

Audrey K. Bell  
Certified Public Accountant  
401 Felton Street  
San Francisco, California 94134

91 SEP 20 PM 6:20

(415) 468-1234

September 20, 1991

Mr. Larry Seto  
Division of Hazardous Materials  
Dept. of Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94621


REFERENCE: 33 La Salle Avenue  
Piedmont, California

Dear Mr. Seto:

Enclosed, for your review, is a "Soil Sampling Report"  
for the above referenced property, prepared by Environ-  
mental Bio-Systems, Inc..

To the best of my knowledge, the information contained  
in this report is accurate.

Cordially,

  
AUDREY K. BELL  
Attorney in fact for  
Dorothy F. Coates

Encl  
cc: D F Coates

Hand delivered: 9-20-91

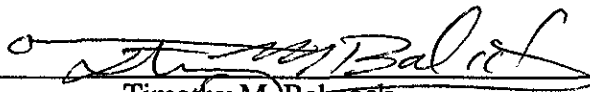
**SOIL SAMPLING REPORT:**  
**PROJECT #060-180-01**

**COATES PROPERTY  
33 LA SALLE AVE.  
PIEDMONT, CALIFORNIA**

**PREPARED BY ENVIRONMENTAL BIO-SYSTEMS, INC.**

**FOR**

**MRS. DOROTHY COATES  
33 LA SALLE AVE.  
PIEDMONT, CA**



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Timothy M. Babcock  
Project Manager



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Hebrul Anam  
Staff Engineer

**SEPTEMBER 9, 1991**



91 OCT 25 PM 1:06

**ENVIRONMENTAL BIO-SYSTEMS, INC.**

Innovative Solutions for a Better Environment

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October 2, 1991

TO WHOM IT MAY CONCERN

SUBJ: SOIL SAMPLING REPORT FOR  
PROJECT #060-180-01

COATES PROPERTY  
33 LA SALLE AVE.  
PIEDMONT, CA

Gentlemen:

Please attach this addendum letter onto the existing title page of the subject report dated September 9, 1991. California Registered Geologist, James A. Jacobs, R.G. #4813, did not sign the original report, however, this date he has reviewed and approved this report pursuant to Sections 6735, 7835, and 7835.1 of the Business and Professions Code.

Sincerely,  
ENVIRONMENTAL BIO-SYSTEMS, INC.

Timothy M. Babeock  
Project Manager

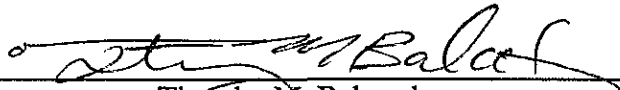
**SOIL SAMPLING REPORT:**  
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**COATES PROPERTY  
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PIEDMONT, CALIFORNIA**

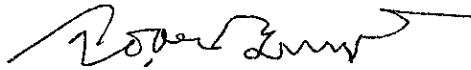
**PREPARED BY ENVIRONMENTAL BIO-SYSTEMS, INC.**

**FOR**

**MRS. DOROTHY COATES  
33 LA SALLE AVE.  
PIEDMONT, CA**

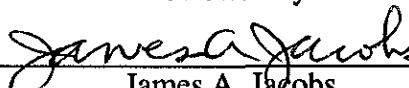


Timothy M. Babcock  
Environmental Scientist



Hebrul Anam  
Staff Engineer

Reviewed by:

  
James A. Jacobs  
Registered Geologist #4815



**October 2, 1991**

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### **1.0) INTRODUCTION**

This document contains information regarding soil sampling conducted at a residential Property located at 33 La Salle Ave. in Piedmont, California (the Site) by Environmental Bio-Systems, Inc. (EBS), on August 29, and August 30, 1991.

The site is owned by Mrs. Dorothy Coates and is currently occupied by the owner. The principal site contacts are:

**Client Contact** - Ms. Audrey Bell, (415) 468-1234.

**Property Owner** - Ms. Dorothy Coates, 33 La Salle Avenue,  
Piedmont, CA 94611, (510) 420-1744.

**Consultant** - Environmental Bio-Systems, Inc., 30028 Industrial  
Parkway Southwest, Suite C, Hayward, CA 94544,  
(510) 429-9988. Project Manager - Timothy M. Babcock.

### **2.0) PURPOSE AND SCOPE OF WORK**

This report has been requested by the client to gain information concerning the possibility of hydrocarbon impact in the subsurface of the site. The scope of work encompassed in this report included the collection and analysis of soil samples from the subsurface of the site.

The reported work included the following tasks:

1. Extraction of 7 continuously driven soil cores using a split spoon sampler in conjunction with a hydraulic impact hammer mounted on a Bobcat.
2. Collection and analysis of soil samples taken from the cores at a laboratory certified by the State of California to perform the necessary analyses.
3. Submission of a report documenting the results of analyses and field observations.

### 3.0) SITE DESCRIPTION

The site is located at 33 La Salle Avenue in the City of Piedmont and County of Alameda. A Site Location Map has been presented as Figure 1. A Site Diagram showing the locations of samples as well as relevant site structures and references, has been included in this report as Figure 2.

At the time of sampling, one single family residence was present on the site. The topography of the site slopes sharply from the back (northeast) of the property toward La Salle Avenue.

#### 4.0) PREVIOUS ENVIRONMENTAL WORK

On July 25, 1990, the client contracted Accutite to remove one 550 gallon underground storage tank (UST) from the site. Sampling of soil beneath the tank was performed by the contractor at the time of sampling. Soil samples collected from beneath the tank showed detectable concentrations of total petroleum hydrocarbons (TPH) as diesel and total oil and grease (TOG). No written documentation showing the location of the UST or subsequently collected soil samples was prepared by the contractor.

#### 5.0) FIELD PROCEDURES

On August 29, and August 30, 1991, EBS personnel extracted 7 continuously samples soil cores at the site using a Bobcat mounted impact coring device. The cores were designated EB1, EB2, EB3, EB4, EB5, EB6, and EB7. Descriptions of the subsurface stratigraphy recorded during coring are included in Appendix A as the Logs of Borings.

EB1 was completed at a depth of 2-1/2 feet. Approximately 1/2-foot of Gravel with Silt was found above a fine to medium grained, light brown, weathered Sand Stone bed rock. The Sand Stone bed rock was moderately jointed and showed the presence of dark brown oxidation rinds. No hydrocarbon odor was noted in the soil and no sample was collected from this location. No sample was retained in the sampler.



EB2 was advanced to a maximum depth of 8 feet. Field observations indicated 1/4-foot of Gravel with Silt above a light brown, fine to medium Sandy fill. Absence of any jointing or oxidation rinds and the visual observation at the site confirmed the presence of sandy fill. No hydrocarbon odor was noted in the soil. Soil sample EB3-2-1/4' was collected at a depth of 7-1/2 to 8 feet.

EB3 was advanced to a depth of 4-1/4 feet. The log of core EB3 showed 1/4-foot of dark gray Clayey Silt followed by a fine to medium, whitish brown to light brown Sandy fill with traces of clay. A grayish brown to light greenish brown, fine to coarse, weathered Sand Stone bed rock underlies this. Soil sample EB2-8' was collected at a depth of 3-3/4 to 4-1/4 feet.

EB4 was advanced only 1-1/2 feet through 1/2-foot of dark gray Clayey silt into light brown fine to medium weathered Sand Stone bed rock. No hydrocarbon odor was noted and no sample was collected. No sample was retained in the sampler.

EB5 was completed at a depth of 3-3/4 feet. Approximately 1/4-foot of dark gray, Clayey Silt was found above a 2-1/2-foot layer of fine to medium grained, light brown, Sandy fill. The Sandy fill was underlain by a grayish brown to light brown, fine to medium grained weathered Sand Stone bed rock. The Sand Stone bed rock was moderately jointed and showed the presence of dark brown oxidation rinds. No hydrocarbon odor was noted. Soil sample EB5-3-3/4 was collected at a depth of 3-1/4 to 3-3/4 feet .

EB6 was advanced to a depth of 2 feet. Approximately 1/4-foot of cement concrete was found above a 1/2-foot layer of fine to medium, Sandy fill, which was underlain by the fine to medium weathered Sand Stone bed rock. No hydrocarbon odor was noticed and no sample was collected. No sample was retained within the sampler.

EB7 was advanced only to a depth of 1-3/4 feet. Approximately 1/4-foot of cement concrete was found above 1/4-foot of dark gray clayey silt. A fine to medium, light brown weathered Sand Stone bed rock underlies it. No hydrocarbon odor was noticed and no sample was collected. No sample was retained within the sampler.

#### 6.0) SAMPLING METHODOLOGY

Soil samples were collected using a California-modified split-barrel sampler. Samples were removed from the sampler as soon as it was opened, and the ends of the brass liners containing soil designated for laboratory analysis were wrapped with aluminum foil and sealed with plastic caps. Duct tape was wrapped around the cap at its join with the liner to reduce the loss of volatile constituents. The sample tubes were labelled, stored on ice, maintained, transferred, and delivered to a certified analytical laboratory in keeping with chain of custody procedures. The sampler was washed with phosphate free detergent and rinsed with distilled water between the collection of samples.

## 7.0) SAMPLE ANALYSIS

The chosen samples were analyzed at Anametrix, Inc., a certified hazardous materials testing laboratory (HMTL #151). Samples EB2-8', EB3-2-1/4', and EB5-3-1/4' were subsequently analyzed for TPH calculated as diesel using a modified EPA method 8015, and TOG using method 5520 B&F.

Analytical methods used by Anametrix, Inc. were consistent with the San Francisco Regional Water Quality Control Board (SFRWQCB) guidelines and approved analytical methodologies specified in EPA document SW-846.

## 8.0) RESULTS OF ANALYSES

Copies of the laboratory reports and chain of custody documentation maintained during transportation of the samples are included in Appendix B. The results of analyses are presented in this section and summarized in Table 1.

Sample EB2-8' was found to contain 150 ppm of TPH as heating oil and 250 ppm of Total Oil & Grease.

Sample EB3-3-3/4' was not found to contain any of the constituents analyzed for at levels exceeding the stated laboratory detections limits.

Sample EB5-3-1/4' was not found to contain any of the constituents analyzed for at levels exceeding the stated laboratory detections limits.

## 9.0) CONCLUSIONS

The upper 1-1/2-feet of the cores extracted during progression of this scope of work showed a loose soil with gravel and/or asphalt pieces throughout. Below this layer, to a depth of 8 feet, were less porous zones consisting of various degrees of silty sand with clay bindings, clayey silts, silty clays, and sandy silts interlaced with gravel.

The results of analyses performed on soil sample EB2-8', taken from core EB3, indicated that concentrations of impacting constituents in excess of typically enforced action limits exist in the subsurface of the site. Field observations made at the time of coring advancement and sample collection support the analytical results. A strong to moderate hydrocarbon odor was noted in the sandstone bedrock reclaimed from at this depth.

The exploration initiated at the location of EB1, placed in an obvious down-slope position from the approximated previous position of the removed UST. Bedrock was encountered and penetrated to the deepest depth accessible with the available equipment. When no apparent signs of hydrocarbon impact were discovered, vertical coring and sampling was continued in an up-slope direction as far as EB3 where possible indications of the presence of fuel hydrocarbons were encountered. Coring EB4 resulted in refusal at a depth of only 1-1/2 feet. The presence of an overhead structure prevented the placement of further up-slope sample locations. In an attempt to access soil in from the subsurface in this direction, the angle of coring was adjusted to slant from the position of EB5 to an estimated location of approximately 4 feet further up-slope from EB4. No obvious signs of hydrocarbon impact were noted in the observed core prior to refusal without a retained sample at an estimated maximum depth of 3-3/4 feet.

Two corings were placed on the neighboring property to the north and east of the property line (EB6 and EB7). Bedrock was encountered resulting in refusal at a depth of 2 feet in EB6 and at 1-1/2 feet in EB7. No sample was retained from either core. No obvious signs of impact from heating oil were observed at either location. Subsequent attempts at probing the depth to bedrock along the property line, using a hand-auger and digging-bar, resulted in solid refusal at depths of less than 2 feet in several locations to the southeast of EB7.

#### **10.0) RECOMMENDATIONS**

The scope of the exploration outlined in this report was performed to attempt definition of the vertical and lateral limits of hydrocarbon impact exerted by a previously removed UST used to contain heating oil. From the gathered sampling data, it appears that a limited volume of hydrocarbon impacted material remains to the northwest (up-slope side) of the former UST location. The observed impact was noted in the upper layer of the sandstone bedrock from the location of core EB3 only. Sample locations from both up-slope and down-slope, as well as from the adjacent neighboring property failed to replicate this result.

We recommend that excavation be performed in the area indicated by core EB3. If the results of this exploration are representative, it is likely that the lateral extent of impact is extremely limited. The vertical extent of impact remains undefined at this time. Excavation of this area would present the possibility of observing fuel migration patterns, if any, and would allow an evaluation of the influence exerted on these patterns by the subsurface portion of the adjacent wall of the residence.

Since no documentation exists concerning the collection and analysis of soil samples taken at the time of the removal of the tank, we suggest that excavation and sampling be expanded to include the tank pit area. Although analysis of soil sample EB3-2-1/4', taken from within what was approximated to have been the tank depression (EB2), revealed no detectable concentrations of impacting constituents, we believe that further analyses are warranted in view of the alleged undocumented results forwarded by Accutite.

We recommend that you forward copies of this report to the regulatory agencies and representatives listed below. Copies of this report have been included for this purpose. It is important that a signed cover letter from you be included with each forwarded report.

California Regional Water Quality Control Board  
San Francisco Bay Region  
1800 Harrison Street, Suite 3  
Oakland, CA 94559  
ATTN: Richard C. Hiett

Alameda County Health Agency  
Division of Hazardous Materials  
Dept. of Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94621  
ATTN: Larry Seto

### 11.0) LIMITATIONS

The recommendations in this report were developed in accordance with generally accepted standards of current environmental practice in Northern California. These recommendations are time-dependant and should not be considered valid after one year from the date of issue of this report. After the one year period, site conditions and these recommendations should be reviewed.

This exploration was done solely for the purpose of evaluating environmental conditions of the soil related to hydrocarbon product contamination at the subject site. No soil engineering or geotechnical references are implied or should be inferred.

Evaluation of the conditions of the site, for the purposes 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 study.

This study was performed and the report was prepared for the sole use of our client, Ms. Dorothy Coates. It is the responsibility of the Client to convey these recommendations to regulatory agencies and other parties, as appropriate.

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 warrants, express or implied, are provided regarding our recommendations.

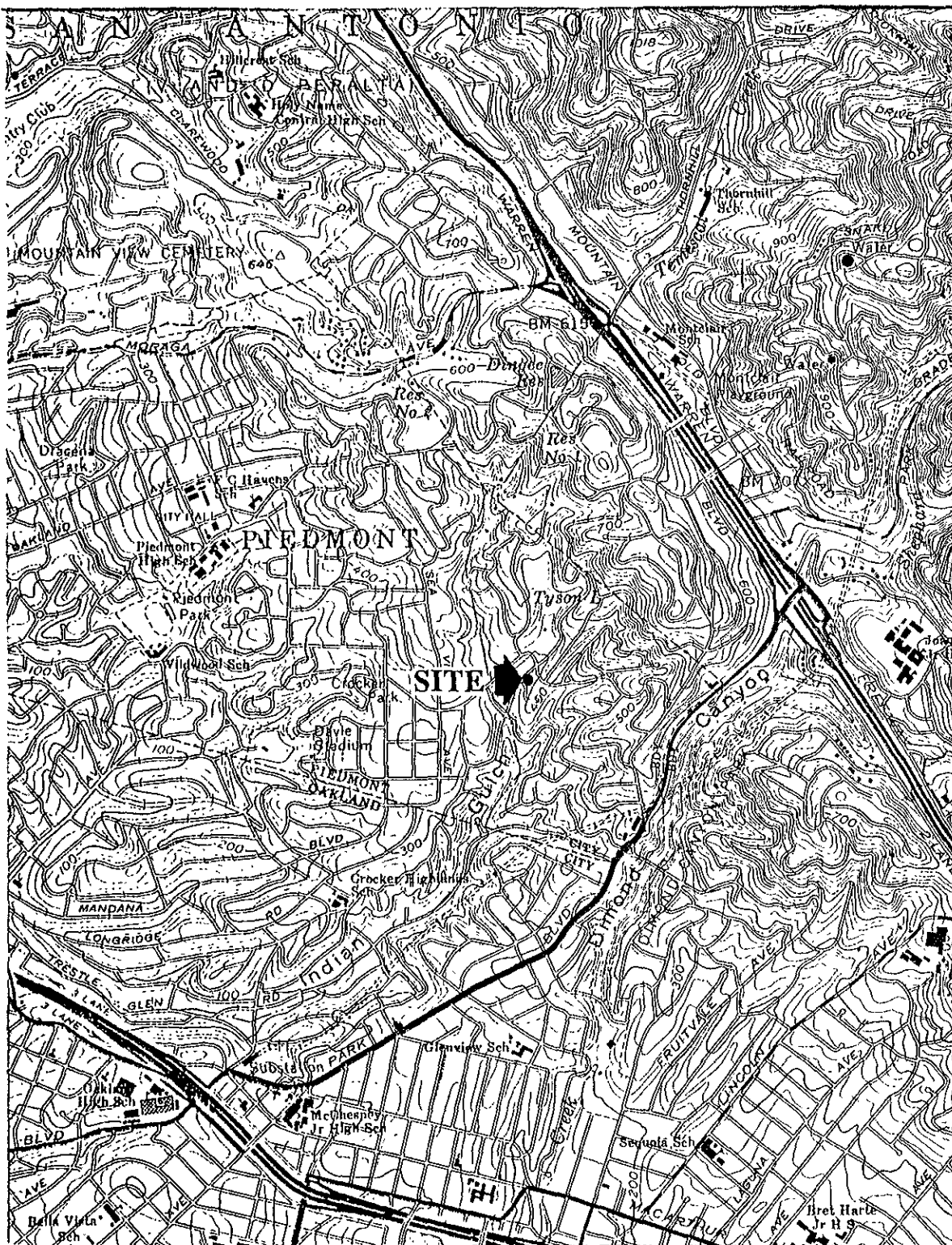
TABLE 1 - ANALYTICAL RESULTS FOR SOIL SAMPLES (results in mg/L)

CORE #	SAMPLE #	TPH AS HEATING OIL	TOTAL OIL AND GREASE
EB2	EB3-2-1/4'	ND	ND
EB3	EB2-8'	150	250
EB5	EB5-3-1/4'	ND	ND

\* ND = Analyte not detected.

Note: Detection limits used - TPH as diesel = 10 mg/L, TOG = 30 mg/L.





Source: USGS Topographic Map SW/4 Concord Quadrangle

SCALE - 1:24000



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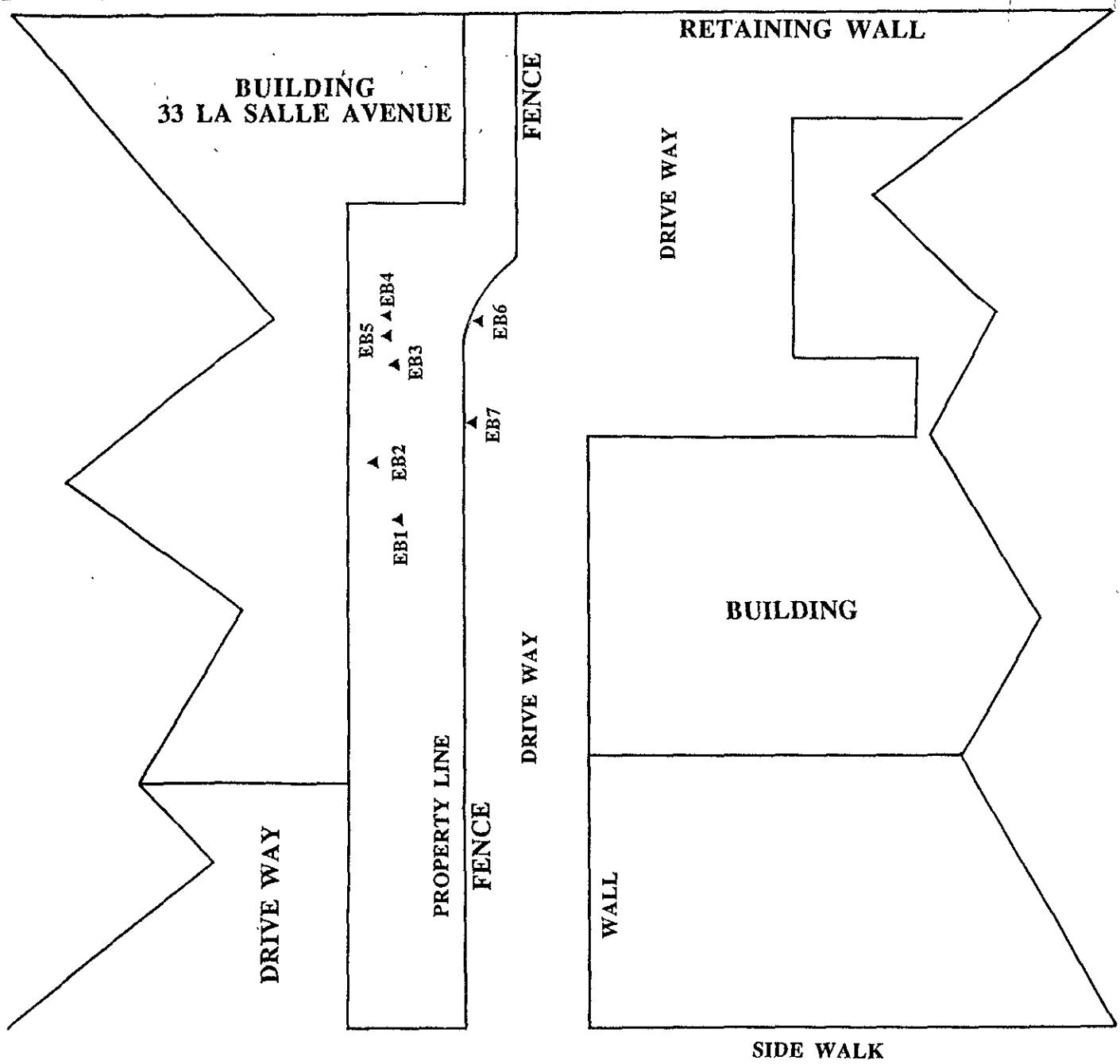
DATE: AUG 1991

DRWN BY: SLS

APPRVD: TMB

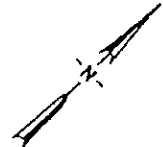
**FIGURE 1: SITE LOCATION MAP**

**Coates Property**  
 33 LaSalle Ave.  
 Piedmont, CA



**EXPLANATION**

EB7 ▲ - Location of Core Sample  
 NOTE: All property boundaries not shown.



SCALE - 1" = 15'



**ENVIRONMENTAL BIO-SYSTEMS, INC.**  
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 Suite C  
 Hayward, CA 94544

DATE: 9/10/91

DRWN BY: HA

APPRVD: TMB

**FIGURE 2- Site Diagram**

Coates Property  
 33 La Salle Ave.  
 Piedmont, CA

9/9/91

**Coates Property**  
33 La Salle Ave.  
Piedmont, CA

Apx. A

**APPENDIX A**

**LOGS OF BORINGS**

# SOIL BORING LOG

BORING DESIGNATION: EB1  
 DATE OF DRILLING: 8/29/91  
 CASING TYPE: \_\_\_\_\_  
 LOGGED BY: HA  
 REGISTRATION: \_\_\_\_\_

MONITORING WELL INSTALLED: \_\_\_\_\_  
 WELL DIAMETER: \_\_\_\_\_  
 SLOT SIZE: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_  
 EXPIRATION: \_\_\_\_\_

DEPTH (FEET)	SAMPLE NO.	BLOW CNT.	P.I.D.	GRAPHIC LOG	SOIL TYPE	WELL CONST.	DESCRIPTION AND REMARKS
-0-					GM		Gravel with Silt, grayish brown, loose, no hydrocarbon odor, Gravelly fill.
-1-					SAND STN.		
-2-							Fine to medium Sand with traces of clay bindings, grayish brown to light brown, presence of dark brown oxidation rinds, jointed, slightly moist, dense, no hydrocarbon odor, weathered Sand Stone bed rock.
-3-							
-4-							BOTTOM OF BORING AT 2-1/2'
-5-							
-6-							
-7-							
-8-							
-9-							
-10-							
-11-							
-12-							
-13-							
-14-							
-15-							
-16-							
-17-							
-18-							
-19-							
-20-							



**ENVIRONMENTAL BIO-SYSTEMS, INC.**  
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 30028 Industrial Pkwy., SW.  
 Suite C  
 Hayward, CA 94544

DATE DRAWN: 9/4/91  
 JOB NO: 060-180-01  
 DRAWN BY: HA  
 APP'D BY: TMB

SITE:  
**Coates Property**  
**33 LaSalle Ave.**  
**Piedmont, CA**

# SOIL BORING LOG

BORING DESIGNATION: EB2                      MONITORING WELL INSTALLED: \_\_\_\_\_  
 DATE OF DRILLING: 8/29/91                      WELL DIAMETER: \_\_\_\_\_  
 CASING TYPE: \_\_\_\_\_                      SLOT SIZE: \_\_\_\_\_  
 LOGGED BY: HA                                      SIGNATURE: \_\_\_\_\_  
 REGISTRATION: \_\_\_\_\_                      EXPIRATION: \_\_\_\_\_

DEPTH (FEET)	SAMPLE NO.	BLOW CNT.	P.I.D.	GRAPHIC LOG	SOIL TYPE	WELL CONST.	DESCRIPTION AND REMARKS
-0-					GM		Gravel with Silt, grayish brown, loose, no hydrocarbon odor, Gravelly fill.
-1-					SP		
-2-							Fine to medium Sand with traces of clay bindings, occasional presence of Gravel sized rocks, grayish brown to light brown, absence of oxidation rinds and joints, slightly moist, medium dense, no hydrocarbon odor, Sandy fill.
-3-							
-4-							
-5-							
-6-							
-7-							
-8-							BOTTOM OF BORING AT 8'
-9-							
-10-							
-11-							
-12-							
-13-							
-14-							
-15-							
-16-							
-17-							
-18-							
-19-							
-20-							



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 Hayward, CA 94544

DATE DRAWN: 9/4/91  
 JOB NO: 060-180-01  
 DRAWN BY: HA  
 APP'D BY: TMB

SITE:  
 Coates Property  
 33 LaSalle Ave.  
 Piedmont, CA

# SOIL BORING LOG

BORING DESIGNATION: EB3  
 DATE OF DRILLING: 8/29/91  
 CASING TYPE: \_\_\_\_\_  
 LOGGED BY: HA  
 REGISTRATION: \_\_\_\_\_

MONITORING WELL INSTALLED: \_\_\_\_\_  
 WELL DIAMETER: \_\_\_\_\_  
 SLOT SIZE: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_  
 EXPIRATION: \_\_\_\_\_

DEPTH (FEET)	SAMPLE NO.	BLOW CNT.	P.I.D.	GRAPHIC LOG	SOIL TYPE	WELL CONST.	DESCRIPTION AND REMARKS
-0-					ML		Clayey Silt, dark gray, moist, slightly cohesive, topsoil.
-1-					SP		Fine to medium Sand with traces of clay bindings, occasional presence of Shale fragments, whitish brown to light brown, absence of oxidation rinds and joints, slightly moist, medium dense, no hydrocarbon odor, Sandy fill.
-2-							
-3-							
-4-							
-5-					SAND STN.		Fine to coarse Sand with traces of clay bindings, grayish brown to light greenish brown, presence of dark brown oxidation rinds, jointed, moist, dense, presence of hydrocarbon odor at 3-3/4', weathered Sand Stone bed rock.
-6-							
-7-							
-8-							
-9-							
-10-							
-11-							
-12-							
-13-							
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-18-							
-19-							
-20-							

**BOTTOM OF BORING AT 4-1/4'**



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 Hayward, CA 94544

DATE DRAWN: 9/4/91  
 JOB NO: 060-180-01  
 DRAWN BY: HA  
 APP'D BY: TMB

SITE:  
**Coates Property**  
**33 LaSalle Ave.**  
**Piedmont, CA**

# SOIL BORING LOG

 BORING DESIGNATION: EB4

MONITORING WELL INSTALLED: \_\_\_\_\_

 DATE OF DRILLING: 8/29/91

WELL DIAMETER: \_\_\_\_\_

CASING TYPE: \_\_\_\_\_

SLOT SIZE: \_\_\_\_\_

 LOGGED BY: HA

SIGNATURE: \_\_\_\_\_

REGISTRATION: \_\_\_\_\_

EXPIRATION: \_\_\_\_\_

DEPTH (FEET)	SAMPLE NO.	BLOW CNT.	P.I.D.	GRAPHIC LOG	SOIL TYPE	WELL CONST.	DESCRIPTION AND REMARKS
-0-					ML		Clayey Silt, dark gray, moist, slightly cohesive, some rootlets, topsoil.
-1-					SAND STN.		
-2-							Fine to medium Sand with traces of clay bindings, grayish brown to light brown, presence of dark brown oxidation rinds, jointed, slightly moist, dense, no hydrocarbon odor, weathered Sand Stone bed rock.  <b>BOTTOM OF BORING AT 1-1/2'</b>
-3-							
-4-							
-5-							
-6-							
-7-							
-8-							
-9-							
-10-							
-11-							
-12-							
-13-							
-14-							
-15-							
-16-							
-17-							
-18-							
-19-							
-20-							



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

30028 Industrial Pkwy., SW.  
 Suite C  
 Hayward, CA 94544

 DATE DRAWN: 9/4/91

 JOB NO: 060-180-01

 DRAWN BY: HA

 APP'D BY: TMB

SITE:

**Coates Property**  
 33 LaSalle Ave.  
 Piedmont, CA

# SOIL BORING LOG

BORING DESIGNATION: EB5

MONITORING WELL INSTALLED: \_\_\_\_\_

DATE OF DRILLING: 8/29/91

WELL DIAMETER: \_\_\_\_\_

CASING TYPE: \_\_\_\_\_

SLOT SIZE: \_\_\_\_\_

LOGGED BY: HA

SIGNATURE: \_\_\_\_\_

REGISTRATION: \_\_\_\_\_

EXPIRATION: \_\_\_\_\_

DEPTH (FEET)	SAMPLE NO.	BLOW CNT.	P.I.D.	GRAPHIC LOG	SOIL TYPE	WELL CONST.	DESCRIPTION AND REMARKS
-0-					ML		Clayey Silt, dark gray, moist, slightly cohesive, some rootlets, topsoil.
-1-					SP		
-2-							Fine to medium Sand with traces of clay bindings, grayish brown to light brown, absence of oxidation rinds and joints, slightly moist, medium dense, no hydrocarbon odor, Sandy fill.
-3-					SAND STN.		
-4-							Fine to medium Sand with traces of clay bindings, grayish brown to light brown, presence of dark brown oxidation rinds, jointed, slightly moist, dense, no hydrocarbon odor, weathered Sand Stone bed rock.
-5-							
-6-							BOTTOM OF BORING AT 3-3/4'
-7-							
-8-							
-9-							
-10-							
-11-							
-12-							
-13-							
-14-							
-15-							
-16-							
-17-							
-18-							
-19-							
-20-							



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30028 Industrial Pkwy., S.W.  
 Suite C  
 Hayward, CA 94544

DATE DRAWN: 9/4/91

JOB NO: 060-180-01

DRAWN BY: HA

APP'D BY: TMB

SITE:

**Coates Property  
 33 LaSalle Ave.  
 Piedmont, CA**



# SOIL BORING LOG

BORING DESIGNATION: EB6                      MONITORING WELL INSTALLED: \_\_\_\_\_  
 DATE OF DRILLING: 8/29/91                      WELL DIAMETER: \_\_\_\_\_  
 CASING TYPE: \_\_\_\_\_                      SLOT SIZE: \_\_\_\_\_  
 LOGGED BY: HA                                      SIGNATURE: \_\_\_\_\_  
 REGISTRATION: \_\_\_\_\_                      EXPIRATION: \_\_\_\_\_

DEPTH (FEET)	SAMPLE NO.	BLOW CNT.	P.I.D.	GRAPHIC LOG	SOIL TYPE	WELL CONST.	DESCRIPTION AND REMARKS
-0-							Cement Concrete.
-1-					SP		Fine to medium Sand with traces of clay bindings, grayish brown to light brown, absence of oxidation rinds and joints, slightly moist, medium dense, no hydrocarbon odor, Sandy fill.
-2-					SAND STN.		
-3-							Fine to medium Sand with traces of clay bindings, grayish brown to light brown, presence of dark brown oxidation rinds, jointed, slightly moist, dense, no hydrocarbon odor, weathered Sand Stone bed rock.
-4-							
-5-							<b>BOTTOM OF BORING AT 2'</b>
-6-							
-7-							
-8-							
-9-							
-10-							
-11-							
-12-							
-13-							
-14-							
-15-							
-16-							
-17-							
-18-							
-19-							
-20-							



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

DATE DRAWN: 9/4/91  
 JOB NO: 060-180-01  
 DRAWN BY: HA  
 APP'D BY: TMB

SITE:  
**Coates Property**  
**33 LaSalle Ave.**  
**Piedmont, CA**

# SOIL BORING LOG

 BORING DESIGNATION: EB7

MONITORING WELL INSTALLED: \_\_\_\_\_

 DATE OF DRILLING: 8/29/91

WELL DIAMETER: \_\_\_\_\_

CASING TYPE: \_\_\_\_\_

SLOT SIZE: \_\_\_\_\_

 LOGGED BY: HA

SIGNATURE: \_\_\_\_\_

REGISTRATION: \_\_\_\_\_

EXPIRATION: \_\_\_\_\_

DEPTH (FEET)	SAMPLE NO.	BLOW CNT.	P.I.D.	GRAPHIC LOG	SOIL TYPE	WELL CONST.	DESCRIPTION AND REMARKS
-0-							Cement Concrete.
-1-					ML SAND STN.		Clayey Silt, dark gray, moist, slightly cohesive, some rootlets, topsoil.
-2-							Fine to medium Sand with traces of clay bindings, grayish brown to light brown, presence of dark brown oxidation rinds, jointed, slightly moist, dense, no hydrocarbon odor, weathered Sand Stone bed rock.  BOTTOM OF BORING AT 1-3/4'
-3-							
-4-							
-5-							
-6-							
-7-							
-8-							
-9-							
-10-							
-11-							
-12-							
-13-							
-14-							
-15-							
-16-							
-17-							
-18-							
-19-							
-20-							



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DATE DRAWN: 9/4/91  
 JOB NO: 060-180-01  
 DRAWN BY: HA  
 APP'D BY: TMB

SITE:  
 Coates Property  
 33 LaSalle Ave.  
 Piedmont, CA

9/9/91

Coates Property  
33 La Salle Ave.  
Piedmont, CA

Apx. B

APPENDIX B

LABORATORY REPORTS  
&  
CHAIN OF CUSTODY DOCUMENTATION  
FOR SOIL SAMPLES

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. TIM BABCOCK  
ENVIRONMENTAL BIO-SYSTEMS  
30028 INDUSTRIAL PARKWAY.S.W., SUITE C  
HAYWARD, CA 94544

Workorder # : 9108335  
Date Received : 08/30/91  
Project ID : 060-180-01  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9108335- 1	EB2-8'	SOIL	08/30/91	TPHd
9108335- 2	EB3-2.25'	SOIL	08/30/91	TPHd
9108335- 3	EB5-3.25'	SOIL	08/30/91	TPHd

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. TIM BABCOCK  
ENVIRONMENTAL BIO-SYSTEMS  
30028 INDUSTRIAL PARKWAY.S.W., SUITE C  
HAYWARD, CA 94544

Workorder # : 9108335  
Date Received : 08/30/91  
Project ID : 060-180-01  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

QA/QC SUMMARY :

- Samples EB2-8', EB3-2.25', and EB5-3.25' were analyzed using a diesel standard calibration. Due to the similarities between heating oil and diesel fuel, the response factors for both standards should be very similar. The hydrocarbon pattern seen in the chromatogram for sample EB2-8' appears to be that of heating oil, not diesel fuel.

George P. Brown                      9/4/91  
Department Supervisor                      Date

Lucas Shor                                      9/4/91  
Chemist    Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL  
ANAMETRIX, INC. (408) 432-8192

Anamatrix W.O.: 9108335  
 Matrix : SOIL  
 Date Sampled : 08/30/91  
 Date Extracted: 09/03/91

Project Number : 060-180-01  
 Date Released : 09/04/91  
 Instrument I.D.: HP23

Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9108335-01	EB2-8'	09/03/91	10	150
9108335-02	EB3-2.25'	09/03/91	10	ND
9108335-03	EB5-3.25'	09/03/91	10	ND
DSBL090391	METHOD BLANK	09/03/91	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10mg/Kg.

ND - Not detected at or above the practical quantitation limit for the method.

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GC/FID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Lucia Stora                      9/5/91  
 Analyst                                      Date

Cheryl Balmer                      9/6/91  
 Supervisor                                      Date

TOTAL EXTRACTABLE HYDROCARBON METHOD SPIKE REPORT  
 : EPA METHOD 3550 WITH GC/FID  
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 060-180-01 EB5-3.25'	Anametrix I.D. : 9108335-02
Matrix : SOIL	Analyst : JS
Date Sampled : 08/30/91	Supervisor : CB
Date Extracted: 09/03/91	Date Released : 09/04/91
Date Analyzed : 09/03/91	Instrument I.D.: HP 23

COMPOUND	SPIKE AMT. (mg/Kg)	MS (mg/Kg)	%REC MS	MSD (mg/Kg)	%REC MSD	RPD	%REC LIMITS
Diesel	125	110	88%	110	88%	0%	38-123

\* Limits established by Anametrix, Inc.

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. TIM BABCOCK  
ENVIRONMENTAL BIO-SYSTEMS  
30028 INDUSTRIAL PARKWAY.S.W., SUITE C  
HAYWARD, CA 94544

Workorder # : 9108335  
Date Received : 08/30/91  
Project ID : 060-180-01  
Purchase Order: N/A  
Department : PREP  
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9108335- 1	EB2-8'	SOIL	08/30/91	5520EF
9108335- 2	EB3-2.25'	SOIL	08/30/91	5520EF
9108335- 3	EB5-3.25'	SOIL	08/30/91	5520EF



REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. TIM BABCOCK  
ENVIRONMENTAL BIO-SYSTEMS  
30028 INDUSTRIAL PARKWAY.S.W., SUITE C  
HAYWARD, CA 94544

Workorder # : 9108335  
Date Received : 08/30/91  
Project ID : 060-180-01  
Purchase Order: N/A  
Department : PREP  
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

*Tim Babcock*      Sept, 4<sup>th</sup> 1991.  
Department Supervisor      Date

*F. R. Patel*      09-04-91  
Chemist      Date

ANALYSIS DATA SHEET - TOTAL OIL AND GREASE  
 ANAMETRIX, INC. (408) 432-8192

Project # : 060-180-01  
 Matrix : SOIL  
 Date sampled : 08/30/91  
 Date ext. TOG: 09/03/91  
 Date anl. TOG: 09/03/91

Anamatrix I.D. : 9108335  
 Analyst : *AKT*  
 Supervisor : *(Signature)*  
 Date released : 09/04/91

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9108335-01	EB2-8'	30	250
9108335-02	EB3-2.25'	30	ND
9108335-03	EB5-3.25'	30	ND
GSBL090391	METHOD BLANK	30	ND

ND - Not detected at or above the practical quantitation limit for the method.

TOG - Total Oil & Grease is determined by Standard Method 5520E&F.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

. TOTAL OIL AND GREASE MATRIX SPIKE REPORT  
 STANDARD METHOD 5520EF  
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 060-180-01 EB5-3.25'  
 Matrix : SOIL  
 Date sampled : 08/30/91  
 Date extracted: 09/03/91  
 Date analyzed : 09/03/91

Anamatrix I.D. : 9108335-03  
 Analyst : *APP*  
 Supervisor : *CP*  
 Date Released : 09/04/91

COMPOUND	SPIKE AMT. (mg/Kg)	MS (mg/Kg)	%REC MS	MSD (mg/Kg)	%REC MSD	%RPD	% REC LIMITS
Motor Oil	300	267	89%	267	89%	0%	48-114%

\* Quality control limits established by Anamatrix, Inc.



**ENVIRONMENTAL BIO-SYSTEMS, INC.**

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**CHAIN OF CUSTODY**

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

INSTRUCTIONS:

\* ASAP - 48 hr. if necessary

PROJECT NUMBER	06-180-01
CLIENT	Dorothy Coates
SITE	33 LaSalle Ave Piedmont, CA

COMPOSITE	ANALYSIS									
	TPH as Heating Oil									
TOG by 5520 B&F										

SAMPLE I.D.	MATRIX	NUMBER OF CONTAINERS	TURNAROUND	SAMPLE CONDITION	LAB SAMPLE#
EB2-8'	S		24hr*		all samples
EB3-2 1/4'	S		24hr*		are cold
EB5-3 1/4'	S		24hr*		brack liner container no head- space in engine.

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY				
	8/30/91	1200	Tim Babcock				
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME		
	8/30/91	1540	Farah Budhi	8/30/91	15:40		
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME		
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME		
SHIPPED VIA	DATE SENT	TIME SENT	COOLER #				