



Weiss Associates

5500 Shellmound Street, Emeryville, CA 94608-2411

Environmental and Geologic Services

Fax: 510-547-5043 Phone: 510-450-6000

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ROU15

May 19, 1996

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

Re: **First Quarter 1996**
Shell Service Station
WIC #204-5508-3400
4411 Foothill Boulevard
Oakland, California
WA Job #81-1168-206

Dear Mr. Chan:

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

First Quarter 1996 Activities

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths and collected ground water samples from the site wells (Figures 1 and 2). The BTS report describing these activities and the analytic report for the ground water samples are included as Attachment A.
- Weiss Associates (WA) calculated ground water elevations, compiled the analytic data (Tables 1 and 2), prepared a ground water elevation contour map and plotted benzene concentrations in ground water (Figure 2).

Anticipated Second Quarter 1996 Activities

WA will submit a report presenting the results of the second quarter 1996 ground water monitoring results. The report will include tabulated chemical analytic results, ground water elevations, a ground water elevation contour map and plotted benzene concentrations in ground water.

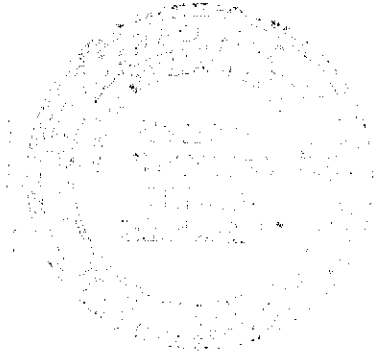
Barney Chan
May 19, 1996

2

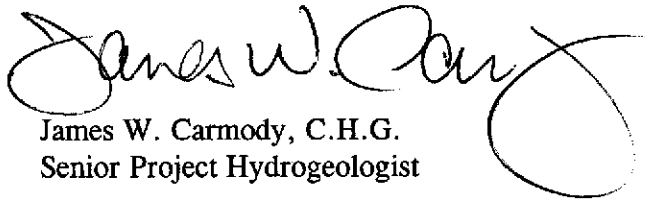
Weiss Associates 

We trust that this submittal meets your needs. Please call Tim Utterback at (510) 450-6000 if you have any questions or comments.

Sincerely,
Weiss Associates




Grady S. Glasser
Technical Assistant


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

Attachments: A - BTS Ground Water Monitoring Report

cc: R. Jeff Granberry, Shell Oil Products Company, P.O. Box 4023, Concord, California 94524
Mark Miller, Chevron USA Products Company, P.O. Box 5004, San Ramon, California 94583-0804

GSGUWC:all
F:\SHELL\1168\QM\96Q1\96Q1R.DOC

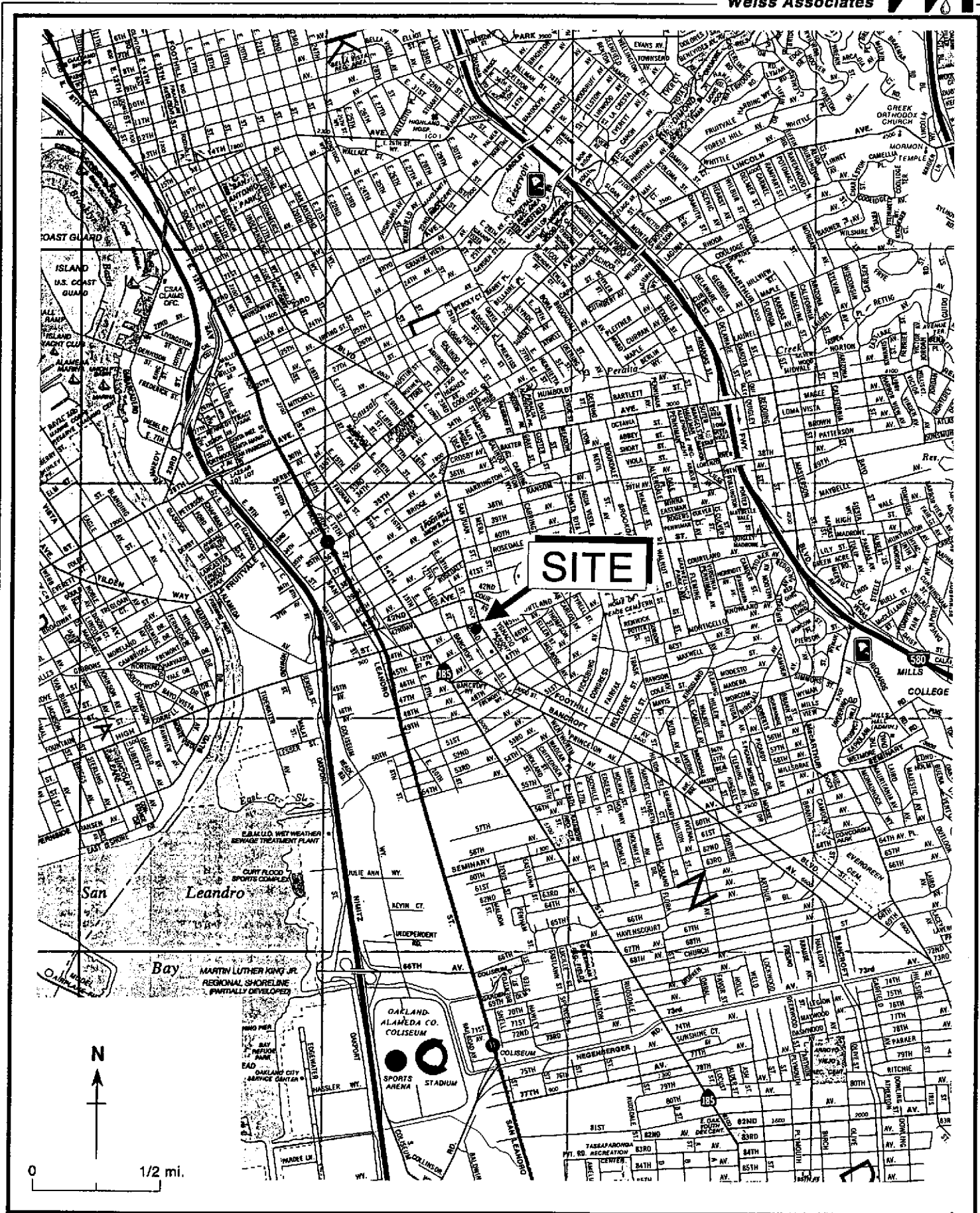


Figure 1. Site Location Map - Shell Service Station WIC# 204-5508-3400 - 4411 Foothill Boulevard, Oakland, California

BOND STREET

FOOTHILL BOULEVARD

HIGH STREET

EXPLANATION	
⊙ S-1	Monitoring well
31.44	Ground water elevation, feet above mean sea level (msl)
[700]	Benzene concentration in ground water in parts per billion (ppb)
-30.5	Ground water elevation contour, in feet above msl, approximately located, dashed where inferred, queried where uncertain
→	Inferred ground water flow direction

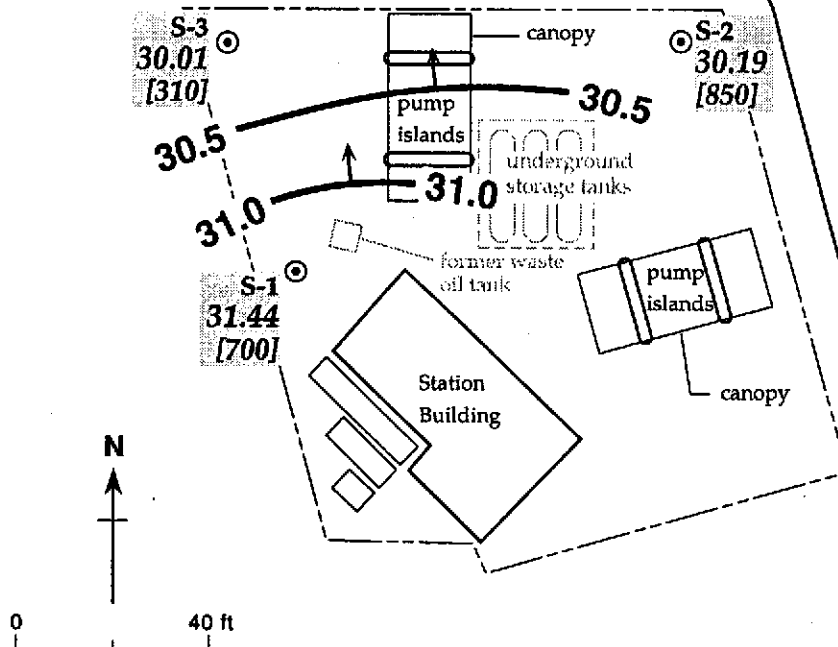


Figure 2. Monitoring Well Locations, Ground Water Elevation Contours, and Benzene Concentrations in Ground Water - March 21, 1996 - Shell Service Station WIC# 204-5508-3400 - 4411 Foothill Boulevard, Oakland, California

Table 1
Groundwater Elevation Data

Shell Service Station
4411 Foothill Boulevard at High Street
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)
S-1	12/18/92	NM	9.06	NA
	05/26/93	38.31	NM	NA
	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
	12/14/93		9.66	28.65
	03/17/94		8.20	30.11
	06/16/94		9.41	28.90
	09/22/94		11.13	27.18
	12/15/94		7.15	31.16
	03/30/95		6.09	32.22
	06/20/95		7.30	31.01
	09/20/95		10.02	28.29
	12/06/95		11.64	26.67
03/21/96		6.87	31.44	
S-2	05/28/93	38.79	9.51	29.28
	06/03/93		9.51	29.28
	06/08/93		9.57	29.22
	09/21/93		10.54	28.25
	12/14/93		9.76	29.03
	03/17/94		9.92	28.87
	06/16/94		10.11	28.68
	09/22/94		10.51	28.28
	12/15/94		9.12	29.87
	03/30/95		7.86	30.93
	06/20/95		9.51	29.28
	09/20/95		10.06	28.73
	12/06/95		10.52	28.27
	03/21/96		8.60	30.19
	S-3	05/28/93	37.33	8.45
06/03/93			8.36	28.97
06/08/93			8.41	28.92
09/21/93			10.08	27.25
12/94/93			8.80	28.53
03/17/94			8.34	28.99
06/16/94			9.12	28.21
09/22/94			10.27	27.06
12/15/94			7.81	29.52
03/30/95			7.06	30.27
06/20/95			8.15	29.18
09/20/95			9.32	28.01
12/06/95			10.53	26.80
03/21/96			7.32	30.01

Abbreviations:

MSL = Mean sea level
TOB = Top of box
NM = Not measured
NA = Not available

Table 2
Groundwater Analytical Data
 Total Petroleum Hydrocarbons
 (TPPH, BTEX Compounds, TEPH, and TPH as Motor Oil)

Shell Service Station
 4411 Foothill Boulevard at High Street
 Oakland, California

Well Number	Date Sampled	TPPH (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzen (ppb)	Xylenes (ppb)	TEPH (ppb)	TPH as Motor Oil (ppb)	MTBE (ppb)
S-1	12/18/92 ^a	41,000	3,100	1,100	1,200	8,700	NA	9,400	NA
	05/26/93	39,000	1,300	4,700	1,500	7,800	6,000	370	NA
	09/21/93	34,000	480	5,000	3,800	18,000	5,900	ND	NA
	12/14/93	25,000	1,100	5,000	2,200	11,000	13,000	ND	NA
	03/17/94	57,000	1,300	5,400	2,100	11,000	1,600	2,300	NA
	06/16/94	57,000	1,600	6,000	2,000	13,000	3,000	210	NA
	09/22/94	39,000	1,300	2,100	1,500	7,100	ND	ND	NA
	12/15/94	30,000	1,100	4,700	1,600	10,000	3,100 ^b	ND	NA
	03/30/95 ^a	30,000	1,400	4,000	1,500	11,000	3,100 ^b	ND	NA
	06/20/95	28,000	1,100	2,300	1,100	8,300	2,100	NC	NA
	09/20/95	40,000	840	3,600	1,300	8,600	2,600	NC	NA
	12/06/95	38,000	920	3,200	1,500	9,400	6,400 ^b	ND	NA
	03/21/96	48,000	700	4,200	1,100	8,600	7,700	ND	330
S-2	06/29/93	1,300	290	35	38	130	NA	NA	NA
	09/21/93	3,300	870	24	190	120	NA	NA	NA
	12/14/93	1,300	400	16	36	27	NA	NA	NA
	03/17/94	4,500	610	27	92	110	NA	NA	NA
	03/17/94 ^{dup}	4,000	610	26	93	120	NA	NA	NA
	06/16/94	2,800	690	45	97	140	NA	NA	NA
	09/22/94	4,000	630	94	64	230	NA	NA	NA
	12/15/94	1,600	450	300	67	130	NA	NA	NA
	03/30/95 ^a	8,200	2,800	190	240	700	NA	NA	NA
	06/20/95	9,600	2,600	160	170	500	NA	NA	NA
	09/20/95	4,200	920	45	98	140	NA	NC	NA
12/06/95	ND ^f	790 ^f	67 ^f	64	130	NA	NA	NA	
03/21/96	3,700	850	45	96	170	NA	NA	560	
S-3	06/29/93	29,000	1,500	1,800	950	6,200	NA	NA	NA
	09/21/93	15,000	900	2,200	2,600	11,000	NA	NA	NA
	12/14/93	20,000	1,100	2,400	1,800	8,500	NA	NA	NA
	03/17/94	14,000	580	190	750	1,700	NA	NA	NA
	06/16/94	20,000	700	690	1,400	4,100	NA	NA	NA
	06/16/94 ^{dup}	19,000	680	560	1,300	3,700	NA	NA	NA
	09/22/94	24,000	630	1,100	1,400	5,700	NA	NA	NA
	09/22/94 ^{dup}	25,000	720	1,100	1,500	6,100	NA	NA	NA
	12/15/94	18,000	520	800	1,100	4,200	NA	NA	NA
	12/15/94 ^{dup}	23,000	1,000	1,900	2,000	8,600	NA	NA	NA
	03/30/95 ^a	8,800	360	730	700	3,700	NA	NA	NA
	03/30/95 ^{a dup}	7,600	330	570	600	2,600	NA	NA	NA
	06/20/95	9,600	510	170	960	1,700	NA	NA	NA

Table 2
Groundwater Analytical Data
Total Petroleum Hydrocarbons
 (TPPH, BTEX Compounds, TEPH, and TPH as Motor Oil)

Shell Service Station
 4411 Foothill Boulevard at High Street
 Oakland, California

Well Number	Date Sampled	TPPH (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzen (ppb)	Xylenes (ppb)	TEPH (ppb)	TPH as Motor Oil (ppb)	MTBE (ppb)
	06/20/95 ^{dup}	9,800	500	170	950	1,700	NA	NA	NA
	09/20/95	21,000	400	560	1,300	4,600	NA	NA	NA
	12/06/95	24,000	630	1,400	1,400	6,000	NA	NA	NA
	12/06/95 ^{dup}	22,000	630	1,200	1,400	5,500	NA	NA	NA
	03/21/96	9,100	290	110	490	1,600	NA	NA	NA
	03/21/96 ^{dup}	11,000	310	250	540	2,100	NA	NA	NA

Abbreviations:

TPPH = Total purgeable petroleum hydrocarbons

TEPH = Total extractable petroleum hydrocarbons

ppb = Parts per billion

NA = Not analyzed

ND = Not detected

NC = Not calculated, TPH as motor oil included with TEPH analysis.

(D) = Duplicate sample

- a. Phenolic and naphthalene compounds detected in Sample S-1 by semi-volatile organics (EPA Method 8270).
- b. Laboratory noted that concentrations appears to be a lighter hydrocarbon than diesel.
- c. Laboratory noted concentration due to a lighter petroleum product of hydrocarbon range C6 to C12.
- d. Laboratory noted concentration due to hydrocarbon range C6 to C12.
- e. National Environmental Testing, Inc., analyzed within hold time but further dilutions were required and analyzed out of hold time. NET suggests that these should be considered minimum concentrations.
- f. Sample result is ND, but laboratory reporting limit for this analysis is 5,000 ppb.

ATTACHMENT A

BTS GROUND WATER MONITORING REPORT



BLAINE TECH SERVICES INC.

985 TIMOTHY D
SAN JOSE, CA 9
(408) 995-
FAX (408) 293-

April 11, 1996

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

Attn: R. Jeff Granberry

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

1st Quarter 1996

Quarterly Groundwater Monitoring Report 960321-W-2

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

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

Yours truly,



Francis Thie

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

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

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

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (seen)	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	3/21/96	TOB	ODOR	--	--	--	6.87	24.65
S-2	3/21/96	TOB	ODOR	--	--	--	8.60	22.30
S-3 *	3/21/96	TOB	ODOR	--	--	--	7.32	20.50

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



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 900321-02

Date:
Page 1 of 1

Site Address: 4411 Foothill Blvd., Oakland

WIC#: 204-5508-3400

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

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

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

Comments: 9003F07

Sampled by: William R. Jones

Printed Name: William R. Jones

Analysis Required

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/802)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	<u>MTBE</u>	<u>MOTOR OIL</u>	Asbestos	Container Size	Preparation Used	Composite Y/N
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LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CT/DI	TURN AROUND TIME
Quantity Monitoring <input checked="" type="checkbox"/>	6441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	6441	48 hours <input type="checkbox"/>
Soil Classfy/Disposal <input type="checkbox"/>	6442	15 days <input checked="" type="checkbox"/> (Normal)
Water Classfy/Disposal <input type="checkbox"/>	6443	Other <input type="checkbox"/>
Soil/Air Rem. of Sys. O & M <input type="checkbox"/>	6462	
Water Rem. of Sys. O & M <input type="checkbox"/>	6463	
Other <input type="checkbox"/>		

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

Sample ID	Date	Sludge	Soil	Water	Air	No. of conls.	Analysis Required											MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
							TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/802)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	<u>MTBE</u>	<u>MOTOR OIL</u>	Asbestos	Container Size	Preparation Used		
S-1	3/21/92			X		7		X				X	X	X					
S-2				X		3						X	X						
S-3				X		3						X	X						
EB				X		3						X							
DUP				X		3						X							

Relinquished By (signature): <u>William R. Jones</u>	Printed Name: <u>William R. Jones</u>	Date: <u>3-22</u>	Time: <u>1530</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>Fletcher</u>	Date: <u>3/22/92</u>	Time: <u>1530</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name:	Date: <u>3/22/92</u>	Time:	Received (signature):	Printed Name:	Date:	Time:
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature): <u>[Signature]</u>	Printed Name: <u>S. Henretty</u>	Date: <u>3/22</u>	Time: <u>1600</u>

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



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834

(415) 364-9600
(510) 988-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

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

Project: Shell/Oakland/960321-W2

Enclosed are the results from samples received at Sequoia Analytical on March 22, 1996.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9603F67 -01	LIQUID, S-1	03/21/96	TPHD W Extractable TPH
9603F67 -01	LIQUID, S-1	03/21/96	TPHMOW Fuel Fingerprint/Mo
9603F67 -01	LIQUID, S-1	03/21/96	TPGBMW Purgeable TPH/BTEX
9603F67 -02	LIQUID, S-2	03/21/96	TPGBMW Purgeable TPH/BTEX
9603F67 -03	LIQUID, S-3	03/21/96	TPGBMW Purgeable TPH/BTEX
9603F67 -04	LIQUID, EB	03/21/96	TPHGBW Purgeable TPH/BTEX
9603F67 -05	LIQUID, DUP	03/21/96	TPHGBW 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





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Shell/Oakland/960321-W2 Sample Descript: S-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9603F67-01	Sampled: 03/21/96 Received: 03/22/96 Extracted: 04/01/96 Analyzed: 04/03/96 Reported: 04/10/96
----------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------

QC Batch Number: GC0401960HBPEXY
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	250	7300 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	141

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager



Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Shell/Oakland/960321-W2 Sample Descript: S-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9603F67-01	Sampled: 03/21/96 Received: 03/22/96 Extracted: 04/01/96 Analyzed: 04/03/96 Reported: 04/10/96
Attention: Jim Keller		


QC Batch Number: GC0401960HBPEXY
Instrument ID: GCHP4A

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	2500	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	141

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

SEQUOIA ANALYTICAL - ELAP #1210



Peggy Fenner
Project Manager



Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Shell/Oakland/960321-W2 Sample Descript: S-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9603F67-01	Sampled: 03/21/96 Received: 03/22/96 Analyzed: 03/27/96 Reported: 04/10/96
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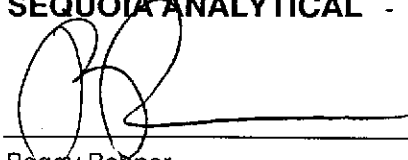
QC Batch Number: GC032796BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	48000
Methyl t-Butyl Ether	250	330
Benzene	50	700
Toluene	50	4200
Ethyl Benzene	50	1600
Xylenes (Total)	50	8600
Chromatogram Pattern:		C6-C12
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



Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Shell/Oakland/960321-W2 Sample Descript: S-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9603F67-02	Sampled: 03/21/96 Received: 03/22/96 Analyzed: 03/27/96 Reported: 04/10/96
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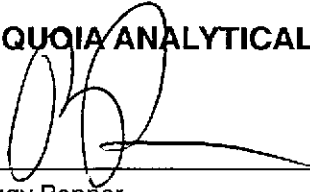
QC Batch Number: GC032796BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	3700
Methyl t-Butyl Ether	50	560
Benzene	10	850
Toluene	10	45
Ethyl Benzene	10	96
Xylenes (Total)	10	170
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	79

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

SEQUOIA ANALYTICAL - ELAP #1210



Peggy Penner
Project Manager



Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Shell/Oakland/960321-W2 Sample Descript: S-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9603F67-03	Sampled: 03/21/96 Received: 03/22/96 Analyzed: 03/27/96 Reported: 04/10/96
-----------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

QC Batch Number: GC032796BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	9100
Methyl t-Butyl Ether	50	N.D.
Benzene	10	290
Toluene	10	110
Ethyl Benzene	10	490
Xylenes (Total)	10	1600
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 Renner
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Shell/Oakland/960321-W2 Sample Descript: EB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9603F67-04	Sampled: 03/21/96 Received: 03/22/96 Analyzed: 03/27/96 Reported: 04/10/96
----------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

QC Batch Number: GC032796BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	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	89

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Shell/Oakland/960321-W2 Sample Descript: DUP Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9603F67-05	Sampled: 03/21/96 Received: 03/22/96 Analyzed: 03/27/96 Reported: 04/10/96
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QC Batch Number: GC032796BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	11000
Benzene	10	310
Toluene	10	250
Ethyl Benzene	10	540
Xylenes (Total)	10	2100
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	77

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Renner
Project Manager





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

Client Project ID: Shell/Oakland/ 960321-W2
 Matrix: Liquid

Work Order #: 9603F67 -01-05

Reported: Apr 12, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC032796BTEX02A	GC032796BTEX02A	GC032796BTEX02A	GC032796BTEX02A
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 #:	9603A6007	9603A6007	9603A6007	9603A6007
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/27/96	3/27/96	3/27/96	3/27/96
Analyzed Date:	3/27/96	3/27/96	3/27/96	3/27/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.7	9.7	9.8	29
MS % Recovery:	97	97	98	97
Dup. Result:	10	10	9.8	31
MSD % Recov.:	100	100	98	103
RPD:	3.0	3.0	0.0	6.7
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	BLK032796	BLK032796	BLK032796	BLK032796
Prepared Date:	3/27/96	3/27/96	3/27/96	3/27/96
Analyzed Date:	3/27/96	3/27/96	3/27/96	3/27/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.8	9.5	9.3	29
LCS % Recov.:	98	95	93	97

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130
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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.

SEQUOIA ANALYTICAL

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 Project Manager

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

9603F67.BLA <1>





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

Client Project ID: Shell/Oakland/ 960321-W2
Matrix: Liquid

Work Order #: 9603F67-01

Reported: Apr 12, 1996

QUALITY CONTROL DATA REPORT

Analyte: Diesel

QC Batch#: GC0401960HBPEXY

Analy. Method: EPA 8015M

Prep. Method: EPA 3520

Analyst: B. Ali

MS/MSD #: BLK040196

Sample Conc.: N.D.

Prepared Date: 4/1/96

Analyzed Date: 4/3/96

Instrument I.D.#: GCHP4

Conc. Spiked: 1000 µg/L

Result: 880

MS % Recovery: 88

Dup. Result: 940

MSD % Recov.: 94

RPD: 6.6

RPD Limit: 0-50

LCS #: -

Prepared Date: -

Analyzed Date: -

Instrument I.D.#: -

Conc. Spiked: -

LCS Result: -

LCS % Recov.: -

MS/MSD

LCS

Control Limits 38-122

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.

SEQUOIA ANALYTICAL

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

9603F67.BLA <2>

