Shell Oil Products US

December 16, 2003

RO 223

Amir K. Gholami
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 Mr. Gholami:

Attached for your review and comment is a copy of the *Third Quarter 2003 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

P.O. Box 7869 Burbank, CA 91510-7869 Phone (559) 645-9306 Facsimile (559) 645-5643

CAMBRIA

December 16, 2003

Amir K. Gholami, REHS
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Third Quarter 2003 Monitoring Report**
Shell-branded Service Station
540 Hegenberger Road
Oakland, California
Incident #98995752
Cambria Project #245-0414-002

Dear Mr. Gholami:

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 2003 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). Data from the Arco site is presented on Figure 2. Arco completed a wellhead elevation survey this quarter, so data from their site is now included in the groundwater elevation contours.

Historical Interim Remediation Summary: From July 1999 through June 2000, groundwater extraction (GWE) was performed at the site to remove dissolved-phase hydrocarbons and methyl tert-butyl ether (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

Cambria Environmental Technology, Inc.

5900 Hollis Street
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Emeryville, CA 94608
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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: During the third quarter, Cambria continued to operate the GWE system. Monitoring wells MW-1, MW-3, and MW-5, and tank backfill well BW-B are used as extraction wells. Table 1 summarizes system analytical data. Groundwater level measurements and flow meter readings have been recorded at various times of operation to assess system production. 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 0.43 to 0.78 gallons per minute. As required by the East Bay Municipal Utility District (EBMUD) permit, Cambria submitted a *Semi-Annual Self-Monitoring Report: March 19 – August 31, 2003* dated September 30, 2003.

Through December 2, 2003, a total of 178,408 gallons of groundwater has been extracted. A total of 17.8 pounds of MTBE has been recovered. Mass removal data are presented in Table 2.

Influent samples collected from the GWE system show a decreasing trend in MTBE concentrations since system operation was initiated. Groundwater monitoring well sampling data also demonstrates decreasing trends in MTBE concentrations.

ANTICIPATED FOURTH QUARTER 2003 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 EBMUD discharge permit.

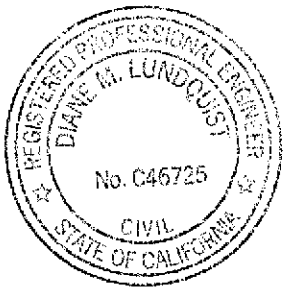
CAMBRIA

Amir K. Gholami
December 16, 2003

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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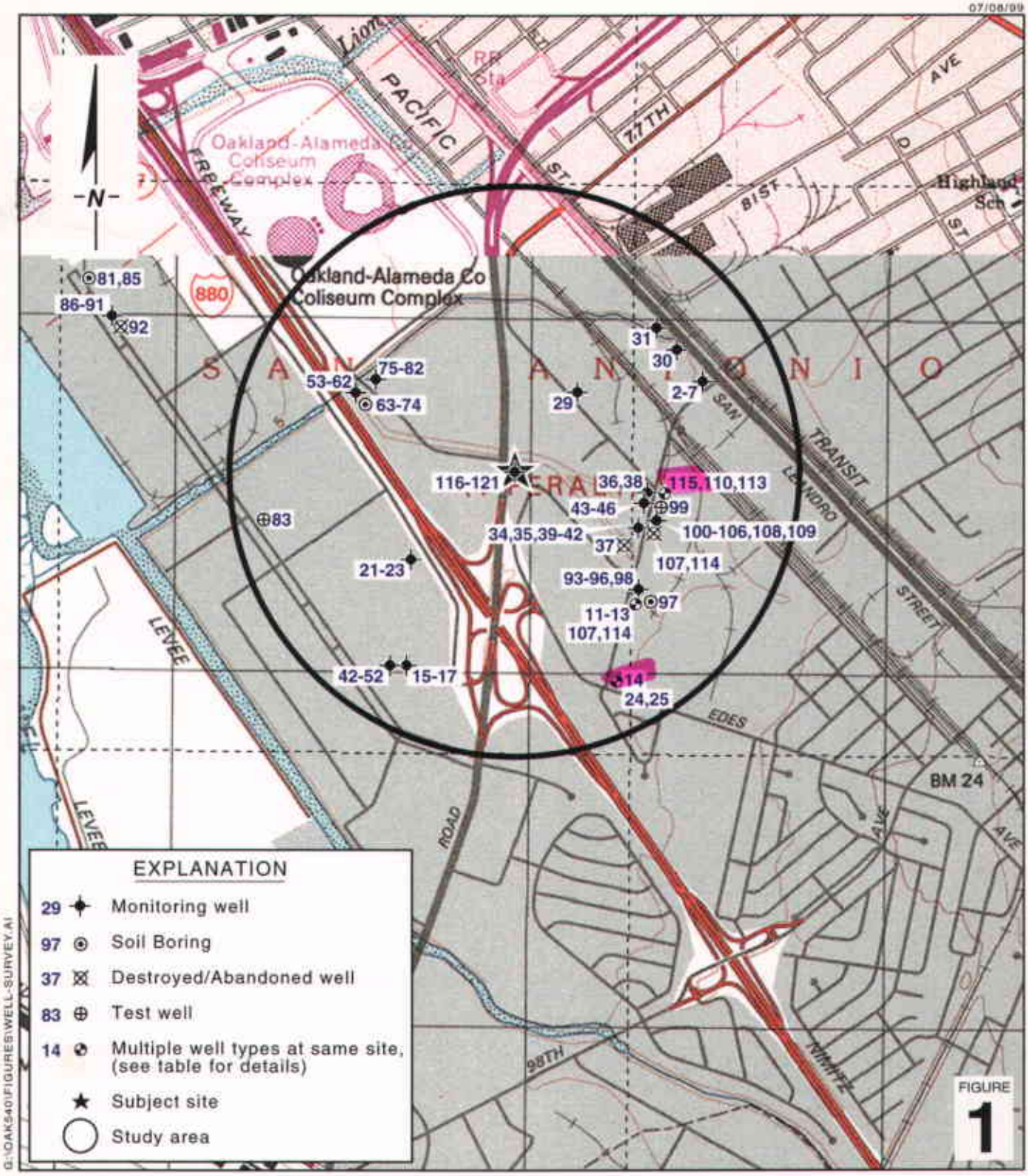


Shell-branded Service Station
540 Hegenberger Road
Oakland, California
Incident #98995752

CAMBRIA

Area Well Survey

(1/2-Mile Radius)

11/24/03

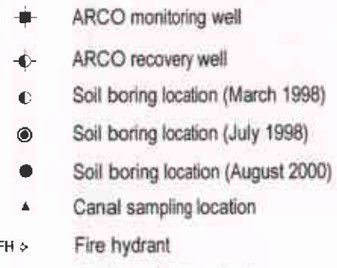
Groundwater Elevation Contour Map

September 22, 2003

CAMBRIA

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, 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)

0 20 40 80
Scale (ft)

FIGURE
2

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

G:\OAKLAND\540HEGENBERGER\FIGURES\3QM03.DWG

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

Sample Date (mm/dd/yyyy)	Influent			Midfluent 1			Midfluent 2			Effluent		
	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

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, California

			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		0.037	4.538		0.000	0.050		0.000	17.832
		Total Extracted Volume=		**178,408**		**Total Pounds Removed:**		**4.50**	**Total Pounds Removed:**		**0.050**	**Total Pounds Removed:**		**17.8**
		Average Period Operational Flow Rate=		**0.67**		**Total Gallons Removed:**		**0.73**	**Total Gallons Removed:**		**0.008**	**Total Gallons Removed:**		**2.89**

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.

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

		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)

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.

1680 ROGERS AVENUE
SAN JOSE, CA 95112-1105
(408) 573-7771 FAX
(408) 573-0555 PHONE
CONTRACTOR'S LICENSE #746684
www.blainetech.com

October 20, 2003

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

Third Quarter 2003 Groundwater Monitoring at
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA

Monitoring performed on September 22, 2003

Groundwater Monitoring Report **030922-MD-1**

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/jt

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

cc: Anni Kreml
Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Oakland, CA 94608

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)	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	10.54	7.91	2.63	1.8
MW-1 (b)	08/26/1998	<1,000	22	<10	<10	<10	17,000	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	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	10.54	8.32	2.22	2.0
MW-1	06/22/1999	20,000	<200	<200	<200	<200	150,000	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	10.54	8.35	2.19	2.6
MW-1	11/19/1999	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	10.54	9.65	0.89	NA
MW-1	12/02/1999	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	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	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	10.54	7.78	2.76	1.9
MW-1	09/05/2000	<10,000	411	<100	<100	<100	71,100	115,000e	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	10.54	7.65	2.89	NA
MW-1	03/09/2001	<10,000	1,390	<100	<100	<100	89,600	164,000	10.54	6.44	4.10	NA
MW-1	06/27/2001	<5,000	<50	<50	<50	<50	NA	19,000	10.54	8.46	2.08	NA
MW-1	09/19/2001	<5,000	<50	<50	<50	<50	NA	52,000	10.54	8.10	2.44	NA
MW-1	12/31/2001	<5,000	<25	<25	<25	<25	NA	17,000	10.54	7.31	3.23	NA
MW-1	03/14/2002	<20,000	<200	<200	<200	<200	NA	60,000	10.54	7.68	2.86	NA
MW-1	06/25/2002	<5,000	<50	<50	<50	<50	NA	34,000	10.54	8.40	2.14	NA
MW-1	09/19/2002	<2,500	<25	<25	<25	<25	NA	18,000	10.52	8.58	1.94	NA
MW-1	12/12/2002	<5,000	<50	<50	<50	<50	NA	30,000	10.52	8.41	2.11	NA
MW-1	01/02/2003	NA	<0.50	<0.50	<0.50	<1.0	NA	NA	10.52	7.45	3.07	NA
MW-1	03/20/2003 g	3,800	<25	<25	<25	<25	5,500	NA	10.52	8.21	2.31	NA
MW-1	06/23/2003	<10,000	<100	<100	<100	<200	NA	35,000	10.52	9.02	1.50	NA
MW-1	**09/22/2003**	**<5,000**	**<50**	**<50**	**<50**	**<100**	**NA**	**15,000**	**10.52**	**15.74**	**-5.22**	**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)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-2 (a)	08/26/1998	<250	3.2	<2.5	<2.5	<2.5	4,000	NA	9.21	7.18	2.03	2.4
MW-2 (b)	08/26/1998	<250	3.1	<2.5	<2.5	<2.5	4,800	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	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	9.21	7.34	1.87	2.1
MW-2	03/29/1999	235	<0.500	<0.500	<0.500	3.4	101	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	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	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	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	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	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	9.21	6.79	2.42	NA
MW-2	12/15/2000	<200	<2.00	<2.00	<2.00	<2.00	6,320	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	9.21	6.28	2.93	NA
MW-2	06/27/2001	<100	1.4	<1.0	<1.0	<2.0	NA	470	9.21	7.12	2.09	NA
MW-2	09/19/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	330	9.21	7.17	2.04	NA
MW-2	12/31/2001	<100	<1.0	<1.0	<1.0	<1.0	NA	420	9.21	6.24	2.97	NA
MW-2	03/14/2002	<250	4.5	3.3	<2.5	<2.5	NA	1,600	9.21	6.72	2.49	NA
MW-2	06/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	110	9.21	7.23	1.98	NA
MW-2	09/19/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	90	9.19	7.48	1.71	NA
MW-2	12/12/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	170	9.19	7.33	1.86	NA
MW-2	03/20/2003 g	56	<0.50	<0.50	<0.50	<0.50	58	NA	9.19	7.65	1.54	NA
MW-2	06/23/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	44	9.19	8.72	0.47	NA
MW-2	**09/22/2003**	**<250**	**<2.5**	**<2.5**	**<2.5**	**<5.0**	**NA**	**37**	**9.19**	**8.84**	**0.35**	**NA**
MW-3 (a)	08/26/1998	2,300	180	330	<0.50	420	44,000	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	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	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)	9.45	6.21	3.24	2.1

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)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-3	06/22/1999	58,000	6,600	9,850	1,640	6,950	677,000	653,000	9.45	7.00	2.45	1.3
MW-3	09/30/1999	4,360	121	122	36.1	647	33,700	35,600	9.45	6.84	2.61	0.6
MW-3	11/19/1999	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	9.45	8.25	1.20	NA
MW-3	12/02/1999	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	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	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	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	9.45	5.60	3.85	NA
MW-3	12/15/2000	5,190	438	8.39	483	530	19,100	11,800f	9.45	6.27	3.18	NA
MW-3	03/09/2001	5,880	472	42.2	392	1,290	41,800	NA	9.45	5.71	3.74	NA
MW-3	06/27/2001	9,100	330	79	140	1,600	NA	31,000	9.45	6.88	2.57	NA
MW-3	09/19/2001	790	14	18	17	67	NA	8,100	9.45	6.70	2.75	NA
MW-3	12/31/2001	<5,000	220	<50	86	<50	NA	22,000	9.45	5.92	3.53	NA
MW-3	03/14/2002	<2,500	<25	<25	<25	<25	NA	12,000	9.45	6.25	3.20	NA
MW-3	06/25/2002	<10,000	160	<100	<100	<100	NA	42,000	9.45	6.65	2.80	NA
MW-3	09/19/2002	<10,000	650	<100	280	360	NA	84,000	9.45	6.51	2.94	NA
MW-3	12/12/2002	<10,000	170	<100	<100	<100	NA	45,000	9.45	6.97	2.48	NA
MW-3	01/02/2003	NA	59	<5.0	5.3	<10	NA	NA	9.45	5.90	3.55	NA
MW-3	03/20/2003 g	5,100	<50	<50	<50	<50	4,400	NA	9.45	6.87	2.58	NA
MW-3	06/23/2003	<5,000	<50	<50	<50	<100	NA	8,100	9.45	13.80	-4.35	NA
MW-3	**09/22/2003**	**<250**	**<2.5**	**4.6**	**<2.5**	**<5.0**	**NA**	**470**	**9.45**	**6.31**	**3.14**	**NA**
MW-4	09/25/2000	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	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	9.88	7.04	2.84	NA
MW-4	06/27/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	9.88	7.76	2.12	NA
MW-4	09/19/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	9.88	7.69	2.19	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)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-4	12/31/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	9.88	7.08	2.80	NA
MW-4	03/14/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	9.88	7.57	2.31	NA
MW-4	06/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	9.88	8.50	1.38	NA
MW-4	09/19/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	9.88	8.22	1.66	NA
MW-4	12/12/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	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	9.88	7.92	1.96	NA
MW-4	06/23/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	<5.0	9.88	8.18	1.70	NA
MW-4	**09/22/2003**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**NA**	**16**	**9.88**	**8.28**	**1.60**	**NA**
MW-5	06/18/2002	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	8.30	NA	NA
MW-5	09/19/2002	<2,000	<20	<20	<20	<20	NA	7,200	10.03	8.44	1.59	NA
MW-5	12/12/2002	<5,000	<50	<50	<50	<50	NA	33,000	10.03	8.49	1.54	NA
MW-5	03/20/2003 g	12,000	<50	<50	<50	<50	15,000	NA	10.03	8.23	1.80	NA
MW-5	06/23/2003	<1,000	<10	<10	<10	<20	NA	1,700	10.03	16.70	-6.67	NA
MW-5	**09/22/2003**	**<2,500**	**<25**	**<25**	**<25**	**<50**	**NA**	**4,400**	**10.03**	**16.70**	**-6.67**	**NA**
C-1	09/19/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	1.44	NA	NA
C-1	03/29/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	2.59	NA	NA
C-1	06/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	3.72	NA	NA
C-1	09/19/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	3.08	NA	NA
C-1	12/12/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	0.64	NA	NA
C-1	03/20/2003 g	<50	<0.50	<0.50	<0.50	<0.50	<5.0	NA	NA	4.61	NA	NA
SD-1	09/19/2001	Unable to sample		NA	NA	NA	NA	NA	NA	NA	NA	NA
SD-1	03/29/2002	Dry	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
SD-1	09/19/2002	Dry	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)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
SD-1	12/12/2002	Dry	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
SD-2	09/19/2001	Unable to sample		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
SD-2	06/25/2002	Dry	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
SD-2	12/12/2002	Dry	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
BW-A	06/22/1999	318	<0.50	<0.50	0.590	1.48	4,470	NA	NA	4.71	NA	1.1
BW-A	06/25/2002	<500	<5.0	<5.0	<5.0	18	NA	3,100	NA	5.14	NA	NA
BW-A	09/19/2002	<200	<2.0	<2.0	<2.0	<2.0	NA	<20	NA	7.19	NA	NA
BW-A	12/12/2002	<500	<5.0	<5.0	<5.0	<5.0	NA	2,900	NA	6.40	NA	NA
BW-A	03/20/2003 g	<2,500	<25	<25	<25	<25	<250	NA	NA	5.36	NA	NA
BW-A	06/23/2003	<1,000	<10	<10	<10	<20	NA	<100	NA	10.27	NA	NA
BW-B	06/22/1999	<250	<2.5	<2.5	<2.5	<2.5	8,600	NA	NA	5.90	NA	1.2
BW-B	06/27/2001	<5,000	<50	<50	<50	<50	NA	40,000	NA	5.83	NA	NA
BW-B	12/31/2001	<2,000	<20	<20	<20	<20	NA	9,200	NA	4.19	NA	NA
BW-B	03/14/2002	<2,000	<20	<20	<20	<20	NA	9,400	NA	5.24	NA	NA
BW-B	06/25/2002	<2,000	<20	<20	<20	<20	NA	6,600	NA	6.19	NA	NA
BW-B	09/19/2002	<500	<5.0	<5.0	<5.0	<5.0	NA	<50	NA	8.46	NA	NA
BW-B	12/12/2002	<500	<5.0	<5.0	<5.0	<5.0	NA	1,700	NA	7.46	NA	NA
BW-B	03/20/2003 g	170	<1.0	<1.0	<1.0	<1.0	190	NA	NA	6.23	NA	NA
BW-B	06/23/2003	<50	<0.50	<0.50	<0.50	<1.0	NA	43	NA	9.95	NA	NA
BW-C	06/22/1999	<50	<0.50	<0.50	<0.50	0.98	11,000	NA	NA	5.91	NA	1.6

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)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
BW-C	06/25/2002	<5,000	<50	<50	<50	<50	NA	20,000	NA	6.49	NA	NA
BW-C	09/19/2002	<1,000	<10	<10	<10	<10	NA	400	NA	8.52	NA	NA
BW-C	12/12/2002	<2,000	<20	<20	<20	<20	NA	8,000	NA	7.57	NA	NA
BW-C	03/20/2003 g	270	<1.0	<1.0	<1.0	<1.0	250	NA	NA	6.48	NA	NA
BW-C	06/23/2003	<1,000	<10	<10	<10	<20	NA	170	NA	11.48	NA	NA
BW-D	06/22/1999	<50.0	<0.500	<0.500	<0.500	<0.500	2,190	NA	NA	4.78	NA	1.4
BW-D	06/25/2002	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-D	07/02/2002	<1,000	23	<10	<10	<10	NA	<100	NA	6.36	NA	NA
BW-D	09/19/2002	<250	<2.5	<2.5	<2.5	<2.5	NA	<25	NA	7.25	NA	NA
BW-D	12/12/2002	<5,000	<50	<50	<50	<50	NA	16,000	NA	6.21	NA	NA
BW-D	03/20/2003 g	71	<0.50	<0.50	<0.50	<0.50	55	NA	NA	5.23	NA	NA
BW-D	06/23/2003	<1,000	<10	<10	<10	<20	NA	<100	NA	10.25	NA	NA
BW-D	**09/22/2003**	**<100**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**NA**	**120**	**NA**	**10.18**	**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)	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
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

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

SEVERN TRENT STL

Submission#: 2003-09-0835

Blaine Tech Services, Inc.

October 03, 2003

1680 Rogers Avenue
San Jose, CA 95112-1105

Attn.: Leon Gearhart

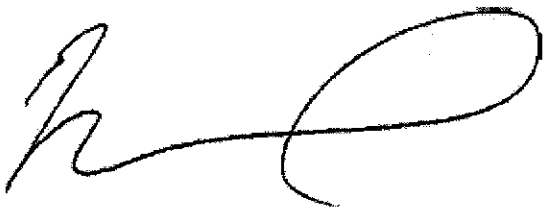
Project#: 030922-MD1
Project: 98995752
Site: 540 Hegenberger Rd., Oakland

Dear Mr.Gearhart,

Attached is our report for your samples received on 09/23/2003 18:10
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 11/07/2003 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,



Vincent Vancil
Project Manager

Gas/BTEX/MTBE 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: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	09/22/2003 11:35	Water	1
MW-2	09/22/2003 11:00	Water	2
MW-3	09/22/2003 11:40	Water	3
MW-4	09/22/2003 11:00	Water	4
BW-D	09/22/2003 11:20	Water	5
MW-5	09/22/2003 16:00	Water	6

Gas/BTEX/MTBE 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: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-1**	Lab ID:	2003-09-0835 - 1
Sampled:	09/22/2003 11:35	Extracted:	10/1/2003 01:10
Matrix:	Water	QC Batch#:	2003/09/30-02.62

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	5000	ug/L	100.00	10/01/2003 01:10	
Benzene	ND	50	ug/L	100.00	10/01/2003 01:10	
Toluene	ND	50	ug/L	100.00	10/01/2003 01:10	
Ethylbenzene	ND	50	ug/L	100.00	10/01/2003 01:10	
Total xylenes	ND	100	ug/L	100.00	10/01/2003 01:10	
Methyl tert-butyl ether (MTBE)	15000	50	ug/L	100.00	10/01/2003 01:10	
Surrogate(s)						
1,2-Dichloroethane-d4	95.2	76-130	%	100.00	10/01/2003 01:10	
Toluene-d8	104.4	78-115	%	100.00	10/01/2003 01:10	

Gas/BTEX/MTBE 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: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-2**	Lab ID:	2003-09-0835 - 2
Sampled:	09/22/2003 11:00	Extracted:	10/1/2003 01:33
Matrix:	Water	QC Batch#:	2003/09/30-02.62

Analysis Flag: Im (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	250	ug/L	5.00	10/01/2003 01:33	
Benzene	ND	2.5	ug/L	5.00	10/01/2003 01:33	
Toluene	ND	2.5	ug/L	5.00	10/01/2003 01:33	
Ethylbenzene	ND	2.5	ug/L	5.00	10/01/2003 01:33	
Total xylenes	ND	5.0	ug/L	5.00	10/01/2003 01:33	
Methyl tert-butyl ether (MTBE)	37	2.5	ug/L	5.00	10/01/2003 01:33	
Surrogate(s)						
1,2-Dichloroethane-d4	95.1	76-130	%	5.00	10/01/2003 01:33	
Toluene-d8	103.7	78-115	%	5.00	10/01/2003 01:33	

Gas/BTEX/MTBE 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: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-3	Lab ID:	2003-09-0835 - 3
Sampled:	09/22/2003 11:40	Extracted:	10/1/2003 10:54
Matrix:	Water	QC Batch#:	2003/10/01-1B.62

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	250	ug/L	5.00	10/01/2003 10:54	
Benzene	ND	2.5	ug/L	5.00	10/01/2003 10:54	
Toluene	4.6	2.5	ug/L	5.00	10/01/2003 10:54	
Ethylbenzene	ND	2.5	ug/L	5.00	10/01/2003 10:54	
Total xylenes	ND	5.0	ug/L	5.00	10/01/2003 10:54	
Methyl tert-butyl ether (MTBE)	470	2.5	ug/L	5.00	10/01/2003 10:54	
Surrogate(s)						
1,2-Dichloroethane-d4	96.5	76-130	%	5.00	10/01/2003 10:54	
Toluene-d8	103.1	78-115	%	5.00	10/01/2003 10:54	

Gas/BTEX/MTBE 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: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-4**	Lab ID:	2003-09-0835 - 4
Sampled:	09/22/2003 11:00	Extracted:	10/1/2003 02:17
Matrix:	Water	QC Batch#:	2003/09/30-02.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	10/01/2003 02:17	
Benzene	ND	0.50	ug/L	1.00	10/01/2003 02:17	
Toluene	ND	0.50	ug/L	1.00	10/01/2003 02:17	
Ethylbenzene	ND	0.50	ug/L	1.00	10/01/2003 02:17	
Total xylenes	ND	1.0	ug/L	1.00	10/01/2003 02:17	
Methyl tert-butyl ether (MTBE)	16	0.50	ug/L	1.00	10/01/2003 02:17	
Surrogate(s)						
1,2-Dichloroethane-d4	95.4	76-130	%	1.00	10/01/2003 02:17	
Toluene-d8	101.8	78-115	%	1.00	10/01/2003 02:17	

Gas/BTEX/MTBE 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: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**BW-D**	Lab ID:	2003-09-0835 - 5
Sampled:	09/22/2003 11:20	Extracted:	10/1/2003 03:25
Matrix:	Water	QC Batch#:	2003/09/30-02.62

Analysis Flag: lm (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	100	ug/L	2.00	10/01/2003 03:25	
Benzene	ND	1.0	ug/L	2.00	10/01/2003 03:25	
Toluene	ND	1.0	ug/L	2.00	10/01/2003 03:25	
Ethylbenzene	ND	1.0	ug/L	2.00	10/01/2003 03:25	
Total xylenes	ND	2.0	ug/L	2.00	10/01/2003 03:25	
Methyl tert-butyl ether (MTBE)	120	1.0	ug/L	2.00	10/01/2003 03:25	
Surrogate(s)						
1,2-Dichloroethane-d4	92.8	76-130	%	2.00	10/01/2003 03:25	
Toluene-d8	103.0	78-115	%	2.00	10/01/2003 03:25	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Project: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	**MW-5**	Lab ID:	2003-09-0835 - 6
Sampled:	09/22/2003 16:00	Extracted:	10/1/2003 11:16
Matrix:	Water	QC Batch#:	2003/10/01-1B.62

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	2500	ug/L	50.00	10/01/2003 11:16	
Benzene	ND	25	ug/L	50.00	10/01/2003 11:16	
Toluene	ND	25	ug/L	50.00	10/01/2003 11:16	
Ethylbenzene	ND	25	ug/L	50.00	10/01/2003 11:16	
Total xylenes	ND	50	ug/L	50.00	10/01/2003 11:16	
Methyl tert-butyl ether (MTBE)	4400	25	ug/L	50.00	10/01/2003 11:16	
Surrogate(s)						
1,2-Dichloroethane-d4	101.9	76-130	%	50.00	10/01/2003 11:16	
Toluene-d8	104.7	78-115	%	50.00	10/01/2003 11:16	

Gas/BTEX/MTBE 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: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Method Blank — **Water** — **QC Batch # 2003/09/30-02.62**

MB: 2003/09/30-02.62-047 — Date Extracted: 10/01/2003 00:47

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/01/2003 00:47	
Benzene	ND	0.5	ug/L	10/01/2003 00:47	
Toluene	ND	0.5	ug/L	10/01/2003 00:47	
Ethylbenzene	ND	0.5	ug/L	10/01/2003 00:47	
Total xylenes	ND	1.0	ug/L	10/01/2003 00:47	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/01/2003 00:47	
Surrogates(s)					
1,2-Dichloroethane-d4	90.6	76-130	%	10/01/2003 00:47	
Toluene-d8	103.5	78-115	%	10/01/2003 00:47	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Project: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike | **Water** | **QC Batch # 2003/09/30-02.62**

LCS 2003/09/30-02.62-002 Extracted: 10/01/2003 Analyzed: 10/01/2003 00:02

LCSD 2003/09/30-02.62-025 Extracted: 10/01/2003 Analyzed: 10/01/2003 00:25

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Benzene	29.8	30.6	25.0	119.2	122.4	2.6	69-129	20		
Toluene	29.4	29.2	25.0	117.6	116.8	0.7	70-130	20		
Methyl tert-butyl ether (MTBE)	30.2	31.0	25.0	120.8	124.0	2.6	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	463	499	500	92.6	99.8		76-130			
Toluene-d8	526	532	500	105.2	106.4		78-115			

Gas/BTEX/MTBE by 8260B (C6-C12)

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Project: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Method Blank — **Water** — **QC Batch # 2003/10/01-1B.62**

MB: 2003/10/01-1B.62-009 — Date Extracted: 10/01/2003 10:09

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	10/01/2003 10:09	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	10/01/2003 10:09	
Benzene	ND	0.5	ug/L	10/01/2003 10:09	
Toluene	ND	0.5	ug/L	10/01/2003 10:09	
Ethylbenzene	ND	0.5	ug/L	10/01/2003 10:09	
Total xylenes	ND	1.0	ug/L	10/01/2003 10:09	
Surrogates(s)					
1,2-Dichloroethane-d4	92.7	76-130	%	10/01/2003 10:09	
Toluene-d8	102.8	78-115	%	10/01/2003 10:09	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

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

Project: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike **Water** **QC Batch # 2003/10/01-1B.62**

LCS 2003/10/01-1B.62-025 Extracted: 10/01/2003 Analyzed: 10/01/2003 09:25

LCSD 2003/10/01-1B.62-047 Extracted: 10/01/2003 Analyzed: 10/01/2003 09:47

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	25.3	26.8	25	101.2	107.2	5.8	65-165	20		
Benzene	27.8	26.3	25	111.2	105.2	5.5	69-129	20		
Toluene	26.5	26.1	25	106.0	104.4	1.5	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	446	468	500	89.2	93.6		76-130			
Toluene-d8	530	518	500	106.0	103.6		78-115			

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Project: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Batch QC Report

Prep(s): 5030B — Test(s): 8260FAB

Matrix Spike (MS / MSD) — **Water** — **QC Batch # 2003/09/30-02.62**

MW-4 >> MS — Lab ID: 2003-09-0835 - 004

MS: 2003/09/30-02.62-048 — Extracted: 10/01/2003 — Analyzed: 10/01/2003 02:40 — Dilution: 1.00

MSD: 2003/09/30-02.62-049 — Extracted: 10/01/2003 — Analyzed: 10/01/2003 03:02 — Dilution: 1.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	32.6	30.0	ND	25.0	130.4	120.0	8.3	69-129	20	mso	
Toluene	31.0	28.6	ND	25.0	124.0	114.4	8.1	70-130	20		
Methyl tert-butyl ether	46.0	45.2	15.6	25.0	121.6	118.4	2.7	65-165	20		
Surrogate(s)											
1,2-Dichloroethane-d4	450	475		500	90.0	95.0		76-130	0		
Toluene-d8	525	536		500	105.0	107.2		78-115	0		

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.

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Project: 030922-MD1
98995752

Received: 09/23/2003 18:10

Site: 540 Hegenberger Rd., Oakland

Legend and Notes

Analysis Flag

lrn

Reporting limits raised due to high level of non-target analyte materials.

o

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

Result Flag

mso

MS/MSD spike recoveries were out of QC limits due to matrix interference.
Precision and Accuracy were verified by LCS/LCSD.

SHELL Chain Of Custody Record

7905

Lab Identification (if necessary):

Address:

City, State, Zip:

Shell Project Manager to be invoiced: Karen Petryna

☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT HOUSTON

2003-09-0835

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

SAP or CRMT NUMBER (TS/CRMT):

DATE: 9/22/03

PAGE: 1 of 1

SAMPLING COMPANY	LOG CODE	SITE ADDRESS (Street and City)	GLOBAL ID NO.
Blaine Tech Services	BTSS	540 Hegenberger Road, Oakland	T0600102123

ADDRESS	IF DELIVERABLE TO (Responsible Party or Designee)	PHONE NO.	E-MAIL	CONSULTANT PROJECT NO.
1680 Rogers Avenue, San Jose, CA 95112	Anni Kreml	(510)420-3335	ShellOaklandEDF@cambria-env.com	030922-MD1 BTS #

PROJECT CONTACT (Hardcopy or PDF Report to)	TELEPHONE	FAX	E-MAIL
Leon Gearhart	408-573-0555	408-573-7771	lgearhart@blainetech.com

SAMPLER NAME (Print): Johnathan DeJong

LAB USE ONLY

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

REQUESTED ANALYSIS

☐ 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 ☐

FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes

1.2°C

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 1ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	1,2-DCA (8260B)	EDB (8260B)	TPH - Diesel, Extractable (8015m)
	MW-1	9/22/03	1135	W	3	✓	✓		✓						
	MW-2		1100		3	✓	✓		✓						
	MW-3		1140		3	✓	✓		✓						
	MW-4		1000		3	✓	✓		✓						
	MW-D		1120		3	✓	✓		✓						
	MW-5		1600		3	✓	✓		✓						

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Johnathan DeJong 1810		9/23/03	1410
Relinquished by: (Signature) 9/23/03	Received by: (Signature)	Date 9/23/03	Time 1810
Relinquished by: (Signature)	Received by: (Signature)	Date	Time

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

10/10/00 Revision

Q&Q Graphic (714) 898-9772

WELL GAUGING DATA

Project # 030922-MD1 Date 9/22/03 Client 98995752

Site 540 Atgenberger 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					15.74	—		Ext
MW-2	2					8.84	19.90		
MW-3	2					~~16.70~~ 6.34	—		Ext
MW-4	4					8.28	18.45		
MW-5	4					16.70	—		EXT
MW-D	12	*				10.18	12.25		
	*	quagtd w/stinger in well							

SHELL WELL MONITORING DATA SHEET

BTS #: 030922-MD1	Site: 98995752
Sampler: John DeJong	Date: 9/22/03
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD):	Depth to Water (DTW): 15.74
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]:	

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: ___

EXT. PUMP (Gals.) X ___ = ___ 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
1135	82.8	7.3	9037	8	—	clear; gas odor

Did well dewater? Yes No — Gallons actually evacuated: —

Sampling Date: 9/22/03 Sampling Time: 1135 Depth to Water: 15.74

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

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

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 #: 030922-MD1	Site: 98995752
Sampler: John DeJong	Date: 9/22/03
Well I.D.: MW-2	Well Diameter (2) 3 4 6 8 ____
Total Well Depth (TD): 19.90	Depth to Water (DTW): 8.84
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]: 11.05	

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: ____

1.8 (Gals.) X	3	=	5.4 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
1021	75.1	7.6	1683	63	1.8	clear, no odor
1026	72.2	7.4	1863	97	3.6	
1030	73.1	7	4125	7200	5.4	cloudy, tan, gas odor
1036	73.3	6.8	7806	7200	7.2	
1042	73.9	6.7	9100	7200	9	

Did well dewater? Yes (No) Gallons actually evacuated: 9

Sampling Date: 9/22/03 Sampling Time: 1100 Depth to Water: 1105

Sample I.D.: MW-2 Laboratory: (STL) Other____

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

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 #: 030922-MD1	Site: 9899575Z
Sampler: John D. Jones	Date: 9/22/03
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD):	Depth to Water (DTW): 6.31
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]:	

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:

Ext. pump (Gals.) X _____ = _____ 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
1140	87.3	7.4	8071	18	—	

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 9/22/03 Sampling Time: 1140 Depth to Water:

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

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

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 #: 030922-MD1	Site: 98995752
Sampler: John DeJong	Date: 9/22/03
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 18.45	Depth to Water (DTW): 8.28
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]: 10.31	

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:_____

6.6 (Gals.) X 3 = 19.8 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
951	76.1	6.9	3763	133	7	cloudy, No odor
952	73.3	7.2	3837	117	14	
954	71.6	7.2	4211	68.5	20	

Did well dewater? Yes (No) Gallons actually evacuated: 20

Sampling Date: 9/22/03 Sampling Time: 1000 Depth to Water: 9.82

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

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

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 #: 030922-MD1	Site: 9899575Z
Sampler: John Jochum	Date: 9/22/03
Well I.D.: MW-5	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD):	Depth to Water (DTW): 16.70
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]:	

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: ____

Grab Sample

Ext. pour (Gals.) X ____ = ____ 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
1600	78.7	6.5	810	>200	—	

Did well dewater? Yes ~~No~~ Gallons actually evacuated: —

Sampling Date: 9/22/03 Sampling Time: 1600 Depth to Water: 16.70

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

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

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 #: 030922-MD1	Site: 98995752
Sampler: John Young	Date: 9/22/03
Well I.D.: RW-1	Well Diameter: 2 3 4 6 8 (12)
Total Well Depth (TD): 12.25	Depth to Water (DTW): 10.18
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]: 10.59	

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:_____

12.1 (Gals.) X 3 = 36.3 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

2.07

12 = x 5.86

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1107	81.8	6.8	4085	7200	12.5	cloudy, strong gas odor
1109	79.4	6.7	4295	12	25	
1112	78.7	6.7	4392	9	36.5	

Did well dewater? Yes (No) Gallons actually evacuated: 36.5

Sampling Date: 9/22/03 Sampling Time: 1120 Depth to Water: 10.28

Sample I.D.: RW-1 Laboratory: (STL) Other_____

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

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 Service Station #4494
566 Hegenberger Road
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation [f] (ft)	Top of Screen (ft., MSL?)	Bottom of Screen (ft., MSL?)	Total Well Depth (ft., BGS)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Oxygen (mg/L)	pH
MW-1	06/20/00	106.10				7.02	99.08	ND<1,000	ND<10	ND<10	ND<10	ND<20	14,000/15,000[a]	NA	NA
	09/28/00					7.07	99.03	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	13000/18,800[a]	NA	NA
	12/17/00					6.95	99.15	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10,600	NA	NA
	03/28/01					6.88	99.22	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	16,900	NA	NA
	06/21/01					7.18	98.92	ND<1,000	ND<10	ND<10	ND<10	ND<10	3,400	NA	NA
	09/23/01					7.11	98.99	ND<1,000	ND<10	ND<10	ND<10	ND<10	2200/1800[a]	NA	NA
	12/31/01					6.91	99.19	ND<5,000	ND<50	ND<50	ND<50	ND<50	14,000	NA	NA
	03/14/02					6.85	99.25	ND<5,000	ND<50	ND<50	ND<50	ND<50	6,200	NA	NA
	04/17/02					5.89	100.21	ND<5,000	ND<50	ND<50	ND<50	ND<50	4,500	NA	NA
	08/08/02					7.19	98.91	230[b]	ND<2.0	ND<2.0	ND<2.0	ND<2.0	660/440[a]	4.5	7.8
	12/12/02					7.28	98.82	630[d]	ND<5.0	ND<5.0	ND<5.0	ND<5.0	1300/830[a]	1.9	7.6
	03/20/03[e]					6.91	99.19	1,100	ND<5.0	ND<5.0	ND<5.0	ND<5.0	780	2.2	8.5
	06/23/03					7.61	98.49	530	ND<5.0	ND<5.0	ND<5.0	ND<5.0	260	1.2	7.6
	09/22/03	**11.36**	**-2.00**		**22.70**	**7.78**	**3.58**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	17	**3.5**	**7.7**
MW-3	06/20/00	106.29				9.18	97.11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	27/27[a]	NA	NA
	09/28/00					9.33	96.96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	4.3/ND<2.0[a]	NA	NA
	12/17/00					9.31	96.98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/28/01					9.23	97.06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.42	NA	NA
	06/21/01					9.58	96.71	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	09/23/01					9.76	96.53	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	12/31/01					8.78	97.51	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/14/02					9.25	97.04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4	NA	NA
	04/17/02					8.44	97.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	08/08/02					9.63	96.66	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	2.6	7.9
	12/12/02					9.51	96.78	ND<50[d]	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	3.0	6.8
	03/20/03[e]					9.40	96.89	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.1	1.2	7.0
	06/23/03					9.36	96.93	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	5.2	0.9	8.2
	09/22/03	**11.62**	**4.62**		**17.70**	**9.48**	**2.14**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**3.9**	**1.4**	**7.9**

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #4494
566 Hegenberger Road
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation [f] (ft)	Top of Screen (ft., MSL?)	Bottom of Screen (ft., MSL?)	Total Well Depth (ft., BGS)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Oxygen (mg/L)	pH
MW-4	06/20/00	107.40				8.49	98.91	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<10	NA	NA
	09/28/00					8.70	98.70	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<2.5	NA	NA
	12/17/00					8.53	98.87	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/28/01					8.59	98.81	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	06/21/01					8.79	98.61	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	09/23/01					8.67	98.73	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	12/31/01					8.03	99.37	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/14/02					8.48	98.92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	04/17/02					7.79	99.61	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.6	NA	NA
	08/08/02					8.90	98.50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	4.5	8.0
	12/12/02					9.07	98.33	ND<50[d]	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	5.6	6.2
	03/20/03[e]					8.85	98.55	ND<50	ND<0.50	ND<0.50	ND<0.50	0.50	ND<0.50	4.8	7.8
	06/23/03					9.26	98.14	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.3	7.5
	09/22/03	**13.18**	**6.18**		**16.30**	**9.22**	**3.96**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**7.4**	**8.0**
MW-5	06/20/00	105.19				7.65	97.54	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<10	NA	NA
	09/28/00					6.82	98.37	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<2.5	NA	NA
	12/17/00					6.50	98.69	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/28/01					6.34	98.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	06/21/01					7.88	97.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	09/23/01					6.98	98.21	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	12/31/01					5.01	100.18	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/14/02					5.93	99.26	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	04/17/02					5.37	99.82	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.5	NA	NA
	08/08/02					6.85	98.34	ND<50[b]	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	0.7	7.3
	12/12/02					6.53	98.66	ND<50[d]	2.2	4.7	1.3	6.8	ND<2.5	1.3	7.0
	03/20/03[e]					6.40	98.79	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.7	7.1
	06/23/03					6.72	98.47	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.3	7.2
	09/22/03	**10.63**	**2.63**		**16.60**	**6.76**	**3.87**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**1.7**	**7.2**

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #4494
566 Hegenberger Road
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation [f] (ft)	Top of Screen (ft., MSL?)	Bottom of Screen (ft., MSL?)	Total Well Depth (ft., BGS)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Oxygen (mg/L)	pH
MW-6	06/20/00	105.07				6.24	98.83	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<10	NA	NA
	09/28/00					6.45	98.62	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<2.5	NA	NA
	12/17/00					6.26	98.81	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/28/01					6.10	98.97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	06/21/01					7.68	97.39	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	09/23/01					6.72	98.35	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	12/23/01					4.68	100.39	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/14/02					5.55	99.52	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	04/17/02					4.96	100.11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7	NA	NA
	08/08/02					6.46	98.61	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	0.7	7.3
	12/12/02					6.18	98.89	65[d]	3.3	8.4	2.7	14	ND<2.5	1.1	6.9
	03/20/03[e]					6.18	98.89	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.2	7.0
	06/23/03					6.15	98.92	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.0	7.1
	09/22/03	**10.41**	**2.41**		**17.80**	**6.43**	**3.98**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**2.5**	**7.0**
MW-7	06/20/00	105.52				8.65	96.87	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	13/13[a]	NA	NA
	09/28/00					8.75	96.77	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	136/261[a]	NA	NA
	12/17/00					8.62	96.90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	27.1	NA	NA
	03/28/01					8.66	96.86	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	51.5	NA	NA
	06/21/01					8.84	96.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	53	NA	NA
	09/23/01					8.75	96.77	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	35/21[a]	NA	NA
	12/23/01					7.79	97.73	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	440	NA	NA
	03/14/02					8.30	97.22	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	18	NA	NA
	04/17/02					7.43	98.09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	67	NA	NA
	08/08/02					8.61	96.91	55[b]	ND<0.5	ND<0.5	ND<0.5	ND<0.5	130/100[a]	1.1	7.1
	12/12/02	**				8.55	NC	75[d]	ND< 0.5	ND< 0.5	ND< 0.5	ND< 0.5	160/130[a]	1.2	7.0
	03/20/03[e]					8.38	NC	ND<50	ND<0.50	ND<0.50	ND<0.50		32	2.2	7.2
	06/23/03					8.37	NC	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	14	0.8	7.1
	09/22/03	**10.51**	**1.51**		**13.70**	**8.95**	**1.56**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**5.3**	**2.2**	**7.2**

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #4494
566 Hegenberger Road
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation [f] (ft)	Top of Screen (ft., MSL?)	Bottom of Screen (ft., MSL?)	Total Well Depth (ft., BGS)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Oxygen (mg/L)	pH
RW-1	06/20/00	NE				8.21	NC	ND<50	ND<0.5	1.1	ND<0.5	ND<1.0	ND<10	NA	NA
	09/28/00					8.28	NC	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<2.5	NA	NA
	12/17/00					8.29	NC	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/28/01					8.16	NC	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	06/21/01					9.37	NC	160	5.1	ND<0.5	1.1	3.2	ND<2.5	NA	NA
	09/23/01					8.75	NC	57	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	12/31/01					6.80	NC	520	3.1	ND<0.5	6.4	4.7	ND<2.5	NA	NA
	03/14/02					7.86	NC	240	3.7	ND<0.5	0.7	2.8	ND<2.5	NA	NA
	04/17/02					7.13	NC	ND<50	ND<0.5	1.6	ND<0.5	0.72	ND<2.5	NA	NA
	08/08/02					8.48	NC	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.7/ND<0.5[a,c]	1.1	7.0
	12/12/02					8.63	NC	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	1.9	6.9
	03/20/03[c]					8.08	NC	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.9	7.3
	06/23/03					8.28	NC	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	7.3
	09/22/03	**11.97**			**11.00**	**8.42**	**3.55**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**1.8**	**7.1**

TPH = Total Petroleum Hydrocarbons analyzed by EPA Method 8015M. (prior to 3/20/03)
MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted. (prior to 3/20/03)
µg/L = Micrograms per liter
mg/L = Milligrams per liter
NC = Not calculated
NE = Not surveyed/No elevation
ND< = Not detected at or above specifed laboratory detection limit.
NA = Not available, not applicable, or not analyzed
a = 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
** = Top of casing was found shattered on December 12, 2002. Top of Casing (TOC) unknown.
Source: The data within this table collected prior to August 2002 was provided to URS by Group Environmental Management Company and their previous consultants. URS has not verified the accuracy of this information.

Table 2
Groundwater Flow Direction and Gradient

ARCO Service Station #4494
566 Hegenberger Road
Oakland, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
06/20/00	North-Northeast	0.015
09/28/00	North	0.018
12/17/00	North-Northwest	0.013
03/28/01	Northwest	0.011
06/21/01	North	0.017
09/23/01	North	0.020
12/31/01	North-Northwest	0.023
03/14/02	North-Northwest	0.017
04/14/02	Northwest	0.007
08/08/02	North-Northwest	0.022
12/12/02	North-Northwest	0.017
03/20/03	North-Northwest	0.016
06/23/03	Northwest	0.014
09/22/03	**Northwest**	**0.017**

Note:

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

Table 3
Fuel Oxygenate Analytical Data

ARCO Service Station # 4494
566 Hegenberger Road
Oakland, California

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)
MW-1	03/20/03	ND<1,000	640	780	ND<5.0	ND<5.0	ND<5.0	NA	NA
	06/23/03	ND<1,000	ND<200	260	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	09/22/03	**ND<100**	**250**	**17**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**NA**
MW-3	03/20/03	ND<100	ND<20	601	ND<0.50	ND<0.50	1.1	NA	NA
	06/23/03	ND<100	ND<20	5.2	ND<0.50	ND<0.50	0.75	ND<0.50	ND<0.50
	09/22/03	**ND<100**	**ND<20**	**3.9**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**NA**
MW-4	03/20/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/23/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/22/03	**ND<100**	**ND<20**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**NA**
MW-5	03/20/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/23/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/22/03	**ND<100**	**ND<20**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**NA**
MW-6	03/20/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/23/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/22/03	**ND<100**	**ND<20**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**NA**
MW-7	03/20/03	ND<100	ND<20	32	ND<0.50	ND<0.50	0.62	NA	NA
	06/23/03	ND<100	170	14	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/22/03	**ND<100**	**170**	**5.3**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**NA**
RW-1	03/20/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/23/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/22/03	**ND<100**	**ND<20**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**NA**

Note = All fuel oxygenate compounds analyzed using EPA Method 8260B
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
ND< = Less than laboratory reporting limit
NA = Not analyzed

Sequoia Analytical

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7 October, 2003

Scott Robinson
URS Corporation [Arco]
500 12th Street, Suite 200
Oakland, CA 94607

RE: ARCO #4494, Oakland, CA
Work Order: MMI0660

Enclosed are the results of analyses for samples received by the laboratory on 09/23/03 14:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa Allen

Theresa Allen
Project Manager

CA ELAP Certificate #1210

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URS Corporation [Arco]	Project: ARCO #4494, Oakland, CA	MMI0660
500 12th Street, Suite 200	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	10/07/03 09:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MMI0660-01	Water	09/22/03 15:05	09/23/03 14:35
MW-3	MMI0660-02	Water	09/22/03 14:10	09/23/03 14:35
MW-4	MMI0660-03	Water	09/22/03 13:10	09/23/03 14:35
MW-5	MMI0660-04	Water	09/22/03 13:40	09/23/03 14:35
MW-6	MMI0660-05	Water	09/22/03 14:00	09/23/03 14:35
MW-7	MMI0660-06	Water	09/22/03 14:30	09/23/03 14:35
RW-1	MMI0660-07	Water	09/22/03 14:50	09/23/03 14:35
Trip Blank	MMI0660-08	Water	09/22/03 12:30	09/23/03 14:35

There were custody seal received with this project.

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URS Corporation [Arco]	Project: ARCO #4494, Oakland, CA	MMI0660
500 12th Street, Suite 200	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	10/07/03 09:08

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MMI0660-01) Water Sampled: 09/22/03 15:05 Received: 09/23/03 14:35									
Ethanol	ND	100	ug/l	1	3I30001	09/30/03	09/30/03	EPA 8260B	O-12
tert-Butyl alcohol	**250**	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**17**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96.8 %*	*78-129*		"	"	"	"	*O-10*
MW-3 (MMI0660-02) Water Sampled: 09/22/03 14:10 Received: 09/23/03 14:35									
Ethanol	ND	100	ug/l	1	3I30001	09/30/03	09/30/03	EPA 8260B	O-12
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**3.9**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98.6 %*	*78-129*		"	"	"	"	*O-10*

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URS Corporation [Arco]	Project: ARCO #4494, Oakland, CA	MMI0660
500 12th Street, Suite 200	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	10/07/03 09:08

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (MMI0660-03) Water Sampled: 09/22/03 13:10 Received: 09/23/03 14:35									
Ethanol	ND	100	ug/l	1	3I30001	09/30/03	09/30/03	EPA 8260B	O-12
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96.6 %*	*78-129*		"	"	"	"	*O-10*
MW-5 (MMI0660-04) Water Sampled: 09/22/03 13:40 Received: 09/23/03 14:35									
Ethanol	ND	100	ug/l	1	3I30001	09/30/03	09/30/03	EPA 8260B	O-12
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96.6 %*	*78-129*		"	"	"	"	*O-10*

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URS Corporation [Arco]	Project: ARCO #4494, Oakland, CA	MMI0660
500 12th Street, Suite 200	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	10/07/03 09:08

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (MMI0660-05) Water Sampled: 09/22/03 14:00 Received: 09/23/03 14:35									
Ethanol	ND	100	ug/l	1	3I30001	09/30/03	09/30/03	EPA 8260B	O-12
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96.6 %*		*78-129*	"	"	"	"	*O-10*
MW-7 (MMI0660-06) Water Sampled: 09/22/03 14:30 Received: 09/23/03 14:35									
Ethanol	ND	100	ug/l	1	3I30001	09/30/03	09/30/03	EPA 8260B	O-12
tert-Butyl alcohol	**170**	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**5.3**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*101 %*		*78-129*	"	"	"	"	*O-10*

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URS Corporation [Arco]	Project: ARCO #4494, Oakland, CA	MMI0660
500 12th Street, Suite 200	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	10/07/03 09:08

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-1 (MMI0660-07) Water Sampled: 09/22/03 14:50 Received: 09/23/03 14:35									
Ethanol	ND	100	ug/l	1	3I30001	09/30/03	09/30/03	EPA 8260B	O-12
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*78-129*		"	"	"	"	*O-10*

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URS Corporation [Arco]	Project: ARCO #4494, Oakland, CA	MMI0660
500 12th Street, Suite 200	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	10/07/03 09:08

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 3I30001 - EPA 5030B P/T										
Blank (3I30001-BLK1)				Prepared & Analyzed: 09/30/03						
Ethanol	ND	100	ug/l							O-12
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C6-C10)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*4.89*		"	*5.00*		*97.8*	*78-129*			*O-10*
Laboratory Control Sample (3I30001-BS1)				Prepared & Analyzed: 09/30/03						
Ethanol	150	100	ug/l	200		75.0	31-186			O-12
tert-Butyl alcohol	53.4	20	"	50.0		107	0-206			
Methyl tert-butyl ether	8.96	0.50	"	10.0		89.6	63-137			
Di-isopropyl ether	9.18	0.50	"	10.0		91.8	76-130			
Ethyl tert-butyl ether	8.92	0.50	"	10.0		89.2	61-141			
tert-Amyl methyl ether	8.85	0.50	"	10.0		88.5	56-140			
1,2-Dichloroethane	9.10	0.50	"	10.0		91.0	77-136			
1,2-Dibromoethane (EDB)	9.84	0.50	"	10.0		98.4	77-132			
Benzene	9.03	0.50	"	10.0		90.3	78-124			
Toluene	9.71	0.50	"	10.0		97.1	78-129			
Ethylbenzene	9.81	0.50	"	10.0		98.1	84-117			
Xylenes (total)	29.9	0.50	"	30.0		99.7	83-125			
Surrogate: 1,2-Dichloroethane-d4	*4.63*		"	*5.00*		*92.6*	*78-129*			*O-10*

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URS Corporation [Arco]	Project: ARCO #4494, Oakland, CA	MMI0660
500 12th Street, Suite 200	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	10/07/03 09:08

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 3I30001 - EPA 5030B P/T										
Laboratory Control Sample (3I30001-BS2)				Prepared & Analyzed: 09/30/03						
Gasoline Range Organics (C6-C10)	415	50	ug/l	440		94.3	70-113			
Surrogate: 1,2-Dichloroethane-d4	*4.98*		"	*5.00*		*99.6*	*78-129*			*O-10*
Laboratory Control Sample Dup (3I30001-BSD1)				Prepared & Analyzed: 09/30/03						
Ethanol	179	100	ug/l	200		89.5	31-186	17.6	37	O-12
tert-Butyl alcohol	51.2	20	"	50.0		102	0-206	4.21	22	
Methyl tert-butyl ether	8.83	0.50	"	10.0		88.3	63-137	1.46	13	
Di-isopropyl ether	9.21	0.50	"	10.0		92.1	76-130	0.326	9	
Ethyl tert-butyl ether	8.98	0.50	"	10.0		89.8	61-141	0.670	9	
tert-Amyl methyl ether	9.03	0.50	"	10.0		90.3	56-140	2.01	12	
1,2-Dichloroethane	9.06	0.50	"	10.0		90.6	77-136	0.441	13	
1,2-Dibromoethane (EDB)	10.0	0.50	"	10.0		100	77-132	1.61	9	
Benzene	8.82	0.50	"	10.0		88.2	78-124	2.35	12	
Toluene	9.52	0.50	"	10.0		95.2	78-129	1.98	10	
Ethylbenzene	9.51	0.50	"	10.0		95.1	84-117	3.11	10	
Xylenes (total)	29.4	0.50	"	30.0		98.0	83-125	1.69	11	
Surrogate: 1,2-Dichloroethane-d4	*4.81*		"	*5.00*		*96.2*	*78-129*			*O-10*
Laboratory Control Sample Dup (3I30001-BSD2)				Prepared & Analyzed: 09/30/03						
Gasoline Range Organics (C6-C10)	390	50	ug/l	440		88.6	70-113	6.21	9	
Surrogate: 1,2-Dichloroethane-d4	*4.78*		"	*5.00*		*95.6*	*78-129*			*O-10*

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URS Corporation [Arco]	Project: ARCO #4494, Oakland, CA	MMI0660
500 12th Street, Suite 200	Project Number: INTRIM-50443	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	10/07/03 09:08

Notes and Definitions

O-10	The result was reported with a possible low bias due to the continuing calibration verification falling outside the acceptance criteria.
O-12	"The continuing calibration verification was outside of client contractual acceptance limits by 6.2% low. However, it was within method acceptance limits. The data should still be useful for its intended purpose."
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 MNL0640
BP Laboratory Contract Number: Atlantic Richfield Company
Date: 9/22/03 Requested Due Date (mm/dd/yy) ____14 day TAT____

On-site Time: 1230	Temp: 85
Off- site Time: 1545	Temp: 95
Sky Conditions: Sunny	
Meteorological Events: Hot	
Wind Speed:	Direction:

Send To:	BP/GEM Facility No.: ARCO 4494	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 588 HEGENBERGER, OAKLAND, CA	Address: 500 12th St., Ste. 200
Lab Address: 885 Jarvis Dr.	Site ID No. ARCO 4494	Oakland, CA 94609-4014
Morgan Hill, CA 95037	Site Lat/Long:	e-mail EDD: donna_cosper@URSCorp.com
	California Global ID #: T0600100104	Consultant/Contractor Project No.: 35-00004494.01 00427
Lab PM Theresa Allen	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-893-3600/510-874-3268
Tele/Fax: 408-776-9600 / 408-782-6308	Address: P.O. Box 6549	Consultant/Contractor PM: Scott Robinson
Report Type & QC Level: 1 Send EDF Reports	Moraga, CA 94570	Invoice to: Consultant/Contractor or BP/GEM (Circle one)
BP/GEM Account No.:	Tele/Fax: 925-299-8891/925-299-8872	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: TPH-G / BTEX (8015/8021+8260)	Requested Analysis: TPH -D (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	1505		✓			4	3				✓	✓				✓		✓	
2	MW-3	1510		✓			4	3				✓	✓				✓		✓	
3	MW-4	1310		✓			3	3				✓	✓				✓		✓	
4	MW-5	1340		✓			6	3				✓	✓				✓		✓	
5	MW-6	1400		✓			5	3				✓	✓				✓		✓	
6	MW-7	1430		✓			4	3				✓	✓				✓		✓	
7	RW-1	1450		✓			7	3				✓	✓				✓		✓	
8	Trip Blank	1230		✓			OK	2				✓								"ON HOLD"
9	Temp Blank	1230		✓				1												
10																				

Sampler's Name: John DeJong	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: Blaine Tech Services		9/23/03	1407		9/23/03	1407
Shipment Date:		9/23/03	1435		9/23/03	1435
Shipment Method:						
Shipment Tracking No:						

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

Custody Seals In Place Yes ✓ No ___ Temperature Blank Yes ✓ No ___ Cooler Temperature on Receipt ___ °F/C Trip Blank Yes ✓ No ___

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: URS
REC. BY (PRINT): JL
WORKORDER: MM1066 0

DATE REC'D AT LAB: 9/23/03
TIME REC'D AT LAB: 1435
DATE LOGGED IN: 9-24-03

Drinking water for regulatory purposes: YES / (NO)
Wastewater for regulatory purposes: YES / (NO)

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	(Present) / Absent Intact / Broken* 9/23/03			MW-1	(3) Voas	HCl	L	9/22	1035 1040
				MW-3	Same	Same			
2. Chain-of-Custody	(Present) / Absent*			MW-4					
3. Traffic Reports or Packing List:	Present / (Absent)			MW-5					
				MW-6					
4. Airbill:	Airbill / Sticker Present / (Absent)			MW-7					
				RW-1	↓	↓	↓	↓	↓
5. Airbill #:				Triplicate	(2) Voas	↓	↓	↓	↓
6. Sample Labels:	(Present) / Absent								
7. Sample IDs:	(Listed) / Not Listed on Chain-of-Custody								
8. Sample Condition:	(Intact) / Broken* / Leaking*								
9. Does information on custody reports, traffic reports and sample labels agree?	(Yes) / No*								
10. Sample received within hold time:	(Yes) / No*								
11. Proper Preservatives used:	(Yes) / No*								
12. Temp Rec. at Lab:	6°C								
Is temp 4 +/-2°C?	Yes / No**								

(Acceptance range for samples requiring thermal pres.)

**Exception (if any): Metals / DFF (Direct From Field) or Problem COC

9/23 1635 JL

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