Underground Storage Tank Removal Report
40th and Hollis Streets
Emeryville, California

January 10, 1994
1649.23

Prepared for
Catellus Development Corporation
201 Mission Street, 30th Floor
San Francisco, California 94105

LEVINE·FRICKE

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

January 10, 1994 LF 1649.23

Ms. Susan Hugo
Alameda County Health Care Services Agency
80 Swan Way, Suite 200
Oakland, California 94621

Subject: Underground Storage Tank Removal Report, 40th and Hollis Streets, Emeryville, California

Dear Ms. Hugo:

The enclosed report details tank removal and disposal activities, soil sampling procedures, laboratory analysis, and analytical results associated with removal of an underground storage tank from an area approximately 50 feet southeast of the intersection of the 40th and Hollis Street centerlines in Emeryville, California. This work was conducted by Levine•Fricke, Inc., on behalf of Catellus Development Corporation, in accordance with the underground storage tank closure plan, which was submitted to the Health Care Services Agency and approved on October 26, 1993.

Please call me if you have any questions or comments regarding this report.

Sincerely,

Jenifer Beatty

Jenifer Beatty
Project Hydrogeologist

cc: Richard Hiett, RWQCB
Kimberly Brandt, Catellus
Pat Cashman, Catellus

1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500
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Other offices in Irvine, CA; Sacramento/Roseville, CA; Tallahassee, FL; Honolulu, HI

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UNDERGROUND STORAGE TANK REMOVAL REPORT
40TH AND HOLLIS STREETS
EMERYVILLE, CALIFORNIA

1.0 INTRODUCTION

This report describes activities conducted to remove a fuel underground storage tank (UST) from an area southeast of the intersection of the newly construction 40th and Hollis streets at the Yerba Buena/East Baybridge Center Project Site ("the Site"; Figure 1) in Emeryville and Oakland, California. This work was conducted by Levine·Fricke, Inc., on behalf of Catellus Development Corporation ("Catellus"), the property owners.

All work was conducted in accordance with the UST closure plan approved by the Alameda Health Care Services Agency (ACHA) on October 26, 1993.

2.0 BACKGROUND AND CHARACTERIZATION OF THE UST CONTENTS

One fuel UST (approximately 350-gallon capacity) was discovered approximately 50 feet southeast of the 40th and Hollis streets centerline on October 20, 1993 (Figure 2). The UST was encountered during installation of underground utilities at the Site. Levine·Fricke personnel collected a sample of the UST contents for chemical analysis on October 21, 1993. Based on visual observations, the UST appeared to be full and to contain a mixture of water and petroleum hydrocarbons. The sample was submitted to Anametrix, Inc., of San Jose, California, for analysis of total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo), and for benzene, toluene, ethylbenzene, and xylenes (BTEX compounds). Analytical results indicated TPHg and TPHd at concentrations of 36 milligrams per liter (mg/l) and 2.8 mg/l, respectively. TPHmo was not detected above laboratory detection limits of 0.5 mg/l. BTEX compounds were detected at concentrations ranging from 1.1 mg/l to 8.1 mg/l. Laboratory certificates are contained in Appendix A.

3.0 UST REMOVAL ACTIVITIES

One 350-gallon UST was removed from the Site on October 27, 1993, under permits from the ACHA and the Emeryville Fire Department (EFD). The former UST location and excavation boundary are shown in Figures 2 and 3.

UST removal and backfilling activities were performed by Trumpp Bros., Inc., a general engineering contractor from San Jose, California. A Levine·Fricke field engineer was on site to observe UST removal activities, and to collect soil samples from the excavation for chemical analysis. The completed excavation was backfilled and compacted by the on-site grading contractors in conjunction with site development activities.

Ms. Susan Hugo of the ACHA and Mr. Gerald Anthony of the EFD were on site to observe UST removal activities. Also on site were representatives of the Ransome Company (the former tenants at the property) and representatives of Catellus.

Prior to UST removal, a Levine·Fricke geologist collected samples of the tank contents for representatives of the Ransome Company, for possible chemical analysis. These samples (labeled "40th/Hollis") were signed over to Mr. Mark Milani of Earth Technologies, consultant retained by the Ransome Company (former tenants of the property), under chain-of-custody protocols. A copy of the chain-of-custody form is included in Appendix B.

3.1 UST Contents Disposal

Approximately 350 gallons of water containing petroleum hydrocarbons (no fuel product was visible) was pumped from the UST into a vacuum truck on October 27, 1993, by Evergreen Environmental Services, Inc., of Newark, California ("Evergreen"), an oil recycling company. The water was transported to the Evergreen recycling facility in Newark, California for treatment.

3.2 UST Stabilization, Inspection, and Field Observations

The empty UST was rendered inert by inserting dry ice to remove organic vapors and oxygen. Explosivity meter readings were collected after the dry ice was placed in the UST. After the combustible gas concentration had been reduced to below 15 percent of the Lower Explosive Limit (LEL), the UST was removed.

Excavation activities were conducted using a backhoe. The top of the UST was approximately 3.5 feet below ground surface (bgs) and the bottom of the UST was approximately 7.0 feet bgs. No product piping, other than the approximately 3- to 4-foot-long extension found on the top of the UST, was encountered. The soil encountered in the UST excavation consisted of a brown silty clay fill with gravel to approximately 3 feet bgs underlain by a green silty gravelly clay to approximately 6 feet bgs, which was underlain by a blue-green silty clay.

The UST was constructed of steel and was approximately 3.5 feet in diameter and 4 feet long. There were no visible holes in the UST, with the exception of a hole on the top of the tank (approximately 1.5-inch diameter) where the UST had been punctured during trenching activities when the tank was first discovered. There were no signs of excessive corrosion.

On the basis of visual and olfactory observations, approximately 10 cubic yards of soil was suspected to be petroleum affected, and was removed from the UST excavation and stockpiled on plastic sheeting adjacent to the excavation. The stockpiled soil was then covered with plastic sheeting.

On October 27, 1993, Erickson transported the UST under hazardous waste manifest to its facility in Richmond for disposal. A copy of the manifest is included in Appendix C.

3.3 Soil Sampling Methods

Soil samples were collected in clean brass tubes by pressing the tubes into soil contained in the backhoe bucket. The soil samples were labeled and capped with Teflon sheets and plastic caps. Samples retained by Levine·Fricke were stored in a chilled container and transported for analysis to Anametrix, Inc., of San Jose, California, a state-certified laboratory. Samples were transported under chain-of-custody protocols.

As directed by Ms. Hugo, one soil sample was collected by Levine·Fricke personnel from the bottom of the excavation at approximately 7 feet bgs (B1-7.0) and one sample was collected from the stockpiled soil (SP1). In addition, a "split-sample" was collected from the same backhoe bucket load as sample B1-7.0 and from soils adjacent to the soil in sample B1-7.0. This split sample was released under chain-of-custody protocol to Mr. Mark Milani of Earth Technologies. A copy of the chain-of-custody form is included in Appendix B.

3.4 Analytical Results for Soil Samples Collected by Levine·Fricke

Soil sample B1-7.0 was analyzed for TPHg using modified EPA Method 8015, TPHd and TPHmo using EPA Method 3510, oil and grease (O&G) using Standard Method 5520EF, BTEX compounds using EPA Method 8020, volatile organic compounds (VOCs) using EPA Method 8010, and cadmium, chromium, nickel, lead, and zinc using EPA Method 6010. Analytical results for soil samples collected from the excavation and from excavated stockpiled soil are presented in Table 1. Laboratory data sheets are presented in Appendix D.

Analytical results for sample B1-7.0 did not indicate the presence of TPHd, TPHmo, TPHg, or BTEX compounds above laboratory detection limits. No VOCs were reported above laboratory detection limits, with the exception of a low concentration of chloroform (0.0016 milligram per kilogram [mg/kg]). O&G was detected at a low concentration of 77 mg/kg. Cadmium was not reported above laboratory detection limits, and the concentrations of the remaining metals ranged from 5.8 mg/kg to 42.3 mg/kg, well within the ranges of concentrations commonly observed in soils in the San Francisco Bay Area (Shacklette and Boerngen 1984).

Analytical results for the soil sample collected from the stockpile (SP1) indicated elevated concentrations of TPHg (330 mg/kg) and TPHmo (480 mg/kg). The remaining compounds detected using this method were either not reported above laboratory detection limits or were reported at very low concentrations (Table 1).

3.5 Additional Soil Excavation and Sampling Activities

Additional soil suspected of containing petroleum hydrocarbons (based on photoionization detector readings and olfactory observations) was removed from the excavation when underground utility installation and trenching activities resumed at the Site. Approximately 10 cubic yards of additional soil was removed from the sidewalls of the excavation and placed on plastic sheeting on November 1 and 2, 1993.

Four soil samples (SW1-7.0, SW2-7.0, SW3-6.5, and SW4-7) were collected from the sidewalls of the excavation and submitted for chemical analysis to assess whether soil containing petroleum hydrocarbons had been removed (Figure 3). Soil samples were submitted to Anametrix for analysis of BTEX compounds, TPHg, TPHd, TPHmo, and O&G. Laboratory data sheets are presented in Appendix D.

No petroleum hydrocarbons were detected in any of the samples, with the exception of O&G, which was detected at low concentrations (less than 70 mg/kg) in samples SW2-7.0 and SW3-6.5 (Table 1).

3.6 Soil Aeration and Management

Gasoline-affected soil excavated during the UST removal activities discussed above (20 cubic yards total) was placed on aeration beds previously constructed on the Site west of Hollis Street. The soils were aerated until concentrations of TPHg and BTEX were reduced to concentrations below aeration criteria previously established for the Site by the ACHA (Levine·Fricke 1992b). The aeration criteria for the Site are less than 10 mg/kg TPHg, less than 1 mg/kg combined TEX, and below laboratory detection limits for benzene.

To assess whether the soil had been aerated, soil samples RAB1 and RAB2 were collected from the aerated soil on November 12, 1993, and submitted to Anametrix for TPHg and BTEX analysis. Analytical results are presented in Table 2. Laboratory data sheets are contained in Appendix E. Analytical results indicated elevated concentrations of TPHg and BTEX in sample RAB2 (190 mg/kg TPHg, 0.71 mg/kg benzene, 3.5 mg/kg toluene, 3.2 mg/kg ethylbenzene, and 8.1 mg/kg total xylenes). Concentrations reported for sample RAB1 were below aeration criteria.

Based on these results, remediation of the soil continued for another six weeks until organic vapor meter (OVM) readings indicated that the concentrations of VOCs had been reduced. On December 22, 1993, soil samples RAB3 and RAB4 were collected from randomly selected locations and submitted to the laboratory. No TPHg or BTEX compounds were detected in either sample, indicating that the soil had been successfully aerated.

Twenty cubic yards of aerated soil was then contained on site (east of Hollis Street) in accordance with the regulatory-approved *Containment Plan for the Yerba Buena/East Baybridge Center Project Site* (Levine·Fricke 1992b). In accordance with the Containment Plan, diesel- and oil-affected soil are being placed beneath proposed building pads, asphalt, and/or concrete during Phase I Development Activities east of Hollis Street. Placement of the soils in this manner will minimize possible exposure to the affected soils and mitigate future effects to shallow ground water by reducing infiltration

through soil. Following completion of development activities, a periodic monitoring program will be implemented for the Site to monitor concentrations of petroleum hydrocarbons in shallow ground water (Levine·Fricke 1993).

4.0 SUMMARY AND CONCLUSIONS

One fuel UST was removed and disposed of by a licensed hazardous waste transportation company under a hazardous waste manifest. No holes were observed in the UST, except where the top of the UST had been punctured during trenching activities conducted at the Site. This puncture was approximately 1.5 inches in diameter.

A total of approximately 20 cubic yards of petroleum-affected soil was removed from the UST excavation and aerated on site until concentrations of TPHg and BTEX compounds were reduced to below aeration criteria for the Site. The aerated soil was then contained on site in accordance with the Containment Plan for the Yerba Buena/East Baybridge Center Project site (Levine·Fricke 1992a).

With the exception of low concentrations (up to 77 mg/kg) of O&G in the samples collected from the UST excavation, analytical results for floor and sidewall samples indicate that in-place soils near the former UST have not been affected by petroleum hydrocarbons. The excavation was backfilled by the on-site grading contractor in accordance with site development specifications.

Based on our observation of excavation activities and the results of soil sampling and analysis, it is our opinion that the work performed complied with applicable UST closure requirements. On the basis of the soil-quality results, we do not recommend any additional remedial work in this area.

REFERENCE

Levine•Fricke, Inc. 1992a. Containment Plan for Petroleum Hydrocarbon-Affected Soils, Yerba Buena Project Site, Emeryville and Oakland, California. March 10.

———. 1992b. Soil Remediation Activities Report, Former Ransome Property, Yerba Buena Project Site, Emeryville, California. December 21.

———. 1993. Work Plan for Site Characterization and Remediation Activities to Be Conducted in Conjunction with Proposed Site Development Yerba Buena/East Baybridge Project Site, Emeryville and Oakland, California. April 28.

Shacklette, H. T., and J. G. Boerngen. 1984. Element concentrations in soils and other surficial materials in the conterminous United States. USGS professional paper 1270. U.S. Geological Survey.

TABLE 1
ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED FROM THE UST EXCAVATION
40TH AND HOLLIS STREETS, EMERYVILLE, CALIFORNIA
(concentrations reported in milligrams per kilogram [mg/kg])

Sample ID	Date	Depth	TPHd	TPHmo	Oil and Grease	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	VOCs
B1-7.0	27-Oct-93	7.0	<10	<10	77	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	ND
SW1-7.0	02-Nov-93	7.0	<10	<10	<30	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
SW2-7.0	02-Nov-93	7.0	<10	<10	67	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
SW3-6.5	02-Nov-93	6.5	<10	<10	63	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
SW4-7.0	03-Nov-93	7.0	<10	NA	NA	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
SP-1	27-Oct-93		65	480	NA	330	<0.0005	<0.0005	1.9	4.9	ND

Data entered by MEK/20-Dec-93. Data proofed by JJB. QA/QC by JJB.

One milligram per kilogram of soil is equivalent to one part per million.

In addition to the analyses indicated below, sample B1-7.0 was analyzed for metals using EPA Method 6010. Results of this analysis reported <0.25 mg/kg cadmium, 18.3 mg/kg chromium, 42.3 mg/kg nickel, 5.8 mg/kg lead, and 28.7 mg/kg zinc.

TPHd - Total petroleum hydrocarbons as diesel using EPA Method 3550
TPHmo - Total petroleum hydrocarbons as motor oil using EPA Method 3550
Oil and grease using Standard Method 5520 E,F
TPHg - Total petroleum hydrocarbons as gasoline using EPA Method 5030
Benzene, toluene, ethylbenzene, and total xylenes using EPA Method 8020
VOCs - Volatile organic compounds using EPA Method 8010

ND - not detected; no VOCs were reported above laboratory detection limits, with the exception of chloroform detected in sample B1-7.0 at 0.0016 mg/kg and methylene chloride (a common laboratory contaminant; see the laboratory QA/QC summary) at 0.370 mg/kg in sample SP-1.

NA - not analyzed

Analyses performed by Anametrix, Inc., San Jose, California.

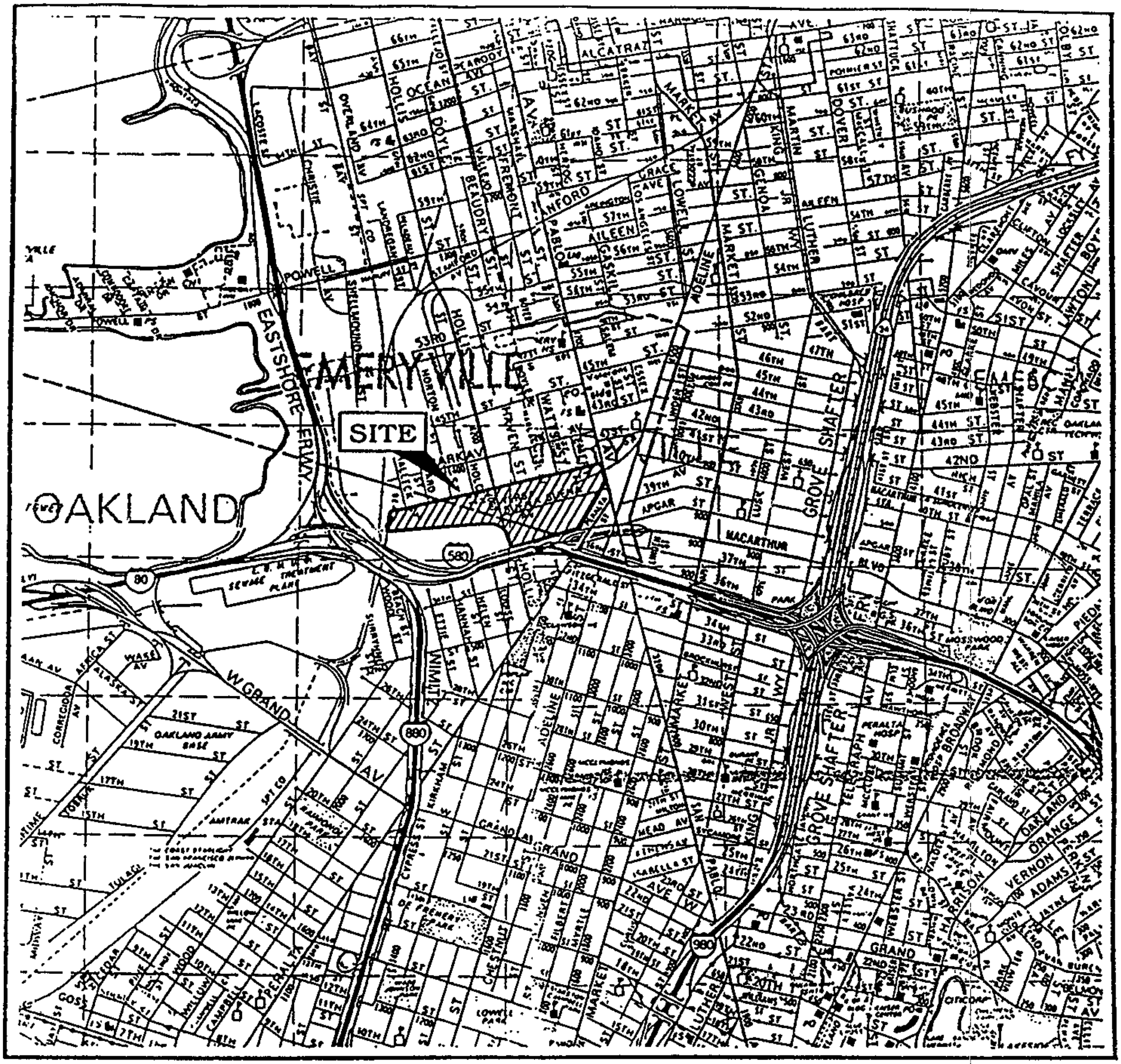
TABLE 2
ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED FROM AERATION BEDS
40TH AND HOLLIS STREETS, EMERYVILLE, CALIFORNIA
(concentrations reported in milligrams per kilogram [mg/kg])

Sample ID	Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes
RAB1	12-Nov-93	<0.5	<0.005	0.013	0.024	0.041
RAB2	12-Nov-93	190	0.71	3.5	3.2	8.1
RAB3	22-Dec-93	<0.5	<0.005	<0.005	<0.005	<0.005
RAB4	22-Dec-93	<0.5	<0.005	<0.005	<0.005	<0.005

Data entered by NAS/28-Dec-93. Data proofed by JJB.

TPHg - Total petroleum hydrocarbons as gasoline, using EPA Method 5030
Benzene, toluene, ethylbenzene, and total xylenes using EPA Method 8020.

Analysis performed by Anametrix, Inc., San Jose, California.



MAP SOURCE:
Alameda & Contra Costa Counties,
Thomas Bros. map, 1990 Edition

0 1/2 1 MILE

N

Figure 1: SITE LOCATION MAP
YERBA BUENA PROJECT SITE

Project No. 1649

LEVINE • FRICKE
CONSULTING ENGINEERS AND HYDROGEOLOGISTS

..49ALS-SITE89 l.nyz

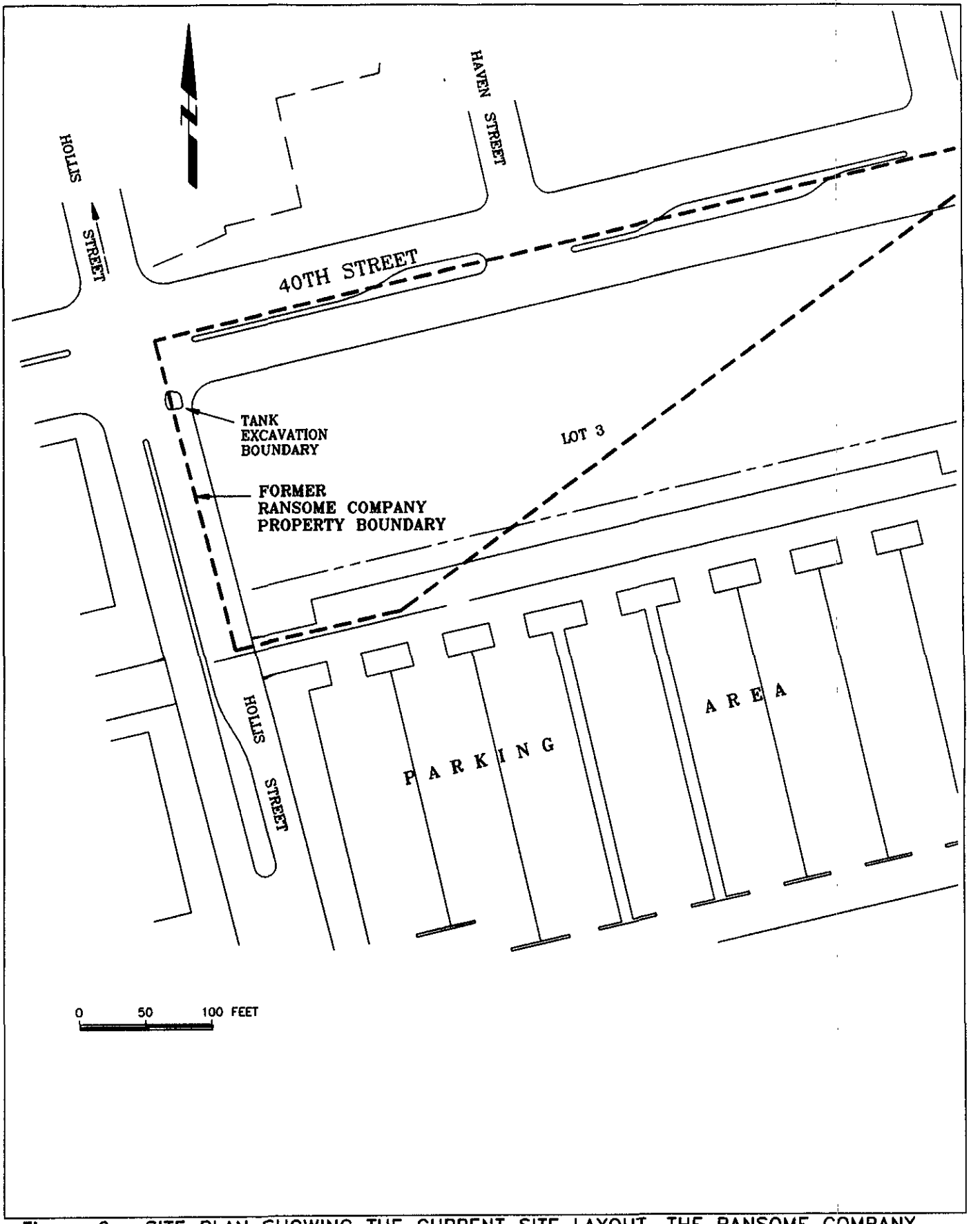


Figure 2 : SITE PLAN SHOWING THE CURRENT SITE LAYOUT, THE RANSOME COMPANY FORMER PROPERTY BOUNDARY, AND APPROXIMATE LOCATION OF THE FORMER UST EXCAVATION

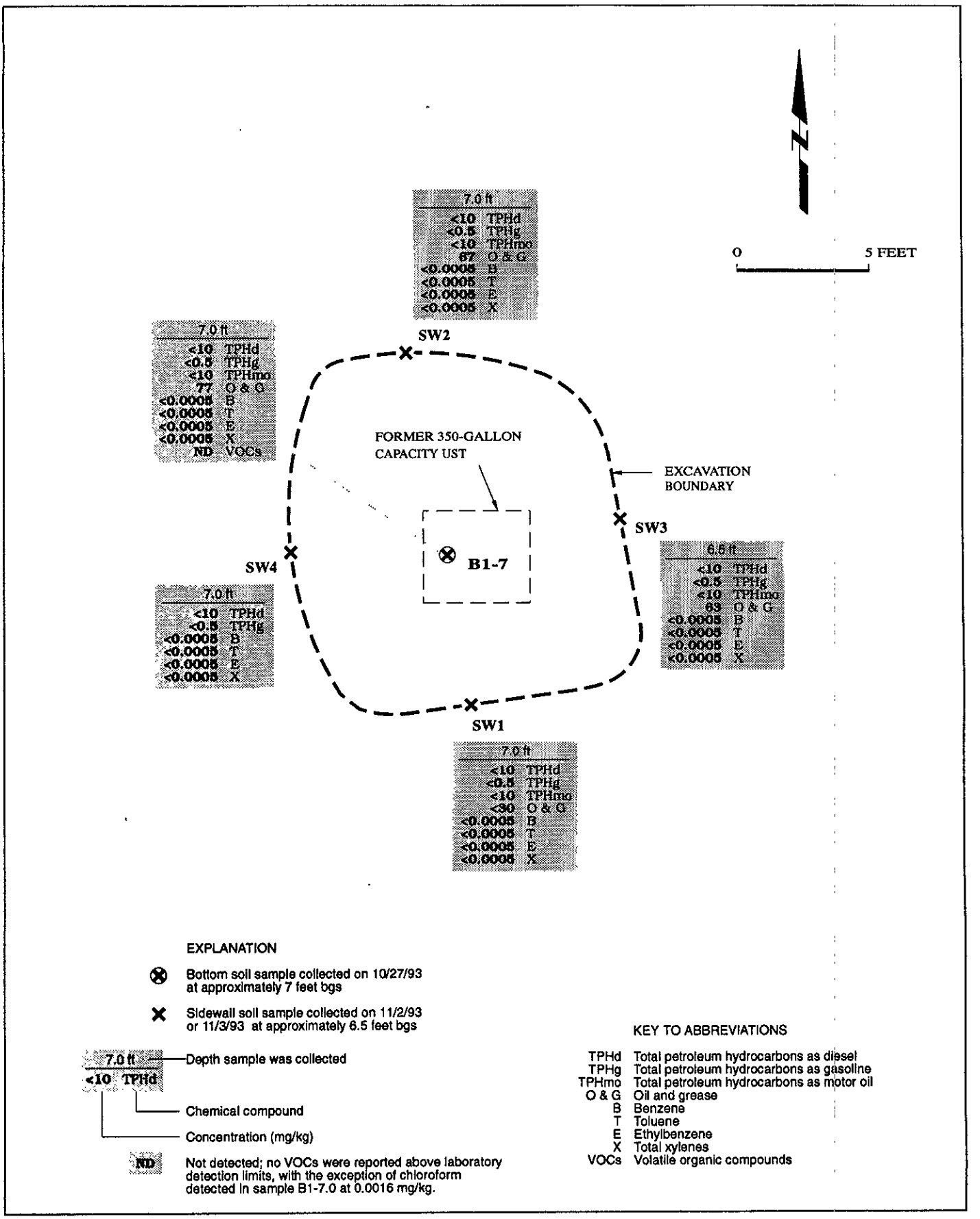


Figure 3 : APPROXIMATE LOCATIONS OF SOIL SAMPLES COLLECTED FROM THE FORMER UST EXCAVATION 40TH AND HOLLIS STREETS, EMERYVILLE, CALIFORNIA

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9310297
Date Received : 10/21/93
Project ID : 1649.23
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9310297- 1	40ST/HOL

This report consists of 7 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

10-25-93
Date

OCT 26 1993

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9310297
Date Received : 10/21/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9310297- 1	40ST/HOL	WATER	10/21/93	TPHd
9310297- 1	40ST/HOL	WATER	10/21/93	TPHgBTEX

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9310297
Date Received : 10/21/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered in this workorder.

Cheryl Balmer 10/24/93
Department Supervisor Date

Reggie Dawson 10/25/93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9310297 Project Number : 1649.23
Matrix : WATER Date Released : 10/24/93
Date Sampled : 10/21/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# 40ST/HOL -01	Sample I.D.# B02101E3 BLANK
Benzene	0.5	5800	ND
Toluene	0.5	8100	ND
Ethylbenzene	0.5	1100	ND
Total Xylenes	0.5	7400	ND
TPH as Gasoline	50	36000	ND
% Surrogate Recovery		119%	106%
Instrument I.D.		HP21	HP21
Date Analyzed		10/22/93	10/21/93
RLMF		250	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as C4-C12 is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor (Dilution).

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%.

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

Reggie Dawson 10/25/93
Analyst Date

Cheryl Balmer 10/24/93
Supervisor Date

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

Anametrix W.O.: 9310297
Matrix : WATER
Date Sampled : 10/21/93
Date Extracted: 10/21/93

Project Number : 1649.23
Date Released : 10/24/93
Instrument I.D.: HP21

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)	Surrogate %Rec
9310297-01	40ST/HOL	10/22/93	500	2800	40%
BO2112F1	METHOD BLANK	10/22/93	50	ND	67%

Note : Reporting limit is obtained by multiplying the dilution factor times 50 ug/L.
The surrogate recovery limits for C25 are 30-130%.

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as C12-C22 are determined by GCFID following sample extraction by EPA Method 3510.

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

Reggie Dawson 10/25/93
Analyst Date

Cheryl Bueno 10/24/93
Supervisor Date

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

Anametrix W.O.: 9310297
Matrix : WATER
Date Sampled : 10/21/93
Date Extracted: 10/21/93

Project Number : 1649.23
Date Released : 10/24/93
Instrument I.D.: HP21

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)	Surrogate %Rec
9310297-01	40ST/HOL	10/22/93	500	ND	40%
BO2112F1	METHOD BLANK	10/22/93	50	ND	67%

Note : Reporting limit is obtained by multiplying the dilution factor times 50 ug/L.
The surrogate recovery limits for C25 are 30-130%.

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as C22-C36 are determined by GCFID following sample extraction by EPA Method 3510.

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

Reggie Dawson 10/25/93
Analyst Date

Cheryl Balmer 10/24/93
Supervisor Date

BTEX LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 5030 WITH GC/PID
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MO2103E3
Matrix	: WATER	Analyst	: RD
Date Sampled	: N/A	Supervisor	:
Date Analyzed	: 10/22/93	Date Released	: 10/24/93
		Instrument ID	: HP21

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS
Benzene	20.0	16.6	83%	52-133
Toluene	20.0	20.0	100%	57-136
Ethylbenzene	20.0	23.3	117%	56-139
Total Xylenes	20.0	24.0	120%	56-141
P-BFB			100%	61-139

* Quality control limits established by Anametrix, Inc.

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3510 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : WATER
Date Sampled : N/A
Date Extracted: 10/21/93
Date Analyzed : 10/22/93

Anametrix I.D. : MO2112F1
Analyst : RD
Supervisor : [illegible]
Date Released : 10/24/93
Instrument I.D.: HP9

COMPOUND	SPIKE AMT (ug/L)	LCS REC (ug/L)	% REC LCS	LCSD REC (ug/L)	% REC LCSD	RPD	% REC LIMITS
DIESEL	1250	1010	81%	1010	81%	0%	47-130
SURROGATE			66%		68%		30-130

* Quality control limits established by Anametrix, Inc.

9310297 (10/4) (10)

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.23	Field Logbook No.:	Date: 10/21/93	Serial No.: 8887
Project Name: Yerba Buena - Ransome	Project Location: Emeryville		
Sampler (Signature): William Madison			Samplers: WEM

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	BTEX EPA 624	TPH gas	TPH diesel	TPH M.O.	Kerosene	HOLD	RUSH	REMARKS
(1) HOST/Hollis	10/21/93	8:40		5	H_2O		X	X	X	X	X		X	24-Hour TAT Results to Jennifer Beatty

RELINQUISHED BY: (Signature) William Madison	DATE 10/21/93	TIME 9:10A	RECEIVED BY: (Signature) Matthew Cloud	DATE 10/21/93	TIME 0910
RELINQUISHED BY: (Signature) Matthew Cloud	DATE 10/21/93	TIME 1245	RECEIVED BY: (Signature) Bonny L. Corrigan	DATE 10/21/93	TIME 1245
RELINQUISHED BY: (Signature) Bonny L. Corrigan	DATE 10/21/93	TIME 1340	RECEIVED BY: (Signature)	DATE 10/21/93	TIME 13:40
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:	LEVINE-FRICKE 1900 Powell Street, 12th Floor Emeryville, Ca 94608 (415) 652-4500
Analytical Laboratory:	Anametrix

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

APPENDIX B

CHAIN OF CUSTODY FORM FOR THE TRANSFER OF SOIL AND GROUND-WATER SAMPLES TO EARTH TECHNOLOGIES

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.23	Field Logbook No.:	Date: 10/27/93	Serial No.: NA 11217
Project Name: Yerba Buena	Project Location: Emeryville, CA		
Sampler (Signature): Michael Stoll			

SAMPLES						ANALYSES								Samplers: MJS/JJB
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624					HOLD	RUSH	REMARKS
B1-7.0	10/27/93	11:30		1	SOIL									→ duplicate sample collected beneath removed UST
40th/Hollis	10/27/93	8:15		5	VOA & Water									- 3 preserved + 2 unpreserved
40th/Hollis	10/27/93	8:20		4	A. Liter & Water									- 2 preserved + 2 unpreserved
														and Water samples collected from UST prior to removal

RELINQUISHED BY: (Signature) Michael Stoll	DATE 10/27/93	TIME 11:53	RECEIVED BY: (Signature) [illegible]	DATE 10/27/93	TIME 11:53
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:
LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, Ca 94608
510 ~~(415)~~ 652-4500

Analytical Laboratory:
~~Aragonetrix Inc, San Jose, CA~~ N/A

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

APPENDIX C

HAZARDOUS WASTE MANIFEST

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
CAD 983585746	32111		

GENERATOR

3. Generator's Name and Mailing Address
CATELLUS DEVELOPMENT CORP
201 MISSION ST 30 FLR SAN FRANCISCO
4. Generator's Phone (415) 974-3705 CA 94105

5. Transporter 1 Company Name: ERICKSON INC.
6. US EPA ID Number: CAD009466932

7. Transporter 2 Company Name:
8. US EPA ID Number:

9. Designated Facility Name and Site Address
Erickson, Inc.
255 Parr Blvd.
Richmond, Ca. 94801
10. US EPA ID Number: CAD009466391

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Waste Empty Storage Tank NON-RCRA Hazardous Waste Solid.	001	TP	02250	P
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
Keep away from sources of ignition. Always wear hardhats when working around U.G.S.T.'s 24 Hr. Contact Name GARY TRUMPP & Phone (408) 292-0920 ~~250~~ 250 gal tank at Ransome

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
KIMBERLY BRANDT Agent for Catellus	Kim Sy Brandt Agent for Catellus	11	27	93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
SAM G. RODRIGUEZ		11	27	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DTSC 8022A (7/92)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California—Environmental Protection Agency
Form Approved OMB No. 2050–0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA[illegible]35857[illegible]6 — Manifest Document No. 6 8 8 5 7

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address [illegible] US [illegible]
[illegible] Mission St
[illegible] CA [illegible]
[redacted]

4. Generator's Phone ([illegible]5) [illegible]

5. Transporter 1 Company Name **EVERGREEN ENVIRONMENTAL SERVICES**

6. US EPA ID Number C A D 9 8 0 6 9 5 7 6 1 [redacted]

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
EVERGREEN OIL, INC.
6880 Smith Avenue
Newark, CA 94560

10. US EPA ID Number C A D 9 8 0 8 8 7 4 1 8 [redacted]

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Water & Oil **NON-RCRA HAZARDOUS WASTE, LIQUID**	0 0 1	T T	0 [illegible] 3 5 0	G
b.				
c.				
d.				

[redacted]

15. Special Handling Instructions and Additional Information
IN EMERGENCY
CALL CHEMTREC
1-800-424-9300
DOT ERG 31
WEAR PROTECTIVE EQUIPMENT
Job Site: 40th & Hollis, Emeryville, CA
Tank Water

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
x KIMBERLY BRANDT Agent for CCSF	x [signature] Agent for [illegible]	1 0	2 7	9 3

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Jamie Porterfield	[signature]	1	2 7	9 3

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Jamie Porterfield	[signature]	1 0	2 7	9 3

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (7/92)
EPA 8700—22

Yellow: GENERATOR RETAINS

APPENDIX D

LABORATORY CERTIFICATES FOR SOIL SAMPLES

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9310390
Date Received : 10/27/93
Project ID : 1649.23
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9310390- 1	B1-7.0
9310390- 2	SP1

This report consists of 21 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

11-3-93
Date

COPY

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9310390
Date Received : 10/27/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9310390- 1	B1-7.0	SOIL	10/27/93	TPHd
9310390- 2	SP1	SOIL	10/27/93	TPHd
9310390- 1	B1-7.0	SOIL	10/27/93	TPHgBTEX
9310390- 2	SP1	SOIL	10/27/93	TPHgBTEX

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9310390
Date Received : 10/27/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Bateman 11/2/93
Department Supervisor Date

Reggie Dawson 11/2/93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9310390
Matrix : SOIL
Date Sampled : 10/27/93

Project Number : 1649.23
Date Released : 11/01/93

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# B1-7.0 -01	Sample I.D.# SP1 -02	Sample I.D.# BO2801E1 BLANK
Benzene	0.005	ND	ND	ND
Toluene	0.005	ND	ND	ND
Ethylbenzene	0.005	ND	1.9	ND
Total Xylenes	0.005	ND	4.9	ND
TPH as Gasoline	0.5	ND	330	ND
% Surrogate Recovery		94%	113%	96%
Instrument I.D.		HP12	HP12	HP12
Date Analyzed		10/28/93	10/28/93	10/28/93
RLMF		1	100	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as C4-C12 is determined by GC/FID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

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

Reggie Davisson 11/2/93
Analyst Date

Cheryl Bulmer 11/04/93
Supervisor Date

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

Anametrix W.O.: 9310390
Matrix : SOIL
Date Sampled : 10/27/93
Date Extracted: 10/28/93

Project Number : 1649.23
Date Released : 11/01/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)	Surrogate %Rec
9310390-01	B1-7.0	10/30/93	10	ND	68%
9310390-02	SP1	10/31/93	20	65	77%
BO28H1F2	METHOD BLANK	10/30/93	10	ND	75%

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
The surrogate recovery limits for C25 are 30-130%.

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as C12-C22 is determined by GCFID following sample extraction by EPA Method 3510.

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

Reggie Davison 11/2/93
Analyst Date

Cheryl Balman 11/1/93
Supervisor Date

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

Anametrix W.O.: 9310390
Matrix : SOIL
Date Sampled : 10/27/93
Date Extracted: 10/28/93

Project Number : 1649.23
Date Released : 11/01/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)	Surrogate %Rec
9310390-01	B1-7.0	10/30/93	10	ND	68%
9310390-02	SP1	10/31/93	20	480	77%
BO28H1F2	METHOD BLANK	10/30/93	10	ND	75%

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
The surrogate recovery limits for C25 are 30-130%.

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as C22-C36 is determined by GCFID following sample extraction by EPA Method 3510.

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

Peggie Davison 11/2/93
Analyst Date

Cheryl Barnes 11/1/93
Supervisor Date

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 5030 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1649.23 B1-7.0
Matrix : SOIL
Date Sampled : 10/27/93
Date Analyzed : 10/28/93

Anametrix I.D. : 10390-01
Analyst : RD
Supervisor : [illegible]
Date Released : 11/01/93
Instrument ID : HP12

COMPOUND	SPIKE AMT (mg/Kg)	SAMPLE CONC (mg/Kg)	REC MS (mg/Kg)	% REC MS	REC MD (mg/Kg)	% REC MD	RPD	% REC LIMITS *
GASOLINE	1.00	0	1.06	106%	0.95	95%	-11%	48-149
P-BFB				101%		105%		53-147

* Quality control limits established by Anametrix, Inc.

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 5030 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MO2801E1
Matrix	: SOIL	Analyst	: RD
Date Sampled	: N/A	Supervisor	: [illegible]
Date Analyzed	: 10/28/93	Date Released	: 11/01/93
		Instrument I.D.	: HP12

COMPOUND	SPIKE AMT. (mg/Kg)	REC LCS (mg/Kg)	%REC LCS	% REC LIMITS *
GASOLINE	0.50	0.37	74%	58-130
SURROGATE			104%	53-147

* Quality control limits established by Anametrix, Inc.

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

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MO28H1F2
Matrix	: SOIL	Analyst	: RD
Date Sampled	: N/A	Supervisor	: [illegible]
Date Extracted	: 10/28/93	Date Released	: 11/01/93
Date Analyzed	: 10/30/93	Instrument I.D.	: HP9

COMPOUND	SPIKE AMT (mg/Kg)	REC LCS (mg/Kg)	% REC LCS	% REC LIMITS *
DIESEL	125	116	93%	48-113
SURROGATE			72%	30-130

* Quality control limits established by Anametrix, Inc.

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9310390
Date Received : 10/27/93
Project ID : 1649.23
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9310390- 1	B1-7.0	SOIL	10/27/93	5520EF

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9310390
Date Received : 10/27/93
Project ID : 1649.23
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for this sample.

Department Supervisor Date

Chemist Date

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS AS OIL AND GREASE
ANAMETRIX LABORATORIES (408) 432-8192

Project # : 1649.23
Matrix : SOIL
Date sampled : 10/27/93
Date extracted: 10/27/93
Date analyzed : 10/27/93

Anametrix I.D. : 9310390
Analyst :
Supervisor :
Date released : 10/29/93

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9310390-01	B1-7.0	30	77
BO27H1W9	METHOD BLANK	30	ND

ND - Not detected above the reporting limit for the method.
TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520EF, 18th edition.

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

MATRIX SPIKE REPORT - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
AS OIL AND GREASE
ANAMETRIX LABORATORIES (408) 432-8192

Sample I.D. : B1-7.0MS, MD
Matrix : SOIL
Date sampled : 10/27/93
Date extracted : 10/27/93
Date analyzed : 10/27/93

Anametrix I.D. : 9310390-01
Analyst :
Supervisor :
Date Released : 10/29/93

COMPOUND	SPIKE AMT (mg/Kg)	SAMPLE CONC (mg/Kg)	MS AMT (mg/Kg)	%REC MS	MD AMT (mg/Kg)	%REC MD	%RPD	% REC LIMITS
Motor Oil	300	77	390	104%	350	91%	11%	48-114%

* Quality control limits established by Anametrix Laboratories.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520EF, 18th edition.

LAB CONTROL SAMPLE REPORT - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS AS OIL AND GREASE
ANAMETRIX LABORATORIES (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MO27H1W9
Matrix	: SOIL	Analyst	:
Date sampled	: N/A	Supervisor	:
Date extracted	: 10/27/93	Date Released	: 10/29/93
Date analyzed	: 10/27/93		

COMPOUND	SPIKE AMT. (mg/Kg)	LCS (mg/Kg)	%REC LCS	%REC LIMITS
Motor Oil	300	330	110%	71-119%

* Quality control established by Anametrix Laboratories.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520EF.

ANAMETRIX REPORT DESCRIPTION
INORGANICS

Analytical Data Report (ADR)

The ADR contains tabulated results for inorganic analytes. All field samples, QC samples and blanks were prepared and analyzed according to procedures in the following references:

- "Test Methods for Evaluating Solid Waste," SW-846, EPA, 3rd Edition, November 1986.
- "Methods for Chemical Analysis of Water and Wastes," EPA, 3rd Edition, 1983.
- CCR Title 22, Section 66261, Appendix II, California Waste Extraction Test.
- CCR Title 22, Section 66261, Appendix XI, Organic Lead.
- "Standard Methods for the Examination of Water and Wastewater," APHA, AWWA, WEF, 18th Edition, 1992.
- USEPA Contract Laboratory Program Statement of Work for Inorganic Analyses, ILM02.1, 1991.

Matrix Spike Report (MSR)

The MSR summarizes percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. MSRs may not be provided with all analytical reports. Anametrix control limit for MSR is 75-125% with 25% for RPD limits.

Laboratory Control Sample Report (LCSR)

The LCSR summarizes percent recovery information for laboratory control spikes on reagent water or soil. This information is a statement of performance for the method, i.e., the samples are properly prepared and analyzed according to the applicable methods. Anametrix control limit for LCSR is 80-120%.

Method Blank Report (MBR)

The MBR summarizes quality control information for reagents used in preparing samples. The absolute value of each analyte measured in the method blank should be below the method reporting limit for that analyte.

Post Digestion Spike Report (PDSR)

The PDSR summarizes percent recovery information for post digestion spikes. A post digestion spike is performed for a particular analyte if the matrix spike recovery is outside of established control limits. Any percent recovery for a post digestion spike outside of established limits for an analyte indicates probable matrix effects and interferences for that analyte. Anametrix control limit for PDSR is 85-115%.

Qualifiers (Q)

Anametrix uses several data qualifiers in inorganic reports. These qualifiers give additional information on the analytes reported. The following is a list of qualifiers and their meanings:

I - Sample was analyzed at the stated dilution due to spectral interferences.
U - Analyte concentration was below the method reporting limit. For matrix and post digestion spike reports, a value of "0.0" is entered for calculation of the percent recovery.
B - Sample concentration was below the reporting limit but above the instrument detection limit. Result is entered for calculation of the percent recovery only.
H - Spike percent recovery was outside of Anametrix control limits due to interferences from relatively high concentration level of the analyte in the unspiked sample.
L - Reporting limit was increased to compensate for background absorbances or matrix interferences.

Comment Codes

In addition to qualifiers, the following codes are used in the comment section of all reports to give additional information about sample preparation methods:

A - Sample was prepared for silver based on the silver digestion method developed by the Southern California Laboratory, Department of Health Services, "Acid Digestion for Sediments, Sludges, Soils and Solid Wastes. A Proposed Alternative to EPA SW846, Method 3050." Environmental Science and Technology, 1989, 23, 898-900.
T - Spikes were prepared after extraction by the Toxicity Characteristic Leaching Procedure (TCLP).
C - Spikes were prepared after extraction by the California Waste Extraction Test (CWET) method.
D - Reported results are dissolved, not total, metals.

Reporting Conventions

Analytical values reported are gross values, i.e., <u>not</u> corrected for method blank contamination. Solid matrices are reported on a wet weight basis, unless specifically requested otherwise. Unless noted, all samples were prepared according to procedures in the EPA Contract Laboratory Program Statement of Work, ILM02.1, 1991.

/6996/disk 30WH mlw/disk 61

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9310390
Date Received : 10/27/93
Project ID : 1649.23
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9310390- 1	B1-7.0	SOIL	10/27/93	6010

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9310390
Date Received : 10/27/93
Project ID : 1649.23
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

QA/QC SUMMARY :

- Spike recovery for sample B1-7.0 for nickel by EPA Method 6010 was outside of Anametrix control limits due to heterogenous nature of the sample.

Nona Kamel For 11/03/93
Department Supervisor Date

Chemist Date

INORGANIC ANALYSIS DATA SHEET
ANAMETRIX, INC. (408) 432-8192

Anametrix I.D.: 9310390-01
Client I.D. : B1-7.0
Project I.D. : 1649.23
Reporting Unit: mg/Kg
Matrix : SOIL

Date Sampled : 10/27/93
Analyst : VP
Supervisor : MK
Date Released : 11/02/93
Instrument I.D. : ICP1

ANALYTE-METHOD	DATE PREPARED	DATE ANALYZED	REPORT LIMIT	DIL. FACTOR	RESULT	Q
Cadmium-6010	10/27/93	10/28/93	0.25	1	ND	
Chromium-6010	10/27/93	10/28/93	0.50	1	18.3	
Nickel-6010	10/27/93	10/28/93	2.0	1	42.3	
Lead-6010	10/27/93	10/28/93	2.0	1	5.8	
Zinc-6010	10/27/93	10/28/93	1.0	1	28.7	

COMMENT:

METHOD BLANK REPORT
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.# : 9310390
Method Blank I.D.: MB1027S
Project I.D. : 1649.23
Matrix : SOIL
Reporting Unit : mg/Kg

Analyst : AP
Supervisor : MK
Date Released : 11/02/93
Instrument I.D. : ICP1

ANALYTE-METHOD	DATE PREPARED	DATE ANALYZED	REPORT LIMIT	RESULT	Q
Cadmium-6010	10/27/93	10/28/93	0.25	ND	
Chromium-6010	10/27/93	10/28/93	0.50	ND	
Nickel-6010	10/27/93	10/28/93	2.0	ND	
Lead-6010	10/27/93	10/28/93	2.0	ND	
Zinc-6010	10/27/93	10/28/93	1.0	ND	

COMMENT:

MATRIX SPIKE REPORT
ANAMETRIX, INC. (408) 432-8192

Spike I.D. : 9310390-01MS,MD
Client I.D. : B1-7.0
Project I.D. : 1649.23
Matrix : SOIL
Reporting Unit: mg/Kg

Date Prepared : 10/27/93
Date Analyzed : 10/28/93
Analyst : NP
Supervisor : MK
Date Released : 11/02/93
Instrument I.D. : ICP1

ANALYTE-METHOD	SPIKE AMOUNT	SAMPLE CONC.	M.S. CONC.	% REC.	M.S.D. CONC.	% REC.	RPD	Q
Cadmium-6010	2.5	0.0	2.4	96.0	2.4	96.0	0.0	U
Chromium-6010	10.0	18.3	30.5	122	29.0	107	5.0	
Nickel-6010	25.0	42.3	93.8	206	72.6	121	25.5	
Lead-6010	25.0	5.8	27.2	85.6	25.4	78.4	6.8	
Zinc-6010	25.0	28.7	50.0	85.2	47.7	76.0	4.7	

COMMENT:

MATRIX SPIKE REPORT
ANAMETRIX, INC. (408) 432-8192

Spike I.D. : 9310390-01PDS
Client I.D. : B1-7.0
Project I.D. : 1649.23
Matrix : SOIL
Reporting Unit: mg/Kg

Date Prepared : 10/28/93
Date Analyzed : 10/28/93
Analyst : NP
Supervisor : MK
Date Released : 11/02/93
Instrument I.D. : ICP1

ANALYTE-METHOD	SPIKE AMOUNT	SAMPLE CONC.	M.S. CONC.	% REC.	Q
Nickel-6010	84.5	42.3	119	90.8	

COMMENT:

LABORATORY CONTROL SAMPLE REPORT
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.# : 9310390
Spike I.D. : LCS1027S C
Project I.D. : 1649.23
Matrix : SOIL
Reporting Unit : mg/Kg

Analyst : NT
Supervisor : MK
Date Released : 11/02/93
Instrument I.D : ICP1

ANALYTE-METHOD	DATE PREPARED	DATE ANALYZED	SPIKE AMT.	METHOD SPIKE	% REC.	Q
Cadmium-6010	10/27/93	10/28/93	2.5	2.3	92.0	
Chromium-6010	10/27/93	10/28/93	10.0	9.1	91.0	
Nickel-6010	10/27/93	10/28/93	25.0	26.0	104	
Lead-6010	10/27/93	10/28/93	25.0	22.4	89.6	
Zinc-6010	10/27/93	10/28/93	25.0	23.3	93.2	

COMMENT:

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9310390
Date Received : 10/27/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: VOA

QA/QC SUMMARY :

- The amount of methylene chloride reported for sample SP1 is artificially magnified by the dilution factor and is within normal laboratory background levels in the diluted sample.
- Sample SP1 was run at a dilution due to interfering hydrocarbon peaks.
- The percent recovery of 1,2-Dichlorobenzene is outside of Anametrix control limits for EPA Method 8010 in the LCS.

M. Hasselman 12/28/93
Department Supervisor Date

12/28/93
Chemist Date

ORGANIC ANALYSIS DATA SHEET - EPA METHOD 601/8010
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1649.23 B1-7.0
Matrix : SOIL
Date sampled : 10/27/93
Date analyzed: 11/09/93
Dilution : NONE

Anametrix I.D. : 9310390-01
Analyst : [illegible]
Supervisor : [illegible]
Date released : 11/24/93
Instrument ID : AD15

CAS #		Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
74-87-3	*	Chloromethane	1	ND
74-83-9	*	Bromomethane	1	ND
75-71-8	*	Dichlorodifluoromethane	1	ND
75-01-4	*	Vinyl Chloride	1	ND
75-00-3	*	Chloroethane	1	ND
75-35-4	*	1,1-Dichloroethene	1	ND
75-09-2	*	Methylene chloride	1	ND
75-69-4	*	Trichlorofluoromethane	1	ND
76-13-1	*	Trichlorotrifluorethane	1	ND
75-34-4	*	1,1-Dichloroethane	1	ND
156-59-2	#	Cis-1,2-Dichloroethene	1	ND
156-60-5	*	Trans-1,2-Dichloroethene	1	ND
67-66-3	*	Chloroform	1	1.6
76-13-1	#	Trichlorotrifluoroethane	1	ND
107-06-2	*	1,2-Dichloroethane	1	ND
71-55-6	*	1,1,1-Trichloroethane	1	ND
56-23-5	*	Carbon Tetrachloride	1	ND
75-27-4	*	Bromodichloromethane	1	ND
78-87-5	*	1,2-Dichloropropane	1	ND
10061-02-6	*	Trans-1,3-Dichloropropene	1	ND
79-01-6	*	Trichloroethene	1	ND
124-48-1	*	Dibromochloromethane	1	ND
79-00-5	*	1,1,2-Trichloroethane	1	ND
10061-01-5	*	cis-1,3-Dichloropropene	1	ND
110-75-8	*	2-Chloroethylvinylether	1	ND
75-25-2	*	Bromoform	1	ND
127-18-4	*	Tetrachloroethene	1	ND
79-34-5	*	1,1,2,2-Tetrachloroethane	1	ND
108-90-7	*	Chlorobenzene	1	ND
95-50-1	*	1,2-Dichlorobenzene	1	ND
541-73-1	*	1,3-Dichlorobenzene	1	ND
106-46-7	*	1,4-Dichlorobenzene	1	ND
		Bromochloromethane	65-114%	74%
		1-Chloro-2-fluorobenzene	67-125%	91%
		2-Bromoclorobenzene	53-132%	64%

ND : Not detected at or above the practical quantitation limit for the method.
* A 601/8010 approved compound (Federal Register, 10/26/84).
\# A compound added by Anametrix, Inc.

ORGANIC ANALYSIS DATA SHEET - EPA METHOD 601/8010

GC/VOA - PAGE 3

ORGANIC ANALYSIS DATA SHEET - EPA METHOD 601/8010
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1649.23 SP1
Matrix : SOIL
Date sampled : 10/27/93
Date analyzed: 11/09/93
Dilution : 200

Anametrix I.D. : 931390-02
Analyst : [illegible]
Supervisor : [illegible]
Date released : 11/24/93
Instrument ID : AD15

CAS #		Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
74-87-3	*	Chloromethane	200	ND
74-83-9	*	Bromomethane	200	ND
75-71-8	*	Dichlorodifluoromethane	200	ND
75-01-4	*	Vinyl Chloride	200	ND
75-00-3	*	Chloroethane	200	ND
75-35-4	*	1,1-Dichloroethene	200	ND
75-09-2	*	Methylene chloride	200	370
75-69-4	*	Trichlorofluoromethane	200	ND
76-13-1	*	Trichlorotrifluorethane	200	ND
75-34-4	*	1,1-Dichloroethane	200	ND
156-59-2	#	Cis-1,2-Dichloroethene	200	ND
156-60-5	*	Trans-1,2-Dichloroethene	200	ND
67-66-3	*	Chloroform	200	ND
76-13-1	#	Trichlorotrifluoroethane	200	ND
107-06-2	*	1,2-Dichloroethane	200	ND
71-55-6	*	1,1,1-Trichloroethane	200	ND
56-23-5	*	Carbon Tetrachloride	200	ND
75-27-4	*	Bromodichloromethane	200	ND
78-87-5	*	1,2-Dichloropropane	200	ND
10061-02-6	*	Trans-1,3-Dichloropropene	200	ND
79-01-6	*	Trichloroethene	200	ND
124-48-1	*	Dibromochloromethane	200	ND
79-00-5	*	1,1,2-Trichloroethane	200	ND
10061-01-5	*	cis-1,3-Dichloropropene	200	ND
110-75-8	*	2-Chloroethylvinylether	200	ND
75-25-2	*	Bromoform	200	ND
127-18-4	*	Tetrachloroethene	200	ND
79-34-5	*	1,1,2,2-Tetrachloroethane	200	ND
108-90-7	*	Chlorobenzene	200	ND
95-50-1	*	1,2-Dichlorobenzene	200	ND
541-73-1	*	1,3-Dichlorobenzene	200	ND
106-46-7	*	1,4-Dichlorobenzene	200	ND
		Bromochloromethane	65-114%	72%
		1-Chloro-2-fluorobenzene	67-125%	82%
		2-Bromoclorobenzene	53-132%	74%

ND : Not detected at or above the practical quantitation limit for the method.
* A 601/8010 approved compound (Federal Register, 10/26/84).
\# A compound added by Anametrix, Inc.

ORGANIC ANALYSIS DATA SHEET - EPA METHOD 601/8010

17.05

CHAIN OF COUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.23	Field Logbook No.:	Date: 10/27/93	Serial No.: 11088
Project Name: Yerba Buena	Project Location: Emeryville, CA		
Sampler (Signature): Michael Stoll			Samplers: MJS

SAMPLES / ANALYSES

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	5520 E&F oil & grease	EPA 8020 / EPA 624 BTEX	TPH gasoline	TPH diesel	Metals	EPA 8010	TPH motor oil	RUSH	REMARKS
(1) B1-7.0	10/27/93	11:30		2	SOIL	X	X	X	X	X	X	X	X	* Analyze tube marked analyze
(2) SP1	10/27/93	12:25		1	SOIL		X	X	X		X	X	X	+ hold tube marked hold
														Rush 24-hr TAT
														Results to Jenifer Beatty
														UST-40th/Hollis

RELINQUISHED BY: (Signature) Michael Stoll	DATE 10/27/93	TIME 1512	RECEIVED BY: (Signature) Penny S. Carrizosa	DATE 10/27/93	TIME 1512
RELINQUISHED BY: (Signature) Penny S. Carrizosa	DATE 10/27/93	TIME 1635	RECEIVED BY: (Signature) [signature]	DATE 10/27/93	TIME 16:35
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, Ca 94608
(510) ~~(415)~~ 652-4500

Analytical Laboratory: Anametrix Inc, San Jose, CA

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9311027
Date Received : 11/02/93
Project ID : 1649.23
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9311027- 1	SW1-7.0
9311027- 2	SW2-7.0
9311027- 3	SW3-6.5

This report consists of 12 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

11-05-93
Date

COPY

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9311027
Date Received : 11/02/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9311027- 1	SW1-7.0	SOIL	11/02/93	TPHd
9311027- 2	SW2-7.0	SOIL	11/02/93	TPHd
9311027- 3	SW3-6.5	SOIL	11/02/93	TPHd
9311027- 1	SW1-7.0	SOIL	11/02/93	TPHgBTEX
9311027- 2	SW2-7.0	SOIL	11/02/93	TPHgBTEX
9311027- 3	SW3-6.5	SOIL	11/02/93	TPHgBTEX

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9311027
Date Received : 11/02/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Department Supervisor — Date: 11/4/93

Chemist — Date: 11/5/93

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9311027
Matrix : SOIL
Date Sampled : 11/02/93

Project Number : 1649.23
Date Released : 11/04/93

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# SW1-7.0 -01	Sample I.D.# SW2-7.0 -02	Sample I.D.# SW3-6.5 -03	Sample I.D.# BN0301E3 BLANK
Benzene	0.005	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND	ND
TPH as Gasoline	0.5	ND	ND	ND	ND
% Surrogate Recovery		102%	99%	97%	93%
Instrument I.D.		HP8	HP8	HP8	HP8
Date Analyzed		11/03/93	11/03/93	11/03/93	11/03/93
RLMF		1	1	1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as C4-C12 is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

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

Analyst 11/5/93 Date

Supervisor 11/4/93 Date

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

Anametrix W.O.: 9311027
Matrix : SOIL
Date Sampled : 11/02/93
Date Extracted: 11/02/93

Project Number : 1649.23
Date Released : 11/04/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)	Surrogate %Rec
9311027-01	SW1-7.0	11/03/93	10	ND	63%
9311027-02	SW2-7.0	11/03/93	10	ND	66%
9311027-03	SW3-6.5	11/03/93	10	ND	65%
BNO2H2F1	METHOD BLANK	11/03/93	10	ND	66%

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
The surrogate recovery limits for C25 are 30-130%.

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

TPHd - Total Petroleum Hydrocarbons as C12-C22 is determined by GCFID following sample extraction by EPA Method 3510.

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

Analyst: [signature] Date: 11/5/93

Supervisor: Cheryl Balmer Date: 11/4/93

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

Anametrix W.O.: 9311027
Matrix : SOIL
Date Sampled : 11/02/93
Date Extracted: 11/02/93

Project Number : 1649.23
Date Released : 11/04/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)	Surrogate %Rec
9311027-01	SW1-7.0	11/03/93	10	ND	63%
9311027-02	SW2-7.0	11/03/93	10	ND	66%
9311027-03	SW3-6.5	11/03/93	10	ND	65%
BNO2H2F1	METHOD BLANK	11/03/93	10	ND	66%

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
The surrogate recovery limits for C25 are 30-130%.

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as C22-C36 is determined by GCFID following sample extraction by EPA Method 3510.

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

Analyst 11/5/93 Date

Supervisor 11/4/93 Date

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 5030 WITH GC/PID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Analyzed : 11/03/93

Anametrix I.D. : MN0301E3
Analyst : JS
Supervisor : [illegible]
Date Released : 11/04/93
Instrument ID : HP8

COMPOUND	SPIKE AMT (mg/Kg)	LCS (mg/Kg)	%REC LCS	%REC LIMITS *
BENZENE	0.020	0.020	100%	52-133
TOLUENE	0.020	0.021	105%	57-136
ETHYLBENZENE	0.020	0.022	110%	56-139
TOTAL-XYLENES	0.020	0.024	120%	56-141
SURROGATE			105%	53-147

* Quality control limits established by Anametrix, Inc.

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

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MN02H2F1
Matrix	: SOIL	Analyst	: IS
Date Sampled	: N/A	Supervisor	: [illegible]
Date Extracted	: 11/02/93	Date Released	: 11/04/93
Date Analyzed	: 11/03/93	Instrument I.D.	: HP9

COMPOUND	SPIKE AMT (mg/Kg)	REC LCS (mg/Kg)	% REC LCS	% REC LIMITS *
DIESEL	125	110	88%	48-113
SURROGATE			66%	30-130

* Quality control limits established by Anametrix, Inc.

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9311027
Date Received : 11/02/93
Project ID : 1649.23
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9311027- 1	SW1-7.0	SOIL	11/02/93	5520EF
9311027- 2	SW2-7.0	SOIL	11/02/93	5520EF
9311027- 3	SW3-6.5	SOIL	11/02/93	5520EF

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9311027
Date Received : 11/02/93
Project ID : 1649.23
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cathy Nieterberger 11/3/93
Department Supervisor Date

Erika Cleaver 11/3/93
Chemist Date

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
AS OIL AND GREASE
ANAMETRIX LABORATORIES (408) 432-8192

Project #	: 1649.23	Anametrix I.D.	: 9311027
Matrix	: SOIL	Analyst	:
Date sampled	: 11/02/93	Supervisor	:
Date extracted	: 11/02/93	Date released	: 11/03/93
Date analyzed	: 11/03/93		

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9311027-01	SW1-7.0	30	ND
9311027-02	SW2-7.0	30	67
9311027-03	SW3-6.5	30	63
BN02H1W9	METHOD BLANK	30	ND

ND - Not detected above the reporting limit for the method.
TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520EF, 18th edition.

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

MATRIX SPIKE REPORT - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
AS OIL AND GREASE
ANAMETRIX LABORATORIES (408) 432-8192

Sample I.D.	: 1649.23,SW1-7.0MS, MD	Anametrix I.D.	: 9311027-01
Matrix	: SOIL	Analyst	:
Date sampled	: 11/02/93	Supervisor	:
Date extracted	: 11/02/93	Date Released	: 11/03/93
Date analyzed	: 11/03/93		

COMPOUND	SPIKE AMT (mg/Kg)	SAMPLE CONC (mg/Kg)	MS AMT (mg/Kg)	%REC MS	MD AMT (mg/Kg)	%REC MD	%RPD	% REC LIMITS
Motor Oil	300	27	330	101%	340	104%	3%	48-114%

* Quality control limits established by Anametrix Laboratories.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520EF, 18th edition.

LAB CONTROL SAMPLE REPORT - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
AS OIL AND GREASE
ANAMETRIX LABORATORIES (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MN02H1W9
Matrix	: SOIL	Analyst	: EV
Date sampled	: N/A	Supervisor	: CW
Date extracted	: 11/02/93	Date Released	: 11/03/93
Date analyzed	: 11/03/93		

COMPOUND	SPIKE AMT. (mg/Kg)	LCS (mg/Kg)	%REC LCS	%REC LIMITS
Motor Oil	300	300	100%	71-119%

* Quality control established by Anametrix Laboratories.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520EF.

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.23	Field Logbook No.:	Date: 11-2-93	Serial No.: 8844
Project Name: Yerba Buena - 40th/Hollis	Project Location: Emeryville, CA		
Sampler (Signature): Michael Stoll			

SAMPLES						ANALYSES								Samplers: MJS
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	SM 5520 E/F oil & Grease	TPH gasoline	BTEX	TPH diesel	TPH Motor Oil	HOLD	RUSH	REMARKS
(1) SW1-7.0	11/2/93	7:35		1	Soil		X	X	X	X	X		X	- 24 hr TAT
(2) SW2-7.0	11/2/93	7:45		1	Soil		X	X	X	X	X		X	
(3) SW3-6.5	11/2/93	7:50		1	Soil		X	X	X	X	X		X	
														Results to Jenifer Beatty

RELINQUISHED BY: (Signature) Michael Stoll	DATE 11-2-93	TIME 1425	RECEIVED BY: (Signature) Tammy L. Carrizosa	DATE 11/2/93	TIME 1425
RELINQUISHED BY: (Signature) Tammy L. Carrizosa	DATE 11-2-93	TIME 1640	RECEIVED BY: (Signature)	DATE 11/2/93	TIME 16:40
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:
LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, Ca 94608
510 ~~(415)~~ 652-4500

Analytical Laboratory:
Anametrix Inc, San Jose, CA

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9311071
Date Received : 11/04/93
Project ID : 1649.23
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9311071- 1	SW4-7.0

This report consists of 7 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Corinne Khan for
Sarah Schoen, Ph.D.
Laboratory Director

11/10/93
Date

COPY

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9311071
Date Received : 11/04/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9311071- 1	SW4-7.0	SOIL	11/03/93	TPHd
9311071- 1	SW4-7.0	SOIL	11/03/93	TPHgBTEX

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9311071
Date Received : 11/04/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for this sample.

Cheryl Bateman 11/8/93
Department Supervisor Date

Charlotte Buck 11.8.93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9311071 Project Number : 1649.23
Matrix : SOIL Date Released : 11/08/93
Date Sampled : 11/03/93

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# SW4-7.0 -01	Sample I.D.# BN0401E2 BLANK
Benzene	0.005	ND	ND
Toluene	0.005	ND	ND
Ethylbenzene	0.005	ND	ND
Total Xylenes	0.005	ND	ND
TPH as Gasoline	0.5	ND	ND
% Surrogate Recovery		105%	104%
Instrument I.D.		HP8	HP8
Date Analyzed		11/4/93	11/4/93
RLMF		1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

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

Charlotte Burch 11.8.93
Analyst Date

Cheryl Balmer 11/8/93
Supervisor Date

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

Anametrix W.O.: 9311071
Matrix : SOIL
Date Sampled : 11/03/93
Date Extracted: 11/04/93

Project Number : 1649.23
Date Released : 11/08/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)	Surrogate %Rec
9311071-01	SW-7.0	11/05/93	10	ND	62%
BN04H1F1	METHOD BLANK	11/05/93	10	ND	59%

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
The surrogate recovery limits for C25 are 30-130%.

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as C12-C22 is determined by GCFID following sample extraction by EPA Method 3510.

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

Charlotte Burch 11.9.93
Analyst Date

Cheryl Bateman 11/9/93
Supervisor Date

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

Anametrix W.O.: 9311071
Matrix : SOIL
Date Sampled : 11/03/93
Date Extracted: 11/04/93

Project Number : 1649.23
Date Released : 11/08/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)	Surrogate %Rec
9311071-01	SW-7.0	11/05/93	10	ND	62%
BN04H1F1	METHOD BLANK	11/05/93	10	ND	59%

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
The surrogate recovery limits for C25 are 30-130%.

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as C22-C36 is determined by GCFID following sample extraction by EPA Method 3510.

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

Charlotte Burch 11.9.93
Analyst Date

Cheryl Bateman 11/9/93
Supervisor Date

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 5030 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Analyzed : 11/05/93

Anametrix I.D. : MN0402E1
Analyst : CMB
Supervisor : CS
Date Released : 11/08/93
Instrument I.D.: HP8

COMPOUND	SPIKE AMT. (mg/Kg)	REC LCS (mg/Kg)	%REC LCS	% REC LIMITS *
GASOLINE	0.50	0.37	74%	58-130
p-BFB			100%	53-147

* Quality control limits established by Anametrix, Inc.

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

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MN04H1F1
Matrix	: SOIL	Analyst	: CMB
Date Sampled	: N/A	Supervisor	: [illegible]
Date Extracted	: 11/04/93	Date Released	: 11/08/93
Date Analyzed	: 11/05/93	Instrument I.D.	: HP9

COMPOUND	SPIKE AMT (mg/Kg)	REC LCS (mg/Kg)	% REC LCS	% REC LIMITS *
DIESEL	125	108	86%	48-113
SURROGATE			68%	30-130

* Quality control limits established by Anametrix, Inc.

9311011 (18) 1.P 12:50

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.23	Field Logbook No.:	Date: 11-3-93	Serial No.: 8879
Project Name: Yerba Buena - 40th/Hollis	Project Location: Emeryville - Oakland, CA		
Sampler (Signature): Michael Stoll			Samplers: MJS

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	TPH gasoline	BTEX	TPH diesel	TPH motor oil	HOLD	RUSH	REMARKS
(1) SW4-7.0	11-3-93	8:15		1	Soil			X	X	X	X		X	-24hr TAT
														Results to Jenifer Beatty

RELINQUISHED BY: (Signature) Michael Stoll	DATE 11-4-93	TIME 1055	RECEIVED BY: (Signature) Bonny L. Carrington	DATE 11/4/93	TIME 1055
RELINQUISHED BY: (Signature) Bonny L. Carrington	DATE 11/4/93	TIME 1230	RECEIVED BY: (Signature) Josephine DeCarli	DATE 11/4/93	TIME 12:30
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:

LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, Ca 94608
Sco (~~415~~) 652-4500

Analytical Laboratory:

Anametrix Inc, San Jose, CA

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

APPENDIX E

LABORATORY CERTIFICATES FOR SOIL SAMPLES COLLECTED FROM THE AERATION BEDS

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9311185
Date Received : 11/12/93
Project ID : 1649.23
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9311185- 1	RAB1
9311185- 2	RAB2

This report consists of 4 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

11-17-93
Date

COPY

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9311185
Date Received : 11/12/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9311185- 1	RAB1	SOIL	11/12/93	TPHgBTEX
9311185- 2	RAB2	SOIL	11/12/93	TPHgBTEX

NO LCS FOR 11/13/93 Computer Crash.

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9311185
Date Received : 11/12/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Department Supervisor 11/16/93 Date

Kamel G. Kamel 11/17/93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9311185
Matrix : SOIL
Date Sampled : 11/12/93

Project Number : 1649.23
Date Released : 11/16/93

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# RAB1 -01	Sample I.D.# RAB2 -02	Sample I.D.# BN1201E1 BLANK	Sample I.D.# BN1301E1 BLANK
Benzene	0.005	ND	0.71	ND	ND
Toluene	0.005	0.013	3.5	ND	ND
Ethylbenzene	0.005	0.024	3.2	ND	ND
Total Xylenes	0.005	0.041	8.1	ND	ND
TPH as Gasoline	0.5	ND	190	ND	ND
% Surrogate Recovery		120%	126%	88%	98%
Instrument I.D.		HP8	HP4	HP8	HP4
Date Analyzed		11/13/93	11/13/93	11/12/93	11/13/93
RLMF		1	25	1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

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

Kamel G. Kamel 11/17/93
Analyst Date

Cheryl Balmer 11/16/93
Supervisor Date

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 5030 WITH GC/PID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Analyzed : 11/12/93

Anametrix I.D. : MN1201E3
Analyst : KK
Supervisor : [illegible]
Date Released : 11/15/93
Instrument ID : HP8

COMPOUND	SPIKE AMT (mg/Kg)	LCS (mg/Kg)	%REC LCS	%REC LIMITS *
BENZENE	0.020	0.016	80%	52-133
TOLUENE	0.020	0.016	80%	57-136
ETHYLBENZENE	0.020	0.018	90%	56-139
TOTAL-XYLENES	0.020	0.017	85%	56-141
SURROGATE			101%	53-147

* Quality control limits established by Anametrix, Inc.

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.23	Field Logbook No.:	Date: 11-12-93	Serial No.: No 12163
Project Name: Yerba Buena - 40th/Hollis	Project Location: Emeryville, CA		
Sampler (Signature): Michael Stoll			Samplers: MJS

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	TPHg	BTEX				HOLD	RUSH	REMARKS
(1) RAB 1	11-23-93	14:45		1	Soil			X	X				X		24-hr TAT
(2) RAB 2	11-23-93	14:50		1	Soil			X	X				X		
	i2														
	CVR														
	pm sample containers														
															Results to Jennifer Beatty

RELINQUISHED BY: (Signature) Michael Stoll	DATE 11-12-93	TIME 15:37	RECEIVED BY: (Signature)	DATE 11/12/93	TIME 15:37
RELINQUISHED BY: (Signature)	DATE 11/12/93	TIME 1735	RECEIVED BY: (Signature)	DATE 11/12/93	TIME 17:35
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:

LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500

Analytical Laboratory:

Anametrix Inc., San Jose, CA

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9312269
Date Received : 12/22/93
Project ID : 1649.23
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9312269- 1	RAB3
9312269- 2	RAB4

This report consists of 5 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

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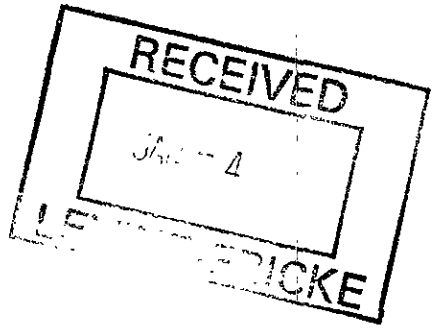
If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

12-23-93
Date



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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9312269
Date Received : 12/22/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9312269- 1	RAB3	SOIL	12/22/93	TPHgBTEX
9312269- 2	RAB4	SOIL	12/22/93	TPHgBTEX

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

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9312269
Date Received : 12/22/93
Project ID : 1649.23
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Department Supervisor 12/23/93 Date

Chemist 12/23/93 Date

Organic Analysis Data Sheet
Total Petroleum Hydrocarbons as Gasoline with BTEX
ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9312269 Client Project ID : 1649.23

Matrix : SOIL Units : mg/Kg

Compound Name	Method Reporting Limit*	Client ID RAB3 Lab ID 9312269-01	Client ID RAB4 Lab ID 9312269-02	Client ID Lab ID Method Blank	Client ID Lab ID 	Client ID Lab ID
Benzene	0.0050	ND	ND	ND		
Toluene	0.0050	ND	ND	ND		
Ethylbenzene	0.0050	ND	ND	ND		
Total Xylenes	0.0050	ND	ND	ND		
TPH as Gasoline	0.50	ND	ND	ND		
Surrogate Recovery		103%	99%	108%		
Instrument ID		HP21	HP21	HP21		
Date Sampled		12/22/93	12/22/93	N/A		
Date Analyzed		12/22/93	12/22/93	12/22/93		
RLMF		1	2	1		
Filename Reference		FPD26901.D	FPD26902.D	BD2201E1.D		

* The Method Reporting Limit must be multiplied by the Reporting Limit Multiplication Factor (RLMF) to achieve the compound's reporting limit in the analysis.

ND : Not detected at or above the reporting limit for the analysis as performed.
TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.
BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 53-147%.

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

Kamel C. Kamel 12/23/93
Analyst Date

Supervisor 12/23/93
Supervisor Date

Matrix Spike Report
Total Petroleum Hydrocarbons as BTEX
ITS - Anametrix Laboratories - (408)432-8192

Project ID : 1649.23
Sample ID : RAB4
Matrix : SOIL
Date Sampled : 12/22/93

Laboratory ID : 9312269-02
Analyst : KK
Supervisor : JS
Instrument ID : HP21
Units : mg/Kg

COMPOUND NAME	SPIKE AMOUNT	SAMPLE RESULTS	MS RECOVERY	MSD RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
Benzene	0.040	ND	115%	110%	45-139	4%	30
Toluene	0.040	ND	108%	110%	51-138	-2%	30
Ethylbenzene	0.040	ND	100%	110%	48-146	-10%	30
Total Xylenes	0.040	ND	103%	120%	50-139	-16%	30
Surrogate Recovery		99%	93%	96%			
Date Analyzed		12/22/93	12/22/93	12/22/93			
Multiplier		2	2	2			
Filename Reference		FPD26902.D	FMD26902.D	FOD26902.D			

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as BTEX
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP21
Matrix : LIQUID

Analyst : KK
Supervisor : IS
Units : mg/Kg

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Benzene	0.020	115%	52-133
Toluene	0.020	115%	57-136
Ethylbenzene	0.020	110%	56-139
Total Xylenes	0.020	110%	56-141
Surrogate Recovery		99%	61-139
Date Analyzed		12/22/93	
Multiplier		1	
Filename Reference		MD2201E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

628

4312264 (2)

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.23	Field Logbook No.:	Date: 12-22-93	Serial No.: № 12157
Project Name: YERBA BUENA - 40TH/HOLLIS	Project Location: EMERYVILLE, CA		
Sampler (Signature): Michael Stoll			Samplers: MJS

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	TPH gasoline	BTEX EPA 8020			HOLD	RUSH	REMARKS
(1) RAB3	12-22-93	10:20		1	SOIL			X	X			X		- 24hr TAT
(2) RAB4	12-22-93	10:26		1	SOIL			X	X			X		- 24hr TAT
														RESULTS TO: JENIFER BEATTY

	DATE	TIME		DATE	TIME
RELINQUISHED BY: (Signature) Michael Stoll	12-22-93	1325	RECEIVED BY: (Signature) Benny S. Cancjosa	12-22-93	1325
RELINQUISHED BY: (Signature) Benny S. Cancjosa	12-22-93 1415		RECEIVED BY: (Signature) [signature]	12/22/93	14:15
RELINQUISHED BY: (Signature)			RECEIVED BY: (Signature)		
METHOD OF SHIPMENT:			LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500

Analytical Laboratory: ANAMETRIX INC, SAN JOSE, CA

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF