CAMBRIA
Environmental Technology, Inc.

July 9, 1996

Jennifer Eberle
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502-6577

Re: **Second Quarter 1996 Monitoring Report**
Former Shell Service Station
1230 14th Street
Oakland, California
WIC # 204-4878-1300

Dear Ms. Eberle:

We are writing at this time to make you aware that the second quarter monitoring report for the site referenced above will be late. Although the sampling event for the second quarter 1996 has already occurred, we have not yet received the analytics. We will send the report to you as soon as we receive and interpret the data.

Please accept our sincerest apologies for any inconvenience this delay has caused, and please call me at (510) 420-9182 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

Philip T. Gittens
Staff Engineer

D:\PROJECT\SHELL\OAKL3103\LTRLATE.WPD
cc: R. Jeff Granberry, Shell Oil Products Company

1144 Sixty-Fifth Street Suite C Oakland, CA 94608 Fax (510) 420-9170 Phone (510) 420-0700

CAMBRIA
Environmental Technology, Inc.

July 11, 1996

Ms. Jennifer Eberle
Alameda County Environmental Protection Services
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502-6577

96 JUL 17 PM 2:45
ENVIRONMENTAL PROTECTION

Re: **Second Quarter 1996 Monitoring Report**
Former Shell Service Station
1230 14th Street
Oakland, California
WIC # 204-4878-1300

Dear Ms. Eberle:

On behalf of Shell Oil Products Company, Cambria Environmental Technology, Incorporated (Cambria) is submitting this quarterly monitoring report for the site referenced above in accordance with the requirements specified in California Code of Regulations Title 23, Chapter 3, Subchapter 16, Article 5, Section 2652d. The site wells were sampled this quarter by Blaine Tech Services, Inc. of San Jose, California (Blaine). Blaine's sampling report, which includes the laboratory analytic report, is included as Attachment A. Ground water elevations are contoured on Figure 1, and the ground water elevation and analytic data are tabulated on Table 1.

We are preparing a Subsurface Investigation Report detailing field activities to date, and we will submit a copy of the report to you upon completion. **Quarterly monitoring of the wells at the site will continue until further notice.** Thank you for your assistance. Please contact us if you have any questions.

Sincerely,
Cambria Environmental Technology, Inc.

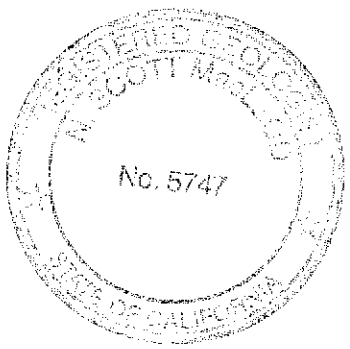
Paul D. Waite
Staff Engineer

N. Scott MacLeod, R.G.
Principal Geologist

Attachments: A - Blaine Tech Services Reports

cc: R. Jeff Granberry, Shell Oil Products Company

D:\PROJECT\SHELL\OAKL3103\2Q96.WPD



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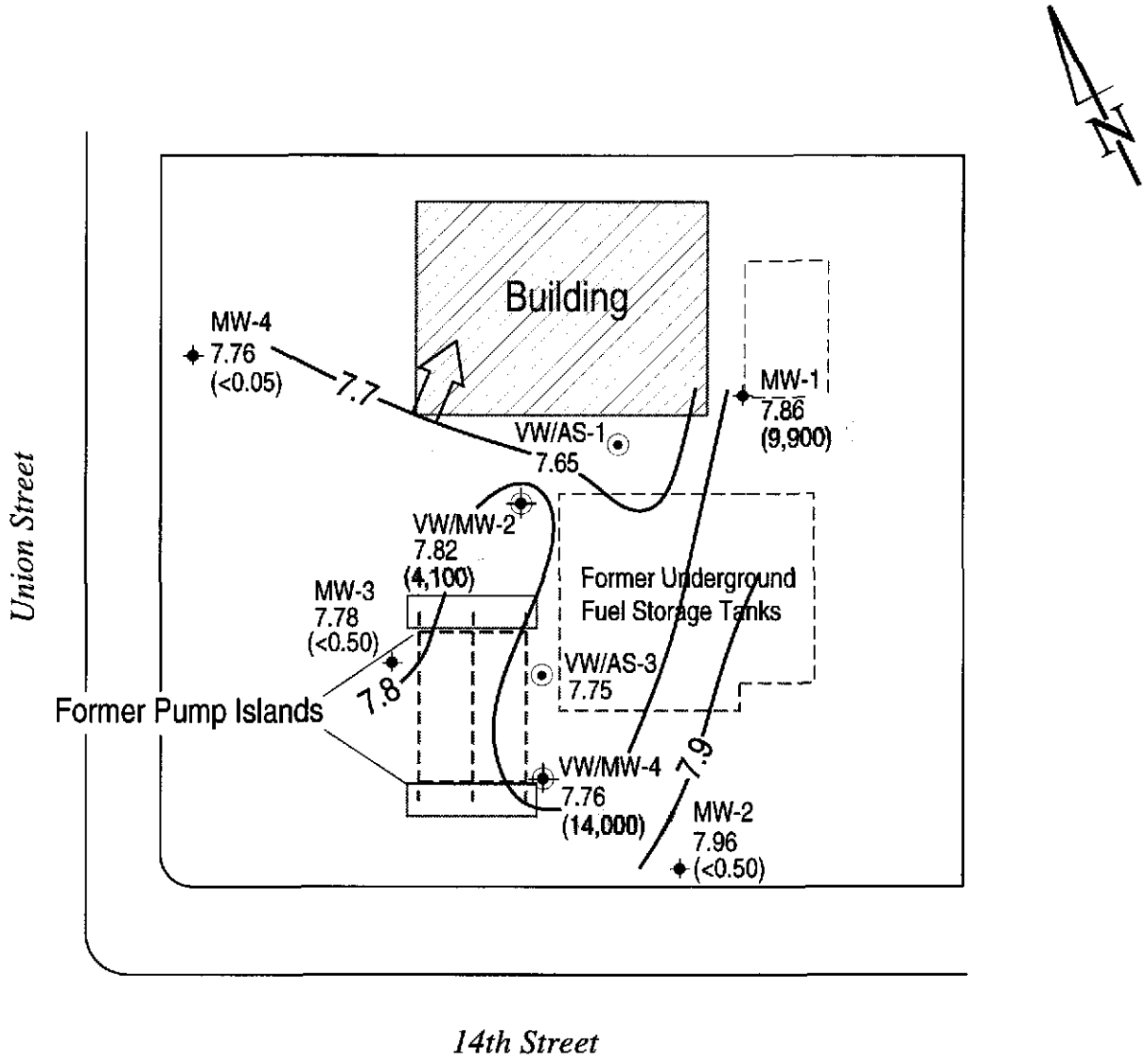

0 20

Scale (ft)

LEGEND

xx.xx	Ground Water Elevation in ft. referenced to mean sea level
(xx.xx)	Benzene Concentration in parts per billion.
	Ground Water Contour
	Ground Water Flow Direction
	Ground Water Monitoring Well
	Combination Air Sparge/Soil Vapor Extraction Wells
	Combination Soil Vapor Extraction Well/Monitoring Well

Base Map by Tank Protect Engineering

CAMBRIA
Environmental Technology, Inc.

Former Shell Service Station
WIC # 204-5508-3103
1230 14th Street
Oakland, California

D:/PROJECT/SHELL/OAKL3103/QM-MAP.DWG

Ground Water Elevations/
Benzene Concentrations
in Ground Water

June 21, 1966

FIGURE

1

Table 1. Ground Water Elevation and Analytic Data - Shell Service Station WIC # 204-5508-3103 - 1230 14th Street, Oakland, California

Well ID (Quarters Sampled)	Date	GW Depth (ft)	GW Elev. (ft)	GW Flow Direction	TPHg	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	POG	Notes
					(Concentrations in parts per billion)							
MW-1	03/25/96	9.53	9.05	---	37,000	<500	7,400	1,500	720	3,300	<5,000	
(All)	06/21/96	10.72	7.86	NE	35,000	890	9,900	460	340	3,500	<5,000	
TOC=18.58												
MW-2	03/25/96	8.19	9.71	---	<50	<2.5	<0.50	<0.50	<0.50	<0.50	---	
(All)	06/21/96	9.94	7.96	NE	<50	<2.5	<0.50	<0.50	<0.50	<0.50	---	
TOC=17.90												
MW-3	03/25/96	8.47	9.71	---	<50	<2.5	<0.50	<0.50	<0.50	<0.50	---	
(All)	06/21/96	10.40	7.78	NE	<50	<2.5	<0.50	<0.50	<0.50	<0.50	---	
TOC= 18.18												
MW-4	03/25/96	9.20	8.81	---	<50	<2.5	<0.50	<0.50	<0.50	<0.50	---	
(All)	06/21/96	10.25	7.76	NE	<50	<2.5	<0.50	<0.50	<0.50	<0.50	---	
TOC= 18.01												
VW/MW-2	03/25/96	9.04	9.26	---	13,000	<250	900	920	180	1,500	---	
(All)	06/21/96	10.48	7.82 ↓	NE	27,000	700	2,100	1,100	1,400	3,200	---	
TOC= 18.30												
VW/MW-4	03/25/96	8.45	9.69	---	83,000	<250	6,500	7,000	2,000	11,000	---	
(All)	03/25/96	8.45	9.69	---	84,000	<250	6,400	7,000	2,100	12,000	---	a
TOC= 18.14	06/21/96	10.38	7.76	NE	110,000	1,700	11,000	15,000	3,700	17,000	---	
	06/21/96	10.38	7.76 ↓	NE	100,000	<1,000	12,000	12,000	2,900	13,000	---	a
VW/AS-1	03/25/96	8.98	9.62	---	---	---	---	---	---	---	---	
(Gauge only)	06/21/96	10.95	7.65	NE	---	---	---	---	---	---	---	
TOC= 18.60												
VW/AS-3	03/25/96	8.50	9.67	---	---	---	---	---	---	---	---	
(Gauge only)	06/21/96	10.42	7.75	NE	---	---	---	---	---	---	---	
TOC= 18.17												

Table 1. Ground Water Elevation and Analytic Data - Shell Service Station WIC # 204-5508-3103 - 1230 14th Street, Oakland, California

Well ID (Quarters Sampled)	Date	GW Depth (ft)	GW Elev. (ft)	GW Flow Direction	TPHg	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	POG	Notes
							(Concentrations in parts per billion)					

Abbreviations:

GW = Ground water
TPHg = Total petroleum hydrocarbons as gasoline modified by EPA Method 8015
TOC = Top of casing elevation
ft = Feet
MTBE = Methyl tert-Butyl Ether by modified EPA method 8020
POG = Petroleum Oil and Grease modified by standard method SM 5520 B&F

Notes:

a = Duplicate sample

CAMBRIA

Attachment A

Blaine Tech Services Report

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

July 91, 1996

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

Attn: R. Jeff Granberry

Shell WIC #204-5508-3103
1230 14th Street
Oakland, California

2nd Quarter 1996

Quarterly Groundwater Monitoring Report 960621-D-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) 995-5535 ext. 201.

Yours truly,

Fran Thie

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

cc: Cambria Environmental Technology, Inc.
1144 65th St., Ste. C
Oakland, CA 94608
Attn: Mari Reeves

(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	6/21/96	TOC	ODOR	NONE	--	--	10.72	21.20
MW-2	6/21/96	TOC	--	NONE	--	--	9.94	21.96
MW-3	6/21/96	TOC	--	NONE	--	--	10.40	21.82
MW-4	6/21/96	TOC	--	NONE	--	--	10.25	20.94
VW/MW-2	6/21/96	TOC	ODOR	NONE	--	--	10.48	22.10
VW/MW-4 *	6/21/96	TOC	ODOR	NONE	--	--	10.38	19.58
VW/AS-1	6/21/96	TOC	--	NONE	--	--	10.95	19.13
VW/AS-3	6/21/96	TOC	--	NONE	--	--	10.42	19.64

* Sample DUP was a duplicate sample taken from well VW/MW-4.

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 960621-D1

Date: 6-21-96
Page 1 of 1

Site Address: 1230 14th St., Oakland, CA

WIC#: 204-5508-3103

Shell Engineer: R. Jeff Granberry — Phone No.: (510) 675-6166 Fax #:

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

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

Comments:

Sampled by: MIKE D

Printed Name: MIKE DUGHERTY

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY		CT/DI	TURN AROUND TIME	
G.W. Monitoring	XX	4441	24 hours	
Site Investigation		4441	48 hours	
Soil Classify/Disposal		4442	15 days	(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		
Other			9606083	

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	OIL + GREASE	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-1	6-21			W		5						X	+	+						
MW-2	6-21					3						X	X							
MW-3	6-21					3						X	X							
MW-4	6-21					3						X	X							
VM/MW-2	6-21					3						X	X							
VM/MW-4	6-21					3						X	X							
EB	6-21					3						X	X							
DUP	6-21					3						X	V							

	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
Relinquished By (signature):	MIKE DUGHERTY	6-24	930		J. Chang	6/24	8930
Relinquished By (signature):	Scott Chang	6.24	1115	Received (signature):	Printed Name:	Date:	Time:
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name: Will Hale	Date: 6/24/96	Time: 1119

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

Bind On One 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 Technical Services
985 Timothy Drive
San Jose, CA 95133
Attention: Fran Thie

Project: Shell Oakland 960621-D1

Enclosed are the results from samples received at Sequoia Analytical on June 24, 1996. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9606D83 -01	LIQUID, MW-1	06/21/96	TPGBMW Purgeable TPH/BTEX
9606D83 -01	LIQUID, MW-1	06/21/96	TRPH (SM 5520 B&F Mod)
9606D83 -02	LIQUID, MW-2	06/21/96	TPGBMW Purgeable TPH/BTEX
9606D83 -03	LIQUID, MW-3	06/21/96	TPGBMW Purgeable TPH/BTEX
9606D83 -04	LIQUID, MW-4	06/21/96	TPGBMW Purgeable TPH/BTEX
9606D83 -05	LIQUID, VM/MW-2	06/21/96	TPGBMW Purgeable TPH/BTEX
9606D83 -06	LIQUID, VM/MW-4	06/21/96	TPGBMW Purgeable TPH/BTEX
9606D83 -07	LIQUID, EB	06/21/96	TPGBMW Purgeable TPH/BTEX
9606D83 -08	LIQUID, DUP	06/21/96	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: Fran Thie

Client Proj. ID: Shell Oakland 960621-D1
Lab Proj. ID: 9606D83

Sampled: 06/21/96
Received: 06/24/96
Analyzed: see below

Reported: 07/04/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9606D83-01				
Sample Desc : LIQUID,MW-1				
TRPH (SM 5520 B&F Mod)	mg/L	06/28/96	5.0	N.D.

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 960621-D1	Sampled: 06/21/96
985 Timothy Drive	Sample Descript: MW-1	Received: 06/24/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/28/96
Attention: Fran Thie	Lab Number: 9606D83-01	Reported: 07/04/96

QC Batch Number: GC062896BTEX03A
Instrument ID: GCHP3

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10000**	**35000**
Methyl t-Butyl Ether	**500**	**890**
Benzene	**100**	**9900**
Toluene	**100**	**460**
Ethyl Benzene	**100**	**340**
Xylenes (Total)	**100**	**3500**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	92

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 Technical Services	Client Proj. ID: Shell Oakland 960621-D1	Sampled: 06/21/96
985 Timothy Drive	Sample Descript: MW-2	Received: 06/24/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/28/96
Attention: Fran Thie	Lab Number: 9606D83-02	Reported: 07/04/96

QC Batch Number: GC062896BTEX02A
Instrument ID: GCHP2

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

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 960621-D1	Sampled: 06/21/96
985 Timothy Drive	Sample Descript: MW-3	Received: 06/24/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/28/96
Attention: Fran Thie	Lab Number: 9606D83-03	Reported: 07/04/96

QC Batch Number: GC062896BTEX02A
Instrument ID: GCHP2

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	90

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 Technical Services	Client Proj. ID: Shell Oakland 960621-D1	Sampled: 06/21/96
985 Timothy Drive	Sample Descript: MW-4	Received: 06/24/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/28/96
Attention: Fran Thie	Lab Number: 9606D83-04	Reported: 07/04/96

QC Batch Number: GC062896BTEX02A
Instrument ID: GCHP2

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	92

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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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 960621-D1	Sampled: 06/21/96
985 Timothy Drive	Sample Descript: VM/MW-2	Received: 06/24/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/28/96
Attention: Fran Thie	Lab Number: 9606D83-05	Reported: 07/04/96

QC Batch Number: GC062896BTEX03A
Instrument ID: GCHP3

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**5000**	**27000**
Methyl t-Butyl Ether	**250**	**700**
Benzene	**50**	**4100**
Toluene	**50**	**1100**
Ethyl Benzene	**50**	**1400**
Xylenes (Total)	**50**	**3200**
Chromatogram Pattern:		**C6-C12**

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

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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 960621-D1	Sampled: 06/21/96
985 Timothy Drive	Sample Descript: VM/MW-4	Received: 06/24/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/28/96
Attention: Fran Thie	Lab Number: 9606D83-06	Reported: 07/04/96

QC Batch Number: GC062896BTEX03A
Instrument ID: GCHP3

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**20000**	**110000**
Methyl t-Butyl Ether	**1000**	**1700**
Benzene	**200**	**14000**
Toluene	**200**	**15000**
Ethyl Benzene	**200**	**3700**
Xylenes (Total)	**200**	**17000**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	81

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 Technical Services	Client Proj. ID: Shell Oakland 960621-D1	Sampled: 06/21/96
985 Timothy Drive	Sample Descript: EB	Received: 06/24/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/28/96
Attention: Fran Thie	Lab Number: 9606D83-07	Reported: 07/04/96

QC Batch Number: GC062896BTEX02A
Instrument ID: GCHP2

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 Technical Services	Client Proj. ID: Shell Oakland 960621-D1	Sampled: 06/21/96
985 Timothy Drive	Sample Descript: DUP	Received: 06/24/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 06/28/96
Attention: Fran Thie	Lab Number: 9606D83-08	Reported: 07/04/96

QC Batch Number: GC062896BTEX17B
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**20000**	**100000**
Methyl t-Butyl Ether	1000	N.D.
Benzene	**200**	**12000**
Toluene	**200**	**12000**
Ethyl Benzene	**200**	**2900**
Xylenes (Total)	**200**	**13000**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	87

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, Inc.	Client Project ID:	Shell, Oakland / 960621-D1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9606D83 -01	Reported: Jul 6, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Total Recoverable Petroleum Hydrocarb.
QC Batch#:	OP0627965520EXB
Analy. Method:	SM 5520 BF-MOD
Prep. Method:	SPE

Analyst:	H. O.
MS/MSD #:	BLK062796
Sample Conc.:	N.D.
Prepared Date:	6/27/96
Analyzed Date:	6/28/96
Instrument I.D.#:	Manual
Conc. Spiked:	10 mg/L
Result:	4.8
MS % Recovery:	48
Dup. Result:	8.5
MSD % Recov.:	85
RPD:	56
RPD Limit:	0-50

LCS #:	BLK062796
Prepared Date:	6/27/96
Analyzed Date:	6/28/96
Instrument I.D.#:	Manual
Conc. Spiked:	10 mg/L
LCS Result:	9.6
LCS % Recov.:	96

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

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 / 960621-D1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9606D83-01, 05-06	Reported: Jul 6, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC062896BTEX03A	GC062896BTEX03A	GC062896BTEX03A	GC062896BTEX03A
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 #:	9606B2102	9606B2102	9606B2102	9606B2102
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/28/96	6/28/96	6/28/96	6/28/96
Analyzed Date:	6/28/96	6/28/96	6/28/96	6/28/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	8.8	8.6	8.6	26
MS % Recovery:	88	86	86	87
Dup. Result:	8.5	8.3	8.2	25
MSD % Recov.:	85	83	82	83
RPD:	3.5	3.6	4.8	3.9
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK062896	BLK062896	BLK062896	BLK062896
Prepared Date:	6/28/96	6/28/96	6/28/96	6/28/96
Analyzed Date:	6/28/96	6/28/96	6/28/96	6/28/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.0	7.8	7.8	23
LCS % Recov.:	80	78	78	77

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

SEQUOIA ANALYTICAL

Peggy Renner
Project Manager

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

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Blaine Tech Services, Inc.	Client Project ID:	Shell, Oakland / 960621-D1	
985 Timothy Drive	Matrix:	Liquid	
San Jose, CA 95133			
Attention: Jim Keller	Work Order #:	9606D83-02-04, 07	Reported: Jul 6, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC062896BTEX02A	GC062896BTEX02A	GC062896BTEX02A	GC062896BTEX02A
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 #:	9606B2102	9606B2102	9606B2102	9606B2102
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/28/96	6/28/96	6/28/96	6/28/96
Analyzed Date:	6/28/96	6/28/96	6/28/96	6/28/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.4	9.6	9.5	29
MS % Recovery:	94	96	95	97
Dup. Result:	9.6	9.8	9.6	29
MSD % Recov.:	96	98	96	97
RPD:	2.1	2.1	1.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK062896	BLK062896	BLK062896	BLK062896
Prepared Date:	6/28/96	6/28/96	6/28/96	6/28/96
Analyzed Date:	6/28/96	6/28/96	6/28/96	6/28/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.6	9.7	9.6	29
LCS % Recov.:	96	97	96	97

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

SEQUOIA ANALYTICAL

Peggy Porter
Project Manager

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

Client Project ID: Shell, Oakland / 960621-D1
Matrix: Liquid

Work Order #: 9606D83-08

Reported: Jul 6, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC062896BTEX17B	GC062896BTEX17B	GC062896BTEX17B	GC062896BTEX17B
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 #:	9606B2105	9606B2105	9606B2105	9606B2105
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/28/96	6/28/96	6/28/96	6/28/96
Analyzed Date:	6/28/96	6/28/96	6/28/96	6/28/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.5	9.1	8.8	25
MS % Recovery:	95	91	88	83
Dup. Result:	8.8	8.5	8.5	25
MSD % Recov.:	88	85	85	83
RPD:	7.7	6.8	3.5	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK062896	BLK062896	BLK062896	BLK062896
Prepared Date:	6/28/96	6/28/96	6/28/96	6/28/96
Analyzed Date:	6/28/96	6/28/96	6/28/96	6/28/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.3	8.4	8.3	25
LCS % Recov.:	83	84	83	83

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

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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