



April 8, 2002

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

RE: EQUILON ENTERPRISES LLC / Equiva Services LLC dba SHELL OIL PRODUCTS US

Dear Sir or Madam:

The Shell purchase of Texaco's interest in Equilon Enterprises LLC and Equiva Services LLC has been approved by government authorities and was completed in early February.

Please be advised that effective March 1, 2002, Equilon Enterprises LLC and Equiva Services LLC will begin doing business as (DBA) "Shell Oil Products US." Since Equilon Enterprises LLC will remain the owner and/or the responsible Party of remediation activities at 540 Hegenberger Road, Oakland, California, no changes are needed or requested for permits.

If you have any questions please contact Ms. Karen Petryna at 559.645.9306.

Yours truly,

A handwritten signature in black ink, appearing to read "Karen Petryna" followed by "for".

Karen Petryna
Sr. Environmental Engineer

C A M B R I A

April 8, 2002

Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re 22B

Recd
4/2/02

Re: **Fourth Quarter 2001 Monitoring Report**
Shell-branded Service Station
540 Hegenberger Road
Oakland, California
Incident #98995752
Cambria Project #244-0414-002



Dear Mr. Chan:

Effective March 1, 2002, Equiva Services LLC and Equilon Enterprises LLC are now doing business as (dba) Shell Oil Products US (Shell). On behalf of Shell, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

FOURTH QUARTER 2001 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 report and supporting field documents, is included as Attachment A. Data provided to Cambria for the Arco site is presented as Attachment B. It appears that the Arco wells are surveyed to project datum, not mean sea level. Therefore, their water level data was not used in contouring.

Oakland, CA
San Ramon, CA
Sonoma, CA

Cambria
Environmental
Technology, Inc.

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

Interim Remedial Action: From July 1999 through June 2000, groundwater extraction (GWE) was performed at the site to extract dissolved-phase hydrocarbons and methyl tert-butyl ether (MTBE) in groundwater. From June through December 2000, dual-phase vacuum extraction (DVE) was performed at the site to enhance GWE and to extract vapor-phase hydrocarbon and MTBE from the soil. DVE was discontinued after the December 2000 event, and monthly DVE events were resumed in May 2001. Beginning in October 2001, the extraction method was changed from DVE to GWE without vacuum enhancement due to low vapor mass removal rates.

Wells MW-1 and MW-3 and tank backfill well BW-D have been used for extraction. Hydrocarbon mass removal data for liquid and vapor phase are presented in Tables 1 and 2, respectively. Mass removal and MTBE concentrations vs. time are plotted on graphs presented in Figures 3 and 4.

ANTICIPATED FIRST QUARTER 2002 ACTIVITIES

Groundwater Monitoring: Blaine will gauge water levels, sample the monitoring wells using the non-purging method, and tabulate the data. The sampling event will take place concurrently with sampling at the Arco station located at 566 Hegenberger Road, north of the site. Arco and Shell will exchange water level and analytical data on these events. Cambria will prepare a report documenting those activities.

Subsurface Investigation Work Plan: We submitted a *Subsurface Investigation Work Plan* dated February 27, 2002 in response to Alameda County Health Care Services Agency (ACHCSA) correspondence dated January 4, 2002. This work plan proposes installation of one groundwater monitoring well. We are presently awaiting ACHCSA approval of this work plan.

Surface Water and Storm Drain Sampling: As proposed in our work plan, storm drain and canal points will be included in the future quarterly sampling events to monitor the condition of the nearest receptor.

Interim Remedial Action: Monthly extraction events will continue and will be reported in the first quarter report. Extraction from the tank backfill well will be switched from well BW-D to well BW-B, due to higher historic MTBE concentrations observed in this well.

C A M B R I A

Barney Chan
April 8, 2002

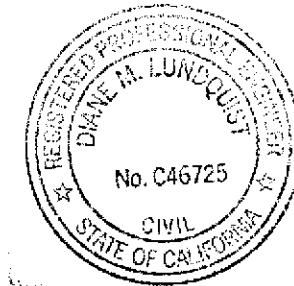
CLOSING

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



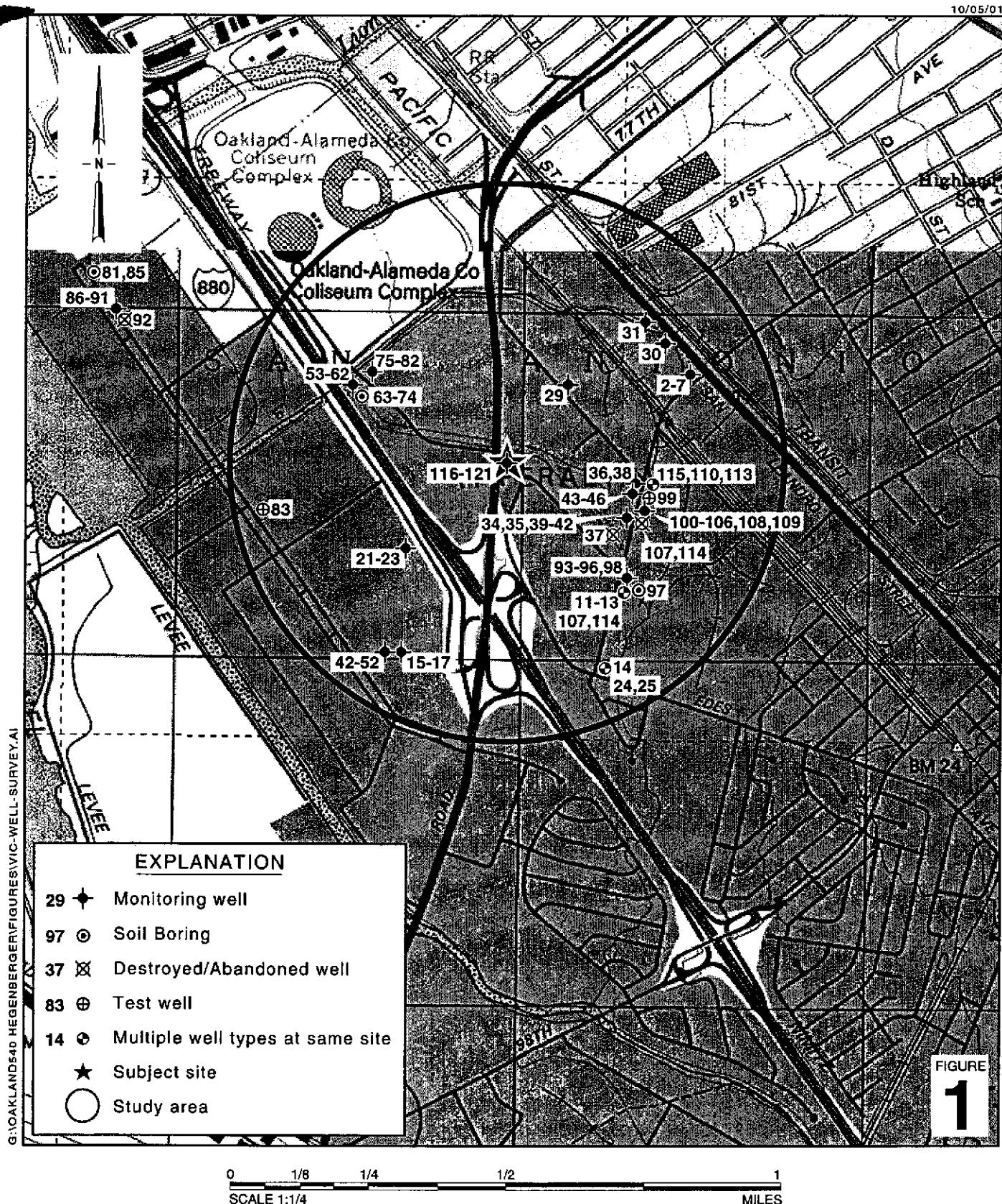
Figures: 1 - Vicinity/Area Well Survey Map
 2 - Groundwater Elevation Contour Map
 3 - GWE/DVE Effect on MTBE Concentration – MW-1
 4 - GWE/DVE Effect on MTBE Concentration – MW-3

Tables: 1 - Groundwater Extraction - Mass Removal Data
 2 - Vapor Extraction - Mass Removal Data

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

cc: Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, California 91510-7869

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



CAMBRIA

Vicinity / Area Well Survey Map

(1/2-Mile Radius)

Groundwater Elevation Contour Map

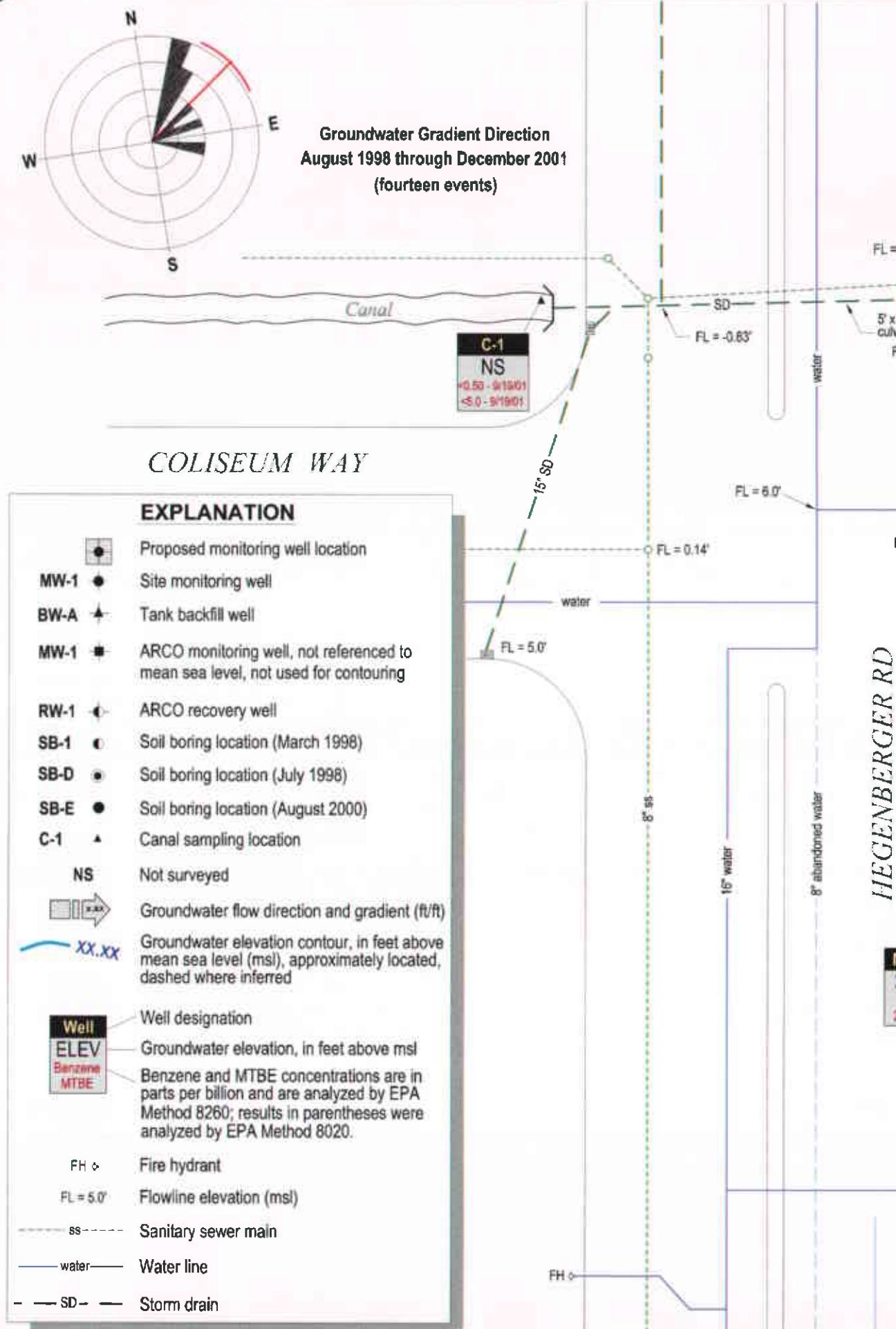
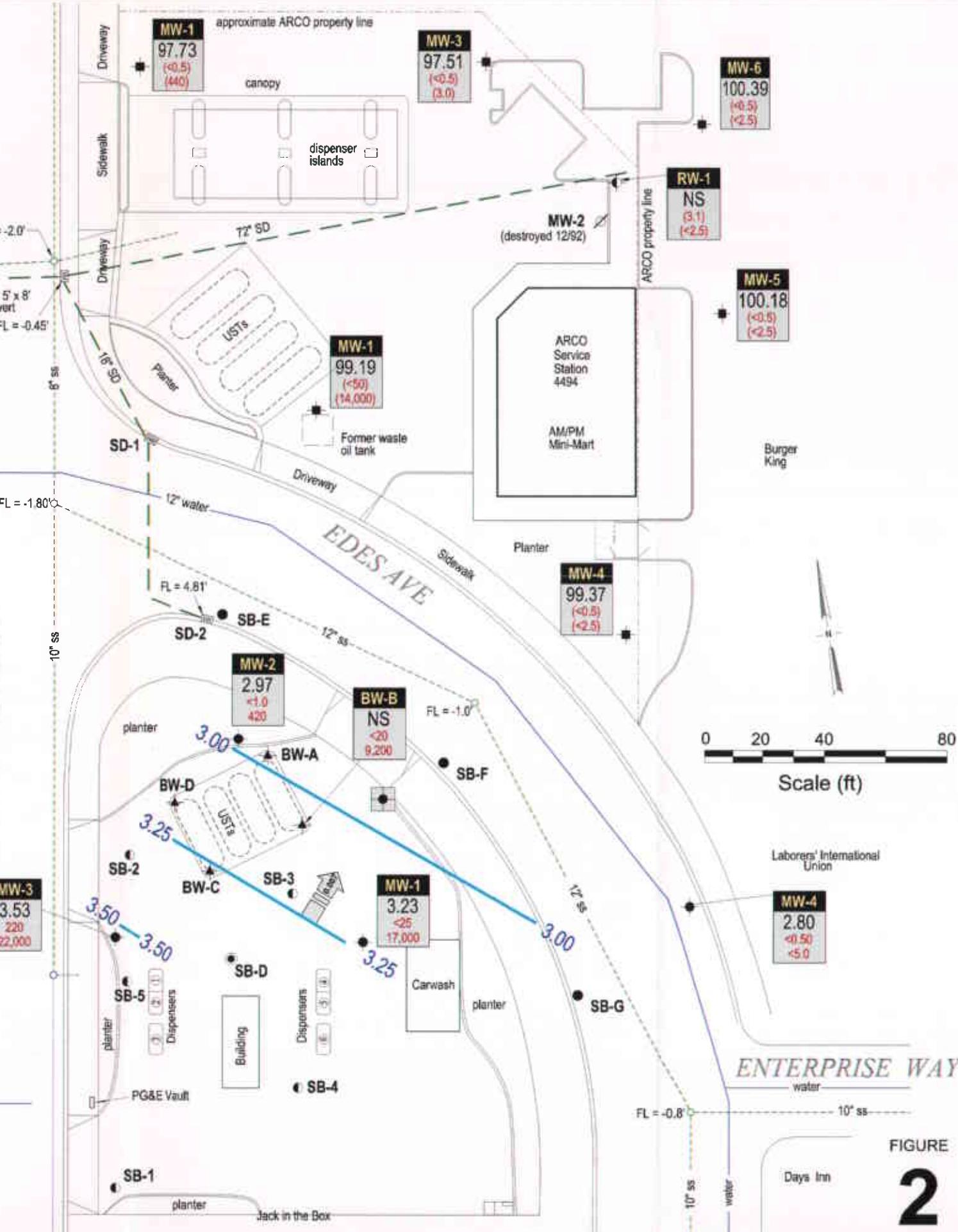
Shell-branded Service Station

540 Hegenberger Road
Oakland, California
Incident #98995752

2

FIGURE

0 20 40 80
Scale (ft)



Shell-branded Service Station

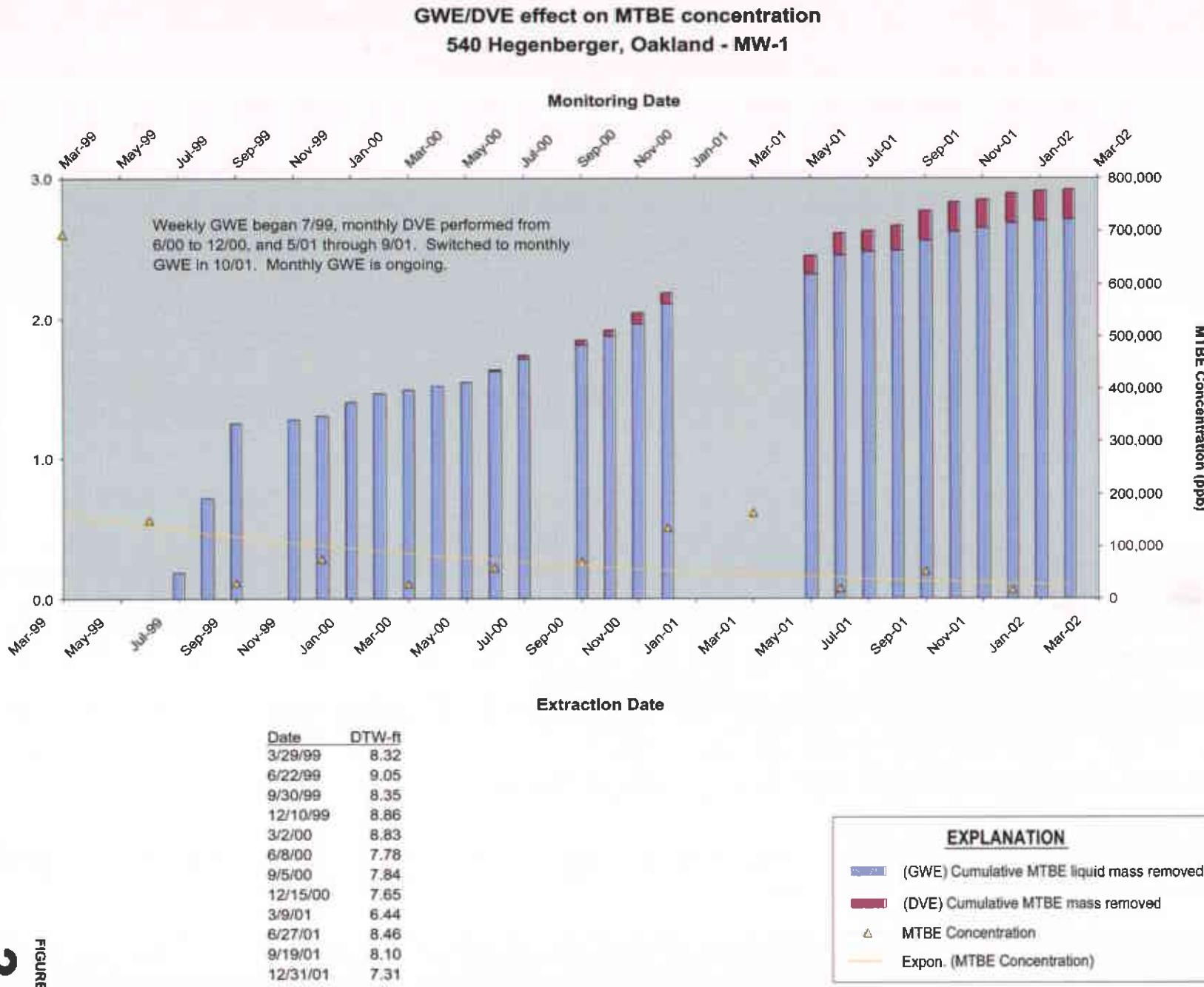
540 Hegenberger Road

Oakland, California

Incident #98995752

**GWE/DVE Effect on MTBE**

Well MW-1

3**FIGURE**

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

FIGURE

GWE/DVE Effect on MTBE

4

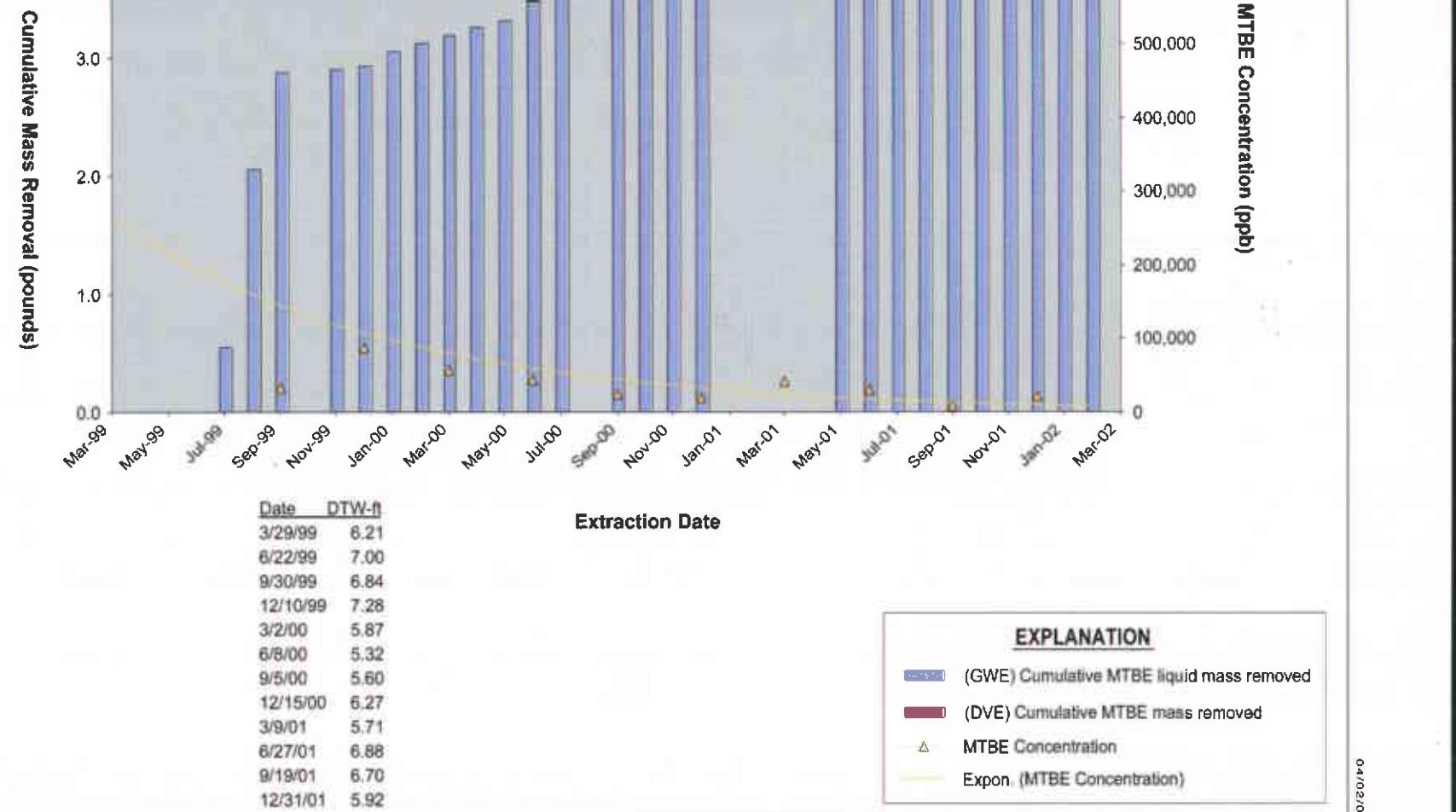


Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

Date Purged	Well ID	Cumulative			TPPH			Benzene			MTBE		
		Volume Pumped	Volume Pumped	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene Removed To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE Removed To Date (pounds)
07/29/99	BW-A	400	400	06/22/99	318	0.00106	0.00106	<0.50	0.00000	0.00000	4,470	0.01492	0.01492
08/04/99	BW-A	2,000	2,400	06/22/99	318	0.00531	0.00637	<0.50	0.00000	0.00001	4,470	0.07460	0.08952
08/11/99	BW-A	2,437	4,837	06/22/99	318	0.00647	0.01284	<0.50	0.00001	0.00001	4,470	0.09090	0.18042
08/20/99	BW-A	1,213	6,050	06/22/99	318	0.00322	0.01605	<0.50	0.00000	0.00001	4,470	0.04524	0.22566
08/30/99	BW-A	2,673	8,723	06/22/99	318	0.00709	0.02315	<0.50	0.00001	0.00002	4,470	0.09970	0.32536
09/03/99*	BW-A	325	9,048	06/22/99	318	0.00086	0.02401	<0.50	0.00000	0.00002	4,470	0.01212	0.33748
09/10/99*	BW-A	425	9,148	06/22/99	318	0.00113	0.02514	<0.50	0.00000	0.00002	4,470	0.01585	0.35334
09/23/99	BW-A	615	9,763	06/22/99	318	0.00163	0.02677	<0.50	0.00000	0.00002	4,470	0.02294	0.37628
09/29/99	BW-A	800	10,563	06/22/99	318	0.00212	0.02889	<0.50	0.00000	0.00002	4,470	0.02984	0.40611
11/05/99	BW-A	675	11,238	06/22/99	318	0.00179	0.03068	<0.50	0.00000	0.00002	4,470	0.02518	0.43129
07/29/99	BW-B	1,000	1,000	06/22/99	<250	0.00104	0.00104	2.5	0.00002	0.00002	8,600	0.07176	0.07176
08/04/99	BW-B	800	1,800	06/22/99	<250	0.00083	0.00188	2.5	0.00002	0.00106	8,600	0.05741	0.12917
08/11/99	BW-B	2,213	4,013	06/22/99	<250	0.00231	0.00419	2.5	0.00005	0.00192	8,600	0.15881	0.28798
08/20/99	BW-B	1,213	5,226	06/22/99	<250	0.00127	0.00545	2.5	0.00003	0.00421	8,600	0.08705	0.37503
08/30/99	BW-B	877	6,103	06/22/99	<250	0.00091	0.00637	2.5	0.00002	0.00547	8,600	0.06293	0.43796
09/03/99*	BW-B	325	6,428	06/22/99	<250	0.00034	0.00670	2.5	0.00001	0.00637	8,600	0.02332	0.46128
09/10/99*	BW-B	425	6,853	06/22/99	<250	0.00044	0.00715	2.5	0.00001	0.00671	8,600	0.03050	0.49178
09/23/99	BW-B	750	7,603	06/22/99	<250	0.00078	0.00793	2.5	0.00002	0.00716	8,600	0.05382	0.54560
09/29/99	BW-B	600	8,203	06/22/99	<250	0.00063	0.00856	2.5	0.00001	0.00794	8,600	0.04306	0.58866
11/05/99	BW-B	650	8,853	06/22/99	<250	0.00068	0.00923	2.5	0.00001	0.00857	8,600	0.04664	0.63530
07/29/99	BW-C	300	300	06/22/99	<50	0.00006	0.00006	<0.50	0.00000	0.00000	11,000	0.02754	0.02754
08/04/99	BW-C	700	1,000	06/22/99	<50	0.00015	0.00021	<0.50	0.00000	0.00000	11,000	0.06425	0.09179
08/11/99	BW-C	0	1,000	06/22/99	<50	0.00000	0.00021	<0.50	0.00000	0.00000	11,000	0.00000	0.09179
08/20/99	BW-C	1,013	2,013	06/22/99	<50	0.00021	0.00042	<0.50	0.00000	0.00000	11,000	0.09298	0.18477
08/30/99	BW-C	375	2,388	06/22/99	<50	0.00008	0.00050	<0.50	0.00000	0.00000	11,000	0.03442	0.21919
09/03/99*	BW-C	325	2,713	06/22/99	<50	0.00007	0.00057	<0.50	0.00000	0.00001	11,000	0.02983	0.24902
09/10/99*	BW-C	425	3,138	06/22/99	<50	0.00009	0.00065	<0.50	0.00000	0.00001	11,000	0.03901	0.28803

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH			Benzene			MTBE		
					TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene Removed (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE To Date (pounds)
							To Date (pounds)						
09/23/99	BW-C	750	3,888	06/22/99	<50	0.00016	0.00081	<0.50	0.00000	0.00001	11,000	0.06884	0.35687
09/29/99	BW-C	700	4,588	06/22/99	<50	0.00015	0.00096	<0.50	0.00000	0.00001	11,000	0.06425	0.42112
11/05/99	BW-C	550	5,138	06/22/99	<50	0.00011	0.00107	<0.50	0.00000	0.00001	11,000	0.05048	0.47161
06/06/00	BW-C	926	6,064	06/22/99	<50	0.00019	0.00127	<0.50	0.00000	0.00001	11,000	0.08500	0.55660
09/07/00	BW-C	1,000	7,064	06/22/99	<50	0.00021	0.00147	<0.50	0.00000	0.00001	11,000	0.09179	0.64839
07/29/99	BW-D	1,500	1,500	06/22/99	<50	0.00031	0.00031	<0.500	0.00000	0.00000	2,190	0.02741	0.02741
08/04/99	BW-D	250	1,750	06/22/99	<50	0.00005	0.00037	<0.500	0.00000	0.00000	2,190	0.00457	0.03198
08/11/99	BW-D	0	1,750	06/22/99	<50	0.00000	0.00037	<0.500	0.00000	0.00000	2,190	0.00000	0.03198
08/20/99	BW-D	1,213	2,963	06/22/99	<50	0.00025	0.00062	<0.500	0.00000	0.00001	2,190	0.02217	0.05415
08/30/99	BW-D	280	3,243	06/22/99	<50	0.00006	0.00068	<0.500	0.00000	0.00001	2,190	0.00512	0.05926
09/03/99*	BW-D	325	3,568	06/22/99	<50	0.00007	0.00074	<0.500	0.00000	0.00001	2,190	0.00594	0.06520
09/10/99*	BW-D	425	3,993	06/22/99	<50	0.00009	0.00083	<0.500	0.00000	0.00001	2,190	0.00777	0.07297
09/23/99	BW-D	750	4,743	06/22/99	<50	0.00016	0.00099	<0.500	0.00000	0.00001	2,190	0.01371	0.08667
09/29/99	BW-D	700	5,443	06/22/99	<50	0.00015	0.00114	<0.500	0.00000	0.00001	2,190	0.01279	0.09947
11/05/99	BW-D	625	6,068	06/22/99	<50	0.00013	0.00127	<0.500	0.00000	0.00001	2,190	0.01142	0.11089
10/22/01	BW-D	2,100	8,168	06/22/99	<50	0.00044	0.00170	<0.500	0.00000	0.00002	2,190	0.03838	0.14926
11/06/01	BW-D	2,600	10,768	06/22/99	<50	0.00054	0.00225	<0.500	0.00001	0.00002	2,190	0.04751	0.19678
07/29/99	MW-1	150	150	06/22/99	20,000	0.02503	0.02503	100	0.00013	0.00013	150,000	0.18775	0.18775
08/04/99	MW-1	150	300	06/22/99	20,000	0.02503	0.05007	100	0.00013	0.00025	150,000	0.18775	0.37550
08/11/99	MW-1	15	315	06/22/99	20,000	0.00250	0.05257	100	0.00001	0.00026	150,000	0.01877	0.39427
08/20/99	MW-1	44	359	06/22/99	20,000	0.00734	0.05991	100	0.00004	0.00030	150,000	0.05507	0.44934
08/30/99	MW-1	218	577	06/22/99	20,000	0.03638	0.09629	100	0.00018	0.00048	150,000	0.27286	0.72220
09/03/99*	MW-1	125	702	06/22/99	20,000	0.02086	0.11715	100	0.00010	0.00059	150,000	0.15646	0.87866
09/10/99*	MW-1	75	777	06/22/99	20,000	0.01252	0.12967	100	0.00006	0.00065	150,000	0.09387	0.97253
09/23/99	MW-1	175	952	06/22/99	20,000	0.02921	0.15888	100	0.00015	0.00079	150,000	0.21904	1.19157
09/29/99	MW-1	50	1,002	06/22/99	20,000	0.00834	0.16722	100	0.00004	0.00084	150,000	0.06258	1.25416
11/05/99	MW-1	50	1,052	09/30/99	<2,500	0.00052	0.16774	<25.0	0.00001	0.00084	30,900	0.01289	1.26705

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

Date Purged	Well ID	Cumulative			TPPH			Benzene			MTBE		
		Volume Pumped	Volume Pumped	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE To Date (pounds)
11/19/99	MW-1	22.5	1,075	09/30/99	<2,500	0.00023	0.16798	<25.0	0.00000	0.00084	30,900	0.00580	1.27285
11/24/99	MW-1	25	1,100	09/30/99	<2,500	0.00026	0.16824	<25.0	0.00000	0.00085	30,900	0.00645	1.27930
12/02/99	MW-1	25	1,125	09/30/99	<2,500	0.00026	0.16850	<25.0	0.00000	0.00085	30,900	0.00645	1.28574
12/17/99	MW-1	25	1,150	12/10/99	<50.0	0.00001	0.16850	29.7	0.00001	0.00086	76,300	0.01592	1.30166
01/03/00	MW-1	40	1,190	12/10/99	<50.0	0.00001	0.16851	29.7	0.00001	0.00086	76,300	0.02547	1.32713
01/07/00	MW-1	0	1,190	12/10/99	<50.0	0.00000	0.16851	29.7	0.00000	0.00086	76,300	0.00000	1.32713
01/13/00	MW-1	45	1,235	12/10/99	<50.0	0.00001	0.16852	29.7	0.00001	0.00088	76,300	0.02865	1.35578
01/12/00	MW-1	35	1,270	12/10/99	<50.0	0.00001	0.16853	29.7	0.00001	0.00088	76,300	0.02228	1.37806
01/25/00	MW-1	35	1,305	12/10/99	<50.0	0.00001	0.16854	29.7	0.00001	0.00089	76,300	0.02228	1.40034
02/01/00	MW-1	22	1,327	12/10/99	<50.0	0.00000	0.16854	29.7	0.00001	0.00090	76,300	0.01401	1.41435
02/11/00	MW-1	28	1,355	12/10/99	<50.0	0.00001	0.16855	29.7	0.00001	0.00091	76,300	0.01783	1.43218
02/15/00	MW-1	25	1,380	12/10/99	<50.0	0.00001	0.16855	29.7	0.00001	0.00091	76,300	0.01592	1.44809
02/23/00	MW-1	20	1,400	12/10/99	<50.0	0.00000	0.16856	29.7	0.00000	0.00092	76,300	0.01273	1.46083
03/02/00	MW-1	7.5	1,407	03/02/00	<2,500	0.00008	0.16863	<25.0	0.00000	0.00092	27,600	0.00173	1.46255
03/10/00	MW-1	40	1,447	03/02/00	<2,500	0.00042	0.16905	<25.0	0.00000	0.00092	27,600	0.00921	1.47177
03/15/00	MW-1	25	1,472	03/02/00	<2,500	0.00026	0.16931	<25.0	0.00000	0.00092	27,600	0.00576	1.47752
03/21/00	MW-1	25	1,497	03/02/00	<2,500	0.00026	0.16957	<25.0	0.00000	0.00093	27,600	0.00576	1.48328
03/27/00	MW-1	30	1,527	03/02/00	<2,500	0.00031	0.16989	<25.0	0.00000	0.00093	27,600	0.00691	1.49019
04/07/00	MW-1	45	1,572	03/02/00	<2,500	0.00047	0.17036	<25.0	0.00000	0.00094	27,600	0.01036	1.50056
04/13/00	MW-1	30	1,602	03/02/00	<2,500	0.00031	0.17067	<25.0	0.00000	0.00094	27,600	0.00691	1.50746
04/20/00	MW-1	25	1,627	03/02/00	<2,500	0.00026	0.17093	<25.0	0.00000	0.00094	27,600	0.00576	1.51322
04/26/00	MW-1	25	1,652	03/02/00	<2,500	0.00026	0.17119	<25.0	0.00000	0.00094	27,600	0.00576	1.51898
05/04/00	MW-1	28	1,680	03/02/00	<2,500	0.00029	0.17148	<25.0	0.00000	0.00095	27,600	0.00645	1.52543
05/09/00	MW-1	45	1,725	03/02/00	<2,500	0.00047	0.17195	<25.0	0.00000	0.00095	27,600	0.01036	1.53579
05/17/00	MW-1	27	1,752	03/02/00	<2,500	0.00028	0.17223	<25.0	0.00000	0.00095	27,600	0.00622	1.54201
05/22/00	MW-1	25	1,777	03/02/00	<2,500	0.00026	0.17249	<25.0	0.00000	0.00096	27,600	0.00576	1.54777
06/01/00	MW-1	25	1,802	03/02/00	<2,500	0.00026	0.17275	<25.0	0.00000	0.00096	27,600	0.00576	1.55353
06/06/00	MW-1	175	1,977	03/02/00	<2,500	0.00183	0.17458	<25.0	0.00002	0.00098	27,600	0.04030	1.59383
06/08/00	MW-1	43	2,020	03/02/00	<2,500	0.00045	0.17503	<25.0	0.00000	0.00098	27,600	0.00990	1.60373

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

Date Purged	Well ID	Cumulative			TPPH			Benzene			MTBE		
		Volume Pumped (gal)	Volume Pumped (gal)	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE To Date (pounds)
06/15/00	MW-1	29	2,049	06/08/00	<2,000	0.00024	0.17527	<20.0	0.00000	0.00098	67,600	0.01636	1.62009
07/10/00	MW-1	169	2,218	06/08/00	<2,000	0.00141	0.17668	<20.0	0.00001	0.00100	67,600	0.09533	1.71542
09/07/00	MW-1	100	2,318	09/05/00	<10,000	0.00417	0.18085	411	0.00034	0.00134	115,000	0.09596	1.81138
10/23/00*	MW-1	100	2,418	09/05/00	<10,000	0.00417	0.18502	411	0.00034	0.00168	71,100	0.05933	1.87071
11/30/00	MW-1	160	2,578	09/05/00	<10,000	0.00668	0.19170	411	0.00055	0.00223	71,100	0.09493	1.96563
12/21/00	MW-1	125	2,703	12/15/00	35,600	0.03713	0.22883	1,310	0.00137	0.00360	136,000	0.14185	2.10749
05/16/01	MW-1	150	2,853	03/09/01	<10,000	0.00626	0.23509	1,390	0.00174	0.00534	164,000	0.20527	2.31276
06/19/01	MW-1	100	2,953	03/09/01	<10,000	0.00417	0.23926	1,390	0.00116	0.00650	164,000	0.13685	2.44961
07/24/01	MW-1	150	3,103	06/27/01	<5,000	0.00313	0.24239	<50	0.00003	0.00653	19,000	0.02378	2.47339
08/17/01	MW-1	100	3,203	06/27/01	<5,000	0.00209	0.24448	<50	0.00002	0.00655	19,000	0.01585	2.48924
09/25/01	MW-1	150	3,353	09/19/01	<5,000	0.00313	0.24761	<50	0.00003	0.00658	52,000	0.06509	2.55433
10/22/01	MW-1	150	3,503	09/19/01	<5,000	0.00313	0.25074	<50	0.00003	0.00661	52,000	0.06509	2.61941
11/06/01	MW-1	50	3,553	09/19/01	<5,000	0.00104	0.25178	<50	0.00001	0.00662	52,000	0.02170	2.64111
12/04/01	MW-1	100	3,653	09/19/01	<5,000	0.00209	0.25387	<50	0.00002	0.00664	52,000	0.04339	2.68450
01/28/02	MW-1	125	3,778	12/31/01	<5,000	0.00261	0.25647	<25	0.00001	0.00666	17,000	0.01773	2.70223
02/18/02	MW-1	50	3,828	12/31/01	<5,000	0.00104	0.25752	<25	0.00001	0.00666	17,000	0.00709	2.70932
07/29/99	MW-3	100	100	06/22/99	58,000	0.04840	0.04840	6,600	0.00551	0.00551	653,000	0.54489	0.54489
08/04/99	MW-3	100	200	06/22/99	58,000	0.04840	0.09679	6,600	0.00551	0.01101	653,000	0.54489	1.08977
08/11/99	MW-3	45	245	06/22/99	58,000	0.02178	0.11857	6,600	0.00248	0.01349	653,000	0.24520	1.33497
08/20/99	MW-3	55	300	06/22/99	58,000	0.02662	0.14519	6,600	0.00303	0.01652	653,000	0.29969	1.63466
08/30/99	MW-3	77	377	06/22/99	58,000	0.03727	0.18246	6,600	0.00424	0.02076	653,000	0.41956	2.05422
09/03/99*	MW-3	50	427	06/22/99	58,000	0.02420	0.20666	6,600	0.00275	0.02352	653,000	0.27244	2.32667
09/10/99*	MW-3	40	467	06/22/99	58,000	0.01936	0.22602	6,600	0.00220	0.02572	653,000	0.21795	2.54462
09/23/99	MW-3	10	477	06/22/99	58,000	0.00484	0.23085	6,600	0.00055	0.02627	653,000	0.05449	2.59911
09/29/99	MW-3	50	527	06/22/99	58,000	0.02420	0.25505	6,600	0.00275	0.02902	653,000	0.27244	2.87155
11/05/99	MW-3	50	577	09/30/99	4,360	0.00182	0.25687	121	0.00005	0.02907	35,600	0.01485	2.88640
11/19/99	MW-3	22.5	600	09/30/99	4,360	0.00082	0.25769	121	0.00002	0.02910	35,600	0.00668	2.89309
11/24/99	MW-3	28	628	09/30/99	4,360	0.00102	0.25871	121	0.00003	0.02912	35,600	0.00832	2.90141

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Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

Date Purged	Well ID	Cumulative			TPPH			Benzene			MTBE		
		Volume Pumped	Volume Pumped	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE To Date (pounds)
12/02/99	MW-3	25	653	09/30/99	4,360	0.00091	0.25962	121	0.00003	0.02915	35,600	0.00743	2.90883
12/17/99	MW-3	35	688	12/10/99	4,220	0.00123	0.26085	973	0.00028	0.02943	88,200	0.02576	2.93459
01/03/00	MW-3	40	728	12/10/99	4,220	0.00141	0.26226	973	0.00032	0.02976	88,200	0.02944	2.96403
01/07/00	MW-3	0	728	12/10/99	4,220	0.00000	0.26226	973	0.00000	0.02976	88,200	0.00000	2.96403
01/13/00	MW-3	45	773	12/10/99	4,220	0.00158	0.26385	973	0.00037	0.03012	88,200	0.03312	2.99715
01/21/00	MW-3	35	808	12/10/99	4,220	0.00123	0.26508	973	0.00028	0.03041	88,200	0.02576	3.02291
01/25/00	MW-3	38	846	12/10/99	4,220	0.00134	0.26642	973	0.00031	0.03072	88,200	0.02797	3.05088
02/01/00	MW-3	23	869	12/10/99	4,220	0.00081	0.26723	973	0.00019	0.03090	88,200	0.01693	3.06780
02/11/00	MW-3	22	891	12/10/99	4,220	0.00077	0.26800	973	0.00018	0.03108	88,200	0.01619	3.08399
02/15/00	MW-3	22	913	12/10/99	4,220	0.00077	0.26877	973	0.00018	0.03126	88,200	0.01619	3.10019
02/23/00	MW-3	30	943	12/10/99	4,220	0.00106	0.26983	973	0.00024	0.03150	88,200	0.02208	3.12226
03/02/00	MW-3	7	950	03/02/00	65,300	0.00381	0.27365	5,210	0.00030	0.03181	59,800	0.00349	3.12576
03/10/00	MW-3	42	992	03/02/00	65,300	0.02289	0.29653	5,210	0.00183	0.03363	59,800	0.02096	3.14672
03/15/00	MW-3	20	1,012	03/02/00	65,300	0.01090	0.30743	5,210	0.00087	0.03450	59,800	0.00998	3.15670
03/21/00	MW-3	25	1,037	03/02/00	65,300	0.01362	0.32105	5,210	0.00109	0.03559	59,800	0.01247	3.16917
03/27/00	MW-3	40	1,077	03/02/00	65,300	0.02180	0.34285	5,210	0.00174	0.03733	59,800	0.01996	3.18913
04/07/00	MW-3	45	1,122	03/02/00	65,300	0.02452	0.36737	5,210	0.00196	0.03929	59,800	0.02245	3.21158
04/13/00	MW-3	30	1,152	03/02/00	65,300	0.01635	0.38371	5,210	0.00130	0.04059	59,800	0.01497	3.22655
04/20/00	MW-3	25	1,177	03/02/00	65,300	0.01362	0.39733	5,210	0.00109	0.04168	59,800	0.01247	3.23903
04/26/00	MW-3	30	1,207	03/02/00	65,300	0.01635	0.41368	5,210	0.00130	0.04298	59,800	0.01497	3.25400
05/04/00	MW-3	26	1,233	03/02/00	65,300	0.01417	0.42785	5,210	0.00113	0.04411	59,800	0.01297	3.26697
05/09/00	MW-3	45	1,278	03/02/00	65,300	0.02452	0.45237	5,210	0.00196	0.04607	59,800	0.02245	3.28943
05/17/00	MW-3	27	1,305	03/02/00	65,300	0.01471	0.46708	5,210	0.00117	0.04724	59,800	0.01347	3.30290
05/22/00	MW-3	25	1,330	03/02/00	65,300	0.01362	0.48070	5,210	0.00109	0.04833	59,800	0.01247	3.31537
06/01/00	MW-3	25	1,355	03/02/00	65,300	0.01362	0.49432	5,210	0.00109	0.04942	59,800	0.01247	3.32785
06/06/00	MW-3	240	1,595	03/02/00	65,300	0.13077	0.62510	5,210	0.01043	0.05985	59,800	0.11976	3.44761
06/08/00	MW-3	42	1,637	03/02/00	65,300	0.02289	0.64798	5,210	0.00183	0.06168	59,800	0.02096	3.46857
06/15/00	MW-3	29	1,666	06/08/00	72,700	0.01759	0.66557	3,570	0.00086	0.06254	44,400	0.01074	3.47931
07/10/00	MW-3	101	1,767	06/08/00	72,700	0.06127	0.72684	3,570	0.00301	0.06555	44,400	0.03742	3.51673

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Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

Date Purged	Well ID	Cumulative			TPPH			Benzene			MTBE			
		Volume Pumped (gal)	Volume Pumped (gal)	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE To Date (pounds)	
09/07/00	MW-3	265	2,032	09/05/00	26,100	0.05771	0.78456	959	0.00212	0.06767	24,000	0.05307	3.56980	
10/23/00*	MW-3	250	2,282	09/05/00	26,100	0.05445	0.83901	959	0.00200	0.06967	24,000	0.05007	3.61987	
11/30/00	MW-3	210	2,492	09/05/00	26,100	0.04574	0.88474	959	0.00168	0.07135	24,000	0.04206	3.66192	
12/21/00	MW-3	150	2,642	12/15/00	5,190	0.00650	0.89124	438	0.00055	0.07190	11,800	0.01477	3.67669	
05/16/01	MW-3	500	3,142	03/09/01	5,880	0.02453	0.91577	472	0.00197	0.07387	41,800	0.17440	3.85109	
06/19/01	MW-3	100	3,242	03/09/01	5,880	0.00491	0.92068	472	0.00039	0.07426	41,800	0.03488	3.88597	
07/24/01	MW-3	350	3,592	06/27/01	9,100	0.02658	0.94725	330	0.00096	0.07522	31,000	0.09054	3.97650	
08/17/01	MW-3	150	3,742	06/27/01	9,100	0.01139	0.95864	330	0.00041	0.07467	31,000	0.03880	4.01530	
09/25/01	MW-3	300	4,042	09/19/01	790	0.00198	0.96062	14	0.00004	0.07526	8,100	0.02028	4.03558	
10/22/01	MW-3	150	4,192	09/19/01	790	0.00099	0.96161	14	0.00002	0.07469	8,100	0.01014	4.04572	
11/06/01	MW-3	50	4,242	09/19/01	790	0.00033	0.96194	14	0.00001	0.07527	8,100	0.00338	4.04910	
12/04/01	MW-3	150	4,392	09/19/01	790	0.00099	0.96293	14	0.00002	0.07471	8,100	0.01014	4.05924	
01/28/02	MW-3	50	4,442	12/31/01	<5,000	0.00104	0.96397	220	0.00009	0.07536	22,000	0.00918	4.06842	
02/18/02	MW-3	49	4,491	12/31/01	<5,000	0.00102	0.96499	220	0.00009	0.07480	22,000	0.00900	4.07741	
10/22/01	BW-D**	2,100	2,100	06/27/01	<5,000	0.04381	0.04381	<50	0.00044	0.07515	40,000	0.70093	0.70093	
11/06/01	BW-D**	2,600	4,700	06/27/01	<5,000	0.05424	0.09805	<50	0.00054	0.00054	40,000	0.86781	1.56874	
12/04/01	BW-D**	1,500	6,200	06/27/01	<5,000	0.03129	0.12934	<50	0.00031	0.07546	40,000	0.50066	2.06940	
01/28/02	BW-D**	2,520	8,720	12/31/01	<2,000	0.02103	0.15037	<20	0.00021	0.00075	9,200	0.19346	2.26286	
02/18/02	BW-D**	2,451	11,171	12/31/01	<2,000	0.02045	0.17082	<20	0.00020	0.07566	9,200	0.18816	2.45101	
Total Gallons Extracted:		57,738		Total Pounds Removed:		1,43696			0.08451			11.14951		
						Total Gallons Removed:	0.23557			0.01158			1.79831	

Abbreviations & Notes:

TPPH = Total purgeable hydrocarbons as gasoline

MTBE = Methyl tert-butyl ether

ppb = Parts per billion

gal = Gallon

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California

Date Purged	Well ID	Cumulative			TPPH			Benzene			MTBE		
		Volume Pumped	Volume Pumped	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Removed To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE To Date (pounds)

* = Groundwater extracted per well estimated; subcontractor did not report individual well volumes

** = Concentrations for tank backfill well BW-D taken from nearest sampled tank backfill well, BW-B.

Mass removed based on the formula: volume extracted (gal) x Concentration ($\mu\text{g/L}$) x ($\text{g}/10^6\mu\text{g}$) x (pound/453.6g) x (3.785 L/gal)

Volume removal data based on the formula: density (in gms/cc) x 9.339 (ccxlbs/gmsxgals)

TPPH, benzene analyzed by EPA Method 8015/8020

MTBE analyzed by EPA Method 8260 in bold font, all other MTBE analyzed by EPA Method 8020

Concentrations based on most recent groundwater monitoring results

If concentration is less than the laboratory detection limit, one half of the detection limit concentration is used in the mass removal calculation.

Groundwater extracted by vacuum trucks provided by Onyx. Water disposed of at a Martinez Refinery.

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

Date	Well	ID	Interval Hours of Operation	System Flow Rate	Hydrocarbon Concentrations			TPHg		Benzene		MTBE	
					TPHg	Benzene	MTBE	TPHg Removal	Cumulative TPHg	Benzene Removal	Cumulative Benzene	MTBE Removal	Cumulative MTBE
								(#/hour)	(#)	(#/hour)	(#)	(#/hour)	(#)
Date	Well	ID	Interval Hours of Operation	System Flow Rate	TPHg	Benzene	MTBE	TPHg Removal	Cumulative TPHg	Benzene Removal	Cumulative Benzene	MTBE Removal	Cumulative MTBE
Date	Well	ID	Interval Hours of Operation	System Flow Rate	(Concentrations in ppmv)			(#/hour)	(#)	(#/hour)	(#)	(#/hour)	(#)
06/06/00	MW-1	3.00	12.76	4.4	0.192	20.7		0.001	0.002	0.000	0.000	0.004	0.011
07/10/00	MW-1	3.00	11	<28	<0.31	30		0.002	0.008	0.000	0.000	0.005	0.024
09/07/00	MW-1	2.00	2.4	25.4	2.51	138		0.001	0.010	0.000	0.000	0.005	0.033
10/23/00	MW-1	4.00	0.7	1,650	61.6	392		0.015	0.072	0.001	0.002	0.004	0.048
11/30/00	MW-1	4.00	7.0	561	<1.57	62.8		0.052	0.282	0.000	0.003	0.006	0.073
12/21/00	MW-1	3.60	2.1	<2.838	<0.031	<0.277		0.000	0.282	0.000	0.003	0.000	0.073
05/16/01	MW-1	4.00	28.4	400	0.26	44		0.152	0.889	0.000	0.003	0.017	0.141
06/19/01	MW-1	3.83	5.8	350	<0.40	52		0.027	0.993	0.000	0.003	0.004	0.157
07/24/01	MW-1	4.00	10.3	<5.0	<0.050	<0.10		0.000	0.995	0.000	0.003	0.000	0.157
08/17/01	MW-1	4.00	15.1	1,900	7.3	51		0.384	2.529	0.001	0.008	0.011	0.199
09/25/01	MW-1	4.00	5.8	160	<0.10	37		0.012	2.578	0.000	0.008	0.003	0.211
06/06/00	MW-3	3.50	9.35	1,371	27.6	32		0.171	0.600	0.003	0.011	0.004	0.014
07/10/00	MW-3	2.00	11	564	8.9	76		0.083	0.766	0.001	0.013	0.011	0.037
09/07/00	MW-3	4.00	4.7	2,832	109	244		0.178	1.477	0.006	0.038	0.016	0.100
10/23/00	MW-3	4.00	1.4	3,040	45.6	323		0.057	1.705	0.001	0.041	0.006	0.125
11/30/00	MW-3	2.00	2.5	23,800	59.9	974		0.795	3.296	0.002	0.045	0.033	0.191
12/21/00	MW-3	4.50	3.0	<2.838	<0.031	<0.277		0.000	3.296	0.000	0.045	0.000	0.191
05/16/01	MW-3	4.25	0.9	21,000	64	270		0.253	4.370	0.001	0.048	0.003	0.205
06/19/01	MW-3	5.83	2.4	14,000	62	300		0.449	6.988	0.002	0.058	0.010	0.263
07/24/01	MW-3	4.00	5.3	<5.0	0.10	0.80		0.000	6.989	0.000	0.058	0.000	0.263
08/17/01	MW-3	4.00	11.0	11,000	53	290		1.618	13.459	0.007	0.087	0.044	0.438
09/25/01	MW-3	4.00	3.2	19,000	79	410		0.813	16.710	0.003	0.099	0.018	0.509

Total Pounds Removed:	TPHg =	19.289	Benzene =	0.107	MTBE =	0.720
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Table 2: Vapor Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995752, 540 Hegenberger Road, Oakland, California**Abbreviations and Notes:**

CFM = Cubic feet per minute

TPHg = Total petroleum hydrocarbons as gasoline (C6-C12) by modified EPA Method 8015 in 1 liter tedlar bag samples

ppmv = Parts per million by volume

= Pounds

TPHG, Benzene, and MTBE analyzed by EPA Method 8015/8020 in 1 liter tedlar bag samples

TPHg / Benzene / MTBE removal rate = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991.

(Rate = Concentration (ppmv) x system flow rate (cfm) x (1lb-mole/386ft³) x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene, 88 lb/lb-mole for MTBE)
x 60 min/hour x 1/1,000,000)

Cumulative TPHg / Benzene / MTBE removal = Previous removal rate multiplied by the hour-interval of operation plus the previous total

If concentration is less than the laboratory detection limit, one half of the detection limit concentration is used in the mass removal calculation.

ATTACHMENT A

Blaine Groundwater Monitoring Report

and Field Notes

BLAINE
TECH SERVICES, Inc.



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January 22, 2002

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Fourth Quarter 2001 Groundwater Monitoring at
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA

Monitoring performed on December 31, 2001

Groundwater Monitoring Report 011231-CW-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.
1144 65th Street
Oakland, CA 94608-2411

WELL CONCENTRATIONS
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA
WIC #204-5508-5900

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)
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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-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

WELL CONCENTRATIONS
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA
WIC #204-5508-5900

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	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-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
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

WELL CONCENTRATIONS
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA
WIC #204-5508-5900

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	12/31/2001	<5,000	220	<50	86	<50	NA	22,000	9.45	5.92	3.53	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
MW-4	12/31/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	9.88	7.08	2.80	NA
C-1	09/19/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	1.44	NA	NA
SD-1	09/19/2001	Unable to sample	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
BW-A	06/22/1999	318	<0.50	<0.50	0.590	1.48	4,470	NA	NA	4.71	NA	1.1
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-C	06/22/1999	<50	<0.50	<0.50	<0.50	0.98	11,000	NA	NA	5.91	NA	1.6
BW-D	06/22/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	2,190	NA	NA	4.78	NA
												1.4

WELL CONCENTRATIONS
Shell-branded Service Station
540 Hegenberger Road
Oakland, CA
WIC #204-5508-5900

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)
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Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to June 27, 2001, analyzed by EPA Method 8015.

BTEX = benzene, toluene, ethyl/benzene, 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.

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.



Report Number : 24135

Date : 1/11/2002

Nick Sudano
Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112-1105

Subject : 5 Water Samples
Project Name : 540 Hegenberger Road, Oakland
Project Number : 011231-CW-1
P.O. Number : 98995752

Dear Mr. Sudano,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff".
Joel Kiff



Report Number : 24135

Date : 1/11/2002

Subject : 5 Water Samples
Project Name : 540 Hegenberger Road, Oakland
Project Number : 011231-CW-1
P.O. Number : 98995752

Case Narrative

The Method Blank associated with samples MW-1, MW-2, MW-3, and BW-B contained 0.65 ug/L Toluene. Since Toluene was not detected above the reporting limit in the samples, or was reported at a concentration greater than 5 times this value, no data were flagged.

Approved By: Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 916-297-4800



Report Number : 24135

Date : 1/11/2002

Project Name : 540 Hegenberger Road, Oakland

Project Number : 011231-CW-1

Sample : MW-1

Matrix : Water

Lab Number : 24135-01

Sample Date : 12/31/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 25	25	ug/L	EPA 8260B	1/5/2002
Toluene	< 25	25	ug/L	EPA 8260B	1/5/2002
Ethylbenzene	< 25	25	ug/L	EPA 8260B	1/5/2002
Total Xylenes	< 25	25	ug/L	EPA 8260B	1/5/2002
Methyl-t-butyl ether (MTBE)	17000	250	ug/L	EPA 8260B	1/5/2002
TPH as Gasoline	< 5000	5000	ug/L	EPA 8260B	1/5/2002
Toluene - d8 (Surr)	98.0		% Recovery	EPA 8260B	1/5/2002
4-Bromofluorobenzene (Surr)	93.4		% Recovery	EPA 8260B	1/5/2002

Sample : MW-2

Matrix : Water

Lab Number : 24135-02

Sample Date : 12/31/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 1.0	1.0	ug/L	EPA 8260B	1/6/2002
Toluene	< 1.0	1.0	ug/L	EPA 8260B	1/6/2002
Ethylbenzene	< 1.0	1.0	ug/L	EPA 8260B	1/6/2002
Total Xylenes	< 1.0	1.0	ug/L	EPA 8260B	1/6/2002
Methyl-t-butyl ether (MTBE)	420	10	ug/L	EPA 8260B	1/6/2002
TPH as Gasoline	< 100	100	ug/L	EPA 8260B	1/6/2002
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	1/6/2002
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	1/6/2002

Approved By: Joel Kiff



Report Number : 24135

Date : 1/11/2002

Project Name : 540 Hegenberger Road, Oakland

Project Number : 011231-CW-1

Sample : MW-3

Matrix : Water

Lab Number : 24135-03

Sample Date : 12/31/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	220	50	ug/L	EPA 8260B	1/5/2002
Toluene	< 50	50	ug/L	EPA 8260B	1/5/2002
Ethylbenzene	86	50	ug/L	EPA 8260B	1/5/2002
Total Xylenes	< 50	50	ug/L	EPA 8260B	1/5/2002
Methyl-t-butyl ether (MTBE)	22000	500	ug/L	EPA 8260B	1/8/2002
TPH as Gasoline	< 5000	5000	ug/L	EPA 8260B	1/5/2002
Toluene - d8 (Surr)	97.7		% Recovery	EPA 8260B	1/5/2002
4-Bromofluorobenzene (Surr)	95.2		% Recovery	EPA 8260B	1/5/2002

Sample : MW-4

Matrix : Water

Lab Number : 24135-04

Sample Date : 12/31/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/5/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/5/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/5/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/5/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	1/5/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/5/2002
Toluene - d8 (Surr)	99.2		% Recovery	EPA 8260B	1/5/2002
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	1/5/2002

Approved By: Joel Kiff



Report Number : 24135

Date : 1/11/2002

Project Name : 540 Hegenberger Road, Oakland

Project Number : 011231-CW-1

Sample : BW-B

Matrix : Water

Lab Number : 24135-05

Sample Date : 12/31/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 20	20	ug/L	EPA 8260B	1/5/2002
Toluene	< 20	20	ug/L	EPA 8260B	1/8/2002
Ethylbenzene	< 20	20	ug/L	EPA 8260B	1/5/2002
Total Xylenes	< 20	20	ug/L	EPA 8260B	1/5/2002
Methyl-t-butyl ether (MTBE)	9200	20	ug/L	EPA 8260B	1/11/2002
TPH as Gasoline	< 2000	2000	ug/L	EPA 8260B	1/5/2002
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	1/5/2002
4-Bromofluorobenzene (Surr)	93.7		% Recovery	EPA 8260B	1/5/2002

Approved By: Joel Kiff

QC Report : Method Blank Data**Project Name : 540 Hegenberger Road, Oakland****Project Number : 011231-CW-1**

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/7/2002
Toluene	0.65	0.50	ug/L	EPA 8260B	1/7/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/7/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/7/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/7/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/7/2002
Toluene - d8 (Surr)	99.9		%	EPA 8260B	1/7/2002
4-Bromofluorobenzene (Surr)	113		%	EPA 8260B	1/7/2002
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/4/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/4/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/4/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/4/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/4/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/4/2002
Toluene - d8 (Surr)	99.6		%	EPA 8260B	1/4/2002
4-Bromofluorobenzene (Sum)	102		%	EPA 8260B	1/4/2002

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
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Approved By: Joel Kiff



KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 24135

Date : 1/11/2002

QC Report : Matrix Spike/ Matrix Spike Duplicate

Report Number : 24135

Date : 1/11/2002

Project Name : 540 Hegenberger Road,

Project Number : 011231-CW-1

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	24134-01	0.66	39.0	39.0	38.6	38.9	ug/L	EPA 8260B	1/7/2002	97.4	98.0	0.639	70-130	25
Toluene	24134-01	4.7	39.0	39.0	42.3	42.0	ug/L	EPA 8260B	1/7/2002	96.4	95.6	0.807	70-130	25
Tert-Butanol	24134-01	5.5	195	195	173	172	ug/L	EPA 8260B	1/7/2002	86.0	85.4	0.718	70-130	25
Methyl-t-Butyl Ether	24134-01	<0.50	39.0	39.0	40.6	40.1	ug/L	EPA 8260B	1/7/2002	104	103	1.11	70-130	25
Benzene	24137-04	<0.50	40.0	40.0	37.6	37.4	ug/L	EPA 8260B	1/4/2002	94.0	93.4	0.587	70-130	25
Toluene	24137-04	<0.50	40.0	40.0	37.8	37.9	ug/L	EPA 8260B	1/4/2002	94.4	94.6	0.212	70-130	25
Tert-Butanol	24137-04	<5.0	200	200	173	177	ug/L	EPA 8260B	1/4/2002	86.6	88.4	2.02	70-130	25
Methyl-t-Butyl Ether	24137-04	6.0	40.0	40.0	45.4	45.7	ug/L	EPA 8260B	1/4/2002	98.4	99.3	0.936	70-130	25

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By: Joel Kiff



QC Report : Laboratory Control Sample (LCS)

Report Number : 24135

Date : 1/11/2002

Project Name : **540 Hegenberger Road,**Project Number : **011231-CW-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	20.0	ug/L	EPA 8260B	1/7/2002	97.9	70-130
Toluene	20.0	ug/L	EPA 8260B	1/7/2002	98.9	70-130
Tert-Butanol	100	ug/L	EPA 8260B	1/7/2002	88.6	70-130
Methyl-t-Butyl Ether	20.0	ug/L	EPA 8260B	1/7/2002	105	70-130
Benzene	40.0	ug/L	EPA 8260B	1/4/2002	96.5	70-130
Toluene	40.0	ug/L	EPA 8260B	1/4/2002	97.5	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/4/2002	87.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/4/2002	100	70-130

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By:

Joel Kiff



LAB: *Kiff*

EQUIVA Services LLC Chain Of Custody Record

Lab Identification (if necessary):		Equiva Project Manager to be invoiced:				INCIDENT NUMBER (S4E ONLY)												
Address:		Karen Petryna				9 8 9 9 5 7 5 2												
City, State, Zip:		<input checked="" type="checkbox"/> SCIENCE & ENGINEERING				SAMPLE CRMT NUMBER (TS/CRMT)		DATE: 12-31-01										
		<input type="checkbox"/> TECHNICAL SERVICES						PAGE: 1 of 1										
		<input type="checkbox"/> CRMT HOUSTON																
SAMPLING COMPANY:		LOG CODE:		SITE ADDRESS (Street and City):				GLOBAL ID NO.:										
Blaine Tech Services		BTSS		540 Hegenberger Road, Oakland				T0600102123										
ADDRESS:		EOF DELIVERABLE TO (Responsible Party or Designee):				PHONE NO.:		EMAIL:										
1680 Rogers Avenue, San Jose, CA 95112		Anni Kreml				510-420-3335		akreml@cambria-env.com										
PROJECT CONTACT (Handcopy or PDF Report to):		SAMPLER NAME(S) (Print):				LAB USE ONLY		CONSULTANT PROJECT NO.:										
Nick Sudano		Chris Wagner						BTS # 01231-CW-1										
TELEPHONE:		FAX:	E-MAIL:															
408-573-0555		408-573-7771	nsudano@blainetech.com															
TURNAROUND TIME (BUSINESS DAYS):		REQUESTED ANALYSIS																
<input checked="" type="checkbox"/> 10 DAYS <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 72 HOURS <input type="checkbox"/> 48 HOURS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> LESS THAN 24 HOURS																		
<input type="checkbox"/> LA - RWQCB REPORT FORMAT <input type="checkbox"/> UST AGENCY: _____																		
GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____																		
SPECIAL INSTRUCTIONS OR NOTES: TEMPERATURE ON RECEIPT C°																		
Field Sample Identification		SAMPLING		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)	MTBE (8260B) Confirmation, See Note	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes	
MW-1		12/31	1106	W	3	X X X											-01	
MW-2			952-		1	X X X											-02	
MW-3			1027		1	X X X											-03	
MW-4			1026		1	X X X											-04	
BW-B			1026		1	X X X											-05	
		12-2-02																
Relinquished by: (Signature)		Received by: (Signature)								Date:		Time:						
<i>John Cudell Kiff Analytical</i>																		
Reinquished by: (Signature)		Received by: (Signature)								Date:		Time:						
Enslaved by: (Signature)		Received by: (Signature)								Date:		Time:						

"Write with final report. Green to File, Yellow and Pink to Client."

10/18/00 Revision

480 Graphic 77141 898-9702

WELL GAUGING DATA

Project # 011231-CW-1 Date 12-31-01 Client Egrija

Site 590 Hegenberger Rd. Oakland

WELL MONITORING DATA SHEET

Project #: 011231-CW-1	Client: Equivac	
Sampler: Chris W.	Start Date: 12-31-01	
Well I.D.: MW-1	Well Diameter: <input checked="" type="radio"/> 2 3 4 6 8	
Total Well Depth: 23.63	Depth to Water: 7.31	
Before: After:	Before: After:	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

Bailer

Waterra

Bailer

Disposable Bailer

Peristaltic

Disposable Bailer

Middleburg

Extraction Pump

Extraction Port

Electric Submersible

Other _____

Dedicated Tubing

Other: _____

2.4 (Gals.) X	3	= 7.8 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	<input checked="" type="radio"/> 0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1049	65.5	7.9	3449	>200	2.6	green / cloudy / odor
1054	66.0	7.7	5907	>200	6.2	" "
1059	64.3	7.7	7054	>200	7.8	" "

Did well dewater? Yes

No

Gallons actually evacuated: 7.8

Sampling Time: 1106

Sampling Date: 12-31-01

Sample I.D.: MW-1

Laboratory: Kiff

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

Equipment Blank I.D.: @ Time Duplicate I.D.:

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

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

WELL MONITORING DATA SHEET

Project #: 011231-CW-1	Client: Equiva	
Sampler: Chris W.	Start Date: 12-31-01	
Well I.D.: MW-2	Well Diameter: <u>2</u> 3 4 6 8	
Total Well Depth: 19.57	Depth to Water: 6.24	
Before: After:	Before: After:	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to: <u>PVC</u>	Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
- Waterra
Peristaltic
Extraction Pump
Other _____

Sampling Method: Bailer

- Disposable Bailer
Extraction Port
Dedicated Tubing
Other: _____

$$2.1 \text{ (Gals.)} \times 3 = 6.3 \text{ Gals.}$$

1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multipplier	Well Diameter	Multipplier
1"	0.04	4"	0.55
2"	<u>0.16</u>	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
935	65.9	9.0	844	84	2.1	1.
940	66.9	7.3	919	>200	4.2	cloudy
945	67.6	7.3	877	>200	6.3	"

Did well dewater? Yes No Gallons actually evacuated: 6.3

Sampling Time: 952 Sampling Date: 12-31-01

Sample I.D.: MW-2 Laboratory: KFF

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

Equipment Blank I.D.: @ _{Time} Duplicate I.D.:

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

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

WELL MONITORING DATA SHEET

Project #: 011231-CW-1	Client: Equivac	
Sampler: Chris W.	Start Date: 12-31-01	
Well I.D.: MW-3	Well Diameter: <u>2</u> 3 4 6 8	
Total Well Depth: 19.46	Depth to Water: 5.92	
Before:	After:	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Sampling Method: Bailer
 Bailer Watera Disposable Bailer
 Disposable Bailer Peristaltic Extraction Port
 Middleburg Extraction Pump Dedicated Tubing
 Electric Submersible Other _____ 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	5"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1010	67.6	7.3	3267	>200	2.1	cloudy/green odor
1015	67.9	7.4	4374	>200	4.2	"
1020	68.4	7.4	6210	>200	4.3	"

Did well dewater? Yes No Gallons actually evacuated: 6.3

Sampling Time: 1027 Sampling Date: 12-31-01

Sample I.D.: MW-3 Laboratory: Kiff

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

Equipment Blank I.D.: @ Time Duplicate I.D.:

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

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

WELL MONITORING DATA SHEET

Project #: D11231-CW-1	Client: Equiva
Sampler: Chris W.	Start Date: 12-31-01
Well I.D.: MW-4	Well Diameter: 2 3 4 6 8
Total Well Depth: 18.53	Depth to Water: 7.08
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="radio"/> PVC	Grade: D.O. Meter (if req'd): YSI HACH

Purge Method:

Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible

Sampling Method: Bailer

Disposable Bailer

Extraction Port

Dedicated Tubing

Other: _____

$$\frac{7.5 \text{ (Gals.)} \times 3}{1 \text{ Case Volume}} = \frac{22.5 \text{ Gals.}}{\text{Specified Volumes}} \text{ Calculated Volume}$$

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

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
0907	62.8	8.5	2587	>200	7.5	cloudy
0909	65.8	7.7	5097	>200	15.0	"
0911	67.3	7.7	5132	>200	22.5	"

Did well dewater? Yes No Gallons actually evacuated: 22.5

Sampling Time: 0918 Sampling Date: 12-31-01

Sample I.D.: MW-4 Laboratory: Kiff

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

Equipment Blank I.D.: @ Time Duplicate I.D.:

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

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

WELL MONITORING DATA SHEET

Project #: 011231-CW-1	Client: Equiva	
Sampler: Chris W.	Start Date: 12-31-01	
Well I.D.: BW-B	Well Diameter: 2 3 <input checked="" type="radio"/> 4 6 8	
Total Well Depth: 11.74	Depth to Water: 4.19	
Before: After:	Before: After:	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Sampling Method: Bailer
 Bailer Waterra Disposable Bailer
 Disposable Bailer Peristaltic Middleburg Extraction Pump
 Middleburg Extraction Pump
 Electric Submersible Other _____ Other: _____

$$4.9 \text{ (Gals.)} \times 3 = 14.7 \text{ Gals.}$$

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	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1135	66.4	7.8	2153	>200	4.9	cloudy
1136	67.5	7.5	1225	171	9.8	clear
1137	67.8	7.4	1369	86	14.7	"

Did well dewater? Yes Gallons actually evacuated: 14.7

Sampling Time: 14:00 Sampling Date: 12-31-01

Sample I.D.: BW-B Laboratory: Kiff

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

Equipment Blank I.D.: @ Time Duplicate I.D.:

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

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

ATTACHMENT B

Arco Groundwater Data

TABLE 1
GROUNDWATER ANALYTICAL DATA

ARCO Service Station 4494
566 Hegenberger Road at Edes Avenue
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as Gasoline (µg/L)	MTBE (µg/L)
MW-1	06/20/00	106.10	7.02	99.08	<10	<10	<10	<20	<1,000	14,000/15,000 ^a
	09/28/00		7.07	99.03	<5.0	<5.0	<5.0	<5.0	<500	13000/18,800 ^a
	12/17/00		6.95	99.15	<0.5	<0.5	<0.5	<0.5	<50	10,600
	03/28/01		6.88	99.22	<5.0	<5.0	<5.0	<5.0	<500	16,900
	06/21/01		7.18	98.92	<10	<10	<10	<10	<1,000	3,400
	09/23/01		7.11	98.99	<10	<10	<10	<10	<1,000	2200/1800 ^a
	12/31/01		6.91	99.19	<50	<50	<50	<50	<5,000	14,000
MW-3	06/20/00	106.29	9.18	97.11	<0.5	<0.5	<0.5	<1.0	<50	27/27 ^a
	09/28/00		9.33	96.96	<0.5	<0.5	<0.5	<1.0	<50	4.3/<2.0 ^a
	12/17/00		9.31	96.98	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	03/28/01		9.23	97.06	<0.5	<0.5	<0.5	<0.5	<50	7.42
	06/21/01		9.58	96.71	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	09/23/01		9.76	96.53	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	12/31/01		8.78	97.51	<0.5	<0.5	<0.5	<0.5	<50	<2.5
MW-4	06/20/00	107.40	8.49	98.91	<0.5	<0.5	<0.5	<1.0	<50	<10
	09/28/00		8.70	98.70	<0.5	<0.5	<0.5	<1.0	<50	<2.5
	12/17/00		8.53	98.87	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	03/28/01		8.59	98.81	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	06/21/01		8.79	98.61	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	09/23/01		8.67	98.73	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	12/31/01		8.03	99.37	<0.5	<0.5	<0.5	<0.5	<50	<2.5

TABLE 1
GROUNDWATER ANALYTICAL DATA

ARCO Service Station 4494
 566 Hegenberger Road at Edes Avenue
 Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TPH as Gasoline (µg/L)	MTBE (µg/L)
MW-5	06/20/00	105.19	7.65	97.54	<0.5	<0.5	<0.5	<1.0	<50	<10
	09/28/00		6.82	98.37	<0.5	<0.5	<0.5	<1.0	<50	<2.5
	12/17/00		6.5	98.69	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	03/28/01		6.34	98.85	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	06/21/01		7.88	97.31	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	09/23/01		6.98	98.21	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	12/31/01		5.01	100.18	<0.5	<0.5	<0.5	<0.5	<50	<2.5
MW-6	06/20/00	105.07	6.24	98.83	<0.5	<0.5	<0.5	<1.0	<50	<10
	09/28/00		6.45	98.62	<0.5	<0.5	<0.5	<1.0	<50	<2.5
	12/17/00		6.26	98.81	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	03/28/01		6.10	98.97	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	06/21/01		7.68	97.39	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	09/23/01		6.72	98.35	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	12/23/01		4.68	100.39	<0.5	<0.5	<0.5	<0.5	<50	<2.5
MW-7	06/20/00	105.52	8.65	96.87	<0.5	<0.5	<0.5	<1.0	<50	13/13 ^a
	09/28/00		8.75	96.77	<0.5	<0.5	<0.5	<1.0	<50	136/261 ^a
	12/17/00		8.62	96.90	<0.5	<0.5	<0.5	<0.5	<50	27.1
	03/28/01		8.66	96.86	<0.5	<0.5	<0.5	<0.5	<50	51.5
	06/21/01		8.84	96.68	<0.5	<0.5	<0.5	<0.5	<50	53
	09/23/01		8.75	96.77	<0.5	<0.5	<0.5	<0.5	<50	35/21 ^a
	12/23/01		7.79	97.73	<0.5	<0.5	<0.5	<0.5	<50	440

TABLE 1
GROUNDWATER ANALYTICAL DATA

ARCO Service Station 4494
566 Hegenberger Road at Edes Avenue
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as Gasoline (µg/L)	MTBE (µg/L)
RW-1	06/20/00	NE	8.21		<0.5	1.1	<0.5	<1.0	<50	<10
	09/28/00		8.28	NC	<0.5	<0.5	<0.5	<1.0	<50	<2.5
	12/17/00		8.29	NC	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	03/28/01		8.16	NC	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	06/21/01		9.37	NC	5.1	<0.5	1.1	3.2	160	<2.5
	09/23/01		8.75	NC	<0.5	<0.5	<0.5	<0.5	57	<2.5
	12/31/01		6.8	NC	3.1	<0.5	6.4	4.7	520	<2.5

^a Analyzed by EPA Method 8260

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted

µg/L = Micrograms per liter

NC = Not calculated

NE = Not surveyed/No elevation

TABLE 2
GROUNDWATER FLOW DIRECTION AND GRADIENT

ARCO Service Station No. 4494
566 Hegenberger Road at Edes Avenue
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

Note: Please refer to Appendix B for Historical Groundwater Elevation and Analytical Data
Tables developed by IT Corporation