Texaco Refining and Marketing Inc.

10 Universal City Plaze Universal City CA 91608

and Marketing Inc Universal City CA 91500

May 11, 1993

ENV - SERVICE STATIONS
Quarterly Status Report

1127 Lincoln Avenue Alameda, California

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

Dear Ms. Shin:

Enclosed is a copy of the Quarterly Groundwater Monitoring Letter Report dated April 16, 1993, for the former Texaco service station at the above site.

Please contact me at (818) 505-2476 if you have any questions or wish to discuss the report further.

Very truly yours,

noble

Bob Robles

Environmental Protection Coordinator

RR:rr

w:\rr\1127lin1.reg

cc: Mr. Leo Pagano

1127 Lincoln Avenue Alameda, California

Mr. Richard Hiett

California Regional Water Quality Control Board San Francisco Bay Region 2201 Webster Street, Suite 500 Oakland, California 94612

RRZielinski

PR: Fi



3315 Almaden Expressway, Suite 34 San Jose, CA 95118

Phone: (408) 264-7723 FAX: (408) 264-2435

LETTER REPORT QUARTERLY GROUNDWATER MONITORING

First Quarter 1993

at

Former Texaco Station 1127 Lincoln Avenue Alameda, California

62074.01

Jim Schollard

Assistant Project Geologist

Philip I Mayberry

Project Geologist

JAMES LEWIS

James L. Nelson
Certified Engineering
/ Geologist No. 1463

April 16, 1993



3315 Almaden Expressway, Suite 34 San Jose, CA 95118 Phone: (408) 264-7723 FAX: (408) 264-2435

> April 16, 1993 0324RROB 62074.01

Mr. Robert Robles Texaco Environmental Services 10 Universal City Plaza, 7th Floor Universal City, California 91608

Subject:

Results of Groundwater Monitoring and Sampling for the First Quarter 1993 at Former Texaco Station located at 1127 Lincoln Avenue in Alameda,

California.

Mr. Robles:

At the request of Texaco Environmental Services (TES), RESNA Industries Inc. (RESNA) has prepared this letter which summarizes the results of quarterly groundwater monitoring at the former Texaco Service Station located at 1127 Lincoln Avenue in Alameda, California (Plate 1, Site Vicinity Map) for the first quarter 1993 (January through March 1993). Monthly groundwater monitoring was conducted on January 26 and March 9, 1993, and on February 4, 1993, quarterly groundwater monitoring and sampling was conducted to evaluate groundwater elevations, gradient and flow direction, the presence and thickness of any petroleum hydrocarbon sheen or floating product, and the distribution of dissolved hydrocarbons in the 7 monitoring wells (MW-1 through MW-4, and MW-6 through MW-8) sampled at this site. MW-5 was inaccessible this quarter because a car was parked over the well and was therefore not monitored or sampled. Wells VW-1 through VW-5 were not monitored by request of TES. RESNA's groundwater sampling protocol and well purge data sheets are included in Appendix A. Laboratory analyses with chain of custody documentation are included in Appendix B.

WORK PERFORMED

GROUNDWATER MONITORING

Groundwater elevations at the site have increased an average of about 3 feet from the elevations reported the previous quarter. The groundwater gradient map shows the



April 16, 1993 62074.01

groundwater beneath the site to be flowing towards the east-northeast with a hydraulic gradient of approximately 0.007 (Plate 2, Groundwater Gradient Map). Historical and recent monitoring data are summarized in Table 1, Cumulative Groundwater Monitoring Data.

GROUNDWATER SAMPLING

Groundwater samples were submitted to Mobile Chem Laboratories (California Hazardous Materials Testing Laboratory Certification No. 1223) in Martinez, California under chain of custody protocol. The samples were analyzed for the gasoline constituents benzene, toluene, ethylbenzene, and total xylenes (BTEX), and total petroleum hydrocarbons as gasoline (TPHg) using modified Environmental Protection Agency (EPA) Methods 5030/602. The Chain of Custody Record and Laboratory Analysis reports are included in Appendix B.

GROUNDWATER ANALYTICAL RESULTS

Concentrations of TPHg in groundwater samples ranged from less than 50 parts per billion (ppb) to 2,900 ppb (MW-3). Dissolved benzene concentrations ranged from less than 0.5 ppb to 180 ppb (MW-3). TPHg and benzene concentrations are shown on Plate 3, TPHg/Benzene Concentrations in Groundwater. Neither floating product nor hydrocarbon sheen was observed in the wells. Historical and recent analytical data are summarized in Table 2, Cumulative Results of Laboratory Analyses of Groundwater Samples. Copies of the laboratory analyses reports and the chain of custody manifest for the groundwater samples are included in Appendix B.

PURGE WATER RECYCLING

On February 2, 1993, approximately 200 gallons of purge water generated during pumping and sampling of the 7 monitoring wells were transported to Gibson Environmental in Redwood City, California for recycling.



April 16, 1993 62074.01

If you have any questions or comments regarding this report, please call (408) 264-7723.

Enclosures: Plate 1, Site Vicinity Map

Plate 2, Groundwater Gradient Map

Plate 3, TPHg/Benzene Concentrations in Groundwater

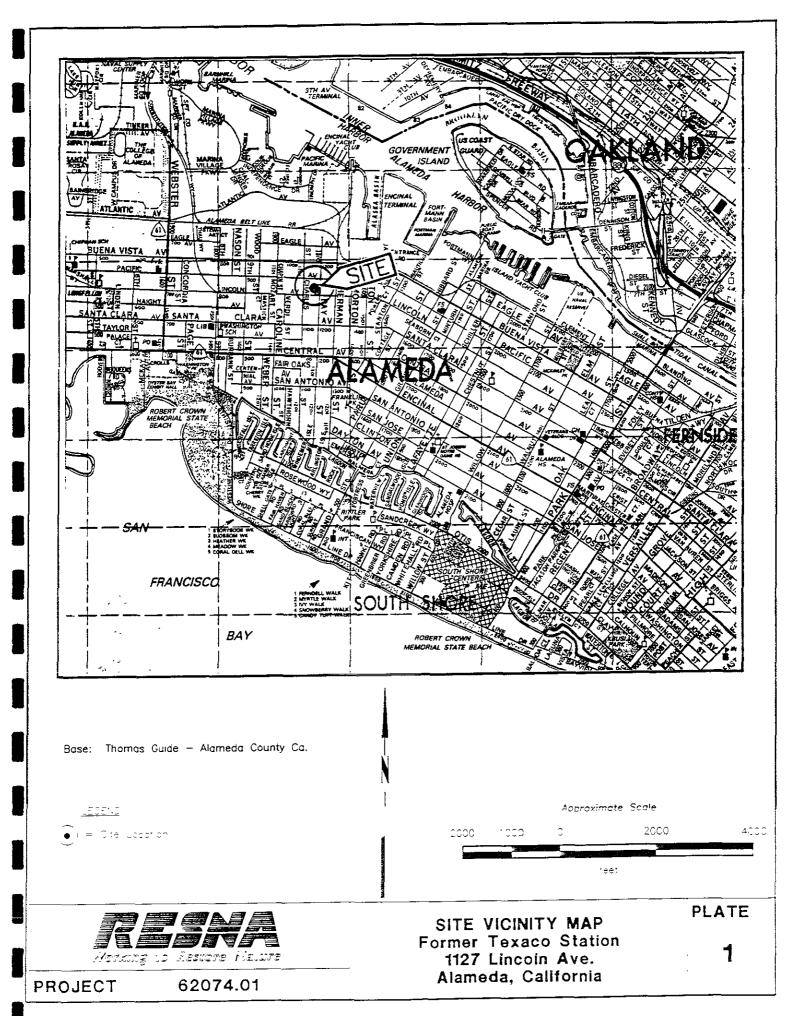
Table 1, Cumulative Groundwater Monitoring Data

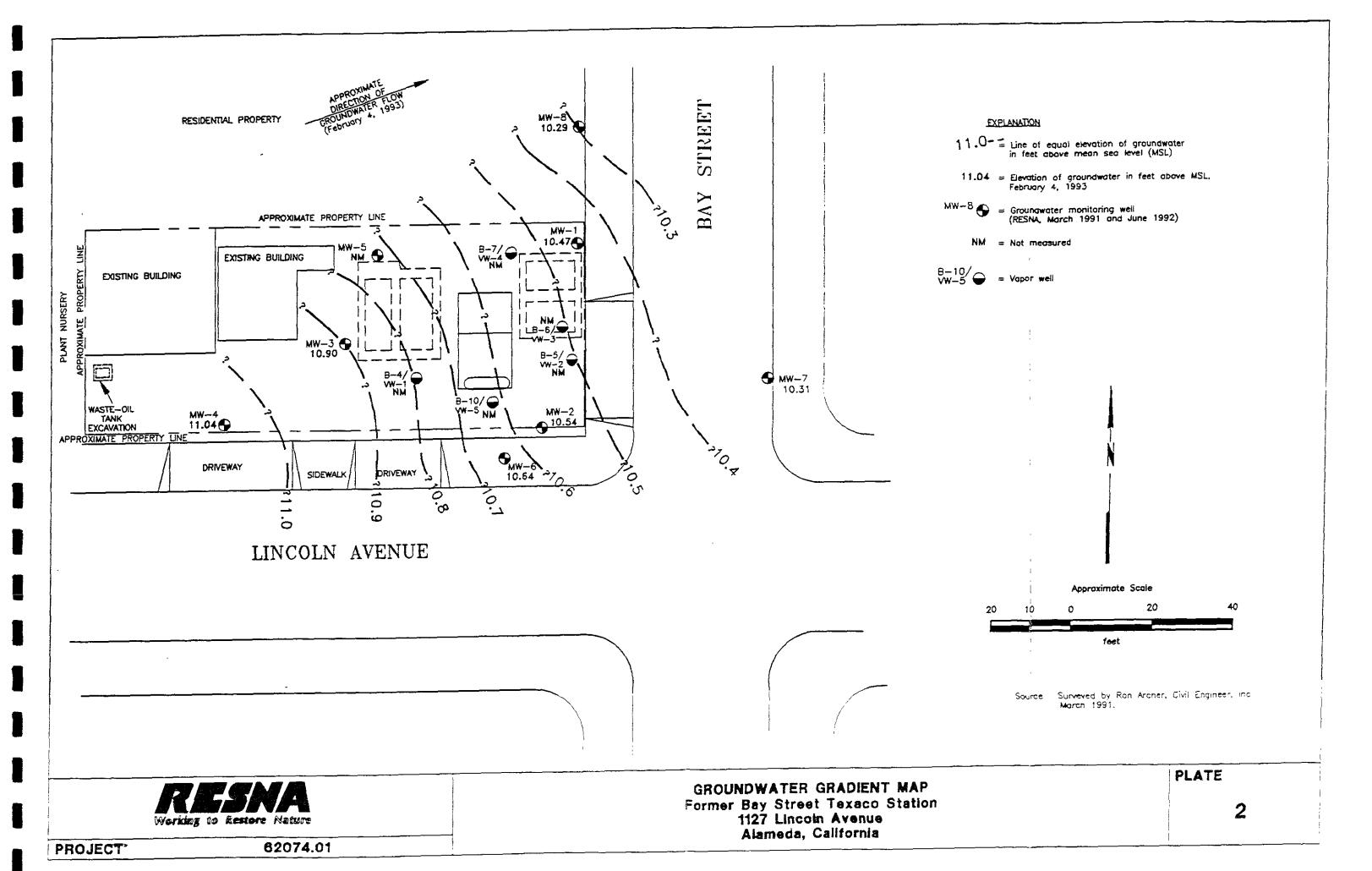
Table 2, Cumulative Results of Laboratory Analyses of Groundwater

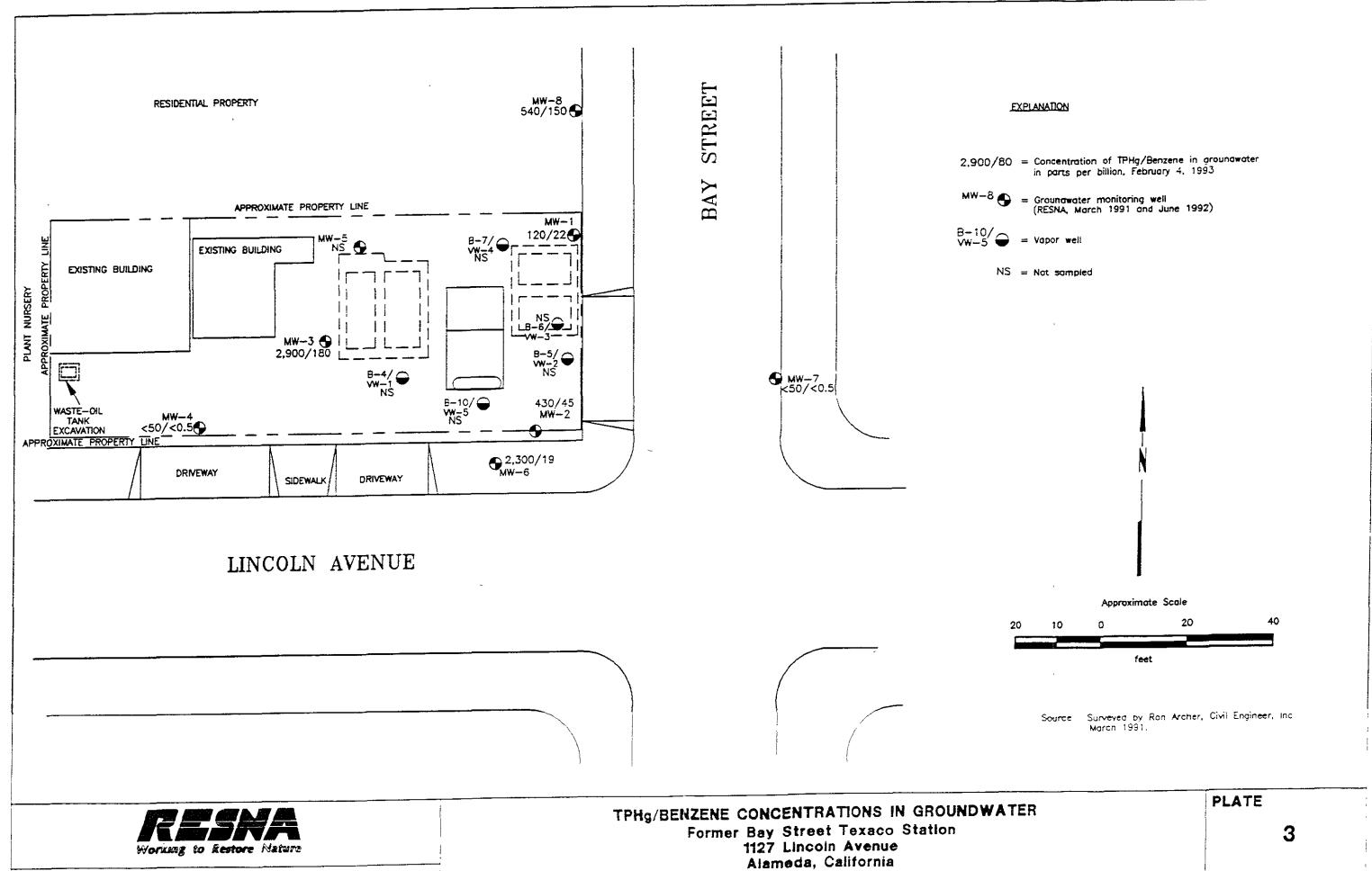
Samples

Appendix A, Groundwater Sampling Protocol and Well Purge Data Sheets Appendix B, Laboratory Analysis Reports and Chain of Custody

Documentation







PROJECT

62074.01



April 16, 1993 62074.01

TABLE 1 CUMULATIVE GROUNDWATER MONITORING DATA

Former Bay Street Texaco Station Alameda, California (Page 1 of 4)

Well	Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
 MW-1					
	03/22/91	16.49	7.23	9.26	NONE
	04/04/91		6.68	9.81	NONE
	08/13/91		8.59	7.90	NONE
	11/14/91		9.38	7.11	NONE
	02/19/92		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
<u>MW-2</u>					
	03/22/91	17.14	7.60	9.54	NONE
	04/04/91		7.07	10.07	NONE
	08/13/91		8.85	8.29	NONE
	11/14/91		9.60	7.54	NONE
	02/19/92		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
MW-3					
	03/22/91	16.91	7.43	9.48	NONE
	04/04/91		6.80	10.11	NONE
	08/13/91		8.88	8.03	NONE
	11/14/91		9.68	7.23	NONE
	02/19/92		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

See notes on page 4 of 4.



April 16, 1993 62074.01

TABLE 1 CUMULATIVE GROUNDWATER MONITORING DATA Former Bay Street Texaco Station Alameda, California (Page 2 of 4)

Well	Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
 MW-4	<u></u>				
	06/25/92	17.18	7.92	9.26	NONE
	09/16/92		9.40	<i>7.7</i> 8	NONE
	11/17/92		9.63	7.5S	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
4TW-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 MO	NITORED		
	02/04/93		ESSIBLE		
	03/09/93		5.45	10.92	NONE
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
√rW <u>-7</u>					_
	06/25/92	16.71	7.61	9.10	NONE
	09/16/92		8.78	7.93	NONE
	11/17/92	NOT MC	NITORED		
	01/26/93		6.53	10.18	NONE
	02/04/93		6.40	10.31	NONE
	03/09/93		6.52	10.19	NONE
MW <u>-8</u>				_	
<u> </u>	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

See notes on page 4 of 4



April 16, 1993 62074.01

TABLE 1 CUMULATIVE GROUNDWATER MONITORING DATA

Former Bay Street Texaco Station Alameda, California (Page 3 of 4)

Well	Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
	, , , , , , , , , , , , , , , , , , ,				
	03/22/91	16.83	DRY	DRY	NONE
	04/04/91		6.89	9.92	NONE
	08/13/91		DRY	DRY	NONE
	11/14/91		DRY	DRY	NONE
	02/19/92		DRY	DRY	NONE
	06/25/92		7.36	9.47	NONE
	09/16/92	NOT MO	ONITORED		
	11/17/92	NOT MO	ONITORED		
	01/26/93	NOT MO	ONITORED		
	02/04/93	NOT MO	ONTORED		
	03/09/93	NOT MO	ONITORED		
VW-2					
	03/22/91	17.00	7.59	9.41	NONE
	04/04/91		7.04	9.96	NONE
	08/13/91		DRY	DRY	NONE
	11/14/91		DRY	DRY	NONE
	02/19/92		6.94	10.06	NONE
	06/25/92		8.10	8.90	NONE
	09/16/92	NOT MO	ONITORED		
	11/17/92	NOT MO	ONTTORED		
	01/26/93	NOT MO	ONITORED		
	02/04/93	NOT MO	ONITORED		
	03/09/93	NOT MO	ONITORED		
VW <u>-3</u>					
	03/22/91	16.94	<i>7.7</i> 1	9.23	NONE
	04/04/91		6.92	10.02	NONE
	08/13/91		8.45	8.49	NONE
	11/14/91		DRY	DRY	NONE
	02/19/92		7.40	9.54	NONE
	06/25/92		7.16	9.78	NONE

See notes on page 4 of 4.



April 16, 1993 62074.01

TABLE 1 CUMULATIVE GROUNDWATER MONITORING DATA

Former Bay Street Texaco Station Alameda, California (Page 4 of 4)

Well	Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
VW-3 Cont'd					
	09/16/92	NOT MO	NITORED		
	11/17/92	NOT MC	NITORED		
	01/26/93	NOT MO	NITORED		
	02/04/93	NOT MC	NTTORED		
	03/09/93	NOT MO	NITORED		
<u>VW-4</u>					
-	03/22/91	16.81	7.66	9.15	SHEEN
	04/04/91	INACC	ESSIBLE		
	08/13/91		8.40	8.41	NONE
	11/14/91		DRY	DRY	NONE
	02/19/92		5. 7 6	11.05	NONE
	06/25/92		7.23	9.58	NONE
	09/16/92	NOT MO	NITORED		
	11/17/92	NOT MC	NITORED		
	01/26/93	NOT MO	NITORED		
	02/04/93	NOT MO	NITORED		
	03/09/93	NOT MO	ONITORED		
VW-5					
	03/22/91	17.20	7.67	9.53	SHEEN
	04/04/91	INACC	ESSIBLE		
	08/13/91		DRY	DRY	NONE
	11/14/91		DRY	DRY	NONE
	02/19/92		7.04	10.16	NONE
	06/25/92		8.09	9.11	NONE
	09/16/92	NOT MO	NITORED		
	11/17/92	NOT MC	NITORED		
	01/26/93	NOT MO	NITORED		
	02/04/93	NOT MO	NITORED		
	03/09/93	NOT MC	NITORED		

All measurements in feet.

Elevations above mean sea level.

Depth to water measured in feet below top of casing.



April 16, 1993 62074.01

TABLE 2 CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES Former Bay Street Texaco Station Alameda, California (Page 1 of 2)

Well Number Date	ТРНд	В	Т	E	X	ТРНа*	VOCs & Semi-VOCs	DO	EG
<u>MW-1</u>				- 				· · · · ·	
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	<i>7</i> 3	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
<u>MW-2</u>									
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	<i>5</i> 90	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
<u>MW-3</u>									
03/22/91	2,500	390	27	240	780	<i>7</i> 70	ND	NA.	NA
08/13/91	1,300	180	3.8	<i>7</i> 9	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
<u>MW-4</u>									
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
<u>MW-5</u>									
06/25/92	18,000	310	1,200	750	2,400	NA	NA	NA	NA
09/17/92	24,000	~00	2,200	900	2,400	NA	NA	NA	NA
11/17/92 02/04/93	14,000	1,000	1,500 NOT	730 SAMPLED	1,900	NA	NΑ	NA	NA

See notes on page 2 of 2



April 16, 1993 62074.01

TABLE 2 CUMULATIVE RESULTS OF LABORATORY ANALYSES OF GROUNDWATER SAMPLES Former Bay Street Texaco Station Alameda, California

(Page 2 of 2)

Well Number Date	TPHg	В	Т	E	X	TPHd*	VOCs & Semi-VOCs	DO	EG
<u>MW-6</u>		····································			-				
06/25/92	990	10	240	<i>5</i> S	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	
<u>MW-7</u>									
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	
<u>MW-8</u>									
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	
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).

TPHd: Total petroleum hydrocarbons as diese 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).

DO Dissolved oxygen in parts per million (ppm).

EG : Ethylene glycol in ppm.

APPENDIX A

GROUNDWATER SAMPLING PROTOCOL AND WELL PURGE DATA SHEETS

April 16, 1993 62074.01

GROUNDWATER SAMPLING PROTOCOL

The static water level and floating product level, if present, in each well that contained water was measured with an ORS Interphase Probe Model No. 1068018, or Solonist Water Level Indicator; these instruments are accurate to the nearest 0.01 foot. These groundwater depths were subtracted from wellhead elevations, including corrections for product thickness, when necessary, for gradient evaluation by multiplying product thickness (PT) by a correction factor 0.8 and subtracting from the DTW (Adjusted DTW = DTW - [PT x 0.8]).

Water samples collected for subjective evaluation were collected by gently lowering approximately half the length of a new disposable or Teflon® bailer past the air-water interface (if possible) and collecting a sample from near the surface of the water in the well. The samples were checked for measurable floating hydrocarbon product. All Teflon® bailers are triple washed with Alconox® and triple rinsed with distilled water prior to use.

Before water samples were collected from the groundwater monitoring wells, the wells were purged until stabilization of the temperature, pH, and conductivity were obtained. Approximately four well casing volumes were purged before those characteristics stabilized. The quantity of water purged from each well was calculated as follows:

1 well casing volume = $\pi r^2 h(7.48)$ where:

r = radius of the well casing in feet.

h = column of water in the well in feet (depth to bottom - depth to water).

7.48 = conversion constant from cubic feet to

gallons

Gallons of water purged/gallons in 1 well casing volume = well casing volumes removed.

After purging, each well was allowed to recharge to at least 80% of the initial water level. Water samples were collected with a new disposable or Teflon® bailer, and carefully poured into 40-milliliter (ml) glass vials, which were filled so as to produce a positive meniscus. Each vial was preserved with hydrochloric acid, sealed with a cap containing a Teflon® septum, and subsequently examined for air bubbles to avoid headspace which would allow volatilization to occur. The samples were promptly transported in iced storage in a thermally-insulated ice chest, accompanied by a Chain of Custody Record, to a California-certified laboratory.



Job No. 62074.01 Project Name: <u>Texaco--1127 Lincoln Avenue</u>

Page <u>1</u> of <u>1</u> Date: 02/04/93

Time Started 10:45 Well No. MW-1

TIME (hr)	GALLONS (cum.)	TEMP. (F)	рн	CONDUCT. (micromho)
10:45	Start purg	ing MW-1		
10:45	0	59.3	7.67	690
10:54	8.75	60.0	7.62	740
11:03	17.5	60.8	7.61	740
11:19	26.25	61.4	7.89	740
11:28	35.0	61.8	7.60	740
11:29	Stop purg	ing MW-1		
lotes:	<u> </u>			

NM = Not Measured

Well Diameter (inches): 4

Depth to Bottom (feet): 19.25

Depth to Water - initial (feet) : 6.02

Depth to Water - final (feet): 6.02

% recovery : 100

Time Sampled: 12:40

Gallons per Well Casing Volume: 8.73

Gallons Purged: 35.0

Well Casing Volume Purged: 4.01



Project Name: <u>Texaco--1127 Lincoln Avenue</u> Job No. <u>62074.01</u>

Date: 02/04/93 Page 1 of 1

Well No. MW-2 Time Started 12:00

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT.
12:00	Start purg	ing MW-2		
12:00	0	62.1	7.43	710
12:08	8.5	62.9	7.40	780
12:16	17.0	63.2	7.43	700
12:24	25.5	63.7	7.47	620
12.32	34.0	64.1	7.52	610
12:33	Stop purg	ing MW-2		
otes:		Well Diame	Not Measured ter (inches) ottom (feet)	: 4 : 19.30

Depth to Water - initial (feet) : 6.60

Depth to Water - final (feet): 6.60

% recovery : 100

Time Sampled: 13:15

Gallons per Well Casing Volume: 8.40

Gallons Purged: 34.0

Well Casing Volume Purged: 4.05



Project Name: Texaco--1127 Lincoln Avenue Job No. 62074.01

Date: 02/04/93 Page <u>1</u> of <u>1</u>

Well No. MW-3

Time Started 14:15

TIME (hr)	GALLONS (cum.)	TEMP. (F)	рH	CONDUCT.
14:15	Start purg	ing MW-3		
14:15	0	62.6	8.05	760
14:24	9	63.2	8.03	850
14:33	18	62.3	7.42	780
14:47	27	61.9	7.46	790
14:56	36	62.2	7.43	780
14:57	Stop purg	ing MW-3		

NM = Not Measured

Well Diameter (inches): 4

Depth to Bottom (feet): 19.56

Depth to Water - initial (feet): 6.01

Depth to Water - final (feet): 6.01

% recovery : 100

Time Sampled: 16:15

Gallons per Well Casing Volume: 8.94

Gallons Purged: 36.0

Well Casing Volume Purged: 4.03



Job No. 62074.01 Project Name: <u>Texaco--1127 Lincoln Avenue</u>

Page 1 of 1 Date: 02/04/93

Time Started 15:25 Well No. MW-4

TIME (hr)	GALLONS (cum.)	TEMP.	рн	CONDUCT. (micromho)
15:25	Start purg	ing MW-4		
15:25	0	61.4	7.66	550
15:34	9.5	62.4	7.62	620
15:43	19	61.7	7.59	580
15:57	28.5	61.9	7.62	530
16:06	38.0	62.1	7.60	550
16:07	Stop purg	ing MW-4		

Notes:

NM = Not Measured

Well Diameter (inches): 4

Depth to Bottom (feet): 20.20

Depth to Water - initial (feet): 6.14
Depth to Water - final (feet): 6.14

% recovery : 100

Time Sampled: 16:45

Gallons per Well Casing Volume: 9.28

Gallons Purged: 38.0

Well Casing Volume Purged: 4.09



Job No. 62074.01 Project Name: <u>Texaco--1127 Lincoln Avenue</u>

Page <u>1</u> of <u>1</u> Date: 02/04/93

Well No. MW-6

Time Started 13:30

TIME (hr)	GALLONS (cum.)	TEMP. (F)	рН	CONDUCT.
13:30	Start purg	ing MW-6		
13:30	0	64.8	7.45	830
13:35	2.3	63.8	7.88	850
13:40	4.6	63.0	7.40	860
13:50	6.9	64.7	7.44	790
13:55	9.2	64.1	7.41	790
13:56	Stop purg	ing MW-6		
tes:		Well Diame	Not Measured ter (inches) ottom (feet)	: 2

Depth to Water - initial (feet): 6.48

Depth to Water - final (feet): 6.48

% recovery : 100

Time Sampled: 15:05

Gallons per Well Casing Volume: 2.28

Gallons Purged: 9.2

Well Casing Volume Purged: 4.04



Project Name: Texaco--1127 Lincoln Avenue Job No. 62074.01

Date: 02/04/93 Page 1 of 1

Well No. MW-7 Time Started 10:00

TIME (hr)	GALLONS (cum.)	TEMP. (F)	рН	CONDUCT.
10:00	Start purg	ing MW-7		
10:00	0	61.0	7.61	540
10:04	2.5	61.0	7.60	530
10:08	5.0	62.1	7.57	550
10:16	7.5	61.9	7.63	560
10:20	10.0	62.4	7.60	570
10:21	Stop purg	ing MW-7		
otes:	1		Not Measured ter (inches)	

Depth to Bottom (feet): 20.00

Depth to Water - initial (feet): 6.40

Depth to Water - final (feet): 6.40

% recovery : 100

Time Sampled: 14:45

Gallons per Well Casing Volume: 2.31

Gallons Purged: 10.0

Well Casing Volume Purged: 4.33



Project Name: <u>Texaco--1127 Lincoln Avenue</u> Job No. 62074.01

Page <u>1</u> of <u>1</u> Date: 02/04/93

Time Started 09:00 Well No. MW-8

TIME (hr)	GALLONS (cum.)	TEMP. (F)	рН	CONDUCT.			
09:00	Start purg	ing MW-8					
09:00	0	57.5	7.90	260			
09:09	9.5	59.6	7.97	280			
09:18	19.0	60.0	60.0 7.92				
09:31	28.5	60.1	7.89	320			
09:40	38.0	60.1	7.86	330			
09:41	Stop purg	ing MW-8					
tes:		Well Diame	Not Measured ter (inches) ottom (feet)	: 4 : 19.70			

Depth to Water - initial (feet): 5.62
Depth to Water - final (feet): 5.62

% recovery : 100

Time Sampled: 10:30

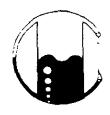
Gallons per Well Casing Volume : 9.30

Gallons Purged: 38.0

Well Casing Volume Purged: 4.09

APPENDIX B

LABORATORY ANALYSIS REPORTS AND CHAIN OF CUSTODY DOCUMENTATION



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



62074.01\1718\012452

RESNA Industries

3315 Alamden Expressway, #34 San Jose, CA 95118

Attn: Phillip Mayberry

Project Manager

Date Sampled: 02-04-93 Date Received: 02-09-93

Date Analyzed: 02-17-93

Sample Number

023114

Sample Description

Project # 62074.01 Texaco - Alameda

1127 Lincoln

BB1

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

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu q/L)$

MOBILE CHEM LABS

Ronald G. Evans

Lab Director



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62074.01\1718\012452

RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry

Project Manager

Date Sampled: 02-04-93 Date Received: 02-09-93

Date Analyzed: 02-17-93

Sample Number

023115

Sample Description

Project # 62074.01 Texaco - Alameda

1127 Lincoln

MW-1

WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	120
Benzene	0.5	22
Toluene	0.5	3.1
Xylenes	0.5	10
Ethylbenzene	0.5	3.3

QA/QC: Sample blank is none detected

Spike Recovery is 95%

Duplicate Deviation is 2.4%

Analysis was performed using EPA methods 5030 and TPH Note:

LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS

Ronald G. Evans Lab Director

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RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry Project Manager Date Sampled: 02-04-93 Date Received: 02-09-93

Date Analyzed: 02-17-93

Sample Number

023116

Sample Description

Project # 62074.01 Texaco - Alameda

1127 Lincoln

MW-2 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	430
Benzene	0.5	45
Toluene	0.5	0.5
Xylenes	0.5	30
Ethylbenzene	0.5	20

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH

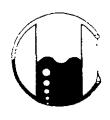
LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS

Ronald G. Evans Lab Director

Trundfizzo



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RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry

Project Manager

Date Sampled: 02-04-93

Date Received: 02-09-93 Date Analyzed: 02-17-93

Sample Number

023117

Sample Description

Project # 62074.01 Texaco - Alameda

1127 Lincoln

MW-3

WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	2,900
Benzene	0.5	180
Toluene	0.5	13
Xylenes	0.5	350
Ethylbenzene	0.5	210

QA/QC: Sample blank is none detected

Note:

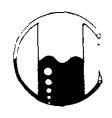
Analysis was performed using EPA methods 5030 and TPH LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS

Ronald G. Evans Lab Director

MALL SHE



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RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry

Project Manager

Date Sampled: 02-04-93

Date Received: 02-09-93

Date Analyzed: 02-17-93

Sample Number

023118

Sample Description

Project # 62074.01 Texaco - Alameda

1127 Lincoln

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	<0.5
Ethylbenzene	0.5	<0.5

QA/QC: Sample blank is none detected

Note: Analysis was performed using EPA methods 5030 and TPH

LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



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RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry

Project Manager

Date Sampled: 02-04-93

Date Received: 02-09-93

Date Analyzed: 02-17-93

Sample Number

023119

Sample Description

Project # 62074.01

Texaco - Alameda

1127 Lincoln

MW-6

WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	2,300
Benzene	0.5	19
Toluene	0.5	5.4
Xylenes	0.5	220
Ethylbenzene	0.5	27

QA/QC: Sample blank is none detected

Note:

Analysis was performed using EPA methods 5030 and TPH

LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

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RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry

Project Manager

Date Sampled: 02-04-93

Date Received: 02-09-93 Date Analyzed: 02-17-93

Sample Number

023120

Sample Description

Project # 62074.01 Texaco - Alameda

1127 Lincoln

MW-7 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

QA/QC: Sample blank is none detected

Note: Analysis was performed using EPA methods 5030 and TPH

LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



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RESNA Industries

3315 Alamden Expressway, #34

San Jose, CA 95118 Attn: Phillip Mayberry

Project Manager

Date Sampled: 02-04-93 Date Received: 02-09-93

Date Analyzed: 02-17-93

Sample Number

023121

Sample Description

Project # 62074.01 Texaco - Alameda

1127 Lincoln

MW-8 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	540
Benzene	0.5	150
Toluene	0.5	3.7
Xylenes	0.5	10
Ethylbenzene	0.5	5.2

QA/QC: Sample blank is none detected

Note: Analysis was performed using EPA methods 5030 and TPH

LUFT with method 602 used for BTX distinction.

 $(ppb) = (\mu g/L)$

MOBILE CHEM LABS



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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