Texaco Refining
and Marketing Inc.

March 15, 1996

Q Analyze for MTBE

ENV - STUDIES, SURVEYS, & REPORTS
930 Springtown Blvd., Livermore, California
Quarterly Monitoring Report

Ms. Eva Chu
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Fl. 2
Alameda, CA 94502-6577

Dear Ms. Chu:

This letter presents the results of groundwater monitoring and sampling conducted by Blaine Tech Services, Inc. on February 7, 1996, at the site referenced above (see Plate 1, Site Vicinity Map). Based on groundwater level measurements, the areal hydraulic gradient was estimated to be west-northwest (see Plate 2, Groundwater Gradient Map) at .003 ft. per ft. The gradient map has been reviewed by a registered professional. TPHg and benzene concentrations are shown on Plate 3. 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-2, MW-4, MW-6, and MW-8 are sampled semi-annually in February and August; monitoring wells MW-1, MW-3, MW-5, MW-A, and MW-B are sampled quarterly; and monitoring wells MW-A, MW-B, and MW-1 through 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. Texaco's Standard Operating Procedures may be found in the fourth quarter, 1994 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,

Rebecca Digerness

Rebecca Digerness
Environmental Assistant

Karen E. Petryna

Karen E. Petryna
Engineer
Texaco Refining and Marketing, Inc.

RBD:hs
C:\QMR\930S\QMR.LET

Enclosures

Review MW logs of MW A, B, 5 + 8.
plume appears narrow N/S/mean
like along conduit / stringer?
look at lithology + any soil contam. No
aquifer in permeable sediments.
(sand & gravel w/ some clay)

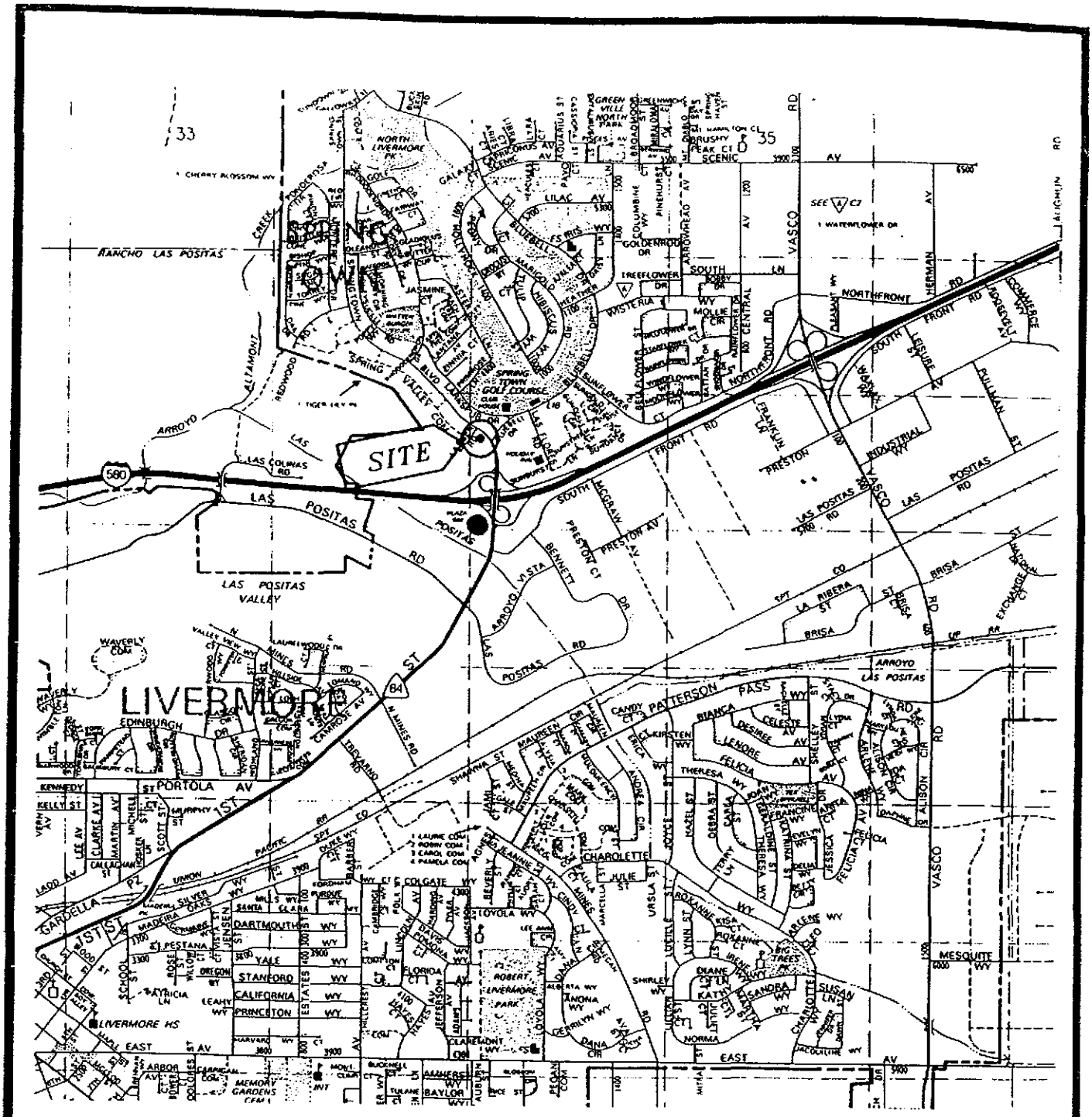
cc: Timothy Ross
Kaprealian Engineering, Inc.
2401 Stanwell Dr., Suite 400
Concord, CA 94520

Mr. Robert Vasquez
The Southland Corporation
3146 Gold Drive, Suite 300
Rancho Cordova, CA 95670

RAOFile-UCPFile (w/enclosures) RRZielinski (w/o enclosures)

pr: RRZ

GROUNDWATER MONITORING AND SAMPLING
First Quarter, 1996
at the
Former Texaco Service Station
930 Springtown Boulevard
Livermore, California



SOURCE:

1993 THE THOMAS GUIDE
ALAMEDA COUNTY, PAGE 51 (C3)

N

0 1/4 1/2 3/4 1

MILE

1" = 2200'

TEXACO

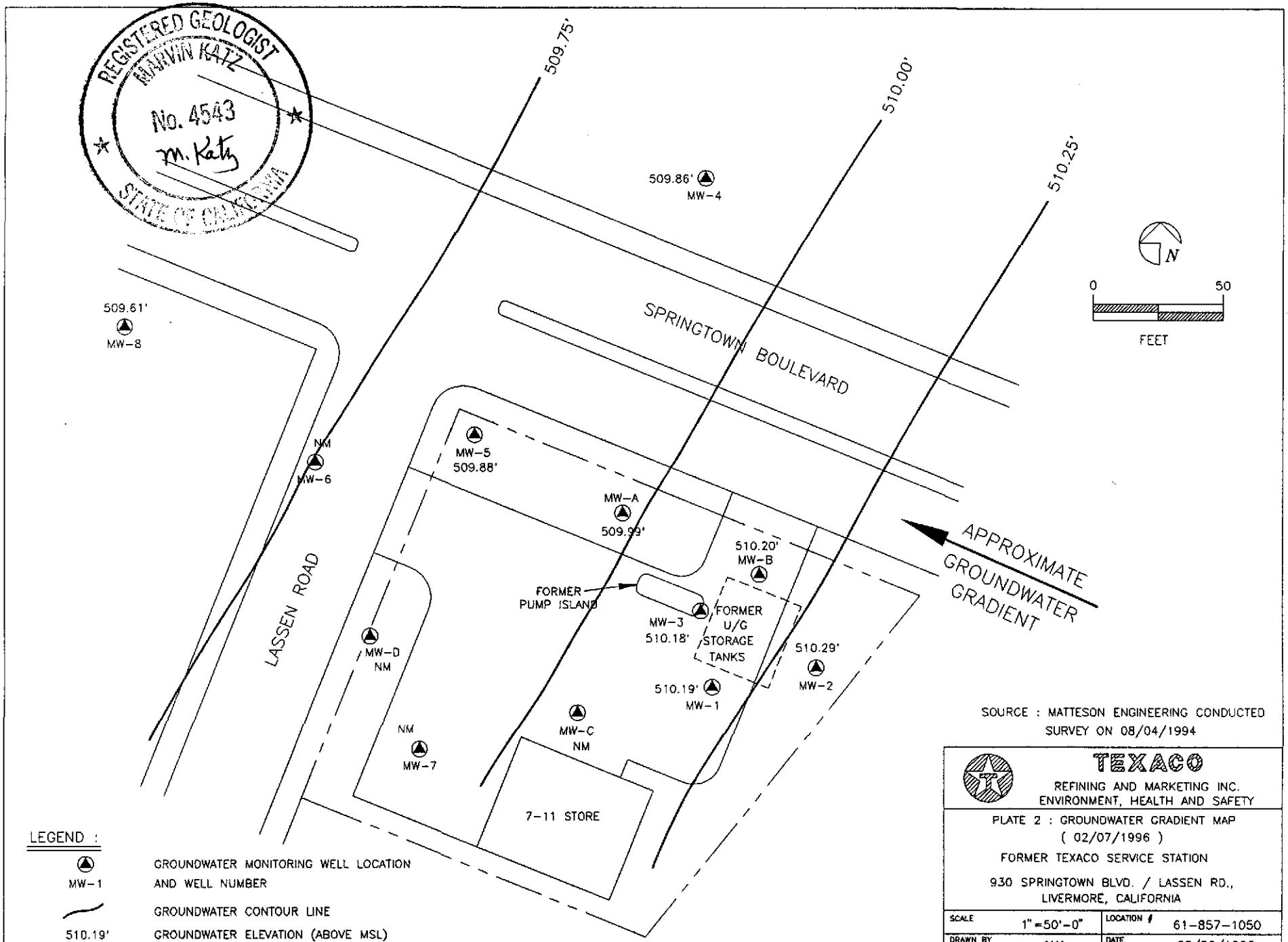
REFINING AND MARKETING, INC.
TEXACO ENVIRONMENTAL SERVICES

PLATE 1

SITE VICINITY MAP

FORMER TEXACO SERVICE STATION

930 SPRINGTOWN BLVD. / LASSEN RD.,
LIVERMORE, CALIFORNIA



LEGEND :

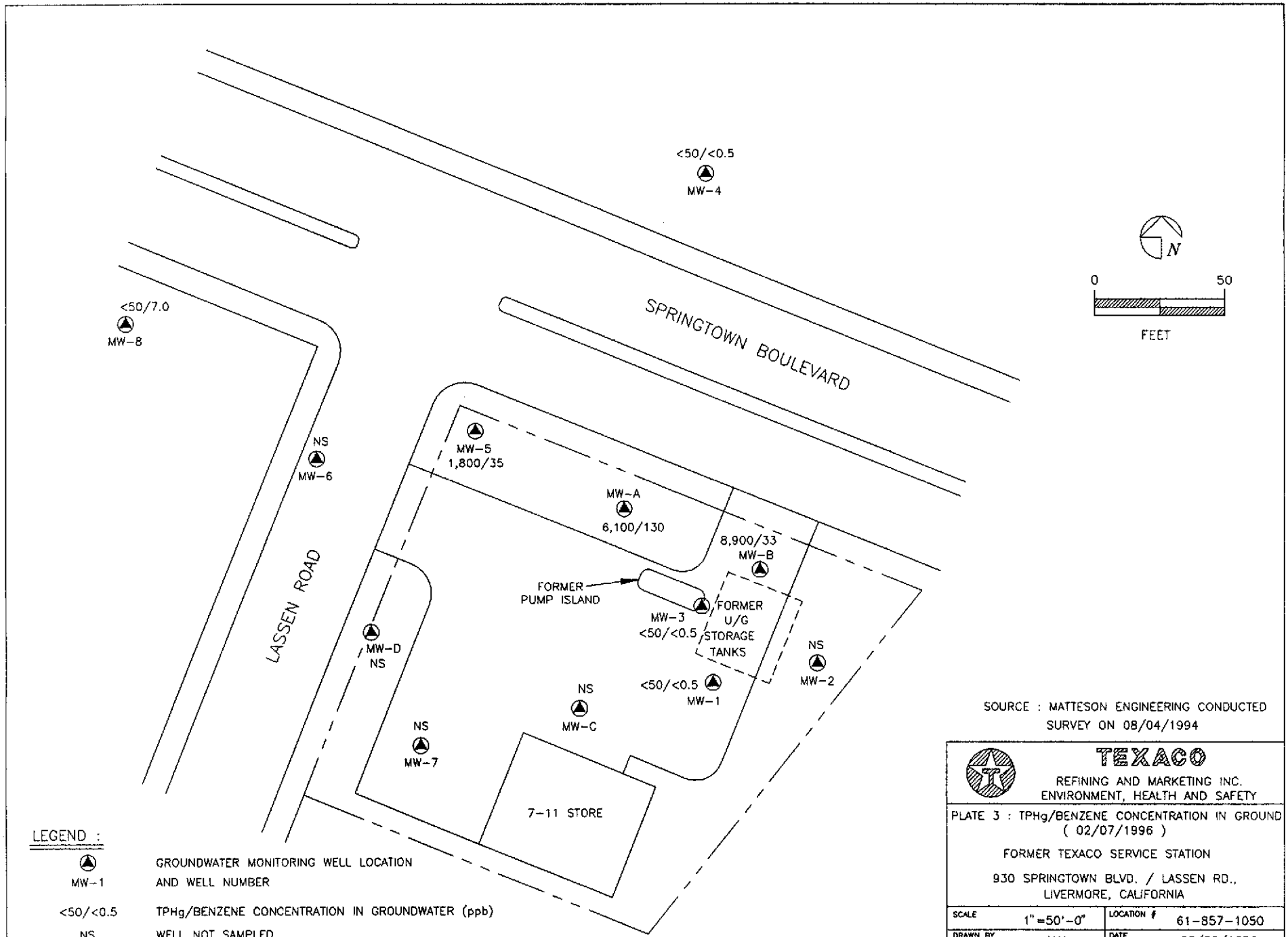
MW-1	GROUNDWATER MONITORING WELL LOCATION AND WELL NUMBER
	GROUNDWATER CONTOUR LINE
510.19'	GROUNDWATER ELEVATION (ABOVE MSL)
NM	NOT MEASURED

SOURCE : MATTESON ENGINEERING CONDUCTED SURVEY ON 08/04/1994

TEXACO
REFINING AND MARKETING INC.
ENVIRONMENT, HEALTH AND SAFETY

PLATE 2 : GROUNDWATER GRADIENT MAP
(02/07/1996)
FORMER TEXACO SERVICE STATION
930 SPRINGTOWN BLVD. / LASSEN RD.,
LIVERMORE, CALIFORNIA

SCALE	1"=50'-0"	LOCATION #	61-857-1050
DRAWN BY	AMA	DATE	02/29/1996
CHECKED BY	RD	DATE	2/29/96
DRAWING NO.	(LIVERMORE) ST-LA-LI.DWG		



LEGEND :

MW-1	GROUNDWATER MONITORING WELL LOCATION AND WELL NUMBER
<50/<0.5	TPHg/BENZENE CONCENTRATION IN GROUNDWATER (ppb)
NS	WELL NOT SAMPLED

SOURCE : MATTESON ENGINEERING CONDUCTED SURVEY ON 08/04/1994

TEXACO
REFINING AND MARKETING INC.
ENVIRONMENT, HEALTH AND SAFETY

PLATE 3 : TPHg/BENZENE CONCENTRATION IN GROUND (02/07/1996)

FORMER TEXACO SERVICE STATION

930 SPRINGTOWN BLVD. / LASSEN RD.,
LIVERMORE, CALIFORNIA

SCALE	1"=50'-0"	LOCATION #	61-857-1050
DRAWN BY	AMA	DATE	02/29/1996
CHECKED BY	RD	DATE	2/29/96
DRAWING NO.	(LIVERMORE) ST-LA-LI.DWG		

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)	Elevation of Groundwater (feet, MSL)	Floating Product
MW-A						
	1/10/91	519.85				
	1/2/92			13.61	506.24	---
	4/2/92			12.44	507.41	---
	7/21/92			13.35	506.50	---
	10/9/92			12.92	506.93	SD
	1/11/93			11.78	508.07	SD
	5/5/93			11.39	508.46	SD
	8/9/93			12.80	507.05	SD
	10/14/93			13.48	506.37	SD
	1/24/94			12.74	507.11	SD
	5/31/94			12.28	507.57	---
	8/31/94	520.10	*	13.20	506.90	SD
	11/2/94			13.15	506.95	SD
	2/20/95			11.71	508.39	---
	5/9/95			12.37	507.73	---
	8/21/95			11.37	508.73	---
	10/20/95			12.04	508.06	---
	2/7/96			10.11	509.99	---
MW-B						
	1/10/91	518.16				
	1/2/92			11.27	506.89	---
	4/2/92			10.18	507.98	---
	7/21/92			11.27	506.89	---
	10/9/92			11.64	506.52	SD
	1/11/93			9.65	508.51	SD
	5/5/93			9.28	508.88	SD
	8/9/93			11.02	507.14	SD
	10/14/93			11.34	506.82	SD
	1/24/94			10.54	507.62	SD
	5/31/94			10.19	507.97	---
	8/31/94	518.05	*	10.98	507.07	SD
	11/2/94			10.90	507.15	SD
	2/20/95			9.47	508.58	---
	5/9/95			10.58	507.47	---
	8/21/95			9.34	508.71	---
	10/20/95			9.83	508.22	---
	2/7/96			7.85	510.20	SD

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)	Elevation of Groundwater (feet, MSL)	Floating Product
MW-1						
	1/10/91	520.76				
	1/2/92			14.11	506.65	---
	4/2/92			12.98	507.78	---
	7/21/92			13.92	506.84	---
	10/9/92			14.25	506.51	---
	1/11/93			12.30	508.46	---
	5/5/93			11.88	508.88	---
	8/9/93			13.63	507.13	---
	10/14/93			13.91	506.85	---
	1/24/93			13.12	507.64	---
	5/31/94			12.74	508.02	---
	8/31/94	520.61	*	13.68	506.93	---
	11/2/94			13.48	507.13	---
	2/20/95			12.02	508.59	---
	5/9/95			12.83	507.78	---
	8/21/95			11.93	508.68	---
	10/20/95			12.40	508.21	---
	2/7/96			10.42	510.19	---
MW-2						
	1/10/91	518.46				
	1/2/92			11.96	506.50	---
	4/2/92			10.89	507.57	---
	7/21/92			11.55	506.91	---
	10/9/92			Not Monitored		
	1/11/93			Not Monitored		
	5/5/93			Not Monitored		
	8/9/93			Not Monitored		
	10/14/93			Not Monitored		
	1/24/94			Not Monitored		
	5/31/94			10.37	508.09	---
	8/31/94	518.29	*	11.16	507.13	---
	11/2/94			11.07	507.22	---
	2/20/95			9.66	508.63	---
	5/9/95			10.14	508.15	---
	8/21/95			9.58	508.71	---
	10/20/95			9.91	508.38	---
	2/7/96			8.00	510.29	---

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)	Elevation of Groundwater (feet, MSL)	Floating Product
MW-5						
	1/10/91	520.50				
	1/2/92			14.56	505.94	---
	4/2/92			13.58	506.92	---
	7/21/92			13.77	506.73	---
	10/9/92			14.09	506.41	---
	1/11/93			12.24	508.26	---
	5/5/93			11.90	508.60	---
	8/9/93			13.35	507.15	---
	10/14/93			13.89	506.61	---
	1/24/94			13.32	507.18	---
	5/31/94			12.75	507.75	---
	8/31/94	521.19	*	14.34	506.85	---
	11/2/94			14.22	506.97	---
	2/20/95			12.78	508.41	SD
	5/9/95			13.41	507.78	---
	8/21/95			12.32	508.87	---
	10/20/95			13.28	507.91	---
	2/7/96			11.31	509.88	---
MW-6						
	1/10/91	522.26				
	1/2/92			16.64	505.62	---
	4/2/91			15.61	506.65	---
	7/21/92			15.53	506.73	---
	10/9/92			15.69	506.57	---
	1/11/93			Not Monitored		
	5/5/93			Not Monitored		
	8/9/93			14.50	507.76	---
	10/14/93			Not Monitored		
	1/24/94			15.09	507.17	---
	5/31/94			14.64	507.62	---
	8/31/94	522.18	*	15.32	506.86	---
	11/2/94			15.32	506.86	---
	2/20/95			14.07	508.11	---
	5/9/95			14.30	507.88	---
	8/21/95			Well Inaccessible		
	10/20/95			14.31	507.87	---
	2/7/96			Not 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)	Elevation of Groundwater (feet, MSL)	Floating Product
MW-7						
	1/10/91	522.17				
	1/2/92			11.17	511.00	---
	4/2/92			10.34	511.83	---
	7/21/92			9.02	513.15	---
	10/9/92			Not Monitored		
	1/11/93			Not Monitored		
	5/5/93			Not Monitored		
	8/9/93			Not Monitored		
	10/14/93			Not Monitored		
	1/24/94			Not Monitored		
	5/31/94			9.42	512.75	---
	8/31/94	522.19	*	6.84	515.35	---
	11/2/94			6.48	515.71	---
	2/20/95			7.71	514.48	---
	5/9/95			7.65	514.54	---
	8/21/95			7.83	514.36	---
	10/20/95			8.61	513.58	---
	2/7/96			Not Monitored		
MW-8						
	1/10/91	524.04				
	1/2/92			18.42	505.62	---
	4/2/92			17.39	506.65	---
	7/21/92			14.02	510.02	---
	10/9/92			Not Monitored		
	1/11/93			Not Monitored		
	5/5/93			Not Monitored		
	8/9/93			Not Monitored		
	10/14/93			Not Monitored		
	1/24/94			Not Monitored		
	5/31/94			19.65	504.39	---
	8/31/94	524.03	*	17.40	506.63	---
	11/2/94			17.38	506.65	---
	2/20/95			15.99	508.04	---
	5/9/95			16.54	507.49	---
	8/21/95			15.77	508.26	---
	10/20/95			16.24	507.79	---
	2/7/96			14.42	509.61	---

*Wells resurveyed on 8/4/94
MSL = Mean Sea Level
TOC = Top of Casing
--- = None Present
SD = Sheen detected in purge water

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)
MW-1						
	1/2/92	16	6	ND	ND	ND
	4/2/92	ND	ND	ND	ND	ND
	7/21/92	<50	3.2	<0.5	<0.5	<0.5
	10/9/92	<50	8.5	<0.5	<0.5	<0.5
	1/11/93	<50	<0.5	<0.5	<0.5	<0.5
	5/5/93	<50	<0.5	<0.5	<0.5	<0.5
	8/9/93	<50	<0.5	<0.5	<0.5	<0.5
	10/14/93	440	16	2.9	2.9	11
	5/31/94	<50	<0.5	<0.5	<0.5	<0.5
	8/31/94	<50	<0.5	<0.5	<0.5	<0.5
	11/2/94	<50	<0.5	<0.5	<0.5	<0.5
	2/20/95	<50	<0.5	<0.5	<0.5	<0.5
	5/9/95	450	22	25	23	100
	8/21/95	58	<0.5	1.5	1.8	4.5
	10/20/95	<50	<0.5	<0.5	<0.5	<0.5
	2/7/96	<50	<0.5	<0.5	<0.5	<0.5
MW-2						
	1/2/92	ND	ND	ND	ND	ND
	4/2/91	ND	ND	ND	ND	ND
	7/21/92	NS	NS	NS	NS	NS
	10/9/92	NS	NS	NS	NS	NS
	1/11/93	NS	NS	NS	NS	NS
	5/5/93	NS	NS	NS	NS	NS
	8/9/93	NS	NS	NS	NS	NS
	10/14/93	NS	NS	NS	NS	NS
	1/24/94	NS	NS	NS	NS	NS
	5/31/94	NS	NS	NS	NS	NS
	8/31/94	<50	<0.5	<0.5	<0.5	<0.5
	11/2/94	NS	NS	NS	NS	NS
	2/20/95	<50	<0.5	<0.5	<0.5	<0.5
	5/9/95	NS	NS	NS	NS	NS
	8/21/95	<50	<0.5	<0.5	<0.5	<0.5
	10/20/95	NS	NS	NS	NS	NS
	2/7/96	<50	<0.5	<0.5	<0.5	<0.5

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)
MW-3						
	1/2/92	340	0.4	ND	ND	ND
	4/2/92	160	5	ND	0.3	0.5
	7/21/92	260	1.7	<0.5	<0.5	<0.5
	10/9/92	88	<0.5	<0.5	<0.5	<0.5
	1/11/93	130	<0.5	<0.5	<0.5	<0.5
	5/5/93	340	1.8	<0.5	1.3	<0.5
	8/9/93	610	18	<0.5	2.4	0.9
	10/14/93	<50	<0.5	<0.5	<0.5	<0.5
	1/24/94	320	3.5	<0.5	<0.5	<0.5
	5/31/94	830	11	12	5.0	1.2
	8/31/94	660	2	<0.5	1	<0.5
	11/2/94	1,500	260	36	34	76
	2/20/95	410	1.2	1.9	1.4	2.2
	5/9/95	730	23	43	21	95
	8/21/95	<50	<0.5	<0.5	<0.5	<0.5
	10/20/95	<50	<0.5	<0.5	<0.5	<0.5
	2/7/96	<50	<0.5	<0.5	<0.5	<0.5
MW-4						
	1/2/92	ND	ND	ND	ND	ND
	4/2/92	ND	ND	ND	ND	ND
	7/21/92	<50	<0.5	<0.5	<0.5	<0.5
	10/9/92	<50	<0.5	<0.5	<0.5	<0.5
	1/11/93	<50	<0.5	<0.5	<0.5	<0.5
	5/5/93	<50	<0.5	<0.5	<0.5	<0.5
	8/9/93	<50	<0.5	<0.5	<0.5	<0.5
	10/14/93	<50	<0.5	<0.5	<0.5	<0.5
	1/24/94	<50	<0.5	<0.5	<0.5	<0.5
	5/31/94	NS	NS	NS	NS	NS
	8/31/94	<50	<0.5	<0.5	<0.5	<0.5
	11/2/94	NS	NS	NS	NS	NS
	2/20/95	<50	<0.5	<0.5	<0.5	<0.5
	5/9/95	NS	NS	NS	NS	NS
	8/21/95	<50	<0.5	<0.5	<0.5	<0.5
	10/20/95	<50	<0.5	<0.5	<0.5	<0.5
	2/7/96	<50	<0.5	<0.5	<0.5	<0.5

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)
MW-5						
	1/2/92	1,800	74	41	84	94
	4/2/92	ND	ND	ND	ND	ND
	7/21/92	1,000	69	16	40	31
	10/9/92	3,400	890	51	110	110
	1/11/93	15,000	460	110	900	370
	5/5/93	4,500	160	19	280	110
	8/9/93	2,300	180	19	130	80
	10/14/93	2,200	160	27	90	64
	1/24/94	2,600	69	11	65	25
	5/31/94	3,100	130	64	140	120
	8/31/94	600	20	2.9	14	7.1
	11/2/94	2,300	68	18	52	54
	2/20/95	12,000	130	<30	240	138
	5/9/95	2,500	57	60	54	37
	8/21/95	11,000	91	28	140	120
	10/20/95	2,300	38	3.8	28	19
	2/7/96	1,800	35	8.1	37	20
MW-6						
	1/2/92	23	ND	0.3	0.6	3
	4/2/92	ND	ND	ND	ND	ND
	7/21/92	<50	<0.5	<0.5	<0.5	<0.5
	10/9/92	<50	<0.5	<0.5	<0.5	<0.5
	1/11/93	NS	NS	NS	NS	NS
	5/5/93	NS	NS	NS	NS	NS
	8/9/93	<50	<0.5	<0.5	<0.5	<0.5
	10/14/93	NS	NS	NS	NS	NS
	1/24/94	<50	<0.5	<0.5	<0.5	<0.5
	5/31/94	NS	NS	NS	NS	NS
	8/31/94	<50	<0.5	<0.5	<0.5	<0.5
	11/2/94	NS	NS	NS	NS	NS
	2/20/95	<50	<0.5	<0.5	<0.5	<0.5
	5/9/95	NS	NS	NS	NS	NS
	8/21/95	NS	NS	NS	NS	NS
	10/20/95	NS	NS	NS	NS	NS
	2/7/96	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)
MW-7						
	1/2/92	NS	NS	NS	NS	NS
	4/2/92	ND	ND	ND	ND	ND
	7/21/92 - 2/7/96	NS	NS	NS	NS	NS
MW-8						
	1/2/92	12,000	32	980	200	760
	4/2/92	ND	ND	ND	ND	ND
	7/21/92	NS	NS	NS	NS	NS
	10/9/93	NS	NS	NS	NS	NS
	1/11/93	NS	NS	NS	NS	NS
	5/5/93	NS	NS	NS	NS	NS
	8/9/93	NS	NS	NS	NS	NS
	10/14/93	NS	NS	NS	NS	NS
	1/24/94	NS	NS	NS	NS	NS
	5/31/94	NS	NS	NS	NS	NS
	8/31/94	<50	<0.5	<0.5	<0.5	<0.5
	11/2/94	NS	NS	NS	NS	NS
	2/20/95	<50	<0.5	<0.5	<0.5	<0.5
	5/9/95	NS	NS	NS	NS	NS
	8/21/95	<50	<0.5	<0.5	0.67	0.62
	10/20/95	NS	NS	NS	NS	NS
	2/7/96	<50	7.0	<0.5	<0.5	<0.5

NS = Not Sampled
ND = None Detected
SP = Separate-phase petroleum hydrocarbons
TPHg = Total petroleum hydrocarbons as gasoline
< = Less than the detection limit for the specified method of analysis

B C Analytical

801 Western Avenue
Glendale, CA 91201
818/247-5737
Fax: 818/247-9797

ANALYTICAL REPORT

LOG NO: G96-02-250

Received: 09 FEB 96

Mailed: FEB 20 1996

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

Purchase Order: 94-1446346+4370

Requisition: 618571050
Project: FKEP1012L

REPORT OF ANALYTICAL RESULTS

AQUEOUS

SAMPLE DESCRIPTION	DATE SAMPLED	TPH/BTEX (CADHS/8020) Date Analyzed Date	Dilution Factor Times	TPH-g ug/L	Benzene ug/L	Toluene ug/L	Ethyl-Benzene ug/L	Total Xylenes Isomers ug/L	Carbon Range
RDL			1	50	0.5	0.5	0.5	0.5	
1*MW-A	02/07/96	02/12/96	5	6100	130	180	320	840	C6-C12
2*MW-B	02/07/96	02/13/96	20	8900	33	700	110	360	C6-C12
3*MW-1	02/07/96	02/12/96	1	<50	<0.5	<0.5	<0.5	<0.5	C6-C12
4*MW-2	02/07/96	02/12/96	1	<50	<0.5	<0.5	<0.5	<0.5	C6-C12
5*MW-3	02/07/96	02/12/96	1	<50	<0.5	<0.5	<0.5	<0.5	C6-C12
6*MW-4	02/07/96	02/12/96	1	<50	<0.5	<0.5	<0.5	<0.5	C6-C12
7*MW-5	02/07/96	02/12/96	1	1800	35	8.1	37	20	C6-C12
8*MW-8	02/07/96	02/12/96	1	<50	7.0	<0.5	<0.5	<0.5	C6-C12

Karen Petryna
930 Springtown Blvd., Livermore
Alameda County

B C Analytical

801 Western Avenue
Glendale, CA 91201
818/247-5737
Fax: 818/247-9797

ANALYTICAL REPORT

LOG NO: G96-02-250

Received: 09 FEB 96

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

Purchase Order: 94-1446346+4370

Requisition: 618571050
Project: FKEP1012L

REPORT OF ANALYTICAL RESULTS

AQUEOUS

SAMPLE DESCRIPTION	DATE SAMPLED	TPH/BTEX (CADHS/8020) Date Analyzed	Dilution Factor Times	TPH-g ug/L	Benzene ug/L	Toluene ug/L	Ethyl-Benzene ug/L	Total Xylenes Isomers ug/L	Carbon Range
RDL			1	50	0.5	0.5	0.5	0.5	
9*EB	02/07/96	02/12/96	1	<50	<0.5	<0.5	<0.5	<0.5	C6-C12
10*TB	02/07/96	02/12/96	1	<50	<0.5	<0.5	<0.5	<0.5	C6-C12

Dick Swenson, 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.

: ORDER PLACED FOR CLIENT: Texaco Environmental Services 9602250 :
: BC ANALYTICAL : GLEN LAB : 14:29:49 20 FEB 1996 - P. 1 :

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
9602250*1	MW-A	GAS.BTX.TESNC	02.12.96	8015M.TX	536-21	96214	8501
9602250*2	MW-B	GAS.BTX.TESNC	02.13.96	8015M.TX	536-21	96214	8501
9602250*3	MW-1	GAS.BTX.TESNC	02.12.96	8015M.TX	536-35	96423	8501
9602250*4	MW-2	GAS.BTX.TESNC	02.12.96	8015M.TX	536-35	96423	8501
9602250*5	MW-3	GAS.BTX.TESNC	02.12.96	8015M.TX	536-35	96423	8501
9602250*6	MW-4	GAS.BTX.TESNC	02.12.96	8015M.TX	536-35	96423	8501
9602250*7	MW-5	GAS.BTX.TESNC	02.12.96	8015M.TX	536-35	96423	8501
9602250*8	MW-8	GAS.BTX.TESNC	02.12.96	8015M.TX	536-35	96423	8501
9602250*9	EB	GAS.BTX.TESNC	02.12.96	8015M.TX	536-35	96423	8501
9602250*10	TB	GAS.BTX.TESNC	02.12.96	8015M.TX	536-35	96423	8501

***

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

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

BC ANALYTICAL

ORDER QC REPORT FOR G9602250

DATE REPORTED : 02/20/96

LABORATORY CONTROL STANDARDS
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER		DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
1. BTEX/GRO	C6021365*1						
Date Analyzed		02.12.96	96214	02/12/96	02/12/96	Date	N/A
Benzene		02.12.96	96214	18.0	15.2	ug/L	118
Toluene		02.12.96	96214	95.8	97.4	ug/L	98
Ethylbenzene		02.12.96	96214	17.8	20.4	ug/L	87
Total Xylene Isomers		02.12.96	96214	93.9	119	ug/L	79
TPH (Gasoline Range)		02.12.96	96214	1200	1100	ug/L	109
a,a,a-Trifluorotoluene	Rep.	02.12.96	96214	42.5	50.0	ug/L	85
a,a,a-Trifluorotoluene	Th.	02.12.96	96214	50.0	50.0	ug/L	100
2. BTEX/GRO	C6021407*1						
Date Analyzed		02.12.96	96423	02/12/96	02/12/96	Date	N/A
Benzene		02.12.96	96423	22.0	15.2	ug/L	145 Q
Toluene		02.12.96	96423	101	97.4	ug/L	104
Ethylbenzene		02.12.96	96423	21.0	20.4	ug/L	103
Total Xylene Isomers		02.12.96	96423	117	119	ug/L	98
TPH (Gasoline Range)		02.12.96	96423	1110	1100	ug/L	101
a,a,a-Trifluorotoluene	Rep.	02.12.96	96423	54.9	50.0	ug/L	110
a,a,a-Trifluorotoluene	Th.	02.12.96	96423	50.0	50.0	ug/L	100

BC ANALYTICAL

ORDER QC REPORT FOR G9602250

DATE REPORTED : 02/20/96

MATRIX QC ACCURACY (SPIKES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS %	MSD %	TRUE RESULT	UNIT
1. GRO	9602249*5						
Benzene		02.12.96	96214	117	110	16.1	ug/L
Toluene		02.12.96	96214	97	94	97.4	ug/L
Ethylbenzene		02.12.96	96214	87	84	22.7	ug/L
Total Xylene Isomers		02.12.96	96214	72	74	119	ug/L
TPH (Gasoline Range)		02.12.96	96214	115	116	1100	ug/L
a,a,a-Trifluorotoluene	Rep.	02.12.96	96214	94	93	50.0	ug/L
a,a,a-Trifluorotoluene	Th.	02.12.96	96214	100	100	50.0	ug/L
2. GRO	9602250*3						
Benzene		02.12.96	96423	112	107	15.2	ug/L
Toluene		02.12.96	96423	88	85	97.4	ug/L
Ethylbenzene		02.12.96	96423	87	84	20.4	ug/L
Total Xylene Isomers		02.12.96	96423	82	80	119	ug/L
TPH (Gasoline Range)		02.12.96	96423	92	90	1100	ug/L
a,a,a-Trifluorotoluene	Rep.	02.12.96	96423	114	100	50.0	ug/L
a,a,a-Trifluorotoluene	Th.	02.12.96	96423	100	100	50.0	ug/L

BC ANALYTICAL

ORDER QC REPORT FOR G9602250

DATE REPORTED : 02/20/96

MATRIX QC PRECISION (DUPLICATE SPIKES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS RESULT	MSD RESULT	UNIT	RELATIVE % DIFF
1. GRO	9602249*5						
Date Analyzed		02.12.96	96214	02/12/96	02/12/96	Date	N/A
Benzene		02.12.96	96214	18.7	17.6	ug/L	6
Toluene		02.12.96	96214	94.4	91.6	ug/L	3
Ethylbenzene		02.12.96	96214	20.0	19.4	ug/L	3
Total Xylene Isomers		02.12.96	96214	85.8	88.5	ug/L	3
TPH (Gasoline Range)		02.12.96	96214	1270	1280	ug/L	1
a,a,a-Trifluorotoluene Rep.		02.12.96	96214	46.9	46.6	ug/L	1
a,a,a-Trifluorotoluene Th.		02.12.96	96214	50.0	50.0	ug/L	0
2. GRO	9602250*3						
Date Analyzed		02.12.96	96423	02/12/96	02/12/96	Date	N/A
Benzene		02.12.96	96423	17.0	16.3	ug/L	4
Toluene		02.12.96	96423	85.7	82.6	ug/L	4
Ethylbenzene		02.12.96	96423	17.8	17.2	ug/L	3
Total Xylene Isomers		02.12.96	96423	98.1	95.0	ug/L	3
TPH (Gasoline Range)		02.12.96	96423	1010	995	ug/L	1
a,a,a-Trifluorotoluene Rep.		02.12.96	96423	57.1	50.1	ug/L	13
a,a,a-Trifluorotoluene Th.		02.12.96	96423	50.0	50.0	ug/L	0

BC ANALYTICAL

ORDER QC REPORT FOR G9602250

DATE REPORTED : 02/20/96

METHOD BLANKS AND REPORTING DETECTION LIMIT (RDL)
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER		DATE ANALYZED	BATCH NUMBER	BLANK RESULT	RDL	UNIT	METHOD
1. BTEX/GRO	B602692*1						
Date Analyzed		02.12.96	96214	02/12/96	NA	Date	8015M
Benzene		02.12.96	96214	0	0.3	ug/L	8015M
Toluene		02.12.96	96214	0	0.3	ug/L	8015M
Ethylbenzene		02.12.96	96214	0	0.3	ug/L	8015M
Total Xylene Isomers		02.12.96	96214	0	0.6	ug/L	8015M
TPH (Gasoline Range)		02.12.96	96214	0	100	ug/L	8015M
a,a,a-Trifluorotoluene	Rep.	02.12.96	96214	50.8	0.5	ug/L	8015M
a,a,a-Trifluorotoluene	Th.	02.12.96	96214	50.0	NA	ug/L	8015M
2. BTEX/GRO	B602709*1						
Date Analyzed		02.12.96	96423	02/12/96	NA	Date	8015M
Benzene		02.12.96	96423	0	0.3	ug/L	8015M
Toluene		02.12.96	96423	0	0.3	ug/L	8015M
Ethylbenzene		02.12.96	96423	0	0.3	ug/L	8015M
Total Xylene Isomers		02.12.96	96423	0	0.6	ug/L	8015M
TPH (Gasoline Range)		02.12.96	96423	0	100	ug/L	8015M
a,a,a-Trifluorotoluene	Rep.	02.12.96	96423	49.3	0.5	ug/L	8015M
a,a,a-Trifluorotoluene	Th.	02.12.96	96423	50.0	NA	ug/L	8015M

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 14:30:49 20 FEB 1996 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9602250*1							
8015M.TX	a,a,a-Trifluorotoluene	Re96214	02/12/96	268	250	107	
9602250*2							
8015M.TX	a,a,a-Trifluorotoluene	Re96214	02/13/96	1130	1000	113	
9602250*3							
8015M.TX	a,a,a-Trifluorotoluene	Re96423	02/12/96	51.0	50.0	102	
9602250*4							
8015M.TX	a,a,a-Trifluorotoluene	Re96423	02/12/96	50.8	50.0	102	
9602250*5							
8015M.TX	a,a,a-Trifluorotoluene	Re96423	02/12/96	50.4	50.0	101	
9602250*6							
8015M.TX	a,a,a-Trifluorotoluene	Re96423	02/12/96	50.7	50.0	101	
9602250*7							
8015M.TX	a,a,a-Trifluorotoluene	Re96423	02/12/96	42.8	50.0	86	
9602250*8							
8015M.TX	a,a,a-Trifluorotoluene	Re96423	02/12/96	50.4	50.0	101	
9602250*9							
8015M.TX	a,a,a-Trifluorotoluene	Re96423	02/12/96	51.4	50.0	103	
9602250*10							
8015M.TX	a,a,a-Trifluorotoluene	Re96423	02/12/96	51.1	50.0	102	

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 14:31:00 20 FEB 1996 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9602249*5*R1							
8015M.TX	a,a,a-Trifluorotoluene	Re96214	02/12/96	52.3	50.0	105	
9602249*5*S1							
8015M.TX	a,a,a-Trifluorotoluene	Re96214	02/12/96	46.9	50.0	94	
9602249*5*S2							
8015M.TX	a,a,a-Trifluorotoluene	Re96214	02/12/96	46.6	50.0	93	
9602249*5*T							
8015M.TX	a,a,a-Trifluorotoluene	Re96214	02/12/96	50.0	50.0	100	
9602250*3*R1							
8015M.TX	a,a,a-Trifluorotoluene	Re96423	02/12/96	51.0	50.0	102	
9602250*3*S1							
8015M.TX	a,a,a-Trifluorotoluene	Re96423	02/12/96	57.1	50.0	114	
9602250*3*S2							
8015M.TX	a,a,a-Trifluorotoluene	Re96423	02/12/96	50.1	50.0	100	
9602250*3*T							
8015M.TX	a,a,a-Trifluorotoluene	Re96423	02/12/96	50.0	50.0	100	
B602692*1*MB							
8015M	a,a,a-Trifluorotoluene	Re96214	02/12/96	50.8	50.0	102	
B602709*1*MB							
8015M	a,a,a-Trifluorotoluene	Re96423	02/12/96	49.3	50.0	99	
C6021365*1*LC							
8015M	a,a,a-Trifluorotoluene	Re96214	02/12/96	42.5	50.0	85	
C6021365*1*LT							
8015M	a,a,a-Trifluorotoluene	Re96214	02/12/96	50.0	50.0	100	
C6021407*1*LC							
8015M	a,a,a-Trifluorotoluene	Re96423	02/12/96	54.9	50.0	110	
C6021407*1*LT							
8015M	a,a,a-Trifluorotoluene	Re96423	02/12/96	50.0	50.0	100	

4960225O

Chain-of-Custody

Page 1 of 1

Texaco Environmental Services
108 Cutting Boulevard
Richmond, California 94804
Phone: (510) 236-3541
FAX: (510) 237-7821

Forward Results to the Attention of Rebecca Digerness

Texaco Project Cororditor: Karen Petryna

Site Name: Texaco Loc.# 618571050
Site Address: 930 Springtown Blvd. Livermore, CA
Contractor Project Number: 960207-K2
Contractor Name: Blaine Tech Services, Inc.
Address: 985 Timothy Dr., San Jose, CA 95133
Project Contact:
Phone/FAX: (408) 995-5535 / (408) 293-8773

Laboratory: B C Analytical
Turn Around Time: normal (10 day)
Samplers (PRINT NAME): Keith Brown
Sampler Signature:
Date Samples Collected: 2/7/96

Sample Number	Lab Sample Number	Date/Time Collected	No. of Containers	Type of Containers	Sample Matrix	Preservative	TPH gas/BTEX	TPH Diesel	O&G/TRPH (418.1)	TPH Ex. (CB-C36+)	VOCs 8240/624	P. Halocarbons 8010/60	P. Aromatics 8020/602	Organic Lead			
MW14		2/7/1225	3	VOA	W	HCl	X									-	1
MW8		1340					X									-	2
MW1		1250					X									-	3
MW2		1235					X									-	4
MW3		1305					X									-	5
MW4		1150					X									-	6
MW5		1355					X									-	7
MW8		1215					X										8
EB		—					X										9
TB		—	↓	↓	↓	↓	X										

Cooler Temp: 4° C

Sample Condition: Good

Comments: 618571050 Alameda KEP

1 FIKEP 1012L

Relinquished by: (Signature)	Date: 2/9/96	Time: 2:20	Received by: (Signature) Bill Lyons
Relinquished by: (Signature) Bill Lyons	Date: 2-9-96	Time: 3:40	Received by: (Signature)
Relinquished by: (Signature)	Date: 2/9/96	Time: 1700	Received by: (Signature)
Method of Shipment:			Lab Comments:

Received by: Bill Lyons 2-9-96 Time: 2:20
Received by: 2/9/96 3:40
Received by: Date: Time:

P:\GWMP\FORMS\TEX-COC.XLS

Well Gauging Data

Project Name: Springtown
Project Number: 960207-K2

Date: 2/7/96
Recorded By: KCB

Well ID	TOC Elev.	DTB (ft. TOC)	Well Dia. (in.)	DTP (ft.)	DTW (ft.)	PT (ft.)	Comments
MW A		1642	2		1011		
MW B		2136	2		785		
MW 1		2540	4		1042		
MW 2		2261	4		800		
MW 3		2453	4		942		
MW 4		2488	3		893		2" Reducing Cpg.
MW 5		2755	2		1131		
MW 8		2410	4		1442		

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

Groundwater Sampling Form

Project Name: Spring Town — Well No.: MW A
Project Number: 960207-1C2 — Well Type: ☒ Monitor ☐ Extraction ☐ Other
Recorded By: KCB — Sampled by: KCB — Date: 2/7

WELL PURGING

PURGE VOLUME

Well casing diameter
☒ 2-inch ☐ 4-inch ☐ Other
Well Total Depth (TD, ft. below TOC): 16.42
Depth to Water (WL, ft. below TOC): 10.11
Depth to free phase hydrocarbons (FP, ft. below TOC):
Number of well volumes to be purged
☒ 3 ☐ 10 ☐ Other

PURGE METHOD

☒ Bailer - Type: Teflon
☐ Pump - Type:
☐ Other:

PUMP INTAKE

☐ Near top Depth (ft):
☐ Near Bottom Depth (ft):
☐ Other:
Pumping Rate: gpm

PURGE VOLUME CALCULATION

6.31 (Water Column Length) x 0.17 (Multiplier) x 3 (No. Vols) = 1.0 / 3.0 gals — CALCULATED PURGE VOLUME

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft)
2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

3.0 gals — ACTUAL PURGE VOLUME

GROUNDWATER PARAMETER MEASUREMENT

Meter Type: Myron

Time/Gallons	pH	Cond. (uomhos/cm)	Temp (deg C / deg F)	Turbidity (NTU)	Color/Odor
1316 / 1.0	7.6	1000	64.2	>1000	gas odor
1318 / 2.0	7.4	1000	65.2	>1000	
1319 / 3.0	7.4	1000	64.8	>1000	
/					
/					
/					
/					
/					

Comments during well purge:
Well Pumped dry: YES (NO)
Purge water storage/disposal: ☐ Drummed onsite ☒ Other: BFJ

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled: 2/7 / 1225
Bailer - Type ☒: Teflon
Sample port ☐ Other ☐

GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type:

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp (deg C / deg F)	Turbidity (NTU)	Color/Odor
/ /					

SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
MW A	VOA / 40ml	Gas	HCl	BCA	
		BTEX			

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.
Trip	
Rinsate	
Transfer	
Other:	

Groundwater Sampling Form

Project Name: Spring Town
Well No.: NW B
Project Number: 960207-1C2
Well Type: [x] Monitor [ ] Extraction [ ] Other
Recorded By: KCB
Sampled by: KCB
Date: 2/7

WELL PURGING

PURGE VOLUME

Well casing diameter
[x] 2-inch [ ] 4-inch [ ] Other

Well Total Depth (TD, ft. below TOC): 2136
Depth to Water (WL, ft. below TOC): 785
Depth to free phase hydrocarbons (FP, ft. below TOC):

Number of well volumes to be purged
[x] 3 [ ] 10 [ ] Other

PURGE METHOD
[x] Bailer - Type: Teflon
[ ] Pump - Type
[ ] Other

PUMP INTAKE
[ ] Near top Depth (ft)
[ ] Near Bottom Depth (ft)
[ ] Other

Pumping Rate ____ gpm

PURGE VOLUME CALCULATION

13.51 (Water Column Length) x 0.17 (Multiplier) x 3 (No. Vols) = 2.2 / 6.6 gals CALCULATED PURGE VOLUME

7.0 gals ACTUAL PURGE VOLUME

MULTIPLIER (Casing Dia.[inches] = Gallons/linear ft)
2 = 0.17 | 3 = 0.38 | 4 = 0.65 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

GROUNDWATER PARAMETER MEASUREMENT Meter Type: Myron

Time/Gallons	pH	Cond. (uomhos/cm)	Temp [ ] deg C [x] deg F	Turbidity (NTU)	Color/Odor
1331 / 2.5	7.2	1600	66.8	20.8	sheen/gas
1334 / 5.0	7.4	1600	65.6	28.7	odor
1338 / 7.0	7.4	1800	65.8	27.1	
/					
/					
/					
/					
/					

Comments during well purge

Well Pumped dry: YES (NO)

Purge water storage/disposal [ ] Drummed onsite [x] Other BFS

WELL SAMPLING

SAMPLING METHOD
Bailer - Type [x] Teflon
Date/Time Sampled: 2/7 / 1340
Sample port [ ] Other [ ]

GROUNDWATER SAMPLE PARAMETER MEASUREMENTS Meter Type

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp [ ] deg C [ ] deg F	Turbidity (NTU)	Color/Odor
/ /					

SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
NW B	VOA / 40ml	Gas	HCl	BCA	
		BTEX			

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.
Trip	
Rinsate	
Transfer	
Other:	

Groundwater Sampling Form

Project Name: Spring Town
Project Number: 960207-1C2
Recorded By: KCB
Well No.: MW 1
Well Type: [X] Monitor [ ] Extraction [ ] Other
Sampled by: KCB
Date: 2/7

WELL PURGING

PURGE VOLUME

Well casing diameter
[ ] 2-inch [X] 4-inch [ ] Other
Well Total Depth (TD, ft. below TOC): 25.40
Depth to Water (WL, ft. below TOC): 10.42
Depth to free phase hydrocarbons (FP, ft. below TOC):
Number of well volumes to be purged
[X] 3 [ ] 10 [ ] Other

PURGE METHOD

[ ] Bailer - Type
[X] Pump - Type: E.S.
[ ] Other

PUMP INTAKE

[ ] Near top Depth (ft)
[X] Near Bottom Depth (ft): 25
[ ] Other
Pumping Rate: ____ gpm

PURGE VOLUME CALCULATION

14.98 (Water Column Length) x 0.66 (Multiplier) x 3 (No. Vols) = 9.9 / 29.7 gals (CALCULATED PURGE VOLUME)

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft)
2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

30.0 gals (ACTUAL PURGE VOLUME)

GROUNDWATER PARAMETER MEASUREMENT

Meter Type: Myron

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
1243 / 10.0	7.2	2100	66.8		7200	
1245 / 20.0	7.2	2200	65.8		7200	
1246 / 30.0	7.1	2200	66.0		7200	
/						
/						
/						
/						
/						

Comments during well purge:
Well Pumped dry: YES (NO)
Purge water storage/disposal: [ ] Drummed onsite [X] Other: 55

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled: 2/7 / 1250
Bailer - Type [X]: S.S.
Sample port [ ]
Other [ ]

GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type:

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
/ /						

SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
MW 1	VOA / 40	Gas	HCl	REA	
		BTEX			

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.
Trip	
Rinsate	
Transfer	
Other:	

Groundwater Sampling Form

Project Name: Spring Town — Well No.: MW 2
Project Number: 980207-K2 — Well Type: [X] Monitor [ ] Extraction [ ] Other
Recorded By: KCB — Sampled by: KCB — Date: 2/7

WELL PURGING

PURGE VOLUME

Well casing diameter
[ ] 2-inch [X] 4-inch [ ] Other
Well Total Depth (TD, ft. below TOC): 22.61
Depth to Water (WL, ft. below TOC): 8.00
Depth to free phase hydrocarbons (FP, ft. below TOC):
Number of well volumes to be purged
[X] 3 [ ] 10 [ ] Other

PURGE METHOD

[ ] Bailer - Type
[X] Pump - Type: E.S.
[ ] Other

PUMP INTAKE

[ ] Near top Depth (ft):
[X] Near Bottom Depth (ft): 22.
[ ] Other
Pumping Rate: gpm

PURGE VOLUME CALCULATION

14.61 (Water Column Length) x 0.66 (Multiplier) x 3 (No. Vols) = 9.6 / 28.8 gals CALCULATED PURGE VOLUME

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft.)
2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

30.0 gals ACTUAL PURGE VOLUME

GROUNDWATER PARAMETER MEASUREMENT Meter Type: Myron

Time/Gallons	pH	Cond. (uomhos/cm)	Temp deg C / deg F	Turbidity (NTU)	Color/Odor
1228 / 10.0	7.4	17200	66.4	>200	
1229 / 20.0	7.4	18400	65.8	>200	
1231 / 30.0	7.3	18000	65.8	>200	
/					
/					
/					
/					
/					

Comments during well purge:
Well Pumped dry: YES (NO)
Purge water storage/disposal: [ ] Drummed onsite [X] Other: 385

WELL SAMPLING

SAMPLING METHOD Date/Time Sampled: 2/7 / 1235
Bailer - Type [X] S.S.
Sample port [ ] Other [ ]

GROUNDWATER SAMPLE PARAMETER MEASUREMENTS Meter Type:

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp deg C / deg F	Turbidity (NTU)	Color/Odor
/					

SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
MW 2	VOA / 40	Gas	HCl	BCA	
		BTEX			

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.
Trip	
Rinsate	EB-1220
Transfer	
Other:	

Groundwater Sampling Form

Project Name: Spring Town | Well No.: MW3
Project Number: 960207-K2 | Well Type: ☒ Monitor ☐ Extraction ☐ Other
Recorded By: KCB | Sampled by: KCB | Date: 2/7

WELL PURGING

PURGE VOLUME

Well casing diameter
☐ 2-inch ☒ 4-inch ☐ Other
Well Total Depth (TD, ft. below TOC): 24.53
Depth to Water (WL, ft. below TOC): 9.42
Depth to free phase hydrocarbons (FP, ft. below TOC):
Number of well volumes to be purged
☒ 3 ☐ 10 ☐ Other

PURGE METHOD

☐ Bailer - Type
☒ Pump - Type: E.S.
☐ Other

PUMP INTAKE

☐ Near top Depth (ft)
☒ Near Bottom Depth (ft)
☐ Other
Pumping Rate: ____ gpm

PURGE VOLUME CALCULATION

15.11 (Water Column Length) x 0.66 (Multiplier) x 3 (No. Vols) = 9.8 / 29.4 gals (CALCULATED PURGE VOLUME)

MULTIPLIER (Casing Dia [inches] = Gallons/linear ft)
2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

30.0 gals (ACTUAL PURGE VOLUME)

GROUNDWATER PARAMETER MEASUREMENT

Meter Type: Myron

Time/Gallons	pH	Cond. (uomhos/cm)	Temp ☒ deg C ☐ deg F	Turbidity (NTU)	Color/Odor
1257 / 10.0	7.0	2000	68.0	168.2	
1259 / 20.0	6.9	1800	68.2	>200.0	
1300 / 30.0	7.0	1800	68.0	>200	
/					
/					
/					
/					
/					

Comments during well purge:
Well Pumped dry: YES (NO)
Purge water storage/disposal: ☐ Drummed onsite ☒ Other: BFS

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled: 2/7 / 1305
Bailer - Type ☒: S.S.
Sample port ☐
Other ☐

GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type:

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp ☐ deg C ☐ deg F	Turbidity (NTU)	Color/Odor
/ /					

SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
MW3	VOA / 40	Gas	HCl	BCA	
		BTEX			

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.
Trip	
Rinsate	
Transfer	
Other:	

Groundwater Sampling Form

Project Name: Spring Town
Project Number: 60207-102
Recorded By: KCB
Well No.: MW-4
Well Type: [X] Monitor [ ] Extraction [ ] Other
Sampled by: KCB
Date: 2/7

WELL PURGING

PURGE VOLUME

Well casing diameter
[ ] 2-inch [ ] 4-inch [X] Other 3
Well Total Depth (TD, ft. below TOC): 24.93
Depth to Water (WL, ft. below TOC): 8.93
Depth to free phase hydrocarbons (FP, ft. below TOC):
Number of well volumes to be purged
[X] 3 [ ] 10 [ ] Other

PURGE METHOD

[X] Bailer - Type: Teflon
[ ] Pump - Type:
[ ] Other:

PUMP INTAKE

[ ] Near top Depth (ft):
[ ] Near Bottom Depth (ft):
[ ] Other:
Pumping Rate: gpm

PURGE VOLUME CALCULATION

15.95 (Water Column Length) x 0.38 (Multiplier) x 3 (No. Vols) = 60 / 180 gals CALCULATED PURGE VOLUME

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft)
2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

180 gals ACTUAL PURGE VOLUME

GROUNDWATER PARAMETER MEASUREMENT

Meter Type: Myron

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
1120 / 6.0	6.7	1600	66.6		>200	
1136 / 12.0	6.6	1600	66.8		>200	
1144 / 18.0	6.8	1800	66.8		>200	
/						
/						
/						
/						
/						

Comments during well purge:
Well Pumped dry: YES (NO)
Purge water storage/disposal: [ ] Drummed onsite [X] Other: BFS

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled: 2/7 / 1150
Bailer - Type [X]: Teflon
Sample port [ ]
Other [ ]

GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type:

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
/						

SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
MW-4	VOA / 40 ml	GRO	HCl	BCM	
		BTEX			

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.
Trip	
Rinsate	
Transfer	
Other:	

Groundwater Sampling Form

Project Name: Spring Town — Well No.: MW 5
Project Number: 960207-1C2 — Well Type: ☒ Monitor ☐ Extraction ☐ Other
Recorded By: KCB — Sampled by: KCB — Date: 2/7

WELL PURGING

PURGE VOLUME

Well casing diameter
☒ 2-inch ☐ 4-inch ☐ Other
Well Total Depth (TD, ft. below TOC): 21.55
Depth to Water (WL, ft. below TOC): 11.31
Depth to free phase hydrocarbons (FP, ft. below TOC):
Number of well volumes to be purged
☒ 3 ☐ 10 ☐ Other

PURGE METHOD

☒ Bailer - Type: Teflon
☐ Pump - Type:
☐ Other:

PUMP INTAKE

☐ Near top Depth (ft):
☐ Near Bottom Depth (ft):
☐ Other:
Pumping Rate: gpm

PURGE VOLUME CALCULATION

10.24 (Water Column Length) x 0.17 (Multiplier) x 3 (No. Vols) = 5.1 gals CALCULATED PURGE VOLUME

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft.)
2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

5.5 gals ACTUAL PURGE VOLUME

GROUNDWATER PARAMETER MEASUREMENT Meter Type: Myron

Time/Gallons	pH	Cond. (uomhos/cm)	Temp ☒ deg C ☐ deg F	Turbidity (NTU)	Color/Odor
1346 / 2.5	7.6	1100	62.0	>200	
1349 / 4.5	7.4	1100	66.4	>200	odor
1351 / 5.5	7.4	1000	66.2	>200	
/					
/					
/					
/					
/					

Comments during well purge:
Well Pumped dry: YES (NO)
Purge water storage/disposal: ☐ Drummed onsite ☒ Other: BFS

WELL SAMPLING

SAMPLING METHOD

Bailer - Type ☒: Teflon — Date/Time Sampled: 2/7 / 1355
Sample port ☐ — Other ☐

GROUNDWATER SAMPLE PARAMETER MEASUREMENTS Meter Type:

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp ☐ deg C ☐ deg F	Turbidity (NTU)	Color/Odor
/ /					

SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
MW 5	VOA / 40 ml	Gas	HCl	BCP	
		BTEX			

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.
Trip	
Rinsate	
Transfer	
Other:	

Groundwater Sampling Form

Project Name: Spring Town | Well No.: MW 8
Project Number: 780207-K2 | Well Type: [x] Monitor [ ] Extraction [ ] Other
Recorded By: KCB | Sampled by: KCB | Date: 2/7

WELL PURGING

PURGE VOLUME

Well casing diameter
[ ] 2-inch [x] 4-inch [ ] Other
Well Total Depth (TD, ft. below TOC): 24.60
Depth to Water (WL, ft. below TOC): 14.42
Depth to free phase hydrocarbons (FP, ft. below TOC):
Number of well volumes to be purged
[x] 3 [ ] 10 [ ] Other

PURGE METHOD

[ ] Bailer - Type
[x] Pump - Type: E.S.
[ ] Other

PUMP INTAKE

[ ] Near top Depth (ft)
[x] Near Bottom Depth (ft): 24.
[ ] Other

Pumping Rate: ____ gpm

PURGE VOLUME CALCULATION

9.68 (Water Column Length) x 0.66 (Multiplier) x 3 (No. Vols) = 6.3 / 18.9 gals (CALCULATED PURGE VOLUME)

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft)
2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

21.0 gals (ACTUAL PURGE VOLUME)

GROUNDWATER PARAMETER MEASUREMENT

Meter Type: Myron

Time/Gallons	pH	Cond. (uomhos/cm)	Temp [x] deg C [ ] deg F	Turbidity (NTU)	Color/Odor
1206 / 7.0	7.6	1500	67.0	200	
1207 / 14.0	7.0	1400	65.8	139.8	
1209 / 21.0	7.0	1400	65.6	108.5	
/					
/					
/					
/					
/					

Comments during well purge:
Well Pumped dry: YES (NO)
Purge water storage/disposal: [ ] Drummed onsite [x] Other: BFS

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled: 2/7 / 1215
Bailer - Type [x]: S.S.
Sample port [ ]
Other [ ]

GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type:

Date/Time/% Recharge	pH	Cond. (uomhos/cm)	Temp [ ] deg C [ ] deg F	Turbidity (NTU)	Color/Odor
/ /					

SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
MW 8	VOA / 40	Gas	HCl	BCA	
		BTEX			

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.
Trip	
Rinsate	
Transfer	
Other:	

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: 985 Timothy Drive
City, State, ZIP: San Jose, CA 95133
Phone: (408) 995-5535

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 desitnation 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 #: 6185710 50
Address: 930 Springtown Blvd
City, State, ZIP: Livermore

Well I.D.	Gals.	Well I.D.	Gals.
MW #1			
MW 8			
	145		

Total gals. _____

added rinse water 15

Total Gals. Recovered 160

Job #: 960207-1C1
Date 2/7/96
Time 1400
Signature: [signature]

REC'D AT: 960207-1C1
Date: 2/7/96
Time: 1530
Signature: [signature]

QUARTERLY SUMMARY REPORT
Former Texaco Service Station/Current Seven-Eleven Store
930 Springtown, Livermore, California
Alameda County
Fourth Quarter, 1995

HISTORY OF INVESTIGATIVE AND REMEDIAL ACTIONS

Subsurface investigation was initiated in September, 1984 with the installation of two groundwater monitoring wells (MW-A and MW-B). Underground storage tanks removed in June, 1985. Investigation continued in 1985, 1986, and 1989 to define extent of plume. 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 and two additional monitoring wells (MW-7 and MW-8) were drilled in December, 1989 to fully define the extent of subsurface hydrocarbons.

WORK PERFORMED DURING THIS QUARTER

Quarterly groundwater monitoring and sampling. After Regulatory Agency approval, the soil vapor extraction system was turned off and monitoring well MW-7 was destroyed.

CHARACTERIZATION STATUS

Petroleum hydrocarbons plume has been delineated.

REMEDIATION STATUS

The soil vapor extraction system was turned off (see above).

WORK TO BE PERFORMED NEXT QUARTER

Continue quarterly monitoring and sampling to record fluctuations in hydrocarbons concentrations. With the approval of the Regulatory Agency, monitoring well MW-6 will be destroyed.

COMPANY CONTACT: Karen Petryna (510) 236-9139

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W:\QSR_RAO\930S.QSR