Texaco Refining
and Marketing Inc

ALCO
HAZMAT
94 MAY -2 PM 2:52

March 30, 1994

ENV - STUDIES, SURVEYS, & REPORTS
1127 Lincoln Avenue
Alameda, California

Ms. Juliet Shin
Alameda County Environmental
Health Department
80 Swan Way, Room 200
Oakland, CA 94621

Dear Ms. Shin:

This letter presents the results of groundwater monitoring and sampling conducted by Blaine Tech Services, Inc. on February 7, 1994, at the site referenced above (See Plate 1, Site Vicinity Map). Based on groundwater elevation measurements, the hydraulic gradient was determined to be approximately 0.01 and the general flow direction to be northwest (See Plate 2, Groundwater Gradient Map). 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.

The certified analytical report, chain-of-custody, field data sheets, and bill of lading are in the Appendix along with Blaine Tech Services' Field Procedures and Protocols Summary.

If you have any questions or comments regarding this site, please call the Texaco Environmental Services' site Project Coordinator, Mr. Robert Robles at (818) 505-2476.

If you have any questions or comments regarding this report, please call Rebecca Digerness at (510) 236-0479.

Best Regards,

Rebecca B. Digerness
Groundwater Monitoring Coordinator

Karen E. Petryna
Engineer
Texaco Environmental Services

RBD:hs

C:\QMR\1127L\1Q94QMR.let

Enclosures

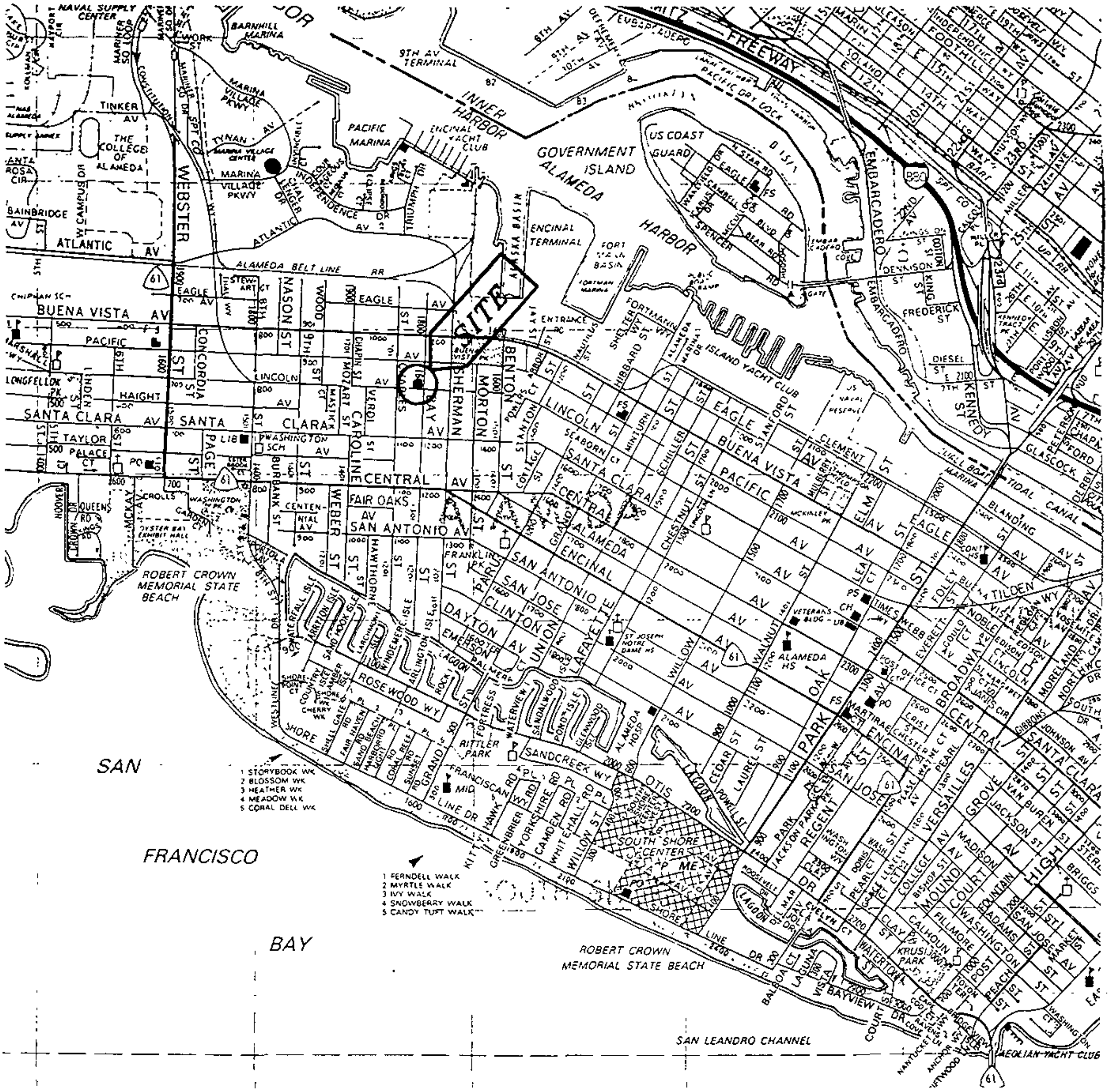
CC: Mr. Richard Hiett
CRWQCB - San Francisco Bay Region
2101 Webster St., Suite 500
Oakland, CA 94621

Mr. Leo Pagano
1127 Lincoln Avenue
Alameda, CA

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

PR: kep

GROUNDWATER MONITORING AND SAMPLING
First Quarter 1994
at
Former Texaco Station
1127 Lincoln Avenue
Alameda, California



SOURCE

1993 THE THOMAS GUIDE

TEXACO

REFINING AND MARKETING, INC
TEXACO ENVIRONMENTAL SERVICES

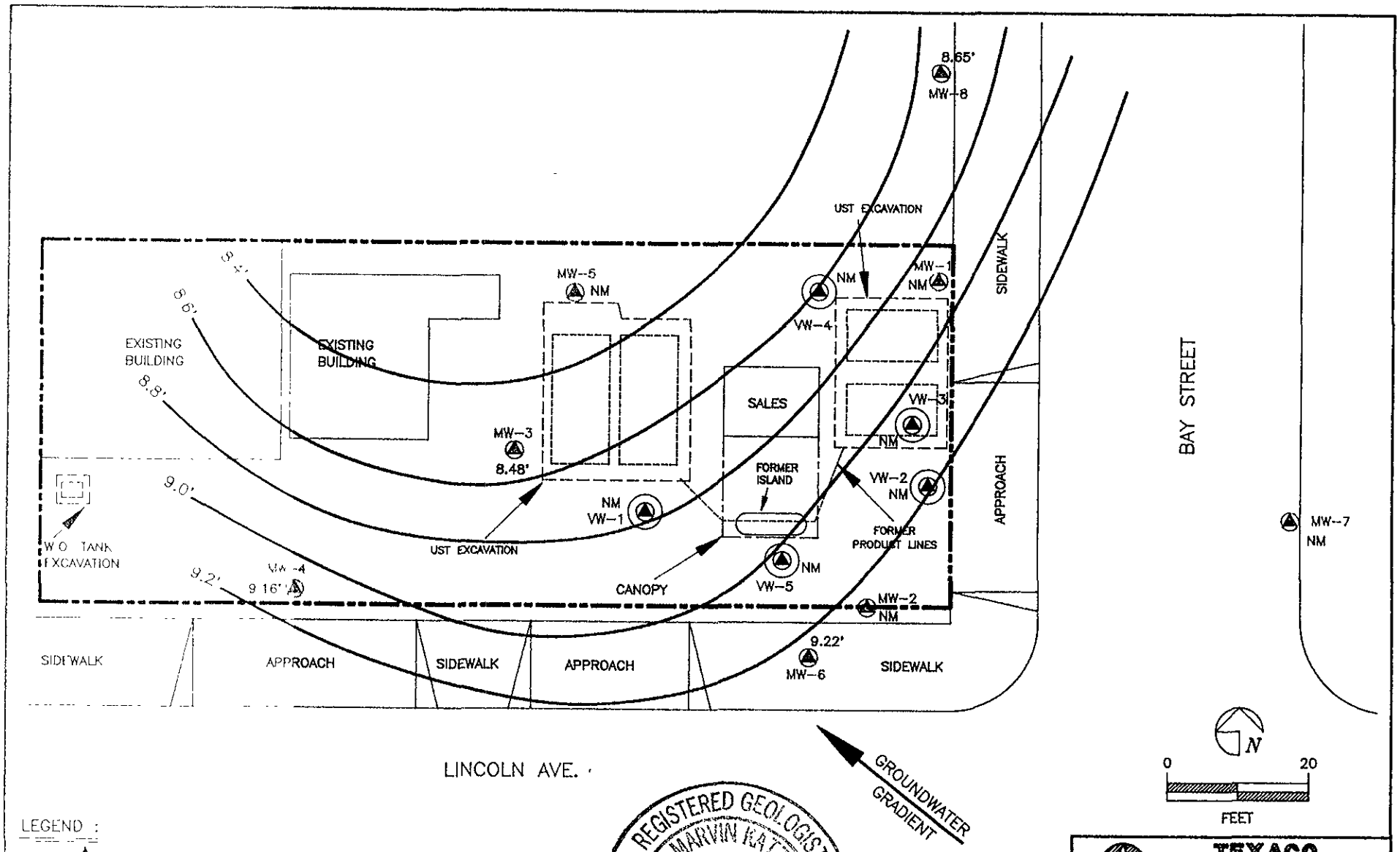
PLATE

SITE VICINITY MAP

FORMER TEXACO SERVICE STATION

LINCOLN AVE BAY ST

ALAMEDA, CALIFORNIA



LEGEND :

▲	MONITORING WELL LOCATION,
MW-1	AND WELL NUMBER
▲	VAPOR EXTRACTION MONITORING WELL LOCATION,
VW-1	AND WELL NUMBER
~	GROUNDWATER CONTOUR LINE
8.48'	GROUNDWATER ELEVATION (ABOVE MSL)
NM	WELL NOT MONITOORED

REGISTERED GEOLOGIST
MARVIN KATZ
No. 4543
STATE OF CALIFORNIA

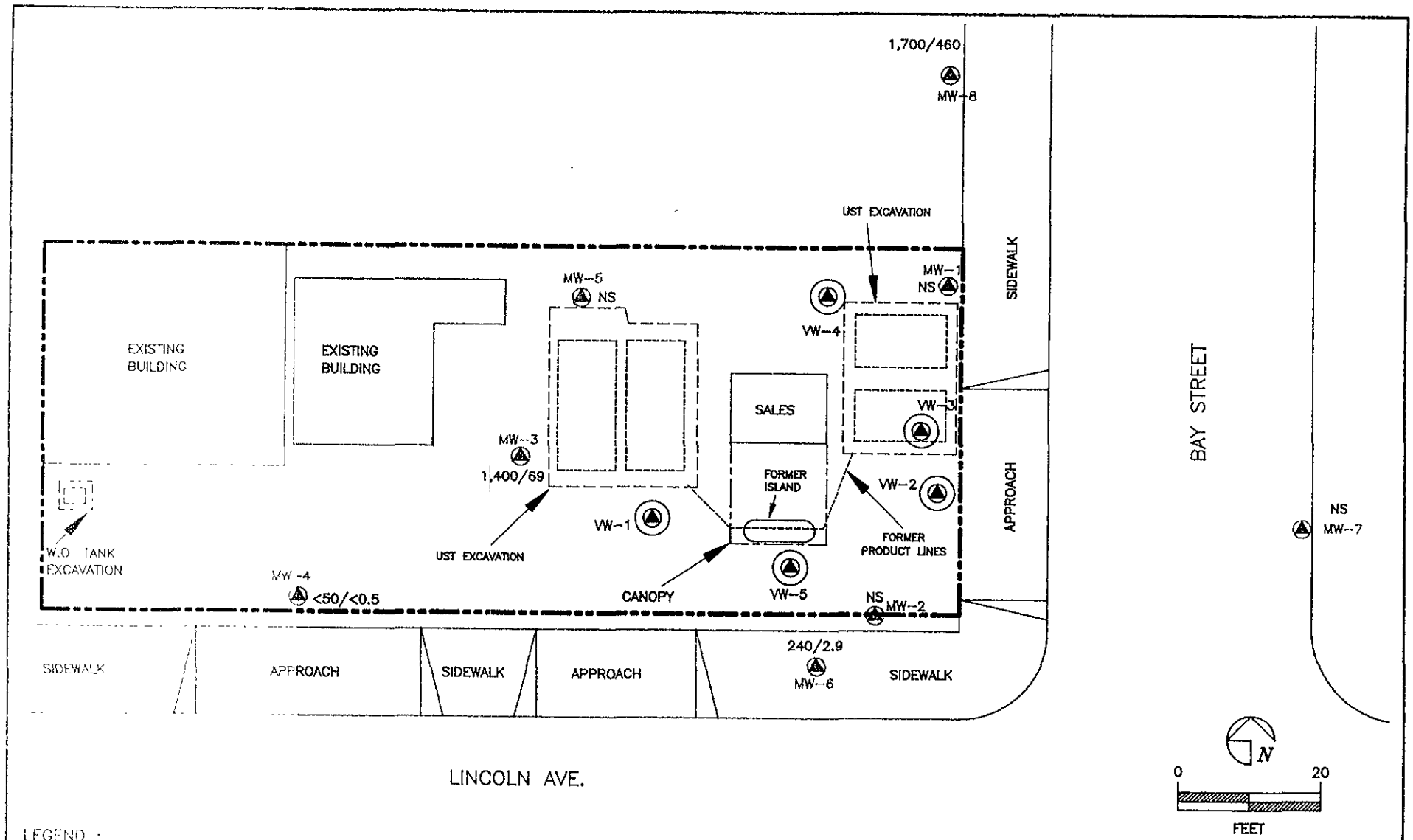
TEXACO
REFINING AND MARKETING,INC.
TEXACO ENVIRONMENTAL SERVICES

PLATE 2 : GROUNDWATER GRADIENT MAP
(02/07/1994)

FORMER TEXACO SERVICE STATION

1127 LINCOLN AVE. / BAY ST.,
ALAMEDA, CALIFORNIA

SCALE	1"=20'-0"	LOCATION #	62-488-1450
DRAWN BY	AMA	DATE	03/28/1994
CHECKED BY	PBD	DATE	4/5/94
DRAWING NO.	(ALAMEDA) LI-BY-AL.DWG		



LEGEND :

A	[illegible] LOCATION,
MW	[illegible] WELL NUMBER
VW-1	VAPOR EXTRACTION MONITORING WELL LOCATION, AND WELL NUMBER
1,400/69	TPHg/BENZENE CONCENTRATION IN GROUNDWATER (ppb)
NS	WELL NOT SAMPLED

TEXACO
REFINING AND MARKETING,INC.
TEXACO ENVIRONMENTAL SERVICES

PLATE 3 : TPHg/BENZENE CONCENTRATION IN GROUNDWATER
(02/07/1994)

FORMER TEXACO SERVICE STATION

1127 LINCOLN AVE. / BAY ST.,
ALAMEDA, CALIFORNIA

SCALE	1"=20'-0"	LOCATION #	62-488-1450
DRAWN BY	AMA	DATE	03/29/1994
CHECKED BY	RBI	DATE	4/5/94
DRAWING NO.	(ALAMEDA) LI-BY-AL.DWG		

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 1)

Well	Date	Elevation of Wellhead	Depth to Water	Elevation of Groundwater	Floating Product/ Sheen
MW-1	02/19/92	16.49	6.34	10.15	NONE
	06/25/92		7.60	8.89	NONE
	09/16/92		8.95	7.54	NONE
	11/17/92		9.10	7.39	NONE
	01/26/93		5.63	10.86	NONE
	02/04/93		6.02	10.47	NONE
	03/09/93		5.92	10.57	NONE
	05/06/93		6.76	9.73	NONE
	06/15/93		6.81	9.68	NONE
	07/26/93		Inaccessible - VES		
	08/31/93		Inaccessible - VES		
	09/27/93		Inaccessible - VES		
	10/19/93		Inaccessible - VES		
	11/15/93		Inaccessible - VES		
	12/17/93		Inaccessible - VES		
	02/07/94		Inaccessible - VES		
MW-2	02/19/92	17.14	6.96	10.18	NONE
	06/25/92		7.95	9.19	NONE
	09/16/92		9.16	7.98	NONE
	11/17/92		9.40	7.74	NONE
	01/26/93		6.29	10.85	NONE
	02/04/93		6.60	10.54	NONE
	03/09/93		6.36	10.78	NONE
	05/06/93		6.37	10.77	NONE
	06/15/93		7.04	10.10	NONE
	07/26/93		Inaccessible - VES		
	08/31/93		Inaccessible - VES		
	09/27/93		Inaccessible - VES		
	10/19/93		Inaccessible - VES		
	11/15/93		Inaccessible - VES		
	12/17/93		Inaccessible - VES		
	02/07/94		Inaccessible - VES		
MW-3	02/19/92	16.91	6.69	10.22	NONE
	06/25/92		7.78	9.13	NONE
	09/16/92		9.24	7.67	NONE
	11/17/92		9.50	7.41	NONE
	01/26/93		5.82	11.09	NONE
	02/04/93		6.01	10.90	NONE
	03/09/93		5.88	11.03	NONE
	05/06/93		6.38	10.53	NONE
	06/15/93		Inaccessible		
	07/26/93		7.22	9.69	NONE
	08/31/93		7.87	9.04	NONE

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 2)

Well	Date	Elevation of Wellhead	Depth to Water	Elevation of Groundwater	Floating Product/ Sheen
MW-3 cont.	09/27/93		8.58	8.33	NONE
	10/19/93		9.13	7.78	NONE
	11/15/93		8.84	8.07	NONE
	12/17/93		7.80	9.11	NONE
	02/07/94		8.43	8.48	NONE
MW-4	06/25/92	17.18	7.92	9.26	NONE
	09/16/92		9.40	7.78	NONE
	11/17/92		9.63	7.55	NONE
	01/26/93		5.91	11.27	NONE
	02/04/93		6.14	11.04	NONE
	03/09/93		5.81	11.37	NONE
	05/06/93		6.49	10.69	NONE
	06/15/93		6.34	10.84	NONE
	07/26/93		7.29	9.89	NONE
	08/31/93		8.02	9.16	NONE
	09/27/93	Inaccessible - Car On Well			
	10/19/93		9.14	8.04	
	11/15/93		9.01	8.17	NONE
	12/17/93		7.91	9.27	NONE
	02/07/94		8.02	9.16	NONE
MW-5	06/25/92	16.37	7.35	9.02	NONE
	09/16/92		8.85	7.52	NONE
	11/17/92		9.03	7.34	NONE
	01/26/93	Not Monitored			
	02/04/93	Inaccessible			
	03/09/93		5.45	10.92	NONE
	05/06/93		6.00	10.37	NONE
	06/15/93		7.81	8.56	NONE
	07/26/93	Inaccessible - VES			
	08/31/93	Inaccessible - VES			
	09/27/93	Inaccessible - VES			
	10/19/93	Inaccessible - VES			
	11/15/93	Inaccessible - VES			
	12/17/93	Inaccessible - VES			
	02/07/94	Inaccessible - VES			
MW-6	06/25/92	17.12	7.86	9.26	NONE
	09/16/92		9.12	8.00	NONE
	11/17/92		9.40	7.72	NONE
	01/26/93		6.63	10.49	NONE
	02/04/93		6.48	10.64	NONE
	03/09/93		6.68	10.44	NONE
	05/06/93		6.93	10.19	NONE
	06/15/93		7.00	10.12	NONE

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 3)

Well	Date	Elevation of Wellhead	Depth to Water	Elevation of Groundwater	Floating Product/ Sheen
MW-6 cont.	07/26/93		7.25	9.87	NONE
	08/31/93		7.83	9.29	NONE
	09/27/93		8.38	8.74	NONE
	10/19/93		8.76	8.36	NONE
	11/15/93		8.65	8.47	NONE
	12/17/93		7.78	9.34	NONE
	02/07/94		7.90	9.22	NONE
MW-7	06/25/92	16.71	7.61	9.10	NONE
	09/16/92		8.78	7.93	NONE
	11/17/92		Inaccessible		
	01/26/93		6.53	10.18	NONE
	02/04/93		6.40	10.31	NONE
	03/09/93		6.52	10.19	NONE
	05/06/93		Inaccessible		
	06/15/93		6.69	10.02	NONE
	07/26/93		Inaccessible		
	08/31/93		Inaccessible		
	09/27/93		7.97	8.74	NONE
	10/19/93		8.24	8.47	NONE
	11/15/93		8.22	8.49	NONE
	12/17/94		Inaccessible		
	02/07/94		Inaccessible		
MW-8	06/25/92	15.91	7.20	8.71	NONE
	09/16/92		8.60	7.31	NONE
	11/17/92		8.85	7.06	NONE
	01/26/93		5.30	10.61	NONE
	02/04/93		5.62	10.29	NONE
	03/09/93		5.56	10.35	NONE
	05/06/93		5.99	9.92	NONE
	06/15/93		6.32	9.59	NONE
	07/26/93		6.75	9.16	NONE
	08/31/93		7.35	8.56	NONE
	09/27/93		7.86	8.05	NONE
	10/19/93		8.27	7 64	NONE
	11/15/93		8 17	7 74	NONE
	12/17/93		7 14	8 77	NONE
	02/07/94		7 26	8 65	NONE
VW-1	02/19/92	16 83	DRY	DRY	NONE
	06 25/92		7 36	9 47	NONE
	09/16/92		NOT MONITORED		
	11/17 92		NOT MONITORED		
	01/26/93		NOT MONITORED		

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 4)

Well	Date	Elevation of Wellhead	Depth to Water	Elevation of Groundwater	Floating Product/ Sheen
VW-1 cont.	02/04/93		NOT MONITORED		
	03/09/93		NOT MONITORED		
	05/06/93		NOT MONITORED		
	06/15/93		NOT MONITORED		
	07/26/93		NOT MONITORED		
	08/31/93		NOT MONITORED		
	09/27/93		NOT MONITORED		
	10/19/93		NOT MONITORED		
	11/15/93		NOT MONITORED		
	12/17/94		NOT MONITORED		
	02/07/94		NOT MONITORED		
VW-2	02/19/92	17.00	6.94	10.06	NONE
	06/25/92		8.10	8.90	NONE
	09/16/92		NOT MONITORED		
	11/17/92		NOT MONITORED		
	01/26/93		NOT MONITORED		
	02/04/93		NOT MONITORED		
	03/09/93		NOT MONITORED		
	05/06/93		NOT MONITORED		
	06/15/93		NOT MONITORED		
	07/26/93		NOT MONITORED		
	08/31/93		NOT MONITORED		
	09/27/93		NOT MONITORED		
	10/19/93		NOT MONITORED		
	11/15/93		NOT MONITORED		
	12/17/94		NOT MONITORED		
	02/07/94		NOT MONITORED		
VW-3	02/19/92	16.94	7.40	9.54	NONE
	06/25/92		7.16	9.78	NONE
	09/16/92		NOT MONITORED		
	11/17/92		NOT MONITORED		
	01/26/93		NOT MONITORED		
	02/04/93		NOT MONITORED		
	03/09/93		NOT MONITORED		
	05/06/93		NOT MONITORED		
	06/15/93		NOT MONITORED		
	07/26/93		NOT MONITORED		
	08/31/93		NOT MONITORED		
	09/27/93		NOT MONITORED		
	10/19/93		NOT MONITORED		
	11/15/93		NOT MONITORED		
	12/17/94		NOT MONITORED		
	02/07/94		NOT MONITORED		

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 5)

Well	Date	Elevation of Wellhead	Depth to Water	Elevation of Groundwater	Floating Product/ Sheen
VW-4	02/19/92	16.81	5.76	11.05	NONE
	06/25/92		7.23	9.58	NONE
	09/16/92		NOT MONITORED		
	11/17/92		NOT MONITORED		
	01/26/93		NOT MONITORED		
	02/04/93		NOT MONITORED		
	03/09/93		NOT MONITORED		
	05/06/93		NOT MONITORED		
	06/15/93		NOT MONITORED		
	07/26/93		NOT MONITORED		
	08/31/93		NOT MONITORED		
	09/27/93		NOT MONITORED		
	10/19/93		NOT MONITORED		
	11/15/93		NOT MONITORED		
	12/17/94		NOT MONITORED		
	02/07/94		NOT MONITORED		
VW-5	02/19/92	17.20	7.04	10.16	NONE
	06/25/92		8.09	9.11	NONE
	09/16/92		NOT MONITORED		
	11/17/92		NOT MONITORED		
	01/26/93		NOT MONITORED		
	02/04/93		NOT MONITORED		
	03/09/93		NOT MONITORED		
	05/06/93		NOT MONITORED		
	06/15/93		NOT MONITORED		
	07/26/93		NOT MONITORED		
	08/31/93		NOT MONITORED		
	09/27/93		NOT MONITORED		
	10/19/93		NOT MONITORED		
	11/15/93		NOT MONITORED		
	12/17/94		NOT MONITORED		
	02/07/94		NOT MONITORED		

All measurements in feet.
Elevations above mean sea level
Depth to water measured in feet below top of casing
VES Vapor Extraction System

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES
Former Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 1)

Well Number / Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHd*	VOCs & Semi-VOCs	Dissolved Oxygen	Ethylene Glycol
MW-1									
03/22/91	4,500	1,300	670	180	770	1,100	ND	NA	NA
08/13/91	850	260	51	13	48	NA	NA	NA	NA
11/14/91	<30	<0.30	<0.30	<0.30	<0.30	NA	NA	NA	NA
02/19/92	440	14	14	2.1	9.9	NA	NA	4.0	<10
06/25/92	4,000	680	110	73	140	NA	NA	NA	NA
09/16/92	3,400	880	28	41	53	NA	NA	NA	NA
11/17/92	730	250	22	12	27	NA	NA	NA	NA
02/04/93	120	22	3.1	3.3	10	NA	NA	NA	NA
05/06/93	710	320	3.1	4.2	20	NA	NA	NA	NA
09/28/93	Not Accessible - Connected to Vapor Extraction System								
11/15/93	Not Accessible - Connected to Vapor Extraction System								
02/07/94	Not Accessible - Connected to Vapor Extraction System								
MW-2									
03/22/91	1,100	100	20	63	220	140	ND	NA	NA
08/13/91	1,100	270	4.7	16	49	NA	NA	NA	NA
11/14/91	870	56	8.9	21	46	NA	NA	NA	NA
02/19/92	2,100	57	5.6	9.1	75	NA	NA	3.2	NA
06/25/92	4,700	590	24	290	160	NA	NA	NA	NA
09/16/92	5,700	740	8	370	77	NA	NA	NA	NA
11/17/92	840	94	<0.5	93	14	NA	NA	NA	NA
02/04/93	430	45	0.5	20	30	NA	NA	NA	NA
05/06/93	2,000	460	2.4	160	66	NA	NA	NA	NA
09/28/93	Not Accessible - Connected to Vapor Extraction System								
11/15/93	Not Accessible - Connected to Vapor Extraction System								
02/07/94	Not Accessible - Connected to Vapor Extraction System								
MW-3									
03/22/91	2,500	390	27	240	780	770	ND	NA	NA
08/13/91	1,300	180	3.8	79	200	NA	NA	NA	NA
11/14/91	870	89	9	30	82	NA	NA	NA	NA
02/19/92	990	<0.5	<0.5	2.0	72	NA	NA	3.4	NA
06/25/92	4,900	350	11	330	570	NA	NA	NA	NA
09/17/92	7,300	690	10	450	780	NA	NA	NA	NA
11/17/92	1,200	160	2.1	83	160	NA	NA	NA	NA
02/04/93	2,900	180	13	210	350	NA	NA	NA	NA
05/06/93	2,700	270	6.2	300	720	NA	NA	NA	NA
09/28/93	1,800	92	1.7	99	240	NA	NA	NA	NA
11/15/93	1,900	100	2.4	85	280	NA	NA	NA	NA
02/07/94	1,400	69	3.3	100	320	NA	NA	NA	NA

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES
Former Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 2)

Well Number / Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHd*	VOCs & Semi-VOCs	Dissolved Oxygen	Ethylene Glycol
MW-4									
06/25/92	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
09/17/92	98	0.6	<0.5	1.2	7.7	NA	NA	NA	NA
11/17/92	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
02/04/93	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
05/06/93	<50	1.6	<0.5	1.0	2.1	NA	NA	NA	NA
09/28/93	Not Accessible - Auto on Well								
11/15/93	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
02/07/94	<50	<0.5	<0.5	<0.5	2.6	NA	NA	NA	NA
MW-5									
06/25/92	18,000	310	1,200	750	2,400	NA	NA	NA	NA
09/17/92	24,000	700	2,200	900	2,400	NA	NA	NA	NA
11/17/92	14,000	1,000	1,500	730	1,900	NA	NA	NA	NA
02/04/93	NOT SAMPLED								
05/06/93	6,200	460	980	300	1,200	NA	NA	NA	NA
09/28/93	Not Accessible - Connected to Vapor Extraction System								
11/15/93	Not Accessible - Connected to Vapor Extraction System								
02/07/94	Not Accessible - Connected to Vapor Extraction System								
MW-6									
06/25/92	990	10	240	55	310	NA	NA	NA	NA
09/17/92	1,200	26	4.7	6.5	140	NA	NA	NA	NA
11/17/92	670	10	3.5	28	94	NA	NA	NA	NA
02/04/93	2,300	19	5.4	27	220	NA	NA	NA	NA
05/06/93	540	44	0.9	7.0	6.7	NA	NA	NA	NA
09/28/93	180	2.7	0.73	6.3	13	NA	NA	NA	NA
11/15/93	180	2.2	0.91	5.4	16	NA	NA	NA	NA
02/07/94	240	2.9	1.2	3.9	7.1	NA	NA	NA	NA
MW-7									
06/25/92	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
09/16/92	<50	1.3	<0.5	<0.5	0.9	NA	NA	NA	NA
11/17/92	Not Sampled								
02/04/93	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
05/06/93	Not Sampled								
09/28/93	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
11/15/93	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA
02/07/94	Not Sampled								

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES
Former Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 3)

Well Number / Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHd*	VOCs & Semi-VOCs	Dissolved Oxygen	Ethylene Glycol
MW-8									
06/25/92	11,000	1,100	29	150	190	NA	NA	NA	NA
09/16/92	14,000	3,500	47	25	85	NA	NA	NA	NA
11/17/92	4,700	1,700	12	8.0	22	NA	NA	NA	NA
02/04/93	540	150	3.7	5.2	10	NA	NA	NA	NA
05/06/93	22,000	9,400	46	390	520	NA	NA	NA	NA
09/28/93	8,000	1,700	22	30	75	NA	NA	NA	NA
11/15/93	2,000	840	8.8	15	42	NA	NA	NA	NA
02/07/94	1,700	460	0.6	13	5.0	NA	NA	NA	NA
MCLs	—	1.0	—	680	1,750	—	—	—	—
DWAL	—	—	100	—	—	—	—	—	—

Results in parts per billion (ppb)

TPHg : Total petroleum hydrocarbons as gasoline (analyzed by EPA Method 5030).
TPHd : Total petroleum hydrocarbons as diesel (analyzed by EPA Method 3510).
BTEX : Measured by EPA Method 602/(624).
B: benzene, T: toluene, E: ethylbenzene, X: total xylene isomers.
— : Not Applicable
MCLs : Adopted Maximum Contaminant Levels in Drinking Water, DHS (October 1990)
DWAL : Recommended Drinking Water Action Levels, DHS (October 1990)
ND : Below laboratory detection limit.
NA : Not Analyzed
* : Anametrix states: "The concentrations reported as diesel for samples W-9-MW1, W-9-MW2, and W-9-MW3 are primarily due to the presence of a lighter petroleum product, possibly gasoline."
VOCs : Volatile organic compounds (analyzed by EPA Method 624/8240).
Semi-VOCs : Semi-volatile organic compounds (analyzed by EPA Method 8270).
Dissolved Oxygen : Measured in parts per million (ppm).
Ethylene Glycol : Measured in ppm.

APPENDIX

MOBILE CHEM LABS INC.

5011 Blum Road, Suite 1 • Martinez, CA 94553
Phone (510) 372-3700 • Fax (510) 372-6955

624881450\1718\013304

Texaco Environmental Services
108 Cutting Blvd.
Richmond, CA 94804
Attn: Rebecca Digerness
Environmental Technician

Date Sampled: 02-07-94
Date Received: 02-08-94
Date Analyzed: 02-17-94

Sample Number	Sample Description
024188	Texaco - Alameda 1127 Lincoln Ave. MW-3 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	1,400
Benzene	0.5	69
Toluene	0.5	3.3
Xylenes	0.5	320
Ethylbenzene	0.5	100

QA/QC: Duplicate Deviation is 11%

Note: Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.
(ppb) = (µg/L)

MOBILE CHEM LABS

Ronald G. Evans
Lab Director

MOBILE CHEM LABS INC.

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Texaco Environmental Services
108 Cutting Blvd.
Richmond, CA 94804
Attn: Rebecca Digerness
Environmental Technician

Date Sampled: 02-07-94
Date Received: 02-08-94
Date Analyzed: 02-17-94

Sample Number	Sample Description
024189	Texaco - Alameda 1127 Lincoln Ave. MW-4 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	<50
Benzene	0.5	<0.5
Toluene	0.5	<0.5
Xylenes	0.5	2.6
Ethylbenzene	0.5	<0.5

Note: Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.
(ppb) = (µg/L)

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Texaco Environmental Services
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Richmond, CA 94804
Attn: Rebecca Digerness
Environmental Technician

Date Sampled: 02-07-94
Date Received: 02-08-94
Date Analyzed: 02-17-94

Sample Number	Sample Description
024190	Texaco - Alameda 1127 Lincoln Ave. MW-6 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	240
Benzene	0.5	2.9
Toluene	0.5	1.2
Xylenes	0.5	7.1
Ethylbenzene	0.5	3.9

Note: Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.
(ppb) = (µg/L)

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Texaco Environmental Services
108 Cutting Blvd.
Richmond, CA 94804
Attn: Rebecca Digerness
Environmental Technician

Date Sampled: 02-07-94
Date Received: 02-08-94
Date Analyzed: 02-17-94

Sample Number	Sample Description
024191	Texaco - Alameda 1127 Lincoln Ave. MW-8 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	1,700
Benzene	0.5	460
Toluene	0.5	0.6
Xylenes	0.5	5.0
Ethylbenzene	0.5	13

Note: Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.
(ppb) = (µg/L)

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Lab Director

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624881450\1718\013304

Texaco Environmental Services
108 Cutting Blvd.
Richmond, CA 94804
Attn: Rebecca Digerness
Environmental Technician

Date Sampled: 02-07-94
Date Received: 02-08-94
Date Analyzed: 02-17-94

Sample Number	Sample Description
024192	Texaco - Alameda 1127 Lincoln Ave. E.B. WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	<50
Benzene	0.5	<0.5
Toluene	0.5	<0.5
Xylenes	0.5	<0.5
Ethylbenzene	0.5	<0.5

Note: Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.
(ppb) = (µg/L)

MOBILE CHEM LABS

Ronald G. Evans
Lab Director

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624881450\1718\013304

Texaco Environmental Services
108 Cutting Blvd.
Richmond, CA 94804
Attn: Rebecca Digerness
Environmental Technician

Date Sampled: 02-07-94
Date Received: 02-08-94
Date Analyzed: 02-17-94

Sample Number	Sample Description
024193	Texaco - Alameda 1127 Lincoln Ave. T.B. WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	<50
Benzene	0.5	<0.5
Toluene	0.5	<0.5
Xylenes	0.5	<0.5
Ethylbenzene	0.5	<0.5

Note: Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.
(ppb) = (µg/L)

MOBILE CHEM LABS

Ronald G. Evans
Lab Director

BLAINE TECH SERVICES INC

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

CHAIN OF CUSTODY 940207-L1

CLIENT: Texaco Environmental Services

SITE: Location # 624881450

1127 LINCOLN AVE.

ALAMEDA, CA

CONDUCT ANALYSIS TO DETECT

LAB: Mobile Chem Laboratory DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____

☐ LIA

☐ OTHER

SPECIAL INSTRUCTIONS

Report & Invoice to:
Texaco Environmental Service
108 Cutting Blvd.
Richmond, CA 94804
Attn: Rebecca Digerness
(510) 236-3541

SAMPLE I.D.	DATE	TIME	MATRIX (S = SOIL, W = H2O)	CONTAINERS TOTAL	CONTAINERS 40ml. VOA	C = COMPOSITE ALL CONTAINERS	TPH6, BTEX	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-3	2/7	1125	W	2			X		AS CONTRACTED		
MW-4		1100	W	2			X				
MW-6		1205	W	2			X				
MW-8		1140	W	2			X				
E.B.		1108	W	3			X				
T.B.	↓		W	2	↓		X				

SAMPLING COMPLETED: DATE 2/7/94 TIME 1205

SAMPLING PERFORMED BY: ZAD OLVER

RESULTS NEEDED NO LATER THAN

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Zad Olver	2-8-94	1:35	Dave Levine	2-8-94	1:35

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	
				On ICE no head space

MONTHLY MONITORING

FIELD REPORT/ DATA SHEET

Project Number: 6207401 Field Technician: R. Acker

Date: 12 17 93 Day: M Tu W Th (F) Weather Sunny

Station Number: Station Address: 1127 Lincoln, Alameda

DTW Order	Well ID	Diam.	Lock	Exp. Cap	Total Depth	DTW Initial	DTW Final	Depth to Product	Product Thickness	Time Sampled	Comments
8		4"				7.14					Clear No Odor
7		4"				N/A					Auto parked on well. Free well.
3		4"				7.80					Clear No Odor
4		4"				7.91					" "
6		2"				7.78					" "
1		4"				N/A					YES
2		4"				N/A					YES
5		4"				N/A					YES

Notes:

WELL GAUGING DATA

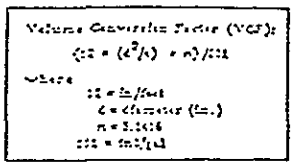
Project # 940207-L1 Date 2/7/94 Client TEXACO# 6248881450

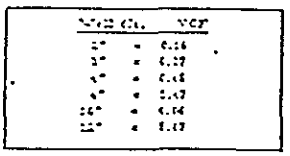
Site 1127 LINCOLN AVE., ALAMEDA, CA

Well I.D.	Well Size (in.)	Sheen/ Odor	Depth to Immiscible Liquid (feet)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to Water (feet)	Depth to Well Bottom (feet)	Survey Point: TOB or TOC
MW-1	4	CONNECTED TO VAPOR EXTRACTION SYS.						TOC
MW-2	4	"	"	"	"	"	"	↓
MW-3	4					8.43	19.61	
MW-4	4					8.02	20.19	
MW-5	4	CONNECTED TO VAPOR EXTRACTION SYS.						
MW-6	2					7.90	19.78	
MW-7	INACCESSABLE (PARKED CAR OVER WELL)							
MW-8	4					7.26	19.71	

WELL MONITORING DATA SHEET

Project #: 940207-L1	Client: TEXACO ENVIRONMENTAL SERVICES
Sampler: LAD	Date Sampled: 2/7/94
Well I.D.: MW-3	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 19.61 After	Depth to Water: Before 8.43 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other --





1 Case Volume	x	Specified Volumes	=	gallons
7.3	x	3	=	21.9

Purging: Bailer ☐ Middleburg ☐ Electric Submersible ☒ Suction Pump ☐ Type of Installed Pump _____

Sampling: Bailer ☒ Middleburg ☐ Electric Submersible ☐ Suction Pump ☐ Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1113	63.8	7.1	460.	15.	8.	SLIGHT ODOR
1114	63.4	7.0	470	14.	15.	
1116	63.8	7.0	550	9.	22.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 22.

Sampling Time: 1125

Sample I.D.: MW-3 Laboratory: MOBILE CHEM

Analyzed for: TPH6, BTEX

Duplicate I.D.: Cleaning Blank I.D.: EB AT 1108

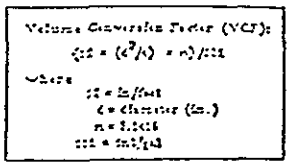
Analyzed for: AFTER MW-4

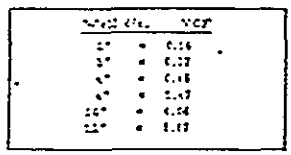
Wellhead maintenance performed:

Additional Notations:

WELL MONITORING DATA SHEET

Project #: 940207-4	Client: TEXACO ENVIRONMENTAL SERVICES
Sampler: LAD	Date Sampled: 2/7/94
Well I.D.: MW-4	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 20.19 After	Depth to Water: Before 8.02 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other --	





1 Case Volume	x	Specified Volumes	=	gallons
7.9	x	3	=	23.7

Purging: Bailer ☐ Middleburg ☐ Electric Submersible ☒ Suction Pump ☐ Type of Installed Pump _____

Sampling: Bailer ☒ Middleburg ☐ Electric Submersible ☐ Suction Pump ☐ Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1047	62.6	7.0	470.	87.	8.	
1049	62.6	7.0	360.	76.	16.	
1051	62.2	7.0	340.	52.	24.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 24.

Sampling Time: 1100

Sample I.D.: MW-4 Laboratory: MOBILE CHEM

Analyzed for: TPHG, BTEX

Duplicate I.D.: Cleaning Blank I.D.:

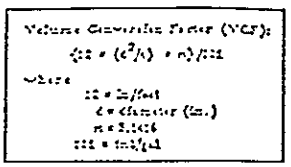
Analyzed for:

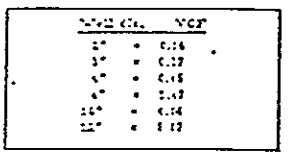
Wellhead maintenance performed:

Additional Notations:

WELL MONITORING DATA SHEET

Project #: 940267-L1	Client: TEXACO ENVIRONMENTAL SERVICES
Sampler: LAD	Date Sampled: 2/7/94
Well I.D.: MW-6	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 19.78 After	Depth to Water: Before 7.90 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other --





1.9 x 3 = 5.7

1 Case Volume | Specified Volumes | gallons

Purging: Bailer X BTS DEDICATED
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Type of Installed Pump _____

Sampling: Bailer X BTS DED.
Middleburg ☐
Electric Submersible ☐
Suction Pump ☐
Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1150	60.6	7.0	760.	179.	2.	
1154	60.8	7.0	710.	>200.	4.	
1158	60.6	7.0	700.	>200.	6.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 6.

Sampling Time: 1205

Sample I.D.: MW-6 Laboratory: MOBILE CHEM

Analyzed for: TPHG, BTEX

Duplicate I.D.: Cleaning Blank I.D.:

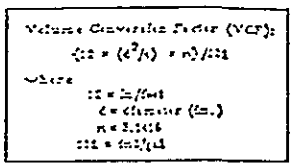
Analyzed for:

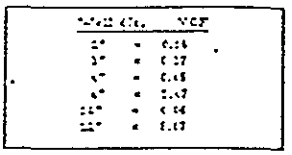
Wellhead maintenance performed:

Additional Notations:

WELL MONITORING DATA SHEET

Project #: 940207-L1	Client: TEXACO ENVIRONMENTAL SERVICES
Sampler: LAD	Date Sampled: 2/7/94
Well I.D.: MW-8	Well Diameter: (circle one) 2 3 (4) 6 ___
Total Well Depth: Before 19.71 After	Depth to Water: Before 7.26 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other --	





8.1	x	3	=	24.3
1 Case Volume		Specified Volumes		gallons

Purging: Bailer ☐ Middleburg ☐ Electric Submersible ☒ Suction Pump ☐ Type of Installed Pump ___

Sampling: Bailer ~~☒~~ Middleburg ☐ Electric Submersible ☐ Suction Pump ☐ Installed Pump ☐

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1132	60.4	7.1	940	107.	9.	
1133	59.6	7.1	950.	179.	17.	
1134	60.4	7.0	880.	>200.	25.	

Did Well Dewater? NO If yes, gals. Gallons Actually Evacuated: 25.

Sampling Time: 1140

Sample I.D.: MW-8 Laboratory: MOBILE CHEM

Analyzed for: TPH6, BTEX

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for:

Wellhead maintenance performed:

Additional Notations:

TEXACO TYPE **A** BILL OF LADING

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).

The contractor performing this work is BLAINE TECH SERVICES, INC., 985 Timothy Drive, San Jose, CA 95133 (phone [408] 995-5535). Blaine Tech Services, Inc. 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 indicated 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 direct from one Texaco facility to the designated destination point; from one Texaco facility to the designated destination point via another Texaco facility; from a Texaco facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of 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 # 624 881 450

street number | street name | city | state

1127 LINCOLN AVE, ALAMEDA, CA

WELL I.D.	GALS.	WELL I.D.	GALS.
MW-3	22.		
MW-4	24.		
MW-6	6.		
MW-8	25.		

added equip. rinse water 10

any other adjustments

TOTAL GALS. RECOVERED 87

loaded onto BTS vehicle # 14

BTS event # 940207-41 time 1100 date 2/7/94

signature [signature]

* *

REC'D AT BTS time 1830 date 2/7/94

unloaded by signature [signature]

BLAINE TECH SERVICES, INC.
A SUMMARY OF
FIELD PROCEDURES AND PROTOCOLS

WELL GAUGING (MONITORING)

All field notations are made on preprinted field data collection forms which are supplied to our personnel in a field notebook specific to each assignment at each site. All notations are contemporaneous and completed field notebooks (which we call Sampling Event Folders) are turned in daily and reviewed by our office personnel.

Water-level information is obtained from groundwater monitoring wells either as a preliminary step before evacuation or as a separate activity which is performed on wells that will not be sampled. In cases where none of the wells at the site are scheduled to be evacuated and sampled, the gauging of the wells for the purpose of collecting water-level information is conducted during a designated gauging event.

Wells should be gauged in Clean-to-Dirty Order.
Well gauging instruments and devices are cleaned after each use and before use in the next well.
Well gauging is performed prior to well evacuation and sampling.
Well gauging is to be completed in as short a time period as possible.

Normal gauging activities include the following Wellhead Maintenance checks:

1. Is there a lid on the grade level utility box that encloses the wellhead? Yes/No
2. Is the lid whole or damaged? Okay/Cracked/Chipped/Broken
3. Is the lid secured in the intended manner? Yes/No/Loose/Missing bolts
4. Is the lid equipped with a seal? Yes/No/Damaged
5. Is there water standing in the utility box? Yes/No
6. Water stood in what relationship to the top of the well? Above/Below/Even with the top
7. Is there a cap or plug in the well, itself? Yes/No (Cap/Plug)
8. Is there a lock to secure the cap or plug? Yes/No
9. Is the lock closed so as to secure the well? Yes/No
10. Is the lock functional? Yes/No
11. Is the cap or lid on the wellhead capable of sealing out water? Yes/No seal is possible
12. Is the cap or plug sealing tightly? Yes/No/Can be pulled loose

The foregoing 12 checks are drawn from our more extensive Wellhead Survey Forms. They will be included in the next revision of the Sampling Event Field Folder forms

Well gauging includes the following measurements

1. Depth to Water (DTW)
2. Total Depth (TD)
3. Odor and Sheen (O&S),
4. Separate Phase Hydrocarbon (SPH) thickness (to the nearest 0.01')

Depth to Water measurements are referenced to the surveyed elevation of the wellhead to calculate the elevation of the groundwater in each well (for groundwater gradient mapping) Depth to Water and Total Depth measurements are used in calculating the volume of the water column standing in the wellcase (for evacuation calculation). Odor, sheen and Separate Phase Hydrocarbon thickness are used in evaluating whether or not the well meets standards set by the client that determine when a well should be evacuated and sampled and when that well should not be evacuated and sampled.

EVACUATING GROUNDWATER WELLS

Wells are selected for evacuation and sampling in Clean-to-Dirty order.

Blaine Tech Services, Inc. field personnel select well **evacuation devices** based on efficiency. They can select from the following:

1. **Bailers**. Teflon and stainless steel are the only materials used in Blaine Tech Services bailers. Our shop fabricates stainless steel bailers in any size we need. Typical bailers are hand operated, but we have hydraulic booms and high speed winches to handle the larger versions.
2. **Pneumatic purge pumps**. These evolved from the USGS/Middleburg bladder type sampling pumps which we began using in 1982. We retain the Teflon air pressure and water discharge hoses, but have modified the pump to increase efficiency and allow more certain cleaning than was possible with the original design. These pumps are ideal for certain types of wells and turbidity control situations.
3. **Variable speed electric** submersible pump. This 2" Grundfos pump has become an accepted tool of the environmental industry in recent years. Despite claims to the contrary, we do not see it as a suitable sampling pump (except in dedicated applications) and use it only as a well evacuation device.
4. **Fixed speed electric** submersible pumps. These 3" and 4" pumps (made by Grundfos and others) are also useful evacuation tools where the well depth or volume of water needing to be removed warrants their use.
5. **Suction pumps**. Grade level pneumatic diaphragm pumps (and similar devices) can be used to evacuate shallow wells when the proper type of hose and footvalves are assembled.

Normal field instrument readings are taken during the evacuation process. These include pH, temperature and electrical conductivity (EC) readings taken within each case volume of groundwater removed and at least one final set of readings taken just prior to sampling. The volume of water evacuated from the well is typically three case volumes and whatever additional volume is needed to achieve stable parameters.

We routinely remove four case volumes of water in those jurisdictions where the regulatory agency requests this level of purging. Our personnel are also equipped to take turbidity readings

and adjust our evacuation protocol to conform to regulatory standards for achieving specific NTU levels prior to collecting samples.

Wells that dewater are handled according to the protocol specified by each client. In most cases this is based on 80% recovery of the original water column or an evaluation of the volume of water that recharges into the well within a period not greater than 24 hours. In view of the volatile constituents being sought, most clients and their consultants are willing to have samples collected from whatever volume of water has recharged into a dewatered well by the end of the day or the end of the work being performed by our personnel at that particular site.

Instruments are calibrated daily and calibration logs are maintained at our office. In addition, each vehicle has calibration fluids on board so that pH and EC meters can be recalibrated in the field. Parameter readings are recorded (along with case volume calculations and other important information) on the preprinted Well Data sheet. Effluent water from the evacuation process is contained and transported in tanks on the sampling vehicle or in tanks on one of our water hauling trailers.

SAMPLE COLLECTION

Blaine Tech Services, Inc. several years ago standardized its sample collection procedures. With few exceptions, all groundwater samples are taken with a **bailer**. We have a large number of stainless steel and/or Teflon bailers. Specialized bailers are used to perform field filtration of water that will receive metals analyses and other bailers can be rigged as flow-through devices which are attached to the evacuation pump so that the entire volume of evacuated water moves through the bailer which then collects the final volume when the evacuation pump is turned off. Normal sampling is simple and straightforward. It involves removing the evacuation device from the well and promptly collecting water in a stainless steel sampling bailer which is lowered into the well and retracted with a disposable cotton line.

Typically, sample bottles appropriate to the intended analyses are supplied by the laboratory along with prepared trip blanks and a volume of organic free water sufficient to take any equipment rinsate blanks and/or field blanks that have been requested. These sample bottles are filled in accordance with EPA requirements as specified in the SW-846 and the T.E.G.D. Our personnel verify the correct composition of the sample set by referring to the Scope of Work statement provided by our office, and authorized by the client or client's consultant. In addition to notations required by the client, our personnel complete the preprinted Well Data Sheet, the multi-part Chain of Custody form and the blank portions of our computer generated sample bottle labels (time, date and sampler's initials). The samples are placed in an ice chest for storage and transport to the laboratory. We comply with regulatory agency specifications for both temperature and the material by which temperature is achieved and maintained. (e.g. Southern Alameda County Water District requires the use of ice rather than frozen blocks of ice substitutes such as Blue Ice and Super Ice.) Strict adherence to Chain of Custody requirements is maintained.

DECONTAMINATION

Blaine Tech Services, Inc. field personnel are trained and equipped to decontaminate all the devices which have been used to inspect, measure, evacuate and sample each well before moving on to the next well. All apparatus is brought to the site in clean and serviceable condition It is then thoroughly cleaned after each every use.

Our QA program includes spot audits of our field personnel while they are working at a client's site and the collection of various blanks which are in-addition-to and outside of the normal project QA measures and therefore analyzed at our expense.

All vehicles used for petroleum sites are equipped with steam cleaners which we have had the supplier detune to function as **hot pressure washers**. After modification these units produce a high pressure jet of very hot water which retains its heat better than jets of steam which start off hotter but cool very quickly. (Steam cools so rapidly that it falls to the same temperature as hot water only 8" out from the nozzel and is far cooler than hot water thereafter.) These hot pressure washer units are supplied with deionized water from an onboard tank. (Deionized water is very hard on the steel components of our steam cleaners, but using it increases our cleaning efficiency.) Hot deionized water from the steam cleaner is supplemented with scrub brushes, soak tanks, and the application of aqueous cleaners which we test and evaluate. We do not use solvents or petroleum products as cleaning agents.

All effluent liquids are captured and retained. The effluent from all on site decontamination procedures is classified the same as the evacuated water from the well in which that equipment was used.

In most cases this means that the effluent from the cleaning of pumps and bailers will be classified as a non-hazardous effluent material which we will be able to transport away from the site as a non-hazardous material. (See Water Hauling below.) In those few cases where the concentration of fuel hydrocarbons in the groundwater causes the well's effluent water to be classified as a hazardous material, we will treat the effluent from our on site cleaning the same way and contain that effluent material along with the well effluent for proper on site storage, transport and disposal. (See Free Product Bailing & Transportation below).

NON-HAZARDOUS PURGEWATER HAULING

Blaine Tech Services, Inc. has evolved a paperwork tracking system for hauling non-hazardous purge water that uses two Bill of Ladings.

The effluent from wells which can be classified as non-hazardous is collected in onboard storage tanks and recorded on a Source Record Bill of Lading by our personnel as they collect effluent in the course of doing their work in the field The small additional volume of water that is used to clean the evacuation and sampling equipment is added to the onboard non-hazardous effluent tank and recorded on the Source Record Bill of Lading Each vehicle creates a Source Record Bill of Lading to cover all the non-hazardous purgewater hauled away from any Texaco site If three

vehicles work on the same site each will have a Source Record Bill of Lading to cover the water being hauled away from that site by that vehicle. If a vehicle collects water from more than one Texaco site, it will have a Source Record Bill of Lading to cover the water obtained at each Texaco site. The Source Record Bill of Ladings covers the legal transport of non-hazardous purgewater and related effluent from one Texaco site to the Blaine Tech Services, Inc. facility in San Jose, California. There the water is offloaded from the individual sampling vehicles into a storage tank dedicated exclusively to non-hazardous purgewater from Texaco sites.

When a sufficient volume of Texaco purgewater has been collected in the Texaco storage tank to make up an efficient load to the destination designated by Texaco Environmental Services, we will create such a load. Purgewater is pumped out of the Texaco storage tank into an appropriate water hauling vehicle (we have both truck mounted tanks and trailers). The person loading the vehicle makes up a **Bulk Load Disposition Bill of Lading.** This documentation covers the load of purgewater during its movement from our facility to the destination designated by Texaco Environmental Services (whether to the Gibson Pilot facility in Redwood City or to the TES offloading point in Richmond).

We maintain a file for both Source Record Bill of Ladings and for Bulk Load Disposition Bill of Ladings. Periodic audits can be easily performed by reviewing this file.

FREE PRODUCT BAILING AND TRANSPORT

Blaine Tech Services, Inc. is not in the hazardous waste hauling business. The insurance overhead is so great that it is not economical to haul hazardous waste on an occasional or casual basis. Since we are in the sampling and objective data collection business, it makes sense to leave hazardous waste hauling to firms that are in the hazardous waste hauling business.

There is a fair amount of attention being put on clarifying EPA regulations which may offer exemptions to hazardous waste classification rules that apply to fuel facility waste material and debris that is being moved from a retail fuel dispensing facility to a refinery. It is thought that this or some similar loophole will be found that will eliminate some or all of the restrictions which are now being applied to fuel facility materials. As these openings develop, we will perform all the actions which are appropriate for us to perform. However, we are cautious because we certainly do not want to bring discredit to ourselves or to our client by presuming too much, too quickly.

Pending the clarification of exemptions that might allow us to transport such materials, we continue to remove place all the highly contaminated effluent materials we pump or bail from wells in properly labeled drums which remain on the site. Drums of the waste materials in the drums is removed and transported off the site by a properly licensed hazardous waste hauler.

There are several different arrangements that can be made, but most involve some liaison between ourselves and the licensed hazardous waste hauler who will need to offhaul any hazardous materials we place in the barrels within 90 days. Our personnel are involved in tracking the actual performance of the hazardous waste hauler by noting when new barrels are delivered to the

site and when resident barrels are emptied and labeled as empty. Our personnel fill out labels when adding material to a barrel and are careful to follow all the **barrel preparation and closure protocols** specified by our client and the hazardous waste hauler. The management of barrels and hauling requires tracking systems we have already developed for other clients

ABILITY TO PERFORM

In the first quarter of 1993 one of our clients awarded us an additional territory and new sites that added more than 600 new gas station wells to our workload. These were not the only increases we took on and completed at the start of 1993, but they illustrate the fact that we can flex our organization to handle sudden increases.

Blaine Tech Services, Inc. performed all its 1993 commitments with never more than 10 field technicians working out of four (4) General Purpose Sampling Vehicles and six (6) Big Rigs. We managed all our commitments without relying on our #11 truck which was out of service during 1993, receiving a new body and serving as the test bed for the development of the new electric pump hose handling and cleaning package which you saw a week or so before it was completed. That #11 truck is now back in service and we are preparing to add field personnel.

We have also placed in service a new water hauling vehicle (#18) and have taken delivery of another new Ford Super Duty (#19) which is now in the shop to receive the same equipment package that was prototyped on #11. We hope to have #19 out of the shop by the time #20 arrives later in the first quarter of 1994. These added vehicles represent our commitment to a reasonable rate of growth which we achieve by backing up our field personnel with efficient equipment.

However, we do not require *any* additional vehicles to handle Texaco work in the amounts you are likely to limit us to. **The #11 truck which is now in service can handle all the wells in any two Texaco territories with a 30% safety margin.** That translates into a little more than one (1) site per day or one territory per month with the third month of each quarter free to pursue other work. The safety margin is actually even wider because our field personnel work only four days a week. If we found ourselves running behind we could add either more personnel or require overtime.

In practice we always assign several trucks to perform work of this type so that we can quickly build a broad base of experienced personnel. However, the single truck yardstick is useful for calculating the overall level of stress which a new assignment adds to the organization.

We have every reason to believe that we can handle whatever work you would like to award us. If we are fortunate enough to be successful in our bidding, we will commence work at Texaco sites during the first week of 1994.

Richard Blaine
President