CAMBRIA

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September 4, 1998

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

Re: **Third Quarter 1998 Monitoring Report**
Shell-branded Service Station
350 Grand Avenue
Oakland, California
WIC #204-5510-0204
Cambria Project #24-314-398

Dear Mr. Seery:

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 23 CCR 2652d.

THIRD QUARTER 1998 ACTIVITIES

Ground Water Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells. Cambria calculated ground water elevations (Table 1), compiled the analytical data (Table 2), and prepared a ground water elevation contour map (Figure 1). The Blaine report is included as Attachment A.

ANTICIPATED FUTURE ACTIVITIES

Ground Water Monitoring: The next ground water monitoring event is scheduled for first quarter 1999. At that time, Blaine will gauge and sample the site wells, and 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

Off Site Investigation: Cambria's July 27, 1998 work plan for evaluation of potential preferential flow pathways was approved in your August 4, 1998 letter to Shell Oil Products Company. Cambria will conduct the utility conduit evaluation and will report the results of the investigation during the fourth 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.

D. Ataide

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

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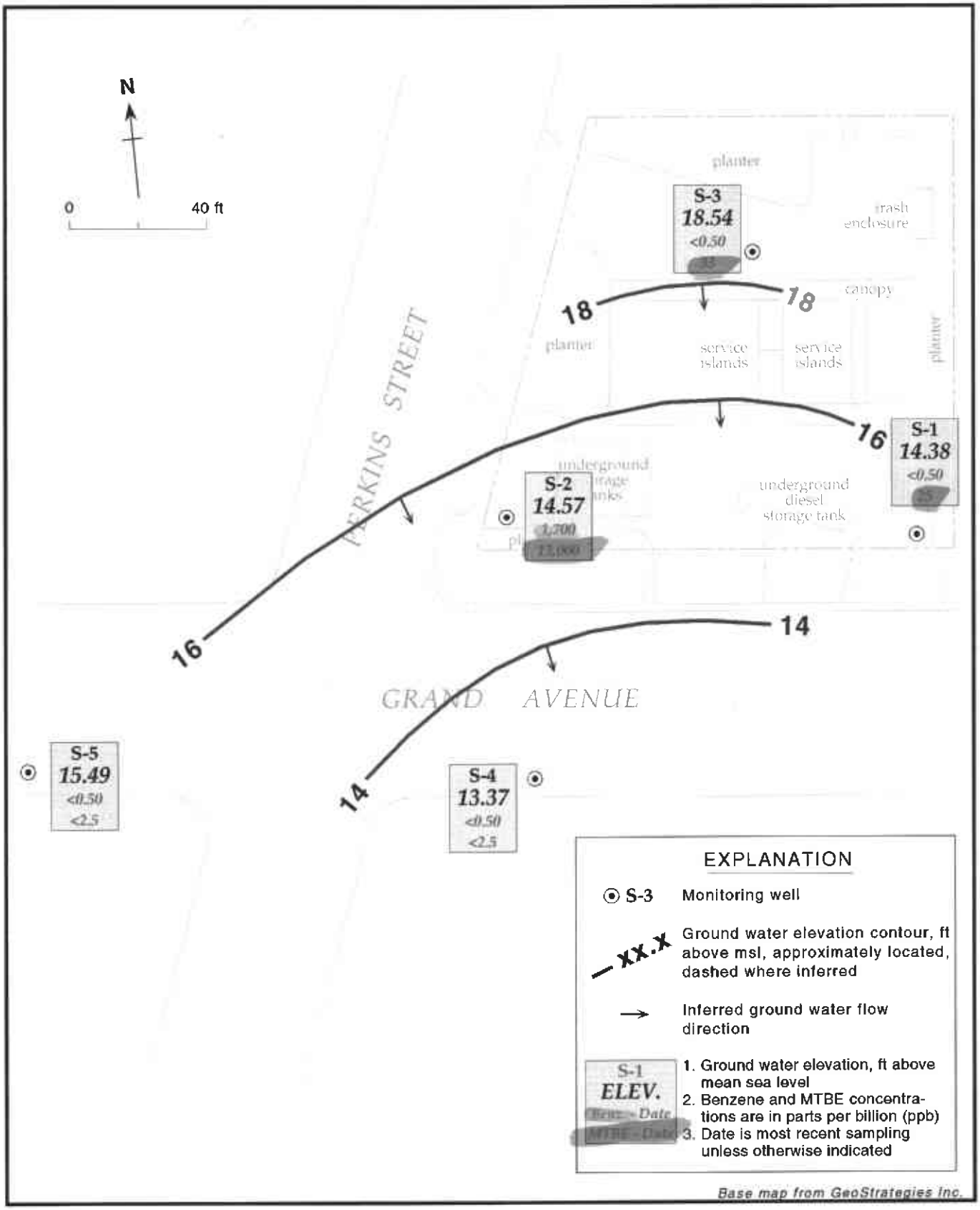

Figure 1. Ground Water Elevation Contours - July 17, 1998 - Shell-branded Service Station
WIC #204-5510-0204 - 350 Grand Avenue, Oakland, California

Table 1. **Ground Water Elevations** – Shell-branded Service Station WIC# 204-5510-0204, 350 Grand Avenue, Oakland, California

Well ID	Date	Top-of-Box Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
S-1	01/23/91	20.84	9.73	11.11
	04/25/91		7.37	13.47
	07/19/91		8.92	11.92
	10/09/91		9.62	11.22
	01/23/92		8.94	11.90
	04/27/92		7.06	13.78
	07/10/92		8.31	12.53
	10/06/92		9.55	11.29
	01/06/93		9.86	10.98
	04/26/93		6.30	14.54
	07/20/93		8.78	12.06
	10/18/93		9.20	11.64
	01/07/94		9.53	11.31
	04/11/94		8.50	12.34
	07/14/94		8.45	12.39
	07/19/94		9.07	11.77
	10/06/94		11.68	9.16
	01/04/95		8.51	12.33
	04/12/95		6.66	14.18
	07/07/95		6.95	13.89
	10/05/95		8.50	12.34
	01/12/96		8.02	12.82
	04/02/96		4.98	15.86
	07/30/96		6.40	14.44
	10/02/96		7.53	13.31
	09/19/97		8.54	12.30
	01/08/98		9.09	11.75
	07/17/98	**20.86[a]**	**6.48**	**14.38**
S-2	01/23/91	21.24	10.55	10.69
	04/25/91		8.24	13.00
	07/19/91		9.55	11.69
	10/09/91		10.26	10.98
	01/23/92		9.51	11.73
	04/27/92		7.83	13.41
	07/10/92		8.57	12.67
	10/06/92		9.49	11.75
	01/06/93		8.56	12.68
	04/26/93		6.84	14.40
	07/20/93		8.52	12.72
	10/18/93		9.36	11.88
	01/07/94		8.37	12.87
	04/11/94		6.96	14.28
	07/14/94		7.49	13.75
	07/19/94		8.02	13.22
	10/06/94		11.00	10.24
	01/04/94		8.07	13.17
	04/12/95		6.12	15.12

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Table 1. **Ground Water Elevations** – Shell-branded Service Station WIC# 204-5510-0204, 350 Grand Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Box Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
	07/07/95		6.35	14.89
	10/05/95		7.36	13.88
	01/12/96		7.64	13.60
	04/02/96		6.18	15.06
	07/30/96		7.22	14.02
	10/02/96		7.60	13.64
	09/19/97		7.45	13.79
	01/08/98		6.96	14.28
	07/17/98		**6.67**	**14.57**
S-3	01/23/91	22.70	14.67	8.03
	04/25/91		12.96	9.74
	07/19/91		12.45	10.25
	10/09/91		12.98	9.72
	01/23/92		13.06	9.64
	04/27/92		7.25	15.45
	07/10/92		8.46	14.24
	10/06/92		11.77	10.93
	01/06/93		12.53	10.17
	04/26/93		4.28	18.42
	07/20/93		5.70	17.00
	10/18/93		10.30	12.40
	01/07/94		12.40	10.30
	04/11/94		10.94	11.76
	07/14/94		7.90	14.80
	07/19/94		8.12	14.58
	10/06/94		12.15	10.55
	01/04/95		11.18	11.52
	04/12/95		3.76	18.94
	07/07/95		4.72	17.98
	10/05/95		5.80	16.90
	01/12/96		7.00	15.70
	04/02/96		3.42	19.28
	07/30/96		5.89	16.81
	10/02/96		7.20	15.50
	09/19/97		6.92	15.78
	01/08/98		5.77	16.93
	07/17/98	**22.71[a]**	**4.17**	**18.54**
S-4	**07/17/98**	**19.96[a]**	**6.59**	**13.37**
S-5	**07/17/98**	**22.27[a]**	**6.78**	**15.49**

Abbreviations and Notes:

ft = Feet
msl = Mean sea level
a = Wells surveyed on May 4, 1998 by Virgil Chavez Land Surveying of Vallejo, California

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Table 2. **Analytical Results for Ground Water** – Shell-branded Service Station, WIC# 204-5510-0204, 350 Grand Avenue, Oakland, California

Sample ID	Date	Depth to Water (ft)	TPH-D	TPH-G	B	T	E	X	MTBE	DO (mg/L)
			←			(Concentrations in µg/L)			→	
S-1	01/23/91	9.73	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/25/91	7.37	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/19/91	8.92	<50	<50	6.8	<0.5	<0.5	<0.5	---	---
	10/09/91	9.62	260[a]	120	10	<0.5	<0.5	<0.5	---	---
	01/23/92	8.94	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/27/92	7.06	70[b]	<50	1.2	<0.5	<0.5	<0.5	---	---
	07/10/92	8.31	930	<50	13	<0.5	<0.5	<0.5	---	---
	10/06/92	9.55	110	62	<0.5	<0.5	<0.5	<0.5	---	---
	01/06/93	9.86	81	85	1.1	<0.5	<0.5	<0.5	---	---
	04/26/93	6.30	53[c]	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/26/93[dup]	6.30	53[c]	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/20/93	8.78	140	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/18/93	9.20	210	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/07/94	9.53	<50	<50	1.4	1.5	0.55	2.8	---	---
	01/07/94[dup]	9.53	53	<50	1.2	1.5	<0.5	2.7	---	---
	04/11/94	8.50	320	<50	2.8	<0.5	<0.5	<0.5	---	---
	04/11/94[dup]	8.50	220	<50	2.6	<0.5	<0.5	<0.5	---	---
	07/19/94	9.07	110	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/06/94	11.68	370	110	1.4	<0.5	<0.5	<0.5	---	---
	01/04/95	8.51	1,000	120	2.5	<0.5	1.5	1.7	---	---
	04/12/95	6.66	290	<50	2.1	<0.5	<0.5	<0.5	---	---
	04/12/95[dup]	6.66	480	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/07/95	6.95	370	<50	5.5	<0.5	<0.5	<0.5	---	---
	07/07/95[dup]	6.95	450	<50	6.5	<0.5	<0.5	<0.5	---	---
	10/05/95	8.50	200	<50	3.9	1.2	<0.5	2.4	---	---
	01/12/96	8.02	1,500	230	2.5	<0.5	0.9	0.6	---	---
	04/02/96	4.98	2,000	95	0.91	<0.5	<0.5	<0.5	140	---
	07/30/96	6.40	510	<50	<0.5	<0.5	<0.5	<0.5	67	---
	07/30/96[dup]	6.40	380	<50	<0.5	<0.5	<0.5	<0.5	68	---
	10/02/96	7.53	250	<50	<0.5	<0.5	<0.5	<0.5	96	---
	09/19/97	8.54	120	<50	<0.50	<0.50	<0.50	<0.50	37	0.8

Table 2. **Analytical Results for Ground Water** – Shell-branded Service Station, WIC# 204-5510-0204, 350 Grand, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-D	TPH-G	B	T	E	X	MTBE	DO (mg/L)
			←			(Concentrations in µg/L)			→	
	01/08/98	9.09	210	<50	<0.50	<0.50	<0.50	<0.50	74	2.6
	07/17/98	**6.48**	**99**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**25**	**2.6**
S-2	01/23/91	10.55	1,200	2,500	550	15	33	42	---	---
	04/25/91	8.24	20,000[b]	32,000	2,900	480	1,400	2,300	---	---
	07/19/91	9.55	30,000[b]	21,000	4,700	430	1,200	2,400	---	---
	10/09/91	10.26	32,000[b]	29,000	6,300	510	1,700	2,400	---	---
	01/23/92	9.51	36,000[b]	31,000	5,800	480	2,000	2,700	---	---
	04/27/92	7.83	12,000[b]	21,000[d]	4,800	320	1,600	1,400	---	---
	07/10/92	8.57	3,700[e]	31,000	7,500	940	3,400	3,500	---	---
	10/06/92	9.49	4,500[e]	57,000	9,300	1,200	4,000	4,900	---	---
	01/06/93	8.56	5,600	55,000	5,600	360	3,000	3,000	---	---
	04/26/93	6.84	9,400[e]	32,000	10,000	500	4,400	3,600	---	---
	07/20/93	8.52	8,400[e]	25,000	5,800	300	2,700	1,400	---	---
	07/20/93[dup]	8.52	8,900[e]	25,000	5,900	310	2,800	1,400	---	---
	10/18/93	9.36	18,000[e]	23,000	3,700	200	2,100	1,600	---	---
	10/18/93[dup]	9.36	14,000[e]	28,000	3,700	210	2,100	1,600	---	---
	01/07/94	8.37	22,000[e]	120,000	6,900	400	3,100	2,600	---	---
	04/11/94	6.96	17,000[e]	34,000	4,800	170	1,900	880	---	---
	07/19/94	8.02	---	23,000	4,300	210	1,100	1,000	---	---
	07/19/94[dup]	8.02	---	29,000	4,700	270	1,200	1,200	---	---
	10/06/94	11.00	---	61,000	4,600	290	1,900	1,900	---	---
	10/06/94[dup]	11.00	---	52,000	5,200	270	2,100	1,900	---	---
	01/04/95	8.07	---	23,000	4,500	49	1,300	500	---	---
	01/04/95[dup]	8.07	---	18,000	3,800	33	1,100	390	---	---
	04/12/95	6.12	---	29,000	4,300	210	990	700	---	---
	07/07/95	6.35	---	26,000	4,200	180	1,100	730	---	---
	10/05/95	7.36	10,000	26,000	3,500	150	1,100	640	---	---
	10/05/95[dup]	7.36	9,400	33,000	4,200	210	1,500	850	---	---
	01/12/96	7.64	13,000	36,000	4,100	240	1,400	790	---	---
	01/12/96[dup]	7.64	11,000	40,000	4,100	260	1,400	860	---	---

Table 2. **Analytical Results for Ground Water** – Shell-branded Service Station, WIC# 204-5510-0204, 350 Grand, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-D	TPH-G	B	T	E	X	MTBE	DO (mg/L)
			←			(Concentrations in µg/L)			→	
	04/02/96	6.18	7,300	12,000	1,300	120	460	150	4,000	---
	04/02/96[dup]	6.18	5,800	17,000	1,800	29	590	140	7,600	---
	07/30/96	7.22	13,000	18,000	3,000	100	1,200	420	17,000(19,000)	---
	10/02/96	7.60	18,000	28,000	3,700	110	1,100	260	20,000	---
	10/02/96[dup]	7.60	31,000	25,000	3,500	100	1,100	260	19,000	---
	09/19/97	7.45	11,000	21,000	2,300	120	500	110	11,000	2.1
	01/08/98	6.96	8,100	35,000	3,200	260	850	320	23,000	2.3
	01/08/98[dup]	6.96	5,400	27,000	3,400	190	860	200	23,000	2.3
	07/17/98	**6.67**	**12,000**	**19,000**	**1,700**	**130**	**610**	**130**	**13,000**	**2.3**

S-3	01/23/91	14.67	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/25/91	12.96	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/19/91	12.45	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/09/91	12.98	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/23/92	13.06	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/27/92	7.25	100	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/10/92	8.46	68	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/06/92	11.77	<10	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/06/93	12.53	<10	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/26/93	4.28	69	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/20/93	5.70	120	<50	<0.5	0.6	<0.5	<0.5	---	---
	10/18/93	10.30	160	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/07/94[f]	12.40	58	160	59	26	4.9	22	---	---
	04/11/94	10.94	<50	<50	<0.52	<0.5	<0.5	<0.5	---	---
	07/19/94	8.12	110[a]	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/06/94	12.15	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/04/95	11.18	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/12/95	3.76	110	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/07/95	4.72	410	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/05/95	5.80	160	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/12/96	7.00	<50	100	<0.5	<0.5	<0.5	<0.5	---	---

Table 2. **Analytical Results for Ground Water –** Shell-branded Service Station, WIC# 204-5510-0204, 350 Grand, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-D	TPH-G	B	T	E	X	MTBE	DO (mg/L)
			← (Concentrations in µg/L) →							
	04/02/96	3.42	170	<50	<0.5	<0.5	<0.5	<0.5	3.4	---
	07/30/96	5.89	92	<50	<0.5	<0.5	<0.5	<0.5	4.3	---
	10/02/96	7.20	160	<50	<0.5	<0.5	<0.5	<0.5	4.1	---
	09/19/97	6.92	260	<50	<0.50	<0.50	<0.50	<0.50	4.3	1.4
	09/19/97[dup]	6.92	290	<50	<0.50	<0.50	<0.50	<0.50	5.2	1.4
	01/08/98	5.77	170	<50	<0.50	<0.50	<0.50	0.92	120	2.7
	07/17/98	**4.17**	**97**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**33**	**2.7**
S-4	**07/17/98**	**6.59**	**220**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**	**2.5**
	07/17/98[dup]	**6.59**	**260**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**	**2.5**
S-5	**07/17/98**	**6.78**	**110**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**	**2.2**
HP-1	01/27/93		14,000	22,000	2,500	130	1,400	140	---	---
HP-2	01/27/93		---	<50	<0.5	4.4	<0.5	<0.5	---	---
HP-3	01/27/93		---	<50	<0.5	<0.5	<0.5	<0.5	---	---
Trip Blank	01/23/91		---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/25/91		---	---	---	---	---	---	---	---
	07/19/91		---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/09/91		---	---	---	---	---	---	---	---
	01/23/92		<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/26/93		<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/20/93		---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/18/93		<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/07/94		<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/11/94		<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/19/94		<50	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/06/94		---	<50	<0.5	<0.5	<0.5	<0.5	---	---

Table 2. **Analytical Results for Ground Water** – Shell-branded Service Station, WIC# 204-5510-0204, 350 Grand, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-D	TPH-G	B	T	E	X	MTBE	DO (mg/L)
			←			(Concentrations in µg/L)			→	
	01/04/95		---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	04/12/95		---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	07/07/95		---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	10/05/95		---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	01/12/96		---	<50	<0.5	<0.5	<0.5	<0.5	---	---
MCLs			NE	NE	1	150	700	1,750	NE	

Abbreviations:

TPH-D = Total petroleum hydrocarbons as diesel by modified EPA Method 8015
TPH-G = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
MTBE = Methyl tert-butyl ether by EPA Method 8020. Result in parentheses indicates MTBE by EPA Method 8260.
B = Benzene by EPA Method 8020
T = Toluene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
X = Xylenes by EPA Method 8020
DO = Dissolved oxygen
MCLs = California primary maximum contaminant levels for drinking water (22 CCR 64444)
NE = MCLs not established
dup = Duplicate sample
HP = Hydropunch ground water sample
µg/L = Micrograms per liter
mg/L = Milligrams per liter
ft = Feet

Notes:

a = Compounds reported as TPH-D are not characteristic of the standard diesel chromatographic pattern
b = Compounds reported as TPH-D appear to be the less volatile constituents of gasoline
c = Compounds reported as TPH-D are primarily due to the presence of a heavier petroleum product, possibly motor oil
d = Compounds reported as gasoline are not characteristic of the standard gasoline chromatographic pattern
e = Compounds reported as TPH-Dare primarily due to the presence of lighter petroleum product, possibly gasoline
f = TPH-G/BETX concentrations anomalous with historical data. Lab verified concentrations
--- = Not analyzed/Not available
<n = Below detection limits of n µg/L

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

August 12, 1998

Equilon Enterprises, L.L.C.
108 Cutting Blvd.
Richmond, CA 94804

Attn: Karen Petryna

Shell WIC #204-5510-0204
350 Grand Avenue
Oakland, California

3rd Quarter 1998

Groundwater Monitoring Report 980717-R-2

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,

Derek Lem for:
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 94608-2411
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	07/17/98	TOB	–	NONE	--	--	6.48	17.71
S-2	07/17/98	TOB	ODOR	NONE	--	--	6.67	15.05
S-3	07/17/98	TOB	–	NONE	--	--	4.17	15.05
S-4*	07/17/98	TOB	–	NONE	--	--	6.59	14.90
S-5	07/17/98	TOB	–	NONE	--	--	6.78	13.37

* Sample DUP was a duplicate sample taken from well S-4.

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: ~~980717~~ 980717-R2

Date: 7-17-98
Page 1 of 1

Site Address: 350 Grand Ave., Oakland, CA

WIC#: 204-5510-0204

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:

Sampled by: Chris LaPlante

Printed Name: Chris LaPlante

Analysis Required — 8015/8260

LAB: SEQ

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 MTBE			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW1	7/17			W		5		X				X								
MW2	"			"		5		X				X								
MW3	"			"		5		X				X								
MW4	"			"		4		X				X								
MW5	"			"		5		X				X								
E.B	"			"		5		X				X								
DUP	"			"		4		X				X								

CHECK ONE (1) BOX ONLY

		CT/DT
G.W. Monitoring	X	4441
Site Investigation		4441
Soil Classify/Disposal		4442
Water Classify/Disposal		4443
Soil/Air Rem. or Sys. O & M		4452
Water Rem. or Sys. O & M		4453
Other		

TURN AROUND TIME

- 24 hours ☐
- 48 hours ☐
- 15 days ☒ (Normal)
- Other ☐ ____

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

JL 20 1 02

UST AGENCY: ____

Relinquished By (signature)	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
Chris LaPlante	Chris LaPlante	7-20-98	12:15	Jeff Bonneville	Jeff Bonneville	7-20-98	12:15
Jeff Bonneville	Jeff Bonneville	7-20-98					
				Aura DeMare	Aura DeMare	7/20/98	1302

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

End of One of Copies

Revised

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: ~~980717~~ 980717-RZ

Date: 7-17-98
Page 1 of 1

Site Address: 350 Grand Ave., Oakland, CA

WIC#: 204-5510-0204

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:

Sampled by: Chris LaPlante

Printed Name: Chris LaPlante

LAB: SEQ

CHECK ONE (1) BOX ONLY — C7/01

G.W. Monitoring	X	4441
Site Investigation		4441
Soil Classify/Disposal		4442
Water Classify/Disposal		4443
Soil/Ab Rem. or Sys. O & M		4442
Water Rem. or Sys. O & M		4443
Other		

TURN AROUND TIME

24 hours	
48 hours	
10 days	X Original
Other	

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

UST AGENCY:

Analysis Required

Sample ID	Date	Sludge	Soil	Water	Air	No. of cont.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 MTBE			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
S-1	7/17			W		5		X				X								
S-2						5		X				X								
S-3						5		X				X								
S-4						4		X				X								
S-5						5		X				X								
EB						5		X				X								
DUP						4		X				X								

	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
Relinquished By (signature): Chris LaPlante	Chris LaPlante	7-20-98	12:15	Received (signature): Jeff Bonneville	Jeff Bonneville	7-20-98	12:15
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:

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

White Copy of Chain of Custody

P. 002
TEL: 408 573 7771
BLAINE TECH SERVICES, INC
07:44

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

laine Tech Services
680 Rogers Avenue
an Jose, CA 95112
ttention: Fran Thie

roject: Shell 350 Grand Ave.

Enclosed are the results from samples received at Sequoia Analytical on July 20, 1998.
he requested analyses are listed below:

AMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
807B96 -01	LIQUID, S-1	07/17/98	TPHD_W Extractable TPH
807B96 -01	LIQUID, S-1	07/17/98	Purgeable TPH/BTEX/MTBE
807B96 -02	LIQUID, S-2	07/17/98	TPHD_W Extractable TPH
807B96 -02	LIQUID, S-2	07/17/98	Purgeable TPH/BTEX/MTBE
807B96 -03	LIQUID, S-3	07/17/98	TPHD_W Extractable TPH
807B96 -03	LIQUID, S-3	07/17/98	Purgeable TPH/BTEX/MTBE
807B96 -04	LIQUID, S-4	07/17/98	TPHD_W Extractable TPH
807B96 -04	LIQUID, S-4	07/17/98	Purgeable TPH/BTEX/MTBE
807B96 -05	LIQUID, S-5	07/17/98	TPHD_W Extractable TPH
807B96 -05	LIQUID, S-5	07/17/98	Purgeable TPH/BTEX/MTBE
807B96 -06	LIQUID, EB	07/17/98	TPHD_W Extractable TPH
807B96 -06	LIQUID, EB	07/17/98	Purgeable TPH/BTEX/MTBE
807B96 -07	LIQUID, DUP	07/17/98	TPHD_W Extractable TPH
807B96 -07	LIQUID, DUP	07/17/98	Purgeable TPH/BTEX/MTBE

lease contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on
is project.

ery truly yours,

EQUOIA ANALYTICAL

eggy Penner
roject Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Blaine Tech Services	Client Proj. ID: Shell 350 Grand Ave.	Sampled: 07/17/98
1680 Rogers Avenue	Sample Descript: S-1	Received: 07/20/98
San Jose, CA 95112	Matrix: LIQUID	Extracted: 07/23/98
	Analysis Method: EPA 8015 Mod	Analyzed: 07/28/98
Attention: Fran Thie	Lab Number: 9807B96-01	Reported: 08/05/98

QC Batch Number: GC0723980HBPEXC
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

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

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	101

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, (650) 364-9600, FAX (650) 364-9233
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Blaine Tech Services	Client Proj. ID: Shell 350 Grand Ave.	Sampled: 07/17/98
1680 Rogers Avenue	Sample Descript: S-1	Received: 07/20/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/31/98
Attention: Fran Thie	Lab Number: 9807B96-01	Reported: 08/05/98

QC Batch Number: GC073198BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	**2.5**	**25**
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	74

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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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Blaine Tech Services	Client Proj. ID: Shell 350 Grand Ave.	Sampled: 07/17/98
1680 Rogers Avenue	Sample Descript: S-2	Received: 07/20/98
San Jose, CA 95112	Matrix: LIQUID	Extracted: 07/23/98
	Analysis Method: EPA 8015 Mod	Analyzed: 07/28/98
Attention: Fran Thie	Lab Number: 9807B96-02	Reported: 08/05/98

QC Batch Number: GC0723980HBPEXC
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**500**	**12000**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	131

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Renner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell 350 Grand Ave.
Sample Descript: S-2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9807B96-02

Sampled: 07/17/98
Received: 07/20/98

Analyzed: 07/31/98
Reported: 08/05/98

QC Batch Number: GC073198BTEX03A
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**	**19000**
Methyl t-Butyl Ether	**250**	**13000**
Benzene	**50**	**1700**
Toluene	**50**	**130**
Ethyl Benzene	**50**	**610**
Xylenes (Total)	**50**	**130**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	125

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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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Blaine Tech Services	Client Proj. ID: Shell 350 Grand Ave.	Sampled: 07/17/98
1680 Rogers Avenue	Sample Descript: S-3	Received: 07/20/98
San Jose, CA 95112	Matrix: LIQUID	Extracted: 07/23/98
	Analysis Method: EPA 8015 Mod	Analyzed: 07/28/98
Attention: Fran Thie	Lab Number: 9807B96-03	Reported: 08/05/98

QC Batch Number: GC0723980HBPEXC
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**97**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	104

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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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Blaine Tech Services	Client Proj. ID: Shell 350 Grand Ave.	Sampled: 07/17/98
1680 Rogers Avenue	Sample Descript: S-3	Received: 07/20/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/31/98
Attention: Fran Thie	Lab Number: 9807B96-03	Reported: 08/05/98

QC Batch Number: GC073198BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	**2.5**	**33**
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	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 Tech Services	Client Proj. ID: Shell 350 Grand Ave.	Sampled: 07/17/98
1680 Rogers Avenue	Sample Descript: S-4	Received: 07/20/98
San Jose, CA 95112	Matrix: LIQUID	Extracted: 07/24/98
	Analysis Method: EPA 8015 Mod	Analyzed: 07/28/98
Attention: Fran Thie	Lab Number: 9807B96-04	Reported: 08/05/98

QC Batch Number: GC0724980HBPEXC
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**220**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	82

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, (650) 364-9600, FAX (650) 364-9233
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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell 350 Grand Ave.
Sample Descript: S-4
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9807B96-04

Sampled: 07/17/98
Received: 07/20/98

Analyzed: 07/31/98
Reported: 08/05/98

QC Batch Number: GC073198BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	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	76

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, (650) 364-9600, FAX (650) 364-9233
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Blaine Tech Services	Client Proj. ID: Shell 350 Grand Ave.	Sampled: 07/17/98
1680 Rogers Avenue	Sample Descript: S-5	Received: 07/20/98
San Jose, CA 95112	Matrix: LIQUID	Extracted: 07/24/98
	Analysis Method: EPA 8015 Mod	Analyzed: 07/28/98
Attention: Fran Thie	Lab Number: 9807B96-05	Reported: 08/05/98

QC Batch Number: GC0724980HBPEXC
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	110
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	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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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Blaine Tech Services	Client Proj. ID: Shell 350 Grand Ave.	Sampled: 07/17/98
1680 Rogers Avenue	Sample Descript: S-5	Received: 07/20/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/31/98
Attention: Fran Thie	Lab Number: 9807B96-05	Reported: 08/05/98

QC Batch Number: GC073198BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	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	79

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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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Blaine Tech Services	Client Proj. ID: Shell 350 Grand Ave.	Sampled: 07/17/98
1680 Rogers Avenue	Sample Descript: EB	Received: 07/20/98
San Jose, CA 95112	Matrix: LIQUID	Extracted: 07/24/98
	Analysis Method: EPA 8015 Mod	Analyzed: 07/28/98
Attention: Fran Thie	Lab Number: 9807B96-06	Reported: 08/05/98

QC Batch Number: GC0724980HBPEXC
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	84

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

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112

Attention: Fran Thie

Client Proj. ID: Shell 350 Grand Ave.
Sample Descript: EB
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9807B96-06

Sampled: 07/17/98
Received: 07/20/98

Analyzed: 07/31/98
Reported: 08/05/98

QC Batch Number: GC073198BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	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	79

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	Client Proj. ID: Shell 350 Grand Ave.	Sampled: 07/17/98
1680 Rogers Avenue	Sample Descript: DUP	Received: 07/20/98
San Jose, CA 95112	Matrix: LIQUID	Extracted: 07/24/98
	Analysis Method: EPA 8015 Mod	Analyzed: 07/28/98
Attention: Fran Thie	Lab Number: 9807B96-07	Reported: 08/05/98

QC Batch Number: GC0724980HBPEXC
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**125**	**260**
Chromatogram Pattern:		**C9-C24**

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

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Blaine Tech Services	Client Proj. ID: Shell 350 Grand Ave.	Sampled: 07/17/98
1680 Rogers Avenue	Sample Descript: DUP	Received: 07/20/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/31/98
Attention: Fran Thie	Lab Number: 9807B96-07	Reported: 08/05/98

QC Batch Number: GC073198BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	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	76

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

Client Project ID: Shell 350 Grand Ave.

QC Sample Group: 9807B96-02

Reported: Aug 5, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Liquid
Method:	EPA 8015
Analyst:	N. Herrera
ANALYTE	Gasoline

QC Batch #: GC073198BTEX03A

Sample No.:	GW9807B96-4MS
Date Prepared:	7/31/98
Date Analyzed:	7/31/98
Instrument I.D.#:	GCHP03
Sample Conc., ug/L:	N.D.
Conc. Spiked, ug/L:	250
Matrix Spike, ug/L:	240
% Recovery:	96
Matrix pike Duplicate, ug/L:	230
% Recovery:	94
elative % Difference:	2.1
RPD Control Limits:	0-25

LCS Batch#: GWBLK073198AS

Date Prepared:	7/31/98
Date Analyzed:	7/31/98
Instrument I.D.#:	GCHP03
Conc. Spiked, ug/L:	250
LCS Recovery, ug/L:	240
LCS % Recovery:	95

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

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

Client Project ID: Shell 350 Grand Ave.

QC Sample Group: 9807B96-04-07

Reported: Aug 5, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Liquid
Method:	EPA 8015
Analyst:	N. Herrera
ANALYTE	Gasoline

QC Batch #: GC073198BTEX02A

Sample No.:	9807A06-1
Date Prepared:	7/31/98
Date Analyzed:	7/31/98
Instrument I.D.#:	GCHP2
Sample Conc., ug/L:	N.D.
Conc. Spiked, ug/L:	250
Matrix Spike, ug/L:	210
% Recovery:	83
Matrix pike Duplicate, ug/L:	220
% Recovery:	90
elative % Difference:	8.1
RPD Control Limits:	0-25

LCS Batch#: GWBLK073198AS

Date Prepared:	7/31/98
Date Analyzed:	7/31/98
Instrument I.D.#:	GCHP2
Conc. Spiked, ug/L:	250
LCS Recovery, ug/L:	220
LCS % Recovery:	87

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

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

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

Client Project ID: Shell 350 Grand Ave.

QC Sample Group: 9807B96-01, -03

Reported: Aug 5, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Liquid
Method:	EPA 8015
Analyst:	N. Herrera
ANALYTE	Gasoline

QC Batch #: GC073198BTEX21A

Sample No.:	GW9807A42-2MS
Date Prepared:	7/31/98
Date Analyzed:	7/31/98
Instrument I.D.#:	GCHP21
Sample Conc., ug/L:	N.D.
Conc. Spiked, ug/L:	250
Matrix Spike, ug/L:	260
% Recovery:	105
Matrix pike Duplicate, ug/L:	260
% Recovery:	103
elative % Difference:	1.9
RPD Control Limits:	0-25

LCS Batch#: GWBLK073198AS

Date Prepared:	7/31/98
Date Analyzed:	7/31/98
Instrument I.D.#:	GCHP21
Conc. Spiked, ug/L:	250
LCS Recovery, ug/L:	250
LCS % Recovery:	101

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

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

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

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

Client Project ID: Shell 350 Grand Ave.

QC Sample Group: 9807B96-01-03

Reported: Aug 5, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Liquid
Method:	EPA 8015A
Analyst:	A.PORTER
ANALYTE	Diesel

QC Batch #: GC0723980HBPEXC

Sample No.:	9807B33-2
Date Prepared:	7/23/98
Date Analyzed:	7/27/98
Instrument I.D.#:	GCHP4B
Sample Conc., ug/L:	7700
Conc. Spiked, ug/L:	1000
Matrix Spike, ug/L:	10000
% Recovery:	230
Matrix pike Duplicate, ug/L:	9500
% Recovery:	180
elative % Difference:	24
RPD Control Limits:	0-50

LCS Batch#: BLK072398CS

Date Prepared:	7/23/98
Date Analyzed:	7/24/98
Instrument I.D.#:	GCHP5B
Conc. Spiked, ug/L:	1000
Recovery, ug/L:	750
LCS % Recovery:	75

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

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

Client Project ID: Shell 350 Grand Ave.

QC Sample Group: 9807B96-04-07

Reported: Aug 5, 1998

QUALITY CONTROL DATA REPORT

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

QC Batch #: GC0724980HBPEXC

Sample No.:	9807E22-1
Date Prepared:	7/24/98
Date Analyzed:	7/28/98
Instrument I.D.#:	GCHP4B
Sample Conc., ug/L:	670
Conc. Spiked, ug/L:	1000
Matrix Spike, ug/L:	990
% Recovery:	32
Matrix pike Duplicate, ug/L:	960
% Recovery:	29
elative % Difference:	9.8
RPD Control Limits:	0-50

LCS Batch#: BLK072498CS

Date Prepared:	7/24/98
Date Analyzed:	7/28/98
Instrument I.D.#:	GCHP4B
Conc. Spiked, ug/L:	1000
Recovery, ug/L:	740
LCS % Recovery:	74

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

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

Client Proj. ID: Shell 350 Grand Ave.

Lab Proj. ID: 9807B96

Received: 07/20/98

Reported: 08/05/98

LABORATORY NARRATIVE

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

EQUOIA ANALYTICAL

eggy Penner
roject Manager