CAMBRIA

ENVIRONMENTAL PROTECTION

97 AUG 29 PM 3:00

113

August 22, 1997

Barney Chan
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Second Quarter 1997 Monitoring Report**
Shell Service Station
4411 Foothill Boulevard
Oakland, California
WIC #204-5508-3400
Cambria Project #240-314-297

Dear Mr. Chan:

On behalf of Shell Oil Products Company, Cambria Environmental Technology, Inc. (Cambria) is submitting this monitoring report for the site referenced above in accordance with the requirements specified in California Administrative Code Title 23 Waters, Division 3, Chapter 16, Article 5, Section 2652.d.

Second Quarter 1997 Activities

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

Anticipated Third Quarter 1997 Activities

Blaine will measure ground water depths and collect ground water samples from the site wells. Cambria will compile the results and submit a report summarizing activities at the site.

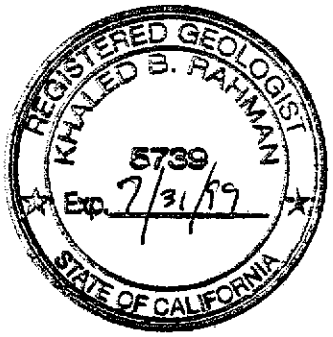
As discussed in our *RBCA Work Plan*, dated December 16, 1996, we will continue to investigate potential hydrocarbon receptors in the area of this site. We anticipate submittal of our findings during fourth quarter 1997.

CAMBRIA
ENVIRONMENTAL
TECHNOLOGY, INC.
1144 65TH STREET,
SUITE B
OAKLAND,
CA 94608
PH: (510) 420-0700
FAX: (510) 420-9170

Closing

We appreciate the opportunity to work with you on this project. Please call if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.



Khaled B. Rahman, R.G., C.H.G.
Senior Geologist

Attachments: A - Blaine Tech Ground Water Monitoring Report

cc: A. E. (Alex) Perez, Shell Oil Products Company, PO Box 4023, Concord, California 94524

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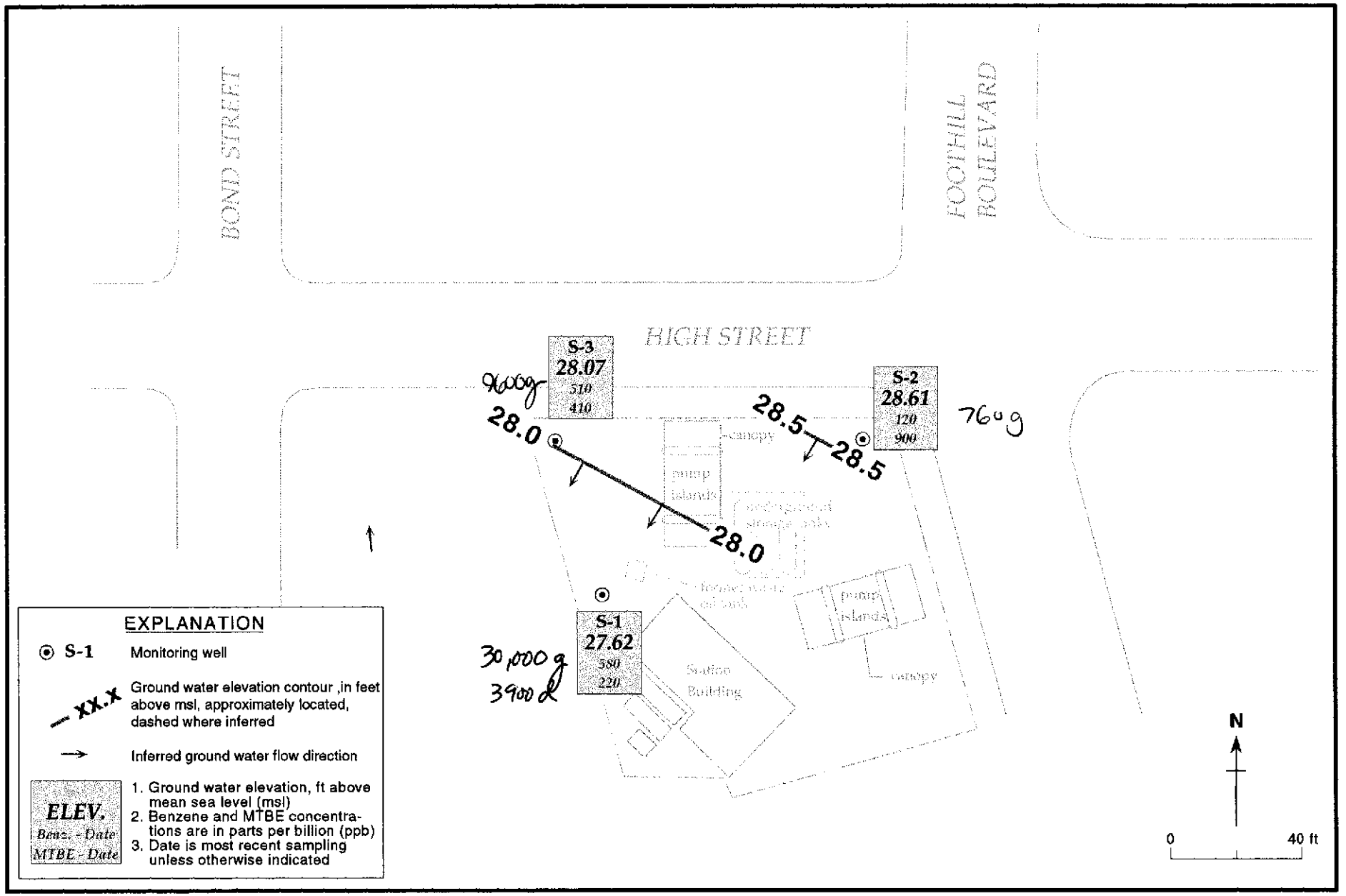

Figure 1. Ground Water Elevation Contours - June 11, 1997 - Shell Service Station WIC# 204-5508-3400 - 4411 Foothill Boulevard, Oakland, California

Table 1. Ground Water Elevation and Analytic Data - Shell Service Station #204-5508-3400, 4411 Foothill Boulevard, Oakland, California

Well ID and Elevation (ft-msl)	Date	Depth to Water (feet)	Ground Water Elevation (ft-msl)	TPHg (8015) (ppb)	Benzene (8020) (ppb)	Toluene (8020) (ppb)	Ethylbenzene (8020) (ppb)	Xylenes (8020) (ppb)	TPHd (8015) (ppb)	TPHmo (8015) (ppb)	MTBE (8020) (ppb)	Notes
S-1	12/18/92	9.06	---	41,000	3,100	1,100	1,200	8,700	---	9,400	---	a
38.31	05/26/93	---	---	39,000	1,300	4,700	1,500	7,800	6,000	370	---	
	05/28/93	12.13	26.18	---	---	---	---	---	---	---	---	
	06/03/93	8.89	29.42	---	---	---	---	---	---	---	---	
	06/08/93	8.80	29.51	---	---	---	---	---	---	---	---	
	09/21/93	10.40	27.91	34,000	480	5,000	3,800	18,000	5,900	ND	---	
	12/14/93	9.66	28.65	25,000	1,100	5,000	2,200	11,000	13,000	ND	---	
	03/17/94	8.20	30.11	57,000	1,300	5,400	2,100	11,000	1,600	2,300	---	
	06/16/94	9.41	28.90	57,000	1,600	6,000	2,000	13,000	3,000	210	---	
	09/22/94	11.13	27.18	39,000	1,300	2,100	1,500	7,100	ND	ND	---	
	12/15/94	7.15	31.16	30,000	1,100	4,700	1,600	10,000	3,100	ND	---	b
	03/30/95	6.09	32.22	30,000	1,400	4,000	1,500	11,000	3,100	ND	---	b, c
	06/20/95	7.30	31.01	28,000	1,100	2,300	1,100	8,300	2,100	NC	---	
	09/20/95	10.02	28.29	40,000	840	3,600	1,300	8,600	2,600	NC	---	
	12/06/95	11.64	26.67	38,000	920	3,200	1,500	9,400	6,400	ND	---	b
	03/21/96	6.87	31.44	48,000	700	4,200	1,100	8,600	---	---	---	
	09/06/96	10.50	27.81	41,000	830	2,600	2,100	12,000	4,100	<1,000	<250	
	12/19/96	8.24	30.07	40,000	540	3,100	1,900	9,800	2,500	<500	920	
	03/17/97	7.26	31.05	42,000	610	2,700	1,700	11,000	4,700	<1,000	3,500	
	06/11/97	10.69	27.62	28,000	540	960	1,300	5,300	4,000	<1,000	220	
	06/11/97	10.69	27.62	30,000	580	1,000	1,400	5,400	3,900	<1,000	<125	duplicate
S-2	05/28/93	9.51	29.28	---	---	---	---	---	---	---	---	
38.79	06/03/93	9.51	29.28	---	---	---	---	---	---	---	---	
	06/08/93	9.57	29.22	---	---	---	---	---	---	---	---	
	06/29/93	---	---	1,300	290	35	38	130	---	---	---	
	09/21/93	10.54	28.25	3,300	870	24	190	120	---	---	---	
	12/14/93	9.76	29.03	1,300	400	16	36	27	---	---	---	
	03/17/94	9.92	28.87	4,500	610	27	92	110	---	---	---	
	03/17/94	9.92	28.87	4,000	610	26	93	120	---	---	---	duplicate
	06/16/94	10.11	28.68	2,800	690	45	97	140	---	---	---	
	09/22/94	10.51	28.28	4,000	630	94	64	230	---	---	---	

Table 1. Ground Water Elevation and Analytic Data - Shell Service Station #204-5508-3400, 4411 Foothill Boulevard, Oakland, California

Well ID and Elevation (ft-msl)	Date	Depth to Water (feet)	Ground Water Elevation (ft-msl)	TPHg (8015) (ppb)	Benzene (8020) (ppb)	Toluene (8020) (ppb)	Ethylbenzene (8020) (ppb)	Xylenes (8020) (ppb)	TPHd (8015) (ppb)	TPHmo (8015) (ppb)	MTBE (8020) (ppb)	Notes
	12/15/94	9.12	29.67	1,600	450	300	67	130	---	---	---	
	03/30/95	7.86	30.93	8,200	2,800	190	240	700	---	---	---	c
	06/20/95	9.51	29.28	9,600	2,600	160	170	500	---	---	---	
	09/20/95	10.06	28.73	4,200	920	45	98	140	---	NC	---	
	12/06/95	10.52	28.27	ND	790	67	64	130	---	---	---	d
	03/21/96	8.60	30.19	3,700	850	45	96	170	---	---	---	
	09/06/96	10.50	28.29	2,400	500	33	39	84	---	---	490	
	12/19/96	9.40	29.39	1,200	330	15	24	31	---	---	430	
	03/17/97	9.82	28.97	4,100	780	42	110	120	---	---	2,200	
	06/11/97	**10.18**	**28.61**	**760**	**120**	**<5.0**	**7.0**	**7.6**	**---**	**---**	**900**	
S-3	05/28/93	8.45	28.88	---	---	---	---	---	---	---	---	
37.33	06/03/93	8.36	28.97	---	---	---	---	---	---	---	---	
	06/08/93	8.41	28.92	---	---	---	---	---	---	---	---	
	06/29/93	---	---	29,000	1,500	1,800	950	6,200	---	---	---	
	09/21/93	10.08	27.25	15,000	900	2,200	2,600	11,000	---	---	---	
	12/94/93	8.80	28.53	20,000	1,100	2,400	1,800	8,500	---	---	---	
	03/17/94	8.34	28.99	14,000	580	190	750	1,700	---	---	---	
	06/16/94	9.12	28.21	20,000	700	690	1,400	4,100	---	---	---	
	06/16/94	---	---	19,000	680	560	1,300	3,700	---	---	---	duplicate
	09/22/94	10.27	27.06	24,000	630	1,100	1,400	5,700	---	---	---	
	09/22/94	---	---	25,000	720	1,100	1,500	6,100	---	---	---	duplicate
	12/15/94	7.81	29.52	18,000	520	800	1,100	4,200	---	---	---	
	12/15/94	---	---	23,000	1,000	1,900	2,000	8,600	---	---	---	duplicate
	03/30/95	7.06	30.27	8,800	360	730	700	3,700	---	---	---	c
	03/30/95	---	---	7,600	330	570	600	2,600	---	---	---	e, duplicate
	06/20/95	8.15	29.18	9,600	510	170	960	1,700	---	---	---	
	06/20/95	---	---	9,800	500	170	950	1,700	---	---	---	duplicate
	09/20/95	9.32	28.01	21,000	400	560	1,300	4,600	---	---	---	
	12/06/95	10.53	26.80	24,000	630	1,400	1,400	6,000	---	---	---	
	12/06/95	---	---	22,000	630	1,200	1,400	5,500	---	---	---	duplicate
	03/21/96	7.32	30.01	9,100	290	110	490	1,600	---	---	---	

Table 1. Ground Water Elevation and Analytic Data - Shell Service Station #204-5508-3400, 4411 Foothill Boulevard, Oakland, California

Well ID and Elevation (ft-msl)	Date	Depth to Water (feet)	Ground Water Elevation (ft-msl)	TPHg (8015) (ppb)	Benzene (8020) (ppb)	Toluene (8020) (ppb)	Ethylbenzene (8020) (ppb)	Xylenes (8020) (ppb)	TPHd (8015) (ppb)	TPHmo (8015) (ppb)	MTBE (8020) (ppb)	Notes
	03/21/96	---	---	11,000	310	250	540	2,100	---	---	---	duplicate
	09/06/96	10.10	27.23	15,000	440	300	1,100	3,000	---	---	500	e
	09/06/96	---	---	11,000	490	170	820	1,500	---	---	700	e, duplicate
	12/19/96	8.36	28.97	12,000	600	380	850	2,500	---	---	380	
	12/19/96	8.36	28.97	12,000	590	380	830	2,500	---	---	540	duplicate
	03/17/97	8.57	28.76	12,000	520	140	740	1,400	---	---	320	
	03/17/97	8.57	28.76	9,600	500	100	680	1,100	---	---	<250	duplicate
	06/11/97	**9.26**	**28.07**	**9,600**	**510**	**94**	**740**	**1,100**	**---**	**---**	**410**	

Abbreviations:

ft-msl = Feet above mean sea level
MTBE = Methyl tert-butyl ether.
TPHg = Total petroleum hydrocarbons as gasoline
TPHd = Total petroleum hydrocarbons as diesel
TPHmo = Total petroleum hydrocarbons as motor oil
ppb = Parts per billion
--- = Not measured and/or analyzed
ND = Not detected
NC = Not calculated, TPHmo included with TPHd analysis.
8015 = Modified EPA Method 8015
8020 = EPA Method 8020
8260 = EPA Method 8260

Notes:

a = Phenolic and naphthalene compounds detected in Sample S-1 by EPA Method 8270
b = Laboratory noted that concentration appears to be a lighter hydrocarbon than diesel.
c = National Environmental Testing, Inc. (NET), analyzed within hold time but further dilutions were required and analyzed out of hold time. NET suggests that these should be considered minimum concentrations.
d = Sample result is ND at a laboratory reporting limit of 5,000 ppb.
e = MTBE not detected on EPA Method 8260 confirmation analysis, therefore, MTBE may not be in ground water.

ATTACHMENT A

Blaine Tech Ground Water Monitoring Report

BLAINE
TECH SERVICES inc.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112
(408) 573-7771 FAX
(408) 573-0555 PHONE

June 30, 1997

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

Attn: Alex Perez

Shell WIC #204-5508-3400
4411 Foothill Blvd.
Oakland, California

2nd Quarter 1997

Quarterly Groundwater Monitoring Report 970611-S-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) 573-0555 ext. 201.

Yours truly,

Francis Thie

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

cc: Cambria Environmental Technology, Inc.
1144 65th Street, Suite C
Oakland, CA 94608
Attn: Josh Bergstrom

(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 *	6/11/97	TOB	ODOR	–	--	–	10.69	24.42
S-2	6/11/97	TOB	ODOR	–	–	–	10.18	22.37
S-3	6/11/97	TOB	ODOR	–	--	–	9.26	20.45

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

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 Tech Services
1680 Rogers Avenue
San Jose, CA 95112
Attention: Fran Thie

Project: Shell Oakland/970611-S2

Enclosed are the results from samples received at Sequoia Analytical on June 12, 1997. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9706725 -01	LIQUID, S-1	06/11/97	TPGBMW Purgeable TPH/BTEX
9706725 -01	LIQUID, S-1	06/11/97	TPHD_W Extractable TPH
9706725 -01	LIQUID, S-1	06/11/97	TPHMOW Fuel Fingerprint/Mo
9706725 -02	LIQUID, S-2	06/11/97	TPGBMW Purgeable TPH/BTEX
9706725 -03	LIQUID, S-3	06/11/97	TPGBMW Purgeable TPH/BTEX
9706725 -04	LIQUID, EB	06/11/97	TPGBMW Purgeable TPH/BTEX
9706725 -05	LIQUID, DUP	06/11/97	TPGBMW Purgeable TPH/BTEX
9706725 -05	LIQUID, DUP	06/11/97	TPHD_W Extractable TPH
9706725 -05	LIQUID, DUP	06/11/97	TPHMOW Fuel Fingerprint/Mo

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

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970611-S2	Sampled: 06/11/97
1680 Rogers Avenue	Sample Descript: S-1	Received: 06/12/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/16/97
Attention: Fran Thie	Lab Number: 9706725-01	Reported: 06/24/97

QC Batch Number: GC061697BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**2500**	**28000**
Methyl t-Butyl Ether	**125**	**220**
Benzene	**25**	**540**
Toluene	**25**	**960**
Ethyl Benzene	**25**	**1300**
Xylenes (Total)	**25**	**5300**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	112

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

Blaine Tech Services	Client Proj. ID: Shell Oakland/970611-S2	Sampled: 06/11/97
1680 Rogers Avenue	Sample Descript: S-1	Received: 06/12/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 06/18/97
	Analysis Method: EPA 8015 Mod	Analyzed: 06/22/97
Attention: Fran Thie	Lab Number: 9706725-01	Reported: 06/24/97

QC Batch Number: GC0618970HBPEXZ
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**100**	**4000**
Chromatogram Pattern:		
Unidentified HC		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	94

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 Tech Services	Client Proj. ID: Shell Oakland/970611-S2	Sampled: 06/11/97
1680 Rogers Avenue	Sample Descript: S-1	Received: 06/12/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 06/18/97
	Analysis Method: EPA 8015 Mod	Analyzed: 06/22/97
Attention: Fran Thie	Lab Number: 9706725-01	Reported: 06/24/97

QC Batch Number: GC0618970HBPEXZ
Instrument ID: GCHP5B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	1000	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	94

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	Client Proj. ID: Shell Oakland/970611-S2	Sampled: 06/11/97
1680 Rogers Avenue	Sample Descript: S-2	Received: 06/12/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/16/97
Attention: Fran Thie	Lab Number: 9706725-02	Reported: 06/24/97

QC Batch Number: GC061697BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**760**
Methyl t-Butyl Ether	**25**	**900**
Benzene	**5.0**	**120**
Toluene	5.0	N.D.
Ethyl Benzene	**5.0**	**7.0**
Xylenes (Total)	**5.0**	**7.6**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	119

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	Client Proj. ID: Shell Oakland/970611-S2	Sampled: 06/11/97
1680 Rogers Avenue	Sample Descript: S-3	Received: 06/12/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/17/97
Attention: Fran Thie	Lab Number: 9706725-03	Reported: 06/24/97

QC Batch Number: GC061797BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	9600
Methyl t-Butyl Ether	50	410
Benzene	10	510
Toluene	10	94
Ethyl Benzene	10	740
Xylenes (Total)	10	1100
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	137 Q

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	Client Proj. ID: Shell Oakland/970611-S2	Sampled: 06/11/97
1680 Rogers Avenue	Sample Descript: EB	Received: 06/12/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/16/97
Attention: Fran Thie	Lab Number: 9706725-04	Reported: 06/24/97

QC Batch Number: GC061697BTEX22A
Instrument ID: GCHP22

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	101

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

SEQUOIA ANALYTICAL - ELAP #1210

Sheila B for

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 Tech Services	Client Proj. ID: Shell Oakland/970611-S2	Sampled: 06/11/97
1680 Rogers Avenue	Sample Descript: DUP	Received: 06/12/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/17/97
Attention: Fran Thie	Lab Number: 9706725-05	Reported: 06/24/97

QC Batch Number: GC061797BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**2500**	**30000**
Methyl t-Butyl Ether	125	N.D.
Benzene	**25**	**580**
Toluene	**25**	**1000**
Ethyl Benzene	**25**	**1400**
Xylenes (Total)	**25**	**5400**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	103

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970611-S2	Sampled: 06/11/97
1680 Rogers Avenue	Sample Descript: DUP	Received: 06/12/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 06/18/97
	Analysis Method: EPA 8015 Mod	Analyzed: 06/22/97
Attention: Fran Thie	Lab Number: 9706725-05	Reported: 06/24/97

QC Batch Number: GC0618970HBPEXZ
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**100**	**3900**
Chromatogram Pattern:		
Unidentified HC		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	93

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970611-S2	Sampled: 06/11/97
1680 Rogers Avenue	Sample Descript: DUP	Received: 06/12/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 06/18/97
	Analysis Method: EPA 8015 Mod	Analyzed: 06/22/97
Attention: Fran Thie	Lab Number: 9706725-05	Reported: 06/24/97

QC Batch Number: GC0618970HBPEXZ
Instrument ID: GCHP5B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	1000	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	93

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

SEQUOIA ANALYTICAL - ELAP #1210

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Blaine Tech Services, Inc.	Client Project ID:	Shell Oakland / 970611-S2	
1680 Rogers Avenue	Matrix:	Liquid	
San Jose, CA 95112			
Attention: Fran Thie	Work Order #:	9706725 -01, 02, 04	Reported: Jun 26, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC061697BTEX22A	GC061697BTEX22A	GC061697BTEX22A	GC061697BTEX22A	GC061697BTEX22A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970658501	970658501	970658501	970658501	970658501
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/16/97	6/16/97	6/16/97	6/16/97	6/16/97
Analyzed Date:	6/16/97	6/16/97	6/16/97	6/16/97	6/16/97
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.2	9.6	10	34	58
MS % Recovery:	82	96	100	113	97
Dup. Result:	8.4	10	11	35	60
MSD % Recov.:	84	100	110	117	100
RPD:	2.4	4.1	9.5	2.9	3.4
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK061697	BLK061697	BLK061697	BLK061697	BLK061697
Prepared Date:	6/16/97	6/16/97	6/16/97	6/16/97	6/16/97
Analyzed Date:	6/16/97	6/16/97	6/16/97	6/16/97	6/16/97
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.5	9.8	11	35	60
LCS % Recov.:	85	98	110	117	100
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
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 aliquot 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

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Blaine Tech Services, Inc.	Client Project ID:	Shell Oakland / 970611-S2	
1680 Rogers Avenue	Matrix:	Liquid	
San Jose, CA 95112			
Attention: Fran Thie	Work Order #:	9706725-03, 05	Reported: Jun 26, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC061797BTEX22A	GC061797BTEX22A	GC061797BTEX22A	GC061797BTEX22A	GC061797BTEX22A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970663303	970663303	970663303	970663303	970663303
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/17/97	6/17/97	6/17/97	6/17/97	6/17/97
Analyzed Date:	6/17/97	6/17/97	6/17/97	6/17/97	6/17/97
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	10	10	10	33	61
MS % Recovery:	100	100	100	110	102
Dup. Result:	10	10	10	33	60
MSD % Recov.:	100	100	100	110	100
RPD:	0.0	0.0	0.0	0.0	1.7
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK061797	BLK061797	BLK061797	BLK061797	BLK061797
Prepared Date:	6/17/97	6/17/97	6/17/97	6/17/97	6/17/97
Analyzed Date:	6/17/97	6/17/97	6/17/97	6/17/97	6/17/97
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	10	10	10	33	61
LCS % Recov.:	100	100	100	110	102
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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Blaine Tech Services, Inc.	Client Project ID:	Shell Oakland / 970611-S2	
1680 Rogers Avenue	Matrix:	Liquid	
San Jose, CA 95112			
Attention: Fran Thie	Work Order #:	9706725-01, 05	Reported: Jun 26, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0618970HBPEXZ
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3520
Analyst:	B. Sullivan
MS/MSD #:	970679606
Sample Conc.:	70
Prepared Date:	6/18/97
Analyzed Date:	6/20/97
Instrument I.D.#:	GCHP19
Conc. Spiked:	1000 µg/L
Result:	800
MS % Recovery:	73
Dup. Result:	450
MSD % Recov.:	38
RPD:	56
RPD Limit:	0-50

LCS #:	BLK062097
Prepared Date:	6/18/97
Analyzed Date:	6/20/97
Instrument I.D.#:	GCHP19
Conc. Spiked:	1000 µg/L
LCS Result:	750
LCS % Recov.:	75

MS/MSD	50-150
LCS	60-140
Control Limits	

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970611-S2	Received: 06/12/97
1680 Rogers Avenue		
San Jose, CA 95112	Lab Proj. ID: 9706725	Reported: 06/24/97
Attention: Fran Thie		

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 15 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

9706725

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 970611-52

Date:
Page 1 of 1

Site Address: 4411 Foothill Blvd., Oakland, CA

WIC#: 204-5508-3400

Shell Engineer: Alex Perez — Phone No.: (510) 675-6168 Fax #: 675-6172

Consultant Name & Address: Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112

Consultant Contact: Fran Thie — Phone No.: (408) 573-0555 Fax #: 573-7771

Comments:

Sampled by:

Printed Name: DOUG SANDERS

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring [X]	4461	24 hours [ ]
Site Investigation [ ]	4441	48 hours [ ]
Soil Classify/Disposal [ ]	4442	15 days [X] (Normal)
Water Classify/Disposal [ ]	4443	Other [ ]
Soil/Air Rem. or Sys. O & M [ ]	4452	NOTE: Notify Lab as soon as Possible of 24/48 hr. TAT.
Water Rem. or Sys. O & M [ ]	4453	
Other [ ]		

UST AGENCY:

	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 Motor Oil	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
1	S-1	6/11/97			X		5		X				X X						
2	S-2				X		3						X						
3	S-3				X		3						X						
4	EB				X		3						X						
5	DUP				X		5		X				X X						

Relinquished By (signature):	Printed Name: DOUG SANDERS	Date: 6/12/97 Time: 9:05	Received (signature):	Printed Name: Fletcher	Date: 6/12/97 Time: 9:05
Relinquished By (signature):	Printed Name:	Date: 6/12/97 Time:	Received (signature):	Printed Name:	Date: Time:
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature): LDCardenas	Printed Name: LDCardenas	Date: 6-12-97 Time: 1359

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

Rev 12/1/91

Shell Chain of Custody