ALAMEDA COUNTY
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
(510) 567-6700
FAX (510) 337-9335

REMEDIAL ACTION COMPLETION CERTIFICATION

February 10, 1997

Mr. Jim Phillipsen
3111 Marina Drive
Alameda, CA 94501

Re: Alameda Max's Auto, located at 1357 High Street, Alameda, CA 94501 [STID 1702]

Dear Mr. Phillipsen,

This letter confirms the completion of site investigation and remedial action for the underground storage tanks formerly located at the above described 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. Enclosed is the Case Closure Summary for the referenced site for your records.

Based on information in the above-referenced file 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 Section 2721(e) of Title 23 of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung
Director of Environmental Health Services

Attachment

c: Acting Chief, Hazardous Materials Division - files
Juliet Shin, ACDEH
Kevin Graves, RWQCB
Lori Casias, SWRCB (w/ enclosure)
Cheryl Gordon, SWRCB Cleanup Fund

01-0052

ENVIRONMENTAL PROTECTION

97 FEB -6 PM 2:51

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION Date: December 20, 1996

Agency name: Alameda County-HazMat Address: 1131 Harbor Bay Pkwy.
City/State/Zip: Alameda, CA 94502 Phone: (510) 567-6700
Responsible staff person: Juliet Shin Title: Senior HMS

II. CASE INFORMATION

Site facility name: Alameda Max's Auto
Site facility address: 1357 High Street, Alameda, CA 94501
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 1702
URF filing date: 4/26/93 SWEEPS No: N/A

Responsible Parties:	Addresses:	Phone Numbers:
Mr. Jim Phillipsen	3111 Marina Drive Alameda, CA 94501	(510)523-8964

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	2,000	gasoline	removed	8/15/89
2	4,000	gasoline	removed	3/26/93
3	5,000	gasoline	removed	3/26/93
4	6,000	gasoline	removed	3/26/93
5	550	gasoline	removed	3/26/93
6	2,000	gasoline	closed in-place	~1954
7	150	waste oil	removed	3/26/93

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: Unknown.

Site characterization complete? YES

Date approved by oversight agency: December 20, 1996

Monitoring Wells installed? YES Number: 4

Proper screened interval? YES. Wells are screened from 3- to ~16 to 20-feet below ground surface (bgs).

Highest GW depth below ground surface: 2.84-feet bgs Lowest depth: 4.42 feet bgs.

Flow direction: **southeast**

Most sensitive current use: **Site is zoned for commercial/residential**

Are drinking water wells affected? **NO** Aquifer name: **Unknown**

Is surface water affected? **NO** Nearest affected SW name: **None**

Off-site beneficial use impacts (addresses/locations): **None**

Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
1131 Harbor Bay Pkwy.
Alameda, CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
UST	one	Erickson 255 Parr Blvd. Richmond, CA 94801	8/15/89
USTs	five	Erickson 255 Parr Blvd. Richmond, CA 94801	3/26/93
Rinsate	895 gallons	Demenno Kerdoon 2000 N Alameda Compton, CA	3/25/93
Soil	88 tons	Port Costa Materials Port Costa, CA	11/22/93
	225 tons	Forward Lanfill 9999 South Austin Rd. Manteca, CA	4/19/96
Groundwater	700 gallons	McKittrick Waste Treatment 56533 Hwy 58, West McKittrick, CA	4/19/96

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)
Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before[1]	After	Before[7]	After[10]
TPH (Gas)	3,200	140[8]	29,000	510
TPH (Diesel)	1,400[4]	250*	180[6]	1,000*
Oil & Grease	12,000	3,000[9]	6,200[5]	ND
Benzene	1.8	0.12[8]	410	1.5
Toluene	97	0.13[8]	1,600	11
Xylene	880	0.3[8]	7,000	67
Ethylbenzene	21[2]	0.16[8]	1,100	28
Napthalene	1.0[3]	1.3[9]	NA	
2-methyl napthalene	1.7[3]	ND[9]	NA	
acenaphthylene	0.3[3]	ND[9]	NA	
trichloroethene	ND	ND	0.7	ND

1-Sample #2 collected from the 2,000-gallon gas tank pit in August 1989
2-Sample #3 collected from the 2,000-gallon gas tank pit in August 1989
3-Sample #3 collected from the waste oil tank pit in March 1993
4-Sample collected from Boring BH-B in March 1994.
5-Sample collected from Well MW-2 in April 1994.
6-Sample collected from Well MW-3 in April 1994.
7-"grab" groundwater sample initially collected from the 2,000-gallon gas UST pit in August 1989.
8-Sample #6 from the gasoline tank pit in March 1993
9-Confirmatory samples SE and SW collected from the overexcavated area around former Well MW-2.
10-Results of last quarterly groundwater sampling event conducted in December 1996.
*-Didn't match diesel standard/non-typical chromatogram pattern

IV. CLOSURE

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

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

Does corrective action protect public health for current land use? **YES**

Site Management Requirements: If excavation takes place at the site for construction, land use change, etc., a Health & Safety plan should be prepared to address any potential exposures to the residual petroleum concentrations at the site. Additionally, if exposures to these concentrations are expected, the local agency should be notified to address any new potential exposure pathways.

Monitoring wells Decommisioned: **YES, Well MW-2. Others will be decommisioned upon receipt of case closure.**

Number Decommisioned: **One** Number Retained: **Three**

List enforcement actions taken: **None**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Juliet Shin** Title: **Senior HMS**
Signature: Juliet Shin Date: 1/24/97

Reviewed by
Name: **Eva Chu** Title: **Hazardous Materials Specialist**
Signature: Eva Chu Date: 1/7/97

Name: **Thomas Peacock** Title: **Supervising HMS**
Signature: Thomas Peacock Date: 1-24-97

VI. RWQCB NOTIFICATION

Date Submitted to RB: RB Response: Approved
RWQCB Staff Name: Kevin Graves Title: San. Engineering Asso. Date: 2/4/97

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site is located roughly 0.5 miles west of San Leandro Bay, 0.6 miles northeast of San Francisco Bay, and ~0.75 miles southwest from the Oakland Inner Harbor (refer to attached figure 1). The site is located in a residential/commercial area. A gasoline service station formerly occupied the site. The site is currently vacant.

One 2,000-gallon gasoline underground storage tank (UST) was removed from the site on August 15, 1989. No holes were noted in the tank. Groundwater was encountered in the UST pit. Two soil samples were collected from each end of the UST at the soil/water interface (~6.5- to 7-feet below ground surface (bgs)) (refer to attached figure 2 and Tables 1 & 2). One "grab" groundwater sample was collected after the pit was pumped dry and groundwater allowed to recharge. Both soil and groundwater samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Analysis results of the "grab" groundwater sample identified 29,000 parts per billion (ppb) TPHg, 410ppb benzene, 1,600ppb toluene, 1,100ppb ethylbenzene, and 7,000ppb total xylenes. Analysis of the soil samples identified up to 3,200 parts per million (ppm) TPHg, 1.8ppm benzene, 97ppm toluene, 21ppm ethylbenzene, and 880ppm total xylenes.

On March 26, 1993, five additional USTs were removed from the site: one 4,000-gallon gasoline UST, one 5,000-gallon gasoline UST, one 6,000-gallon gasoline UST, one 550-gallon gasoline UST, and one 150-gallon waste oil UST (refer to attached figure 3). Additionally, one 2,000-gallon gasoline UST was left in-place. The 550-gallon UST and 2,000-gallon UST had already been filled with concrete in ~1954. Floating product and a strong hydrocarbon odor was noted in the tank pit of these two USTs. Additionally, a hole was noted in the 550-gallon UST. No apparent holes were observed in any of the other USTs. Floating product and strong petroleum odors were also noted in the waste oil tank pit. Groundwater was encountered in all the tank pits at approximately 5- to 6-feet bgs.

A total of eight soil samples from the tank pit sidewalls were collected from all the excavations, and one "grab" groundwater sample was collected from the large UST pit (refer to attached figure 4 and tables 3 through 6). The soil and groundwater samples were analyzed for TPHg and BTEX. Additionally, Sample 3, from the waste oil tank pit, was analyzed for TPH as diesel (TPHd), chlorinated hydrocarbons (using Method 8010), polynuclear aromatic hydrocarbons (PNAs), and CAM 17 metals; and the "grab" groundwater sample was also analyzed for lead. Analysis of the soil samples identified up to 940ppm TPHg, 2,200ppm TPHd, 12,000ppm Oil & Grease (O&G), 0.37ppm benzene, 0.56ppm toluene, 1.1ppm ethylbenzene, 3.2ppm total xylenes, 1ppm napthalene, 1.7ppm 2-methyl napthalene, and 0.3ppm acenaphthylene. Analysis of the groundwater sample identified 11,000ppb TPHg, 24ppb benzene, 35ppb toluene, 39ppb ethylbenzene, and 88ppb total xylenes. Only low levels of metals, below levels of concern, were identified in the soil and groundwater samples.

On November 22, 1993, the waste oil tank pit was overexcavated (refer to attached figure 5 and table 7). Additionally, previously excavated soil from the other tank pits, that had been backfilled temporarily, was re-excavated. A total of approximately 88 tons of soil was hauled off site to Port Costa Materials, Port Costa, California for recycling. One confirmatory soil sample (OEX-A) was collected from the sidewall of the waste oil tank pit at ~5.5-feet bgs and ~3 feet from the edge of the neighbor's driveway (refer to attached figure for sample location). This confirmatory soil sample was analyzed for TPHg, TPHd, O&G, and BTEX. Analysis of this sample only identified 2ppm O&G.

On March 31, 1994, three borings were drilled at the site (BH-A, BH-B, and BH-C) (refer to attached figure 6 and table 8). Sediments encountered during drilling consisted primarily of high permeability sand. Soil samples were collected from ~3-feet bgs from each boring. Soil samples were analyzed for TPHg, TPHd, O&G, and BTEX. Additionally, the soil sample collected from BH-B, located adjacent to the former waste oil UST, was analyzed for chlorinated hydrocarbons (using Method 8010) and CAM 17 metals. Analysis results of these samples identified 1,400ppm TPHd and 7,500ppm O&G from Boring BH-B; no contaminants from Boring BH-A; and 7.4ppm TPHg, 0.03ppm ethylbenzene, and 0.3ppm total xylenes from Boring BH-C. No metal concentrations of concern were identified in these samples.

The three borings were converted into monitoring wells, MW-1 through MW-3 (refer to attached wells logs). Groundwater samples collected from the three wells were analyzed for TPHg, TPHd, O&G, and BTEX. The water sample collected from Well MW-2, located nearest to the former waste oil tank, was also analyzed for chlorinated hydrocarbons (using Method 8010) and CAM 17 metals. Analysis results identified up to 1,200ppb TPHg, 180ppb TPHd, 6,200ppb O&G, 3ppb benzene, 27ppb toluene, 44ppb ethylbenzene, 230ppb total xylenes, and 0.7ppb trichloroethene.

On September 30, 1994, one off-site boring, BH-D, was drilled downgradient of the three existing monitoring wells. One soil sample was collected from this boring at ~3.5-feet bgs. This sample was analyzed for TPHg, TPHd, O&G, and BTEX. No contaminants were identified in this sample. This boring was converted into monitoring well MW-4 (refer to figure 7).

On July 31, 1995, six off-site borings (BH-E through BH-J) were drilled downgradient of the site to delineate the extent of soil and groundwater contamination (refer to figure 8 and tables 9 and 10). Soil samples from ~4-feet bgs and "grab" groundwater samples were collected from each boring location. Samples were analyzed for TPHg, TPHd, O&G, and BTEX. Analysis results identified 800ppm O&G from BH-G and 20ppm O&G in soil from BH-J. No other soil contamination was identified above detection limits. Analysis of the "grab" groundwater samples identified the highest contaminant concentrations from BH-F (1,300ppb TPHg, 600ppb TPHd, 200ppb O&G, 2ppb toluene, 18ppb ethylbenzene, and 27ppb total xylenes). The only other borings to identify any contaminants were BH-E at 100ppb TPHd and BH-J at 300ppb O&G. Due to the inconsistencies between the constituents and concentrations identified in these borings and the on-site wells, it is uncertain whether the contaminants identified in these off-site borings are all attributable to the site.

During groundwater sampling events, floating product was consistently noted in Well MW-2. In September 1995, an oil skimmer was installed in this well. Additionally, in August 1995, a sample of the floating product was fingerprinted as 98% motor oil/asphalt range hydrocarbons (C32-C44) and 2% was in the mineral spirit/kerosene hydrocarbon range (C8-C14).

On January 29, 1996, two additional borings, B-A and B-B, within 2- to 5-feet from Well MW-2 in order to better delineate the extent of the observed floating product and to assess the PNA concentrations in soil (refer to figure and table 11). Floating product was noted on the groundwater surface in both these borings. One soil sample from B-A was collected from ~4-feet bgs and analyzed for PNAs. Analysis of this sample identified 2.4ppm napthalene, 0.15ppm acenaphthylene, 0.13ppm fluorene, and 0.5ppm phenanthrene.

On March 13, 1996, Well MW-2 was destroyed in order to prepare for the overexcavation of this area. On April 19, 1996, approximately 225 tons of

soil was overexcavated from this area. The excavation was extended as far northwest as the previously overexcavated area near the former waste oil tank, as far northeast as the former gasoline USTs backfill, southwest until the excavation was within the 12-foot safety margin of High Street and monitoring well MW-3, and southwest until no more soil that may contain free-phase oil was encountered (refer to attached figure 10 and table 12). Approximately 700 gallons of water and free-floating oil were removed from the excavation and transported to McKittrick Waste Treatment Site in McKittrick, CA.

Two confirmatory soil samples (SE-4.0' and SW-4.0')were collected from the overexcavation at ~4-feet bgs and analyzed for TPHg, TPHd, O&G, BTEX, and PNAs. Analysis of SE-4.0' identified 3,000ppm O&G, and analysis of SW-4.0' identified 1,300ppm TPHg, 250ppm TPHd, 3.2ppm total xylenes, and 1.3ppm napthalene.

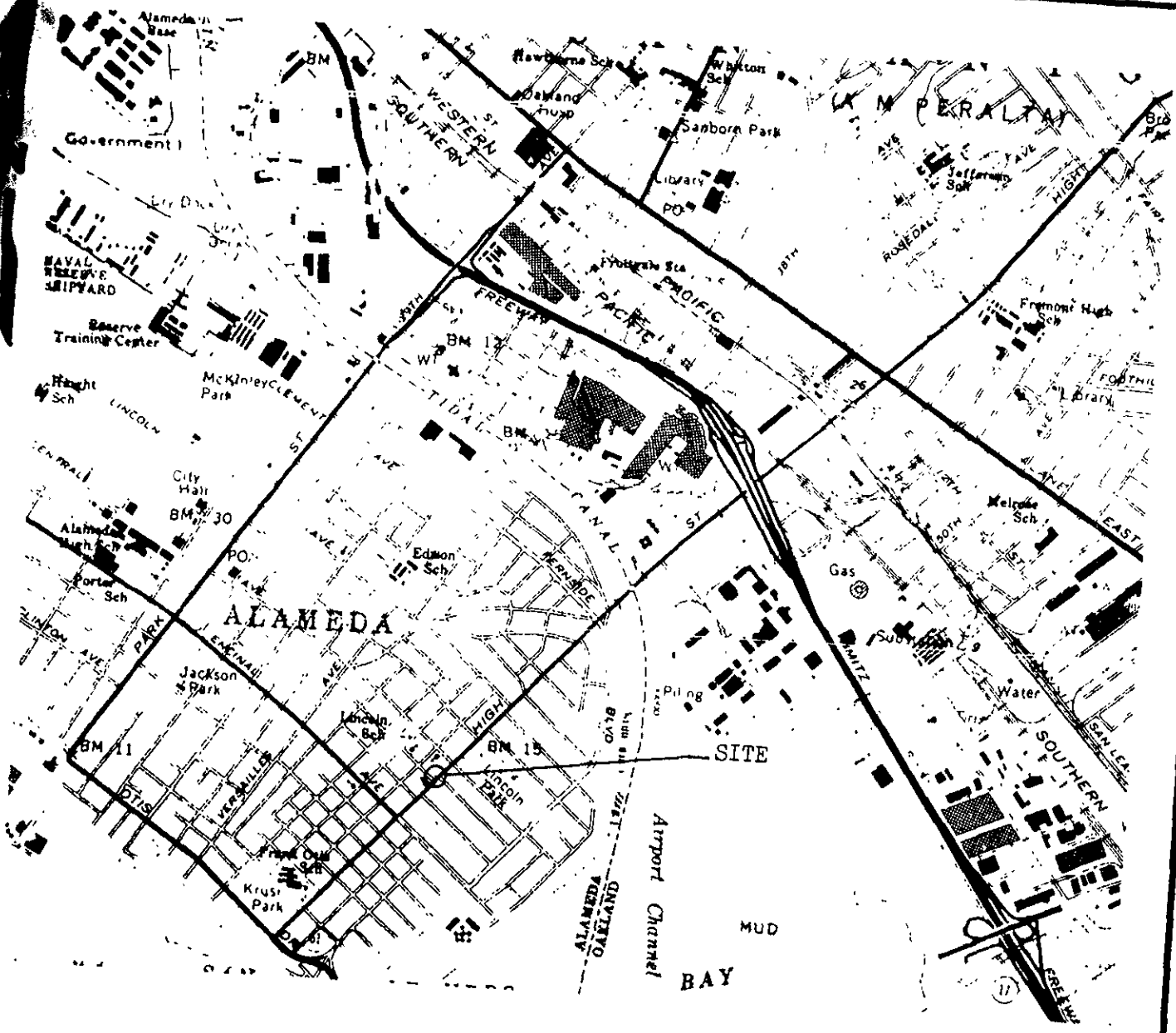
In summary, this office is recommending case closure for this site, based on the following:

- The bulk of the limited extent of floating product observed in Well MW-2 appears to have been removed by the oil skimmer and the overexcavation of the area around Well MW-2. Additionally, the O&G product observed in Well MW-2 does not appear to readily migrate, since downgradient wells MW-1 and MW-3 have not identified O&G in groundwater. Furthermore, confirmatory soil samples collected from the overexcavation around Well MW-2 did not identify any semi-volatile or volatile hydrocarbons.

- Residual levels of benzene in soil at the site are below human health protective levels for a 10^{-4} excess cancer risk on a residential property, per the Tier 1 table in the American Society for Testing and Materials' Risk-Based Corrective Action Guidelines (ASTM RBCA)(E 1739-95). Levels of benzene in groundwater at the site are below a 10^{-5} excess cancer risk for groundwater ingestion at a residential site and below a 10-6 excess cancer risk for groundwater vapor intrusion into buildings at a residential site, per ASTM RBCA.

- Based on the groundwater concentrations identified in the downgradient Well MW-4, it is evident that the plume is fairly stable and that contaminant concentrations are attenuating.

FIGURES

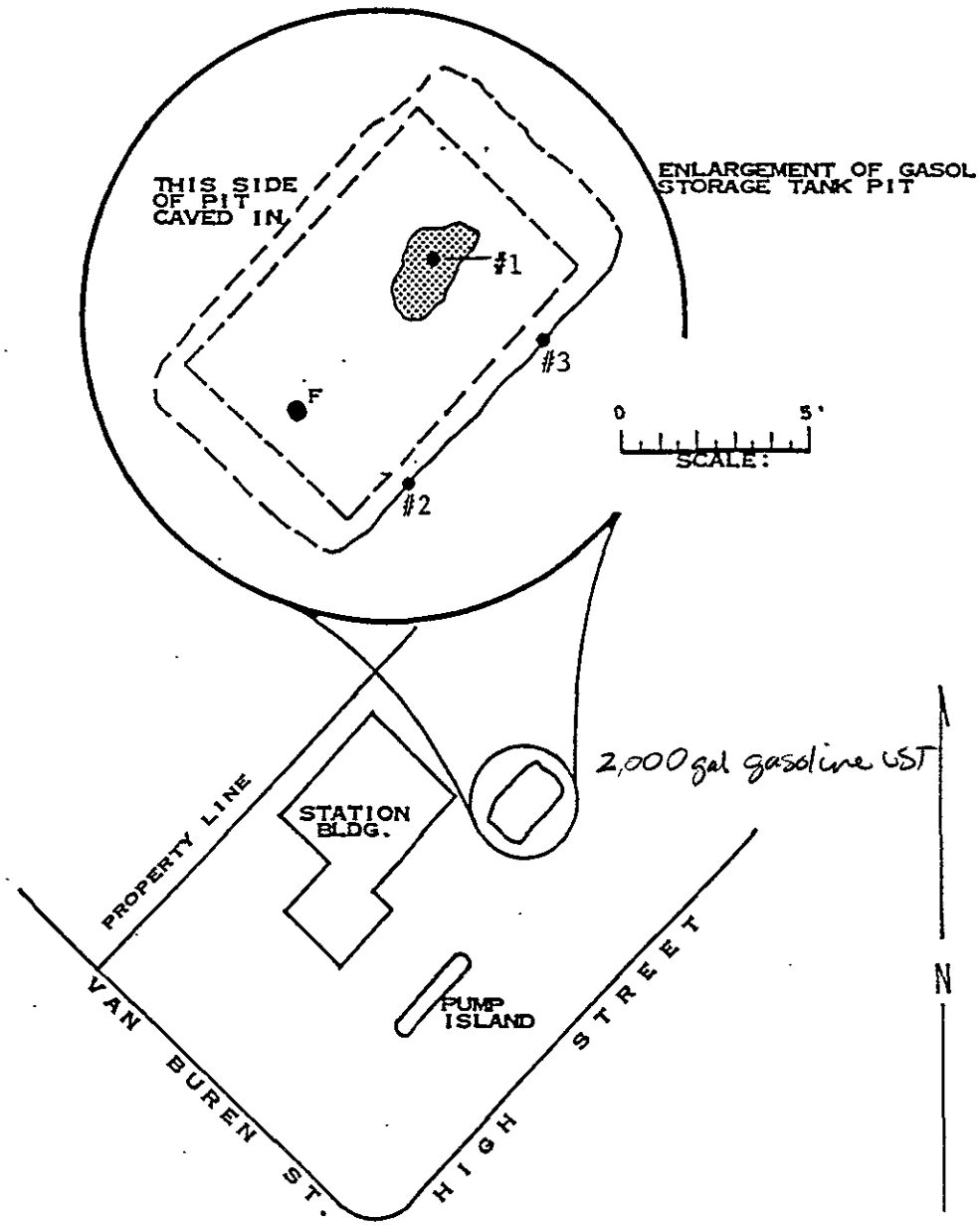


Oakland East and Oakland West 7.5 minute quadrangle topographic map, ated 1980, scale 1:24,000.

SITE LOCATION MAP

Alameda Max's
1357 High Street
Alameda, California

Aqua Science Engineers | Figure 1



SCALE: 0 — 50'

LEGEND: = WATER IN PIT

MAP REF: THOMAS BROS. ALAMEDA CO. P.11 E-6

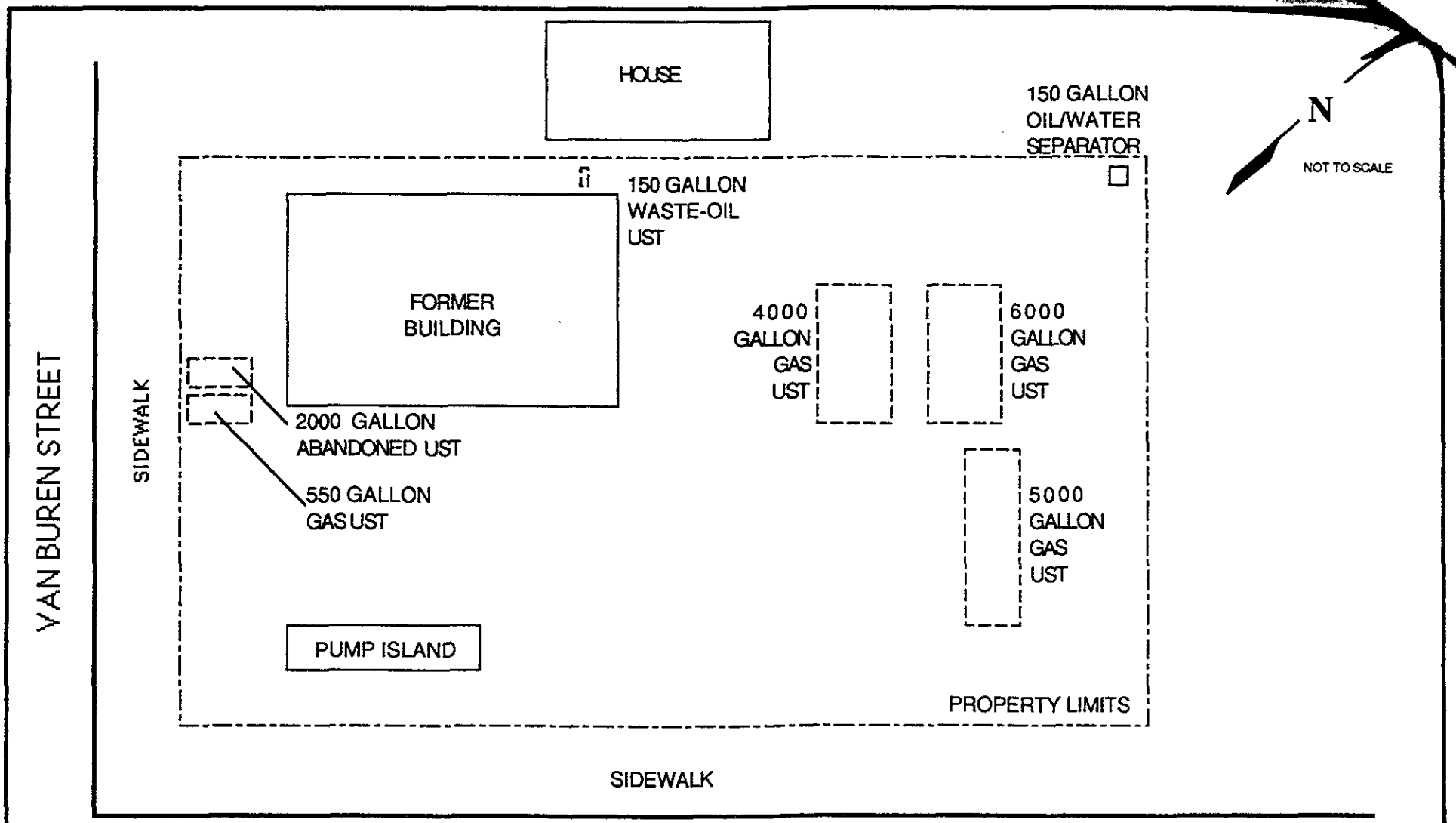
#1 SUBSURFACE WATER SAMPLE ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS(TPH) AS GASOLINE, AND BENZENE, TOLUENE, XYLENES AND ETHYLBENZENE(BTXE) AT SEQUOIA ANALYTICAL LABORATORY SEQUOIA LAB NO. 908-1637

#2 SOIL SAMPLE FROM WALL AT 6.5' ANALYSIS FOR TPH AS GASOLINE AND BTXE SEQUOIA LAB NO. 908-1638

#3 SOIL SAMPLE FROM WALL AT 7' ANALYSIS FOR TPH AS GASOLINE AND BTXE SEQUOIA LAB NO. 908-1639

SAMPLING PERFORMED BY MARGO MACKEY

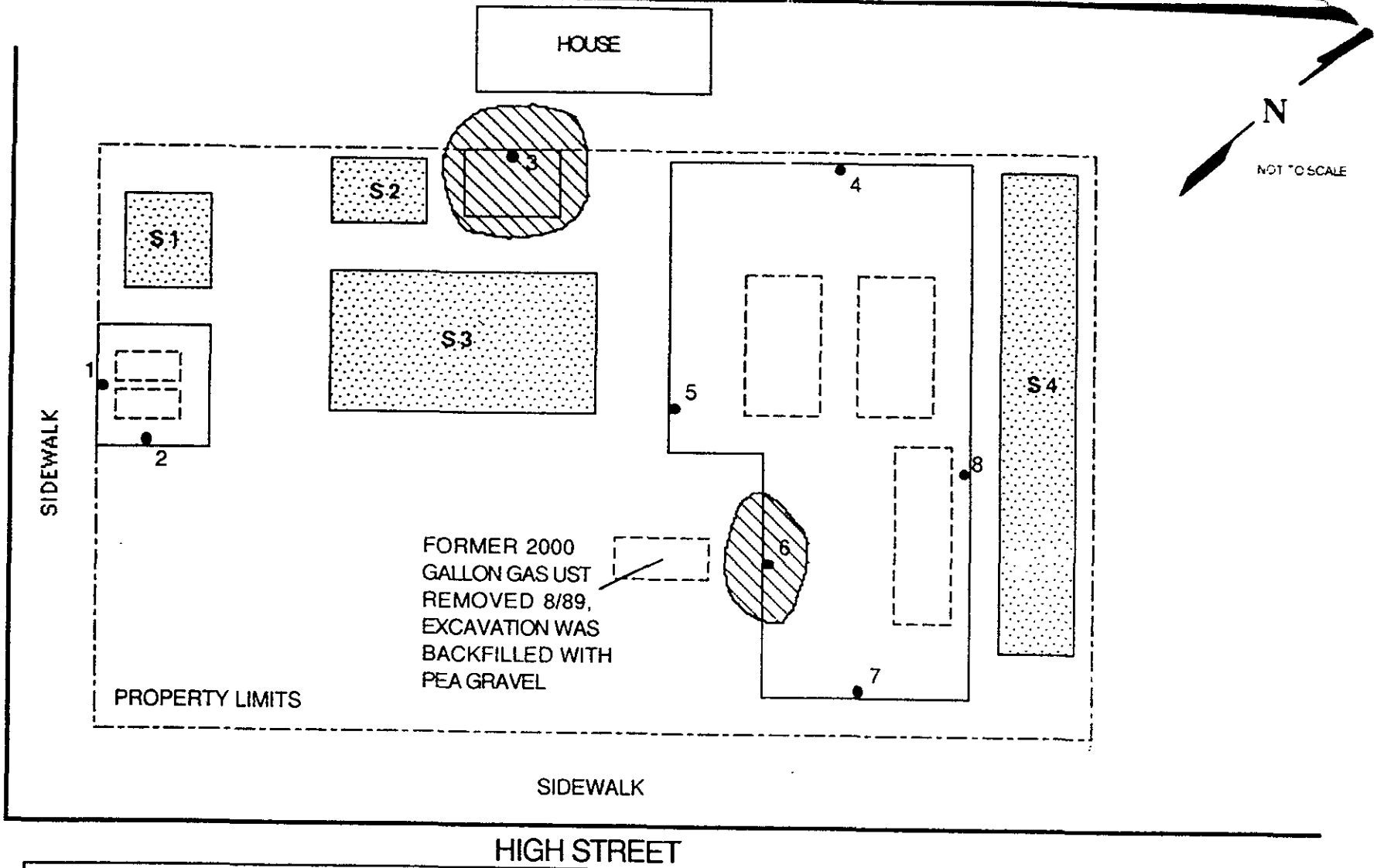
DIAGRAM PREPARED BY BRENT ADAMS



SITE PLAN

Former Alameda Max's
1357 High Street
Alameda, California

Aqua Science Engineers | Figure 2



LEGEND

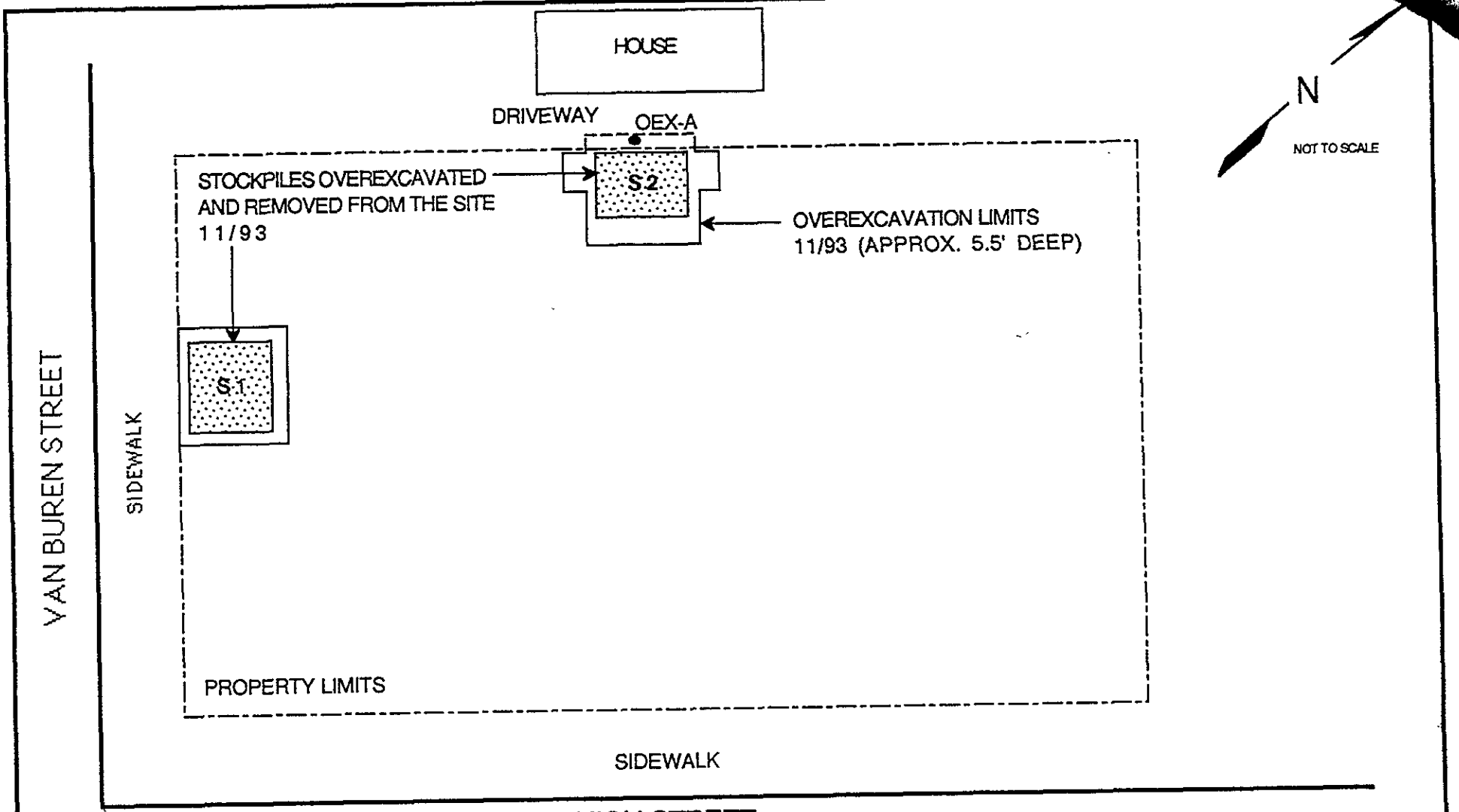
- 8 — DISCRETE, SIDEWALL SOIL SAMPLE
- S1 — STOCKPILED SOIL
- PROPOSED AREA TO BE OVEREXCAVATED

SAMPLING PLAN

Former Alameda Max's
1357 High Street
Alameda, California

Aqua Science Engineers | Figure 3

ALAMEDA MAX'S TANK PULL - April 1993



LEGEND

S1 — PREVIOUSLY STOCKPILED SOIL GENERATED DURING UST REMOVAL, WHICH WAS SUBSEQUENTLY USED AS TEMPORARY BACKFILL

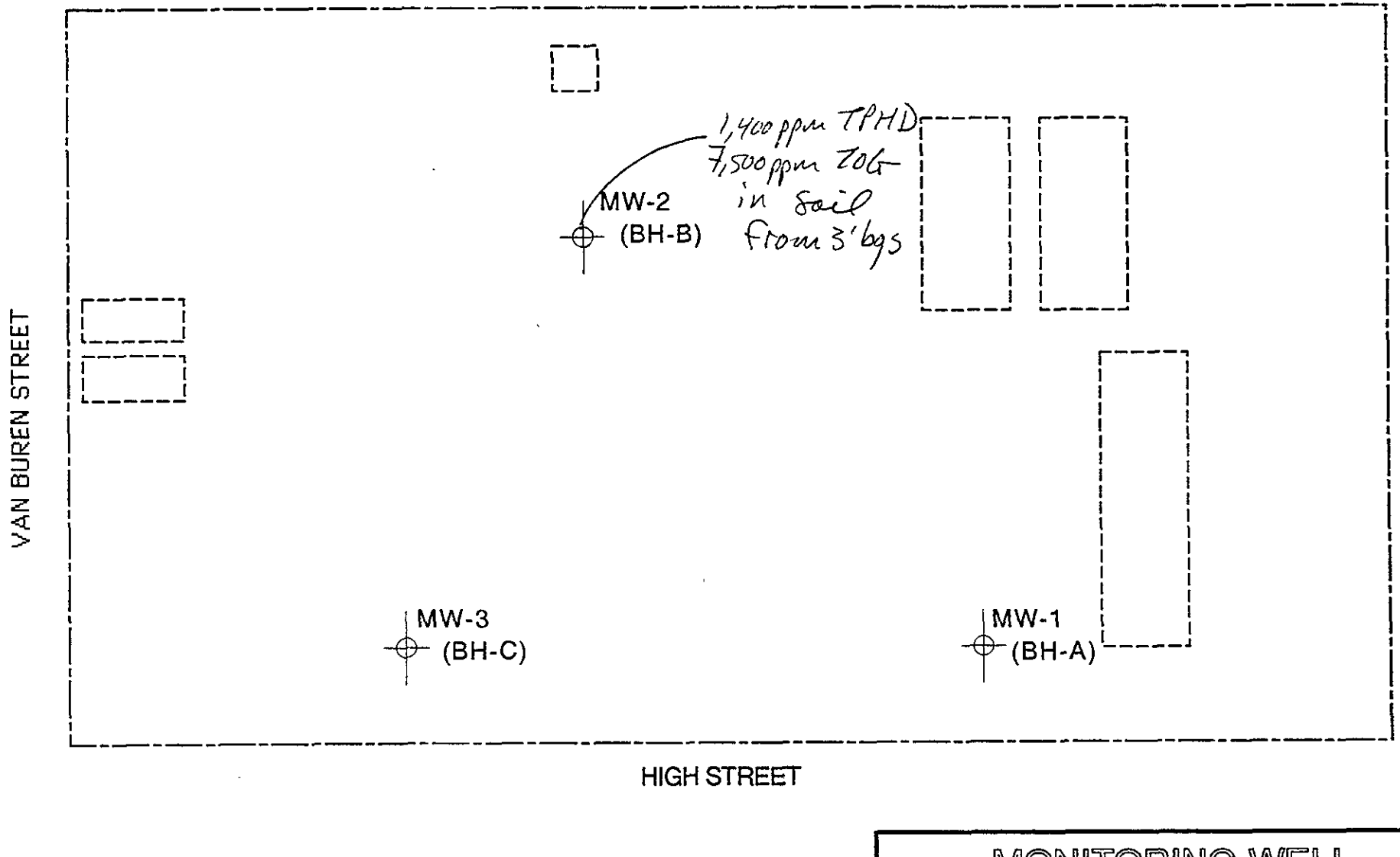
OEX-A • — SOIL SAMPLE LOCATION COLLECTED AFTER OVEREXCAVATION ACTIVITIES CONDUCTED ON 11/93

SITE PLAN

Former Alameda Max's
1357 High Street
Alameda, California

Aqua Science Engineers | Figure 1

57



LEGEND

MW-3 (BH-C) — Groundwater Monitoring Well; Boring I.D. in Parentheses

Former Underground Storage Tank

NORTH

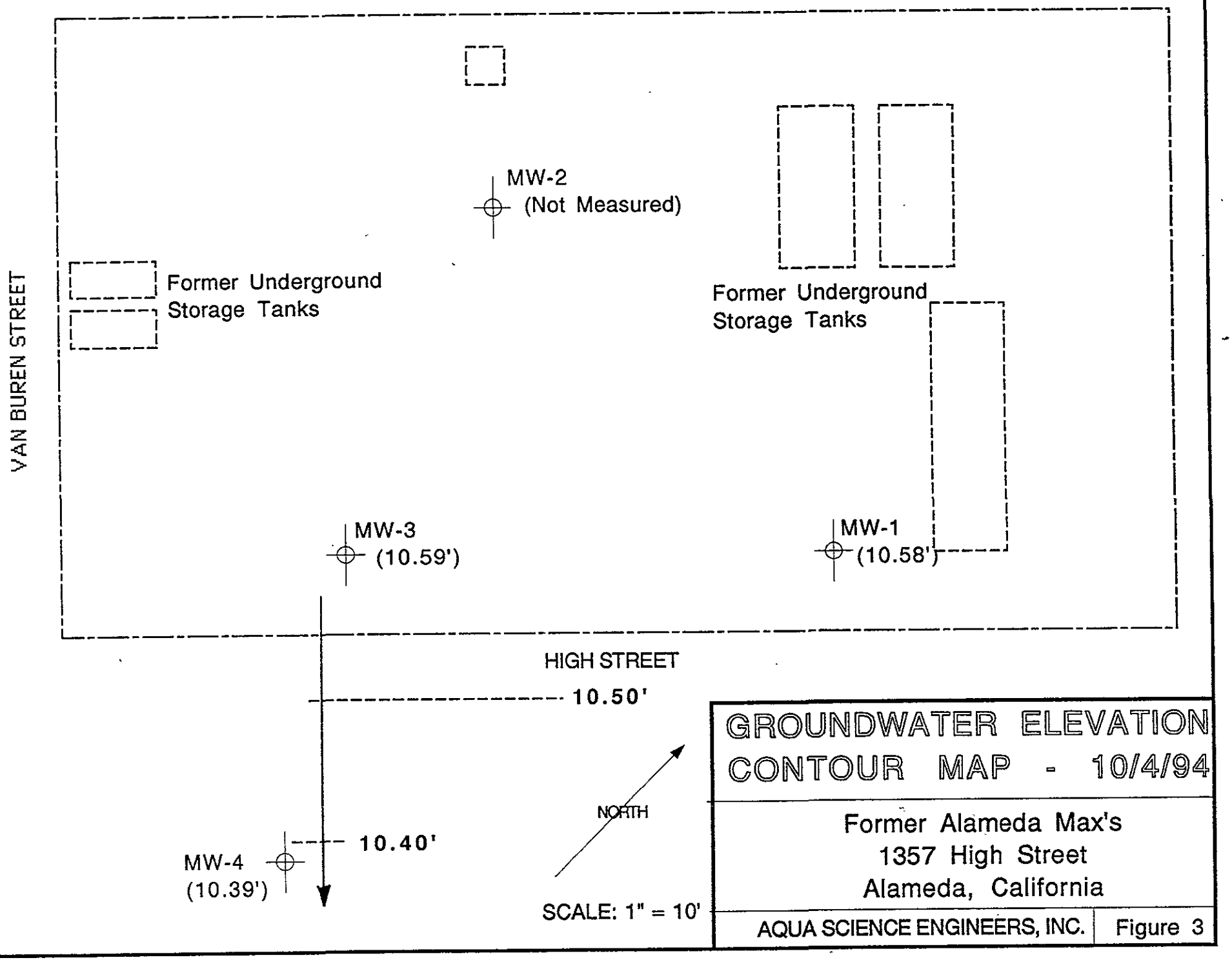
SCALE: 1" = 10'

MONITORING WELL LOCATION MAP

Former Alameda Max's
1357 High Street
Alameda, California

AQUA SCIENCE ENGINEERS, INC. | Figure 2

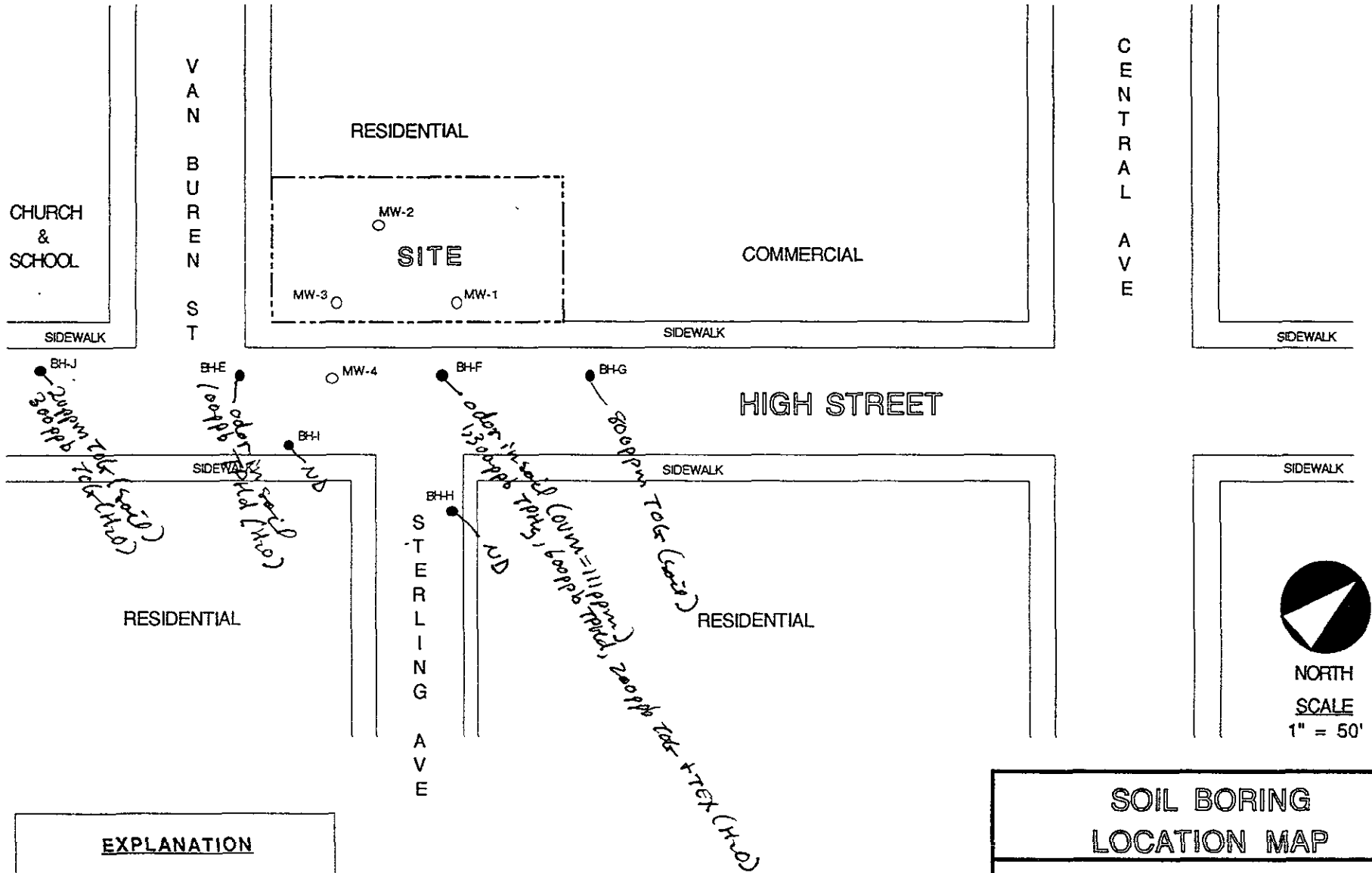
6



GROUNDWATER ELEVATION CONTOUR MAP - 10/4/94

Former Alameda Max's
1357 High Street
Alameda, California

AQUA SCIENCE ENGINEERS, INC. | Figure 3



EXPLANATION

MW-4 ○ Monitoring Well

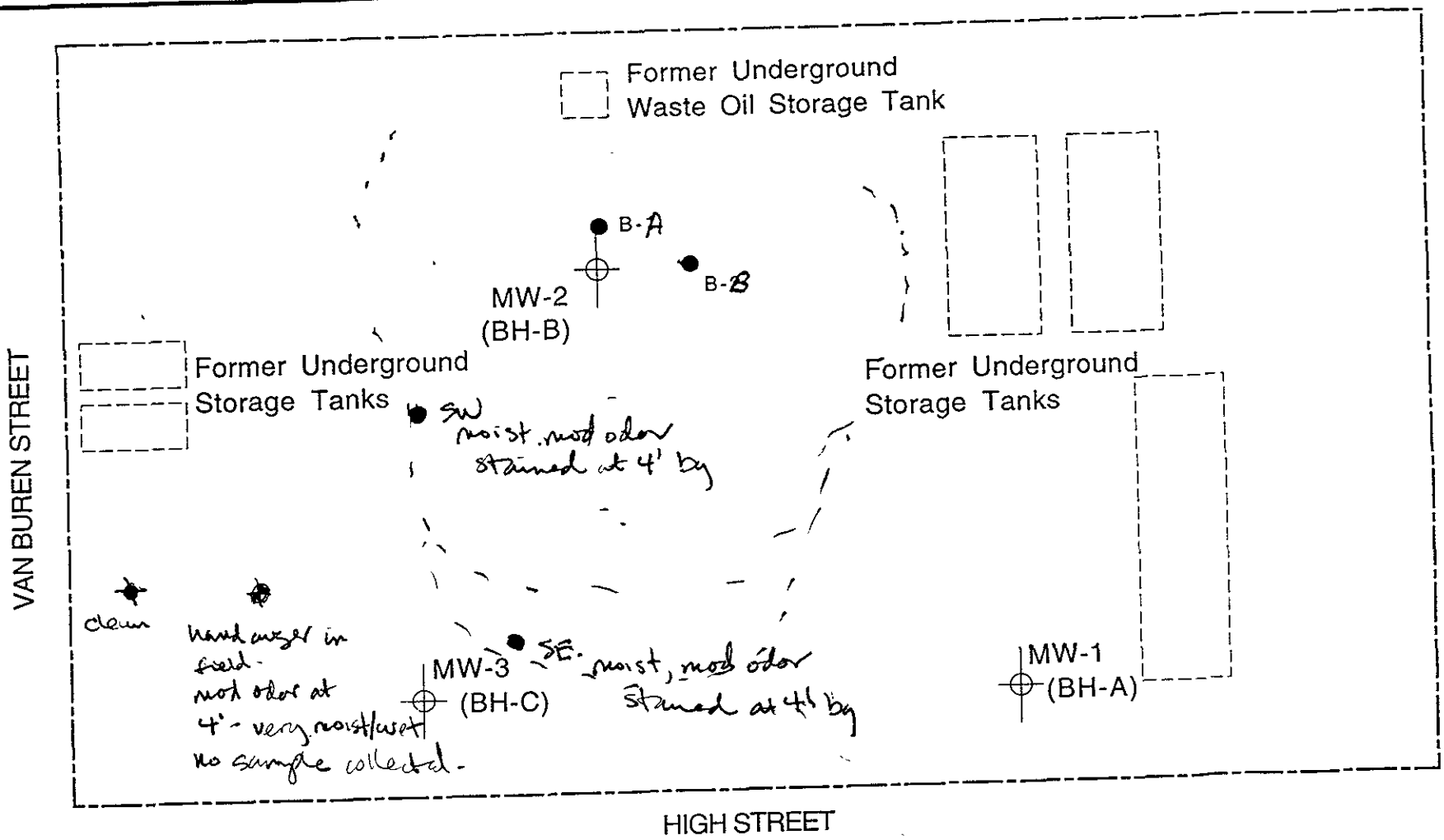
BH-J ● Soil Boring Location

SOIL BORING LOCATION MAP

Former Alameda Max's
1357 High Street
Alameda, California

AQUA SCIENCE ENGINEERS, INC. | Figure 3

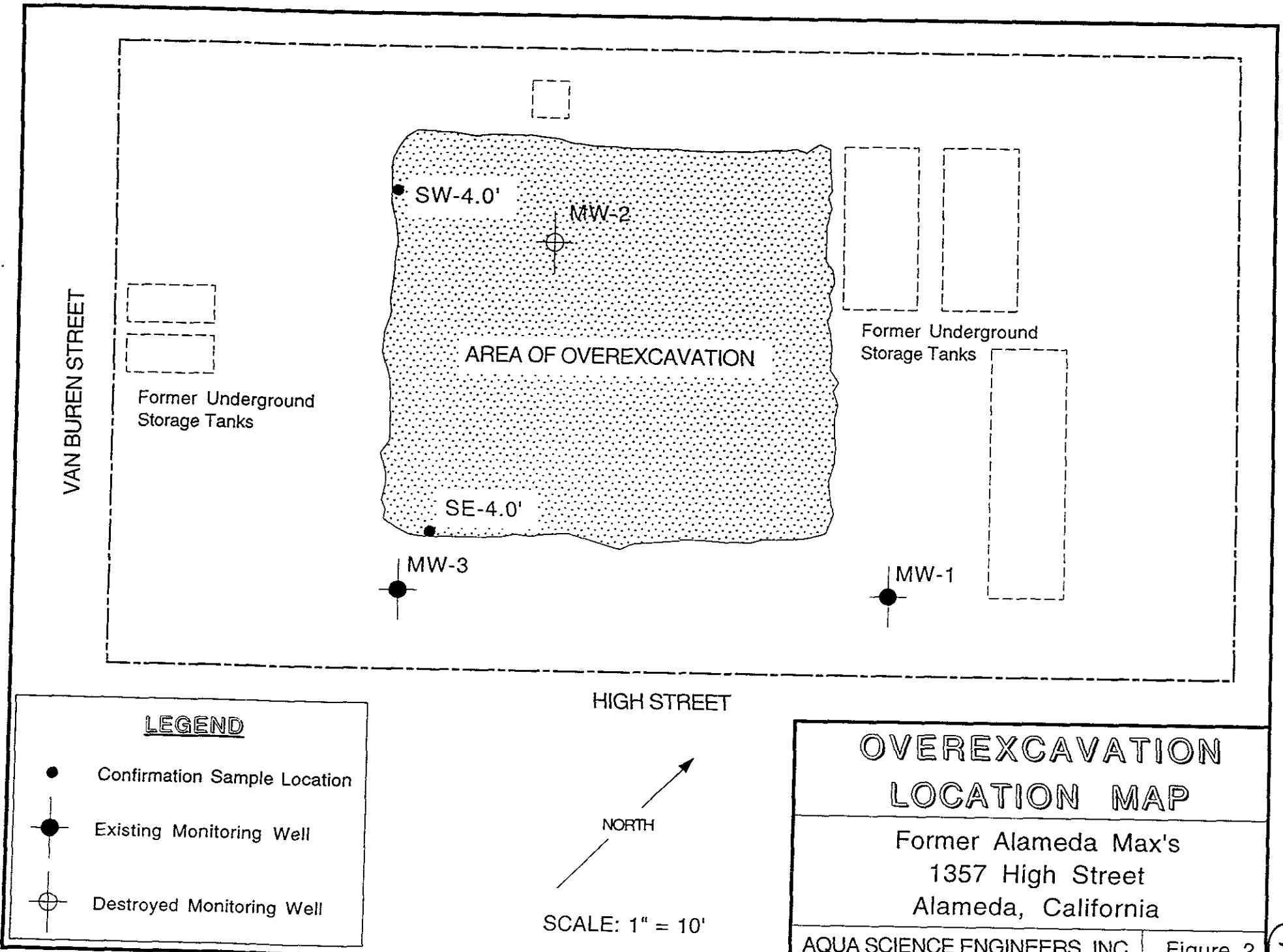
8



SOIL BORING LOCATION MAP

Former Alameda Max's
1357 High Street
Alameda, California

AQUA SCIENCE ENGINEERS, INC. | Figure 2



OVEREXCAVATION LOCATION MAP

Former Alameda Max's
1357 High Street
Alameda, California

AQUA SCIENCE ENGINEERS, INC. | Figure 2

TABLES

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

(1)

Blaine Tech Services
1370 Tully Rd., Suite 505
San Jose, CA 95122
Attention: Richard Blaine

Client Project ID: BTS #890815M1, R.L. Stevens @ Jamaes Phillipsen Prop., Alameda
Matrix Descript: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 908-1638

Sampled: Aug 15, 1989
Received: Aug 16, 1989
Analyzed: Aug 23, 1989
Reported: Aug 23, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
908-1638	#2	3,200	1.8	97	11	880
908-1639	#3	600	1.3	25	21	110
Detection Limits:		**1.0**	**0.05**	**0.1**	**0.1**	**0.1**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Arthur G. Burton
Laboratory Director

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Blaine Tech Services	Client Project ID:	BTS #890815M1, R.L.Stevens @	Sampled:	Aug 15, 1989
1370 Tully Rd., Suite 505	Sample Descript.:	Water, #1 James Phillipsen Prop., Alameda	Received:	Aug 16, 1989
San Jose, CA 95122	Analysis Method:	EPA 5030/ 8015/8020	Analyzed:	Aug 21, 1989
Attention: Richard Blaine	Lab Number:	908-1637 A-D	Reported:	Aug 23, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS WITH BTEX DISTINCTION (EPA 8015/8020)

Analyte	Detection Limit µg/L (ppb)	Sample Results µg/L (ppb)
Low to Medium Boiling Point Hydrocarbons	30.0	29,000
Benzene	0.3	410
Toluene	0.3	1,600
Ethyl Benzene	0.3	1,100
Xylenes	0.3	7,000

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Arthur G. Burton
Laboratory Director

7.0 SAMPLING AND ANALYSIS

Twelve (12) soil and one (1) excavation pit water samples were collected from the former tanks excavation and stockpiled soil as depicted on Figure 3, Sampling Plan:

TABLE ONE
SAMPLE LOCATIONS - EXCAVATION PIT and STOCKPILE

Sample Identification	Location	Depth
1	Sidewall near Tank No. 10788	5-6'
2	Sidewall near Tank No. 10788	5-6'
3	Sidewall near Tank No. 10789	5-6'
4	Sidewall near Tank No. 10793	5-6'
5	Sidewall near Tank No. 10790	5-6'
6	Sidewall near Tank No. 10792	5-6'
7	Sidewall near Tank No. 10792	5-6'
8	Sidewall near Tank No. 10792	5-6'
S-1	Tank #10788 Stockpile	Composite
S-2	Tank #10789 Stockpile	Composite
S-3	Tank #10790, '92, '93 Stockpile	Composite
S-4	Tank #10790, '92, '93 Stockpile	Composite
W-1	Excavation Pit Water Sample	

The soil samples listed above were collected by use of the backhoe bucket, then a 2" x 6" brass sample tube was inserted to collect a sample. The soil samples were secured using aluminum foil, capped, sealed with tape, labeled, placed on ice, and transported directly to the analyzing laboratory under proper chain of custody procedures. The stockpile samples (S-1 thru S-4) were composited by the laboratory. The water sample was collected by using a sterile, disposable bailer and stored in sterile 40 ml VOA sample containers. Samples were submitted for analysis to the state certified laboratory, Priority Environmental Labs in Milpitas, California (DHS No. 1708). The above-referenced samples were analyzed for all or a combination of the following constituents: Total Petroleum Hydrocarbons (TPH) as Gasoline (EPA 5030/8015), TPH as Diesel (EPA 3550/8015), the fractions BTEX (EPA 8020), Purgeable Halocarbons (EPA 8010), Acid Base/Neutral Extractables (EPA 8270), CAM 17 Metals (EPA 6000 & 7000), and Total Extractable Lead (EPA 7420). Analysis results are shown below (Tables Two thru Four) and copies can be found in Appendix A.

(4)

TABLE TWO
EXCAVATION PIT SOIL SAMPLE RESULTS

Sample ID.	TPH Gasoline (ppm)	TPH Diesel (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Oil & Grease (ppm)
1	N.D.	---	N.D.	N.D.	N.D.	N.D.	35
2	N.D.	---	N.D.	N.D.	N.D.	N.D.	31
3	N.D.	2200	N.D.	N.D.	N.D.	N.D.	12000 ← waste oil tank
4	N.D.	---	N.D.	N.D.	N.D.	N.D.	25
5	N.D.	---	N.D.	N.D.	N.D.	N.D.	38
6	140	---	120	130	160	300	37 → gas tank pit area 6K
7	1.0	---	5.2	6.3	8.0	17	15
8	5.5	---	14	16	24	65	---
S-1*	940	---	370	560	1100	3200	150 → stockpile from 550 gal gas tank
S-2*	N.D.	360	N.D.	N.D.	N.D.	N.D.	2600 → stockpile from waste oil tank
S-3*	N.D.	---	N.D.	N.D.	N.D.	N.D.	18
S-4*	1.4	---	5.3	7.0	9.6	28	14
W-1	11	---	24	35	39	88	---
EPA METHOD	5030/ 8015	3550/ 8015	8020	8020	8020	8020	5520 D&F

ND Non Detectable at analytical method limits
ppm parts per million
ppb parts per billion
* Composited sample (performed at the lab)

(5)

TABLE THREE
Summary of Chemical Analysis of **SOIL and WATER** Samples
Total Lead
EPA Method 7420

SAMPLE I.D.	Total Lead (ppm)
1	9.2
2	6.6
4	3.6
5	6.3
6	6.1
7	6.7
8	7.5
S-1*	10
S-3*	5.9
S-4*	6.8
W-1	N.D.
EPA METHOD	7420

ND Non Detectable at analytical method limits
ppm parts per million
* Composited sample (performed at the lab)

TABLE 4
Summary of Chemical Analysis of **SOIL** Samples
Purgeable Halocarbons
EPA Method 8010

SAMPLE I.D.	ALL 8010 CONSTITUENTS (ppb)
3	N.D.
S2	N.D.
EPA METHOD	8010

ppb parts per billion
N.D. Non Detectable at analytical method limits

TABLE FIVE
Summary of Chemical Analysis of SOIL Samples
Acid & Base/Neutral Extractables EPA Method 8270

CONSTITUENT	SAMPLE #3 (ppm)	SAMPLE S-2* (ppm)
Napthalene	1.0	0.30
2-Methyl Napthalene	1.7	0.50
Acenaphthylene	0.30	0.04
EPA METHOD	8270	8270

ND Non Detectable at analytical method limits
ppm parts per million
* Composited sample (performed at the lab)

All other constituents tested for as part of these methods were found to be N.D. See Appendix B for copies of sample results.

TABLE SIX
Summary of Chemical Analysis of SOIL Samples
CAM 17 Metals EPA Method 6000 & 7000 Series

CONSTITUENT	SAMPLE #3 (ppm)	SAMPLE S-2* (ppm)
Antimony	N.D.	N.D.
Arsenic	1.0	N.D.
Barium	65	32
Beryllium	N.D.	N.D.
Cadmium	N.D.	N.D.
Chromium	45	22
Cobalt	N.D.	N.D.
Copper	N.D.	N.D.
Lead	N.D.	5
Mercury	N.D.	N.D.
Molybdenum	N.D.	N.D.
Nickel	30	11
Selenium	N.D.	N.D.
Silver	N.D.	N.D.
Thallium	N.D.	N.D.
Vanadium	26	15
Zinc	N.D.	N.D.
EPA METHOD	Series 6K & 7K	Series 6K & 7K

ND Non Detectable at analytical method limits
ppm parts per million
*Composited sample (performed at the lab)

3.0 OFFHAUL AND RECYCLING

The overexcavated material was pre-approved for disposal at the Port Costa Materials facility in Port Costa, California. Therefore, upon completion of overexcavation activities, the material was loaded onto 4 trucks, carrying the proper manifests, and was hauled to the Port Costa Facility where it was remediated/recycled.

4.0 SOIL SAMPLING AND CHEMICAL ANALYSES

Prior to backfilling the excavations, a soil sample (OEX-A) was collected from the bottom/sidewall of the waste-oil overexcavation limits. The soil sample was collected in a pre-cleaned brass sample tube, covered on both ends with Teflon tape, end caps and duct tape. The sample was then labeled and placed in an ice chest for cool storage until delivery to Geochem Environmental Laboratories under chain of custody. The soil sample was collected from the native material approximately 5.5 feet below ground surface and approximately 3 feet in from the edge of the driveway of the neighboring property (Figure 1). The soil sample was analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by EPA method 8015M, for TPH as diesel by EPA method 8015M, for total oil and grease by EPA method 5520 F, and for BTEX by EPA method 8020. Analyses for VOC's, total lead, CAM17 Metals, and Acid & Base/Neutral Extractables were not conducted due to the low levels of these contaminants found in the original soil samples. Table One below shows the results of the analyses on the soil sample; see Appendix A for a copy of the analytical data.

TABLE ONE
Summary of Chemical Analyses of
SOIL SAMPLES

TPH Sample I.D.	TPH Gasoline (ppm)	TPH Diesel (ppm)	Total O&G (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl Benzene (ppm)	Total Xylenes (ppm)
OEX-A	<1	<1	2	<0.1	<0.1	<0.1	<0.1
EPA METHOD	8015M	8015M	5520F	8020	8020	8020	8020

ppm parts per million

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

Sample I.D.	TPH Gasoline	TPH Diesel	Petroleum Oil & Grease	Benzene	Toluene	Ethyl Benzene	Total Xylenes
MW-1 BH-A 3.0'	<0.2	<1	<10	<0.005	<0.005	<0.005	<0.005
MW-2 BH-B 3.0'	<1	1,400	7,500	<0.005	<0.005	<0.005	<0.005
MW-3 BH-C 3.0'	7.4	<1	<10	<0.005	<0.005	0.032	0.32
EPA METHOD	5030/ 8015	3550/ 8015	3550/ 8015	8020	8020	8020	8020

TABLE TWO
Summary of Chemical Analysis of BH-B 3.0' SOIL Sample
CCR 17 Metals and Volatile Organic Compounds
March 31, 1994

Compound	Concentration (parts per million)
Arsenic	1
Barium	40
Beryllium	0.1
Cobalt	3.4
Chromium	32
Copper	6.1
Nickel	16
Lead	2
Vanadium	22
Zinc	12
Other CCR 17 Metals	N.D.
All Volatile Organics	N.D.

N.D. = Not detected at detection limits

TABLE ONE
Fingerprint of **OIL** Sample
Monitoring Well MW-2

Well	Mineral Spirit/ Kerosine Range Hydrocarbons C8 - C14	Motor Oil/ Asphalt Range Hydrocarbons C32 - C44
MW-2	2%	98%

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

Boring & Depth	TPH Gasoline	TPH Diesel	TPH Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes
BH-E 4.0'	<0.2	<10	<10	<0.005	<0.005	<0.005	<0.005
BH-F 4.0'	<0.2	<10	<10	<0.005	<0.005	<0.005	<0.005
BH-G 4.0'	<0.2	<50	800	<0.005	<0.005	<0.005	<0.005
BH-H 4.0'	<0.2	<10	<10	<0.005	<0.005	<0.005	<0.005
BH-I 4.0'	<0.2	<10	<10	<0.005	<0.005	<0.005	<0.005
BH-J 4.0'	<0.2	<10	20	<0.005	<0.005	<0.005	<0.005
EPA METHOD	5030/ 8015	3520/ 8015	3520/ 8015	8020	8020	8020	8020

Suspicious odor

Could be that soil contam. from BH-F volatilized before analysis due to sandy soil.

TABLE THREE

Summary of Chemical Analysis of **GROUNDWATER** Samples
All results are in **parts per billion**

Boring	TPH Gasoline	TPH Diesel	TPH Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes
BH-E	<50	100	<50	<0.5	<0.5	<0.5	<0.2
BH-F	1,300	600	200	<0.5	2	18	27
BH-G	<50	<50	<50	<0.5	<0.5	<0.5	<0.2
BH-H	<50	<50	<50	<0.5	<0.5	<0.5	<0.2
BH-I	<50	<50	<50	<0.5	<0.5	<0.5	<0.2
BH-J	<50	<50	300	<0.5	<0.5	<0.5	<0.2
EPA METHOD	5030/ 8015	3510/ 8015	3510/ 8015	8020	8020	8020	8020

The samples were labeled and then cooled on ice for transport to C&T under chain of custody.

Beyond this scope of work, ASE drilled boring B-B approximately 5-feet northeast of monitoring well MW-2 to further define the extent of free-floating oil at the site. This boring also contained free-floating oil. No samples were collected from this boring.

5.0 ANALYTICAL RESULTS FOR SOIL

The soil sample was analyzed by C&T for PNAs by EPA Method 8270. The analytical results are presented in Table One, and the certified analytical report is presented in Appendix B. The oil sample was placed on hold and was not analyzed.

TABLE ONE
Summary of Chemical Analysis of **BH-A 4.0' SOIL** Samples

Compound	Concentration (parts per billion)
Naphthalene	2,400
Acenaphthylene	150
Fluorene	130
Phenanthrene	520
Other 8270 Compounds	<100

6.0 CONCLUSIONS AND RECOMMENDATIONS

Naphthalene, acenaphthene, fluorene and phenanthrene were detected in soil in the area of the proposed overexcavation at concentrations between 130 and 2,400 parts per billion.

Free-floating hydrocarbons were detected in the two soil borings drilled during this assessment. It appears that the free-floating oil at the site is so viscous that the oil skimmer that was operating in monitoring well MW-2 was not able to remove the large amount of free-floating oil at the site.

Since there is a significant area of free-floating oil beneath the site, and an oil skimmer was not effective in removing the oil from such a large area, it appears that the only way to remove this oil in a cost effective manner is by overexcavation. Although there appears to be only a limited health risk

↑ Based on what?

TABLE THREE

Summary of Chemical Analysis of **STOCKPILE SOIL** Samples
Hydrocarbons and BTEX
All results are in **parts per million**

Location & Depth	TPH Gasoline	TPH Diesel	O&G	Benzene	Toluene	Ethyl Benzene	Total Xylenes
STKP (A-D)	190*	1,500*	4,300	< 0.2 a < 0.13 b	< 0.2 a < 0.13 b	< 0.2 a 0.12 b	0.42 a 0.7 b
STKP (E-H)	170*	330*	1,300	< 0.2 a < 0.13 b	< 0.2 a 0.22 b	1.5 a 1.1 b	6.0 a 8.7 b
EPA METHOD	5030/ 8015	3520/ 8015	5520 EF	8020a 8240b	8020a 8240b	8020a 8240b	8020a 8240b

Notes:
* = Non-typical chromatogram pattern

TABLE FOUR

Summary of Chemical Analysis of **STOCKPILE SOIL** Samples
Metals, SVOCs and VOCs
All results are in **parts per million**

Location & Depth	Cd	Cr	Pb	Ni	Zn	All SVOCs	All VOCs
SE - 4.0'	0.87	51	3.4	39	20	< 1.7-8.3	< 0.13-0.25
SW-4.0'	0.76	41	3.2	36	20	< 0.33-1.7	< 0.13-0.25
EPA METHOD	6010	6010	6010	6010	6010	3550/ 8270	5030/ 8240

Based on these analytical results, the soil was accepted into Forward Landfill in Manteca, California as Class II waste under approval #600722. The soil was subsequently transported to Forward Landfill on May 8, 1996 by T.E. O'Connor and Sons under non-hazardous waste manifests (Appendix F).

TABLE ONE

Summary of Groundwater Well Survey Data

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-1	04-06-94	15.00	3.92	11.08
	08-02-94		4.10	10.90
	10-04-94		4.42	10.58
	12-14-94		3.42	11.58
	03-16-95		3.21	11.79
	06-06-95		3.84	11.16
	09-14-95		4.18	10.82
	12-05-95		4.28	10.72
	03-11-96		3.41	11.59
	06-06-96		3.74	11.26
	09-04-96		4.07	10.93
	12-03-96		3.73	11.27
MW-2	04-06-94	14.37	3.02	11.35
	08-02-94		3.32	11.18*
	12-14-94		2.90	11.52*
	03-16-95		Unknown	Unknown
	06-06-95		Unknown	Unknown
	09-14-95		Unknown	Unknown
	12-05-95		3.49	10.88
	03-11-96		Unknown	Unknown
	Monitoring well MW-2 was destroyed on March 13, 1996			
MW-3	04-06-94	14.56	3.51	11.05
	08-02-94		3.68	10.88
	10-04-94		3.97	10.59
	12-14-94		3.04	11.52
	03-16-95		2.84	11.72
	06-06-95		3.44	11.12
	09-14-95		3.76	10.80
	12-05-95		3.87	10.69
	03-11-96		3.04	11.52
	06-06-96		3.34	11.22
	09-04-96		3.65	10.91
	12-03-96		3.34	11.22

* = Adjusted for the presence of free-floating oil by the equation: Adjusted Groundwater Elevation = Top of Casing Elevation - Depth to Groundwater + (0.8 x Floating Hydrocarbon Thickness)

TABLE ONE (continued)
Summary of Groundwater Well Survey Data

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-4	10-04-94	14.70	4.31	10.39
	12-14-94		3.62	11.08
	03-16-95		3.48	11.22
	06-06-95		3.86	10.84
	09-14-95		4.10	10.60
	12-05-95		4.18	10.52
	03-11-96		3.62	11.08
	06-06-96		3.80	10.90
	09-04-96		4.14	10.56
	12-03-96		3.75	10.95

TABLE TWO

Summary of Chemical Analysis of **GROUNDWATER** Samples
All results are in **parts per billion**

Sample & Date	TPH Gasoline	TPH Diesel	Oil & Grease	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-1								
04/04/94	80	<50	< 500	< 0.5	< 0.5	0.5	2	---
08/02/94	60	500	< 1,000	< 0.5	< 0.5	< 0.5	<2	---
12/14/94	200	1,500	< 1,000	< 0.5	< 0.5	6	<2	---
03/16/95	200	1,600	< 500	< 0.5	< 0.5	3	<2	---
06/06/95	<50	680	< 500	< 0.5	< 0.5	< 0.5	<2	---
09/14/95	<50	500	< 500	< 0.5	< 0.5	0.8	<2	---
12/05/95	69	<50	< 1,000	1	6	2	12	<50
03/11/96	260	380	< 5,000	< 0.5	2.4	4	1.2	<2
06/06/96	400	180**	< 1,000	< 0.5	< 0.5	18	9.2	<5
09/04/96	<50	200**	< 1,000	< 0.5	< 0.5	< 0.5	< 0.5	<5
12/03/96	**< 50**	**< 50**	**< 1,100**	**< 0.5**	**< 0.5**	**< 0.5**	**< 0.5**	**< 5**
MW-2								
04/04/94	150	<50	6,200	0.6	1	2	6	---
08/02/94	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS							
12/14/94	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS							
03/16/95	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS							
06/06/95	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS							
09/14/95	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS							
12/05/95	110	<50	2,000*	< 0.5	< 0.5	< 0.5	<2	<50
03/11/96	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS							
	Monitoring well MW-2 was destroyed on March 13, 1996							
MW-3								
04/04/94	1,200	180	< 500	3	27	44	230	---
08/02/94	2,700	<50	< 1,000	6	16	70	470	---
12/14/94	2,600	80	< 1,000	9	30	78	430	---
03/16/95	1,200	300	< 500	4	16	38	270	---
06/06/95	500	300	< 500	2	1	13	61	---
09/14/95	730	300	< 500	3	5	28	94	---
12/05/95	360	<50	< 1,000	3	5	8	33	<50
03/11/96	2,400	490	< 5,000	< 0.5	15	44	230	<2
06/06/96	970	140**	< 1,000	4.7	8.4	41	110	17
09/04/96	300	220**	< 1,000	< 0.5	4.2	9.4	62	<5
12/03/96	**510**	**< 50**	**< 1,100**	**1.0**	**< 0.5**	**11**	**67**	**29**

TABLE TWO (continued)
Summary of Chemical Analysis of **GROUNDWATER** Samples
All results are in **parts per billion**

Sample & Date	TPH Gasoline	TPH Diesel	Oil & Grease	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
MW-4								
10/04/94	500	200	< 1,000	2	19	14	70	---
12/14/94	1,500	200	< 1,000	8	37	68	190	---
03/16/95	500	300	< 500	3	5	23	41	---
06/06/95	1,600	620	< 500	5.9	48	83	240	---
09/14/95	2,900	300	600	13	79	180	450	---
12/05/95	1,500	500	< 1,000	9	27	72	130	<50
03/11/96	340	220	< 5,000	< 0.5	2.3	13	17	<2
06/06/96	210	800**	< 1,000	0.77	4.8	12	21	<5
09/04/96	**< 50**	**150****	**< 1,000**	**< 0.5**	**< 0.5**	**< 0.5**	**< 0.5**	**< 5**
12/03/96	**560**	**1,000****	**< 1,400**	**1.5**	**11**	**28**	**56**	**7.0**
EPA METHOD	5030/ 8015M	3510/ 8015M	5520 B&F	8020	8020	8020	8020	8020

Notes:
MTBE = Methyl t-butyl ether
--- = Not analyzed
* = Hydrocarbon oil and grease; total oil and grease is 3,000 ppb
** = TPH as Diesel was characterized as ~~Motor Oil~~ never said motor oil in lab results

12/19/96 No motor oil according to Alex Tam. Some peaks might be due to gas

TABLE THREE

Summary of Chemical Analysis of **GROUNDWATER** Samples
Volatile Organic Compounds
All results in **parts per billion**

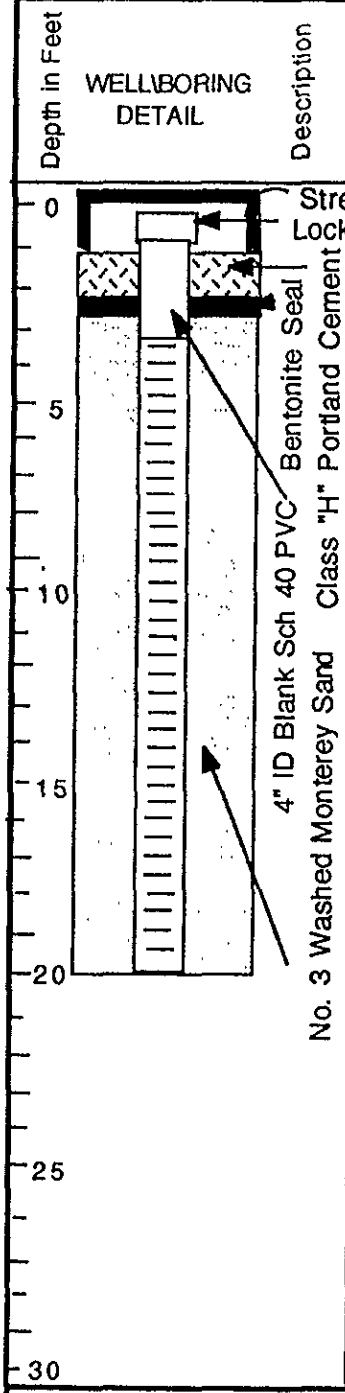
Sample I.D.	Date of Sampling	TCE	Other VOCs
MW-1	08-02-94	< 0.5	< 0.5
	12-14-94	< 0.5	< 0.5
	03-16-95	< 0.5	< 0.5
	06-06-95	< 0.5	< 0.5
	12-05-95	< 0.5	< 0.5-2
MW-2	04-04-94	0.7	< 0.5
	08-02-94	NOT SAMPLED DUE TO FLOATING HYDROCARBONS	
	12-14-94	NOT SAMPLED DUE TO FLOATING HYDROCARBONS	
	03-16-95	NOT SAMPLED DUE TO FLOATING HYDROCARBONS	
	06-06-95	NOT SAMPLED DUE TO FLOATING HYDROCARBONS	
	12-05-95	< 0.5	< 0.5-2
	Monitoring well MW-2 was destroyed on April 19, 1996		
MW-3	08-02-94	< 0.5	< 0.5
	12-14-94	< 0.5	< 0.5
	03-16-95	< 0.5	< 0.5
	06-06-95	< 0.5	< 0.5
	12-05-95	< 0.5	< 0.5-2
MW-4	10-04-94	< 0.5	< 0.5
	12-14-94	< 0.5	< 0.5
	03-16-95	< 0.5	< 0.5
	06-06-95	< 0.5	< 0.5
	12-05-95	< 0.5	< 0.5-2
EPA METHOD		8010	8010

TCE = Trichloroethene
VOCs = volatile organic compounds

BORING AND WELL LOGS

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS		Monitoring Well MW-1
Project Name: Former Alameda Max's	Project Location: 1357 High Street, Alameda, CA	Page 1 of 1
Driller: Soils Exploration Services	Type of Rig: CME 55	Type and Size of Auger: 10-inch O.D. Hollow-stem.
Logged By: Robert E. Kitay	Date Drilled: March 31, 1994	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA	
Depth of Water First Encountered: ~ 4.0'	Total Depth of Well Completed: 20.0'
Static Depth of Water in Well: 3.51'	Well Screen Type and Diameter: 4" Diameter Schedule 40 PVC
Total Depth of Boring: 20.0'	Well Screen Slot Size: 0.020"
	Type and Size of Soil Sampler: 2" I.D., Calif. Split-barrel



SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
Interval	Blow Ct	Time	Graphic Log		
	5 2 2	14:00		0	Gravelly SAND (SW); dark brown; loose; damp; 85% medium sand; 10% rounded pebbles to 0.25"; 5% silt; very high estimated K; no odor moist at 3.5'
	2 2 2			5	~4.5'; Silty SAND (SM); brown; loose; wet; 85% fine to medium sand; 10% silt; 5% subangular pebbles to 0.25" very high estimated K; no odor blue; wet; strong hydrocarbon odor at 5.2'
	5 11 15			10	
	5 9 15			15	no odor at 15'
				20	End of boring at 20.0'
				25	
				30	

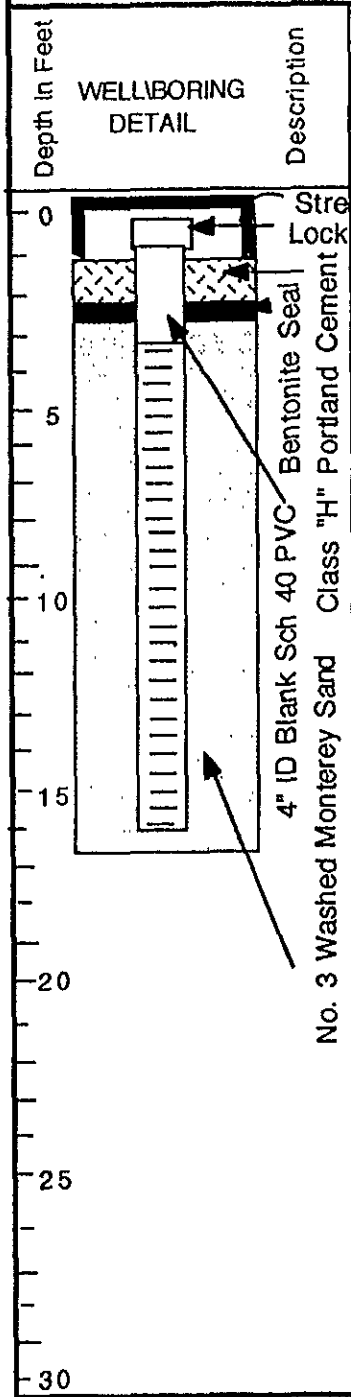
SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS

Monitoring Well MW-2

Project Name: Former Alameda Max's	Project Location: 1357 High Street, Alameda, CA	Page 1 of 1
Driller: Soils Exploration Services	Type of Rig: CME 55	Type and Size of Auger: 10-inch O.D. Hollow-stem.
Logged By: Robert E. Kitay	Date Drilled: March 31, 1994	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA

Depth of Water First Encountered: ~ 5.0'	Total Depth of Well Completed: 16.0'
Static Depth of Water in Well: 3.02'	Well Screen Type and Diameter: 4" Diameter Schedule 40 PVC
Total Depth of Boring: 16.5'	Well Screen Slot Size: 0.020"
	Type and Size of Soil Sampler: 2" I.D., Calif. Split-barrel

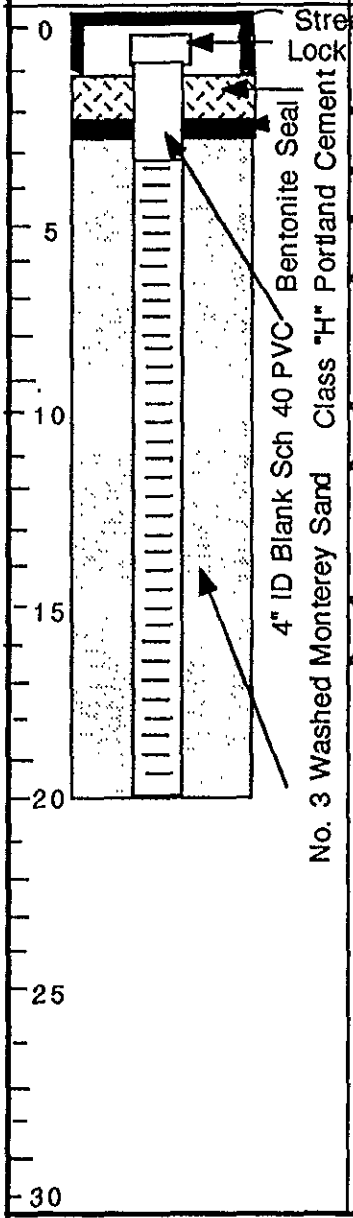


SOIL/ROCK SAMPLE DATA					DESCRIPTION OF LITHOLOGY
Depth in Feet	Interval	Blow Ct.	Time	Graphic Log	standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0					SAND (SP); brown; loose; dry; 95% fine sand; 5% silt; high estimated K; no odor
		3			damp; oil-like odor at 2'
		2	9:20		
		5			
5		4			blue; wet; strong hydrocarbon odor
		4			
		4			strong gasoline-like hydrocarbon odor at 7'
10		2			brown at 10'
		10			
		12			
15		8			
		17			
		19			
					End of boring at 16.5'
20					
25					
30					

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS		Monitoring Well MW-3
Project Name: Former Alameda Max's	Project Location: 1357 High Street, Alameda, CA	Page 1 of 1
Driller: Soils Exploration Services	Type of Rig: CME 55	Type and Size of Auger: 10-inch O.D. Hollow-stem.
Logged By: Robert E. Kitay	Date Drilled: March 31, 1994	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA

Depth of Water First Encountered: ≈ 4.0'	Well Screen Type and Diameter: 4" Diameter Schedule 40 PVC
Static Depth of Water in Well: 3.51'	Well Screen Slot Size: 0.020"
Total Depth of Boring: 20.0'	Type and Size of Soil Sampler: 2" I.D., Calif. Split-barrel
	Total Depth of Well Completed: 20.0'



SOIL/ROCK SAMPLE DATA					DESCRIPTION OF LITHOLOGY
Depth in Feet	Interval	Blow Ct.	Time	Graphic Log	standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0					SAND (SP); brown; loose; damp; 90% fine sand; 5% subrounded pebbles to 0.25"; 5% silt; high estimated K; no odor
		3			moist at 2'
		3	11:24		
		4			blue; wet; very strong hydrocarbon odor at 4'
5		3			95% fine sand; 5% silt at 5'
		3			
		5			
10		5			yellow; no odor at 10'
		10			
		13			
15		5			no odor at 15'
		10			
		19			
20					End of boring at 20.0'
25					
30					

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

Boring & Depth	TPH Gasoline	TPH Diesel	Hydrocarbon Oil & Grease	Benzene	Toluene	Ethyl Benzene	Total Xylenes
BH-D 3.5'	<0.2	<1	<10	<0.005	<0.005	<0.005	<0.005
EPA METHOD	5030/ 8015	3550/ 8015	5520E	8020	8020	8020	8020

TABLE TWO
Summary of Chemical Analysis of BH-D 3.5' SOIL Sample
Volatile Organic Compounds

Compound	Concentration (parts per million)
Methylene Chloride	21*
Other VOCs	<5

*Suspected laboratory contaminant

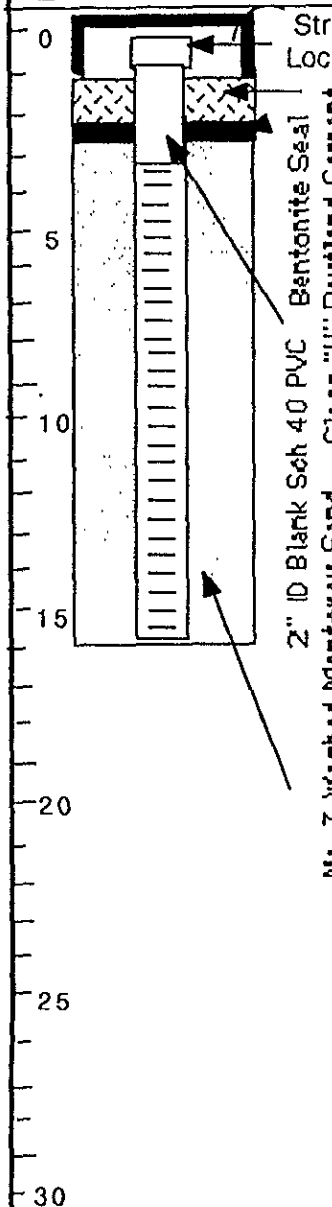
SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS

Monitoring Well MW-4

Project Name: Former Alameda Max's	Project Location: 1357 High Street, Alameda, CA	Page 1 of 1
Driller: Soils Exploration Services	Type of Rig: CME 55	Type and Size of Auger: 8-inch O.D. Hollow-stem
Logged By: Robert E. Kitay	Date Drilled: September 30, 1994	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA

Depth of Water First Encountered: ~ 4.0'	Total Depth of Well Completed: 16.0'
Static Depth of Water in Well: 4.31'	Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC
Total Depth of Boring: 16.0'	Well Screen Slot Size: 0.020"
	Type and Size of Soil Sampler: 2" I.D., Calif. Split-barrel



Interval	Blow Ct.	Time	Graphic Log	Depth in Feet	DESCRIPTION OF LITHOLOGY (standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.)
				0	Asphaltic Concrete and Roadbase
	7				SAND (SP); brown; loose; damp; 95% fine sand; 5% silt; high estimated K; no odor
	8				
	7	11:45			moist at 3'
	6			5	blue; wet; slight hydrocarbon odor at 5'
	1				
	1				
	1				
	2				
	7			10	
	10				
	14				
	16				
	12			15	
	16				
	18				End of boring at 16.0'
				20	
				25	
				30	

SOIL BORING LOG AND DETAILS

Boring BH-E

Project Name: Former Alameda Max's	Project Location: 1357 High Street, Alameda, CA	Page 1 of 1
Driller: Gregg Drilling	Type of Rig: Geoprobe	Type and Size of Auger: NA
Logged By: Robert E. Kitay	Date Drilled: July 31, 1995	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA

Depth of Water First Encountered: ≈ 4.0'

Static Depth of Water in Well: NA

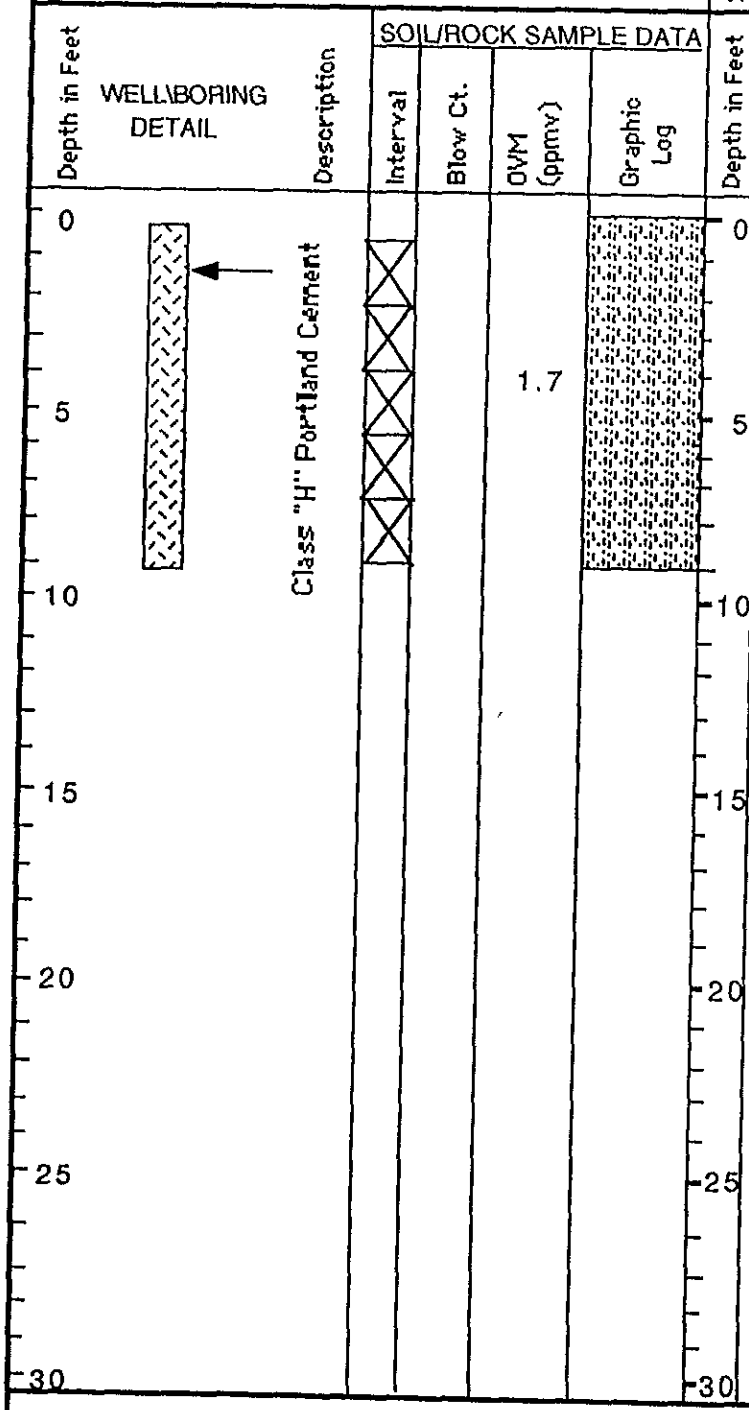
Total Depth of Boring: 9.0'

Total Depth of Well Completed: NA

Well Screen Type and Diameter: NA

Well Screen Slot Size: NA

Type and Size of Soil Sampler: 1.5" I.D., Calif. Split-barrel



Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Asphaltic Concrete
	SAND (SP); yellow brown; medium dense; damp; 95% fine sand; 5% silt; high estimated K; no odor
5	olive; moist; moderate hydrocarbon odor at 3.5' wet at 4'
10	End of boring at 9.0'
15	
20	
25	
30	

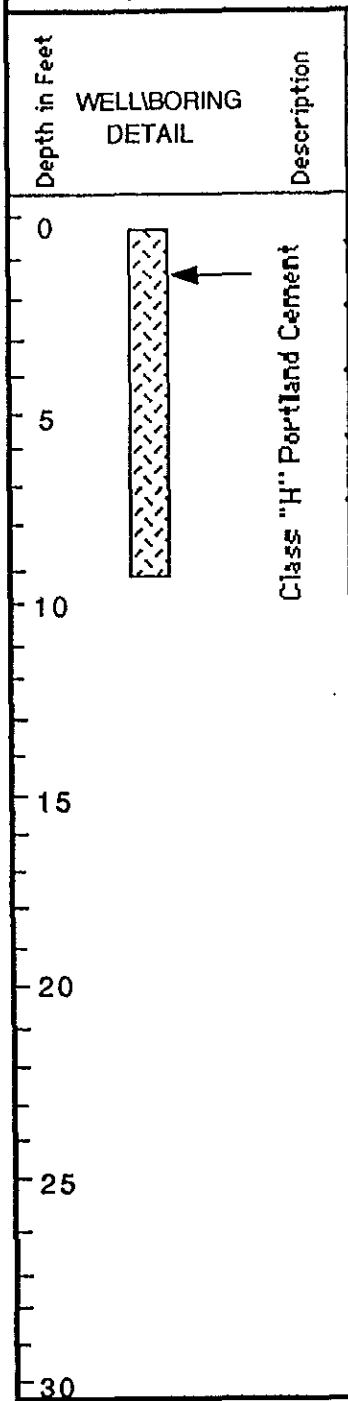
BORING LOG AND DETAILS

Boring BH-F

Project Name: Former Alameda Max's	Project Location: 1357 High Street, Alameda, CA	Page 1 of 1
Driller: Gregg Drilling	Type of Rig: Geoprobe	Type and Size of Auger: NA
Logged By: Robert E. Kitay	Date Drilled: July 31, 1995	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA

Depth of Water First Encountered: ~ 4.0'	Total Depth of Well Completed: NA
Static Depth of Water in Well: NA	Well Screen Type and Diameter: NA
Total Depth of Boring: 9.0'	Well Screen Slot Size: NA
	Type and Size of Soil Sampler: 1.5" I.D., Calif. Split-barrel



SOIL/ROCK SAMPLE DATA

Interval	Blow Ct.	OVM (ppmv)	Graphic Log
		111	

DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Depth in Feet	
0	Asphaltic Concrete
	SAND (SP); yellow brown; medium dense; damp; 95% fine sand; 5% silt; non-plastic; high estimated K; no odor
	black; moist; moderate hydrocarbon odor at 3.5'
	wet at 4'
5	yellow brown; no odor at 6'
10	End of boring at 9.0'
15	
20	
25	
30	

BORING LOG AND DETAILS

Boring BH-H

Project Name: Former Alameda Max's

Project Location: 1357 High Street, Alameda, CA

Driller: Gregg Drilling

Type of Rig: Geoprobe

Type and Size of Auger: NA

Logged By: Robert E. Kitay

Date Drilled: July 31, 1995

Checked By: David M. Schultz, P.E.

WATER AND WELL DATA

Depth of Water First Encountered: ~ 4.0'

Static Depth of Water in Well: NA

Total Depth of Boring: 9.0'

Total Depth of Well Completed: NA

Well Screen Type and Diameter: NA

Well Screen Slot Size: NA

Type and Size of Soil Sampler: 1.5" I.D., Calif. Split-barrel

SOIL/ROCK SAMPLE DATA

Depth in Feet	WELL\BORING DETAIL	Description	Interval	Blow Ct.	OVM (ppmv)	Graphic Log
0						
5		Class "H" Portland Cement			0	
10						
15						
20						
25						
30						

DESCRIPTION OF LITHOLOGY

standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.

Depth in Feet	
0	Asphaltic Concrete
	SAND (SP); yellow brown; medium dense; damp; 95% fine sand; 5% silt; non-plastic; high estimated K; no odor
	moist at 3.5'
	wet at 4'
5	
10	
15	
20	
25	
30	

BORING LOG AND DETAILS

Boring BH-I

Project Name: Former Alameda Max's | Project Location: 1357 High Street, Alameda, CA | Page 1 of 1

Driller: Gregg Drilling | Type of Rig: Geoprobe | Type and Size of Auger: NA

Logged By: Robert E. Kitay | Date Drilled: July 31, 1995 | Checked By: David M. Schultz, P.E.

WATER AND WELL DATA

Depth of Water First Encountered: ~ 4.0'

Static Depth of Water in Well: NA

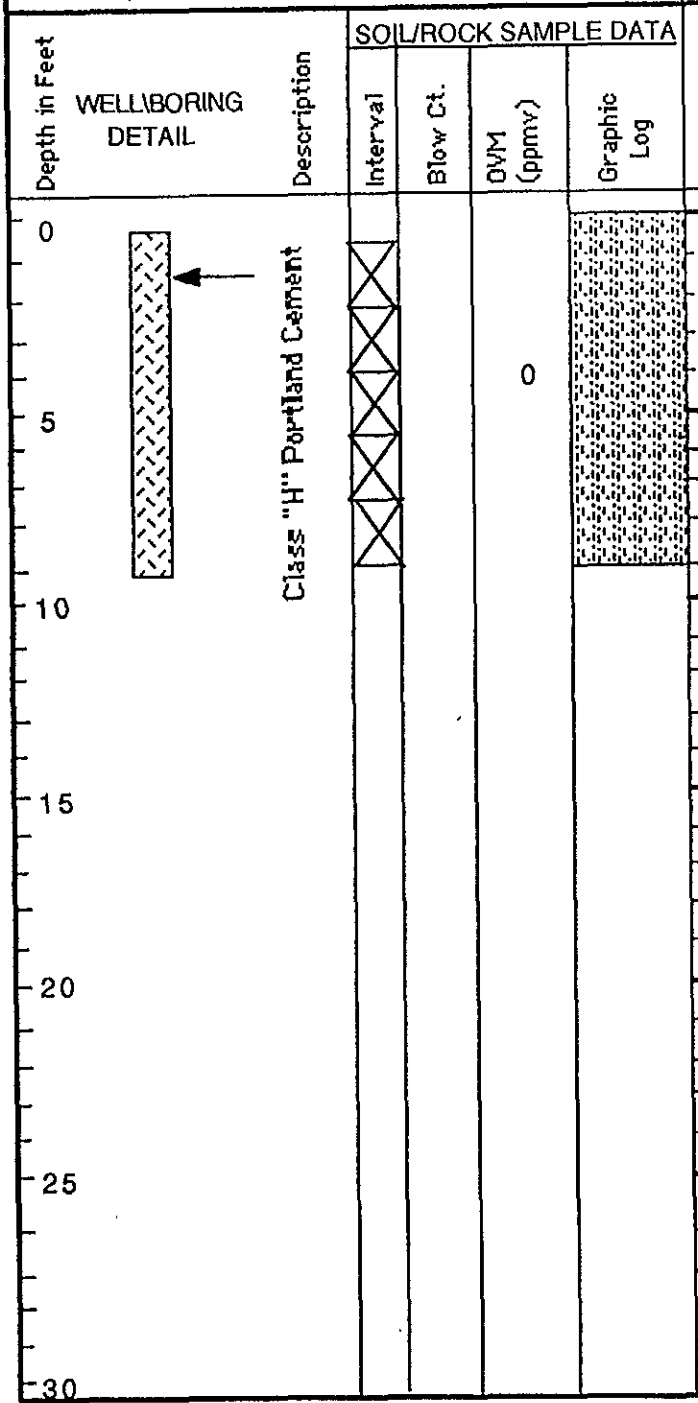
Total Depth of Boring: 9.0'

Total Depth of Well Completed: NA

Well Screen Type and Diameter: NA

Well Screen Slot Size: NA

Type and Size of Soil Sampler: 1.5" I.D., Calif. Split-barrel



Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Asphaltic Concrete
0	SAND (SP); yellow brown; medium dense; damp; 95% fine sand; 5% silt; non-plastic; high estimated K; no odor moist at 3.5' wet at 4'
5	
10	
15	
20	
25	
30	

BORING LOG AND DETAILS

Boring BH-J

Project Name: Former Alameda Max's | Project Location: 1357 High Street, Alameda, CA | Page 1 of 1

Driller: Gregg Drilling | Type of Rig: Geoprobe | Type and Size of Auger: NA

Logged By: Robert E. Kitay | Date Drilled: July 31, 1995 | Checked By: David M. Schultz, P.E.

WATER AND WELL DATA

Depth of Water First Encountered: ≈ 4.0'

Static Depth of Water in Well: NA

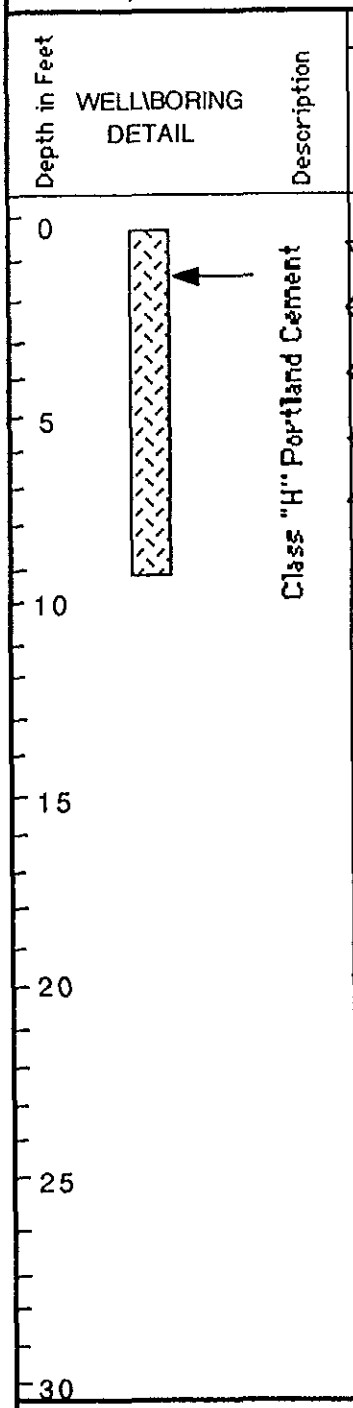
Total Depth of Boring: 9.0'

Total Depth of Well Completed: NA

Well Screen Type and Diameter: NA

Well Screen Slot Size: NA

Type and Size of Soil Sampler: 1.5" I.D., Calif. Split-barrel



SOIL/ROCK SAMPLE DATA

Interval	Blow Ct.	OVM (ppmv)	Graphic Log
		0	

Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0	Asphaltic Concrete
	Gravelly SAND (SW); brown; dense; damp; 60% fine sand; 30% subrounded pebbles to 0.5" diameter; 10% silt; non-plastic; high estimated K; no odor
5	SAND (SP); yellow brown; medium dense; damp; 95% fine sand; 5% silt; non-plastic; high estimated K; no odor; moist at 3.5'; wet at 4'
10	
15	
20	
25	
30	

BORING LOG AND DETAILS

Boring BH-G

Project Name: Former Alameda Max's	Project Location: 1357 High Street, Alameda, CA	Page 1 of 1
Driller: Gregg Drilling	Type of Rig: Geoprobe	Type and Size of Auger: NA
Logged By: Robert E. Kitay	Date Drilled: July 31, 1995	Checked By: David M. Schultz, P.E.

WATER AND WELL DATA

Depth of Water First Encountered: ≈ 4.0'	Total Depth of Well Completed: NA
	Well Screen Type and Diameter: NA
Static Depth of Water in Well: NA	Well Screen Slot Size: NA
Total Depth of Boring: 9.0'	Type and Size of Soil Sampler: 1.5" I.D., Calif. Split-barrel