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

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

RO0000462

January 14, 2002

Mr. Peter Carrai
City of Alameda Maintenance Garage
1616 Fortmann Way
Alameda, CA 94501

Re: Fuel Leak Site Case Closure for 2040 Grand Street, Alameda, CA

Dear Mr. Carrai:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Protection Division is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- up to 170ppm TPH as gasoline, 64ppm TPH as diesel exists in soil beneath the site at 3.5 feet bgs;

If you have any questions, please contact me at (510) 567-6762.

eva chu
Hazardous Materials Specialist

enlosures: 1. Case Closure Letter 2. Case Closure Summary

c: City of Alameda, Planning Dept, Vivian Day, 950 West Mall Sq, Alameda, CA 94501

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REMEDIAL ACTION COMPLETION CERTIFICATION

RO-462 - 2040 Grand Street, Alameda, CA
(1-500 gallon waste oil tank removed on February 18, 1998)

January 14, 2002

Mr. Peter Carrai
City of Alameda Maintenance Garage
1616 Fortmann Way
Alameda, CA 94501

Dear Mr. Carrai:

This letter confirms the completion of site investigation and corrective action for the underground storage tank 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 tank 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 representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

c: Chuck Headlee, RWQCB
Dave Deaner, SWRCB
email: Ken Rankin, Alameda Fire Prevention Bureau

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RB#01-2341

CALIFORNIA REGIONAL WATER

CTH

JAN 04 2002

QUALITY CONTROL BOARD

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: **January 2, 2002**

Agency name: **Alameda County-HazMat**
Address: **1131 Harbor Bay Pkwy**
City/State/Zip: **Alameda, CA 94502**
Phone: **(510) 567-6700**
Responsible staff person: **Eva Chu**
Title: **Hazardous Materials Specialist**

II. CASE INFORMATION

Site facility name: **City of Alameda Central Garage**
Site facility address: **2040 Grand Street, Alameda, CA 94501**
RB LUSTIS Case No: **N/A**
Local Case No./LOP Case No.: **RO0000462**
URF filing date: **2/27/98**
SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Peter Carrai **City of Alameda Maintenance Garage**	**1616 Fortmann Way** **Alameda, CA 94501**	**(510) 748-4592**

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	500	Waste Oil	Removed	2/18/98

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Leak of waste oil at remote fill line.**
Site characterization complete? **YES**
Date approved by oversight agency: **11/01/01**
Monitoring Wells installed? **No**
Proper screened interval? **NA**
Highest GW depth below ground surface: **Groundwater at 5 feet bgs in tank pit (2/98) and groundwater was encountered at 7 feet bgs in borings advanced in 7/01. Groundwater may be under tidal influence.**
Flow direction: **Undetermined, but assumed northeasterly, towards the estuary (250 feet from site).**
Most sensitive current use: **Commercial**
Are drinking water wells affected? **No** Aquifer name:
Is surface water affected? **No** Nearest affected SW name: **NA**
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
Tank	1 UST	Disposed at ECI in Richmond, CA	2/18/98
Soil	Unknown quantity and disposal destination, per City of Alameda representative		

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before[1]	After[2]	Before[3]	After[4]
TPH (Gas)	37	170	ND	
TPH (Diesel)	1,300	64	220	ND
Benzene	0.3	ND	ND	
Toluene	3.0	ND	ND	
Ethylbenzene	1.0	0.2	ND	
Xylenes	9.0	1.0	ND	
MTBE	ND	ND	12	
Heavy Metals (Cd,Cr,Pb,Ni,Zn)	see notes below		see note 3	see note 4
TPHmo	74,000	3,000	22,000	1,400
Other HVOC	see note 5	ND	ND	
SVOC (PAH)	ND	see note 6	ND	

NOTE:
1. soil sample from remote fill area, 2/98. ND, 37, 1900, 31 and 210ppm Cd,Cr,Pb,Ni,Zn, respectively
2. soil sample after overexcavation, 3/98. ND, 16, 104, ND, 525ppm Cd,Cr,Pb,Ni,Zn, respectively
3. grab groundwater from pit or soil borings. ND,430,170,630, and 750ppb Cd,Cr,Pb,Ni,Zn, respectively
4. grab groundwater from borings B-2A or B-3A advanced in 7/01. 1.4,8.1,ND, 170 and 41ppb Cd,Cr,Pb,Ni,Zn, respectively, from filtered samples.
5. 12ppb 1,1-DCA, 120ppb 1,1,1-TCA, 19ppb CCl4, 430ppb TCE, and 260ppb PCE
6. 72ppb fluoranthene

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: **None**
Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: **NA**
Number Decommissioned: **NA** Number Retained: **NA**
List enforcement actions taken: **NA**
List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Eva Chu** Title: **Haz Mat Specialist**

Signature: Eva Chu Date: 01/02/02

Reviewed by

Name: **Don Hwang** Title: **Haz Mat Specialist**

Signature: Don Hwang Date: 1/2/02

Name: **Scott Seery** Title: **Haz Mat Specialist**

Signature: Scott Seery Date: 1-2-02

VI. RWQCB NOTIFICATION

Date Submitted to RB: 01/04/02 RB Response: Concur

RWQCB Staff Name: **Chuck Headlee** Title: **AEG**

Signature: Chuck Headlee Date: 1/8/02

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site is currently occupied by a vehicle maintenance garage for the city of Alameda.

On February 18, 1998, a 500-gallon waste oil tank was removed from the site. Standing water was in the excavation at approximately 5 feet bgs. A four-into-one composite stockpile soil sample (SP-A,B,C,D) and a grab groundwater sample were collected for TPHg, TEPH (O&G), TPHd, BTEX, MTBE, metals (Cd, Cr, Pb, Ni, and Zn), VOCs (Method 8260), SVOCs and PCBs analyses. The soil sample did not contain significant concentrations of analytes sought. The grab groundwater sample contained TEPH at 22,000ppb. (See Fig 1, 2, and Table 1, 2)

On February 27, 1998, the concrete floor surrounding the remote fill for the waste oil tank was removed and it it was apparent that spill(s) had occurred in this area. A soil sample, PIPE-1, was collected at approximately 20 inches bgs. Of significance was the identification of 74,000ppm TEPH, 1,300ppm TPHd, 1,900ppm lead, 13ppb 1,1-DCA, 120ppb 1,1,1-TCA, 19ppb CCl4, 430ppb TCE, and 260ppb PCE. (See Fig 3, Table 1)

On March 19, 1998, additional concrete was removed to facilitate overexcavation of the remote fill area. Soil removal was limited in the direction close to the building wall and footing. The final excavation measured 6 x 6 x 3.5 feet. A soil sample (Spill Cont. Pit 3.5') was collected at 3.5 feet bgs. Of concern was the detection of 170ppm TPHg, 3,000ppm TEPH, 104ppm lead, 54ppb PCE. (See Fig 4, Table 1)

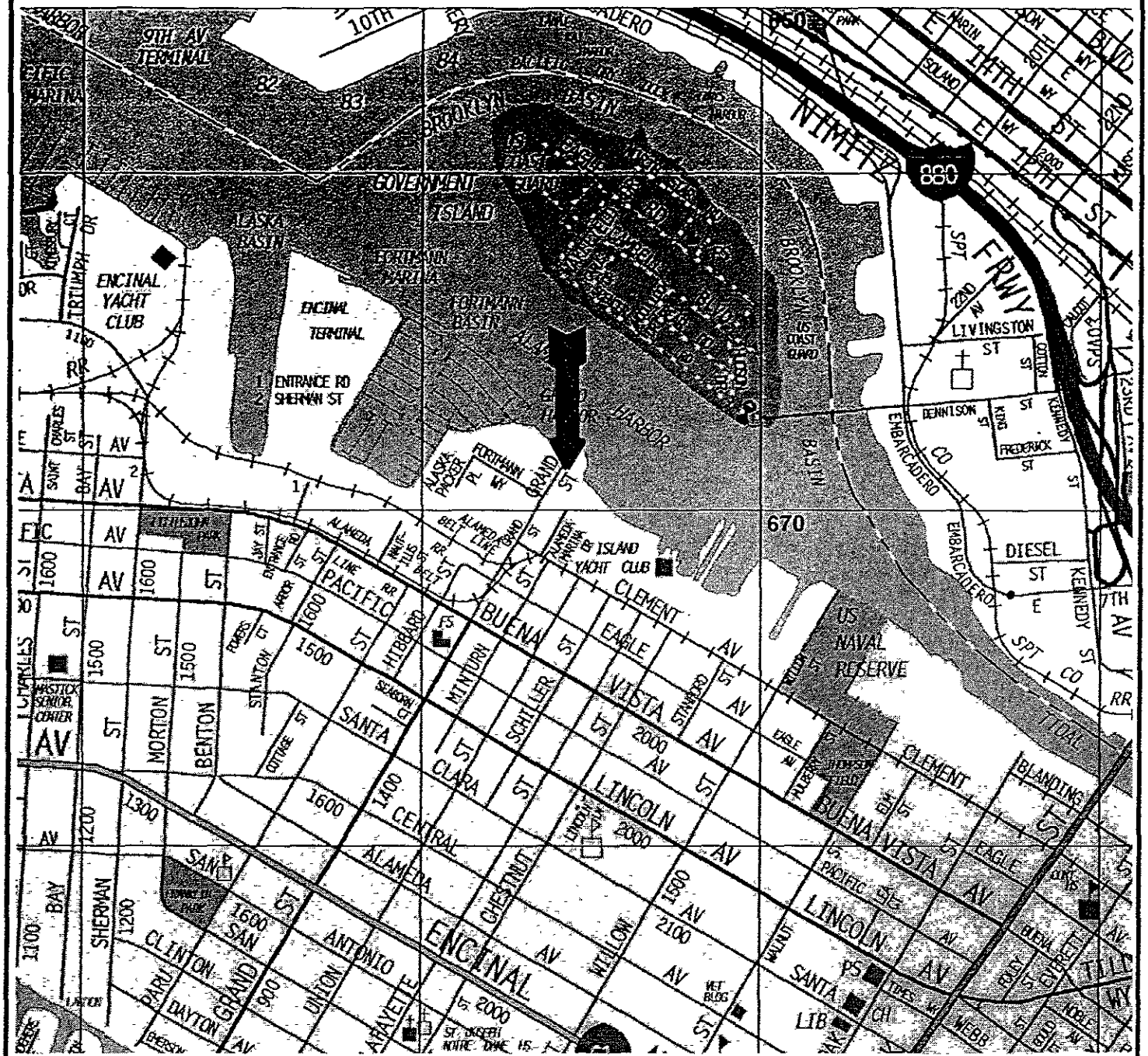
In April 1999, both the tank pit and remote fill area were backfilled with clean, imported soil/gravel and resurfaced with concrete. Two soil borings, B-1 and B-2, were advanced to collected grab groundwater samples. Groundwater from Boring B-1, located between the former tank pit and remote fill pipe, contained 220ppb TPHd. Other analytes sought (TPHg, TPHmo, BTEX, MTBE, and HVOCs) were not detected above the laboratory detection limits. Groundwater was not analyzed for metals, specifically lead. Groundwater from boring B-2, located approximately 80 feet from the former tank pit and 230 feet from the Oakland estuary, was only analyzed for TPHd and TPHmo. These constituents were not detected. (See Fig 2, Table 2)

In July 1999, boring B3 was advanced in the presumed downgradient direction, approximately 8 feet northeast of the former remote fill area. An unfiltered grab groundwater sample collected from this boring contained 870ppb TPHd, 430ppb chromium, 170ppb lead, and 630ppb zinc. HVOC and SVOCs were not detected. In July 2001, two soil borings, B2A and B3A, were advanced adjacent to former boring B2 and B3, respectively. Grab water samples were to be collected and field-filtered, however, this became unfeasible. So, the laboratory was requested to filter the water samples immediately after receiving the samples (approximately 2 to 2.5 hours). The water samples were analyzed for the 5 LUFT metals and for TPHd and TPHmo. Groundwater contained up to 1,400ppb TPHmo. Dissolved metals were at background levels and/or less than MCLs. (See Fig 5, Table 3)

Soil encountered at the site consisted of grey green silty clays to 9 feet bgs, followed by grey sandy, silty clay to 12 feet bgs, the total depth explored. The low permeable sediments beneath the site should retard the migration of motor oil compounds (currently at 1,400ppb TPHmo) and should not significantly impact the Oakland estuary, the nearest sensitive receptor.

In summary, case closure is recommended because:

- the leak and ongoing sources have been removed;
- the site has been adequately characterized;
- the dissolved hydrocarbon plume is not migrating;
- no preferential pathways exist at the site;
- no water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted; and,
- the site presents no significant risk to human health or the environment.



SOURCE: Thomas Guide CD ROM, 1997

Title:

2040 Grand Street
Alameda, California

Figure Number	1	Scale	1" = 1/4 mi
Drawn By	DDS	Date	5/5/99
Project No	6029-013		

ACC Environmental Consultants
7977 Capwell Drive Suite 100
Oakland, California 94621
(510) 638-8400 Fax (510) 638-8404

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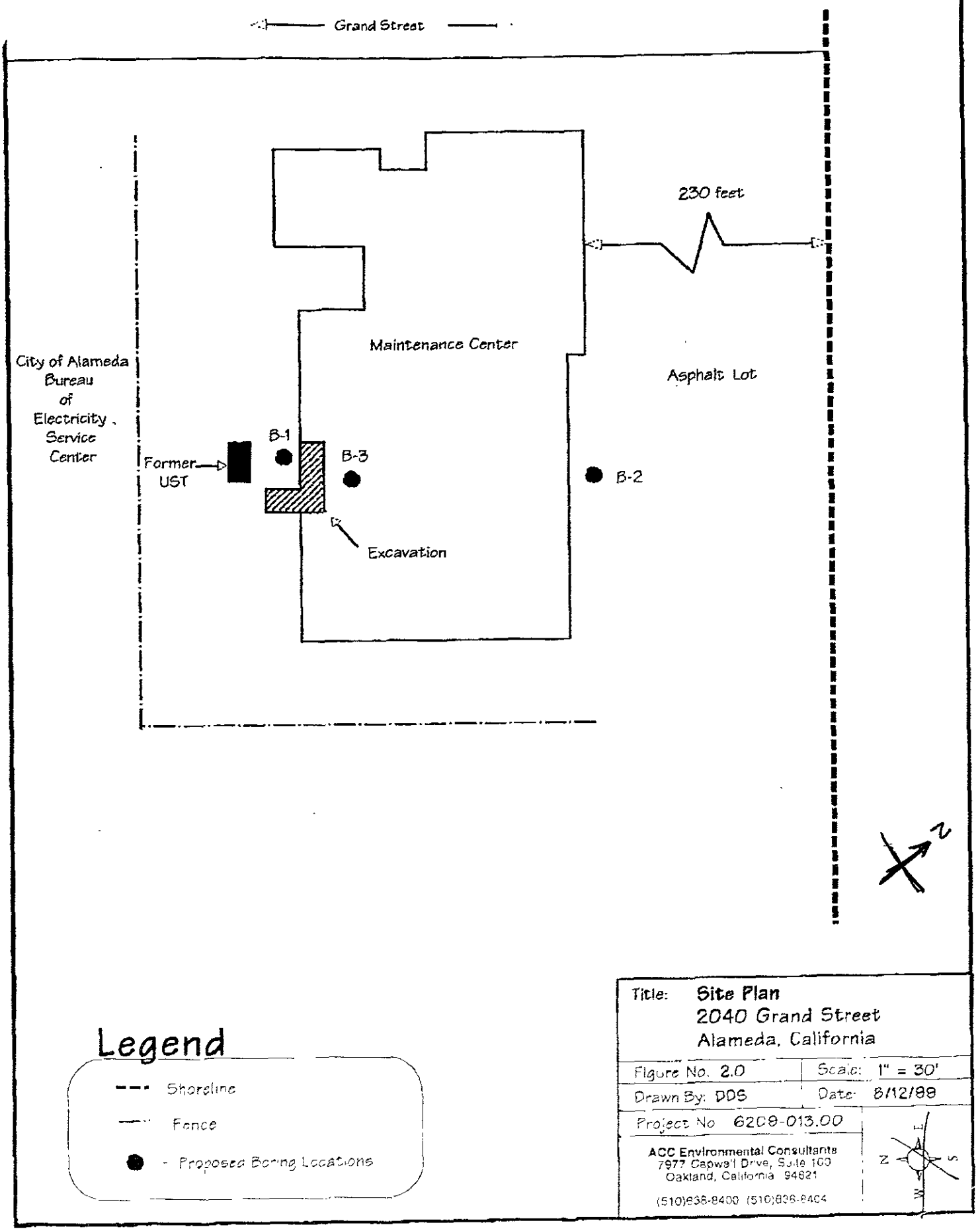


Legend

- Shoreline
- Fence
- Proposed Boring Locations

Title: Site Plan
2040 Grand Street
Alameda, California

Figure No. 2.0	Scale: 1" = 30'
Drawn By: DDS	Date: 8/12/99
Project No 6209-013.00	

ACC Environmental Consultants
7977 Capwell Drive, Suite 100
Oakland, California 94621
(510)638-8400 (510)638-8404

Table 1

SOIL CONCENTRATION (mg/Kg)

SAMPLE	DATE SAMPLED	TPH-G	TPH-D 8015	TEPH 5520F	B	T	E	X	MTBE	Cd	Cr	Pb	Ni	Zn	HVOC	SVOC
SP-A,B C,D	2/19/98	ND	ND	51	ND	ND	ND	ND		ND	39	36	49	62	ND	see #1
Pipe-1 at 20"	2/27/98	37	1300	74000	0.3	3.0	1.0	9.0	ND	ND	37	1900	31	210	see #2	ND
Spill Cont Pit 3.5'	3/19/98	170	64	3000	ND	ND	0.2	1.0	ND	ND	16	104	ND	525	ND	see #3
Boring 3	4/21/99	ND	16	ND	ND	ND	ND	ND	ND	ND	42	7.3	41	39	ND	see #4

Note #1 0.058ppm phenanthrene, .12ppm fluoranthene, .11ppm pyrene, .068ppm benzo(a)anthracene, .076ppm chrysene, 12ppm benzo(b,k)fluoranthene, .064ppm bnezo(a)pyrene
#2 0 012ppm 1,1,DCA, .120ppm 1,1,1-TCA, .019ppm CCl4, .430ppm TCE, and .260ppm PCE
#3 0 72ppm fluoranthene
#4 0 89ppm phenol

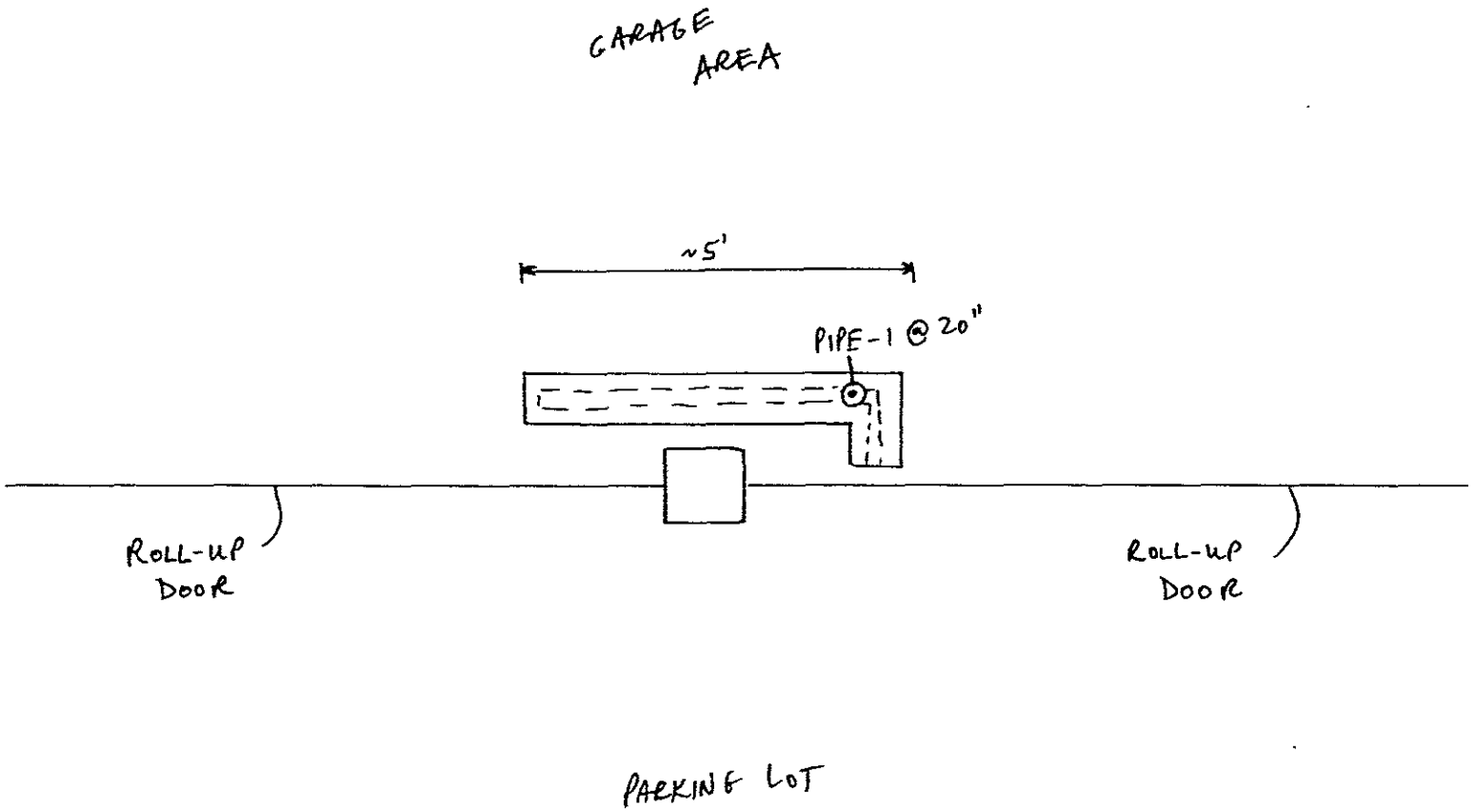
Table 2

GROUNDWATER CONCENTRATIONS (ppb)

Sample	Date	TPHg	TPHd	TEPH/ motor oil	B	T	E	X	MTBE	Cd	Cr	Pb	Ni	Zn	HVOC	SVOC
Water 1	2/19/98	ND	110	22000	ND	ND	ND	ND	12	ND	ND	ND	70	80		
B1	4/21/99	ND	220	ND	ND	ND	ND	ND	ND						ND	
B2	4/21/99		ND	ND												
B3	7/28/99	ND	870	ND	ND	ND	ND	ND	ND	ND	430	170	630	750	ND	ND

alamedagarage water

FIG 3



2040 GRAND ST
2/27/98
ALAMEDA

NSE
SAMPLE CREW: JOHN STETZ

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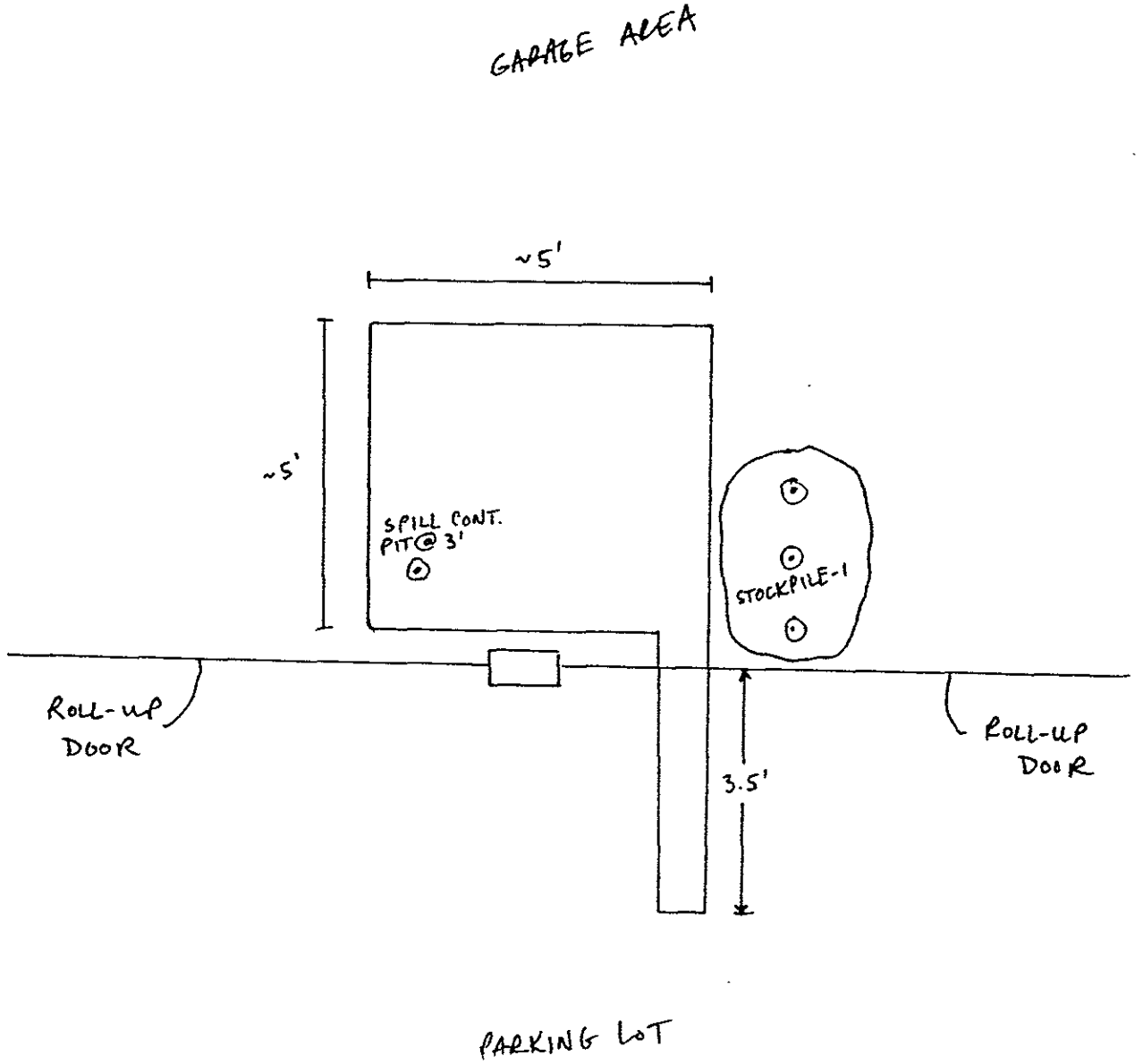
FIG 4

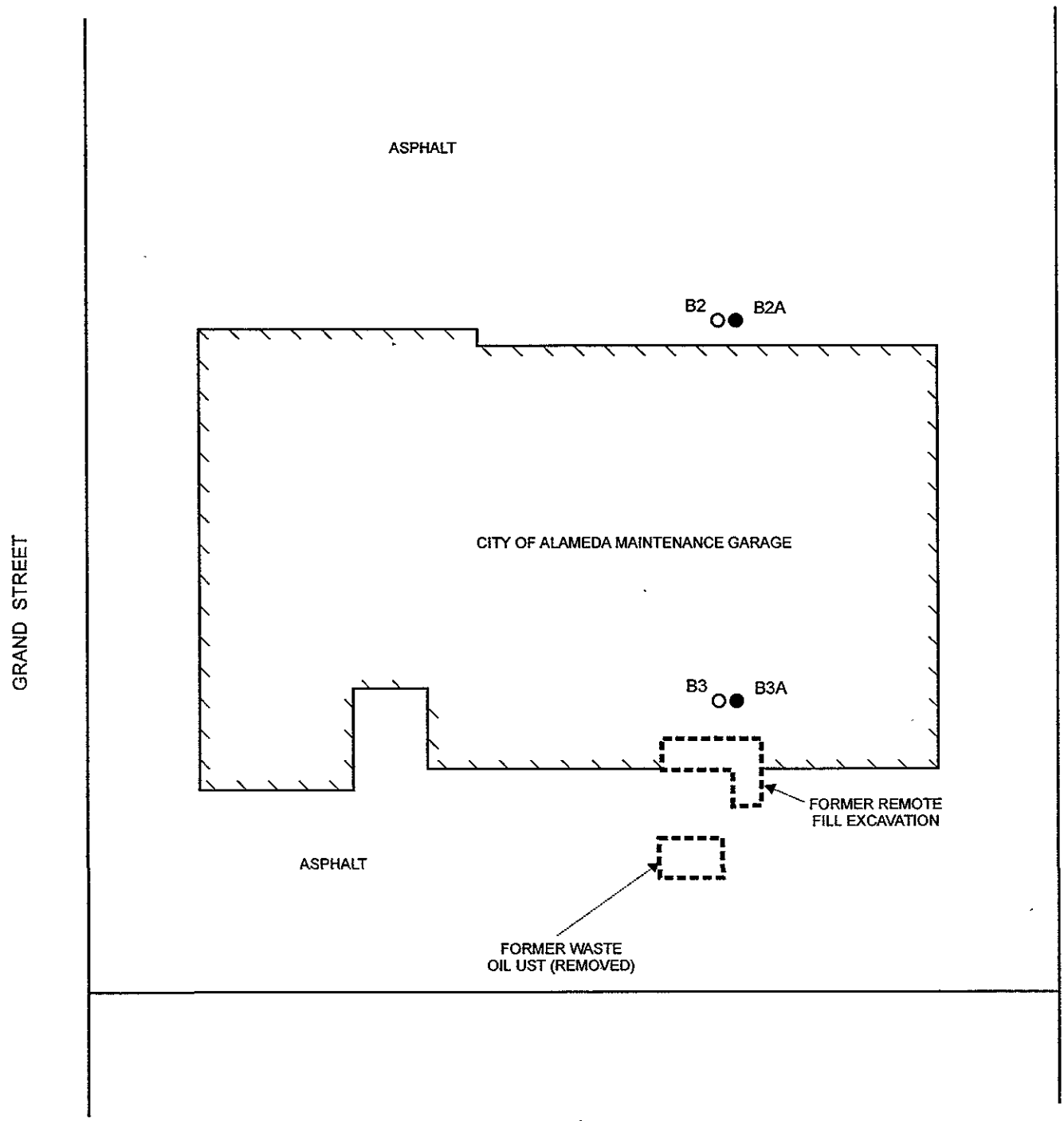


2040 GRAND ST
ALAMEDA

3/19/98

NSE
SAMPLE CREW: GARY DAWSON

N



○ - PREVIOUS ACC BORING LOCATION

● - GRIBI ASSOCIATES BORING LOCATION

0 25 50

APPROX. SCALE IN FEET

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DESIGNED BY	CHECKED BY	SITE PLAN	DATE 09/29/01	FIGURE 2 5
DRAWN BY JG	SCALE	CITY OF ALAMEDA MAINTENANCE GARAGE 2040 GRAND STREET ALAMEDA, CALIFORNIA	GRIBI Associates	
PROJECT NO 200-01-01				

Table 3
SUMMARY OF GRAB GROUNDWATER ANALYTICAL RESULTS
City of Alameda Maintenance Garage

Sample ID	Sample Depth	Constituent (parts per million)						
		TPH-D	TPH-MO	Cadmium	Chromium	Lead	Nickel	Zinc
B-2A	(7.5 ft)	<0.050	**0.38**	<0.0010	**0.012**	<0.010	**0.018**	<0.010
B-3A	(7.5 ft)	<0.050	**1.40**	**0.0014**	**0.0081**	<0.010	**0.17**	**0.041**

TPH-D = Total Petroleum Hydrocarbons as Diesel
TPH-MO = Total Petroleum Hydrocarbons as Motor Oil
<0.050 = Not detected above the expressed value.