Weiss Associates Environmental and Geologic Services

5500 Shellmound Street, Emeryville, CA 94608-2411 Fax: 510-547-5043 Phone: **510-450-6000**

May 20, 1994

Brian Oliva
Alameda County Department
of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Re: Shell Service Station
WIC #204-2495-0101
1800 Powell Street
Emeryville, California
WA Job #81-794-104

Dear Mr. Oliva:

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 first quarter 1994 and proposed work for the second quarter 1994.

First Quarter 1994 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths and collected ground water samples from the site wells. BTS' report describing these activities and the analytic report for the ground water samples are included as Attachment A.
- Weiss Associates (WA) calculated ground water elevations and compiled the analytic data (Table 1 and Attachment B) and prepared a ground water elevation contour map (Figure 2).

May 20, 1994

Weiss Associates

Anticipated Second Quarter 1994 Activities:

WA will submit a report presenting the results of the second quarter 1994 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results, ground water elevations and a ground water elevation contour map. Historical and current data will be compiled into one table.

Please call if you have any questions.

REGISTERED GEOLOGIST
JAMES W. CARMODY
No. EG 1576
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

Sincerely,
Weiss Associates

John Wolf
Technical Assistant

James W. Carmody, C.E.G.
Senior Project Hydrogeologist

JAW/JWC:jaw

J:\SHELL\700\794QMAP4.WP

Attachments: A - Blaine Tech's Ground Water Monitoring Report
B - Historical Ground Water Elevation and Analytic Data

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

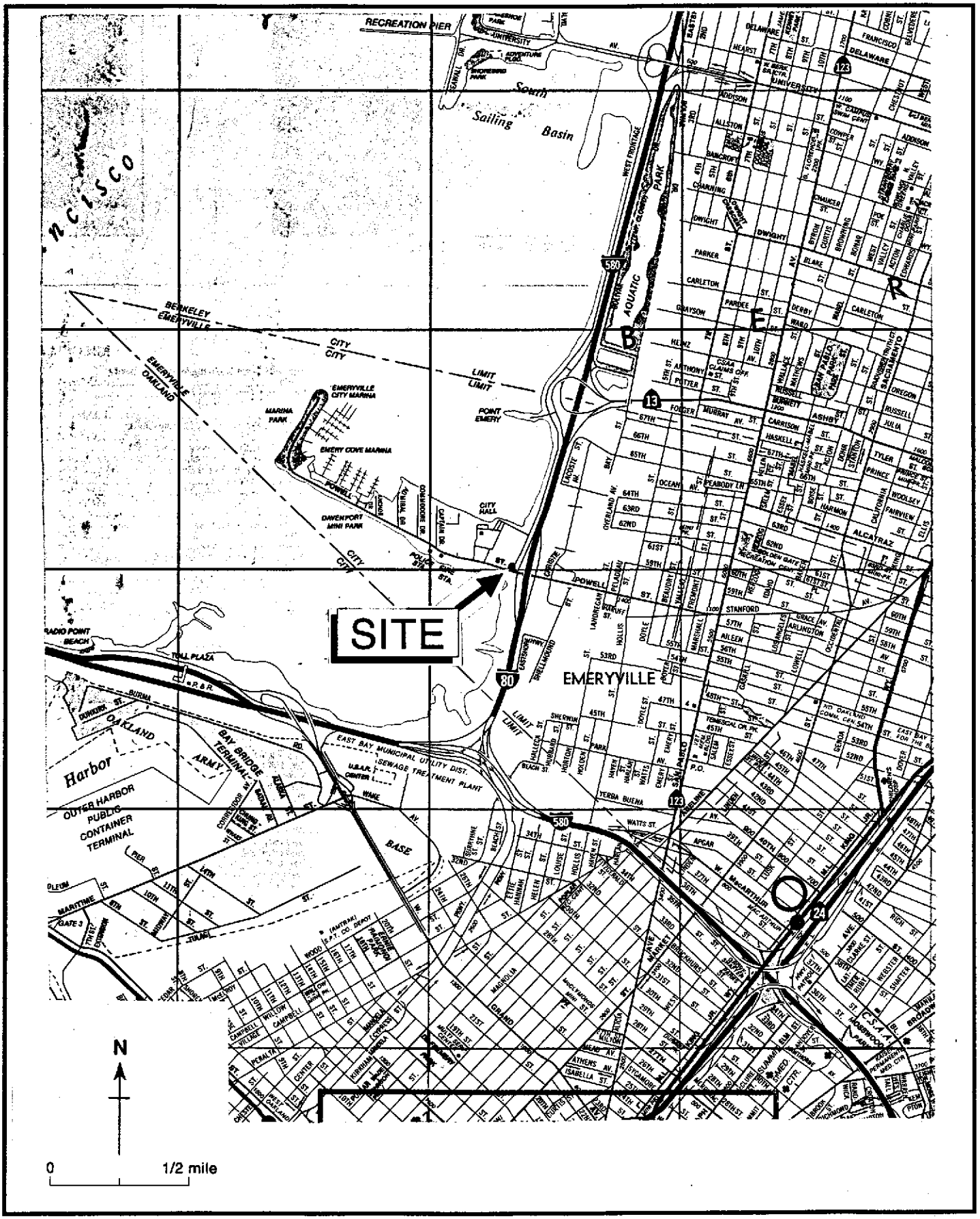

Figure 1. Site Location Map - Shell Service Station WIC# 204-2495-01, 1800 Powell Street, Emeryville, California

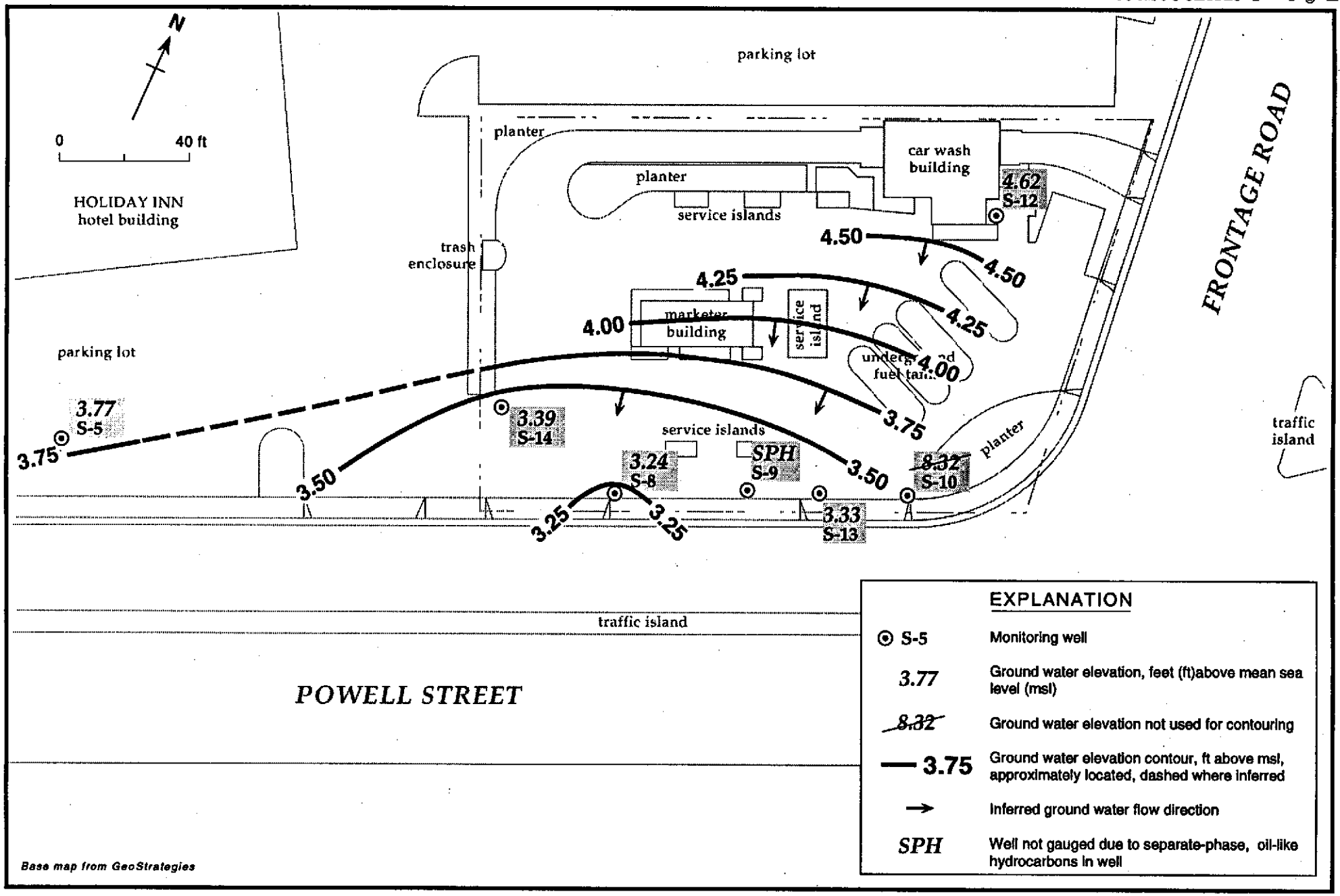

Figure 2. Monitoring Well Locations and Ground Water Elevation Contours - February 21, 1994 - Shell Service Station - WIC# 204-2495-0107, 1800 Powell Street, Emeryville, California

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC# 204-2495-0101, 1800 Powell Street, Emeryville, California

Well ID	Sampling Date	Top-of-Casing (ft/mls)	Depth to Water (ft)	Ground Water Elevation (ft/msl)	TPH-G	TPH-D	B	T	E	X
					<----------parts per billion (µg/L)---------->					
S-5	02/21/94[dup]	11.72	7.95	3.77	1,300	NA	220	<5.0	<5.0	11
S-8	02/21/94	12.76	9.52	3.24	3,200	NA	480	52	<5.0	130
S-9	02/24/94[S-PHC]	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-10	02/21/94	12.58	4.26	8.32	1,400	NA	190	9.9	<2.5	19
S-12	02/21/94	12.84	8.22	4.62	240[a]	2,200[b]	0.7	<0.5	<0.5	<3.6
S-13	02/21/94	12.59	9.26	3.33	700	1,800[b]	200	<5.0	<5.0	45
S-14	02/21/94	12.69	9.30	3.39	2,800[a]	3,600[b]	<5.0	<5.0	<5.0	14
Trip Blank	02/21/94				<50	<50	<0.5	<0.5	<0.5	<0.5
DTSC MCLs					NE	NE	1	100[c]	680	1,750

Abbreviations:

ft/msl = Feet above mean sea level
TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 8020
NE = Not established
NA = Not analyzed/Not available
DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water
<n = Not detected at detection limits of n ppb
dup = Duplicate sample
S-PHC = Separate-phase hydrocarbons present

Notes:

a = The concentrations reported as gasoline for samples S-12 and S-14 are primarily due to the presence of a discrete peak and underline of gasoline
b = The concentrations reported as diesel for samples S-12, S-13 and S-14 are due to the presence of a combination of diesel and a heavier petroleum product of hydrocarbon range C18 - C36, possibly motor oil
c = DTSC recommended action level; MCL not established

ATTACHMENT A

GROUND WATER MONITORING REPORT AND ANALYTIC REPORT

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

March 15, 1994

Shell Oil Company
P.O. Box 5278
Concord, CA 94520-9998

Attn: Daniel T. Kirk

SITE:
Shell WIC #204-2495-0101
1800 Powell Street
Emeryville, California

QUARTER:
1st quarter of 1994

QUARTERLY GROUNDWATER SAMPLING REPORT 940221-L-1

This report contains data collected during routine inspection, gauging and sampling of groundwater monitoring wells performed by Blaine Tech Services, Inc. in response to the request of the consultant who is overseeing work at this site on behalf of our mutual client, Shell Oil Company. Data collected in the course of our field work is presented in a TABLE OF WELL GAUGING DATA. The field information was collected during our preliminary gauging and inspection of the wells, the subsequent evacuation of each well prior to sampling, and at the time of sampling.

Measurements taken include the total depth of the well and the depth to water. The surface of water was further inspected for the presence of immiscibles which may be present as a thin film (a sheen on the surface of the water) or as a measurable free product zone (FPZ). At intervals during the evacuation phase, the purge water was monitored with instruments that measure electrical conductivity (EC), potential hydrogen (pH), temperature (degrees Fahrenheit), and turbidity (NTU). In the interest of simplicity, fundamental information is tabulated here, while the bulk of the information is turned over directly to the consultant who is making professional interpretations and evaluations of the conditions at the site.

STANDARD PROCEDURES

Evacuation

Groundwater wells are thoroughly purged before sampling to insure that the sample is collected from water that has been newly drawn into the well from the surrounding geologic formation. The selection of equipment to evacuate each well is based on the physical characteristics of the well and what is known about the performance of the formation in which the well has been installed. There are several suitable devices which can be used for evacuation. The most commonly employed devices are air or gas actuated pumps, electric submersible pumps, and hand or mechanically actuated bailers. Our personnel frequently employ USGS/Middleburg positive displacement pumps or similar air actuated pumps which do not agitate the water standing in the well.

Normal evacuation removes three case volumes of water from the well. More than three case volumes of water are removed in cases where more evacuation is needed to achieve stabilization of water parameters and when requested by the local implementing agency. Less water may be obtained in cases where the well dewaters and does not recharge to 80% of its original volume within two hours and any additional time our personnel have reason to remain at the site. In such cases, our personnel return to the site within twenty four hours and collect sample material from the water which has recharged into the well case.

Decontamination

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site. Effluent water from purging and on-site equipment cleaning is collected and transported to Shell's Martinez Manufacturing Complex in Martinez, California

Free Product Skimmer

The column headed, VOLUME OF IMMISCIBLES REMOVED (ml) is included in the TABLE OF WELL GAUGING DATA to cover situations where a free product skimming device must be removed from the well prior to gauging. Skimmers are installed in wells with a free product zone on the surface of the water. The skimmer is a free product recovery device which often prevents normal well gauging and free product zone measurements. The 2.0" and 3.0" PetroTraps fall into the category of devices that obstruct normal gauging. In cases where the consultant elects to have our personnel pull the skimmers out of the well and gauge the well, our personnel perform the additional task of draining the accumulated free product out of the PetroTrap before putting it back in the well. This

recovered free product is measured and logged in the VOLUME OF IMMISCIBLES REMOVED column. Gauging at such sites is performed in accordance with specific directions from the professional consulting firm overseeing work at the site on Shell's behalf.

Sample Containers

Sample material is collected in specially prepared containers which are provided by the laboratory that performs the analyses.

Sampling

Sample material is collected in stainless steel bailer type devices normally fitted with both a top and a bottom check valve. Water is promptly decanted into new sample containers in a manner which reduces the loss of volatile constituents and follows the applicable EPA standard for handling volatile organic and semi-volatile compounds.

Following collection, samples are promptly placed in an ice chest containing prefrozen blocks of an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

Sample Designations

All sample containers are identified with a site designation and a discrete sample identification number specific to that particular groundwater well. Additional standard notations (e.g. time, date, sampler) are also made on the label.

Chain of Custody

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under a standard Shell Oil Company chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of the person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to Anametrix, Inc. in San Jose, California. Anametrix, Inc. is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1234.

Objective Information Collection

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. performs no consulting and does not become involved in the marketing or installation of remedial systems of any kind. Blaine Tech Services, Inc. is concerned only with the generation of objective information, not with the use of that information to support evaluations and recommendations concerning the environmental condition of the site. Even the straightforward interpretation of objective analytical data is better performed by interested regulatory agencies, and those engineers and geologists who are engaged in the work of providing professional opinions about the site and proposals to perform additional investigation or design remedial systems.

Reportage

Submission of this report and the attached laboratory report to interested regulatory agencies is handled by the consultant in charge of the project. Any professional evaluations or recommendations will be made by the consultant under separate cover.

Please call if we can be of any further assistance.

Richard C. Blaine

RCB/lp

attachments: table of well gauging data
chain of custody
certified analytical report

cc: Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608-2411
ATTN: Michael Asport

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
S-5 *	2/21/94	TOC	--	NONE	--	--	7.95	12.12
S-8	2/21/94	TOC	ODOR	NONE	--	--	9.52	18.42
S-9	2/21/94	TOC	FREE PRODUCT					
S-10	2/21/94	TOC	--	NONE	--	--	4.26	19.53
S-12	2/21/94	TOC	--	NONE	--	--	8.22	23.82
S-13	2/21/94	TOC	SHEEN/ODOR	--	--	--	9.26	20.05
S-14	2/21/94	TOC	SHEEN/ODOR	--	--	--	9.30	23.20

* Sample DUP was a duplicate sample taken from well S-5.

#1853 9402238 (18) (10/27)

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 940221-LL

Date: 2/21/94
Page 1 of 2

Site Address: 1800 Powell Street, Emeryville

WIC#: 204-2495-0101

Shell Engineer: Dan Kirk — Phone No.: (510) 675-6168 Fax #: 675-6160

Consultant Name & Address: Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133

Consultant Contact: Jim Keller — Phone No.: (408) 995-5535 Fax #: 293-8773

Comments:

Sampled by: ZMBOLVER

Printed Name: LAD B OLVER

LAB: Anametrix

CHECK ONE (1) BOX ONLY	C't/01	TURN AROUND TIME
Quarterly Monitoring	X 6441	24 hours ☐
Site Investigation	☐ 6441	48 hours ☐
Soil Closure/Disposal	☐ 6442	10 days XX (Normal)
Water Closure/Disposal	☐ 6443	Other ☐ ____
Soil/Air Rem. or Sys. O & M	☐ 6442	NOTE: Notify Lab as soon as Possible of 24/48 hr. TAT.
Water Rem. or Sys. O & M	☐ 6443	
Other	☐	

	Sample ID	Date	Sludge	Soil	Water	Air	No. of cont's.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	T.D.S.		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
(1)	S-5	2/21			X		3						X								
(2)	S-8	"			X		4						X	X							
(3)	S-10	"			X		3						X								
(4)	S-12	"			X		5		X				X								
(5)	S-13	"			X		5		X				X								
(6)	S-14	"			X		5		X				X								
(7)	DUP.	"			X		3						X								
(8)	EB.	↓			X		3						X							PLACE EB ON HOLD	

Relinquished By (signature):	Printed Name: LAD B OLVER	Date: 2/22/94 Time: 4:45 pm	Received (signature):	Printed Name: SERGIO HERNANDEZ	Date: 2/22/94 Time: 4:45 pm
Relinquished By (signature):	Printed Name: SERGIO Hernandez	Date: 2/22/94 Time: 5:10	Received (signature):	Printed Name: Maria Barajas	Date: 2/22/94 Time: 17:10
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature):	Printed Name:	Date: Time:

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

#13577 9402238 (18) (10/27)

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 940221-L1

Date: 2/21/94
Page 2 of 2

Site Address: 1800 Powell Street, Emeryville

WIC#: 204-2495-0101

Shell Engineer: Dan Kirk — Phone No.: (510) 675-6168 Fax #: 675-6160

Consultant Name & Address: Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133

Consultant Contact: Jim Keller — Phone No.: (408) 995-5535 Fax #: 293-8773

Comments:

Sampled by: ZMBOlver

Printed Name: LAD B OLVER

LAB: Anametrix

Sample ID	Date	Sludge	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	Combination TPH 8015 & BTEX 8020			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
(9) T.B.	2/21			X		2						X								

CHECK ONE (1) BOX ONLY — GT/OT — TURN AROUND TIME

- Quarterly Monitoring [X] 6441 — 24 hours [ ]
- Site Investigation [ ] 6441 — 48 hours [ ]
- Soil Close/Disposal [ ] 6442 — 10 days [X] (Normal)
- Water Close/Disposal [ ] 6443 — Other [ ]
- Soil/Air Rem. or Sys. O & M [ ] 6452
- Water Rem. or Sys. O & M [ ] 6453
- Other [ ]

NOTE: Notify Lab as soon as Possible of 24/48 hr. TAT.

Relinquished By (signature)	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
ZMBOlver	LAD B OLVER	2/22/94	4:45pm	Hugo Hdz	SERGIO HERNANDEZ	2/22/94	4:45pm
Hugo Hdz	SERGIO HERNANDEZ	2/22/94	6:10p	Maria Barajas	Maria Barajas	2/22/94	17:10

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

Inchcape Testing Services
Anametrix Laboratories

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

MR. JIM KELLER
BLAINE TECH
985 TIMOTHY DRIVE
SAN JOSE, CA 95133

Workorder # : 9402238
Date Received : 02/22/94
Project ID : 204-2495-0101
Purchase Order: MOH-B813

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9402238- 1	S-5
9402238- 2	S-8
9402238- 3	S-10
9402238- 4	S-12
9402238- 5	S-13
9402238- 6	S-14
9402238- 7	DUP
9402238- 8	E.B.
9402238- 9	T.B.

This report consists of 16 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

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

Doug Robbins
Laboratory Director

03/10/94
Date

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

MR. JIM KELLER
BLAINE TECH
985 TIMOTHY DRIVE
SAN JOSE, CA 95133

Workorder # : 9402238
Date Received : 02/22/94
Project ID : 204-2495-0101
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9402238- 4	S-12	WATER	02/21/94	TPHd
9402238- 5	S-13	WATER	02/21/94	TPHd
9402238- 6	S-14	WATER	02/21/94	TPHd
9402238- 1	S-5	WATER	02/21/94	TPHgBTEX
9402238- 2	S-8	WATER	02/21/94	TPHgBTEX
9402238- 3	S-10	WATER	02/21/94	TPHgBTEX
9402238- 4	S-12	WATER	02/21/94	TPHgBTEX
9402238- 5	S-13	WATER	02/21/94	TPHgBTEX
9402238- 6	S-14	WATER	02/21/94	TPHgBTEX
9402238- 7	DUP	WATER	02/21/94	TPHgBTEX
9402238- 9	T.B.	WATER	02/21/94	TPHgBTEX

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

MR. JIM KELLER
BLAINE TECH
985 TIMOTHY DRIVE
SAN JOSE, CA 95133

Workorder # : 9402238
Date Received : 02/22/94
Project ID : 204-2495-0101
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentrations reported as gasoline for samples S-12 and S-14 are primarily due to the presence of a discrete peak not indicative of gasoline.
- The concentrations reported as diesel for samples S-12, S-13 and S-14 are due to the presence of a combination of diesel and a heavier petroleum product of hydrocarbon range C18-C36, possibly motor oil.

Cheryl Balmer 3/7/94
Department Supervisor Date

Kamel G. Kamel 3/7/94
Chemist Date

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

Lab Workorder : 9402238 | Client Project ID : 204-2495-0101

Matrix : WATER | Units : ug/L

Compound Name	Method Reporting Limit*	Client ID S-5 Lab ID 9402238-01	Client ID S-8 Lab ID 9402238-02	Client ID S-10 Lab ID 9402238-03	Client ID S-12 Lab ID 9402238-04	Client ID S-13 Lab ID 9402238-05
Benzene	0.50	250	480	190	0.71	200
Toluene	0.50	<5	52	9.9	ND	<5
Ethylbenzene	0.50	<5	<5	<2.5	ND	<5
Total Xylenes	0.50	11	130	19	3.6	45
TPH as Gasoline	50	1000	3200	1400	240	700
Surrogate Recovery		121%	107%	101%	107%	120%
Instrument ID		HP4	HP4	HP4	HP4	HP4
Date Sampled		02/21/94	02/21/94	02/21/94	02/21/94	02/21/94
Date Analyzed		02/26/94	02/28/94	02/28/94	02/25/94	02/26/94
RLMF		10	10	5	1	10
Filename Reference		FPF23801.D	FRF23802.D	FRF23803.D	FPF23804.D	FPF23805.D

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

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

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 61-139%.

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

Kamel G. Kamel 3/4/94
Analyst Date

Supervisor 3/4/94
Date

Issued on 3/4/94 @ 9:49 AM

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

Lab Workorder : 9402238 | Client Project ID : 204-2495-0101

Matrix : WATER | Units : ug/L

Compound Name	Method Reporting Limit*	Client ID S-14 Lab ID 9402238-06	Client ID DUP Lab ID 9402238-07	Client ID T.B. Lab ID 9402238-09	Client ID Lab ID METHOD BLANK	Client ID Lab ID METHOD BLANK
Benzene	0.50	<5	220	ND	ND	ND
Toluene	0.50	<5	<5	ND	ND	ND
Ethylbenzene	0.50	<5	<5	ND	ND	ND
Total Xylenes	0.50	14	11	ND	ND	ND
TPH as Gasoline	50	2800	1300	ND	ND	ND
Surrogate Recovery		122%	115%	108%	105%	109%
Instrument ID		HP4	HP4	HP4	HP4	HP4
Date Sampled		02/21/94	02/21/94	02/21/94	N/A	N/A
Date Analyzed		03/02/94	03/02/94	02/25/94	02/25/94	02/28/94
RLMF		10	10	1	1	1
Filename Reference		FRF23806.D	FTF23807.D	FPF23809.D	BF2502E1.D	BF2801E1.D

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

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

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 61-139%.

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

Kamel C. Kamel 3/7/94
Analyst Date

Cheryl Balmer 3/8/94
Supervisor Date

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

Lab Workorder : 9402238

Client Project ID : 204-2495-0101

Matrix : WATER

Units : ug/L

Compound Name	Method Reporting Limit*	Client ID	Client ID	Client ID	Client ID	Client ID
		Lab ID	Lab ID	Lab ID	Lab ID	Lab ID
		METHOD BLANK				
Benzene	0.50	ND				
Toluene	0.50	ND				
Ethylbenzene	0.50	ND				
Total Xylenes	0.50	ND				
TPH as Gasoline	50	ND				
Surrogate Recovery		112%				
Instrument ID		HP4				
Date Sampled		N/A				
Date Analyzed		03/02/94				
RLMF		1				
Filename Reference		BM0201E1.D				

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

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

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 61-139%.

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

Kamel c. Kamel 3/7/94
Analyst Date

Supervisor 3/4/94
Date

Issued on 3/4/94 @ 9:35 AM

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

Project ID : 204-2495-0101
Sample ID : S-12
Matrix : WATER
Date Sampled : 02/21/94

Laboratory ID : 9402238-04
Analyst : KK
Supervisor : CS
Instrument ID : HP4
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	SAMPLE RESULTS	MS RECOVERY	MSD RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
Gasoline	500	240	58%	64%	50-139	-10%	30
Surrogate Recovery		107%	88%	92%			
Date Analyzed		02/25/94	02/25/94	02/25/94			
Multiplier		1	1	1			
Filename Reference		FPF23804.D	FMF23804.D	FDF23804.D			

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

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

Instrument ID : HP4
Matrix : LIQUID

Analyst : KL
Supervisor : CB
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	76%	56-141
Surrogate Recovery		93%	61-139
Date Analyzed		02/26/94	
Multiplier		1	
Filename Reference		MF2502E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

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

Instrument ID : HP4
Matrix : LIQUID

Analyst : KL
Supervisor : OS
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	64%	56-141
Surrogate Recovery		92%	61-139
Date Analyzed		02/28/94	
Multiplier		1	
Filename Reference		MF2801E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

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

Instrument ID : HP4
Matrix : LIQUID

Analyst : KK
Supervisor : MS
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	76%	56-141
Surrogate Recovery		98%	61-139
Date Analyzed		03/03/94	
Multiplier		1	
Filename Reference		MM0202E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

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

Anametrix W.O.: 9402238
Matrix : WATER
Date Sampled : 02/21/94
Date Extracted: 02/28/94

Project Number : 204-2495-0101
Date Released : 03/04/94
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)	Surrogate %Rec
9402238-04	S-12	03/02/94	50	2200	33%
9402238-05	S-13	03/02/94	250	1800	40%
9402238-06	S-14	03/03/94	250	3600	32%
BF2812F1	METHOD BLANK	03/01/94	50	ND	33%

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

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as C10-C28 is determined by GCFID following sample extraction by EPA Method 3510.

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

Analyst 03/04/94.
Date

Supervisor 3/4/94
Date

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

Sample I.D. : LAB CONTROL SAMPLE
Matrix : WATER
Date Sampled : N/A
Date Extracted: 02/28/94
Date Analyzed : 03/01/94

Anametrix I.D. : MF2812F1
Analyst : AR
Supervisor : [illegible]
Date Released : 03/04/94
Instrument I.D.: HP9

COMPOUND	SPIKE AMT (ug/L)	LCS REC (ug/L)	% REC LCS	LCSD REC (ug/L)	% REC LCSD	RPD	% REC LIMITS
DIESEL	1250	870	70%	820	66%	-6%	47-130
SURROGATE			55%		63%		30-130

* Quality control limits established by Anametrix, Inc.

ANAMETRIX REPORT DESCRIPTION
INORGANICS

Analytical Data Report (ADR)

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

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

Matrix Spike Report (MSR)

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

Laboratory Control Sample Report (LCSR)

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

Method Blank Report (MBR)

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

Post Digestion Spike Report (PDSR)

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

Qualifiers (Q)

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

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

Comment Codes

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

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

Reporting Conventions

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

/6996/disk 30MH; nps/disk 61

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

MR. JIM KELLER
BLAINE TECH
985 TIMOTHY DRIVE
SAN JOSE, CA 95133

Workorder # : 9402238
Date Received : 02/22/94
Project ID : 204-2495-0101
Purchase Order: MOH-B813
Department : METALS
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9402238- 2	S-8	WATER	02/21/94	160.1

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

MR. JIM KELLER
BLAINE TECH
985 TIMOTHY DRIVE
SAN JOSE, CA 95133

Workorder # : 9402238
Date Received : 02/22/94
Project ID : 204-2495-0101
Purchase Order: MOH-B813
Department : METALS
Sub-Department: METALS

QA/QC SUMMARY :

- No QA/QC problems encountered for this workorder.

Department Supervisor 3/3/94 Date

Chemist 03/02/94 Date

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

Analyte-Method: Total Dissolved Solids-160.1
Project I.D. : 204-2495-0101
Matrix : WATER
Reporting Unit: mg/L

Analyst : XY
Supervisor : MW
Date Sampled : 02/21/94
Date Released : 03/02/94
Instrument I.D. : N/A

ANAMETRIX SAMPLE I.D.	CLIENT I.D.	DATE PREPARED	DATE ANALYZED	REP. LIMIT	DIL. FACTOR	RESULT	Q
9402238-02	S-8	02/24/94	02/25/94	10.0	1	2910	
MB0224W	Method Blank	02/24/94	02/25/94	10.0	1	ND	

COMMENT:

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

Anametrix W.O.# : 9402238
Spike I.D. : LCS0224W
Project I.D. : 204-2495-0101
Matrix : WATER
Reporting Unit : mg/L

Analyst :
Supervisor :
Date Released : 03/02/94
Instrument I.D.: N/A

ANALYTE-METHOD	DATE PREPARED	DATE ANALYZED	SPIKE AMT.	METHOD SPIKE	% REC.	Q
Total Dissolved Solids-160.1	02/24/94	02/25/94	1500	1520	101	

COMMENT:

ATTACHMENT B

HISTORICAL GROUND WATER ELEVATION AND ANALYTIC DATA

Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND WATER SAMPLE ANALYTICAL RESULTS

Shell Service Station
1800 Powell Street
Emeryville, California
WIC#204-2495-0101

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPHd (ppb)	TPHmo (ppb)
S-5	10/27/88	11.72	—	—	3000	660	20	20	70	NA	NA
	2/10/89	11.72	—	—	2900	550	20	20	30	NA	NA
	4/28/89	11.72	—	—	4300	750	10	20	<30	NA	NA
	7/7/89	11.72	—	—	1500	300	8.0	7	9	NA	NA
	10/25/89	11.72	—	—	2100	760	10	40	50	NA	NA
	1/4/90	11.72	—	—	1300	520	9.0	8	10	NA	NA
	7/6/90	11.72	8.36	3.36	1400	500	10	4	<10	NA	NA
	10/19/90	11.72	—	—	4200	1100	9.0	14	7	NA	NA
	1/14/91	11.72	—	—	4500	1100	15	30	25	6100	NA
	4/23/91	11.72	—	—	2800	500	8.0	14	10	NA	NA
	7/8/91	11.72	9.15	2.57	3200	1000	16	9	12	NA	NA
	10/11/91	11.72	9.67	2.05	1700	16	5.7	5.2	8.9	NA	NA
	2/12/92	11.72	9.00	2.72	1300	300	5.0	<5.0	<5	NA	NA
	5/11/92	11.72	8.61	3.11	1900	490	<5.0	<5.0	<5	NA	NA
	9/1/92	11.72	9.61	2.11	6700	760	26	<25	<25	NA	NA
	12/4/92	11.72	9.47	2.25	2900	890	5.3	7.3	13	NA	NA
	2/17/93	11.72	8.29	3.43	1300	280	3.0	3.4	9.4	NA	NA
	5/29/93	11.72	9.16	2.56	460	130	<0.5	<0.5	2.9	NA	NA
	8/11/93	11.72	9.30	2.42	1700	530	5.5	<5.0	5.8	NA	NA
S-6	10/27/88	—	—	—	6000	1700	50	80	420	NA	NA
	2/10/89	—	—	—	2800	740	20	20	140	NA	NA
	4/28/89	—	—	—	6500	2400	30	50	210	NA	NA
	7/7/89	—	—	—	3700	1700	34	55	200	NA	NA
	10/25/89	—	—	—	<50	23	<5.0	<5.0	10	NA	NA
	11/10/89	—	—	—	Well abandoned						
S-7	10/27/88	—	—	—	50	1.1	<1.0	<1.0	4	NA	NA
	2/10/89	—	—	—	50	0.9	<1.0	<1.0	<3	NA	NA
	4/28/89	—	—	—	<50	1.0	<1.0	<1.0	<3	NA	NA
	7/7/89	—	—	—	70	2.2	<1.0	<1.0	<3	NA	NA
	10/25/89	—	—	—	6200	2200	130	190	660	NA	NA
	11/10/89	—	—	—	Well abandoned						

Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND WATER SAMPLE ANALYTICAL RESULTS

Shell Service Station
1800 Powell Street
Emeryville, California
WIC#204-2495-0101

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPHd (ppb)	TPHmo (ppb)
S-8	10/27/88	12.76	—	—	1000	610	9	1.0	42	NA	NA
	2/10/89	12.76	—	—	500	160	5	<2.0	17	NA	NA
	4/28/89	12.76	—	—	2700	1500	20	10	40	NA	NA
	7/7/89	12.76	—	—	440	180	5	2.0	12	NA	NA
	10/25/89	12.76	—	—	2000	1100	17	5.0	70	NA	NA
	1/4/90	12.76	—	—	1900	1300	20	<10	70	NA	NA
	7/6/90	12.76	9.50	3.26	1600	920	30	<10	60	NA	NA
	10/19/90	12.76	—	—	1400	640	<10	<10	30	NA	NA
	1/14/91	12.76	—	—	670	190	5.8	<0.5	19	760	600
	4/23/91	12.76	—	—	2400	740	54	5.7	59	NA	NA
	7/8/91	12.76	10.45	2.31	1100	450	15	<2.5	42	NA	NA
	10/11/91	12.76	10.83	1.93	340	4	0.6	<0.5	17	NA	NA
	2/12/92	12.76	10.44	2.32	<1000	260	<10	<10	11	NA	NA
	5/11/92	12.76	10.17	2.59	1800	700	14	<5.0	46	NA	NA
	9/1/92	12.76	10.81	1.95	Floating product					NA	NA
	12/4/92	12.76	10.81	1.95	960	250	4.3	<2.5	14	NA	NA
	2/17/93	12.76	9.65	3.11	2700	800	35	10	83	NA	NA
	5/29/93	12.76	10.46	2.30	960	710	25	84	80	NA	NA
	8/11/93	12.76	10.59	2.17	1300	630	17	<5.0	46	NA	NA
S-9	10/27/88	12.75	—	—	Floating product: thickness not measured						
	2/10/89	12.75	—	—	Floating product: 1.30 feet measured thickness						
	4/28/89	12.75	—	—	Floating product: 1.25 feet measured thickness						
	7/7/89	12.75	—	—	Floating product: 1.20 feet measured thickness						
	10/25/89	12.75	—	—	Floating product: unable to measure accurately						
	1/4/90	12.75	—	—	Floating product: unable to measure accurately						
	4/12/90	12.75	—	—	Floating product: unable to measure accurately						
	7/6/90	12.75	9.67	3.08	Floating product: unable to measure accurately						
	10/19/90	12.75	—	—	Floating product: unable to measure accurately						
	1/14/91	12.75	—	—	Floating product: unable to measure accurately						
	4/23/91	12.75	—	—	Floating product: unable to measure accurately						
	7/8/91	12.75	—	—	Floating product: unable to measure accurately						
	10/11/91	12.75	22.30	-9.55	Floating product: unable to measure accurately. Very slow recharge.						

Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND WATER SAMPLE ANALYTICAL RESULTS

Shell Service Station
1800 Powell Street
Emeryville, California
WIC#204-2495-0101

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPHd (ppb)	TPHmo (ppb)
S-10	10/27/88	12.58	—	—	700000	37000	100000	20000	110000	NA	NA
	2/10/89	12.58	—	—	6500	480	700	100	1800	NA	NA
	4/28/89	12.58	—	—	13000	1300	500	600	3700	NA	NA
	7/7/89	12.58	—	—	14000	1300	310	270	2400	NA	NA
	10/25/89	12.58	—	—	4200	580	34	4.0	440	NA	NA
	1/4/90	12.58	—	—	1700	360	10	7.8	170	NA	NA
	4/12/90	12.58	—	—	Floating product: 0.01 feet measured thickness						
	7/6/90	12.58	9.16	3.42	Floating product: 0.01 feet measured thickness						
	10/19/90	12.58	—	—	Floating product: 0.03 feet measured thickness						
	1/14/91	12.58	—	—	Floating product: 0.03feet measured thickness						
	4/23/91	12.58	—	—	Floating product: 0.01 feet measured thickness						
	7/8/91	12.58	9.41	3.17	Floating product: 0.03 feet measured thickness						
	10/11/91	12.58	7.77	4.81	Not sampled: insufficient recharge						
	2/12/92	12.58	6.41	6.17	1200	470	16	<5.0	14	NA	NA
	5/11/92	12.58	9.04	3.54	1100	100	6	4.0	19	NA	NA
	9/1/92	12.58	9.38	3.20	Floating product: 0.01 feet measured thickness						
	12/4/92	12.58	6.89	5.69	Floating product						
	2/17/93	12.58	7.34	5.24	530	89	8.5	1.6	4.5	NA	NA
	5/29/93	12.58	6.60	5.98	240	65	3.8	2.2	8.6	NA	NA
	8/11/93	12.58	9.09	3.49	250	23	4.1	<1.0	6.4	NA	NA
S-12	11/17/89	12.84	—	—	<250	18	<2.0	<2.0	<5	1400	NA
	1/4/90	12.84	—	—	<250	24	2.0	<2.0	<5	NA	NA
	7/6/90	12.84	8.27	4.57	80	15	0.7	<0.5	2	NA	NA
	10/19/90	12.84	—	—	150	12	9.0	<0.5	3.6	NA	NA
	1/14/91	12.84	—	—	120	3.6	0.8	<0.5	2.9	1000	600
	4/23/91	12.84	—	—	100	3.7	3.8	0.8	11	820^	800
	7/8/91	12.84	9.50	3.34	70	2.5	0.8	<0.5	2.4	NA	NA
	10/11/91	12.84	9.90	2.94	220	2.1	0.7	<0.5	1.2	2500	5100
	2/12/92	12.84	9.43	3.41	110	0.8	<0.5	<0.5	1.3	2500	1400
	5/11/92	12.84	8.65	4.19	140	0.8	0.8	<0.5	2.5	3800^	NA
	9/1/92	12.84	9.86	2.98	190	3.0	15	0.5	4.5	2600^	NA

Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND WATER SAMPLE ANA

Shell Service Station
1800 Powell Street
Emeryville, California
WIC#204-2495-0101

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPHd (ppb)	TPHmo (ppb)
S-12	12/4/92	12.84	9.93	2.91	180	1.2	1.0	1.0	7.7	3900^	NA
	2/17/93	12.84	8.08	4.76	350*	0.6	<0.5	0.5	5.5	2100^	NA
	5/29/93	12.84	9.08	3.76	290	2.0	1.6	4.4	6.0	2200	NA
	8/11/93	12.84	9.35	3.49	240	0.7	<0.5	<0.5	1.1	720	NA
S-13	11/17/89	12.59	—	—	1900	700	160	70	340	2000	5000
	1/4/90	12.59	—	—	2800	1400	130	10	500	NA	NA
	7/6/90	12.59	9.47	3.12	3100	1800	60	40	270	NA	NA
	10/24/90	12.59	—	—	3400	1500	28	28	250	NA	NA
	1/14/91	12.59	—	—	1900	830	15	<10	99	900	1600
	4/23/91	12.59	—	—	2900*	1100	20	30	140	770**	640
	7/8/91	12.59	10.38	2.21	1500	880	10	6.0	160	NA	NA
	10/11/91	12.59	10.78	1.81	480	830	15	<0.5	120	2400	4900
	2/12/92	12.59	10.48	2.11	1300	510	<10	<10	86	1300	1300
	5/11/92	12.59	9.48	3.11	1000	470	<5.0	<5.0	50	1300^	NA
	9/1/92	12.59	10.74	1.85	Free product						
	12/4/92	12.59	10.30	2.29	900	290	4.6	<2.5	20	2400^	NA
	2/17/93	12.59	7.60	4.99	840*	310	3.5	<2.5	27	1200^	NA
	5/29/93	12.59	10.60	1.99^^	2100	1100	19	50	350	4600	NA
	8/11/93	12.59	10.58	2.01^^	900	230	16	6.9	65	2300	NA
S-14	11/17/89	12.69	—	—	<250	3.0	<2.0	<2.0	<5	<400	3000
	1/4/90	12.69	—	—	<250	3.0	2.0	<2.0	<5	NA	NA
	4/23/91	12.69	—	—	1200	7.4	2.7	15	110	18000**	<5000
	7/8/91	12.69	10.32	2.37	190	6.5	0.6	1.9	26	NA	NA
	10/11/91	12.69	10.77	1.92	4900	7.0	1.2	<0.5	25	21000	<500
	2/12/92	12.69	10.40	2.29	370	4.6	<2.5	<2.5	26	12000*	2500
	5/11/92	12.69	9.66	3.03	660	2.9	<2.5	<2.5	24	2200^	NA
	9/1/92	12.69	10.74	1.95	700	3.2	<2.5	<2.5	15	7900	NA
	12/4/92	12.69	10.69	2.00	210	<0.5	<0.5	0.8	6.8	11000^	NA

Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND WATER SAMPLE ANALYTICAL RESULTS

Shell Service Station
1800 Powell Street
Emeryville, California
WIC#204-2495-0101

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPHd (ppb)	TPHmo (ppb)
S-14	2/17/93	12.69	9.69	3.00	130*	<0.5	<0.5	<0.5	4.4	5700^	NA
	5/29/93	12.69	10.42	2.27	770	<0.5	<0.5	<0.5	4.5	5200	NA
	8/11/93	12.69	10.54	2.15	920	<1.0	<1.0	1.6	17	8800	NA

Notes :

TOB : Top of well box referenced to mean sea level
DTW : Depth to water
GWE : Ground water elevation. Ground water elevation data available for certain dates only.
TPHg : Total petroleum hydrocarbons as gasoline by EPA Method 8015 (modified)
BTEX : Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8020
TPHd: Total petroleum hydrocarbons as diesel by EPA Method 8015 (modified)
TPHmo Total petroleum hydrocarbons as motor oil by EPA Method 8015 (modified)
NA : Not analyzed
* Compounds detected within the chromatographic range of gasoline but not characteristic of the standard gasoline pattern.
^ Compounds detected within the chromatographic range of diesel with pattern typical of weathered diesel.
** Compounds detected within the chromatographic range of diesel appears to include gasoline compounds.
^^ Ground water elevation not used to define contours on Figure 3. See text.