Weiss Associates *Environmental and Geologic Services*

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

May 20, 1994

Sum Arigala
Regional Water Quality Control Board-
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Re: Shell Service Station
WIC #204-6138-0907
5251 Hopyard Road
Pleasanton, California
WA Job #81-796-104

Dear Mr. Arigala:

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
Ted Klenk, Pleasanton Fire Department, 4444 Railroad Street, Pleasanton, California 94566

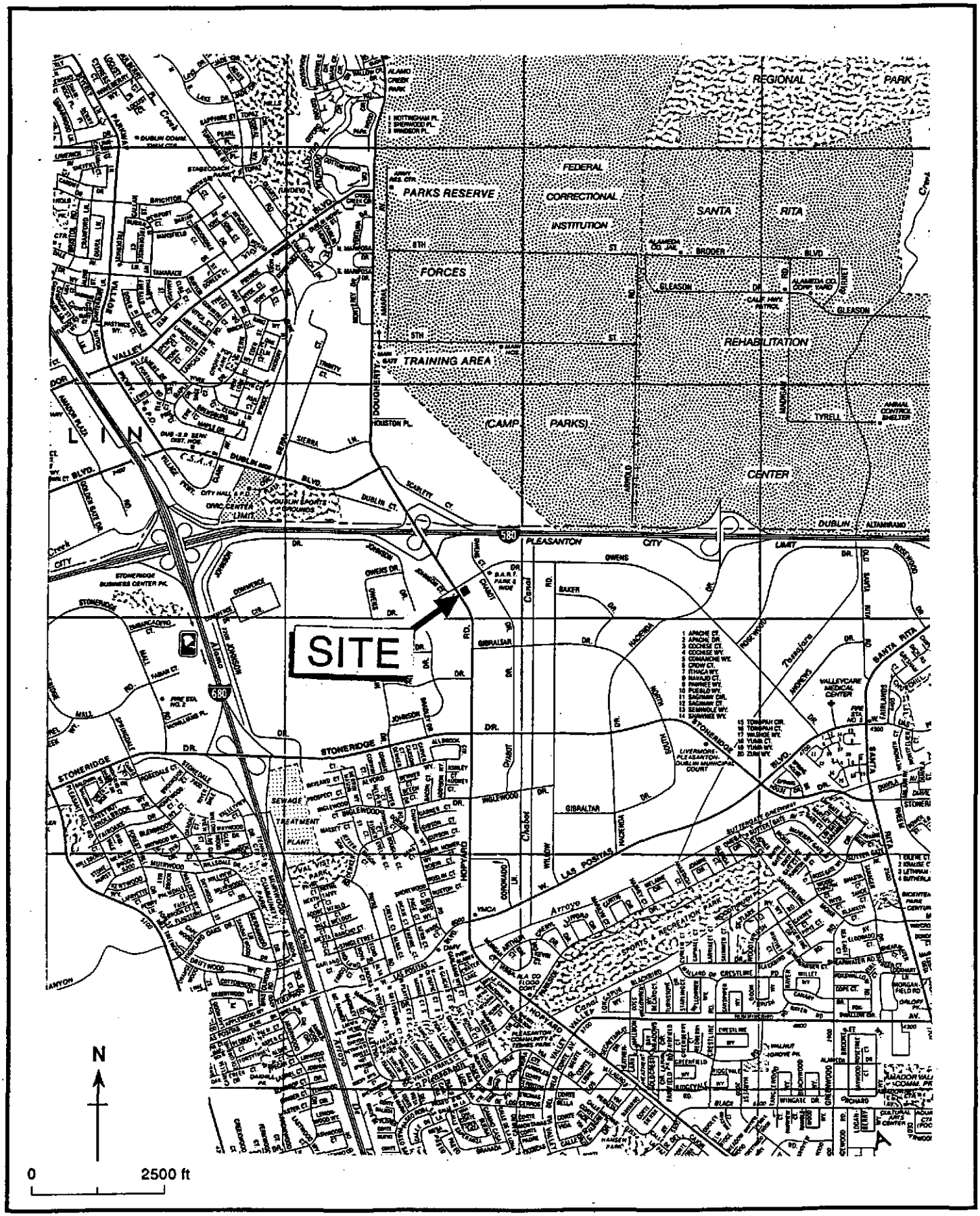

Figure 1. Site Location Map - Shell Service Station WIC# 204-6138-0907, 5251 Hopyard Road, Pleasanton, California

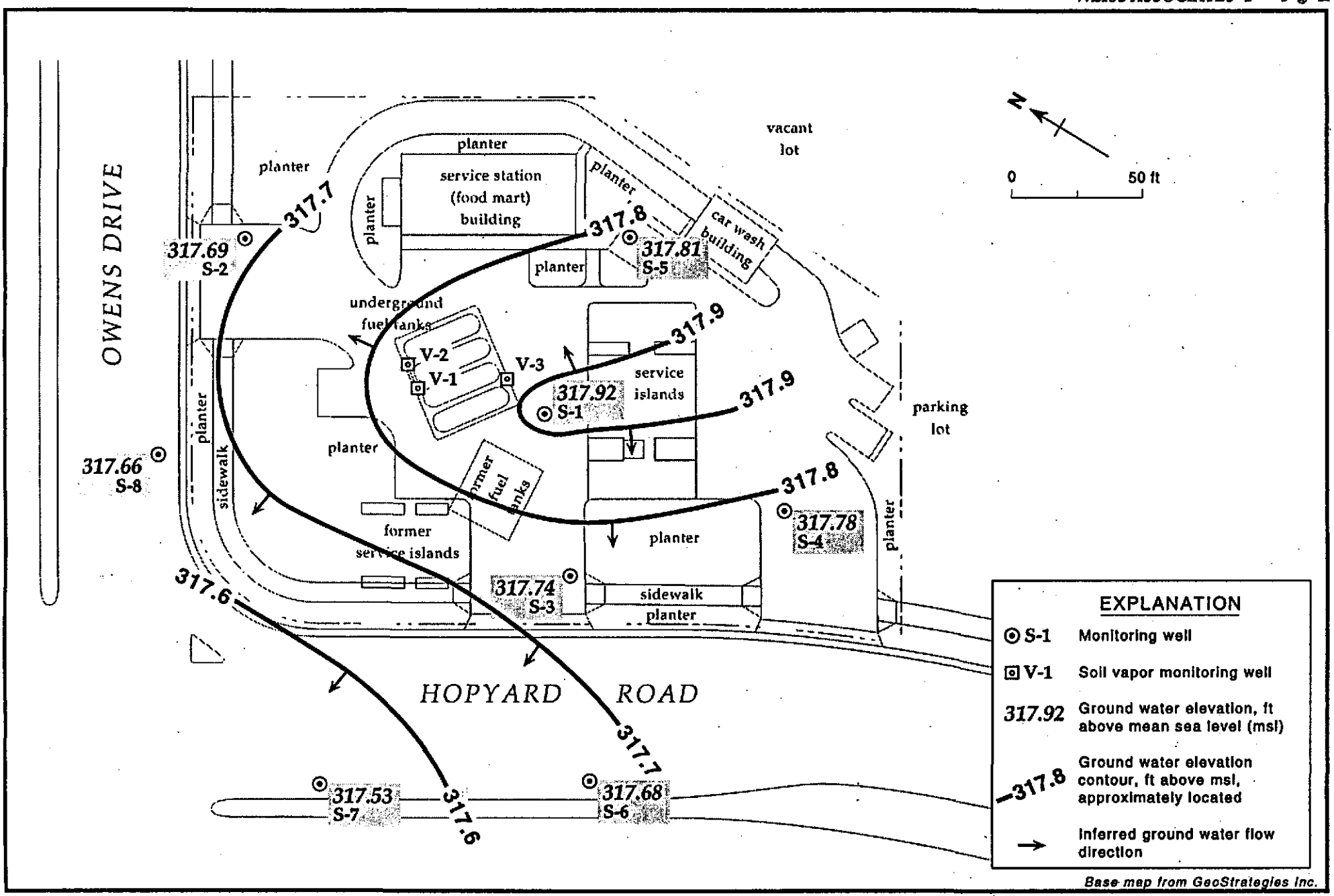

Figure 2. Monitoring Well Locations and Ground Water Elevation Contours - March 4, 1994 - Shell Service Station WIC# 204-6138-0907, 5251 Hopyard Road, Pleasanton, California

Table 1. Ground Water Elevations and Analytic Results - Shell Service Station WIC #204-6138-0907, 5251 Hopyard Road, Pleasanton, CA

Well ID	Sampling Date	Top-of-Casing (ft/msl)	Depth to Water (ft)	Ground Water Elevation (ft)	TPH-G	TPH-D	B	T	E	X
					<----------parts per billion (µg/ℓ)---------->					
S-1	03/04/94	326.73	8.81	317.92	640	NA	190	1.4	18	1.3
	03/04/94[dup]	326.73	8.81	317.92	640	NA	180	1.7	17	1.3
S-2	03/04/94	326.59	8.90	317.69	NA	NA	NA	NA	NA	NA
S-3	03/04/94	327.38	9.64	317.74	630	NA	130	<0.5	17	0.80
S-4	03/04/94	327.38	9.60	317.78	NA	NA	NA	NA	NA	NA
S-5	03/04/94	327.76	9.95	317.81	<50	NA	<0.5	<0.5	<0.5	<0.5
S-6	03/04/94	326.56	8.88	317.68	<50	NA	<0.5	<0.5	<0.5	<0.5
S-7	03/04/94	326.49	8.96	317.53	NA	NA	NA	NA	NA	NA
S-8	03/04/94	325.32	7.66	317.66	<50	NA	<0.5	<0.5	<0.5	<0.5
Trip Blank	03/04/94				<50		<0.5	<0.5	<0.5	<0.5
DTSC MCLs					NE	NE	1	100[a]	680	1,750

Abbreviations:

ft/msl = Feet above mean seal level
TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
TPH-D = Totoal 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 8020
NE = Not established
DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water
NA = Not analyzed/ Not Measured
<n = Not detected at detection limits of n ppb
dup = Duplicate sample
a = 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 27, 1994

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

Attn: Daniel T. Kirk

SITE:
Shell WIC #204-6138-0907
5251 Hopyard Road
Pleasanton, California

QUARTER:
1st quarter of 1994

QUARTERLY GROUNDWATER SAMPLING REPORT 940304-F-2

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 removed 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 National Environmental Testing, Inc. in Santa Rosa, CA. NET is a California based Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #178.

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/mla

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 *	3/4/94	TOB	ODOR	NONE	--	--	8.81	29.97
S-2	3/4/94	TOB	--	NONE	--	--	8.90	24.61
S-3	3/4/94	TOB	ODOR	NONE	--	--	9.64	24.85
S-4	3/4/94	TOB	--	NONE	--	--	9.60	24.54
S-5	3/4/94	TOB	--	NONE	--	--	9.95	24.75
S-6	3/4/94	TOB	--	NONE	--	--	8.88	26.07
S-7	3/4/94	TOB	--	NONE	--	--	8.96	25.36
S-8	3/4/94	TOB	--	NONE	--	--	7.66	25.26

* Sample DUP was a duplicate sample taken from well S-1.

8258

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 940304 F2

Date: 3/4
Page 1 of 1

Site Address: 5251 Hopyard Road, Pleasanton, CA

WIC#: 204-6138-0907

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: [signature]

Printed Name: Tom Flory

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
Quarterly Monitoring [X]	5461	24 hours [ ]
Site Investigation [ ]	5441	48 hours [ ]
Soil Classify/Disposal [ ]	5442	16 days [X] (Normal)
Water Classify/Disposal [ ]	5443	Other [ ]
Soil/Air Rem. or Sys. O & M [ ]	5452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M [ ]	5453	
Other [ ]		

Analysis Required

Sample ID / Time	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
S-1 1310	3/4/94			X		3						X				40 ml VOA	HCl			
S-3 1335	↓			X		3						X				↓	↓			
S-5 1250	↓			X		3						X				↓	↓			
S-6 1230	↓			X		3						X				↓	↓			
S-8 1155	↓			X		3						X				↓	↓			
Dup —	↓			X		3						X				↓	↓			3/7/94 [signature] seal intact
EB 1205	↓			X		3						X				↓	↓			
TB LAB	↓			X		2						X				↓	↓			

Relinquished By (signature)	Printed Name	Date / Time	Received (signature)	Printed Name	Date / Time
[signature]	Tom Flory	Date: 3/7/94 Time: 12:03	[signature]	GP Lumble	Date: 3/7/94 Time: 12:20
GP Lumble [signature]	GP Lumble	Date: 3/7/94 Time: [illegible]	Received (signature):	Printed Name:	Date: Time:
(via NCS)	Printed Name:	Date: Time:	[signature]	K. Temple	Date: 3/8/94 Time: 0900

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

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Jim Keller
Blaine Tech Services
985 Timothy Dr.
San Jose, CA 95133

Date: 03/16/1994
NET Client Acct. No: 1821
NET Pacific Job No: 94.00923
Received: 03/08/1994

Client Reference Information

SHELL, 5251 Hopyard Rd., Pleasanton

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Judy Ridley
Project Coordinator

Jim Hoch
Operations Manager

Enclosure(s)

Ref: SHELL, 5251 Hopyard Rd., Pleasanton

SAMPLE DESCRIPTION: S-1
Date Taken: 03/04/1994
Time Taken: 13:10
NET Sample No: 189205

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						03/09/1994
DILUTION FACTOR*	1						03/09/1994
as Gasoline	640		50	ug/L	5030		03/09/1994
METHOD 8020 (GC,Liquid)	--						03/09/1994
Benzene	190	FC	0.5	ug/L	8020		03/10/1994
Toluene	1.4		0.5	ug/L	8020		03/09/1994
Ethylbenzene	18		0.5	ug/L	8020		03/09/1994
Xylenes (Total)	1.3		0.5	ug/L	8020		03/09/1994
SURROGATE RESULTS	--						03/09/1994
Bromofluorobenzene (SURR)	116			% Rec.	5030		03/09/1994

FC : Compound quantitated at a 10X dilution factor.

Ref: SHELL, 5251 Hopyard Rd., Pleasanton

SAMPLE DESCRIPTION: S-3
Date Taken: 03/04/1994
Time Taken: 13:35
NET Sample No: 189206

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						03/09/1994
DILUTION FACTOR*	1						03/09/1994
as Gasoline	630		50	ug/L	5030		03/09/1994
METHOD 8020 (GC,Liquid)	--						03/09/1994
Benzene	130	FC	0.5	ug/L	8020		03/10/1994
Toluene	ND		0.5	ug/L	8020		03/09/1994
Ethylbenzene	17		0.5	ug/L	8020		03/09/1994
Xylenes (Total)	0.8		0.5	ug/L	8020		03/09/1994
SURROGATE RESULTS	--						03/09/1994
Bromofluorobenzene (SURR)	126			% Rec.	5030		03/09/1994

FC : Compound quantitated at a 10X dilution factor.

Ref: SHELL, 5251 Hopyard Rd., Pleasanton

SAMPLE DESCRIPTION: S-5
Date Taken: 03/04/1994
Time Taken: 12:50
NET Sample No: 189207

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						03/09/1994
DILUTION FACTOR*	1						03/09/1994
as Gasoline	ND		50	ug/L	5030		03/09/1994
METHOD 8020 (GC,Liquid)	--						03/09/1994
Benzene	ND		0.5	ug/L	8020		03/09/1994
Toluene	ND		0.5	ug/L	8020		03/09/1994
Ethylbenzene	ND		0.5	ug/L	8020		03/09/1994
Xylenes (Total)	ND		0.5	ug/L	8020		03/09/1994
SURROGATE RESULTS	--						03/09/1994
Bromofluorobenzene (SURR)	107			% Rec.	5030		03/09/1994

Ref: SHELL, 5251 Hopyard Rd., Pleasanton

SAMPLE DESCRIPTION: S-6
Date Taken: 03/04/1994
Time Taken: 12:30
NET Sample No: 189208

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						03/09/1994
DILUTION FACTOR*	1						03/09/1994
as Gasoline	ND		50	ug/L	5030		03/09/1994
METHOD 8020 (GC,Liquid)	--						03/09/1994
Benzene	ND		0.5	ug/L	8020		03/09/1994
Toluene	ND		0.5	ug/L	8020		03/09/1994
Ethylbenzene	ND		0.5	ug/L	8020		03/09/1994
Xylenes (Total)	ND		0.5	ug/L	8020		03/09/1994
SURROGATE RESULTS	--						03/09/1994
Bromofluorobenzene (SURR)	91			% Rec.	5030		03/09/1994

Ref: SHELL, 5251 Hopyard Rd., Pleasanton

SAMPLE DESCRIPTION: S-8
Date Taken: 03/04/1994
Time Taken: 11:55
NET Sample No: 189209

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						03/09/1994
DILUTION FACTOR*	1						03/09/1994
as Gasoline	ND		50	ug/L	5030		03/09/1994
METHOD 8020 (GC,Liquid)	--						03/09/1994
Benzene	ND		0.5	ug/L	8020		03/09/1994
Toluene	ND		0.5	ug/L	8020		03/09/1994
Ethylbenzene	ND		0.5	ug/L	8020		03/09/1994
Xylenes (Total)	ND		0.5	ug/L	8020		03/09/1994
SURROGATE RESULTS	--						03/09/1994
Bromofluorobenzene (SURR)	103			% Rec.	5030		03/09/1994

Ref: SHELL, 5251 Hopyard Rd., Pleasanton

SAMPLE DESCRIPTION: DUP
Date Taken: 03/04/1994
Time Taken:
NET Sample No: 189210

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						03/09/1994
DILUTION FACTOR*	1						03/09/1994
as Gasoline	640		50	ug/L	5030		03/09/1994
METHOD 8020 (GC,Liquid)	--						03/09/1994
Benzene	180	FC	0.5	ug/L	8020		03/10/1994
Toluene	1.7		0.5	ug/L	8020		03/09/1994
Ethylbenzene	17		0.5	ug/L	8020		03/09/1994
Xylenes (Total)	1.3		0.5	ug/L	8020		03/09/1994
SURROGATE RESULTS	--						03/09/1994
Bromofluorobenzene (SURR)	117			% Rec.	5030		03/09/1994

FC : Compound quantitated at a 10X dilution factor.

Ref: SHELL, 5251 Hopyard Rd., Pleasanton

SAMPLE DESCRIPTION: EB
Date Taken: 03/04/1994
Time Taken: 12:05
NET Sample No: 189211

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						03/11/1994
DILUTION FACTOR*	1						03/11/1994
as Gasoline	ND		50	ug/L	5030		03/11/1994
METHOD 8020 (GC,Liquid)	--						03/11/1994
Benzene	ND		0.5	ug/L	8020		03/11/1994
Toluene	ND		0.5	ug/L	8020		03/11/1994
Ethylbenzene	ND		0.5	ug/L	8020		03/11/1994
Xylenes (Total)	ND		0.5	ug/L	8020		03/11/1994
SURROGATE RESULTS	--						03/11/1994
Bromofluorobenzene (SURR)	106			% Rec.	5030		03/11/1994

Ref: SHELL, 5251 Hopyard Rd., Pleasanton

SAMPLE DESCRIPTION: TB
Date Taken: 03/04/1994
Time Taken:
NET Sample No: 189212

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						03/10/1994
DILUTION FACTOR*	1						03/10/1994
as Gasoline	ND		50	ug/L	5030		03/10/1994
METHOD 8020 (GC,Liquid)	--						03/10/1994
Benzene	ND		0.5	ug/L	8020		03/10/1994
Toluene	ND		0.5	ug/L	8020		03/10/1994
Ethylbenzene	ND		0.5	ug/L	8020		03/10/1994
Xylenes (Total)	ND		0.5	ug/L	8020		03/10/1994
SURROGATE RESULTS	--						03/10/1994
Bromofluorobenzene (SURR)	104			% Rec.	5030		03/10/1994

Ref: SHELL, 5251 Hopyard Rd., Pleasanton

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)						
as Gasoline	86.4	0.864	1.00	mg/L	03/09/1994	vin
Benzene	109.2	5.46	5.00	ug/L	03/09/1994	vin
Toluene	98.0	4.90	5.00	ug/L	03/09/1994	vin
Ethylbenzene	94.8	4.74	5.00	ug/L	03/09/1994	vin
Xylenes (Total)	101.4	15.21	15.0	ug/L	03/09/1994	vin
Bromofluorobenzene (SURR)	105.0	105	100	% Rec.	03/09/1994	vin
TPH (Gas/BTXE,Liquid)						
as Gasoline	96.6	0.966	1.00	mg/L	03/10/1994	aal
Benzene	114.0	5.70	5.00	ug/L	03/10/1994	aal
Toluene	104.4	5.22	5.00	ug/L	03/10/1994	aal
Ethylbenzene	99.8	4.99	5.00	ug/L	03/10/1994	aal
Xylenes (Total)	100.3	15.05	15.0	ug/L	03/10/1994	aal
Bromofluorobenzene (SURR)	109.0	109	100	% Rec.	03/10/1994	aal
TPH (Gas/BTXE,Liquid)						
as Gasoline	93.4	0.934	1.00	mg/L	03/11/1994	asm
Benzene	111.4	5.57	5.00	ug/L	03/11/1994	asm
Toluene	99.4	4.97	5.00	ug/L	03/11/1994	asm
Ethylbenzene	95.4	4.77	5.00	ug/L	03/11/1994	asm
Xylenes (Total)	96.6	14.49	15.0	ug/L	03/11/1994	asm
Bromofluorobenzene (SURR)	111.0	111	100	% Rec.	03/11/1994	asm

Ref: SHELL, 5251 Hopyard Rd., Pleasanton

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	03/09/1994	vin
Benzene	ND	0.5	ug/L	03/09/1994	vin
Toluene	ND	0.5	ug/L	03/09/1994	vin
Ethylbenzene	ND	0.5	ug/L	03/09/1994	vin
Xylenes (Total)	ND	0.5	ug/L	03/09/1994	vin
Bromofluorobenzene (SURR)	104		% Rec.	03/09/1994	vin
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	03/10/1994	aal
Benzene	ND	0.5	ug/L	03/10/1994	aal
Toluene	ND	0.5	ug/L	03/10/1994	aal
Ethylbenzene	ND	0.5	ug/L	03/10/1994	aal
Xylenes (Total)	ND	0.5	ug/L	03/10/1994	aal
Bromofluorobenzene (SURR)	107		% Rec.	03/10/1994	aal
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	03/11/1994	vin
Benzene	ND	0.5	ug/L	03/11/1994	vin
Toluene	ND	0.5	ug/L	03/11/1994	vin
Ethylbenzene	ND	0.5	ug/L	03/11/1994	vin
Xylenes (Total)	ND	0.5	ug/L	03/11/1994	vin
Bromofluorobenzene (SURR)	103		% Rec.	03/11/1994	vin

Ref: SHELL, 5251 Hopyard Rd., Pleasanton

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)										
as Gasoline	86.6	90.3	4.2	1.00	ND	0.866	0.903	mg/L	03/09/1994	vin
Benzene	101.0	103.7	2.6	38.1	ND	38.5	39.5	ug/L	03/09/1994	vin
Toluene	101.5	104.0	2.4	99.1	ND	100.6	103.1	ug/L	03/09/1994	vin
TPH (Gas/BTXE,Liquid)										
as Gasoline	92.9	81.4	13.2	1.00	ND	0.929	0.814	mg/L	03/10/1994	aal
Benzene	95.7	85.3	11.5	44.3	ND	42.4	37.8	ug/L	03/10/1994	aal
Toluene	96.3	86.1	11.2	109.0	ND	105.0	93.9	ug/L	03/10/1994	aal
TPH (Gas/BTXE,Liquid)										
as Gasoline	95.0	90.0	5.4	1.00	ND	0.95	0.90	mg/L	03/11/1994	asm
Benzene	100.2	99.8	0.3	43.0	ND	43.1	42.9	ug/L	03/11/1994	asm
Toluene	100.0	100.0	0.0	106.	ND	106	106	ug/L	03/11/1994	asm

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KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. Actual reporting limits and results have been multiplied by the listed dilution factor. Do not multiply the reporting limits or reported values by the dilution factor.
dw	:	Result expressed as dry weight.
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than the applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, Rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, Rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986., Rev. 1, December 1987.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

Revised September, 1993
abb.93

ATTACHMENT B

HISTORICAL GROUND WATER ELEVATION AND ANALYTIC DATA

Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS

Former Shell Service Station
5251 Hopyard Road
Pleasanton, California
WIC#204-6138-0907

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	TPHd (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
S-2	10/16/89	—	—	—	<50	<100	<0.5	<1	<1	<3
	1/5/90	—	—	—	<50	<100	<0.5	<0.5	<0.5	<1
	4/11/90	—	—	—	<50	NA	<0.5	<0.5	<0.5	<1
	7/12/90	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/25/90	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	1/25/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	4/16/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	7/24/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/18/91	326.59	8.83	317.76	<50	<50	<0.5	<0.5	<0.5	<0.5
	1/23/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	4/27/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	7/17/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/16/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	1/23/93	326.59	8.10	318.49	<50	140*+	<0.5	<0.5	<0.5	<0.5
	4/28/93	326.59	9.06	317.53	<50	<50	<0.5	<0.5	<0.5	<0.5
	9/22/93	326.59	8.91	317.68	NA	NA	NA	NA	NA	NA
	To be sampled annually. Next sampling date 7/94.									
S-3	5/11/89	—	—	—	2600	1400	330	14	220	200
	7/20/89	327.38	9.55	317.83	9700	2200	2300	30	880	160
	10/16/89	—	—	—	3400	2800	700	8.0	360	60
	1/5/90	—	—	—	860	1600	140	1.6	78	2.0
	4/11/90	—	—	—	1000	NA	210	<2	150	13

Table 1

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Former Shell Service Station
5251 Hopyard Road
Pleasanton, California
WIC#204-6138-0907

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	TPHd (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
S-3	7/12/90	—	—	—	2800	2000	490	8.5	210	81
	10/25/90	—	—	—	1200	860	120	<2.5	82	5.1
	1/25/91	—	—	—	870	330	230	<2.5	130	<2.5
	4/16/91	—	—	—	190	140*	12	0.8	6.2	1.5
	7/24/91	—	—	—	1700	1200*	450	4.4	150	2.9
	10/18/91	327.38	9.64	317.74	1900	500	370	3.1	120	220
	1/23/92	—	—	—	2000	650*	580	3.0	200	<0.5
	4/27/92	—	—	—	1100	230*	150	<3	76	14
	7/17/92	—	—	—	810	58	200	<2.5	57	3.8
	10/16/92	—	—	—	440	190@	79	1.8	18	4.6
	1/23/93	327.38	8.81	318.57	670	170**	79	1.5	46	15
	4/28/93	327.38	9.87	317.51	2000	<50	300	3.4	210	38
	9/22/93	327.38	9.65	317.73	4800	670*	2000	34	150	51
S-4	5/11/89	—	—	—	<50	<100	<0.5	<1	<1	<3
	7/20/89	327.38	8.03	319.35	<50	<100	<0.5	<1	<1	<3
	10/16/89	—	—	—	<50	<100	<0.5	<1	<1	<3
	1/5/90	—	—	—	<50	<100	<0.5	<0.5	<0.5	<1
	4/11/90	—	—	—	<50	NA	<0.5	<0.5	<0.5	<1
	7/12/90	—	—	—	<50	<50	<0.5	1.7	<0.5	2.1
	10/25/90	—	—	—	<50	<50	<0.5	<0.5	<0.5	0.6
	1/25/91	—	—	—	<50	<50	<0.5	1.5	<0.5	2.8
	4/16/91	—	—	—	<50	<50	0.7	<0.5	<0.5	<0.5

Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS

Former Shell Service Station
5251 Hopyard Road
Pleasanton, California
WIC#204-6138-0907

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	TPHd (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
S-4	7/24/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/18/91	327.38	8.82	318.56	<50	<50	<0.5	<0.5	<0.5	<0.5
	1/23/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	4/27/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	7/17/92	—	—	—	<500	74	<0.5	<0.5	<0.5	<0.5
	10/16/92	—	—	—	<500	<50	<0.5	<0.5	<0.5	<0.5
	1/23/93	327.38	8.32	319.06	<500	94*+	<0.5	<0.5	<0.5	<0.5
	4/28/93	327.38	9.76	317.62	<50	<50	<0.5	<0.5	<0.5	<0.5
	9/22/93	327.38	9.30	318.08	NA	NA	NA	NA	NA	NA
	To be sampled annually. Next sampling date 7/94.									
S-5	5/11/89	—	—	—	50	<100	<0.5	<1	1.0	3.0
	7/20/89	327.76	9.62	318.14	<50	<100	10	<1	<1	<3
	10/16/89	—	—	—	<50	<100	<0.5	<1	<1	<3
	1/5/90	—	—	—	<50	<100	<0.5	<0.5	<0.5	<1
	4/11/90	—	—	—	<50	NA	0.5	3.4	0.8	4.0
	7/12/90	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/25/90	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	1/25/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	0.7
	4/16/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	0.8
	7/24/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/18/91	327.76	10.00	317.76	120^	<50	43	<0.5	1.0	0.7
	1/23/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5

Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS

Former Shell Service Station
5251 Hopyard Road
Pleasanton, California
WIC#204-6138-0907

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	TPHd (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
S-5	4/27/92	—	—	—	50	<50	<0.5	<0.5	<0.5	0.6
	7/17/92	—	—	—	<50	70	<0.5	<0.5	<0.5	<0.5
	10/16/92	—	—	—	230	57	13	<0.5	4.9	4.3
	1/23/93	327.76	8.88	318.88	<50	150*+	<0.5	<0.5	<0.5	<0.5
	4/30/93	327.76	10.20	317.56	<50	<50	<0.5	<0.5	<0.5	<0.5
	9/22/93	327.76	9.92	317.84	<50	<50	<0.5	<0.5	<0.5	<0.5
S-6	11/15/89	—	—	—	<50	<100	<0.5	<0.5	<0.5	<1
	1/5/90	—	—	—	<50	<100	<0.5	0.5	<0.5	<1
	4/11/90	—	—	—	<50	NA	<0.5	<0.5	<0.5	<1
	7/12/90	—	—	—	<50	<50	<0.5	0.5	<0.5	0.6
	10/25/90	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	1/25/91	—	—	—	<50	<50	<0.5	1.7	<0.5	2.8
	4/16/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	0.6
	7/24/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	0.5
	10/18/91	326.56	8.84	317.72	<50	<50	<0.5	<0.5	<0.5	0.5
	1/23/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	0.5
	4/27/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	7/17/92	—	—	—	400	130	<0.5	<0.5	<0.5	<0.5
	10/16/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	1/23/93	326.56	7.82	318.74	<50	230*+	<0.5	<0.5	<0.5	<0.5
	4/28/93	326.56	9.00	317.56	<50	<50	<0.5	<0.5	<0.5	<0.5
	9/22/93	326.56	8.61	317.95	<50	<50	<0.5	<0.5	<0.5	<0.5

Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS

Former Shell Service Station
5251 Hopyard Road
Pleasanton, California
WIC#204-6138-0907

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	TPHd (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
S-7	1/15/89	—	—	—	<50	<100	<0.5	<0.5	<0.5	<1
	11/15/89	—	—	—	<50	<100	<0.5	<0.5	<0.5	<1
	1/5/90	—	—	—	<50	NA	<0.5	<0.5	<0.5	<1
	4/11/90	—	—	—	<50	NA	<0.5	<0.5	<0.5	0.7
	7/12/90	—	—	—	<50	<50	<0.5	0.6	<0.5	1.0
	10/25/90	—	—	—	<50	<50	<0.5	0.5	<0.5	<0.5
	1/25/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	4/16/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	7/24/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/18/91	326.49	8.92	317.57	<50	140&	<0.5	<0.5	<0.5	<0.5
	1/23/92	—	—	—	<50	140&	<0.5	<0.5	<0.5	<0.5
	4/27/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	7/17/92	—	—	—	<50	<50	<0.5	1.8	0.6	4.1
	10/16/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	1/23/93	326.49	8.06	318.43	<50	110*+	<0.5	<0.5	<0.5	<0.5
	4/28/93	326.49	8.94	317.55	<50	<50	<0.5	<0.5	<0.5	<0.5
	9/22/93	326.49	8.57	317.92	NA	NA	NA	NA	NA	NA
	To be sampled annually. Next sampling date 7/94.									
S-8	11/15/89	—	—	—	<50	<100	<0.5	<0.5	<0.5	<1
	1/5/90	—	—	—	<50	<100	<0.5	<0.5	<0.5	<1
	4/11/90	—	—	—	<50	NA	<0.5	<0.5	<0.5	<1
	7/12/90	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5

Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS

Former Shell Service Station
5251 Hopyard Road
Pleasanton, California
WIC#204-6138-0907

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	TPHd (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
S-8	10/25/90	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	1/25/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	4/16/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	7/24/91	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	10/18/91	325.32	7.62	317.70	<50	360&	<0.5	<0.5	<0.5	<0.5
	1/23/92	—	—	—	<50	90	<0.5	<0.5	<0.5	<0.5
	4/27/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	7/21/92	—	—	—	53	<50	<0.5	1.0	<0.5	1.8
	10/16/92	—	—	—	<50	<50	<0.5	<0.5	<0.5	<0.5
	1/23/93	325.32	7.00	318.32	<50	<50	<0.5	<0.5	<0.5	<0.5
	4/28/93	325.32	7.77	317.55	<50	<50	<0.5	<0.5	<0.5	<0.5
	9/22/93	325.32	7.67	317.65	<50	160	<0.5	<0.5	<0.5	<0.5
V-1	12/14/88	—	—	—	770	4500	6.4	21	9.0	87
V-2	12/14/88	—	—	—	160	1000	3.8	<1	<1	4.0
V-3	12/14/88	—	—	—	140	800	9.0	<1	<1	3.0

Notes :

TOB	Top of well casing referenced to mean sea level
DTW :	Depth to water
GWE :	Ground water elevation
TPHg :	Total low-to-medium boiling point petroleum hydrocarbons by EPA Method 8015 (DHS-modified)
TPHd	Total high boiling point hydrocarbons by EPA method 8015
BTEX :	Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8020
NA:	Not analyzed
#	Ethylbenzene and xylenes were combined in January 1988, well S-1.
*	Compounds detected as diesel appear to be the less volatile constituents of gasoline.
**	Concentration reported as diesel includes a heavier petroleum product.
^	Compounds detected within the chromatographic range of gasoline but not characteristic of the standard gasoline pattern.
&	Compounds detected within the chromatographic range of diesel but not characteristic of the standard diesel pattern.
+	The chromatographic pattern of the purgeable hydrocarbons found in the sample is similar to the pattern of weathered gasoline.
*+	The concentration reported as diesel primarily due to the presence of a heavier petroleum product.
@	The concentration reported as diesel primarily due to the presence of a lighter petroleum product.