Texaco Refining
and Marketing Inc

10 Universal City Plaza
Universal City CA 91608

93 AUG 18 PM 3:23

August 13, 1993

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

SUBJECT: QUARTERLY GROUNDWATER MONITORING LETTER REPORT
Site: 1127 Lincoln Avenue
Alameda, California

Dear Ms. Shin:

Enclosed is a copy of the Quarterly Groundwater Monitoring Report dated July 22, 1993, for the above subject site. The report, for the recently install vapor extraction and groundwater treatment system, is currently being prepares and copies will soon be available for release.

Please call me at 818 505 2476, if you have any questions.

Very truly yours,
Texaco Refining And Marketing Inc

Bob Robles

RR:rr

pr

Enclosure

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-Richmond

RESNA
Working To Restore Nature

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

LETTER REPORT
QUARTERLY GROUNDWATER MONITORING
Second Quarter 1993
at
Former Texaco Station
1127 Lincoln Avenue
Alameda, California

62074.01

Mary Rendale for
Richard A. Garlow
Senior Project Geologist

Philip J. Mayberry
Project Geologist

REGISTERED GEOLOGIST
JAMES LEWIS
STATE OF CALIFORNIA

James L. Nelson
Certified Engineering
Geologist No. 1463

July 22, 1993

RESNA
Working To Restore Nature

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San Jose, CA 95118
Phone: (408) 264-7723
FAX: (408) 264-2435

July 22, 1993
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 Second 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 second quarter 1993 (April through June 1993). Monthly groundwater monitoring was conducted on May 6 and June 15, 1993, and quarterly sampling was performed on May 6, 1993. Quarterly groundwater monitoring 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-6, and MW-8) sampled at this site. MW-7 was inaccessible for monitoring or sampling this quarter because a car was parked over the well. Wells VW-1 through VW-5 were not monitored at the request of TES. RESNA's groundwater sampling protocol and well purge data sheets are included in Appendix A.

WORK PERFORMED

GROUNDWATER MONITORING

Groundwater elevations (May 6, 1993) at the site have decreased an average of about 0.5 foot from the elevations reported the previous quarter (February 4, 1993), except in well MW-2 which increased 0.23 foot. The groundwater gradient map shows the groundwater

beneath the site to be flowing towards the northeast with a hydraulic gradient of approximately 0.01 (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.

GROUNDWATER ANALYTICAL RESULTS

Concentrations of TPHg in groundwater samples ranged from less than 50 parts per billion (ppb) (MW-4) to 22,000 ppb (MW-8). Dissolved benzene concentrations ranged from 1.6 ppb (MW-4) to 9,400 ppb (MW-8). 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 May 11, 1993, approximately 225 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.

RESNA

Working to Restore Nature

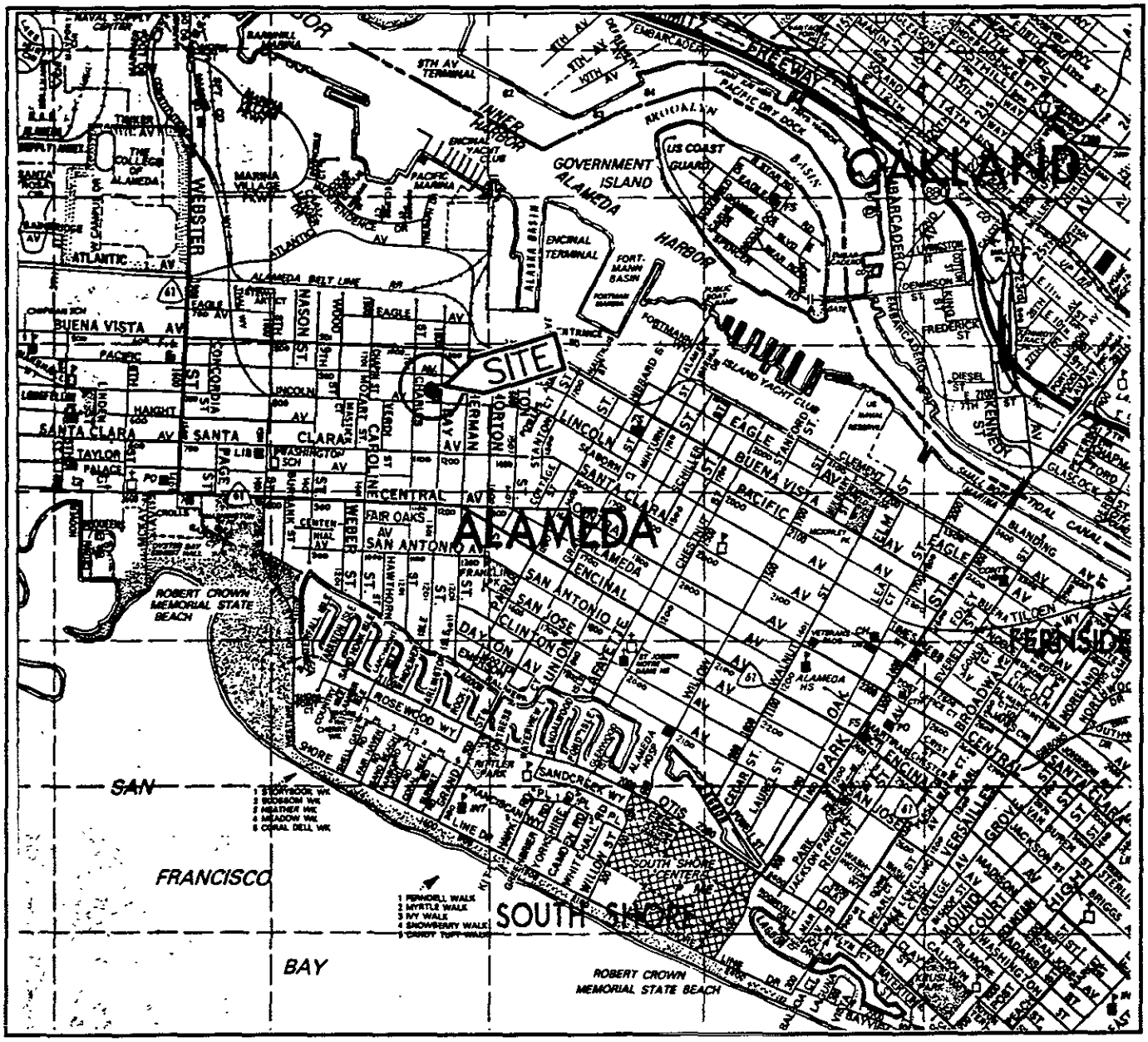
Second Quarter 1993 Quarterly Report
1127 Lincoln Avenue, Alameda, California

July 22, 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



Base: Thomas Guide – Alameda County Ca.

LEGEND

(•) = Site Location

Approximate Scale

2000 1000 0 2000 4000

feet

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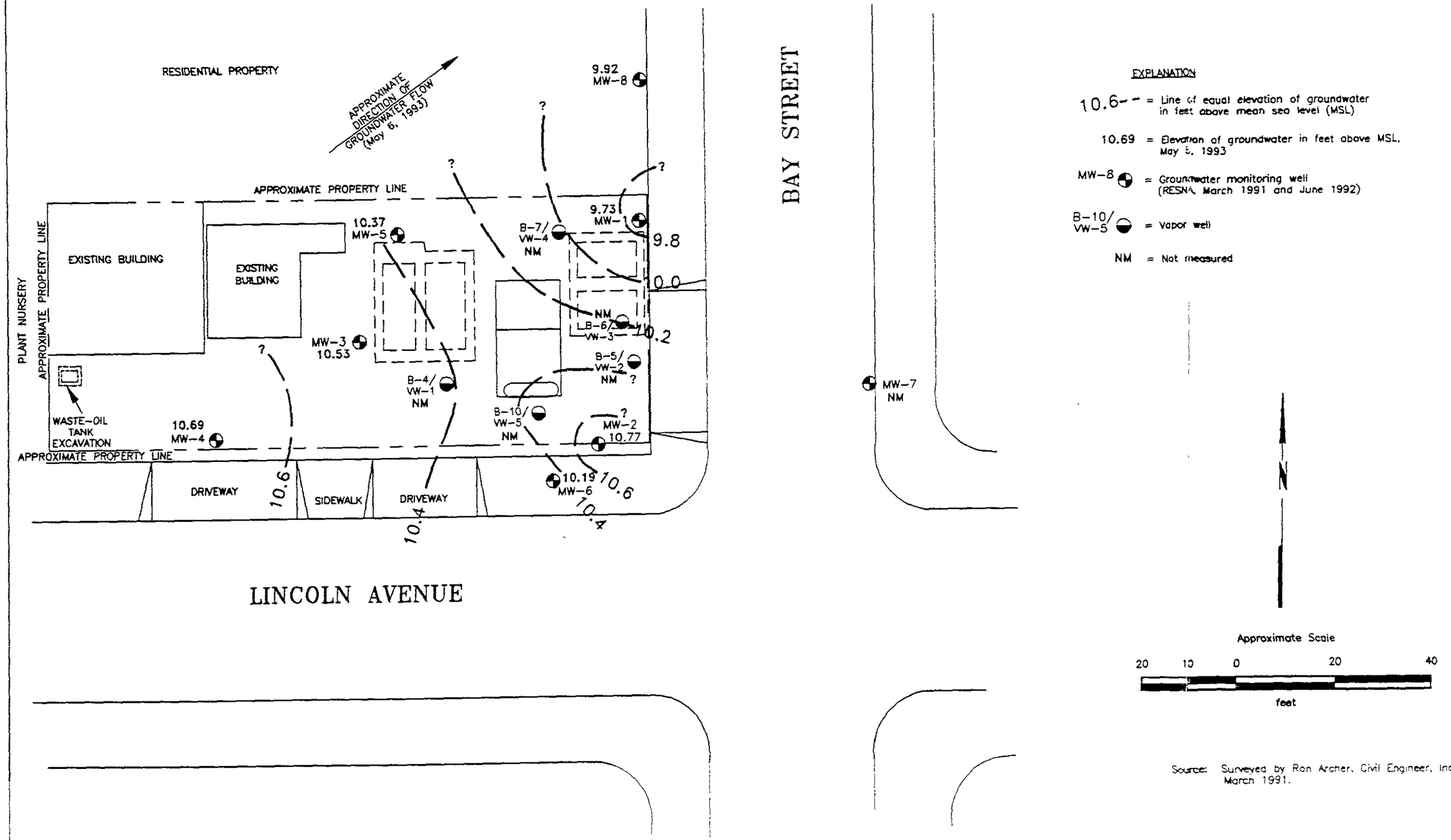
PROJECT 62074.01

SITE VICINITY MAP
Former Texaco Station
1127 Lincoln Ave.
Alameda, California

PLATE
1



Source: Surveyed by Ron Archer, Civil Engineer, Inc. March 1991.

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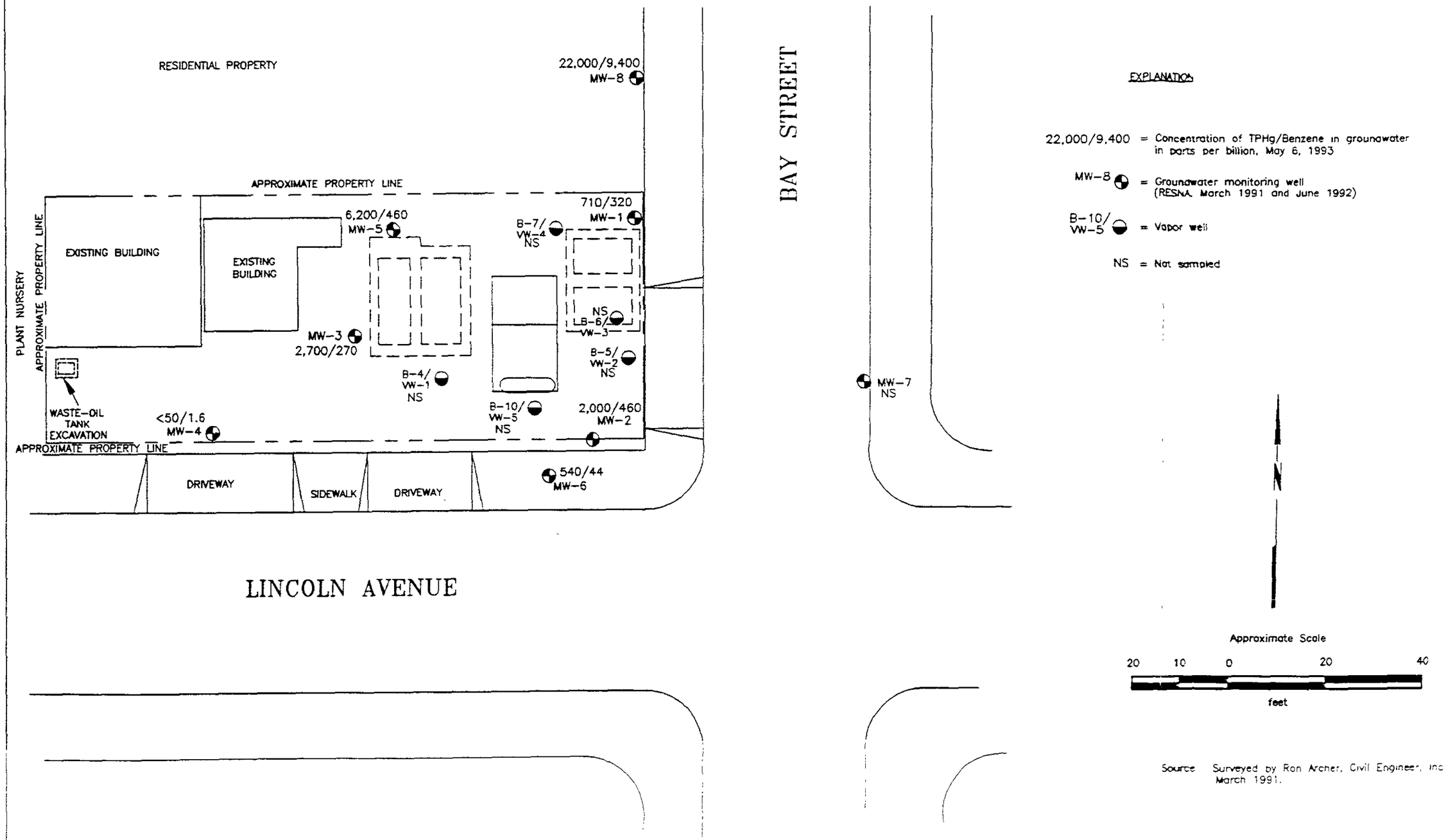
PROJECT 62074.01

GROUNDWATER GRADIENT MAP
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California

PLATE
2



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PROJECT 62074.01

TPHg/BENZENE CONCENTRATIONS IN GROUNDWATER
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California

PLATE
3

Second Quarter 1993 Quarterly Report
1127 Lincoln Avenue, Alameda, California

July 22, 1993
62074.01

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

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
	05/06/93		6.76	9.73	NONE
	06/15/93		6.81	9.68	NONE
MW-2					
	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
	05/06/93		6.37	10.77	NONE
	06/15/93		7.04	10.10	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

See notes on page 5 of 5.

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 2 of 5)

Well	Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
MW-3 Cont'd	03/09/93		5.88	11.03	NONE
	05/06/93		6.38	10.53	NONE
	06/15/93	INACCESSIBLE			
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
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
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
MW-7					
	06/25/92	16.71	7.61	9.10	NONE
	09/16/92		8.78	7.93	NONE
	11/17/92	NOT MONITORED			
	01/26/93		6.53	10.18	NONE
	02/04/93		6.40	10.31	NONE
	03/09/93		6.52	10.19	NONE

See notes on page 5 of 5.

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 3 of 5)

Well	Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
MW-7 Cont'd	05/06/93	NOT MONITORED			
	06/15/93		6.69	10.02	NONE
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	
VW-1					
	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 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			
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 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			

See notes on page 5 of 5

TABLE 1
CUMULATIVE GROUNDWATER MONITORING DATA
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 4 of 5)

Well	Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
VW-3					
	03/22/91	16.94	7.71	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
	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		
VW-4					
	03/22/91	16.81	7.66	9.15	SHEEN
	04/04/91		INACCESSIBLE		
	08/13/91		8.40	8.41	NONE
	11/14/91		DRY	DRY	NONE
	02/19/92		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		

See notes on page 5 of 5

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

Well	Date	Elevation of Wellhead	Depth to-Water	Elevation of Groundwater	Floating Product/ Sheen
VW-5					
	03/22/91	17.20	7.67	9.53	SHEEN
	04/04/91		INACCESSIBLE		
	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 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		

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

TABLE 2
CUMULATIVE RESULTS OF LABORATORY ANALYSES
OF GROUNDWATER SAMPLES
Former Bay Street Texaco Station
1127 Lincoln Avenue
Alameda, California
(Page 1 of 3)

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
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
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
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

See notes on page 3 of 3

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

Well Number / Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHd*	VOCs & Semi-VOCs	Dissolved Oxygen	Ethylene Glycol
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
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
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								
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
MCLs	—	1.0	—	680	1,750	—	—	—	—
DWAL	—	—	100	—	—	—	—	—	—

See notes on page 3 of 3

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

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 A

GROUNDWATER SAMPLING PROTOCOL AND WELL PURGE DATA SHEETS

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.

WELL PURGE DATA SHEET

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

Date: 05/06/93 Page 1 of 1

Well No. MW-1 Time Started 12:00

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)
12:00	Start purging MW-1			
12:00	0	63.1	7.39	1020
12:05	8.25	63.2	7.23	1060
12:10	16.50	63.3	7.21	1120
12:15	24.75	62.9	7.21	1030
12:20	33.0	63.3	7.16	1000
12:21	Stop purging MW-1			

Notes:

NM = Not Measured
Well Diameter (inches) : 4
Depth to Bottom (feet) : 19.25
Depth to Water - initial (feet) : 6.76
Depth to Water - final (feet) : 6.76
% recovery : 100
Time Sampled : 1:15
Gallons per Well Casing Volume : 8.24
Gallons Purged : 33.0
Well Casing Volume Purged : 4.00
Approximate Pumping Rate (gpm) : 1½

WELL PURGE DATA SHEET

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

Date: 05/06/93 Page 1 of 1

Well No. MW-2 Time Started 1:30

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)
1:30	Start purging MW-2			
1:30	0	67.4	7.06	1080
1:35	8.5	67.1	7.06	1080
1:40	17.0	66.9	7.13	920
1:45	25.5	67.4	7.16	840
1:50	34.0	66.7	7.27	740
1:51	Stop purging MW-2			

Notes:

NM = Not Measured
Well Diameter (inches) : 4
Depth to Bottom (feet) : 19.30
Depth to Water - initial (feet) : 6.37
Depth to Water - final (feet) : 6.37
% recovery : 100
Time Sampled : 2:50
Gallons per Well Casing Volume : 8.50
Gallons Purged : 34.0
Well Casing Volume Purged : 4
Approximate Pumping Rate (gpm) : 1½

WELL PURGE DATA SHEET

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

Date: 05/06/93 Page 1 of 1

Well No. MW-3 Time Started 2:15

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)
2:15	Start purging MW-3			
2:15	0	66.9	7.13	1050
2:20	8.70	66.9	7.05	1040
2:25	17.4	66.5	7.15	880
2:30	26.1	66.7	7.20	730
2:35	34.8	65.9	7.25	710
2:36	Stop purging MW-3			

Notes:

NM = Not Measured

Well Diameter (inches) : 4
Depth to Bottom (feet) : 19.56
Depth to Water - initial (feet) : 6.38
Depth to Water - final (feet) : 6.55
% recovery : 80
Time Sampled : 3:45
Gallons per Well Casing Volume : 8.70
Gallons Purged : 34.8
Well Casing Volume Purged : 4.0
Approximate Pumping Rate (gpm) : 1½

WELL PURGE DATA SHEET

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

Date: 05/06/93 Page 1 of 1

Well No. MW-4 Time Started 3:10

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)
3:10	Start purging MW-4			
3:10	0	65.8	7.40	470
3:16	9.05	66.2	7.41	460
3:22	18.10	65.8	7.38	460
3:28	27.15	65.4	7.35	440
3:34	36.20	65.4	7.35	430
3:35	Stop purging MW-4			

Notes:

NM = Not Measured
Well Diameter (inches) : 4
Depth to Bottom (feet) : 20.20
Depth to Water - initial (feet) : 6.49
Depth to Water - final (feet) : 6.49
% recovery : 100
Time Sampled : 4:45
Gallons per Well Casing Volume : 9.05
Gallons Purged : 36.20
Well Casing Volume Purged : 4.0
Approximate Pumping Rate (gpm) : 1½

WELL PURGE DATA SHEET

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

Date: 05/06/93 Page 1 of 1

Well No. MW-5 Time Started 4:10

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)
4:10	Start purging MW-5			
4:10	0	64.8	7.29	600
4:16	9.15	64.5	7.23	610
4:22	18.30	63.8	7.22	620
4:28	27.45	63.8	7.23	620
4:34	37.0	63.9	7.22	620
4:35	Stop purging MW-5			

Notes:

NM = Not Measured
Well Diameter (inches) : 4
Depth to Bottom (feet) : 19.80
Depth to Water - initial (feet) : 6.00
Depth to Water - final (feet) : 6.00
% recovery : 100
Time Sampled : 5:25
Gallons per Well Casing Volume : 9.11
Gallons Purged : 37.0
Well Casing Volume Purged : 4.0
Approximate Pumping Rate (gpm) : 1½

WELL PURGE DATA SHEET

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

Date: 05/06/93 Page 1 of 1

Well No. MW-6 Time Started 5:00

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)
5:00	Start purging MW-6			
5:00	0	63.7	7.23	630
5:04	2.2	63.7	7.21	650
5:08	4.4	63.9	7.19	660
5:12	6.6	64.1	7.18	640
5:16	8.8	64.2	7.19	640
5:17	Stop purging MW-6			

Notes:

NM = Not Measured
Well Diameter (inches) : 2
Depth to Bottom (feet) : 19.90
Depth to Water - initial (feet) : 6.93
Depth to Water - final (feet) : 6.95
% recovery : 99
Time Sampled : 5:45
Gallons per Well Casing Volume : 2.20
Gallons Purged : 8.8
Well Casing Volume Purged : 4
Approximate Pumping Rate (gpm) : ½

WELL PURGE DATA SHEET

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

Date: 05/06/93 Page 1 of 1

Well No. MW-8 Time Started 11:00

TIME (hr)	GALLONS (cum.)	TEMP. (F)	pH	CONDUCT. (micromho)
11:00	Start purging MW-8			
11:00	0	63.5	7.62	670
11:06	9.05	63.4	7.71	520
11:12	18.10	63.3	7.60	570
11:18	27.15	63.4	7.52	680
11:24	36.20	63.3	7.49	710
11:25	Stop purging MW-8			

Notes:

NM = Not Measured

Well Diameter (inches) : 4

Depth to Bottom (feet) : 19.70

Depth to Water - initial (feet) : 5.99

Depth to Water - final (feet) : 5.99

% recovery : 100

Time Sampled : 12:35

Gallons per Well Casing Volume : 9.05

Gallons Purged : 36.20

Well Casing Volume Purged : 4

Approximate Pumping Rate (gpm) : 1½

APPENDIX B

LABORATORY ANALYSIS REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

MOBILE CHEM LABS INC.

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

62074.01\1718\012675

RESNA Industries
3315 Alamden Expressway, #34
San Jose, CA 95118
Attn: Phillip Mayberry
Project Manager

Date Sampled: 05-06-93
Date Received: 05-07-93
Date Analyzed: 05-17-93

Sample Number	Sample Description
053090	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

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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Attn: Phillip Mayberry
Project Manager

Date Sampled: 05-06-93
Date Received: 05-07-93
Date Analyzed: 05-17-93

Sample Number	Sample Description
053091	Project # 62074.01 Texaco - Alameda 1127 Lincoln Site Blank 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: Spike Recovery is 106%

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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Attn: Phillip Mayberry
Project Manager

Date Sampled: 05-06-93
Date Received: 05-07-93
Date Analyzed: 05-17-93

Sample Number	Sample Description
053092	Project # 62074.01 Texaco - Alameda 1127 Lincoln MW-8 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	22,000
Benzene	0.5	9,400
Toluene	0.5	46
Xylenes	0.5	520
Ethylbenzene	0.5	390

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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Project Manager

Date Sampled: 05-06-93
Date Received: 05-07-93
Date Analyzed: 05-17-93

Sample Number	Sample Description
053093	Project # 62074.01 Texaco - Alameda 1127 Lincoln MW-1 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	710
Benzene	0.5	320
Toluene	0.5	3.1
Xylenes	0.5	20
Ethylbenzene	0.5	4.2

QA/QC: Duplicate Deviation is 4.1%

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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Attn: Phillip Mayberry
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Date Sampled: 05-06-93
Date Received: 05-07-93
Date Analyzed: 05-17-93

Sample Number	Sample Description
053094	Project # 62074.01 Texaco - Alameda 1127 Lincoln MW-2 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	2,000
Benzene	0.5	460
Toluene	0.5	2.4
Xylenes	0.5	66
Ethylbenzene	0.5	160

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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RESNA Industries
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Attn: Phillip Mayberry
Project Manager

Date Sampled: 05-06-93
Date Received: 05-07-93
Date Analyzed: 05-17-93

Sample Number	Sample Description
053095	Project # 62074.01 Texaco - Alameda 1127 Lincoln MW-3 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	2,700
Benzene	0.5	270
Toluene	0.5	6.2
Xylenes	0.5	720
Ethylbenzene	0.5	300

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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Ronald G. Evans
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Attn: Phillip Mayberry
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Date Sampled: 05-06-93
Date Received: 05-07-93
Date Analyzed: 05-17-93

Sample Number	Sample Description
053096	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	1.6
Toluene	0.5	<0.5
Xylenes	0.5	2.1
Ethylbenzene	0.5	1.0

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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RESNA Industries
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Attn: Phillip Mayberry
Project Manager

Date Sampled: 05-06-93
Date Received: 05-07-93
Date Analyzed: 05-17-93

Sample Number	Sample Description
053097	Project # 62074.01 Texaco - Alameda 1127 Lincoln MW-5 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	6,200
Benzene	0.5	460
Toluene	0.5	980
Xylenes	0.5	1,200
Ethylbenzene	0.5	300

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
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RESNA Industries
3315 Alamden Expressway, #34
San Jose, CA 95118
Attn: Phillip Mayberry
Project Manager

Date Sampled: 05-06-93
Date Received: 05-07-93
Date Analyzed: 05-17-93

Sample Number	Sample Description
053098	Project # 62074.01 Texaco - Alameda 1127 Lincoln MW-6 WATER

ANALYSIS

	Detection Limit	Sample Results
	ppb	ppb
Total Petroleum Hydrocarbons as Gasoline	50	540
Benzene	0.5	44
Toluene	0.5	0.9
Xylenes	0.5	6.7
Ethylbenzene	0.5	7.0

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

RESNA

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

PROJECT NO	PROJECT NAME/SITE	P.O #:
6.2-741.01	Texaco 1127 Lincoln, Alameda	

SAMPLERS (SIGN) Robin A. Adair (PRINT) Robin A. Adair

SAMPLE IDENTIFICATION	DATE	TIME	COMP	GRAB	PRES. USED	ICED	NO. CONTAINERS	SAMPLE TYPE	BTEX (602/8020)	TPHg (8015)	TPHd (8015)	TOG 418.1/5520	601/8010	624/8240	625/8270	REMARKS
BB1	5-6-93	12:25			HCL	Y	2	H2O	X	X						
Trip Blank		12:30					2		X	X						
MW-8		12:35					2		X	X						
MW 1		1:15					2		X	X						
MW 2		2:50					2		X	X						
MW 3		3:45					2		X	X						
MW 4		4:45					2		X	X						
MW 5		5:25					2		X	X						
MW 6		5:45					2		X	X						

RELINQUISHED BY	DATE	TIME	RECEIVED BY:	LABORATORY:	PLEASE SEND RESULTS TO.
Robin A Adair	5-7-93	7:30AM		Mobile Chem Labs	Phil Mayberry Resna, San Jose
RELINQUISHED BY	DATE	TIME	RECEIVED BY:		
RELINQUISHED BY	DATE	TIME	RECEIVED BY:	REQUESTED TURNAROUND TIME: NORMAL	
RELINQUISHED BY	DATE 5-7-93	TIME 12:45	RECEIVED BY LABORATORY: Dave Levine	RECEIPT CONDITION: ON ICE No head space Mobile Chem	PROJECT MANAGER