Texaco Refining and Marketing Inc
108 Cutting Boulevard
Richmond CA 94804

January 29, 1996

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

OK to wait for utility trench investigation
MW-6 OR-8 and MW-7 may be decom.

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 October 20, 1995, 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 0.0033 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 Environmental Services' Standard Operating Procedures may be found in Texaco's fourth quarter, 1994 monitoring report.

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

Best Regards,

Rebecca Digerness
Environmental Assistant

Karen E. Petryna
Engineer
Texaco Environmental Services

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

Enclosures

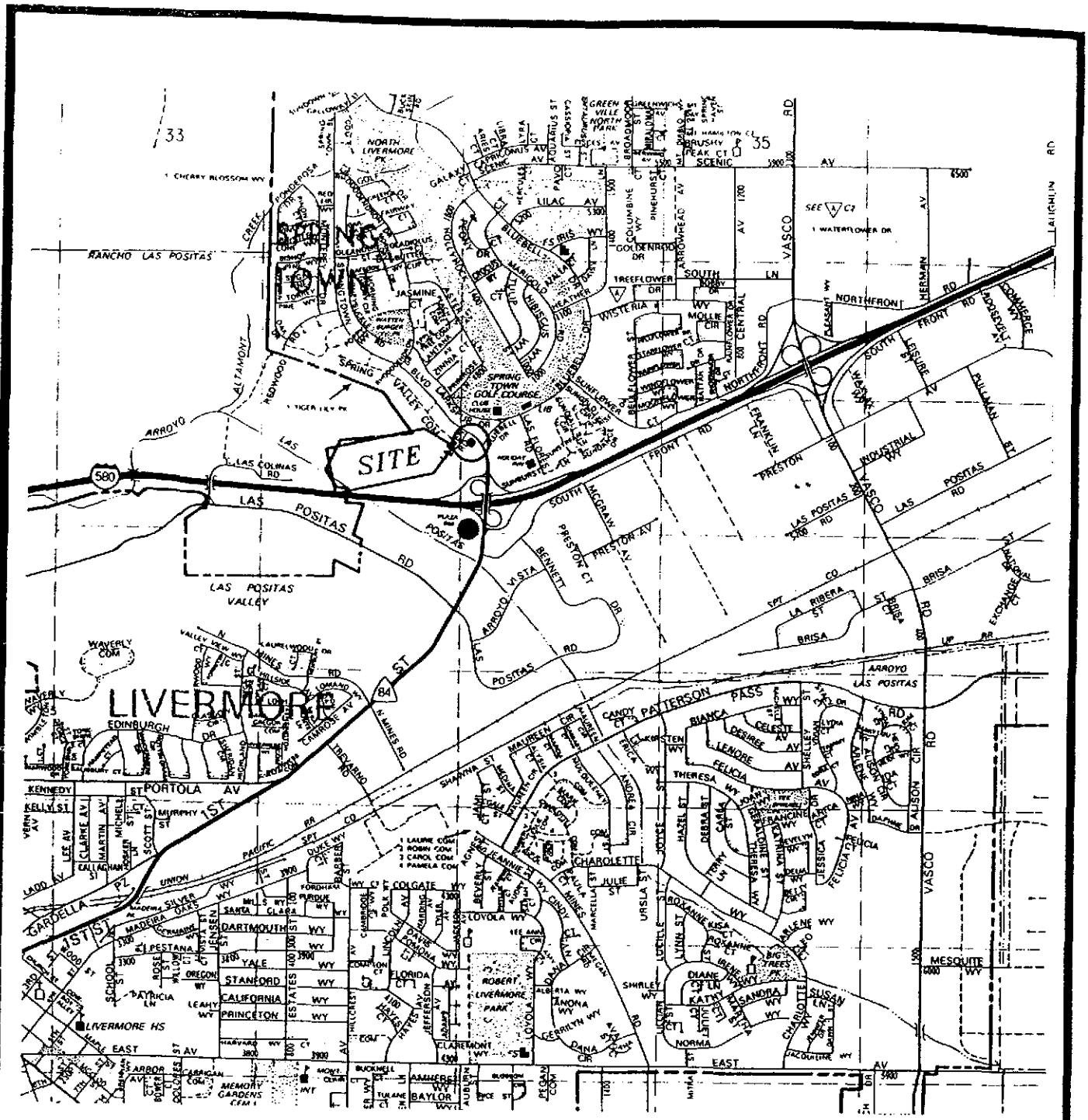
cc: Timothy Ross
Kaprealian Engineering, Inc.
2401 Stanwell Dr., Suite 400
Concord, CA 94520

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

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

pr: 2-3.

GROUNDWATER MONITORING AND SAMPLING
Fourth Quarter, 1995
at the
Former Texaco Service Station
930 Springtown Boulevard
Livermore, California



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

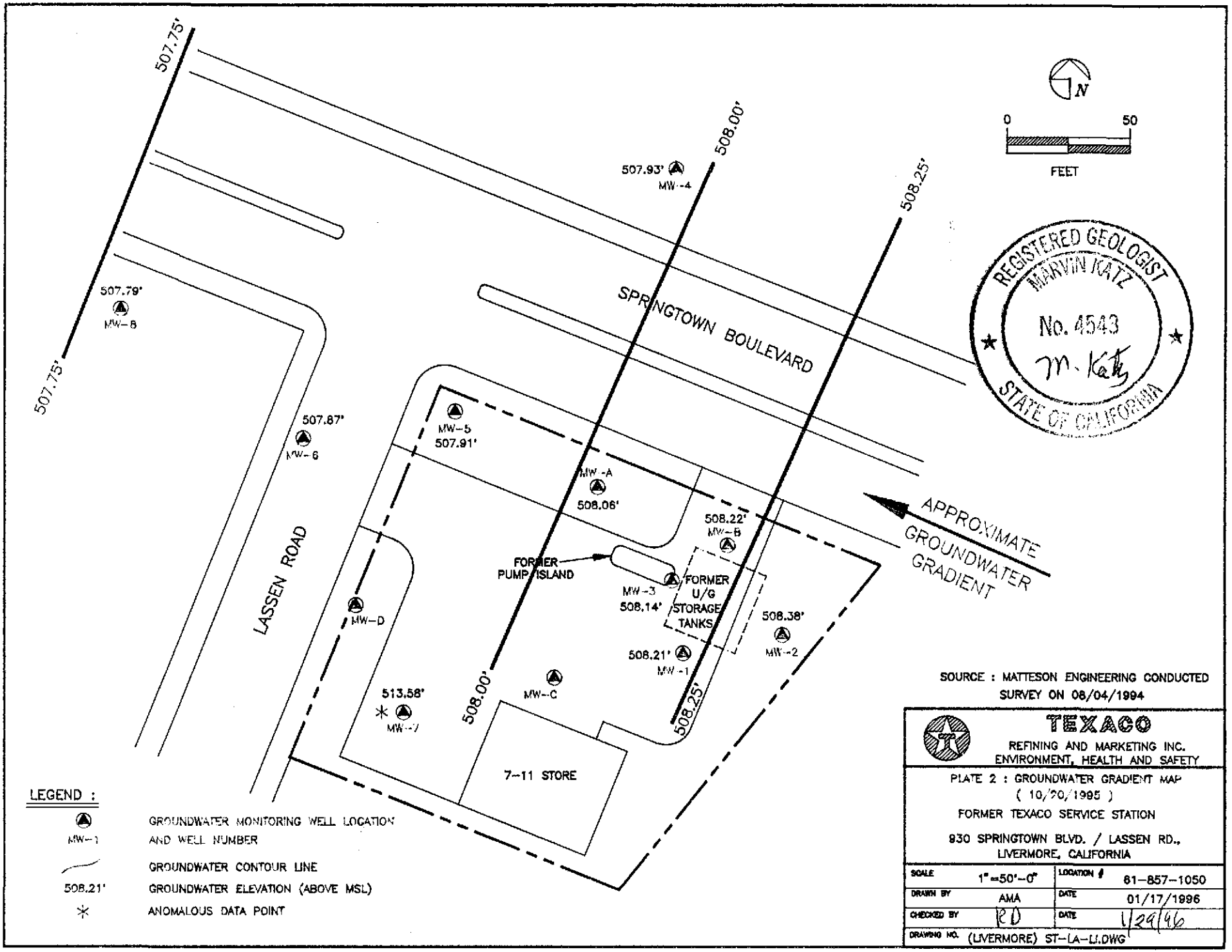
TEXACO
REFINING AND MARKETING, INC.
TEXACO ENVIRONMENTAL SERVICES

PLATE 1

SITE VICINITY MAP

FORMER TEXACO SERVICE STATION

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



LEGEND :

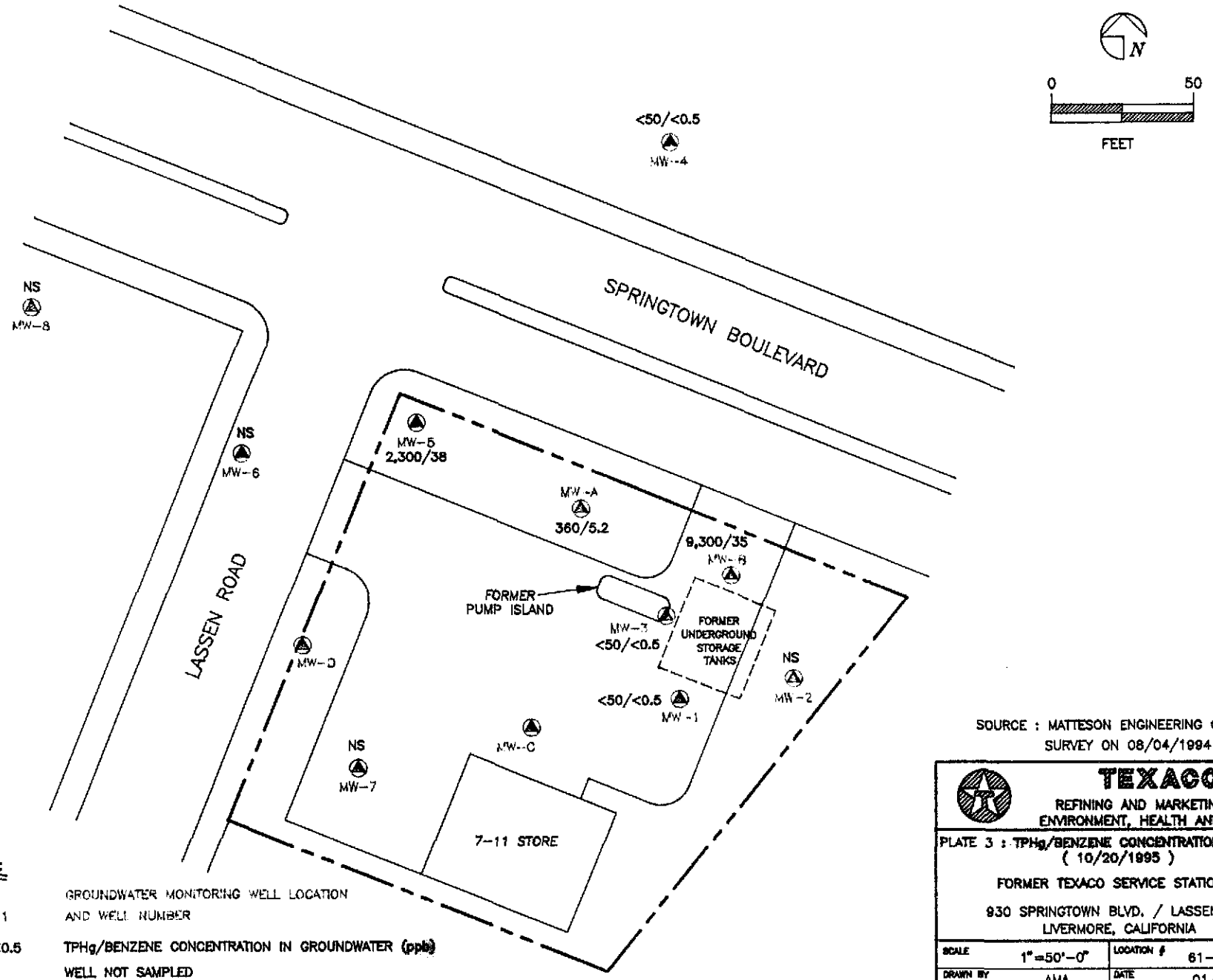
- ▲ MW-1 — GROUNDWATER MONITORING WELL LOCATION AND WELL NUMBER
- ~ — GROUNDWATER CONTOUR LINE
- 508.21' — GROUNDWATER ELEVATION (ABOVE MSL)
- ✳ — ANOMALOUS DATA POINT

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

TEXACO
REFINING AND MARKETING INC.
ENVIRONMENT, HEALTH AND SAFETY

PLATE 2 : GROUNDWATER GRADIENT MAP
(10/20/1995)
FORMER TEXACO SERVICE STATION
930 SPRINGTOWN BLVD. / LASSEN RD.,
LIVERMORE, CALIFORNIA

SCALE	1"=50'-0"	LOCATION #	61-857-1050
DRAWN BY	AMA	DATE	01/17/1996
CHECKED BY	RD	DATE	1/29/96
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 (10/20/1995)

FORMER TEXACO SERVICE STATION

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

SCALE	1"=50'-0"	LOCATION #	61-857-1050
DRAWN BY	AMA	DATE	01/16/1996
CHECKED BY	RJ	DATE	1/29/96
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	---
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	---

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	---
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	---

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-3						
	1/10/91	519.30				
	1/2/92			12.87	506.43	---
	4/2/92			11.97	507.33	---
	7/21/92			12.60	506.70	---
	10/9/92			12.93	506.37	---
	1/11/93			11.16	508.14	---
	5/5/93			10.72	508.58	---
	8/9/93			12.34	506.96	---
	10/14/93			12.71	506.59	---
	1/24/94			12.03	507.27	---
	5/31/94			11.54	507.76	---
	8/31/94	519.60	*	12.60	507.00	---
	11/2/94			12.16	507.44	---
	2/20/95			11.05	508.55	---
	5/9/95			11.97	507.63	---
	8/21/95			7.60	512.00	---
	10/20/95			11.46	508.14	---
MW-4						
	1/10/91	518.75				
	1/2/92			12.22	506.53	---
	4/2/92			11.03	507.72	---
	7/21/92			12.36	506.39	---
	10/9/92			12.40	506.35	---
	1/11/93			10.72	508.03	---
	5/5/93			10.21	508.54	---
	8/9/93			12.25	506.50	---
	10/14/93			12.58	506.17	---
	1/24/94			11.72	507.03	---
	5/31/94			11.29	507.46	---
	8/31/94	518.79	*	12.00	506.79	---
	11/2/94			11.96	506.83	---
	2/20/95			10.42	508.37	---
	5/9/95			11.22	507.57	---
	8/21/95			10.51	508.28	---
	10/20/95			10.86	507.93	---

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	---
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	---

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	---
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	---
*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-A						
	1/2/92	SP	SP	SP	SP	SP
	4/2/92	27,000	1,200	570	1,700	2,300
	7/21/92	57,000	1,500	1,800	2,700	7,100
	10/9/92	56,000	2,900	2,600	4,600	12,000
	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	1,400,000	6,900	2,100	15,000	38,000
	5/31/94	48,000	1,200	900	1,900	4,200
	8/31/94	24,000	140	120	830	1,500
	11/2/94	15,000	230	360	1,100	1,800
	2/20/95	12,000	290	330	570	1,300
	5/9/95	1,200	6.1	5.9	12	15
	8/21/95	9,600	85	140	250	860
	10/20/95	360	5.2	7.9	15	43
MW-B						
	1/2/92	SP	SP	SP	SP	SP
	4/2/92	1,900	ND	39	24	35
	7/21/92	16,000	180	1,600	270	1,100
	10/9/92	38,000	490	8,300	1,400	5,100
	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	23,000	110	1,700	600	1,900
	5/31/94	13,000	780	310	370	1,400
	8/31/94	35,000	160	2,800	1,000	4,500
	11/2/94	2,500	170	3,200	1,100	4,700
	2/20/95	10,000	46	1,400	330	1,200
	5/9/95	4,100	9.1	47	26	30
	8/21/95	4,000	9.6	110	120	270
	10/20/95	9,300	35	1,300	370	1,300

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
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

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
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

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
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

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 - 10/20/95	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
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

1085 Shary Circle
Concord, CA 94518
510/825-3894
Fax: 510/825-3924

ANALYTICAL REPORT

LOG NO: G95-10-449

Received: 23 OCT 95

Mailed: NOV 7 1995

Ms. Rebecca Digerness
Texaco Environmental Services
108 Cutting Boulevard
Richmond, CA 94804
CC: Mr. Timothy Ross

Purchase Order: 94-1446346+4370

Requisition: 618571050
Project: FKEP1012L

REPORT OF ANALYTICAL RESULTS

LOG NO	10-449-1
DATE SAMPLED	20 OCT 95
SAMPLE DESCRIPTION	MW A
AQUEOUS	
TPH (8015M.TX)	
Date Analyzed	10/26/95
Dilution Factor, Times	1
Benzene, ug/L	5.2
Toluene, ug/L	7.9
Ethylbenzene, ug/L	15
Methyl-tert-butylether, ug/L	<10
Total Xylene Isomers, ug/L	43
Carbon Range, .	C6-C12
TPH (Gasoline Range), ug/L	360
Surrogates **	
a,a,a-Trifluorotoluene Rep., ug/L	57.6
a,a,a-Trifluorotoluene Th., ug/L	50.0

B C Analytical

1085 Shary Circle
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Fax: 510/825-3924

LOG NO: G95-10-449

Received: 23 OCT 95

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108 Cutting Boulevard
Richmond, CA 94804
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Purchase Order: 94-1446346+4370

Requisition: 618571050
Project: FKEP1012L

REPORT OF ANALYTICAL RESULTS

LOG NO	10-449-2
DATE SAMPLED	20 OCT 95
SAMPLE DESCRIPTION	MW B
AQUEOUS	
TPH (8015M.TX)	
Date Analyzed	10/25/95
Dilution Factor, Times	10
Benzene, ug/L	35
Toluene, ug/L	1300
Ethylbenzene, ug/L	370
Methyl-tert-butylether, ug/L	<100
Total Xylene Isomers, ug/L	1300
Carbon Range, .	C6-C12
TPH (Gasoline Range), ug/L	9300
Surrogates **	
a,a,a-Trifluorotoluene Rep., ug/L	581
a,a,a-Trifluorotoluene Th., ug/L	500

B C Analytical

1085 Shary Circle
Concord, CA 94518
510/825-3894
Fax: 510/825-3924

LOG NO: G95-10-449

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Requisition: 618571050
Project: FKEP1012L

REPORT OF ANALYTICAL RESULTS

LOG NO	10-449-5	10-449-6	10-449-7
DATE SAMPLED	20 OCT 95	20 OCT 95	20 OCT 95
SAMPLE DESCRIPTION	T121 MW1 NP	T121 MW1 PP	T121 MW3 NP
AQUEOUS			
TPH (8015M.TX)			
Date Analyzed	10/25/95	10/25/95	10/25/95
Dilution Factor, Times	1	1	1
Benzene, ug/L	<0.5	<0.5	<0.5
Toluene, ug/L	<0.5	<0.5	<0.5
Ethylbenzene, ug/L	<0.5	<0.5	<0.5
Methyl-tert-butylether, ug/L	<10	<10	<10
Total Xylene Isomers, ug/L	<0.5	<0.5	<0.5
Carbon Range, .	C6-C12	C6-C12	C6-C12
TPH (Gasoline Range), ug/L	<50	<50	<50
Surrogates **			
a,a,a-Trifluorotoluene Rep., ug/L	55.2	52.7	48.6
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0	50.0

B C Analytical

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Project: FKEP1012L

REPORT OF ANALYTICAL RESULTS

LOG NO	10-449-8	10-449-9	10-449-10
DATE SAMPLED	20 OCT 95	20 OCT 95	20 OCT 95
SAMPLE DESCRIPTION	T121 MW3 PP	T121 MW4 NP	T121 MW4 PP
AQUEOUS			
TPH (8015M.TX)			
Date Analyzed	10/26/95	10/25/95	10/25/95
Dilution Factor, Times	1	1	1
Benzene, ug/L	<0.5	<0.5	<0.5
Toluene, ug/L	<0.5	<0.5	<0.5
Ethylbenzene, ug/L	<0.5	<0.5	<0.5
Methyl-tert-butylether, ug/L	<10	<10	<10
Total Xylene Isomers, ug/L	<0.5	<0.5	<0.5
Carbon Range, .	C6-C12	C6-C12	C6-C12
TPH (Gasoline Range), ug/L	<50	<50	<50
Surrogates **			
a,a,a-Trifluorotoluene Rep., ug/L	52.4	50.0	52.4
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0	50.0

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Texaco Environmental Services
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Richmond, CA 94804

Purchase Order: 94-1446346+4370

Requisition: 618571050
CC: Mr. Timothy Ross
Project: FKEP1012L

REPORT OF ANALYTICAL RESULTS

LOG NO	10-449-11	10-449-12	10-449-13
DATE SAMPLED	20 OCT 95	20 OCT 95	20 OCT 95
SAMPLE DESCRIPTION	T121 MW5 NP	T121 MW5 NPD	T121 MW5 PP
AQUEOUS			
TPH (8015M.TX)			
Date Analyzed	10/25/95	10/25/95	10/26/95
Dilution Factor, Times	1	1	1
Benzene, ug/L	<0.5	<0.5	38
Toluene, ug/L	<0.5	<0.5	3.8
Ethylbenzene, ug/L	<0.5	<0.5	28
Methyl-tert-butylether, ug/L	<10	<10	17
Total Xylene Isomers, ug/L	<0.5	<0.5	19
Carbon Range, .	C6-C12	C6-C12	C6-C12
TPH (Gasoline Range), ug/L	<50	<50	2300
Surrogates **			
a,a,a-Trifluorotoluene Rep., ug/L	52.2	47.2	72.2
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0	50.0

B C Analytical

1085 Shary Circle
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LOG NO: G95-10-449

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108 Cutting Boulevard
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CC: Mr. Timothy Ross

Purchase Order: 94-1446346+4370

Requisition: 618571050
Project: FKEP1012L

REPORT OF ANALYTICAL RESULTS

LOG NO	10-449-14	
DATE SAMPLED	20 OCT 95	
SAMPLE DESCRIPTION	T121 MW5 PPD	
AQUEOUS		
TPH (8015M.TX)		
Date Analyzed	10/26/95	
Dilution Factor, Times	10	
Benzene, ug/L	43	
Toluene, ug/L	6.6	
Ethylbenzene, ug/L	31	
Methyl-tert-butylether, ug/L	<100	
Total Xylene Isomers, ug/L	30	
Carbon Range, .	C6-C12	
TPH (Gasoline Range), ug/L	3700	
Surrogates **		
a,a,a-Trifluorotoluene Rep., ug/L	601	
a,a,a-Trifluorotoluene Th., ug/L	500	

B C Analytical

1085 Shary Circle
Concord, CA 94518
510/825-3894
Fax: 510/825-3924

LOG NO: G95-10-449

Received: 23 OCT 95

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Texaco Environmental Services
108 Cutting Boulevard
Richmond, CA 94804
CC: Mr. Timothy Ross

Purchase Order: 94-1446346+4370

Requisition: 618571050
Project: FKEP1012L

REPORT OF ANALYTICAL RESULTS

LOG NO	10-449-3	10-449-4
DATE SAMPLED	20 OCT 95	20 OCT 95
SAMPLE DESCRIPTION	EB	TB
AQUEOUS		
TPH (8015M.TX)		
Date Analyzed	10/25/95	10/25/95
Dilution Factor, Times	1	1
Benzene, ug/L	<0.5	<0.5
Toluene, ug/L	<0.5	<0.5
Ethylbenzene, ug/L	<0.5	<0.5
Methyl-tert-butylether, ug/L	<10	<10
Total Xylene Isomers, ug/L	<0.5	<0.5
Carbon Range, .	C6-C12	C6-C12
TPH (Gasoline Range), ug/L	<50	<50
Surrogates **		
a,a,a-Trifluorotoluene Rep., ug/L	52.6	53.4
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0

B C Analytical

1085 Shary Circle
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510/825-3894
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LOG NO: G95-10-449

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Texaco Environmental Services
108 Cutting Boulevard
Richmond, CA 94804
CC: Mr. Timothy Ross

Purchase Order: 94-1446346+4370

Requisition: 618571050
Project: FKEP1012L

REPORT OF ANALYTICAL RESULTS

Karen Petryna
930 Springtown Blvd., Livermore
Alameda County

Jane Freemyer, Program Manager

ORDER PLACED FOR CLIENT: Texaco Environmental Services 9510449 :
BC ANALYTICAL : GLEN LAB : 13:09:25 06 NOV 1995 - P. 1 :

MPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
10449*1	MW A	GAS.BTX.TESNC	10.26.95	8015M.TX	536-23	955141	8501
		VOA.8240.MTBE	10.31.95	8240	537-01	95379	6750
10449*2	MW B	GAS.BTX.TESNC	10.25.95	8015M.TX	536-23	955140	8559
10449*5	T121 MW1 NP	GAS.BTX.TESNC	10.25.95	8015M.TX	536-23	955140	8559
10449*6	T121 MW1 PP	GAS.BTX.TESNC	10.25.95	8015M.TX	536-23	955140	8559
10449*7	T121 MW3 NP	GAS.BTX.TESNC	10.25.95	8015M.TX	536-23	955140	8559
10449*8	T121 MW3 PP	GAS.BTX.TESNC	10.26.95	8015M.TX	536-23	955141	8501
10449*9	T121 MW4 NP	GAS.BTX.TESNC	10.25.95	8015M.TX	536-23	955140	8559
10449*10	T121 MW4 PP	GAS.BTX.TESNC	10.25.95	8015M.TX	536-23	955140	8559
10449*11	T121 MW5 NP	GAS.BTX.TESNC	10.25.95	8015M.TX	536-23	955140	8559
10449*12	T121 MW5 NPD	GAS.BTX.TESNC	10.25.95	8015M.TX	536-23	955140	8559
10449*13	T121 MW5 PP	GAS.BTX.TESNC	10.26.95	8015M.TX	536-23	955140	8559
10449*14	T121 MW5 PPD	GAS.BTX.TESNC	10.26.95	8015M.TX	536-23	955140	8559
10449*3	EB	GAS.BTX.TESNC	10.25.95	8015M.TX	536-23	955140	8559
10449*4	TB	GAS.BTX.TESNC	10.25.95	8015M.TX	536-23	955140	8559

**

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 G9510449

TE REPORTED : 11/06/95

LABORATORY CONTROL STANDARDS
FOR BATCHES WHICH INCLUDE THIS ORDER

RAMETER	DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
TPH	C5103473*1					
Date Analyzed	10.26.95	955141	10/26/95	10/26/95	Date	N/A
Benzene	10.26.95	955141	14.8	15.2	ug/L	97
Toluene	10.26.95	955141	93.9	97.4	ug/L	96
Ethylbenzene	10.26.95	955141	20.0	20.4	ug/L	98
Total Xylene Isomers	10.26.95	955141	120	119	ug/L	101
TPH (Gasoline Range)	10.26.95	955141	1140	1100	ug/L	104
a,a,a-Trifluorotoluene Rep.	10.26.95	955141	61.5	50.0	ug/L	123
a,a,a-Trifluorotoluene Th.	10.26.95	955141	50.0	50.0	ug/L	100
EPA 8240/VOCs	C510112*1					
Date Analyzed	10.31.95	95379	10/31/95	10/31/95	Date	N/A
Date Calibrated	10.31.95	95379	10/30/95	10/30/95	Date	N/A
1,1,1-Trichloroethane	10.31.95	95379	47.8	50.0	ug/L	96
1,1,2,2-Tetrachloroethane	10.31.95	95379	54.3	50.0	ug/L	109
1,1,2-Trichloroethane	10.31.95	95379	50.8	50.0	ug/L	102
1,1-Dichloroethane	10.31.95	95379	48.0	50.0	ug/L	96
1,1-Dichloroethene	10.31.95	95379	48.6	50.0	ug/L	97
1,2-Dichloroethane	10.31.95	95379	49.4	50.0	ug/L	99
1,2-Dichloropropane	10.31.95	95379	50.0	50.0	ug/L	100
2-Chloroethylvinylether	10.31.95	95379	53.3	50.0	ug/L	107
2-Hexanone	10.31.95	95379	53.8	50.0	ug/L	108
Acetone	10.31.95	95379	46.8	50.0	ug/L	94
Bromodichloromethane	10.31.95	95379	48.2	50.0	ug/L	96
Bromomethane	10.31.95	95379	49.8	50.0	ug/L	100
Benzene	10.31.95	95379	51.2	50.0	ug/L	102
Bromoform	10.31.95	95379	53.9	50.0	ug/L	108
Chlorobenzene	10.31.95	95379	49.7	50.0	ug/L	99
Carbon Tetrachloride	10.31.95	95379	48.4	50.0	ug/L	97
Chloroethane	10.31.95	95379	51.6	50.0	ug/L	103
Chloroform	10.31.95	95379	47.8	50.0	ug/L	96
Chloromethane	10.31.95	95379	49.4	50.0	ug/L	99
Carbon Disulfide	10.31.95	95379	48.6	50.0	ug/L	97
Dibromochloromethane	10.31.95	95379	49.1	50.0	ug/L	98
Ethylbenzene	10.31.95	95379	46.0	50.0	ug/L	92
Methyl ethyl ketone	10.31.95	95379	52.4	50.0	ug/L	105
Methyl isobutyl ketone	10.31.95	95379	52.8	50.0	ug/L	106
Methyl-tert-butylether	10.31.95	95379	84.1	100	ug/L	84
Methylene chloride	10.31.95	95379	46.4	50.0	ug/L	93
Styrene	10.31.95	95379	50.7	50.0	ug/L	101
Trichloroethene	10.31.95	95379	49.2	50.0	ug/L	98
Toluene	10.31.95	95379	49.6	50.0	ug/L	99
Tetrachloroethene	10.31.95	95379	50.0	50.0	ug/L	100
Vinyl acetate	10.31.95	95379	56.2	50.0	ug/L	112
Vinyl chloride	10.31.95	95379	50.1	50.0	ug/L	100
Total Xylene Isomers	10.31.95	95379	150	150	ug/L	100

LABORATORY CONTROL STANDARDS
FOR BATCHES WHICH INCLUDE THIS ORDER

RAMETER	DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
cis-1,2-Dichloroethene	10.31.95	95379	48.4	50.0	ug/L	97
cis-1,3-Dichloropropene	10.31.95	95379	48.5	50.0	ug/L	97
trans-1,2-Dichloroethene	10.31.95	95379	48.4	50.0	ug/L	97
trans-1,3-Dichloropropene	10.31.95	95379	48.4	50.0	ug/L	97
1,2-Dichloroethane-d4 Rep.	10.31.95	95379	47.3	50.0	ug/L	95
1,2-Dichloroethane-d4 Theo.	10.31.95	95379	50.0	50.0	ug/L	100
4-Bromofluorobenzene Rep.	10.31.95	95379	53.3	50.0	ug/L	107
4-Bromofluorobenzene Theo.	10.31.95	95379	50.0	50.0	ug/L	100
Toluene-d8 Reported	10.31.95	95379	50.3	50.0	ug/L	101
Toluene-d8 Theo.	10.31.95	95379	50.0	50.0	ug/L	100
. EPA 8240/VOCs C5104036*1						
Date Analyzed	10.31.95	95379	10/31/95	10/31/95	Date	N/A
Date Calibrated	10.31.95	95379	10/30/95	10/30/95	Date	N/A
1,1,1-Trichloroethane	10.31.95	95379	44.3	50.0	ug/L	89
1,1,2,2-Tetrachloroethane	10.31.95	95379	51.0	50.0	ug/L	102
1,1,2-Trichloroethane	10.31.95	95379	47.6	50.0	ug/L	95
1,1-Dichloroethane	10.31.95	95379	46.3	50.0	ug/L	93
1,1-Dichloroethene	10.31.95	95379	44.9	50.0	ug/L	90
1,2-Dichloroethane	10.31.95	95379	46.2	50.0	ug/L	92
1,2-Dichloropropane	10.31.95	95379	46.1	50.0	ug/L	92
2-Chloroethylvinylether	10.31.95	95379	50.0	50.0	ug/L	100
2-Hexanone	10.31.95	95379	43.0	50.0	ug/L	86
Acetone	10.31.95	95379	43.9	50.0	ug/L	88
Bromodichloromethane	10.31.95	95379	46.6	50.0	ug/L	93
Bromomethane	10.31.95	95379	51.9	50.0	ug/L	104
Benzene	10.31.95	95379	48.9	50.0	ug/L	98
Bromoform	10.31.95	95379	50.9	50.0	ug/L	102
Chlorobenzene	10.31.95	95379	47.7	50.0	ug/L	95
Carbon Tetrachloride	10.31.95	95379	43.7	50.0	ug/L	87
Chloroethane	10.31.95	95379	53.7	50.0	ug/L	107
Chloroform	10.31.95	95379	45.7	50.0	ug/L	91
Chloromethane	10.31.95	95379	54.7	50.0	ug/L	109
Carbon Disulfide	10.31.95	95379	45.3	50.0	ug/L	91
Dibromochloromethane	10.31.95	95379	46.1	50.0	ug/L	92
Ethylbenzene	10.31.95	95379	44.6	50.0	ug/L	89
Methyl ethyl ketone	10.31.95	95379	43.6	50.0	ug/L	87
Methyl isobutyl ketone	10.31.95	95379	45.5	50.0	ug/L	91
Methyl-tert-butylether	10.31.95	95379	94.8	100	ug/L	95
Methylene chloride	10.31.95	95379	47.1	50.0	ug/L	94
Styrene	10.31.95	95379	48.2	50.0	ug/L	96
Trichloroethene	10.31.95	95379	46.9	50.0	ug/L	94
Toluene	10.31.95	95379	47.7	50.0	ug/L	95
Tetrachloroethene	10.31.95	95379	47.0	50.0	ug/L	94
Vinyl acetate	10.31.95	95379	53.9	50.0	ug/L	108
Vinyl chloride	10.31.95	95379	46.5	50.0	ug/L	93

LABORATORY CONTROL STANDARDS
FOR BATCHES WHICH INCLUDE THIS ORDER

RAMETER	DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
Total Xylene Isomers	10.31.95	95379	150	150	ug/L	100
cis-1,2-Dichloroethene	10.31.95	95379	45.7	50.0	ug/L	91
cis-1,3-Dichloropropene	10.31.95	95379	46.3	50.0	ug/L	93
trans-1,2-Dichloroethene	10.31.95	95379	45.7	50.0	ug/L	91
trans-1,3-Dichloropropene	10.31.95	95379	46.2	50.0	ug/L	92
1,2-Dichloroethane-d4 Rep.	10.31.95	95379	46.0	50.0	ug/L	92
1,2-Dichloroethane-d4 Theo.	10.31.95	95379	50.0	50.0	ug/L	100
4-Bromofluorobenzene Rep.	10.31.95	95379	51.7	50.0	ug/L	103
4-Bromofluorobenzene Theo.	10.31.95	95379	50.0	50.0	ug/L	100
Toluene-d8 Reported	10.31.95	95379	48.6	50.0	ug/L	97
Toluene-d8 Theo.	10.31.95	95379	50.0	50.0	ug/L	100
TPH C5103308*1						
Date Analyzed	10.25.95	955140	10/25/95	10/25/95	Date	N/A
Benzene	10.25.95	955140	14.9	15.2	ug/L	98
Toluene	10.25.95	955140	95.0	97.4	ug/L	98
Ethylbenzene	10.25.95	955140	20.8	20.4	ug/L	102
Total Xylene Isomers	10.25.95	955140	124	119	ug/L	104
TPH (Gasoline Range)	10.25.95	955140	1020	1100	ug/L	93
a,a,a-Trifluorotoluene Rep.	10.25.95	955140	62.2	50.0	ug/L	124
a,a,a-Trifluorotoluene Th.	10.25.95	955140	50.0	50.0	ug/L	100

BC ANALYTICAL

ORDER QC REPORT FOR G9510449

\TE REPORTED : 11/06/95

ADDITIONAL LCS PRECISION (DUPLICATES)
BATCH QC REPORT

ARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	LC1 RESULT	LC2 RESULT	UNIT	RELATIVE % DIFF
. EPA 8240/VOCs							
Date Analyzed		10.31.95	95379	10/31/95	10/31/95	Date	N/A
Date Calibrated		10.31.95	95379	10/30/95	10/30/95	Date	N/A
1,1,1-Trichloroethane		10.31.95	95379	47.8	44.3	ug/L	8
1,1,2,2-Tetrachloroethane		10.31.95	95379	54.3	51.0	ug/L	6
1,1,2-Trichloroethane		10.31.95	95379	50.8	47.6	ug/L	7
1,1-Dichloroethane		10.31.95	95379	48.0	46.3	ug/L	4
1,1-Dichloroethene		10.31.95	95379	48.6	44.9	ug/L	8
1,2-Dichloroethane		10.31.95	95379	49.4	46.2	ug/L	7
1,2-Dichloropropane		10.31.95	95379	50.0	46.1	ug/L	8
2-Chloroethylvinylether		10.31.95	95379	53.3	50.0	ug/L	6
2-Hexanone		10.31.95	95379	53.8	43.0	ug/L	22
Acetone		10.31.95	95379	46.8	43.9	ug/L	6
Bromodichloromethane		10.31.95	95379	48.2	46.6	ug/L	3
Bromomethane		10.31.95	95379	49.8	51.9	ug/L	4
Benzene		10.31.95	95379	51.2	48.9	ug/L	5
Bromoform		10.31.95	95379	53.9	50.9	ug/L	6
Chlorobenzene		10.31.95	95379	49.7	47.7	ug/L	4
Carbon Tetrachloride		10.31.95	95379	48.4	43.7	ug/L	10
Chloroethane		10.31.95	95379	51.6	53.7	ug/L	4
Chloroform		10.31.95	95379	47.8	45.7	ug/L	4
Chloromethane		10.31.95	95379	49.4	54.7	ug/L	10
Carbon Disulfide		10.31.95	95379	48.6	45.3	ug/L	7
Dibromochloromethane		10.31.95	95379	49.1	46.1	ug/L	6
Ethylbenzene		10.31.95	95379	46.0	44.6	ug/L	3
Methyl ethyl ketone		10.31.95	95379	52.4	43.6	ug/L	18
Methyl isobutyl ketone		10.31.95	95379	52.8	45.5	ug/L	15
Methyl-tert-butylether		10.31.95	95379	84.1	94.8	ug/L	12
Methylene chloride		10.31.95	95379	46.4	47.1	ug/L	1
Styrene		10.31.95	95379	50.7	48.2	ug/L	5
Trichloroethene		10.31.95	95379	49.2	46.9	ug/L	5
Toluene		10.31.95	95379	49.6	47.7	ug/L	4
Tetrachloroethene		10.31.95	95379	50.0	47.0	ug/L	6
Vinyl acetate		10.31.95	95379	56.2	53.9	ug/L	4
Vinyl chloride		10.31.95	95379	50.1	46.5	ug/L	7
Total Xylene Isomers		10.31.95	95379	150	150	ug/L	0
cis-1,2-Dichloroethene		10.31.95	95379	48.4	45.7	ug/L	6
cis-1,3-Dichloropropene		10.31.95	95379	48.5	46.3	ug/L	5
trans-1,2-Dichloroethene		10.31.95	95379	48.4	45.7	ug/L	6
trans-1,3-Dichloropropene		10.31.95	95379	48.4	46.2	ug/L	5
1,2-Dichloroethane-d4 Rep.		10.31.95	95379	47.3	46.0	ug/L	3
1,2-Dichloroethane-d4 Theo.		10.31.95	95379	50.0	50.0	ug/L	0
4-Bromofluorobenzene Rep.		10.31.95	95379	53.3	51.7	ug/L	3
4-Bromofluorobenzene Theo.		10.31.95	95379	50.0	50.0	ug/L	0
Toluene-d8 Reported		10.31.95	95379	50.3	48.6	ug/L	3

BC ANALYTICAL

ORDER QC REPORT FOR G9510449

ATE REPORTED : 11/06/95

ADDITIONAL LCS PRECISION (DUPLICATES)
BATCH QC REPORT

ARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	LC1 RESULT	LC2 RESULT	UNIT	RELATIVE % DIFF
Toluene-d8 Theo.		10.31.95	95379	50.0	50.0	ug/L	0

BC ANALYTICAL

ORDER QC REPORT FOR G9510449

ATE REPORTED : 11/06/95

MATRIX QC PRECISION (DUPLICATE SPIKES)
BATCH QC REPORT

ARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS RESULT	MSD RESULT	UNIT	RELATIVE % DIFF
. TPH	9510412*3						
Date Analyzed		10.26.95	955141	10/26/95	10/26/95	Date	N/A
Benzene		10.26.95	955141	14.1	15.2	ug/L	8
Toluene		10.26.95	955141	91.9	94.9	ug/L	3
Ethylbenzene		10.26.95	955141	19.4	20.4	ug/L	5
Total Xylene Isomers		10.26.95	955141	118	124	ug/L	5
TPH (Gasoline Range)		10.26.95	955141	1130	1130	ug/L	0
a,a,a-Trifluorotoluene Rep.		10.26.95	955141	60.5	60.7	ug/L	0
a,a,a-Trifluorotoluene Th.		10.26.95	955141	50.0	50.0	ug/L	0
. EPA 8240/VOCs	9510520*1						
Date Analyzed		10.31.95	95379	10/31/95	10/31/95	Date	N/A
Date Calibrated		10.31.95	95379	10/30/95	10/30/95	Date	N/A
1,1,1-Trichloroethane		10.31.95	95379	39.9	43.5	ug/L	9
1,1,2,2-Tetrachloroethane		10.31.95	95379	51.8	55.1	ug/L	6
1,1,2-Trichloroethane		10.31.95	95379	46.7	51.3	ug/L	9
1,1-Dichloroethane		10.31.95	95379	42.3	47.0	ug/L	11
1,1-Dichloroethene		10.31.95	95379	39.6	43.4	ug/L	9
1,2-Dichloroethane		10.31.95	95379	41.9	47.4	ug/L	12
1,2-Dichloropropane		10.31.95	95379	43.9	48.9	ug/L	11
2-Chloroethylvinylether		10.31.95	95379	0	0.39	ug/L	N/A
2-Hexanone		10.31.95	95379	43.8	47.0	ug/L	7
Acetone		10.31.95	95379	38.3	36.1	ug/L	6
Bromodichloromethane		10.31.95	95379	44.2	48.5	ug/L	9
Bromomethane		10.31.95	95379	46.0	46.3	ug/L	1
Benzene		10.31.95	95379	46.6	50.5	ug/L	8
Bromoform		10.31.95	95379	49.1	53.8	ug/L	9
Chlorobenzene		10.31.95	95379	45.5	49.4	ug/L	8
Carbon Tetrachloride		10.31.95	95379	45.0	50.7	ug/L	12
Chloroethane		10.31.95	95379	51.0	50.6	ug/L	1
Chloroform		10.31.95	95379	41.3	46.2	ug/L	11
Chloromethane		10.31.95	95379	50.5	49.9	ug/L	1
Carbon Disulfide		10.31.95	95379	42.5	44.7	ug/L	5
Dibromochloromethane		10.31.95	95379	43.7	48.4	ug/L	10
Ethylbenzene		10.31.95	95379	44.3	46.2	ug/L	4
Methyl ethyl ketone		10.31.95	95379	41.7	40.2	ug/L	4
Methyl isobutyl ketone		10.31.95	95379	32.1	33.7	ug/L	5
Methylene chloride		10.31.95	95379	42.8	45.6	ug/L	6
Styrene		10.31.95	95379	47.6	50.1	ug/L	5
Trichloroethene		10.31.95	95379	42.2	45.8	ug/L	8
Toluene		10.31.95	95379	46.5	50.2	ug/L	8
Tetrachloroethene		10.31.95	95379	45.2	48.6	ug/L	7
Vinyl acetate		10.31.95	95379	49.1	34.4	ug/L	35
Vinyl chloride		10.31.95	95379	40.1	41.7	ug/L	4
Total Xylene Isomers		10.31.95	95379	148	157	ug/L	6
cis-1,2-Dichloroethene		10.31.95	95379	42.4	47.7	ug/L	12

BC ANALYTICAL

ORDER QC REPORT FOR G9510449

MATRIX QC PRECISION (DUPLICATE SPIKES)
BATCH QC REPORT

\RAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS RESULT	MSD RESULT	UNIT	RELATIVE % DIFF
cis-1,3-Dichloropropene		10.31.95	95379	43.2	46.9	ug/L	8
trans-1,2-Dichloroethene		10.31.95	95379	41.5	47.0	ug/L	12
trans-1,3-Dichloropropene		10.31.95	95379	41.9	46.7	ug/L	11
1,2-Dichloroethane-d4 Rep.		10.31.95	95379	52.9	54.0	ug/L	2
1,2-Dichloroethane-d4 Theo.		10.31.95	95379	50.0	50.0	ug/L	0
4-Bromofluorobenzene Rep.		10.31.95	95379	53.7	53.8	ug/L	0
4-Bromofluorobenzene Theo.		10.31.95	95379	50.0	50.0	ug/L	0
Toluene-d8 Reported		10.31.95	95379	48.8	49.6	ug/L	2
Toluene-d8 Theo.		10.31.95	95379	50.0	50.0	ug/L	0
. TPH	9510449*7						
Date Analyzed		10.25.95	955140	10/25/95	10/25/95	Date	N/A
Benzene		10.25.95	955140	13.2	12.6	ug/L	5
Toluene		10.25.95	955140	86.7	83.4	ug/L	4
Ethylbenzene		10.25.95	955140	18.1	17.4	ug/L	4
Total Xylene Isomers		10.25.95	955140	111	107	ug/L	4
TPH (Gasoline Range)		10.25.95	955140	1080	1090	ug/L	1
a,a,a-Trifluorotoluene Rep.		10.25.95	955140	54.5	54.9	ug/L	1
a,a,a-Trifluorotoluene Th.		10.25.95	955140	50.0	50.0	ug/L	0

BC ANALYTICAL

ORDER QC REPORT FOR G9510449

ATE REPORTED : 11/06/95

MATRIX QC ACCURACY (SPIKES)
BATCH QC REPORT

ARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS %	MSD %	TRUE RESULT	UNIT	
. TPH	9510412*3							
Benzene		10.26.95	955141	93	100	15.2	ug/L	
Toluene		10.26.95	955141	94	97	97.4	ug/L	
Ethylbenzene		10.26.95	955141	95	100	20.4	ug/L	
Total Xylene Isomers		10.26.95	955141	99	104	119	ug/L	
TPH (Gasoline Range)		10.26.95	955141	103	103	1100	ug/L	
a,a,a-Trifluorotoluene Rep.		10.26.95	955141	121	121	50.0	ug/L	
a,a,a-Trifluorotoluene Th.		10.26.95	955141	100	100	50.0	ug/L	
. Volatile Organics	9510520*1							
1,1,1-Trichloroethane		10.31.95	95379	80	87	50.0	ug/L	
1,1,2,2-Tetrachloroethane		10.31.95	95379	104	110	50.0	ug/L	
1,1,2-Trichloroethane		10.31.95	95379	93	103	50.0	ug/L	
1,1-Dichloroethane		10.31.95	95379	85	94	50.0	ug/L	
1,1-Dichloroethene		10.31.95	95379	79	87	50.0	ug/L	
1,2-Dichloroethane		10.31.95	95379	84	95	50.0	ug/L	
1,2-Dichloropropane		10.31.95	95379	88	98	50.0	ug/L	
2-Chloroethylvinylether		10.31.95	95379	0 Q	1 Q	50.0	ug/L	Q
2-Hexanone		10.31.95	95379	88	94	50.0	ug/L	
Acetone		10.31.95	95379	68	63	54.4	ug/L	
Bromodichloromethane		10.31.95	95379	88	97	50.0	ug/L	
Bromomethane		10.31.95	95379	92	93	50.0	ug/L	
Benzene		10.31.95	95379	93	101	50.0	ug/L	
Bromoform		10.31.95	95379	98	108	50.0	ug/L	
Chlorobenzene		10.31.95	95379	91	99	50.0	ug/L	
Carbon Tetrachloride		10.31.95	95379	90	101	50.0	ug/L	
Chloroethane		10.31.95	95379	102	101	50.0	ug/L	
Chloroform		10.31.95	95379	83	92	50.0	ug/L	
Chloromethane		10.31.95	95379	101	100	50.0	ug/L	
Carbon Disulfide		10.31.95	95379	85	89	50.0	ug/L	
Dibromochloromethane		10.31.95	95379	87	97	50.0	ug/L	
Ethylbenzene		10.31.95	95379	89	92	50.0	ug/L	
Methyl ethyl ketone		10.31.95	95379	83	80	50.0	ug/L	
Methyl isobutyl ketone		10.31.95	95379	64	67	50.0	ug/L	
Methylene chloride		10.31.95	95379	86	91	50.0	ug/L	
Styrene		10.31.95	95379	95	100	50.0	ug/L	
Trichloroethene		10.31.95	95379	84	92	50.0	ug/L	
Toluene		10.31.95	95379	93	100	50.0	ug/L	
Tetrachloroethene		10.31.95	95379	90	97	50.0	ug/L	
Vinyl acetate		10.31.95	95379	98	69	50.0	ug/L	
Vinyl chloride		10.31.95	95379	80	83	50.0	ug/L	
Total Xylene Isomers		10.31.95	95379	99	105	150	ug/L	
cis-1,2-Dichloroethene		10.31.95	95379	85	95	50.0	ug/L	
cis-1,3-Dichloropropene		10.31.95	95379	86	94	50.0	ug/L	
trans-1,2-Dichloroethene		10.31.95	95379	83	94	50.0	ug/L	
trans-1,3-Dichloropropene		10.31.95	95379	84	93	50.0	ug/L	

BC ANALYTICAL

ORDER QC REPORT FOR G9510449

\TE REPORTED : 11/06/95

MATRIX QC ACCURACY (SPIKES)
BATCH QC REPORT

\RAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS %	MSD %	TRUE RESULT	UNIT
1,2-Dichloroethane-d4	Rep.	10.31.95	95379	106	108	50.0	ug/L
1,2-Dichloroethane-d4	Theo.	10.31.95	95379	100	100	50.0	ug/L
4-Bromofluorobenzene	Rep.	10.31.95	95379	107	108	50.0	ug/L
4-Bromofluorobenzene	Theo.	10.31.95	95379	100	100	50.0	ug/L
Toluene-d8	Reported	10.31.95	95379	98	99	50.0	ug/L
Toluene-d8	Theo.	10.31.95	95379	100	100	50.0	ug/L
. TPH	9510449*7						
Benzene		10.25.95	955140	87	83	15.2	ug/L
Toluene		10.25.95	955140	89	86	97.4	ug/L
Ethylbenzene		10.25.95	955140	89	85	20.4	ug/L
Total Xylene Isomers		10.25.95	955140	93	90	119	ug/L
TPH (Gasoline Range)		10.25.95	955140	98	99	1100	ug/L
a,a,a-Trifluorotoluene	Rep.	10.25.95	955140	109	110	50.0	ug/L
a,a,a-Trifluorotoluene	Th.	10.25.95	955140	100	100	50.0	ug/L

BC ANALYTICAL

ORDER QC REPORT FOR G9510449

TE REPORTED : 11/06/95

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

RAMETER	DATE ANALYZED	BATCH NUMBER	BLANK RESULT	RDL	UNIT	METHOD
TPH B5101966*1						
Date Analyzed	10.26.95	955141	10/26/95	NA	Date	8015M.TX
Benzene	10.26.95	955141	0	0.5	ug/L	8015M.TX
Toluene	10.26.95	955141	0.29	0.5	ug/L	8015M.TX
Ethylbenzene	10.26.95	955141	0	0.5	ug/L	8015M.TX
Methyl-tert-butylether	10.26.95	955141	0	NA	ug/L	8015M.TX
Total Xylene Isomers	10.26.95	955141	0.24	0.5	ug/L	8015M.TX
TPH (Gasoline Range)	10.26.95	955141	0	50	ug/L	8015M.TX
a,a,a-Trifluorotoluene Rep.	10.26.95	955141	52.6	NA	ug/L	8015M.TX
a,a,a-Trifluorotoluene Th.	10.26.95	955141	50.0	NA	ug/L	8015M.TX
EPA 8240/VOCs B5102269*1						
Date Analyzed	10.31.95	95379	10/31/95	NA	Date	8240
Time Analyzed	10.31.95	95379	13:46	NA	Hours	8240
1,1,1-Trichloroethane	10.31.95	95379	0	1	ug/L	8240
1,1,2,2-Tetrachloroethane	10.31.95	95379	0	1	ug/L	8240
1,1,2-Trichloroethane	10.31.95	95379	0	1	ug/L	8240
1,1-Dichloroethane	10.31.95	95379	0	1	ug/L	8240
1,1-Dichloroethene	10.31.95	95379	0	1	ug/L	8240
1,2-Dichloroethane	10.31.95	95379	0	1	ug/L	8240
1,2-Dichloropropane	10.31.95	95379	0	1	ug/L	8240
2-Chloroethylvinylether	10.31.95	95379	0	1	ug/L	8240
2-Hexanone	10.31.95	95379	0	5	ug/L	8240
Acetone	10.31.95	95379	11	20	ug/L	8240
Bromodichloromethane	10.31.95	95379	0	1	ug/L	8240
Bromomethane	10.31.95	95379	0	1	ug/L	8240
Benzene	10.31.95	95379	0	1	ug/L	8240
Bromoform	10.31.95	95379	0	1	ug/L	8240
Chlorobenzene	10.31.95	95379	0	1	ug/L	8240
Carbon Tetrachloride	10.31.95	95379	0	1	ug/L	8240
Chloroethane	10.31.95	95379	0	1	ug/L	8240
Chloroform	10.31.95	95379	0	1	ug/L	8240
Chloromethane	10.31.95	95379	0	1	ug/L	8240
Carbon Disulfide	10.31.95	95379	0	2	ug/L	8240
Dibromochloromethane	10.31.95	95379	0	1	ug/L	8240
Ethylbenzene	10.31.95	95379	0	1	ug/L	8240
Methyl ethyl ketone	10.31.95	95379	0	5	ug/L	8240
Methyl isobutyl ketone	10.31.95	95379	0	5	ug/L	8240
Methyl-tert-butylether	10.31.95	95379	0	NA	ug/L	8240
Methylene chloride	10.31.95	95379	0	1	ug/L	8240
Styrene	10.31.95	95379	0	1	ug/L	8240
Trichloroethene	10.31.95	95379	0	1	ug/L	8240
Toluene	10.31.95	95379	0	1	ug/L	8240
Tetrachloroethene	10.31.95	95379	0	1	ug/L	8240
Vinyl acetate	10.31.95	95379	0	10	ug/L	8240
Vinyl chloride	10.31.95	95379	0	1	ug/L	8240

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

RAMETER	DATE ANALYZED	BATCH NUMBER	BLANK RESULT	RDL	UNIT	METHOD
Total Xylene Isomers	10.31.95	95379	0	3	ug/L	8240
cis-1,2-Dichloroethene	10.31.95	95379	0	1	ug/L	8240
cis-1,3-Dichloropropene	10.31.95	95379	0	1	ug/L	8240
trans-1,2-Dichloroethene	10.31.95	95379	0	1	ug/L	8240
trans-1,3-Dichloropropene	10.31.95	95379	0	1	ug/L	8240
1,2-Dichloroethane-d4 Rep.	10.31.95	95379	53.0	5	ug/L	8240
1,2-Dichloroethane-d4 Theo.	10.31.95	95379	50.0	NA	ug/L	8240
4-Bromofluorobenzene Rep.	10.31.95	95379	52.7	5	ug/L	8240
4-Bromofluorobenzene Theo.	10.31.95	95379	50.0	NA	ug/L	8240
Toluene-d8 Reported	10.31.95	95379	50.0	5	ug/L	8240
Toluene-d8 Theo.	10.31.95	95379	50.0	NA	ug/L	8240
. TPH B5101867*1						
Date Analyzed	10.25.95	955140	10/25/95	NA	Date	8015M.TX
Benzene	10.25.95	955140	0	0.5	ug/L	8015M.TX
Toluene	10.25.95	955140	0	0.5	ug/L	8015M.TX
Ethylbenzene	10.25.95	955140	0	0.5	ug/L	8015M.TX
Methyl-tert-butylether	10.25.95	955140	0	NA	ug/L	8015M.TX
Total Xylene Isomers	10.25.95	955140	0	0.5	ug/L	8015M.TX
TPH (Gasoline Range)	10.25.95	955140	0	50	ug/L	8015M.TX
a,a,a-Trifluorotoluene Rep.	10.25.95	955140	52.1	NA	ug/L	8015M.TX
a,a,a-Trifluorotoluene Th.	10.25.95	955140	50.0	NA	ug/L	8015M.TX

SURROGATE RECOVERIES :
BC ANALYTICAL : GLEN LAB : 13:09:44 06 NOV 1995 - P. 1 :

ETHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
510449*1							
)15M.TX	a,a,a-Trifluorotoluene	Re955141	10/26/95	57.6	50.0	115	
240	1,2-Dichloroethane-d4	Rep95379	10/31/95	53.7	50.0	107	
	Toluene-d8	95379	10/31/95	50.2	50.0	100	
	4-Bromofluorobenzene	Rep.95379	10/31/95	52.7	50.0	105	
510449*2							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	581	500	116	
510449*3							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	52.6	50.0	105	
510449*4							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	53.4	50.0	107	
510449*5							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	55.2	50.0	110	
510449*6							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	52.7	50.0	105	
510449*7							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	48.6	50.0	97	
510449*8							
015M.TX	a,a,a-Trifluorotoluene	Re955141	10/26/95	52.4	50.0	105	
510449*9							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	50.0	50.0	100	
510449*10							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	52.4	50.0	105	
510449*11							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	52.2	50.0	104	
510449*12							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	47.2	50.0	94	
510449*13							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/26/95	72.2	50.0	144	
510449*14							

SURROGATE RECOVERIES :
BC ANALYTICAL : GLEN LAB : 13:09:45 06 NOV 1995 - P. 2 :

ETHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
)15M.TX	a,a,a-Trifluorotoluene	Re955140	10/26/95	601	500	120	

SURROGATE RECOVERIES :
BC ANALYTICAL : GLEN LAB : 13:09:48 06 NOV 1995 - P. 1 :

THOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
510412*3*R1							
015M.TX	a,a,a-Trifluorotoluene	Re955141	10/26/95	53.8	50.0	108	
510412*3*S1							
015M.TX	a,a,a-Trifluorotoluene	Re955141	10/26/95	60.5	50.0	121	
510412*3*S2							
015M.TX	a,a,a-Trifluorotoluene	Re955141	10/26/95	60.7	50.0	121	
510412*3*T							
015M.TX	a,a,a-Trifluorotoluene	Re955141	10/26/95	50.0	50.0	100	
510449*7*R1							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	48.6	50.0	97	
510449*7*S1							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	54.5	50.0	109	
510449*7*S2							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	54.9	50.0	110	
510449*7*T							
015M.TX	a,a,a-Trifluorotoluene	Re955140	10/25/95	50.0	50.0	100	
510520*1*R1							
8240	1,2-Dichloroethane-d4	Rep95379	10/31/95	51.5	50.0	103	
	Toluene-d8	95379	10/31/95	49.4	50.0	99	
	4-Bromofluorobenzene	Rep.95379	10/31/95	51.6	50.0	103	
510520*1*S1							
8240	1,2-Dichloroethane-d4	Rep95379	10/31/95	52.9	50.0	106	
	Toluene-d8	95379	10/31/95	48.8	50.0	98	
	4-Bromofluorobenzene	Rep.95379	10/31/95	53.7	50.0	107	
510520*1*S2							
8240	1,2-Dichloroethane-d4	Rep95379	10/31/95	54.0	50.0	108	
	Toluene-d8	95379	10/31/95	49.6	50.0	99	
	4-Bromofluorobenzene	Rep.95379	10/31/95	53.8	50.0	108	
510520*1*T							
8240	1,2-Dichloroethane-d4	Rep95379	10/31/95	50.0	50.0	100	
	Toluene-d8	95379	10/31/95	50.0	50.0	100	
	4-Bromofluorobenzene	Rep.95379	10/31/95	50.0	50.0	100	

THOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
101867*1*MB							
15M.	TXa,a,a-Trifluorotoluene	Re955140	10/25/95	52.1	50.0	104	
101966*1*MB							
)15M.	TXa,a,a-Trifluorotoluene	Re955141	10/26/95	52.6	50.0	105	
5102269*1*MB							
240	1,2-Dichloroethane-d4	Rep95379	10/31/95	53.0	50.0	106	
	Toluene-d8	95379	10/31/95	50.0	50.0	100	
	4-Bromofluorobenzene	Rep.95379	10/31/95	52.7	50.0	105	
510112*1*LC							
240	1,2-Dichloroethane-d4	Rep95379	10/31/95	47.3	50.0	95	
	Toluene-d8	95379	10/31/95	50.3	50.0	101	
	4-Bromofluorobenzene	Rep.95379	10/31/95	53.3	50.0	107	
510112*1*LT							
240	1,2-Dichloroethane-d4	Rep95379	10/31/95	50.0	50.0	100	
	Toluene-d8	95379	10/31/95	50.0	50.0	100	
	4-Bromofluorobenzene	Rep.95379	10/31/95	50.0	50.0	100	
5103308*1*LC							
015M.	TXa,a,a-Trifluorotoluene	Re955140	10/25/95	62.2	50.0	124	
5103308*1*LT							
015M.	TXa,a,a-Trifluorotoluene	Re955140	10/25/95	50.0	50.0	100	
5103473*1*LC							
015M.	TXa,a,a-Trifluorotoluene	Re955141	10/26/95	61.5	50.0	123	
5103473*1*LT							
015M.	TXa,a,a-Trifluorotoluene	Re955141	10/26/95	50.0	50.0	100	
5104036*1*LC							
240	1,2-Dichloroethane-d4	Rep95379	10/31/95	46.0	50.0	92	
	Toluene-d8	95379	10/31/95	48.6	50.0	97	
	4-Bromofluorobenzene	Rep.95379	10/31/95	51.7	50.0	103	
5104036*1*LT							
240	1,2-Dichloroethane-d4	Rep95379	10/31/95	50.0	50.0	100	
	Toluene-d8	95379	10/31/95	50.0	50.0	100	
	4-Bromofluorobenzene	Rep.95379	10/31/95	50.0	50.0	100	

G9510444

Chain-of-Custody

Page 1 of 2

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 Corordinator: Karen Petryna

Site Name: Texaco Loc.# 618571050
Site Address: 930 Springtown Blvd. Livermore, CA
Contractor Project Number: 95020-G1
Contractor Name: Blaine Tech Services, Inc.
Address: 985 Timothy Dr., San Jose, CA 95133
Project Contact: Don Weltz
Phone/FAX: (408) 995-5535 / (408) 293-8773

Laboratory: B C Analytical
Turn Around Time: normal (10 day)
Samplers (PRINT NAME): GRANT MOHR
Sampler Signature:
Date Samples Collected: 10-20-95

618571050
Alameda
KEP
FREP 1012
cc: Tim Ross
cooler temp: 5 oc
sample cond: good

Sample Number	Lab Sample Number	Date/Time Collected	No. of Containers	Type of Containers	Sample Matrix	Preservative	TPH gas/BTEX /MTBE	TPH Diesel	O&G/TRPH (418.1)	TPH Ex. (C8-C36+)	VOCs 8240/624 MTBE	P. Halocarbons 8010/80	P. Aromatics 8020/602	Organic Lead	MTBE Cnfm 8260		Comments
MW A		10-20 1220	6	VOA	W	HCl	X				X						-1
MW B		1250	3				X										-2
EB		1230	3				X										-3
TB			2				X										-4

ANALYSIS

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10-23	1425	Bill Lyons	10-23-95	2 23
Bill Lyons	10-23-95	4:10	Kimberly Eng	10/23/95	4:20
Kimberly Eng	10/23/95	6:00			

Method of Shipment:

Lab Comments:

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

97710447

Chain-of-Custody

Page 2 of 2

Texaco Environmental Services
108 Cutting Boulevard
Richmond, California 94804
Phone: (510) 230-3541
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: 951020-G1
Contractor Name: Blaine Tech Services, Inc.
Address: 985 Timothy Dr., San Jose, CA 95133
Project Contact: Don Weltz
Phone/FAX: (408) 995-5535 / (408) 293-8773

Laboratory: B C Analytical
Turn Around Time: normal (10 day)
Samplers (PRINT NAME): GRANT MOHR
Sampler Signature:
Date Samples Collected: 10-20-95

7 DAY T.A.T.

Sample Number	Lab Sample Number	Date/Time Collected	No. of Containers	Type of Containers	Sample Matrix	Preservative	ANALYSIS: TPH gas/BTEX/MTBE	TPH Diesel	O&G/TRPH (418.1)	TPH Ex. (C8-C36+)	VOCs 8240/624	P. Halocarbons 8010/60	P. Aromatics 8020/602	Organic Lead			Comments
T121 MW1NP		10-20 1050	3	VOA	W	HCl	X										-5
T121 MW1PP		1105	3				X										-6
T121 MW3NP		1110	3				X										-7
T121 MW3PP		1130	3				X										-8
T121 MW4NP		1020	3				X										-9
T121 MW4PP		1040	3				X										-10
T121 MW5NP		1135	3				X										-11
T121 MW5NPD			3				X										-12
T121 MW5PP		1150	3				X										-13
T121 MW5PPD			3				X										-14

Relinquished by: (Signature)	Date: 10-23	Time: 1430	Received by: (Signature) Bill Lyons 10-23-95 2:30
Relinquished by: (Signature) Bill Lyons 10-23-95	Date:	Time: 4:10	Received by: (Signature) Kimberly Gray 10/23/95 4:20
Relinquished by: (Signature) Kimberly Gray 10/23/95	Date:	Time: 6:00	Received by: (Signature)	Date:	Time:
Method of Shipment:			Lab Comments:

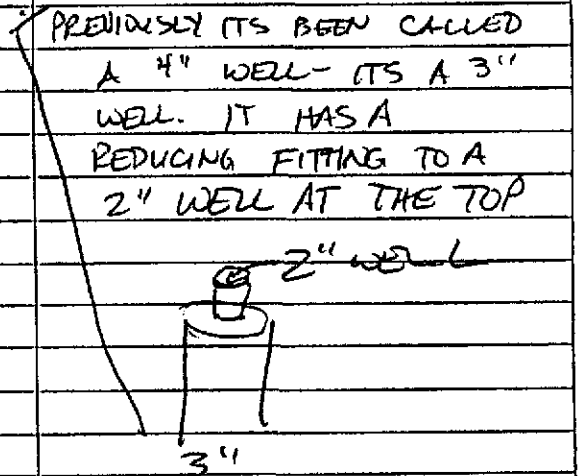
P:\GWMP\FORMS\TEX-COC.XLS

Well Gauging Data

Project Name: 6185/1050
Project Number: 95/020-61

Date: 10-20-95
Recorded By: GRANT

Well ID	TOC Elev.	DTB (ft. TOC)	Well Dia. (in.)	DTP (ft.)	DTW (ft.)	PT (ft.)	Comments
MWA		16.48	2		12.04		
MWB		21.36	2		9.83		
MW 1		25.50	4		12.40		
MW 2		22.50	4		9.91		
MW 3		24.61	4		11.46		
MW 4		25.00	3		10.86		PREVIOUSLY ITS BEEN CALLED A 4" WELL- ITS A 3" WELL. IT HAS A REDUCING FITTING TO A 2" WELL AT THE TOP
MW 5		28.14	2		13.28		
MW 6		24.50	2		14.31		
MW 7		23.72	4		8.61		
MW 8		24.25	4		16.24		



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: 618571050
Project Number: 951020-01
Recorded By: G
Well No.: MWA
Well Type: [ ] Monitor [x] Extraction [ ] Other
Sampled by: G
Date: 10-20

WELL PURGING

PURGE VOLUME

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

Well Total Depth (TD, ft. below TOC): 12.04

Depth to Water (WL, ft. below TOC): 16.48

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

4.44 (Water Column Length) x .17 (Multiplier) x 3 (No. Vols) = 2.25 gals CALCULATED PURGE VOLUME

2.5 gals ACTUAL 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

GROUNDWATER PARAMETER MEASUREMENT Meter Type

Time/Gallons	pH	Cond. (uomhos/cm)	Temp [ ] deg C [x] deg F	Turbidity (NTU)	Color/Odor
1201 / 1.0	6.9	1100	69.6	>200	BROWN
1206 / 2.0	6.8	1100	69.2	>200	ODOR
1211 / 2.5	6.9	1100	69.4	>200	"
/					
/					
/					
/					
/					

Comments during well purge

Well Pumped dry: YES (NO)

Purge water storage/disposal: [ ] Drummed onsite [x] Other BTS

WELL SAMPLING

SAMPLING METHOD Date/Time Sampled: 10-20 / 1220

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
MWA	6 VOA	TPHG	HCl	BC	
		BTEX			
		MTBE			
		8240			

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 61857/050 Well No. MW3

Project Number 95020-G1 Well Type ☐ Monitor ☑ Extraction ☐ Other

Recorded By G Sampled by G Date 10-20

WELL PURGING

PURGE VOLUME

Well casing diameter

☑ 2-inch ☐ 4-inch ☐ Other

Well Total Depth (TD, ft. below TOC) 21.36

Depth to Water (WL, ft. below TOC) 9.83

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

11.53 (Water Column Length) x .17 (Multiplier) x 3 (No. Vols) = 5.9 gals CALCULATED PURGE VOLUME

6.0 gals ACTUAL 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

GROUNDWATER PARAMETER MEASUREMENT Meter Type MYRON

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
1236 / 2.0	7.1	1800	70.6		25.6	ODOR
1240 / 4.0	7.0	1700	70.0		93.2	
1244 / 6.0	7.0	1600	70.2		111.5	
/						
/						
/						
/						
/						

Comments during well purge

Well Pumped dry: YES (NO) Purge water storage/disposal ☐ Drummed onsite ☑ Other BTS

WELL SAMPLING

SAMPLING METHOD Date/Time Sampled 10-20 / 1250

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
MW3	VOA	TPHG	HCl	BC	
		BTEX			
		MTBE			

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.
Trip	
Rinsate	EB @ 1230
Transfer	
Other:	

Well Gauging Data

Project Name: TEXACO
Project Number: 950821-A1

Date: 8-21-95
Recorded By: RL

Well ID	TOC Elev.	DTB (ft. TOC)	Well Dia. (in.)	DTP (ft.)	DTW (ft.)	PT (ft.)	Comments
MW A		16.50	2		11.37		
MW B		21.40	2		9.34		
MW 1		25.53	4		11.93		
MW 2		22.50	4		9.58		
MW 3		24.65	4		7.60		
MW 4		25.03	4		10.51		
MW 5		28.12	2		12.32		
MW 6		INACCESSIBLE DUE TO AUTO					
MW 7		23.71	4		7.83		
MW 8		24.28	4		15.77		

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 TEXACO | Well No. MW-A
Project Number 950821-A1 | Well Type ☐ Monitor ☒ Extraction ☐ Other
Recorded By RV | Sampled by RV | Date 8-21-95

WELL PURGING

PURGE VOLUME

Well casing diameter
☒ 2-inch ☐ 4-inch ☐ Other
Well Total Depth (TD, ft. below TOC) 16.50
Depth to Water (WL, ft. below TOC) 11.37
Depth to free phase hydrocarbons (FP, ft. below TOC)
Number of well volumes to be purged
☒ 3 ☐ 10 ☐ Other

PURGE METHOD

☒ Bailer - Type DISP
☐ Pump - Type
☐ Other

PUMP INTAKE

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

PURGE VOLUME CALCULATION

5.13 (Water Column Length) x .17 (Multiplier) x 3 (No. Vols) = 2.6 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 HYDAC

Time/Gallons	pH	Cond. (uomhos/cm)	Temp (☐ deg C ☒ deg F)	Turbidity (NTU)	Color/Odor
1200 / 1.0	7.4	940	63.2	7200	
1204 / 2.0	7.6	900	60.8	7200	
1207 / 3.0	7.6	910	61.0	7200	
/					
/					
/					
/					
/					

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

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled 8-21 / 1215
Bailer - Type ☒ DISP
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
	3	TPHG			
MWA	40 mL	BTEX	HCl	BC	
	VOA	MTBE			

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 TEXACO | Well No. MW B

Project Number 950821-RV | Well Type [X] Monitor [X] Extraction [ ] Other

Recorded By RV | Sampled by RV | Date 8-21-95

WELL PURGING

PURGE VOLUME

Well casing diameter

[X] 2-inch [ ] 4-inch [ ] Other

Well Total Depth (TD, ft. below TOC) 21.40

Depth to Water (WL, ft. below TOC) 9.34

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 DISP

[ ] Pump - Type

[ ] Other

PUMP INTAKE

[X] Near top Depth (ft)

[ ] Near Bottom Depth (ft)

[ ] Other

Pumping Rate gpm

PURGE VOLUME CALCULATION

12.06 (Water Column Length) x .17 (Multiplier) x 3 (No. Vols) = 6.2 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

6.5 gals ACTUAL PURGE VOLUME

GROUNDWATER PARAMETER MEASUREMENT

Meter Type HORIBA U-10

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	[X] deg C [ ] deg F	Turbidity (NTU)	Color/Odor
1127 / 2.0	7.2	1600	63.6		75.	
1133 / 4.0	7.4	1700	61.4		76.	
1138 / 6.5	7.3	1750	62.0		75.	
/						
/						
/						
/						
/						

Comments during well purge

Well Pumped dry: YES (NO)

Purge water storage/disposal [ ] Drummed onsite [X] Other TRUCK

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled 8-21 / 1150

Bailer - Type [X] DISP | 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
	3	TPHG			
MW B	40mL	BTEX	HCl	BC	
	VOA	MTBE			

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 TEXACO | Well No. MW1

Project Number 950821-1A1 | Well Type [X] Monitor [ ] Extraction [ ] Other

Recorded By RW | Sampled by RW | Date 8-21-95

WELL PURGING

PURGE VOLUME

Well casing diameter

[ ] 2-inch [X] 4-inch [ ] Other

Well Total Depth (TD, ft. below TOC) 25.53

Depth to Water (WL, ft. below TOC) 11.93

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 ELEC-SUB

[ ] Other

PUMP INTAKE

[ ] Near top Depth (ft)

[X] Near Bottom Depth (ft)

[ ] Other

Pumping Rate 8 gpm

PURGE VOLUME CALCULATION

15.6 (Water Column Length) x .66 (Multiplier) x 3 (No. Vols) = 26.9 gals CALCULATED PURGE VOLUME

27.0 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

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
1033 / 17.0	7.0	2100	63.0	F	7200	
1034 / 18.0	6.9	2100	60.4	F	7200	
1036 / 27.0	6.9	2100	60.8	F	188.	
/						
/						
/						
/						
/						

Comments during well purge

Well Pumped dry: YES (NO)

Purge water storage/disposal [ ] Drummed onsite [X] Other TEXACO

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled 8-21 / 1045

Bailer - Type [X] STEEL | 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
	3	TPHG			
MW1	40 mL	BTEX	HCl	BC	
	VOA	MTBE			

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 TEXACO | Well No. MW2
Project Number 950821-1A1 | Well Type [X] Monitor [ ] Extraction [ ] Other
Recorded By RV | Sampled by RV | Date 8-21-95

WELL PURGING

PURGE VOLUME

Well casing diameter
[ ] 2-inch [X] 4-inch [ ] Other
Well Total Depth (TD, ft. below TOC) 22.50
Depth to Water (WL, ft. below TOC) 9.58
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 ELEC SUB
[ ] Other

PUMP INTAKE

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

Pumping Rate 8 gpm

PURGE VOLUME CALCULATION

12.92 (Water Column Length) x 1.66 (Multiplier) x 3 (No. Vols) = 25.6 cals 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

27.0 cals ACTUAL PURGE VOLUME

GROUNDWATER PARAMETER MEASUREMENT

Meter Type MYRON L

Time/Gallons	pH	Cond. (uomhos/cm)	Temp [ ] deg C [X] deg F	Turbidity (NTU)	Color/Odor
1003 / 9.0	7.1	1600	60.6	7200	
1004 / 18.0	7.2	1600	60.0	7200	
1006 / 27.0	7.2	1600	59.6	7200	
/					
/					
/					
/					
/					

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

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled 8-21 / 1020
Bailer - Type [X] STEEL
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
	3	TPHG			
MW2	40 mL	BTEX	HCl	BC	
	VOA	MTBE			

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 TEXACO | Well No. MW3
Project Number 950821-A1 | Well Type [X] Monitor [X] Extraction [ ] Other
Recorded By RV | Sampled by RV | Date 8-21-95

WELL PURGING

PURGE VOLUME

Well casing diameter
[ ] 2-inch [X] 4-inch [ ] Other
Well Total Depth (TD, ft. below TOC) 27.65
Depth to Water (WL, ft. below TOC) 7.60
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 ELEC SUB
[ ] Other

PUMP INTAKE

[ ] Near top Depth (ft)
[X] Near Bottom Depth (ft)
[ ] Other
Pumping Rate 8 gpm

PURGE VOLUME CALCULATION

17.05 (Water Column Length) x .66 (Multiplier) x 3 (No. Vols) = 33.7 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

36.0 gals ACTUAL PURGE VOLUME

GROUNDWATER PARAMETER MEASUREMENT

Meter Type MYRON L

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	[ ] deg C [X] deg F	Turbidity (NTU)	Color/Odor
1058 / 12.0	6.9	1800	65.8		7200	
1100 / 24.0	7.0	1800	66.4		192.	
1102 / 36.0	7.0	1800	66.4		190.	
/						
/						
/						
/						
/						

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

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled 8-21 / 1115
Bailer - Type [X] STEEL | 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
	3	TPHG			
MW3	40 ML	BTEX	HCl	BC	
	VOA	MTBE			

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 TEXACO | Well No. MW84

Project Number 950821-M1 | Well Type [X] Monitor [ ] Extraction [ ] Other

Recorded By AV | Sampled by AV | Date 8-21-95

WELL PURGING

PURGE VOLUME

Well casing diameter

[ ] 2-inch [X] 4-inch [ ] Other

Well Total Depth (TD, ft. below TOC) 25.03

Depth to Water (WL, ft. below TOC) 10.51

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 ELEC. SUB

[ ] Other

PUMP INTAKE

[ ] Near top Depth (ft)

[X] Near Bottom Depth (ft)

[ ] Other

Pumping Rate ____ gpm

PURGE VOLUME CALCULATION

14.52 (Water Column Length) x 1.66 (Multiplier) x 3 (No. Vols) = 28.7 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 L

Time/Gallons	pH	Cond. (uomhos/cm)	Temp [ ] deg C [X] deg F	Turbidity (NTU)	Color/Odor
912 / 10.0	7.3	1200	63.0	164	
914 / 20.0	7.1	1100	62.4	>200	
916 / 30.0	7.1	1100	62.6	>200	
/					
/					
/					
/					
/					

Comments during well purge

Well Pumped dry: YES (NO)

Purge water storage/disposal [ ] Drummed onsite [X] Other TRUCK

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled 8-21 / 925

Bailer - Type [X] ~~PTFE~~ STEEL | 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
	3	TPHG			
MW8	40 ML	BTEX	HCl	BC	
	VOA	MTBE			

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.
Trip	
Rinsate	EB@935
Transfer	
Other:	

Groundwater Sampling Form

Project Name: TEXACO | Well No.: MW5

Project Number: 950821-A1 | Well Type: ☐ Monitor ☒ Extraction ☐ Other

Recorded By: PW | Sampled by: PW | Date: 8-21-95

WELL PURGING

PURGE VOLUME

Well casing diameter

☒ 2-inch ☐ 4-inch ☐ Other

Well Total Depth (TD, ft. below TOC): 28.12

Depth to Water (WL, ft. below TOC): 12.32

Depth to free phase hydrocarbons (FP, ft. below TOC):

Number of well volumes to be purged

☒ 3 ☐ 10 ☐ Other

PURGE METHOD

☒ Bailer - Type: PVC

☐ Pump - Type:

☐ Other:

PUMP INTAKE

☒ Near top Depth (ft):

☐ Near Bottom Depth (ft):

☐ Other:

Pumping Rate: gpm

PURGE VOLUME CALCULATION

15.8 (Water Column Length) x .17 (Multiplier) x 3 (No. Vols) = 8.0 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

8.0 gals (ACTUAL PURGE VOLUME)

GROUNDWATER PARAMETER MEASUREMENT

Meter Type: MYRON L

Time/Gallons	pH	Cond. (uomhos/cm)	Temp (☒ deg F)	Turbidity (NTU)	Color/Odor
1221 / 3.0	7.2	1000	61.4	>200	
1226 / 6.0	7.2	1100	60.0	>200	
1230 / 8.0	7.3	1200	60.2	>200	
/					
/					
/					
/					
/					

Comments during well purge:

Well Pumped dry: YES (NO)

Purge water storage/disposal: ☐ Drummed onsite ☒ Other: TRUCK

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled: 8-21, 1240

Bailer - Type: ☒ PVC

Sample port ☐ Other ☐

GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type:

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

SAMPLING PROGRAM

Sample No.	Container #/Volume	Analysis	Preservatives	Laboratory	Comments
MW5	3 40ML VOA	TPHG BTEX MTBE	HCl	BC	

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 TEXACO Well No. MW6

Project Number 950821-A1 Well Type [X] Monitor [ ] Extraction [ ] Other

Recorded By [illegible] Sampled by Date 8-21-95

WELL PURGING

PURGE VOLUME

Well casing diameter

[ ] 2-inch [ ] 4-inch [ ] Other

Well Total Depth (TD, ft. below TOC)

Depth to Water (WL, ft. below TOC)

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

[ ] Other

PUMP INTAKE

[ ] Near top Depth (ft)

[ ] Near Bottom Depth (ft)

[ ] Other

Pumping Rate gpm

PURGE VOLUME CALCULATION

Water Column Length X Multiplier X No. Vols = 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

gals ACTUAL PURGE VOLUME

GROUNDWATER PARAMETER MEASUREMENT

Meter Type

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	deg C / deg F	Turbidity (NTU)	Color/Odor
CHECKED @ ARRIVAL & DEPARTURE & @ 1405	INACCESSIBLE				DUE	TO
SAME YELLOW TRUK PARKED. /	AUTO	PARKED ON TOP				OF
/	WELL					
/						
/						

Comments during well purge

Well Pumped dry: YES NO Purge water storage/disposal [ ] Drummed onsite [ ] Other

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled /

Bailer - Type [ ] 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

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: TEXACO | Well No.: MW8
Project Number: 950821-A1 | Well Type: [X] Monitor [ ] Extraction [ ] Other
Recorded By: PV | Sampled by: PV | Date: 8-21-95

WELL PURGING

PURGE VOLUME

Well casing diameter
[ ] 2-inch [X] 4-inch [ ] Other
Well Total Depth (TD, ft. below TOC): 24.28
Depth to Water (WL, ft. below TOC): 15.77
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: ELEC. SUB
[ ] Other

PUMP INTAKE

[ ] Near top Depth (ft):
[X] Near Bottom Depth (ft):
[ ] Other
Pumping Rate: 8 gpm

PURGE VOLUME CALCULATION

8.51 (Water Column Length) x 1.66 (Multiplier) x 3 (No. Vols) = 16.8 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

18.0 gals ACTUAL PURGE VOLUME

GROUNDWATER PARAMETER MEASUREMENT

Meter Type: HYDRONL

Time/Gallons	pH	Cond. (uomhos/cm)	Temp	[ ] deg C [X] deg F	Turbidity (NTU)	Color/Odor
940 / 6.0	7.2	1100	60.6		7200	
941 / 12.0	7.0	1100	58.2		135	
942 / 18.0	7.0	1100	58.0		107	
/						
/						
/						
/						
/						

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

WELL SAMPLING

SAMPLING METHOD

Date/Time Sampled: 8-21 / 1950
Bailer - Type [X]: STEEL
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
MW8	3 40 mL VOA	TPHG BTEX MTBE	HCl	BC	

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 #: 6(8557)050
Address: 930 SPRINGTOWN
City, State, ZIP: LIVERMORE

Well I.D.	Gals.	Well I.D.	Gals.
	/		/
	/		/
	/		/
MWA	/		/
↓	/		/
MW8	/		/
	/		/
	/		/
	/ 80		/
	/		/

Total gals. 80

added rinse water 10

Total Gals. Recovered 90

Job #: 951020-G1
Date 10-20-95
Time 1300
Signature:

REC'D AT: B13
Date: 10-20-95
Time: 1600
Signature:

QUARTERLY SUMMARY REPORT
Former Texaco Service Station/Current Seven-Eleven Store
930 Springtown, Livermore, California
Alameda County
Third 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. A soil vapor extraction system utilizing a catalytic oxidizer was operated fourth quarter, 1994 through third quarter, 1995.

WORK PERFORMED DURING THIS QUARTER

Quarterly groundwater monitoring and sampling and operation of the soil vapor extraction system.

CHARACTERIZATION STATUS

Petroleum hydrocarbons plume has been delineated.

REMEDIATION STATUS

Soil vapor extraction in operation.

WORK TO BE PERFORMED NEXT QUARTER

Continue quarterly monitoring and sampling to record fluctuations in hydrocarbons concentrations and discontinue operation of soil vapor extraction system due to achieval of system remediation goals.

COMPANY CONTACT: Karen Petryna (510) 236-9139

U:\WPWIN\930S.QSR
W:\QSR_RAO\930S.QSR