

desert petroleum inc.

John Rutherford
Director
Environmental Affairs

90 MAR 19 AM 11:52

March 16, 1990

Mr. Larry Seto
Alameda County Health Department
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

8/31/89 report attached

RE: Arco #796
2844 Mountain Blvd.
Oakland, CA

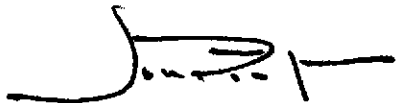
Dear Mr. Seto:

Enclosed please find a copy of the soil sampling report from our consultant which you requested. This report outlines the activities involved in the excavation of soil at the location.

I am also enclosing for your information more recent analyses of the stockpiled soil pertaining to lead.

We are working with the contractor, Diablo Tank, to remove the onsite piles to an authorized disposal facility as quickly as possible.

Very truly yours,



John D. Rutherford

JDR:jc

enclosures



ON-SITE TECHNOLOGIES

Project: 1891123A
File: 891123a.rpt

August 31, 1989

Soil Sampling Report

Name of Business: Desert Petroleum (ARCO Station)

Site Address: 2844 Mountain Blvd.
Oakland, California

Regulatory Overview: Larry Seto, Alameda County Health Department, Hazardous Materials Division.

Type of Work Performed:

Soil removal, sampling, and sample analyses recommended by Mr. Larry Seto from fill end of 3,000 gallon, super unleaded, underground storage tank.

On-Site Technologies provided sampling and sample analyses for soil obtained; 1) from excavation sides and bottom, following soil removal by Diablo Tank and Equipment from fill end of 3,000 gallon, super unleaded, underground storage tank, 2) from existing stockpiled soil (Stockpile #1) generated from previous product line trench excavation, and 3) from stockpiled soil (Stockpiles #2 and #3) generated from 1). See Site Plan (Figure 1).

In addition, groundwater which had accumulated within the excavation was sampled and analyzed.

All soil and groundwater samples were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline plus Benzene, Toluene, Ethylbenzene, and Xylene (BTEX).

Prior to the commencement of field activities proposed soil sample locations, sampling procedures, sample analyses, and a description of the general area of soil excavation was submitted to the Alameda County Health Department, Hazardous Materials Division by On-Site Technologies (Sampling Plan, dated July 5, 1989) at the request of Mr. Larry Seto.

Date of Field Activities: July 7 and August 18, 1989

Method of Soil Sample Collection and Handling:

- Soil sampled from the excavation was brought to the surface in the shovel of a backhoe and remained in the shovel. Several inches of soil was removed from the exposed surface and the sample was obtained by driving a clean brass tube with a mallet into the soil. Soil sampled from the stockpiles was performed in a similar manner except that two to three feet of material was removed from the surface of the stockpile before sampling.
- Each end of the sample tube containing the soil was covered with aluminum foil followed by plastic end caps and then sealed with duct tape.
- Soil samples were labeled and immediately placed in a refrigerated ice chest. They were maintained in that condition until delivered to a DHS certified analytical laboratory for analysis.
- Four soil samples for each 50 cubic yards of stockpiled soil was composited (by the laboratory) into into one sample in accordance with the Bay Area Air Quality Management District.
- All soil sample locations and excavated areas are shown on the Site Plan (Figure 1)
- Chain-of-custody documentation was maintained for all samples and copies are presented in Appendix A.

Site Observations:

On July 7, 1989 On-Site Technologies personnel provided guidance to equipment operators for the removal of soil presumably impacted by petroleum products. Soil was excavated to a radius of approximately five feet from the tank fill end to a depth of 12.0 feet. Operations were halted due to limited space and to await the results of sample analyses. Soil sample locations and excavation limits are presented in Figures 1 and 2.

On August 18, 1989, an accumulation of groundwater was observed in the excavation at a depth of 8.5 to 8.7 feet below grade. A discontinuous layer of floating product was observed on the groundwater surface. The groundwater surface was inspected using a clear acrylic bailer. Inspection of the bailed sample indicated that the floating product was too thin to measure. A grab groundwater sample was collected in three 40 ml VOA vials each preserved by adjusting the pH to 2.0 to 2.5 with HCl. The samples were labeled and immediately placed in an ice chest containing blue ice, until picked up by Anametrix at the end of the day.

Soil removal and sampling operations resumed with a depth limit of 8.0 feet (immediately above the water table). Soil sample locations and excavation limits are presented in Figures 1 and 2.

Description of Soil Conditions:

Soil types encountered are described in accordance with the Unified Soil Classification System.

From a depth of 0 to 1.0 feet is (baserock) a reddish brown, damp, very stiff, very gravelly clay (CL) overlain by asphalt approximately 0.2 feet in thickness.

From a depth of 1.0 to 4.5 feet is a dark grey to black, damp, stiff, very silty clay (CL) with minor gravel and abundant organics.

From a depth of 4.5 to 12.0 feet is a dark to olive green, damp, stiff, gravelly clay (CL).

Soil Sample Identification:

<u>Sample #</u>	<u>Depth (ft.)</u>	<u>Location</u>
SS325-1	@ 10.0	See Figures 1 & 2
SS325-2	@ 12.0	" " "
SS325-3	@ 4.0	" " "
SS325-4	@ 10.0	" " "
SS325-5	@ 12.0	" " "
SS325-6	@ 4.0	" " "
SS325-7	@ 10.0	" " "
SS325-8	@ 12.0	" " "
SS325-9	through	SS325-12 Stockpile #1
SS325-13	through	SS325-16 Stockpile #2
WS325-17	Groundwater	
SS325-18	@ 5.0	See Figure 1 & 2
SS325-19	@ 5.0	" " "
SS325-20	@ 8.0	" " "
SS325-21	@ 8.0	" " "
SS325-22	through	SS325-25 Stockpile #3

Laboratory results:

All soil and groundwater samples were analyzed for TPH (gasoline) plus BTEX by Anamatrix, Inc. which is state certified for performing the requested analyses. Copies of the laboratory reports are presented in Appendix B. The results of all sample analyses are summarized in tabular format below:

**Summary of Total Petroleum Hydrocarbon (gasoline)
plus BTEX Results**

Sample #	Sample depth (ft)	TPH as gasoline	Benzene	Toluene	Ethyl-benzene	Total Xylenes
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Soil Samples (in ppm)

SS325-1	@ 10.0	3,300	ND	100	30	270
SS325-2	@ 12.0	400	ND	1.0	0.8	3.8
SS325-3	@ 4.0	12	ND	0.4	ND	1.2
SS325-4	@ 10.0	30	ND	ND	ND	0.3
SS325-5	@ 12.0	13	0.4	1.0	0.2	1.3
SS325-6	@ 4.0	2	ND	ND	ND	0.1
SS325-7	@ 10.0	750	ND	25	15	75
SS325-8	@ 12.0	5	0.1	0.4	ND	0.6
SS325-9 through SS325-12	Stockpile #1	17	ND	0.2	ND	0.4
SS325-13 through SS325-16	Stockpile #2	600	ND	13	9	51
SS325-18	@ 5.0	ND	.0061	ND	ND	.008
SS325-19	@ 5.0	ND	.0074	.009	ND	.0086
SS325-20	@ 8.0	230	ND	3.8	1.3	8.5
SS325-21	@ 8.0	870	3.2	45	11	78
SS325-22 through SS325-25	Stockpile #3	1.6	ND	.059	.019	.24

Water Sample (in ppb)

SS325-17 (ppb)	160,000	720	2,200	ND	1,100
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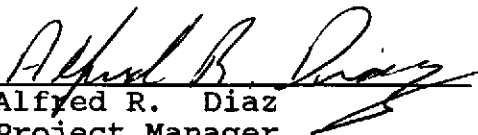
Note: ND indicates non-detectable (see laboratory report for detection limits)


Note: SS325-9 through SS325-12 composited into one sample, SS325-13 through SS325-16 composited into one sample and SS325-22 through SS325-25 composited into one sample by the laboratory.

Certification:

To the best of our knowledge all statements are true and correct.

Reviewed by:


Alfred R. Diaz
Project Manager
Hydrogeologist

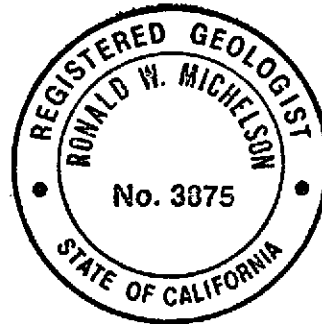

Ronald W. Michelson
Registered Geologist
(CA #3875)

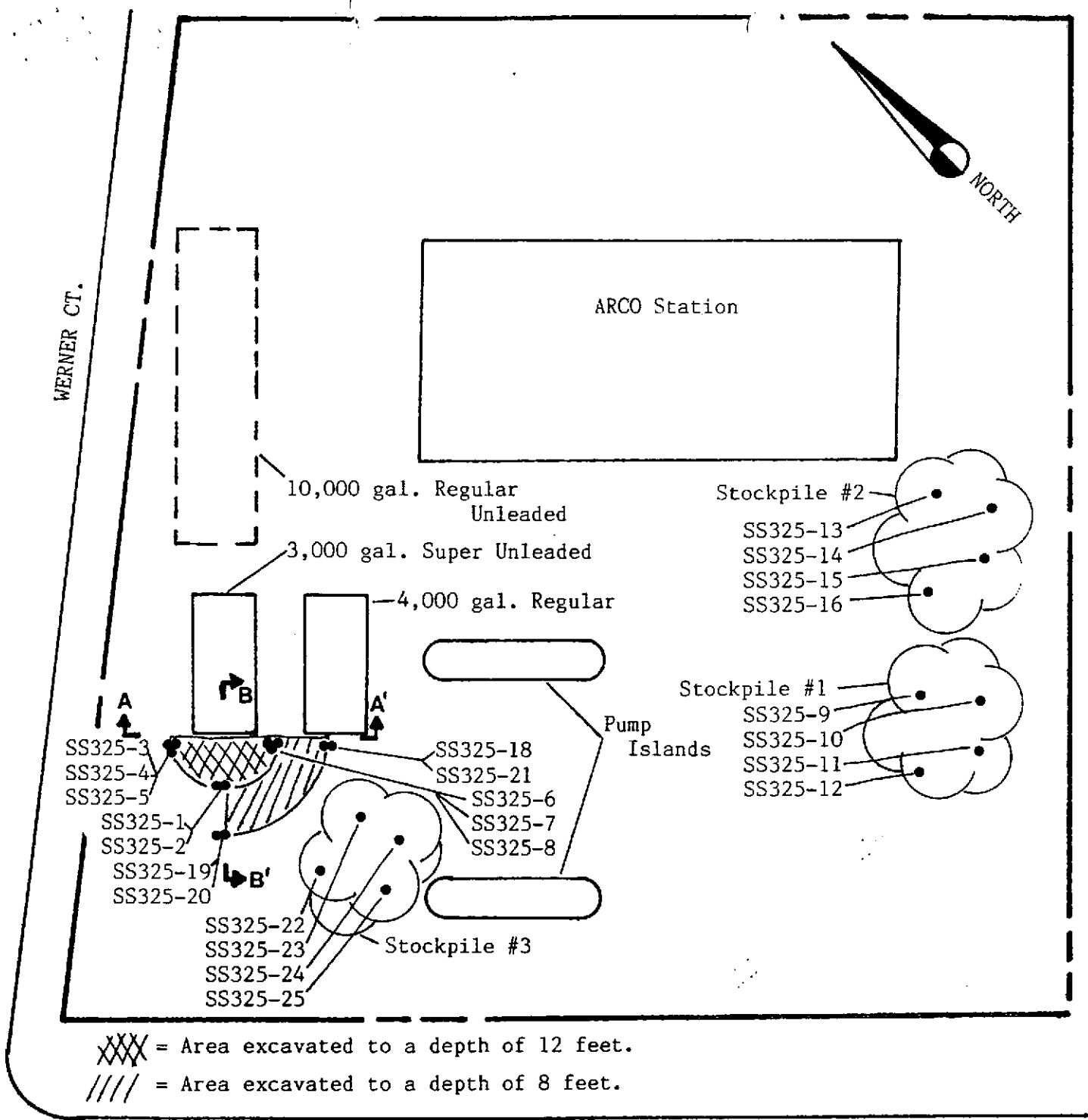
Distribution:

Mr. Larry Seto
Alameda County Health Department
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

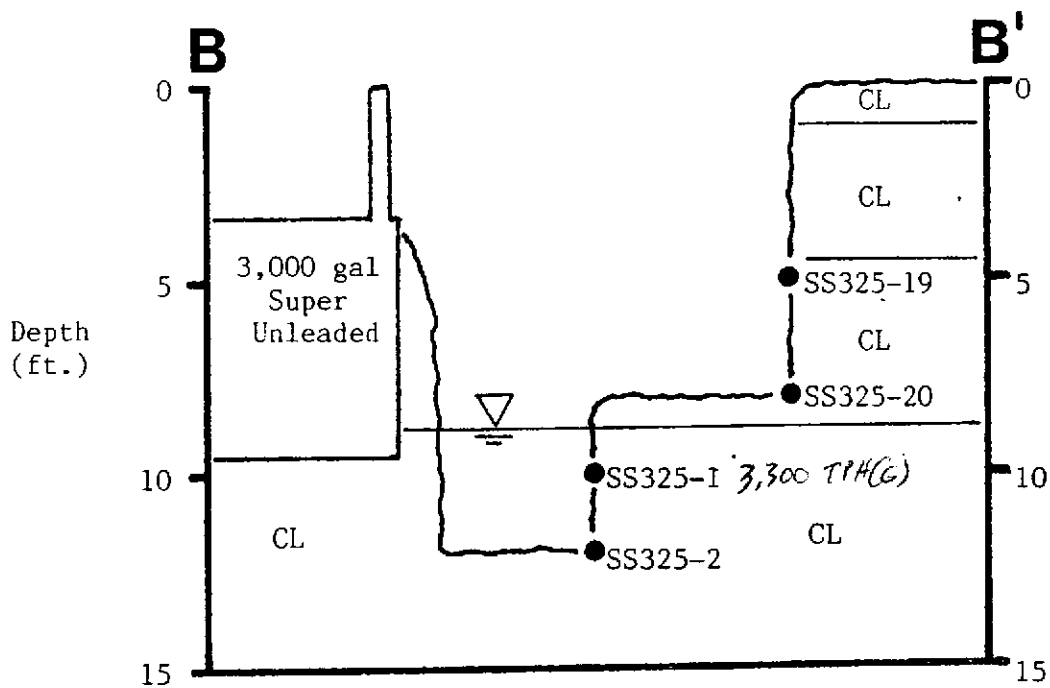
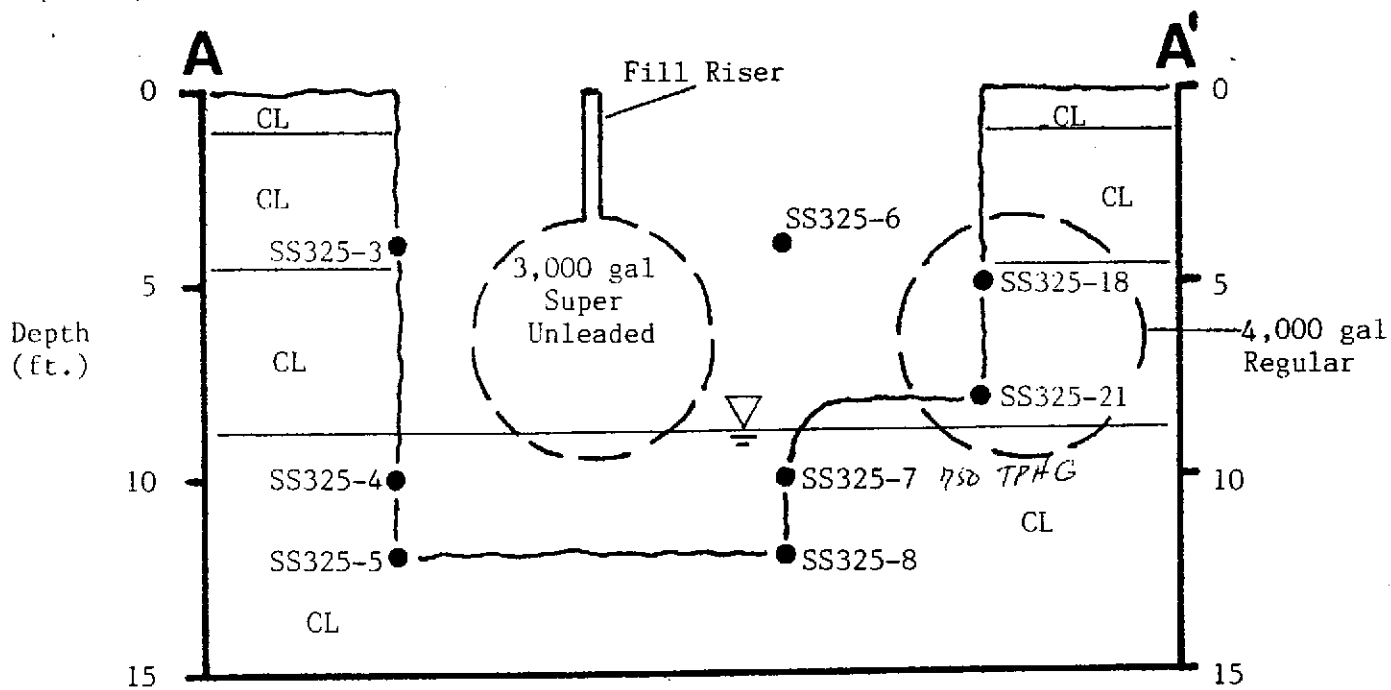
Mr. John Rutheford
Desert Petroleum, Inc.
P.O. Box 1601
Oxnard, CA 93032

Mr. Pat McShane
Diablo Tank and Equipment
3930 Pacheco Blvd.
Martinez, CA 94553






Project No. 1891123A	Figure 1 - Site Plan	Desert Petroleum 2844 Mountain Boulevard Oakland, CA
On-Site Technologies		



Horizontal and Vertical Scale:
1" = 5'

 = Groundwater surface

Project No. 1891123A	Figure 2 Cross Sections AA' and BB'	Desert Petroleum 2844 Mountain Boulevard Oakland, CA
On-Site Technologies		

ANAMETRIX INC

Environmental & Analytical Chemistry
1961 Concourse Drive, Suite E, San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

**REPORT**

Fred Diaz
On-Site Technologies
1715 South Bascom Avenue
Campbell, CA 95008

July 17, 1989
Anamatrix W.O.#: 8907031
Date Received : 07/07/89
Purchase Order#: N/A

Dear Mr. Diaz:

Your samples have been received for analysis. The REPORT SUMMARY lists your sample identifications and the analytical methods you requested. The following sections are included in this report: RESULTS.

NOTE: Amounts reported are net values, i.e. corrected for method blank contamination.

If there is any more that we can do, please give us a call. Thank you for using ANAMETRIX, INC.

Sincerely,

ANAMETRIX, INC.

A handwritten signature in cursive script that reads "Sarah Schoen".

Sarah Schoen, Ph.D.
GC Manager

SRS/dag

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

Client : On-Site Technologies
Address : 1715 South Bascom Avenue
City : Campbell, CA 95008
Attn. : Fred Diaz

Anamatrix W.O.#: 8907031
Date Received : 07/07/89
Purchase Order#: N/A
Project No. : 1891123A
Date Released : 07/17/89

Anamatrix I.D.	Sample I.D.	Matrix	Date Sampled	Method	Date Extract	Date Analyzed	Inst I.D.
RESULTS							
8907031-01	SS325-1	SOIL	07/07/89	TPHg		07/13/89	N/A
8907031-02	SS325-2	SOIL	07/07/89	TPHg		07/14/89	N/A
8907031-03	SS325-3	SOIL	07/07/89	TPHg		07/14/89	N/A
8907031-04	SS325-4	SOIL	07/07/89	TPHg		07/14/89	N/A
8907031-05	SS325-5	SOIL	07/07/89	TPHg		07/14/89	N/A
8907031-06	SS325-6	SOIL	07/07/89	TPHg		07/14/89	N/A
8907031-07	SS325-7	SOIL	07/07/89	TPHg		07/14/89	N/A
8907031-08	SS325-8	SOIL	07/07/89	TPHg		07/13/89	N/A
8907031-09	SS325-9 THRU 12	SOIL	07/07/89	TPHg		07/14/89	N/A
8907031-10	SS325-13 THRU 16	SOIL	07/07/89	TPHg		07/13/89	N/A

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-1
Matrix : SOIL
Date sampled : 07/07/89
Date anl.TPHg: 07/13/89
Date ext.TPHd: N/A
Date anl.TPHd: N/A

Anamatrix I.D. : 8907031-01
Analyst : RK
Supervisor : MS
Date released : 07/17/89
Date ext. TOG : N/A
Date anl. TOG : N/A

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	8000	ND
108-88-3	Toluene	8000	100000
100-41-4	Ethylbenzene	8000	30000
1330-20-7	Total Xylenes	8000	270000
	TPH as Gasoline	80000	3300000

- ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-2
Matrix : SOIL
Date sampled : 07/07/89
Date anl.TPHg: 07/14/89
Date ext.TPHd: N/A
Date anl.TPHd: N/A

Anamatrix I.D. : 8907031-02
Analyst : RK
Supervisor : JMS
Date released : 07/17/89
Date ext. TOG : N/A
Date anl. TOG : N/A

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	400	ND
108-88-3	Toluene	400	1000
100-41-4	Ethylbenzene	400	800
1330-20-7	Total Xylenes	400	3800
	TPH as Gasoline	4000	400000

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-3
 Matrix : SOIL
 Date sampled : 07/07/89
 Date anl.TPHg: 07/14/89
 Date ext.TPHd: N/A
 Date anl.TPHd: N/A

Anamatrix I.D. : 8907031-03
 Analyst : RK
 Supervisor : MJ
 Date released : 07/17/89
 Date ext. TOG : N/A
 Date anl. TOG : N/A

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	100	ND
108-88-3	Toluene	100	400
100-41-4	Ethylbenzene	100	ND
1330-20-7	Total Xylenes	100	1200
	TPH as Gasoline	1000	12000

- ND - Not detected at or above the practical quantitation limit for the method.
 TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
 BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-4
 Matrix : SOIL
 Date sampled : 07/07/89
 Date anl.TPHg: 07/14/89
 Date ext.TPHd: N/A
 Date anl.TPHd: N/A

Anamatrix I.D. : 8907031-04
 Analyst : RK
 Supervisor : SJ
 Date released : 07/17/89
 Date ext. TOG : N/A
 Date anl. TOG : N/A

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	100	ND
108-88-3	Toluene	100	ND
100-41-4	Ethylbenzene	100	ND
1330-20-7	Total Xylenes	100	300
	TPH as Gasoline	1000	30000

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-5
 Matrix : SOIL
 Date sampled : 07/07/89
 Date anl.TPHg: 07/14/89
 Date ext.TPHd: N/A
 Date anl.TPHd: N/A

Anametrix I.D. : 8907031-05
 Analyst : RK
 Supervisor : RJ
 Date released : 07/17/89
 Date ext. TOG : N/A
 Date anl. TOG : N/A

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	100	400
108-88-3	Toluene	100	1000
100-41-4	Ethylbenzene	100	200
1330-20-7	Total Xylenes	100	1300
	TPH as Gasoline	1000	13000

- ND - Not detected at or above the practical quantitation limit for the method.
 TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
 BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-6
 Matrix : SOIL
 Date sampled : 07/07/89
 Date anl.TPHg: 07/14/89
 Date ext.TPHd: N/A
 Date anl.TPHd: N/A

Anametrix I.D. : 8907031-06
 Analyst : RK
 Supervisor : JS
 Date released : 07/17/89
 Date ext. TOG : N/A
 Date anl. TOG : N/A

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	100	ND
108-88-3	Toluene	100	ND
100-41-4	Ethylbenzene	100	ND
1330-20-7	Total Xylenes	100	100
	TPH as Gasoline	1000	2000

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

TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-7
 Matrix : SOIL
 Date sampled : 07/07/89
 Date anl.TPHg: 07/14/89
 Date ext.TPHd: N/A
 Date anl.TPHd: N/A

Anamatrix I.D. : 8907031-07
 Analyst : RK
 Supervisor : MS
 Date released : 07/17/89
 Date ext. TOG : N/A
 Date anl. TOG : N/A

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	4000	ND
108-88-3	Toluene	4000	25000
100-41-4	Ethylbenzene	4000	15000
1330-20-7	Total Xylenes	4000	75000
	TPH as Gasoline	40000	750000

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

TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-8
Matrix : SOIL
Date sampled : 07/07/89
Date anl.TPHg: 07/13/89
Date ext.TPHd: N/A
Date anl.TPHd: N/A

Anametrix I.D. : 8907031-08
Analyst : RK
Supervisor : MJ
Date released : 07/17/89
Date ext. TOG : N/A
Date anl. TOG : N/A

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	100	100
108-88-3	Toluene	100	400
100-41-4	Ethylbenzene	100	ND
1330-20-7	Total Xylenes	100	600
	TPH as Gasoline	1000	5000

- ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-9 THRU 12
Matrix : SOIL
Date sampled : 07/07/89
Date anl.TPHg: 07/14/89
Date ext.TPHd: N/A
Date anl.TPHd: N/A

Anamatrix I.D. : 8907031-09
Analyst : RK
Supervisor : JMS
Date released : 07/17/89
Date ext. TOG : N/A
Date anl. TOG : N/A

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	100	ND
108-88-3	Toluene	100	200
100-41-4	Ethylbenzene	100	ND
1330-20-7	Total Xylenes	100	400
	TPH as Gasoline	1000	17000

- ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

STOCK PILE # 1

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-13 THRU 16
 Matrix : SOIL
 Date sampled : 07/07/89
 Date anl.TPHg: 07/13/89
 Date ext.TPHd: N/A
 Date anl.TPHd: N/A

Anamatrix I.D. : 8907031-10
 Analyst : RK
 Supervisor : RJ
 Date released : 07/17/89
 Date ext. TOG : N/A
 Date anl. TOG : N/A

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	4000	ND
108-88-3	Toluene	4000	13000
100-41-4	Ethylbenzene	4000	9000
1330-20-7	Total Xylenes	4000	51000
	TPH as Gasoline	40000	600000

- ND - Not detected at or above the practical quantitation limit for the method.
 TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
 BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

STOCK PILE # 2

ANAMETRIX INC

Environmental & Analytical Chemistry
1961 Concourse Drive, Suite E, San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198



REPORT

Fred Diaz
On-Site Technologies
1715 S. Bascom Avenue
Campbell, CA 95008

August 29, 1989
Anamatrix W.O.#: 8908168
Date Received : 08/18/89
Project No. : 1891123A

Dear Mr. Diaz:

Your samples have been received for analysis. The REPORT SUMMARY lists your sample identifications and the analytical methods you requested. The following sections are included in this report: RESULTS.

NOTE: Amounts reported are net values, i.e. corrected for method blank contamination.

If there is any more that we can do, please give us a call. Thank you for using ANAMETRIX, INC.

Sincerely,

ANAMETRIX, INC.

A handwritten signature in cursive script that reads "Terry Cooke".

Terry Cooke
TPH Supervisor

TC/lm

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

Client : On-Site Technologies
Address : 1715 S. Bascom Avenue
City : Campbell, CA 95008
Attn. : Fred Diaz

Anametrix W.O.#: 8908168
Date Received : 08/18/89
Purchase Order#: N/A
Project No. : 1891123A
Date Released : 08/29/89

Anametrix I.D.	Sample I.D.	Matrix	Date Sampled	Method	Date Extract	Date Analyzed	Inst I.D.
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RESULTS

8908168-01	WS325-17	WATER	08/18/89	TPHg		08/25/89	N/A
8908168-02	SS325-18	SOIL	08/18/89	TPHg		08/25/89	N/A
8908168-03	SS325-19	SOIL	08/18/89	TPHg		08/24/89	N/A
8908168-04	SS325-20	SOIL	08/18/89	TPHg		08/23/89	N/A
8908168-05	SS325-21	SOIL	08/18/89	TPHg		08/22/89	N/A
8908168-06	SS325-22, 23, 24, 25	SOIL	08/18/89	TPHg		08/28/89	N/A

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A WS325-17
Matrix : WATER
Date sampled : 08/18/89
Date anl.TPHg: 08/25/89
Date ext.TPHd: N/A
Date anl.TPHd: N/A

Anamatrix I.D. : 8908168-01
Analyst : *CE*
Supervisor : *TC*
Date released : 08/29/89
Date ext. TOG : N/A
Date anl. TOG : N/A

CAS #	Compound Name	Detection Limit (ug/l)	Amount Found (ug/l)
71-43-2	Benzene	200	720
108-88-3	Toluene	200	2200
100-41-4	Ethylbenzene	200	ND
1330-20-7	Total Xylenes	400	1100
	TPH as Gasoline	10000	160000

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

TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-18
Matrix : SOIL
Date sampled : 08/18/89
Date anl.TPHg: 08/25/89
Date ext.TPHd: N/A
Date anl.TPHd: N/A

Anamatrix I.D. : 8908168-02
Analyst : *CB*
Supervisor : *TC*
Date released : 08/29/89
Date ext. TOG : N/A
Date anl. TOG : N/A

CAS #	Compound Name	Detection Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	5	6.1
108-88-3	Toluene	5	ND
100-41-4	Ethylbenzene	5	ND
1330-20-7	Total Xylenes	5	8.0
	TPH as Gasoline	1000	ND

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

TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-19
 Matrix : SOIL
 Date sampled : 08/18/89
 Date anl.TPHg: 08/24/89
 Date ext.TPHd: N/A
 Date anl.TPHd: N/A

Anamatrix I.D. : 8908168-03
 Analyst : CB
 Supervisor : TC
 Date released : 08/29/89
 Date ext. TOG : N/A
 Date anl. TOG : N/A

CAS #	Compound Name	Detection Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	5	7.4
108-88-3	Toluene	5	9.0
100-41-4	Ethylbenzene	5	ND
1330-20-7	Total Xylenes	5	8.6
	TPH as Gasoline	1000	ND

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

TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-20
 Matrix : SOIL
 Date sampled : 08/18/89
 Date anl.TPHg: 08/23/89
 Date ext.TPHd: N/A
 Date anl.TPHd: N/A

Anamatrix I.D. : 8908168-04
 Analyst : *EB*
 Supervisor : *TC*
 Date released : 08/29/89
 Date ext. TOG : N/A
 Date anl. TOG : N/A

CAS #	Compound Name	Detection Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	200	ND
108-88-3	Toluene	200	3800
100-41-4	Ethylbenzene	200	1300
1330-20-7	Total Xylenes	200	8500
	TPH as Gasoline	4000	230000

- ND - Not detected at or above the practical quantitation limit for the method.
 TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
 BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-21
 Matrix : SOIL
 Date sampled : 08/18/89
 Date anl.TPHg: 08/22/89
 Date ext.TPHd: N/A
 Date anl.TPHd: N/A

Anamatrix I.D. : 8908168-05
 Analyst :
 Supervisor :
 Date released : 08/29/89
 Date ext. TOG : N/A
 Date anl. TOG : N/A

CAS #	Compound Name	Detection Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	2000	3200
108-88-3	Toluene	2000	45000
100-41-4	Ethylbenzene	2000	11000
1330-20-7	Total Xylenes	2000	78000
	TPH as Gasoline	40000	870000

- ND - Not detected at or above the practical quantitation limit for the method.
 TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
 BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1891123A SS325-22,23,24,25
 Matrix : SOIL
 Date sampled : 08/18/89
 Date anl.TPHg: 08/28/89
 Date ext.TPHd: N/A
 Date anl.TPHd: N/A

Anamatrix I.D. : 8908168-06
 Analyst : JG
 Supervisor : JC
 Date released : 08/29/89
 Date ext. TOG : N/A
 Date anl. TOG : N/A

CAS #	Compound Name	Detection Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	10	ND
108-88-3	Toluene	10	59
100-41-4	Ethylbenzene	10	19
1330-20-7	Total Xylenes	10	240
	TPH as Gasoline	2000	1600

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

TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

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

FEDERAL
4382387774
 USE THIS AIRBILL FOR DOMESTIC SHIPMENTS WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
 USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO.
 QUESTIONS? CALL 800-238-4335 TOLL FREE.
AIRBILL PACKAGE TRACKING NUMBER **4382387774**

RECIPIENT'S COPY

Date: 9-11-89

From (Your Name) Please Print Fred Diaz	Your Phone Number (Very Important) (408) 371-4810	To (Recipient's Name) Please Print Larry Seto	Recipient's Phone Number (Very Important) (415) 271-4320
Company ...	Department/Floor No.	Company Alameda County Health Dept./Haz. Mat. Dept.	Department/Floor No.
Street Address ...		Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.) 50 Swan Way, Room 200	
City ...	State CA	City Oakland,	State CA
ZIP Required		ZIP Required 94621	

YOUR BILLING REFERENCE INFORMATION (First 24 characters will appear on invoice.)
Project #1391123A

IF HOLD FOR PICK-UP, Print FEDEX Address Here

Street Address	City	State	ZIP Required
----------------	------	-------	--------------

PAYMENT 1 Bill Sender 2 Bill Recipient's FedEx Acct. No. 3 Bill 3rd Party FedEx Acct. No. 4 Bill Credit Card
 5 Cash

SERVICES (Check only one box)		DELIVERY AND SPECIAL HANDLING		PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE	OVER SIZE	Emp. No.	Date	Federal Express Use Base Charges
Priority Overnight Service (Delivery by next business morning!)	Standard Overnight Service (Delivery by next business afternoon!)	<input checked="" type="checkbox"/> HOLD FOR PICK-UP (In Box H)	<input checked="" type="checkbox"/> DELIVER WEEKDAY	1	1			<input type="checkbox"/> Cash Received		Declared Value Charge
11 <input type="checkbox"/> YOUR PACKAGING	51 <input type="checkbox"/>	2 <input type="checkbox"/>	3 DELIVER SATURDAY (Extra charge)					<input type="checkbox"/> Return Shipment		Other 1
16 <input checked="" type="checkbox"/> FEDEX LETTER*	56 <input type="checkbox"/> FEDEX LETTER*	4 <input type="checkbox"/> DANGEROUS GOODS (Extra charge)	4 <input type="checkbox"/>	Total	Total	Total		<input type="checkbox"/> Third Party <input type="checkbox"/> Chg. To Del. <input type="checkbox"/> Chg. To Hold		Other 2
2 <input type="checkbox"/> FEDEX PAK*	52 <input type="checkbox"/> FEDEX PAK*	5 <input type="checkbox"/> CONSTANT SURVEILLANCE SVC. (CSS) (Extra charge) (Release: Signature Not Applicable)	5 <input type="checkbox"/>					Street Address		Total Charges
13 <input type="checkbox"/> FEDEX BOX	50 <input type="checkbox"/> FEDEX BOX	6 <input type="checkbox"/> DRY ICE (Use)	6 <input type="checkbox"/>					City		
14 <input type="checkbox"/> FEDEX TUBE	54 <input type="checkbox"/> FEDEX TUBE	7 <input type="checkbox"/> OTHER SPECIAL SERVICE	7 <input type="checkbox"/>					State		
Economy Service (formerly Standard Air) (Delivery by second business day!)	Heavyweight Service (for Extra Large or any package over 150 lbs.)	8 <input type="checkbox"/>	8 <input type="checkbox"/>					Zip		
10 <input type="checkbox"/> ECONOMY SERVICE	70 <input type="checkbox"/> HEAVYWEIGHT**	9 <input type="checkbox"/> SATURDAY PICK-UP (Extra charge)	9 <input type="checkbox"/>					Received By:		
Delivery commitment may be later in some areas.	*Declared Value Limit \$100. **Call for delivery schedule.	10 <input type="checkbox"/>	10 <input type="checkbox"/>					Date/Time Received	FedEx Employee Number	REVISION DATE 8/89 PART #113501 FXE 7/89 FORMAT #014
		11 <input type="checkbox"/>	11 <input type="checkbox"/>					<input checked="" type="checkbox"/> X		014
		12 <input type="checkbox"/> HOLIDAY DELIVERY (4 charges) (Extra charge)	12 <input type="checkbox"/>					Release Signature		© 1989 F.E.C. PRINTED IN U.S.A.

APPENDIX A

Chain of Custody Document

TO: Anamcity
(Laboratory Name)

8908168



ON-SITE TECHNOLOGIES

(408) 371-4810

CHAIN OF CUSTODY RECORD

Attention: Fred Diaz

Project Number 1891123A		Site Name & Address Desert Petroleum 2844 Mountain Blvd, Oakland				No. of containers	Analyses requested							REMARKS
SAMPLERS: (Signature) <u>Fred Diaz</u>							TPH as Gas +BTEX*	TPH as Diesel*	VOC - EPA 8240*	TOG - EPA 8240*	Waste Oil Suite*	TPH (High Boilers)	Total Oil & Grease	
Sample No.	Date	Time	Soil	Water	Location of Sample									
01	WS325-17	9/18/89		X	Excavation groundwater	3 VOA _s	X						Acidified to pH 2.0-2.5	
02	SS325-18	"	X		@ 1.0'	1 brass liner	X							
03	SS325-19	"	X		@ 5.0'	"	X							
04	SS325-20	"	X		@ 2.0'	"	X							
05	SS325-21	"	X		@ 1.0'	"	X							
6/2	SS325-22	"	X		Composite #3	"	X						Composite into one sample and analyze	
	SS325-23	"	X	"										
	SS325-24	"	X	"										
	SS325-25	"	X	"										
													Regular 10-day turnaround	
													*Per RWQCB Guidelines	

Relinquished by:(signature)	Date/Time	Received by:(signature)
Relinquished by:(signature)	Date/Time	Received by:(signature)
Relinquished by:(signature) <u>Fred Diaz</u>	Date/Time 9/18/89	Received for LABORATORY by: (signature) <u>Jahil M. ...</u>

The following **MUST BE** completed by the laboratory accepting samples for analysis:

- 1) Have all samples received been stored in ice? yes
- 2) Did any VOA samples received have any head space? NO
- 3) Were samples in appropriate containers and packaged properly? yes

Jahil M. ... COURIER 8/18/89
Date

TO: Anamatrix
(Laboratory Name)



ON-SITE TECHNOLOGIES

(408) 371-4810

CHAIN OF CUSTODY RECORD

Attention: Fred Diaz

Project Number 1891123A		Site Name & Address 2574 N. Santa Rosa Blvd. Oakland				Analyses requested	No. of containers	REMARKS									
SAMPLERS: (Signature) <i>Fred Diaz</i>																	
Sample No.	Date	Time	Soil	Water	Location of Sample	TPH as Gas *BTEX*	TPH as Diesel*	VOC - EPA 8240*	TrC - EPA 8240*	Waste Oil Suite* TPH (High Boilers) Total Oil & Grease EPA 8240 plus Identify 10 highest peaks.							
SS325-1	7/7/89		X		@ 10.0'	X											Hydrocarbon odor
SS325-2	"		X		@ 12.0'	X											Slight hydrocarbon odor
SS325-3	"		X		@ 4.0'	X											Slight Hydrocarbon odor
SS325-4	"		X		@ 10.0'	X											Slight Hydrocarbon odor
SS325-5	"		X		@ 12.0'	X											Slight Hydrocarbon odor
SS325-6	"		X		@ 4.0'	X											Hydrocarbon odor
SS325-7	"		X		@ 10.0'	X											Hydrocarbon odor
SS325-8	"		X		@ 12.0'	X											Hydrocarbon odor
SS325-9 thru SS325-12	"		X		Stockpile #1	4 brass liners	X										Composite into one sample
SS325-13 thru SS325-16	"		X		Stockpile #2	"	X										Composite into one sample (Hydrocarbon odor)
												(5-day turnaround)					
												*Per RWQCB Guidelines					

Relinquished by:(signature) <i>Fred Diaz</i>	Date/Time 7/7/89 15:50	Received by:(signature) <i>Jay M. Mazzotta</i>
Relinquished by:(signature)	Date/Time	Received by:(signature)
Relinquished by:(signature)	Date/Time	Received for LABORATORY by: (signature) Date/Time

The following MUST BE completed by the laboratory accepting samples for analysis:

- 1) Have all samples received been stored in ice? yes
- 2) Did any VOA samples received have any head space? _____
- 3) Were samples in appropriate containers and packaged properly? yes

Jay M. Mazzotta Courier 7/7/89

ENSECO—CRL/Ventura

2810 Bunsen Ave. Unit A • Ventura, CA 93003
 (805) 650-0546 • FAX: (805) 650-0756

RSI
 P.O.Box 1601
 Oxnard, CA. 93032
 FAX #(805)988-1572

11/09/89

Attn: M. Sulka
 805/644/5892

Project: DP 796 Oakland

Sample #: 9303131501
 Received: 10/30/89
 Type: Soil

Collector: Client
 Sampling Date & Time: 10/27/89, 1500
 Method: Grab

I.D.: #1

CONSTITUENT	METHOD	RESULT	UNIT	MDL
Lead, Total	EPA 7420	3	mg/kg	1
Organic Lead	DOHS	ND <0.5	mg/kg	0.5

Sample #: 9303131502
 Received: 10/30/89
 Type: Soil

Collector: Client
 Sampling Date & Time: 10/27/89, 1500
 Method: Grab

I.D.: #2

Lead, Total	EPA 7420	6	mg/kg	1
Organic Lead	DOHS	ND <0.5	mg/kg	0.5

Sample #: 9303131503
 Received: 10/30/89
 Type: Soil

Collector: Client
 Sampling Date & Time: 10/27/89, 1445
 Method: Grab

I.D.: #3

Lead, Total	EPA 7420	7	mg/kg	1
Organic Lead	DOHS	ND <0.5	mg/kg	0.5

ENSECO—CRL/Ventura

2810 Bunsen Ave. Unit A • Ventura, CA 93003
 (805) 650-0546 • FAX: (805) 650-0756

Sample #: 9303131504
 Received: 10/30/89
 Type: Soil

Collector: Client
 Sampling Date & Time: 10/27/89, 1445
 Method: Grab

I.D.: #4

CONSTITUENT	METHOD	RESULT	UNIT	MDL
Lead, Total	EPA 7420	8	mg/kg	1
Organic Lead	DOHS	ND	<0.5 mg/kg	0.5

Sample #: 9303131505
 Received: 10/30/89
 Type: Soil

Collector: Client
 Sampling Date & Time: 10/27/89, 1430
 Method: Grab

I.D.: #5

Lead, Total	EPA 7420	10	mg/kg	1
Organic Lead	DOHS	ND	<0.5 mg/kg	0.5

Sample #: 9303131506
 Received: 10/30/89
 Type: Soil

Collector: Client
 Sampling Date & Time: 10/27/89, 1430
 Method: Grab

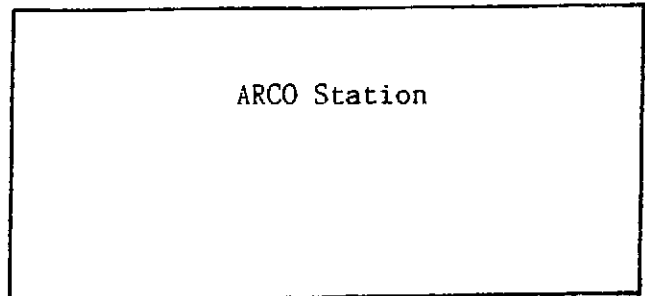
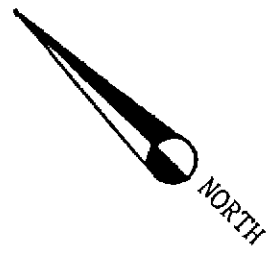
I.D.: #6

Lead, Total	EPA 7420	9	mg/kg	1
Organic Lead	DOHS	ND	<0.5 mg/kg	0.5

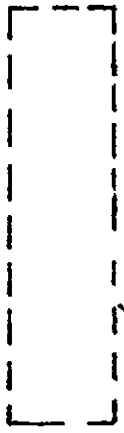

 Reviewed


 Approved

WERNER CT.

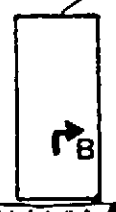


ARCO Station



10,000 gal. Regular Unleaded

3,000 gal. Super Unleaded



4,000 gal. Regular

Stockpile #2

- SS325-13
- SS325-14
- SS325-15
- SS325-16

Stockpile #1

- SS325-9
- SS325-10
- SS325-11
- SS325-12

Pump Islands

- SS325-3
- SS325-4
- SS325-5
- SS325-1
- SS325-2
- SS325-19
- SS325-20

- SS325-18
- SS325-21
- SS325-6
- SS325-7
- SS325-8

- SS325-22
- SS325-23
- SS325-24
- SS325-25

Stockpile #3

XXXX = Area excavated to a depth of 12 feet.
 //// = Area excavated to a depth of 8 feet.

Scale: 1" = 15'

MOUNTAIN BLVD

LEAD SAMPLING POINTS
 10-30-89

Project No. 1891123A	Figure 1 - Site Plan	Desert Petroleum 2844 Mountain Boulevard Oakland, CA
On-Site Technologies		



- 7440 Lincoln Way, Garden Grove, CA 92641, (714) 898-6370
- 2810 Bunsen Ave., Unit A Ventura, CA 93003, (805) 650-0546
- 2325 Skyway Dr., Unit K, Santa Maria, CA 93455, (805) 922-2776
- 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) 442-8400
- Mobile Labs, (800) ENSECO-8

CHAIN OF CUSTODY RECORD

Date 10-27-89 Page 1 of 1

Lab Number _____

CLIENT <u>RSI</u> ADDRESS <u>BOX 1601 OAKLAND CA 93032</u> <u>DP 796 OAKLAND</u> PROJECT NAME CONTRACT / PURCHASE ORDER / QUOTE #	PROJECT MANAGER <u>MIKE SULTA</u> PHONE NUMBER <u>805-644-5892</u> SITE CONTACT
---	---

ANALYSES
 TOTAL LEAD TTLC
 ORGANIC LEAD STLC

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE			No. of Containers							Sample Condition/REMARKS	
				LIQ.	AIR	Soil SOLID									
DP 796 # 1	10/27	15:00				X	1	X	X						
DP 796 # 2	10/27	15:00				X	1	X	X						
DP 796 # 3	10/27	14:45				X	1	X	X						
DP 796 # 4	10/27	14:45				X	1	X	X						
DP 796 # 5	10/27	14:30				X	1	X	X						
DP 796 # 6	10/27	14:30				X	1	X	X						

SAMPLERS: (Signature) <u>Mike Sulta</u>	Received by: (Signature) <u>Mike Sulta</u>	Date	Time	The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.
Relinquished by: (Signature) <u>Mike Sulta</u>	Received by: (Signature)	Date	Time	

Relinquished by: (Signature)	Date	Time	Received for Laboratory by:	Date RECEIVED	Time	Date ACCEPTED	Time
			<u>Jim A N</u>	<u>10/30/89</u>	<u>1221</u>		

Method of Shipment: Special Instructions: <u>Normal TAT</u>	SAMPLE DISPOSITION: 1. Storage time requested: _____ days (Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.) 2. Sample to be returned to client: Y N (Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)
---	--