

C A M B R I A

SEP 17 '98 PM 2:51

September 10, 1998

113

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

Re: **Second Quarter 1998 Monitoring Report**
Shell-branded Service Station
4411 Foothill Boulevard
Oakland, California
WIC #204-5508-3400
Cambria Project #24-314-298

*conc. in wells has decreased
unappreciably. ; MTBE increased in 3-1*



Dear Mr. Chan:

On behalf of Equilon Enterprises LLC, Cambria Environmental Technology, Inc. (Cambria) is submitting this ground water monitoring report in accordance with the reporting requirements of T23 CCR 2652d.

SECOND QUARTER 1998 ACTIVITIES

Ground Water Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells. In response to a January 14, 1998 Alameda County Department of Environmental Health letter, the samples were analyzed for nitrate, sulfate and ferrous iron. In addition, all methyl tert-butyl ether (MTBE) detections by EPA Method 8020 were confirmed by EPA Method 8260. Blaine also measured dissolved oxygen (DO) and oxidation-reduction potential (ORP) in the field. The Blaine report is included as Attachment A. Cambria calculated ground water elevations and compiled the analytical data (Tables 1 and 2) and prepared a ground water elevation contour map (Figure 1).

ANTICIPATED THIRD QUARTER 1998 ACTIVITIES

Ground Water Monitoring: Blaine will gauge and sample the site wells. Cambria will tabulate the data and prepare a monitoring report.

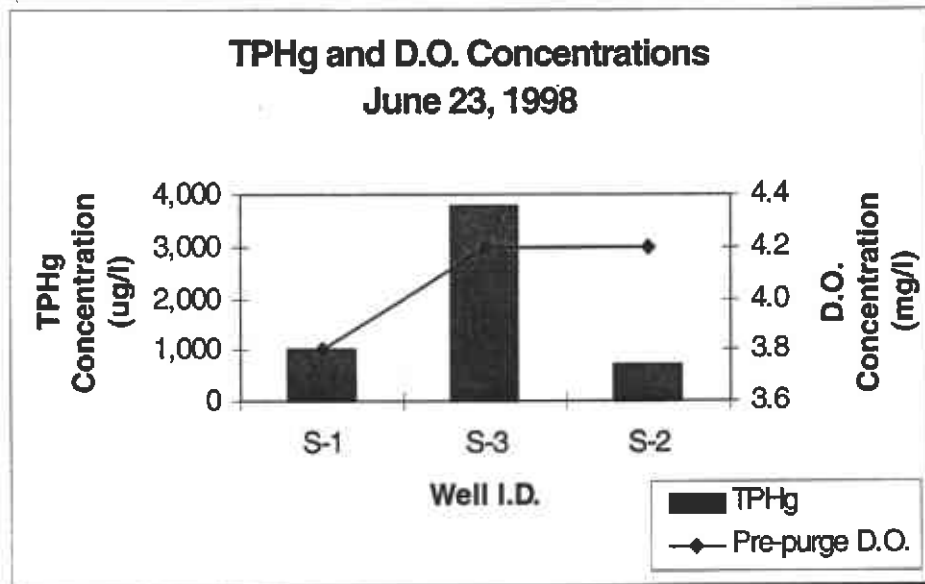
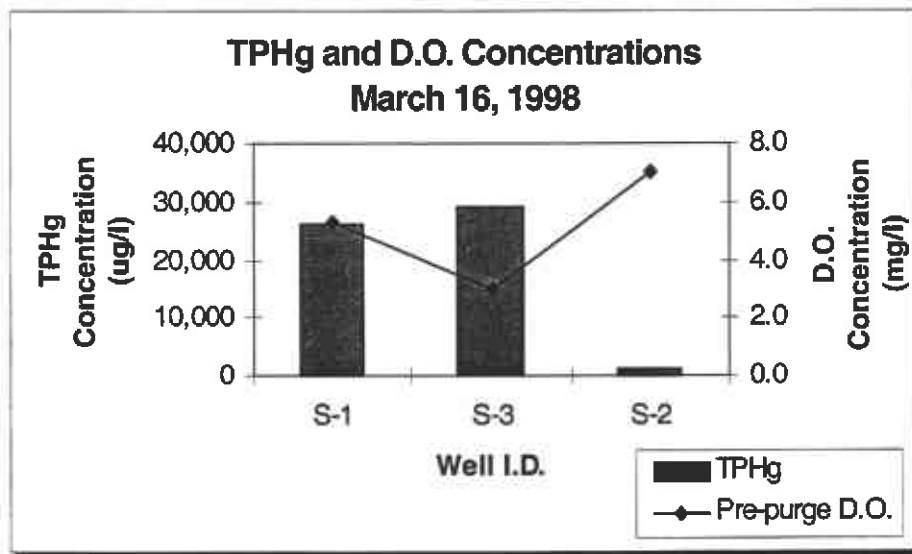
Oakland, CA
Sonoma, CA
Portland, OR
Seattle, WA

**Cambria
Environmental
Technology, Inc.**

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

DISCUSSION

As mentioned above, the ground water samples were analyzed for the bioattenuation parameters DO, ORP, nitrate, sulfate, and ferrous iron. In general, the expected relationships between hydrocarbon and bioparameter concentrations are as follows: active biodegradation is indicated by *inverse* relationships between hydrocarbon concentrations and DO, nitrate, and sulfate concentrations, and *direct* relationships between hydrocarbon concentrations and alkalinity and ferrous iron concentrations. Below is a comparison of total petroleum hydrocarbon as gasoline (TPHg) concentrations and pre-purge DO concentrations detected in the wells arranged from the upgradient well S-1 through the downgradient well S-2 for the first and second quarters of 1998.



During aerobic biodegradation, DO concentrations are reduced as aerobic respiration occurs. DO is the most thermodynamically favored electron acceptor used in aerobic biodegradation of petroleum hydrocarbons. Active aerobic biodegradation of benzene, toluene, ethylbenzene, and xlyenes (BTEX) requires at least 1 milligram per liter (mg/l) DO in ground water. DO concentrations can be as high as 8 to 13 mg/l in oxygen-saturated ground water that is free of hydrocarbons. In first quarter 1998, the general inverse relationships between DO and hydrocarbon concentrations and elevated DO concentrations indicate the occurrence of aerobic degradation.

The inverse relationship of DO and hydrocarbon concentrations is not as evident in second quarter 1998. For second quarter 1998, TPHg concentrations were significantly lower in wells S-1 and S-3 as compared to previous quarters, however DO concentrations did not significantly change. TPHg concentrations decreased from 26,000 micrograms per liter (ug/l) to <1,000 ug/l in S-1 and from 29,000 ug/l to 3,800 ug/l in S-3 with no significant change in ground water levels or DO levels. Since DO levels are still above 1 to 2 mg/l for all wells, it appears active aerobic biodegradation is occurring. The results of analyses for the remaining bioattenuation parameters were inconclusive (Table 2). Cambria will further evaluate the relationship between DO and hydrocarbon concentrations in third quarter 1998.

CLOSING

We appreciate the opportunity to work with you on this project. Please call Darryk Ataide at (510) 420-3339 if you have any questions or comments.

Sincerely,

Cambria Environmental Technology, Inc.



Darryk Ataide
Project Environmental Scientist



Diane M. Lundquist, P.E.
Principal Engineer



Attachment: A - Blaine Ground Water Monitoring Report

cc: Karen Petryna, Equiva Services LLC, P.O. Box 8080, Martinez, California 94553

G:\OAK4411\QM2Q98.WPD

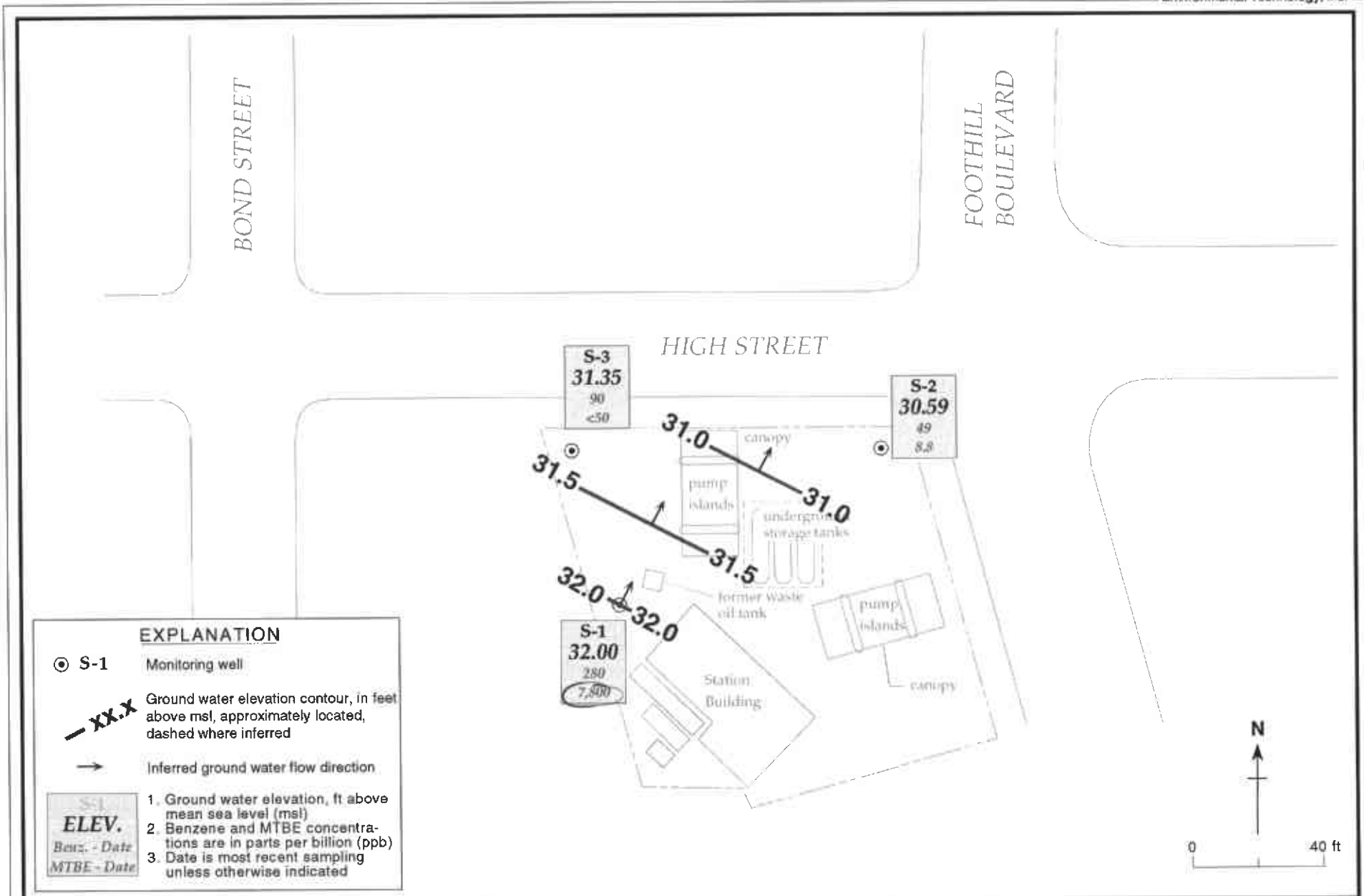


Figure 1. Ground Water Elevation Contours - June 23, 1998 - Shell-branded Service Station - WIC #204-5508-3400, 4411 Foothill Boulevard, Oakland, California

Table 1. Ground Water Elevations and Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station WIC# 204-5508-3400, 4411 Foothill Boulevard, Oakland, California

Well ID	Date	Depth to Water (feet)	Ground Water Elevation (ft-msl)	(Concentrations in µg/L)							Notes	
				TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo		MTBE
S-1	12/18/92	9.06	---	41,000	3,100	1,100	1,200	8,700	---	9,400	---	a
<i>TOB = 38.31</i>	05/26/93	---	---	39,000	1,300	4,700	1,500	7,800	6,000	370	---	
	05/28/93	12.13	26.18	---	---	---	---	---	---	---	---	
	06/03/93	8.89	29.42	---	---	---	---	---	---	---	---	
	06/08/93	8.80	29.51	---	---	---	---	---	---	---	---	
	09/21/93	10.40	27.91	34,000	480	5,000	3,800	18,000	5,900	ND	---	
	12/14/93	9.66	28.65	25,000	1,100	5,000	2,200	11,000	13,000	ND	---	
	03/17/94	8.20	30.11	57,000	1,300	5,400	2,100	11,000	1,600	2,300	---	
	06/16/94	9.41	28.90	57,000	1,600	6,000	2,000	13,000	3,000	210	---	
	09/22/94	11.13	27.18	39,000	1,300	2,100	1,500	7,100	ND	ND	---	
	12/15/94	7.15	31.16	30,000	1,100	4,700	1,600	10,000	3,100	ND	---	b
	03/30/95	6.09	32.22	30,000	1,400	4,000	1,500	11,000	3,100	ND	---	b, c
	06/20/95	7.30	31.01	28,000	1,100	2,300	1,100	8,300	2,100	NC	---	
	09/20/95	10.02	28.29	40,000	840	3,600	1,300	8,600	2,600	NC	---	
	12/06/95	11.64	26.67	38,000	920	3,200	1,500	9,400	6,400	ND	---	b
	03/21/96	6.87	31.44	48,000	700	4,200	1,100	8,600	---	---	---	
	09/06/96	10.50	27.81	41,000	830	2,600	2,100	12,000	4,100	<1,000	<250	
	12/19/96	8.24	30.07	40,000	540	3,100	1,900	9,800	2,500	<500	920	
	03/17/97	7.26	31.05	42,000	610	2,700	1,700	11,000	4,700	<1,000	3,500	
	06/11/97	10.69	27.62	28,000	540	960	1,300	5,300	4,000	<1,000	220	
	06/11/97	10.69	27.62	30,000	580	1,000	1,400	5,400	3,900	<1,000	<125	duplicate
	09/17/97	10.26	28.05	27,000	310	1,200	1,900	9,000	4,400	<1,000	170	
	09/17/97	10.26	28.05	27,000	270	1,200	1,900	9,000	4,400	<1,000	170	duplicate
	12/11/97	6.96	31.35	21,000	350	820	1,500	6,500	3,400	<1,000	<125	
	03/16/98	6.00	32.31	25,000	250	820	670	5,000	2,500	510	<125	
	03/16/98	6.00	32.31	26,000	250	840	720	5,100	---	---	<125	duplicate
	06/23/98	6.31	32.00	<1,000	280	14	23	15	230	<500	6,100(7,800)	
S-2	05/28/93	9.51	29.28	---	---	---	---	---	---	---	---	
<i>TOB = 38.79</i>	06/03/93	9.51	29.28	---	---	---	---	---	---	---	---	

slip near water?

Table 1. Ground Water Elevations and Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station WIC# 204-5508-3400, 4411 Foothill Boulevard, Oakland, California

Well ID	Date	Depth to Water (feet)	Ground Water Elevation (ft-msl)	(Concentrations in µg/L)					TPHd	TPHmo	MTBE	Notes
				TPHg	Benzene	Toluene	Ethylbenzene	Xylenes				
	06/08/93	9.57	29.22	---	---	---	---	---	---	---		
	06/29/93	---	---	1,300	290	35	38	130	---	---		
	09/21/93	10.54	28.25	3,300	870	24	190	120	---	---		
	12/14/93	9.76	29.03	1,300	400	16	36	27	---	---		
	03/17/94	9.92	28.87	4,500	610	27	92	110	---	---		
	03/17/94	9.92	28.87	4,000	610	26	93	120	---	---	duplicate	
	06/16/94	10.11	28.68	2,800	690	45	97	140	---	---		
	09/22/94	10.51	28.28	4,000	630	94	64	230	---	---		
	12/15/94	9.12	29.67	1,600	450	300	67	130	---	---		
	03/30/95	7.86	30.93	8,200	2,800	190	240	700	---	---	c	
	06/20/95	9.51	29.28	9,600	2,600	160	170	500	---	---		
	09/20/95	10.06	28.73	4,200	920	45	98	140	---	NC		
	12/06/95	10.52	28.27	<5,000	790	67	64	130	---	---		
	03/21/96	8.60	30.19	3,700	850	45	96	170	---	---		
	09/06/96	10.50	28.29	2,400	500	33	39	84	---	---	490	
	12/19/96	9.40	29.39	1,200	330	15	24	31	---	---	430	
	03/17/97	9.82	28.97	4,100	780	42	110	120	---	---	2,200	
	06/11/97	10.18	28.61	760	120	<5.0	7.0	7.6	---	---	900	
	09/17/97	9.90	28.89	1,500	230	8.6	40	27	---	---	480	
	12/11/97	8.27	30.52	1,300	240	15	33	57	---	---	280	
	03/16/98	7.97	30.82	1,100	830	48	<10	<10	---	---	4,700(4,800)	
	06/23/98	8.20	30.59	720	46	6.8	50	68	---	---	50(8.8)	
	06/23/98	8.20	30.59	810	49	7.1	50	70	---	---	49(8.8) duplicate	
S-3	05/28/93	8.45	28.88	---	---	---	---	---	---	---		
TOB = 37.33	06/03/93	8.36	28.97	---	---	---	---	---	---	---		
	06/08/93	8.41	28.92	---	---	---	---	---	---	---		
	06/29/93	---	---	29,000	1,500	1,800	950	6,200	---	---		
	09/21/93	10.08	27.25	15,000	900	2,200	2,600	11,000	---	---		
	12/94/93	8.80	28.53	20,000	1,100	2,400	1,800	8,500	---	---		

Table 1. Ground Water Elevations and Analytical Data - Hydrocarbon Compounds - Shell-branded Service Station WIC# 204-5508-3400, 4411 Foothill Boulevard, Oakland, California

Well ID	Date	Depth to Water (feet)	Ground Water Elevation (ft-msl)	Concentrations in µg/L								Notes
				TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TPHd	TPHmo	MTBE	
	03/17/94	8.34	28.99	14,000	580	190	750	1,700	---	---	---	
	06/16/94	9.12	28.21	20,000	700	690	1,400	4,100	---	---	---	
	06/16/94	---	---	19,000	680	560	1,300	3,700	---	---	---	duplicate
	09/22/94	10.27	27.06	24,000	630	1,100	1,400	5,700	---	---	---	
	09/22/94	---	---	25,000	720	1,100	1,500	6,100	---	---	---	duplicate
	12/15/94	7.81	29.52	18,000	520	800	1,100	4,200	---	---	---	
	12/15/94	---	---	23,000	1,000	1,900	2,000	8,600	---	---	---	duplicate
	03/30/95	7.06	30.27	8,800	360	730	700	3,700	---	---	---	c
	03/30/95	---	---	7,600	330	570	600	2,600	---	---	---	duplicate
	06/20/95	8.15	29.18	9,600	510	170	960	1,700	---	---	---	
	06/20/95	---	---	9,800	500	170	950	1,700	---	---	---	duplicate
	09/20/95	9.32	28.01	21,000	400	560	1,300	4,600	---	---	---	
	12/06/95	10.53	26.80	24,000	630	1,400	1,400	6,000	---	---	---	
	12/06/95	---	---	22,000	630	1,200	1,400	5,500	---	---	---	duplicate
	03/21/96	7.32	30.01	9,100	290	110	490	1,600	---	---	---	
	03/21/96	---	---	11,000	310	250	540	2,100	---	---	---	duplicate
	09/06/96	10.10	27.23	15,000	440	300	1,100	3,000	---	---	500	
	09/06/96	---	---	11,000	490	170	820	1,500	---	---	700	duplicate
	12/19/96	8.36	28.97	12,000	600	380	850	2,500	---	---	380	
	12/19/96	8.36	28.97	12,000	590	380	830	2,500	---	---	540	duplicate
	03/17/97	8.57	28.76	12,000	520	140	740	1,400	---	---	320	
	03/17/97	8.57	28.76	9,600	500	100	680	1,100	---	---	<250	duplicate
	06/11/97	9.26	28.07	9,600	510	94	740	1,100	---	---	410	
	09/17/97	9.62	27.71	21,000	140	560	1,800	7,200	---	---	130	
	12/11/97	7.34	29.99	24,000	530	970	1,600	6,900	---	---	950	
	12/11/97	7.34	29.99	29,000	520	1,000	1,600	7,300	---	---	970	duplicate
	03/16/98	5.75	31.58	29,000	840	810	1,700	6,000	---	---	<250	
	06/23/98	5.98	31.35	3,800	90	220	240	1,400	---	---	<50	

Table 2. Ground Water Analytical Data - Bioattenuation Parameters - Shell-branded Service Station WIC# 204-5508-3400, 4411 Foothill Boulevard, Oakland, California

Well ID	Date	Depth to Water (feet)	TPHg (µg/L)	←————— (Concentrations in mg/L) —————→			DO	ORP (millivolts)	Notes
				Ferrous Iron	Nitrate as Nitrate	Sulfate			
S-1	03/16/98	6.00	26,000	1.9	<1.0	<1.0	5.3/3.7	158/155	
	06/23/98	6.31	<1,000	2.0	<1.0	5.9	3.8/2.4	117/94	
S-2	03/16/98	7.97	1,100	1.7	<1.0	17	7.0/4.3	147/149	
	06/23/98	8.20	720	4.3	<1.0	5.7	4.2/3.8	128/134	
	06/23/98	8.20	810	3.7	<1.0	5.4	4.2/3.8	128/134	duplicate
S-3	03/16/98	5.75	29,000	3.8	<1.0	12	3.0/3.4	153/142	
	06/23/98	5.98	3,800	2.0	<1.0	8.9	4.2/2.0	119/121	

Ideal Aerobic Degradation Relationship	Direct	Inverse	Inverse	Inverse	Direct
Observed Relationship	Inconclusive	Inconclusive	Moderately inverse	Moderately inverse	Inconclusive

Abbreviations and Notes:

- TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
- DO = Dissolved oxygen (pre-purge / post-purge)
- ORP = Oxidation reduction potential (pre-purge / post-purge)
- µg/L = Micrograms per liter
- mg/L = Milligrams per liter
- <n = Below detection limit of n units
- Ferrous iron by modified EPA Method 200.7
- Nitrate as nitrate and sulfate by EPA Method 300.0

ATTACHMENT A

Blaine Ground Water Monitoring Report

BLAINE
TECH SERVICES INC.



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

July 28, 1998

Shell Oil Company
108 Cutting Blvd.
Richmond, CA 94804

Attn: Karen Petryna

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

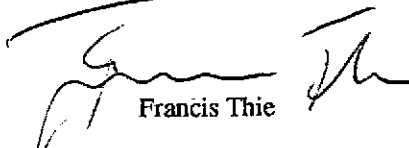
2nd Quarter 1998

Groundwater Monitoring Report 980623-M-3

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

Groundwater monitoring at this site was performed in accordance with Standard Operating Procedures provided to the interested regulatory agencies. If you have any questions about the work performed at this site please call me at (408) 573-0555 ext. 201.

Yours truly,



Francis Thie

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

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

(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	06/23/98	TOB	ODOR	--	--	--	6.31	24.45
S-2*	06/23/98	TOB	ODOR	--	--	--	8.20	22.00
S-3	06/23/98	TOB	ODOR	--	--	--	5.98	20.00

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



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: _____

Date: _____
Page 01 of 01

Site Address: 4411 Foothill Blvd., Oakland, CA

WIC#: 204-5508-3400

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

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

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

Comments: 980623-M3

Sampled by: M. Wetmore
Printed Name: M. Wetmore

Analysis Required

LAB: SEQR-CP

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring <input checked="" type="checkbox"/>	4441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4442	15 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

NOTE: Notify Lab as soon as possible of 24/48 hrs. TAT.
9806 F 86

UST AGENCY: _____

Sample ID	Date	Sludge	Soil	Water	Air	No. of conls.	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/MTBC	Nitrate Sulfate	Ferrous Iron	Asbestos Motor Oil	Container Size	Preparation Used	Composite Y/N
01 S-1	6/23			X		39		X				X	X	X	X			
02 S-2	4			X		5						X	X	X				
03 S-3	4			X		15						X	X	X				
04 EB	4			X		3						X	X	X				
04 DUP	"			X		5						X	X	X				

Confirm at All wells MTBC by 8260

Relinquished By (signature): <u>[Signature]</u>	Printed Name: M. Wetmore	Date: 6/24/98 Time: 10:05	Received (signature): <u>[Signature]</u>	Printed Name: F. H. H. H.	Date: 6/24/98 Time: 10:05
Relinquished By (signature): <u>[Signature]</u>	Printed Name:	Date: 6/24/98 Time:	Received (signature): _____	Printed Name:	Date: _____ Time:
Relinquished By (signature): <u>[Signature]</u>	Printed Name:	Date: _____ Time:	Received (signature): <u>[Signature]</u>	Printed Name: Aura Demare	Date: 6/24/98 Time: 11:05

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



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiger Lane
819 Striker Avenue, Suite 8
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834
Petaluma, CA 94954

(650) 364-9600
(925) 988-9600
(916) 921-9600
(707) 792-1865

FAX (650) 364-9233
FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

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

Project: Shell 4411 Foothill blvd

Enclosed are the results from samples received at Sequoia Analytical on June 24, 1998.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
806F86 -01	LIQUID, S-1	06/23/98	TPPH/BTEX/MTBE (Concord)
806F86 -01	LIQUID, S-1	06/23/98	CMTBMW Methyl t-Butyl Ethe
806F86 -01	LIQUID, S-1	06/23/98	Ferrous Iron
806F86 -01	LIQUID, S-1	06/23/98	Nitrate as Nitrate
806F86 -01	LIQUID, S-1	06/23/98	Sulfate
806F86 -01	LIQUID, S-1	06/23/98	TPHD_W Extractable TPH
806F86 -01	LIQUID, S-1	06/23/98	TPHMOW Fuel Fingerprint/Mo
806F86 -02	LIQUID, S-2	06/23/98	TPPH/BTEX/MTBE (Concord)
806F86 -02	LIQUID, S-2	06/23/98	CMTBMW Methyl t-Butyl Ethe
806F86 -02	LIQUID, S-2	06/23/98	Ferrous Iron
806F86 -02	LIQUID, S-2	06/23/98	Nitrate as Nitrate
806F86 -02	LIQUID, S-2	06/23/98	Sulfate
806F86 -03	LIQUID, S-3	06/23/98	TPPH/BTEX/MTBE (Concord)
806F86 -03	LIQUID, S-3	06/23/98	Ferrous Iron
806F86 -03	LIQUID, S-3	06/23/98	Nitrate as Nitrate
806F86 -03	LIQUID, S-3	06/23/98	Sulfate
806F86 -04	LIQUID, EB	06/23/98	TPPH/BTEX/MTBE (Concord)
806F86 -05	LIQUID, DUP	06/23/98	TPPH/BTEX/MTBE (Concord)
806F86 -05	LIQUID, DUP	06/23/98	CMTBMW Methyl t-Butyl Ethe
806F86 -05	LIQUID, DUP	06/23/98	Ferrous Iron
806F86 -05	LIQUID, DUP	06/23/98	Nitrate as Nitrate

SEQUOIA ANALYTICAL





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<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9806F86 -05	LIQUID, DUP	06/23/98	Sulfate

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





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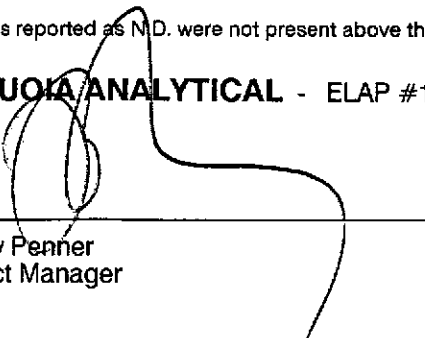
Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 4411 Foothill blvd Lab Proj. ID: 9806F86	Sampled: 06/23/98 Received: 06/24/98 Analyzed: see below Reported: 07/17/98
Attention: Fran Thie		

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9806F86-01 Sample Desc: LIQUID,S-1				
Ferrous Iron	mg/L	07/07/98	0.010	2.0
Nitrate as Nitrate	mg/L	06/24/98	1.0	N.D.
Sulfate	mg/L	06/24/98	1.0	5.9
Lab No: 9806F86-02 Sample Desc: LIQUID,S-2				
Ferrous Iron	mg/L	07/07/98	0.010	4.3
Nitrate as Nitrate	mg/L	06/24/98	1.0	N.D.
Sulfate	mg/L	06/24/98	1.0	5.7
Lab No: 9806F86-03 Sample Desc: LIQUID,S-3				
Ferrous Iron	mg/L	07/07/98	0.010	2.0
Nitrate as Nitrate	mg/L	06/24/98	1.0	N.D.
Sulfate	mg/L	06/24/98	1.0	8.9
Lab No: 9806F86-05 Sample Desc: LIQUID,DUP				
Ferrous Iron	mg/L	07/07/98	0.010	3.7
Nitrate as Nitrate	mg/L	06/24/98	1.0	N.D.
Sulfate	mg/L	06/24/98	1.0	5.4

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 4411 Foothill blvd Sample Descript: S-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806F86-01	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 07/10/98 Reported: 07/17/98
Attention: Fran Thie		

QC Batch Number: GC071098802004A
Instrument ID: HP-4

Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	N.D.
Methyl t-Butyl Ether	50	6100
Benzene	10	280
Toluene	10	14
Ethyl Benzene	10	23
Xylenes (Total)	10	15
Chromatogram Pattern:		

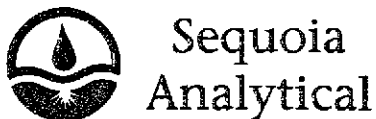
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	120

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

SEQUOIA ANALYTICAL - ELAP #1271


Peggy Penner
Project Manager





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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 4411 Foothill blvd Sample Descript: S-1 Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9806F86-01	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 07/14/98 Reported: 07/17/98
--	--	---

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.0	7800
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76	114
Toluene-d8	88	110
4-Bromofluorobenzene	86	115

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

EQUOIA ANALYTICAL - ELAP #1271


 Peggy Penner
 Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 4411 Foothill blvd Sample Descript: S-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9806F86-01	Sampled: 06/23/98 Received: 06/24/98 Extracted: 07/02/98 Analyzed: 07/07/98 Reported: 07/17/98
Attention: Fran Thie		


QC Batch Number: GC0702980HBPEXA
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50	230 C9-C24
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	103

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

SEQUOIA ANALYTICAL - ELAP #1210



Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 4411 Foothill blvd Sample Descript: S-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9806F86-01	Sampled: 06/23/98 Received: 06/24/98 Extracted: 07/02/98 Analyzed: 07/07/98 Reported: 07/17/98
--	--	--

GC Batch Number: GC0702980HBPEXA
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	103

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

SEQUOIA ANALYTICAL - ELAP #1210


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 4411 Foothill blvd Sample Descript: S-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806F86-02	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 07/10/98 Reported: 07/17/98
--	--	---

QC Batch Number: GC071098802005A
Instrument ID: HP-5

Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	250	720
Methyl t-Butyl Ether	12	50
Benzene	2.5	46
Toluene	2.5	6.8
Ethyl Benzene	2.5	50
Xylenes (Total)	2.5	68
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	83

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

SEQUOIA ANALYTICAL - ELAP #1271


Peggy Penner
Project Manager





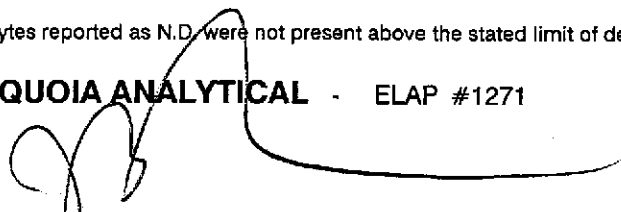
Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 4411 Foothill blvd Sample Descript: S-2 Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9806F86-02	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 07/14/98 Reported: 07/17/98
Attention: Fran Thie		

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.0	8.8
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76	114
Toluene-d8	88	110
4-Bromofluorobenzene	86	115

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

SEQUOIA ANALYTICAL - ELAP #1271


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 4411 Foothill blvd Sample Descript: S-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806F86-03	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 07/09/98 Reported: 07/17/98
--	--	---

QC Batch Number: GC070998802005A
Instrument ID: HP-5

Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	3800
Methyl t-Butyl Ether	50	N.D.
Benzene	10	90
Toluene	10	220
Ethyl Benzene	10	240
Xylenes (Total)	10	1400
Chromatogram Pattern:		C6-C12

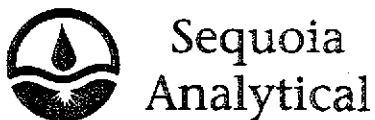
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	95

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

SEQUOIA ANALYTICAL - ELAP #1271


Peggy Penner
Project Manager





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Blaine Tech Services
 1680 Rogers Avenue
 San Jose, CA 95112

Client Proj. ID: Shell 4411 Foothill blvd
 Sample Descript: EB
 Matrix: LIQUID
 Analysis Method: 8015Mod/8020
 Lab Number: 9806F86-04

Sampled: 06/23/98
 Received: 06/24/98
 Analyzed: 07/07/98
 Reported: 07/17/98

Attention: Fran Thie

GC Batch Number: GC070798802005A
 Instrument ID: HP-5

Total Purgeable 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	86

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

SEQUOIA ANALYTICAL - ELAP #1271


 Peggy Penner
 Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Shell 4411 Foothill blvd Sample Descript: DUP Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806F86-05	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 07/10/98 Reported: 07/17/98
--	--	---

QC Batch Number: GC071098802005A
Instrument ID: HP-5

Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	250	810
Methyl t-Butyl Ether	12	49
Benzene	2.5	49
Toluene	2.5	7.1
Ethyl Benzene	2.5	50
Xylenes (Total)	2.5	70
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	75

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

SEQUOIA ANALYTICAL - ELAP #1271


Peggy Penner
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell 4411 Foothill blvd Sample Descript: DUP Matrix: LIQUID Analysis Method: EPA 8260 Lab Number: 9806F86-05	Sampled: 06/23/98 Received: 06/24/98 Analyzed: 07/14/98 Reported: 07/17/98
--	--	---

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.0	8.8
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	76	114
Toluene-d8	88	110
4-Bromofluorobenzene	86	115

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

SEQUOIA ANALYTICAL - ELAP #1271


Peggy Penner
Project Manager





**Sequoia
Analytical**

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

Client Project ID: Shell 4411 Foothill Blvd.

QC Sample Group: 9806F86-01

Reported: Jul 17, 1998

QUALITY CONTROL DATA REPORT

Matrix: Liquid
Method: EPA 8015A
Analyst: A. Porter

ANALYTE Diesel

QC Batch #: GC0702980HBPEXA

Sample No.: 9806F57-14

Date Prepared: 7/2/98

Date Analyzed: 7/6/98

Instrument I.D.#: GCHP5A

Sample Conc., ug/L: 7800

Conc. Spiked, ug/L: 1000

Matrix Spike, ug/L: 7200

% Recovery: -60

Matrix

pike Duplicate, ug/L: 7000

% Recovery: -80

relative % Difference: 29

RPD Control Limits: 0-50 *Spike diluted out.

LCS Batch#: BLK070298AS

Date Prepared: 7/2/98

Date Analyzed: 7/6/98

Instrument I.D.#: GCHP5A

Conc. Spiked, ug/L: 1000

Recovery, ug/L: 730

LCS % Recovery: 73

Percent Recovery Control Limits:

MS/MSD 50-150

LCS 60-140

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

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.





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

Client Project ID: Shell 4411 Foothill Blvd.
Matrix: Liquid

Work Order #: 9806F86 -01-03, 05

Reported: Jul 20, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0707986010M2A	ME0707986010M2A	ME0707986010M2A	ME0707986010M2A
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010

Analyst:	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser
MS/MSD #:	9806F8605	9806F8605	9806F8605	9806F8605
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/7/98	7/7/98	7/7/98	7/7/98
Analyzed Date:	7/7/98	7/7/98	7/7/98	7/7/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Result:	0.96	1.0	0.98	0.99
MS % Recovery:	96	100	98	99
Dup. Result:	0.96	1.0	0.98	0.99
MSD % Recov.:	96	100	98	99
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	CCVMI070298	CCVMI070298	CCVMI070298	CCVMI070298
Prepared Date:	7/2/98	7/2/98	7/2/98	7/2/98
Analyzed Date:	7/7/98	7/7/98	7/7/98	7/7/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	5.0 mg/L	5.0 mg/L	5.0 mg/L	5.0 mg/L
LCS Result:	4.7	4.9	5.0	5.1
LCS % Recov.:	94	98	100	102

MS/MSD	80-120	80-120	80-120	80-120
LCS	80-120	80-120	80-120	80-120
Control Limits				

SEQUIA ANALYTICAL

Peggy Penner
Project Manager

Please Note:

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

9806F86.BLA <1>





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Blaine Tech Services, Inc. 1680 Rogers Ave. San Jose, CA 95112 Attention: Fran Thie	Client Project ID: Shell 4411 Foothill Blvd. Matrix: Liquid Work Order #: 9806F86-01	Reported: Jul 20, 1998
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QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC071098802004A	GC071098802004A	GC071098802004A	GC071098802004A	GC071098802004A
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:	C. Westwater	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD #:	8062388	8062388	8062388	8062388	8062388
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/10/98	7/10/98	7/10/98	7/10/98	7/10/98
Analyzed Date:	7/10/98	7/10/98	7/10/98	7/10/98	7/10/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	290 µg/L
Result:	17	18	12	56	260
MS % Recovery:	85	90	60	93	90
Dup. Result:	17	16	7.0	41	220
MSD % Recov.:	85	80	35	68	76
RPD:	0.0	11.8	52.6	30.9	16.7
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS071098	LCS071098	LCS071098	LCS071098	LCS071098
Prepared Date:	7/10/98	7/10/98	7/10/98	7/10/98	7/10/98
Analyzed Date:	7/10/98	7/10/98	7/10/98	7/10/98	7/10/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	290 µg/L
LCS Result:	17	20	20	64	270
LCS % Recov.:	85	100	100	107	93

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

SEQUOIA ANALYTICAL
Elap #1271

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

9806F86.BLA <2>





Sequoia Analytical

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

Client Project ID: Shell 4411 Foothill Blvd.
Matrix: Liquid

Work Order #: 9806F86-02, 05

Reported: Jul 20, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC071098802005A	GC071098802005A	GC071098802005A	GC071098802005A	GC071098802005A
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:	C. Westwater	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD #:	8062520	8062520	8062520	8062520	8062520
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/10/98	7/10/98	7/10/98	7/10/98	7/10/98
Analyzed Date:	7/10/98	7/10/98	7/10/98	7/10/98	7/10/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	240 µg/L
Result:	20	19	22	61	550
MS % Recovery:	100	95	110	102	229
Dup. Result:	18	20	20	62	240
MSD % Recov.:	90	100	100	103	100
RPD:	10.5	5.1	9.5	1.6	78.5
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS071098	LCS071098	LCS071098	LCS071098	LCS071098
Prepared Date:	7/10/98	7/10/98	7/10/98	7/10/98	7/10/98
Analyzed Date:	7/10/98	7/10/98	7/10/98	7/10/98	7/10/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	240 µg/L
LCS Result:	18	20	21	63	320
LCS % Recov.:	90	100	105	105	133

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

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
Elap #1271

Peggy Fenner
Project Manager

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

9806F86.BLA <3>





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FAX (916) 921-0100
FAX (707) 792-0342

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

Client Project ID: Shell 4411 Foothill Blvd.
Matrix: Liquid

Work Order #: 9806F86-03

Reported: Jul 20, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC070998802005A	GC070998802005A	GC070998802005A	GC070998802005A	GC070998802005A
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:	C. Westwater	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD #:	8062582	8062582	8062582	8062582	8062582
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/9/98	7/9/98	7/9/98	7/9/98	7/9/98
Analyzed Date:	7/10/98	7/10/98	7/10/98	7/10/98	7/10/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	270 µg/L
Result:	22	24	24	73	220
MS % Recovery:	110	120	120	122	81
Dup. Result:	17	19	19	59	250
MSD % Recov.:	85	95	95	98	93
RPD:	25.6	23.3	23.3	21.2	12.8
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS070998	LCS070998	LCS070998	LCS070998	LCS070998
Prepared Date:	7/9/98	7/9/98	7/9/98	7/9/98	7/9/98
Analyzed Date:	7/10/98	7/10/98	7/10/98	7/10/98	7/10/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	270 µg/L
LCS Result:	17	18	19	58	250
LCS % Recov.:	85	90	95	97	93

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

SEQUOIA ANALYTICAL
Elap #1271

Peggy Penner
Project Manager

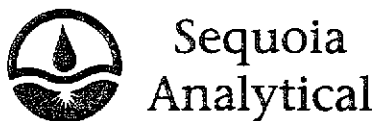
Please Note:

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

Client Project ID: Shell 4411 Foothill Blvd.
Matrix: Liquid

Work Order #: 9806F86-04

Reported: Jul 20, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC070798802005A	GC070798802005A	GC070798802005A	GC070798802005A	GC070798802005A
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:	C. Westwater	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD #:	8062545	8062545	8062545	8062545	8062545
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/7/98	7/7/98	7/7/98	7/7/98	7/7/98
Analyzed Date:	7/7/98	7/7/98	7/7/98	7/7/98	7/7/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	270 µg/L
Result:	17	18	18	57	230
MS % Recovery:	85	90	90	95	85
Dup. Result:	17	18	18	57	220
MSD % Recov.:	85	90	90	95	81
RPD:	0.0	0.0	0.0	0.0	4.4
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS070798	LCS070798	LCS070798	LCS070798	LCS070798
Prepared Date:	7/7/98	7/7/98	7/7/98	7/7/98	7/7/98
Analyzed Date:	7/7/98	7/7/98	7/7/98	7/7/98	7/7/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	270 µg/L
LCS Result:	18	19	19	59	220
LCS % Recov.:	90	95	95	98	81

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

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SEQUOIA ANALYTICAL
Elap #1271

Peggy Penner
Project Manager

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

Client Project ID: Shell 4411 Foothill Blvd.
Matrix: Liquid

Work Order #: 9806F86-01-02, 05

Reported: Jul 20, 1998

QUALITY CONTROL DATA REPORT

Analyte:	MTBE
QC Batch#:	MS0714988260S2A
Analy. Method:	EPA 8260
Prep. Method:	EPA 5030

Analyst: N. Nelson
MS/MSD #: 8070221
Sample Conc.: N.D.
Prepared Date: 7/14/98
Analyzed Date: 7/14/98
Instrument I.D.#: GCMS2
Conc. Spiked: 50 µg/L

Result: 62
MS % Recovery: 124

Dup. Result: 58
MSD % Recov.: 116

RPD: 6.7
RPD Limit: 0-25

LCS #: LCS071498
Prepared Date: 7/14/98
Analyzed Date: 7/14/98
Instrument I.D.#: GCMS2
Conc. Spiked: 50 µg/L

LCS Result: 58
LCS % Recov.: 116

MS/MSD	60-140
LCS	65-135
Control Limits	

SEQUOIA ANALYTICAL
Elap #1271

Peggy Benner
Project Manager

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**Sequoia
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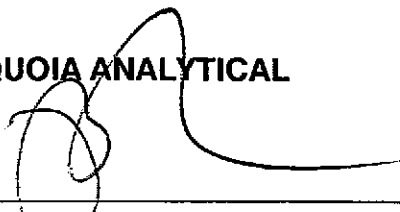
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Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112 Attention: Fran Thie	Client Proj. ID: Shell 4411 Foothill blvd Lab Proj. ID: 9806F86	Received: 06/24/98 Reported: 07/17/98
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LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 21 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

