Weiss Associates Environmental and Geologic Services

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

June 24, 1996

Susan Hugo
Alameda County
Department of Environmental Health
Hazardous Materials Division
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Second Quarter 1996**
Shell Service Station
WIC #204-5510-0303
5755 Broadway
Oakland, California 94606
WA Job #81-0619-206

Dear Ms. Hugo:

This status report satisfies the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Division 3, Chapter 16, Article 5, Section 2652.d

HYDROCARBON AND GROUND WATER REMOVAL SUMMARY		
Fluid	***Removed this Quarter***	***Total Removed***
Separate Phase	0.0 (lbs)	0.55 (lbs)
Ground Water with Dissolved Hydrocarbons	5,000 (gals)	288,238 (gals)

Second Quarter 1996 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.
- WA calculated ground water elevations, compiled the analytic data (Tables 1 through 3) and prepared a ground water elevation contour and benzene concentrations in ground water map (Figure 2).

Anticipated Third Quarter 1996 Activities:

- WA will continue to monitor water levels and arrange dewatering of the tankpit when necessary. Ground water will be pumped from the tank pit and its volume reported.

- WA will submit a report presenting the results of the third quarter 1996 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.

Please call if you have any questions.

Sincerely,
Weiss Associates

Grady S. Glasser
Technical Assistant

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

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

cc: R. Jeff Granberry, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524

GSG/JWC:all
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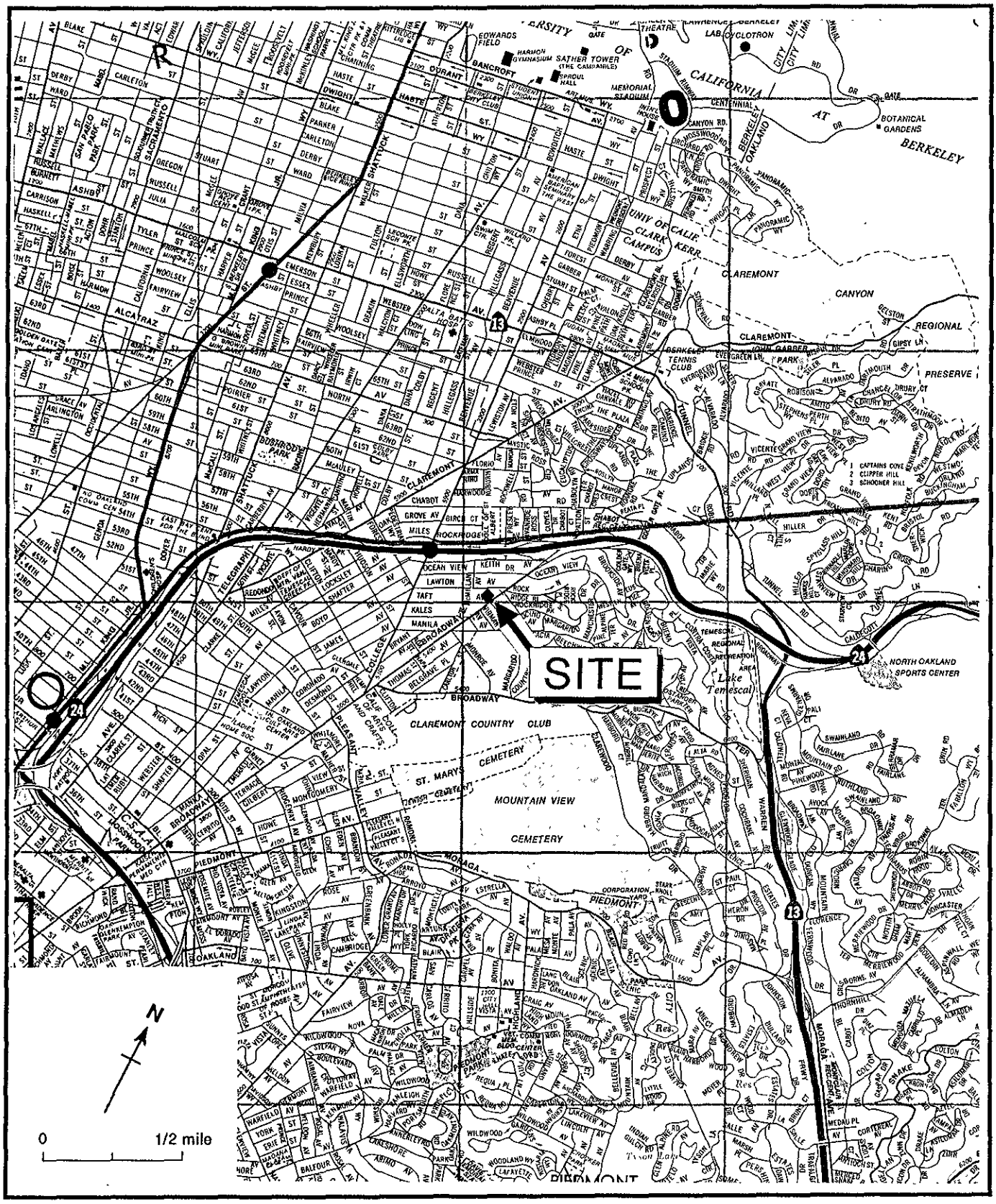

Figure 1. Site Location Map - Shell Service Station WIC #204-5510-0303, 5755 Broadway, Oakland, California

2/28/92

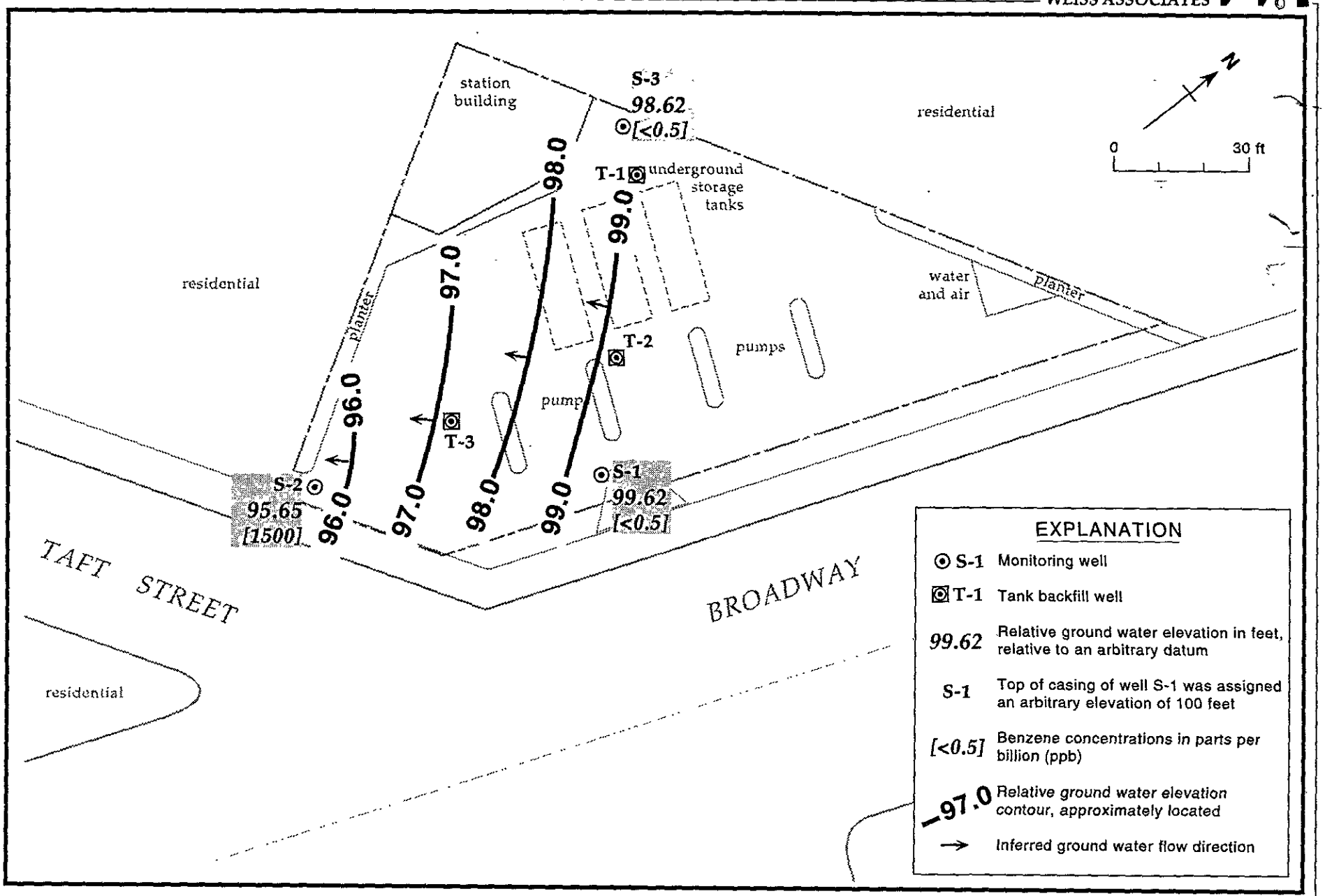

Figure 2. Monitoring Well Locations, Ground Water Elevation Contours, and Benzene Concentrations in Ground Water - March 9, 1996
Shell Service Station WIC#204-2004-0204, 5755 Broadway, Oakland, California

S619-021.ai

06/19/96

Table 1. Ground Water Elevations - Shell Service Station WIC #504-5510-0303, 5755 Broadway, Oakland, California

Well ID	Date	Top-of-Casing Elevation*	Depth to Water (ft)	Ground Water Elevation (ft)
S-1	01/25/91	100.00	3.88	96.12
	06/03/91		3.51	96.49
	08/30/91		4.24	95.76
	11/22/91		4.29	95.71
	03/13/92		2.87	97.13
	05/28/92		3.79	96.21
	08/19/92		4.43	95.57
	11/18/92		4.34	95.66
	02/10/93		4.20	95.80
	06/11/93		3.39	96.61
	08/03/93		3.69	96.31
	11/02/93		4.26	95.74
	12/16/93		2.73	97.27
	02/01/94		3.38	96.62
	05/04/94		3.00	97.00
	08/18/94		3.70	96.30
	11/09/94		2.52	97.48
	02/22/95		4.08	95.92
	05/02/95		2.58	97.42
	08/30/95		3.48	96.52
	11/28/95		3.99	96.01
	02/02/96		2.00	98.00
	03/09/96		**3.38**	**99.62**
S-2	01/25/91	98.92	4.52	94.40
	06/03/91		4.02	94.90
	08/30/91		4.70	94.22
	11/22/91		4.72	94.20
	03/13/92		3.47	95.45
	05/28/92		4.45	94.45
	08/19/92		4.84	94.08
	11/18/92		4.73	94.19
	02/10/93		4.83	94.09
	06/11/93		3.74	95.18
	08/03/93		4.23	94.69
	11/02/93		4.72	94.20
	12/16/93		3.00	95.92
	02/01/94		3.48	95.44
	05/04/94		3.26	95.66
	08/18/94		3.98	94.94
	11/09/94		3.10	95.82
	02/22/95		4.02	94.90
	05/02/95		2.86	96.06

Table 1. Ground Water Elevations - Shell Service Station WIC #504-5510-0303, 5755 Broadway, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation*	Depth to Water (ft)	Ground Water Elevation (ft)
	08/30/95		4.06	94.86
	11/28/95		4.48	94.44
	02/02/96		1.99	96.93
	03/09/96		3.27	95.65
S-3	01/25/91	101.67	3.84	97.83
	06/03/91		3.25	98.42
	08/03/91		4.73	96.94
	11/22/91		4.81	96.86
	03/13/92		2.29	99.38
	05/28/92		3.62	98.05
	08/19/92		4.66	97.01
	11/18/92		4.51	97.16
	02/10/93		4.36	97.31
	06/11/93		2.91	98.76
	08/03/93		3.70	97.97
	11/02/93[a]		---	---
	12/16/93		2.12	99.55
	02/01/94		2.90	98.77
	05/04/94		2.54	99.13
	08/18/94		3.51	98.16
	11/09/94		2.44	99.23
	02/22/95		4.12	97.55
	05/02/95		2.83	98.84
	08/30/95		3.16	98.51
	11/28/95		3.87	97.80
	02/02/96		2.24	99.43
	03/09/96		3.05	98.62

Notes:

* = Top of casing elevations referenced to arbitrary elevation of 100 ft
a = Well inaccessible
NA = Not available

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Table 2. Analytic Results for Ground Water, Shell Service Station, WIC #204-5510-0303, 5755 Broadway, Oakland, California

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X
			← parts per billion (µg/L) →				
S-1	01/25/91	3.88	<30	<0.3	<0.3	<0.3	<0.3
	06/03/91	3.51	<30	<0.3	<0.3	<0.3	<0.3
	08/30/91	4.24	<30	<0.3	<0.3	<0.3	<0.3
	11/22/91	4.29	<30	2.3	0.3	<0.46	<0.65
	03/13/92	2.87	<30	<0.52	<0.3	<0.3	<0.3
	05/28/92	3.79	<50	<0.5	<0.5	<0.5	<0.5
	08/19/92	4.43	<50	<0.5	<0.5	<0.5	<0.5
	11/18/92	4.34	<50	<0.5	<0.5	<0.5	<0.5
	02/10/93	4.20	51	1.4	<0.5	<0.5	<0.5
	02/10/93[dup]	4.20	<50	1.2	<0.5	<0.5	<0.5
	06/11/93	3.39	<50	<0.5	<0.5	<0.5	<0.5
	08/03/93	3.69	<50	<0.5	<0.5	<0.5	<0.5
	11/02/93	4.26	70[a]	<0.5	<0.5	<0.5	<0.5
	02/01/94	3.38	60[a]	<0.5	<0.5	<0.5	<0.5
	05/04/94	3.00	<50	1.1	<0.5	<0.5	<0.5
	08/18/94	3.70	<50	0.6	<0.5	<0.5	<0.5
	08/18/94[dup]	3.70	60[b]	0.5	<0.5	<0.5	<0.5
	11/09/94	2.52	<50	4.0	<0.5	<0.5	<0.5
	02/22/95	4.08	50	0.8	<0.5	0.7	1.3
	05/02/95	2.58	<50	<0.5	<0.5	<0.5	<0.5
	08/30/95	3.48	<50	1.7	<0.5	<0.5	<0.5
	11/28/95	3.99	<50	<0.5	<0.5	<0.5	<0.5
	02/02/96	2.00	<50	11	0.9	<0.5	<0.5
	03/09/96	3.38	<50	<0.5	<0.5	<0.5	<0.5
S-2	01/25/91	4.52	450	140	6.2	1.8	15
	06/03/91	4.02	490	150	8.2	2.7	7
	08/30/91	4.70	70	0.37	<0.3	<0.3	<0.3
	11/22/91	4.72	1,600	110	29	9.3	150
	03/13/92	3.47	1,300	210	34	5.7	79

Table 2. Analytic Results for Ground Water, Shell Service Station, WIC #204-5510-0303, 5755 Broadway, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X
			← parts per billion (µg/L) →				
	05/28/92	4.45	100	28	<0.5	<0.5	<0.5
	08/19/92	4.84	470	42	8.3	<0.5	4.0
	11/18/92	4.73	490	43	17	39	29
	02/10/93	4.83	19,000	710	80	760	370
	06/11/93	3.74	33,000	3,100	370	1,600	1,100
	08/03/93	4.23	18,000	1,400	81	130	130
	08/03/93[dup]	4.23	19,000	1,400	86	140	150
	11/02/93	4.72	12,000[a]	470	31	47	92
	11/02/93[dup]	4.72	13,000[a]	530	35	47	96
	02/01/94	3.48	31,000[a]	430	50	46	130
	02/01/94[dup]	3.48	31,000[a]	300	30	33	100
	05/04/94	3.26	3,900	1,200	53	31	71
	05/04/94[dup]	3.26	4,500	1,200	57	37	110
	08/18/94	3.98	24,000	600	15	8.3	27
	11/09/94	3.10	1,400[a]	240	13	9.3	20
	11/09/94[dup]	3.10	1,800	260	13	8.5	21
	02/22/95	4.02	29,000	550	12	18	63
	02/22/95[dup]	4.02	28,000	530	10	17	60
	05/02/95	2.86	4,400	1,000	38	25	77
	05/02/95[dup]	2.86	4,400	1,000	41	26	83
	08/30/95	4.06	800	350	6.7	20	16
	08/30/95[dup]	4.06	960	220	12	22	48
	11/28/95	4.48	2,000	230	50	220	230
	11/28/95[dup]	4.48	2,100	240	51	230	230
	02/02/96	2.00	18,000	540	12	18	22
	02/02/96[dup]	2.00	11,000	600	13	18	28
	03/09/96	**3.27**	**3,800**	**1,500**	**30**	**27**	**58**
	03/09/96[dup]	**3.27**	**3,500**	**1,300**	**21**	**24**	**53**

Table 2. Analytic Results for Ground Water, Shell Service Station, WIC #204-5510-0303, 5755 Broadway, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X
			← parts per billion (µg/L) →				
S-3	01/25/91	NA	<30	<0.3	<0.3	<0.3	<0.3
	06/03/91	3.25	<30	<0.3	0.3	0.3	0.3
	08/30/91	4.73	<30	<0.3	<0.3	<0.3	<0.3
	11/22/91	4.81	<30	<0.3	<0.3	<0.3	<0.3
	03/13/92	2.29	<30	<0.3	0.3	0.3	0.3
	05/28/92	3.62	<50	<0.5	<0.5	<0.5	<0.5
	08/19/92	4.66	<50	<0.5	<0.5	<0.5	0.5
	11/18/92	4.51	<50	<0.5	<0.5	<0.5	<0.5
	02/10/93	4.36	30	1.9	2.4	3.2	5.6
	06/11/93	2.91	<50	<0.5	<0.5	<0.5	<0.5
	06/11/93[dup]	2.91	<50	<0.5	<0.5	<0.5	<0.5
	08/03/93	3.70	<50	<0.5	<0.5	<0.5	<0.5
	11/02/93[c]	---	---	---	---	---	---
	02/01/94	2.90	<50	<0.5	<0.5	<0.5	<0.5
	05/04/94	2.54	<50	<0.5	<0.5	<0.5	<0.5
	08/18/94	3.51	<50	<0.5	<0.5	<0.5	<0.5
	11/09/94	2.44	<50	<0.5	<0.5	<0.5	<0.5
	02/22/95	4.12	80	<0.5	<0.5	0.5	0.5
	05/02/95	2.83	<50	<0.5	<0.5	<0.5	<0.5
	08/30/95	3.16	<50	0.5	<0.5	<0.5	<0.5
	11/28/95	3.87	<50	<0.5	<0.5	<0.5	<0.5
	02/02/96	2.24	<50	<0.5	<0.5	<0.5	<0.5
	03/09/96	3.05	<50	<0.5	<0.5	<0.5	<0.5
Bailer Blank	08/19/92		<50	<0.5	<0.5	<0.5	<0.5
	11/22/91		<50	<0.5	<0.5	<0.5	<0.5
	02/22/95		<50	<0.5	<0.5	<0.5	<0.5

Table 2. Analytic Results for Ground Water, Shell Service Station, WIC #204-5510-0303, 5755 Broadway, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X
			← parts per billion (µg/L) →				
Trip Blank	03/13/92		<50	<0.3	<0.3	<0.3	<0.3
	05/28/92		<50	<0.5	<0.5	<0.5	<0.5
	08/19/92		<50	<0.5	<0.5	<0.5	<0.5
	11/18/92		<50	<0.5	<0.5	<0.5	<0.5
	02/10/93		<50	<0.5	<0.5	<0.5	<0.5
	08/03/93		<50	<0.5	<0.5	<0.5	<0.5
	11/02/93		<50	<0.5	<0.5	<0.5	<0.5
	02/01/94		<50	<0.5	<0.5	<0.5	<0.5
	05/04/94		<50	<0.5	<0.5	<0.5	<0.5
	11/09/94		<50	<0.5	<0.5	<0.5	<0.5
	02/22/95		<50	<0.5	1.0[e]	<0.5	<0.5
	05/02/95		<50	<0.5	<0.5	<0.5	<0.5
	08/30/95		<50	<0.5	<0.5	<0.5	<0.5
	11/28/95		<50	<0.5	<0.5	<0.5	<0.5
DTSC MCLs			NE	1	680	100[d]	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
NA = Not available
NE = Not established
<n = Not detected at detection limits of n ppb
dup = Duplicate sample

Notes:

a = Concentrations reported as gasoline are primarily due to presence of a discrete peak not indicative of gasoline.
b = This positive result has an atypical pattern for gasoline
c = Well inaccessible.
d = DTSC recommended action level for drinking water; MCL not established
e = Positive result confirmed by secondary column or GC/MS analysis.

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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

May 22, 1996

Shell Oil Company
P.O. Box 4023
Concord, CA 94524

Attn: R. Jeff Granberry

Shell WIC #204-5510-0303
5755 Broadway
Oakland, California

2nd Quarter 1996

Quarterly Groundwater Monitoring Report 960509-T-2

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. Copies of our Sampling Report along with the laboratory's Certified Analytical Report are forwarded to the consultant overseeing work at this site. Submission of the assembled documents to interested regulatory agencies will be made by the designated consultant.

Groundwater monitoring at this site was performed in accordance with Standard Operating Procedures provided to the interested regulatory agencies. If you have any questions about the work performed at this site please call me at (408) 995-5535 ext. 201.

Yours truly,

Francis Thie

attachments: Table of Well Gauging Data
Chain of Custody
Field Data Sheets
Certified Analytical Report

cc: Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608-2411
Attn: Grady Glasser

(Any professional evaluations or recommendations will be made by the consultant under separate cover.)

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	5/9/96	TOC	–	NONE	–	–	3.38	11.51
S-2 *	5/9/96	TOC	ODOR	NONE	–	–	3.27	9.40
S-3	5/9/96	TOC	–	NONE	–	–	3.05	9.50
T-1	5/9/96	TOC	–	NONE	–	–	2.91	13.68
T-2	5/9/96	TOC	–	NONE	–	–	1.01	12.85
T-3	5/9/96	TOC	–	NONE	–	–	3.08	8.60

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

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: ~~960905-T1~~ 960504-T1

Date: 5/9/96
Page 1 of 1

Site Address: 5755 Broadway, Oakland
WIC#: 204-5510-0303

Shell Engineer: R. Jeff Granberry
Phone No.: (510) 675-6168
Fax #: 675-6160

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

Consultant Contact: Fran Thie
Phone No.: (408) 995-5535 ext 201
Fax #: 293-8773

Comments:

Sampled by: MikeToll

Printed Name: MikeToll

Analysis Required (960504-T1)

LAB: SEQ

CHECK ONE (1) BOX ONLY — CT/DT

- Quarterly Monitoring ☒ 6441
- Site Investigation ☐ 6441
- Soil Closure/Disposal ☐ 6442
- Water Closure/Disposal ☐ 6443
- Soil/Air Rem. or Sys. O & M ☐ 6452
- Water Rem. or Sys. O & M ☐ 6453
- Other ☐

TURN AROUND TIME

- 24 hours ☐
- 48 hours ☐
- 15 days ☒ (Normal)
- Other ☐

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

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	MTBE	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
S1	5/9			X		3						X	X						1
S2	5/9			X		3						X	X						2
S3	5/9			X		3						X	X						3
EB	5/9			X		3						X	X						4
Dup	5/9			X		3						X	X						5

960505 765

Relinquished By (signature):	Printed Name: Mike Toll	Date: 5/10 Time: 1100	Received (signature):	Printed Name: S. Tell	Date: 5/10 Time: 1100
Relinquished By (signature):	Printed Name:	Date: 5/10 Time:	Received (signature):	Printed Name:	Date: Time:
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature):	Printed Name: Janelle Clark	Date: 5/10/96 Time: 1237

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Project: Shell Oakland, 960905-T1

Enclosed are the results from samples received at Sequoia Analytical on May 10, 1996. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9605765 -01	LIQUID, S1	05/09/96	TPGBMW Purgeable TPH/BTEX
9605765 -02	LIQUID, S2	05/09/96	TPGBMW Purgeable TPH/BTEX
9605765 -03	LIQUID, S3	05/09/96	TPGBMW Purgeable TPH/BTEX
9605765 -04	LIQUID, EB	05/09/96	TPGBMW Purgeable TPH/BTEX
9605765 -05	LIQUID, DUP	05/09/96	TPGBMW Purgeable TPH/BTEX

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland, 960509-T1
Sample Descript: S1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9605765-01

Sampled: 05/09/96
Received: 05/10/96

Analyzed: 05/15/96
Reported: 05/16/96

QC Batch Number: GC051596BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	**2.5**	**46**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	104

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Shell Oakland, 960509-T1	Sampled: 05/09/96
985 Timothy Drive	Sample Descript: S2	Received: 05/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 05/15/96
Attention: Jim Keller	Lab Number: 9605765-02	Reported: 05/16/96

QC Batch Number: GC051596BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1250	3800
Methyl t-Butyl Ether	62	20000
Benzene	12	1500
Toluene	12	27
Ethyl Benzene	12	30
Xylenes (Total)	12	58
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	105

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Pettner
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland, 960509-T1
Sample Descript: S3
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9605765-03

Sampled: 05/09/96
Received: 05/10/96

Analyzed: 05/15/96
Reported: 05/16/96

QC Batch Number: GC051596BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	100

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Shell Oakland, 960509-T1	Sampled: 05/09/96
985 Timothy Drive	Sample Descript: EB	Received: 05/10/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 05/15/96
Attention: Jim Keller	Lab Number: 9605765-04	Reported: 05/16/96

QC Batch Number: GC051596BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	99

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell Oakland, 960509-T1
Sample Descript: DUP
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9605765-05

Sampled: 05/09/96
Received: 05/10/96

Analyzed: 05/15/96
Reported: 05/16/96

QC Batch Number: GC051596BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1250	3500
Methyl t-Butyl Ether	62	14000
Benzene	12	1300
Toluene	12	24
Ethyl Benzene	12	21
Xylenes (Total)	12	53
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	105

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell Oakland, 960905-T1
Matrix: Liquid
Work Order #: 9605765 -01 - 05

Reported: May 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC051596BTEX21A	GC051596BTEX21A	GC051596BTEX21A	GC051596BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Woo	J. Woo	J. Woo	J. Woo
MS/MSD #:	G9605179-10B	G9605179-10B	G9605179-10B	G9605179-10B
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/15/96	5/15/96	5/15/96	5/15/96
Analyzed Date:	5/15/96	5/15/96	5/15/96	5/15/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	10 ug/L
Result:	12	12	12	37
MS % Recovery:	120	120	120	123
Dup. Result:	12	12	11	35
MSD % Recov.:	120	120	110	117
RPD:	0.0	0.0	8.7	5.6
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	GBLK051596A	GBLK051596A	GBLK051596A	GBLK051596A
Prepared Date:	5/15/96	5/15/96	5/15/96	5/15/96
Analyzed Date:	5/15/96	5/15/96	5/15/96	5/15/96
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
LCS Result:	12	12	11	33
LCS % Recov.:	120	120	110	110

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

SEQUOIA ANALYTICAL

Reggy Renner
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an allquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference