



ENVIRONMENTAL  
PROTECTION

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October 10, 1997

**ENV - STUDIES, SURVEYS, & REPORTS**

**Former Texaco Service Station/Current Exxon Service Station**  
**2225 Telegraph Avenue, Oakland, CA**  
Quarterly Monitoring Report

Ms. Pam Evans  
Alameda County Health Care Services Agency  
Environmental Health Services  
1131 Harbor Bay Parkway, #250  
Alameda, CA 94502-6577

Dear Ms. Evans:

This letter presents the results of groundwater monitoring and sampling conducted by Blaine Tech Services, Inc. on 08/18/97, at the site referenced above. Based on groundwater level measurements, the areal hydraulic gradient was estimated to be south (see Plate 1, Groundwater Data). TPHg and benzene concentrations are shown on Plate 2. Table 1 lists historical groundwater monitoring data and analytical results.

The certified analytical report, chain-of-custody, field data sheets, bill of lading, and quarterly summary report are in the Appendix. Texaco's Standard Operating Procedures may be found in the first quarter, 1995 monitoring report.

If you have any questions or comments regarding this site, please call the Texaco Project Coordinator, Ms. Karen Petryna at (510) 236-9139.

Best Regards,  
Texaco Refining and Marketing Inc

Rebecca Digneress  
Groundwater Program Analyst

Karen E. Petryna, P. E.  
Civil Engineer  
Environment, Health & Safety



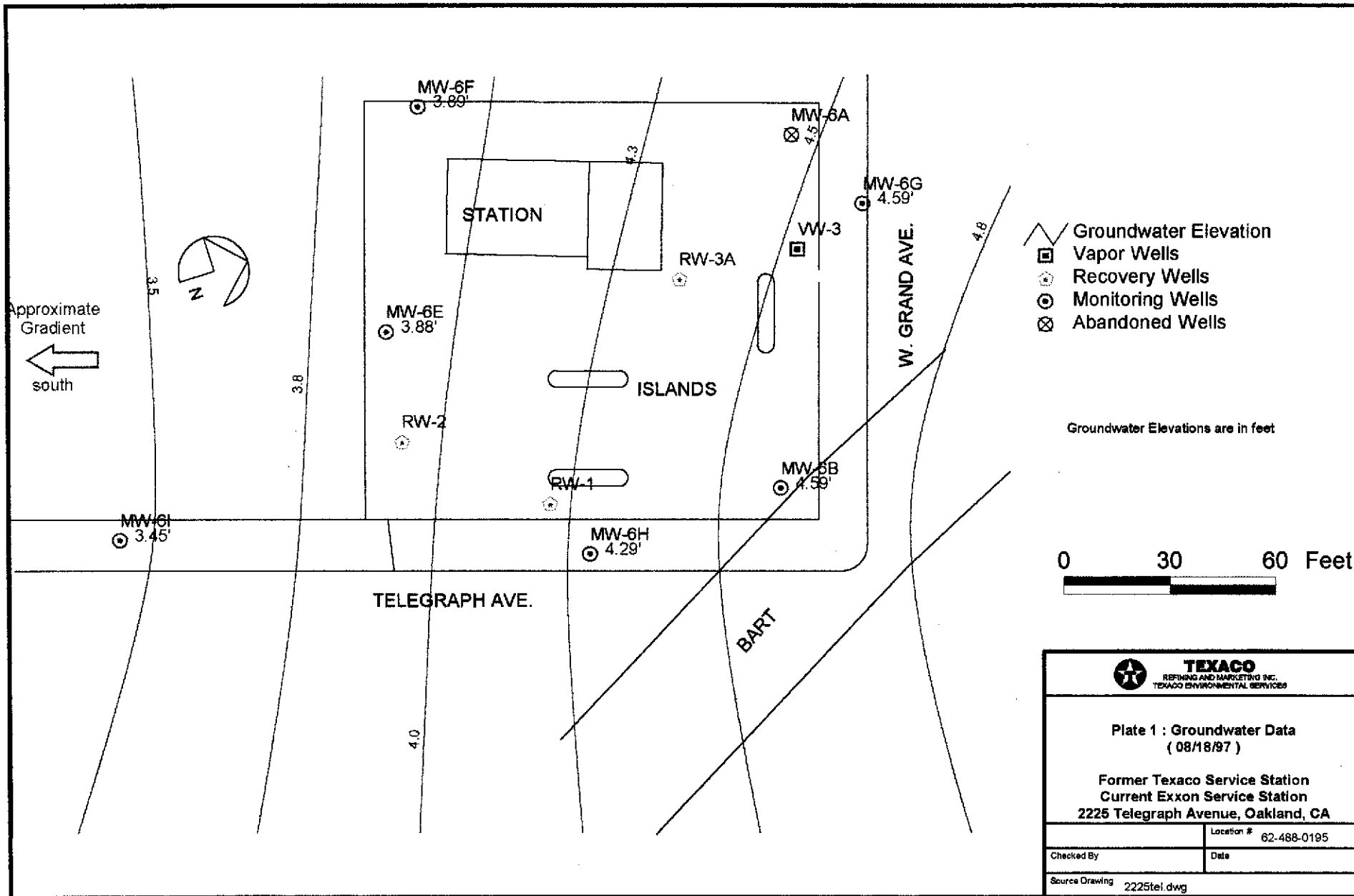
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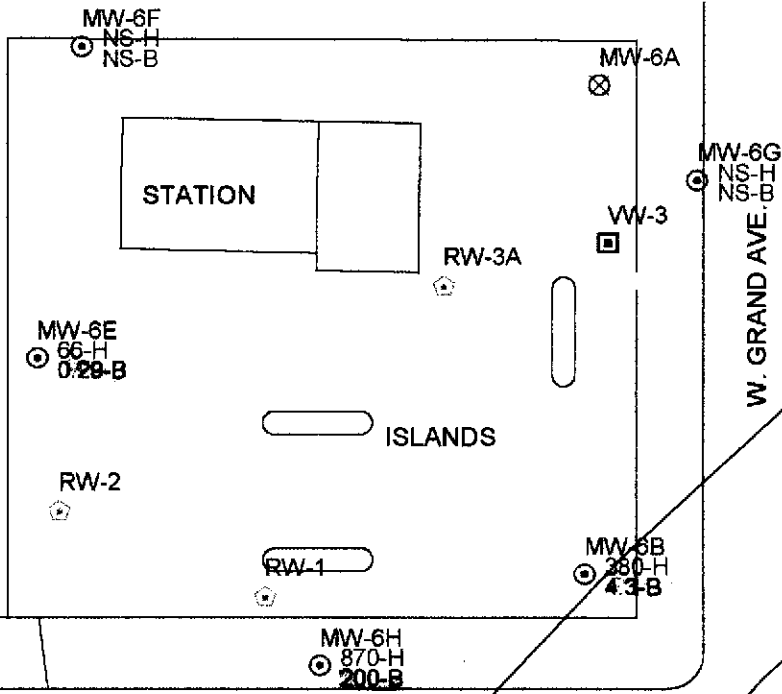
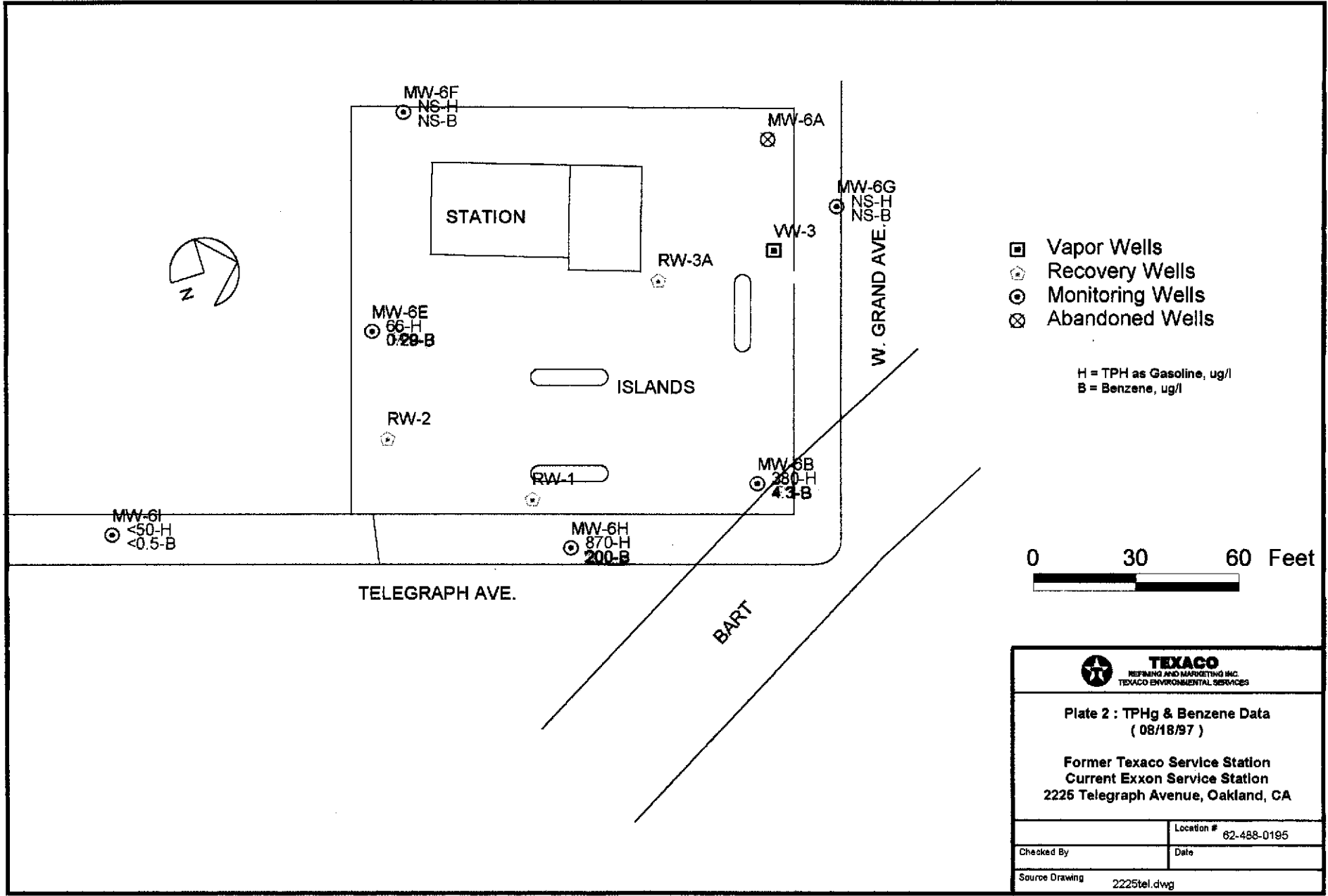
Enclosure

cc: Ms. Marla Guensler  
Exxon Company, U.S.A., Marketing Department  
2300 Clayton Rd.  
Concord, CA 94520

Mr. Sarkis Soghomonian  
Kaprealian Engineering, Inc.  
2401 Stanwell Drive, Suite 400  
Concord, CA 94520

PR: RLZ





TELEGRAPH AVE.

W. GRAND AVE.

BART

**Table 1**  
**Groundwater Elevation Data and Analytical Results**  
**2225 Telegraph Avenue, Oakland, CA**

Well ID	Date	TOC	DTW	GWE	TPHg	Benzene	Toluene	Ebenzene	Xylenes	MTBE
MV-6B	03/25/92	17.48	11.58	5.90	190	31	8.6	84	8.6	NS
MV-6B	06/16/92	17.48	12.54	4.94	1700	44	1.7	7.2	230	NS
MV-6B	09/08/92	17.48	12.87	4.61	2900	35	8.3	110	330	NS
MV-6B	11/05/92	17.48	12.70	4.78	1400	29	<0.5	75	190	NS
MV-6B	02/11/93	17.48	11.70	5.78	210	1.2	<0.5	2.8	4.3	NS
MV-6B	05/11/93	17.48	12.22	5.26	570	54	2.4	37	36	NS
MV-6B	08/10/93	17.48	12.82	4.66	1300	48	2.4	28	44	NS
MV-6B	10/27/93	17.48	13.18	4.30	1300	23	1.7	25	250	NS
MV-6B	02/16/94	17.48	12.07	5.41	300	16	<0.5	3.5	2.4	NS
MV-6B	05/31/94	17.48	12.42	5.06	690	21	3.9	11	36	NS
MV-6B	08/30/94	17.48	13.02	4.46	260	4	0.62	0.82	4	NS
MV-6B	11/11/94	17.48	11.72	5.76	300	60	2	1.2	2.4	NS
MV-6B	02/27/95	17.48	11.84	5.64	180	28	2.6	0.65	1.6	NS
MV-6B	05/30/95	17.48	12.09	5.39	200	23	3.6	0.88	2.3	NS
MV-6B	08/30/95	17.48	12.76	4.72	120	3.8	3.6	0.61	0.69	42
MV-6B	10/25/95	17.48	13.03	4.45	91	1.7	<0.5	<0.5	0.84	NS
MV-6B	02/24/96	17.48	11.48	6.00	110	27	0.86	0.98	1.8	NS
MV-6B	04/22/96	17.48	12.91	4.57	<50	2.3	<0.5	<0.5	<0.5	<30
MV-6B	08/13/96	NM	NM	NM	210	4.3	0.70	<0.5	1.1	<30
MV-6B	11/26/96	17.48	12.26	5.22	<50	<0.5	<0.5	<0.5	<0.5	<30
MV-6B	02/27/97	17.48	11.73	5.75	<50	<0.5	<0.5	<0.5	0.80	<30
MV-6B	05/21/97	17.48	12.70	4.78	<50	<0.5	<0.5	<0.5	<0.5	<30
MV-6B	08/18/97	17.48	12.89	4.59	380	4.3	<0.5	1.2	1.5	<30
MV-6E	03/25/92	17.63	12.15	5.48	830	41	1	3.8	16	NS
MV-6E	06/16/92	17.63	13.54	4.09	3400	300	23	68	510	NS
MV-6E	09/08/92	17.63	14.78	2.85	480	27	<0.5	3.6	21	NS
MV-6E	11/05/92	17.63	NM	NM	NS	NS	NS	NS	NS	NS
MV-6E	02/11/93	17.63	12.85	4.78	270	15	<0.5	<0.5	8.7	NS
MV-6E	05/11/93	17.63	13.59	4.04	<50	2.3	<0.5	1.4	3.2	NS
MV-6E	08/10/93	17.63	14.13	3.50	1700	130	2.7	23	140	NS
MV-6E	10/27/93	17.63	14.34	3.29	100	6	<0.5	<0.5	<0.5	NS
MV-6E	02/16/94	17.63	13.34	4.29	640	45	<0.5	12	15	NS
MV-6E	05/31/94	17.63	13.82	3.81	52	1.5	0.97	<0.5	<0.5	NS
MV-6E	08/30/94	17.63	14.32	3.31	920	22	0.98	5.2	33	NS
MV-6E	11/11/94	17.63	13.92	3.71	910	13	2.4	13	2.5	NS

Benzene, Toluene, Ethylbenzene, and Xylenes are measured in ug/l.  
 ug/l = micrograms/liter  
 mg/l = milligrams/liter  
 < = Less than the specified detection limit.  
 ND = Not Detected  
 NM = Not Measured  
 NS = Not Sampled  
 SD = Sheen Detected

TOC = Top of Casing Elevation, Feet.  
 DTW = Depth to Water, feet below TOC.  
 GWE = Groundwater Elevation, feet.  
 TPHg = Total Petroleum Hydrocarbons as Gasoline, ug/l.  
 MTBE = Methyl-tert-butylether, ug/l.

**Table 1-p. 2**  
**Groundwater Elevation Data and Analytical Results**  
**2225 Telegraph Avenue, Oakland, CA**

Well ID	Date	TOC	DTW	GWE	TPHg	Benzene	Toluene	Ebenzene	Xylenes	MTBE
MV-6E	02/27/95	17.63	12.96	4.67	<50	1.9	1.3	<0.5	0.83	NS
MV-6E	05/30/95	17.63	13.20	4.43	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6E	08/30/95	17.63	13.85	3.78	1500	91	2.3	56	59	NS
MV-6E	10/25/95	17.63	13.96	3.67	290	7.7	<0.5	5.7	1.7	NS
MV-6E	02/24/96	17.63	11.80	5.83	<50	2.2	0.77	<0.5	0.83	NS
MV-6E	04/22/96	17.63	12.45	5.18	<50	<0.5	<0.5	<0.5	<0.5	<30
MV-6E	08/13/96	NM	NM	NM	420	47	1.9	8.1	26	<30
MV-6E	11/26/96	17.63	12.94	4.69	<50	1.1	<0.5	<0.5	<0.5	<30
MV-6E	02/27/97	17.63	12.28	5.35	<50	<0.5	<0.5	<0.5	<0.5	<30
MV-6E	05/21/97	17.63	13.60	4.03	160	10	1.4	5.5	4.8	<5
MV-6E	08/18/97	17.63	13.75	3.88	66	0.29	0.14	0	0.21	12
MV-6F	03/25/92	18.58	11.93	6.65	ND	ND	<0.5	<0.5	<0.5	NS
MV-6F	06/16/92	18.58	14.34	4.24	ND	ND	<0.5	<0.5	<0.5	NS
MV-6F	09/08/92	18.58	14.75	3.83	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6F	11/05/92	18.58	14.35	4.23	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6F	02/11/93	18.58	12.25	6.33	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6F	05/11/93	18.58	13.63	4.95	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6F	08/10/93	18.58	NM	NM	NS	NS	NS	NS	NS	NS
MV-6F	10/27/93	18.58	14.85	3.73	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6F	02/16/94	18.58	13.08	5.50	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6F	05/31/94	18.58	14.06	4.52	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6F	08/30/94	18.58	14.84	3.74	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6F	11/11/94	18.58	12.60	5.98	<50	<0.5	0.54	<0.5	<0.5	NS
MV-6F	02/27/95	18.58	12.75	5.83	<50	6.2	3.0	0.82	3.5	NS
MV-6F	05/30/95	18.58	13.16	5.42	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6F	08/30/95	18.58	14.31	4.27	<50	<0.5	<0.5	<0.5	<0.5	<10
MV-6F	10/25/95	18.58	14.40	4.18	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6F	02/24/96	18.58	10.88	7.70	NS	NS	NS	NS	NS	NS
MV-6F	04/22/96	18.58	12.56	6.02	<50	<0.5	<0.5	<0.5	<0.5	<30
MV-6F	08/13/96	NM	NM	NM	NS	NS	NS	NS	NS	NS
MV-6F	11/26/96	18.58	13.29	5.29	<50	<0.5	<0.5	<0.5	<0.5	<30
MV-6F	02/27/97	18.58	NM	NM	NS	NS	NS	NS	NS	NS
MV-6F	05/21/97	18.58	14.18	4.40	NS	NS	NS	NS	NS	NS
MV-6F	08/18/97	18.58	14.69	3.89	NS	NS	NS	NS	NS	NS
MV-6G	03/25/92	16.82	9.93	6.89	NS	NS	<0.5	<0.5	<0.5	NS

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**Table 1-p. 3  
Groundwater Elevation Data and Analytical Results  
2225 Telegraph Avenue, Oakland, CA**

Well ID	Date	TOC	DTW	GWE	TPHg	Benzene	Toluene	Ebenzene	Xylenes	MTBE
MV-6G	06/16/92	16.82	11.88	4.94	NS	NS	<0.5	<0.5	<0.5	NS
MV-6G	09/08/92	16.82	12.20	4.62	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6G	11/05/92	16.82	12.02	4.80	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6G	02/11/93	16.82	10.04	6.78	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6G	05/11/93	16.82	11.05	5.77	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6G	08/10/93	16.82	12.17	4.65	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6G	10/27/93	16.82	13.47	3.35	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6G	02/16/94	16.82	10.62	6.20	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6G	05/31/94	16.82	11.40	5.42	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6G	08/30/94	16.82	12.32	4.50	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6G	11/11/94	16.82	11.06	5.76	58	0.58	1.6	<0.5	1.6	NS
MV-6G	02/27/95	16.82	10.32	6.50	<50	0.86	0.99	<0.5	0.51	NS
MV-6G	05/30/95	16.82	10.77	6.05	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6G	08/30/95	16.82	11.92	4.90	<50	<0.5	<0.5	<0.5	<0.5	<10
MV-6G	10/25/95	16.82	12.11	4.71	<50	<0.5	<0.5	<0.5	<0.5	NS
MV-6G	02/24/96	16.82	9.47	7.35	NS	NS	NS	NS	NS	NS
MV-6G	04/22/96	16.82	10.43	6.39	<50	<0.5	<0.5	<0.5	<0.5	<30
MV-6G	08/13/96	NM	NM	NM	NS	NS	NS	NS	NS	NS
MV-6G	11/26/96	16.82	11.12	5.70	<50	<0.5	<0.5	<0.5	<0.5	<30
MV-6G	02/27/97	16.82	NM	NM	NS	NS	NS	NS	NS	NS
MV-6G	05/21/97	16.82	11.76	5.06	NS	NS	NS	NS	NS	NS
MV-6G	08/18/97	16.82	12.23	4.59	NS	NS	NS	NS	NS	NS
MV-6H	03/25/92	16.58	11.65	4.93	920	170	52	25	54	NA
MV-6H	06/16/92	16.58	12.12	4.46	460	31	11	7	16	NS
MV-6H	09/08/92	16.58	12.30	4.28	780	69	23	17	18	NS
MV-6H	11/05/92	16.58	12.05	4.53	3400	500	260	85	160	NS
MV-6H	02/11/93	16.58	12.22	4.36	2500	410	170	28	130	NS
MV-6H	05/11/93	16.58	12.35	4.23	4200	490	270	80	210	NS
MV-6H	08/10/93	16.58	12.30	4.28	650	83	22	14	29	NS
MV-6H	10/27/93	16.58	13.93	2.65	1600	130	90	29	130	NS
MV-6H	02/16/94	NM	NM	NM	<50	<0.5	<0.5	<0.5	2.9	NS
MV-6H	05/31/94	16.58	12.46	4.12	1800	370	220	65	210	NS
MV-6H	08/30/94	16.58	12.72	3.86	1900	130	90	19	86	NS
MV-6H	11/11/94	16.58	11.98	4.60	13000	1700	1400	260	1800	NS
MV-6H	02/27/95	16.58	11.89	4.69	320	450	120	28	79	NS

Benzene, Toluene, Ethylbenzene, and Xylenes are measured in ug/l.

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SD = Sheen Detected

TOC = Top of Casing Elevation, Feet.

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GWE = Groundwater Elevation, feet.

TPHg = Total Petroleum Hydrocarbons as Gasoline, ug/l.

MTBE = Methyl-tert-butylether, ug/l.

**Table 1-p. 4**  
**Groundwater Elevation Data and Analytical Results**  
**2225 Telegraph Avenue, Oakland, CA**

Well ID	Date	TOC	DTW	GWE	TPHg	Benzene	Toluene	Ebenzene	Xylenes	MtBE
MW-6H	05/30/95	16.58	12.05	4.53	2300	960	260	64	200	NS
MW-6H	08/30/95	16.58	12.34	4.24	2100	590	35	24	74	50
MW-6H	10/25/95	16.58	12.52	4.06	1400	93	23	11	80	NS
MW-6H	02/24/96	16.58	11.58	5.00	2000	810	92	25	78	NS
MW-6H	04/22/96	16.58	11.68	4.90	3200	1200	160	38	200	<30
MW-6H	08/13/96	NM	NM	NM	930	110	21	4.2	81	77
MW-6H	11/26/96	16.58	11.87	4.71	1200	320	110	22	85	<30
MW-6H	02/27/97	16.58	11.58	5.00	1800	760	31	8.4	44	<200
MW-6H	05/21/97	16.58	12.23	4.35	1100	640	18	5.4	45	81
MW-6H	08/18/97	16.58	12.29	4.29	870	200	3.6	2.4	7.4	26
MW-6I	03/25/92	16.26	12.12	4.14	ND	ND	<0.5	<0.5	<0.5	NS
MW-6I	06/16/92	16.26	12.75	3.51	ND	ND	<0.5	<0.5	<0.5	NS
MW-6I	09/08/92	16.26	12.84	3.42	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6I	11/05/92	16.26	12.75	3.51	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6I	02/11/93	16.26	12.40	3.86	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6I	05/11/93	16.26	12.73	3.53	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6I	08/10/93	16.26	12.97	3.29	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6I	10/27/93	16.26	13.10	3.16	<50	<0.5	<0.5	<0.5	1.1	NS
MW-6I	02/16/94	16.26	12.66	3.60	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6I	05/31/94	16.26	12.90	3.36	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6I	08/30/94	16.26	13.06	3.20	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6I	11/11/94	16.26	15.20	1.06	53	0.62	1.8	<0.5	2.0	NS
MW-6I	02/27/95	16.26	12.51	3.75	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6I	05/30/95	16.26	12.57	3.69	69	2.8	0.96	1.1	4.3	NS
MW-6I	08/30/95	16.26	12.86	3.40	<50	<0.5	<0.5	<0.5	<0.5	<10
MW-6I	10/25/95	16.26	12.92	3.34	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6I	02/24/96	16.26	11.97	4.29	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6I	04/22/96	16.26	12.35	3.91	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-6I	08/13/96	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-6I	11/26/96	16.26	12.45	3.81	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-6I	02/27/97	16.26	12.24	4.02	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-6I	05/21/97	16.26	12.82	3.44	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-6I	08/18/97	16.26	12.81	3.45	<50	<0.5	<0.5	<0.5	<0.5	<30
RW-1	02/25/92	16.79	14.40	2.39	NS	NS	NS	NS	NS	NS
RW-1	03/25/92	16.79	NM	NM	NS	NS	NS	NS	NS	NS

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**Table 1-p. 5**  
**Groundwater Elevation Data and Analytical Results**  
**2225 Telegraph Avenue, Oakland, CA**

Well ID	Date	TOC	DTW	GWE	TPHg	Benzene	Toluene	Ebenzene	Xylenes	MTBE
RW-1	06/16/92	16.79	12.37	4.42	6200	620	1400	240	1400	NS
RW-2	02/25/92	17.02	16.27	0.75	NS	NS	NS	NS	NS	NS
RW-2	03/25/92	17.02	NM	NM	NS	NS	NS	NS	NS	NS
RW-2	06/16/92	17.02	12.86	4.16	28000	2900	1000	120	2700	NS
RW-3	08/30/94	18.04	NM	NM	NS	NS	NS	NS	NS	NS

TOC = Top of Casing Elevation, Feet.  
DTW = Depth to Water, feet below TOC.  
GWE = Groundwater Elevation, feet.  
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Benzene, Toluene, Ethylbenzene, and Xylenes are measured in ug/l.  
ug/l = micrograms/liter  
mg/l = milligrams/liter  
< = Less than the specified detection limit.  
ND = Not Detected  
NM = Not Measured  
NS = Not Sampled  
SD = Sheen Detected

# ANALYTICAL REPORT



Our Quality Control Is Your Quality Assurance

LOG NO: G97-08-369

Received: 19 AUG 97

Mailed: **AUG 27 1997**

Ms. Rebecca Digerness  
 Texaco Environmental Services  
 108 Cutting Boulevard  
 Richmond, CA 94804

Purchase Order: 94-1446346+4370

Requisition: 624880195  
 Project: FKEP9036L

## REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	08-369-1	08-369-2	08-369-3
DATE SAMPLED	18 AUG 97	18 AUG 97	18 AUG 97
SAMPLE DESCRIPTION	MW-6B	MW-6E	MW-6H
AQUEOUS			
GRO (8015M.TX)			
Date Analyzed	08/21/97	08/22/97	08/22/97
Dilution Factor, Times	1	1	1
Benzene, ug/L	4.3	<0.5	200
Toluene, ug/L	<0.5	<0.5	3.6
Ethylbenzene, ug/L	1.2	<0.5	2.4
Methyl-tert-butylether, ug/L	<30	<30	<30
Total Xylene Isomers, ug/L	1.5	<0.5	7.4
Carbon Range, .	C6-C12	C6-C12	C6-C12
TPH (Gasoline Range), ug/L	380	66	870
Other GRO (8015M.TX)	---	---	---
Surrogates **			
a,a,a-Trifluorotoluene Rep., ug/L	55.8	52.4	50.4
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0	50.0

Karen Petryna  
 2225 Telegraph Ave., Oakland  
 Alameda County

LOG NO: 697-08-369

Received: 19 AUG 97

Ms. Rebecca Digerness  
Texaco Environmental Services  
108 Cutting Boulevard  
Richmond, CA 94804

Purchase Order: 94-1446346+4370

Requisition: 624880195

Project: FKEP9036L

REPORT OF ANALYTICAL RESULTS

Page 2

LOG NO	08-369-1	08-369-2	08-369-3
DATE SAMPLED	18 AUG 97	18 AUG 97	18 AUG 97
SAMPLE DESCRIPTION	MW-6B	MW-6E	MW-6H
AQUEOUS			
Data Review , Date	08/27/97	08/27/97	08/27/97

LOG NO: G97-08-369

Received: 19 AUG 97

Ms. Rebecca Digerness  
Texaco Environmental Services  
108 Cutting Boulevard  
Richmond, CA 94804

Purchase Order: 94-1446346+4370

Requisition: 624880195  
Project: FKEP9036L

REPORT OF ANALYTICAL RESULTS

Page 3

LOG NO	08-369-4
DATE SAMPLED	18 AUG 97
SAMPLE DESCRIPTION	MW-6I
AQUEOUS	
GRO (8015M.TX)	
Date Analyzed	08/22/97
Dilution Factor, Times	1
Benzene, ug/L	<0.5
Toluene, ug/L	<0.5
Ethylbenzene, ug/L	<0.5
Methyl-tert-butylether, ug/L	<30
Total Xylene Isomers, ug/L	<0.5
Carbon Range, .	C6-C12
TPH (Gasoline Range), ug/L	<50
Other GRO (8015M.TX)	---
Surrogates **	
a,a,a-Trifluorotoluene Rep., ug/L	51.5

LOG NO: G97-08-369

Received: 19 AUG 97

Ms. Rebecca Digerness  
Texaco Environmental Services  
108 Cutting Boulevard  
Richmond, CA 94804

Purchase Order: 94-1446346+4370

Requisition: 624880195  
Project: FKEP9036L

REPORT OF ANALYTICAL RESULTS

Page 4

LOG NO	08-369-4
DATE SAMPLED	18 AUG 97
SAMPLE DESCRIPTION	MW-6I
AQUEOUS	
a,a,a-Trifluorotoluene Th., ug/L	50.0
Data Review , Date	08/27/97

LOG NO: G97-08-369

Received: 19 AUG 97

Ms. Rebecca Digerness  
Texaco Environmental Services  
108 Cutting Boulevard  
Richmond, CA 94804

Purchase Order: 94-1446346+4370

Requisition: 624880195  
Project: FKEP9036L

REPORT OF ANALYTICAL RESULTS

Page 5

LOG NO	08-369-5
DATE SAMPLED	18 AUG 97
SAMPLE DESCRIPTION	EB
AQUEOUS	
GRO (8015M.TX)	
Date Analyzed	08/22/97
Dilution Factor, Times	1
Benzene, ug/L	<0.5
Toluene, ug/L	<0.5
Ethylbenzene, ug/L	<0.5
Methyl-tert-butylether, ug/L	<30
Total Xylene Isomers, ug/L	<0.5
Carbon Range, .	C6-C12
TPH (Gasoline Range), ug/L	<50
Other GRO (8015M.TX)	---
Surrogates **	
a,a,a-Trifluorotoluene Rep., ug/L	50.9

LOG NO: G97-08-369

Received: 19 AUG 97

Ms. Rebecca Digerness  
Texaco Environmental Services  
108 Cutting Boulevard  
Richmond, CA 94804


Purchase Order: 94-1446346+4370

Requisition: 624880195  
Project: FKEP9036L

REPORT OF ANALYTICAL RESULTS

Page 6

LOG NO	08-369-5
DATE SAMPLED	18 AUG 97
SAMPLE DESCRIPTION	EB
AQUEOUS	
a,a,a-Trifluorotoluene Th., ug/L	50.0
Data Review , Date	08/27/97

  
Greta Galoustian, Laboratory Director

The analytical results within this report relate only to the specific compounds and samples investigated and may not necessarily reflect other apparently similar material from the same or a similar location.

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: ORDER PLACED FOR CLIENT: Texaco Environmental Services 9708369 :  
 : VOC ANALYTICAL : GLEN LAB : 11:01:15 27 AUG 1997 - P. 1 :  
 =====

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE.....	METHOD.....	EQUIP.	BATCH..	ID.NO
			ANALYZED				
9708369*1	MW-6B	GAS.MTBE.TESNC	08.21.97	8015M.TX	536-21	976108	7424
		DATA.REVIEW	08.27.97				7524
9708369*2	MW-6E	GAS.MTBE.TESNC	08.22.97	8015M.TX	536-21	976108	7424
		DATA.REVIEW	08.27.97				7524
9708369*3	MW-6H	GAS.MTBE.TESNC	08.22.97	8015M.TX	536-23	975125	7424
		DATA.REVIEW	08.27.97				7524
9708369*4	MW-6I	GAS.MTBE.TESNC	08.22.97	8015M.TX	536-21	976108	7424
		DATA.REVIEW	08.27.97				7524
9708369*5	EB	GAS.MTBE.TESNC	08.22.97	8015M.TX	536-23	975125	7424
		DATA.REVIEW	08.27.97				7524

\*\*\*

Notes: Equipment = VOC Analytical identification number for a particular piece of analytical equipment.

ID.NO = VOC Analytical employee identification number of analyst.



AQUEOUS SAMPLES	----- METHOD BLANK -----				----- LAB CONTROL -----							----- MATRIX QC -----										
	UNITS	RESULT	RDL	FLG	LCS		LCSD		RPD		RPD	MS		MSD		RPD		RPD				
					%REC	FLG	%REC	FLG	LCL	UCL		RPD	UCL	FLG	%REC	FLG	%REC		FLG	LCL	UCL	RPD
Batch: GAS*975125 Method: 8015M.TX - Modified 8015																						
Benzene	ug/L	0	0.5	-	98	-	-	-	76	155	-	-	-	102	-	83	-	70	153	12	25	-
Toluene	ug/L	0.12	0.5	-	101	-	-	-	72	121	-	-	-	81	-	73	-	69	119	10	25	-
Ethylbenzene	ug/L	0	0.5	-	101	-	-	-	72	115	-	-	-	81	-	72	-	68	116	12	25	-
Methyl-tert-butylether	ug/L	0	30	-	106	-	-	-	62	159	-	-	-	117	-	104	-	80	176	11	25	-
Total Xylene Isomers	ug/L	0.13	0.5	-	107	-	-	-	68	115	-	-	-	85	-	75	-	61	118	12	25	-
TPH (Gasoline Range)	ug/L	0	50	-	108	-	-	-	85	120	-	-	-	108	-	105	-	78	124	2	25	-
[a,a,a-Trifluorotoluene]	Percent	103	-	-	90	-	-	-	85	118	-	-	-	105	-	99	-	85	118	-	-	-
Batch: GAS*976108 Method: 8015M.TX - Modified 8015																						
Benzene	ug/L	0	0.5	-	89	-	-	-	76	155	-	-	-	105	-	98	-	70	153	6	25	-
Toluene	ug/L	0.11	0.5	-	89	-	-	-	72	121	-	-	-	89	-	88	-	69	119	1	25	-
Ethylbenzene	ug/L	0	0.5	-	89	-	-	-	72	115	-	-	-	89	-	88	-	68	116	2	25	-
Methyl-tert-butylether	ug/L	0	30	-	104	-	-	-	62	159	-	-	-	141	-	140	-	80	176	1	25	-
Total Xylene Isomers	ug/L	0	0.5	-	91	-	-	-	68	115	-	-	-	77	-	76	-	61	118	1	25	-
TPH (Gasoline Range)	ug/L	0	50	-	108	-	-	-	85	120	-	-	-	103	-	105	-	78	124	1	25	-
[a,a,a-Trifluorotoluene]	Percent	106	-	-	99	-	-	-	85	118	-	-	-	137	Q	139	Q	85	118	-	-	-

: SURROGATE RECOVERIES :  
: BC ANALYTICAL : GLEN LAB : 11:02:09 27 AUG 1997 - P. 1 :  
=====

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9708369*1							
8015M.TXa	,a,a-Trifluorotoluene	Re976108	08/21/97	55.8	50.0	112	
9708369*2							
8015M.TXa	,a,a-Trifluorotoluene	Re976108	08/22/97	52.4	50.0	105	
9708369*3							
8015M.TXa	,a,a-Trifluorotoluene	Re975125	08/22/97	50.4	50.0	101	
9708369*4							
8015M.TXa	,a,a-Trifluorotoluene	Re976108	08/22/97	51.5	50.0	103	
9708369*5							
8015M.TXa	,a,a-Trifluorotoluene	Re975125	08/22/97	50.9	50.0	102	

Chain of Custody

Texaco Environmental Services

108 Cutting Boulevard  
 Richmond, California 94804  
 Phone: (510) 230-3541  
 FAX: (510) 237-7021

Forward Results to the Attention of Rebecca Digeress

Texaco Project Coordinator Karen Petryna

Site Name: Texaco Loc# 624880195

Site Address: 2225 Telegraph Ave., Oakland, CA

Contractor Project Number: \_\_\_\_\_

Contractor Name: Blaine Tech Services, Inc.

Address: 1680 Rogers Ave., San Jose, CA 95122

Project Contact: Kent Brown

Phone/FAX: (408) 573-0555 / (408) 573-7771

Laboratory: B C Analytical

Turn Around Time: normal (10 day)

Sampler (PRINT NAME): TOP DOLLARS

Sampler Signature: [Signature]

Date Samples Collected: 8/18/97

ANALYSIS										Comments
TPH gas/STEX / MTBE	TPH Diesel	O&G/TRPH (C18.1)	TPH Ex. (C8-C30 +)	VOCs B20/524	P. Halocarbons 8010/60	P. Aromatics 8020/602	Organic Lead			
MW-6B										69708369
MW-6E										
MW-6H										
MW-6I										
EB										

Relinquished by: [Signature] Date: 8/19/97 Time: 13:47

Received by: [Signature] Date: 8/19/97 Time: 1:50

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: [Signature] Date: 8/19/97 Time: 3:55

Relinquished by: [Signature] Date: 8/19/97 Time: 17:00

Received by: [Signature] Date: 8/20/97 Time: 08:00

Method of Shipment: \_\_\_\_\_

Lab Comments: \_\_\_\_\_

2225 Telegraph Ave.  
Oakland, CA.

Project Name: Text# 624580195  
Project Number: 970818-D1

### Well Gauging Data

Date: 8/18/97  
Recorded By: FBD

Well ID	TOC Elev.	DTB (ft. TOC)	Well Dia. (in.)	DTP (ft.)	DTW (ft.)	PT (ft.)	Comments
MW-6B	TOC	18.17	2		12.89		
MW-6E		19.49	4		13.75		
MW-6F		19.60	4		14.69		
MW-6G		19.49	4		12.23		
MW-6H		19.57	4		12.29		Odor
MW-6I		19.22	4		12.81		

TOC = Top of casing  
DTB = Depth to bottom in feet below TOC  
DTP = Depth to product in feet below TOC  
DTW = Depth to water in feet below TOC  
PT = Product thickness in feet

## TEXACO WELL MONITORING DATA SHEET

Project #: <u>970318-D1</u>	Texaco ID#: <u>624880195</u>
Sampler: <u>ZED</u>	Date: <u>8/18/97</u>
Well I.D.: <u>MW-6B</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>18.17</u>	Depth to Water: <u>12.89</u>
Depth to Free Product:	Thickness of Free Product:
All Measurements are referenced to TOC. Meter used is Myron LpDS pH/EC Meter. All temperatures taken in degrees Fahrenheit.	

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.17	5"	1.02
3"	0.38	6"	1.50
4"	0.66	8"	2.60
4.5"	0.83	Other	radius <sup>2</sup> * 0.164

Purge Method: S.S. Bailer  
 Teflon Bailer  
 Middleburg  
 Electric Submersible  
 Extraction Pump

Sampling Method: S.S. Bailer  
 Teflon Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Other: \_\_\_\_\_

<u>0.9</u>	<u>3</u>	<u>2.7</u>
<u>3.5</u>	<u>3</u>	<u>10.5</u>
1 Case Volume (Gals.)	Specified Volumes	Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Color/Odor
<u>1043</u>	<u>73.4</u>	<u>6.2</u>	<u>1050</u>	<u>7200</u>	<u>41</u>	<u>Odor &amp; grey silt</u>
<u>1044</u>	<u>73.2</u>	<u>6.3</u>	<u>1100</u>	<u>7200</u>	<u>82</u>	
<u>1045</u>	<u>73.1</u>	<u>6.3</u>	<u>1100</u>	<u>7200</u>	<u>123</u>	

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Gallons actually evacuated: <u>3</u>
Sampling Time: <u>1047</u>	Sampling Date: <u>8/18/97</u>
Sample I.D.: <u>MW-6B</u>	Laboratory: <u>BC Analytical</u>
Analyzed for: <u>Tph-G</u> <u>BTEX</u> Tph-D Other: <u>MTBE</u>	
Equipment Blank I.D.:	Analyzed for same as primary sample

## TEXACO WELL MONITORING DATA SHEET

Project #: <u>970818-D1</u>	Texaco ID#: <u>624880195</u>
Sampler: <u>IBD</u>	Date: <u>9/18/97</u>
Well I.D.: <u>MW-6E</u>	Well Diameter: 2 3 <u>4</u> 6 8 <u>    </u>
Total Well Depth: <u>19.49</u>	Depth to Water: <u>13.75</u>
Depth to Free Product:	Thickness of Free Product:

All Measurements are referenced to TOC Meter used is Myron LpDS pH/EC Meter. All temperatures taken in degrees Fahrenheit.

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.17	5"	1.02
3"	0.38	6"	1.50
4"	0.66	8"	2.60
4.5"	0.83	Other	radius <sup>2</sup> * 0.164

Purge Method: <u>S.S. Bailer</u> Teflon Bailer Middleburg <u>Electric Submersible</u> Extraction Pump Other: _____	Sampling Method: <u>S.S. Bailer</u> Teflon Bailer Extraction Port Other: _____
---	---

<u>3.8</u>	x	<u>3</u>	=	<u>11.4</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Color/Odor
<u>1024</u>	<u>67.0</u>	<u>6.5</u>	<u>600</u>	<u>5.9</u>	<u>4</u>	<u>pink color/sheer</u>
<u>1026</u>	<u>67.1</u>	<u>6.4</u>	<u>600</u>	<u>4.7</u>	<u>8</u>	<u>6 odor</u>
<u>1028</u>	<u>67.2</u>	<u>6.3</u>	<u>600</u>	<u>4.6</u>	<u>12</u>	

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Gallons actually evacuated: <u>12</u>
Sampling Time: <u>1032</u>	Sampling Date: <u>9/18/97</u>
Sample I.D.: <u>MW-6E</u>	Laboratory: <u>BC Analytical</u>
Analyzed for: <u>Tph-G</u> <u>BTEX</u> Tph-D	Other: <u>MTBE</u>
Equipment Blank I.D.:	Analyzed for same as primary sample

## TEXACO WELL MONITORING DATA SHEET

Project #: <u>970818-D2</u>	Texaco ID#: <u>624880195</u>
Sampler: <u>ZBD</u>	Date: <u>8/18/97</u>
Well I.D.: <u>MW-6H</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 <u>   </u>
Total Well Depth: <u>19.57</u>	Depth to Water: <u>12.29</u>
Depth to Free Product: <u>   </u>	Thickness of Free Product: <u>   </u>
All Measurements are referenced to <u>TOC</u> Meter used is Myron LpDS pH/EC Meter. All temperatures taken in degrees Fahrenheit.	

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.17	5"	1.02
3"	0.38	6"	1.50
4"	0.66	8"	2.60
4.5"	0.83	Other	radius <sup>2</sup> * 0.164

Purge Method: <u>S.S. Bailer</u> Teflon Bailer Middleburg <u>Electric Submersible</u> Extraction Pump Other: <u>   </u>	Sampling Method: <u>S.S. Bailer</u> Teflon Bailer Extraction Port Other: <u>   </u>
--	--

<u>4.8</u>	x	<u>3</u>	=	<u>14.4</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Color/Odor
<u>1108</u>	<u>73.0</u>	<u>6.1</u>	<u>1100</u>	<u>116.1</u>	<u>5</u>	<u>Odor &amp; Sheen</u>
<u>1110</u>	<u>73.4</u>	<u>6.1</u>	<u>1100</u>	<u>76.7</u>	<u>10</u>	<u>&amp; gray silt</u>
<u>1112</u>	<u>73.1</u>	<u>6.1</u>	<u>1100</u>	<u>69.7</u>	<u>15</u>	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>15</u>
Sampling Time: <u>1116</u>	Sampling Date: <u>8/18/97</u>
Sample I.D.: <u>MW-6H</u>	Laboratory: <u>BC Analytical</u>
Analyzed for: <u>Tph-G</u> <u>BTEX</u> <u>Tph-D</u>	Other: <u>MTBE</u>
Equipment Blank I.D.: <u>EB</u>	Analyzed for same as primary sample <u>Yes</u>

# TEXACO WELL MONITORING DATA SHEET

Project #: <u>970818-D1</u>	Texaco ID#: <u>624880195</u>
Sampler: <u>JD</u>	Date: <u>8/18/97</u>
Well I.D.: <u>MW-6T</u>	Well Diameter: 2 3 <u>4</u> 6 8 <u>    </u>
Total Well Depth: <u>19.22</u>	Depth to Water: <u>12.81</u>
Depth to Free Product: <u>    </u>	Thickness of Free Product: <u>    </u>
All Measurements are referenced to TOC. Meter used is Myron LpDS pH/EC Meter. All temperatures taken in degrees Fahrenheit.	

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.17	5"	1.02
3"	0.38	6"	1.50
4"	0.66	8"	2.60
4.5"	0.83	Other	radius <sup>2</sup> * 0.164

Purge Method: S.S. Bailer                      Sampling Method: S.S. Bailer  
 Teflon Bailer                                      Teflon Bailer  
 Middleburg                                         Extraction Port  
Electric Submersible                            Other: \_\_\_\_\_  
 Extraction Pump

Other: \_\_\_\_\_

<u>4.23</u>	x	<u>3</u>	=	<u>12.7</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Color/Odor
<u>10</u>	<u>70.4</u>	<u>7.2</u>	<u>725</u>	<u>54.16</u>	<u>5</u>	
<u>1002</u>	<u>70.2</u>	<u>7.1</u>	<u>750</u>	<u>104.10</u>	<u>10</u>	
<u>1004</u>	<u>69.4</u>	<u>7.0</u>	<u>775</u>	<u>154.19</u>	<u>15</u>	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>15</u>
Sampling Time: <u>1006</u>	Sampling Date: <u>8/18/97</u>
Sample I.D.: <u>MW-6T</u>	Laboratory: <u>BC Analytical</u>
Analyzed for: <u>(Tph-G) (BTEX) Tph-D</u>	Other: <u>MtBE</u>
Equipment Blank I.D.: <u>    </u>	Analyzed for same as primary sample



**SOURCE RECORD BILL OF LADING**  
 FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM  
 GROUNDWATER WELLS AT TEXACO FACILITIES IN THE  
 STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE-  
 WATER WHICH HAS BEEN RECOVERED FROM GROUND-  
 WATER WELLS IS COLLECTED BY THE CONTRACTOR,  
 MADE UP INTO LOADS OF APPROPRIATE SIZE AND  
 HAULED TO THE DESTINATION DESIGNATED BY TEXACO  
 ENVIRONMENTAL SERVICES (TES).

Contractor: Blaine Tech Services, Inc.  
 Address: 1680 Rogers Avenue  
 City, State, ZIP: San Jose, CA 95112  
 Phone: (408) 573-0555

is authorized by Texaco Environmental Services to recover, collect, apportion into loads, and haul the NON-HAZARDOUS WELL PURGEWATER that is drawn from wells at the Texaco facility listed below and to deliver that purgewater to an appropriate destination designated by TEXACO ENVIRONMENTAL SERVICES in either Redwood City, California or in Richmond, California. Transport routing of the Non-Hazardous Well Purgewater may be directed from one Texaco facility to the designated destination point; from one Texaco facility to the designated destination point via another Texaco facility; from a Texaco facility via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of Texaco Environmental Services (TES).

This SOURCE RECORD BILL OF LADING was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the Texaco facility described below:

TEXACO #: \_\_\_\_\_ Texaco #624880195 \_\_\_\_\_  
 Address: \_\_\_\_\_ 2225 TELEGRAPH AVE. \_\_\_\_\_  
 City, State, ZIP: \_\_\_\_\_ OAKLAND, CA \_\_\_\_\_

Well I.D.	Gals.	Well I.D.	Gals.
<u>MW-6B1</u>	<u>3</u>	<u>1</u>	
<u>MW-6E1</u>	<u>12</u>	<u>1</u>	
<u>MW-6H1</u>	<u>15</u>	<u>1</u>	
<u>MW-6I1</u>	<u>15</u>	<u>1</u>	
<u>1</u>		<u>1</u>	
<u>1</u>		<u>1</u>	
<u>1</u>		<u>1</u>	
<u>1</u>		<u>1</u>	
<u>1</u>		<u>1</u>	
<u>1</u>		<u>1</u>	
<u>1</u>		<u>1</u>	
Total gals.	<u>45</u>	added rinse water	<u>5</u>
Total Gals. Recovered	<u>50</u>		

Job #: 970813-D1  
 Date: 8/13/97  
 Time: 1500 9-12  
 Signature: [Signature]

REC'D AT: BTS  
 Date: 8/13/97  
 Time: 1500  
 Signature: [Signature]

**QUARTERLY SUMMARY REPORT**  
Former Texaco/Current Exxon Service Station  
2225 Telegraph Avenue, Oakland, California  
Alameda County  
Second Quarter 1997

**HISTORY OF INVESTIGATIVE AND REMEDIAL ACTIONS**

A preliminary subsurface investigation and a sensitive receptor survey were conducted in May, 1988. Nine shallow monitoring wells (MW-6A through MW-6I) were installed on site and seven soil borings were drilled near the pump islands and underground fuel storage tanks. Two vapor extraction wells were installed in the tank pit backfill, and an additional vapor extraction well (VE-3) was installed on site. Soil boring B-3 was converted to recovery well RW-1. Two of the on-site monitoring wells (MW-6C and MW-6D) were also converted to groundwater recovery wells (RW-3 and RW-2, respectively) when the groundwater treatment system was installed in 1990. The underground fuel storage tanks, lines, and dispensers were replaced in late 1991. RW-3 was destroyed in 1991 and replaced in 1992 with RW-3A. MW-6A was destroyed in 1992 because it was damaged. A soil vapor extraction system was installed in November 1995 and is currently operating (with carbon canisters for abatement).

**WORK PERFORMED DURING THIS QUARTER**

Ground water monitoring and sampling was performed. The vapor extraction system continues to operate.

**CHARACTERIZATION STATUS**

*SOIL:* The extent of petroleum hydrocarbons in soil has been delineated.

*GROUND WATER:* The extent of dissolved hydrocarbons in ground water is partially delineated.

**WATER WELL SURVEY**

A water well survey has not been conducted for the site. The predominant ground water flow direction is to the south-southwest.

**REMEDICATION STATUS**

A vapor extraction system is currently operating at the site.

**WORK TO BE PERFORMED NEXT QUARTER**

Continuation of the quarterly ground water monitoring and sampling program. Continued operation of the vapor extraction system.

**SITE CONTACTS**

Texaco:	Karen Petryna (510) 236-9139
Exxon:	Ms. Marla Guensler (510) 246-8776
Site Contact:	Lam Truong, station dealer (510) 832-4000
Lead Agency:	Dale Klettke (510) 567-6880 (ACDEH)

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