>
S1	5	0
	10	0
	15	0
	20	0
S2	2	0
	5	0
	10	0
	15	0
S3	4	0
	5	0
	10	0
	15	0
S4	20	0
	5	0
	10	0
	15	0
	20	0

ppm<sup>1</sup>- Parts per million.

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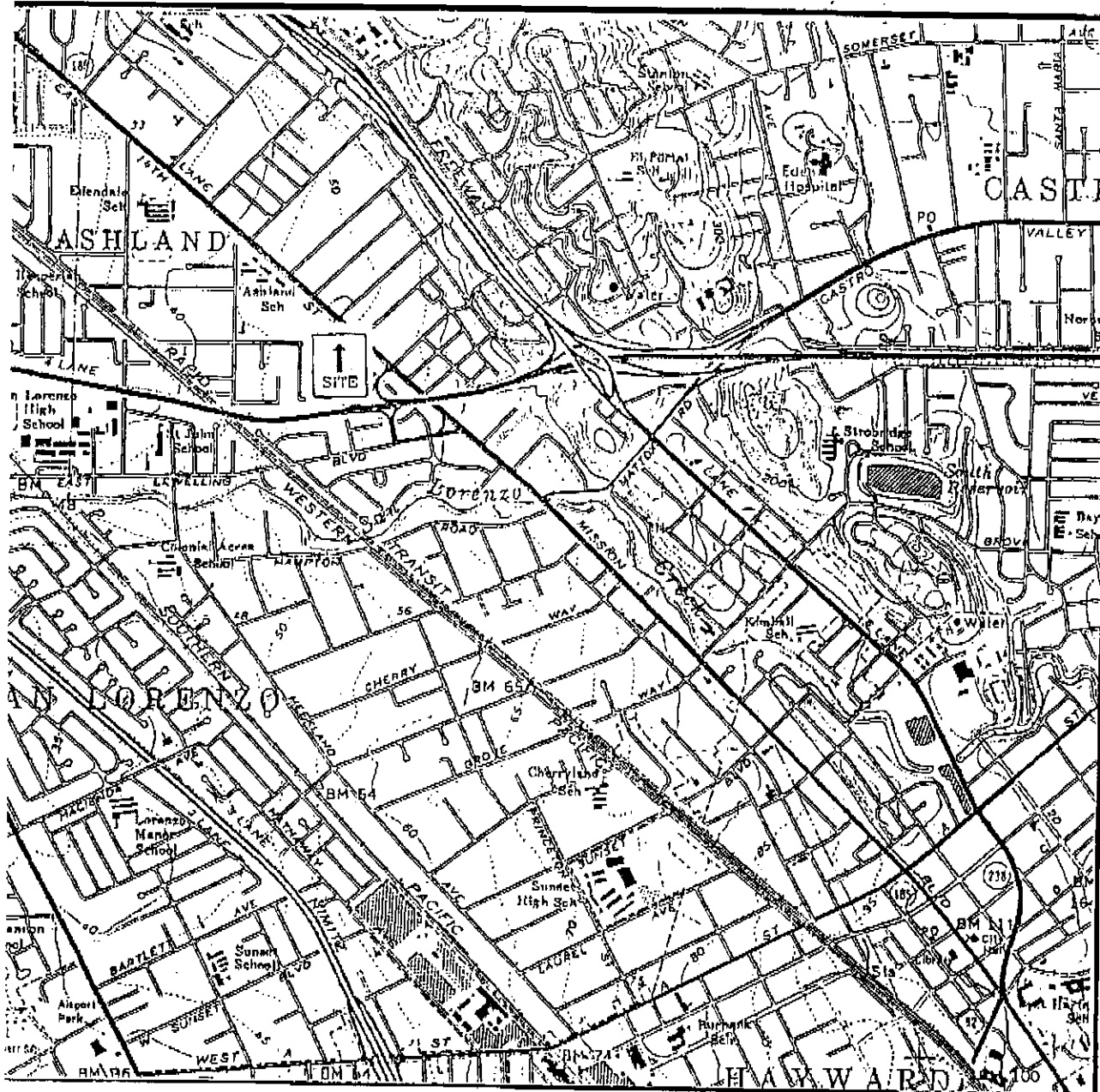
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**TABLE 2: RESULTS OF SOIL SAMPLE ANALYSES**


Sample #	TPHg (mg/Kg)	TPHd (mg/Kg)	TPHmo (mg/Kg)
S1-10'	ND	ND	ND
S1-15'	ND	ND	ND
S2-5'	ND	ND	8
S2-10'	ND	ND	ND
S3-10'	ND	ND	ND
S3-15'	ND	ND	ND
S4-5'	ND	ND	9
S4-10'	ND	ND	ND

**Legend:****ND:** Analyte not detected above stated laboratory detection limits.**Note:** See laboratory reports for individual analyte detection limits used.



Source: USGS Topographic Map, Hayward Quadrangle

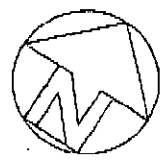
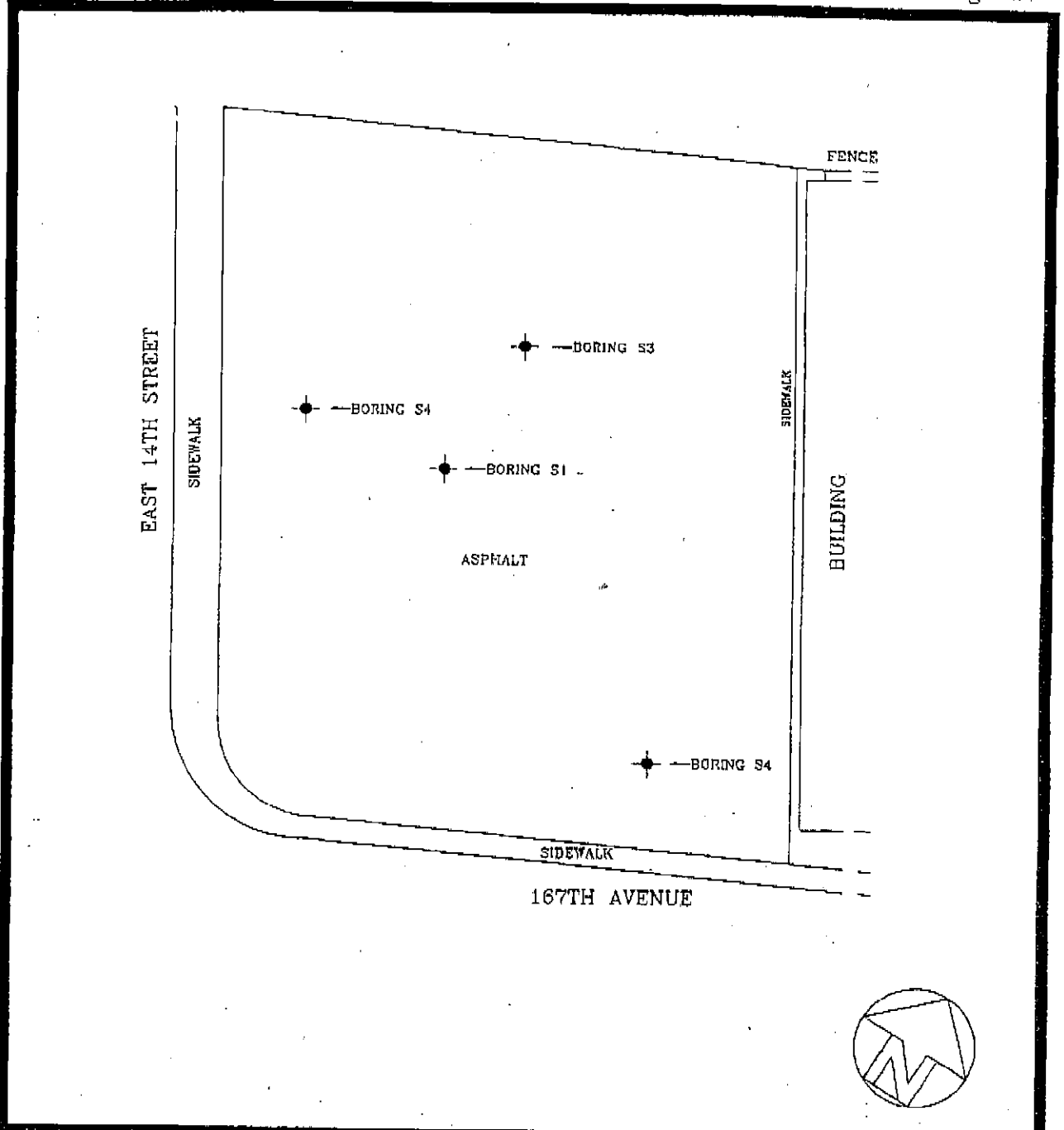



 <p>ENVIRONMENTAL -SYSTEMS, INC.</p>	<p>DATE: 4/8/94</p>	<p>FIGURE 1: SITE LOCATION MAP</p>
	<p>DRAWN BY: DAS</p>	
	<p>SCALE: 1"=2,000'</p>	

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 <p>ENVIRONMENTAL BIO-SYSTEMS, INC</p>	<p>DATE: 4/8/94</p>	<p>FIGURE 2: SITE DIAGRAM</p>
	<p>DRAWN BY: TMB</p>	
	<p>SCALE: 1"=20' (approx.)</p>	<p>16660 East 14th Street San Leandro, California</p>



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**APPENDIX A:**

**LOGS OF SOIL BORINGS**

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page B

**APPENDIX B:**

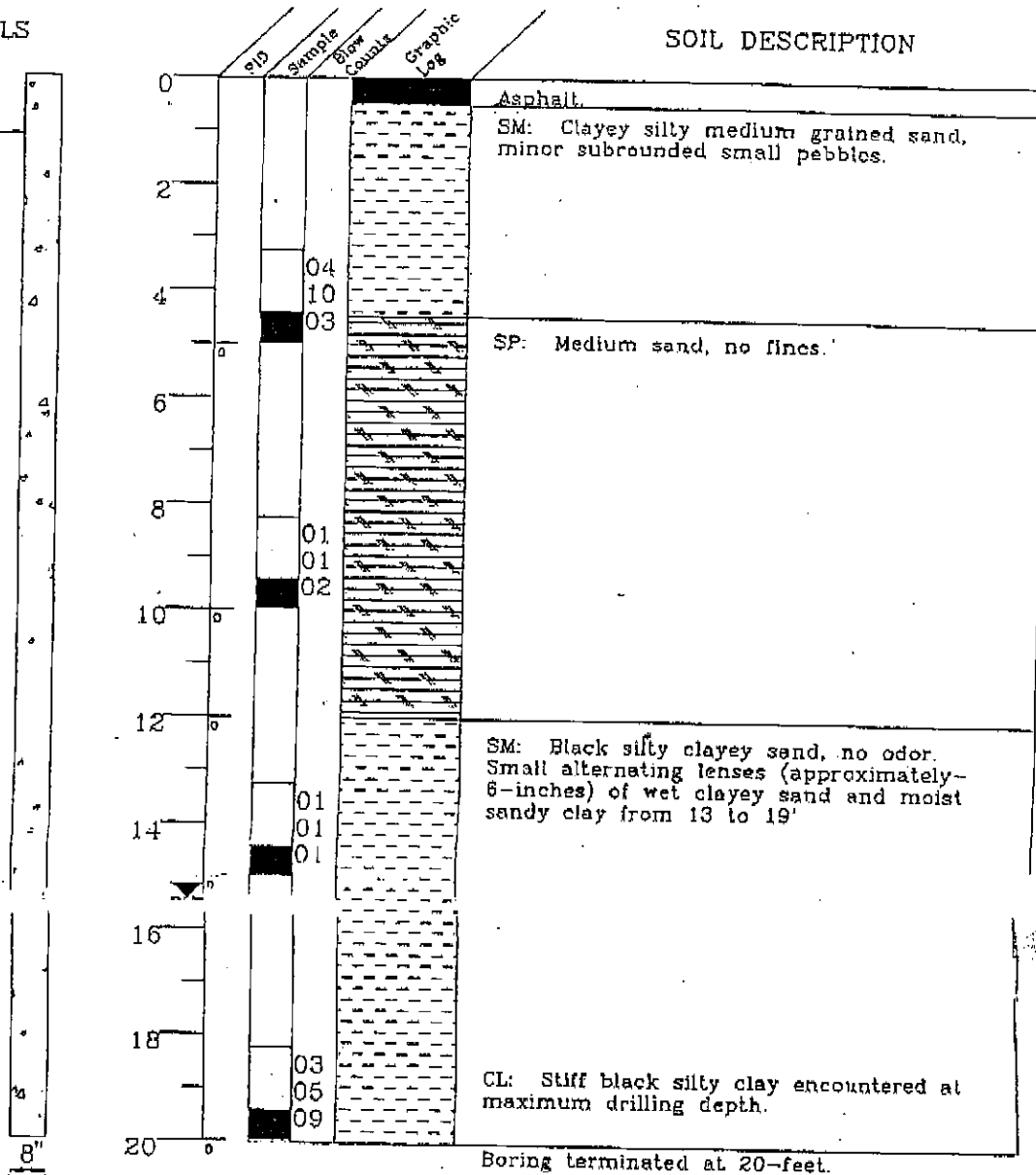
**LABORATORY REPORTS AND  
CHAIN OF CUSTODY DOCUMENTATION**

# LOG OF SOIL BORING S1

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## CONSTRUCTION DETAILS

Cement Grout Backfill



by: Dave Sadoff  
 Date: N/A  
 4/94

Drilling Contractor: Bayland  
 Drilling Method: Hollow Stem  
 Driller: Adam

Sanitary Seal/Backfill: Cement Grout  
 Sampler Type: Split Spoon  
 Total Boring Depth: 20-feet



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### EXPLANATION

- water level during drilling
- gradational
- potentiometric water level
- NR no recovery
- drill sample
- CONTACTS:**
- chemical analysis sample
- certain
- sieve sample
- - - approximate
- grab sample
- uncertain

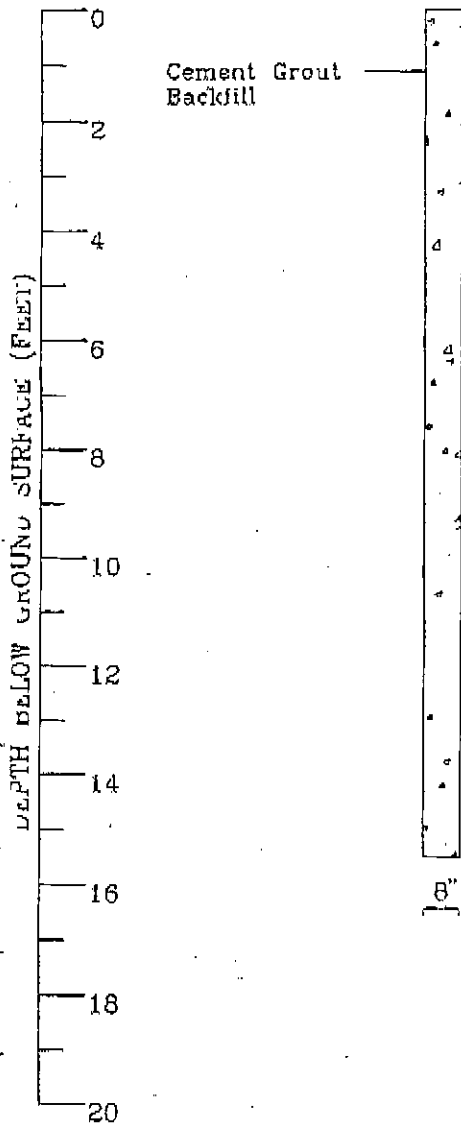
**SITE:**  
 CHIEF AUTO PLAZA  
 16660 EAST 14TH STREET  
 SAN LEANDRO, CA

**PROJECT #:** 090-292-01B

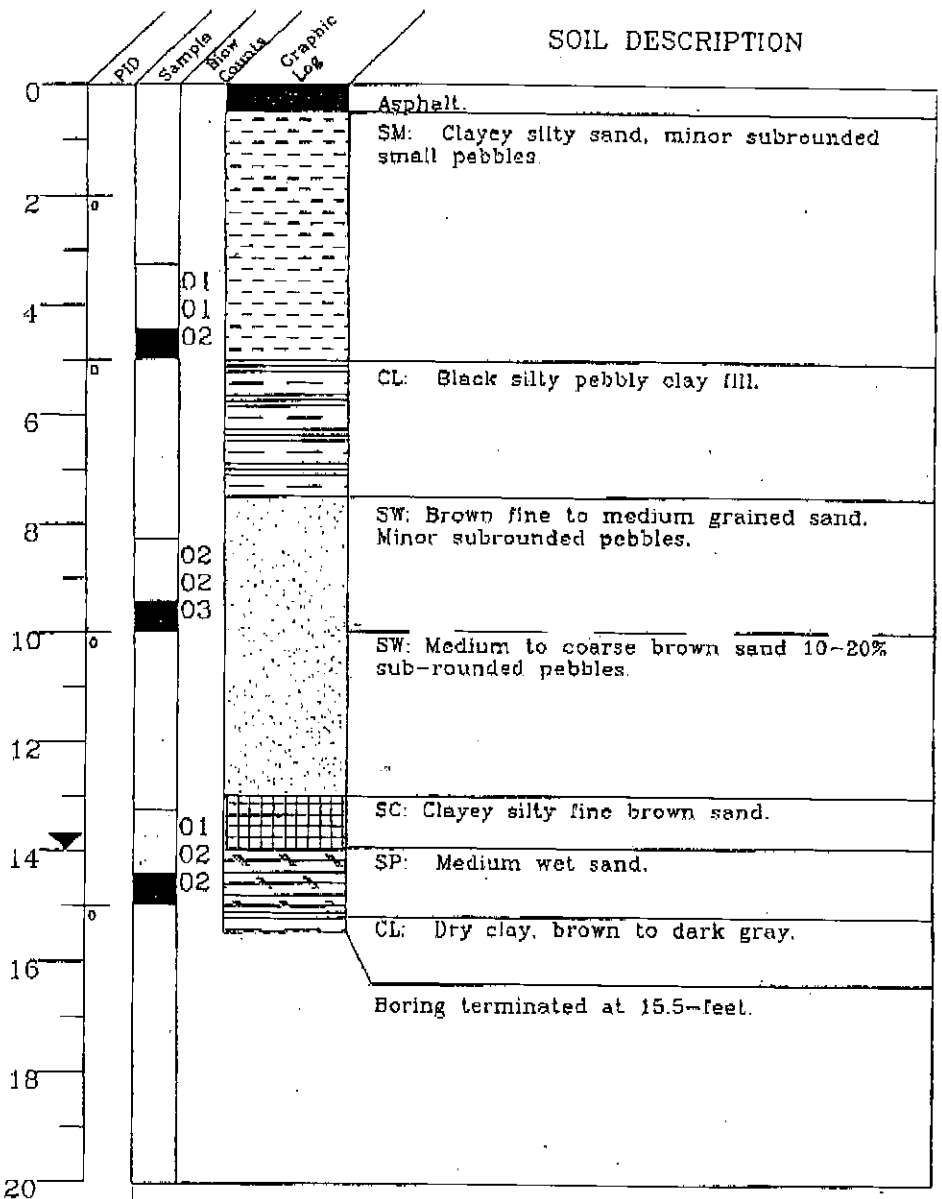
**CLIENT:**  
 Thomas D. Meek, M.D.  
 Commercial Property Svcs.

# LOG OF SOIL BORING S2

## WELL CONSTRUCTION DETAILS



## SOIL DESCRIPTION



Logged by: Dave Sadoff  
 Inspector: N/A  
 Date: 3/4/94

Drilling Contractor: Bayland  
 Drilling Method: Hollow Stem  
 Driller: Adam

Sanitary Seal/Backfill: Cement Grout  
 Sampler Type: Split Spoon  
 Total Boring Depth: 15.5-feet



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### EXPLANATION

- water level during drilling
- gradational
- potentiometric water level
- NR no recovery
- drill sample
- chemical analysis sample
- sieve sample
- grab sample
- certain
- approximate
- uncertain

### SITE:

CHIEF AUTO PLAZA  
 16660 EAST 14TH STREET  
 SAN LEANDRO, CA

PROJECT #: 090-292-01B

### CLIENT:

Thomas D. Meek, M.D.  
 Commercial Property Svcs.

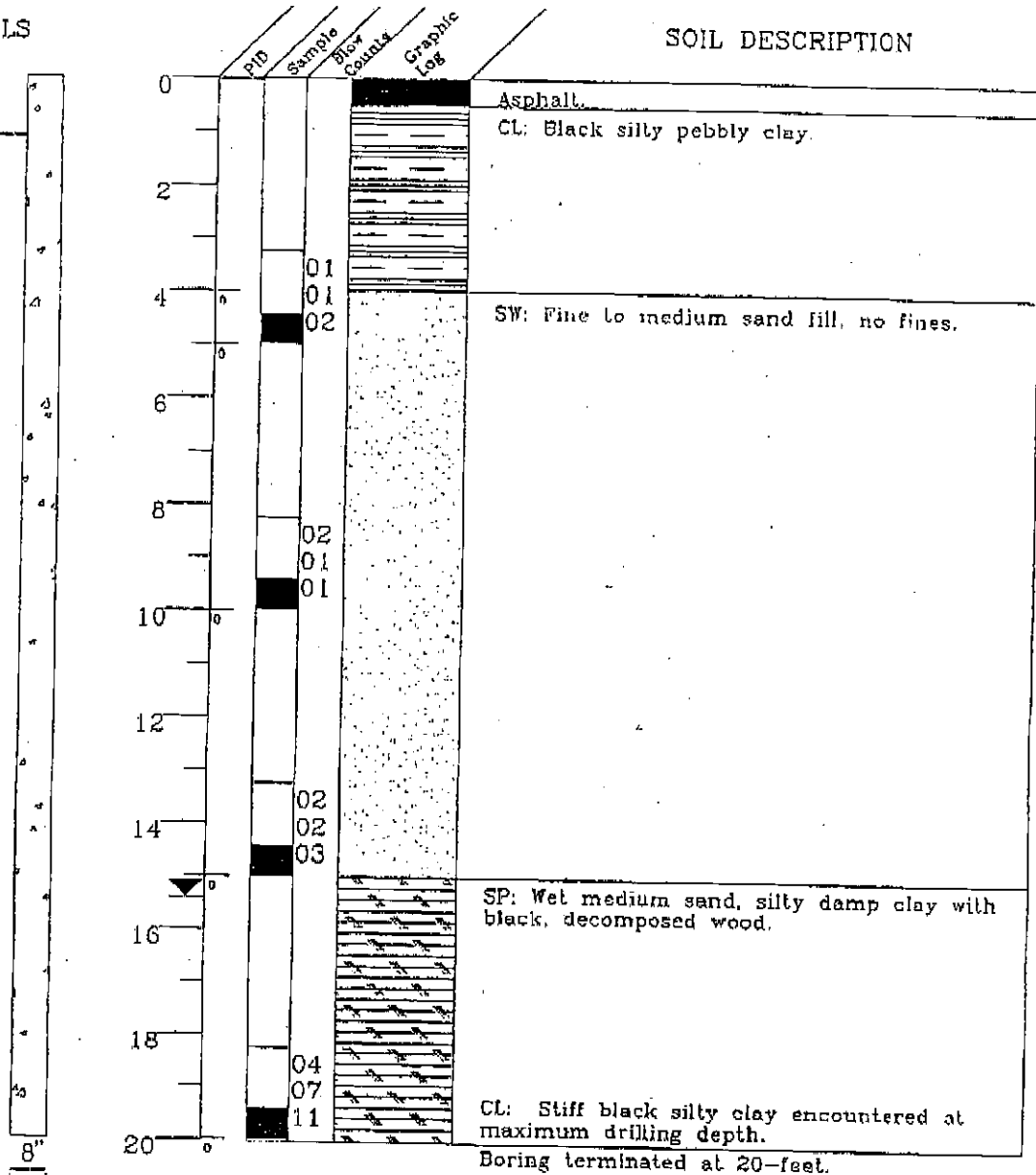
# LOG OF SOIL BORING S3

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## INSTRUCTION DETAILS

## SOIL DESCRIPTION

Cement Grout Backfill



by: Dave Sadoff  
or: N/A  
/4/94

Drilling Contractor: Bayland  
Drilling Method: Hollow Stem  
Driller: Adam

Sanitary Seal/Backfill: Cement Grout  
Sampler Type: Split Spoon  
Total Boring Depth: 20-feet



### EXPLANATION

- water level during drilling
- potentiometric water level
- drill sample
- chemical analysis sample
- sieve sample
- grab sample
- gradational
- no recovery
- CONTACTS:**
- certain
- approximate
- uncertain

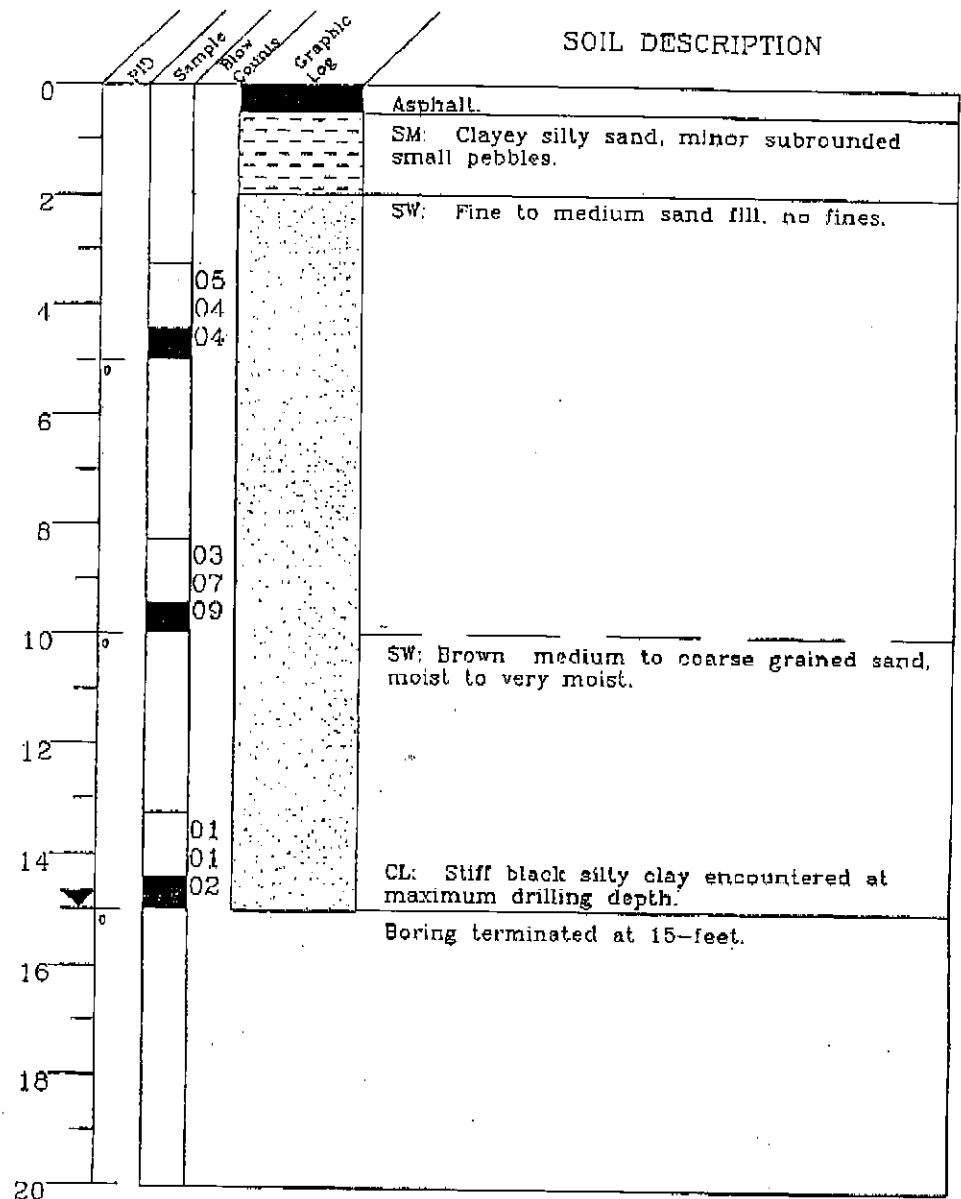
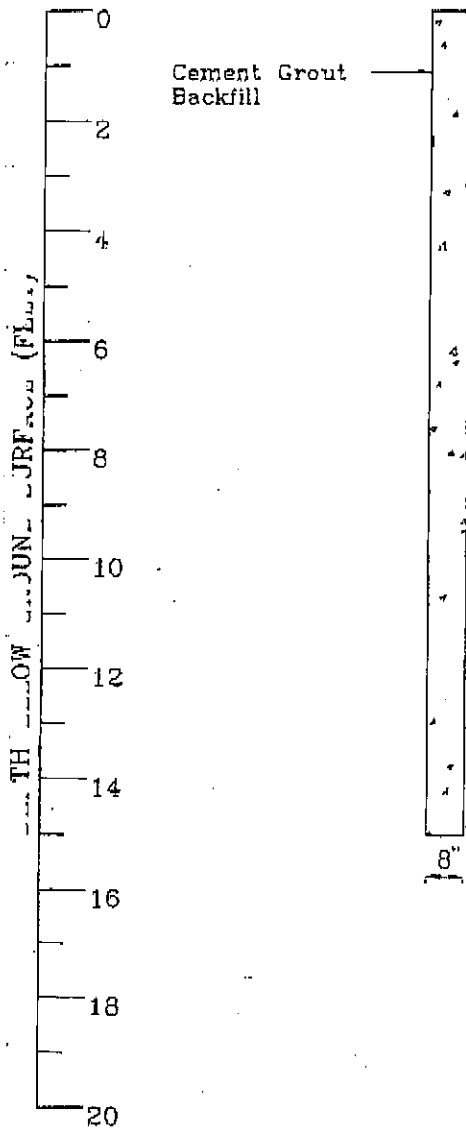
**SITE:**  
CHIEF AUTO PLAZA  
16660 EAST 14TH STREET  
SAN LEANDRO, CA

**PROJECT #:** 090-292-01B

**CLIENT:**  
Thomas D. Meek, M.D.  
Commercial Property Svcs.

# LOG OF SOIL BORING S4

## WELL CONSTRUCTION DETAILS



Logged by: Dave Sadoff  
 Inspector: N/A  
 Date: 3/4/94

Drilling Contractor: Bayland  
 Drilling Method: Hollow Stem  
 Driller: Adam

Sanitary Seal/Backfill: Cement Grout  
 Sampler Type: Split Spoon  
 Total Boring Depth: 15-feet



EXPLANATION	
water level during drilling	gradational
potentiometric water level	NR no recovery
drill sample	<b>CONTACTS:</b>
chemical analysis sample	— certain
sieve sample	- - - approximate
grab sample	— uncertain

**SITE:**  
 CHIEF AUTO PLAZA  
 16660 EAST 14TH STREET  
 SAN LEANDRO, CA

**PROJECT #:** 090-292-01B

**CLIENT:**  
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## Certificate of Analysis

Location: 1172

AIIA Accreditation: 11134

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0028 INDUSTRIAL PKWY., S.W., STE. C  
OAKLAND, CA 94544

REPORT DATE: 03/14/94

DATE SAMPLED: 03/04/94  
DATE RECEIVED: 03/04/94

ATTN: DAVE SADOFF

ADDITIONAL ANALYSIS  
REQUESTED: 03/08/94

CLIENT PROJ. ID: 090-292-018  
PROJECT NAME: THOMAS MEEK, M.D.

AEN JOB NO: 9403047

### PROJECT SUMMARY:

On March 4, 1994, this laboratory received thirteen (13) soil samples.

Client requested eight (8) samples be analyzed for organic parameters. Five (5) samples were placed on hold. On March 8, 1994, client requested one (1) sample be taken off hold and be analyzed for organic parameters. Four (4) samples remain on hold. Sample identification, methodologies, results, and dates analyzed are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

If you have any questions, please contact Client Services at (510) 930-9090.

  
Larry Klein  
General Manager

*American Environmental Network*

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## ENVIRONMENTAL BIO-SYSTEMS

SAMPLE ID: S1-10'  
 AEN LAB NO: 9403047-01  
 AEN WORK ORDER: 9403047  
 CLIENT PROJ. ID: 090-292-01B

DATE SAMPLED: 03/04/94  
 DATE RECEIVED: 03/04/94  
 REPORT DATE: 03/14/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	03/04/94
Toluene	108-88-3	ND	5	ug/kg	03/04/94
Ethylbenzene	100-41-4	ND	5	ug/kg	03/04/94
Xylenes, Total	1330-20-7	ND	5	ug/kg	03/04/94
Purgeable HCs as Gasoline	5030/GCFID	ND	0.2	mg/kg	03/04/94
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	03/04/94
TPH as Diesel	GC-FID	ND	1	mg/kg	03/06/94

ND = Not detected

\* = Indicates value above reporting limit



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## ENVIRONMENTAL BIO-SYSTEMS

SAMPLE ID: S1-15'  
 LAB NO: 9403047-02  
 WORK ORDER: 9403047  
 INST PROJ. ID: 090-292-01B

DATE SAMPLED: 03/04/94  
 DATE RECEIVED: 03/04/94  
 REPORT DATE: 03/14/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
X & Gasoline HCs	EPA 8020				
benzene	71-43-2	ND	5	ug/kg	03/04/94
toluene	108-88-3	ND	5	ug/kg	03/04/94
ethylbenzene	100-41-4	ND	5	ug/kg	03/04/94
xylene, Total	1330-20-7	ND	5	ug/kg	03/04/94
measurable HCs as Gasoline	5030/GCF10	ND	0.2	mg/kg	03/04/94
extraction for Diesel/Oil	EPA 3550	-	-	Extrn Date	03/04/94
Gas as Diesel	GC-FID	ND	1	mg/kg	03/06/94

= Not detected

= Indicates value above reporting limit

## ENVIRONMENTAL BIO-SYSTEMS

SAMPLE ID: S2-5  
 AEN LAB NO: 9403047-03  
 AEN WORK ORDER: 9403047  
 CLIENT PROJ. ID: 090-292-01B

DATE SAMPLED: 03/04/94  
 DATE RECEIVED: 03/04/94  
 REPORT DATE: 03/14/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	03/05/94
Toluene	108-88-3	ND	5	ug/kg	03/05/94
Ethylbenzene	100-41-4	ND	5	ug/kg	03/05/94
Xylenes, Total	1330-20-7	ND	5	ug/kg	03/05/94
Purgeable HCs as Gasoline	5030/GCFID	ND	0.2	mg/kg	03/05/94
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	03/04/94
TPH as Diesel	GC-FID	ND	1	mg/kg	03/06/94
TPH as Oil	GC-FID	8 *	5	mg/kg	03/06/94

ND = Not detected

\* = Indicates value above reporting limit

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## ENVIRONMENTAL BIO-SYSTEMS

PLE ID: S2-10'  
 LAB NO: 9403047-04  
 WORK ORDER: 9403047  
 ENT PROJ. ID: 090-292-018

DATE SAMPLED: 03/04/94  
 DATE RECEIVED: 03/04/94  
 REPORT DATE: 03/14/94

LYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
X & Gasoline HCs	EPA 8020				
nzene	71-43-2	ND	5	ug/kg	03/05/94
luene	108-88-3	ND	5	ug/kg	03/05/94
hylbenzene	100-41-4	ND	5	ug/kg	03/05/94
lenes, Total	1330-20-7	ND	5	ug/kg	03/05/94
irgeable HCs as Gasoline	5030/GCFID	ND	0.2	mg/kg	03/05/94
traction for Diesel/Oil	EPA 3550	-		Extrn Date	03/04/94
las Diesel	GC-FID	ND	1	mg/kg	03/06/94

= Not detected

= Indicates value above reporting limit

## ENVIRONMENTAL BIO-SYSTEMS

SAMPLE ID: S3-10'  
AEN LAB NO: 9403047-05  
AEN WORK ORDER: 9403047  
CLIENT PROJ. ID: 090-292-01B

DATE SAMPLED: 03/04/94  
DATE RECEIVED: 03/04/94  
REPORT DATE: 03/14/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Soil Extrn for O&G/HCs	SM 5520EF	-			Extrn Date 03/08/94
Hydrocarbons by IR	SM 5520F	ND	10	mg/kg	03/08/94

ND = Not detected

\* = Indicates value above reporting limit

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## ENVIRONMENTAL BIO-SYSTEMS

SAMPLE ID: S3-15'  
LAB NO: 9403047.06  
WORK ORDER: 9403047  
EVENT PROJ. ID: 090-292-01B

DATE SAMPLED: 03/04/94  
DATE RECEIVED: 03/04/94  
REPORT DATE: 03/14/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Oil Extn for O&G/HCs	SM 5520EF	-		Extn Date	03/08/94
Polycarbons by IR	SM 5520F	ND	10	mg/kg	03/08/94

= Not detected

= Indicates value above reporting limit

## ENVIRONMENTAL BIO-SYSTEMS

SAMPLE ID: S4-5'  
 AEN LAB NO: 9403047-07  
 AEN WORK ORDER: 9403047  
 CLIENT PROJ. ID: 090-292-01B

DATE SAMPLED: 03/04/94  
 DATE RECEIVED: 03/04/94  
 REPORT DATE: 03/14/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	03/05/94
Toluene	108-88-3	ND	5	ug/kg	03/05/94
Ethylbenzene	100-41-4	ND	5	ug/kg	03/05/94
Xylenes, Total	1330-20-7	ND	5	ug/kg	03/05/94
Purgeable HCs as Gasoline	5030/GCFID	ND	0.2	mg/kg	03/05/94
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	03/04/94
TPH as Diesel	GC-FID	ND	1	mg/kg	03/06/94
TPH as Oil	GC-FID	9 *	5	mg/kg	03/06/94

ND = Not detected

\* = Indicates value above reporting limit

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## ENVIRONMENTAL BIO-SYSTEMS

SAMPLE ID: S4-10'  
 ANALYST LAB NO: 9403047-08  
 ANALYST WORK ORDER: 9403047  
 ANALYST IDENT PROJ. ID: 090-292-01B

DATE SAMPLED: 03/04/94  
 DATE RECEIVED: 03/04/94  
 REPORT DATE: 03/14/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TEX & Gasoline HCs	EPA 8020				
benzene	71-43-2	ND	5	ug/kg	03/05/94
toluene	108-88-3	ND	5	ug/kg	03/05/94
ethylbenzene	100-41-4	ND	5	ug/kg	03/05/94
xylenes, Total	1330-20-7	ND	5	ug/kg	03/05/94
Surgeable HCs as Gasoline	5030/GCFID	ND	0.2	mg/kg	03/05/94
Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	03/04/94
PH as Diesel	GC-FID	ND	1	mg/kg	03/06/94

ND = Not detected

\* = Indicates value above reporting limit

## ENVIRONMENTAL BIO-SYSTEMS

SAMPLE ID: S1-20  
 AEN LAB NO: 9403047-10  
 AEN WORK ORDER: 9403047  
 CLIENT PROJ. ID: 090-292-01B

DATE SAMPLED: 03/04/94  
 DATE RECEIVED: 03/04/94  
 REPORT DATE: 03/14/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	03/08/94
Toluene	108-88-3	ND	5	ug/kg	03/08/94
Ethylbenzene	100-41-4	ND	5	ug/kg	03/08/94
Xylenes, Total	1330-20-7	ND	5	ug/kg	03/08/94
Purgeable HCs as Gasoline	5030/GCFID	ND	0.2	mg/kg	03/08/94
#Extraction for Diesel/Oil	EPA 3550	-		Extrn Date	03/08/94
TPH as Diesel	GC-FID	ND	1	mg/kg	03/08/94
#Soil Extrn for O&G/HCs	SM 5520EF	-		Extrn Date	03/09/94
Hydrocarbons by IR	SM 5520F	ND	10	mg/kg	03/09/94

ND = Not detected

\* = Indicates value above reporting limit



AEN (CALIFORNIA)  
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9403047

CLIENT PROJECT ID: 090-292-01B

Quality Control Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

The following abbreviations are found throughout the QC report:

- ND = Not Detected
- RPD = Relative Percent Difference
- < = Less Than

## QUALITY CONTROL DATA

DATE EXTRACTED: 03/04/94  
DATE ANALYZED: 03/05/94  
CLIENT PROJ. ID: 090-292-018

AEN JOB NO: 9403047  
SAMPLE SPIKED: 9403013-02  
INSTRUMENT: IR

IR DETERMINATION FOR OIL & GREASE/HYDROCARBONS  
MATRIX SPIKE RECOVERY SUMMARY  
(SOIL MATRIX)

ANALYTE	Spike Added (mg/kg)	Average Percent Recovery	RPD
Oil	226	87	5

## CURRENT QC LIMITS

<u>Analyte</u>	<u>Percent Recovery</u>	<u>RPD</u>
Oil	(70-118)	18

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

## QUALITY CONTROL DATA

DATE EXTRACTED: 03/03/94  
DATE ANALYZED: 03/04/94  
CLIENT PROJ. ID: 090-292-01B

AEN JOB NO: 9403047  
SAMPLE SPIKED: 9403033-08  
INSTRUMENT: C

MATRIX SPIKE RECOVERY SUMMARY  
TPH EXTRACTABLE SOIL  
METHOD: EPA 3550 GCFID

ANALYTE	Spike Added (mg/kg)	Average Percent Recovery	RPD
Diesel	41.9	65	7

## CURRENT QC LIMITS

<u>Analyte</u>	<u>Percent Recovery</u>	<u>RPD</u>
Diesel	(44-105)	18

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

## QUALITY CONTROL DATA

CLIENT PROJ. ID: 090-292-01B

AEN JOB NO: 9403047

INSTRUMENT: H

SURROGATE STANDARD RECOVERY SUMMARY  
 METHOD: EPA 8020, 5030 GCFID,  
 (SOIL MATRIX)

Date Analyzed	SAMPLE IDENTIFICATION		SURROGATE RECOVERY (PERCENT)
	Client Id.	Lab Id.	Fluorobenzene
03/04/94	S1-10'	01	101
03/04/94	S1-15'	02	101
03/05/94	S2-5'	03	105
03/05/94	S2-10'	04	101
03/05/94	S4-5'	07	101
03/05/94	S4-10'	08	100
03/08/94	S1-20'	10	101

## CURRENT QC LIMITS

<u>ANALYTE</u>	<u>PERCENT RECOVERY</u>
Fluorobenzene	(78-114)

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## QUALITY CONTROL DATA

DATE ANALYZED: 03/04/94

AEN JOB NO: 9403047

CLIENT PROJ. ID: 090-292-01B

SAMPLE SPIKED: LCS

INSTRUMENT: H

LABORATORY CONTROL SAMPLE  
METHOD: EPA 8020, 5030 GCFID  
(SOIL MATRIX)

---

ANALYTE	Spike Added (ug/kg)	Percent Recovery
Benzene	19.1	98
Toluene	70.7	97
Gasoline	1000	117

---

## CURRENT QC LIMITS

<u>Analyte</u>	<u>Percent Recovery</u>
Benzene	(65-122)
Toluene	(67-124)
Gasoline	(60-125)

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

\*\*\* END OF REPORT \*\*\*



10-7,5-I  
**ENVIRONMENTAL BIO-SYSTEMS, INC.**  
 Innovative Solutions for a Better Environment  
 30028 Industrial Pkwy., S.W.  
 Suite C  
 Hayward, CA 94544

**CHAIN OF CUSTODY**

9403047

ALL SAMPLES TO BE ANALYZED USING  
 METHODS AND DETECTION LIMITS  
 ESTABLISHED BY REGION  
 OF THE STATE WATER RESOURCES  
 CONTROL BOARD.

INSTRUCTIONS:

Samples also rec'd not listed  
 on C.O.C.:  
 51-5' (109A) }  
 51-20' (109B) }  
 52-15' (114) }  
 53-6' (12A) }  
 54-15' (13A) } 3/9/94

PROJECT NUMBER: 090-292-01B  
 CLIENT: Thomas Meek M.D.  
 SITE: Chief Auto Plaza  
 14660 E. 14<sup>th</sup>  
 San Leandro, CA

SAMPLE I.D.	MATRIX	NUMBER OF CONTAINERS	COMPOSITE	ANALYSIS						TURNAROUND	SAMPLE CONDITION	LAB SAMPLE #
				TPH	TPH	BTEX	diisode	TOG	(C320F)			
51-10'	soil	1		X	X					48 hrs	soil	01A
51-15'				X	X							02A
52-5'				X	X							03A
52-10'				X	X							04A
53-11'							X					05A
53-15'							X					06A
54-5'				X	X							07A
54-10'				X	X							08A
51-20'				X	X	X						

SAMPLING COMPLETED: 3/4/94 16:30  
 SAMPLING PERFORMED BY: ① Dave Sadoff ② Tim Babcock

RELEASED BY: [Signature]	DATE: 3/4/94	TIME: 16:30	RECEIVED BY: [Signature]	DATE: 3/4/94	TIME: 16:30
RELEASED BY: [Signature]	DATE: 3/4/94	TIME: 17:45	RECEIVED BY: [Signature]	DATE: 3-4-94	TIME: 1745
RELEASED BY: [Signature]	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:

SHIPPED VIA: AEN Courier  
 DATE SENT: 3/4/94  
 TIME SENT:  
 COOLER #:

01/06/2006 14:54 4154020191 09E COMM 4 KEARNY PAGE 40/41