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July 1, 1994

Scott Seery
Alameda County Department of
Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Re: Shell Service Station
WIC #204-5508-3301
6039 College Avenue
Oakland, California
WA Job #81-618-104

Dear Mr. Seery:

This letter describes recently completed and anticipated activities at the Shell service station referenced above (Figure 1). This status report satisfies the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Chapter 3, Subchapter 16, Article 5, Section 265.d. Included below are descriptions and results of activities performed in the second quarter 1994 and proposed work for the third quarter 1994.

Second Quarter 1994 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured depths to ground water and collected ground water samples from the site wells. Well MW-4 contained floating hydrocarbons and was not sampled. BTS' report describing these activities and analytic results for ground water is included as Attachment A.
- Weiss Associates (WA) compiled the ground water elevation and analytic data (Tables 1 and 2) and prepared a ground water elevation contour map (Figure 2). WA also tabulated separate-phase hydrocarbon (SPH) removal data (Table 3). To date, about 10.12 pounds of SPHs have been removed from the subsurface.

Anticipated Third Quarter 1994 Activities:

- WA will submit a report presenting the results of third quarter 1994 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results and a ground water elevation contour map.

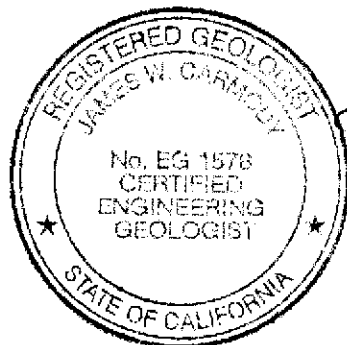
Conclusions and Recommendations:

WA recommends continued monitoring of dissolved hydrocarbon concentrations in ground water. Despite the fact that hydrocarbons were detected in soil borings between wells MW-4 and MW-5, no total petroleum hydrocarbons as gasoline (TPH-G) or benzene, ethylbenzene, toluene and xylenes (BETX) have ever been detected in ground water samples from well MW-5 since it was installed in 1991. Although 98 ppb TPH-G were detected in the ground water sample collected from MW-6 during the first quarter of 1994, no TPH-G, BETX, petroleum oil and grease or semi-volatile organic compounds were detected during the second quarter sampling. Therefore, the extent of hydrocarbons in ground water have been fully assessed downgradient of the site.

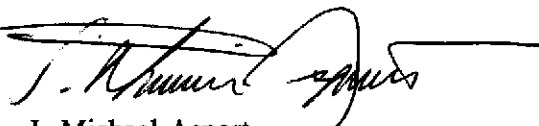
Scott Seery
July 1, 1994

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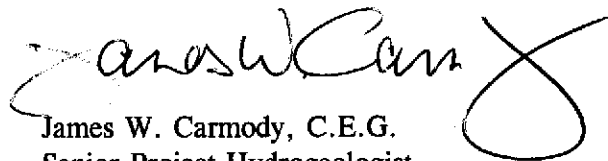
Please call if you have any questions.



Sincerely,
Weiss Associates



J. Michael Asport
Technical Assistant



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

JMA/JWC:mb

J:\SHELL\600\QMRPTS\618QMJU4.WP

Attachments: A - Blaine Tech Services' Ground Water Monitoring Report

cc: Dan Kirk, Shell Oil Company, P.O. Box 5278, Concord, CA 94520
Tom Callaghan, San Francisco Bay Regional Water Quality Control Board, 2101 Webster Street, Oakland, CA 94612

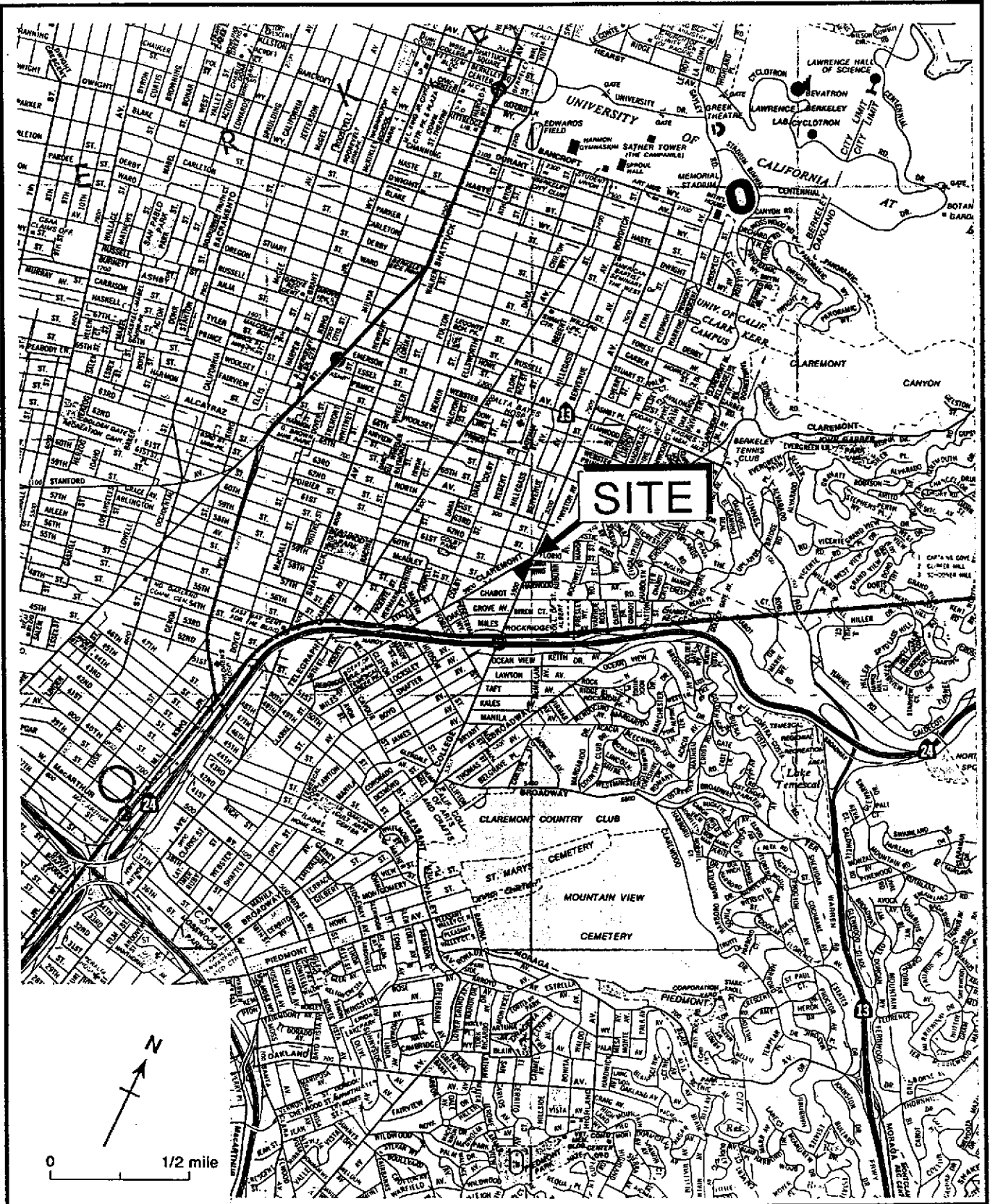


Figure 1. Site Location Map - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California

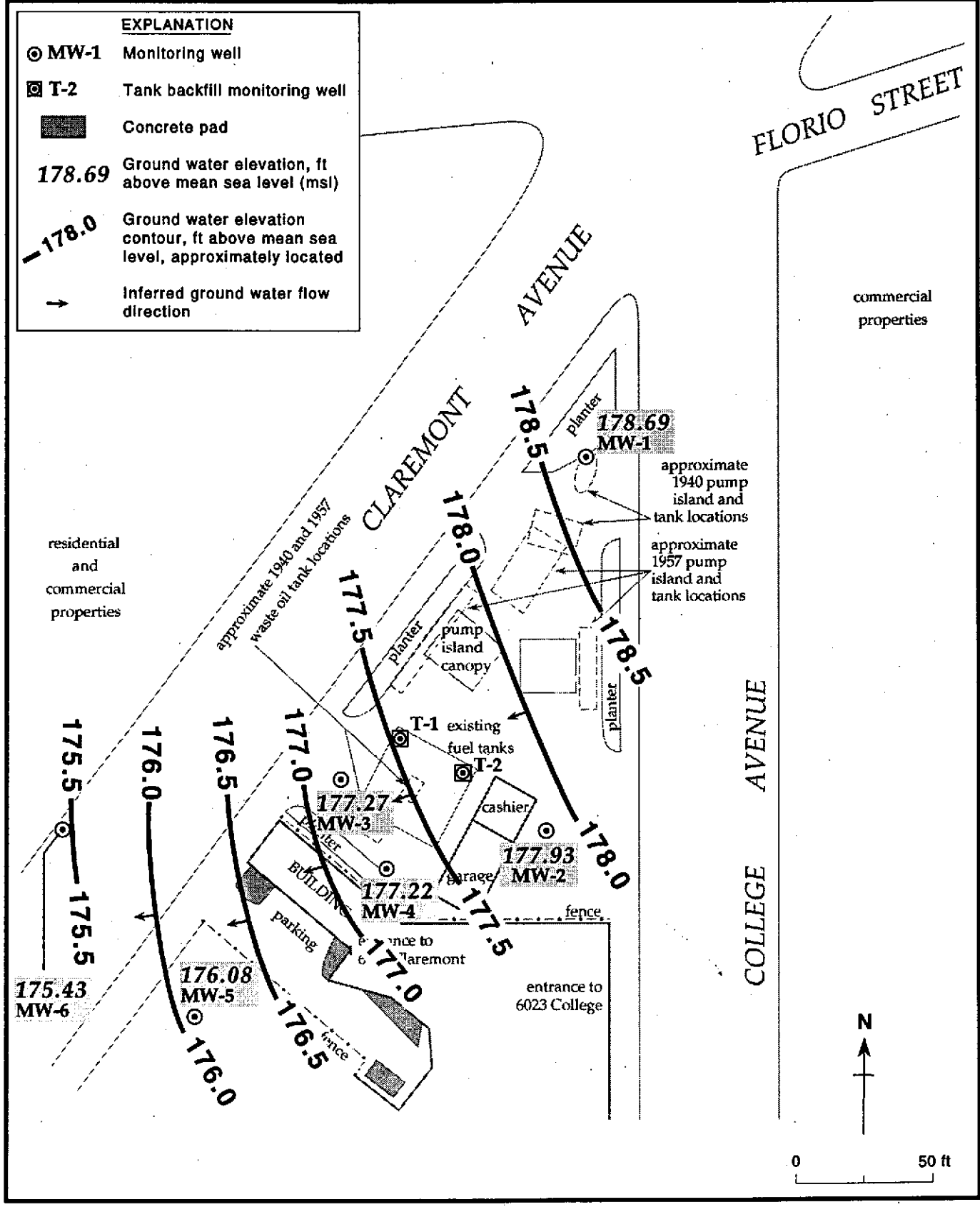


Figure 2. Monitoring Well and Ground Water Elevation Contours - May 4, 1994 - Shell Service Station WIC #204-5510-0303, 6039 College Avenue, Oakland, California

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl) ^a
MW-1	06/03/91	195.89	17.82		178.07
	08/30/91		19.87		176.02
	11/22/91		20.58		175.31
	03/18/92		13.55		182.34
	05/28/92		17.08		178.81
	08/19/92		19.07		176.82
	11/17/92		20.11		175.78
	02/12/93		12.10		183.79
	06/10/93		14.87		181.02
	08/18/93		16.90		178.99
	11/19/93		19.72		176.17
	02/28/94		15.08		180.81
	05/04/94		17.20		178.69
	MW-2		06/03/91	194.27	17.00
08/30/91		18.95			175.32
11/22/91		19.55			174.72
03/18/92		12.91			181.36
05/28/92		16.25			178.02
08/19/92		18.21			176.06
11/17/92		19.15			175.12
02/12/93		11.60			182.67
06/10/93		14.14			180.13
08/18/93		16.10			178.17
11/19/93		18.77			175.50
02/28/94		14.35			179.92
05/04/94		16.34			177.93
MW-3		06/03/91	192.52		15.84
	08/30/91	17.79			174.73
	11/22/91	18.40			174.12
	03/18/92	12.03			180.49
	05/28/92	15.16			177.36
	08/19/92	17.03			175.49
	11/17/92	17.94			174.58
	02/12/93	9.16			183.36
	06/10/93	13.20			179.32
	08/18/93	14.93			177.59
	11/19/93	17.58			174.94

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-Phase Hydrocarbon Thickness (ft)	Ground Water Elevation (ft above msl) ^a
	02/28/94		13.30		179.22
	05/04/94		15.25		177.27
MW-4	06/03/91	193.37	16.77		176.60
	08/30/91		18.71		174.66
	11/22/91		---		---
	03/18/92 ^a		13.15	0.24	180.41
	05/28/92 ^a		16.22	0.12	177.25
	08/19/92 ^a		18.05	0.09	175.39
	11/17/92		18.89		174.48
	02/12/93		11.78	<0.01	181.59
	06/10/93		14.20		179.17
	08/18/93		15.95	0.01	177.43
	11/19/93		18.48	0.01	174.90
	02/28/94		14.60	<0.01	178.77
	05/04/94		16.15	<0.01	177.22
MW-5	08/30/91	190.35	16.74		173.61
	11/22/91		17.27		173.08
	03/18/92		11.28		179.07
	05/28/92 ^b		---		---
	08/19/92		15.99		174.36
	11/17/92		16.84		173.51
	02/12/93		10.30		180.05
	06/10/93		12.36		177.99
	08/18/93		14.02		176.33
	11/19/93		16.50		173.85
	02/28/94		12.55		177.80
	05/04/94		14.27		176.08
MW-6	09/21/93	189.05	14.64		174.41
	11/19/93		---		---
	02/28/94		12.18		176.87
	05/04/94		13.62		175.43

-- Table 1 continues on next page --

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Notes:

- a = When separate-phase hydrocarbons are present, ground water elevation is corrected by the relation: $\text{Corrected ground water elevation} = (\text{Top-of-Casing Elevation}) - (\text{depth to water}) + (0.8 \times \text{separate-phase hydrocarbon thickness})$
- b = Well inaccessible
- = Data not available

Table 2. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California

Well/Boring ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	TPH-MO	POG	B	E	T	X	SVOCs
MW-1	06/03/91	17.82	ND	ND	ND	---	ND	ND	ND	ND	---
	08/30/91	19.87	ND	520	ND	---	ND	ND	ND	ND	---
	11/22/91	20.58	<50	<50	<500	---	<0.5	<0.5	<0.5	<0.5	---
	03/18/92	13.55	<30	<50	---	---	<0.3	<0.3	<0.3	<0.3	---
	05/28/92	17.08	<50	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	08/19/92	19.07	<50	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	11/17/92	20.11	<50	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	02/12/93	12.10	<50	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	06/10/93	14.87	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	06/10/93 ^{dup}	14.87	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	08/18/93	16.90	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	11/19/93	19.72	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	02/18/94	15.08	<50	---	---	---	<0.5	<0.5	<0.5	1.7	---
	05/04/94	17.20	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
MW-2	06/03/91	17.00	ND	ND	ND	---	ND	ND	ND	ND	---
	08/30/91	18.95	ND	ND	ND	---	ND	ND	ND	ND	---
	11/22/91	19.55	<50	<50	<500	---	<0.5	<0.5	<0.5	<0.5	---
	03/18/92	12.91	<30	---	---	---	<0.3	<0.3	<0.3	<0.3	---
	05/28/92	16.25	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	08/19/92	18.21	<50	---	---	---	<0.5	1.2	2	1.9	---
	11/17/92	19.15	<50	---	---	---	<0.5	1.2	2	1.9	---
	02/12/93 ^{dup}	11.60	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	02/12/93	11.60	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	06/10/93	14.14	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	08/18/93	16.10	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	08/18/93 ^{dup}	16.10	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	11/19/93	18.77	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	02/18/94	14.55	<50	---	---	---	<0.5	<0.5	<0.5	1.6	---
05/04/94	16.34	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---	
MW-3	06/03/91	15.84	1,700	690 ^a	ND	---	260	98	13	24	---
	08/30/91	17.79	870	370 ^b	500	---	44	10	6.1	2.9	---
	11/22/91	18.40	310	140	500	---	18	3.3	1.2	2.9	---
	03/18/92	12.03	67,100	1,900	20,000	---	620	220	28	38	---
	05/28/92	15.16	2,300	1,100 ^c	4,600	---	200	71	9	17	---
	08/19/92	17.03	5,700	1,000 ^c	1,800	---	71	52	77	130	---
	11/17/92	17.94	3,600	160 ^c	1,200	---	16	24	8.6	50	---
	02/12/93	9.16	4,700	560 ^c	<50	---	820	130	58	77	---
	06/10/93	13.20	2,200	---	940 ^d	---	310	89	23	23	---
	08/18/93	14.93	260	---	460 ^d	---	27	7.0	2.0	2.2	---
	11/19/93	17.58	1,500 ^e	---	960 ^d	<5,000	24	37	54	17	---
	02/18/94	13.30	2,700	---	1,600	<5,000	65	16	5.2	6.3	---
	02/18/94 ^{dup}	13.30	3,100	---	2,200	<5,000	82	19	6.7	7.9	---
	05/04/94	15.25	780	---	710	<5,000	120	21	7.5	6.9	†

-- Table 2 continues on next page --



Table 2. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Well/Boring ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	TPH-MO	POG	B	E	T	X	SVOCs
	05/04/94 ^{RP}	15.25	920	---	1,600	<5,000	120	22	7.7	7.1	g
MW-4	06/03/91	16.77	670 ^h	1,100 ⁱ	ND	---	240	1.6	2.3	2.3	---
	08/30/91	18.71	570	280 ⁱ	2,000	---	64	0.9	1.8	0.9	---
	11/22/91 ^{SPH}	---	---	---	---	---	---	---	---	---	---
	03/18/92 ^{SPH}	13.15	---	---	---	---	---	---	---	---	---
	05/28/92 ^{SPH}	16.22	---	---	---	---	---	---	---	---	---
	08/19/92 ^{SPH}	18.05	---	---	---	---	---	---	---	---	---
	11/17/92 ^{SPH}	18.89	---	---	---	---	---	---	---	---	---
	02/12/93 ^{SPH}	11.78	---	---	---	---	---	---	---	---	---
	06/10/93	14.20	---	---	---	---	---	---	---	---	---
	08/18/93 ^{SPH}	15.95	---	---	---	---	---	---	---	---	---
	11/19/93 ^{SPH}	18.48	---	---	---	---	---	---	---	---	---
	02/28/94 ^{SPH}	14.60	---	---	---	---	---	---	---	---	---
	05/04/94 ^{SPH}	16.15	---	---	---	---	---	---	---	---	---
MW-5	08/30/91	16.74	ND	80	ND	---	ND	ND	ND	ND	---
	11/22/91	17.27	<50	<50	<500	---	<0.5	<0.5	<0.5	<0.5	---
	03/18/92	11.28	<30	<50	---	---	<0.3	<0.3	<0.3	<0.3	---
	05/28/92 ^l	---	---	---	---	---	---	---	---	---	---
	08/19/92	15.99	<50	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	11/17/92	16.84	<50	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	02/12/93	10.30	<50	<50	---	---	<0.5	<0.5	<0.5	<0.5	---
	06/10/93	12.36	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	08/18/93	14.02	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	11/19/93	16.50	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	11/19/93 ^{dup}	16.50	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	02/18/94	12.55	<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
		05/04/94	14.27	<50	---	---	---	<0.5	<0.5	<0.5	<0.5
MW-6	09/21/93	14.64	<50	<50	---	<5,000	<0.5	<0.5	<0.5	<0.5	<10-50
	11/19/93 ^k	---	---	---	---	---	---	---	---	---	---
	02/28/94	12.18	98 ^l	---	---	<5,000	<0.5	<0.5	<0.5	<0.5	---
		05/04/94	13.62	<50	---	---	<5,000	<0.5	<0.5	<0.5	<0.5
BH-A	09/09/93	16.50	4,900	2,900 ^c	---	<5,000	18	54	<5	11	^m
BH-B	09/09/93	15.85	<50	150	---	<5,000	<0.5	<0.5	<0.5	<0.5	ND
BH-C ⁿ	09/10/93	15.80	640 ^o	100	---	<5,000	3.5	0.6	<0.5	<0.5	ND
BH-D ⁿ	09/10/93	14.2	24,000 ^o	25,000 ^c	---	20,000	720	44	86	11	^p
Bailer	08/19/92		<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
Blank	11/17/92		<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---

-- Table 2 continues on next page --

Table 2. Analytic Results for Ground Water - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California (continued)

Well/Boring ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	TPH-MO	POG	B	E	T	X	SVOCs
Trip	06/03/91		ND	---	---	---	ND	ND	ND	ND	---
Blank	08/30/91		ND	---	---	---	ND	ND	ND	ND	---
	03/18/92		<30	<50	---	---	<0.3	<0.3	<0.3	<0.3	---
	05/28/92		<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	08/19/92		<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	11/17/92		<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	02/12/93		<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	06/10/93		<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	11/19/93		<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	02/28/94		<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
	05/04/94		<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
DTSC MCLs			NE	NE	NE	---	1	680	100 ^a	1.750	---

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
 TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015
 TPH-MO = Total petroleum hydrocarbons as motor oil by EPA Method 8015
 B = Benzene by EPA Method 8020
 E = Ethylbenzene by EPA Method 8020
 T = Toluene by EPA Method 8020
 X = Xylenes by EPA Method 8020
 POG = Petroleum Oil & Grease by EPA Method 5520B/F
 SVOCs = Semivolatile organic compounds by EPA Method 8270
 NE = Not established
 DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water
 --- = Not analyzed or measured
 <n = Not detected at detection limits of n ppb
 ND = Not detected, detection limit not known
 SPH = Separate-phase hydrocarbons in well, not sampled
 dup = Duplicate sample

Notes:

a = Positive results for diesel appear to be less volatile constituents of gasoline
 b = Positive results for diesel has a typical diesel pattern
 c = Concentration reported as diesel is primarily due to the presence of a lighter petroleum product, possibly gasoline or kerosene
 d = Concentration reported as motor oil is due to the presence of a combination of motor oil and a lighter petroleum product of hydrocarbon range C6-C12, possibly gasoline
 e = Concentration reported as gasoline is due to the presence of gasoline and a discrete peak not indicative of gasoline
 f = Compounds are within chromatographic range of gasoline but are not characteristic of the standard gasoline pattern
 g = Results include compounds apparently due to gasoline as well as those due to diesel
 h = 6.5 ppb Napthalene detected
 i = 11.0 ppb Napthalene detected
 j = Well inaccessible and not sampled
 k = Well inadvertently not sampled
 l = The concentration reported as gasoline is primarily due to the presence of a discrete peak not indicative of gasoline
 m = 13 ppb-methylnaphthalene and 23 ppb naphthalene detected
 n = Due to chain of custody mis-communication analyses run after holding time expiration
 o = The positive result has an atypical pattern for gasoline analysis
 p = 75 ppb 2-methylnaphthalene and 18 ppb naphthalene detected
 q = DTSC recommended action level; MCL not established





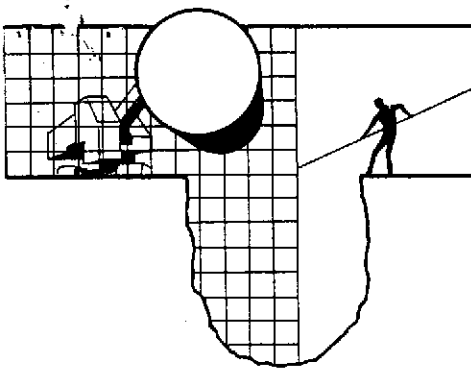
Table 3. Separate-Phase Hydrocarbon Removal - Shell Service Station WIC #204-5508-3301, 6039 College Avenue, Oakland, California

Well ID	Date	Separate-Phase Hydrocarbon Thickness (ft)	Separate-Phase Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)
MW-4 ^a	01/15/92	---	3.12	3.12
	02/15/92	---	3.12	6.24
	03/18/92	0.24	---	6.24
	04/29/92	---	1.50	7.74
	05/28/92	0.12	0.18	7.92
	08/19/92	0.09	0.96	8.86
	11/17/92	---	0.96	9.82
	02/12/93	< 0.01	---	9.82
	06/10/93	0.02	0.06	9.88
	08/18/93	0.01	0.06	9.94
	11/19/93	0.01	0.06	10.00
	02/28/94	0.01	0.06	10.06
	05/04/94	0.00	0.06	10.12

a = Petrotrap separate-phase hydrocarbon skimmer installed in well

--- = Not measured or no hydrocarbons bailed

ATTACHMENT A
GROUND WATER MONITORING REPORT AND ANALYTIC REPORT



BLAINE TECH SERVICES INC.

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

May 23, 1994

Shell Oil Company
P.O. Box 5278
Concord, CA 94520-9998

Attn: Daniel T. Kirk

SITE:
Shell WIC #204-5508-3301
6039 College Avenue
Oakland, California

QUARTER:
2nd quarter of 1994

QUARTERLY GROUNDWATER SAMPLING REPORT 940504-K-2

This report contains data collected during routine inspection, gauging and sampling of groundwater monitoring wells performed by Blaine Tech Services, Inc. in response to the request of the consultant who is overseeing work at this site on behalf of our mutual client, Shell Oil Company. Data collected in the course of our field work is presented in a **TABLE OF WELL GAUGING DATA**. The field information was collected during our preliminary gauging and inspection of the wells, the subsequent evacuation of each well prior to sampling, and at the time of sampling.

Measurements taken include the total depth of the well and the depth to water. The surface of water was further inspected for the presence of immiscibles which may be present as a thin film (a sheen on the surface of the water) or as a measurable free product zone (FPZ). At intervals during the evacuation phase, the purge water was monitored with instruments that measure electrical conductivity (EC), potential hydrogen (pH), temperature (degrees Fahrenheit), and turbidity (NTU). In the interest of simplicity, fundamental information is tabulated here, while the bulk of the information is turned over directly to the consultant who is making professional interpretations and evaluations of the conditions at the site.

STANDARD PROCEDURES

Evacuation

Groundwater wells are thoroughly purged before sampling to insure that the sample is collected from water that has been newly drawn into the well from the surrounding geologic formation. The selection of equipment to evacuate each well is based on the physical characteristics of the well and what is known about the performance of the formation in which the well has been installed. There are several suitable devices which can be used for evacuation. The most commonly employed devices are air or gas actuated pumps, electric submersible pumps, and hand or mechanically actuated bailers. Our personnel frequently employ USGS/Middleburg positive displacement pumps or similar air actuated pumps which do not agitate the water standing in the well.

Normal evacuation removes three case volumes of water from the well. More than three case volumes of water are removed in cases where more evacuation is needed to achieve stabilization of water parameters and when requested by the local implementing agency. Less water may be removed in cases where the well dewateres and does not recharge to 80% of its original volume within two hours and any additional time our personnel have reason to remain at the site. In such cases, our personnel return to the site within twenty four hours and collect sample material from the water which has recharged into the well case.

Decontamination

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site. Effluent water from purging and on-site equipment cleaning is collected and transported to Shell's Martinez Manufacturing Complex in Martinez, California.

Free Product Skimmer

The column headed, VOLUME OF IMMISCIBLES REMOVED (ml) is included in the TABLE OF WELL GAUGING DATA to cover situations where a free product skimming device must be removed from the well prior to gauging. Skimmers are installed in wells with a free product zone on the surface of the water. The skimmer is a free product recovery device which often prevents normal well gauging and free product zone measurements. The 2.0" and 3.0" PetroTraps fall into the category of devices that obstruct normal gauging. In cases where the consultant elects to have our personnel pull the skimmers out of the well and gauge the well, our personnel perform the additional task of draining the accumulated free product out of the PetroTrap before putting it back in the well. This

recovered free product is measured and logged in the VOLUME OF IMMISCIBLES REMOVED column. Gauging at such sites is performed in accordance with specific directions from the professional consulting firm overseeing work at the site on Shell's behalf.

Sample Containers

Sample material is collected in specially prepared containers which are provided by the laboratory that performs the analyses.

Sampling

Sample material is collected in stainless steel bailer type devices normally fitted with both a top and a bottom check valve. Water is promptly decanted into new sample containers in a manner which reduces the loss of volatile constituents and follows the applicable EPA standard for handling volatile organic and semi-volatile compounds.

Following collection, samples are promptly placed in an ice chest containing prefrozen blocks of an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

Sample Designations

All sample containers are identified with a site designation and a discrete sample identification number specific to that particular groundwater well. Additional standard notations (e.g. time, date, sampler) are also made on the label.

Chain of Custody

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under a standard Shell Oil Company chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of the person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to Sequoia Analytical Laboratory in Redwood City, California. Sequoia Analytical Laboratory is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1210.

Objective Information Collection

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. performs no consulting and does not become involved in the marketing or installation of remedial systems of any kind. Blaine Tech Services, Inc. is concerned only with the generation of objective information, not with the use of that information to support evaluations and recommendations concerning the environmental condition of the site. Even the straightforward interpretation of objective analytical data is better performed by interested regulatory agencies, and those engineers and geologists who are engaged in the work of providing professional opinions about the site and proposals to perform additional investigation or design remedial systems.

Reportage

Submission of this report and the attached laboratory report to interested regulatory agencies is handled by the consultant in charge of the project. Any professional evaluations or recommendations will be made by the consultant under separate cover.

Please call if we can be of any further assistance.


Richard C. Blaine

RCB/lp

attachments: table of well gauging data
chain of custody
certified analytical report

cc: Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608-2411
ATTN: Michael Asport

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
MW-1	5/4/94	TOC	--	NONE	--	--	17.20	24.58
MW-2	5/4/94	TOC	--	NONE	--	--	16.34	24.37
MW-3 *	5/4/94	TOC	ODOR	NONE	--	--	15.25	24.78
MW-4	5/4/94	TOC	FREE PRODUCT	--	--	50	16.15	--
MW-5	5/4/94	TOC	--	NONE	--	--	14.27	28.60
MW-6	5/4/94	TOC	--	NONE	--	--	13.62	24.32
T-1	5/4/94	TOC	DRY	NONE	--	--	--	4.16
T-2	5/4/94	TOC	DRY	NONE	--	--	--	8.22

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



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 940504-K2

Date: 5/4/94
Page: 1 of 1

Site Address: 6039 College Ave., Oakland

WIC: 204-5508-3301

Shell Engineer: Dan Kirk 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:

Sampled by: KEB

Printed Name: Keith L. Brown

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	TPH-MO	P.O.G. (Oil & Grease)	SVOC (8270)	Container Size	Preparation Used	Composite Y/N
					X						
					X						
					X						
					X	X	X	X			
					X						
					X	X	X	X			
					X	X	X	X			
					X	X	X	X			
					X						

LAB: Squibb

CHECK ONE (1) BOX ONLY	CM/DT	TURN AROUND TIME
Groundwater Monitoring <input checked="" type="checkbox"/>	6441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	6441	48 hours <input type="checkbox"/>
Soil Cleanup/Disposal <input type="checkbox"/>	6442	15 days <input checked="" type="checkbox"/> (Hemob)
Water Cleanup/Disposal <input type="checkbox"/>	6443	Other <input type="checkbox"/>
Sediment Rem. or Igt. O & M <input type="checkbox"/>	6443	NOTE: Notify Lab. soon as possible at 24/7 hrs. TAT.
Water Rem. or Igt. O & M <input type="checkbox"/>	6443	
Other <input type="checkbox"/>		

Sample ID	Date	Sludge	Soil	Water	Air	No. of conth.	MATERIAL DESCRIPTION		SAMPLE CONDITION/ COMMENTS	
							TPH	BTEX	TPH	Other
TR	5/4			W		2		9405292		08 A/B
MW1				W		3				01A-C
MW2				W		3				02A-C
MW3				W		7		R6A		03A-G
MW5				W		3				04A-C
MW6				W		7				05A-G
DUP				W		7			added at Francis request 4/24	06A-G
EB				W		3				07A-C

Relinquished by (signature): [Signature] Printed Name: Keith L. Brown
Date: 5/5/94 Time: 9:15

Relinquished by (signature): [Signature] Printed Name: GREG FULTCHER
Date: 5-5-94 Time: 10:45

Relinquished by (signature): _____ Printed Name: _____
Date: _____ Time: _____

Received (signature): [Signature] Printed Name: GREG FULTCHER
Date: 5-5-94 Time: 9:15

Received (signature): _____ Printed Name: _____
Date: _____ Time: _____

Received (signature): [Signature] Printed Name: KEITH E. GROSS
Date: 5-5-94 Time: 10:45

Relinquished by (signature): _____ Printed Name: _____
Date: _____ Time: _____

Relinquished by (signature): _____ Printed Name: _____
Date: _____ Time: _____



Sequoia Analytical

680 Chesapeake Drive
1900 Bates Avenue, Suite L
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Concord, CA 94520
Sacramento, CA 95834

(415) 364-9600
(510) 686-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 686-9689
FAX (916) 921-0100

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

Project: 940504-K2, Shell, 6039 College Ave.

Enclosed are the results from 8 water samples received at Sequoia Analytical on May 5, 1994. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE OF COLLECTION	TEST METHOD
4E29201	Water, MW-1	5/4/94	EPA 5030/8015 Mod./8020
4E29202	Water, MW-2	5/4/94	EPA 5030/8015 Mod./8020
4E29203	Water, MW-3	5/4/94	EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020 EPA 8270 SM 5520 B&F (Gravimetric)
4E29204	Water, MW-5	5/4/94	EPA 5030/8015 Mod./8020
4E29205	Water, MW-6	5/4/94	EPA 5030/8015 Mod./8020 EPA 8270 SM 5520 B&F (Gravimetric)
4E29206	Water, DUP	5/4/94	EPA 3510/3520/8015 Mod. EPA 5030/8015 Mod./8020 EPA 8270 SM 5520 B&F (Gravimetric)
4E29207	Water, EB	5/4/94	EPA 5030/8015 Mod./8020
4E29208	Water, TB	5/4/94	EPA 5030/8015 Mod./8020

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


Suzanne Chin
Project Manager



Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940504-K2, Shell, 6039 College Ave. Sample Matrix: Water Analysis Method: EPA 5030/8015 Mod./8020 First Sample #: 4E29201	Sampled: May 4, 1994 Received: May 5, 1994 Reported: May 16, 1994
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TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4E29201 MW-1	Sample I.D. 4E29202 MW-2	Sample I.D. 4E29203 MW-3	Sample I.D. 4E29204 MW-5	Sample I.D. 4E29205 MW-6	Sample I.D. 4E29206 DUP
Purgeable Hydrocarbons	50	N.D.	N.D.	780	N.D.	N.D.	920
Benzene	0.50	N.D.	N.D.	120	N.D.	N.D.	120
Toluene	0.50	N.D.	N.D.	7.5	N.D.	N.D.	7.7
Ethyl Benzene	0.50	N.D.	N.D.	21	N.D.	N.D.	22
Total Xylenes	0.50	N.D.	N.D.	6.9	N.D.	N.D.	7.1
Chromatogram Pattern:		--	--	C6 - C12	--	--	C6 - C12

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	5.0	1.0	1.0	5.0
Date Analyzed:	5/9/94	5/9/94	5/9/94	5/8/94	5/9/94	5/9/94
Instrument Identification:	GCHP-3	GCHP-3	GCHP-3	GCHP-3	GCHP-3	GCHP-3
Surrogate Recovery, %: (QC Limits = 70-130%)	93	76	91	83	80	90

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
 Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Suzanne Chin
 Project Manager



Blaine Tech Services, Inc.	Client Project ID: 940504-K2, Shell, 6039 College Ave.	Sampled: May 4, 1994
985 Timothy Drive	Sample Matrix: Water	Received: May 5, 1994
San Jose, CA 95133	Analysis Method: EPA 5030/8015 Mod./8020	Reported: May 16, 1994
Attention: Jim Keller	First Sample #: 4E29207	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 4E29207 EB	Sample I.D. 4E29208 TB
Purgeable Hydrocarbons	50	N.D.	N.D.
Benzene	0.50	N.D.	N.D.
Toluene	0.50	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.
Chromatogram Pattern:		--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	5/10/94	5/10/94
Instrument Identification:	GCHP-17	GCHP-17
Surrogate Recovery, %: (QC Limits = 70-130%)	96	97

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL


Suzanne Chin
Project Manager



Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940504-K2, Shell, 6039 College Ave. Sample Descript: Water, MW-3 Analysis Method: EPA 8270 Lab Number: 4E29203	Sampled: May 4, 1994 Received: May 5, 1994 Extracted: May 9, 1994 Analyzed: May 12, 1994 Reported: May 16, 1994
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SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L	Sample Results µg/L
Acenaphthene.....	2.0	N.D.
Acenaphthylene.....	2.0	N.D.
Anthracene.....	2.0	N.D.
Benzoic Acid.....	10	N.D.
Benzo(a)anthracene.....	2.0	N.D.
Benzo(b)fluoranthene.....	2.0	N.D.
Benzo(k)fluoranthene.....	2.0	N.D.
Benzo(g,h,i)perylene.....	2.0	N.D.
Benzo(a)pyrene.....	2.0	N.D.
Benzyl alcohol.....	2.0	N.D.
Bis(2-chloroethoxy)methane.....	2.0	N.D.
Bis(2-chloroethyl)ether.....	2.0	N.D.
Bis(2-chloroisopropyl)ether.....	2.0	N.D.
Bis(2-ethylhexyl)phthalate.....	10	N.D.
4-Bromophenyl phenyl ether.....	2.0	N.D.
Butyl benzyl phthalate.....	2.0	N.D.
4-Chloroaniline.....	2.0	N.D.
2-Chloronaphthalene.....	2.0	N.D.
4-Chloro-3-methylphenol.....	2.0	N.D.
2-Chlorophenol.....	2.0	N.D.
4-Chlorophenyl phenyl ether.....	2.0	N.D.
Chrysene.....	2.0	N.D.
Dibenz(a,h)anthracene.....	2.0	N.D.
Dibenzofuran.....	2.0	N.D.
Di-N-butyl phthalate.....	10	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.
3,3-Dichlorobenzidine.....	10	N.D.
2,4-Dichlorophenol.....	2.0	N.D.
Diethyl phthalate.....	2.0	N.D.
2,4-Dimethylphenol.....	2.0	N.D.
Dimethyl phthalate.....	2.0	N.D.
4,6-Dinitro-2-methylphenol.....	10	N.D.
2,4-Dinitrophenol.....	10	N.D.
2,4-Dinitrotoluene.....	2.0	N.D.
2,6-Dinitrotoluene.....	2.0	N.D.



Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940504-K2, Shell, 6039 College Ave. Sample Descript: Water, MW-3 Analysis Method: EPA 8270 Lab Number: 4E29203	Sampled: May 4, 1994 Received: May 5, 1994 Extracted: May 9, 1994 Analyzed: May 12, 1994 Reported: May 16, 1994
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SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L	Sample Results µg/L
Di-N-octyl phthalate.....	2.0	N.D.
Fluoranthene.....	2.0	N.D.
Fluorene.....	2.0	N.D.
Hexachlorobenzene.....	2.0	N.D.
Hexachlorobutadiene.....	2.0	N.D.
Hexachlorocyclopentadiene.....	2.0	N.D.
Hexachloroethane.....	2.0	N.D.
Indeno(1,2,3-cd)pyrene.....	2.0	N.D.
Isophorone.....	2.0	N.D.
2-Methylnaphthalene.....	2.0	N.D.
2-Methylphenol.....	2.0	N.D.
4-Methylphenol.....	2.0	N.D.
Naphthalene.....	2.0	6.5
2-Nitroaniline.....	10	N.D.
3-Nitroaniline.....	10	N.D.
4-Nitroaniline.....	10	N.D.
Nitrobenzene.....	2.0	N.D.
2-Nitrophenol.....	2.0	N.D.
4-Nitrophenol.....	10	N.D.
N-Nitrosodiphenylamine.....	2.0	N.D.
N-Nitroso-di-N-propylamine.....	2.0	N.D.
Pentachlorophenol.....	10	N.D.
Phenanthrene.....	2.0	N.D.
Phenol.....	2.0	N.D.
Pyrene.....	2.0	N.D.
1,2,4-Trichlorobenzene.....	2.0	N.D.
2,4,5-Trichlorophenol.....	10	N.D.
2,4,6-Trichlorophenol.....	2.0	N.D.

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

SEQUOIA ANALYTICAL


Suzanne Chin
Project Manager





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940504-K2, Shell, 6039 College Ave. Sample Descript: Water, MW-6 Analysis Method: EPA 8270 Lab Number: 4E29205	Sampled: May 4, 1994 Received: May 5, 1994 Extracted: May 9, 1994 Analyzed: May 12, 1994 Reported: May 16, 1994
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SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L	Sample Results µg/L
Acenaphthene.....	2.0	N.D.
Acenaphthylene.....	2.0	N.D.
Anthracene.....	2.0	N.D.
Benzoic Acid.....	10	N.D.
Benzo(a)anthracene.....	2.0	N.D.
Benzo(b)fluoranthene.....	2.0	N.D.
Benzo(k)fluoranthene.....	2.0	N.D.
Benzo(g,h,i)perylene.....	2.0	N.D.
Benzo(a)pyrene.....	2.0	N.D.
Benzyl alcohol.....	2.0	N.D.
Bis(2-chloroethoxy)methane.....	2.0	N.D.
Bis(2-chloroethyl)ether.....	2.0	N.D.
Bis(2-chloroisopropyl)ether.....	2.0	N.D.
Bis(2-ethylhexyl)phthalate.....	10	N.D.
4-Bromophenyl phenyl ether.....	2.0	N.D.
Butyl benzyl phthalate.....	2.0	N.D.
4-Chloroaniline.....	2.0	N.D.
2-Chloronaphthalene.....	2.0	N.D.
4-Chloro-3-methylphenol.....	2.0	N.D.
2-Chlorophenol.....	2.0	N.D.
4-Chlorophenyl phenyl ether.....	2.0	N.D.
Chrysene.....	2.0	N.D.
Dibenz(a,h)anthracene.....	2.0	N.D.
Dibenzofuran.....	2.0	N.D.
Di-N-butyl phthalate.....	10	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.
3,3-Dichlorobenzidine.....	10	N.D.
2,4-Dichlorophenol.....	2.0	N.D.
Diethyl phthalate.....	2.0	N.D.
2,4-Dimethylphenol.....	2.0	N.D.
Dimethyl phthalate.....	2.0	N.D.
4,6-Dinitro-2-methylphenol.....	10	N.D.
2,4-Dinitrophenol.....	10	N.D.
2,4-Dinitrotoluene.....	2.0	N.D.
2,6-Dinitrotoluene.....	2.0	N.D.





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940504-K2, Shell, 6039 College Ave. Sample Descript: Water, MW-6 Analysis Method: EPA 8270 Lab Number: 4E29205	Sampled: May 4, 1994 Received: May 5, 1994 Extracted: May 9, 1994 Analyzed: May 12, 1994 Reported: May 16, 1994
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SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L	Sample Results µg/L
Di-N-octyl phthalate.....	2.0	N.D.
Fluoranthene.....	2.0	N.D.
Fluorene.....	2.0	N.D.
Hexachlorobenzene.....	2.0	N.D.
Hexachlorobutadiene.....	2.0	N.D.
Hexachlorocyclopentadiene.....	2.0	N.D.
Hexachloroethane.....	2.0	N.D.
Indeno(1,2,3-cd)pyrene.....	2.0	N.D.
Isophorone.....	2.0	N.D.
2-Methylnaphthalene.....	2.0	N.D.
2-Methylphenol.....	2.0	N.D.
4-Methylphenol.....	2.0	N.D.
Naphthalene.....	2.0	N.D.
2-Nitroaniline.....	10	N.D.
3-Nitroaniline.....	10	N.D.
4-Nitroaniline.....	10	N.D.
Nitrobenzene.....	2.0	N.D.
2-Nitrophenol.....	2.0	N.D.
4-Nitrophenol.....	10	N.D.
N-Nitrosodiphenylamine.....	2.0	N.D.
N-Nitroso-di-N-propylamine.....	2.0	N.D.
Pentachlorophenol.....	10	N.D.
Phenanthrene.....	2.0	N.D.
Phenol.....	2.0	N.D.
Pyrene.....	2.0	N.D.
1,2,4-Trichlorobenzene.....	2.0	N.D.
2,4,5-Trichlorophenol.....	10	N.D.
2,4,6-Trichlorophenol.....	2.0	N.D.

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

SEQUOIA ANALYTICAL


 Suzanne Chin
 Project Manager





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

Client Project ID: 940504-K2, Shell, 6039 College Ave.
Sample Descript: Water, Dup
Analysis Method: EPA 8270
Lab Number: 4E29206

Sampled: May 4, 1994
Received: May 5, 1994
Analyzed: May 27, 1994
Reported: Jun 1, 1994

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L	Sample Results µg/L
Acenaphthene.....	2.0	N.D.
Acenaphthylene.....	2.0	N.D.
Anthracene.....	2.0	N.D.
Benzoic Acid.....	10	N.D.
Benzo(a)anthracene.....	2.0	N.D.
Benzo(b)fluoranthene.....	2.0	N.D.
Benzo(k)fluoranthene.....	2.0	N.D.
Benzo(g,h,i)perylene.....	2.0	N.D.
Benzo(a)pyrene.....	2.0	N.D.
Benzyl alcohol.....	2.0	N.D.
Bis(2-chloroethoxy)methane.....	2.0	N.D.
Bis(2-chloroethyl)ether.....	2.0	N.D.
Bis(2-chloroisopropyl)ether.....	2.0	N.D.
Bis(2-ethylhexyl)phthalate.....	10	N.D.
4-Bromophenyl phenyl ether.....	2.0	N.D.
Butyl benzyl phthalate.....	2.0	N.D.
4-Chloroaniline.....	2.0	N.D.
2-Chloronaphthalene.....	2.0	N.D.
4-Chloro-3-methylphenol.....	2.0	N.D.
2-Chlorophenol.....	2.0	N.D.
4-Chlorophenyl phenyl ether.....	2.0	N.D.
Chrysene.....	2.0	N.D.
Dibenz(a,h)anthracene.....	2.0	N.D.
Dibenzofuran.....	2.0	N.D.
Di-N-butyl phthalate.....	10	N.D.
1,3-Dichlorobenzene.....	2.0	N.D.
1,4-Dichlorobenzene.....	2.0	N.D.
1,2-Dichlorobenzene.....	2.0	N.D.
3,3-Dichlorobenzidine.....	10	N.D.
2,4-Dichlorophenol.....	2.0	N.D.
Diethyl phthalate.....	2.0	N.D.
2,4-Dimethylphenol.....	2.0	N.D.
Dimethyl phthalate.....	2.0	N.D.
4,6-Dinitro-2-methylphenol.....	10	N.D.
2,4-Dinitrophenol.....	10	N.D.
2,4-Dinitrotoluene.....	2.0	N.D.
2,6-Dinitrotoluene.....	2.0	N.D.



Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940504-K2, Shell, 6039 College Ave. Sample Descript: Water, Dup Analysis Method: EPA 8270 Lab Number: 4E29206	Sampled: May 4, 1994 Received: May 5, 1994 Analyzed: May 27, 1994 Reported: Jun 1, 1994
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SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L	Sample Results µg/L
Di-N-octyl phthalate.....	2.0	N.D.
Fluoranthene.....	2.0	N.D.
Fluorene.....	2.0	N.D.
Hexachlorobenzene.....	2.0	N.D.
Hexachlorobutadiene.....	2.0	N.D.
Hexachlorocyclopentadiene.....	2.0	N.D.
Hexachloroethane.....	2.0	N.D.
Indeno(1,2,3-cd)pyrene.....	2.0	N.D.
Isophorone.....	2.0	N.D.
2-Methylnaphthalene.....	2.0	N.D.
2-Methylphenol.....	2.0	N.D.
4-Methylphenol.....	2.0	N.D.
Naphthalene.....	2.0	11
2-Nitroaniline.....	10	N.D.
3-Nitroaniline.....	10	N.D.
4-Nitroaniline.....	10	N.D.
Nitrobenzene.....	2.0	N.D.
2-Nitrophenol.....	2.0	N.D.
4-Nitrophenol.....	10	N.D.
N-Nitrosodiphenylamine.....	2.0	N.D.
N-Nitroso-di-N-propylamine.....	2.0	N.D.
Pentachlorophenol.....	10	N.D.
Phenanthrene.....	2.0	N.D.
Phenol.....	2.0	N.D.
Pyrene.....	2.0	N.D.
1,2,4-Trichlorobenzene.....	2.0	N.D.
2,4,5-Trichlorophenol.....	10	N.D.
2,4,6-Trichlorophenol.....	2.0	N.D.

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

SEQUOIA ANALYTICAL


Suzanne Chin
Project Manager





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940504-K2, Shell, 6039 College Ave. Sample Matrix: Water Analysis Method: EPA 3510/3520/8015 Mod. First Sample #: 4E29203	Sampled: May 4, 1994 Received: May 5, 1994 Reported: May 16, 1994 Amended: Jun 1, 1994
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FUEL FINGERPRINT: Motor Oil

Analyte	Reporting Limit µg/L	Sample I.D. 4E29203 MW-3	Sample I.D. 4E29206 Dup
Extractable Hydrocarbons	50	710	1,600
Chromatogram Pattern:		Motor Oil	Motor Oil

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Extracted:	5/9/94	5/25/94
Date Analyzed:	5/11/94	5/26/94
Instrument Identification:	GCHP-4	GCHP-4

Extractable Hydrocarbons are quantitated against a fresh motor oil standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL


Suzanne Chin
Project Manager





**Sequoia
Analytical**

680 Chesapeake Drive Redwood City, CA 94063 (415) 364-9600 FAX (415) 364-9233
1900 Bates Avenue, Suite L Concord, CA 94520 (510) 686-9600 FAX (510) 686-9689
819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940504-K2, Shell, 6039 College Ave. Matrix Descript: Water Analysis Method: SM 5520 B&F (Gravimetric) First Sample #: 4E29203	Sampled: May 4, 1994 Received: May 5, 1994 Extracted: May 6, 1994 Analyzed: May 6, 31, 1994 Reported: May 16, 1994 Amended: Jun 1, 1994
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TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L
4E29203	MW-3	N.D.
4E29205	MW-6	N.D.
4E29206	Dup	N.D.

Detection Limits: 5.0

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

SEQUOIA ANALYTICAL


Suzanne Chin
Project Manager

4E29201.BLA <10>





Blaine Tech Services, Inc. Client Project ID: 940504-K2, Shell, 6039 College Ave.
 985 Timothy Drive Matrix: Liquid
 San Jose, CA 95133
 Attention: Jim Keller QC Sample Group: 4E29201-06 Reported: May 16, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab

MS/MSD Batch#:	4E22801	4E22801	4E22801	4E22801
Date Prepared:	-	-	-	-
Date Analyzed:	5/8/94	5/8/94	5/8/94	5/8/94
Instrument I.D.#:	GCHP-3	GCHP-3	GCHP-3	GCHP-3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	100	100	100	100
Matrix Spike Duplicate % Recovery:	94	93	92	90
Relative % Difference:	6.2	7.3	8.3	11

LCS Batch#:	-	-	-	-
Date Prepared:	-	-	-	-
Date Analyzed:	-	-	-	-
Instrument I.D.#:	-	-	-	-
LCS % Recovery:	-	-	-	-

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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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

Suzanne Chin
 Project Manager



Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940504-K2, Shell, 6039 College Ave. Matrix: Liquid QC Sample Group: 4E29207-08	Reported: May 16, 1994
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QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel

MS/MSD

Batch#:	4DH7901	4DH7901	4DH7901	4DH7901
Date Prepared:	-	-	-	-
Date Analyzed:	5/9/94	5/9/94	5/9/94	5/9/94
Instrument I.D.#:	GCHP-17	GCHP-17	GCHP-17	GCHP-17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	99	100	98	100
Matrix Spike Duplicate % Recovery:	94	94	91	93
Relative % Difference:	5.2	6.2	7.4	7.3

LCS Batch#:	-	-	-	-
Date Prepared:	-	-	-	-
Date Analyzed:	-	-	-	-
Instrument I.D.#:	-	-	-	-
LCS % Recovery:	-	-	-	-

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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SEQUOIA ANALYTICAL

Suzanne Chin
Suzanne Chin
Project Manager



Blaine Tech Services, Inc. Client Project ID: 940504-K2, Shell, 6039 College Ave.
 985 Timothy Drive Matrix: Liquid
 San Jose, CA 95133
 Attention: Jim Keller QC Sample Group: 4E29203, 05 Reported: May 16, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Phenol	2-Chlorophenol	1,4-Dichloro-benzene	N-Nitroso-Di-N-propylamine	1,2,4-Trichloro-benzene	4-Chloro-3-Methylphenol
Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Analyst:	L. Duong	L. Duong	L. Duong	L. Duong	L. Duong	L. Duong

MS/MSD Batch#:	4E24904	4E24904	4E24904	4E24904	4E24904	4E24904
Date Prepared:	5/9/94	5/9/94	5/9/94	5/9/94	5/9/94	5/9/94
Date Analyzed:	5/12/94	5/12/94	5/12/94	5/12/94	5/12/94	5/12/94
Instrument I.D.#:	F4	F4	F4	F4	F4	F4
Conc. Spiked:	100 NG	100 NG	50 NG	50 NG	50 NG	100 NG
Matrix Spike % Recovery:	73	73	68	92	74	76
Matrix Spike Duplicate % Recovery:	71	72	68	92	76	78
Relative % Difference:	2.8	1.4	0.0	0.0	2.7	2.6

LCS Batch#:	-	-	-	-	-	-
Date Prepared:	-	-	-	-	-	-
Date Analyzed:	-	-	-	-	-	-
Instrument I.D.#:	-	-	-	-	-	-
LCS % Recovery:	-	-	-	-	-	-

% Recovery Control Limits:	5-112	23-134	20-124	DL-230	44-142	22-147
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SEQUOIA ANALYTICAL

Suzanne Chin
 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.





Blaine Tech Services, Inc. Client Project ID: 940504-K2, Shell, 6039 College Ave.
 985 Timothy Drive Matrix: Liquid
 San Jose, CA 95133
 Attention: Jim Keller QC Sample Group: 4E29203, 05 Reported: May 16, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Acenaphthene	4-Nitrophenol	2,4-Dinitro- toluene	Pentachloro- phenol	Pyrene
Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Analyst:	L. Duong	L. Duong	L. Duong	L. Duong	L. Duong

MS/MSD Batch#:	4E24904	4E24904	4E24904	4E24904	4E24904
Date Prepared:	5/9/94	5/9/94	5/9/94	5/9/94	5/9/94
Date Analyzed:	5/12/94	5/12/94	5/12/94	5/12/94	5/12/94
Instrument I.D.#:	F4	F4	F4	F4	F4
Conc. Spiked:	50 NG	100 NG	50 NG	100 NG	50 NG
Matrix Spike % Recovery:	78	77	68	95	90
Matrix Spike Duplicate % Recovery:	78	103	74	104	100
Relative % Difference:	0.0	29	8.5	9.0	11

LCS Batch#:	-	-	-	-	-
Date Prepared:	-	-	-	-	-
Date Analyzed:	-	-	-	-	-
Instrument I.D.#:	-	-	-	-	-
LCS % Recovery:	-	-	-	-	-

% Recovery Control Limits:	47-145	DL-132	39-139	14-176	52-115
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SEQUOIA ANALYTICAL

Suzanne Chin
 Suzanne Chin
 Project Manager





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940504-K2, Shell, 6039 College Ave. Matrix: Liquid QC Sample Group: 4E29203	Reported: May 16, 1994
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QUALITY CONTROL DATA REPORT

ANALYTE	Diesel
Method:	EPA 8015
Analyst:	A. Nagra

MS/MSD
Batch#: 4E07002

Date Prepared: 5/9/94
Date Analyzed: 5/10/94
Instrument I.D.#: GCHP-5
Conc. Spiked: 600 µg/L

Matrix Spike
% Recovery: 87

Matrix Spike
Duplicate %
Recovery: 95

Relative %
Difference: 9.0

LCS Batch#: -

Date Prepared: -
Date Analyzed: -
Instrument I.D.#: -

LCS %
Recovery: -

% Recovery Control Limits:	28-122
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SEQUOIA ANALYTICAL


Suzanne Chin
Project Manager





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940504-K2, Shell, 6039 College Ave. Matrix: Liquid QC Sample Group: 4E29203, 05	Reported: May 16, 1994
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QUALITY CONTROL DATA REPORT

ANALYTE	Total Oil & Grease
Method:	EPA 5520BF
Analyst:	J. Ball

MS/MSD
Batch#: BLK050294

Date Prepared: 5/2/94
Date Analyzed: 5/4/94
Instrument I.D.#: N/A
Conc. Spiked: 30 mg/L

Matrix Spike
% Recovery: 93

Matrix Spike Duplicate %
Recovery: 100

Relative %
Difference: 7.3



LCS Batch#: BLK050294

Date Prepared: 5/2/94
Date Analyzed: 5/4/94
Instrument I.D.#: N/A

LCS %
Recovery: 93

% Recovery Control Limits:	70-110
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SEQUOIA ANALYTICAL



Suzanne Chin
Project Manager

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Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: 940504-K2, Shell, 6039 College Ave. Matrix: Water	QC Sample Group: 4E29206	Reported: Jun 1, 1994
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QUALITY CONTROL DATA REPORT

ANALYTE	Total Oil & Grease	Diesel
Method:	EPA 5520 BF	EPA 8015
Analyst:	J. Ball	A. Nagra

MS/MSD Batch#:	BLK052794	4EC7701
Date Prepared:	5/27/94	5/25/94
Date Analyzed:	5/27/94	5/25/94
Instrument I.D.#:	N/A	GCHP-5
Conc. Spiked:	30 mg/L	600 µg/L
Matrix Spike % Recovery:	87	75
Matrix Spike Duplicate % Recovery:	90	80
Relative % Difference:	3.4	6.5

LCS Batch#:	BLK052794	-
Date Prepared:	5/27/94	-
Date Analyzed:	5/27/94	-
Instrument I.D.#:	N/A	-
LCS % Recovery:	87	-

% Recovery Control Limits:	70-110	28-122
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SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager



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

Client Project ID: 940504-K2, Shell, 6039 College Ave.
 Matrix: Liquid

QC Sample Group: 4E29206

Reported: Jun 1, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Phenol	2-Chlorophenol	1,4-Dichloro-benzene	N-Nitroso-Di-N-propylamine	1,2,4-Trichloro-benzene	4-Chloro-3-Methylphenol
Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Analyst:	E. Manuel	E. Manuel	E. Manuel	E. Manuel	E. Manuel	E. Manuel

MS/MSD Batch#:	BLK052494	BLK052494	BLK052494	BLK052494	BLK052494	BLK052494
Date Prepared:	5/24/94	5/24/94	5/24/94	5/24/94	5/24/94	5/24/94
Date Analyzed:	5/28/94	5/28/94	5/28/94	5/28/94	5/28/94	5/28/94
Instrument I.D.#:	H5	H5	H5	H5	H5	H5
Conc. Spiked:	100 µg/L	100 µg/L	50 µg/L	50 µg/L	50 µg/L	100 µg/L
Matrix Spike % Recovery:	79	78	84	104	86	84
Matrix Spike Duplicate % Recovery:	79	78	84	94	86	83
Relative % Difference:	0.0	0.0	0.0	10	0.0	1.2

LCS Batch#:	-	-	-	-	-	-
Date Prepared:	-	-	-	-	-	-
Date Analyzed:	-	-	-	-	-	-
Instrument I.D.#:	-	-	-	-	-	-
LCS % Recovery:	-	-	-	-	-	-

% Recovery Control Limits:	5-112	23-134	20-124	DL-230	44-142	22-147
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SEQUOIA ANALYTICAL

Suzanne Chin
 Project Manager

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Blaine Tech Services, Inc. Client Project ID: 940504-K2, Shell, 6039 College Ave.
 985 Timothy Drive Matrix: Liquid
 San Jose, CA 95133
 Attention: Jim Keller QC Sample Group: 4E29206 Reported: Jun 1, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Acenaphthene	4-Nitrophenol	2,4-Dinitro-toluene	Pentachloro-phenol	Pyrene
Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Analyst:	E. Manuel	E. Manuel	E. Manuel	E. Manuel	E. Manuel

MS/MSD	Acenaphthene	4-Nitrophenol	2,4-Dinitro-toluene	Pentachloro-phenol	Pyrene
Batch#:	BLK052494	BLK052494	BLK052494	BLK052494	BLK052494
Date Prepared:	5/24/94	5/24/94	5/24/94	5/24/94	5/24/94
Date Analyzed:	5/28/94	5/28/94	5/28/94	5/28/94	5/28/94
Instrument I.D.#:	H5	H5	H5	H5	H5
Conc. Spiked:	50 µg/L	100 µg/L	50 µg/L	100 µg/L	50 µg/L
Matrix Spike % Recovery:	88	87	82	79	72
Matrix Spike Duplicate % Recovery:	90	86	86	80	80
Relative % Difference:	2.2	1.2	4.8	1.3	11

LCS Batch#:	-	-	-	-	-
Date Prepared:	-	-	-	-	-
Date Analyzed:	-	-	-	-	-
Instrument I.D.#:	-	-	-	-	-
LCS % Recovery:	-	-	-	-	-

% Recovery Control Limits:	Acenaphthene	4-Nitrophenol	2,4-Dinitro-toluene	Pentachloro-phenol	Pyrene
	47-145	DL-132	39-139	14-176	52-115

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SEQUOIA ANALYTICAL

Suzanne Chin
 Project Manager

