



PACIFIC  
ENVIRONMENTAL  
GROUP, INC.

AN  COMPANY

ENVIRONMENTAL  
PROTECTION  
98 JUL 31 PM 2:33

*Run*

July 31, 1998  
Project 340-083.9A

Ms. Eva Chu  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, California 94502-6577

Re: **Quarterly Monitoring Report - First and Second Quarter 1998**  
Former Texaco Service Station/Current 7-11 Store  
930 Springtown Boulevard at Lassen Road  
Livermore, California

Dear Ms. Chu:

On behalf of Equilon Enterprises LLC, this letter transmits the results of first and second quarter 1998 groundwater monitoring and sampling conducted at the site referenced above.

If you have any questions or comments regarding this site, please contact me at your convenience at (408) 441-7500.

Sincerely,

**Pacific Environmental Group, Inc.**

Keith Winemiller, P.E.  
Project Engineer

Enclosure

cc: Ms. Karen Petryna, Equiva Services LLC, 108 Cutting Boulevard, Richmond, CA 94804  
Mr. Bob DeNinno, The Southland Corporation, 19033 West Valley Highway, D-104, Kent, WA  
98032

**BLAINE**  
TECH SERVICES INC.



1680 ROGERS AVENUE  
SAN JOSE, CALIFORNIA 95112  
(408) 573-7771 FAX  
(408) 573-0555 PHONE

July 22, 1998

**Groundwater Monitoring and Sampling  
First Quarter and Second Quarter, 1998  
at the  
Former Texaco Service Station  
930 Springtown Boulevard  
Livermore, California**

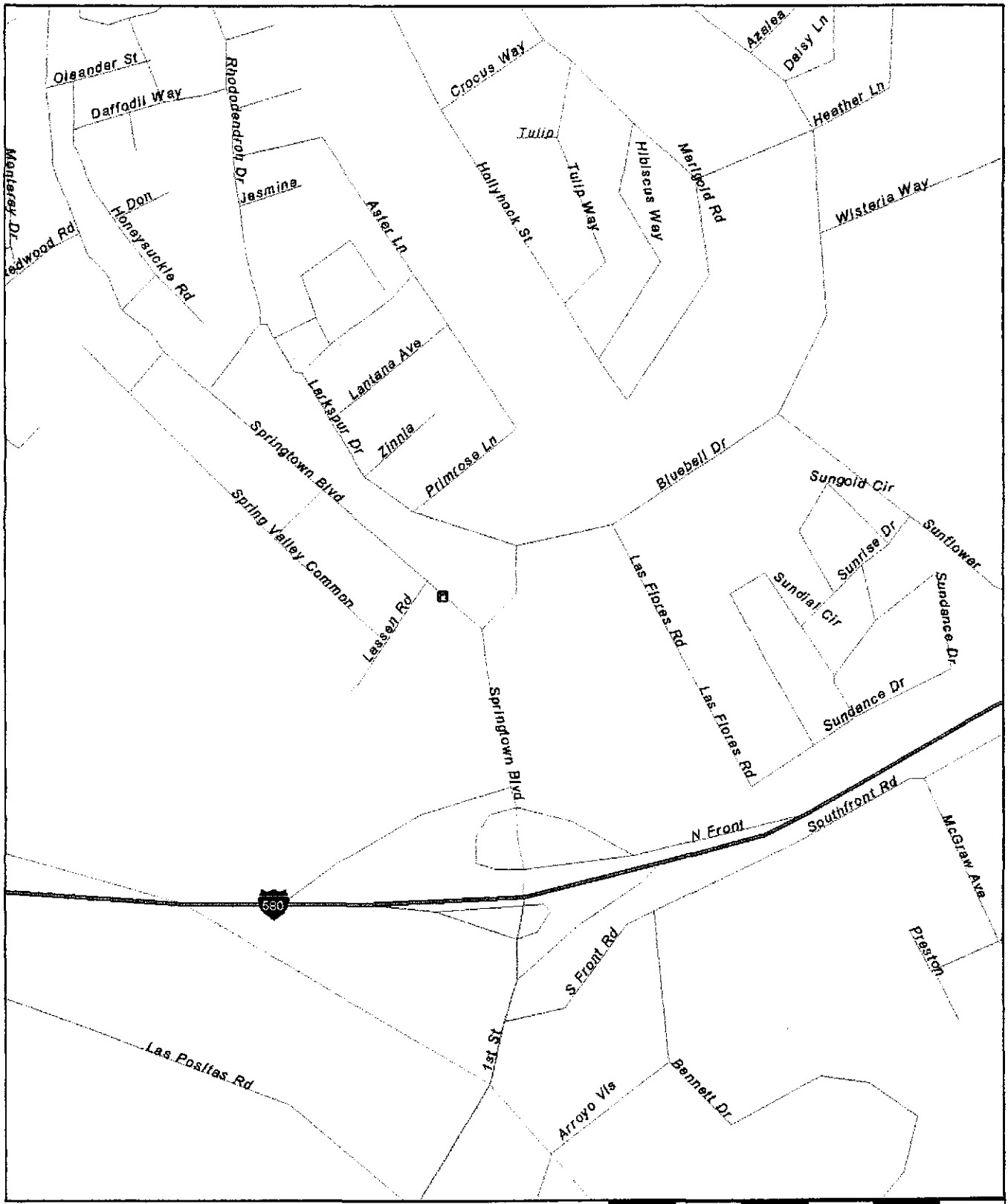
This report presents the results of groundwater monitoring and sampling conducted by Blaine Tech Services, Inc. on February 6 and May 19, 1998 at the site referenced above (see Figure 1, Site Vicinity Map). The gradient maps have been reviewed by a registered professional (see Figure 2 and Figure 4, Groundwater Elevation Contour Map). TPHg and benzene concentrations are shown on Figure 3 and Figure 5. Tables 1 and 2 list historical groundwater monitoring data and analytical results, respectively. As requested by Alameda County Department of Environmental Health, monitoring wells MW-1, MW-2, MW-3, and MW-4 are sampled semi-annually in February and August; monitoring wells MW-A, MW-B, MW-5, and MW-8 are sampled quarterly; and monitoring wells MW-A, MW-B, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-8 are gauged quarterly.

The certified analytical report, chain-of-custody, field data sheets, bill of lading and quarterly summary report are in the Appendix. Equilon Enterprises LLC's Standard Operating Procedures may be found in the fourth quarter, 1994 monitoring report.



Deidre Kerwin  
Operations Manager  
Blaine Tech Services, Inc.

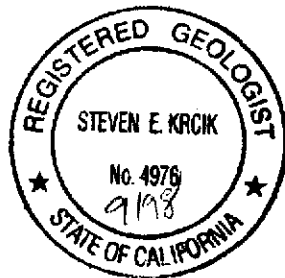
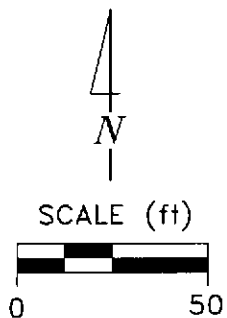
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MICROSOFT ANTHONY  
**Streets Plus**

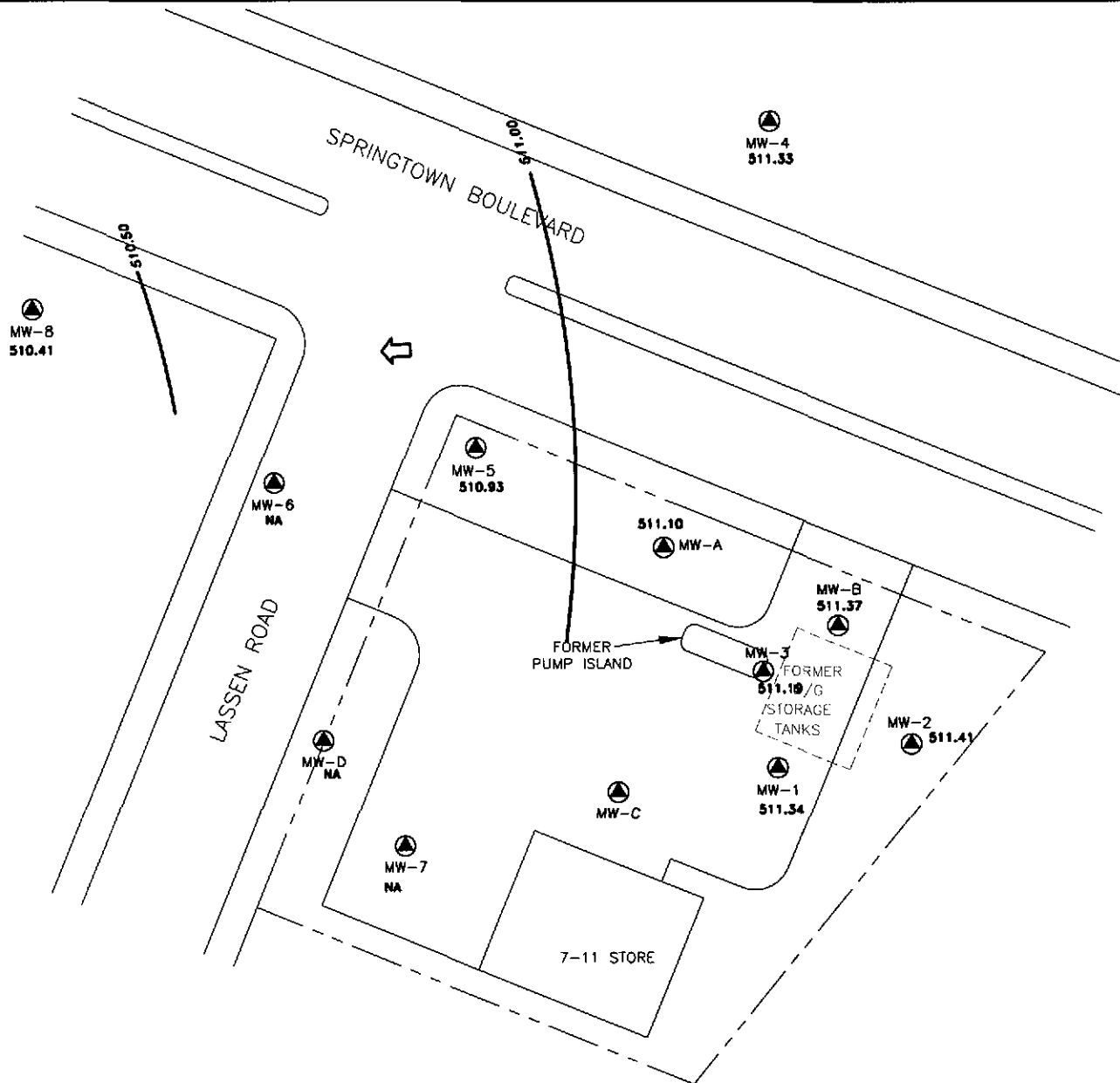
**SITE VICINITY MAP**

**Former Texaco Service Station, 930 Springtown Blvd. / Lassen Rd., Livermore, California**



EXPLANATION

- MONITORING WELL
- 509.80** GROUNDWATER ELEVATION (feet, MSL)
- GROUNDWATER ELEVATION CONTOUR (feet, MSL)
- NA** DATA NOT AVAILABLE
- APPROXIMATE GROUNDWATER FLOW DIRECTION  
APPROXIMATE GRADIENT = 0.004



FILE: TEXACO\ST-LA-LI.DWG

Basemap Source: Mattson Engineering Conducted Survey on 8/04/94

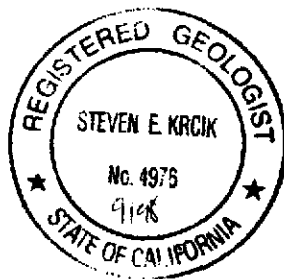
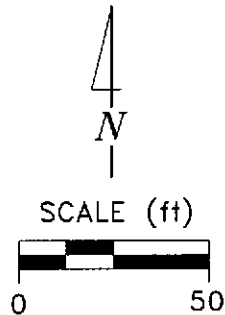
PREPARED BY

**RRM**  
engineering contracting firm


Former Texaco Service Station  
930 Springtown Boulevard/Lassen Road  
Livermore, California

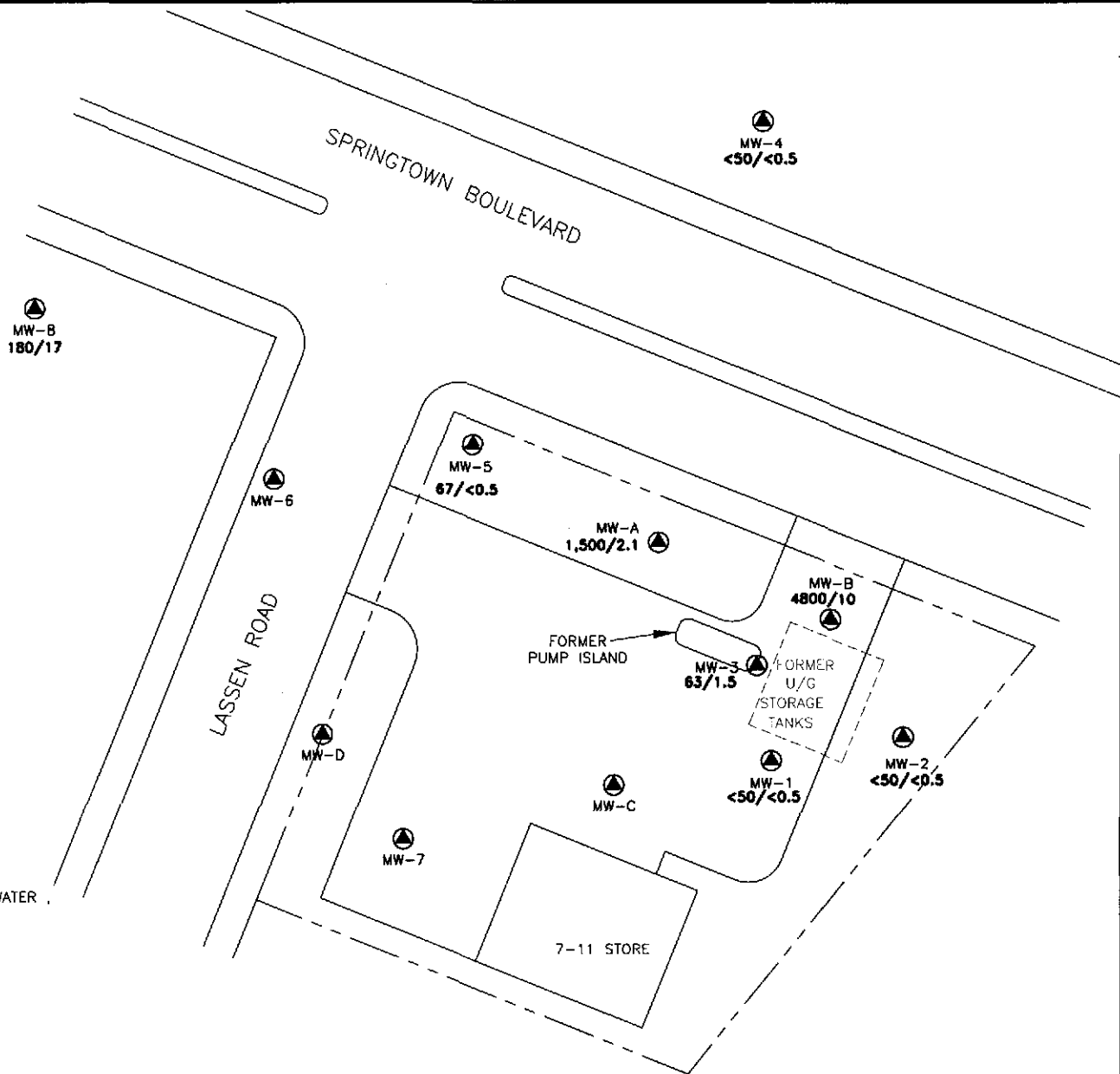
GROUNDWATER ELEVATION  
CONTOUR MAP, FEBRUARY 6, 1998

FIGURE:  
2  
PROJECT:  
DAC04



**EXPLANATION**

-  MONITORING WELL
- <50/<0.5** TPHg/BENZENE CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION
- NA** DATA NOT AVAILABLE



FILE: TEXACO\ST-LA-LI.DWG  
 Basemap Source: Mattson Engineering Conducted Survey on 8/04/94

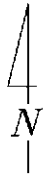
PREPARED BY



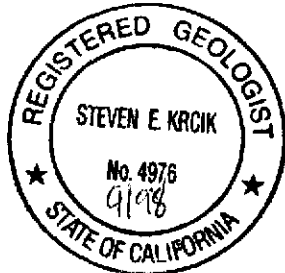
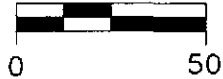
Former Texaco Service Station  
 930 Springtown Boulevard/Lassen Road  
 Livermore, California

TPHg/BENZENE CONCENTRATION  
 IN GROUNDWATER, FEBRUARY 6, 1998

FIGURE:  
 3  
 PROJECT:  
 DAC04

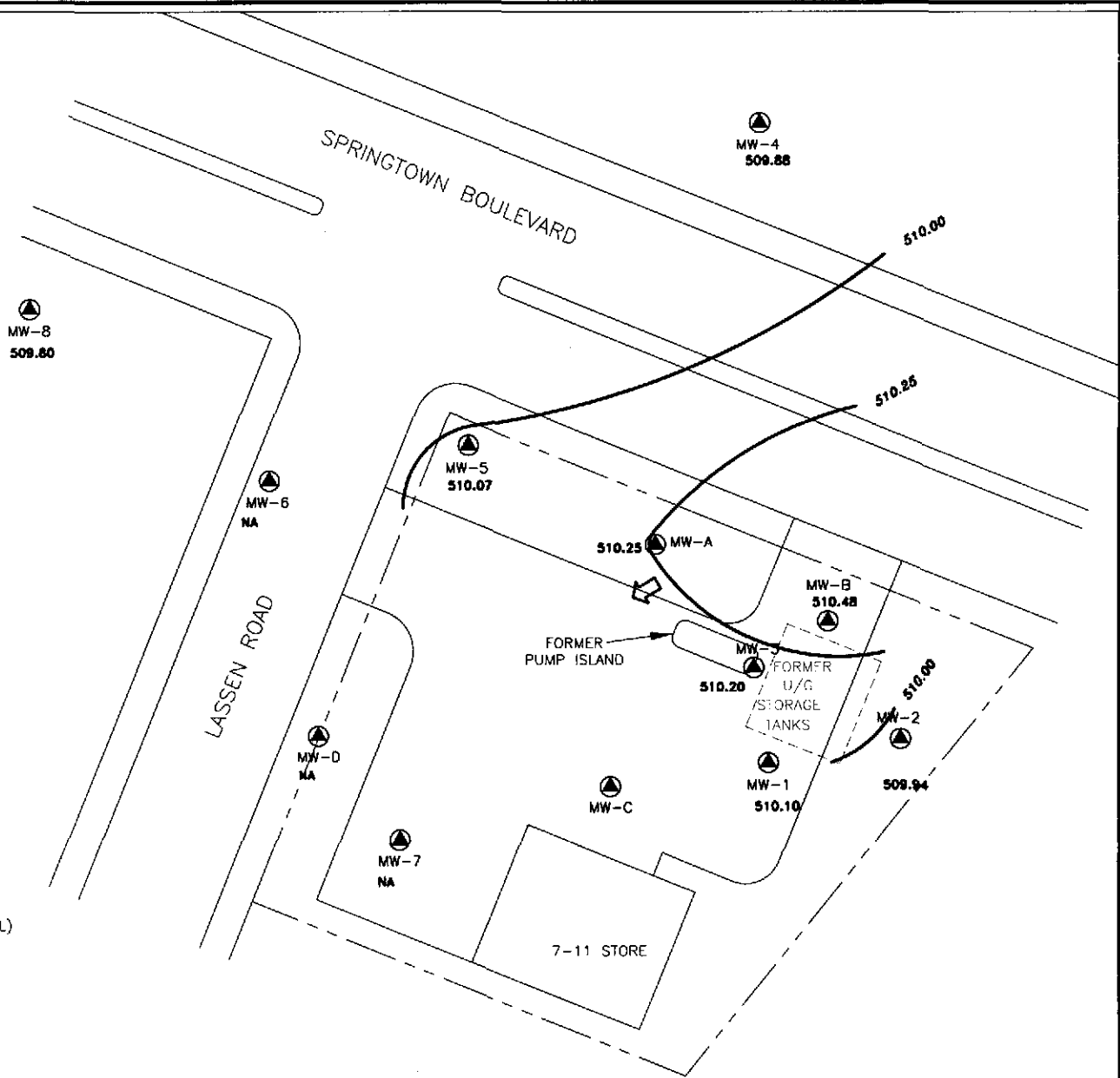


SCALE (ft)



EXPLANATION

- MONITORING WELL
- 509.80** GROUNDWATER ELEVATION (feet, MSL)
- GROUNDWATER ELEVATION CONTOUR (feet, MSL)
- NA** DATA NOT AVAILABLE
- APPROXIMATE GROUNDWATER FLOW DIRECTION  
APPROXIMATE GRADIENT = 0.004



FILE: TEXACO\ST-LA-LI.DWG  
Basemap Source: Mattson Engineering Conducted Survey on 8/04/94

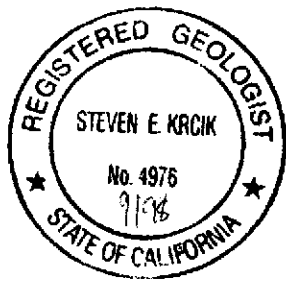
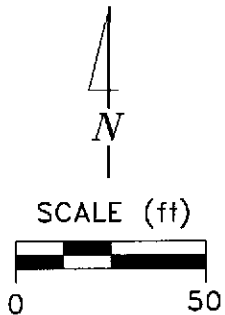
PREPARED BY




Former Texaco Service Station  
930 Springtown Boulevard/Lassen Road  
Livermore, California

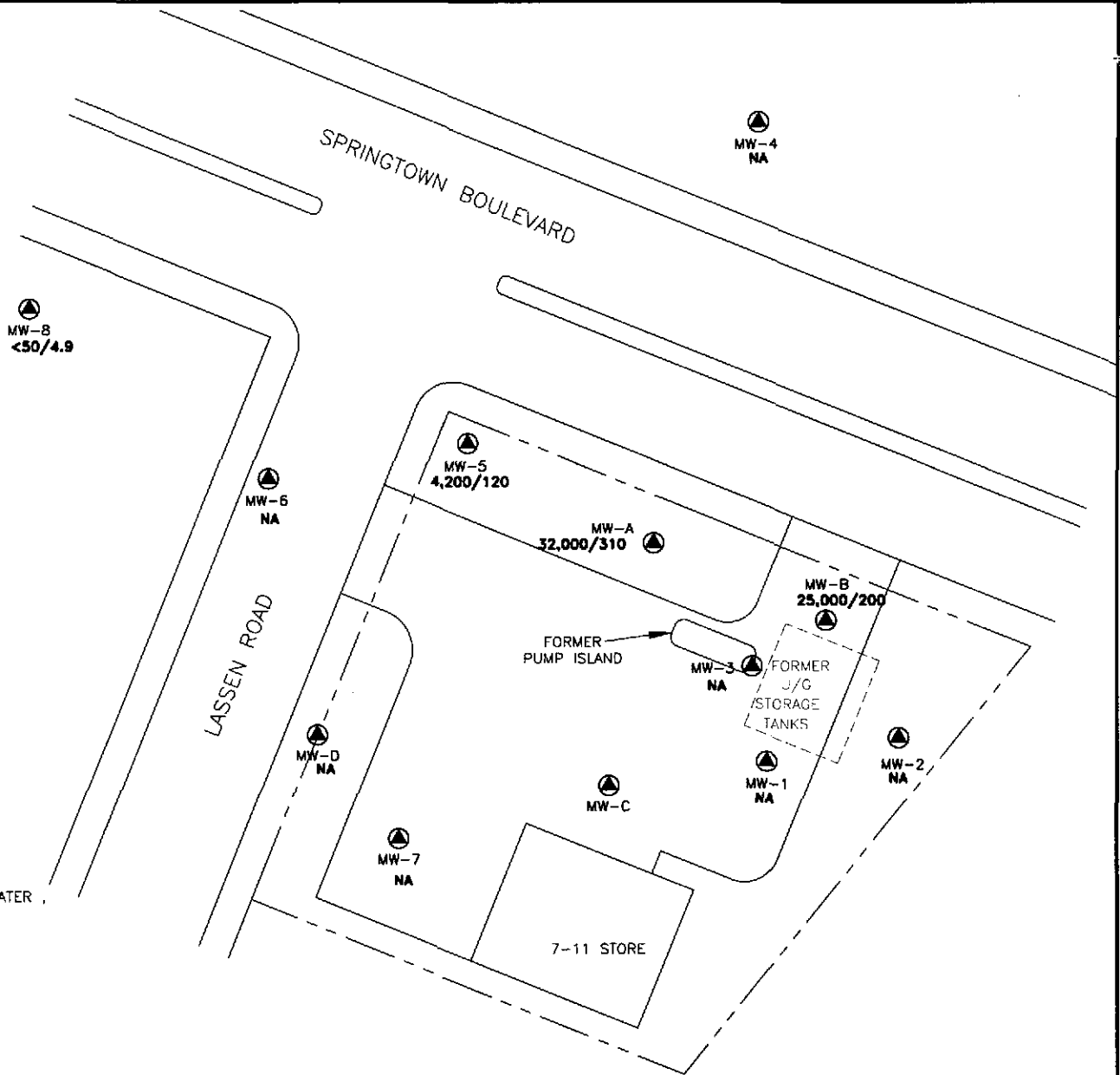
GROUNDWATER ELEVATION  
CONTOUR MAP, MAY 19, 1998

FIGURE:  
4  
PROJECT:  
DAC04



EXPLANATION

-  MONITORING WELL
- $<50/<0.5$  TPHg/BENZENE CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION
- NA DATA NOT AVAILABLE



FILE: TEXACO\ST-LA-LI.DWG

Basemap Source: Mattson Engineering Conducted Survey on 8/04/94

PREPARED BY

**RRM**  
engineering contracting firm

Former Texaco Service Station  
930 Springtown Boulevard/Lassen Road  
Livermore, California

TPHg/BENZENE CONCENTRATION  
IN GROUNDWATER, MAY 19, 1998

FIGURE:  
5  
PROJECT:  
DAC04

Table 1  
Groundwater Elevation Data  
930 Springtown Boulevard, Livermore, CA

Well Number	Date Gauged	Top of Casing Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-A	01/02/92	520.10	13.61	506.49
MW-A	04/02/92	520.10	12.44	507.66
MW-A	07/21/92	520.10	13.35	506.75
MW-A	10/09/92	520.10	12.92	507.18
MW-A	01/11/93	520.10	11.78	508.32
MW-A	05/05/93	520.10	11.39	508.71
MW-A	08/09/93	520.10	12.80	507.30
MW-A	10/14/93	520.10	13.48	506.62
MW-A	01/24/94	520.10	12.74	507.36
MW-A	05/31/94	520.10	12.28	507.82
MW-A	08/31/94	520.10	13.20	506.90
MW-A	11/02/94	520.10	13.15	506.95
MW-A	02/20/95	520.10	11.71	508.39
MW-A	05/09/95	520.10	12.37	507.73
MW-A	08/21/95	520.10	11.37	508.73
MW-A	10/20/95	520.10	12.04	508.06
MW-A	02/07/96	520.10	10.11	509.99
MW-A	04/30/96	520.10	10.28	509.82
MW-A	08/14/96	520.10	10.82	509.28
MW-A	11/22/96	520.10	10.97	509.13
MW-A	02/14/97	520.10	10.00	510.10
MW-A	05/23/97	520.10	11.36	508.74
MW-A	07/25/97	520.10	11.66	508.44
MW-A	10/31/97	520.10	11.56	508.54
MW-A	02/06/98	520.10	9.00	511.10
MW-A	05/19/98	520.10	9.85	510.25



Table 1  
Groundwater Elevation Data  
930 Springtown Boulevard, Livermore, CA

Well	Date	Top of Casing	Depth	Groundwater
Number	Gauged	Elevation (feet, MSL)	to Water (feet, TOC)	Elevation (feet, MSL)
MW-B	01/02/92	518.05	11.27	506.78
MW-B	04/02/92	518.05	10.18	507.87
MW-B	07/21/92	518.05	11.27	506.78
MW-B	10/09/92	518.05	11.64	506.41
MW-B	01/11/93	518.05	9.65	508.40
MW-B	05/05/93	518.05	9.28	508.77
MW-B	08/09/93	518.05	11.02	507.03
MW-B	10/14/93	518.05	11.34	506.71
MW-B	01/24/94	518.05	10.54	507.51
MW-B	05/31/94	518.05	10.19	507.86
MW-B	08/31/94	518.05	10.98	507.07
MW-B	11/02/94	518.05	10.90	507.15
MW-B	02/20/95	518.05	9.47	508.58
MW-B	05/09/95	518.05	10.58	507.47
MW-B	08/21/95	518.05	9.34	508.71
MW-B	10/20/95	518.05	9.83	508.22
MW-B	02/07/96	518.05	7.85	510.20
MW-B	04/30/96	518.05	8.02	510.03
MW-B	08/14/96	518.05	8.66	509.39
MW-B	11/22/96	518.05	8.70	509.35
MW-B	02/14/97	518.05	7.75	510.30
MW-B	05/23/97	518.05	9.05	509.00
MW-B	07/25/97	518.05	9.37	508.68
MW-B	10/31/97	518.05	9.29	508.76
MW-B	02/06/98	518.05	6.68	511.37
MW-B	05/19/98	518.05	7.57	510.48

Table 1  
Groundwater Elevation Data  
930 Springtown Boulevard, Livermore, CA

Well Number	Date Gauged	Top of Casing Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-1	01/02/92	520.61	14.11	506.50
MW-1	04/02/92	520.61	12.98	507.63
MW-1	07/21/92	520.61	13.92	506.69
MW-1	10/09/92	520.61	14.25	506.36
MW-1	01/11/93	520.61	12.30	508.31
MW-1	05/05/93	520.61	11.88	508.73
MW-1	08/09/93	520.61	13.63	506.98
MW-1	10/14/93	520.61	13.91	506.70
MW-1	01/24/93	520.61	13.12	507.49
MW-1	05/31/94	520.61	12.74	507.87
MW-1	08/31/94	520.61	13.68	506.93
MW-1	11/02/94	520.61	13.48	507.13
MW-1	02/20/95	520.61	12.02	508.59
MW-1	05/09/95	520.61	12.83	507.78
MW-1	08/21/95	520.61	11.93	508.68
MW-1	10/20/95	520.61	12.40	508.21
MW-1	02/07/96	520.61	10.42	510.19
MW-1	04/30/96	520.61	10.48	510.13
MW-1	08/14/96	520.61	11.18	509.43
MW-1	11/22/96	520.61	11.10	509.51
MW-1	02/14/97	520.61	10.25	510.36
MW-1	05/23/97	520.61	11.48	509.13
MW-1	07/25/97	520.61	11.99	508.62
MW-1	10/31/97	520.61	11.74	508.87
MW-1	02/06/98	520.61	9.27	511.34
MW-1	05/19/98	520.61	10.51	510.10
MW-2	01/02/92	518.29	11.96	506.33
MW-2	04/02/92	518.29	10.89	507.40
MW-2	07/21/92	518.29	11.55	506.74
MW-2	05/31/94	518.29	10.37	507.92
MW-2	08/31/94	518.29	11.16	507.13
MW-2	11/02/94	518.29	11.07	507.22
MW-2	02/20/95	518.29	9.66	508.63
MW-2	05/09/95	518.29	10.14	508.15
MW-2	08/21/95	518.29	9.58	508.71
MW-2	10/20/95	518.29	9.91	508.38
MW-2	02/07/96	518.29	8.00	510.29
MW-2	04/30/96	518.29	8.21	510.08
MW-2	08/14/96	518.29	8.88	509.41
MW-2	11/22/96	518.29	8.88	509.41
MW-2	02/14/97	518.29	7.92	510.37
MW-2	05/23/97	518.29	9.25	509.04
MW-2	07/25/97	518.29	9.51	508.78
MW-2	10/31/97	518.29	9.30	508.99
MW-2	02/06/98	518.29	6.88	511.41
MW-2	05/19/98	518.29	8.35	509.94

Table 1  
Groundwater Elevation Data  
930 Springtown Boulevard, Livermore, CA

Well Number	Date Gauged	Top of Casing Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-3	01/02/92	519.60	12.87	506.73
MW-3	04/02/92	519.60	11.97	507.63
MW-3	07/21/92	519.60	12.60	507.00
MW-3	10/09/92	519.60	12.93	506.67
MW-3	01/11/93	519.60	11.16	508.44
MW-3	05/05/93	519.60	10.72	508.88
MW-3	08/09/93	519.60	12.34	507.26
MW-3	10/14/93	519.60	12.71	506.89
MW-3	01/24/94	519.60	12.03	507.57
MW-3	05/31/94	519.60	11.54	508.06
MW-3	08/31/94	519.60	12.60	507.00
MW-3	11/02/94	519.60	12.16	507.44
MW-3	02/20/95	519.60	11.05	508.55
MW-3	05/09/95	519.60	11.97	507.63
MW-3	08/21/95	519.60	7.60	512.00
MW-3	10/20/95	519.60	11.46	508.14
MW-3	02/07/96	519.60	9.42	510.18
MW-3	04/30/96	519.60	9.60	510.00
MW-3	08/14/96	519.60	10.24	509.36
MW-3	11/22/96	519.60	10.34	509.26
MW-3	02/14/97	519.60	9.38	510.22
MW-3	05/23/97	519.60	10.67	508.93
MW-3	07/25/97	519.60	11.11	508.49
MW-3	10/31/97	519.60	10.86	508.74
MW-3	02/06/98	519.60	8.41	511.19
MW-3	05/19/98	519.60	9.40	510.20

Table 1  
Groundwater Elevation Data  
930 Springtown Boulevard, Livermore, CA

Well Number	Date Gauged	Top of Casing Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-4	01/02/92	518.79	12.22	506.57
MW-4	04/02/92	518.79	11.03	507.76
MW-4	07/21/92	518.79	12.36	506.43
MW-4	10/09/92	518.79	12.40	506.39
MW-4	01/11/93	518.79	10.72	508.07
MW-4	05/05/93	518.79	10.21	508.58
MW-4	08/09/93	518.79	12.25	506.54
MW-4	10/14/93	518.79	12.58	506.21
MW-4	01/24/94	518.79	11.72	507.07
MW-4	05/31/94	518.79	11.29	507.50
MW-4	08/31/94	518.79	12.00	506.79
MW-4	11/02/94	518.79	11.96	506.83
MW-4	02/20/95	518.79	10.42	508.37
MW-4	05/09/95	518.79	11.22	507.57
MW-4	08/21/95	518.79	10.51	508.28
MW-4	10/20/95	518.79	10.86	507.93
MW-4	02/07/96	518.79	8.93	509.86
MW-4	04/30/96	518.79	9.03	509.76
MW-4	08/14/96	518.79	9.84	508.95
MW-4	11/22/96	518.79	9.73	509.06
MW-4	02/14/97	518.79	8.85	509.94
MW-4	05/23/97	518.79	10.15	508.64
MW-4	07/25/97	518.79	10.61	508.18
MW-4	10/31/97	518.79	10.36	508.43
MW-4	02/06/98	518.79	7.46	511.33
MW-4	05/19/98	518.79	8.91	509.88

Table 1  
Groundwater Elevation Data  
930 Springtown Boulevard, Livermore, CA

Well Number	Date Gauged	Top of Casing Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)	
MW-5	01/02/92	521.19	14.56	506.63	
MW-5	04/02/92	521.19	13.58	507.61	
MW-5	07/21/92	521.19	13.77	507.42	
MW-5	10/09/92	521.19	14.09	507.10	
MW-5	01/11/93	521.19	12.24	508.95	
MW-5	05/05/93	521.19	11.90	509.29	
MW-5	08/09/93	521.19	13.35	507.84	
MW-5	10/14/93	521.19	13.89	507.30	
MW-5	01/24/94	521.19	13.32	507.87	
MW-5	05/31/94	521.19	12.75	508.44	
MW-5	08/31/94	521.19	14.34	506.85	
MW-5	11/02/94	521.19	14.22	506.97	
MW-5	02/20/95	521.19	12.78	508.41	
MW-5	05/09/95	521.19	13.41	507.78	
MW-5	08/21/95	521.19	12.32	508.87	
MW-5	10/20/95	521.19	13.28	507.91	
MW-5	02/07/96	521.19	11.31	509.88	
MW-5	04/30/96	521.19	11.52	509.67	
MW-5	08/14/96	521.19	12.03	509.16	
MW-5	11/22/96	521.19	12.22	508.97	
MW-5	02/14/97	521.19	11.20	509.99	
MW-5	05/23/97	521.19	12.55	508.64	
MW-5	07/25/97	521.19	12.93	508.26	
MW-5	10/31/97	521.19	12.78	508.41	
MW-5	02/06/98	521.19	10.26	510.93	
MW-5	05/19/98	521.19	11.12	510.07	
MW-6	01/02/92	522.18	16.64	505.54	
MW-6	04/02/91	522.18	15.61	506.57	
MW-6	07/21/92	522.18	15.53	506.65	
MW-6	10/09/92	522.18	15.69	506.49	
MW-6	08/09/93	522.18	14.50	507.68	
MW-6	10/14/93	522.18	NM	NM	
MW-6	01/24/94	522.18	15.09	507.09	
MW-6	05/31/94	522.18	14.64	507.54	
MW-6	08/31/94	522.18	15.32	506.86	
MW-6	11/02/94	522.18	15.32	506.86	
MW-6	02/20/95	522.18	14.07	508.11	
MW-6	05/09/95	522.18	14.30	507.88	
MW-6	08/21/95	522.18	NM	NM	
MW-6	10/20/95	522.18	14.31	NM	
MW-6	07/25/97	No Longer Monitored			

Table 1  
Groundwater Elevation Data  
930 Springtown Boulevard, Livermore, CA

Well Number	Date Gauged	Top of Casing Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-7	01/02/92	522.19	11.17	511.02
MW-7	04/02/92	522.19	10.34	511.85
MW-7	07/21/92	522.19	9.02	513.17
MW-7	05/31/94	522.19	9.42	512.77
MW-7	08/31/94	522.19	6.84	515.35
MW-7	11/02/94	522.19	6.48	515.71
MW-7	02/20/95	522.19	7.71	514.48
MW-7	05/09/95	522.19	7.65	514.54
MW-7	08/21/95	522.19	7.83	514.36
MW-7	10/20/95	522.19	8.61	513.58
MW-7	07/25/97	No Longer Monitored		
MW-8	01/02/92	524.03	18.42	505.61
MW-8	04/02/92	524.03	17.39	506.64
MW-8	07/21/92	524.03	14.02	510.01
MW-8	05/31/94	524.03	19.65	504.38
MW-8	08/31/94	524.03	17.40	506.63
MW-8	11/02/94	524.03	17.38	506.65
MW-8	02/20/95	524.03	15.99	508.04
MW-8	05/09/95	524.03	16.54	507.49
MW-8	08/21/95	524.03	15.77	508.26
MW-8	10/20/95	524.03	16.24	507.79
MW-8	02/07/96	524.03	14.42	509.61
MW-8	04/30/96	524.03	14.65	509.38
MW-8	08/14/96	524.03	15.08	508.95
MW-8	11/22/96	524.03	15.35	508.68
MW-8	02/14/97	524.03	14.32	509.71
MW-8	05/23/97	524.03	13.35	510.68
MW-8	07/25/97	524.03	16.05	507.98
MW-8	10/31/97	524.03	15.86	508.17
MW-8	02/06/98	524.03	13.62	510.41
MW-8	05/19/98	524.03	14.23	509.80
NM = Not Measured				
TOC = Top of Casing				
MSL = Mean Sea Level				

Table 2  
Groundwater Analytical Data  
930 Springtown Boulevard, Livermore, CA

Well	Date	TPHg	Benzene	Toluene	Ethyl- benzene	Xylenes	MTBE
Number	Sampled	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-A	01/02/92	NS	NS	NS	NS	NS	NS
MW-A	04/02/92	27000	1200	570	1700	2300	NS
MW-A	07/21/92	57000	1500	1800	2700	7100	NS
MW-A	10/09/92	56000	2900	2600	4600	12000	NS
MW-A	01/24/94	1400000	6900	2100	15000	38000	NS
MW-A	05/31/94	48000	1200	900	1900	4200	NS
MW-A	08/31/94	24000	140	120	830	1500	NS
MW-A	11/02/94	15000	230	360	1100	1800	NS
MW-A	02/20/95	12000	290	330	570	1300	NS
MW-A	05/09/95	1200	6.1	5.9	12	15	NS
MW-A	08/21/95	9600	85	140	250	860	160
MW-A	10/20/95	360	5.2	7.9	15	43	NS
MW-A	02/07/96	6100	130	180	320	840	NS
MW-A	04/30/96	410	1.2	0.67	1.2	1.5	NS
MW-A	08/14/96	3000	65	75	170	460	57
MW-A	11/22/96	6300	100	170	310	710	64
MW-A	02/14/97	8100	140	180	700	1600	<300
MW-A	05/23/97	24000	340	520	1600	3800	<2000
MW-A	07/25/97	440	<0.5	<0.5	<0.5	<0.5	<30
MW-A	10/31/97	3700	21	48	200	430	35
MW-A	02/06/98	1500	2.1	4.4	55	77	<30
MW-A	05/19/98	32000	310	380	1800	3700	1300
MW-B	01/02/92	NS	NS	NS	NS	NS	NS
MW-B	04/02/92	1900	ND	39	24	35	NS
MW-B	07/21/92	16000	180	1600	270	1100	NS
MW-B	10/09/92	38000	490	8300	1400	5100	NS
MW-B	01/24/94	23000	110	1700	600	1900	NS
MW-B	05/31/94	13000	780	310	370	1400	NS
MW-B	08/31/94	35000	160	2800	1000	4500	NS
MW-B	11/02/94	2500	170	3200	1100	4700	NS
MW-B	02/20/95	10000	46	1400	330	1200	NS
MW-B	05/09/95	4100	9.1	47	26	30	NS
MW-B	08/21/95	4000	9.6	110	120	270	98
MW-B	10/20/95	9300	35	1300	370	1300	NS
MW-B	02/07/96	8900	33	700	110	360	NS
MW-B	04/30/96	5500	17	460	120	400	NS
MW-B	08/14/96	9000	<5	260	120	320	<300
MW-B	11/22/96	560000	56	2400	1600	5500	<3000
MW-B	02/14/97	4600	5.2	110	72	210	<300
MW-B	05/23/97	34000	75	1700	590	2100	1800
MW-B	07/25/97	39000	250	5200	1600	5900	<800
MW-B	10/31/97	36000	130	2600	1200	4800	<800
MW-B	02/06/98	4800	10	120	72	200	<80
MW-B	05/19/98	25000	200	900	410	1600	570

Table 2  
Groundwater Analytical Data  
930 Springtown Boulevard, Livermore, CA

Well	Date	TPHg	Benzene	Toluene	Ethyl- benzene	Xylenes	MTBE
Number	Sampled	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-1	01/02/92	16	6	ND	ND	ND	NS
MW-1	04/02/92	ND	ND	ND	ND	ND	NS
MW-1	07/21/92	<50	3.2	<0.5	<0.5	<0.5	NS
MW-1	10/09/92	<50	8.5	<0.5	<0.5	<0.5	NS
MW-1	01/11/93	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-1	05/05/93	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-1	08/09/93	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-1	10/14/93	440	16	2.9	2.9	11	NS
MW-1	05/31/94	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-1	08/31/94	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-1	11/02/94	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-1	02/20/95	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-1	05/09/95	450	22	25	23	100	NS
MW-1	08/21/95	58	<0.5	1.5	1.8	4.5	<10
MW-1	10/20/95	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-1	02/07/96	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-1	04/30/96	NS	NS	NS	NS	NS	NS
MW-1	08/14/96	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-1	11/22/96	NS	NS	NS	NS	NS	NS
MW-1	02/14/97	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-1	05/23/97	NS	NS	NS	NS	NS	NS
MW-1	07/25/97	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-1	10/31/97	NS	NS	NS	NS	NS	NS
MW-1	02/06/98	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-1	05/19/98	NS	NS	NS	NS	NS	NS



Table 2  
Groundwater Analytical Data  
930 Springtown Boulevard, Livermore, CA

Well Number	Date Sampled	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MTBE (ppb)
MW-2	01/02/92	ND	ND	ND	ND	ND	NS
MW-2	04/02/91	ND	ND	ND	ND	ND	NS
MW-2	07/21/92	NS	NS	NS	NS	NS	NS
MW-2	10/09/92	NS	NS	NS	NS	NS	NS
MW-2	01/11/93	NS	NS	NS	NS	NS	NS
MW-2	05/05/93	NS	NS	NS	NS	NS	NS
MW-2	08/09/93	NS	NS	NS	NS	NS	NS
MW-2	10/14/93	NS	NS	NS	NS	NS	NS
MW-2	01/24/94	NS	NS	NS	NS	NS	NS
MW-2	05/31/94	NS	NS	NS	NS	NS	NS
MW-2	08/31/94	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-2	11/02/94	NS	NS	NS	NS	NS	NS
MW-2	02/20/95	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-2	05/09/95	NS	NS	NS	NS	NS	NS
MW-2	08/21/95	<50	<0.5	<0.5	<0.5	<0.5	<10
MW-2	10/20/95	NS	NS	NS	NS	NS	NS
MW-2	02/07/96	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-2	04/30/96	NS	NS	NS	NS	NS	NS
MW-2	08/14/96	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-2	11/22/96	NS	NS	NS	NS	NS	NS
MW-2	02/14/97	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-2	05/23/97	NS	NS	NS	NS	NS	NS
MW-2	07/25/97	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-2	10/31/97	NS	NS	NS	NS	NS	NS
MW-2	02/06/98	<50	<0.5	<0.5	<0.5	1.4	<30
MW-2	05/19/98	NS	NS	NS	NS	NS	NS

Table 2  
Groundwater Analytical Data  
930 Springtown Boulevard, Livermore, CA

Well Number	Date Sampled	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MTBE (ppb)
MW-3	01/02/92	340	0.4	ND	ND	ND	NS
MW-3	04/02/92	160	5	ND	0.3	0.5	NS
MW-3	07/21/92	260	1.7	<0.5	<0.5	<0.5	NS
MW-3	10/09/92	88	<0.5	<0.5	<0.5	<0.5	NS
MW-3	01/11/93	130	<0.5	<0.5	<0.5	<0.5	NS
MW-3	05/05/93	340	1.8	<0.5	1.3	<0.5	NS
MW-3	08/09/93	610	18	<0.5	2.4	0.9	NS
MW-3	10/14/93	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-3	01/24/94	320	3.5	<0.5	<0.5	<0.5	NS
MW-3	05/31/94	830	11	12	5.0	1.2	NS
MW-3	08/31/94	660	2	<0.5	1	<0.5	NS
MW-3	11/02/94	1500	260	36	34	76	NS
MW-3	02/20/95	410	1.2	1.9	1.4	2.2	NS
MW-3	05/09/95	730	23	43	21	95	NS
MW-3	08/21/95	<50	<0.5	<0.5	<0.5	<0.5	<10
MW-3	10/20/95	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-3	02/07/96	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-3	04/30/96	NS	NS	NS	NS	NS	NS
MW-3	08/14/96	<50	<0.5	0.60	<0.5	<0.5	<30
MW-3	11/22/96	NS	NS	NS	NS	NS	NS
MW-3	02/14/97	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-3	05/23/97	NS	NS	NS	NS	NS	NS
MW-3	07/25/97	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-3	10/31/97	NS	NS	NS	NS	NS	NS
MW-3	02/06/98	63	1.5	2.8	0.77	8.6	<30
MW-3	05/19/98	NS	NS	NS	NS	NS	NS

Table 2  
Groundwater Analytical Data  
930 Springtown Boulevard, Livermore, CA

Well	Date	TPHg	Benzene	Toluene	Ethyl-	Xylenes	MTBE
Number	Sampled	(ppb)	(ppb)	(ppb)	benzene (ppb)	(ppb)	(ppb)
MW-4	01/02/92	ND	ND	ND	ND	ND	NS
MW-4	04/02/92	ND	ND	ND	ND	ND	NS
MW-4	07/21/92	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-4	10/09/92	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-4	01/11/93	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-4	05/05/93	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-4	08/09/93	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-4	10/14/93	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-4	01/24/94	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-4	05/31/94	NS	NS	NS	NS	NS	NS
MW-4	08/31/94	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-4	11/02/94	NS	NS	NS	NS	NS	NS
MW-4	02/20/95	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-4	05/09/95	NS	NS	NS	NS	NS	NS
MW-4	08/21/95	<50	<0.5	<0.5	<0.5	<0.5	<10
MW-4	10/20/95	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-4	02/07/96	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-4	04/30/96	NS	NS	NS	NS	NS	NS
MW-4	08/14/96	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-4	11/22/96	NS	NS	NS	NS	NS	NS
MW-4	02/14/97	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-4	05/23/97	NS	NS	NS	NS	NS	NS
MW-4	07/25/97	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-4	10/31/97	NS	NS	NS	NS	NS	NS
MW-4	02/06/98	<50	<0.5	<0.5	<0.5	<0.5	<30
MW-4	05/19/98	NS	NS	NS	NS	NS	NS

Table 2  
Groundwater Analytical Data  
930 Springtown Boulevard, Livermore, CA

Well Number	Date Sampled	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MTBE (ppb)
MW-5	01/02/92	1800	74	41	84	94	NS
MW-5	04/02/92	ND	ND	ND	ND	ND	NS
MW-5	07/21/92	1000	69	16	40	31	NS
MW-5	10/09/92	3400	890	51	110	110	NS
MW-5	01/11/93	15000	460	110	900	370	NS
MW-5	05/05/93	4500	160	19	280	110	NS
MW-5	08/09/93	2300	180	19	130	80	NS
MW-5	10/14/93	2200	160	27	90	64	NS
MW-5	01/24/94	2600	69	11	65	25	NS
MW-5	05/31/94	3100	130	64	140	120	NS
MW-5	08/31/94	600	20	2.9	14	7.1	NS
MW-5	11/02/94	2300	68	18	52	54	NS
MW-5	02/20/95	12000	130	<30	240	138	NS
MW-5	05/09/95	2500	57	60	54	37	NS
MW-5	08/21/95	11000	91	28	140	120	<100
MW-5	10/20/95	2300	38	3.8	28	19	NS
MW-5	02/07/96	1800	35	8.1	37	20	NS
MW-5	04/30/96	NS	NS	NS	NS	NS	NS
MW-5	08/14/96	3500	130	22	170	47	71
MW-5	11/22/96	3500	160	15	190	28	<200
MW-5	02/14/97	2900	150	54	330	68	<300
MW-5	05/23/97	10000	170	98	380	68	<200
MW-5	07/25/97	2700	110	<0.5	33	<0.5	<30
MW-5	10/31/97	NS	NS	NS	NS	NS	NS
MW-5	02/06/98	67	<0.5	<0.5	<0.5	<0.5	<30
MW-5	05/19/98	4200	120	25	360	76	510
MW-6	01/02/92	23	ND	0.3	0.6	3	NS
MW-6	04/02/92	ND	ND	ND	ND	ND	NS
MW-6	07/21/92	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6	10/09/92	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6	01/11/93	NS	NS	NS	NS	NS	NS
MW-6	05/05/93	NS	NS	NS	NS	NS	NS
MW-6	08/09/93	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6	10/14/93	NS	NS	NS	NS	NS	NS
MW-6	01/24/94	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6	05/31/94	NS	NS	NS	NS	NS	NS
MW-6	08/31/94	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6	11/02/94	NS	NS	NS	NS	NS	NS
MW-6	02/20/95	<50	<0.5	<0.5	<0.5	<0.5	NS
MW-6	07/25/97	NS	NS	NS	NS	NS	NS
MW-6	10/31/97	NS	NS	NS	NS	NS	NS
MW-6	02/06/98	No Longer Sampled					





# ANALYTICAL REPORT

*Our Quality Control Is Your Quality Assurance*

LOG NO: G98-02-192

Received: 09 FEB 98

Mailed: FEB 25 1998

Ms. Rebecca Digerness  
Texaco Refining and Marketing  
108 Cutting Boulevard  
Richmond, CA 94804

Purchase Order: 94-1446346+4370

Requisition: 618571050  
Project: FKEP9023L

## REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES					DATE SAMPLED
02-192-1	MW-A					06 FEB 98
02-192-2	MW-B					06 FEB 98
02-192-3	MW-1					06 FEB 98
02-192-4	MW-2					06 FEB 98
02-192-5	MW-3					06 FEB 98
PARAMETER	02-192-1	02-192-2	02-192-3	02-192-4	02-192-5	
GRO (8015M.TX)						
Date Analyzed	02/13/98	02/13/98	02/10/98	02/10/98	02/10/98	
Dilution Factor, Times	1	2.5	1	1	1	
Benzene, ug/L	2.1	10	<0.5	<0.5	1.5	
Toluene, ug/L	4.4	120	<0.5	<0.5	2.8	
Ethylbenzene, ug/L	55	72	<0.5	<0.5	0.77	
Methyl-tert-butylether, ug/L	<30	<80	<30	<30	<30	
Total Xylene Isomers, ug/L	77	200	<0.5	1.4	8.6	
Carbon Range, .	C6-C12	C6-C12	C6-C12	C6-C12	C6-C12	
TPH (Gasoline Range), ug/L	1500	4800	<50	<50	63	
Other GRO (8015M.TX)	---	---	---	---	---	
Surrogates **						
a,a,a-Trifluorotoluene Rep., ug/L	48.0	124	50.8	50.8	51.0	
a,a,a-Trifluorotoluene Th., ug/L	50.0	125	50.0	50.0	50.0	
Data Review , Date	02/24/98	02/24/98	02/24/98	02/24/98	02/24/98	

LOG NO: G98-02-192

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REPORT OF ANALYTICAL RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED		
02-192-6	MW-4	06 FEB 98		
02-192-7	MW-5	06 FEB 98		
02-192-8	MW-8	06 FEB 98		
PARAMETER		02-192-6	02-192-7	02-192-8
GRO (8015M.TX)				
Date Analyzed		02/10/98	02/11//98	02/10/98
Dilution Factor, Times		1	1	1
Benzene, ug/L		<0.5	<0.5	17
Toluene, ug/L		<0.5	<0.5	<0.5
Ethylbenzene, ug/L		<0.5	<0.5	<0.5
Methyl-tert-butylether, ug/L		<30	30	<30
Total Xylene Isomers, ug/L		<0.5	<0.5	6.0
Carbon Range, .		C6-C12	C6-C12	C6-C12
TPH (Gasoline Range), ug/L		<50	67	180
Other GRO (8015M.TX)		---	---	---
Surrogates **				
a,a,a-Trifluorotoluene Rep., ug/L		52.9	52.3	50.7
a,a,a-Trifluorotoluene Th., ug/L		50.0	50.0	50.0
Data Review , Date		02/24/98	02/24/98	02/24/98

LOG NO: G98-02-192

Received: 09 FEB 98

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108 Cutting Boulevard  
Richmond, CA 94804

Purchase Order: 94-1446346+4370

Requisition: 618571050  
Project: FKEP9023L

REPORT OF ANALYTICAL RESULTS

Page 3

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
02-192-9	EB	06 FEB 98
PARAMETER	02-192-9	
GRO (8015M.TX)		
Date Analyzed	02/10/98	
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	54.0	
a,a,a-Trifluorotoluene Th., ug/L	50.0	
Data Review , Date	02/24/98	



LOG NO: G98-02-192

Received: 09 FEB 98

Ms. Rebecca Digerness  
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108 Cutting Boulevard  
Richmond, CA 94804

Purchase Order: 94-1446346+4370

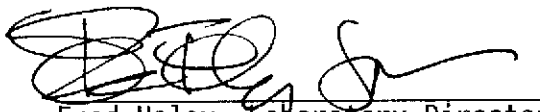
Requisition: 618571050  
Project: FKEP9023L

REPORT OF ANALYTICAL RESULTS

Page 4

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Karen Petryna  
930 Springtown Blvd., Livremore

  
Fred Haley, 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 Refining and Marketing 9802192 :  
: VOC ANALYTICAL : GLEN LAB : 14:27:57 24 FEB 1998 - P. 1 :

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SAMPLES... SAMPLE DESCRIPTION.. DETERM..... DATE..... METHOD..... EQUIP. BATCH.. ID.NO
                                ANALYZED
9802192*1 MW-A                GAS.MTBE.TESNC  02.13.98 8015M.TX   536-23  985023  7424
                                DATA.REVIEW    02.24.98
9802192*2 MW-B                GAS.MTBE.TESNC  02.13.98 8015M.TX   536-23  985023  7424
                                DATA.REVIEW    02.24.98
9802192*3 MW-1                GAS.MTBE.TESNC  02.10.98 8015M.TX   536-21  984023  7424
                                DATA.REVIEW    02.24.98
9802192*4 MW-2                GAS.MTBE.TESNC  02.10.98 8015M.TX   536-21  984023  7424
                                DATA.REVIEW    02.24.98
9802192*5 MW-3                GAS.MTBE.TESNC  02.10.98 8015M.TX   536-21  984023  7424
                                DATA.REVIEW    02.24.98
9802192*6 MW-4                GAS.MTBE.TESNC  02.10.98 8015M.TX   536-21  984023  7424
                                DATA.REVIEW    02.24.98
9802192*7 MW-5                GAS.MTBE.TESNC  02.11.98 8015M.TX   536-23  985022  7424
                                DATA.REVIEW    02.24.98
9802192*8 MW-8                GAS.MTBE.TESNC  02.10.98 8015M.TX   536-21  984023  7424
                                DATA.REVIEW    02.24.98
9802192*9 EB                  GAS.MTBE.TESNC  02.10.98 8015M.TX   536-21  984023  7424
                                DATA.REVIEW    02.24.98
```

\*\*\*

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 %REC FLG	LCSD %REC FLG	LCL	UCL	RPD	RPD	MS %REC FLG	MSD %REC FLG	LCL	UCL	RPD	RPD	
Batch: GAS*984023 Method: 8015M.TX - Modified 8015																
Benzene	ug/L	0	0.5 -	99 -	- -	76	155	-	-	93 -	90 -	70	153	3	25	-
Toluene	ug/L	0.13	0.5 -	99 -	- -	72	121	-	-	81 -	79 -	69	119	2	25	-
Ethylbenzene	ug/L	0	0.5 -	98 -	- -	72	115	-	-	93 -	89 -	68	116	4	25	-
Methyl-tert-butylether	ug/L	0	30 -	100 -	- -	62	159	-	-	113 -	111 -	80	176	1	25	-
Total Xylene Isomers	ug/L	0.13	0.5 -	99 -	- -	68	115	-	-	77 -	76 -	61	118	1	25	-
TPH (Gasoline Range)	ug/L	6.0	50 -	100 -	- -	85	120	-	-	100 -	99 -	78	124	1	25	-
[a,a,a-Trifluorotoluene]	Percent	111	- -	103 -	- -	85	118	-	-	97 -	107 -	85	118	-	-	-
Batch: GAS*985022 Method: 8015M.TX - Modified 8015																
Benzene	ug/L	0	0.5 -	91 -	- -	76	155	-	-	91 -	93 -	70	153	1	25	-
Toluene	ug/L	0	0.5 -	92 -	- -	72	121	-	-	84 -	87 -	69	119	3	25	-
Ethylbenzene	ug/L	0	0.5 -	91 -	- -	72	115	-	-	90 -	95 -	68	116	5	25	-
Methyl-tert-butylether	ug/L	0	30 -	90 -	- -	62	159	-	-	115 -	115 -	80	176	0	25	-
Total Xylene Isomers	ug/L	0	0.5 -	97 -	- -	68	115	-	-	81 -	84 -	61	118	4	25	-
TPH (Gasoline Range)	ug/L	0	50 -	102 -	- -	85	120	-	-	100 -	101 -	78	124	1	25	-
[a,a,a-Trifluorotoluene]	Percent	104	- -	96 -	- -	85	118	-	-	120 Q	121 Q	85	118	-	-	-
Batch: GAS*985023 Method: 8015M.TX - Modified 8015																
Benzene	ug/L	0	0.5 -	89 -	- -	76	155	-	-	91 -	90 -	70	153	1	25	-
Toluene	ug/L	0	0.5 -	91 -	- -	72	121	-	-	85 -	83 -	69	119	2	25	-
Ethylbenzene	ug/L	0	0.5 -	92 -	- -	72	115	-	-	89 -	92 -	68	116	3	25	-
Methyl-tert-butylether	ug/L	0	30 -	83 -	- -	62	159	-	-	- -	- -	-	-	-	-	-
Total Xylene Isomers	ug/L	0	0.5 -	97 -	- -	68	115	-	-	80 -	82 -	61	118	2	25	-
TPH (Gasoline Range)	ug/L	0	50 -	96 -	- -	85	120	-	-	102 -	99 -	78	124	3	25	-
[a,a,a-Trifluorotoluene]	Percent	108	- -	97 -	- -	85	118	-	-	117 -	117 -	85	118	-	-	-

:.SURROGATE RECOVERIES :  
: BC ANALYTICAL : GLEN LAB : 14:27:45 24 FEB 1998 - P. 1 :  
=====

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9802192*1							
8015M.TXa	a,a,a-Trifluorotoluene	Re985023	02/13/98	48.0	50.0	96	
9802192*2							
8015M.TXa	a,a,a-Trifluorotoluene	Re985023	02/13/98	124	125	99	
9802192*3							
8015M.TXa	a,a,a-Trifluorotoluene	Re984023	02/10/98	50.8	50.0	102	
9802192*4							
8015M.TXa	a,a,a-Trifluorotoluene	Re984023	02/10/98	50.8	50.0	102	
9802192*5							
8015M.TXa	a,a,a-Trifluorotoluene	Re984023	02/10/98	51.0	50.0	102	
9802192*6							
8015M.TXa	a,a,a-Trifluorotoluene	Re984023	02/10/98	52.9	50.0	106	
9802192*7							
8015M.TXa	a,a,a-Trifluorotoluene	Re985022	02/11/98	52.3	50.0	105	
9802192*8							
8015M.TXa	a,a,a-Trifluorotoluene	Re984023	02/10/98	50.7	50.0	101	
9802192*9							
8015M.TXa	a,a,a-Trifluorotoluene	Re984023	02/10/98	54.0	50.0	108	

G98-02-192

Chain-of-Custody

Page \_\_\_ of \_\_\_

Texaco Environmental Services

108 Cutting Boulevard  
 Richmond, California 94804  
 Phone: (510) 238-3541  
 FAX: (510) 237-7821

Forward Results to the Attention of Rebecca Digerness  
 Texaco Project Coordinator Karen Petryna

Site Name: Texaco Loc. # 618571050  
 Site Address: 930 Springtown Blvd. Livermore, CA  
 Contractor Project Number: 980206-H  
 Contractor Name: Blaine Tech Services, Inc.  
 Address: 1680 Rogers Ave., San Jose, CA 95112  
 Project Contact: Kent Brown  
 Phone/FAX: (408) 573-0555 / (408) 573-7771

Laboratory: B C Analytical  
 Turn Around Time: normal (10 day)  
 Samplers (PRINT NAME): [Signature]  
 Sampler Signature: [Signature]  
 Date Samples Collected: 2/6/98

ANALYSIS										Comments
TPH gas/BTEX/MTBE	TPH Diesel	O&G/TRPH (418.1)	TPH Ex. (C8-C36 +)	VOCs 8240/824	P. Halocarbons 8010/80	P. Aromatics 8020/602	Organic Lead			
										KEP 618571050 FKEP9023L

Sample Number	Lab Sample Number	Date/Time Collected	No. of Containers	Type of Containers	Sample Matrix	Preservative
MW-A		2/6/1310	3	VOA	H <sub>2</sub> O	HCl
MW-B		1/1255				
MW-1		1/1156				
MW-2		1/1140				
MW-3		1/1210				
MW-4		1/1040				
MW-5		1/1230				
MW-8		1/1105				
EB		1/1045				

Relinquished by: [Signature] Date: 2/9/98 Time: 1429  
 Relinquished by: [Signature] Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished by: [Signature] Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Method of Shipment: \_\_\_\_\_

Received by: [Signature] Date: 2/9/98 Time: 1429  
 Received by: [Signature] Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received by: [Signature] Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Lab Comments: \_\_\_\_\_



Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Texaco 618571050/980519-K2 Sample Descript: MW-A Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805D11-01	Sampled: 05/19/98 Received: 05/20/98 Analyzed: 06/02/98 Reported: 06/11/98
--	---	---

QC Batch Number: GC060298802005A  
Instrument ID: HP-5

**Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE**

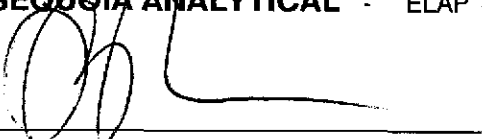
Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	20000	32000
Methyl t-Butyl Ether	1000	1300
Benzene	200	310
Toluene	200	380
Ethyl Benzene	200	1800
Xylenes (Total)	200	3700
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	77

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

**SEQUOIA ANALYTICAL** - ELAP #1271

  
Peggy Penner  
Project Manager





# Sequoia Analytical

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FAX (916) 921-0100  
FAX (707) 792-0342

Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Texaco 618571050/980519-K2 Sample Descript: MW-B Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805D11-02	Sampled: 05/19/98 Received: 05/20/98 Analyzed: 06/02/98 Reported: 06/11/98
--	---	---

QC Batch Number: GC060298802005A  
Instrument ID: HP-5

## Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10000	25000
Methyl t-Butyl Ether	500	570
Benzene	100	200
Toluene	100	900
Ethyl Benzene	100	410
Xylenes (Total)	100	1600
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	77

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

**SEQUOIA ANALYTICAL** - ELAP #1271

Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Texaco 618571050/980519-K2 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805D11-03	Sampled: 05/19/98 Received: 05/20/98 Analyzed: 06/02/98 Reported: 06/11/98
--	---	---

QC Batch Number: GC060298802005A  
 Instrument ID: HP-2

### Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2500	4200
Methyl t-Butyl Ether	120	510
Benzene	25	120
Toluene	25	25
Ethyl Benzene	25	360
Xylenes (Total)	25	76
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	79

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

**SEQUOIA ANALYTICAL** - ELAP #1271

Peggy Penner  
Project Manager







Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Texaco 618571050/980519-K2 Sample Descript: MW-8 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805D11-04	Sampled: 05/19/98 Received: 05/20/98 Analyzed: 06/05/98 Reported: 06/11/98
Attention: Kent Brown		

QC Batch Number: GC060598802002A  
Instrument ID: HP-2

**Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	4.9
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70      130	102

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

**SEQUOIA ANALYTICAL** - ELAP #1271

  
Peggy Penner  
Project Manager





Blaine Tech Services 1680 Rogers Avenue San Jose, CA 95112	Client Proj. ID: Texaco 618571050/980519-K2 Sample Descript: EB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9805D11-05	Sampled: 05/19/98 Received: 05/20/98 Analyzed: 06/02/98 Reported: 06/11/98
--	---	---

QC Batch Number: GC060598802002A  
Instrument ID: HP-2

**Total Purgeable Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	72

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

**SEQUOIA ANALYTICAL** - ELAP #1271

Peggy Penner  
Project Manager





# Sequoia Analytical

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FAX (650) 364-9233  
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FAX (916) 921-0100  
FAX (707) 792-0342

Blaine Tech Services, Inc.  
1680 Rogers Ave.  
San Jose, CA 95112  
Attention: Kent Brown

Client Project ID: **Texaco 618571050/980519-K2**  
Matrix: **Liquid**

Work Order #: **9805D11 -01-05**

Reported: **Jun 11, 1998**

## QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC052898802005A	GC052898802005A	GC052898802005A	GC052898802005A	GC052898802005A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	K. Nill	K. Nill	K. Nill	K. Nill	K. Nill
MS/MSD #:	8051662	8051662	8051662	8051662	8051662
Sample Conc.:	16	N.D.	N.D.	N.D.	N.D.
Prepared Date:	5/28/98	5/28/98	5/28/98	5/28/98	5/28/98
Analyzed Date:	5/28/98	5/28/98	5/28/98	5/28/98	5/28/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	350 µg/L
Result:	33	19	19	58	390
MS % Recovery:	85	95	95	97	111
Dup. Result:	39	24	23	70	370
MSD % Recov.:	115	120	115	117	106
RPD:	16.7	23.3	19.0	18.8	5.3
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS052898	LCS052898	LCS052898	LCS052898	LCS052898
Prepared Date:	5/28/98	5/28/98	5/28/98	5/28/98	5/28/98
Analyzed Date:	5/28/98	5/28/98	5/28/98	5/28/98	5/28/98
Instrument I.D.#:	HP5	HP5	HP5	HP5	HP5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	350 µg/L
LCS Result:	17	16	16	51	340
LCS % Recov.:	85	80	80	85	97

MS/MSD	60-140	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130	70-130
Control Limits					

SEQUOIA ANALYTICAL  
Elep #1271

Peggy Penner  
Project Manager

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9805D11.BLA <1>





**Sequoia  
Analytical**

680 Chesapeake Drive  
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FAX (916) 921-0100  
FAX (707) 792-0342

Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112  
Attention: Kent Brown

Client Proj. ID: Texaco 618571050/980519-K2

Received: 05/20/98

Lab Proj. ID: 9805D11

Reported: 06/11/98

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 4 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

**SEQUOIA ANALYTICAL**

  
Peggy Penner  
Project Manager



9805011

Chain-of-Custody

TRMI EH&S  
 108 Cutting Boulevard  
 Richmond, California 94804  
 Phone: (510) 236-3541  
 FAX: (510) 237-7821

Forward Results to the Attention of Rebecca Digerness  
 Texaco Project Corordinator Karen Petryna

Site Name: Texaco Loc. # 618571050  
 Site Address: 930 Springtown Blvd. Livermore, CA

Contractor Project Number: 980519-K2  
 Contractor Name: Blaine Tech Services, Inc.

Address: 1680 Rogers Ave, San Jose, CA 95112  
 Project Contact: Kent Brown  
 Phone/FAX: (408) 573-0555 / (408) 573-7771

Laboratory: Seqoia BC Analytical Science  
 Turn Around Time: normal (10 day)  
 Samplers (PRINT NAME): Mark Spangler  
 Sampler Signature: [Signature]  
 Date Samples Collected: 5/19/98

ANALYSIS										Comments					
Sample Number	Lab Sample Number	Date/Time Collected	No. of Containers	Type of Containers	Sample Matrix	Preservative	TPH gas/BTEX (MDE)	TPH Diesel	O&G/TRPH (418.1)		TPH Ex. (C8-C36+)	VOCs 8240/824	P. Halocarbons 8010/60	P. Aromatics 8020/602	Organic Lead
M-1	1	5/19/98/1235	3	SOAT	WCL	WCL	X								
M-2	2	1/120	3				X								
M-3	3	1/150	3				X								
M-4	4	1/127	3				X								
EB	5	1/135	3				X								

Relinquished by: [Signature] Date: 5/20/98 Time: 1:20

Relinquished by: Star Te Date: 5/20/98 Time: \_\_\_\_\_

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

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

Received by: [Signature] Date: 5/20/98 Time: 1:28

Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: [Signature] Date: 5-20-98 Time: 15:04

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



# TEXACO WELL MONITORING DATA SHEET

Project #: <u>980206-H1</u>	Texaco ID#: <u>618571050</u>
Sampler: <u>MH</u>	Date: <u>2/6/98</u>
Well I.D.: <u>MW-A</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>16.42</u>	Depth to Water: <u>9.00</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: <input checked="" type="checkbox"/> S.S. Bailer <input type="checkbox"/> Teflon Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: <u>Disposable</u>	Sampling Method: <input checked="" type="checkbox"/> S.S. Bailer <input type="checkbox"/> Teflon Bailer <input type="checkbox"/> Extraction Port Other: _____
---	--

<u>1.1</u>	x	<u>3</u>	=	<u>3.3</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Color/Odor
<u>1302</u>	<u>63.6</u>	<u>7.5</u>	<u>1200</u>	<u>98</u>	<u>1.5</u>	
<u>1304</u>	<u>64.2</u>	<u>7.4</u>	<u>1200</u>	<u>44</u>	<u>3.0</u>	
<u>1307</u>	<u>64.2</u>	<u>7.4</u>	<u>1200</u>	<u>37</u>	<u>4.5</u>	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>4.5</u>
Sampling Time: <u>130</u>	Sampling Date: <u>2/6</u>
Sample I.D.: <u>MW-A</u>	Laboratory: <u>BC Analytical</u>
Analyzed for: <input checked="" type="checkbox"/> Tph-G <input checked="" type="checkbox"/> BTEX <input type="checkbox"/> Tph-D	Other: <u>MTBE</u>
Equipment Blank I.D.:	Analyzed for same as primary sample

# TEXACO WELL MONITORING DATA SHEET

Project #: <u>980206-H1</u>	Texaco ID#: <u>618571050</u>
Sampler: <u>MH</u>	Date: <u>2/6/98</u>
Well I.D.: <u>MW-B</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>21.79</u>	Depth to Water: <u>6.68</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: <input checked="" type="checkbox"/> S.S. Bailer <input type="checkbox"/> Teflon Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input checked="" type="checkbox"/> S.S. Bailer <input type="checkbox"/> Teflon Bailer <input type="checkbox"/> Extraction Port Other: _____
---	--

<u>2.3</u>	x	<u>3</u>	=	<u>6.9</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Color/Odor
<u>1242</u>	<u>62.6</u>	<u>7.7</u>	<u>1700</u>	<u>2142</u>	<u>2.5</u>	<u>Heavy steam/odor</u>
<u>1247</u>	<u>62.8</u>	<u>7.8</u>	<u>1600</u>	<u>107</u>	<u>5.0</u>	" " "
<u>1251</u>	<u>62.8</u>	<u>7.7</u>	<u>1600</u>	<u>121</u>	<u>7.5</u>	" " "

Did well dewater? Yes <input type="checkbox"/> <input checked="" type="checkbox"/> <u>No</u>	Gallons actually evacuated: <u>7.5</u>
Sampling Time: <u>1255</u>	Sampling Date: <u>2/6</u>
Sample I.D.: <u>MW-B</u>	Laboratory: <u>BC Analytical</u>
Analyzed for: <input checked="" type="checkbox"/> <u>Tph-G</u> <input checked="" type="checkbox"/> <u>BTEX</u> <input type="checkbox"/> Tph-D	Other: <u>MTBE</u>
Equipment Blank I.D.:	Analyzed for same as primary sample



# TEXACO WELL MONITORING DATA SHEET

Project #: <u>980206-H1</u>	Texaco ID#: <u>618571050</u>
Sampler: <u>MH</u>	Date: <u>2/6/98</u>
Well I.D.: <u>MW-1</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth: <u>25.46</u>	Depth to Water: <u>9.27</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 <input checked="" type="checkbox"/> Electric Submersible Extraction Pump Other: _____	Sampling Method: S.S. Bailer <input checked="" type="checkbox"/> Teflon Bailer Extraction Port Other: _____
--	--

<u>10.5</u>	x	<u>3</u>	=	<u>31.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Color/Odor
<u>1147</u>	<u>64.0</u>	<u>7.6</u>	<u>2000</u>	<u>7200</u>	<u>11</u>	
<u>1149</u>	<u>63.6</u>	<u>7.3</u>	<u>2000</u>	<u>7200</u>	<u>22</u>	
<u>1151</u>	<u>64.2</u>	<u>7.4</u>	<u>2000</u>	<u>7200</u>	<u>33</u>	

Did well dewater? Yes <input type="checkbox"/> <input checked="" type="checkbox"/> <u>No</u>	Gallons actually evacuated: <u>33</u>
Sampling Time: <u>1156</u>	Sampling Date: <u>2/6</u>
Sample I.D.: <u>MW-1</u>	Laboratory: <u>BC Analytical</u>
Analyzed for: <input checked="" type="checkbox"/> Tph-G <input checked="" type="checkbox"/> BTEX <input type="checkbox"/> Tph-D	Other: <u>MTBE</u>
Equipment Blank I.D.:	Analyzed for same as primary sample

# TEXACO WELL MONITORING DATA SHEET

Project #: <u>980206-41</u>	Texaco ID#: <u>618571050</u>
Sampler: <u>MH</u>	Date: <u>2/6/98</u>
Well I.D.: <u>MW-2</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth: <u>22.61</u>	Depth to Water: <u>6.88</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: <input type="checkbox"/> S.S. Bailer <input type="checkbox"/> Teflon Bailer <input type="checkbox"/> Middleburg <input checked="" type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input checked="" type="checkbox"/> S.S. Bailer <input type="checkbox"/> Teflon Bailer <input type="checkbox"/> Extraction Port Other: _____
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<u>102</u>	x	<u>3</u>	=	<u>30.6</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Color/Odor
<u>1131</u>	<u>63.8</u>	<u>7.5</u>	<u>2200</u>	<u>7200</u>	<u>11</u>	<u>Root mass in</u>
<u>1133</u>	<u>63.6</u>	<u>7.4</u>	<u>2400</u>	<u>7200</u>	<u>22</u>	<u>well casing</u>
<u>1135</u>	<u>64.0</u>	<u>7.2</u>	<u>2400</u>	<u>7200</u>	<u>33</u>	<u>~ 4ft down.</u>

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>33</u>
Sampling Time: <u>1140</u>	Sampling Date: <u>2/6</u>
Sample I.D.: <u>MW-2</u>	Laboratory: <u>BC Analytical</u>
Analyzed for: <input checked="" type="checkbox"/> Tph-G <input checked="" type="checkbox"/> BTEX <input type="checkbox"/> Tph-D	Other: <u>MTBE</u>
Equipment Blank I.D.:	Analyzed for same as primary sample

# TEXACO WELL MONITORING DATA SHEET

Project #: <u>980206-41</u>	Texaco ID#: <u>618571050</u>
Sampler: <u>MH</u>	Date: <u>2/6/98</u>
Well I.D.: <u>MW-3</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 _____
Total Well Depth: <u>24.5 ft</u>	Depth to Water: <u>8.41</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 <input checked="" type="checkbox"/> Electric Submersible Extraction Pump Other: _____	Sampling Method: S.S. Bailer <input checked="" type="checkbox"/> Teflon Bailer Extraction Port Other: _____
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<u>10.5</u>	x	<u>3</u>	=	<u>31.5</u> Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Color/Odor
<u>1202</u>	<u>64.0</u>	<u>7.6</u>	<u>1500</u>	<u>7200</u>	<u>11</u>	
<u>1203</u>	<u>64.6</u>	<u>7.3</u>	<u>1400</u>	<u>7200</u>	<u>22</u>	
<u>1205</u>	<u>64.2</u>	<u>7.4</u>	<u>1400</u>	<u>7200</u>	<u>33</u>	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>33</u>
Sampling Time: <u>1210</u>	Sampling Date: <u>2/6</u>
Sample I.D.: <u>MW-3</u>	Laboratory: <u>BC Analytical</u>
Analyzed for: <input checked="" type="checkbox"/> Tph-G <input checked="" type="checkbox"/> BTEX <input type="checkbox"/> Tph-D	Other: <u>MTBE</u>
Equipment Blank I.D.:	Analyzed for same as primary sample

# TEXACO WELL MONITORING DATA SHEET

Project #: <u>980206-H1</u>	Texaco ID#: <u>618571050</u>
Sampler: <u>MH</u>	Date: <u>2/6/98</u>
Well I.D.: <u>MW-4</u>	Well Diameter: 2 <u>(3)</u> 4 6 8 _____
Total Well Depth: <u>25.04</u>	Depth to Water: <u>7.46</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 x Teflon Bailer Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: S.S. Bailer x Teflon Bailer Extraction Port Other: _____
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<u>6.5</u>	x	<u>3</u>	=	<u>19.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Color/Odor
<u>1016</u>	<u>63.6</u>	<u>7.2</u>	<u>1100</u>	<u>40</u>	<u>7</u>	
<u>1024</u>	<u>64.0</u>	<u>7.2</u>	<u>1000</u>	<u>21</u>	<u>14</u>	
<u>1033</u>	<u>64.2</u>	<u>7.2</u>	<u>1000</u>	<u>23</u>	<u>21</u>	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>21</u>
Sampling Time: <u>1040</u>	Sampling Date: <u>2/6</u>
Sample I.D.: <u>MW-4</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.: <u>EB</u>	Analyzed for same as primary sample

# TEXACO WELL MONITORING DATA SHEET

Project #: <u>980206-H1</u>	Texaco ID#: <u>618571050</u>
Sampler: <u>MH</u>	Date: <u>2/6/98</u>
Well I.D.: <u>MW-5</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>21.31</u>	Depth to Water: <u>10.26</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: <input checked="" type="checkbox"/> S.S. Bailer <input type="checkbox"/> Teflon Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: S.S. Bailer <input checked="" type="checkbox"/> <input type="checkbox"/> Teflon Bailer <input type="checkbox"/> Extraction Port Other: _____
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<u>1.7</u>	x	<u>3</u>	=	<u>5.1</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Color/Odor
<u>1217</u>	<u>64.2</u>	<u>8.1</u>	<u>1100</u>	<u>96</u>	<u>2</u>	
<u>1221</u>	<u>64.6</u>	<u>7.8</u>	<u>1000</u>	<u>70</u>	<u>4</u>	
<u>1224</u>	<u>64.6</u>	<u>7.7</u>	<u>1000</u>	<u>49</u>	<u>6</u>	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>6</u>
Sampling Time: <u>1230</u>	Sampling Date: <u>2/6</u>
Sample I.D.: <u>MW-5</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>980519-K2</u>	Texaco ID#: <u>618371030</u>
Sampler: <u>Mark</u>	Date: <u>5/19/98</u>
Well I.D.: <u>MW-A</u>	Well Diameter: <u>2</u> 3 4 6 8 <u>    </u>
Total Well Depth: <u>16.37</u>	Depth to Water: <u>9.85</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
<del>2"</del>	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: disp. bailer \* bent casing

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

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Color/Odor
<u>1221</u>	<u>65.3</u>	<u>7.3</u>	<u>1572</u>	<del>1572</del> <u>1572</u>	<u>1</u>	<u>odor, gray turbid</u>
<u>1224</u>	<u>65.6</u>	<u>7.2</u>	<u>1639</u>	<u>&gt;200</u>	<u>2</u>	<u>light shear</u>
<u>1227</u>	<u>65.7</u>	<u>7.2</u>	<u>1660</u>	<u>&gt;200</u>	<u>3</u>	

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Gallons actually evacuated: <u>3</u>
Sampling Time: <u>1235</u>	Sampling Date: <u>5/19</u>
Sample I.D.: <u>MW-A</u>	Laboratory: <u>BE Analytical Sequoia</u>
Analyzed for: <u>Tph-G BTEX</u> Tph-D <input type="radio"/> Other: <u>MTBE</u>	
Equipment Blank I.D.:	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 #: 618511050  
 Address: 930 Springtown Bl.  
 City, State, ZIP: Livermore CA

Well I.D.	Gals.	Well I.D.	Gals.
/		/	
/		/	
/		/	
/		/	
/		/	
/		/	
/		/	
/		/	
/		/	
/		/	
Purge	1	/	
Water	1	/	
Total gals.	<u>160</u>	added rinse water	<u>10</u>
Total Gals. Recovered	<u>170</u>		

Job #: 980206-H1  
 Date: 2-6-98  
 Time: 1330  
 Signature: [Signature]  
 REC'D AT: BTS  
 Date: 2-6-98  
 Time: 1500  
 Signature: [Signature]

# SOURCE RECORD BILL OF LADING

FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT TEXACO FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGEWATER WHICH HAS BEEN RECOVERED FROM GROUNDWATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED TO THE DESTINATION DESIGNATED BY TRMI EH&S.

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

is authorized by TRMI EH&S 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 TRMI EH&S in either Redwood City, California or in Richmond, California. Transport routing of the Non-Hazardous Well Purgewater may be direct 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 to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of TRMI EH&S.

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 #618571050  
 Address: \_\_\_\_\_ 930 SPRINGTOWN BLVD. \_\_\_\_\_  
 City, State, ZIP: \_\_\_\_\_ LIVERMORE, CA \_\_\_\_\_

WELL I.D. GALS.

W-1 / 3

W-2 / 6.75

W-3 / 5.25

W-4 / 20

\_\_\_\_\_/\_\_\_\_\_  
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WELL I.D. GALS.

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 \_\_\_\_\_/\_\_\_\_\_  
 \_\_\_\_\_/\_\_\_\_\_

Total gals. 29

added rinse water 5

Total Gals. Recovered 34

Job#: 280919-K2  
 Date: 5/19/98  
 Time: 1245  
 Signature: [Signature]

REC'D AT: ETS  
 Date: 5/19/98  
 Time: 1430  
 Signature: [Signature]

**QUARTERLY STATUS REPORT**  
Former Texaco Service Station/Current Seven-Eleven Store  
930 Springtown, Livermore, California  
Alameda County  
Second Quarter 1998

**SITE HISTORY**

Subsurface investigation was initiated in September, 1984 with the installation of two groundwater monitoring wells (MW-1A and MW-1B). Underground fuel storage tanks were removed in June 1985. Plume definition investigation continued through 1989. Monitoring wells MW-1 through MW-3 were installed in June 1985, MW-4 was installed in September 1985, and MW-5 and MW-6 were installed in November 1986. One soil boring was drilled and two additional monitoring wells (MW-7 and MW-8) were installed in December 1989 in order to fully define the extent of subsurface hydrocarbons. Monitoring wells MW-6 and MW-7 were destroyed in December 1995 and January 1996. A vapor extraction system operated at the site from September 1994 through October 1995. A work plan was submitted to conduct Risk Based Corrective Action analysis in the third quarter of 1997. The analysis was performed and a report was submitted to Alameda County during the fourth quarter of 1997 along with an additional correspondence detailing the input parameters for the analysis.

**WORK PERFORMED THIS QUARTER**

Continued the groundwater monitoring and sampling program.

**CHARACTERIZATION STATUS**

The extent of petroleum hydrocarbons in soil has been defined laterally. The extent of dissolved petroleum hydrocarbons in groundwater has not been fully defined.

**REMEDIATION STATUS**

A soil vapor extraction system previously operated. The system was turned off after obtaining permission from the Alameda County Health Care Services Agency.

**WORK TO BE PERFORMED NEXT QUARTER**

Continue the groundwater monitoring and sampling program. Based on the results of the RBCA analysis, Texaco will evaluate whether to obtain more vadose zone soil samples or accept a conditional closure and produce a Risk Management Plan.

**WATER WELL SURVEY**

Based on the water well survey conducted at the Department of Water Resources on May 19, 1997, there is only one water producing well within 1/2-mile of the site. An irrigation well is located approximately 650-feet north of the site. The predominant ground water flow direction is to the northwest.