#### California

13908 San Pablo Avenue Suite 101 San Pablo, California 94806 (510) 232-8366 FAX (510) 232-5133



#### Oregon

Suite 14
Eugené, Oregon 97401
(503) 342-6606 FAX (503) 342-1632

## QUARTERLY GROUNDWATER MONITORING REPORT NO. 2

1726 Park Street Alameda, California

## MANAGEMENT AND CONSULTING









California Registered Environmental Assessors California Certified Engineering Geologist Oregon Registered Engineering Geologist Oregon Registered UST Soil Cleanup Supervisors

# QUARTERLY GROUNDWATER MONITORING REPORT No. 2

1726 Park Street Alameda, California

February 16, 1993

prepared for

The Estate of John B. Henry 3312 Central Avenue Alameda, California 94501

prepared by

TMC ENVIRONMENTAL, Inc.

13685 San Pablo Avenue San Pablo, California

## CERTIFICATION

TMC Environmental, Inc. supervised the preparation of Quarterly Monitoring Report No. 2, dated February 16, 1993, for the Estate of John Henry property located at 1726 Park Street, in the city of Alameda, California. Using techniques and standards of care common to the consulting geologic profession in California. This document, signed and stamped with seal, follows section 7835 of the Geologist & Geophysicists Act, Business and Professionals Code, State of California and the requirements of the California Regional Water Quality Control Board, San Francisco Bay Region.

MARK YOUNGKIN No. 1330

ENGINEERING GEOLOGIST

TMC Environmental, Inc. Certifying Professional

Mark T. Youngkin, Vice President

Certified Engineering Geologist No. EG-1380

License Expires June 30, 1994

Dated Ebruary 8, 1993

## TABLE OF CONTENTS QUARTERLY GROUNDWATER MONITORING REPORT No. 2

## 1726 Park Street Alameda, California

1.0	INTRODUCT	TION
2.0	<ul><li>2.1 SITE</li><li>2.2 CON</li><li>2.3 CON</li></ul>	ETTE INFORMATION E LOCATION ITACT PERSON ISULTANT OF RECORD D IMPLEMENTING AGENCY
3.0	GROUNDWA	ATER LEVEL MEASUREMENTS
4.0	GROUNDWA	ATER SAMPLING AND ANALYSIS
5.0	DISCUSSION	N OF LABORATORY RESULTS
6.0	6.1 QUA 6.2 CHA 6.3 DIES ORG	MPLE DATA QUALITY ALITY OF GROUNDWATER SAMPLES AIN OF CUSTODY DOCUMENTATION SEL AND GASOLINE HYDROCARBONS WITH BTEX, AND VOLATILE GANIC COMPOUNDS ROLEUM HYDROCARBON OIL & GREASE
7.0	SCHEDULE	OF ACTIVITIES
8.0	LIMITATION	vs
		TABLES
TABLE TABLE	2 SUM	IMARY OF GROUNDWATER MEASUREMENTS
TABLE	3 SUM KER	MARY OF GROUNDWATER SAMPLING RESULTS FOR TEH OSENE/DIESEL, HYDROCARBON OIL & GREASE, AND VOLATILE

ALCU HAZHAT

LAW OFFICES OF

Mendelson & Brown

RALPH N. MENDELSON, INC THOMAS P SULLIVAN, ING JUL 21 PM 3: 02 PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS JOHN B. DICKSON SULLIVAN, ING JUL 21 PM 3: 02 NORMARINA VILLAGE PARKWAY, SUITE B. GREGORY L BEATTIE RICHARD A LYONS

POST OFFICE BOX 2426 ALAMEDA, CALIFORNIA 94501

TELEPHONE (510) 521-1211 FACSIMILE (510) 521-7879

July 19, 1994

5224-115

OF COUNSEL

ALAN'S GARBER

Juliet M. Shin Alameda County Health Care Services UST Local Oversight Program 80 Swan Way, Room 200 Oakland, CA 94621

Re: Estate of John B. Henry

1726 Park Street, Alameda, California

Dear Ms. Shin:

Enclosed is a copy of the Site Investigation Report by Pacific Environmental Group dated July 5, 1994, regarding the abovereferenced property.

Very truly yours,

ELSIE K. MATSUNO

Enclosure 1

Karel Detterman (w/out encl.)

Lisa Kim (w/out encl.)

Steven G. Rosen (w/out encl.)

## **HEALTH CARE SERVICES**

AGENCY DAVID J. KEARS, Agency Director



**ENVIRONMENTAL HEALTH SERVICES** 

ENVIRONMENTAL PROTECTION (LOP) 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

REMEDIAL ACTION COMPLETION CERTIFICATALON, 337-9335

StID 587 - 1726 Park Street, Alameda, CA 94501

October 23, 1996

Ms. Melinda Henry-Dare c/o Mendelson & Brown P.O. Box 2426 Alameda, CA 94501

Mr. Ron Zielinski Texaco 108 Cutting Blvd Richmond, CA 94804

Dear Ms. Henry-Dare and Mr. Zielinski:

This letter confirms the completion of site investigation and remedial action for the former underground storage tanks removed on and before December 5, 1991. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721(e) of the California Code of Regulations. If changes in land use, structural configuration, or site activities are proposed such that more conservative exposure scenarios should be evaluated, the owner must promptly notify this agency.

Please contact Ms. Eva Chu at (510) 567-6700 if you have any questions regarding this matter.

Very truly yours,

Mee Ling Tung, Director

Chief, Division of Environmental Protection CC:

Kevin Graves, RWQCB Lori Casias, SWRCB (with attachment)

files (jhenry.6)

LAW OFFICES OF

Mendelson & Brown

ALCO

OF COUNSEL ALAN S. GARBER

A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS DEC 20 PM 3: 08 POST OFFICE BOX 2426

ALAMEDA, CALIFORNIA 94501

TELEPHONE (510) 521-1211 FACSIMILE (510) 521-7879

December 16, 1993

RALPH N. MENDELSON, INC.

MICHAEL S BROWN, INC. THOMAS P. SULLIVAN, INC. JOHN B. DICKSON

GREGORY L. BEATTIE

RICHARD A LYONS

File No. 5224-105

Juliette Shin Alameda County Health Services Agency Department of Environmental Health Hazardous Materials Division 80 Swan Way, Room 200 Oakland, CA 94621

1726 Park Street, Alameda, California/STID ???? Re:

Dear Ms. Shin:

Pursuant to our telephone conversation today, enclosed is the work plan for preliminary groundwater plume definition for your approval. As discussed, it was my understanding that you already had seen the work plan and approved it. Presently, the work plan is out for bid and we have received two bids. We intend to enter into a contract next week for the work outlined in the enclosed work plan. We would like to have the work started in January 1994. Therefore, please immediately telephone me if the work plan is acceptable and confirm said acceptance in writing.

As further discussed, since we intend to do the next phase of investigation in January 1994, we requested that the December 1993 quarterly groundwater monitoring be postponed until January in order to consolidate it with the other work to save on costs. You graciously agreed to allow the monitoring to be postponed until January 1994 in order to be done in conjunction with the investigation set forth in the enclosed work plan.

As always, if you should have any questions or thoughts,

## CELESTE C. CRAWFORD PARALEGAL

## epartment of Environmental Health ous Materials Division

By, Rm. 200, Oakland, CA 94621 Ph: 510-271-4320

LAW OFFICES
RANDICK & O'DEA

1800 Harrison, suite 2350 Oakland, California 94612 Telecopier (510) 834-4748 Telephone (510) 836-3555

## **ING FOR SERVICES**

stID# 587

A.	Site Name  Site Address (If no address, description of area)  Number Street	Snig Phone St Alaryda 9450/
	Prior Business Name	Prior Owner's Name
B.	Service Requestor ( ) + ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	# 2350 Daxland 94612
	Category of Service  Site Search  File Search  Other	#Hours
	REMARKS:	

You will receive an invoice in accordance with Article 11 of Chapter 6, Title 3 of the Ordinance Code of Alameda County

Service Requestor	Lilia K.	mya ch			1-20-95
HazMat Specialist	printed name	Ottors	signature signature	Date Date	1-20 95
HM Bill for Svcs 4/92 mk	COPIES.	White: - Billing	Yellow - Office	Pink - Svc. Requestor	

# WORK PLAN PRELIMINARY GROUNDWATER PLUME DEFINITION FORMER TEXACO SERVICE STATION 1726 PARK STREET ALAMEDA, CALIFORNIA

November 19, 1993

## Prepared by:

Texaco Environmental Services 108 Cutting Boulevard Richmond, California

## TABLE OF CONTENTS

1.0	INTRO	DUCTION	1
2.0	SCOPE	OF WORK	2
	2.1	Soil Boring and Monitoring Well Installation	2
	2.2	Well Development and Surveying	5
	2.3	Groundwater Monitoring and Sampling	5
	2.4	Decontamination Procedures	7
3.0	FINAI	L REPORT	8
<b>4</b> . O	CLOSU	RE	0

## LIST OF FIGURES

FIGURE 1 - Proposed Soil Boring and Well Locations

## PROFESSIONAL REVIEW

This document was prepared by the professional staff of Texaco Environmental Services (TES) whose seal(s) and signature(s) appear hereon.

The findings, interpretations, recommendations, specifications, or professional opinions are presented, within the limits prescribed by the client, in accordance with generally accepted professional geologic practice at the time of preparation. There is no other warranty either expressed, implied, or granted.

Kael I. Detter

Written by:

Karel L. Detterman, R.G.

Environmental Project Coordinator

Texaco Environmental Services

Reviewed by:

Gary R. Jacobson, R.G.

Environmental Project Coordinator

Texaco Environmental Services

## 1.0 INTRODUCTION

Texaco Environmental Services (TES) has prepared this preliminary soil and groundwater plume delineation workplan covering the installation of up to twelve (12) shallow soil borings, one (1) off-site and five (5) on-site monitoring wells at the former Texaco service station located at 1726 Park Street in Alameda, The proposed preliminary characterization program is being implemented in response to a request from Alameda County Environmental Health Department dated January 29, 1993. workplan covers the work steps necessary to complete the proposed soil borings, well installations, development, soil and groundwater sampling, and analytical testing procedures to be followed during this phase of work. The "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 was the guidance document used for reference during the preparation of this workplan.

Six monitoring wells and as many as twelve soil borings and will be installed on- and off-site at the locations depicted on Figure 1. Subsequent to soil boring and well installation, the soil borings will be properly backfilled and the new monitoring wells will be developed and sampled. The results of the soil boring and well installation procedures, geologic logging, and analytical laboratory analyses will be summarized in a brief report.

## 2.1 Soil Boring and Monitoring Well Installation

The six monitoring wells and as many as twelve soil borings will be installed at the locations shown on Figure 1 in the following manner:

- Soil boring or well construction permits will be obtained from Alameda County Department of Environmental Health (ACDEH).
- A utility location/clearance will be conducted around each borehole location prior to any intrusive subsurface activities.
   Underground Services Alert (USA) will also be notified at least 48 hours prior to drilling.
- The required permit(s) will be obtained from the City of Alameda prior to installation of the offsite monitoring well.
- The borings located outside of the station building will be drilled with a truck-mounted drill rig and the borings inside the building and under the pump island canopy will be drilled with a limited access drill rig. All of the borings will be continuously cored during drilling using a

5-foot core barrel. A geologist will maintain a continuous log of sediments found in the borings through the visual examination of the soil cores. The borings will be drilled to a total depth of roughly 10 feet below where groundwater is first discovered, (groundwater roughly 5 feet below grade in January, 1993), unless a competent aquitard is intercepted.

- Organic vapor readings will be obtained in the field over the entire length of the soil cores. The readings will be taken using a photo-ionization detector (PID) equipped with a 10.2 electron volt (eV) lamp.
- Soil samples from the continuous soil cores will be selected for laboratory analyses based on PID readings in conjunction with visual inspection. Soil samples will be collected from the cores in brass tubes and sealed with teflon tape, plastic caps, and duct tape. The soil samples will be labelled with the appropriate borehole information, time and date of collection, and placed on ice for subsequent transport to a state of California certified analytical laboratory. Chain-of-custody procedures will be followed at all times.
- All soil samples selected for analysis from the soil borings and the monitoring wells will be analyzed for the presence of the following compounds:
  - 1) Benzene, toluene, ethylbenzene, xylenes (BTEX) U.S. Environmental Protection Agency (EPA) Methods 5030/8020;
  - 2) Total petroleum hydrocarbons as gasoline (TPHG) EPA Method 5030/8015;

- In addition, one or more of the following analyses will be conducted on selected soil samples depending on the proximity of the samples to the hoists and the waste oil tank:
  - Total petroleum hydrocarbons as diesel (TPHD) by EPA Method 3550/8015;
  - 2) Volatile organic compounds EPA Method 8240;
  - 3) Halogenated volatile organic compounds EPA Method 8010;
  - 4) EPA Method 8270 for semi-volatile organic compounds;
  - 5) Total Petroleum Oil & Grease (TPO&G) EPA Method 5520;
  - 6) The organic lead compounds tetraethyl lead (TEL) and ethylene dibromide (EDB) by Department of Health Services (DHS)-LUFT procedures;
  - 7) Five additional metals: lead (Pd), cadmium (Cd), chromium (Cr), nickel (Ni), & zinc (Zn) by atomic absorption (AA).
- All cuttings generated during the drilling will be stored on, and covered with plastic on-site pending laboratory analyses, and subsequent proper disposal.
- Monitoring wells installed in the borings will be constructed of 2-inch I.D. Schedule 40 PVC, 0.02inch machine slotted well screen from the bottom of the boring to approximately 2-feet above the water table, with blank 2-inch PVC casing to surface grade.

• A sand pack of No. 2-12 Monterey sand will be placed from completion depth to approximately 2-feet above the well screen. A surface seal will be placed consisting of 2-feet of hydrated bentonite slurry overlain by bentonite/cement grout to within one foot of surface grade. The wells will be completed with a water-tight locking cap, and a traffic-rated street-box.

## 2.2 Well Development and Surveying

Following well completion, the monitoring wells will be developed. Development will be achieved using a truck mounted development rig equipped with a cable operated surge block. The wells will be alternately surged and pumped and/or bailed until such time that the developed water is relatively clear and sediment free, and measurements of pH, temperature and conductivity have stabilized. Upon completion of development, the six new monitoring wells in addition to the two pre-existing wells will be surveyed to a common datum by a licensed land surveyor.

#### 2.3 Groundwater Monitoring and Sampling

Upon completion of well surveying, the six new monitoring wells in addition to the two pre-existing wells will be gauged for depth to water from the survey marks at the tops of the well casings. Depth to water measurements will then be converted into groundwater elevations based on surveyed casing elevations for the purpose potentiometric surface mapping.

Groundwater samples will then be collected from the eight monitoring wells in the following manner. Approximately 3 to 5 well volumes will be purged from each monitoring well (or until the well is bailed dry, which ever comes first), and the wells will be allowed to recover to roughly 80 percent of static levels. Groundwater samples will then be collected from each well using either a decontaminated teflon bailer or clean disposable bailer. The groundwater samples collected will be decanted into laboratory supplied sample vessels in such a manner that air is not trapped inside the vessels. The groundwater samples will be logged onto a chain-of-custody manifest and placed on ice in an insulated cooler for subsequent delivery to a State of California certified analytical laboratory.

- The groundwater samples collected from all wells will be analyzed for:
  - 1) BTEX EPA Methods 5030/8020;
  - 2) TPHG EPA Method 5030/8015;
- In addition, one or more of the following analyses will be conducted on selected groundwater samples depending on the proximity of the monitoring well to the waste oil tank:
  - 1) TPHD EPA Method 3550/8015;
  - 2) Volatile organic compounds EPA Method 8240;
  - 3) Halogenated volatile organic compounds EPA Method 8010;
  - 4) TPO&G EPA Method 5520.
  - 5) EPA Method 8270 for semi-volatile organic compounds.
  - 6) The organic lead compounds TEL and EDB DHS-LUFT procedures;
  - 7) Five additional metals: Pb, Cd, Cr, Ni, & Zn by, AA.

#### 2.4 Decontamination Procedures

During drilling operations, all augers, sampling tools, and down hole equipment will be decontaminated by steam cleaning prior to use. Rinsate water will be contained during drilling operations and will be stored on-site in 55 gallon drums. Prior to using any equipment in a monitoring well, the equipment will be decontaminated by double washing with a laboratory grade detergent in clean water, and triple rinsing with deionized water.

## 3.0 FINAL REPORT

After completion of the well installations and analytical testing, a report will be compiled which will include discussion of field procedures and methodology, boring logs with as-built well construction details, geologic and hydrogeologic interpretation, analytical laboratory results, gradient maps, and plume maps, if applicable.

## 4.0 CLOSURE

If you have any questions regarding this site, or require clarification of the work steps outlined in this report, please contact Ms. Karel Detterman at in our Richmond, California office at (510) 236-3611.

PROPERTY ADDRESS

1726 PARK STREET ALAMEDA, CA.

SURVEYOR

DAVID M LOGAN L.S. 5003 803 DORSET WAY BENICIA, CA. (707) 745-5053

DATE: MAY, 1992

SCALE: I" = 20"

REVISED JUNE 12, 1992 BT THC, INC.

## LEGEND

JOB: 104891

OMW.

MONITOR WELL

PROPERTY LINE

SOIL BORING

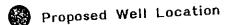
OM.W.

NEIGHBORING

MONITORING WELL

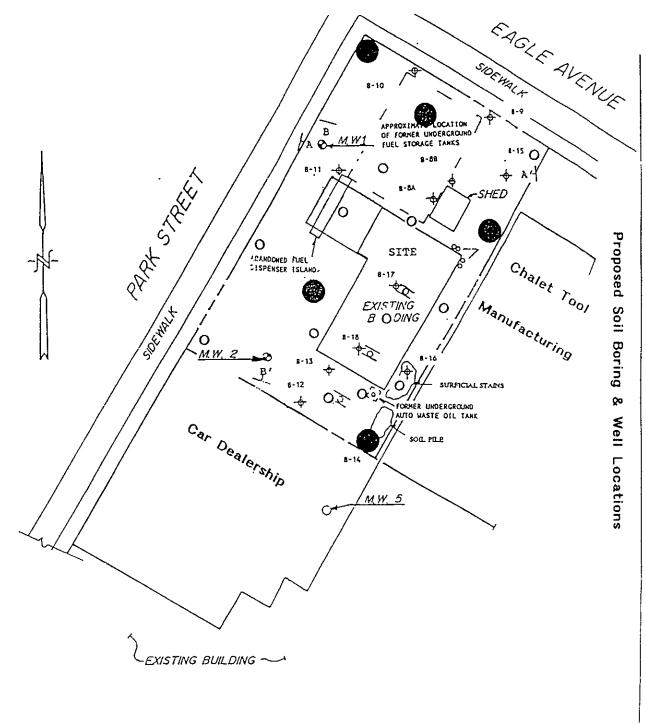
þ

HYDRAULIC HOIST



**Proposed Boring Location** 0





1726 Park Street Alameda, CA

## PROPERTY ADDRESS

1726 PARK STREET ALAMEDA, CA.

SURVEYOR DAVID M LOGAN L.S. 5003 803 DORSET WAY BENICIA, CA. (707) 745-5053

DATE: MAY, 1992

SCALE: I" = 20"

REVISED JUNE 12, 1992 BY THC, INC.

## LEGEND

OMW.

MONITOR WELL

PROPERTY LINE

JOB: 104891

SOIL BORING

OM.W.

NEIGHBORING MONITORING WELL

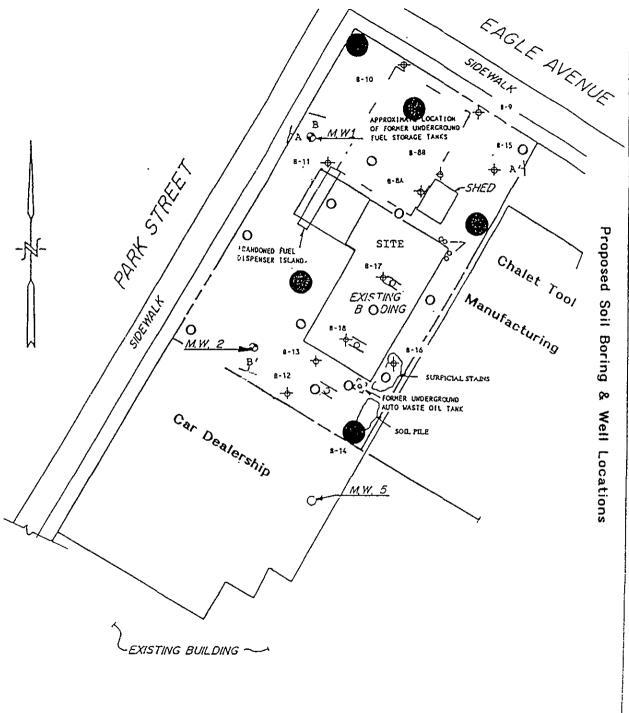
þ

HYDRAULIC HOIST

## Proposed Well Location

Proposed Boring Location 0





1726 Park Street Alameda, CA