RO223

Shell Oil Products US

January 3, 2005

Roseanna Garcia-La Grille
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: **Shell-branded Service Station**
540 Hegenberger Road
Oakland, California

Dear Ms Garcia-La Grille:

Attached for your review and comment is a copy of the *Third Quarter 2004 Monitoring Report* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (559) 645-9306 with any questions or concerns.

Sincerely,

Shell Oil Products US

Karen Petryna

Karen Petryna
Sr. Environmental Engineer

20945 S. Wilmington Ave., Carson, CA 90810 Phone (559) 645-9306 Facsimile (559) 645-5643

CAMBRIA

January 3, 2005

Roseanna Garcia-La Grille
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Third Quarter 2004 Monitoring Report**
Shell-branded Service Station
540 Hegenberger Road
Oakland, California
Incident #98995752
Cambria Project #246-0414-002

Dear Ms. Garcia-La Grille:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell), Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

THIRD QUARTER 2004 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged water levels, sampled the monitoring wells, calculated groundwater elevations, and compiled the analytical data. The adjacent Arco station located at 566 Hegenberger Road was sampled concurrently. Cambria prepared a vicinity map which includes previously submitted well survey information (Figure 1) and a groundwater elevation contour map (Figure 2). Blaine's report, presenting the laboratory reports and supporting field documents is included as Attachment A. Data from the Arco site is presented on Figure 2 and included as Attachment B.

Additional Oxygenate Analysis: In addition to the regular quarterly analysis for total petroleum hydrocarbons as gasoline, benzene, toluene, ethylbenzene, xylenes, and methyl-tertiary-butyl ether (MTBE), groundwater samples from all monitoring wells were analyzed for five additional oxygenates. Analytical results for MTBE, di-isopropyl ether, ethyl tert-butyl ether, tert-amyl methyl ether, tert-butyl alcohol (TBA), and ethanol are included in Blaine's report. The only oxygenates detected were MTBE and TBA.

Cambria Environmental Technology, Inc.

5900 Hollis Street
Suite A
Emeryville, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

Historical Interim Remediation Summary: From July 1999 through June 2000, groundwater extraction (GWE) was performed at the site to remove dissolved-phase hydrocarbons and MTBE from beneath the site. From June through December 2000, dual-phase vacuum extraction (DVE) was conducted to enhance GWE and to extract vapor-phase hydrocarbon and MTBE from the soil as well. DVE was discontinued after the December 2000 event, and monthly DVE events were resumed in May 2001. Due to low vapor mass-removal rates, DVE was discontinued in October 2001, and monthly GWE was re-initiated. Wells MW-1 and MW-3 and tank backfill well BW-D were used for extraction until April 2002, when extraction from the tank backfill was switched from well BW-D to BW-B due to higher historic MTBE concentrations observed in this well. A total of 13.7 lbs. of MTBE was removed from the subsurface during DVE and GWE events. Monthly GWE events were discontinued in March 2003 when construction of a fixed GWE system was initiated.

GWE System: Based on the groundwater monitoring and GWE system data which demonstrated decreased MTBE concentrations in groundwater, we shut down GWE system operation on August 4, 2004. After reviewing the third quarter groundwater monitoring data, which showed rebound of MTBE concentrations in well MW-3, we restarted the system on November 2, 2004, pumping only from well MW-3.

The influent samples collected from the GWE system on November 23, 2004 and December 6, 2004 showed MTBE concentrations of 170 parts per billion (ppb) and 91 ppb. Since this influent stream consists entirely of groundwater pumped from well MW-3, it appears concentrations have rapidly declined in this well. We will review the fourth quarter sampling event data to evaluate further actions on the system.

Table 1 summarizes system analytical data. Table 2 summarizes the field data and system operation and calculates mass removal. Based on the field data, the GWE system operated at average flow rates ranging from approximately 0.32 to 0.36 gallons per minute after restart.

Through December 17, 2004, a total of 343,547 gallons of groundwater has been extracted. A total of 18.4 pounds of MTBE has been recovered.

ANTICIPATED FOURTH QUARTER 2004 ACTIVITIES

Groundwater Monitoring: Blaine will gauge water levels, sample the monitoring wells using the non-purging method, and tabulate the data. In addition, Blaine will sample tank backfill well BW-D. The sampling event will take place concurrently with sampling at the Arco station

located at 566 Hegenberger Road. Arco and Shell will exchange water level and analytical data on these events. Cambria will prepare a report documenting those activities.

GWE System: We will operate the system under the conditions of the East Bay Municipal Utility District discharge permit. Fourth quarter groundwater monitoring and sampling data will be evaluated to determine the course of action for the GWE system.

CLOSING

We appreciate the opportunity to work with you on this project. Please call Diane Lundquist at (510) 420-3334 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc

Diane Lundquist, P.E.
Principal Engineer

Figures: 1 - Vicinity/Area Well Survey Map
2 - Groundwater Elevation Contour Map

Tables: 1 - Groundwater Extraction – System Analytical Data
2 - Groundwater Extraction – Operation and Mass Removal Data

Attachments: A - Blaine Groundwater Monitoring Report and Field Notes
B - Arco Groundwater Data

cc: Karen Petryna, Shell Oil Products US, 20945 S. Wilmington Ave., Carson, CA 90810

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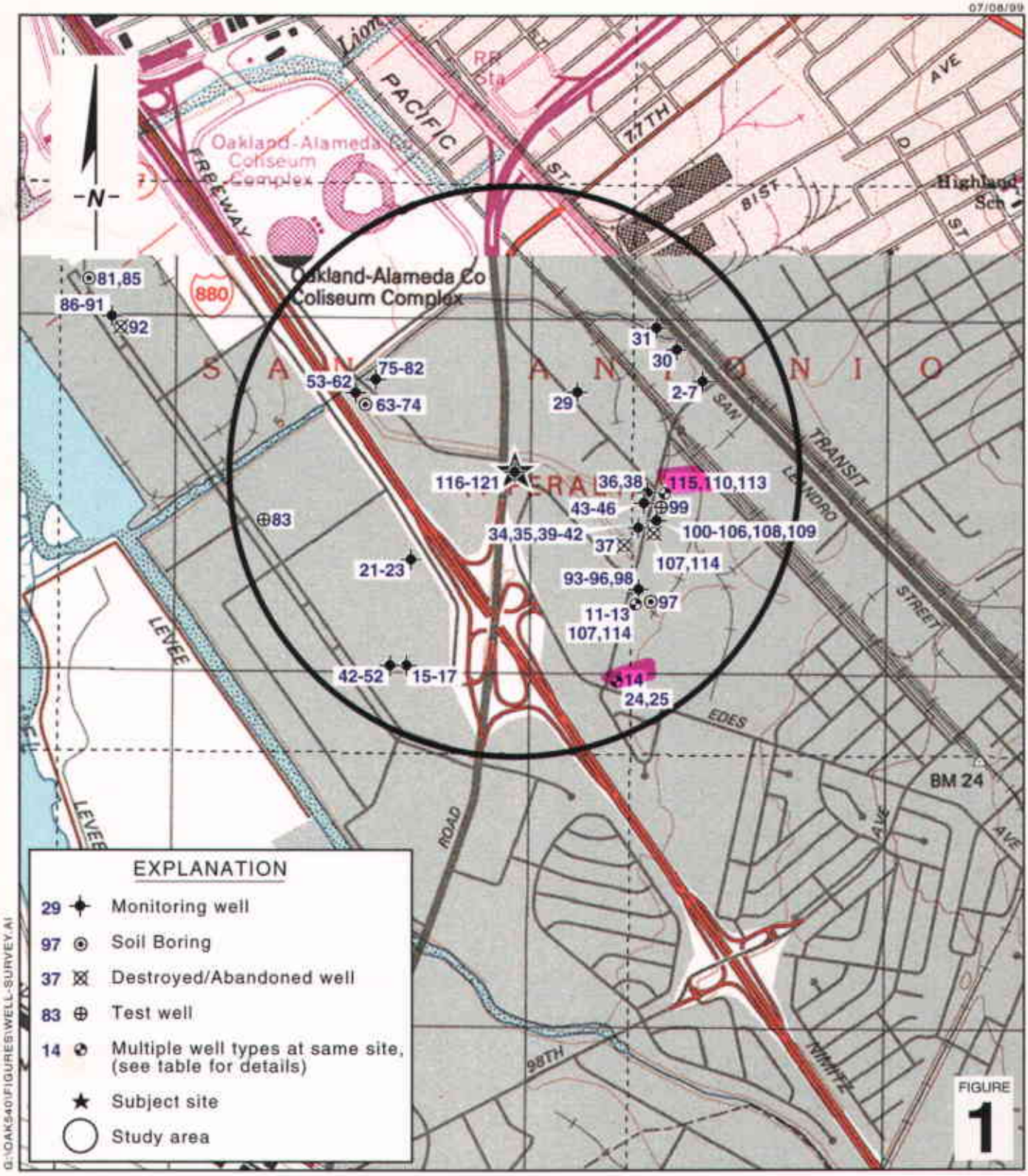

Shell-branded Service Station
540 Hegenberger Road
Oakland, California
Incident #98995752

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Area Well Survey

(1/2-Mile Radius)

12/15/04

Groundwater Elevation Contour Map

September 22, 2004

HEGENBERGER ROAD

EDES AVE

Shell-branded Service Station
540 Hegenberger

ARCO Service Station #4494
566 Hegenberger

Remediation compound

Remediation piping

Jack in the Box Restaurant

AM/PM Mini-Mart

Burger King

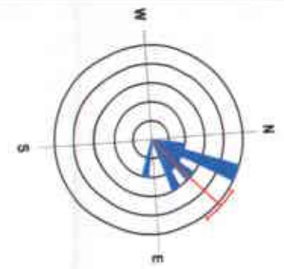
Laborers' International Union

Days Inn

MW-3	4.59	830 / 28,000
BW-D	NS	6.9 / 210
MW-2	2.11	<0.50 / 24
MW-7	1.61	<0.50 / 2.3
MW-5	4.12	<0.50 / 20
MW-1	3.97	<20 / 170
MW-1	4.58	1.5 / 140
MW-3	2.18	<0.50 / 4.7
MW-2 (destroyed 12/92)		
RW-1	3.55	<0.50 / <0.50
MW-4	2.16	<0.50 / 20
MW-4	4.56	<0.50 / <0.50
MW-5	3.73	<0.50 / <0.50
MW-6	3.98	<0.50 / <0.50

EXPLANATION

- MW-2 — Shell monitoring well
- BW-A — Tank backfill well
- MW-1 — Well used for groundwater extraction
- MW-1 — ARCO monitoring well
- RW-1 — ARCO recovery well
- SB-1 — Soil boring location (March 1998)
- SB-D — Soil boring location (July 1998)
- SB-E — Soil boring location (August 2000)
- C-1 — Canal sampling location
- FH — Fire hydrant
- FL = 5.0' — Flowline elevation (msl)
- Sanitary sewer main (SS)
- Water line (W)
- Storm drain (SD)
- Telephone line (T)
- Flow direction
- NS — Not surveyed
- Groundwater flow direction
- xx.xx — Groundwater elevation contour, in feet above msl, approximately located, dashed where inferred
- Well designation
- Well / ELEV / Benzene / MTBE
- Groundwater elevation, in feet above msl
- Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260.



Shell Groundwater Gradient Direction
August 1998 through March 2003
(20 events prior to groundwater extraction)

0 20 40 80
Scale (ft)

FIGURE
2

Shell-branded Service Station
540 Hegenberger Road
Oakland, California
Incident #98995752

CAMBRIA

G:\OAKLAND 540 HEGENBERGER\FIGURES\3QM04.DWG

Table 1: **Groundwater Extraction - System Analytical Data** - Shell-branded Service Station, Incident #98995752, 540 Hegenberger, Oakland, CA

	Influent			Midfluent 1			Midfluent 2			Effluent		
Sample Date (mm/dd/yyyy)	TPHg Conc. (ppb)	Benzene Conc. (ppb)	MTBE Conc (ppb)	TPHg Conc. (ppb)	Benzene Conc (ppb)	MTBE Conc. (ppb)	TPHg Conc. (ppb)	Benzene Conc (ppb)	MTBE Conc. (ppb)	TPHg Conc. (ppb)	Benzene Conc. (ppb)	MTBE Conc (ppb)
04/28/2003	<1,000	<10	2,700	<50	<0.50	<0.50	<50	<0.50	<0.50	<50	<0.50	<0.50
05/12/2003	<10,000	<100	21,000	**51**[a]	<0.50	<0.50	**140**[a]	<0.50	<0.50	**99**[a]	<0.50	<0.50
05/27/2003	<10,000	<100	29,000	<50	<0.50	<0.50	<50	<0.50	<0.50	<50	<0.50	<0.50
06/09/2003	<25,000	<250	20,000	<50	<0.50	<0.50	<50	<0.50	<0.50	<50	<0.50	<0.50
06/23/2003	<500	<5.0	1,300	<50	<0.50	<0.50	<50	<0.50	<0.50	<50	<0.50	<0.50
07/08/2003	<1,000	<10	2,000	<50	<0.50	<0.50	<50	<0.50	<0.50	<50	<0.50	<0.50
07/25/2003	<500	<50	16,000	<50	<0.50	<0.50	<50	<0.50	<0.50	<50	<0.50	<0.50
08/05/2003	<5,000	<50	11,000	<50	<0.50	<5.0	<50	<0.50	<5.0	<50	<0.50	<5.0
08/19/2003	<10,000	<100	13,000	<50	<0.50	<5.0	<50	<0.50	<5.0	<50	<0.50	<5.0
09/05/2003	<5,000	<50	8,900	<50	<0.50	<5.0	<50	<0.50	<5.0	<50	<0.50	<5.0
09/19/2003	<2,000	<20	6,900	58	<0.50	<5.0	<50	<0.50	<5.0	<50	<0.50	<5.0
10/01/2003	<2,500	<25	5,300	<100	<1.0	<10	<50	<0.50	<5.0	<50	<0.50	<5.0
11/14/2003	<1,300	20	1,300	<50	<0.50	<5.0	<50	<0.50	<5.0	<50	<0.50	<5.0
12/02/2003	<1,300	45	1,200	<50	<0.50	<5.0	<50	<0.50	<5.0	<50	<0.50	<5.0
12/18/2003	<1,000	11	1,200	<500	<5.0	<50	<50	<0.50	<5.0	<50	<0.50	<5.0
01/06/2004	<250	<2.5	240	<500	<5.0	<50	<50	<0.50	<5.0	<50	<0.50	<5.0
02/04/2004	<500	<5.0	620	<50	<0.50	<0.50	<50	<0.50	<0.50	<50	<0.50	<0.50
03/09/2004	<100	<1.0	100	<50	<0.50	<0.50	NS	NS	NS	NS	NS	NS
04/02/2004	<100	<1.0	110	<50	<0.50	<0.50	NS	NS	NS	NS	NS	NS
05/14/2004	<100	<1.0	270	<50	<0.50	<5.0	NS	NS	NS	NS	NS	NS
06/10/2004	<100	1.4	180	<50	<0.50	<5.0	NS	NS	NS	NS	NS	NS
07/08/2004	<100	<1.0	190	<50	<0.50	<5.0	<50	<0.50	<5.0	NS	NS	NS
08/04/2004	<100	<1.0	160	<50	<0.50	<5.0	NS	NS	NS	<50	<0.50	<5.0
11/02/2004	<100	6.6	240	130	<0.50	<5.0	<50	<0.50	<5.0	NS	NS	NS

Table 1: **Groundwater Extraction - System Analytical Data** - Shell-branded Service Station, Incident #98995752, 540 Hegenberger, Oakland, CA

11/23/2004	<100	<1.0	170	<50	<0.50	<5.0	<50	<0.50	<5.0	<50	<0.50	<5.0
12/06/2004	<100	<1.0	91	<50	<0.50	<5.0	NS	NS	NS	<50	<0.50	<5.0

Abbreviations & Notes:

TPHg = Total purgeable hydrocarbons as gasoline
MTBE = Methyl tert-butyl ether
Conc. = Concentration
ppb = parts per billion, equivalent to µg/l
TPHg, benzene, and MTBE analyzed by EPA Method 8260B
a = Hydrocarbons reported in the gasoline range do not match the laboratory gasoline standard.

Table 2: Groundwater Extraction - Operation and Mass Removal Data - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road , Oakland, CA

		Period				TPHg			Benzene			MTBE		
Site Visit (mm/dd/yy)	Hour Meter (hours)	Flow Meter Reading (gal)	Period Volume (gal)	Operational Flow Rate (gpm)	Cumulative Volume (gal)	TPHg Conc. (ppb)	Period Removal (pounds)	Cumulative Removal (pounds)	Benzene Conc. (ppb)	Period Removal (pounds)	Cumulative Removal (pounds)	MTBE Conc. (ppb)	Period Removal (pounds)	Cumulative Removal (pounds)
04/28/03	3.3	840	0	0.00	0	<1,000	0.000	0.000	<10	0.000	0.000	2,700	0.000	0.000
05/02/03	101.3	6,680	5,840	0.99	5,840		0.024	0.024		0.000	0.000		0.132	0.132
05/12/03	341.2	23,885	17,205	1.20	23,045	<10,000	0.718	0.742	<100	0.007	0.007	21,000	3.015	3.146
05/27/03	699.9	45,085	21,200	0.99	44,245	<10,000	0.885	1.627	<100	0.009	0.016	29,000	5.130	8.277
06/09/03	1011.8	58,453	13,368	0.71	57,613	<25,000	1.394	3.021	<250	0.014	0.030	20,000	2.231	10.507
06/23/03	1347.2	67,082	8,629	0.43	66,242	<500	0.018	3.039	<5.0	0.000	0.030	1,300	0.094	10.601
07/08/03	1706.9	80,092	13,010	0.60	79,252	<1,000	0.054	3.093	<10	0.001	0.031	2,000	0.217	10.818
07/25/03	2113.6	97,580	17,488	0.72	96,740	<500	0.036	3.130	<50	0.004	0.035	16,000	2.335	13.153
08/05/03	2136.0	98,536	956	0.71	97,696	<5,000	0.020	3.150	<50	0.000	0.035	11,000	0.088	13.241
08/19/03	2473.8	114,245	15,709	0.78	113,405	<10,000	0.655	3.805	<100	0.007	0.041	13,000	1.704	14.945
09/05/03	2881.3	125,020	10,775	0.44	124,180	<5,000	0.225	4.030	<50	0.002	0.044	8,900	0.800	15.745
09/19/03	3218.8	136,594	11,574	0.57	135,754	<2,000	0.097	4.126	<20	0.001	0.045	6,900	0.666	16.411
10/01/03	3503.6	145,329	8,735	0.51	144,489	<2,500	0.091	4.218	<25	0.001	0.045	5,300	0.386	16.798
10/17/03	3821.0	154,978	9,649	0.51	154,138		0.101	4.318		0.001	0.046		0.427	17.224
10/31/03	4155.5	165,292	10,314	0.51	164,452		0.108	4.426		0.001	0.048		0.456	17.681
11/14/03	4299.6	171,405	6,113	0.71	170,565	<1,300	0.033	4.459	20	0.001	0.049	1,300	0.066	17.747
11/19/03	4300.4	171,405	0	0.00	170,565		0.000	4.459		0.000	0.049		0.000	17.747
11/26/03	4468.3	179,248	7,843	0.78	178,408		0.043	4.502		0.001	0.050		0.085	17.832
12/02/03	4614.1	186,020	6,772	0.77	185,180	<1,300	0.037	4.538	45	0.003	0.052	1,200	0.068	17.900
12/18/03	5000.8	205,130	19,110	0.82	204,290		0.104	4.642		0.007	0.060		0.191	18.091
01/02/04	5361.9	209,447	4,317	0.20	208,607		0.023	4.665		0.002	0.061		0.043	18.134
01/06/04	5451.1	210,081	634	0.12	209,241	<250	0.001	4.666	<2.5	0.000	0.061	240	0.001	18.136
01/20/04	5788.5	214,091	4,010	0.20	213,251		0.004	4.670		0.000	0.061		0.008	18.144
01/28/04	5842.8	215,451	1,360	0.42	214,611		0.001	4.672		0.000	0.061		0.003	18.146
02/04/04	5987.0	220,414	4,963	0.57	219,574	<500	0.010	4.682	<5.0	0.000	0.061	620	0.026	18.172
02/18/04	6343.4	222,732	2,318	0.11	221,892		0.005	4.687		0.000	0.061		0.012	18.184
02/20/04	6392.8	223,811	1,079	0.36	222,971		0.002	4.689		0.000	0.061		0.006	18.190
03/09/04	6688.4	229,070	5,259	0.30	228,230	<100	0.002	4.691	<1.0	0.000	0.061	100	0.004	18.194
03/25/04	7074.7	234,471	5,401	0.23	233,631		0.002	4.693		0.000	0.061		0.005	18.199
04/02/04	7262.7	237,008	2,537	0.22	236,168	<100	0.001	4.695	<1.0	0.000	0.062	110	0.002	18.201
04/14/04	7554.7	238,665	1,657	0.09	237,825		0.001	4.695		0.000	0.062		0.002	18.202
04/27/04	7864.7	266,992	28,327	1.52	266,152		0.012	4.707		0.000	0.062		0.026	18.228
05/14/04	8271.1	281,246	14,254	0.58	280,406	<100	0.006	4.713	<1.0	0.000	0.062	270	0.032	18.261
05/26/04	8556.7	300,888	19,642	1.15	300,048		0.008	4.721		0.000	0.062		0.044	18.305
06/10/04	8922.2	304,323	3,435	0.16	303,483	<100	0.001	4.723	1.4	0.000	0.062	180	0.005	18.310

Table 2: Groundwater Extraction - Operation and Mass Removal Data - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road , Oakland, CA

		Period				TPHg			Benzene			MTBE		
Site Visit (mm/dd/yy)	Hour Meter (hours)	Flow Meter Reading (gal)	Period Volume (gal)	Operational Flow Rate (gpm)	Cumulative Volume (gal)	TPHg Conc. (ppb)	Period Removal (pounds)	Cumulative Removal (pounds)	Benzene Conc. (ppb)	Period Removal (pounds)	Cumulative Removal (pounds)	MTBE Conc. (ppb)	Period Removal (pounds)	Cumulative Removal (pounds)
06/15/04	9017.3	310,562	6,239	1.09	309,722		0.003	4.725		0.000	0.062		0.009	18.319
06/23/04	9209.9	315,074	4,512	0.39	314,234		0.002	4.727		0.000	0.062		0.007	18.326
07/08/04	9574.6	316,639	1,565	0.07	315,799	<100	0.001	4.728	<1.0	0.000	0.062	190	0.002	18.329
07/23/04	9933.6	325,405	8,767	0.41	324,565		0.004	4.731		0.000	0.062		0.014	18.342
08/04/04	10219.5	331,453	6,048	0.35	330,613	<100	0.003	4.734	<1.0	0.000	0.062	160	0.008	18.351
11/02/04	10221.8	331,745	292	2.12	330,905	<100	0.000	4.734	6.6	0.001	0.063	240	0.001	18.351
11/23/04	10578.6	338,624	6,879	0.32	337,784	<100	0.003	4.737	<1.0	0.002	0.065	170	0.010	18.361
12/06/04	10893.4	338,754	130	0.01	337,914	<100	0.000	4.737	<1.0	0.000	0.065	91	0.000	18.361
12/17/04	11154.0	344,387	5,633	0.36	343,547		0.002	4.739		0.000	0.065		0.004	18.365
		Total Extracted Volume=		**343,547**		**Total Pounds Removed:**		**4.73933**	**Total Pounds Removed:**		**0.065**	**Total Pounds Removed:**		**18.365**
		Average Period Operational Flow Rate=		**0.23**		**Total Gallons Removed:**		**0.768**	**Total Gallons Removed:**		**0.011**	**Total Gallons Removed:**		**2.974**

Abbreviations & Notes:

TPHg = Total purgeable hydrocarbons as gasoline
MTBE = Methyl tert-butyl ether
Conc. = Concentration
ppb = Parts per billion, equivalent to µg/L
µg/L = Micrograms per liter
L = Liter gal = Gallon g = Gram
Mass removed based on the formula: volume extracted (gal) x Concentration (µg/L) x (g/10^6µg) x (pound/453.6g) x (3.785 L/gal)
When constituents are not detected, the concentration is assumed to be equal to half the detection limit in subsequent calculations.
Volume removal data based on the formula: mass (pounds) x (density)$^{-1}$ (cc/g) x 453.6 (g/pound) x (L/1000 cc) * (gal/3.785 L)
Density inputs: TPHg = 0.73 g/cc, TPHd = 0.87 g/cc, MTBE = 0.74 g/cc
TPHg, BTEX, and MTBE analyzed by EPA Method 8260B
System started on 4/28/03 with 3.3hours and 880 gallons on flow meter.

ATTACHMENT A

Blaine Groundwater Monitoring Report and Field Notes

BLAINE
TECH SERVICES INC.

GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

November 4, 2004

Karen Petryna
Shell Oil Products US
P.O. Box 7869
Burbank, CA 91510-7869

Third Quarter 2004 Groundwater Monitoring at
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA

Monitoring performed on September 22, 2004

Groundwater Monitoring Report **040922-MN-3**

This report covers the routine monitoring of groundwater wells at this Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Leon Gearhart
Project Coordinator

LG/ks

attachments: Cumulative Table of WELL CONCENTRATIONS
Certified Analytical Report
Field Data Sheets

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WELL CONCENTRATIONS
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-1 (a)	08/26/1998	2,700	28	55	59	39	33,000	NA	NA	NA	NA	NA	NA	10.54	7.91	2.63	1.8
MW-1 (b)	08/26/1998	<1,000	22	<10	<10	<10	17,000	NA	NA	NA	NA	NA	NA	10.54	7.91	2.63	2.2
MW-1	12/28/1998	<5,000	<50.0	<50.0	<50.0	<50.0	153,000	33,000	NA	NA	NA	NA	NA	10.54	8.75	1.79	1.9
MW-1	03/29/1999	<2,000	<20.0	<20.0	<20.0	<20.0	693,000	NA	NA	NA	NA	NA	NA	10.54	8.32	2.22	2.0
MW-1	06/22/1999	20,000	<200	<200	<200	<200	150,000	NA	NA	NA	NA	NA	NA	10.54	9.05	1.49	1.7
MW-1	09/30/1999	<2,500	<25.0	<25.0	<25.0	<25.0	30,900	NA	NA	NA	NA	NA	NA	10.54	8.35	2.19	2.6
MW-1	11/19/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.54	9.58	0.96	NA
MW-1	11/24/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.54	9.65	0.89	NA
MW-1	12/02/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.54	9.55	0.99	NA
MW-1	12/10/1999	<50.0	29.7	<20.0	<20.0	<20.0	76,300	NA	NA	NA	NA	NA	NA	10.54	8.86	1.68	1.2
MW-1	03/02/2000	<2,500	<25.0	<25.0	<25.0	<25.0	27,600	NA	NA	NA	NA	NA	NA	10.54	8.83	1.71	3.2
MW-1	06/08/2000	<2,000	<20.0	<20.0	<20.0	<20.0	59,000	67,600	NA	NA	NA	NA	NA	10.54	7.78	2.76	1.9
MW-1	09/05/2000	<10,000	411	<100	<100	<100	71,100	115,000e	NA	NA	NA	NA	NA	10.54	7.84	2.70	NA
MW-1	12/15/2000	35,600	1,310	<50.0	<50.0	<50.0	136,000	f	NA	NA	NA	NA	NA	10.54	7.65	2.89	NA
MW-1	03/09/2001	<10,000	1,390	<100	<100	<100	89,600	164,000	NA	NA	NA	NA	NA	10.54	6.44	4.10	NA
MW-1	06/27/2001	<5,000	<50	<50	<50	<50	NA	19,000	NA	NA	NA	NA	NA	10.54	8.46	2.08	NA
MW-1	09/19/2001	<5,000	<50	<50	<50	<50	NA	52,000	NA	NA	NA	NA	NA	10.54	8.10	2.44	NA
MW-1	12/31/2001	<5,000	<25	<25	<25	<25	NA	17,000	NA	NA	NA	NA	NA	10.54	7.31	3.23	NA
MW-1	03/14/2002	<20,000	<200	<200	<200	<200	NA	60,000	NA	NA	NA	NA	NA	10.54	7.68	2.86	NA
MW-1	06/25/2002	<5,000	<50	<50	<50	<50	NA	34,000	NA	NA	NA	NA	NA	10.54	8.40	2.14	NA
MW-1	09/19/2002	<2,500	<25	<25	<25	<25	NA	18,000	NA	NA	NA	NA	NA	10.52	8.58	1.94	NA
MW-1	12/12/2002	<5,000	<50	<50	<50	<50	NA	30,000	NA	NA	NA	NA	NA	10.52	8.41	2.11	NA
MW-1	01/02/2003	NA	<0.50	<0.50	<0.50	<1.0	NA	NA	NA	NA	NA	NA	NA	10.52	7.45	3.07	NA
MW-1	03/20/2003 g	3,800	<25	<25	<25	<25	5,500	NA	NA	NA	NA	NA	NA	10.52	8.21	2.31	NA
MW-1	06/23/2003	<10,000	<100	<100	<100	<200	NA	35,000	NA	NA	NA	NA	NA	10.52	9.02	1.50	NA
MW-1	09/22/2003	<5,000	<50	<50	<50	<100	NA	15,000	NA	NA	NA	NA	NA	10.52	15.74	-5.22	NA
MW-1	12/03/2003	<1,300	<13	<13	<13	<25	NA	3,600	NA	NA	NA	NA	NA	10.52	18.35 h	NA	NA
MW-1	03/18/2004	<250	<2.5	<2.5	<2.5	<5.0	NA	570	NA	NA	NA	NA	NA	10.52	7.32	3.20	NA
MW-1	05/25/2004	<250	<2.5	<2.5	<2.5	<5.0	NA	250	NA	NA	NA	NA	NA	10.52	6.80	3.72	NA
MW-1	**09/22/2004**	**<2,000**	**<20**	**<20**	**<20**	**<40**	**NA**	**170**	**<80**	**<80**	**<80**	**20,000**	**<2,000**	**10.52**	**6.55**	**3.97**	**NA**
MW-2 (a)	08/26/1998	<250	3.2	<2.5	<2.5	<2.5	4,000	NA	NA	NA	NA	NA	NA	9.21	7.18	2.03	2.4

WELL CONCENTRATIONS
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-2 (b)	08/26/1998	<250	3.1	<2.5	<2.5	<2.5	4,800	NA	NA	NA	NA	NA	NA	9.21	7.18	2.03	2.7
MW-2 (D)(b)	08/26/1998	<250	4.8	<2.5	<2.5	6.0	3,300	NA	NA	NA	NA	NA	NA	9.21	7.18	2.03	2.7
MW-2	12/28/1998	<50.0	<0.500	<0.500	<0.500	<0.500	28.8	NA	NA	NA	NA	NA	NA	9.21	7.34	1.87	2.1
MW-2	03/29/1999	235	<0.500	<0.500	<0.500	3.4	101	NA	NA	NA	NA	NA	NA	9.21	6.85	2.36	2.0
MW-2	06/22/1999	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	NA	9.21	7.10	2.11	1.9
MW-2	09/30/1999	<50.0	<0.500	<0.500	<0.500	<0.500	1,700	NA	NA	NA	NA	NA	NA	9.21	8.06	1.15	1.0
MW-2	12/10/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	NA	9.21	8.61	0.60	1.4
MW-2	03/02/2000	<500	11.5	<5.00	<5.00	<5.00	5,280	NA	NA	NA	NA	NA	NA	9.21	6.33	2.88	0.4
MW-2	06/08/2000	<50.0	0.670	<0.500	<0.500	<0.500	3,160	NA	NA	NA	NA	NA	NA	9.21	6.87	2.34	1.6
MW-2	09/05/2000	<1,000	<10.0	<10.0	<10.0	<10.0	9,600	NA	NA	NA	NA	NA	NA	9.21	6.79	2.42	NA
MW-2	12/15/2000	<200	<2.00	<2.00	<2.00	<2.00	6,320	NA	NA	NA	NA	NA	NA	9.21	6.76	2.45	NA
MW-2	03/09/2001	<500	<5.00	<5.00	<5.00	<5.00	17,200	NA	NA	NA	NA	NA	NA	9.21	6.28	2.93	NA
MW-2	06/27/2001	<100	1.4	<1.0	<1.0	<2.0	NA	470	NA	NA	NA	NA	NA	9.21	7.12	2.09	NA
MW-2	09/19/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	330	NA	NA	NA	NA	NA	9.21	7.17	2.04	NA
MW-2	12/31/2001	<100	<1.0	<1.0	<1.0	<1.0	NA	420	NA	NA	NA	NA	NA	9.21	6.24	2.97	NA
MW-2	03/14/2002	<250	4.5	3.3	<2.5	<2.5	NA	1,600	NA	NA	NA	NA	NA	9.21	6.72	2.49	NA
MW-2	06/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	110	NA	NA	NA	NA	NA	9.21	7.23	1.98	NA
MW-2	09/19/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	90	NA	NA	NA	NA	NA	9.19	7.48	1.71	NA
MW-2	12/12/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	170	NA	NA	NA	NA	NA	9.19	7.33	1.86	NA
MW-2	03/20/2003 g	56	<0.50	<0.50	<0.50	<0.50	58	NA	NA	NA	NA	NA	NA	9.19	7.65	1.54	NA
MW-2	06/23/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	44	NA	NA	NA	NA	NA	9.19	8.72	0.47	NA
MW-2	09/22/2003	<250	<2.5	<2.5	<2.5	<5.0	NA	37	NA	NA	NA	NA	NA	9.19	8.84	0.35	NA
MW-2	12/03/2003	<250	<2.5	<2.5	<2.5	<5.0	NA	99	NA	NA	NA	NA	NA	9.19	8.95	0.24	NA
MW-2	03/18/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	24	NA	NA	NA	NA	NA	9.19	7.19	2.00	NA
MW-2	05/25/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	53	NA	NA	NA	NA	NA	9.19	8.40	0.79	NA
MW-2	**09/22/2004**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**NA**	**24**	**<2.0**	**<2.0**	**<2.0**	**100**	**<50**	**9.19**	**7.08**	**2.11**	**NA**
MW-3 (a)	08/26/1998	2,300	180	330	<0.50	420	44,000	NA	NA	NA	NA	NA	NA	9.45	6.52	2.93	1.8
MW-3 (b)	08/26/1998	<50	<0.50	<0.50	<0.50	<0.50	52,000	75,000	NA	NA	NA	NA	NA	9.45	6.52	2.93	2.3
MW-3	12/28/1998	<5,00	139	<50.0	<50.0	<50.0	15,100	NA	NA	NA	NA	NA	NA	9.45	6.73	2.72	1.7
MW-3	03/29/1999	52,500	5,500	6,900	1,360	6,250	508,000	630,000 (c)	NA	NA	NA	NA	NA	9.45	6.21	3.24	2.1
MW-3	06/22/1999	58,000	6,600	9,850	1,640	6,950	677,000	653,000	NA	NA	NA	NA	NA	9.45	7.00	2.45	1.3

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MW-3	09/30/1999	4,360	121	122	36.1	647	33,700	35,600	NA	NA	NA	NA	NA	9.45	6.84	2.61	0.6
MW-3	11/19/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.45	7.93	1.52	NA
MW-3	11/24/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.45	8.25	1.20	NA
MW-3	12/02/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.45	7.55	1.90	NA
MW-3	12/10/1999	4,220	973	26.3	273	584	88,200	NA	NA	NA	NA	NA	NA	9.45	7.28	2.17	2.5
MW-3	03/02/2000	65,300	5,210	10,300	2,650	15,100	56,800	59,800e	NA	NA	NA	NA	NA	9.45	5.87	3.58	d
MW-3	06/08/2000	72,700	3,570	10,200	2,100	13,400	44,400	NA	NA	NA	NA	NA	NA	9.45	5.32	4.13	1.1
MW-3	09/05/2000	26,100	959	2,910	1,090	5,640	24,000	NA	NA	NA	NA	NA	NA	9.45	5.60	3.85	NA
MW-3	12/15/2000	5,190	438	8.39	483	530	19,100	11,800f	NA	NA	NA	NA	NA	9.45	6.27	3.18	NA
MW-3	03/09/2001	5,880	472	42.2	392	1,290	41,800	NA	NA	NA	NA	NA	NA	9.45	5.71	3.74	NA
MW-3	06/27/2001	9,100	330	79	140	1,600	NA	31,000	NA	NA	NA	NA	NA	9.45	6.88	2.57	NA
MW-3	09/19/2001	790	14	18	17	67	NA	8,100	NA	NA	NA	NA	NA	9.45	6.70	2.75	NA
MW-3	12/31/2001	<5,000	220	<50	86	<50	NA	22,000	NA	NA	NA	NA	NA	9.45	5.92	3.53	NA
MW-3	03/14/2002	<2,500	<25	<25	<25	<25	NA	12,000	NA	NA	NA	NA	NA	9.45	6.25	3.20	NA
MW-3	06/25/2002	<10,000	160	<100	<100	<100	NA	42,000	NA	NA	NA	NA	NA	9.45	6.65	2.80	NA
MW-3	09/19/2002	<10,000	650	<100	280	360	NA	84,000	NA	NA	NA	NA	NA	9.45	6.51	2.94	NA
MW-3	12/12/2002	<10,000	170	<100	<100	<100	NA	45,000	NA	NA	NA	NA	NA	9.45	6.97	2.48	NA
MW-3	01/02/2003	NA	59	<5.0	5.3	<10	NA	NA	NA	NA	NA	NA	NA	9.45	5.90	3.55	NA
MW-3	03/20/2003 g	5,100	<50	<50	<50	<50	4,400	NA	NA	NA	NA	NA	NA	9.45	6.87	2.58	NA
MW-3	06/23/2003	<5,000	<50	<50	<50	<100	NA	8,100	NA	NA	NA	NA	NA	9.45	13.80	-4.35	NA
MW-3	09/22/2003	<250	<2.5	4.6	<2.5	<5.0	NA	470	NA	NA	NA	NA	NA	9.45	6.31	3.14	NA
MW-3	12/03/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	180	NA	NA	NA	NA	NA	9.45	14.77 h	NA	NA
MW-3	03/18/2004	<1,000	14	<10	<10	<20	NA	2,500	NA	NA	NA	NA	NA	9.45	6.07	3.38	NA
MW-3	05/25/2004	3,900	<10	66	23	470	NA	140	NA	NA	NA	NA	NA	9.45	14.63	-5.18	NA
MW-3	**09/22/2004**	**<10,000**	**830**	**<100**	**290**	**450**	**NA**	**28,000**	**<400**	**<400**	**<400**	**13,000**	**<10,000**	**9.45**	**4.86**	**4.59**	**NA**
MW-4	09/25/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.88	7.64	2.24	NA
MW-4	12/15/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	NA	9.88	7.55	2.33	NA
MW-4	03/09/2001	<50.0	<0.500	0.730	<0.500	0.529	3.16	NA	NA	NA	NA	NA	NA	9.88	7.04	2.84	NA
MW-4	06/27/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	9.88	7.76	2.12	NA
MW-4	09/19/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	9.88	7.69	2.19	NA
MW-4	12/31/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	9.88	7.08	2.80	NA

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MW-4	03/14/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	9.88	7.57	2.31	NA
MW-4	06/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	9.88	8.50	1.38	NA
MW-4	09/19/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	9.88	8.22	1.66	NA
MW-4	12/12/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	9.88	8.08	1.80	NA
MW-4	03/20/2003 g	<50	<0.50	<0.50	<0.50	<0.50	<5.0	NA	NA	NA	NA	NA	NA	9.88	7.92	1.96	NA
MW-4	06/23/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	NA	NA	NA	NA	NA	9.88	8.18	1.70	NA
MW-4	09/22/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	16	NA	NA	NA	NA	NA	9.88	8.28	1.60	NA
MW-4	12/03/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	15	NA	NA	NA	NA	NA	9.88	8.44	1.44	NA
MW-4	03/18/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	15	NA	NA	NA	NA	NA	9.88	7.52	2.36	NA
MW-4	05/25/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	20	NA	NA	NA	NA	NA	9.88	8.30	1.58	NA
MW-4	**09/22/2004**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**NA**	**20**	**<2.0**	**<2.0**	**<2.0**	**<5.0**	**<50**	**9.88**	**7.72**	**2.16**	**NA**
MW-5	06/18/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.36	NA	NA
MW-5	06/25/2002	<10,000	<100	<100	<100	<100	NA	60,000	NA	NA	NA	NA	NA	NA	8.30	NA	NA
MW-5	09/19/2002	<2,000	<20	<20	<20	<20	NA	7,200	NA	NA	NA	NA	NA	10.03	8.44	1.59	NA
MW-5	12/12/2002	<5,000	<50	<50	<50	<50	NA	33,000	NA	NA	NA	NA	NA	10.03	8.49	1.54	NA
MW-5	03/20/2003 g	12,000	<50	<50	<50	<50	15,000	NA	NA	NA	NA	NA	NA	10.03	8.23	1.80	NA
MW-5	06/23/2003	<1,000	<10	<10	<10	<20	NA	1,700	NA	NA	NA	NA	NA	10.03	16.70	-6.67	NA
MW-5	09/22/2003	<2,500	<25	<25	<25	<50	NA	4,400	NA	NA	NA	NA	NA	10.03	16.70	-6.67	NA
MW-5	12/03/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	70	NA	NA	NA	NA	NA	10.03	16.79	-6.76	NA
MW-5	03/18/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	43	NA	NA	NA	NA	NA	10.03	16.78	-6.75	NA
MW-5	05/25/2004	<50	<0.50	<0.50	<0.50	<1.0	NA	30	NA	NA	NA	NA	NA	10.03	13.02	-2.99	NA
MW-5	**09/22/2004**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**NA**	**20**	**<2.0**	**<2.0**	**<2.0**	**83**	**<50**	**10.03**	**5.91**	**4.12**	**NA**
C-1	09/19/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	NA	1.44	NA	NA
C-1	03/29/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	NA	2.59	NA	NA
C-1	06/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	NA	3.72	NA	NA
C-1	09/19/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	NA	3.08	NA	NA
C-1	12/12/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	NA	0.64	NA	NA
C-1	03/20/2003 g	<50	<0.50	<0.50	<0.50	<0.50	<5.0	NA	NA	NA	NA	NA	NA	NA	4.61	NA	NA
SD-1	09/19/2001	Unable to sample		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

WELL CONCENTRATIONS
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
SD-1	03/29/2002	Dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SD-1	06/25/2002	Dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SD-1	09/19/2002	Dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SD-1	12/12/2002	Dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SD-1	03/20/2003	Dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SD-2	09/19/2001	Unable to sample		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SD-2	03/29/2002	Dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SD-2	06/25/2002	Dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SD-2	09/19/2002	Dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SD-2	12/12/2002	Dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SD-2	03/20/2003	Dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-A	06/22/1999	318	<0.50	<0.50	0.590	1.48	4,470	NA	NA	NA	NA	NA	NA	NA	4.71	NA	1.1
BW-A	06/25/2002	<500	<5.0	<5.0	<5.0	18	NA	3,100	NA	NA	NA	NA	NA	NA	5.14	NA	NA
BW-A	09/19/2002	<200	<2.0	<2.0	<2.0	<2.0	NA	<20	NA	NA	NA	NA	NA	NA	7.19	NA	NA
BW-A	12/12/2002	<500	<5.0	<5.0	<5.0	<5.0	NA	2,900	NA	NA	NA	NA	NA	NA	6.40	NA	NA
BW-A	03/20/2003 g	<2,500	<25	<25	<25	<25	<250	NA	NA	NA	NA	NA	NA	NA	5.36	NA	NA
BW-A	06/23/2003	<1,000	<10	<10	<10	<20	NA	<100	NA	NA	NA	NA	NA	NA	10.27	NA	NA
BW-B	06/22/1999	<250	<2.5	<2.5	<2.5	<2.5	8,600	NA	NA	NA	NA	NA	NA	NA	5.90	NA	1.2
BW-B	06/27/2001	<5,000	<50	<50	<50	<50	NA	40,000	NA	NA	NA	NA	NA	NA	5.83	NA	NA
BW-B	12/31/2001	<2,000	<20	<20	<20	<20	NA	9,200	NA	NA	NA	NA	NA	NA	4.19	NA	NA
BW-B	03/14/2002	<2,000	<20	<20	<20	<20	NA	9,400	NA	NA	NA	NA	NA	NA	5.24	NA	NA
BW-B	06/25/2002	<2,000	<20	<20	<20	<20	NA	6,600	NA	NA	NA	NA	NA	NA	6.19	NA	NA
BW-B	09/19/2002	<500	<5.0	<5.0	<5.0	<5.0	NA	<50	NA	NA	NA	NA	NA	NA	8.46	NA	NA
BW-B	12/12/2002	<500	<5.0	<5.0	<5.0	<5.0	NA	1,700	NA	NA	NA	NA	NA	NA	7.46	NA	NA
BW-B	03/20/2003 g	170	<1.0	<1.0	<1.0	<1.0	190	NA	NA	NA	NA	NA	NA	NA	6.23	NA	NA
BW-B	06/23/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	43	NA	NA	NA	NA	NA	NA	9.95	NA	NA
BW-C	06/22/1999	<50	<0.50	<0.50	<0.50	0.98	11,000	NA	NA	NA	NA	NA	NA	NA	5.91	NA	1.6
BW-C	06/25/2002	<5,000	<50	<50	<50	<50	NA	20,000	NA	NA	NA	NA	NA	NA	6.49	NA	NA

WELL CONCENTRATIONS
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
BW-C	09/19/2002	<1,000	<10	<10	<10	<10	NA	400	NA	NA	NA	NA	NA	NA	8.52	NA	NA
BW-C	12/12/2002	<2,000	<20	<20	<20	<20	NA	8,000	NA	NA	NA	NA	NA	NA	7.57	NA	NA
BW-C	03/20/2003 g	270	<1.0	<1.0	<1.0	<1.0	250	NA	NA	NA	NA	NA	NA	NA	6.48	NA	NA
BW-C	06/23/2003	<1,000	<10	<10	<10	<20	NA	170	NA	NA	NA	NA	NA	NA	11.48	NA	NA
BW-D	06/22/1999	<50.0	<0.500	<0.500	<0.500	<0.500	2,190	NA	NA	NA	NA	NA	NA	NA	4.78	NA	1.4
BW-D	06/25/2002	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-D	07/02/2002	<1,000	23	<10	<10	<10	NA	<100	NA	NA	NA	NA	NA	NA	6.36	NA	NA
BW-D	09/19/2002	<250	<2.5	<2.5	<2.5	<2.5	NA	<25	NA	NA	NA	NA	NA	NA	7.25	NA	NA
BW-D	12/12/2002	<5,000	<50	<50	<50	<50	NA	16,000	NA	NA	NA	NA	NA	NA	6.21	NA	NA
BW-D	03/20/2003 g	71	<0.50	<0.50	<0.50	<0.50	55	NA	NA	NA	NA	NA	NA	NA	5.23	NA	NA
BW-D	06/23/2003	<1,000	<10	<10	<10	<20	NA	<100	NA	NA	NA	NA	NA	NA	10.25	NA	NA
BW-D	09/22/2003	<100	<1.0	<1.0	<1.0	<2.0	NA	120	NA	NA	NA	NA	NA	NA	10.18	NA	NA
BW-D	12/03/2003	<1,300	110	<13	<13	29	NA	560	NA	NA	NA	NA	NA	NA	10.20	NA	NA
BW-D	03/18/2004	<50	0.67	<0.50	<0.50	<1.0	NA	12	NA	NA	NA	NA	NA	NA	3.42	NA	NA
BW-D	05/25/2004	<50	1.4	0.96	<0.50	<1.0	NA	1.7	NA	NA	NA	NA	NA	NA	8.83	NA	NA
BW-D	**09/22/2004**	**<100**	**6.9**	**<1.0**	**2.1**	**4.2**	**NA**	**210**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**2.75**	**NA**	**NA**

WELL CONCENTRATIONS
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)

Abbreviations:
TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to June 27, 2001, analyzed by EPA Method 8015.
BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to June 27, 2001, analyzed by EPA Method 8020.
MTBE = Methyl tertiary butyl ether
DIPE = Di-isopropyl ether, analyzed by EPA Method 8260B
ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260B
TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260B
TBA = Tertiary butyl alcohol, analyzed by EPA Method 8260B
TOC = Top of Casing Elevation
GW = Groundwater
DO = Dissolved Oxygen
ppm = Parts per million
ug/L = Parts per billion
MSL = Mean sea level
ft. = Feet
<n = Below detection limit
(D) = Duplicate sample
NA = Not applicable

WELL CONCENTRATIONS
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)

Notes:

a = Pre-purge

b = Post purge

c = Lab confirmed MTBE by mistake. MTBE value at MW-1 should have been confirmed instead.

d = DO reading not taken.

e = Sample was analyzed outside of the EPA recommended holding time.

f = The second highest MTBE hit was mistakenly confirmed. MTBE for MW-1 should have been confirmed.

g = On March 20, 2003, all analyses run by EPA Method 8015/8020.

h = Depth to top of pump; pump prevented depth to water measurement.

Ethanol analyzed by EPA Method 8260B.

Site surveyed September 21, 2000 by Virgil Chavez Land Surveying of Vallejo, CA.

C-1 is a canal sample location.

SD-1 and SD-2 are storm drains.

Wells MW-1 through MW-5 surveyed January 24 and June 19, 2002 by Virgil Chavez Land Surveying of Vallejo, CA.

SEVERN TRENT STL

Submission#: 2004-09-0726

Blaine Tech Services, Inc.

October 07, 2004

1680 Rogers Avenue
San Jose, CA 95112-1105

Attn.: Leon Gearhart

Project#: 040923-MN3
Project: 98995752
Site: 540 Hegenberger Road, Oakland

Dear Mr.Gearhart,

Attached is our report for your samples received on 09/23/2004 14:41
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 11/07/2004 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions,

You can also contact me via email. My email address is: mbrewer@stl-inc.com

Sincerely,

Melissa Brewer

Melissa Brewer
Project Manager

SEVERN TRENT STL

Submission: 2004-09-0726

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	09/22/2004 17:31	Water	1
MW-2	09/22/2004 17:04	Water	2
MW-3	09/22/2004 17:49	Water	3
MW-4	09/22/2004 15:25	Water	4
MW-5	09/22/2004 18:01	Water	5
BW-D	09/22/2004 16:25	Water	6

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Prep(s): 5030B

Test(s): 8260B

Sample ID: **MW-1**

Lab ID: 2004-09-0726 - 1

Sampled: 09/22/2004 17:31

Extracted: 10/4/2004 20:00

Matrix: Water

QC Batch#: 2004/10/04-2A.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	ND	2000	ug/L	40.00	10/04/2004 20:00	
Benzene	ND	20	ug/L	40.00	10/04/2004 20:00	
Toluene	ND	20	ug/L	40.00	10/04/2004 20:00	
Ethylbenzene	ND	20	ug/L	40.00	10/04/2004 20:00	
Total xylenes	ND	40	ug/L	40.00	10/04/2004 20:00	
tert-Butyl alcohol (TBA)	20000	200	ug/L	40.00	10/04/2004 20:00	
Methyl tert-butyl ether (MTBE)	170	20	ug/L	40.00	10/04/2004 20:00	
Di-isopropyl Ether (DIPE)	ND	80	ug/L	40.00	10/04/2004 20:00	
Ethyl tert-butyl ether (ETBE)	ND	80	ug/L	40.00	10/04/2004 20:00	
tert-Amyl methyl ether (TAME)	ND	80	ug/L	40.00	10/04/2004 20:00	
Ethanol	ND	2000	ug/L	40.00	10/04/2004 20:00	
Surrogate(s)						
1,2-Dichloroethane-d4	105.9	76-130	%	40.00	10/04/2004 20:00	
Toluene-d8	100.0	78-115	%	40.00	10/04/2004 20:00	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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San Jose, CA 95112-1105
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Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Prep(s): 5030B
Sample ID: **MW-2**
Sampled: 09/22/2004 17:04
Matrix: Water

Test(s): 8260B
Lab ID: 2004-09-0726 - 2
Extracted: 10/4/2004 20:23
QC Batch#: 2004/10/04-2A.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	ND	50	ug/L	1.00	10/04/2004 20:23	
Benzene	ND	0.50	ug/L	1.00	10/04/2004 20:23	
Toluene	ND	0.50	ug/L	1.00	10/04/2004 20:23	
Ethylbenzene	ND	0.50	ug/L	1.00	10/04/2004 20:23	
Total xylenes	ND	1.0	ug/L	1.00	10/04/2004 20:23	
tert-Butyl alcohol (TBA)	100	5.0	ug/L	1.00	10/04/2004 20:23	
Methyl tert-butyl ether (MTBE)	24	0.50	ug/L	1.00	10/04/2004 20:23	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	10/04/2004 20:23	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	10/04/2004 20:23	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	10/04/2004 20:23	
Ethanol	ND	50	ug/L	1.00	10/04/2004 20:23	
Surrogate(s)						
1,2-Dichloroethane-d4	106.7	76-130	%	1.00	10/04/2004 20:23	
Toluene-d8	98.5	78-115	%	1.00	10/04/2004 20:23	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Prep(s): 5030B
Sample ID: **MW-3**
Sampled: 09/22/2004 17:49
Matrix: Water

Test(s): 8260B
Lab ID: 2004-09-0726 - 3
Extracted: 10/4/2004 20:45
QC Batch#: 2004/10/04-2A.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	ND	10000	ug/L	200.00	10/04/2004 20:45	
Benzene	830	100	ug/L	200.00	10/04/2004 20:45	
Toluene	ND	100	ug/L	200.00	10/04/2004 20:45	
Ethylbenzene	290	100	ug/L	200.00	10/04/2004 20:45	
Total xylenes	450	200	ug/L	200.00	10/04/2004 20:45	
tert-Butyl alcohol (TBA)	13000	1000	ug/L	200.00	10/04/2004 20:45	
Methyl tert-butyl ether (MTBE)	28000	100	ug/L	200.00	10/04/2004 20:45	
Di-isopropyl Ether (DIPE)	ND	400	ug/L	200.00	10/04/2004 20:45	
Ethyl tert-butyl ether (ETBE)	ND	400	ug/L	200.00	10/04/2004 20:45	
tert-Amyl methyl ether (TAME)	ND	400	ug/L	200.00	10/04/2004 20:45	
Ethanol	ND	10000	ug/L	200.00	10/04/2004 20:45	
Surrogate(s)						
1,2-Dichloroethane-d4	109.8	76-130	%	200.00	10/04/2004 20:45	
Toluene-d8	102.1	78-115	%	200.00	10/04/2004 20:45	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Prep(s): 5030B
Sample ID: **MW-4**
Sampled: 09/22/2004 15:25
Matrix: Water

Test(s): 8260B
Lab ID: 2004-09-0726 - 4
Extracted: 10/4/2004 21:07
QC Batch#: 2004/10/04-2A.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	ND	50	ug/L	1.00	10/04/2004 21:07	
Benzene	ND	0.50	ug/L	1.00	10/04/2004 21:07	
Toluene	ND	0.50	ug/L	1.00	10/04/2004 21:07	
Ethylbenzene	ND	0.50	ug/L	1.00	10/04/2004 21:07	
Total xylenes	ND	1.0	ug/L	1.00	10/04/2004 21:07	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	10/04/2004 21:07	
Methyl tert-butyl ether (MTBE)	20	0.50	ug/L	1.00	10/04/2004 21:07	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	10/04/2004 21:07	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	10/04/2004 21:07	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	10/04/2004 21:07	
Ethanol	ND	50	ug/L	1.00	10/04/2004 21:07	
Surrogate(s)						
1,2-Dichloroethane-d4	109.0	76-130	%	1.00	10/04/2004 21:07	
Toluene-d8	100.8	78-115	%	1.00	10/04/2004 21:07	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Prep(s): 5030B
Sample ID: **MW-5**
Sampled: 09/22/2004 18:01
Matrix: Water

Test(s): 8260B
Lab ID: 2004-09-0726 - 5
Extracted: 10/4/2004 22:14
QC Batch#: 2004/10/04-2A.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	ND	50	ug/L	1.00	10/04/2004 22:14	
Benzene	ND	0.50	ug/L	1.00	10/04/2004 22:14	
Toluene	ND	0.50	ug/L	1.00	10/04/2004 22:14	
Ethylbenzene	ND	0.50	ug/L	1.00	10/04/2004 22:14	
Total xylenes	ND	1.0	ug/L	1.00	10/04/2004 22:14	
tert-Butyl alcohol (TBA)	83	5.0	ug/L	1.00	10/04/2004 22:14	
Methyl tert-butyl ether (MTBE)	20	0.50	ug/L	1.00	10/04/2004 22:14	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	10/04/2004 22:14	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	10/04/2004 22:14	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	10/04/2004 22:14	
Ethanol	ND	50	ug/L	1.00	10/04/2004 22:14	
Surrogate(s)						
1,2-Dichloroethane-d4	105.3	76-130	%	1.00	10/04/2004 22:14	
Toluene-d8	99.6	78-115	%	1.00	10/04/2004 22:14	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

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San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Prep(s): 5030B
Sample ID: **BW-D**
Sampled: 09/22/2004 16:25
Matrix: Water

Test(s): 8260B
Lab ID: 2004-09-0726 - 6
Extracted: 10/3/2004 12:48
QC Batch#: 2004/10/03-1B.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline [Shell]	ND	100	ug/L	2.00	10/03/2004 12:48	
Benzene	6.9	1.0	ug/L	2.00	10/03/2004 12:48	
Toluene	ND	1.0	ug/L	2.00	10/03/2004 12:48	
Ethylbenzene	2.1	1.0	ug/L	2.00	10/03/2004 12:48	
Total xylenes	4.2	2.0	ug/L	2.00	10/03/2004 12:48	
Methyl tert-butyl ether (MTBE)	210	1.0	ug/L	2.00	10/03/2004 12:48	
Surrogate(s)						
1,2-Dichloroethane-d4	99.0	76-130	%	2.00	10/03/2004 12:48	
Toluene-d8	100.2	78-115	%	2.00	10/03/2004 12:48	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Method Blank

Water

QC Batch # 2004/10/03-1B.64

MB: 2004/10/03-1B.64-027

Date Extracted: 10/03/2004 10:27

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline [Shell]	ND	50	ug/L	10/03/2004 10:27	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	10/03/2004 10:27	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/03/2004 10:27	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	10/03/2004 10:27	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	10/03/2004 10:27	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	10/03/2004 10:27	
Benzene	ND	0.5	ug/L	10/03/2004 10:27	
Toluene	ND	0.5	ug/L	10/03/2004 10:27	
Ethylbenzene	ND	0.5	ug/L	10/03/2004 10:27	
Total xylenes	ND	1.0	ug/L	10/03/2004 10:27	
Ethanol	ND	50	ug/L	10/03/2004 10:27	
Surrogates(s)					
1,2-Dichloroethane-d4	95.8	76-130	%	10/03/2004 10:27	
Toluene-d8	101.6	78-115	%	10/03/2004 10:27	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Batch QC Report

Prep(s): 5030B
Method Blank
MB: 2004/10/04-2A.64-047

Water

Test(s): 8260B
QC Batch # 2004/10/04-2A.64
Date Extracted: 10/04/2004 18:47

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline [Shell]	ND	50	ug/L	10/04/2004 18:47	
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	10/04/2004 18:47	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/04/2004 18:47	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	10/04/2004 18:47	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	10/04/2004 18:47	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	10/04/2004 18:47	
Benzene	ND	0.5	ug/L	10/04/2004 18:47	
Toluene	ND	0.5	ug/L	10/04/2004 18:47	
Ethylbenzene	ND	0.5	ug/L	10/04/2004 18:47	
Total xylenes	ND	1.0	ug/L	10/04/2004 18:47	
Ethanol	ND	50	ug/L	10/04/2004 18:47	
Surrogates(s)					
1,2-Dichloroethane-d4	99.6	76-130	%	10/04/2004 18:47	
Toluene-d8	98.4	78-115	%	10/04/2004 18:47	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

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San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Water** **QC Batch # 2004/10/03-1B.64**

LCS 2004/10/03-1B.64-042 Extracted: 10/03/2004 Analyzed: 10/03/2004 09:42

LCSD 2004/10/03-1B.64-005 Extracted: 10/03/2004 Analyzed: 10/03/2004 10:05

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	25.4	24.0	25	101.6	96.0	5.7	65-165	20		
Benzene	21.0	20.1	25	84.0	80.4	4.4	69-129	20		
Toluene	24.8	24.5	25	99.2	98.0	1.2	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	471	459	500	94.2	91.8		76-130			
Toluene-d8	498	499	500	99.6	99.8		78-115			

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Water** **QC Batch # 2004/10/04-2A.64**

LCS 2004/10/04-2A.64-002 Extracted: 10/04/2004 Analyzed: 10/04/2004 18:02

LCSD 2004/10/04-2A.64-025 Extracted: 10/04/2004 Analyzed: 10/04/2004 18:25

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	27.8	24.5	25	111.2	98.0	12.6	65-165	20		
Benzene	21.7	21.9	25	86.8	87.6	0.9	69-129	20		
Toluene	25.3	25.9	25	101.2	103.6	2.3	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	486	451	500	97.2	90.2		76-130			
Toluene-d8	516	526	500	103.2	105.2		78-115			

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Matrix Spike (MS / MSD) **Water** **QC Batch # 2004/10/04-2A.64**

MW-4 >> MS

Lab ID: 2004-09-0726 - 004

MS: 2004/10/04-2A.64-030 Extracted: 10/04/2004 Analyzed: 10/04/2004 21:30

Dilution: 1.00

MSD: 2004/10/04-2A.64-052 Extracted: 10/04/2004 Analyzed: 10/04/2004 21:52

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	48.1	47.7	19.5	25	114.4	112.8	1.4	65-165	20		
Benzene	20.9	20.8	ND	25	83.6	83.2	0.5	69-129	20		
Toluene	23.6	25.3	ND	25	94.4	101.2	7.0	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	562	559		500	112.4	111.8		76-130			
Toluene-d8	504	532		500	100.8	106.4		78-115			

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040923-MN3
98995752

Received: 09/23/2004 14:41

Site: 540 Hegenberger Road, Oakland

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

LAB: STL

Lab Identification (if necessary):

Address:

City, State, Zip:

SHELL Chain Of Custody Record

69146

Shell Project Manager to be invoiced:

☑ SCIENCE & ENGINEERING
☐ TECHNICAL SERVICES
☐ CRMT HOUSTON

Karen Petryna

2004-09-0726

INCIDENT NUMBER (S&E ONLY)							
9	8	9	9	5	7	5	2

SAP or CRMT NUMBER (TS/CRMT):

DATE: 7/22/04

PAGE: 1 of 1

SAMPLING COMPANY	Blaine Tech Services
LOG CODE	BTSS
ADDRESS	1680 Rogers Avenue, San Jose, CA 95112
PROJECT CONTACT (Hardcopy or PDF Report to)	Leon Gearhart
TELEPHONE	408-573-0555
FAX	408-573-7771
E-MAIL	lgearhart@blainetech.com
SITE ADDRESS (Street and City)	540 Hegenberger Road, Oakland
GLOBAL ID NO.	T0600102123
EDF DELIVERABLE TO (Responsible Party or Designee)	Anni Kreml
PHONE NO.	(510)420-3335
E-MAIL	ShellOaklandEDF@cambria-env.com
CONSULTANT PROJECT NO.	
BTS #	
SAMPLER NAME(S) (Print)	Michael Ninokata
LAB USE ONLY	

TURNAROUND TIME (BUSINESS DAYS): ☑ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY: ____________

GC/MS MTBE CONFIRMATION: HIGHEST ______ HIGHEST per BORING ______ ALL ______

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☐

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	1,2-DCA (8260B)	EDB (8260B)		TPH - Diesel, Extractable (8015m)									FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
	MW-1	7/22/04	1731	W	3	X	X			X	X														TEMPERATURE ON RECEIPT C°: 4
	MW-2		1704			X	X			X	X														
	MW-3		1749			X	X			X	X														
	MW-4		1525			X	X			X	X														
	MW-5		1801			X	X			X	X														
	~~[illegible]~~ BW-D	↓	1625	↓	↓	X	X		X	~~X~~ not 9/22/04															

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
[signature]	[signature]	9/23/04	1441
[signature] 9/23/04 1841	Tracy B Bu[illegible]	9/23/04	18:41

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/16/00 Revision

DSD Graphic (714) 858-5702

WELL GAUGING DATA

Project # 040922-MN3 Date 9/22/04 Client Shell

Site 540 Hegenberger Rd., Oakland

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or ~~TOC~~	
MW-1	2					6.55	22.46		
MW-2	2					7.08	19.92		
MW-3	2					4.86	18.48		
MW-4	4					7.72	18.56		
MW-5	4					5.91	18.60		
BW-D	12					2.75	12.26	T	

15.91

SHELL WELL MONITORING DATA SHEET

BTS #: 040922-MW2	Site: 9899572
Sampler: MDJ	Date: 9/22/04
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 22.46	Depth to Water (DTW): 6.55
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.73	

Purge Method: Bailer; Disposable Bailer; (Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: (Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

1 Case Volume	Specified Volumes	Calculated Volume
2.5 (Gals.) X	3	= 7.5 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1716	72.6	7.01	9749	127	2.5	cloudy
1719	71.2	7.37	5340	198	5.0	cloudy
1721	71.3	7.40	5192	>200	7.5	cloudy ice

Did well dewater? Yes (No) Gallons actually evacuated: 7.5

Sampling Date: 9/22/04 Sampling Time: 1731 Depth to Water: 9.61

Sample I.D.: MW-1 Laboratory: (STL) Other ____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: oxy's Ethanol

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

12-87

SHELL WELL MONITORING DATA SHEET

BTS #: 040922-MN3	Site: 9899572
Sampler: MON	Date: 9/22/04
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.92	Depth to Water (DTW): 7.08
Depth to Free Product: ____	Thickness of Free Product (feet): ____
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.65	

Purge Method: Bailer; Disposable Bailer; ✓ Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: ✓ Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

2.1 (Gals.) X	3	=	6.3 Gals.
1 Case Volume	Specified Volumes		Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1647	75.5	7.18	644	7200	2.1	Grey, Cloudy
1649	75.0	7.17	573	108	4.2	cloudy
1651	74.7	7.20	599	101	6.3	cloudy DTW = 12.85

Did well dewater? Yes (No) Gallons actually evacuated: 6.3

Sampling Date: 9/22/04 Sampling Time: 1704 Depth to Water: 9.69

Sample I.D.: MW-2 Laboratory: (STD) Other ____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxy's, Ethanol

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L	
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV	

13.62

SHELL WELL MONITORING DATA SHEET

BTS #: 040922-MW3	Site: 99995752
Sampler: MW	Date: 9/22/04
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 18.48	Depth to Water (DTW): 4.86
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 7.58	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other____

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing, Other:____

2.2 (Gals.) X 3 = 6.6 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1739	73.4	7.11	1659	81	2.2	Slightly cloudy, strong odor
1741	73.5	7.22	1616	71	4.4	clearing, strong odor
1743	73.7	7.20	1723	67	6.6	clear, strong odor
						DTW = 10.42

Did well dewater? Yes (No) Gallons actually evacuated: 6.6

Sampling Date: 9/22/04 Sampling Time: 1749 Depth to Water: 7.51

Sample I.D.: MW-3 Laboratory: (STL) Other____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: oxy's ethanol

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:		mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 040922-MW3	Site: 9899752
Sampler: MW	Date: 9/22/04
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 18.56	Depth to Water (DTW): 7.72
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.89	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: ~~Bailer~~; Disposable Bailer; Extraction Port; Dedicated Tubing; Other:_____

7 (Gals.) X 3 = 21 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or ~~µS~~)	Turbidity (NTUs)	Gals. Removed	Observations
1517	74.4	7.26	5704	101	7	Slightly cloudy
1519	72.4	7.30	4763	125	14	Slightly Cloudy
1521	71.9	7.29	4850	151	21	cloudy

Did well dewater? Yes (No) Gallons actually evacuated: 21

Sampling Date: 9/22/04 Sampling Time: 1525 Depth to Water: 9.80

Sample I.D.: MW-4 Laboratory: (STL) Other_____

Analyzed for: ~~TPH-G~~ ~~BTEX~~ MTBE TPH-D Other: 5 oxy's Ethanol

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

12.69

SHELL WELL MONITORING DATA SHEET

BTS #: ~~040922-MW3~~	Site: 9899 5752
Sampler: MDN	Date: 9/22/04
Well I.D.: MW-5	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 18.60	Depth to Water (DTW): 5.91
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.45	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; ✓ Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other____

Sampling Method: ✓ Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

1 Case Volume	Specified Volumes	Calculated Volume
8.0 (Gals.) X	3	= 24 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1633	76.3	7.14	908	43	8.0	clear
1635	76.5		954	>200	16.0	light brown, cloudy
1636	well	dewatered		—	—	DTW = 15.88
1801	73.5	7.31	2927	85	—	slightly cloudy

Did well dewater? (Yes) No Gallons actually evacuated: 16.0

Sampling Date: 9/22/04 Sampling Time: 1801 Depth to Water: 9.87

Sample I.D.: MW-5 Laboratory: (STL) Other____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: oxys, ethanol

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

5

SHELL WELL MONITORING DATA SHEET

BTS #: 040922-MN3	Site: 7895752
Sampler: MON	Date: 9/22/04
Well I.D.: BW-D	Well Diameter: 2 3 4 6 8 12
Total Well Depth (TD): 12.26	Depth to Water (DTW): 2.75
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 4.65	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; ✗Electric Submersible; Waterra Peristaltic; Extraction Pump; Other

Sampling Method: ✗ Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other:

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

56 (Gals.) X 3 = 168 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

1550

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1601	76.7	6.87	498	6	56	clear, HC odor
1612	77.0	6.80	510	5	112	clear, odor
1623	77.3	6.75	464	5	168	clear, slight odor

Did well dewater? Yes (No) Gallons actually evacuated: 168

Sampling Date: 9/22/04 Sampling Time: ~~1625~~ 1625 Depth to Water: 2.81

Sample I.D.: BW-D Laboratory: (STL) Other

Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other: ~~Oxy's~~ Ethanol

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ATTACHMENT B

Arco Groundwater Data

Table 1

Groundwater Elevation and Analytical Data

ARCO Station #4494

566 Hegenberger Rd., Oakland, CA

Well No.	Date	P/ NP	Notes	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Product Thickness (feet)	GWE (feet)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-1	6/20/2000	--	a	106.1	13.00	--	7.02	--	99.08	<1,000	<10	<10	<10	<20	14,000/15,000	---	---
	9/28/2000	--	a	106.1	13.00	--	7.07	--	99.03	<500	<5.0	<5.0	<5.0	<5.0	13000/18,800	---	---
	12/17/2000	--		106.1	13.00	--	6.95	--	99.15	<50	<0.5	<0.5	<0.5	<0.5	10,600	---	---
	3/28/2001	--		106.1	13.00	--	6.88	--	99.22	<500	<5.0	<5.0	<5.0	<5.0	16,900	---	---
	6/21/2001	--		106.1	13.00	--	7.18	--	98.92	<1,000	<10	<10	<10	<10	3,400	---	---
	9/23/2001	--	a	106.1	13.00	--	7.11	--	98.99	<1,000	<10	<10	<10	<10	2200/1800	---	---
	12/31/2001	--		106.1	13.00	--	6.91	--	99.19	<5,000	<50	<50	<50	<50	14,000	---	---
	3/14/2002	--		106.1	13.00	--	6.85	--	99.25	<5,000	<50	<50	<50	<50	6,200	---	---
	4/17/2002	--		106.1	13.00	--	5.89	--	100.21	<5,000	<50	<50	<50	<50	4,500	---	---
	8/8/2002	--	a, b(TPHg)	106.1	13.00	--	7.19	--	98.91	230	<2.0	<2.0	<2.0	<2.0	660/440	4.5	7.8
	12/12/2002	--	a, d(TPHg)	106.1	13.00	--	7.28	--	98.82	630	<5.0	<5.0	<5.0	<5.0	1300/830	1.9	7.6
	3/20/2003	--	e	106.1	13.00	--	6.91	--	99.19	1,100	<5.0	<5.0	<5.0	<5.0	780	2.2	8.5
	6/23/2003	--		106.1	13.00	--	7.61	--	98.49	530	<5.0	<5.0	<5.0	<5.0	260	1.2	7.6
	9/22/2003	--		11.36	13.00	--	7.78	--	3.58	<50	<0.50	<0.50	<0.50	<0.50	17	3.5	7.7
	12/03/2003	P		11.36	13.00	--	7.90	--	3.46	410	2.6	9.8	<2.5	11	260	2.1	6.9
	03/18/2004	P		11.36	13.00	--	6.68	--	4.68	<250	<2.5	<2.5	<2.5	<2.5	130	2.4	7.0
	05/25/2004	P		11.36	13.00	--	7.55	--	3.81	<250	<2.5	<2.5	<2.5	<2.5	120	1.3	7.0
	09/22/2004	**P**		**11.36**	**13.00**	--	**6.78**	--	**4.58**	**150**	**1.5**	**<1.0**	**<1.0**	**<1.0**	**140**	**3.8**	**7.12**
MW-3	6/20/2000	--	a	106.29	7.00	17.70	9.18	--	97.11	<50	<0.5	<0.5	<0.5	<1.0	27/27	---	---
	9/28/2000	--	a	106.29	7.00	17.70	9.33	--	96.96	<50	<0.5	<0.5	<0.5	<1.0	4.3/<2.0	---	---
	12/17/2000	--		106.29	7.00	17.70	9.31	--	96.98	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	3/28/2001	--		106.29	7.00	17.70	9.23	--	97.06	<50	<0.5	<0.5	<0.5	<0.5	7.42	---	---
	6/21/2001	--		106.29	7.00	17.70	9.58	--	96.71	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	9/23/2001	--		106.29	7.00	17.70	9.76	--	96.53	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	12/31/2001	--		106.29	7.00	17.70	8.78	--	97.51	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	3/14/2002	--		106.29	7.00	17.70	9.25	--	97.04	<50	<0.5	<0.5	<0.5	<0.5	4.0	---	---
	4/17/2002	--		106.29	7.00	17.70	8.44	--	97.85	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	8/8/2002	--		106.29	7.00	17.70	9.63	--	96.66	<50	<0.5	<0.5	<0.5	<0.5	<2.5	2.6	7.9
	12/12/2002	--	d (TPH-g)	106.29	7.00	17.70	9.51	--	96.78	<50	<0.5	<0.5	<0.5	<0.5	<2.5	3.0	6.8
	3/20/2003	--	e	106.29	7.00	17.70	9.40	--	96.89	<50	<0.50	<0.50	<0.50	<0.50	6.1	1.2	7.0
	6/23/2003	--		106.29	7.00	17.70	9.36	--	96.93	<50	<0.50	<0.50	<0.50	<0.50	5.2	0.9	8.2
	9/22/2003	--		11.62	7.00	17.70	9.48	--	2.14	<50	<0.50	<0.50	<0.50	<0.50	3.9	1.4	7.9

Table 1

Groundwater Elevation and Analytical Data

ARCO Station #4494

566 Hegenberger Rd., Oakland, CA

Well No.	Date	P/ NP	Notes	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Product Thickness (feet)	GWE (feet)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-3	12/03/2003	--	g	11.62	7.00	--	9.44	--	2.18	--	--	--	--	--	--	--	--
	03/18/2004	NP		11.62	7.00	--	8.76	--	2.86	<50	<0.50	<0.50	<0.50	<0.50	4.6	0.8	7.3
	05/25/2004	--	g	11.62	7.00	--	9.55	--	2.07	--	--	--	--	--	--	--	--
	09/22/2004	**NP**		**11.62**	**7.00**	--	**9.44**	--	**2.18**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**4.7**	--	--
MW-4	6/20/2000	--		107.4	7.00	--	8.49	--	98.91	<50	<0.5	<0.5	<0.5	<1.0	<10	---	---
	9/28/2000	--		107.4	7.00	--	8.70	--	98.70	<50	<0.5	<0.5	<0.5	<1.0	<2.5	---	---
	12/17/2000	--		107.4	7.00	--	8.53	--	98.87	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	3/28/2001	--		107.4	7.00	--	8.59	--	98.81	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	6/21/2001	--		107.4	7.00	--	8.79	--	98.61	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	9/23/2001	--		107.4	7.00	--	8.67	--	98.73	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	12/31/2001	--		107.4	7.00	--	8.03	--	99.37	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	3/14/2002	--		107.4	7.00	--	8.48	--	98.92	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	4/17/2002	--		107.4	7.00	--	7.79	--	99.61	<50	<0.5	<0.5	<0.5	<0.5	5.6	---	---
	8/8/2002	--		107.4	7.00	--	8.90	--	98.50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	4.5	8.0
	12/12/2002	--	d (TPH-g)	107.4	7.00	--	9.07	--	98.33	<50	<0.5	<0.5	<0.5	<0.5	<2.5	5.6	6.2
	3/20/2003	--	e	107.4	7.00	--	8.85	--	98.55	<50	<0.50	<0.50	<0.50	0.50	<0.50	4.8	7.8
	6/23/2003	--		107.4	7.00	--	9.26	--	98.14	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.3	7.5
	9/22/2003	--		13.18	7.00	--	9.22	--	3.96	<50	<0.50	<0.50	<0.50	<0.50	<0.50	7.4	8.0
	12/03/2003	--	g	13.18	7.00	--	9.48	--	3.70	--	--	--	--	--	--	--	--
	03/18/2004	NP		13.18	7.00	--	8.32	--	4.86	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.5	8.4
	05/25/2004	--	g	13.18	7.00	--	9.03	--	4.15	--	--	--	--	--	--	--	--
	09/22/2004	**NP**		**13.18**	**7.00**	--	**8.62**	--	**4.56**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**3.7**	--
MW-5	6/20/2000	--		105.19	8.00	--	7.65	--	97.54	<50	<0.5	<0.5	<0.5	<1.0	<10	---	---
	9/28/2000	--		105.19	8.00	--	6.82	--	98.37	<50	<0.5	<0.5	<0.5	<1.0	<2.5	---	---
	12/17/2000	--		105.19	8.00	--	6.50	--	98.69	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	3/28/2001	--		105.19	8.00	--	6.34	--	98.85	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	6/21/2001	--		105.19	8.00	--	7.88	--	97.31	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	9/23/2001	--		105.19	8.00	--	6.98	--	98.21	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	12/31/2001	--		105.19	8.00	--	5.01	--	100.18	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	3/14/2002	--		105.19	8.00	--	5.93	--	99.26	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	4/17/2002	--		105.19	8.00	--	5.37	--	99.82	<50	<0.5	<0.5	<0.5	<0.5	8.5	---	---
	8/8/2002	--	b (TPH-g)	105.19	8.00	--	6.85	--	98.34	<50	<0.5	<0.5	<0.5	<0.5	<2.5	0.7	7.3
	12/12/2002	--	d (TPH-g)	105.19	8.00	--	6.53	--	98.66	<50	2.2	4.7	1.3	6.8	<2.5	1.3	7.0

Table 1

Groundwater Elevation and Analytical Data

ARCO Station #4494

566 Hegenberger Rd., Oakland, CA

Well No.	Date	P/ NP	Notes	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Product Thickness (feet)	GWE (feet)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-5	3/20/2003	--	e	105.19	8.00	--	6.40	--	98.79	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.7	7.1
	6/23/2003	--		105.19	8.00	--	6.72	--	98.47	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	7.2
	9/22/2003	--	f	10.63	8.00	--	6.76	--	3.87	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	7.2
	12/03/2003	--	g	10.63	8.00	--	6.56	--	4.07	--	--	--	--	--	--	--	--
	03/18/2004	P		10.63	8.00	--	5.98	--	4.65	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.7	7.3
	05/25/2004	--	g	10.63	8.00	--	6.77	--	3.86	--	--	--	--	--	--	--	--
	09/22/2004	**P**		**10.63**	**8.00**	**--**	**6.90**	**--**	**3.73**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.0**	**7.17**
MW-6	6/20/2000	--		105.07	8.00	--	6.24	--	98.83	<50	<0.5	<0.5	<0.5	<1.0	<10	---	---
	9/28/2000	--		105.07	8.00	--	6.45	--	98.62	<50	<0.5	<0.5	<0.5	<1.0	<2.5	---	---
	12/17/2000	--		105.07	8.00	--	6.26	--	98.81	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	3/28/2001	--		105.07	8.00	--	6.10	--	98.97	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	6/21/2001	--		105.07	8.00	--	7.68	--	97.39	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	9/23/2001	--		105.07	8.00	--	6.72	--	98.35	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	12/23/2001	--		105.07	8.00	--	4.68	--	100.39	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	3/14/2002	--		105.07	8.00	--	5.55	--	99.52	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	4/17/2002	--		105.07	8.00	--	4.96	--	100.11	<50	<0.5	<0.5	<0.5	<0.5	7.0	---	---
	8/8/2002	--		105.07	8.00	--	6.46	--	98.61	<50	<0.5	<0.5	<0.5	<0.5	<2.5	0.7	7.3
	12/12/2002	--	d (TPH-g)	105.07	8.00	--	6.18	--	98.89	65	3.3	8.4	2.7	14	<2.5	1.1	6.9
	3/20/2003	--	e	105.07	8.00	--	6.18	--	98.89	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	7.0
	6/23/2003	--		105.07	8.00	--	6.15	--	98.92	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.0	7.1
	9/22/2003	--	f	10.41	8.00	--	6.43	--	3.98	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.5	7.0
	12/03/2003	--	g	10.41	8.00	--	6.12	--	4.29	--	--	--	--	--	--	--	--
	03/18/2004	P		10.41	8.00	--	5.40	--	5.01	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.9	7.2
	05/25/2004	--	g	10.41	8.00	--	6.30	--	4.11	--	--	--	--	--	--	--	--
	09/22/2004	**P**		**10.41**	**8.00**	**--**	**6.43**	**--**	**3.98**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.3**	**7.01**
MW-7	6/20/2000	--	a	105.52	9.00	--	8.65	--	96.87	<50	<0.5	<0.5	<0.5	<1.0	13/13	---	---
	9/28/2000	--	a	105.52	9.00	--	8.75	--	96.77	<50	<0.5	<0.5	<0.5	<1.0	136/261	---	---
	12/17/2000	--		105.52	9.00	--	8.62	--	96.90	<50	<0.5	<0.5	<0.5	<0.5	27.1	---	---
	3/28/2001	--		105.52	9.00	--	8.66	--	96.86	<50	<0.5	<0.5	<0.5	<0.5	51.5	---	---
	6/21/2001	--		105.52	9.00	--	8.84	--	96.68	<50	<0.5	<0.5	<0.5	<0.5	53	---	---
	9/23/2001	--	a	105.52	9.00	--	8.75	--	96.77	<50	<0.5	<0.5	<0.5	<0.5	35/21	---	---
	12/23/2001	--		105.52	9.00	--	7.79	--	97.73	<50	<0.5	<0.5	<0.5	<0.5	440	---	---
	3/14/2002	--		105.52	9.00	--	8.30	--	97.22	<50	<0.5	<0.5	<0.5	<0.5	18	---	---

Table 1

Groundwater Elevation and Analytical Data

ARCO Station #4494

566 Hegenberger Rd., Oakland, CA

Well No.	Date	P/ NP	Notes	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Product Thickness (feet)	GWE (feet)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-7	4/17/2002	--		105.52	9.00	--	7.43	--	98.09	<50	<0.5	<0.5	<0.5	<0.5	67	---	---
	8/8/2002	--	a, b (TPHg)	105.52	9.00	--	8.61	--	96.91	55	<0.5	<0.5	<0.5	<0.5	130/100	1.1	7.1
	12/12/2002	--	a, d (TPHg), h	105.52	9.00	--	8.55	--	---	75	< 0.5	< 0.5	< 0.5	< 0.5	160/130	1.2	7.0
	3/20/2003	--	e	105.52	9.00	--	8.38	--	---	<50	<0.50	<0.50	<0.50	<0.50	32	2.2	7.2
	6/23/2003	--		105.52	9.00	--	8.37	--	---	<50	<0.50	<0.50	<0.50	<0.50	14	0.8	7.1
	9/22/2003	--	f	10.51	9.00	--	8.95	--	1.56	<50	<0.50	<0.50	<0.50	<0.50	5.3	2.2	7.2
	12/03/2003	P		10.51	9.00	--	8.86	--	1.65	<50	<0.50	<0.50	<0.50	<0.50	4.2	0.1	7.2
	03/18/2004	P		10.51	9.00	--	8.03	--	2.48	<50	<0.50	<0.50	<0.50	<0.50	3.0	1.0	7.2
	05/25/2004	P		10.51	9.00	--	8.37	--	2.14	<50	<0.50	<0.50	<0.50	<0.50	4.1	0.7	7.1
	09/22/2004	**P**		**10.51**	**9.00**	**--**	**8.90**	**--**	**1.61**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**2.3**	**0.9**	**7.27**
RW-1	6/20/2000	--		---	--	--	8.21	--	---	<50	<0.5	1.1	<0.5	<1.0	<10	---	---
	9/28/2000	--		---	--	--	8.28	--	---	<50	<0.5	<0.5	<0.5	<1.0	<2.5	---	---
	12/17/2000	--		---	--	--	8.29	--	---	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	3/28/2001	--		---	--	--	8.16	--	---	<50	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	6/21/2001	--		---	--	--	9.37	--	---	160	5.1	<0.5	1.1	3.2	<2.5	---	---
	9/23/2001	--		---	--	--	8.75	--	---	57	<0.5	<0.5	<0.5	<0.5	<2.5	---	---
	12/31/2001	--		---	--	--	6.80	--	---	520	3.1	<0.5	6.4	4.7	<2.5	---	---
	3/14/2002	--		---	--	--	7.86	--	---	240	3.7	<0.5	0.7	2.8	<2.5	---	---
	4/17/2002	--		---	--	--	7.13	--	---	<50	<0.5	1.6	<0.5	0.72	<2.5	---	---
	8/8/2002	--	a, c (MTBE)	---	--	--	8.48	--	---	<50	<0.5	<0.5	<0.5	<0.5	3.7/<0.5	1.1	7.0
	12/12/2002	--		---	--	--	8.63	--	---	<50	<0.5	<0.5	<0.5	<0.5	<2.5	1.9	6.9
	3/20/2003	--	e	---	--	--	8.08	--	---	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.9	7.3
	6/23/2003	--		---	--	--	8.28	--	---	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	7.3
	9/22/2003	--	f	11.97	--	--	8.42	--	3.55	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	7.1
	12/03/2003	--	g	11.97	--	--	8.05	--	3.92	--	--	--	--	--	--	--	--
	03/18/2004	P		11.97	--	--	7.18	--	4.79	50	0.54	<0.50	<0.50	<0.50	<0.50	0.9	7.1
	05/25/2004	--	g	11.97	--	--	8.32	--	3.65	--	--	--	--	--	--	--	--
	09/22/2004	**P**		**11.97**	**--**	**--**	**8.42**	**--**	**3.55**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.0**	**6.7**

Table 1

Groundwater Elevation and Analytical Data

ARCO Station #4494

566 Hegenberger Rd., Oakland, CA

ft bgs = Feet below ground surface
TOC = Top of casing
DTW = Depth to water
GWE = Groundwater elevation
MSL = Mean sea level
TPH = Total petroleum hydrocarbons analyzed by EPA Method 8015M prior to 3/20/03.
GRO = Gasoline range organics
MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021B prior to 3/20/03 unless otherwise noted.
ug/L = Micrograms per liter
mg/L = Milligrams per liter
--- = Not calculated, surveyed, available, applicable, analyzed.
< = Not detected at or above specifed laboratory reporting limit.

a = MTBE confirmation analyzed by EPA Method 8260
b = Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
c = This sample was analyzed beyond the EPA recommended holding time. The results may still be useful for their intended purpose.
d = Analyzed by EPA Method 8215B/8021B for Gasoline Range Organics
e = TPH-g, BTEX, and MTBE analyzed by EPA method 8260B beginning on 2003 samlping event (03/20/03)
f = Top of casing elvations were re-surveyed on July 18, 2003 by URS Corporation of Pleasant Hill, CA
g = Wells MW-3, MW-4, MW-5, MW-6 and RW-1 are sampled semi-annually in the 1st and 3rd quarters.
h = Top of casing was found shattered on December 12, 2002. Top of Casing (TOC) unknown.

Notes:

The data within this table collected prior to August 2002 was provided to URS by RM and their previous consultants. URS has not verified the accuracy of this information.

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. Total petroleum hydrocarbons as gasoline (TPHg) has been changed to gasoline range organics (GRO). The resulting data may be impacted by the potential of non-TPHg analytes within the requested fuel range resulting in a higher concentration being reported.

Beginning in the second quarter 2004, the carbon range for GRO has been changed from C6-C10 to C4-C12.

Table 2

Fuel Additives Analytical Data

ARCO Station #4494

566 Hegenberger Rd., Oakland, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MtBE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Comments
MW-1	3/20/2003	<1,000	640	780	<5.0	<5.0	<5.0	---	---	
	6/23/2003	<1,000	<200	260	<5.0	<5.0	<5.0	<5.0	<5.0	
	9/22/2003	<100	250	17	<0.50	<0.50	<0.50	---	---	
	12/03/2003	<500	<100	260	<2.5	<2.5	<2.5	--	--	
	03/18/2004	<500	<100	130	<2.5	<2.5	<2.5	<2.5	<2.5	
	05/25/2004	<500	<100	120	<2.5	<2.5	<2.5	<2.5	<2.5	
	09/22/2004	**<200**	**<40**	**140**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	
MW-3	3/20/2003	<100	<20	601	<0.50	<0.50	1.1	---	---	
	6/23/2003	<100	<20	5.2	<0.50	<0.50	0.75	<0.50	<0.50	
	9/22/2003	<100	<20	3.9	<0.50	<0.50	<0.50	---	---	
	03/18/2004	<100	<20	4.6	<0.50	<0.50	<0.50	<0.50	<0.50	
	09/22/2004	**<100**	**<20**	**4.7**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-4	3/20/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	---	---	
	6/23/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	9/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	---	---	
	03/18/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	09/22/2004	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-5	3/20/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	---	---	
	6/23/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	9/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	---	---	
	03/18/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	09/22/2004	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-6	3/20/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	---	---	
	6/23/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	9/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	---	---	
	03/18/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	09/22/2004	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-7	3/20/2003	<100	<20	21	<0.50	<0.50	0.62	---	---	
	6/23/2003	<100	170	14	<0.50	<0.50	<0.50	<0.50	<0.50	
	9/22/2003	<100	170	5.3	<0.50	<0.50	<0.50	---	---	
	12/03/2003	<100	85	4.2	<0.50	<0.50	<0.50	--	--	
	03/18/2004	<100	<20	3.0	<0.50	<0.50	<0.50	<0.50	<0.50	a

Table 2

Fuel Additives Analytical Data

ARCO Station #4494

566 Hegenberger Rd., Oakland, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MtBE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Comments
MW-7	05/25/2004	<100	43	4.1	<0.50	<0.50	<0.50	<0.50	<0.50	
	09/22/2004	**<100**	**<20**	**2.3**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
RW-1	3/20/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	---	---	
	6/23/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	9/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	---	---	
	03/18/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
	09/22/2004	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	

Table 2

Fuel Additives Analytical Data

ARCO Station #4494
566 Hegenberger Rd., Oakland, CA

Notes:
TBA = tert-Butyl alcohol
MTBE = Methyl tert-butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tert butyl ether
TAME = tert-Amyl methyl ether
1,2-DCA = 1,2-Dichloroethane
EDB = 1,2-Dibromoethane
µg/L = micrograms per liter
< = Not detected at or above the laboratory reporting limit
--- = Not analyzed, sampled, available

a = The continuing calibration verification was outside of client contractual acceptance limits. However, it was within method acceptance limits and should be useful for its intended purpose.

Table 3

Groundwater Gradient Data

ARCO Station #4494
566 Hegenberger Rd., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
6/20/2000	North-Northeast	0.015
9/28/2000	North	0.018
12/17/2000	North-Northwest	0.013
3/28/2001	Northwest	0.011
6/21/2001	North	0.017
9/23/2001	North	0.02
12/31/2001	North-Northwest	0.023
3/14/2002	North-Northwest	0.017
4/14/2002	Northwest	0.007
8/8/2002	North-Northwest	0.022
12/12/2002	North-Northwest	0.017
3/20/2003	North-Northwest	0.016
6/23/2003	Northwest	0.014
9/22/2003	Northwest	0.017
12/3/2003	Northwest	0.013
3/18/2004	North-Northwest	0.011
5/25/2004	North-Northwest	0.011
9/22/2004	**North-Northwest**	**0.017**

Note:
The data within this table collected prior to August 2002 was provided to URS by RM and their previous consultants. URS has not verified the accuracy of this information.

ATTACHMENT A

FIELD PROCEDURES AND FIELD DATA SHEETS

FIELD PROCEDURES

Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear Teflon™ bailer or an oil-water interface probe. Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

WELL GAUGING DATA

Project # 040922-MW2 Date 9/22/04 Client ARCO 4494

Site 566 HEGENBERGER RD., OAKLAND

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-1	4					6.78	23.09		
MW-3	4					9.44	17.95		NPE 7'
MW-4	4					8.62	16.61		NPE 7'
MW-5	2					6.90	17.00		
MW-6	2					6.43	18.10		
MW-7	4					8.90	13.48		
EW-1	2					8.42	11.48	TOC	

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040922-MW-1	Station # 4494
Sampler: MAJ	Date: 9/22/04
Well I.D.: MW-1	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 23.09	Depth to Water: 6.78
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / (Electric Submersible) / Extraction Pump / Other: ___

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: ___

Top of Screen: ___

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

10.5 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 31.5 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1357	72.4	7.14	12.23	10.5	clear
1359	72.9	7.12	13.72	21.0	clear
1406	well	dewatered		—	DTW = 20.67
1405	73.1		14.76	—	clear

Did well dewater? (Yes) No		Gallons actually evacuated:	21.0
Sampling Time: 1405		Sampling Date:	9/22/04
Sample I.D.: MW-1		Laboratory: Pace (Sequoia) Other ___	
Analyzed for: (GRO) (BTEX) MTBE DRO		Other:	oxys
D.O. (if req'd): Pre-purge:	mg/L	Post-purge:	3.2 mg/L
O.R.P. (if req'd): Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040927-MW2	Station # 4494
Sampler: MDN	Date: 9/22/04
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 16.61	Depth to Water: 8.62
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Extraction Pump / Other: _____

Sampling Method: Bailer / (X) Disposable Bailer / Extraction Port / Other: _____

Top of Screen: 7'

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

1 Case Volume (Gals.)	Specified Volumes	Calculated Volume
No	Purge Sample	____ Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1210	71.9	7.19	1187	—	clear

Did well dewater? Yes (No)		Gallons actually evacuated: —	
Sampling Time: 1210		Sampling Date: 9/22/04	
Sample I.D.: MW-4		Laboratory: Pace (Sequoia) Other____	
Analyzed for: (GRO) (BTEX) MTBE DRO		Other: Oxy's	
D.O. (if req'd):	Pre-purge: ____ mg/L	Post-purge: 3.7 mg/L	
O.R.P. (if req'd):	Pre-purge: ____ mV	Post-purge: ____ mV	

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040922-MW2	Station # 4494
Sampler: RON	Date: 9/22/04
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 17.00	Depth to Water: 6.90
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer (Disposable Bailer) Positive Air Displacement Electric Submersible Extraction Pump Other: _____

Sampling Method: Bailer (Disposable Bailer) Extraction Port Other: _____

Top of Screen: _____ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

1.6 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 4.8 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1317	73.9	7.25	11,51	1.6	clear, strong sulfur odor
1319	72.4	7.17	12,47	3.2	clear, sulfur odor
1321	72.2	7.17	11.71	4.8	clear, sulfur odor

Did well dewater? Yes (No) Gallons actually evacuated: 4.8

Sampling Time: 1326 Sampling Date: 9/22/04

Sample I.D.: MW-5 Laboratory: Pace (Sequoia) Other _____

Analyzed for: (GRO) (BTEX) MTBE DRO Other: Oxy's

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.0 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040922-MW2	Station # 4494
Sampler: MM	Date: 9/22/04
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 18.10	Depth to Water: 6.43
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Extraction Pump / Other: _____

Sampling Method: Bailer / Disposable Bailer / Extraction Port / Other: _____

Top of Screen: _____ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

1.9 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 5.7 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1243	73.0	7.11	5759	1.9	Light brown, cloudy
1246	72.9	7.00	5834	3.8	Light brown, cloudy
1250	73.0	7.01	5807	5.7	Light brown, cloudy

Did well dewater? Yes (No) Gallons actually evacuated: 5.7

Sampling Time: 1255 Sampling Date: 9/22/04

Sample I.D.: MW-6 Laboratory: Pace (Sequoia) Other _____

Analyzed for: (GRO) (BTEX) MTBE DRO Other: 6 oxys

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge: 1.3	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040922-MW2	Station # 4494
Sampler: MDM	Date: 9/22/04
Well I.D.: MW-7	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 13.48	Depth to Water: 8.90
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / (Electric Submersible) / Extraction Pump / Other: ___

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: ___

Top of Screen: ___ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

3.0 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 9.0 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1337	75.1	7.23	6515	3.0	clear, rust color (orange)
1338	73.0	7.21	10.76mS	6.0	clear, light rust color
1339	72.9	7.27	9501	9.0	~~Clear~~ Slightly cloudy, rust color

Did well dewater? Yes (No)		Gallons actually evacuated:	9.0
Sampling Time: 1344		Sampling Date:	9/22/04
Sample I.D.: MW-7		Laboratory: Pace (Sequoia) Other ___	
Analyzed for: (GRO) (BTEX) MTBE DRO		Other:	oxys
D.O. (if req'd): Pre-purge:	mg/L	Post-purge:	.9 mg/L
O.R.P. (if req'd): Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040922-MN2	Station # 4494
Sampler: MON	Date: 9/22/04
Well I.D.: RW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 11.48	Depth to Water: 8.42
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer / ✓Disposable Bailer / Positive Air Displacement / Electric Submersible / Extraction Pump / Other: ______

Sampling Method: Bailer / ✓Disposable Bailer / Extraction Port / Other: ______

Top of Screen: ______

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

.5 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 1.5 Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity ((mS) or µS)	Gals. Removed	Observations
1300	73.5	6.93	16.46	.5	odor, clear
1301	77.0	6.85	26.39	1.0	odor, clear
1303	73.6	6.90	30.04	1.5	odor, clear

Did well dewater? Yes (No)		Gallons actually evacuated: 1.5	
Sampling Time: 1308		Sampling Date: 9/22/04	
Sample I.D.: RW-1		Laboratory: Pace (Sequoia) Other ______	
Analyzed for: (GRO) (BTEX) MTBE DRO		Other: OXYS	
D.O. (if req'd):	Pre-purge: ___ mg/L	Post-purge:	4.0 mg/L
O.R.P. (if req'd):	Pre-purge: ___ mV	Post-purge:	___ mV

BP GEM OIL COMPANY TYPE **A** BILL OF LADING

SOURCE RECORD **BILL OF LADING** FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

4494

Station #

546 Hegenberger Rd. Oakland

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

~~45~~ 43

added equip. rinse water 10

any other adjustments —

TOTAL GALS. RECOVERED ~~45~~ 53

loaded onto BTS vehicle # 50

BTS event #	time	date
040922-MN2	1330	9/22/04

signature

* *

REC'D AT	time	date
		/ /

unloaded by signature

ATTACHMENT B

LABORATORY PROCEDURES, CERTIFIED ANALYTICAL REPORTS, AND CHAIN-OF-CUSTODY RECORDS

LABORATORY PROCEDURES

Laboratory Procedures

The groundwater samples were analyzed for the presence of the chemicals noted on the chain-of- custody using standard EPA Methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by RM have been reviewed and verified by that laboratory.

ATTACHMENT C
HISTORICAL GROUNDWATER DATA

Sequoia
Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
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7 October, 2004

Scott Robinson
URS Corporation [Arco]
1333 Broadway, Suite 800
Oakland, CA 94612

RE: ARCO #4494, Oakland, CA
Work Order: MNI0712

Enclosed are the results of analyses for samples received by the laboratory on 09/23/04 15:43. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race
Senior Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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URS Corporation [Arco]	Project: ARCO #4494, Oakland, CA	MNI0712
1333 Broadway, Suite 800	Project Number: INTRIM-50443	Reported:
Oakland CA, 94612	Project Manager: Scott Robinson	10/07/04 16:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MNI0712-01	Water	09/22/04 14:05	09/23/04 15:43
MW-3	MNI0712-02	Water	09/22/04 12:25	09/23/04 15:43
MW-4	MNI0712-03	Water	09/22/04 12:10	09/23/04 15:43
MW-5	MNI0712-04	Water	09/22/04 13:26	09/23/04 15:43
MW-6	MNI0712-05	Water	09/22/04 12:55	09/23/04 15:43
MW-7	MNI0712-06	Water	09/22/04 13:44	09/23/04 15:43
RW-1	MNI0712-07	Water	09/22/04 13:03	09/23/04 15:43
TB-4494-09222004	MNI0712-08	Water	09/22/04 13:03	09/23/04 15:43

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with no custody seals.

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1333 Broadway, Suite 800	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	10/07/04 16:11

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MNI0712-01) Water Sampled: 09/22/04 14:05 Received: 09/23/04 15:43									
tert-Amyl methyl ether	ND	1.0	ug/l	2	4J05002	10/05/04	10/06/04	EPA 8260B	
Benzene	**1.5**	1.0	"	"	"	"	"	"	
tert-Butyl alcohol	ND	40	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
Ethanol	ND	200	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**140**	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**150**	100	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*104 %*	*78-129*		"	"	"	"	
MW-3 (MNI0712-02) Water Sampled: 09/22/04 12:25 Received: 09/23/04 15:43									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4J05002	10/05/04	10/05/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**4.7**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*	*78-129*		"	"	"	"	

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1333 Broadway, Suite 800	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	10/07/04 16:11

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (MNI0712-03) Water Sampled: 09/22/04 12:10 Received: 09/23/04 15:43									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4J05002	10/05/04	10/05/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99 %*	*78-129*		"	"	"	"	
MW-5 (MNI0712-04) Water Sampled: 09/22/04 13:26 Received: 09/23/04 15:43									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4J05002	10/05/04	10/05/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*78-129*		"	"	"	"	

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1333 Broadway, Suite 800	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	10/07/04 16:11

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (MNI0712-05) Water Sampled: 09/22/04 12:55 Received: 09/23/04 15:43									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4J05002	10/05/04	10/05/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*		*78-129*	"	"	"	"	
MW-7 (MNI0712-06) Water Sampled: 09/22/04 13:44 Received: 09/23/04 15:43									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4J05002	10/05/04	10/05/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**2.3**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*		*78-129*	"	"	"	"	

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Oakland CA, 94612	Project Manager: Scott Robinson	10/07/04 16:11

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-1 (MNI0712-07) Water Sampled: 09/22/04 13:03 Received: 09/23/04 15:43									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4J05002	10/05/04	10/06/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*		*78-129*	"	"	"	"	

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Oakland CA, 94612	Project Manager: Scott Robinson	10/07/04 16:11

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J05002 - EPA 5030B P/T										
Blank (4J05002-BLK1)				Prepared & Analyzed: 10/05/04						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*4.95*		"	*5.00*		*99*	*78-129*			
Laboratory Control Sample (4J05002-BS1)				Prepared & Analyzed: 10/05/04						
tert-Amyl methyl ether	10.1	0.50	ug/l	10.0		101	82-140			
Benzene	10.6	0.50	"	10.0		106	69-124			
tert-Butyl alcohol	49.8	20	"	50.0		100	56-131			
Di-isopropyl ether	10.5	0.50	"	10.0		105	76-130			
1,2-Dibromoethane (EDB)	10.3	0.50	"	10.0		103	77-132			
1,2-Dichloroethane	11.0	0.50	"	10.0		110	77-136			
Ethanol	197	100	"	200		98	31-143			
Ethyl tert-butyl ether	10.2	0.50	"	10.0		102	81-121			
Ethylbenzene	10.1	0.50	"	10.0		101	84-132			
Methyl tert-butyl ether	10.3	0.50	"	10.0		103	63-137			
Toluene	9.61	0.50	"	10.0		96	78-129			
Xylenes (total)	30.1	0.50	"	30.0		100	83-137			
Surrogate: 1,2-Dichloroethane-d4	*5.00*		"	*5.00*		*100*	*78-129*			

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1333 Broadway, Suite 800	Project Number: INTRIM-50443	Reported:
Oakland CA, 94612	Project Manager: Scott Robinson	10/07/04 16:11

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J05002 - EPA 5030B P/T										
Laboratory Control Sample (4J05002-BS2)				Prepared & Analyzed: 10/05/04						
Benzene	5.40	0.50	ug/l	6.40		84	69-124			
Ethylbenzene	7.61	0.50	"	7.52		101	84-132			
Methyl tert-butyl ether	8.93	0.50	"	9.92		90	63-137			
Toluene	32.8	0.50	"	31.9		103	78-129			
Xylenes (total)	38.1	0.50	"	36.6		104	83-137			
Gasoline Range Organics (C4-C12)	476	50	"	440		108	70-124			
Surrogate: 1,2-Dichloroethane-d4	*5.05*		"	*5.00*		*101*	*78-129*			
Laboratory Control Sample Dup (4J05002-BSD1)				Prepared & Analyzed: 10/05/04						
tert-Amyl methyl ether	10.2	0.50	ug/l	10.0		102	82-140	1	20	
Benzene	10.7	0.50	"	10.0		107	69-124	0.9	20	
tert-Butyl alcohol	52.4	20	"	50.0		105	56-131	5	20	
Di-isopropyl ether	10.4	0.50	"	10.0		104	76-130	1	20	
1,2-Dibromoethane (EDB)	10.6	0.50	"	10.0		106	77-132	3	20	
1,2-Dichloroethane	10.8	0.50	"	10.0		108	77-136	2	20	
Ethanol	212	100	"	200		106	31-143	7	20	
Ethyl tert-butyl ether	10.6	0.50	"	10.0		106	81-121	4	20	
Ethylbenzene	10.2	0.50	"	10.0		102	84-132	1	20	
Methyl tert-butyl ether	11.2	0.50	"	10.0		112	63-137	8	20	
Toluene	9.62	0.50	"	10.0		96	78-129	0.1	20	
Xylenes (total)	29.9	0.50	"	30.0		100	83-137	0.7	20	
Surrogate: 1,2-Dichloroethane-d4	*5.11*		"	*5.00*		*102*	*78-129*			
Matrix Spike (4J05002-MS1)	**Source: MNI0712-01**			Prepared & Analyzed: 10/05/04						
Benzene	11.6	1.0	ug/l	12.8	1.5	79	69-124			
Ethylbenzene	15.8	1.0	"	15.0	0.18	104	84-132			
Methyl tert-butyl ether	170	1.0	"	19.8	140	152	63-137			BB,LM
Toluene	61.4	1.0	"	63.8	0.20	96	78-129			
Xylenes (total)	74.9	1.0	"	73.1	ND	102	83-137			
Gasoline Range Organics (C4-C12)	928	100	"	880	150	88	70-124			
Surrogate: 1,2-Dichloroethane-d4	*5.13*		"	*5.00*		*103*	*78-129*			

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1333 Broadway, Suite 800	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	10/07/04 16:11

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J05002 - EPA 5030B P/T										
Matrix Spike Dup (4J05002-MSD1)	**Source: MNI0712-01**			Prepared & Analyzed: 10/05/04						
Benzene	10.9	1.0	ug/l	12.8	1.5	73	69-124	6	20	
Ethylbenzene	16.0	1.0	"	15.0	0.18	105	84-132	1	20	
Methyl tert-butyl ether	167	1.0	"	19.8	140	136	63-137	2	20	
Toluene	67.0	1.0	"	63.8	0.20	105	78-129	9	20	
Xylenes (total)	80.1	1.0	"	73.1	ND	110	83-137	7	20	
Gasoline Range Organics (C4-C12)	1010	100	"	880	150	98	70-124	8	20	
Surrogate: 1,2-Dichloroethane-d4	*5.07*		"	*5.00*		*101*	*78-129*			

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1333 Broadway, Suite 800	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	10/07/04 16:11

Notes and Definitions

BB,LM	Sample > 4x spike concentration. MS and/or MSD above acceptance limits. See Blank Spike(LCS).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Chain of Custody Record

Project Name 4494 GWM
BP BU/GEM CO Portfolio Retail MN10712
BP Laboratory Contract Number: Atlantic Richfield Company
Date: 9/22/04 Requested Due Date (mm/dd/yy) 14 day TAT

On-site Time:	Temp:
Off- site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Send To:	
Lab Name:	SEQUOIA
Lab Address:	885 Jarvis Dr.
	Morgan Hill, CA 95037
Lab PM	Lisa Race
Tele/Fax:	408-776-9600 / 408-782-6308
Report Type & QC Level:	1 Send EDF Reports
BP/GEM Account No.:	

BP/GEM Facility No.:	ARCO 4494
BP/GEM Facility Address:	566 HEGENBERGER, OAKLAND, CA
Site ID No.	ARCO 4494
Site Lat/Long:	
California Global ID #:	T0600100104
BP/GEM PM Contact:	PAUL SUPPLE
Address:	P.O. Box 6549
	Moraga, CA 94570
Tele/Fax:	925-299-8891/925-299-8872

Consultant/Contractor:	URS
Address:	1333 Broadway, Suite 800
	Oakland, CA 94612
e-mail EDD:	donna_cosper@URSCorp.com
Consultant/Contractor Project No.:	J5-00004494.01 00427
Consultant/Tele/Fax:	510-893-3600/510-874-3268
Consultant/Contractor PM:	Scott Robinson
Invoice to:	Consultant/Contractor or BP/GEM (Circle one)
BP/GEM Work Release No:	INTRIM -50443

Lab Bottle Order No:

Item No.	Sample Description	Time	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Sediments	Matrix: Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	Preservatives: H_2SO_4	Preservatives: HNO_3	Preservatives: HCl	Requested Analysis: GRO / BTEX 8015/8260	Requested Analysis: DRO w/SGC (8015)	Requested Analysis: MTBE (8021)	Requested Analysis: MTBE (8260)	Requested Analysis: MTBE, TAME, ETBE DIPE, TBA (8260)	Requested Analysis: 1,2-DCA & EDB (8260)	Requested Analysis: Ethanol (8260)	Sample Point Lat/Long and Comments
1	MW-1	1405		X			MN10712-1	3				X	X				X	X	X	
2	MW-3	1225					-2						X				X	X	X	
3	MW-4	1210					-3						X				X	X	X	
4	MW-5	1326					-4						X				X	X	X	
5	MW-6	1255					-5						X				X	X	X	
6	MW-7	1344					-6						X				X	C	X	
7	RW-1	1303					-7	5					V				V	C	V	
8	TB-4494-092220 04	—		X			-8	2				X								#N Hold
9																				
10																				

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Mukesh Nanekata						
Sampler's Company: Blaine Tech Services		9/23/04	1307		9/23/04	1507
Shipment Date:		9/23/04	1503	TD	9/23/04	1543
Shipment Method:						
Shipment Tracking No:						

Special Instructions: Address Invoice to BP/GEM but send to URS for approval

Seals In Place Yes X No Temperature Blank Yes X No Cooler Temperature on Receipt °F/C Trip Blank Yes X No

Distribution: White Copy - Laboratory / Yellow Copy - BP/GEM / Pink Copy - Consultant/Contractor

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SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: ARCO 4494 | DATE REC'D AT LAB: 9/23/04 | For Regulatory Purposes?
REC. BY (PRINT): TD | TIME REC'D AT LAB: 1543 | DRINKING WATER YES / (NO)
WORKORDER: MNI0712 | DATE LOGGED IN: 9/24/04 | WASTE WATER (YES) / NO
(For clients requiring preservation checks at receipt, document here ↓)

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / Absent; Intact / Broken*			MW-1	VOA (3)	HCl	—	W	9/22/04	
2. Chain-of-Custody Present / Absent*			-3						
3. Traffic Reports or Packing List: Present / Absent			-4						
4. Airbill: Airbill / Sticker Present / Absent			-5						
5. Airbill #:			-6						
6. Sample Labels: Present / Absent			-7						
7. Sample IDs: Listed / Not Listed on Chain-of-Custody			RW-1						
8. Sample Condition: Intact / Broken* / Leaking*			TB-4494-092204	(2)					
9. Does information on chain-of-custody, traffic reports and sample labels agree? Yes / No*									
10. Sample received within hold time? Yes / No*									
11. Adequate sample volume received? Yes / No*									
12. Proper Preservatives used? Yes / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes / No*									
14. Temp Rec. at Lab: 4.6 Is temp 4 +/-2°C? Yes / No** (Acceptance range for samples requiring thermal pres.)									
**Exception (if any): METALS / OFF ON ICE or Problem COC									

TD 9/23/04

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

SRL Revision 6
Yaces Rev 5 (06/07/04)
Ve 07/13/04