ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

May 13, 1998

REMEDIAL ACTION COMPLETION CERTIFICATE

Mrs. Betty Christian
720 Gelston Place
El Cerrito CA 94530

Mr. Menas Christian
C/O Betty Christian

RE: Underground Storage Tank Closure, 1111 Pine St., Oakland CA 94607
(Our site # 247)

Dear Mrs Christian and Mr. Christian:

This letter confirms the completion of a site investigation for the underground storage tank formerly located at the above referenced location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above referenced file and with the provision that the information provided to this agency was accurate and complete, no further action related to the underground tank investigation is required.

This Notice is issued pursuant to a regulation contained in Section 2721(e) of Title 23 of the California Code of Regulations.

Please contact Pamela Evans of our office with any questions at (510)567-6770.

Sincerely,

Mee Ling Tung
Director, Environmental Health Specialist

c: Tom Peacock, Environmental Health Services

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO # 789

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

April 27, 1998

Chuck Headlee
San Francisco Regional Water Quality Control Board
2101 Webster St., Suite 500
Oakland CA 94612

RE: Case Closure, 1111 Pine St., Oakland 94607

Dear Mr. Headlee:

Enclosed you will find a case closure summary for the above referenced property. Please review the case and inform me of the Board's decision regarding case closure at your earliest convenience.

You may contact me with any questions at (510)567-6770.

Sincerely,

Pamela J Evans

Pamela J. Evans
Senior Hazardous Materials Specialist

c: Betty Christian, property owner

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date: 4/10/98**

Agency name: **Alameda County-EPD** Address: **1131 Harbor Bay Pkwy**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Pamela J. Evans** Title: **Senior Hazardous Materials Specialist**

II. CASE INFORMATION

Site facility name: **Bonnellie Enterprises**
Site facility address: **1111 Pine Street, Oakland, California 94607**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **247**
URF filing date: **Not Found** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Nick and Menas Christian N.H.M. Enterprises	**1111 Pine Street, Oakland California 94607**	**(510) 839-3222**
Betty Christian	**720 Gelston Pl., El Cerrito CA 94530**	**(510) 524-9831**

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	500	gasoline	Removed	09/02/93
2	1,000	unknown	filled with sand	unknown - discovered 09/30/93

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **unknown**
Site characterization complete? **Yes**
Date approved by oversight agency: **09/22/93**
Monitoring Wells installed? **None** Number: **Zero**
Proper screened interval? **N/A**
Highest GW depth below ground surface: **7.5 ft** Lowest depth: **9 ft**
Flow direction: **Northwest (assumed gradient only)**
Most sensitive current use: **unknown**
Are drinking water wells affected? **unknown** Aquifer name: **unknown**
Is surface water affected? **NO** Nearest affected SW name: **unknown**
Off-site beneficial use impacts (addresses/locations): **unknown**
Report(s) on file? **YES** Where is report filed? **Alameda County, 1131 Harbor Bay Pkwy, Alameda CA 94502**

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tank	500-gallons	H and H Ship Service Company 220 China Basin Street, San Francisco	9/02/93
Piping	not specified	----	----
Free Product	----	----	----
Soil	69-cubic yards	Forward Landfill Inc. 9999 South Austin Rd,Manteca, California	12/10/93
Residual product	150-gallons	PRC Patterson Inc., 13331 N. Highway 33, Patterson, California	09/02/97

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before*	After**	Before***	After**
TPH (Gas)	6600	<0.2	50,000	28,000
TPH (Diesel)	---	---	---	---
Benzene	63	N/D	2,000	35
Toluene	410	N/D	2,200	1100
Xylene	57	N/D	260	720
Ethylbenzene	330	0.043	2300	8100

*** Soil samples collected from the initial tank removal excavation on 9/02/97.**
**** Soil and groundwater samples collected from borings drilled 2/22/95 and 2/23/95.**
***** Groundwater samples collected from seepage into the tank pit during overexcavation activities on 9/30/93.**

Comments:

One 500 gallon gasoline tank was removed on September 2, 1993. No holes were observed in the tank, however, odorous and discolored soil was noted in the tank pit. One soil sample from the center of the excavation at 8.5' had TPHg contamination at 6600 ppm and BTEX concentrations of 63 ppm, 57 ppm and 330 ppm in the soil, respectively. Soil was replaced in the tank pit for safety reasons, but on September 30, 1993, the pit was overexcavated to remove as much contaminated soil as possible. During the overexcavation, a second tank was found positioned south west of the first tank. Tank #2 appeared to have been closed in place and filled with sand sometime in the past. Groundwater was present with a sheen and appeared to be seeping into the pit at about 8 feet bgs. The sidewalls were sampled at that depth. A grab groundwater sample was taken from the pit. Confirmatory soil concentrations were as high as 11,000 ppm TPHg and 130 ppm benzene along the west wall, where overexcavation was terminated due to the proximity to a structure onsite and the presence of the second tank and utility lines. Pit groundwater concentrations were as high as 50,000 ppb TPHg and 2,000 ppb benzene. The uncovered tank was left in place because utility pipes run directly above it. The sand inside the second tank was analyzed and contained TPHg at 1,600 ppm and benzene at 15 ppm. (See Attachment 2) Stockpile soils were tested in October, 1993 and hauled to a landfill December 10, 1993.

In February, 1995, seven borings were made to depths ranging from 7.5 to 11' below ground surface (see Attachment 3). Groundwater was encountered at about 6 feet. Soil and "grab" groundwater samples were taken from each boring. Soil and groundwater analyses from borings SB1, SB3, SB4 and SB7 (all in assumed up-gradient or cross-gradient directions) showed no petroleum hydrocarbon contamination above detection limits. No detectable levels where found in SB5, located downgradient approximately 45 feet from the former tanks. SB6, also assumed to be down-gradient from the former tanks and also located about 45 feet away, contained only xylenes at up to 43 ppb in soil and up to 5 ppb in groundwater at a depth of 6 feet. SB2, assumed to be upgradient from the former tanks and located about 45' away, presented an apparent anomaly. Concentrations

in groundwater from SB2 were as high as 28 ppm TPHg, and .035 ppm benzene. Soil samples from this boring from a depth of 4.5' showed no detectable concentrations of TPHg or BTEX. The consultant speculates that this contamination may be coming from an off-site source. MTBE and total lead were not analyzed for any of the samples.

In March, 1998 a RBCA was prepared for the site. This assessment evaluated commercial exposures from indoor and outdoor inhalation of vapors from soil and groundwater sources. In addition, exposure of a construction worker through dermal contact, inhalation of vapors and particulate ingestion was evaluated. The RBCA found that there was not an unacceptable risk to human health (>1.0XE-5 excess cancer risk). Residential exposures were not evaluated.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan?

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan?

Does corrective action protect public health for current land use? **YES**
Site management requirements: NA

Should corrective action be reviewed if land use changes? **YES**

Monitoring wells Decommissioned: **N/A**
Number Decommissioned: **None** Number Retained: **None**

List enforcement actions taken: Notice of Violation, 4/24/95
List enforcement actions rescinded: None

Site closure is recommended for the following reasons:

1. The leak has been stopped and the sources (one tank and some soil) have been removed. Limited overexcavation was conducted in 9/93 to remove contaminated soil. While confirmatory sample results of 11,000 ppm TPHg and 130 ppm benzene indicate that considerable contamination was left in place along the west wall , soil removal had to be terminated due to possible impact to the nearby structure and presence of utility lines. However, of two borings done inside the building at a distance of 45' from the former tank pit, only one showed even low levels of xylenes (no benzene or other petroleum constituents). Sand found inside the second tank from an earlier closure was left in place and contains up to 15 ppm benzene.

2. The site has been adequately characterized. A total of nine borings have been drilled to delineate the vertical and lateral extent of petroleum contamination in soil and groundwater. Site lithology has been logged and clay soils predominate. Based on Levine-Fricke's assumption that groundwater flow is toward the northwest, borings SB5 and SB6 are located downgradient. Groundwater contamination was not detected in SB5 and SB6, indicating that the plume is confined within site boundaries. Borings SB2, SB3 and SB7 were placed up in the presumed updgradient from the UST location, and no significant soil or groundwater contamination was found in these borings, either, except for the low groundwater findings (28 ppb TPHg) in SB2. The Levine-Fricke report suggests this contamination is migrating onto the site from another source.

Little is known about the dissolved hydrocarbon plume, because no wells were installed. However, based on soil and groundwater findings from borings done over a three year period, it appears to be stable and not migrating. No water wells, deeper drinking water aquifers, surface waters, or other sensitive receptors are likely to have been impacted. Samples collected from the borings surrounding the former tank pit found only low levels of TPHg and BTEX. Petroleum hydrocarbon contamination appears to be confined to the area adjacent to the excavation.

3. The site does not appear to present a significant risk to human health or the environment. The RBCA evaluation concluded that average benzene soil levels do not exceed RBSLs for commercial use or in a construction scenario. However, if the site is ever considered for residential use, the risk must be re-evaluated.

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Pamela J. Evans Title: **Senior Hazardous Materials Specialist**
Signature: Pamela J Evans Date: April 10, 1998

Reviewed by
Name: **Tom Peacock** Title: **Supervising Hazardous Materials Specialist**
Signature: Tom Peacock Date: 4-14-98

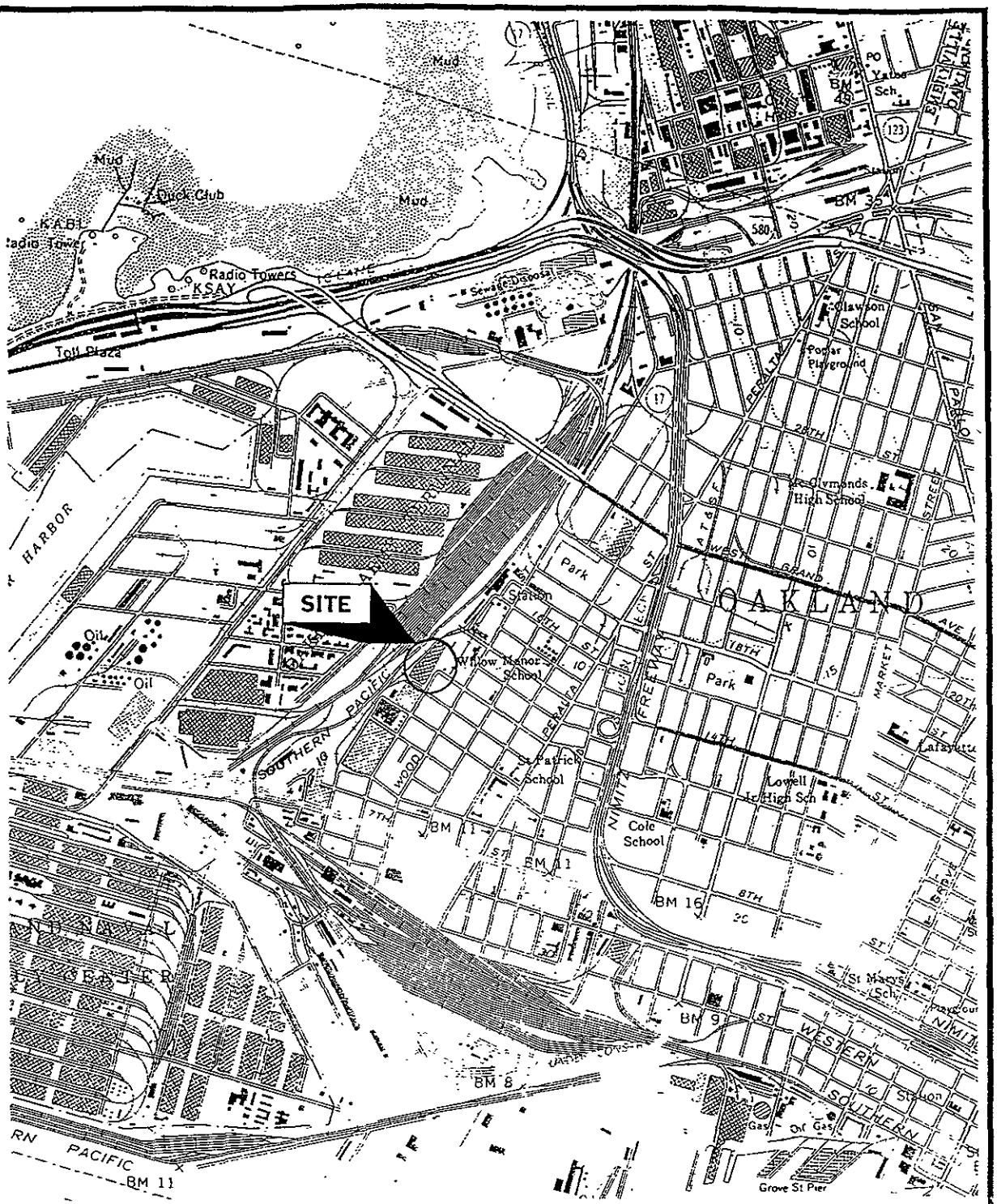
Name: **Madhulla Logan** Title: **Hazardous Materials Specialist**
Signature: Madhulla Logan Date: April 10, 1998

VI. RWQCB NOTIFICATION

Date Submitted to RB: 5/5/98 RB Response: ~~5/6/98~~ Chuck Headlee
RWQCB Staff Name: **Chuck Headlee** Title: **Associate Engineering Geologist** Date: 5/6/98

See attachments:

1. Site general vicinity map.
2. Photocopy of photograph showing utility lines over abandoned tank.
3. Site diagram showing former tank pit and building locations.
4. Soil analysis report from 10/95.

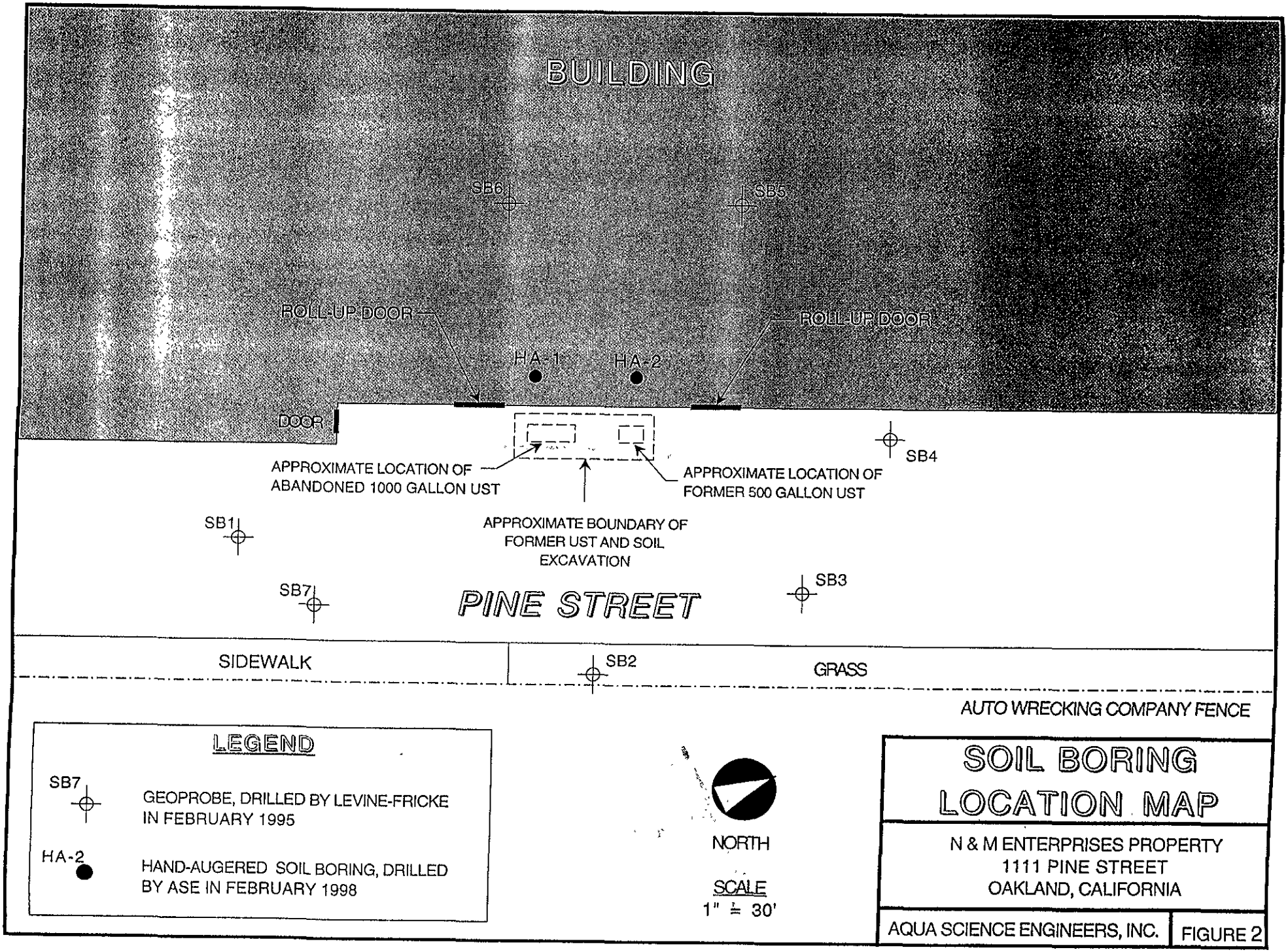


SITE LOCATION MAP	
N&M Enterprises Property 1111 Pine Street Oakland, California	
Aqua Science Engineers, Inc.	Figure 1

BASE: USGS Oakland West 7.5 minute quadrangle topographic map, dated 1980, scale 1:24,000.

9-30-93 Bonnelli Enterprises
QR 1111 Pine St., Oakland 607

2nd LIST.



SOIL BORING LOCATION MAP

N & M ENTERPRISES PROPERTY
1111 PINE STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | FIGURE 2

TABLE TWO

Summary of Chemical Analysis of **SOIL** Samples
All results are in **parts per million**

Location	Depth Sampled	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
S. Tank Pit	8'	**840**	**11**	**41**	**11**	**69**	---
E. Tank Pit	8'	**80**	**1.7**	**2.0**	**0.4**	**3.0**	---
W. Tank Pit	8'	**11,000**	**130**	**830**	**220**	**1,200**	---
N. Tank Pit	8'	**1,200**	**16**	**81**	**21**	**120**	---
SB1	2.5'	< 0.2	< 0.005	< 0.005	< 0.005	< 0.005	---
	4.5'	< 0.2	< 0.005	< 0.005	< 0.005	< 0.005	---
SB2	4.5'	< 0.2	< 0.005	< 0.005	< 0.005	< 0.005	---
SB3	3.0'	<1	< 0.005	< 0.005	< 0.005	< 0.030	---
	4.5'	< 0.2	< 0.005	< 0.005	< 0.005	< 0.005	---
SB4	2.0'	< 0.2	< 0.005	< 0.005	< 0.005	< 0.005	---
	6.0'	< 0.2	< 0.005	< 0.005	< 0.005	< 0.005	---
SB5	3.5'	< 0.2	< 0.005	< 0.005	< 0.005	< 0.005	---
	6.5'	< 0.2	< 0.005	< 0.005	< 0.005	< 0.005	---
SB6	6.0'	< 0.2	< 0.005	< 0.005	< 0.005	**0.043**	---
SB7	4.5'	< 0.2	< 0.005	< 0.005	< 0.005	< 0.005	---
	6.5'	< 0.2	< 0.005	< 0.005	< 0.005	< 0.005	---
HA-1	8'	< 1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
HA-2	8'	**540**	**2.1**	**30**	**15**	**88**	< 1.2

Notes:
Detectable concentrations are in **bold**.

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.