enviros®

February 28, 1997

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

RE: **Ground Water Monitoring Report - First Quarter 1997**
Former Shell Service Station
2703 Martin Luther King Jr. Way
Oakland, California
WIC #204-5508-1701

Dear Mr. Granberry:

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 Alameda County Health Care Services Agency.

Quarterly Monitoring & Sampling Summary

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

- Blaine Tech Services, Inc. (Blaine) measured water levels in Wells MW-1, MW-2, V-1, and V-2 and collected ground water samples from Wells MW-1, MW-2, and V-2 on January 8, 1997. Ground water samples were collected from V-1 on January 16, 1997. Ground water samples were transported to Sequoia Analytical (Sequoia) of Redwood City, California for laboratory analysis.

- Enviros, Inc. (Enviros) evaluated water-level measurement data and prepared a ground water contour/benzene concentration map (Plate 2). Ground water appears to flow toward the south at an approximate hydraulic gradient of 0.03.

- Wells MW-1 and MW-2 were ND for TPPH, benzene, and MTBE. Wells V-1 and V-2 contained 9,500 and 69,000 ppb TPPH and 1,200 and 4,800 ppb benzene, respectively. Well V-2 contained 750 ppb MTBE.

Quarterly Sampling

Monitoring Wells MW-1, MW-2, V-1, and V-2 were sampled and analyzed for Total Purgeable Petroleum Hydrocarbons quantitated as gasoline (TPPH) according to EPA Method 8015 (Modified), and benzene, toluene, ethylbenzene, and xylenes (BTEX) and

methyl-tertiary-butyl-ether (MTBE) according to EPA Method 8020. Additionally, a duplicate sample and an equipment blank were prepared and analyzed for quality control purposes.

Field monitoring and chemical analytical data have been included in Table 1. Blaine's quarterly ground water monitoring report is presented in Appendix A.

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

Sincerely,

Enviros, Inc.

Jeff Gaarder
Project Geologist

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

Attachments:

Table 1. Well Concentrations

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

Appendix A

Blaine Quarterly Ground Water Monitoring Report

cc: Ms. Jennifer Eberle, Alameda County Health Care Services Agency

TABLE 1

WELL CONCENTRATIONS
Shell Oil Products Company
2703 Martin Luther King Jr. Way
Oakland, California
WIC #204-5508-1701

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
MW-1 (B-11)		**Top casing elevation (ft): 23.53**								
02-Aug-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	
05-Aug-96	8.76	14.77	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	
17-Oct-96	9.88	13.65	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	
08-Jan-97	6.82	16.71	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	
MW-1 (DUP)										
05-Aug-96	NA	NA	NA	<50	<0.50	<0.50	<0.50	<0.50	<2.5	
MW-2 (B-12)		**Top casing elevation (ft): 22.47**								
17-Jul-96	NA	NA	NA	<50	<0.50	0.69	<0.50	<0.50	<2.5	Water sample from Boring
05-Aug-96	8.35	14.12	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	
17-Oct-96	9.32	13.15	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	
08-Jan-97	6.80	15.67	0.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	
MW-2 (DUP)		**Top casing elevation (ft): 22.47**								
17-Oct-96	NA	NA	NA	<50	<0.50	<0.50	<0.50	<0.50	<2.5	
08-Jan-97	NA	NA	NA	<50	<0.50	<0.50	<0.50	<0.50	<2.5	
B-10		**Top casing elevation (ft): NA**								
17-Jul-96	NA	NA	NA	20000	400	<100	<100	870	<500	Water sample from Boring
B-13		**Top casing elevation (ft): NA**								
17-Jul-96	NA	NA	NA	290000	34000	21000	9900	47000	<2500	Water sample from Boring

TABLE 1

WELL CONCENTRATIONS
Shell Oil Products Company
2703 Martin Luther King Jr. Way
Oakland, California
WIC #204-5508-1701

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	Comments
V-1		**Top casing elevation (ft): 23.26**								
02-Aug-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	
05-Aug-96	8.58	14.68	0.00	NA	NA	NA	NA	NA	NA	
17-Oct-96	10.02	13.24	0.00	NA	NA	NA	NA	NA	NA	
16-Jan-97	5.55	17.71	0.00	9500	1200	250	280	880	<50	
V-2		**Top casing elevation (ft): 22.80**								
02-Aug-96	NA	NA	NA	NA	NA	NA	NA	NA	NA	
05-Aug-96	7.94	14.86	0.00	NA	NA	NA	NA	NA	NA	
17-Oct-96	9.30	13.50	0.00	NA	NA	NA	NA	NA	NA	
08-Jan-97	5.82	16.98	0.00	69000	4800	2800	2700	13000	750	

Abbreviations:

TPPH = Total Purgeable Petroleum Hydrocarbons carbon range C6 to C12 by EPA Method 8015 modified

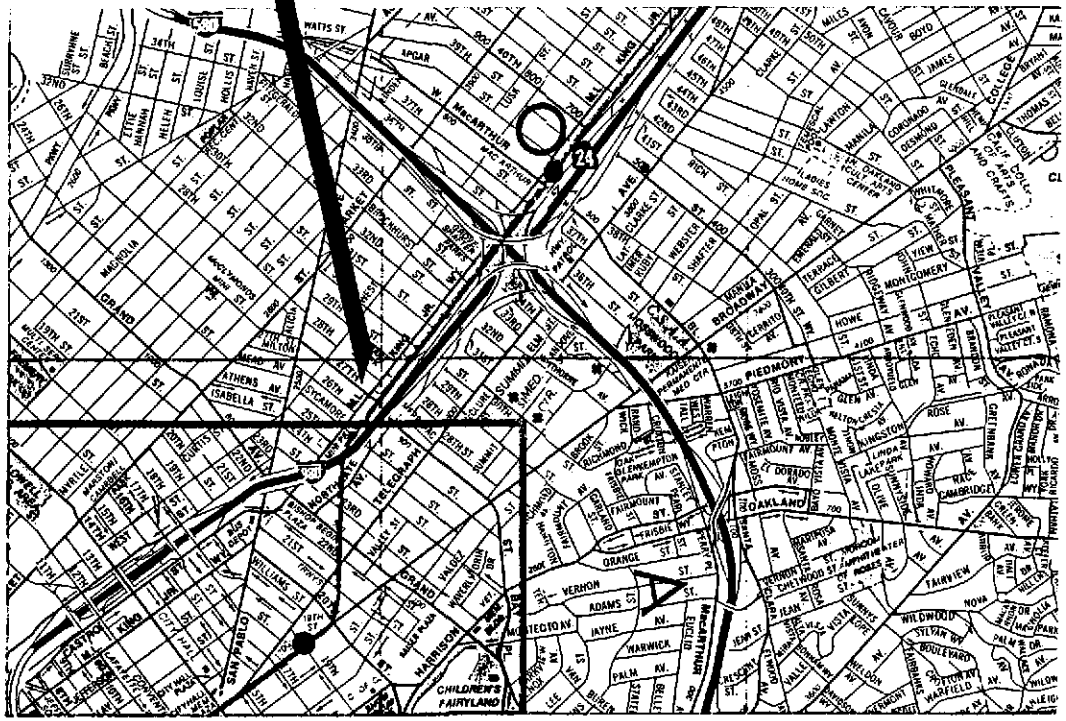
BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8020

MTBE = methyl-tertiary-butyl-ether by EPA Method 8020

NA = Not analyzed or not available

<x = Not detected at detection limit of x

Subject Site



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BASE MAP: CALIFORNIA STATE AUTOMOBILE ASSOCIATION

PLATE	VICINITY MAP	enviros®
1	Former Shell Service Station 2703 Martin Luther King Jr. Way Oakland, California	95324

Drawn By: DML	Date: 12-28-95	Approved By: JDH	Date: 2-26-97

EXPLANATION

- Exploratory Boring
- Soil Vapor Extraction Well
- Ground Water Monitoring Well
- Ground water elevation contours in feet referenced to mean sea level. Arrows indicate approximate ground water flow direction.
- **16.98** Ground water elevation in feet above mean sea level.
- **1200** Benzene concentration in ppb
- **ND** Not Detected

Notes: Monitoring performed 8-Jan-97.
Samples collected from V-1 on 16-Jan-97.
Approximate Hydraulic Gradient = 0.03.

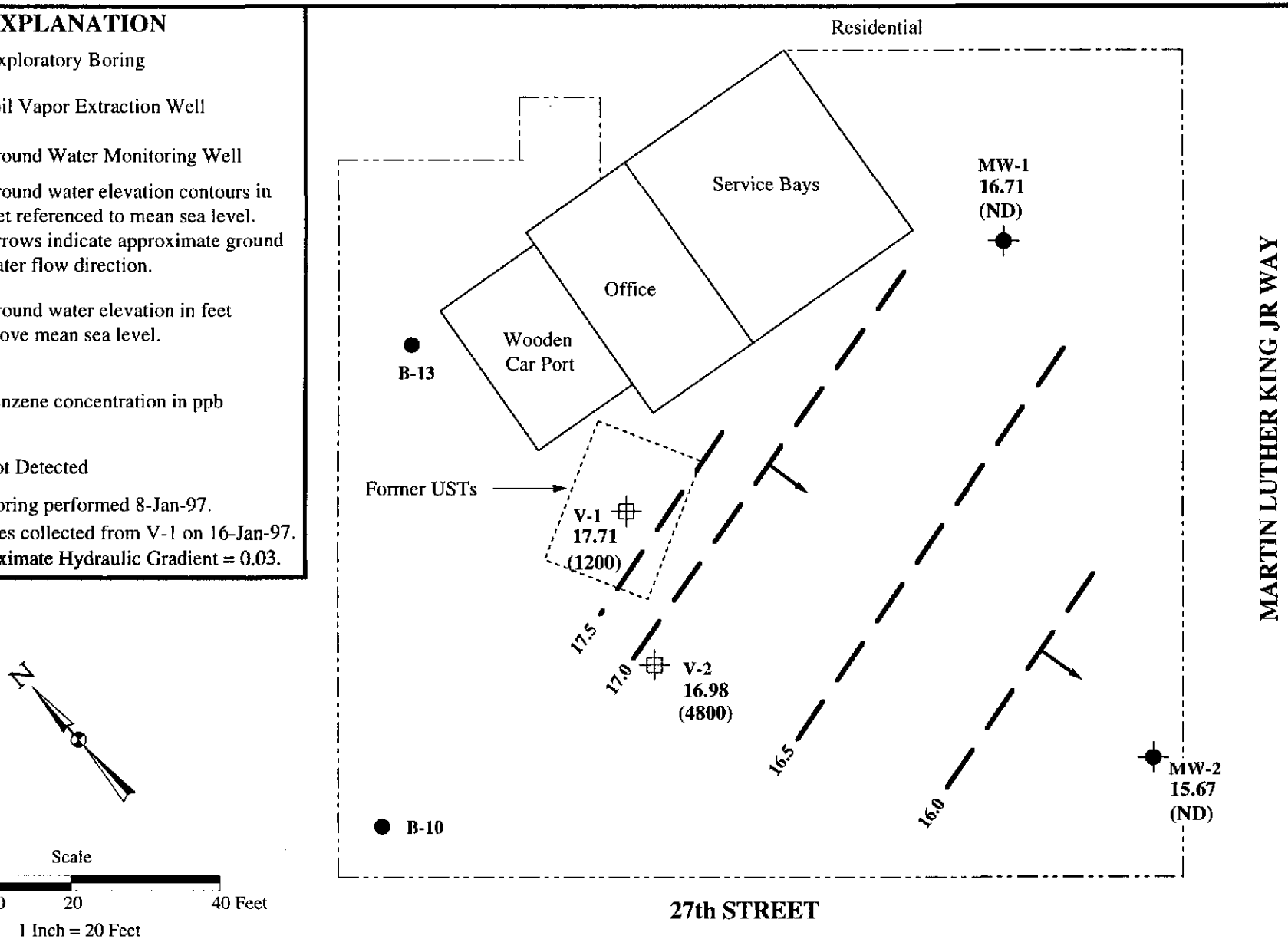

PLATE 2

GROUND WATER CONTOUR/BENZENE CONCENTRATION MAP
Shell Oil Products Company
2703 Martin Luther King Jr. Way
Oakland, California

enviros ®
97324

Drawn By: JG | Date: 20-Feb-97 | Approved By: | Date: 2.26.97

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

January 30, 1997

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

Attn: R. Jeff Granberry

Shell WIC #204-5508-1701
2703 Martin Luther King Junior Way
Oakland, California

1st Quarter 1997

Quarterly Groundwater Monitoring Report 970108-A-1

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: 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)
MW-1	01/08/97	TOC	--	NONE	--	--	6.82	20.15
MW-2 *	01/08/97	TOC	--	NONE	--	--	6.80	20.10
V-1	01/08/97	TOC	--	NONE	--	--	5.55	13.02
V-2	01/08/97	TOC	--	NONE	--	--	5.82	13.28

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

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 970105-A1

Date: 1-5-97
Page 1 of 1

Site Address: 2703 Martin Luther King Junior Way, Oakland, CA

FACIL#: 204-5508-1701

Shell Engineer: R. Jeff Granberry
Phone No.: (510) 675-6168
Fax #: 675-6172

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

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

Comments: 970174

Sampled by: RANDY VALENTINE

Printed Name:

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY		C/D#	TURN AROUND TIME	
G.W. Monitoring	X	4441	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:

Analysis Required

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
MW-1	1/8			X		3						X						
MW-2	"			X		3						X						
[illegible]				X		3						X						
V-2				X		2						X						
EB				X		3						X						
DUP				X		3						X						

Relinquished By (signature):	Printed Name: RANDY VALENTINE	Date: 1/8/97	Received (signature):	Printed Name: S. WRIGHT	Date: 1/9/97
Relinquished By (signature):	Printed Name: S. WRIGHT	Time: 1615	Received (signature):	Printed Name:	Time: 1615
Relinquished By (signature):	Printed Name:	Date: 1/9/97	Received (signature):	Printed Name: K. Harling	Date: 1/9/97
		Time: 1130			Time: 1132

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

White Original

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/970108-A1

Enclosed are the results from samples received at Sequoia Analytical on January 9, 1997. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9701474 -01	LIQUID, MW-1	01/08/97	TPGBMW Purgeable TPH/BTEX
9701474 -02	LIQUID, MW-2	01/08/97	TPGBMW Purgeable TPH/BTEX
9701474 -03	LIQUID, V-2	01/08/97	TPGBMW Purgeable TPH/BTEX
9701474 -04	LIQUID, EB	01/08/97	TPGBMW Purgeable TPH/BTEX
9701474 -05	LIQUID, Dup	01/08/97	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 Benner
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/970108-A1	Sampled: 01/08/97
1680 Rogers Avenue	Sample Descript: MW-1	Received: 01/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/13/97
Attention: Fran Thie	Lab Number: 9701474-01	Reported: 01/16/97

QC Batch Number: GC011397BTEX22B
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	95

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/970108-A1	Sampled: 01/08/97
1680 Rogers Avenue	Sample Descript: MW-2	Received: 01/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/13/97
Attention: Fran Thie	Lab Number: 9701474-02	Reported: 01/16/97

QC Batch Number: GC011397BTEX22B
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	98

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/970108-A1	Sampled: 01/08/97
1680 Rogers Avenue	Sample Descript: V-2	Received: 01/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/14/97
Attention: Fran Thie	Lab Number: 9701474-03	Reported: 01/16/97

QC Batch Number: GC011497BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	12500	69000
Methyl t-Butyl Ether	625	750
Benzene	125	4800
Toluene	125	2800
Ethyl Benzene	125	2700
Xylenes (Total)	125	13000
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	98

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/970108-A1	Sampled: 01/08/97
1680 Rogers Avenue	Sample Descript: EB	Received: 01/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/13/97
Attention: Fran Thie	Lab Number: 9701474-04	Reported: 01/16/97

QC Batch Number: GC011397BTEX22B
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	93

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/970108-A1	Sampled: 01/08/97
1680 Rogers Avenue	Sample Descript: Dup	Received: 01/09/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/13/97
Attention: Fran Thie	Lab Number: 9701474-05	Reported: 01/16/97

QC Batch Number: GC011397BTEX22B
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	95

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

Client Proj. ID: Shell Oakland/970108-A1

Lab Proj. ID: 9701474

Received: 01/09/97

Reported: 01/16/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 9 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

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 Ave
San Jose, CA 95112
Attention: Fran Thie

Client Project ID: Shell Oakland/970108-A1
Matrix: LIQUID
Work Order #: 9701474 01, 02, 04, 05

Reported: Jan 22, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC011397BTEX22B	GC011397BTEX22B	GC011397BTEX22B	GC011397BTEX22B
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970138001	970138001	970138001	970138001
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/13/97	1/13/97	1/13/97	1/13/97
Analyzed Date:	1/13/97	1/13/97	1/13/97	1/13/97
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
Result:	10	10	10	31
MS % Recovery:	100	100	100	103
Dup. Result:	8.2	7.8	8.0	23
MSD % Recov.:	82	78	80	77
RPD:	20	25	22	30
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK011397	BLK011397	BLK011397	BLK011397
Prepared Date:	1/13/97	1/13/97	1/13/97	1/13/97
Analyzed Date:	1/13/97	1/13/97	1/13/97	1/13/97
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
LCS Result:	10	10	10	30
LCS % Recov.:	100	100	100	100
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	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

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

Client Project ID: Shell Oakland/970108-A1
Matrix: LIQUID
Work Order #: 9701474 03
Reported: Jan 22, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC011497BTEX22A	GC011497BTEX22A	GC011497BTEX22A	GC011497BTEX22A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970138002	970138002	970138002	970138002
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/14/97	1/14/97	1/14/97	1/14/97
Analyzed Date:	1/14/97	1/14/97	1/14/97	1/14/97
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
Result:	11	11	11	34
MS % Recovery:	110	110	110	113
Dup. Result:	10	9.9	10	30
MSD % Recov.:	100	99	100	100
RPD:	9.5	11	10	13
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK011497	BLK011497	BLK011497	BLK011497
Prepared Date:	1/14/97	1/14/97	1/14/97	1/14/97
Analyzed Date:	1/14/97	1/14/97	1/14/97	1/14/97
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
LCS Result:	10	10	11	32
LCS % Recov.:	100	100	110	107
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Reggy 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

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/970116-F4

Enclosed are the results from samples received at Sequoia Analytical on January 17, 1997. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9701902 -01	LIQUID, V-1	01/16/97	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

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 970116 - F4

Date: 1/16/97
Page 1 of 1

Site Address: 2703 Martin Luther King Junior Way, Oakland, CA

WIC#: 254-5508-1701

Shell Engineer: R. Jeff Granberry
Phone No.: (510) 675-6168
Fax #: 675-6172

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

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

Comments:

Sampled by: TC

Printed Name: Tim Graf

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 hrs. TAT.
Water Rem. or Sys. O & M	[ ] 4453	9701902
Other	[ ]	

UST AGENCY: ____

Analysis Required

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
V-1	1/16			W		3						X	X							

	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
Relinquished By (signature): Tim Graf	Tim Graf	1/17	1000		John Howe	1/17	1000
Relinquished By (signature):	John Howe	1/17	1142	Received (signature):	Printed Name:	Date:	Time:
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature): LDCardenas	Printed Name: LDCardenas	Date: 1-17-97	Time: 1142

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

Blue On Own of Carbon

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/970116-F4	Sampled: 01/16/97
1680 Rogers Avenue	Sample Descript: V-1	Received: 01/17/97
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/20/97
Attention: Fran Thie	Lab Number: 9701902-01	Reported: 01/22/97

QC Batch Number: GC012097BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**1000**	**9500**
Methyl t-Butyl Ether	50	N.D.
Benzene	**10**	**1200**
Toluene	**10**	**250**
Ethyl Benzene	**10**	**280**
Xylenes (Total)	**10**	**880**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	85

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

Client Proj. ID: Shell Oakland/970116-F4

Lab Proj. ID: 9701902

Received: 01/17/97

Reported: 01/22/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 2 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

Sequoia Analytical

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

Client Project ID: Shell Oakland / 970116-F4
Matrix: Liquid
Work Order #: 9701902 -01

Reported: Jan 27, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC012097BTEX17A	GC012097BTEX17A	GC012097BTEX17A	GC012097BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	970188203	970188203	970188203	970188203
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/20/97	1/20/97	1/20/97	1/20/97
Analyzed Date:	1/20/97	1/20/97	1/20/97	1/20/97
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.5	9.6	9.7	29
MS % Recovery:	95	96	97	97
Dup. Result:	9.7	9.6	9.8	29
MSD % Recov.:	97	96	98	97
RPD:	2.1	0.0	1.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK012097	BLK012097	BLK012097	BLK012097
Prepared Date:	1/20/97	1/20/97	1/20/97	1/20/97
Analyzed Date:	1/20/97	1/20/97	1/20/97	1/20/97
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.9	8.9	9.0	27
LCS % Recov.:	89	89	90	90
MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

SEQUOIA ANALYTICAL

Reggy Penner
Project Manager

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