

**AQUA TERRA TECHNOLOGIES**

2950 Buskirk Avenue, Suite 120

Walnut Creek, CA 94596

Tel. (415) 934-4884

Fax. (415) 934-0418

FAX TRANSMITTAL FORM

Date: 12/7/90

Fax Trans To: Susan Hugo

Alameda County Environmental Health

Location: \_\_\_\_\_

Fax Number: (415) 568-3706

From: Tukume Fogley

Staff Scientist

A/T Job Number: 9211

Number of Pages: 41  
(including cover)

Comments: As per your conversation with Terry Carter (12/6/90) I am sending analytical results for soils removed during tank removals and excavation activities at Children's Hospital, 747 52nd St. Oakland. Tank removal occurred on 10/9/90. Samples from the excavation of the gasoline tank are designated SP1; pit wall samples taken 10/9/90 from the gas tank pit are TSA1 & TSA2; the excavation soil and pit wall samples from the removal of the remaining tanks are designated SP2, TSA & TSB; Similarly soils excavated 10/17/90 from the gasoline tank pit are designated SPA; tank pit wall samples are designated TSA through TSD; The soils SP1 & SPA were transported to Liquid Waste Management; Soils SP2 & SPB were transported to

If transmitting problems occur, call \_\_\_\_\_ at (415) 934-4884.

CE/FAX0522.FRM

from the "2-tank" pit are designated SPB & TSE

ATT

SAMPLE COLLECTION RECORD - SOIL

Date: 10-9-90 Job No.: 9211 Page 1 of 1

Site Location: \_\_\_\_\_

Sample Location Sketch/Site Plan Attached?: Y / N

Samples from (check one):  Stockpile,  Excavation Pit,  
 Other (explain)/ TANK REMOVAL

Sampling Equipment:  Hammer,  Spade-Shovel,  Hand Sampler,  
 Other (indicate)/ \_\_\_\_\_

Equipment Cleaning:  Triple Rinsed,  Steam Cleaned,  
 Other (indicate)/ \_\_\_\_\_

Sample Cont. Cleaning:  Pre-Cleaned,  Steam Cleaned,  
 Triple Rinsed,  Other (indicate)/ \_\_\_\_\_

Sample I.D.	No. of Cont.	No. of Dupli.	Lith-ology	Texture/ Pliabil.	Moisture Content	Type of Contain	Coll. Time
TSC	1	<del>0</del>		CRUMBLY	LOW	BRASS 2" TUBE	10:00
TSB	1	<del>0</del>		CRUMBLY	MED	"	10:20
TSA 1	1	<del>0</del>		STICKY	MED	"	10:27
TSA 2	1	<del>0</del>		CRUMBLY	MED	"	10:30
SP 2	1	<del>0</del>		CRUMBLY	LOW	"	10:45
SP 1	1	<del>0</del>		STICKY	MED	"	10:52

Sample Preservation:  Iced Cooler,  Other/ \_\_\_\_\_

Notes: TANK HOLE 'B' HAD ODER, TANK HOLE 'A' HAD ODER

*[Handwritten Signature]*

Agua Terra Technologies  
 2950 Buskirk Avenue Ste. 120  
 Walnut Creek, CA 94596  
 Tel. (415) 934-4884  
 Fax. (415) 934-0418

CHAIN OF SAMPLE CUSTODY RECORD  
 (original document, please return)

Page 1 of 1

Sampled By: DAVID BARDLEY

Date Sampled: 10 / 9 / 90

Signature: [Signature]

Job Number: 9211

Results To Be Sent To: TERRY CARTER

Laboratory Name: ENVIRONMENTAL

Results Needed By: 10 HR. FORWARDS

Contact: \_\_\_\_\_

Sampling Location: \_\_\_\_\_

Phone #: \_\_\_\_\_

Sample Identification						Analysis/EPA Method No.						Remarks
Sample ID	Time (24 hr)	Matrix	Number of Containers	Preserved	2" DRY ICE	BIEX	TPH-G	TPH-D	TOG	CL HC	TOTAL LEAD	
TSC	10:00	SOIL	1	*	1	✓	✓	✓	✓	✓	✓	NO
TSB	10:26	SOIL	1	*	1	✓	✓	✓	✓	✓	✓	NO
TSA 1	10:27	"	1	*	1	✓	✓			✓		
TSA 2	10:30	"	1	*	1	✓	✓			✓		
SP 2	10:45	"	1	*	1	✓	✓	✓	✓	✓	✓	NO
SP 1	10:52	"	1	*	1	✓	✓	✓	✓	✓	✓	NO

Notes: \* = w/ DRY ICE

Relinquished By	Date	Time

Received By	Date	Time

**SAMPLE COLLECTION RECORD - SOIL**

1111

Date: 10-9-90, Job No.: \_\_\_\_\_ Page 1 of 1

Site Location: \_\_\_\_\_

Sample Location Sketch/Site Plan Attached?: Y / N

Samples from (check one): \_\_\_\_\_ Stockpile,  Excavation Pit,

\_\_\_\_\_ Other (explain)/ TANK REMOVAL

Sampling Equipment: \_\_\_\_\_ Hammer, \_\_\_\_\_ Spade-Shovel,  Hand Sampler,

\_\_\_\_\_ Other (indicate)/ \_\_\_\_\_

Equipment Cleaning:  Triple Rinsed, \_\_\_\_\_ Steam Cleaned,

\_\_\_\_\_ Other (indicate)/ \_\_\_\_\_

Sample Cont. Cleaning:  Pre-Cleaned, \_\_\_\_\_ Steam Cleaned,

\_\_\_\_\_ Triple Rinsed, \_\_\_\_\_ Other (indicate)/ \_\_\_\_\_

Sample I.D.	No. of Cont.	No. of Dupli.	Lithology	Texture/Pliability	Moisture Content	Type of Container	Coll. Time
TSC	1	<del>0</del>		CRUMBLY	LOW	BRASS 2" TUBE	10:00
TGB	1	<del>0</del>		CRUMBLY	MED	"	10:26
TSA 1	1	<del>0</del>		STICKY	MED	"	10:27
TSA 2	1	<del>0</del>		CRUMBLY	MED	"	10:30
SP 2	1	<del>0</del>		CRUMBLY	LOW	"	10:45
SP 1	1	<del>0</del>		STICKY	MED	"	10:52

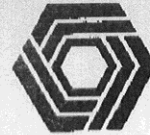
Sample Preservation:  Iced Cooler, \_\_\_\_\_ Other/ \_\_\_\_\_

Notes: TANK HOLE 'B' HAD ODER, TANK HOLE 'A' HAD ODER

Sampled By (signature): [Signature]

**ANAMETRIX INC**

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

**REPORT**

TERRY CARTER  
 AQUA TERRA TECHNOLOGIES  
 2950 BUSKIRK AVENUE SUITE 120  
 WALNUT CREEK, CA 94596

Workorder # : 9010138  
 Date Received : 10/10/90  
 Project ID : 9211  
 Purchase Order: N/A

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

ANAMETRIX ID	CLIENT SAMPLE ID
9010138- 1	TSC
9010138- 2	TSB
9010138- 3	TSA1
9010138- 4	TSA2
9010138- 5	SP2
9010138- 6	SP1

This report is paginated for your convenience and ease of review. It contains 17 pages excluding the cover letter. The report is organized into sections. Each section contains all analytical results and quality assurance data related to a specific group or section within Anametrix. The Report Summary that precedes each section will help you determine which group at Anametrix generated the data. The Report Summary will contain the signatures of the department supervisor and a chemist, both of whom reviewed the analytical data. Please refer all questions to the department supervisor that signed the form.

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.

*Burt Sutherland*

Burt Sutherland  
 Laboratory Director

10-13-90  
 Date

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

TERRY CARTER  
AQUA TERRA TECHNOLOGIES  
2950 BUSKIRK AVENUE SUITE 120  
WALNUT CREEK, CA 94596

Workorder # : 9010138  
Date Received : 10/10/90  
Project ID : 9211  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

## SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9010138- 1	TSC	SOIL	10/09/90	TPHd
9010138- 2	TSB	SOIL	10/09/90	TPHd
9010138- 5	SP2	SOIL	10/09/90	TPHd
9010138- 1	TSC	SOIL	10/09/90	TPHg/BTEX
9010138- 2	TSB	SOIL	10/09/90	TPHg/BTEX
9010138- 3	TSA1	SOIL	10/09/90	TPHg/BTEX
9010138- 4	TSA2	SOIL	10/09/90	TPHg/BTEX
9010138- 5	SP2	SOIL	10/09/90	TPHg/BTEX
9010138- 6	SP1	SOIL	10/09/90	TPHg/BTEX

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

TERRY CARTER  
AQUA TERRA TECHNOLOGIES  
2950 BUSKIRK AVENUE SUITE 120  
WALNUT CREEK, CA 94596

Workorder # : 9010138  
Date Received : 10/10/90  
Project ID : 9211  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for workorder.

Chemil Balmer  
Department Supervisor      10/17/90  
Date

C. F.  
Chemist      10.17.90  
Date

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

Anametrix W.O.#: 9010138  
Matrix : SOIL  
Date Sampled : 10/09/90

Project Number : 9211  
Date Released : 10/17/90

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# SP1	Sample I.D.# 08B1013C	Sample I.D.# 04B1015A
		-06	BLANK	BLANK
Benzene	0.005	ND	ND	ND
Toluene	0.005	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND
TPH as Gasoline	0.5	ND	ND	ND
% Surrogate Rec.		71%	98%	105%
Instrument #		HP4	HP8	HP4
Date Analyzed		10/15/90	10/13/90	10/15/90
RLMF		1	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 EPA Method 5030.  
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.  
RLMF - Reporting Limit Multiplication Factor.

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

Ci Z 10.17.90  
Analyst Date

Carol Balmer 10/17/90  
Supervisor Date



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FAX TRANSMITTAL FORM

Date: 12/7/90

Fax Trans To: Susan Hugo (Continuing)  
Alameda County Environmental Health

Location: \_\_\_\_\_

Fax Number: (415) 568-3706

From: Julianne Fogley  
Staff Scientist

ACT Job Number: 9211

Number of Pages: 41  
(including cover)

Comments: As per your conversation with Terry Carter (12/6/90) I am sending analytical results for soils removed during tank removals and excavation activities at Children's Hospital, 747 Solad St. Oakland. Tank removal occurred on 10/9/90. Samples from the soil excavation of the gasoline tank are designated SP1; pit well samples taken 10/9/90 from the gas tank pit are TSA1 & TSA2; the excavation soil and pit wall samples from the removal of the remaining tanks are designated SP2, TSA & TSB; Similarly soils excavated 10/17/90 from the gasoline tank pit are designated SPA; tank pit well samples are designated TSA through TSD; from the "2-tank" pit are designated SPB & TSE. Soils SP1 & SPA were transported to liquid waste; SP2 & SPB were transported to

If transmitting problems occur, call  
OF/FAX0522.FRM

**ANAMETRIX INC**

Environmental & Analytical Chemistry  
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**REPORT**

TERRY CARTER  
AQUA TERRA TECHNOLOGIES  
2950 BUSKIRK AVENUE SUITE 120  
WALNUT CREEK, CA 94596

Workorder # : 9010138  
Date Received : 10/10/90  
Project ID : 9211  
Purchase Order: N/A

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

ANAMETRIX ID	CLIENT SAMPLE ID
9010138- 1	TSC
9010138- 2	TSB
9010138- 3	TSA1
9010138- 4	TSA2
9010138- 5	SP2
9010138- 6	SP1

This report is paginated for your convenience and ease of review. It contains 17 pages excluding the cover letter. The report is organized into sections. Each section contains all analytical results and quality assurance data related to a specific group or section within Anamatrix. The Report Summary that precedes each section will help you determine which group at Anamatrix generated the data. The Report Summary will contain the signatures of the department supervisor and a chemist, both of whom reviewed the analytical data. Please refer all questions to the department supervisor that signed the form.

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

Burt Sutherland  
Laboratory Director

10-13-90

Date

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

TERRY CARTER  
 AQUA TERRA TECHNOLOGIES  
 2950 BUSKIRK AVENUE SUITE 120  
 WALNUT CREEK, CA 94596

Workorder # : 9010138  
 Date Received : 10/10/90  
 Project ID : 9211  
 Purchase Order: N/A  
 Department : GC  
 Sub-Department: VOA

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9010138- 1	TSC	SOIL	10/09/90	8010
9010138- 2	TSB	SOIL	10/09/90	8010
9010138- 5	SP2	SOIL	10/09/90	8010

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

TERRY CARTER  
AQUA TERRA TECHNOLOGIES  
2950 BUSKIRK AVENUE SUITE 120  
WALNUT CREEK, CA 94596

Workorder # : 9010138  
Date Received : 10/10/90  
Project ID : 9211  
Purchase Order: N/A  
Department : GC  
Sub-Department: VOA

QA/QC SUMMARY :

- Due to interfering hydrocarbon peaks, sample TSB was analyzed at a 1:100 dilution.

Corinne Blain  
Department Supervisor

10-18-90  
Date

M. Harterian  
Chemist

10-18-90  
Date

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

Sample I.D. : 9211 TSC  
Matrix : SOIL  
Date sampled : 10/09/90  
Date analyzed : 10/12/90  
Dilution : NONE

Anametrix I.D. : 9010138-01  
Analyst : mh  
Supervisor : CP  
Date released : 10/17/90  
Instrument ID : HP10

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
74-87-3	* Chloromethane	1	ND
74-83-9	* Bromomethane	0.5	ND
75-71-8	* Dichlorodifluoromethane	1	ND
75-01-4	* Vinyl Chloride	0.5	ND
75-00-3	* Chloroethane	0.5	ND
75-09-2	* Methylene Chloride	0.5	ND
79-69-4	* Trichlorofluoromethane	0.5	ND
75-35-4	* 1,1-Dichloroethene	0.5	ND
75-34-3	* 1,1-Dichloroethane	0.5	ND
156-59-2	# Cis-1,2-Dichloroethene	0.5	ND
156-60-5	* Trans-1,2-Dichloroethene	0.5	ND
67-66-3	* Chloroform	0.5	ND
76-13-1	# Trichlorotrifluoroethane	0.5	ND
107-06-2	* 1,2-Dichloroethane	0.5	ND
71-55-6	* 1,1,1-Trichloroethane	0.5	ND
56-23-5	* Carbon Tetrachloride	0.5	ND
75-27-4	* Bromodichloromethane	0.5	ND
78-87-5	* 1,2-Dichloropropane	0.5	ND
10061-02-6	* Trans-1,3-Dichloropropene	0.5	ND
79-01-6	* Trichloroethene	0.5	ND
124-48-1	* Dibromochloromethane	0.5	ND
79-00-5	* 1,1,2-Trichloroethane	0.5	ND
10061-01-5	* cis-1,3-Dichloropropene	0.5	ND
110-75-8	* 2-Chloroethylvinylether	1	ND
75-25-2	* Bromoform	0.5	ND
127-18-4	* Tetrachloroethene	0.5	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	0.5	ND
108-90-7	* Chlorobenzene	0.5	ND
541-73-1	* 1,3-Dichlorobenzene	1	ND
95-50-1	* 1,2-Dichlorobenzene	1	ND
106-46-7	* 1,4-Dichlorobenzene	1	ND
% Surrogate Recovery		33-134%	63%

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  
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 9211 TSB  
Matrix : SOIL  
Date sampled : 10/09/90  
Date analyzed : 10/12/90  
Dilution : 100

Anametrix I.D. : 9010138-02  
Analyst : *ml*  
Supervisor : *CS*  
Date released : 10/17/90  
Instrument ID : HP10

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
74-87-3	* Chloromethane	100	ND
74-83-9	* Bromomethane	50	ND
75-71-8	* Dichlorodifluoromethane	100	ND
75-01-4	* Vinyl Chloride	50	ND
75-00-3	* Chloroethane	50	ND
75-09-2	* Methylene Chloride	50	ND
79-69-4	* Trichlorofluoromethane	50	ND
75-35-4	* 1,1-Dichloroethane	50	ND
75-34-3	* 1,1-Dichloroethane	50	ND
156-59-2	# Cis-1,2-Dichloroethene	50	ND
156-60-5	* Trans-1,2-Dichloroethene	50	ND
67-66-3	* Chloroform	50	ND
76-13-1	# Trichlorotrifluoroethane	50	ND
107-06-2	* 1,2-Dichloroethane	50	ND
71-55-6	* 1,1,1-Trichloroethane	50	ND
56-23-5	* Carbon Tetrachloride	50	ND
75-27-4	* Bromodichloromethane	50	ND
78-87-5	* 1,2-Dichloropropane	50	ND
10061-02-6	* Trans-1,3-Dichloropropene	50	ND
79-01-6	* Trichloroethene	50	ND
124-48-1	* Dibromochloromethane	50	ND
79-00-5	* 1,1,2-Trichloroethane	50	ND
10061-01-5	* cis-1,3-Dichloropropene	50	ND
110-75-8	* 2-Chloroethylvinylether	100	ND
75-25-2	* Bromoform	50	ND
127-18-4	* Tetrachloroethene	50	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	50	ND
108-90-7	* Chlorobenzene	50	ND
541-73-1	* 1,3-Dichlorobenzene	100	ND
95-50-1	* 1,2-Dichlorobenzene	100	ND
106-46-7	* 1,4-Dichlorobenzene	100	ND
% Surrogate Recovery		33-134%	101%

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  
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 9211 SP2  
Matrix : SOIL  
Date sampled : 10/09/90  
Date analyzed: 10/18/90  
Dilution : NONE

Anametrix I.D. : 9010138-05  
Analyst : *mh*  
Supervisor : CP  
Date released : 10/17/90  
Instrument ID : HP10

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
74-87-3	* Chloromethane	1	ND
74-83-9	* Bromomethane	0.5	ND
75-71-8	* Dichlorodifluoromethane	1	ND
75-01-4	* Vinyl Chloride	0.5	ND
75-00-3	* Chloroethane	0.5	ND
75-09-2	* Methylene Chloride	0.5	ND
79-69-4	* Trichlorofluoromethane	0.5	ND
75-35-4	* 1,1-Dichloroethene	0.5	ND
75-34-3	* 1,1-Dichloroethane	0.5	ND
156-59-2	# Cis-1,2-Dichloroethene	0.5	ND
156-60-5	* Trans-1,2-Dichloroethene	0.5	ND
67-66-3	* Chloroform	0.5	ND
76-13-1	# Trichlorotrifluoroethane	0.5	ND
107-06-2	* 1,2-Dichloroethane	0.5	ND
71-55-6	* 1,1,1-Trichloroethane	0.5	ND
56-23-5	* Carbon Tetrachloride	0.5	ND
75-27-4	* Bromodichloromethane	0.5	ND
78-87-5	* 1,2-Dichloropropane	0.5	ND
10061-02-6	* Trans-1,3-Dichloropropene	0.5	ND
79-01-6	* Trichloroethene	0.5	ND
124-48-1	* Dibromochloromethane	0.5	ND
79-00-5	* 1,1,2-Trichloroethane	0.5	ND
10061-01-5	* cis-1,3-Dichloropropene	0.5	ND
110-75-8	* 2-Chloroethylvinylether	1	ND
75-25-2	* Bromoform	0.5	ND
127-18-4	* Tetrachloroethene	0.5	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	0.5	ND
108-90-7	* Chlorobenzene	0.5	ND
541-73-1	* 1,3-Dichlorobenzene	1	ND
95-50-1	* 1,2-Dichlorobenzene	1	ND
106-46-7	* 1,4-Dichlorobenzene	1	ND
% Surrogate Recovery		33-134%	89%

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  
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : METHOD BLANK  
Matrix : SOIL  
Date sampled : N/A  
Date analyzed: 10/11/90  
Dilution : NONE

Anametrix I.D. : 10B1011H01  
Analyst : *mh*  
Supervisor : *CP*  
Date released : 10/17/90  
Instrument ID : HP10

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
74-87-3	* Chloromethane	1	ND
74-83-9	* Bromomethane	0.5	ND
75-71-8	* Dichlorodifluoromethane	1	ND
75-01-4	* Vinyl Chloride	0.5	ND
75-00-3	* Chloroethane	0.5	ND
75-09-2	* Methylene Chloride	0.5	4.6
79-69-4	* Trichlorofluoromethane	0.5	ND
75-35-4	* 1,1-Dichloroethene	0.5	ND
75-34-3	* 1,1-Dichloroethane	0.5	ND
156-59-2	# Cis-1,2-Dichloroethene	0.5	ND
156-60-5	* Trans-1,2-Dichloroethene	0.5	ND
67-66-3	* Chloroform	0.5	ND
76-13-1	# Trichlorotrifluoroethane	0.5	ND
107-06-2	* 1,2-Dichloroethane	0.5	ND
71-55-6	* 1,1,1-Trichloroethane	0.5	ND
56-23-5	* Carbon Tetrachloride	0.5	ND
75-27-4	* Bromodichloromethane	0.5	ND
78-87-5	* 1,2-Dichloropropane	0.5	ND
10061-02-6	* Trans-1,3-Dichloropropene	0.5	ND
79-01-6	* Trichloroethene	0.5	ND
124-48-1	* Dibromochloromethane	0.5	ND
79-00-5	* 1,1,2-Trichloroethane	0.5	ND
10061-01-5	* cis-1,3-Dichloropropene	0.5	ND
110-75-8	* 2-Chloroethylvinylether	1	ND
75-25-2	* Bromoform	0.5	ND
127-18-4	* Tetrachloroethene	0.5	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	0.5	ND
108-90-7	* Chlorobenzene	0.5	ND
541-73-1	* 1,3-Dichlorobenzene	1	ND
95-50-1	* 1,2-Dichlorobenzene	1	ND
106-46-7	* 1,4-Dichlorobenzene	1	ND
% Surrogate Recovery		33-134%	108%

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  
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : METHOD BLANK  
Matrix : SOIL  
Date sampled : N/A  
Date analyzed: 10/18/90  
Dilution : NONE

Anamatrix I.D. : 10B1018H02  
Analyst : *mk*  
Supervisor : *CP*  
Date released : 10/17/90  
Instrument ID : HP10

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
74-87-3	* Chloromethane	1	ND
74-83-9	* Bromomethane	0.5	ND
75-71-8	* Dichlorodifluoromethane	1	ND
75-01-4	* Vinyl Chloride	0.5	ND
75-00-3	* Chloroethane	0.5	ND
75-09-2	* Methylene Chloride	0.5	ND
79-69-4	* Trichlorofluoromethane	0.5	ND
75-35-4	* 1,1-Dichloroethene	0.5	ND
75-34-3	* 1,1-Dichloroethane	0.5	ND
156-59-2	# Cis-1,2-Dichloroethene	0.5	ND
156-60-5	* Trans-1,2-Dichloroethene	0.5	ND
67-66-3	* Chloroform	0.5	ND
76-13-1	# Trichlorotrifluoroethane	0.5	ND
107-06-2	* 1,2-Dichloroethane	0.5	ND
71-55-6	* 1,1,1-Trichloroethane	0.5	ND
56-23-5	* Carbon Tetrachloride	0.5	ND
75-27-4	* Bromodichloromethane	0.5	ND
78-87-5	* 1,2-Dichloropropane	0.5	ND
10061-02-6	* Trans-1,3-Dichloropropene	0.5	ND
79-01-6	* Trichloroethene	0.5	ND
124-48-1	* Dibromochloromethane	0.5	ND
79-00-5	* 1,1,2-Trichloroethane	0.5	ND
10061-01-5	* cis-1,3-Dichloropropene	0.5	ND
110-75-8	* 2-Chloroethylvinylether	1	ND
75-25-2	* Bromoform	0.5	ND
127-18-4	* Tetrachloroethene	0.5	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	0.5	ND
108-90-7	* Chlorobenzene	0.5	ND
541-73-1	* 1,3-Dichlorobenzene	1	ND
95-50-1	* 1,2-Dichlorobenzene	1	ND
106-46-7	* 1,4-Dichlorobenzene	1	ND
	% Surrogate Recovery	33-134%	98%

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

\* A 501/8010 approved compound (Federal Register, 10/26/84).  
# A compound added by Anamatrix, Inc.

HALOGENATED VOLATILE RECOVERY REPORT  
EPA METHOD 601/8010  
ANAMETRIX, INC. (408)432-8192

Sample I.D. : METHOD SPIKE  
Matrix : WATER  
Date sampled : NA  
Date analyzed : 10/11/90

Anamatrix I.D. : SPK1011  
Analyst : *mf*  
Supervisor : *CP*  
Date released : 10/18/90  
Instrument I.D. : HP10

COMPOUND	SPIKE AMT. (ug/L)	MS (ug/L)	REC MS	MSD (ug/L)	REC MSD	RPD	%REC LIMITS
1,1-DICHLOROETHENE	4	2.7	69%	3.3	83%	-19%	41 - 110
METHYLENE CHLORIDE	20	23.2	116%	24.9	125%	-7%	60 - 122
trans-1,2-DICHLOROETHENE	4	3.1	78%	3.0	75%	3%	47 - 126
1,1-DICHLOROETHANE	4	5.4	135%	5.3	133%	2%	67 - 124
1,1,1-TRICHLOROETHANE	4	3.4	85%	3.5	88%	-3%	50 - 125
CARBON TETRACHLORIDE	4	4.1	103%	4.2	105%	-2%	55 - 121
1,2-DICHLOROETHANE	4	5.1	128%	5.0	125%	2%	57 - 131
TRICHLOROETHENE	4	4.2	105%	4.3	108%	-2%	51 - 131
1,2-DICHLOROPROPANE	4	5.9	148%	5.8	145%	2%	74 - 127
cis-1,3-DICHLOROPROPENE	5	5.1	102%	5.2	104%	-2%	61 - 111
trans-1,3-DICHLOROPROPENE	3	2.7	90%	2.8	93%	-4%	55 - 131
1,1,2-TRICHLOROETHANE	4	4.5	113%	4.7	118%	-4%	77 - 131
TETRACHLOROETHENE	4	5.5	138%	5.7	143%	-4%	70 - 136
CHLOROBENZENE	20	23.7	119%	24.1	121%	-2%	72 - 128
1,1,2,2-TETRACHLOROETHANE	4	4.7	118%	4.4	110%	7%	71 - 119
1,3-DICHLOROBENZENE	20	19.0	95%	19.9	100%	-5%	67 - 120
1,4-DICHLOROBENZENE	20	18.4	92%	22.0	110%	-18%	61 - 109
1,2-DICHLOROBENZENE	20	20.3	102%	19.7	99%	3%	70 - 119

\* Limits based on data generated by Anamatrix, Inc., July 1990.

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

TERRY CARTER  
AQUA TERRA TECHNOLOGIES  
2950 BUSKIRK AVENUE SUITE 120  
WALNUT CREEK, CA 94596

Workorder # : 9010138  
Date Received : 10/10/90  
Project ID : 9211  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

## SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9010138- 1	TSC	SOIL	10/09/90	TPHd
9010138- 2	TSB	SOIL	10/09/90	TPHd
9010138- 5	SP2	SOIL	10/09/90	TPHd
9010138- 1	TSC	SOIL	10/09/90	TPHg/BTEX
9010138- 2	TSB	SOIL	10/09/90	TPHg/BTEX
9010138- 3	TSA1	SOIL	10/09/90	TPHg/BTEX
9010138- 4	TSA2	SOIL	10/09/90	TPHg/BTEX
9010138- 5	SP2	SOIL	10/09/90	TPHg/BTEX
9010138- 6	SP1	SOIL	10/09/90	TPHg/BTEX

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

TERRY CARTER  
AQUA TERRA TECHNOLOGIES  
2950 BUSKIRK AVENUE SUITE 120  
WALNUT CREEK, CA 94596

Workorder # : 9010138  
Date Received : 10/10/90  
Project ID : 9211  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for workorder.

Cheryl Baalman 10/17/90  
Department Supervisor Date

[Signature] 10.17.90  
Chemist Date

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

Anamatrix W.O.#: 9010138  
 Matrix : SOIL  
 Date Sampled : 10/09/90

Project Number : 9211  
 Date Released : 10/17/90

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# TSC	Sample I.D.# TSB	Sample I.D.# TSA1	Sample I.D.# TSA2	Sample I.D.# SP2
Benzene	0.005	ND	ND	ND	ND	ND
Toluene	0.005	ND	ND	0.017	1.5	ND
Ethylbenzene	0.005	ND	0.13	0.039	7.8	ND
Total Xylenes	0.005	ND	1.0	0.061	9.3	ND
TPH as Gasoline	0.5	ND	38	5.0	590	ND
% Surrogate Rec.		50%	110%	85%	120%	78%
Instrument #		HP4	HP4	HP4	HP8	HP4
Date Analyzed		10/15/90	10/15/90	10/15/90	10/13/90	10/15/90
RLMF		1	25	1	100	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 EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.
- RLMF - Reporting Limit Multiplication Factor.

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

*[Signature]* 10.17.90  
 Analyst Date

*Cheryl Balmer* 10/17/90  
 Supervisor Date

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

Anamatrix W.O.#: 9010138  
 Matrix : SOIL  
 Date Sampled : 10/09/90

Project Number : 9211  
 Date Released : 10/17/90

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# SP1	Sample I.D.# 08B1013C	Sample I.D.# 04B1015A
Benzene	0.005	ND	ND	ND
Toluene	0.005	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND
TPH as Gasoline	0.5	ND	ND	ND
% Surrogate Rec.		71%	98%	105%
Instrument #		HP4	HP8	HP4
Date Analyzed		10/15/90	10/13/90	10/15/90
RLMF		1	1	1

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

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

*[Signature]*  
 Analyst 10.17.90  
 Date

*[Signature]*  
 Supervisor 10/17/90  
 Date

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

Anamatrix W.O.#: 9010138  
Matrix : SOIL  
Date Sampled : 10/09/90  
Date Extracted : 10/11/90

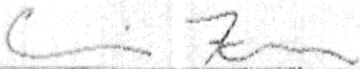
Client Project# : 9211  
Date released : 10/17/90  
Instrument I.D. : HP19

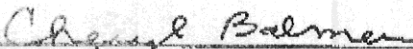
Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9010138-01	TSC	10/11/90	10	ND
9010138-02	TSE	10/12/90	10	1100
9010138-05	SP2	10/12/90	10	31
DSBL101190	METHOD BLANK	10/11/90	10	ND

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

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GC/FID following either EPA Method 3510 or 3550.

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

  
Analyst 10.17.90  
Date

  
Supervisor 10/17/90  
Date

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

TERRY CARTER  
 AQUA TERRA TECHNOLOGIES  
 2950 BUSKIRK AVENUE SUITE 120  
 WALNUT CREEK, CA 94596

Workorder # : 9010138  
 Date Received : 10/10/90  
 Project ID : 9211  
 Purchase Order: N/A  
 Department : PREP  
 Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9010138- 1	TSC	SOIL	10/09/90	5520EF
9010138- 2	TSB	SOIL	10/09/90	5520EF
9010138- 5	SP2	SOIL	10/09/90	5520EF



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

TERRY CARTER  
AQUA TERRA TECHNOLOGIES  
2950 BUSKIRK AVENUE SUITE 120  
WALNUT CREEK, CA 94596

Workorder # : 9010138  
Date Received : 10/10/90  
Project ID : 9211  
Purchase Order: N/A  
Department : PREP  
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

*[Handwritten Signature]*

*Oct, 17<sup>th</sup> 1990*

*P.P. Desai*

*10/17/90*

Department Supervisor

Date

Chemist

Date

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

Project # : 9211  
Matrix : SOIL  
Date sampled : 10/09/90  
Date ext. TOG: 10/11/90  
Date anl. TOG: 10/11/90

Anamatrix I.D. : 9010138  
Analyst : *DD*  
Supervisor : *(MP)*  
Date released : 10/17/90

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9010138-01	TSC	30	ND
9010138-02	TSB	30	ND
9010138-05	SP2	30	ND
GSBL101190	METHOD BLANK	30	ND

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

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

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

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192TERRY CARTER  
AQUA TERRA TECHNOLOGIES  
2950 BUSKIRK AVENUE SUITE 120  
WALNUT CREEK, CA 94596Workorder # : 9010138  
Date Received : 10/10/90  
Project ID : 9211  
Purchase Order: N/A  
Department : METALS  
Sub-Department: METALS

## SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9010138- 3	TSA1	SOIL	10/09/90	ORG Pb
9010138- 4	TSA2	SOIL	10/09/90	ORG Pb
9010138- 6	SP1	SOIL	10/09/90	ORG Pb

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

TERRY CARTER  
AQUA TERRA TECHNOLOGIES  
2950 BUSKIRK AVENUE SUITE 120  
WALNUT CREEK, CA 94596

Workorder # : 9010138  
Date Received : 10/10/90  
Project ID : 9211  
Purchase Order: N/A  
Department : METALS  
Sub-Department: METALS

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Terry Schoen 10-13-90  
Department Supervisor Date

Manny Guzman 10-15-90  
Chemist Date