Weiss Associates Environmental and Geologic Services

5500 Shellmound Street, Emeryville, CA 94608-2411 Fax: 510-547-5043 Phone: **510-547-5420**

November 3, 1992

Scott O. Seery
Alameda County Department
of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621-1426

Re: Shell Service Station
WIC #204-6852-1404
1784 150th Avenue
San Leandro, California 94578
WA Job #81-422-201

Dear Mr. Seery:

This letter describes recently completed and anticipated activities at the Shell service station referenced above (Figure 1). This status report satisfies the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Chapter 3, Subchapter 16, Article 5, Section 265.d. Included below are descriptions and results of activities performed in the third quarter 1992 and proposed work for the fourth quarter 1992.

Third Quarter 1992 Activities:

- EMCON Associates (EMCON) of San Jose, California measured ground water depths and collected ground water samples from the three site wells. EMCON's report describing these activities and presenting analytic results for ground water is included as Attachment A.

- Weiss Associates (WA) used EMCON's data to prepare a ground water elevation contour map (Figure 2), and isoconcentration maps for benzene and 1,2-Dichloroethane (Figures 3 and 4).

missing

- WA also prepared a cross-section (Figure 5) as you requested in your August 17, 1992 letter to Dan Kirk of Shell.

missing

Anticipated Fourth Quarter 1992 Activities:

- WA will measure ground water depths monthly as requested in your letter. These data will be included in future reports.

- WA will submit a report presenting the results of fourth quarter 1992 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results, a ground water elevation contour map and isoconcentration maps.

Data Interpretation/Recommendations:

Because elevated hydrocarbon concentrations are detected in downgradient well MW-2, WA recommends an additional investigation downgradient of this well. However, because the ground water flow direction was northward in June 1992 and ~~east-southeastward~~ west-southwest in September 1992, WA will review the monthly ground water depth and ground water elevation contours to assess the local ground water flow direction. Once a trend is determined, WA will recommend that Shell conduct a Dynamic Site Assessment to define the downgradient extent of hydrocarbons. WA will also recommend investigating the source of hydrocarbons detected in upgradient well MW-3.

The source of 1,2-Dichloroethane (DCA) detected in the three site wells is unclear. WA will review the available data to assess whether the DCA originates on-or offsite. The results of our review will be included in the fourth quarter monitoring report.

Please call if you have any questions.

Sincerely,
Weiss Associates

J. Michael Asport
Technical Assistant

Joseph P. Theisen, C.E.G.
Senior Hydrogeologist

JMA/JPT:jma

E:\ALL\SHELL\400\422QMSE2.WP

Attachments: Figures
A - EMCON's Ground Water Monitoring Report

cc: Dan Kirk, Shell Oil Company, P.O. Box 5278, Concord, California 94520-9998
Lester Feldman, California Regional Water Quality Control Board - San Francisco Bay Region, 2101 Webster Street, Suite 500, Oakland, California 94612

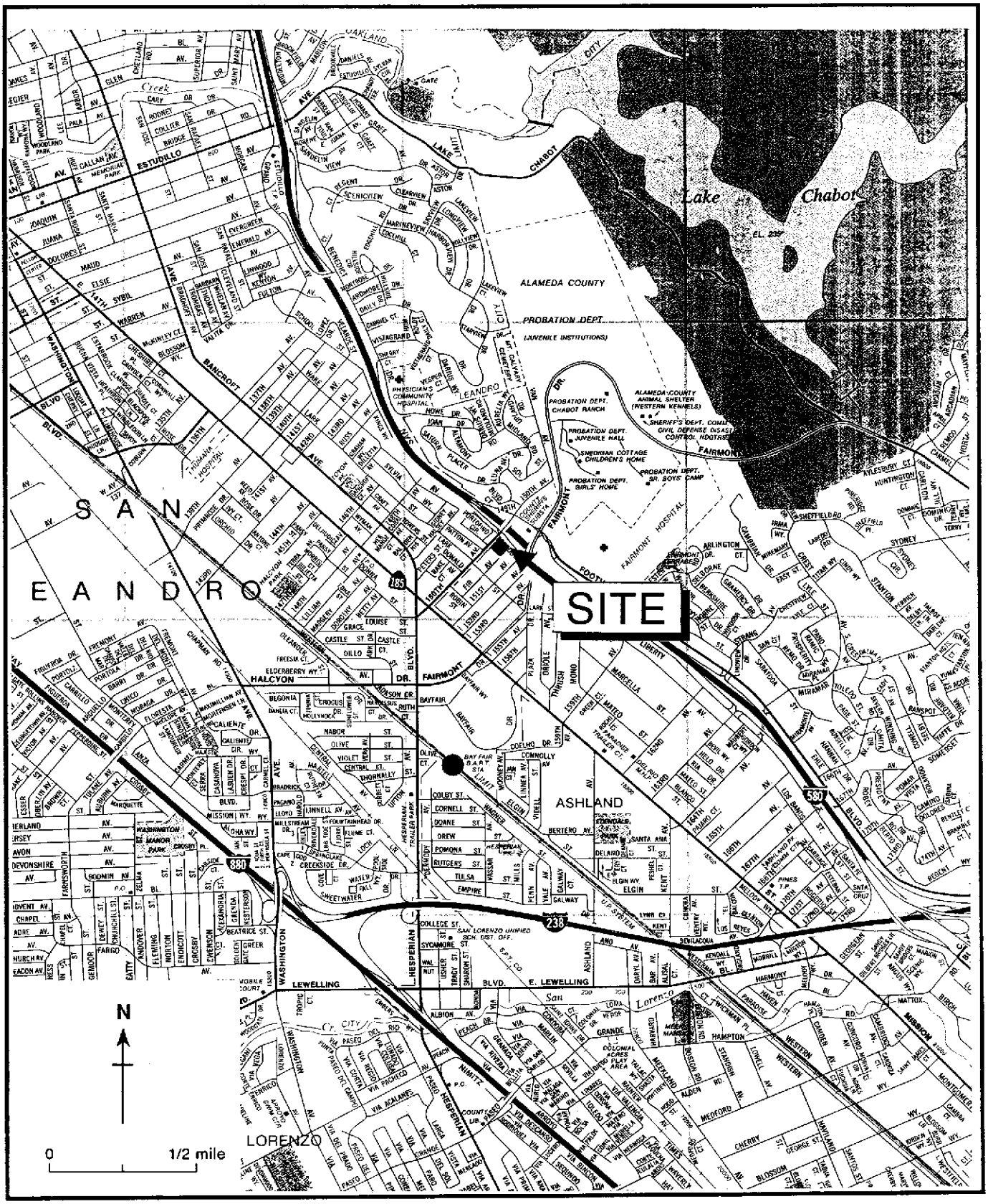

Figure 1. Site Location Map - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

1/9/92

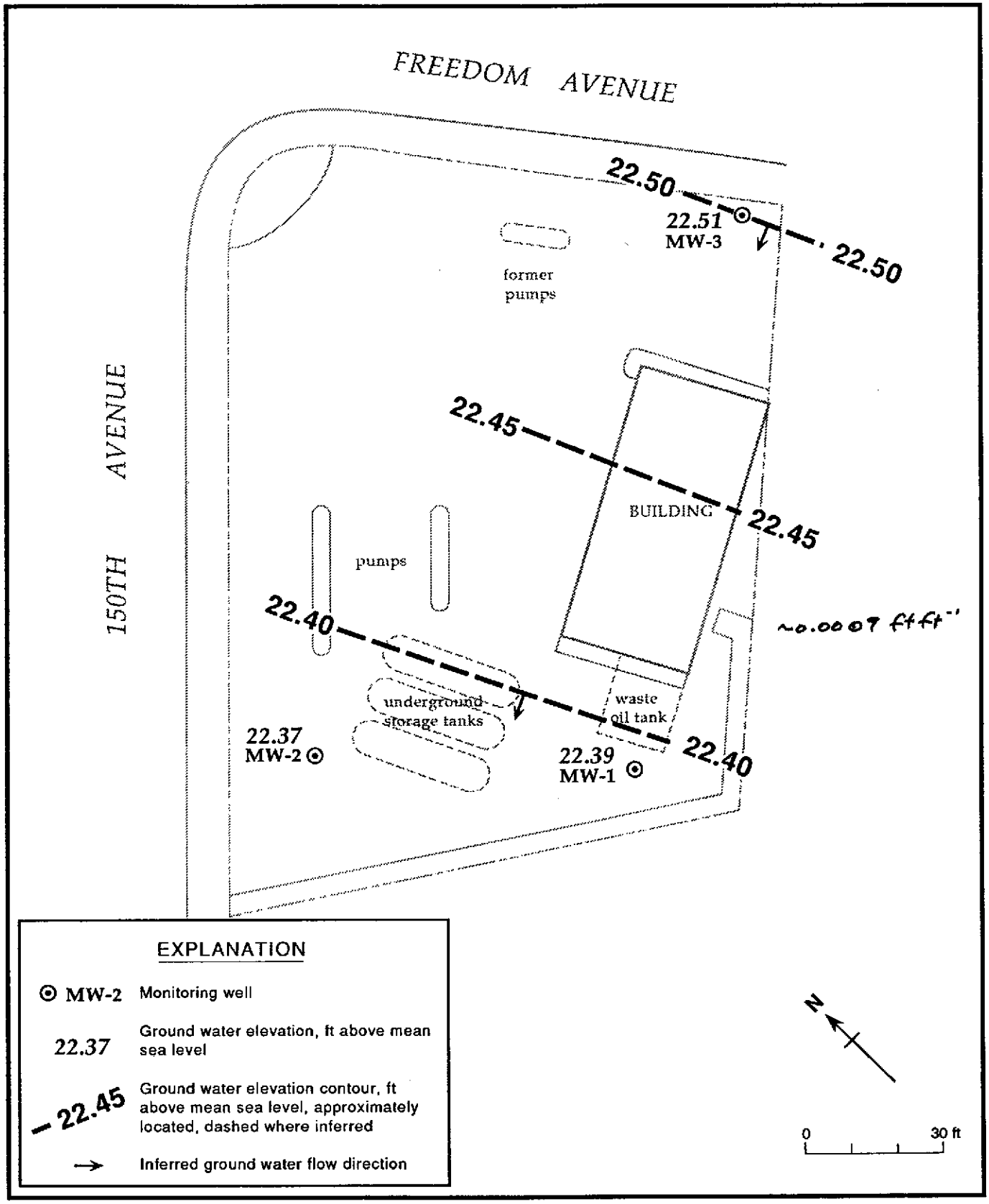

Figure 2. Monitoring Well Locations and Ground Water Elevations Contours - September 1, 1992 - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

10/30/92

ATTACHMENT A

GROUND WATER MONITORING REPORT AND ANALYTIC REPORT

EMCON
ASSOCIATES
Consultants in Wastes
Management and
Environmental Control

September 30, 1992
Project: G67-36.01
WIC#: 204-6852-1404

Mr. David Elias
Weiss Associates
5500 Shellmound Street
Emeryville, California 94608-2411

Re: Third quarter 1992 ground-water monitoring report, Shell Oil Company, 1784 150th Avenue, San Leandro, California

Dear Mr. Elias:

This letter presents the results of the third quarter 1992 ground-water monitoring event for the Shell Oil Company (Shell) site located at 1784 150th Avenue, San Leandro, California (figure 1). Third quarter monitoring was conducted on September 1, 1992. The site is monitored quarterly.

GROUND-WATER LEVEL SURVEY

A water-level survey preceded the purging and sampling of the monitoring wells. The wells included in the survey are identified in figure 2 (supplied by Weiss Associates). During the survey, wells MW-1, MW-2, and MW-3 were measured for depth to water, floating product thickness, and total depth. Depth to water and floating product thickness were measured to the nearest 0.01 foot with an oil/water interface probe. No floating product was observed in any wells. Total depth was measured to the nearest 0.1 foot. Results of the third quarter water-level survey, and available data from four previous surveys, are summarized in table 1.

SAMPLING AND ANALYSIS

Ground-water samples were collected from wells MW-1, MW-2, and MW-3 on September 1, 1992. Prior to sample collection, the wells were purged with polyvinyl chloride bailers. During the purging operation, ground water was monitored for pH, electrical conductivity, and temperature as a function of volume of water removed. Purging continued until these parameters were stable and a minimum of three casing volumes of ground water were removed. Field measurements from third quarter monitoring, and available measurements from four previous monitoring events, are summarized in table 1. Purge water from the monitoring wells was contained in 55-gallon drums. The drums were identified with Shell-approved labels and secured for on-site storage.

1938 Junction Avenue, San Jose, California 95131-2102, (408) 453-0719, Fax (408) 453-0452

Ground-water samples were collected with a Teflon® bailer, labeled, placed on ice, and transported to Anametrix Inc. for analysis. Shell chain-of-custody documents accompanied all samples to the laboratory.

All equipment that was placed down a well or that came in contact with ground water was steam cleaned with deionized water prior to use at each well.

Quality control samples for third quarter monitoring included a trip blank (TB), a field blank (FB), and a duplicate well sample (MW-3D) collected from well MW-3. All water samples collected during third quarter monitoring were analyzed for total petroleum hydrocarbons as gasoline (TPH-g); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and halogenated volatile organic compounds (VOCs) by U.S. Environmental Protection Agency method 601.

ANALYTICAL RESULTS

Analytical results for the third quarter 1992 monitoring event, and available results from four previous monitoring events, are summarized in table 2 (TPH-G and BTEX) and table 3 (VOCs). The original certified analytical report and final chain-of-custody document are attached.

If you have any questions, please call.

Very truly yours,

EMCON Associates

David Larsen
Environmental Sampling Coordinator

Orrin Childs
Environmental Sampling Supervisor

DL/OC:dl

Attachments: Table 1 - Monitoring well field measurement data
Table 2 - Summary of analytical results (TPH-g, BTEX)
Table 3 - Summary of analytical results (VOCs)
Figure 1 - Site location map
Figure 2 - Monitoring well locations
Certified analytical report
Chain-of-custody document

Table 1
Monitoring Well Field Measurement Data
Third Quarter 1992

Shell Station: 1784 150th Avenue
San Leandro, California
WIC #: 204-6852-1404

Date: 09/29/92
Project Number: G87-36.01

Well Designation	Water Level Field Date	TOC Elevation (ft-MSL)	Depth to Water (feet)	Groundwater Elevation (ft-MSL)	Total Well Depth (feet)	Floating Product Thickness (feet)	Water Sample Field Date	pH (std. units)	Electrical Conductivity (micromhos/cm)	Temperature (degrees F)	Turbidity (NTU)
MW-1	06/07/91	49.13	25.64	23.49	NR	NR	06/07/91	NR	NR	NR	NR
MW-1	09/17/91	49.13	27.54	21.59	NR	NR	09/17/91	NR	NR	NR	NR
MW-1	03/01/92	49.13	23.26	25.87	44.6	ND	03/01/92	7.20	1490	62.8	6.0
MW-1	06/03/92	49.13	24.64	24.49	44.6	ND	06/03/92	6.97	1507	67.8	2.44
MW-1	09/01/92	49.13	26.74	22.39	44.5	ND	09/01/92	7.18	1433	65.8	>200
MW-2	03/01/92	45.83	21.11	24.72	44.4	ND	03/01/92	7.00	1718	63.9	30
MW-2	06/03/92	45.83	21.58	24.25	44.4	ND	06/03/92	6.67	1679	71.8	4.79
MW-2	09/01/92	45.83	23.46	22.37	44.4	ND	09/01/92	6.86	1515	66.4	>200
MW-3	03/01/92	51.97	26.00	25.97	41.6	ND	03/01/92	6.79	1540	66.6	>200
MW-3	06/03/92	51.97	27.70	24.27	41.6	ND	06/03/92	6.50	1556	70.2	38.4
MW-3	09/01/92	51.97	29.46	22.51	41.5	ND	09/01/92	6.67	1454	66.9	>200

TOC = top of casing
ft-MSL = elevation in feet, relative to mean sea level
std. units = standard pH units
micromhos/cm = micromhos per centimeter
degrees F = degrees Fahrenheit
NTU = nephelometric turbidity units
NR = Not reported; data not available
ND = None detected

Table 2
Summary of Analytical Results
Third Quarter 1992
milligrams per liter (mg/l) or parts per million (ppm)

Shell Station: 1784 150th Avenue
San Leandro, California
WIC #: 204-6852-1404

Date: 09/29/92
Project Number: G67-36.01

Sample Designation	Water Sample Field Date	TPH-g (mg/l)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Total Xylenes (mg/l)	TPH-d (mg/l)
MW-1	06/07/91	0.51	0.130	0.0038	0.0061	0.011	<0.05
MW-1	09/17/91	0.33	0.067	<0.0005	0.0030	0.0022	0.12&
MW-1	03/01/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.05
MW-1	06/03/92	1.5	0.52	0.18	0.072	0.23	NA
MW-1	09/01/92	0.13	0.016	0.0014	0.0018	0.0034	NA
MW-2	03/01/92	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.0*
MW-2	06/03/92	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA
MW-2	09/01/92	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NA
MW-3	03/01/92	2.2	0.069	<0.0005	<0.0005	<0.0005	0.44
MW-3	06/03/92	4.1	0.013	0.072	0.044	0.065	NA
MW-3	09/01/92	1.9	0.020	0.0068	0.0055	<0.005	NA
MW-3D	09/01/92	1.9	0.021	0.0066	0.0034	<0.005	NA
FB	09/01/92	<0.05	<0.0005	0.0007	<0.0005	<0.0005	NA
TB	06/07/91	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
TB	09/17/91	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
TB	03/01/92	<0.05	<0.0005	0.0006	<0.0005	0.0009	NA
TB	06/03/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
TB	09/01/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA

TPH-g = total petroleum hydrocarbons as gasoline
TPH-d = total petroleum hydrocarbons as diesel
& = Result is due to a non-diesel hydrocarbon compound
NA = Not analyzed
* = Diesel result is due to a petroleum haydrcarbon that is lighter than diesel

Table 3
Summary of Analytical Results
Volatile Organic Compounds by EPA Method 601
Third Quarter 1992
milligrams per liter (mg/l) or parts per million (ppm)

Shell Station: 1784 150th Avenue
San Leandro, California
WIC #: 204-6852-1404

Date: 09/29/92
Project Number: G67-36.01

Sample Designation	Water Sample Field Date	1,2-DCA (mg/l)
MW-1	06/07/91	0.0079
MW-1	09/17/91	0.0060
MW-1	03/01/92	0.0030
MW-1	06/03/92	0.0030
MW-1	09/01/92	0.0013^
MW-2	03/01/92	0.082
MW-2	06/03/92	<0.05
MW-2	09/01/92	0.083#
MW-3	03/01/92	0.013
MW-3	06/03/92	0.016
MW-3	09/01/92	0.019
MW-3D	09/01/92	0.021
FB	09/01/92	<0.0005
TB	09/01/92	<0.0005

1,2-DCA = 1,2-Dichloroethane
^ = In the matrix spike/matrix spike duplicate of sample MW-1, the RPD for Freon 113 and 1,3-dichlorobenzene was greater than 25%
# = Sample MW-2 was diluted 1:100 for EPA method 8010 due to the interfering hydrocarbons peaks

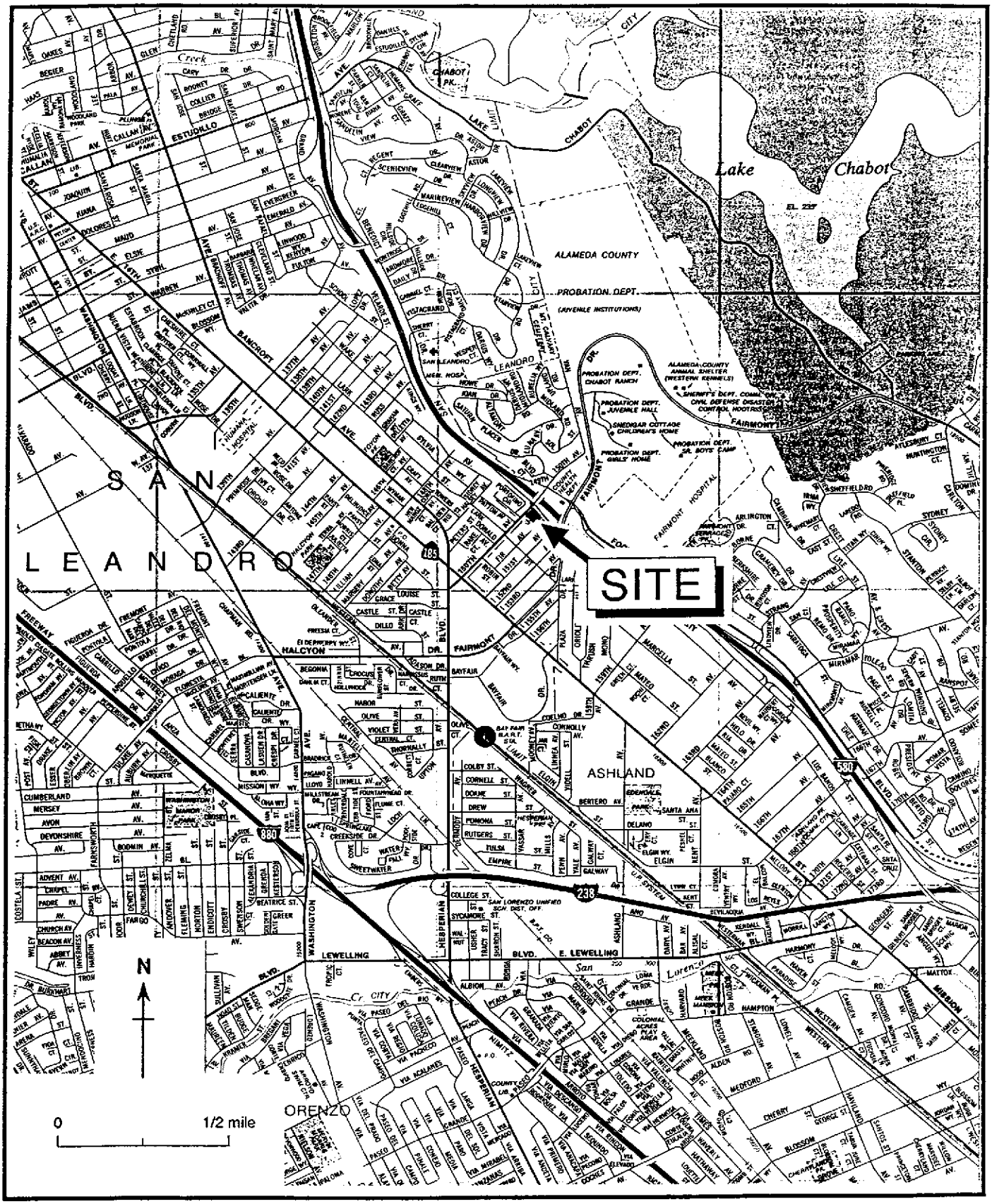

Figure 1. Site Location Map - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

3/16/90

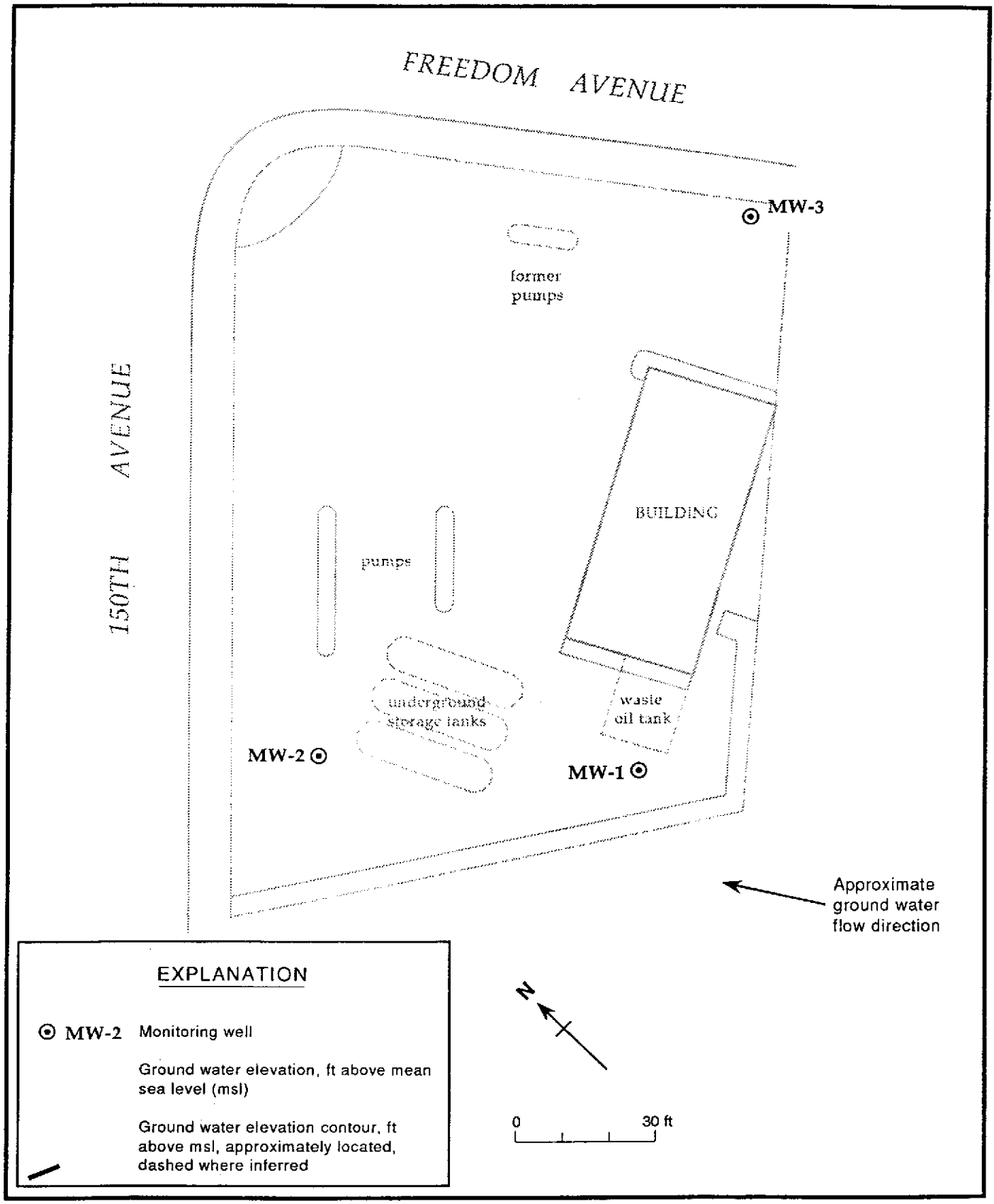

Figure 2. Monitoring Well Locations -Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

5/26/92

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

REPORT

MR. DAVID LARSEN
EMCON ASSOCIATES
1938 JUNCTION AVE.
SAN JOSE, CA 95131

Workorder # : 9209025
Date Received : 09/02/92
Project ID : 204-6852-1404
Purchase Order: MOH-B813

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

ANAMETRIX ID	CLIENT SAMPLE ID
9209025- 1	MW-1
9209025- 2	MW-2
9209025- 3	MW-3
9209025- 4	MW-3D
9209025- 5	TB
9209025- 6	FB

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

9-21-92
Date

ANAMETRIX REPORT DESCRIPTION
GC

Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and, within each method, organized sequentially in order of increasing Anametrix ID number.

Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method, if the method requires surrogate compounds. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "*", and the total number of surrogates outside the limits will be listed in the column labelled "Total Out".

Matrix Spike Recovery Form (MSR)

MSR forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "*", and the total number outside the limits will be listed at the bottom of the page. Not all reports will contain an MSR form.

Qualifiers

Anametrix uses several data qualifiers (Q) in it's report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- U - Indicates that the compound was analyzed for, but was not detected at or above the specified reporting limit.
- B - Indicates that the compound was detected in the associated method blank.
- J - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an approximate value. Tentatively identified compounds will always have a "J" qualifier because they are not included in the instrument calibration.
- E - Indicates that the amount reported exceeded the linear range of the instrument calibration.
- D - Indicates that the compound was detected in an analysis performed at a secondary dilution.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

REPORTING CONVENTIONS

- Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report forms. However, the report cover letter and report summary pages display up to twenty (20) characters of your project and sample IDs.
- Amounts reported are gross values, i.e., not corrected for method blank contamination.

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

MR. DAVID LARSEN
EMCON ASSOCIATES
1938 JUNCTION AVE.
SAN JOSE, CA 95131

Workorder # : 9209025
Date Received : 09/02/92
Project ID : 204-6852-1404
Purchase Order: MOH-B813
Department : GC
Sub-Department: VOA

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9209025- 1	MW-1	WATER	09/01/92	8010
9209025- 2	MW-2	WATER	09/01/92	8010
9209025- 3	MW-3	WATER	09/01/92	8010
9209025- 4	MW-3D	WATER	09/01/92	8010
9209025- 5	TB	WATER	09/01/92	8010
9209025- 6	FB	WATER	09/01/92	8010

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

MR. DAVID LARSEN
EMCON ASSOCIATES
1938 JUNCTION AVE.
SAN JOSE, CA 95131

Workorder # : 9209025
Date Received : 09/02/92
Project ID : 204-6852-1404
Purchase Order: MOH-B813
Department : GC
Sub-Department: VOA

QA/QC SUMMARY :

- In the matrix spike/matrix spike duplicate of sample MW-1, the RPD for Freon 113 and 1,3-dichlorobenzene is greater than 25%.
- Sample MW-2 was diluted 1:100 for EPA Method 8010 due to the interfering hydrocarbons peaks.

M. Hosseiman 9/21/92
Department Supervisor Date

Michelle Young 9/21/92
Chemist Date

DESCRIPTIONS FOR SPECIFIC COMPOUNDS ANALYZED

EPA METHOD 601/8010

CAS #	COMPOUND NAME	ABBREVIATED NAME
74-87-3	Chloromethane	Chloromethane
74-83-9	Bromomethane	Bromoethane
75-71-8	Dichlorodifluoromethane	Freon 12
75-01-4	Vinyl Chloride	Vinyl Chloride
75-00-3	Chloroethane	Chloroethane
75-09-2	Methylene Chloride	Methylene Chlor
75-69-4	Trichlrofluoromethane	Freon 11
75-35-4	1,1-Dichloroethene	1,1-DCE
75-34-3	1,1-Dichloroethane	1,1-DCA
156-59-2	Cis-1,2-Dichloroethene	Cis-1,2-DCE
156-60-5	Trans-1,2-Dichloroethene	Trans-1,2-DCE
67-66-3	Chloroform	Chloroform
76-13-1	Trichlorotrifluoroethane	Freon 113
107-06-2	1,2-Dichloroethane	1,2-DCA
71-55-6	1,1,1-Trichloroethane	1,1,1-TCA
56-23-5	Carbon Tetrachloride	Carbon Tet
75-27-4	Bromodichloromethane	BromodichloroMe
78-87-5	1,2-Dichloropropane	1,2-DCPA
10061-02-6	Trans-1,3-Dichloropropene	Trans-1,3-DCPE
79-01-6	Trichloroethene	TCE
124-48-1	Dibromochloromethane	DibromochloroMe
79-00-5	1,1,2-Trichloroethane	1,1,2-TCA
10061-01-5	Cis-1,3-Dichloropropene	Cis-1,3-DCPE
110-75-8	2-Chloroethylvinylether	Chloroethylvinl
75-25-2	Bromoform	Bromoform
127-18-4	Tetrachloroethene	PCE
79-34-5	1,1,2,2-Tetrachloroethane	PCA
108-90-7	Chlorobenzene	Chlorobenzene
95-50-1	1,2-Dichlorobenzene	1,2-DCB
541-73-1	1,3-Dichlorobenzene	1,3-DCB
106-46-7	1,4-Dichlorobenzene	1,4-DCB
352-33-0	p-Chlorofluorobenzene	Chlorofluoroben

mh/3426 - 10MH

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

Sample I.D.	: 204-6852-1404 MW-1	Anametrix I.D.	: 9209025-01
Matrix	: WATER	Analyst	:
Date sampled	: 09/01/92	Supervisor	:
Date analyzed	: 09/11/92	Date released	: 09/17/92
Dilution	: NONE	Instrument ID	: HP15

CAS #	Compound Name	Reporting Limit (mg/L)	Amount Found (mg/L)
74-87-3	* Chloromethane	0.001	ND
74-83-9	* Bromomethane	0.0005	ND
75-71-8	* Dichlorodifluoromethane	0.001	ND
75-01-4	* Vinyl Chloride	0.0005	ND
75-00-3	* Chloroethane	0.0005	ND
75-09-2	* Methylene Chloride	0.0005	ND
75-69-4	* Trichlorofluoromethane	0.0005	ND
75-35-4	* 1,1-Dichloroethene	0.0005	ND
75-34-3	* 1,1-Dichloroethane	0.0005	ND
156-59-2	# Cis-1,2-Dichloroethene	0.0005	ND
156-60-5	* Trans-1,2-Dichloroethene	0.0005	ND
67-66-3	* Chloroform	0.0005	ND
76-13-1	# Trichlorotrifluoroethane	0.0005	ND
107-06-2	* 1,2-Dichloroethane	0.0005	0.0013
71-55-6	* 1,1,1-Trichloroethane	0.0005	ND
56-23-5	* Carbon Tetrachloride	0.0005	ND
75-27-4	* Bromodichloromethane	0.0005	ND
78-87-5	* 1,2-Dichloropropane	0.0005	ND
10061-02-6	* Trans-1,3-Dichloropropene	0.0005	ND
79-01-6	* Trichloroethene	0.0005	ND
124-48-1	* Dibromochloromethane	0.0005	ND
79-00-5	* 1,1,2-Trichloroethane	0.0005	ND
10061-01-5	* cis-1,3-Dichloropropene	0.0005	ND
110-75-8	* 2-Chloroethylvinylether	0.001	ND
75-25-2	* Bromoform	0.0005	ND
127-18-4	* Tetrachloroethene	0.0005	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	0.0005	ND
108-90-7	* Chlorobenzene	0.0005	ND
95-50-1	* 1,2-Dichlorobenzene	0.001	ND
541-73-1	* 1,3-Dichlorobenzene	0.001	ND
106-46-7	* 1,4-Dichlorobenzene	0.001	ND
	% Surrogate Recovery	51-136%	96%

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.	: 204-6852-1404 MW-2	Anametrix I.D.	: 9209025-02
Matrix	: WATER	Analyst	:
Date sampled	: 09/01/92	Supervisor	:
Date analyzed	: 09/11/92	Date released	: 09/17/92
Dilution	: 100	Instrument ID	: HP15

CAS #	Compound Name	Reporting Limit (mg/L)	Amount Found (mg/L)
74-87-3	* Chloromethane	0.1	ND
74-83-9	* Bromomethane	0.05	ND
75-71-8	* Dichlorodifluoromethane	0.1	ND
75-01-4	* Vinyl Chloride	0.05	ND
75-00-3	* Chloroethane	0.05	ND
75-09-2	* Methylene Chloride	0.05	ND
75-69-4	* Trichlorofluoromethane	0.05	ND
75-35-4	* 1,1-Dichloroethene	0.05	ND
75-34-3	* 1,1-Dichloroethane	0.05	ND
156-59-2	# Cis-1,2-Dichloroethene	0.05	ND
156-60-5	* Trans-1,2-Dichloroethene	0.05	ND
67-66-3	* Chloroform	0.05	ND
76-13-1	# Trichlorotrifluoroethane	0.05	ND
107-06-2	* 1,2-Dichloroethane	0.05	0.083
71-55-6	* 1,1,1-Trichloroethane	0.05	ND
56-23-5	* Carbon Tetrachloride	0.05	ND
75-27-4	* Bromodichloromethane	0.05	ND
78-87-5	* 1,2-Dichloropropane	0.05	ND
10061-02-6	* Trans-1,3-Dichloropropene	0.05	ND
79-01-6	* Trichloroethene	0.05	ND
124-48-1	* Dibromochloromethane	0.05	ND
79-00-5	* 1,1,2-Trichloroethane	0.05	ND
10061-01-5	* cis-1,3-Dichloropropene	0.05	ND
110-75-8	* 2-Chloroethylvinylether	0.1	ND
75-25-2	* Bromoform	0.05	ND
127-18-4	* Tetrachloroethene	0.05	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	0.05	ND
108-90-7	* Chlorobenzene	0.05	ND
95-50-1	* 1,2-Dichlorobenzene	0.1	ND
541-73-1	* 1,3-Dichlorobenzene	0.1	ND
106-46-7	* 1,4-Dichlorobenzene	0.1	ND
	% Surrogate Recovery	51-136%	95%

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.	: 204-6852-1404 MW-3	Anametrix I.D.	: 9209025-03
Matrix	: WATER	Analyst	:
Date sampled	: 09/01/92	Supervisor	:
Date analyzed	: 09/15/92	Date released	: 09/17/92
Dilution	: NONE	Instrument ID	: HP10

CAS #	Compound Name	Reporting Limit (mg/L)	Amount Found (mg/L)
74-87-3	* Chloromethane	0.001	ND
74-83-9	* Bromomethane	0.0005	ND
75-71-8	* Dichlorodifluoromethane	0.001	ND
75-01-4	* Vinyl Chloride	0.0005	ND
75-00-3	* Chloroethane	0.0005	ND
75-09-2	* Methylene Chloride	0.0005	ND
75-69-4	* Trichlorofluoromethane	0.0005	ND
75-35-4	* 1,1-Dichloroethene	0.0005	ND
75-34-3	* 1,1-Dichloroethane	0.0005	ND
156-59-2	# Cis-1,2-Dichloroethene	0.0005	ND
156-60-5	* Trans-1,2-Dichloroethene	0.0005	ND
67-66-3	* Chloroform	0.0005	ND
76-13-1	# Trichlorotrifluoroethane	0.0005	ND
107-06-2	* 1,2-Dichloroethane	0.0005	0.019
71-55-6	* 1,1,1-Trichloroethane	0.0005	ND
56-23-5	* Carbon Tetrachloride	0.0005	ND
75-27-4	* Bromodichloromethane	0.0005	ND
78-87-5	* 1,2-Dichloropropane	0.0005	ND
10061-02-6	* Trans-1,3-Dichloropropene	0.0005	ND
79-01-6	* Trichloroethene	0.0005	ND
124-48-1	* Dibromochloromethane	0.0005	ND
79-00-5	* 1,1,2-Trichloroethane	0.0005	ND
10061-01-5	* cis-1,3-Dichloropropene	0.0005	ND
110-75-8	* 2-Chloroethylvinylether	0.001	ND
75-25-2	* Bromoform	0.0005	ND
127-18-4	* Tetrachloroethene	0.0005	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	0.0005	ND
108-90-7	* Chlorobenzene	0.0005	ND
95-50-1	* 1,2-Dichlorobenzene	0.001	ND
541-73-1	* 1,3-Dichlorobenzene	0.001	ND
106-46-7	* 1,4-Dichlorobenzene	0.001	ND
	% Surrogate Recovery	51-136%	77%

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.	: 204-6852-1404 MW-3D	Anametrix I.D.	: 9209025-04
Matrix	: WATER	Analyst	:
Date sampled	: 09/01/92	Supervisor	:
Date analyzed	: 09/15/92	Date released	: 09/17/92
Dilution	: NONE	Instrument ID	: HP10

CAS #	Compound Name	Reporting Limit (mg/L)	Amount Found (mg/L)
74-87-3	* Chloromethane	0.001	ND
74-83-9	* Bromomethane	0.0005	ND
75-71-8	* Dichlorodifluoromethane	0.001	ND
75-01-4	* Vinyl Chloride	0.0005	ND
75-00-3	* Chloroethane	0.0005	ND
75-09-2	* Methylene Chloride	0.0005	ND
75-69-4	* Trichlorofluoromethane	0.0005	ND
75-35-4	* 1,1-Dichloroethene	0.0005	ND
75-34-3	* 1,1-Dichloroethane	0.0005	ND
156-59-2	# Cis-1,2-Dichloroethene	0.0005	ND
156-60-5	* Trans-1,2-Dichloroethene	0.0005	ND
67-66-3	* Chloroform	0.0005	ND
76-13-1	# Trichlorotrifluoroethane	0.0005	ND
107-06-2	* 1,2-Dichloroethane	0.0005	0.021
71-55-6	* 1,1,1-Trichloroethane	0.0005	ND
56-23-5	* Carbon Tetrachloride	0.0005	ND
75-27-4	* Bromodichloromethane	0.0005	ND
78-87-5	* 1,2-Dichloropropane	0.0005	ND
10061-02-6	* Trans-1,3-Dichloropropene	0.0005	ND
79-01-6	* Trichloroethene	0.0005	ND
124-48-1	* Dibromochloromethane	0.0005	ND
79-00-5	* 1,1,2-Trichloroethane	0.0005	ND
10061-01-5	* cis-1,3-Dichloropropene	0.0005	ND
110-75-8	* 2-Chloroethylvinylether	0.001	ND
75-25-2	* Bromoform	0.0005	ND
127-18-4	* Tetrachloroethene	0.0005	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	0.0005	ND
108-90-7	* Chlorobenzene	0.0005	ND
95-50-1	* 1,2-Dichlorobenzene	0.001	ND
541-73-1	* 1,3-Dichlorobenzene	0.001	ND
106-46-7	* 1,4-Dichlorobenzene	0.001	ND
	% Surrogate Recovery	51-136%	78%

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.	: 204-6852-1404 TB	Anametrix I.D.	: 9209025-05
Matrix	: WATER	Analyst	: MP
Date sampled	: 09/01/92	Supervisor	: CP
Date analyzed	: 09/11/92	Date released	: 09/17/92
Dilution	: NONE	Instrument ID	: HP15

CAS #	Compound Name	Reporting Limit (mg/L)	Amount Found (mg/L)
74-87-3	* Chloromethane	0.001	ND
74-83-9	* Bromomethane	0.0005	ND
75-71-8	* Dichlorodifluoromethane	0.001	ND
75-01-4	* Vinyl Chloride	0.0005	ND
75-00-3	* Chloroethane	0.0005	ND
75-09-2	* Methylene Chloride	0.0005	ND
75-69-4	* Trichlorofluoromethane	0.0005	ND
75-35-4	* 1,1-Dichloroethene	0.0005	ND
75-34-3	* 1,1-Dichloroethane	0.0005	ND
156-59-2	# Cis-1,2-Dichloroethene	0.0005	ND
156-60-5	* Trans-1,2-Dichloroethene	0.0005	ND
67-66-3	* Chloroform	0.0005	ND
76-13-1	# Trichlorotrifluoroethane	0.0005	ND
107-06-2	* 1,2-Dichloroethane	0.0005	ND
71-55-6	* 1,1,1-Trichloroethane	0.0005	ND
56-23-5	* Carbon Tetrachloride	0.0005	ND
75-27-4	* Bromodichloromethane	0.0005	ND
78-87-5	* 1,2-Dichloropropane	0.0005	ND
10061-02-6	* Trans-1,3-Dichloropropene	0.0005	ND
79-01-6	* Trichloroethene	0.0005	ND
124-48-1	* Dibromochloromethane	0.0005	ND
79-00-5	* 1,1,2-Trichloroethane	0.0005	ND
10061-01-5	* cis-1,3-Dichloropropene	0.0005	ND
110-75-8	* 2-Chloroethylvinylether	0.001	ND
75-25-2	* Bromoform	0.0005	ND
127-18-4	* Tetrachloroethene	0.0005	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	0.0005	ND
108-90-7	* Chlorobenzene	0.0005	ND
95-50-1	* 1,2-Dichlorobenzene	0.001	ND
541-73-1	* 1,3-Dichlorobenzene	0.001	ND
106-46-7	* 1,4-Dichlorobenzene	0.001	ND
	% Surrogate Recovery	51-136%	82%

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.	: 204-6852-1404 FB	Anametrix I.D.	: 9209025-06
Matrix	: WATER	Analyst	:
Date sampled	: 09/01/92	Supervisor	:
Date analyzed	: 09/11/92	Date released	: 09/17/92
Dilution	: NONE	Instrument ID	: HP15

CAS #	Compound Name	Reporting Limit (mg/L)	Amount Found (mg/L)
74-87-3	* Chloromethane	0.001	ND
74-83-9	* Bromomethane	0.0005	ND
75-71-8	* Dichlorodifluoromethane	0.001	ND
75-01-4	* Vinyl Chloride	0.0005	ND
75-00-3	* Chloroethane	0.0005	ND
75-09-2	* Methylene Chloride	0.0005	ND
75-69-4	* Trichlorofluoromethane	0.0005	ND
75-35-4	* 1,1-Dichloroethene	0.0005	ND
75-34-3	* 1,1-Dichloroethane	0.0005	ND
156-59-2	# Cis-1,2-Dichloroethene	0.0005	ND
156-60-5	* Trans-1,2-Dichloroethene	0.0005	ND
67-66-3	* Chloroform	0.0005	ND
76-13-1	# Trichlorotrifluoroethane	0.0005	ND
107-06-2	* 1,2-Dichloroethane	0.0005	ND
71-55-6	* 1,1,1-Trichloroethane	0.0005	ND
56-23-5	* Carbon Tetrachloride	0.0005	ND
75-27-4	* Bromodichloromethane	0.0005	ND
78-87-5	* 1,2-Dichloropropane	0.0005	ND
10061-02-6	* Trans-1,3-Dichloropropene	0.0005	ND
79-01-6	* Trichloroethene	0.0005	ND
124-48-1	* Dibromochloromethane	0.0005	ND
79-00-5	* 1,1,2-Trichloroethane	0.0005	ND
10061-01-5	* cis-1,3-Dichloropropene	0.0005	ND
110-75-8	* 2-Chloroethylvinylether	0.001	ND
75-25-2	* Bromoform	0.0005	ND
127-18-4	* Tetrachloroethene	0.0005	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	0.0005	ND
108-90-7	* Chlorobenzene	0.0005	ND
95-50-1	* 1,2-Dichlorobenzene	0.001	ND
541-73-1	* 1,3-Dichlorobenzene	0.001	ND
106-46-7	* 1,4-Dichlorobenzene	0.001	ND
	% Surrogate Recovery	51-136%	82%

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.	: VBLANK	Anametrix I.D.	: 15B0911H01
Matrix	: WATER	Analyst	:
Date sampled	: N/A	Supervisor	:
Date analyzed	: 09/11/92	Date released	: 09/17/92
Dilution	: NONE	Instrument ID	: HP15

CAS #	Compound Name	Reporting Limit (mg/L)	Amount Found (mg/L)
74-87-3	* Chloromethane	0.001	ND
74-83-9	* Bromomethane	0.0005	ND
75-71-8	* Dichlorodifluoromethane	0.001	ND
75-01-4	* Vinyl Chloride	0.0005	ND
75-00-3	* Chloroethane	0.0005	ND
75-09-2	* Methylene Chloride	0.0005	ND
75-69-4	* Trichlorofluoromethane	0.0005	ND
75-35-4	* 1,1-Dichloroethene	0.0005	ND
75-34-3	* 1,1-Dichloroethane	0.0005	ND
156-59-2	# Cis-1,2-Dichloroethene	0.0005	ND
156-60-5	* Trans-1,2-Dichloroethene	0.0005	ND
67-66-3	* Chloroform	0.0005	ND
76-13-1	# Trichlorotrifluoroethane	0.0005	ND
107-06-2	* 1,2-Dichloroethane	0.0005	ND
71-55-6	* 1,1,1-Trichloroethane	0.0005	ND
56-23-5	* Carbon Tetrachloride	0.0005	ND
75-27-4	* Bromodichloromethane	0.0005	ND
78-87-5	* 1,2-Dichloropropane	0.0005	ND
10061-02-6	* Trans-1,3-Dichloropropene	0.0005	ND
79-01-6	* Trichloroethene	0.0005	ND
124-48-1	* Dibromochloromethane	0.0005	ND
79-00-5	* 1,1,2-Trichloroethane	0.0005	ND
10061-01-5	* cis-1,3-Dichloropropene	0.0005	ND
110-75-8	* 2-Chloroethylvinylether	0.001	ND
75-25-2	* Bromoform	0.0005	ND
127-18-4	* Tetrachloroethene	0.0005	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	0.0005	ND
108-90-7	* Chlorobenzene	0.0005	ND
95-50-1	* 1,2-Dichlorobenzene	0.001	ND
541-73-1	* 1,3-Dichlorobenzene	0.001	ND
106-46-7	* 1,4-Dichlorobenzene	0.001	ND
	% Surrogate Recovery	51-136%	96%

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.	: VBLANK	Anametrix I.D.	: 15B0915H01
Matrix	: WATER	Analyst	:
Date sampled	: N/A	Supervisor	:
Date analyzed	: 09/15/92	Date released	: 09/17/92
Dilution	: NONE	Instrument ID	: HP15

CAS #	Compound Name	Reporting Limit (mg/L)	Amount Found (mg/L)
74-87-3	* Chloromethane	0.001	ND
74-83-9	* Bromomethane	0.0005	ND
75-71-8	* Dichlorodifluoromethane	0.001	ND
75-01-4	* Vinyl Chloride	0.0005	ND
75-00-3	* Chloroethane	0.0005	ND
75-09-2	* Methylene Chloride	0.0005	ND
75-69-4	* Trichlorofluoromethane	0.0005	ND
75-35-4	* 1,1-Dichloroethene	0.0005	ND
75-34-3	* 1,1-Dichloroethane	0.0005	ND
156-59-2	# Cis-1,2-Dichloroethene	0.0005	ND
156-60-5	* Trans-1,2-Dichloroethene	0.0005	ND
67-66-3	* Chloroform	0.0005	ND
76-13-1	# Trichlorotrifluoroethane	0.0005	ND
107-06-2	* 1,2-Dichloroethane	0.0005	ND
71-55-6	* 1,1,1-Trichloroethane	0.0005	ND
56-23-5	* Carbon Tetrachloride	0.0005	ND
75-27-4	* Bromodichloromethane	0.0005	ND
78-87-5	* 1,2-Dichloropropane	0.0005	ND
10061-02-6	* Trans-1,3-Dichloropropene	0.0005	ND
79-01-6	* Trichloroethene	0.0005	ND
124-48-1	* Dibromochloromethane	0.0005	ND
79-00-5	* 1,1,2-Trichloroethane	0.0005	ND
10061-01-5	* cis-1,3-Dichloropropene	0.0005	ND
110-75-8	* 2-Chloroethylvinylether	0.001	ND
75-25-2	* Bromoform	0.0005	ND
127-18-4	* Tetrachloroethene	0.0005	ND
79-34-5	* 1,1,2,2-Tetrachloroethane	0.0005	ND
108-90-7	* Chlorobenzene	0.0005	ND
95-50-1	* 1,2-Dichlorobenzene	0.001	ND
541-73-1	* 1,3-Dichlorobenzene	0.001	ND
106-46-7	* 1,4-Dichlorobenzene	0.001	ND
	% Surrogate Recovery	51-136%	72%

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.

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

Sample I.D. : 204-6852-1404 MW-1
Matrix : WATER
Date sampled : 09/01/92
Date analyzed : 09/11/92

Anametrix I.D. : 9209025-01
Analyst : MY
Supervisor : CP
Date released : 09/17/92
Instrument I.D.: HP15

	SPIKE AMT. (ug/L)	MS (ug/L)	REC MS	MSD (ug/L)	REC MSD	RPD	%REC LIMITS
FREON 113	10	11.5	115%	7.8	78%	38%	50 - 150
1,1-DICHLOROETHENE	10	9.3	93%	7.9	79%	16%	41 - 110
trans-1,2-DICHLOROETHENE	10	8.2	82%	6.4	64%	24%	47 - 126
1,1-DICHLOROETHANE	10	9.2	92%	7.4	74%	22%	67 - 124
Cis-1,2-DCE	10	10.3	103%	8.4	84%	20%	50 - 150
1,1,1-TRICHLOROETHANE	10	9.1	91%	7.3	73%	21%	50 - 150
TRICHLOROETHENE	10	7.4	74%	6.4	64%	15%	51 - 131
TETRACHLOROETHENE	10	10.3	102%	10.0	100%	2%	70 - 136
CHLOROBENZENE	10	9.2	92%	9.8	98%	-7%	71 - 119
1,3-DICHLOROBENZENE	10	9.9	99%	7.4	74%	30%	67 - 120
1,4-DICHLOROBENZENE	10	9.5	95%	7.7	77%	20%	61 - 109
1,2-DICHLOROBENZENE	10	8.6	86%	7.5	75%	14%	70 - 119

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

LABORATORY CONTROL SAMPLE
EPA METHOD 601/8010
ANAMETRIX, INC. (408)432-8192

Project/Case	: LABORATORY CONTROL SAMPLE	Anametrix I.D.	: WO091192
Matrix	: WATER	Analyst	:
SDG/Batch	: N/A	Supervisor	:
Date analyzed	: 09/11/92	Instrument I.D.	: HP15

COMPOUND	SPIKE AMOUNT (ug/L)	AMOUNT RECOVERED (ug/L)	PERCENT RECOVERY	%RECOVERY LIMITS
FREON 113	10	12.0	119%	34 - 128
1,1-DICHLOROETHENE	10	9.7	97%	63 - 133
trans-1,2-DICHLOROETHENE	10	8.6	86%	55 - 145
1,1-DICHLOROETHANE	10	9.7	97%	49 - 121
cis-1,2-Trichloroethene	10	10.9	109%	66 - 168
1,1,1-TRICHLOROETHANE	10	9.9	99%	72 - 143
TRICHLOROETHENE	10	8.1	81%	63 - 147
TETRACHLOROETHENE	10	10.4	104%	60 - 133
CHLOROBENZENE	10	9.3	93%	70 - 148
1,3-DICHLOROBENZENE	10	9.5	95%	49 - 139
1,4-DICHLOROBENZENE	10	9.7	97%	70 - 133
1,2-DICHLOROBENZENE	10	9.0	90%	69 - 140

* Limits based on data generated by Anametrix, Inc., August, 1992.

LABORATORY CONTROL SAMPLE
EPA METHOD 601/8010
ANAMETRIX, INC. (408)432-8192

Project/Case	: LABORATORY CONTROL SAMPLE	Anametrix I.D.	: WO091592
Matrix	: WATER	Analyst	: CP KK
SDG/Batch	: N/A	Supervisor	:
Date analyzed	: 09/15/92	Instrument I.D.	: HP15

COMPOUND	SPIKE AMOUNT (ug/L)	AMOUNT RECOVERED (ug/L)	PERCENT RECOVERY	%RECOVERY LIMITS
FREON 113	10	10.7	107%	34 - 128
1,1-DICHLOROETHENE	10	10.8	108%	63 - 133
trans-1,2-DICHLOROETHENE	10	10.0	100%	55 - 145
1,1-DICHLOROETHANE	10	10.5	105%	49 - 121
cis-1,2-Trichloroethene	10	9.7	97%	66 - 168
1,1,1-TRICHLOROETHANE	10	10.4	55%	72 - 143
TRICHLOROETHENE	10	11.5	115%	63 - 147
TETRACHLOROETHENE	10	12.1	121%	60 - 133
CHLOROBENZENE	10	12.5	125%	70 - 148
1,3-DICHLOROBENZENE	10	9.5	95%	49 - 139
1,4-DICHLOROBENZENE	10	10.0	100%	70 - 133
1,2-DICHLOROBENZENE	10	9.5	95%	69 - 140

* Limits based on data generated by Anametrix, Inc., August, 1992.

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

MR. DAVID LARSEN
EMCON ASSOCIATES
1938 JUNCTION AVE.
SAN JOSE, CA 95131

Workorder # : 9209025
Date Received : 09/02/92
Project ID : 204-6852-1404
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9209025- 1	MW-1	WATER	09/01/92	TPHg/BTEX
9209025- 2	MW-2	WATER	09/01/92	TPHg/BTEX
9209025- 3	MW-3	WATER	09/01/92	TPHg/BTEX
9209025- 4	MW-3D	WATER	09/01/92	TPHg/BTEX
9209025- 5	TB	WATER	09/01/92	TPHg/BTEX
9209025- 6	FB	WATER	09/01/92	TPHg/BTEX

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

MR. DAVID LARSEN
EMCON ASSOCIATES
1938 JUNCTION AVE.
SAN JOSE, CA 95131

Workorder # : 9209025
Date Received : 09/02/92
Project ID : 204-6852-1404
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Department Supervisor 9/18/92 Date

Chemist 9/21/92 Date

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

Anametrix W.O.: 9209025
Matrix : WATER
Date Sampled : 09/01/92

Project Number : 204-6852-1404
Date Released : 09/18/92

	Reporting Limit	Sample I.D.# MW-1	Sample I.D.# MW-2	Sample I.D.# MW-3	Sample I.D.# MW-3D	Sample I.D.# TB
COMPOUNDS	(mg/L)	-01	-02	-03	-04	-05
Benzene	0.0005	0.016	21	0.020	0.021	ND
Toluene	0.0005	0.0014	13	0.0068	0.0066	ND
Ethylbenzene	0.0005	0.0018	1.9	0.0055	0.0034	ND
Total Xylenes	0.0005	0.0034	7.8	ND	ND	ND
TPH as Gasoline	0.050	0.13	110	1.9	1.9	ND
% Surrogate Recovery		89%	95%	86%	96%	93%
Instrument I.D.		HP12	HP12	HP12	HP12	HP12
Date Analyzed		09/08/92	09/09/92	09/08/92	09/08/92	09/08/92
RLMF		1	1000	10	10	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.

Lucia Shaw 9/18/92
Analyst Date

Cheryl Balmer 9/18/92
Supervisor Date

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

Anametrix W.O.: 9209025
Matrix : WATER
Date Sampled : 09/01/92

Project Number : 204-6852-1404
Date Released : 09/18/92

COMPOUNDS	Reporting Limit (mg/L)	Sample I.D.# FB -06	Sample I.D.# BS0801E2 BLANK	Sample I.D.# BS0901E2 BLANK
Benzene	0.0005	ND	ND	ND
Toluene	0.0005	0.0007	ND	ND
Ethylbenzene	0.0005	ND	ND	ND
Total Xylenes	0.0005	ND	ND	ND
TPH as Gasoline	0.050	ND	ND	ND
% Surrogate Recovery		94%	95%	104%
Instrument I.D.		HP12	HP12	HP12
Date Analyzed		09/08/92	09/08/92	09/09/92
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 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 9/21/92 Date

Supervisor 9/18/92 Date

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

Sample I.D.	: 204-6852-1404 MW-1	Anametrix I.D.	: 9209025-0
Matrix	: WATER	Analyst	:
Date Sampled	: 09/01/92	Supervisor	:
Date Analyzed	: 09/08/92	Date Released	: 09/18/92
		Instrument ID	: HP12

COMPOUND	SPIKE AMT (mg/L)	SAMPLE AMT (mg/L)	REC MS (mg/L)	% REC MS	REC MD (mg/L)	% REC MD	RPD	% REC LIMITS
GASOLINE	0.25	0.13	0.26	52%	0.27	56%	4%	48-145
P-BFB				98%		98%		53-147

* 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
Matrix : WATER
Date Sampled : N/A
Date Analyzed : 09/08/92

Anametrix I.D. : LCSW0908
Analyst : IS
Supervisor : CA
Date Released : 09/18/92
Instrument I.D.: HP12

COMPOUND	SPIKE AMT. (mg/L)	REC LCS (mg/L)	%REC LCS	% REC LIMITS
GASOLINE	0.25	0.24	96%	56-116
SURROGATE		96%		53-147

* Quality control established by Anametrix, Inc.

9209025 (18) (10) 15.4 WB

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No.: 9225

Date:
Page 1 of 1

Site Address: 1784 150th Avenue San Leandro, CA

WIC#: 204-6852-1404

Shell Engineer: Dan Kirk — Phone No. (510) — Fax #: 675-6168

Consultant Name & Address: EMCON Associates 1938 Junction Ave San Jose CA 95131

Consultant Contact: David Larsen — Phone No. (408) — Fax #: 453-2269

Comments: 3-VOAs (HCl) for gas, BTEX
3-VOAs (NP) for EPA 601

Sampled By: Steve Horton

Printed Name: Steve Horton

LAB: Anametrix

CHECK ONE (1) BOX ONLY

	CT/DT
[X] Quarterly Monitoring	5461
[ ] Site Investigation	5441
[ ] Soil for disposal	5442
[ ] Water for disposal	5443
[ ] Air Sample- Sys O&M	5452
[ ] Water Sample - Sys O&M	5453
[ ] Other	

TURN AROUND TIME

- [ ] 24 hours
- [ ] 48 hours
- [ ] 15 days [X] (Normal)
- [ ] Other _____

NOTE: Notify Lab as soon as possible of 24/48 hrs. TAT.

Analysis Required

Sample ID	Date	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	EPA Method 601	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
(1) MW-1	9/1/92		X		6	X		X			X	40 ml	HCl	N		
(2) MW-2	9/1/92		↓		↓	↓		↓			↓	↓	↓	↓		
(3) MW-3	9/1/92															
(4) MW-3D	9/1/92															
(5) TB	9/1/92															
(6) FB	9/1/92		↓		↓	↓		↓			↓	↓	↓	↓		

Relinquished By (signature): Steve Horton	Printed name: Steve Horton	Date: 9/1/92 Time: 17:00	Received (signature):
Relinquished By (signature):	Printed name: D. Larsen	Date: 9-2-92 Time: 10:50	Received (signature): Benny S. Carrizosa
Relinquished By (signature): Benny S. Carrizosa	Printed name: BENNY S. CARRIZOSA	Date: 9/2/92 Time: 1130	Received (signature): Maria Barajas

Printed name: D. Larsen	Date: 9-1-92	Time: 12:00
Printed name: BENNY S. CARRIZOSA	Date: 9-2-92	Time: 1050
Printed name: Maria Barajas	Date: 9/2/92	Time: 11:30

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

Last Revision Date: 10/15/91