enviros®

August 15, 1997

Mr. Alex Perez
Shell Oil Products Company
P.O. Box 4023
Concord, California 94524

RE: **Quarterly Monitoring Report - Second Quarter 1997**
Former Shell Service Station
2101 Park Boulevard
Oakland, California
WIC #204-5508-1206

Dear Mr. Perez:

This Quarterly Monitoring Report describes the recently completed activities associated with ground water monitoring and sampling at the referenced site (Plates 1 and 2). This report was prepared to meet quarterly reporting guidelines issued by the Regional Water Quality Control Board, San Francisco Bay Region and the Alameda County Health Care Services Agency (ACHCSA).

Quarterly Monitoring & Sampling Summary

Ground water monitoring and sampling for the second quarter of 1997 are summarized below:

- Blaine Tech Services Inc. (Blaine), of San Jose, California measured ground water levels and collected ground water samples from Wells S-1, S-2, and S-3 on June 26, 1997. The samples were transported to Sequoia Analytical of Redwood City, California for chemical analysis.

- Ground water level measurement data were evaluated and used to prepare a ground water contour map (Plate 2). The ground water flow direction appears to be southerly at an approximate hydraulic gradient of 0.036.

- The ground water samples from Well S-1 contained 99 ppb TEPH. Wells S-2 and S-3 contained benzene concentrations of 1.5 ppb and 1,100 ppb, respectively. Well S-3 contained 150 ppb MTBE.

Quarterly Sampling

Monitoring Wells S-1, S-2, and S-3 were sampled and analyzed for Total Purgeable Petroleum Hydrocarbons quantitated as gasoline (TPPH) according to EPA Method 8015 (Modified) and benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl-tertiary-butyl-ether (MTBE) according to EPA Method 8020. Monitoring Well S-1 was also analyzed for Total Extractable Petroleum Hydrocarbons quantitated as diesel (TEPH)

according to EPA Method 8015 (Modified). Additionally, an equipment blank and a duplicate sample were prepared and analyzed for quality control purposes.

Field monitoring data and chemical analytical data have been included in Table 1. A ground water contour/benzene concentration map is presented as Plate 2. Blaine's quarterly ground water monitoring report is presented in Appendix A.

Quarterly monitoring, sampling, and reporting will continue on the established schedule for the next quarter.

If you have any questions regarding the contents of this document, please call.

Sincerely,

Enviros, Inc.

Matthew E. Donohue
Project Engineer

Diane M. Lundquist, P.E.
Senior Engineer
C46725

Attachments

Table 1. Well Concentrations

Plate 1. Vicinity Map
Plate 2. Ground Water Contour/Benzene Concentration Map

Appendix A

Blaine Tech Services Inc. - Quarterly Ground Water Monitoring Report

cc: Mr. Barney Chan, Alameda County Health Care Services Agency
Mr. Frank J. Schlessinger, Schlessinger & Associates
Mr. Steve Makara. Goodyear Tire & Rubber Company

TABLE 1

WELL CONCENTRATIONS
Shell Oil Products Company
2101 Park Boulevard
Oakland, California
WIC #204-5508-1206

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	O & G by 5520 B (ug/L)	O & G by 5520 B/F (ug/L)	Comments
S-1	**Top casing elevation (ft):**			**11.93**									
20-Jun-95	4.67	7.26	0.00	160	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	
12-Sep-95	4.19	7.74	0.00	<50	250	3.0	<0.5	<0.5	<0.5	NA	<5000	<5000	
28-Dec-95	5.30	6.63	0.00	70	160	1.1	<0.5	<0.5	1.3	NA	<5000	<5000	
25-Mar-96	3.44	8.49	0.00	70	220	<0.5	<0.5	<0.5	<0.5	<2.0	NA	NA	
27-Jun-96	3 15	8.78	0.00	<50	140	0.59	<0.50	<0.50	<0.50	<2.5	NA	NA	
26-Sep-96	3.90	8.03	0.00	<50	190	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	
10-Dec-96	2.46	9 47	0.00	<50	84	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	
10-Mar-97	2.93	9.00	0.00	<50	200	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	
26-Jun-97	3.91	8.02	0.00	<50	99	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	
S-2	**Top casing elevation (ft):**			**12.06**									
20-Jun-95	5 80	6.26	0.00	180	NA	1.1	<0.5	<0.5	0.6	NA	NA	NA	
12-Sep-95	5.78	6.28	0.00	190	NA	18	<0.5	1.2	0.6	NA	NA	NA	
28-Dec-95	4 02	8 04	0.00	200	NA	11	1.0	1.0	4.0	NA	NA	NA	
25-Mar-96	5.56	6.50	0.00	180	NA	12	0.8	1.4	1.0	<2.0	NA	NA	
27-Jun-96	6.00	6.06	0.00	150	NA	7.7	0.79	0.93	0.5	<2.5	NA	NA	
26-Sep-96	5 73	6.33	0.00	83	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	
10-Dec-96	4.57	7.49	0.00	78	NA	1.4	<0.50	0.57	<0.50	<2.5	NA	NA	
10-Mar-97	5.38	6.68	0.00	61	NA	1.6	<0.50	<0.50	<0.50	<2.5	NA	NA	
26-Jun-97	5.68	6.38	0.00	90	NA	1.5	<0.50	<0.50	<0.50	<2.5	NA	NA	
S-2 (DUP)													
10-Mar-97	NA	NA	NA	77	NA	2.0	<0.50	0.69	<0.50	<2.5	NA	NA	

TABLE 1

WELL CONCENTRATIONS
Shell Oil Products Company
2101 Park Boulevard
Oakland, California
WIC #204-5508-1206

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	O & G by 5520 B (ug/L)	O & G by 5520 B/F (ug/L)	Comments
S-3	**Top casing elevation (ft):**			**13.54**									
20-Jun-95	4.90	8.64	0.00	5500	NA	240	34	120	840	NA	NA	NA	
12-Sep-95	5 37	8.17	0.00	5200	NA	690	14	290	280	NA	NA	NA	
28-Dec-95	3.90	9.64	0.00	13000	NA	670	34	960	1400	NA	NA	NA	
25-Mar-96	4.30	9.24	0.00	7300	NA	560	65	540	820	<200	NA	NA	
27-Jun-96	5.00	8.54	0.00	17000	NA	1100	83	1200	2700	<250	NA	NA	
26-Sep-96	5 23	8.31	0.00	8900	NA	920	43	400	1100	<125	NA	NA	
10-Dec-96	3.88	9.66	0.00	6100	NA	470	25	290	640	<100	NA	NA	
10-Mar-97	4.10	9.44	0.00	7000	NA	720	29	340	620	110	NA	NA	
26-Jun-97	5.23	8.31	0.00	11000	NA	1100	63	470	1300	150	NA	NA	
S-3 (DUP)													
20-Jun-95	NA	NA	NA	6300	NA	270	37	120	1100	NA	NA	NA	
12-Sep-95	NA	NA	NA	4700	NA	620	13	260	240	NA	NA	NA	
28-Dec-95	NA	NA	NA	13000	NA	800	34	1000	1600	NA	NA	NA	
25-Mar-96	NA	NA	NA	7400	NA	580	19	620	670	<20	NA	NA	
27-Jun-96	NA	NA	NA	1903	NA	13	1.0	14	34	7.2	NA	NA	
26-Sep-96	NA	NA	NA	9800	NA	960	41	450	1300	120	NA	NA	MTBE by 8260: <16 ppb (a)
10-Dec-96	NA	NA	NA	7700	NA	550	33	380	880	120	NA	NA	
26-Jun-97	NA	NA	NA	12000	NA	1100	62	480	1400	<100	NA	NA	

Abbreviations:

TPPH = Total Purgeable Petroleum Hydrocarbons carbon range C6 to C12 by EPA Method 8015 (Modified)
(previously reported as Total Petroleum Hydrocarbons as Gasoline)

TEPH = Total Extractable Petroleum Hydrocarbons carbon range C9 to C24 by EPA Method 8015 (Modified)
(previously reported as Total Petroleum Hydrocarbons as Diesel)

TABLE 1

WELL CONCENTRATIONS
Shell Oil Products Company
2101 Park Boulevard
Oakland, California
WIC #204-5508-1206

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	O & G by 5520 B (ug/L)	O & G by 5520 B/F (ug/L)	Comments

O&G = Oil and Grease
BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8020
MTBE = methyl-tertiary-butyl ether by EPA Method 8020
NA = Not analyzed or not available
<x = Not detected at detection limit of x
(DUP) = Duplicate sample

Note:
(a) = The MTBE was analyzed by EPA method 8260 one day past hold time. The MTBE value did not confirm therefore, all MTBE results at this site should be considered estimated.
All wells surveyed to Mean Sea Level

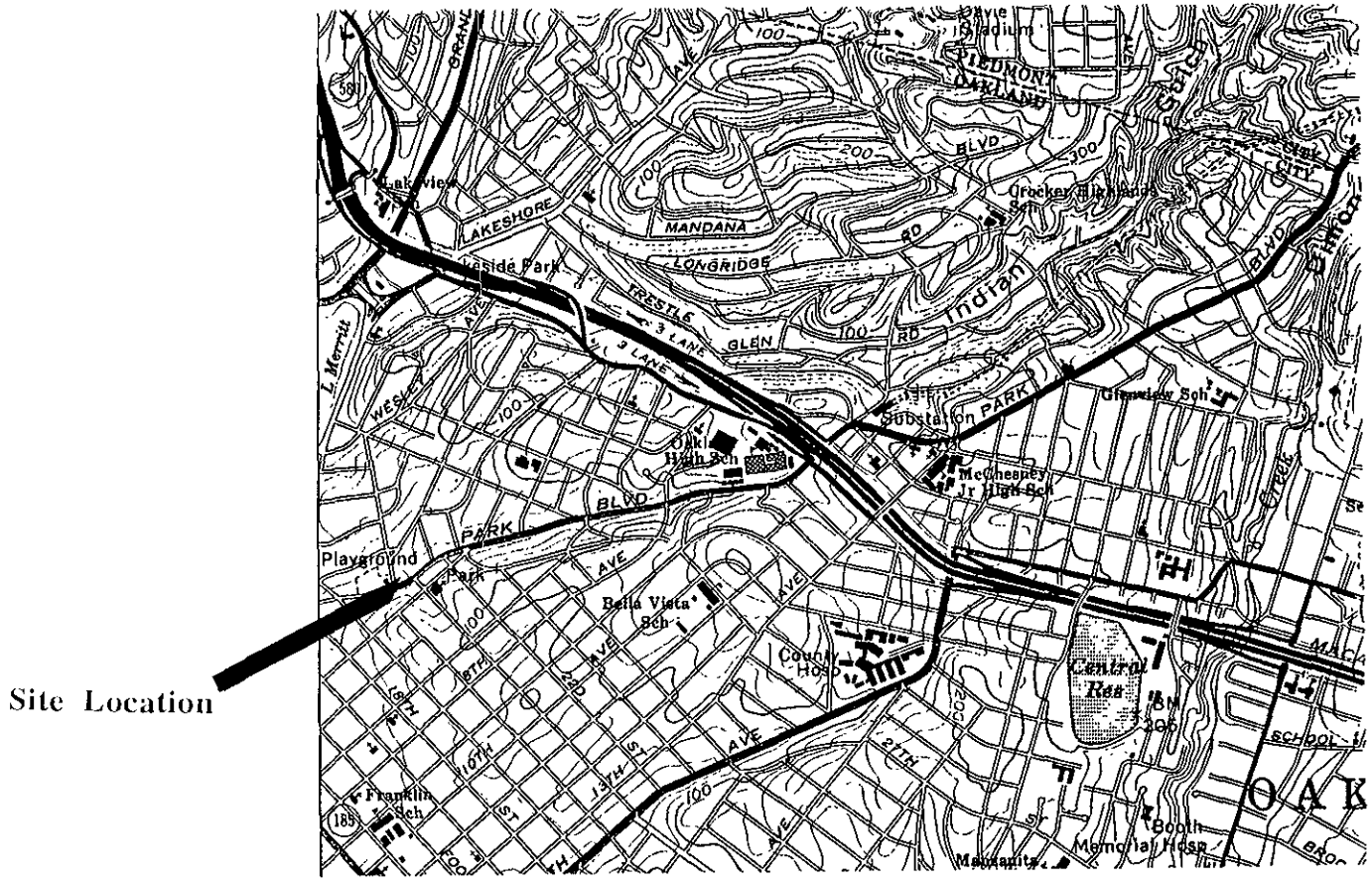

PLATE
1

VICINITY MAP
Former Shell Service Station
2101 Park Boulevard
Oakland, California

enviros®
E4/95267.01

Drawn By: GLV

Date: 2-24-95

Approved By: _____ Date: 8.15.97

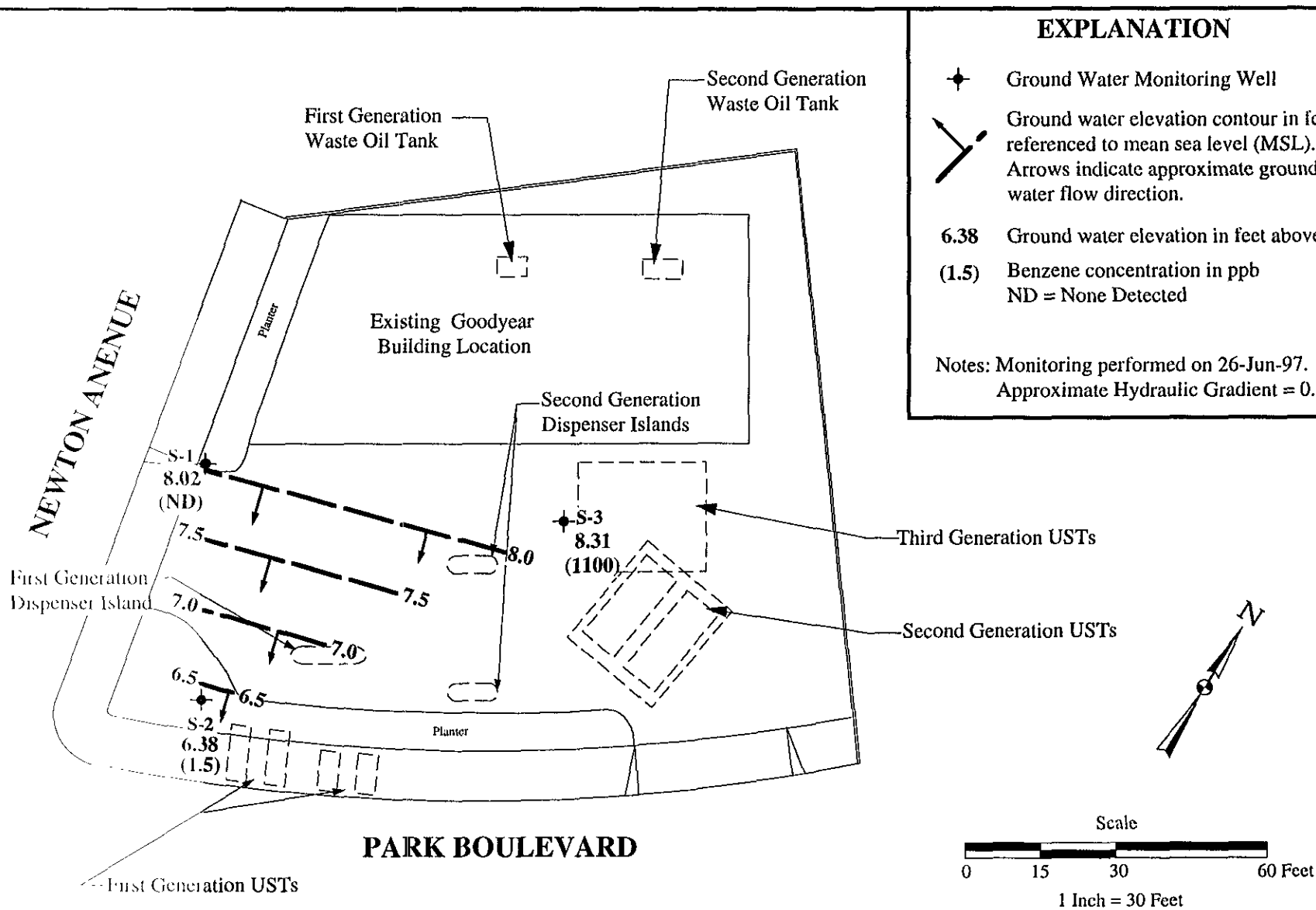

PLATE
2

GROUND WATER CONTOUR/BENZENE CONCENTRATION MAP
Former Shell Service Station
2101 Park Boulevard
Oakland, California

enviros ®
97267

Drawn By: MED
Date: 11-Aug-97
Approved By: mh
Date: 8-15-97

Appendix A

Blaine Tech Services Inc.
Quarterly Ground Water Monitoring Report

BLAINE
TECH SERVICES, INC.

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

July 18, 1997

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

Attn: Alex Perez

Shell WIC #204-5508-1206
2101 Park Blvd.
Oakland, California

2nd Quarter 1997

Quarterly Groundwater Monitoring Report 970626-F-3

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,

Jerine Kevin for

Francis Thie

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

cc: Enviros, Inc.
P.O. Box 259
Sonoma, CA 95476-0259
Attn: Joe Neely

(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	06/26/97	TOC	--	NONE	--	--	3.91	16.91
S-2	06/26/97	TOC	--	NONE	--	--	5.68	17.34
S-3*	06/26/97	TOC	ODOR	NONE	--	--	5.23	16.88

* Sample DUP was a duplicate sample taken from well S-3.

9706F72

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 970626-E3

Date: 6/26/97
Page 1 of 1

Site Address: 2101 Park Blvd., Oakland, CA

WIC#: 204-5508-1206

Shell Engineer: Alex Perez — Phone No.: (510) 675-6160 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: TG

Printed Name: Tim Grebe

LAB: Sequoia

CHECK ONE (1) BOX ONLY		CT/DT
G.W. Monitoring	XX	4461
Site Investigation		4441
Soil Classify/Disposal		4442
Water Classify/Disposal		4443
Soil/Air Rem. or Sys. O & M		4452
Water Rem. or Sys. O & M		4453
Other		

TURN AROUND TIME: 24 hours ☐ 48 hours ☐ 15 days XX (Normal) Other ☐ ____

NOTE: Notify Lab as soon as possible of 24/48 hrs. TAT.

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		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION / COMMENTS
S-1	6/26			W		5		X				X	X							
S-2	"			"		3						X	X							
S-3	"			"		3						X	X							
EB	"			"		3						X	X							
DUP	6/26			W		3						X	X							

Relinquished By (signature):	Printed Name: Tim Grebe	Date: 6/27/97 Time: 1245	Received (signature):	Printed Name: Fulcher	Date: 6/27/97 Time: 1245
Relinquished By (signature):	Printed Name:	Date: 6/27/97 Time:	Received (signature):	Printed Name:	Date: Time:
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature):	Printed Name: R. Herring	Date: 6/27/97 Time: 1613

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

Shell Oil Co. Chain of Custody

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/970626-F3

Enclosed are the results from samples received at Sequoia Analytical on June 27, 1997. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9706F72 -01	LIQUID, S-1	06/26/97	TPGBMW Purgeable TPH/BTEX
9706F72 -01	LIQUID, S-1	06/26/97	TPHD_W Extractable TPH
9706F72 -02	LIQUID, S-2	06/26/97	TPGBMW Purgeable TPH/BTEX
9706F72 -03	LIQUID, S-3	06/26/97	TPGBMW Purgeable TPH/BTEX
9706F72 -04	LIQUID, EB	06/26/97	TPGBMW Purgeable TPH/BTEX
9706F72 -05	LIQUID, DUP	06/26/97	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 Tech Services	Client Proj. ID: Shell Oakland/970626-F3	Sampled: 06/26/97
1680 Rogers Avenue	Sample Descript: S-1	Received: 06/27/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/08/97
Attention: Fran Thie	Lab Number: 9706F72-01	Reported: 07/14/97

QC Batch Number: GC070897BTEX21A
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	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/970626-F3	Sampled: 06/26/97
1680 Rogers Avenue	Sample Descript: S-1	Received: 06/27/97
San Jose, CA 95112	Matrix: LIQUID	Extracted: 07/07/97
	Analysis Method: EPA 8015 Mod	Analyzed: 07/09/97
Attention: Fran Thie	Lab Number: 9706F72-01	Reported: 07/14/97

QC Batch Number: GC0707970HBPEXZ
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	99
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	114

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/970626-F3	Sampled: 06/26/97
1680 Rogers Avenue	Sample Descript: S-2	Received: 06/27/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/10/97
Attention: Fran Thie	Lab Number: 9706F72-02	Reported: 07/14/97

QC Batch Number: GC071097BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**90**
Methyl t-Butyl Ether	2.5	N.D.
Benzene	**0.50**	**1.5**
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	96

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/970626-F3	Sampled: 06/26/97
1680 Rogers Avenue	Sample Descript: S-3	Received: 06/27/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/08/97
Attention: Fran Thie	Lab Number: 9706F72-03	Reported: 07/14/97

QC Batch Number: GC070897BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2000	11000
Methyl t-Butyl Ether	100	150
Benzene	20	1100
Toluene	20	63
Ethyl Benzene	20	470
Xylenes (Total)	20	1300
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	102

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Perrier
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/970626-F3	Sampled: 06/26/97
1680 Rogers Avenue	Sample Descript: EB	Received: 06/27/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/08/97
Attention: Fran Thie	Lab Number: 9706F72-04	Reported: 07/14/97

QC Batch Number: GC070897BTEX21A
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	88

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/970626-F3	Sampled: 06/26/97
1680 Rogers Avenue	Sample Descript: DUP	Received: 06/27/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/08/97
Attention: Fran Thie	Lab Number: 9706F72-05	Reported: 07/14/97

QC Batch Number: GC070897BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**2000**	**12000**
Methyl t-Butyl Ether	100	N.D.
Benzene	**20**	**1100**
Toluene	**20**	**62**
Ethyl Benzene	**20**	**480**
Xylenes (Total)	**20**	**1400**
Chromatogram Pattern:		**C6-C12**

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

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, Inc.
1680 Rogers Avenue
San Jose, CA 95112
Attention: Fran Thie

Client Project ID: Shell Oakland/970626-F3
Matrix: Liquid
Work Order #: 9706F72 -01, -03-05
Reported: Jul 15, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC070897BTEX21A	GC070897BTEX21A	GC070897BTEX21A	GC070897BTEX21A	GC070897BTEX21A
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:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	9706G0609	9706G0609	9706G0609	9706G0609	9706G0609
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/8/97	7/8/97	7/8/97	7/8/97	7/8/97
Analyzed Date:	7/8/97	7/8/97	7/8/97	7/8/97	7/8/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.4	8.9	8.9	26	60
MS % Recovery:	84	89	89	87	100
Dup. Result:	8.5	8.8	8.8	26	58
MSD % Recov.:	85	88	88	87	97
RPD:	1.2	1.1	1.1	0.0	3.4
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK070897	BLK070897	BLK070897	BLK070897	BLK070897
Prepared Date:	7/8/97	7/8/97	7/8/97	7/8/97	7/8/97
Analyzed Date:	7/8/97	7/8/97	7/8/97	7/8/97	7/8/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.9	8.8	8.8	27	58
LCS % Recov.:	89	88	88	90	97
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.
1680 Rogers Avenue
San Jose, CA 95112
Attention: Fran Thie

Client Project ID: Shell Oakland/970626-F3
Matrix: Liquid
Work Order #: 9706F72-02
Reported: Jul 15, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC071097BTEX02A	GC071097BTEX02A	GC071097BTEX02A	GC071097BTEX02A	GC071097BTEX02A
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. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	9706G5502	9706G5502	9706G5502	9706G5502	9706G5502
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97
Analyzed Date:	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97
Instrument I.D.#:	GCHP02	GCHP02	GCHP02	GCHP02	GCHP02
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.9	9.5	9.7	29	60
MS % Recovery:	99	95	97	97	100
Dup. Result:	9.9	9.5	9.7	29	63
MSD % Recov.:	99	95	97	97	105
RPD:	0.0	0.0	0.0	0.0	4.9
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK071097	BLK071097	BLK071097	BLK071097	BLK071097
Prepared Date:	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97
Analyzed Date:	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97
Instrument I.D.#:	GCHP02	GCHP02	GCHP02	GCHP02	GCHP02
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.1	7.6	7.8	23	49
LCS % Recov.:	81	76	78	77	82
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

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Reggy Penner
Project Manager

Please Note
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Blaine Tech Services, Inc.	Client Project ID:	Shell Oakland/970626-F3	
1680 Rogers Avenue	Matrix:	Liquid	
San Jose, CA 95112			
Attention: Fran Thie	Work Order #:	9706F72-01	Reported: Jul 15, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0707970HBPEXZ
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3520
Analyst:	G. Fish
MS/MSD #:	9706F9804
Sample Conc.:	N.D.
Prepared Date:	7/7/97
Analyzed Date:	7/9/97
Instrument I.D.#:	GCHP4B
Conc. Spiked:	1000 µg/L
Result:	810
MS % Recovery:	81
Dup. Result:	950
MSD % Recov.:	95
RPD:	16
RPD Limit:	0-50

LCS #:	BLK070797
Prepared Date:	7/7/97
Analyzed Date:	7/7/97
Instrument I.D.#:	GCHP4B
Conc. Spiked:	1000 µg/L
LCS Result:	740
LCS % Recov.:	74

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

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Blaine Tech Services	Client Proj. ID: Shell Oakland/970626-F3	Received: 06/27/97
1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Lab Proj. ID: 9706F72	Reported: 07/14/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 17 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

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Peggy Penner
Project Manager