Weiss Associates Environmental and Geologic Services

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

October 15, 1993

Britt Johnson
Alameda Department of
Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Re: Shell Service Station
WIC #204-0079-0109
999 San Pablo Avenue
Albany, California
WA Job #81-699-203

Dear Mr. Johnson:

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 1993 and proposed work for the fourth quarter 1993.

Third Quarter 1993 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths in six of the seven site wells and collected ground water samples from five of the site wells. Well S-5 contained 0.9 ft of floating hydrocarbons and was not sampled and well S-7 had a car parked above it. 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 (Tables 1 and 2) and prepared a ground water elevation contour map (Figure 2).

Anticipated Fourth Quarter 1993 Activities:

WA will submit a report presenting the results of the fourth quarter 1993 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.

October 15, 1993

Conclusions and Recommendations:

- Since the floating hydrocarbons detected in monitoring well S-5 appear to originate from the Arco Station across Marin Avenue south of the Shell site, WA will not install a hydrocarbon skimmer or bail floating hydrocarbons from monitoring well S-5.

- Although WA is not purging floating hydrocarbons from well MW-5, the floating hydrocarbon thickness has decreased from a recent high of 5.00 ft to the current thickness of only 0.9 ft. It is not clear whether this decrease is related to the recent rise in the water table measured in this well or whether it is due to changes in other site conditions. Since the ground water is currently below the well screen, this thickness decrease is not due to ground water rising above the well screens.

- WA recommends continued monitoring of hydrocarbon concentrations in ground water during the third quarter of 1993.

Please call if you have any questions.

Sincerely,
Weiss Associates

J. Michael Asport
Technical Assistant

N. Scott MacLeod, R.G.
Project Geologist

JMA/NSM:jma

J:\SHELL\650\699QMAU3.WP

Attachments: Figures
Tables
A - Blaine Tech's Ground Water Monitoring Report

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

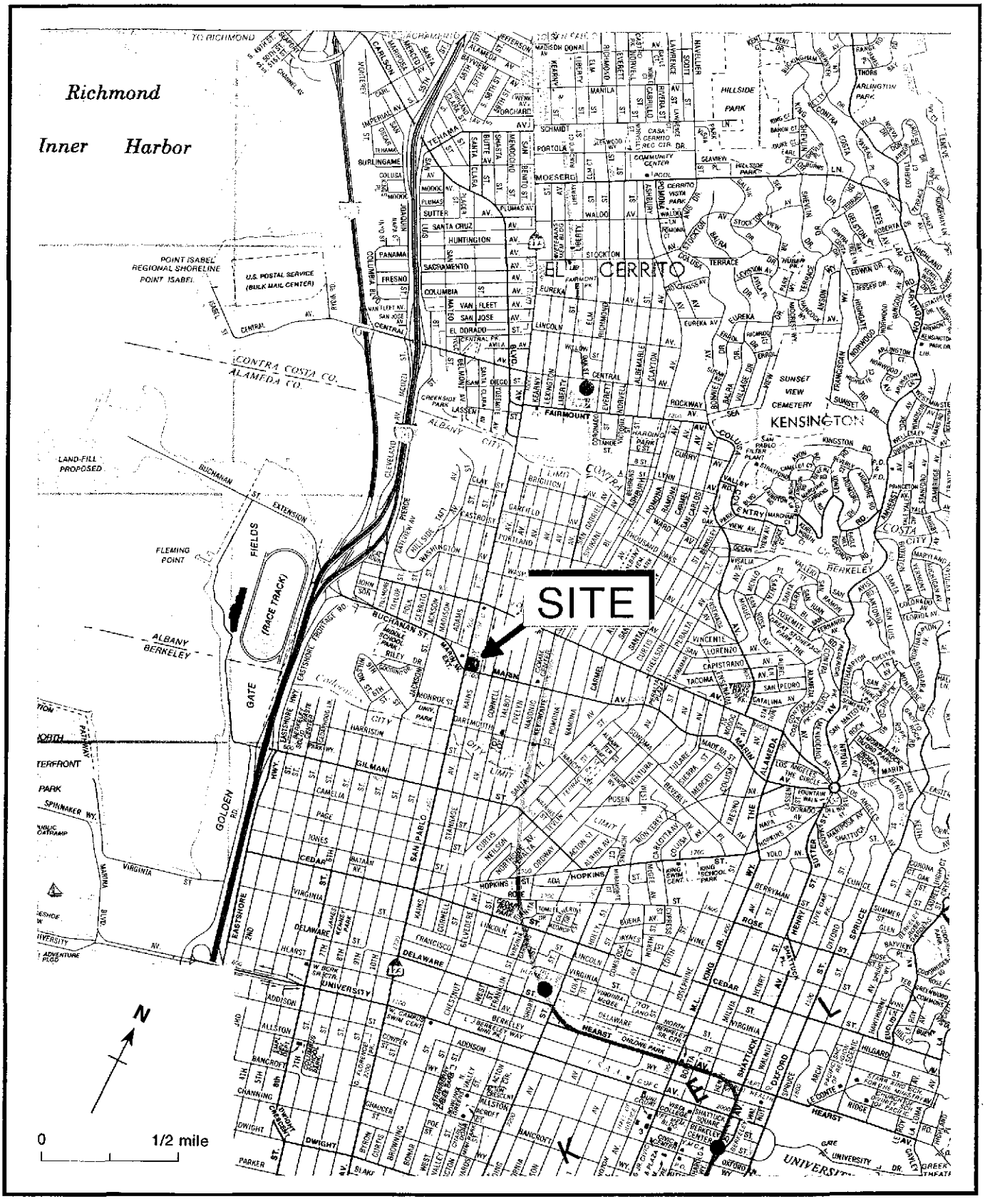

Figure 1. Site Location Map - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

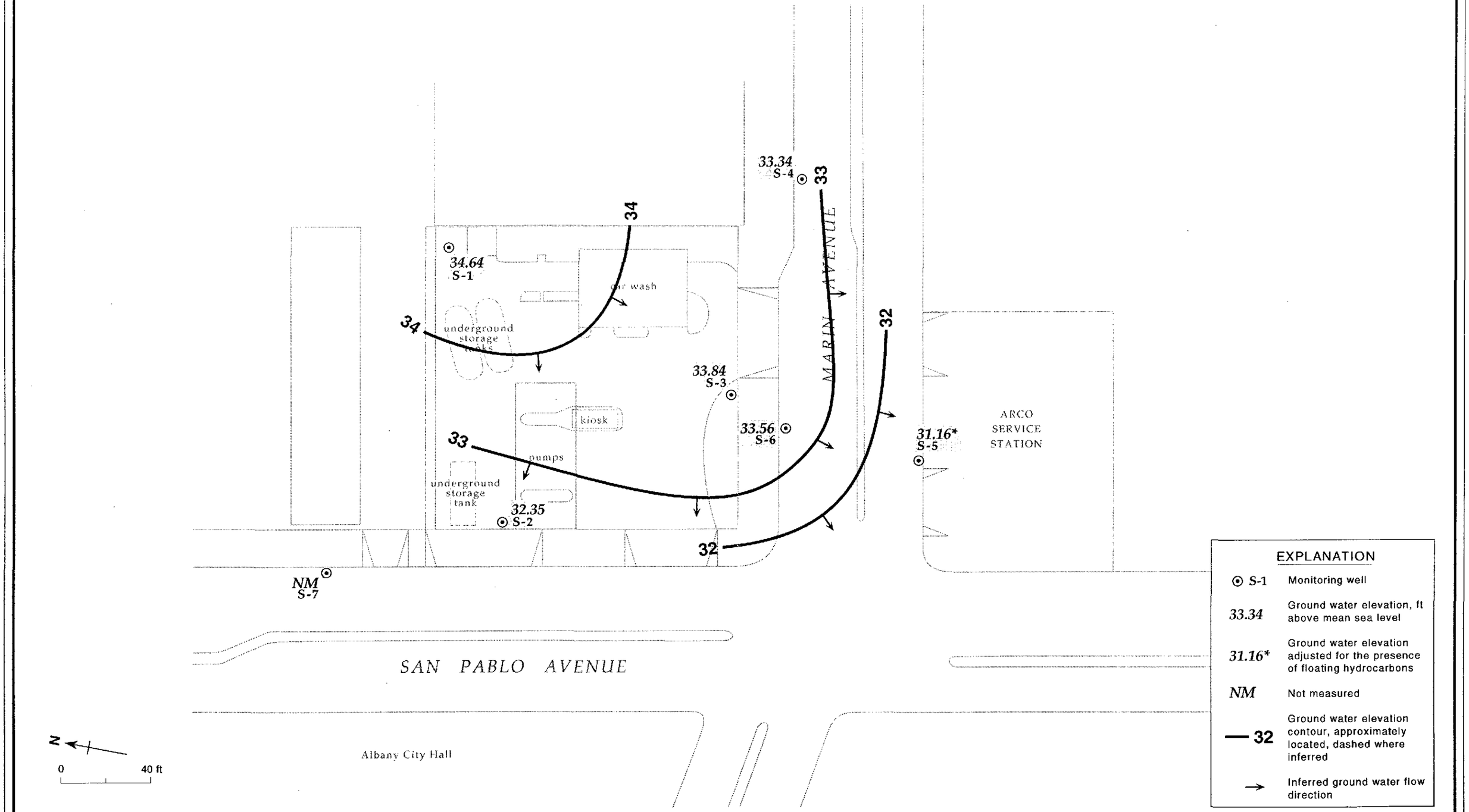

Figure 2. Monitoring Well Locations and Ground Water Elevation Contours - July 22, 1993- Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

Table 1. Ground Water Elevations - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

Well ID	Date	Top-of-Vault Elevation	Depth to Water (ft)	Floating Hydrocarbon Thickness (ft)[a]	Ground Water Elevation (ft above msl)
S-1	05/06/92	42.73	7.95	---	34.78
	08/26/92		8.24	---	34.49
	10/28/92		8.52	---	34.21
	01/19/93		6.54	---	36.19
	04/29/93		7.93	---	34.80
	07/22/93		**8.09**	**---**	**34.64**
S-2	05/06/92	40.73	8.10	---	32.63
	08/26/92		8.37	---	32.36
	10/28/92		8.64	---	32.09
	01/19/93		5.82	---	34.91
	04/29/93		7.70	---	33.03
	07/22/93		**8.38**	**---**	**32.35**
S-3	05/06/92	41.46	7.55	---	33.91
	08/26/92		7.53	---	33.93
	10/28/92		7.95	---	33.51
	01/19/93		6.12	---	35.34
	04/29/93		7.27	---	34.19
	07/22/93		**7.62**	**---**	**33.84**
S-4	05/06/92	41.10	7.21	---	33.89
	08/26/92		8.13	---	32.97
	10/28/92		8.73	---	32.37
	01/19/93		5.86	---	35.24
	04/29/93		7.02	---	34.08
	07/22/93		**7.76**	**---**	**33.34**
S-5	05/06/92	39.99	14.31	5.66	30.21
	08/26/92		14.26	3.80	28.77
	10/28/92		14.22	3.81	28.82
	01/19/93		12.36	3.96	30.80
	04/29/93		9.64	0.90	31.07
	07/22/93		**9.55**	**0.90**	**31.16**
S-6	05/06/92	40.12	8.27	---	32.85
	08/26/92		9.57	---	31.55
	10/28/92		8.90	---	32.22
	01/19/93		4.84	---	35.28

-- Table 1 continues on next page --

Table 1. Ground Water Elevations - Shell Service Station WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California (continued)

Well ID	Date	Top-of-Vault Elevation	Depth to Water (ft)	Floating Hydrocarbon Thickness (ft)[a]	Ground Water Elevation (ft above msl)
	04/29/93		5.61	---	34.51
	07/22/93		6.56	---	33.56
S-7	05/06/92	40.10	10.34	---	29.76
	08/26/92		11.13	---	28.97
	10/28/92		11.52	---	28.58
	01/19/93		8.68	---	31.42
	04/29/93		9.90	---	30.20
	07/22/93		—	—	—

Notes:

a = When floating hydrocarbons are present, ground water elevation corrected by the relation: corrected ground water elevation = (top-of-box elevation) - (depth to water) + (0.8 x floating hydrocarbon thickness)

Table 2. Analytic Results for Ground Water, Former Shell Service Station, WIC #204-0079-0109, 999 San Pablo Avenue, Albany, California

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X
			<----------parts per billion (ug/L)---------->				
WELLS							
S-1	05/06/92	7.95	1,200	5.5	80	<2.5	36
	07/29/93	8.24	2,000	9.4	130	<2.5	<2.5
	10/28/92	8.52	1,300	27	72	3.2	13
	01/19/93	6.54	1,500	13	29	3	31
	04/29/93	7.93	2,000	15	82	<2.5	<65
	07/22/93	8.09	620	1.1	3.5	4.2	13
S-2	05/06/92	8.10	20,000	2,600	860	110	1,900
	07/29/92	8.37	42,000	5,000	1,100	160	3,500
	10/28/92	8.64	34,000	4,800	1,600	330	2,900
	01/19/93	5.82	20,000	2,300	660	370	1,300
	04/29/93	7.70	40,000	2,000	900	67	1,900
	07/22/93	8.38	22,000	3,000	1,000	120	1,600
	07/22/93[dup]	8.38	17,000	3,000	1,000	110	1,500
S-3	05/06/92	7.55	6,600	38	45	51	65
	07/29/92	7.53	5,800	18	29	12	60
	10/28/92	7.95	3,000	55	16	11	32
	01/19/93	6.12	3,100	<5	11	5.1	16
	04/29/93	7.27	3,000	31	<5	22	14
	07/22/93	7.62	2,600	3.1	23	43	53
S-4	05/06/92	7.21	54	<0.5	<0.5	<0.5	<0.5
	07/29/92	8.13	67	<0.5	<0.5	<0.5	<0.5
	10/28/92	8.73	<50	<0.5	<0.5	<0.5	<0.5
	01/19/93	5.86	86	1.2	2.7	0.7	15
	04/29/93	7.02	<50	<0.5	<0.5	<0.5	<0.5
	04/29/93[dup]	7.02	<50	<0.5	<0.5	<0.5	<0.5
	07/22/93	7.76	<50	<0.5	<0.5	<0.5	<0.5
S-5	05/06/92[FHC]	14.31	---	---	---	---	---
	07/29/92[FHC]	14.26	---	---	---	---	---
	10/28/92[FHC]	14.22	---	---	---	---	---
	01/19/93[FHC]	12.36	---	---	---	---	---
	04/29/93[FHC]	9.64	---	---	---	---	---
	07/22/93[FHC]	9.55	---	---	---	---	---
S-6	05/06/92	8.27	7,100	330	110	29	210
	07/29/92	9.57	13,000	240	56	<50	780
	10/28/92	8.90	10,000	470	67	210	170
	01/19/93	4.84	4,800	100	27	26	45

-- Table 2 continues on next page --

Table 2. Analytic Results for Ground Water, Former Shell Service Station, WIC #204-0079-0109, 999 San Pablo, Albany, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X
			<----------parts per billion (ug/L)---------->				
	04/29/93	5.61	7,000	430	<12.5	20	42
	07/22/93	6.56	5,800	260	65	120	150
S-7	05/06/92	10.34	<50	<0.5	<0.5	<0.5	<0.5
	07/29/92	11.13	160	<0.5	<0.5	<0.5	<0.5
	10/28/92	11.52	<50	<0.5	<0.5	<0.5	<0.5
	01/19/93	8.68	50	1.1	1.9	0.6	9.2
	04/29/93	9.90	<50	<0.5	<0.5	<0.5	<0.5
	07/22/93	---	---	---	---	---	---
Trip Blank	04/29/93		<50	<0.5	<0.5	<0.5	<0.5
	07/22/93		<50	<0.5	<0.5	<0.5	<0.5
DTSC MCLs			NE	1	680	10[a]	1,750

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline 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 602 or 8020
--- = Not analyzed
DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water
NE = Not established
<n = Not detected at detection limits of n ppb
dup = Duplicate sample
FHC = Floating hydrocarbons detected, no sample collected

Notes:

a = DTSC recommended action level for drinking water; MCL not established

ATTACHMENT A

GROUND WATER MONITORING REPORT

BLAINE
TECH SERVICES INC.

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

August 2, 1993

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

Attn: Daniel T. Kirk

SITE:
Shell WIC #204-0079-0109
999 San Pablo Avenue
Albany, California

QUARTER:
3rd quarter of 1993

QUARTERLY GROUNDWATER SAMPLING REPORT 930722L-1

This report contains data collected during routine inspection, gauging and sampling of groundwater monitoring wells performed by Blaine Tech Services, Inc. in reponse 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 may be removed in cases where more evacuation is needed to achieve stabilization of water parameters. Less than three case volumes of 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.

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 site 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. Either the requested analyses or the specific analytes are written on the sample label (e.g. TPH-G, BTEX).

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.

for Sigrid Blaine
Richard C. Blaine

RCB/lpn

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-1	7/22/93	TOB	--	NONE	--	--	8.09	11.96
S-2 *	7/22/93	TOB	--	NONE	--	--	8.38	12.14
S-3	7/22/93	TOB	--	NONE	--	--	7.62	12.20
S-4	7/22/93	TOB	--	NONE	--	--	7.76	14.08
S-5	7/22/93	TOB	FREE PRODUCT	8.65	0.90	--	9.55	16.14
S-6	7/22/93	TOB	ODOR	NONE	--	--	6.56	15.24
S-7	7/22/93	TOB	INACCESSIBLE					

* Sample DUP was a duplicate sample taken from well S-2.

9307261 (18)

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 930722-L1

Date: 7/22/93
Page 1 of 1

Site Address: 999 San Pablo Ave. Albany

WIC#: 204-0079-0109

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: ZB

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
(1) S-1	7/22			X		3						X				40 ML	HCl	N		
(2) S-2	7/22			X		3						X								
(3) S-3	7/22			X		3						X								
(4) S-4	7/22			X		3						X								
(5) S-6	7/22			X		3						X								
(6) DUP	7/22			X		3						X								
(7) T.B.	7/22			X		2						X								

CHECK ONE (1) BOX ONLY — C1/D1

Quarterly Monitoring	X	8441	24 hours ☐
Site Investigation	☐	8441	48 hours ☐
Soil Closure/Disposal	☐	8442	10 days ☒ (Normal)
Water Closure/Disposal	☐	8443	Other ☐
Soil/Air Rem. or Sys. O & M	☐	8452	NOTE: Notify ... as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M	☐	8453	
Other	☐		

Relinquished By (signature)	Printed Name	Date/Time	Received (signature)	Printed Name	Date/Time
ZB	LAD B OLVER	7/23/93 1500			
		7-23-93 1640			
		Date: Time:			Date: Time:

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 # : 9307261
Date Received : 07/23/93
Project ID : 204-0079-0109
Purchase Order: MOH-B813

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

ANAMETRIX ID	CLIENT SAMPLE ID
9307261- 1	S-1
9307261- 2	S-2
9307261- 3	S-3
9307261- 4	S-4
9307261- 5	S-6
9307261- 6	DUP
9307261- 7	T.B.

This report consists of 6 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.

Karen Kent for

Sarah Schoen, Ph.D.
Laboratory Director

7-30-93
Date

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

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

Workorder # : 9307261
Date Received : 07/23/93
Project ID : 204-0079-0109
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9307261- 1	S-1	WATER	07/22/93	TPHgBTEX
9307261- 2	S-2	WATER	07/22/93	TPHgBTEX
9307261- 3	S-3	WATER	07/22/93	TPHgBTEX
9307261- 4	S-4	WATER	07/22/93	TPHgBTEX
9307261- 5	S-6	WATER	07/22/93	TPHgBTEX
9307261- 6	DUP	WATER	07/22/93	TPHgBTEX
9307261- 7	T.B.	WATER	07/21/93	TPHgBTEX

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

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

Workorder # : 9307261
Date Received : 07/23/93
Project ID : 204-0079-0109
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Balman 7/30/93
Department Supervisor Date

CR Patel 07-30-93
Chemist Date

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

Anametrix W.O.: 9307261
Matrix : WATER
Date Sampled : 07/22/93

Project Number : 204-0079-0109
Date Released : 07/30/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# S-1 -01	Sample I.D.# S-2 -02	Sample I.D.# S-3 -03	Sample I.D.# S-4 -04	Sample I.D.# S-6 -05
Benzene	0.5	1.1	3000	3.1	ND	260
Toluene	0.5	4.2	120	43	ND	120
Ethylbenzene	0.5	3.5	1000	23	ND	65
Total Xylenes	0.5	13	1600	53	ND	150
TPH as Gasoline	50	620	22000	2600	ND	5800
% Surrogate Recovery		105%	118%	98%	97%	115%
Instrument I.D.		HP4	HP4	HP4	HP4	HP4
Date Analyzed		07/28/93	07/28/93	07/28/93	07/28/93	07/28/93
RLMF		1	50	5	1	10

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 61-139%.

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

CRLate 07/30/93
Analyst Date

Supervisor 7/30/93
Supervisor Date

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

Anametrix W.O.: 9307261
Matrix : WATER
Date Sampled : 07/21 & 22/93

Project Number : 204-0079-0109
Date Released : 07/30/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# DUP -06	Sample I.D.# T.B. -07	Sample I.D.# BL2701E2 BLANK	Sample I.D.# BL2801E2 BLANK
Benzene	0.5	3000	ND	ND	ND
Toluene	0.5	110	ND	ND	ND
Ethylbenzene	0.5	1000	ND	ND	ND
Total Xylenes	0.5	1500	ND	ND	ND
TPH as Gasoline	50	17000	ND	ND	ND
% Surrogate Recovery		114%	96%	86%	86%
Instrument I.D.		HP4	HP4	HP4	HP4
Date Analyzed		07/28/93	07/28/93	07/27/93	07/28/93
RLMF		50	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 61-139%.

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

Analyst 07/30/93 Date

Supervisor 7/30/93 Date

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

Sample I.D. : LAB CONTROL SAMPLE
Matrix : WATER
Date Sampled : N/A
Date Analyzed : 07/28/93

Anametrix I.D. : ML2702E1
Analyst : AP
Supervisor : CS
Date Released : 07/30/93
Instrument I.D.: HP4

COMPOUND	SPIKE AMT. (ug/L)	REC LCS (ug/L)	%REC LCS	% REC LIMITS
GASOLINE	500	450	90%	67-127
SURROGATE			98%	61-139

* Quality control established by Anametrix, Inc.

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

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: ML2801E1
Matrix	: WATER	Analyst	: ARC
Date Sampled	: N/A	Supervisor	: CB
Date Analyzed	: 07/28/93	Date Released	: 07/30/93
		Instrument I.D.	: HP4

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS
Benzene	20.0	18.5	93%	52-133
Toluene	20.0	19.0	95%	57-136
Ethylbenzene	20.0	19.8	99%	56-139
TOTAL Xylenes	20.0	19.1	96%	61-139
P-BFB			102%	61-139

* Limits established by Anametrix, Inc.