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

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 1773 - Park Street and Shoreline Drive, Alameda, CA
(USTs removed from the former Goodyear, Texaco, and Chevron sites)

February 20, 2001

Mr. Gregory Baum
Harsch Investment Corp
P.O. Box 2708
Portland, OR 97208

Mr. Murray Stevens
Kamur Industries
2351 Shoreline Drive
Alameda, CA 94501

Ms. Karen Petryna
Equiva Services
P.O. Box 7869
Burbank, CA 94510

Dear Messrs. Baum and Stevens, and Ms. Petryna:

This letter confirms the completion of site investigation and corrective 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.

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

Mee Ling Tung, Director

cc: Chuck Headlee, RWQCB
Allan Patton, SWRCB
files-ec (soshore-3)

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Burbank, CA 94510

Re: Fuel Leak Site Case Closure for Park Street and Shoreline Drive, Alameda, CA

Dear Messrs. Baum and Stevens, and Ms. Petryna:

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 46,000ppb TPH as gasoline, 3,800ppb TPH as diesel, 180ppb benzene, 820ppb PCE, 890ppb TCE, and 1,100ppb 1,2-DCE exists in groundwater beneath the site;
- a risk management plan has been prepared for the site to protect construction workers in the event trenching/excavation is proposed in the area with residual contamination;
- a risk assessment is required if a building structure is proposed over the area of the former USTs at the former Chevron car wash.

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-City Hall, 2263 Santa Clara Ave, Alameda, CA 94501
files (soshore-4)

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: April 21, 2000

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 Spec.**

II. CASE INFORMATION

Site facility name: **South Shore Shopping Center**
Site facility address: **Park Street and Shoreline, Alameda, CA**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **1773**
URF filing date: **7/25/90** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
1. Gregory Baum Harsch Investment Corp	P.O. Box 2708 Portland, OR 97208	(503) 242-2900
2. Murray Stevens Kamur Industries	2351 Shoreline Drive Alameda, CA 94501	(510) 523-7866 (510) 526-7434
3. Deborah Pryor Texaco Refining	10 Universal City, 7th Floor Universal City, CA 91608	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	500	Waste Oil (Goodyear)	Removed	4/90
2	6,000	Gasoline (Texaco)	Removed	1981
3	4,000	"	"	"
4	4,000	"	"	"
5	550	Waste Oil (Texaco)	"	"
6	10,000	Gasoline (Chevron)	Removed	7/90
7	"	"	"	"
8	"	"	"	"

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown**
Site characterization complete? **YES**
Date approved by oversight agency: **11/23/98**
Monitoring Wells installed? **Yes** Number: **30 total**
Proper screened interval? **Yes**
Highest GW depth below ground surface: **3.00'** Lowest depth: **9.55' bgs**
Flow direction: **Groundwater generally flows northwest,west and southwest. However, there are localized steep gradients and some variations.**
Most sensitive current use: **Commercial development and the Alameda Shoreline**
Are drinking water wells affected? **No** Aquifer name: **Merritt Sand**
Is surface water affected? **No** Nearest affected SW name: **NA**
Off-site beneficial use impacts (addresses/locations): **NA**
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	**8 USTs**	**Unknown Disposal Facility**	**1981-1990**
Soil	**~575 cy (Texaco)**	**Unknown**	**Unknown**
	1,000cy (Chevron)	**Redwood & MtnView L.F.**	**Feb 1991**
	700 tons (Chevron)	**Gibson Oil**	
	250 cy	**Thermally treated at an approved facility**	

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

at Former Goodyear Building

Contaminant	Soil (ppm)		Water (ppb)	
	Before[1]	After[2]	Before[3]	After[4]
TPH (Gas)	ND		20,000	NA
TPH (Diesel)	ND		NA	NA
Benzene	NA		15	1.8
Toluene	NA		45	5.6
Ethylbenzene	NA		26	1.1
Xylenes	NA		59	5.8
Oil & Grease	340		NA	NA
Other HVOCs	ND		ND	ND

NOTE: 1 soil sample from tank pit at time of UST removal (4/90) or borings advanced inside building,
2 no overexcavation required at the site
3 most recent data from well MW-12, located downgradient of building, 12/96
4 most recent data from well MW-9, located upgradient of building, 11/95
NA Not Analyzed
ND Not Detected

at Former Dry Cleaner Site

Contaminant	Soil (ppm)		Water (ppb)	
	Before[1]	After[2]	Before[3]	After[4]
PCE	280	1.1	7,800	820
TCE	ND	ND	1,200	890
1,2-DCE	ND	ND	440	1,100
VC	ND	ND	ND	ND

NOTE: 1 soil sample collected from tank pit, 11/89
2 soil sample collected after overexcavation, 11/90. PCE concentration are from stockpiled soil which was re-used to backfill the pit.
3 maximum concentrations from well MW-7/7B
4 most recent data, 8/96

at Former Texaco Service Station Site

Contaminant	Soil (ppm)		Water (ppb)	
	Before[1]	After[2]	Before[3]	After[4]
TPH (Gas)	5,300		2,500	ND
TPH (Diesel)	180		3,800	NA
Benzene	150		10,000	0.77
Toluene	680		260	ND
Ethylbenzene	850		2,600	0.73
Xylenes	260		1,600	ND
Oil & Grease	400		NA	NA
Other **MTBE**	NA		NA	ND
1,2 DCA	ND		22	11
PCE	25		16	ND

NOTE: 1 soil sample collected after overexcavation, 12/90
2 no additional excavation after 12/90
3 data from well MW-1, installed in 6/89
4 recent data from well MW-5B (1,2 DCA from well MW-22)

at Former Chevron Carwash/Service Station

Contaminant	Soil (ppm)			Water (ppb)	
	Before[1A]	Before[1B]	After[2]	Before[3]	After[4]
TPH (Gas)	9,500	20,000	ND	390,000	46,000
Benzene	94	400	ND	21,000	180
Toluene	410	2,000	ND	41,000	330
Ethylbenzene	120	490	ND	6,400	140
Xylenes	590	2,400	ND	16,400	300
MTBE		ND	ND		ND
TOG	NA	1,400		NA	ND

NOTE: 1A soil sample collected from tank pit at time of UST removal, 6/90
1B soil samples from boring B-9 at 'bgs, or from sidewalls after overexcavation, 2/91
2 soil samples from borings advanced in area of residual soil contamination 7 years later, 3/98
3 maximum historic concentrations from well STMW-1 or STMW-3
4 most recent sampling event, 12/96

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: **A site safety plan must be prepared for construction workers in the event excavation/trenching is proposed in the vicinity of residual soil and groundwater contamination.**
Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: **Yes**
Number Decommissioned: **6 (MW-1, MW-5, MW-6, MW-8, MW-9, STMW-4)** Number Retained: **24**
List enforcement actions taken: **NOV issued 6/26/91, 11/6/96**
List enforcement actions rescinded:

V. LOCAL AGENCY REPRESENTATIVE DATA

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

Signature: Eva Chu Date: 6/14/00

Reviewed by

Name: **Larry Seto** Title: **Sr. Haz Mat Specialist**

Signature: Larry Seto Date: 5-15-2000

Name: **Thomas Peacock** Title: **Supervisor**

Signature: Thomas Peacock Date: 6-14-00

VI. RWQCB NOTIFICATION

Date Submitted to RB: 6/16/00 RB Response: concur

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

Signature: Chuck Headlee Date: 6/22/00

VII. ADDITIONAL COMMENTS, DATA, ETC.

This is a large piece of property where many buildings were previously leased to various businesses, including a pet hospital, a dry cleaner/laundromat, Chevron car wash/service station, Goodyear Tires, and Texaco service station. Prior to the redevelopment of the site into the South Shore Shopping Center, a preliminary site assessment was conducted in June 1989. Five exploratory borings (boring 1 through 5) were advanced inside the **former Goodyear** building. Two borings (B-1 and B-2) and one groundwater monitoring well (MW-1) were located at the **former Texaco** station, one monitoring well (MW-2) near the **former South Shore Carwash/Chevron Service Station**, and one monitoring well (MW-3) south of the **former Dry Cleaners**. Of significance was the detection of elevated TPHg, TPHd, and benzene in well MW-1 and elevated PCE, TCE , and 1,2-DCE in well MW-2 (see Map 1, Fig 1, 2, Table 1, 2). A more detailed account of investigations conducted at each of these sites is discussed below. Case closure is recommended for each of the fuel-related sites (Goodyear, Chevron/Carwash, and Texaco). A historic account of investigations performed in the vicinity of the former dry cleaner, which released chlorinated solvents to the subsurface, is also detailed below. A no further action letter was issued by this agency in December 1996 for the former dry cleaners.

All of the above structures were removed, except for the Goodyear building which was remodeled into a Big 5 sporting goods store. Currently there is a newly constructed South Shore Car Wash (at a different location) and Lyons Restaurant at the site. Environmental investigations conducted at the site include the installation of a total of 30 groundwater monitoring wells. During construction and re-paving of the shopping center and parking lot, various wells (MW-1, MW-5, MW-6, MW-8 and MW-9) were destroyed and replacement wells (MW-5B, MW-7B, MW-8B and MW-9B) were later installed.

Former Goodyear Building

In February 1990 five soil borings were advanced inside the Goodyear Building in the vicinity of the former hydraulic lifts. Three of the five shallow borings contained oil and grease in concentrations ranging from 30ppm to 340ppm.

In April 1990 a 500-gallon waste oil tank was removed from the former Goodyear Building. Soil samples were collected at 6'bgs from the northeast, southwest, and northwest walls, corresponding to sample locations NS, WS, and BSNW, respectively. Groundwater was encountered at ~8'bgs, the bottom of the excavation. Soil analytical results were not above the detection limits for TPHg, TPHd, TOG, or VOCs (see Fig 3, Table 3). No additional investigations were required at this site.

Former Dry Cleaner Site

The location of the former dry cleaner is now occupied by an asphalt covered parking lot. In November 1989 during the demolition of the former dry cleaner building, two tanks containing dry cleaning fluid were punctured, releasing ~10 to 50 gallons of solvent. Contaminated soil (~150cy total) was removed and eight soil samples were collected from the sidewalls of the pit from 2' to 4' bgs and analyzed for VOCs using EPA Method 8010. A maximum of 280ppm PCE was identified from the south wall of the

excavation (see Fig 4). The south wall was further excavated and terminated when the organic vapor analyzer did not detect any vapors from the soil. Confirmatory soil samples were not collected. The soil removed was mostly sand fill material. The excavation was terminated at the top of the Bay Mud, at ~5'bgs.

In April 1990 six borings (B-1 through B-6) were drilled to a maximum depth of 6.5'bgs around the former tank excavation. Groundwater was encountered at ~6'bgs. Soil samples collected from ~4 to 5'bgs were taken to a laboratory for chemical analysis. PCE was detected in all the soil samples analyzed at concentrations ranging from 9.8ppb to 1,100ppb. (See Fig 5, Table 4)

Monitoring wells MW-7 and MW-8 were installed downgradient of the former dry cleaner by Woodward Clyde Consultants. In November 1990 well MW-7 revealed up to 1,900ppb PCE, 520ppb TCE, and 440ppb 1,2-DCE in groundwater. The levels of VOCs in well MW-8 were below MCLs. At this time trenching and excavation was also performed within and around the former excavation. Seven soil samples (V-1 through V-7) were collected at 5'bgs from six trenches (refer to Fig 6) and analyzed for VOCs. A grab groundwater sample was also collected from one of the trenches. Analytical results did not identify VOCs in soil or groundwater, except for 0.07ppm PCE in soil sample V-3 (see Fig 6). It did not appear further soil remediation was necessary.

In February 1992 groundwater monitoring wells (MW-15 through MW-21) were installed to assess the vertical and horizontal extent of chlorinated hydrocarbon contamination in soil and groundwater. PCE was not found in the six borings. In March/April 1992 an aquifer test was performed using well MW-7B. Approximately 13,000 gallons of groundwater was removed.

Groundwater monitoring wells MW-7/7B, MW-8/8B, MW-11, and MW-15 through MW-21, which surround the former dry cleaners, have been sampled periodically from February 1993 to August 1996. Maximum historic PCE concentrations (7,800ppb) and TCE concentrations (1,200ppb) have been detected in well MW-7/7B. The most recent sampling event in August 1996 identified up to 820ppb PCE and 890ppb TCE in this well. Groundwater from the other surrounding wells has not contained in excess of 57ppb PCE or TCE in the recent August 1996 sampling event. VOCs have not been detected in wells MW-14 and MW-16, located downgradient and nearest the shoreline (see Fig 7). It appears that the VOC plume is not migrating and may be naturally biodegrading. A comparison of recent VOC concentrations with the ASTM RBCA Tier 1 Look up Table suggests that current levels do not pose a risk to human health (see Table 5). And, the VOC plume is limited in extent and is not expected to impact the Alameda Shoreline.

A risk management plan (RMP), dated December 18, 1996, was prepared for the site. The RMP addresses mitigation of residual VOCs in soil and groundwater, protection of construction workers during earth moving activities, prevention of the creation of vertical and lateral conduits for the migration of residual contaminants, and evaluation of human health risk in the event of land use change at the site. The RMP must be provided to the current and any future property owners. A copy is also maintained at this agency. A no further action letter for the former dry cleaners was issued in December 1996.

Former Texaco Service Station Site

Four underground storage tanks (3 fuel and 1 waste oil tank) were removed from the site in 1981. There is no information available to this office regarding the removal of these tanks.

In June and August 1990 six groundwater monitoring wells (MW-1 through MW-5 and MW-9) were installed at the site. Wells MW-1, MW-2, and MW-3 were re-named MW-6, MW-7, and MW-8, respectively, in reports prepared by Woodward-Clyde. Well MW-6 was later destroyed during onsite construction activities. Soil samples collected from the well boreholes did not contain significant levels of TPHg, TPHd or TOG. Trenching (Trenches T-1 through T-7) was also conducted at this time to delineate the extent of soil contamination. Four soil samples (T4A, T4B, T4C and T7) were collected from the trenches. Obvious soil contamination was observed in samples T4A and T4B. In December 1990 an area 70' in length and 40' in width, which included the locations of soil samples that were collected from the trenches (T4A, T4B, T4C, and T7), was excavated. The excavation extended down to ~6' to 7'bgs, removing ~575cy of soil. Stained soil was noted at ~6'bgs along the east-half of the excavation and at ~3'bgs along the west-half of the excavation. Twelve confirmatory soil samples were collected at ~2' to 7'bgs. The eastern wall sample (sample 4E-6') contained up to 5,300ppm TPHg and 150ppm benzene at 6'bgs. Another sample from the same location, but at 6.5'bgs, contained 2ppm TPHg and 0.13ppm benzene. (See fig 8, 9, Table 6, 7, 8)

Additional groundwater monitoring wells (MW-5B, MW-14, MW-15, and MW-22) were subsequently installed to further delineate the extent of the groundwater plume. Of all monitoring wells located downgradient of the former Texaco USTs, well MW-5B contained the highest levels of BTEX (maximum of 1,300ppb benzene in April 1991). Monitoring well MW-22 that is located downgradient of the former Texaco USTs and nearest the shoreline has not identified TPHg, TPHd, or BTEX constituents in groundwater. The sampling events in April 1994 and April 1997 indicated BTEX concentrations in the wells surrounding the former Texaco station to be below MCLs. It appears the plume is stable and naturally degrading (see Table 16). No additional work is required at the former Texaco site.

1,2-DCA and chloroform have been detected in wells MW-14, and MW-22. Well MW-22 is located across Shoreline Drive and ~100' downgradient of the former Texaco site. A limited ecological risk assessment was conducted to evaluate if residual DCA and chloroform in groundwater would pose significant impacts to aquatic organisms, fish, as well as endangered species, specifically the California clapper rail and the saltwater marsh harvest mouse. The report concluded that the compounds would not adversely effect the biota in the area.

Former Chevron Carwash/Service Station

Three 10,000-gallon USTs were reportedly removed in July 1990. Soil samples were collected from six locations (S1 through S6) at 8.5'bgs. Up to 9,500ppm TPHg and 94ppm benzene were identified from these samples. Six hand-augured borings (EB-1 through EB-6) were advanced to 5' and 7'bgs around the tank pit. Soil samples S-7 through S-14 were collected from the hand-augured borings at depths ranging from 5' to 6.5'bgs. Elevated TPHg and BTEX were also detected from these samples (see Fig 10, Table 8). Additional overexcavation in and around the former UST area (to depths ranging from 8' to 14'bgs) took place in December 1990. Confirmatory soil samples still contained elevated TPHg (up to 20,000ppm) and benzene (400ppm) along the north and east walls of the excavation (see fig 11, 12, 13, and Table 10, 11). Approximately 1,000cy of soil was taken to class III landfills, and ~700 tons to Gibson Oil in Bakersfield, CA.

In February 1991 ten exploratory borings (B-1 through B-10) and four groundwater monitoring wells (STMW-1 through STMW-4) were completed around the former tank excavation to delineate the extent of hydrocarbon contamination in soil. Soil samples from B-2, B-8, B-9, STMW-1 (sample SW-1-6) and STMW-3 (sample SW-3-6) contained elevated TPHg and BTEX at 6'bgs. TPHg, BTEX, and VOCs (including chlorinated solvents) were found in groundwater (see Fig 14, Table 12, 13). In March 1993 two additional wells (STMW-5 and STMW-6) were installed further downgradient (to north) to delineate the extent of the hydrocarbon plume (see Fig 15). Well STMW-4 was decommissioned in February 1995 due to considerable damage to the well head. And in March 1998 five exploratory borings (#1 through #5) were advanced in locations northeast and southeast of the former tank excavation where elevated TPHg and benzene were previously identified. Soil samples were collected at 3' to 4'bgs. The soil samples were analyzed for TPHg, BTEX, MTBE. In addition, sample #2 was also analyzed for chlorinated solvents. None of these compounds were detected above the laboratory detection limits. (See Fig 16, Table 14)

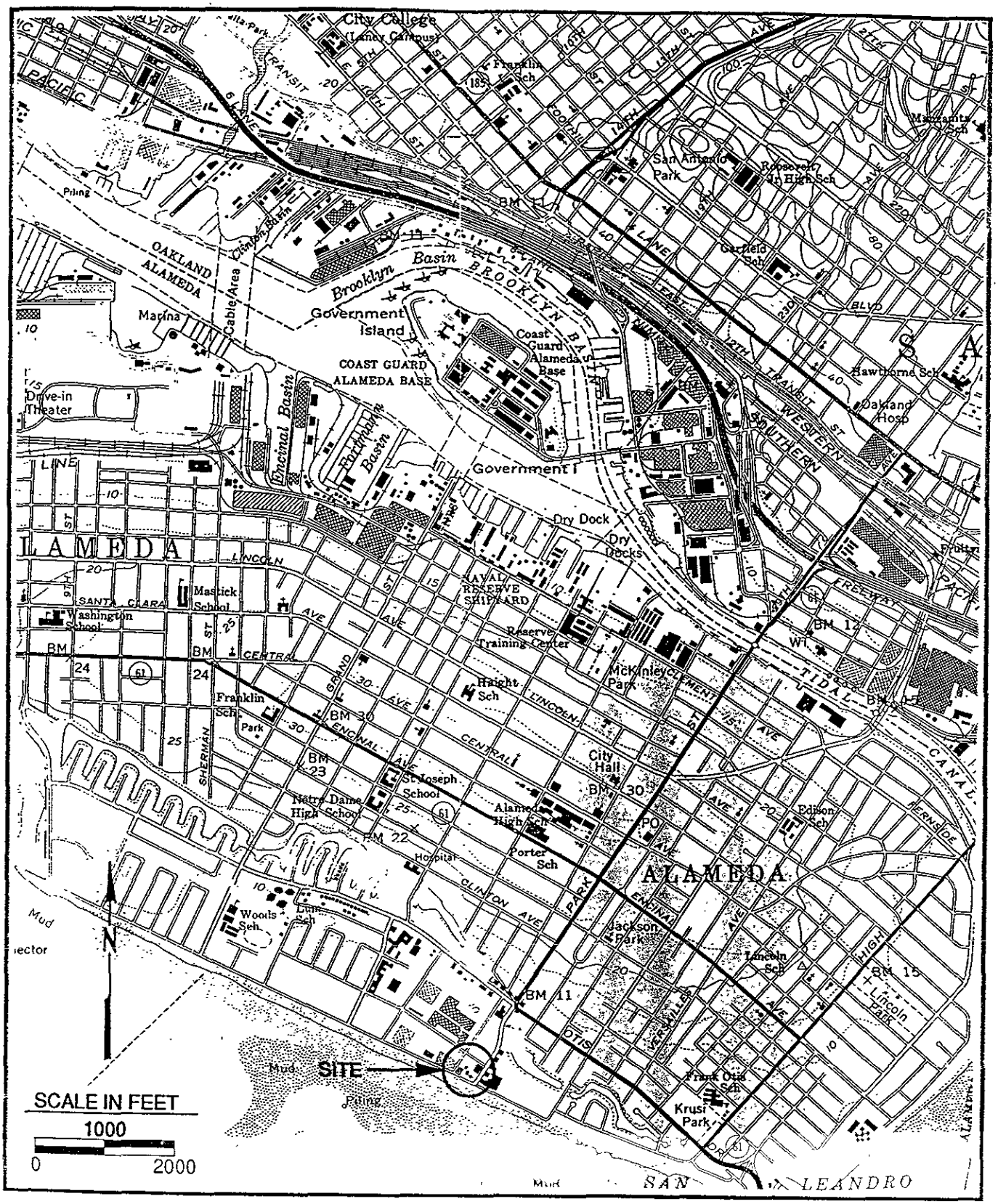
Groundwater has been sampled regularly since April 1991. The most recent results (12/96) identified a maximum of 180 ppb benzene in well MW-10/STMW-1 (see Table 15). Note that wells STMW-1 through STMW-6 are also called MW-10 though MW-13, MW-25, and MW-24, respectively, in reports prepared by Clayton Environmental.

In 1997, a risk assessment was submitted which demonstrated that there was no excess risk for volatilization of chemicals of concern (COC), namely BTEX constituents, from groundwater to indoor and outdoor air for onsite and offsite commercial workers. In addition, risk to construction workers (dermal contact, ingestion, and inhalation of COC) was estimated to be negligible. The risk assessment for volatilization of BTEX from soil to indoor or outdoor air was not evaluated. This exposure route was not evaluated since soil contamination is under the paved parking lot of the shopping center. Recent soil borings advanced in the location of residual hydrocarbons did not identify TPHg or BTEX constituents in soil. After 7 years, residual hydrocarbons may have naturally bioattenuated. However, if a building structure is proposed over the area of the former USTs, a risk analysis is still required to address potential soil vapor intrusion from soil into buildings.

SOMA Environmental Engineering, Inc. prepared a risk management plan (RMP), dated September 28, 1999, for the site. The RMP presented measures that will be implemented to mitigate potential impacts to human health and the environment during construction activities. The property owner should keep a copy of the RMP. The RMP must be disclosed to potential future buyers as well as to workers and contractors, as needed.

In summary, case closure for the fuel related sites is recommended because:

- the leak and ongoing sources have been removed;
- the site has been adequately characterized;
- the dissolved plume is not migrating;
- no water wells, surface water, or other sensitive receptors are likely to be impacted; and,
- the site presents no significant risk to human health or the environment under current use scenario.



SITE LOCATION MAP

DATE

REVIEWED BY

PREPARED BY

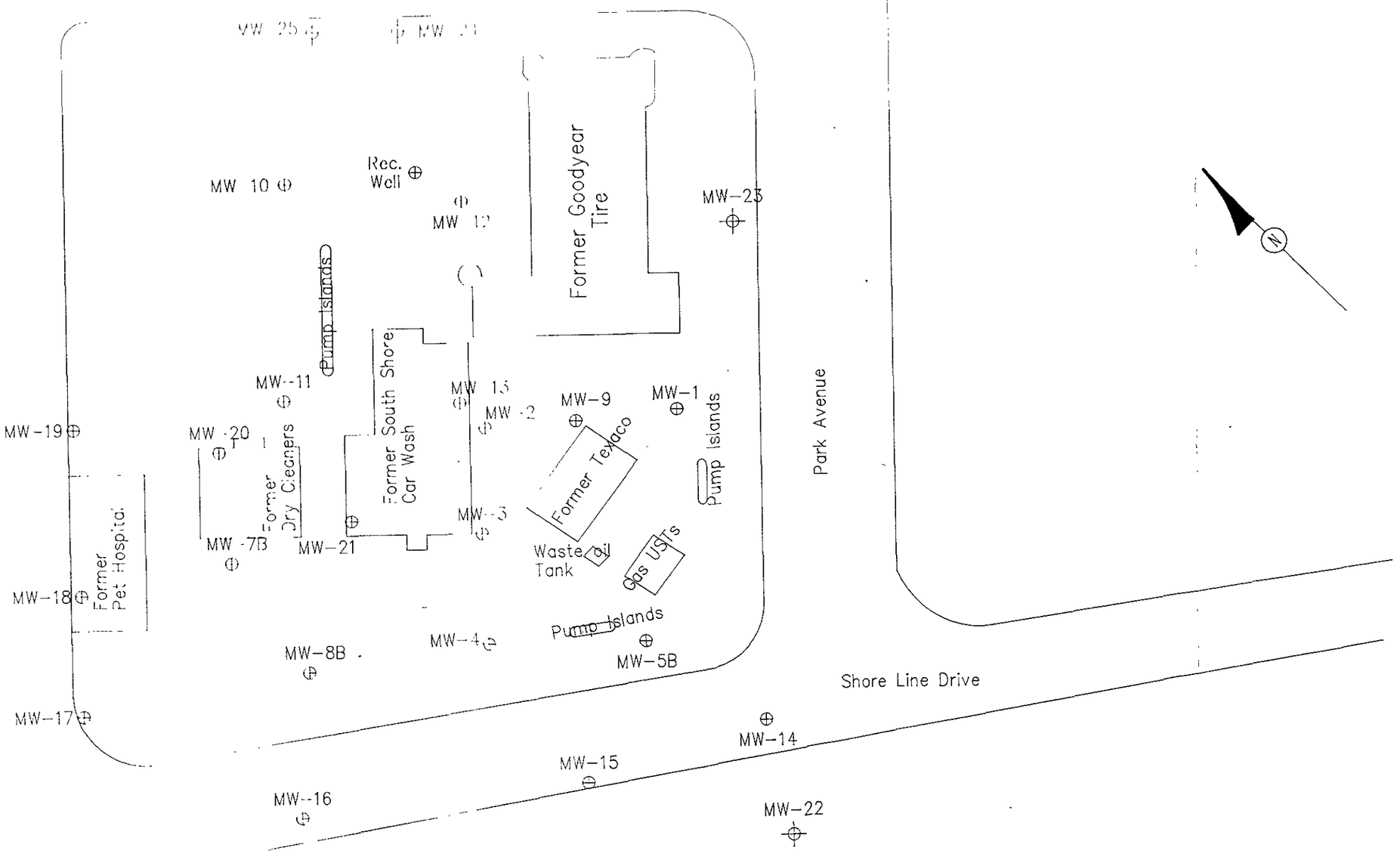
THE MARK GROUP, INC.
ENGINEERS & GEOLOGISTS

Supplemental Monitoring Program
Southshore Shopping Center
Corner of Shoreline Drive & Park Avenue
Alameda, California

PROJECT NO
93-1175306

~~DRAWING NO.~~
MAP 1

TBLCK (5/26/92)



LEGEND

- Existing Monitoring Wells
- New Monitoring Wells

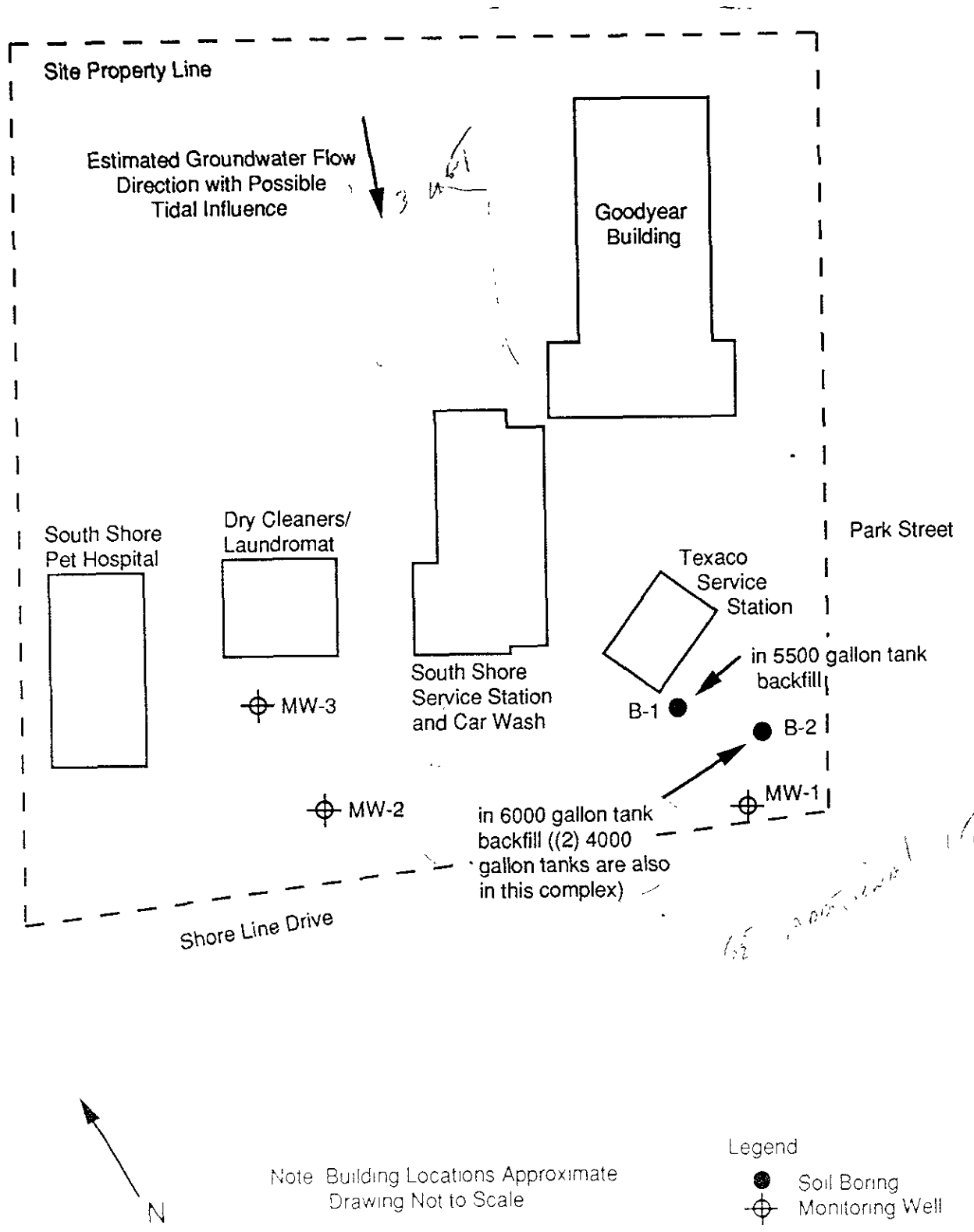
(not to scale)

Former Occupants
South Shore Shopping Center
Corner of Shoreline Drive and Park Avenue
Alameda, California

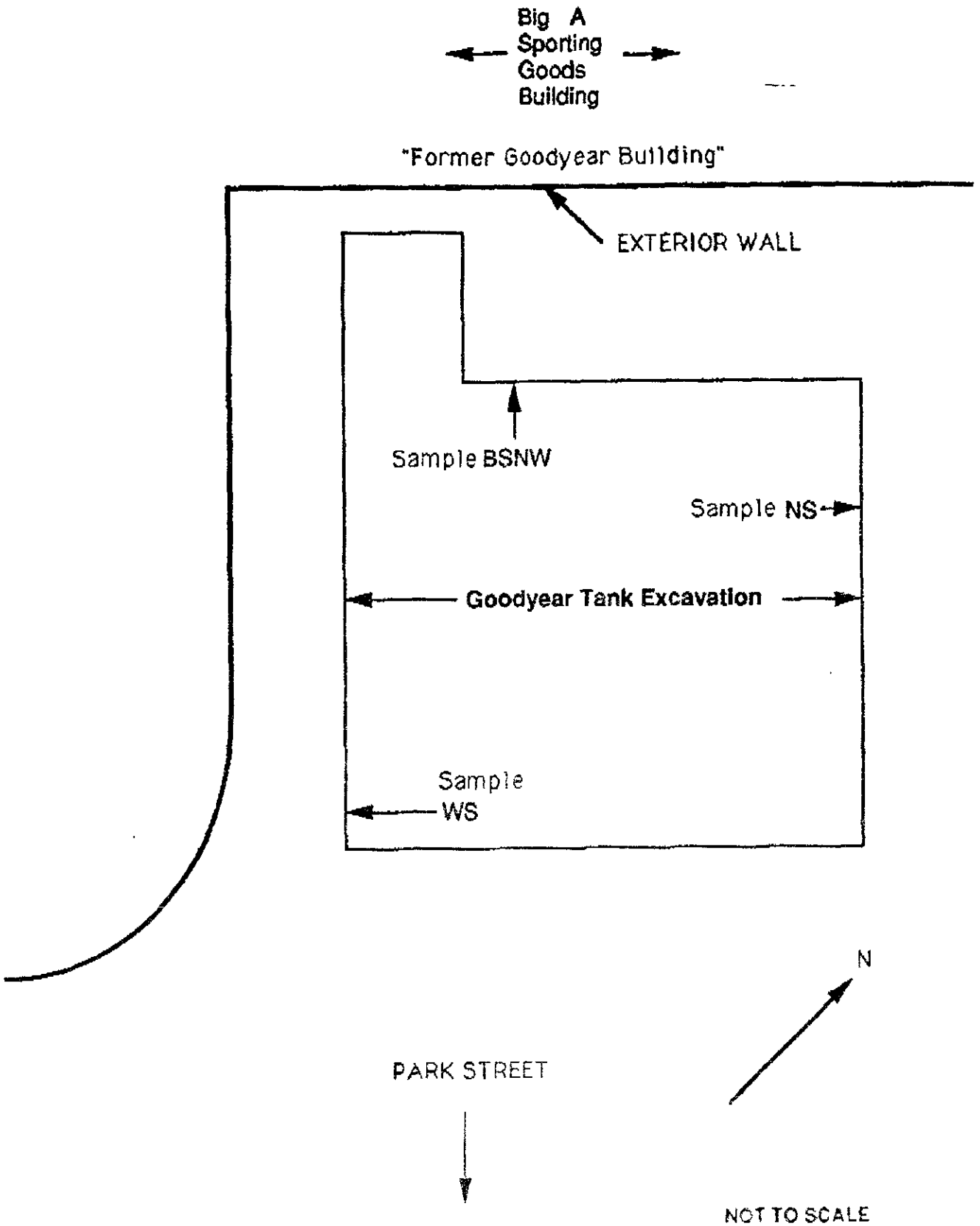
Clayton Project No. 45040-08

Figure 1

Clayton
ENVIRONMENTAL CONSULTANTS

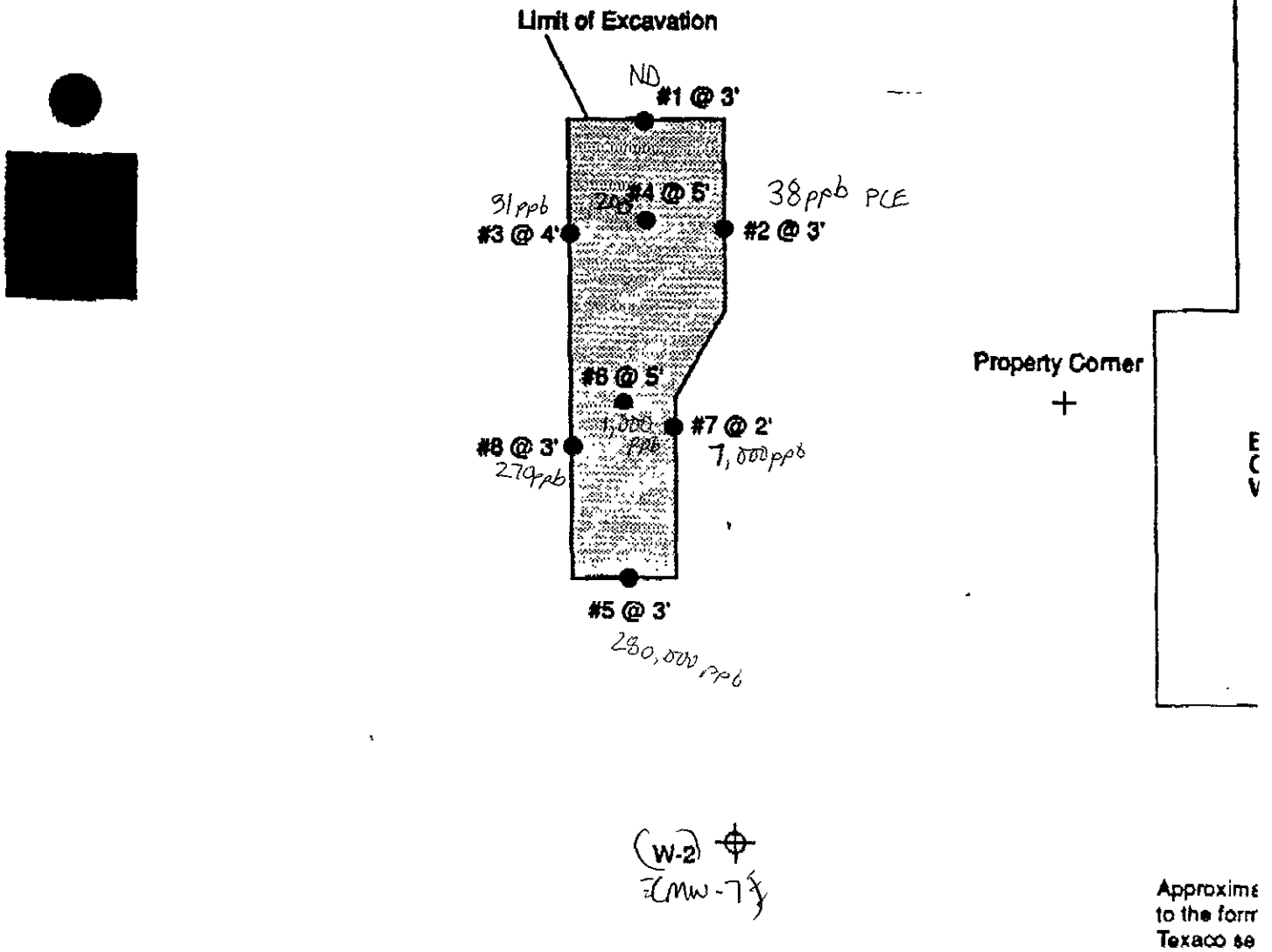


Project No 8910116A	Harsch Investments	Site Map, Park Avenue and Shore Line Drive, Alameda, California	Figure 2
Woodward-Clyde Consultants			



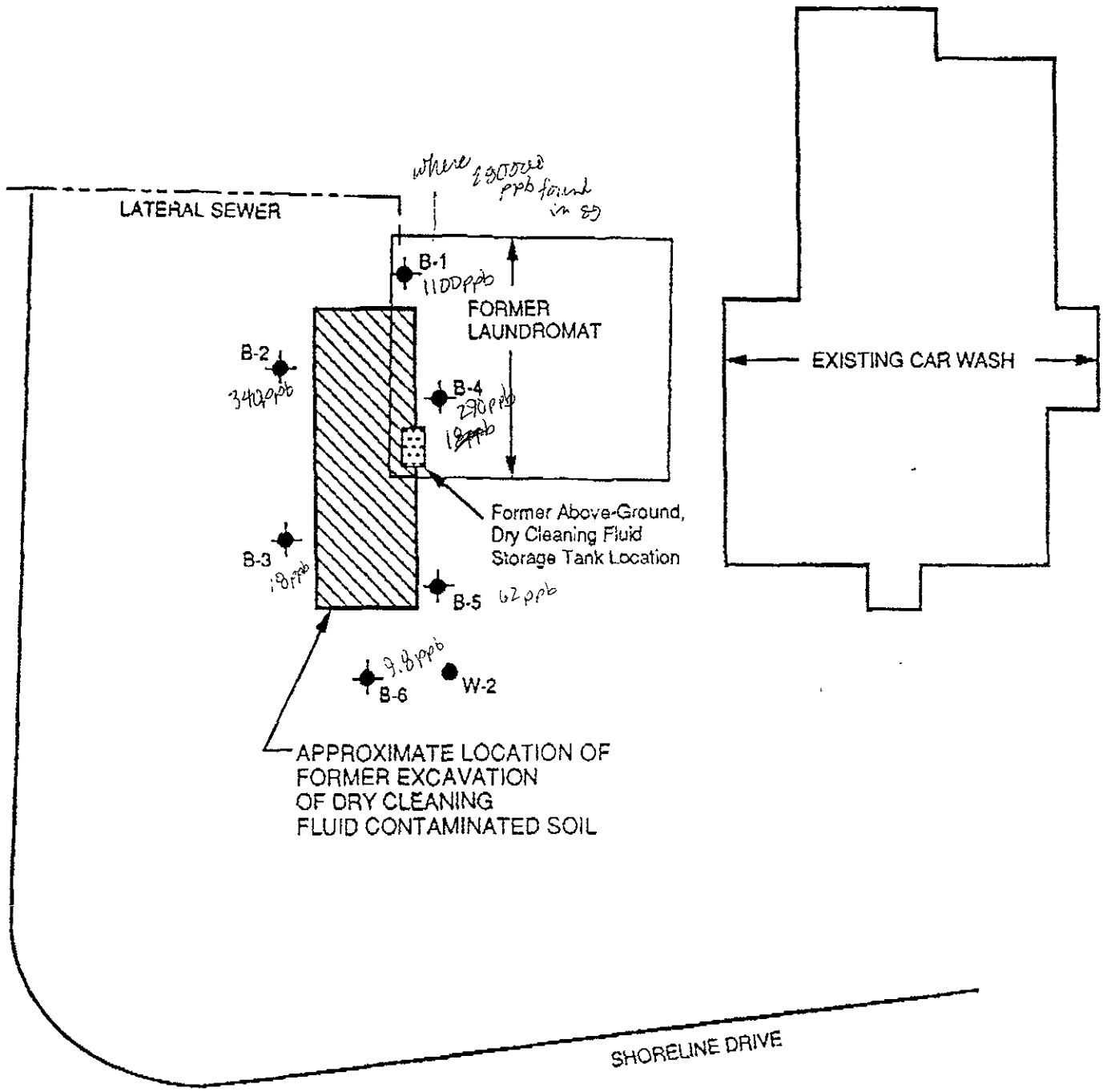
NOT TO SCALE

Project No 8910116A	Harsch Investment Corp Shoreline Dr. & Park St Alameda, California	SAMPLE LOCATION MAP Goodyear Tank Removal	May 1990
Woodward-Clyde Consultants			FIGURE 3



Project No 8910116A	Harsch Inv	EXCAVATION LIMIT AND SAMPLE LOCATI PARK BOULEVARD AND SHORELINE DR ALEMEDA
Woodward-Clyde Consultants		

Fig 4



LEGEND

B-1 ⊕ Approximate Boring Locations

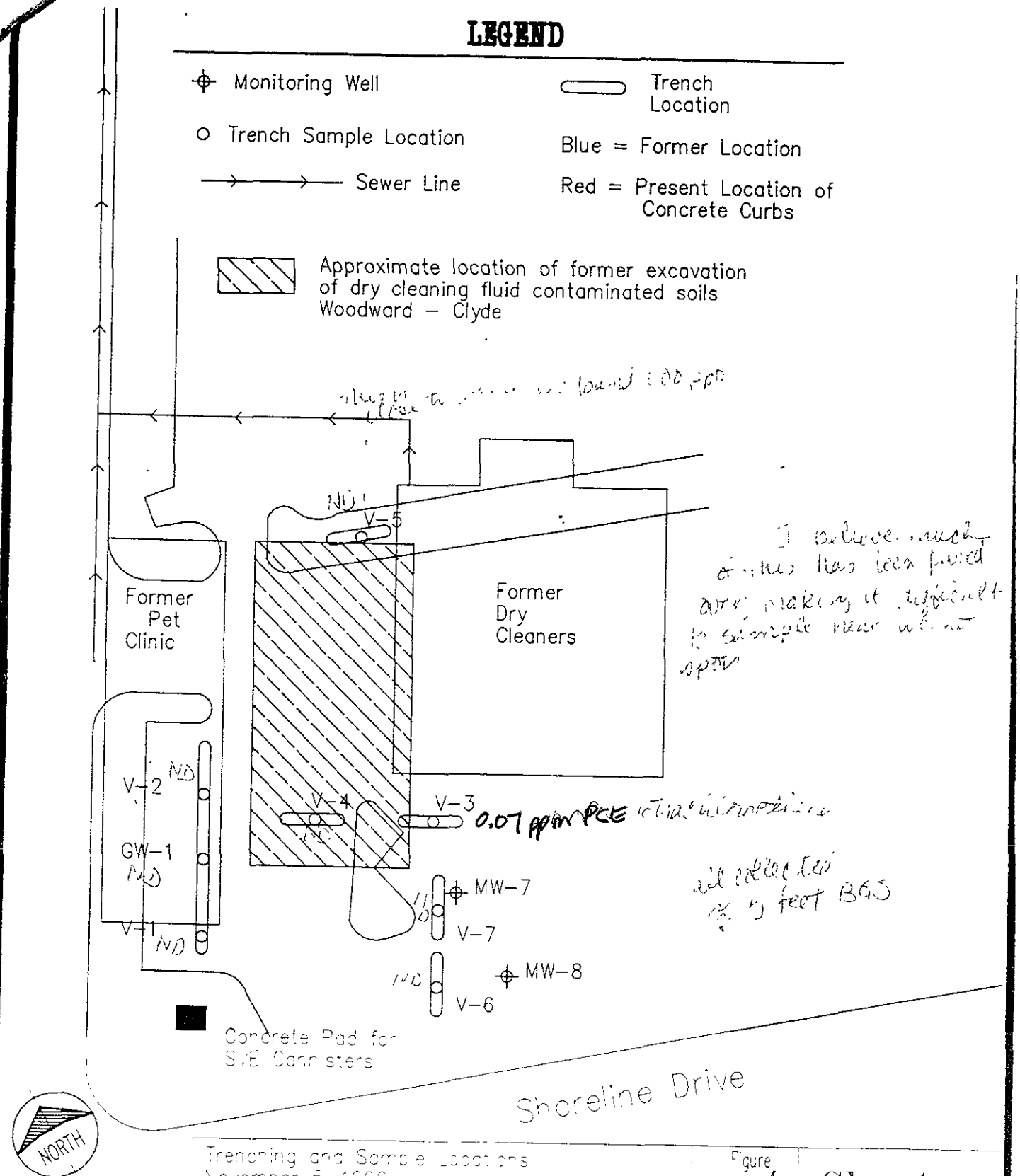
W-2 ● Approximate Groundwater Monitoring Well Location

0 10 20

feet
(Approximate Scale)

Project No 8910116A	Harsh Investments, Inc	FORMER EXCAVATION AND BORING LOCATION PLAN	June 1990
			Figure 5

FIG. 12



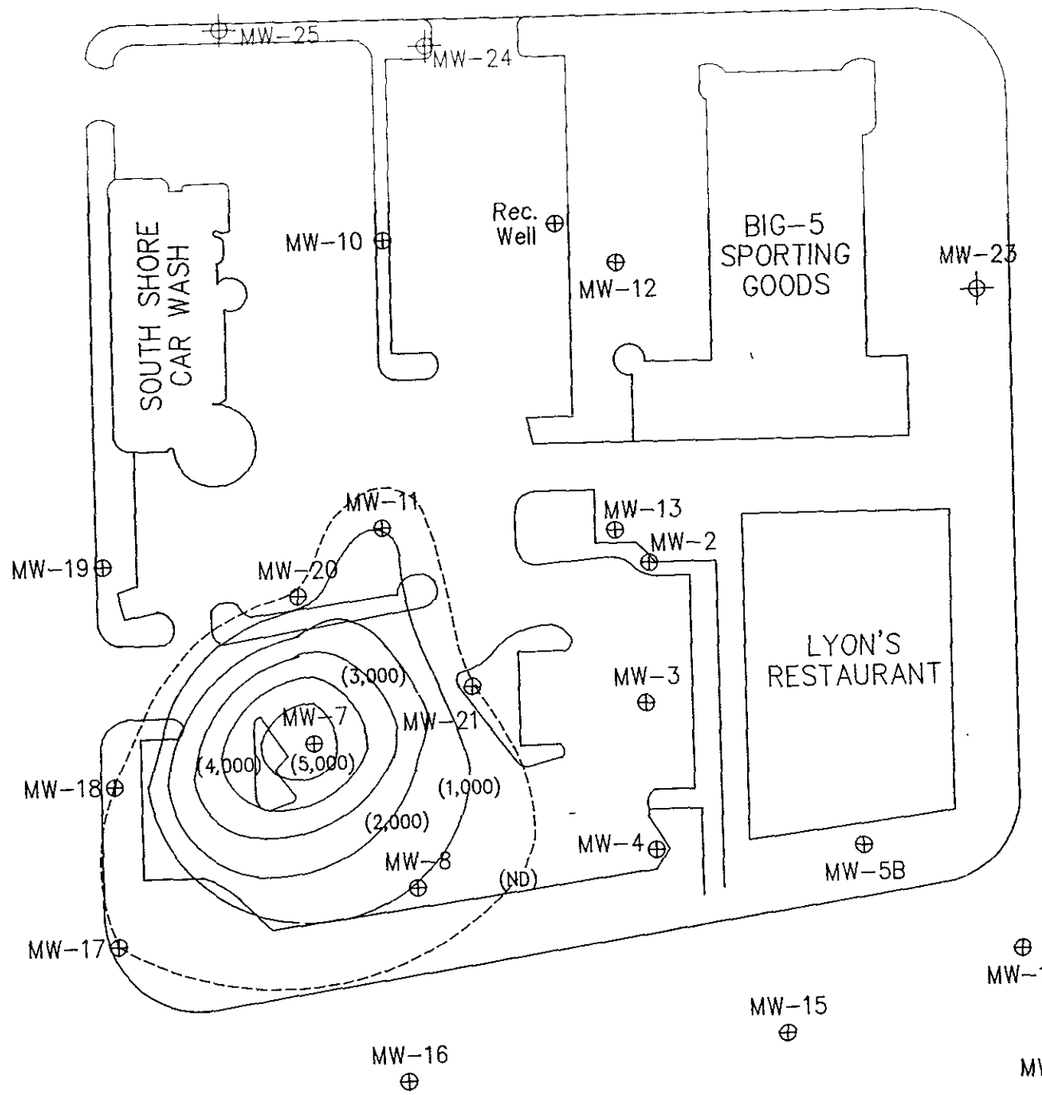
Trenching and Sample Locations
November 5, 1990
Former Dry Cleaners Site
Park Street and Shoreline Drive
Alameda, California
Clayton Project No. 30493.00

(not to scale)

Figure 6

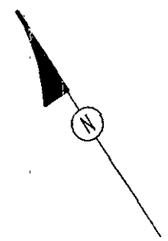
Clayton ENVIRONMENTAL CONSULTANTS

30493-00-17



LEGEND

~	Isoconcentration Line (Dashed where inferred)
(200)	Concentration
⊕	Existing Monitoring Wells
⊕	New Monitoring Wells
ND	Not detected at or above detection limit



Isoconcentration Map for Tetrachloroethene
SOUTH SHORE SHOPPING CENTER
Corner of South Shore Drive and Park Street
Alameda, California

Clayton Project No. 45040.08

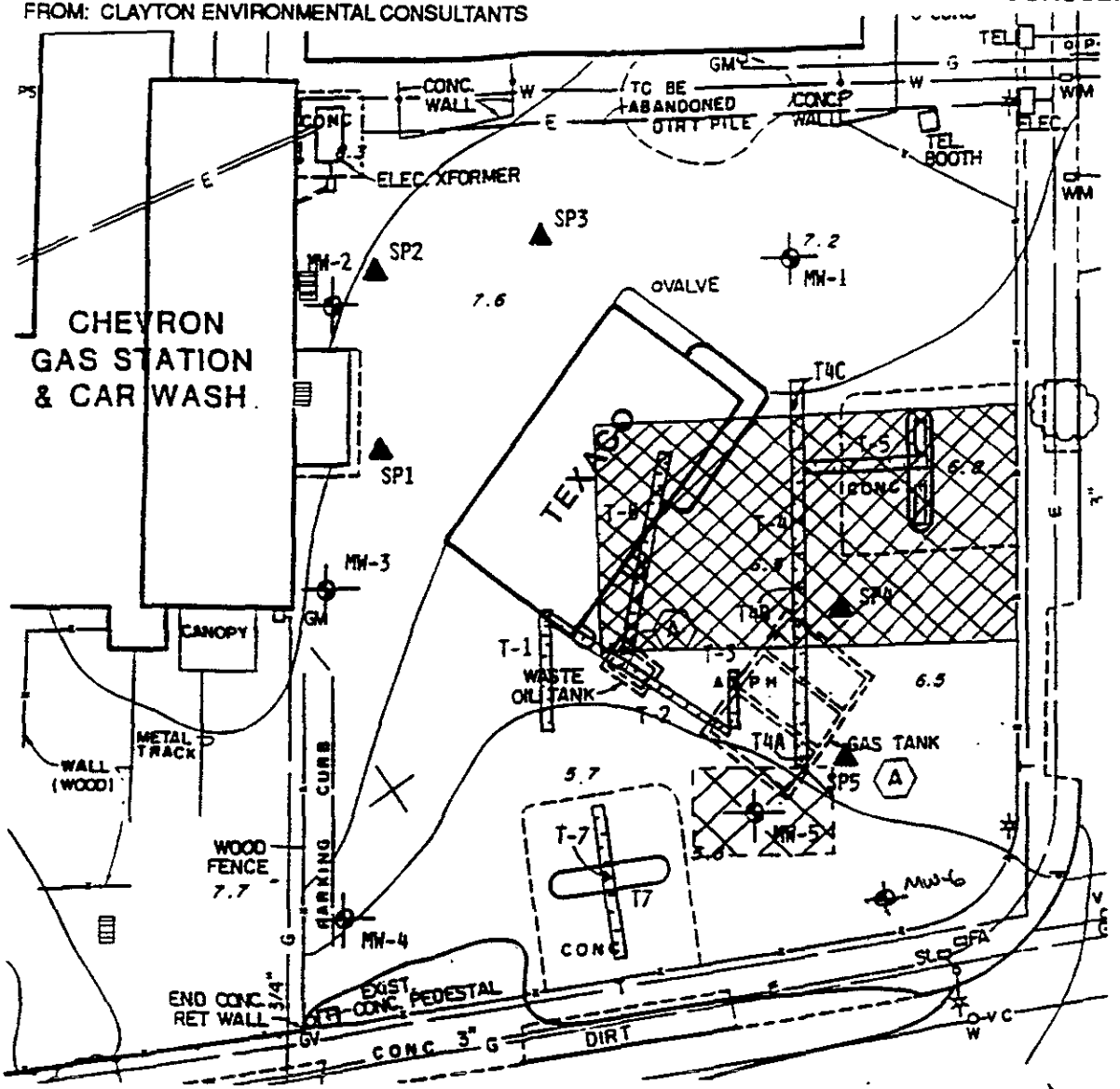
Figure 7

45040-PC-16

Clayton ENVIRONMENTAL CONSULTANTS

FIGURE # 8
SITE PLAN AND
AREA OF EXCAVATION
PROPOSED BY
CLAYTON ENVIRONMENTAL
CONSULTANTS

FROM: CLAYTON ENVIRONMENTAL CONSULTANTS



LEGEND	DESCRIPTION

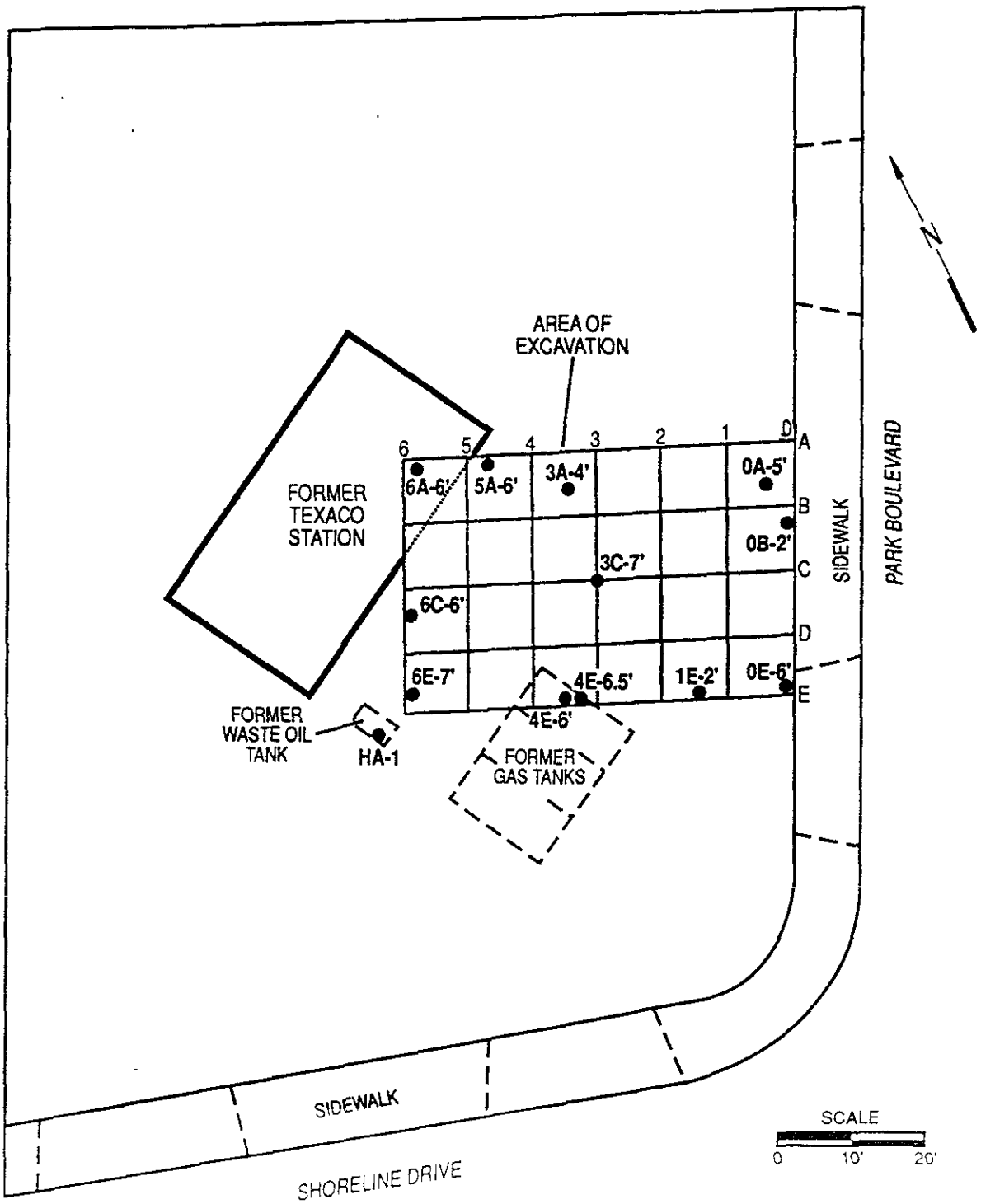
APPROXIMATE SCALE
0 15' 30'

N

MW-2	MONITORING WELL LOCATION
SP3	SAMPLE LOCATION FOR AERATING SOILS
T-1	TRENCH LOCATION
T4C	SAMPLE LOCATION FROM TRENCHES
	PROPOSED SOIL EXCAVATION
	SUMP LOCATION

McLaren Hart

FIGURE 9
EXCAVATED AREA AND
SOIL SAMPLING LOCATIONS



LEGEND

● SAMPLE LOCATION

1 0 A
EXCAVATED AREA
B

McLaren Hart

File No. 8-90-418-SI

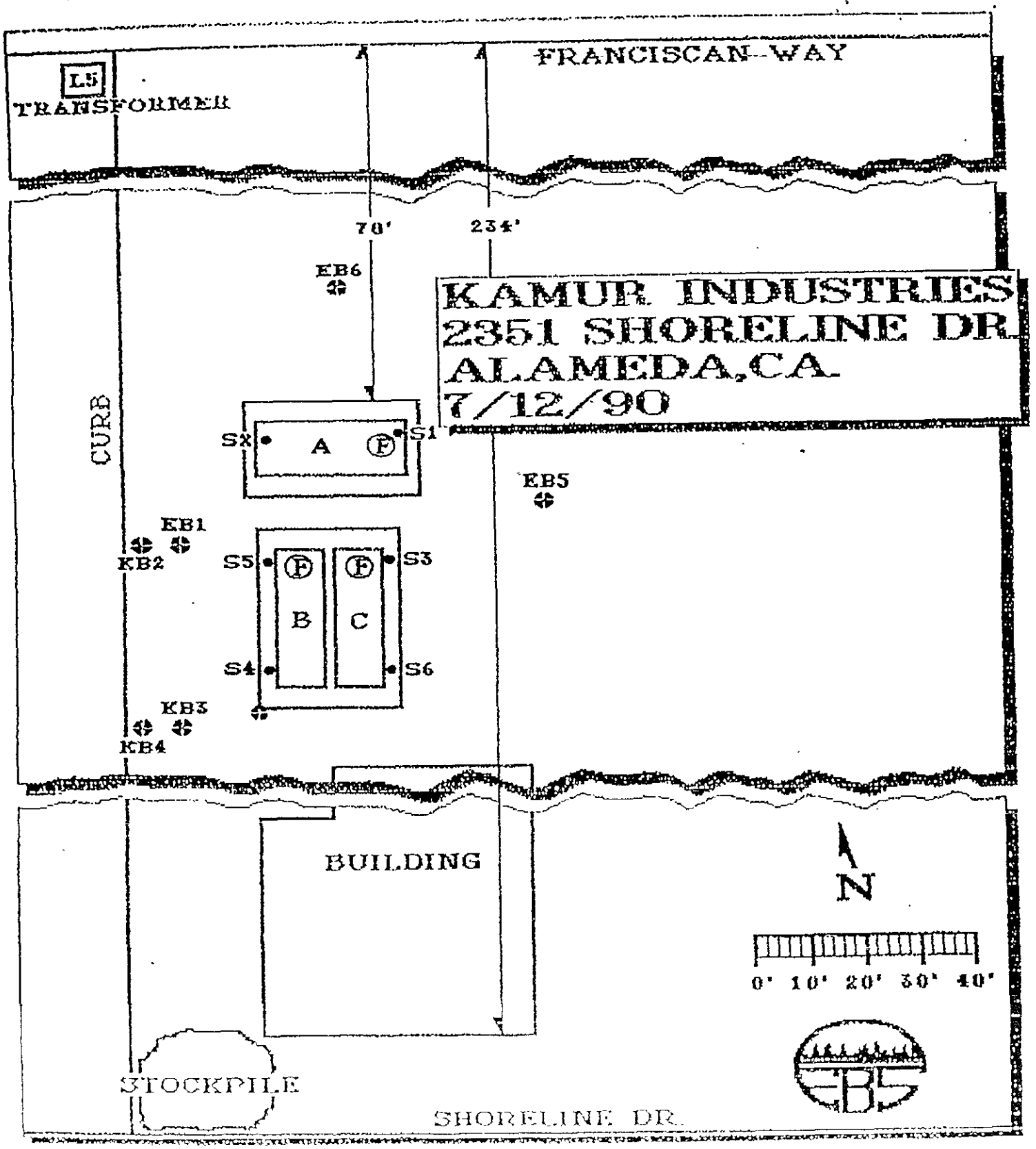
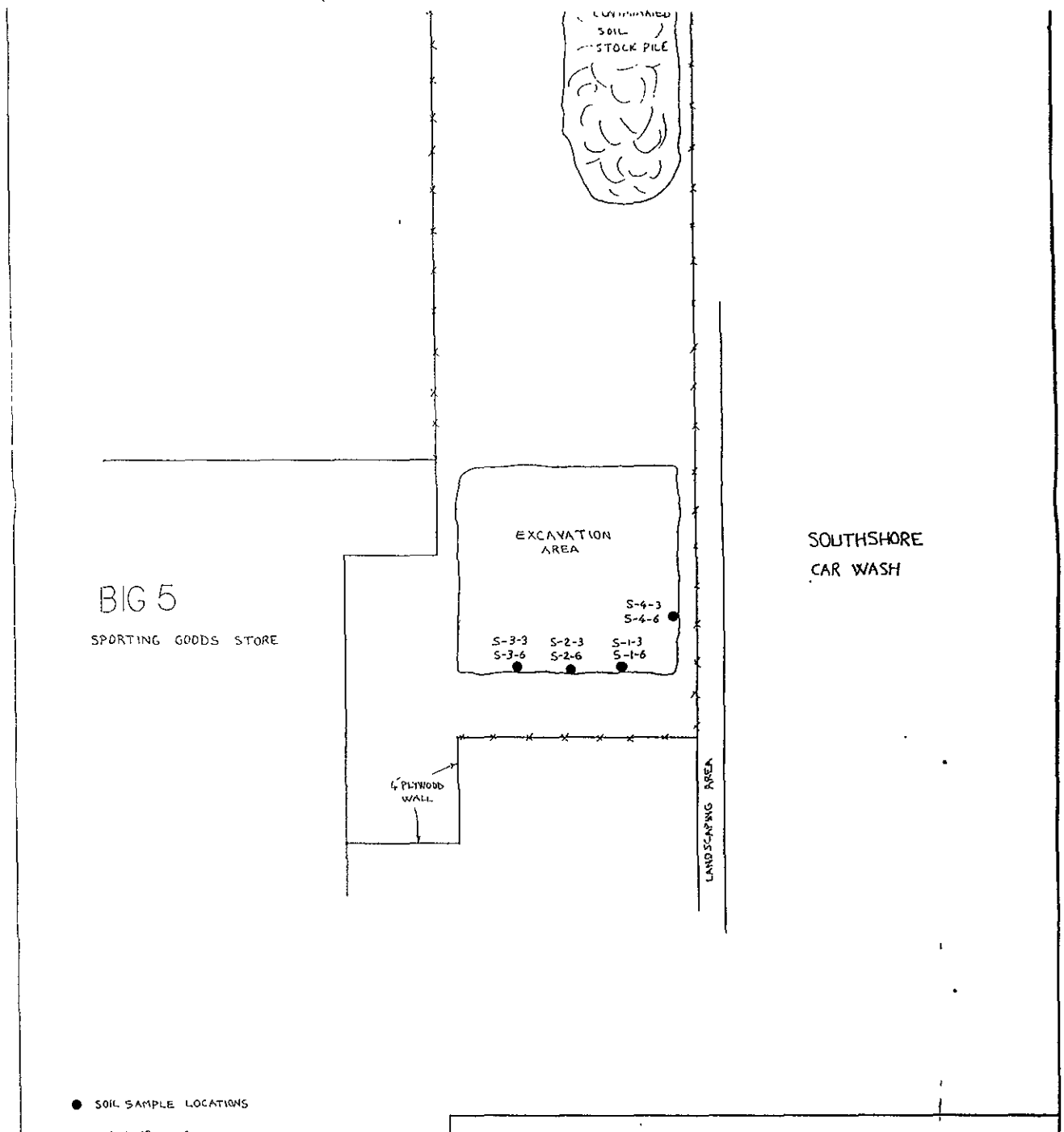


Figure 3



● SOIL SAMPLE LOCATIONS

FIRST NO. IS NO OF SAMPLE,

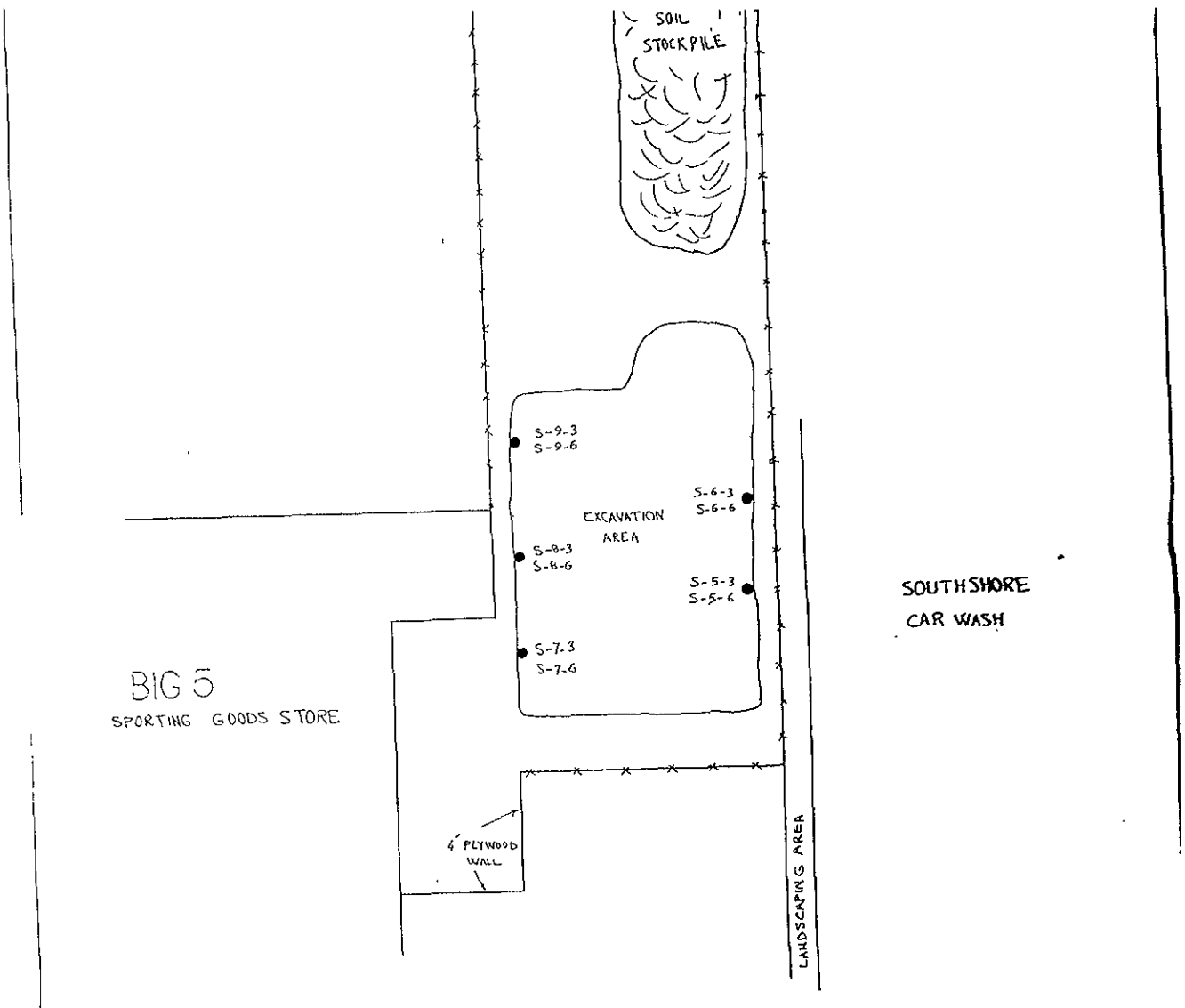
SECOND NO IS IT'S DEPTH

2351 SHORE LINE DR ALAMEDA CA

1"=30'	PROJECT NO 8-90-418-SI	FIG-# 12
DRAWN BY N.A.		12-12-90

SOIL TECH ENGINEERING INC.

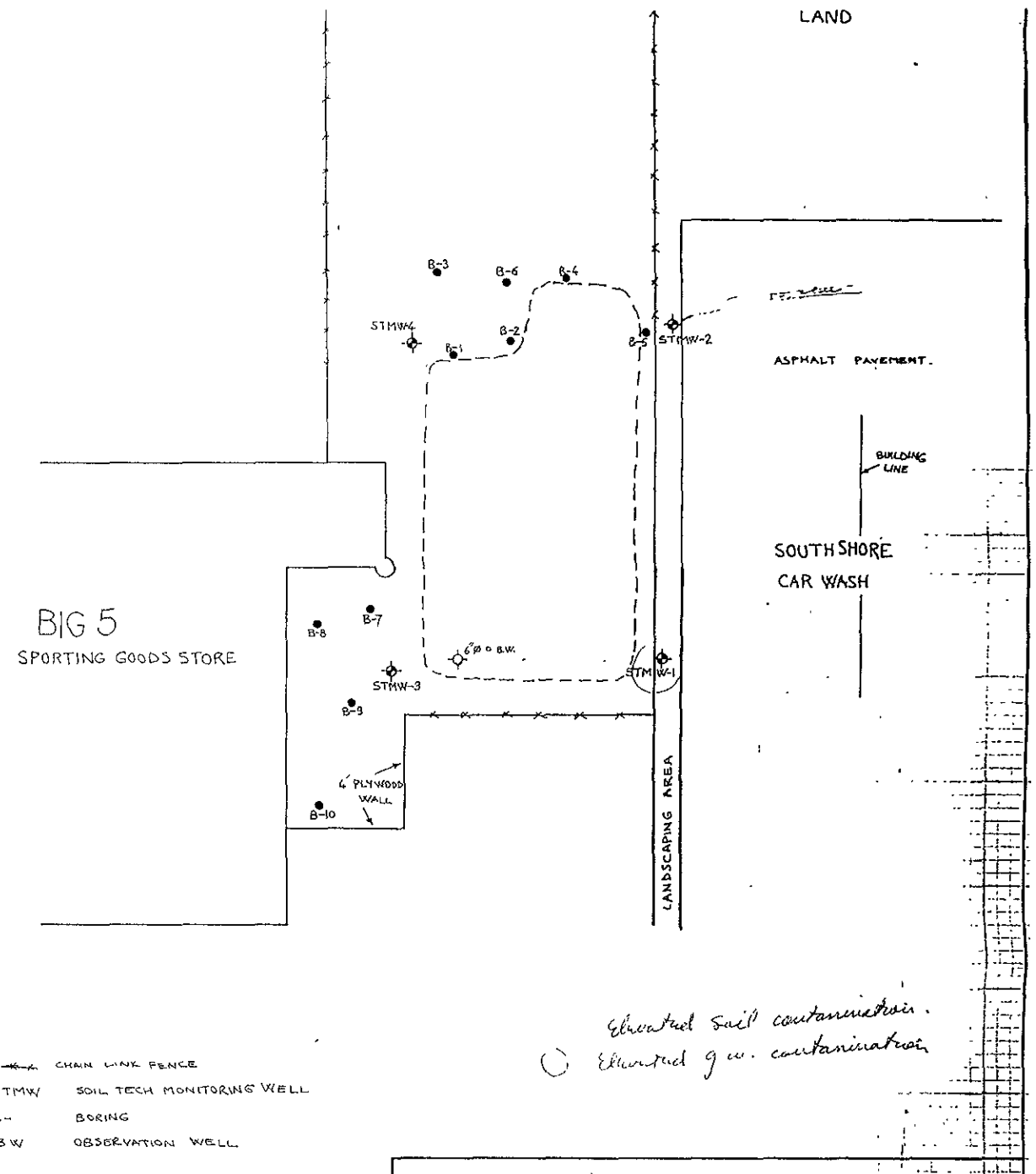
298 BROKAW RD SANTA CLARA CA 95050



● SOIL SAMPLE LOCATIONS
FIRST # IS # OF SAMPLE,
SECOND # IS IT'S DEPTH

2351 SHORE LINE DR ALAMEDA CA		
1"=30'	PROJECT NO 8-90-418-S1	FIG-● 13
DRAWN BY N.A.		12-13-90

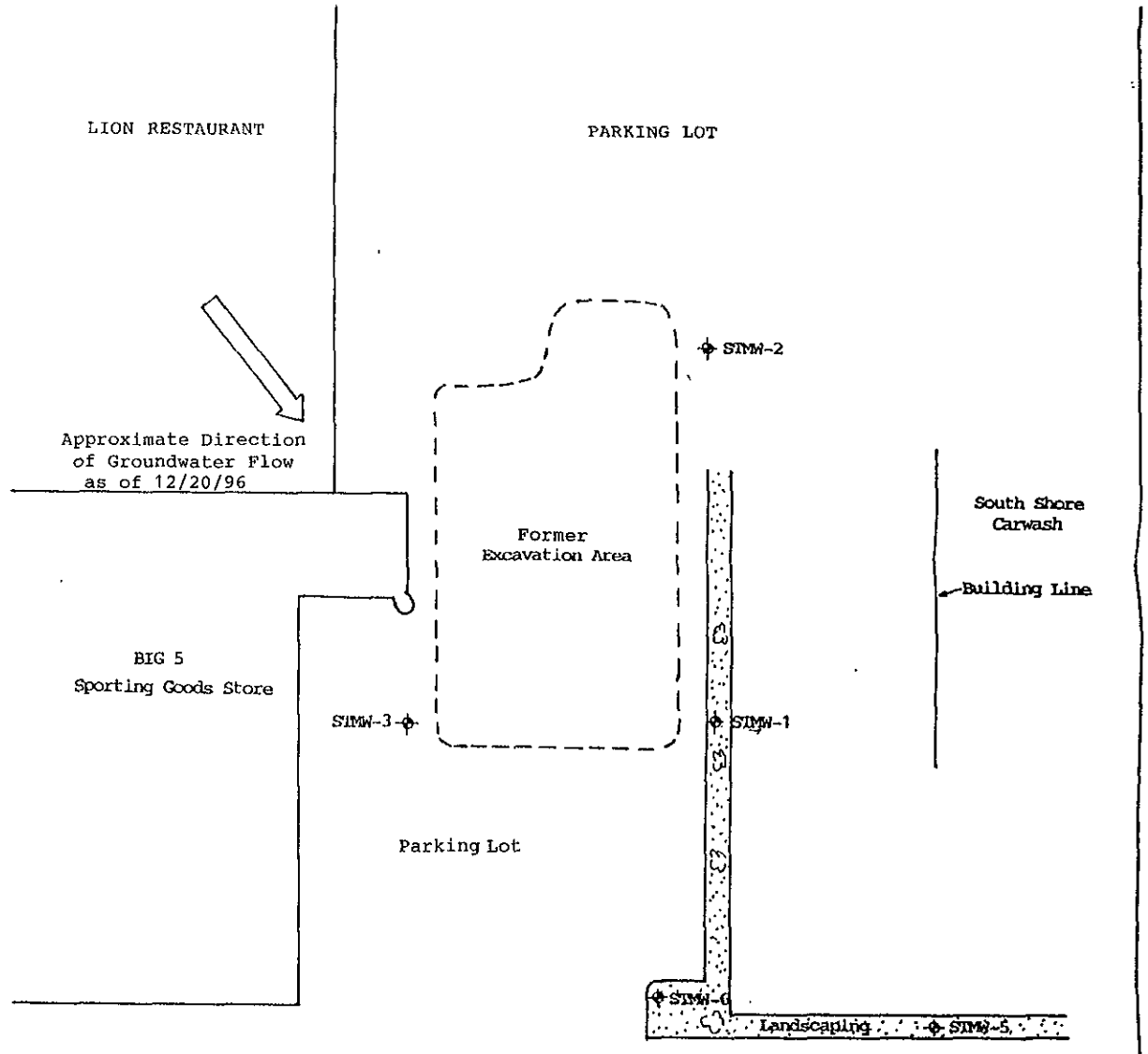
SOIL TECH ENGINEERING INC.
209 BROKAW RD SANTA CLARA CA 95050



2351 SHORE LINE DR. ALAMEDA CA

1"=30'	PROJECT NO. 8-90-418-SI	FIG-4
DRAWN BY N.A.		2-19-91

SOIL TECH ENGINEERING INC.
298 BROKAW RD. SANTA CLARA CA 95050

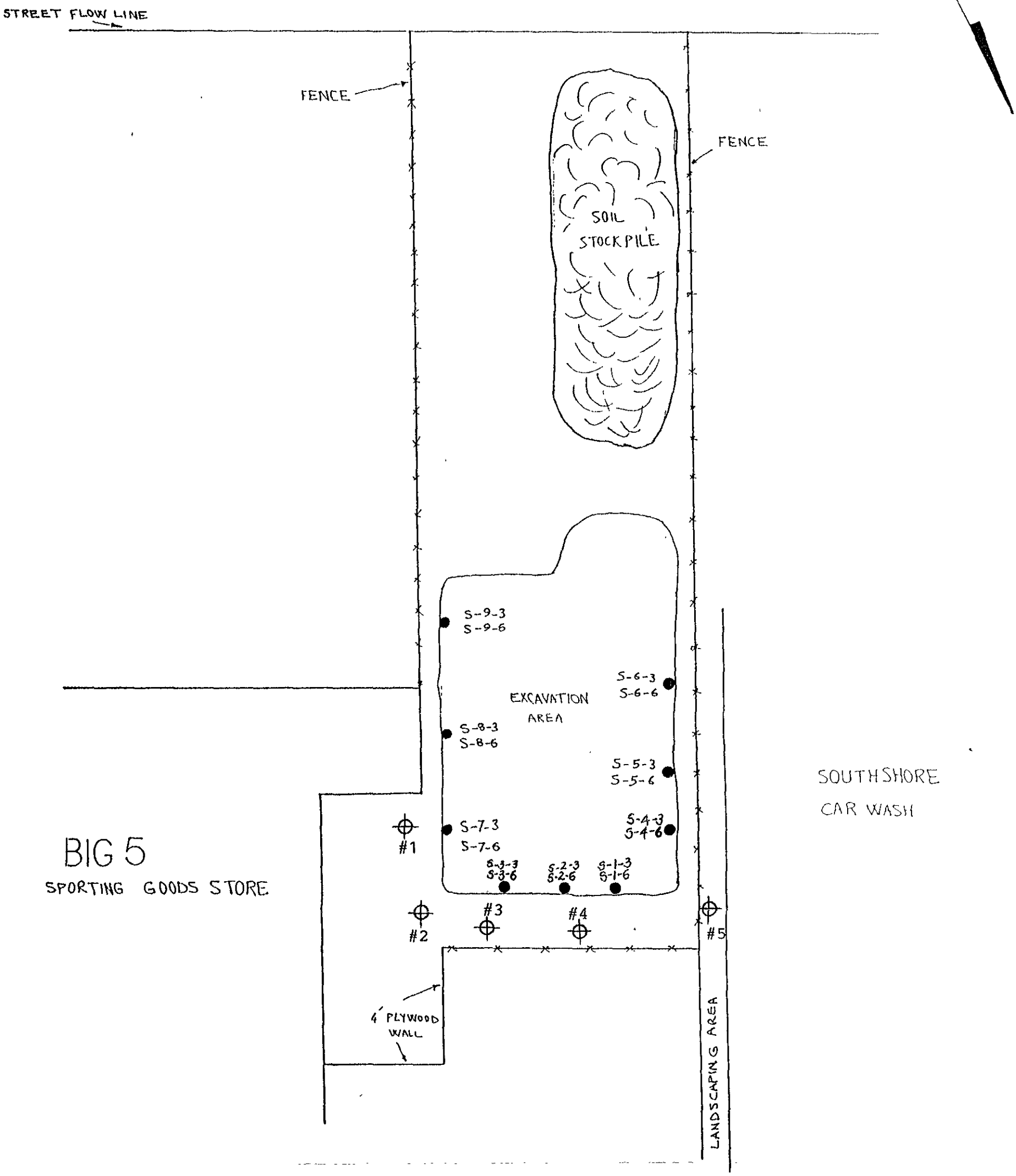


2351 SHORELINE DRIVE, ALAMEDA, CALIFORNIA

DRAWN BY: N.A.	PROJECT NO. 8-90-418-SI	FIGURE # 5
SCALE: 1"=30'		12/20/96

SOIL TECH ENGINEERING, INC.
1761 Junction Ave. , SAN JOSE , CALIFORNIA 95112

SHORE LINE DR



● Soil Sample Locations Taken Previously During Over-Excavation as reported 2/11/91
First # is # of sample;
Second # is it's depth

⊕ Locations of Borings Drilled on 3/30/98

2351 SHORE LINE DR ALAMEDA CA		
1"=30'	PROJECT NO 8-90-418-SI	FIGURE #16
DRAWN BY N.A.		3/30/98

SOIL TECH ENGINEERING INC.
298 BROKAW RD. SANTA CLARA CA 95050

SEQUOIA ANALYTICAL

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

Table 1

Woodward-Clyde Consultants	Client Project ID:	8910116A-4000	Sampled: See Below
500 12th St., Suite 100	Matrix Descript:	Soil	Received: Jun 9, 1989
Oakland, CA 94607-4041	Analysis Method:	EPA 5030/8015/8020	Analyzed: Jun 22, 1989
Attention: Al Ridley	First Sample #:	906-1220 A	Reported: Jul 10, 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)
9061220 A	B-1 @ 8.5 - 10.0A 6/8/89	130	N.D.	N.D.	4.1	4.5
9061221 A	B-1 @ 13.5 - 15.0A 6/8/89	N.D.	N.D.	N.D.	N.D.	N.D.
9061223 A	B-2 @8.5 - 10.0A 6/8/89	N.D.	N.D.	N.D.	N.D.	N.D.
9061224 A	B-2 @13.5 - 15.0 A 6/8/89	N.D.	N.D.	N.D.	N.D.	N.D.
9061225 A	MW - 1 @3.5-5.0 A 6/8/89	N.D.	N.D.	N.D.	N.D.	N.D.
9061226 A	MW-1 @8.5 - 10.00A 6/8/89	N.D.	0.43	N.D.	0.10	N.D.
9061229 A	MW - 3 @3.5 - 5.0A 6/9/89	N.D.	N.D.	N.D.	N.D.	N.D.
9061230 A	MW - 3 @8.5-10.0 A 6/9/89	N.D.	N.D.	N.D.	N.D.	N.D.
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

Please Note
The chromatographic pattern for sample #9061220 is not typical of gasoline contamination

Table 2. LABORATORY ANALYSIS OF WATER SAMPLES, PARK AVENUE AND SHORE LINE DRIVE, ALAMEDA, CALIFORNIA

Total Petroleum Hydrocarbons and BTEX in micrograms (ppb) (EPA 5030/8015/8020)

Well Number	LBH[1]	Benzene	Toluene	Ethyl Benzene	Xylenes	HBH[2]	(Other) Ethylene Glycol
MW-1	2,500	400	3.4	7.9	78	3,800	ND
MW-2	43	2	ND	ND	ND	ND	--[3]
MW-3	ND	ND	ND	ND	ND	ND	--
Detection Limit:	30	0.3	0.3	0.3	0.3	50.0	10.0

[1]LBH = Low/Medium Boiling Point Hydrocarbons = TPH (as gasoline)

[2]HBH = High Boiling Point Hydrocarbons = TPH (as diesel)

[3] = Not tested

Volatile Organics in micrograms/L (ppb) (EPA 8240)

	Benzene	Toluene	Ethyl Benzene	Xylenes	1,2-DCE	PCE	TCE
MW-1	10,000	260	2,600	1,600	ND	ND	ND
MW-2	2.0	ND	ND	ND	26	48	160
MW-3	ND	ND	ND	ND	ND	ND	ND
Detection Limits:	2.0	100	100	100	2.0	2.0	2.0
State Action Level	0.7	100	680	620	16.0	4.0	5.0
State or Federal DWL	1.0	2,000	680	1,750	0.5	5.0	5.0
EPA Saltwater Acute Toxicity	5,000	6,300	430	--	224,000	10,200	2,000

Table 3. SOIL SAMPLES - LABORATORY ANALYTICAL RESULTS

PARAMETER	UNITS	Sample Name			Detection Limits
		NS	WS	BSNW	
Total Petroleum Hydrocarbons (EPA Method 8015)					
Gasoline	mg/kg	ND	ND	ND	10
Diesel	mg/kg	ND	ND	ND	10
Oil and Grease (Method 503D)	mg/kg	ND	ND	ND	20
Halogenated Volatile Organics (EPA Method 8010) (a)	ug/kg	ND	ND	ND	(a)

(a) The parameters tested and their corresponding detection limits are listed in the laboratory reports in Appendix A.
(b) ND indicates parameter not found above the reported detection limit.

Table 4. SOIL SAMPLES - **LABORATORY ANALYTICAL RESULTS**

8910116A - Harsh Invesments, Former Dry Cleaners Excavation, Southshore Shopping Center, Alameda, California

PARAMETER	UNITS	Sample Event April 19, 1990						Detection Limits
		B-1-5	B-2-4.5	B-3-4	B-4-4	B-5-4	B -6-4	
Halogenated Volatile Organics (EPA Method 8010) (a) tetrachloroethylene/1,1,2,2-tetrachloroethane	µg/kg	1100	340	18	290	62	9.8	5

(a) Only those parameters that were found above the detection limits are listed. All other parameters tested and their corresponding detection limits are listed in the laboratory reports in the attachment.

Table 5: Comparison of maximum detected values with RBSLs - GW to ambients a...

Chemical	Maximum Detected Values (µg/L)	RBSLs (µg/L) Tier 1 (10^{-5})[A]	Tier 1 (10^{-4})[B]
Benzene	1,300	170,340	1,703,401
Toluene	45		
Ethylbenzene	370		
Xylenes	100		
1,2-dichloroethane (1,2-DCA)	22	13,228	132,279
1,1-dichloroethylene (1,1-DCE)	5.8	125	1,246
cis-1,2-dichloroethylene (cis-1,2-DCE)	1,200		
trans-1,2-dichloroethylene (trans-1,2-DCE)	58		
dichloroethylene ("DCE")	440		
tetrachloroethylene (PCE)	7,800	5,499	54,994
trichloroethylene (TCE)	1,200	27,410	274,101
Chloroform	6.10	8,561	85,608
1,1,2-trichloroethane (1,1,2-TCA)	0.8		
Bromoform	1.7		
Chlorobenzene	31		

[A]RBCA Tier 1 concentrations at the 10^{-5} risk level.
[B]RBCA Tier 1 concentrations at the 10^{-4} risk level.

As shown in Table 4, PCE was detected at concentrations between the 1×10^{-5} and 1×10^{-4} RBSLs in two rounds of sampling; once in 1991 and again in 1993. Otherwise, PCE was below the 1×10^{-5} RBSL in samples from four other sampling events. Figure 2 shows the relationship of the measured PCE concentrations compared with RBSLs based on risk management thresholds set at 1×10^{-5} and 1×10^{-4}.

Table 4: PCE in monitoring well MW-7/7B relative to risk management thresholds

PCE Concentrations in Monitoring Well MW-7/7B relative to RBSLs	Sample Dates
[PCE] < RBSL at 1×10^{-5} (170,000 µg/L)	11/90, 4/91, 4/94, 11/95
RBSL at 1×10^{-5} < [PCE] < RBSL at 1×10^{-4}	7/91 & 2/93
[PCE] > RBSL at 1×10^{-4} (1,700,000 µg/L)	None

TABLE 6

ANALYTICAL RESULTS OF SOIL SAMPLES FROM INSTALLATION OF MONITORING WELLS JUNE 11 AND 12, 1990 AND AUGUST 24, 1990 AT FORMER TEXACO STATION CORNER OF PARK STREET AND SHORE LINE DRIVE, ALAMEDA, CA FOR HARSCH INVESTMENTS CORPORATION

Constituent	MW-1-6.5'	MW-2-6.0'	MW-3-6.0'	MW-4-5.5'	MW-5-4.0'	MW-9-5.0'
EPA Method 418.1 for Total Recoverable Hydrocarbons	20 ppm	30 ppm	not analyzed	not analyzed	160 ppm	<10 ppm
EPA Method 8015/3550 for Diesel	<2 ppm	<2 ppm	<2 ppm	<2 ppm	<2 ppm	<10 ppm (1)
EPA Method 8015/3510 for Gasoline	<300 ppb	<300 ppb	<300 ppb	<300 ppb	<300 ppb	<10 ppm (1)

ppm parts per million (approximately equal to milligrams per kilogram)
ppb parts per billion (approximately equal to micrograms per liter)
< not detected at or above the indicated value (detection limit)

(1) Gasoline and diesel fuel in soil samples from MW-9 were analyzed by EPA Method 8015 (modified).

Except for gasoline and diesel, Table 3 reports only detected compounds. All other compounds for which analyses were conducted were below analytical detection limits. See Section 3.3.1 for a complete list of analyses run on the samples.

TABLE # 7

RESULTS OF SOIL SAMPLES COLLECTED JULY 26, 1990 FROM TRENCHING OPERATION AT CORNER OF PARK STREET AND SHORE LINE DRIVE ALAMEDA, CALIFORNIA FOR HARSCH INVESTMENT CORPORATION

Constituent	Sample ID Number			
	T4C	T7	T4A	T4B
EPA Method 8015/3550 for diesel	<2 ppm	<2 ppm	Sample was not analyzed because the soil was obviously contaminated	Sample was not analyzed because the soil was obviously contaminated
EPA Method 8015/5020 for gasoline	<300 ppb	<300 ppb		
EPA Method 418.1 (modified) for hydrocarbon oil and grease	50 ppm	10 ppm		

ppm parts per million (approximately equal to milligrams per kilogram)
ppb parts per billion (approximately equal to micrograms per liter)
< not detected at or above the indicated value (detection limit)

TABLE 2 &
EXCAVATION SOIL SAMPLING RESULTS
TEXACO SHORELINE, ALAMEDA

McLaren Sample I.D.	Location	Concentration (ppm)								
		Benzene	Toluene	Xylenes	Ethyl-benzene	TPH/G	TPH/D	TPH/O&G	2-Hex-anone	PCE
56551	3A-4'	<0.005	<0.005	<0.005	<0.005	<1.0	*N.A.	<50	N.A.	N.A.
56552	0B-2'	<0.005	<0.005	<0.005	<0.005	<1.0	N.A.	N.A.	N.A.	N.A.
56553	0A-5'	9.6	55	81	21	580	<5.0	100	N.A.	N.A.
56554	0E-6'	3.4	5.2	6.7	1.5	48	N.A.	N.A.	N.A.	N.A.
**56555	4E-6'	150/85	620/680	715/850	190/260	5300	180	400	<0.05	25
56568	4E-6.5'	0.13	0.14	0.2	0.06	2.	N.A.	N.A.	N.A.	N.A.
56557	5A-6'	<0.005	0.006	0.008	<0.005	<1.0	N.A.	N.A.	N.A.	N.A.
56558	1E-2'	1	4	17	3.4	130	N.A.	N.A.	N.A.	N.A.
56563	6A-6'	<0.005	<0.005	0.009	<0.005	<1.0	N.A.	N.A.	N.A.	N.A.
56564	6C-6'	<0.005	<0.005	0.006	<0.005	<1.0	N.A.	N.A.	N.A.	N.A.
56565	6E-7'	<0.005	0.007	0.011	<0.005	<1.0	N.A.	N.A.	N.A.	N.A.
56566	3C-7'	0.19	1	2.4	0.55	17	N.A.	N.A.	N.A.	N.A.
55054	HA-1	<0.005	<0.005	<0.005	<0.005	<1.0	N.A.	<5.0	<0.005	<0.005
**56559/60	Composite	2.9/8.1	11/12	44/35	9.2/15	370	<5.0	100	12	<0.005

* N.A. indicates sample not analyzed for constituent.
** BTXE analyzed by EPA 8020 (first number) and EPA 8240 (second number).
TPH - total petroleum hydrocarbons as gasoline (G), diesel (D), or oil and grease (O&G).
PCE - tetrachloroethylene.

Table 10

RESULTS

The certified analytical report documenting the findings of sample analyses has been attached to this report.

Sample #S1 was found to contain the following contaminants at the given concentrations: TPH calculated as gasoline - 9,100 parts per million (ppm), benzene - 94 ppm, toluene - 410 ppm, xylenes - 530 ppm, ethylbenzene - 110 ppm.

Sample #S2 was found to contain the following contaminants at the given concentrations: TPH calculated as gasoline - 9,500 ppm, benzene - 67 ppm, toluene - 350 ppm, xylenes - 590 ppm, ethylbenzene - 120 ppm.

Sample #S3 was found to contain the following contaminants at the given concentrations: TPH calculated as gasoline - 360 ppm, benzene - 4.0 ppm, toluene - 17 ppm, xylenes - 21 ppm, ethylbenzene - 4.6 ppm.

Sample #S4 was found to contain the following contaminants at the given concentrations: TPH calculated as gasoline - 2,600 ppm, benzene - 27 ppm, toluene - 130 ppm, xylenes - 180 ppm, ethylbenzene - 37 ppm.

Sample #S5 was found to contain the following contaminants at the given concentrations: TPH calculated as gasoline - 2,800 ppm, benzene - 26 ppm, toluene - 150 ppm, xylenes - 210 ppm, ethylbenzene - 43 ppm.

Sample #S6 was found to contain the following contaminants at the given concentrations: TPH calculated as gasoline - 3,000 ppm, benzene - 38 ppm, toluene - 230 ppm, xylenes - 250 ppm, ethylbenzene - 73 ppm.

Sample #S7 was placed on hold and not analyzed.*

Sample #S8 was found to contain the following contaminants at the given concentrations: TPH calculated as gasoline - 700 ppm, benzene - 6.8 ppm, toluene - 31 ppm, xylenes - 43 ppm, ethylbenzene - 8.9 ppm.

Sample #S9 was found to contain the following contaminants at the given concentrations: TPH calculated as gasoline - 830 ppm, benzene - 2.6 ppm, toluene - 13 ppm, xylenes - 38 ppm, ethylbenzene - 9.2 ppm.

Sample #S10, #S11, and #S12 were placed on hold and not analyzed.*

Sample #S13 was found to contain the following contaminants at the given concentrations TPH calculated as gasoline - 50 ppm, benzene - .24 ppm, toluene - .052 ppm, xylenes 2.8 ppm, ethylbenzene - .6 ppm

* Refer to RECOMMENDATIONS section of this report for explanation of why these samples were not analyzed

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
(SAMPLES COLLECTED ON 12/12/90)
CONCENTRATIONS IN PARTS PER MILLION (ppm)

Sample No.	Depth feet	TPHg	B	T	E	X
S-1-3	3	ND	0.015	0.016	ND	0.012
S-1-6	6	34	1.7	2.7	0.5	2.3
S-2-3	3	2.4	0.17	0.21	0.033	0.150
S-2-6	6	120	7.8	13	2	8.8
S-3-3	3	5.3	0.29	0.3	0.051	0.22
S-3-6	6	20,000	400	2,000	490	2,400
S-4-3	3	4	0.15	0.18	0.031	0.15
S-4-6	6	35	4.1	4	0.57	2.8

TPHg = Total Petroleum Hydrocarbons as Gasoline
BTEX = Benzene, Toluene, Ethylbenzene, Xylene
ND = Not Detected (Below Detection Limit)

File No. 8-90-418-SI

Cont. TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
(SAMPLES COLLECTED ON 12/13/90)
CONCENTRATIONS IN PARTS PER MILLION (ppm)

Sample No.	Depth feet	TPHg	B	T	E	X
S-5-3	3	ND	ND	ND	ND	ND
S-5-6	6	11	0.320	0.20	0.58	1.4
S-6-3	3	ND	ND	ND	ND	ND
S-6-6	6	13	0.490	0.92	0.73	2.4
S-7-3	3	ND	ND	ND	ND	ND
S-7-6	6	14	0.850	2.60	0.66	2.3
S-8-3	3	240	ND	3.90	9.50	21
S-8-6	6	15	0.084	0.21	0.37	1.5
S-9-3	3	ND	ND	ND	ND	ND
S-9-6	6	6,600	17	190	84	330
Detection Limit		0.5	0.005	0.005	0.005	0.005

TPHg = Total Petroleum Hydrocarbons as Gasoline
BTEX = Benzene, Toluene, Ethylbenzene, Xylene
ND = Not Detected (Below Detection Limit)

SOIL TECH ENGINEERING, INC.

File No. 8-90-418-SI

TABLE 12
RESULTS OF LABORATORY ANALYSES OF EXPLORATORY BORING SOIL SAMPLES IN MILLIGRAM PER KILOGRAM (mg/kg)

Sample No.	Depth feet	TPHg	B	T	E	X	TOG
B-1-3	3	ND	ND	ND	ND	ND	
B-1-6*	6	2.5	0.25	0.081	0.043	0.10	
B-2-3	3	0.7	ND	ND	ND	0.016	
B-2-6 *	6	4,700	16	66	54	200	
B-3-3	3	ND	ND	ND	ND	ND	
B-3-6	6	ND	ND	ND	ND	ND	
B-4-3	3	ND	ND	ND	ND	ND	
B-4-6	6	ND	ND	ND	ND	ND	
B-5-3	3	ND	ND	ND	ND	ND	
B-6-3	3	ND	ND	ND	ND	ND	
B-6-6*	6	ND	0.029	ND	ND	ND	
B-7-3	3	ND	ND	ND	ND	ND	
B-7-6	6	0.7	0.056	0.035	0.023	0.064	
B-8-3	3	ND	ND	0.008	ND	0.007	
B-8-6	6	1800	13	98	70	200	
B-8-10	10	ND	ND	ND	ND	ND	
B-9-3	3	7.0	ND	0.026	0.05	0.15	
B-9-6*	6	11,000	220	740	370	1,400	1,400
B-9-10	10	ND	ND	ND	ND	ND	
B-10-3	3	ND	ND	0.006	ND	0.012	
B-10-6	6	29	1.7	2.9	0.36	1.5	
Detection Limit		0.5	0.005	0.005	0.005	0.005	

TPHg = Total Petroleum Hydrocarbons as gasoline
BTEX = Benzene, Toluene, Ethylbenzene, Xylene
TOG = Total Oil and Grease
ND = Not Detected (Below Detection Limit)
* = Mobile Chem Labs, Inc.

SOIL TECH ENGINEERING, INC.

TABLE #13
RESULTS OF LABORATORY ANALYSES
SOIL AND GROUNDWATER SAMPLES
FROM
MONITORING WELLS

I. Soil Analytical Results in Milligram Per Kilogram (mg/kg)

Sample No.	Depth feet	TPHg	B	T	E	X
SW-1-3	3	ND	ND	ND	ND	ND
SW-1-6	6	650	4.5	30	34	79
SW-1-10	10	ND	0.006	0.005	0.014	0.018
SW-2-3	3	ND	ND	ND	ND	ND
SW-2-6	6	ND	ND	ND	ND	ND
SW-3-3	3	ND	0.054	0.048	0.009	0.041
SW-3-6	6	2800	14	120	75	270
SW-4-3	3	ND	ND	ND	0.005	0.014
SW-4-6	6	ND	ND	ND	ND	ND
SW-4-10	10	ND	ND	ND	ND	ND

II.
A. Water Analytical Results in Milligram Per Liter (mg/l)

Monitoring Well No.	Water Depth feet	TPHg	B	T	E	X
STMW-1	8.48	180	11.0	20	3.2	18
STMW-2	5.17	ND	ND	0.4	ND	0.5
STMW-3	7.08	260	20	34	3.6	19
STMW-4	7.08	ND	0.3	0.3	ND	0.7

TPHg = Total Petroleum Hydrocarbons as gasoline
BTEX = Benzene, Toluene, Ethylbenzene, Xylene
ND = Not Detected (Below Detection Limit)

TABLE 13 CONT'D

B. Volatile Organic Compounds (VOC's) Results

Monitoring Well No.	VOC Compounds Detected Per EPA Method 8010 Results in Parts Per Billion (ppb)		DHS-DWS (ppb)
STMW 1	1,2-Dichloroethane	350	0.5
	Trichloroethylene	4	5
	1,1,2-Trichloroethane	0.5	32
	(PEC) Tetrachloroethene	0.9	5
	cis-1,2-Dichloroethene	1	6
STMW 2	1,2-Dichloroethane	8	0.5
	Trichloroethylene	4	5
	Tetrachloroethene	27	5
STMW 3	1,2-Dichloroethane	450	0.5
STMW 4	None Detected		

DHS-DWS = Department of Health Services-Drinking Water Standards

TABLE 14
SOIL SAMPLES ANALYTICAL RESULTS
IN MILLIGRAMS PER KILOGRAM (mg/Kg)

Date	Sample Number	Depth feet	TPHg	B	T	E	X	MTBE	8010
3/30/98	1-4	4	ND	ND	ND	ND	ND	ND	NA
	2-4	4	ND	ND	ND	ND	ND	ND	ND
	3-3	3	ND	ND	ND	ND	ND	ND	NA
	4-3	3	ND	ND	ND	ND	ND	ND	NA
	5-3	3	ND	ND	ND	ND	ND	ND	NA

TPHg - Total Petroleum Hydrocarbons as gasoline
BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes
MTBE - Methyl Tertiary Butyl Ether
ND - Not Detected (Below Laboratory Detection Limit)
NA - Not Analyzed

TABLE 15
GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHd	TPHg	B	T	E	X	MTBE	TOG
07/08/91	SIMW-1 (99.16)	15	5	7.54	91.92	Rainbow sheen spots Strong pet. odor	NA	58	14	7	2.7	8.3	NA	NA
10/21/91				7.63	91.83	Rainbow sheen spots Strong pet. odor	NA	112.6	19.6	19	ND	16.4	NA	NA
01/17/92*	(8.10)			6.96	1.14	Rainbow sheen spots Strong pet. odor	NA	160	16	6.8	2.6	16	NA	NA
04/27/92				6.69	1.41	Rainbow sheen spots Mild pet. odor	NA	54	0.72	0.2	0.5	1.3	NA	NA
07/30/92				7.40	0.70	Rainbow sheen spots Mild pet. odor	NA	73	1.2	0.77	1.1	2.74	NA	NA
02/08/93				6.23	1.87	Rainbow sheen spots Strong pet. odor	NA	66	0.21	0.48	0.51	1.2	NA	NA
04/27/94				6.55	1.55	No sheen Strong pet. odor	NA	90	3.6	3.2	1.2	5.3	NA	NA
10/18/94				N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA	NA
02/14/95				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
05/09/95				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
11/10/95				7.59	0.51	No sheen Light sewage odor	NA	18.0	0.082	0.022	0.037	0.047	NA	NA
12/20/96	resurveyed (8.10)			6.48	1.62	Rainbow sheen spots Light pet. odor	NA	46.0	0.18	0.33	0.14	0.30	ND	NA

TABLE 1 CONT'D
GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHd	TPHg	B	T	E	X	MTBE	TOG
07/08/91	S1MW-2 (98.12)	15	5	6.23	91.89	No sheen or odor	NA	ND	ND	ND	ND	ND	NA	NA
10/21/91				6.33	91.79	No sheen or odor	NA	ND	0.004	ND	ND	ND	NA	NA
01/17/92*	(7.01)			5.69	1.32	No sheen or odor	NA	ND	ND	ND	ND	ND	NA	NA
04/27/92				5.52	1.49	No sheen or odor	NA	ND	ND	ND	ND	ND	NA	NA
07/30/92				6.20	0.81	No sheen or odor	NA	0.05	ND	0.0025	0.0009	0.011	NA	NA
02/08/93				4.90	2.11	No sheen or odor	NA	NA	NA	NA	NA	NA	NA	NA
04/27/94				5.52	1.49	No sheen or odor	NA	ND	ND	ND	ND	ND	NA	NA
10/18/94				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
02/14/95				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
05/09/95				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
11/10/95				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
12/20/96	(7.01)			5.37	1.64	No sheen or odor	NA	ND	ND	ND	ND	ND	ND	NA

TABLE 1 CONT'D
GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHd	TPHg	B	T	E	X	MTBE	TOG
07/08/91	STMW-3 (99.90)	15	5	7.96	91.94	No sheen Mild pet. odor	11	66	11	17	1.9	8.9	NA	ND
10/21/91				7.83	92.07	Brown sheen spots Strong pet. odor	ND	165	48.5	19	ND	46	NA	20
01/17/92*	(8.33)			6.71	1.62	Brown sheen spots Strong pet. odor	ND	390	21	41	6.4	4.7	NA	7.9
04/27/92				6.86	1.47	Brown sheen spots Strong pet. odor	3	120	0.66	0.9	0.48	1.8	NA	4.7
07/30/92				7.71	0.62	Brown sheen spots Strong pet. odor	1.5	340	1.2	2.2	1.4	9.3	NA	6
02/08/93				5.96	2.37	Brown NMFP Strong pet. odor	ND	330	0.62	1.9	2.2	6.0	NA	3.9
04/27/94				6.96	1.37	Brown sheen spots Strong pet. odor	NA	160	1.3	6.3	1.4	12	NA	NA
10/18/94				8.00	0.33	Brown sheen spots Strong pet. odor	NA	77	5.2	6.2	2.2	13	NA	ND
02/14/95				5.64	2.69	Brown NMFP Strong pet. odor	NA	68	0.12	0.2	0.18	0.71	NA	2.3
05/09/95				6.48	1.85	Brown NMFP Strong pet. odor	NA	16.0	0.071	0.13	0.11	0.2	NA	ND
11/10/95				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
12/20/96	resurveyed (8.33)			6.28	2.05	Rainbow sheen spots Mild pet. odor	ND	20.0	0.015	0.045	0.026	0.059	ND	3.9

TABLE 1 CONT'D
GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHd	TPHg	B	T	E	X	MTBE	TOG
07/08/91	STMW-4 (98.78)	15	5	6.90	91.88	No sheen or odor	NA	ND	ND	ND	ND	ND	NA	NA
10/21/91				6.54	92.24	No sheen or odor	NA	0.186	0.011	0.005	ND	0.037	NA	NA
01/17/92*	(7.45)			6.00	1.45	No sheen or odor	NA	0.06	0.0008	0.0024	0.0005	0.004	NA	NA
04/27/92				5.84	1.61	No sheen or odor	NA	ND	ND	ND	ND	ND	NA	NA
07/30/92				6.64	0.81	No sheen or odor	NA	ND	ND	ND	ND	ND	NA	NA
02/08/93				4.93	2.52	No sheen or odor	NA	NA	NA	NA	NA	NA	NA	NA
04/27/94				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
10/18/94				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
02/14/95				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1 5CONT'D
GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHd	TPHg	B	T	E	X	MTBE	TOG
02/08/93	STMW-5 (6)	15	3	8.67	N/A	No sheen or odor	NA	ND	ND	ND	ND	ND	NA	NA
04/27/94				8.88	N/A	No sheen or odor	NA	ND	ND	ND	ND	ND	NA	NA
10/18/94				9.51	N/A	No sheen or odor	NA	ND	ND	ND	ND	ND	NA	NA
02/14/95				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
05/09/95				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
11/10/95				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
12/20/96	resurveyed (9.52)			8.91	0.61	No sheen V. light sewage odor	NA	0.33	ND	ND	0.0008	0.0046	ND	NA

TABLE 1 5CONT'D
GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (mg/L)

Date	Well No./ Elevation	Depth of Well	Depth to Perf.	Depth to Water	GW Elev.	Well Observation	TPHd	TPHg	B	T	E	X	MTBE	TOG
02/08/93	STMW-6 (60)			7.88	N/A	No sheen Light sewage odor	NA	33	0.1	0.23	0.27	0.5	NA	NA
04/27/94				N/A	8.13	No sheen Mild pet. odor	NA	38	3.0	1.2	0.71	2.0	NA	NA
10/18/94				N/A	N/A	N/A	NA	NA	NA	NA	NA	NA	NA	NA
02/14/95				7.87	N/A	No sheen Light sewage odor	NA	4.1	0.053	0.021	0.02	0.046	NA	NA
05/09/95				8.15	N/A	No sheen Mild sewage odor	NA	8.9	0.18	0.048	0.061	0.15	NA	NA
11/10/95				8.97	N/A	No sheen Light sewage odor	NA	6.0	0.026	0.0017	0.011	0.0047	NA	NA
12/20/96	resurveyed (9.31)			8.11	1.2	Rainbow sheen spots Mild pet. odor	NA	20.0	0.054	0.027	0.022	0.031	ND	NA

Table 16

MW-1

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene	ND	ND							
Toluene	ND	ND							
Ethylbenzene	ND	ND							
Xylenes	ND	ND							
1,2-DCA	ND	ND							
1,1-DCE	ND	ND							
cis-1,2-DCE	ND	ND							
trans-1,2-DCE									
"DCE"	ND	ND							
PCE	0.6	2.8							
TCE	ND	ND							
Chloroform									
1,1,2-TCA									
Bromoform									
Chlorobenzene									
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

cont. Table 6

MW-2

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene	ND	ND	<0.4		<0.5				<0.5
Toluene	ND	ND	<0.3		<0.5				<0.5
Ethylbenzene	ND	ND	<0.3		<0.5				<0.5
Xylenes	ND	ND	<0.4		<0.5				<0.5
1,2-DCA	ND	ND	<0.3		<2				<0.5
1,1-DCE	ND	ND	<0.2		<2				
cis-1,2-DCE	ND	ND	<0.4						<0.5
trans-1,2-DCE			<0.4		<1				<0.5
"DCE"	ND	ND	<0.4						
PCE	ND	ND	<0.5		<1				<0.5
TCE	ND	ND	<0.3		<2				<0.5
Chloroform									<0.5
1,1,2-TCA			<0.6						
Bromoform			<0.7						
Chlorobenzene			<0.7		<1				
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

Cont. Table 16

MW-3

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene	ND	ND	<0.4		<0.5				<0.5
Toluene	0.5	ND	<0.3		<0.5				<0.5
Ethylbenzene	ND	ND	<0.3		<0.5				<0.5
Xylenes	ND	ND	<0.4		<0.5				<0.5
1,2-DCA	ND	ND	<0.3		<2				<0.5
1,1-DCE	ND	ND	<0.2		<2				
cis-1,2-DCE	ND	ND	<0.4						0.77
trans-1,2-DCE		ND	<0.4		<1				<0.5
"DCE"	ND		<0.4						
PCE	ND	3	<0.5		8.2				20
TCE	0.5	ND	<0.3		1.4				4
Chloroform									<0.5
1,1,2-TCA			<0.6						
Bromoform			<0.7						
Chlorobenzene			<0.7		<1				
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

cont. Table 16

MW-5B

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene	800	1300	3.1	210	<0.5				
Toluene	12	45	3.7	4.2	<0.5				
Ethylbenzene	320	370	13	1.9	<0.5				
Xylenes	66	100	2.2	2	<0.5				
1,2-DCA	ND	ND	<0.3	0.4	<2				
1,1-DCE	ND	ND	<0.2		<2				
cis-1,2-DCE	ND	ND	<0.4						
trans-1,2-DCE			<0.4		14				
"DCE"	ND	ND	<0.4	5					
PCE	ND	ND	<0.5	ND	1.2				
TCE	ND	ND	<0.3	3.4	10				
Chloroform									
1,1,2-TCA			<0.6						
Bromoform			<0.7						
Chlorobenzene			<0.7	<1	<1				
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

cont. Table 1b

MW-7 & 7B

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene	ND	ND	NA	NA	190				1.1
Toluene	ND	ND	NA	NA	<0.5				<0.5
Ethylbenzene	ND	ND	NA	NA	<0.5				<0.5
Xylenes	ND	ND	NA	NA	27				1.9
1,2-DCA	ND	ND	<0.3	ND	<2				<50
1,1-DCE	ND	ND	4.6		5.8				
cis-1,2-DCE	440	90	170						1200
trans-1,2-DCE			2.6		13				<50
"DCE"	440	90	170	150					
PCE	1900	1600	7800	5800	190				2100
TCE	520	200	660	540	12				1200
Chloroform									<50
1,1,2-TCA			0.8						
Bromoform			1.7						
Chlorobenzene			4.8		31				
	Monitoring well MW-7B replaced monitoring well MW-7 after the 4/91sampling date.								
	MW-7B is deeper and screened lower than MW-7.								
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

cont. Table 16

MW-8

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene	ND	ND	NA	NA	92				<0.5
Toluene	ND	ND	NA	NA	<0.5				<0.5
Ethylbenzene	ND	ND	NA	NA	<0.5				<0.5
Xylenes	ND	ND	NA	NA	<0.5				<0.5
1,2-DCA	ND	ND	<0.3	ND	<2				<0.5
1,1-DCE	ND	ND	<0.2		<2				
cis-1,2-DCE	1.2	6.8	11						44
trans-1,2-DCE			<0.4		23				1.9
"DCE"	1.2	6.8	11	9					
PCE	0.9	1.1	0.9	5	70				8
TCE	3	7.7	19	14	57				22
Chloroform									<0.5
1,1,2-TCA			<0.6						
Bromoform			<0.7						
Chlorobenzene			<0.7		<1				
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

cont. Table 1c

MW-9

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene	ND	ND	<0.4		520				1.8
Toluene	ND	ND	<0.3		2.8				5.6
Ethylbenzene	ND	ND	<0.3		35				1.1
Xylenes	ND	ND	<0.4		<0.5				5.8
1,2-DCA	ND	ND	<0.3		<2				<0.5
1,1-DCE	ND	ND	<0.2		<2				
cis-1,2-DCE	ND	ND	<0.4						<0.5
trans-1,2-DCE			<0.4		<1				<0.5
"DCE"	ND	ND	<0.4						
PCE	1.5	3.3	<0.5		<1				<0.5
TCE	ND	ND	<0.3		<2				<0.5
Chloroform									<0.5
1,1,2-TCA			<0.6						
Bromoform			<0.7						
Chlorobenzene			<0.7		<1				
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

Cont. Table 16

MW-10

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene				210	3600				82
Toluene				480	3200				22
Ethylbenzene				510	1200				37
Xylenes				1200	5300				47
1,2-DCA				ND	13				<0.5
1,1-DCE					<2				
cis-1,2-DCE									<0.5
trans-1,2-DCE					2				<0.5
"DCE"				ND					
PCE				ND	3.9				<0.5
TCE				9.5	<2				<0.5
Chloroform									<0.5
1,1,2-TCA									
Bromoform									
Chlorobenzene					<1				
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

Cont. Table 16

MW-11

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene				NA	<0.5				<0.5
Toluene				NA	<0.5				<0.5
Ethylbenzene				NA	<0.5				<0.5
Xylenes				NA	<0.5				<0.5
1,2-DCA				ND	<2				1.4
1,1-DCE					<2				
cis-1,2-DCE									<0.5
trans-1,2-DCE					1.5				<0.5
"DCE"				ND					
PCE				5.8	2.5				1.3
TCE				2	4.2				3
Chloroform									<0.5
1,1,2-TCA									
Bromoform									
Chlorobenzene					<1				
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

cont. Table 6

MW-12

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	Feb-95	May-95	Nov-95
Benzene				620	1300	5200	1100	120	71	NA
Toluene				1900	6300	6200	6200	200	130	NA
Ethylbenzene				2200	1400	13000	2000	180	110	NA
Xylenes				6000	12000	22000	15000	710	200	NA
1,2-DCA				ND	<2	NA	<2		3	NA
1,1-DCE										
cis-1,2-DCE					NR	<0.5	<2		<0.5	NA
trans-1,2-DCE					<1	NA	<2		<0.5	NA
"DCE"				ND						
PCE				ND	I.9	NA	<2		<0.5	NA
TCE				2.4	<2	NA	<2		<0.5	NA
Chloroform					<1	NA	<2		<0.5	NA
1,1,2-TCA										
Bromoform										
Chlorobenzene					<1	NA	<2		<0.5	

Blank cells indicate that nothing was reported for the given chemical.
NA means the chemical was reported as "not analyzed."
ND means the chemical was analyzed, but "not detected."
The first "Feb-95" column is for sampling by the Mark Group; the second column is for sampling performed by Soil Tech Engineers (BTEX only).
< means the chemicals was analyzed and reported below the given detection limit.
NR means not reported by the laboratory.
"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.
All values in micrograms per liter.

cont. Table 2 16

Groundwater Analytical Data

MW-14					
Chemical	**4/91**	**7/91**	**2/93**	**4/94**	**4/97**
Benzene	2.9	0.8	ND	0.95	0.77
Toluene	ND	0.8	ND	<0.5	<0.5
Ethylbenzene	ND	<0.3	ND	3.3	0.73
Xylenes	0.5	0.8	ND	15	<0.5
1, 2 - DCA	4.6	6.6	3.4	8.4	1.4
1, 1 - DCE	0.5	<0.2		<2	<1
cis - 1, 2 - DCE	ND	<0.4			<1
trans - 1, 2 - DCE		<0.4		<1	<1
"DCE"	ND	<0.4	ND		
PCE	16	<0.5	ND	<1	<1
TCE	0.4	<0.3	ND	<2	<1
Chloroform					<1
1, 1, 2 - TCA		<0.6			<1
Bromoform		<0.7			<1
Chlorobenzene		<0.7		<1	<1
TPH - g					<50

NOTES:

Blank cells mean that nothing was reported for the given chemical.

"NA" means that the chemical was reported as "Not Analyzed."

"ND" means the chemical was analyzed but "Not Detected."

"<" means the chemical was analyzed and reported below the given detection limit.

"DCE" means either total DCE, or DCE not differentiated into cis—or trans—isomers.

All values in mg/L.

Cont Table 2 Up
Groundwater Analytical Data

MW-15			
Chemical	**2/93**	**4/94**	**4/97**
Benzene	ND	<0.5	<0.5
Toluene	ND	<0.5	<0.5
Ethylbenzene	ND	<0.5	<0.5
Xylenes	ND	<0.5	<0.5
1, 2 - DCA	ND	<2	<1
1, 1 - DCE		<2	<1
cis - 1, 2 - DCE			<1
trans - 1, 2 - DCE		<1	<1
"DCE"	ND		
PCE	ND	<1	<1
TCE	ND	<2	<1
Chloroform			<1
1, 1, 2 - TCA			<1
Bromoform			<1
Chlorobenzene			<1
TPH - g			<50

NOTES:

Blank cells mean that nothing was reported for the given chemical.

"NA" means that the chemical was reported as "Not Analyzed."

"ND" means the chemical was analyzed but "Not Detected."

"<" means the chemical was analyzed and reported below the given detection limit.

"DCE" means either total DCE, or DCE not differentiated into cis—or trans—isomers.

All values in mg/L.

Cont Table 2 1/6

Groundwater Analytical Data

MW-22							
Chemical	**2/93**	**4/94**	**10/94**	**2/95**	**5/95**	**11/95**	**4/97**
Benzene	ND	<0.5	<0.5	<0.5	<0.5	NA	<0.5
Toluene	ND	<0.5	<0.5	<0.5	<0.5	NA	<0.5
Ethylbenzene	ND	<0.5	<0.5	<0.5	<0.5	NA	<0.5
Xylenes	ND	<0.5	<0.5	<0.5	<0.5	NA	<0.5
1, 2 - DCA	22	15	14	8.2	11	NA	
1, 1 - DCE		<2					
cis - 1, 2 - DCE		NR	<0.5	<0.5	<0.5	NA	<1
trans - 1, 2 - DCE		<1	<0.5	<0.5	<0.5	NA	<1
"DCE"	ND						
PCE	ND	<1	<0.5	<0.5	<0.5	NA	<1
TCE	ND	<2	<0.5	<0.5	<0.5	NA	<1
Chloroform		<1	0.65	<0.5	<0.5	NA	<1
1, 1, 2 - TCA							<1
Bromoform							<1
Chlorobenzene		<1	<0.5	<0.5			<1
TPH - g							<50

NOTES:

Blank cells mean that nothing was reported for the given chemical.

"NA" means that the chemical was reported as "Not Analyzed."

"ND" means the chemical was analyzed but "Not Detected."

"<" means the chemical was analyzed and reported below the given detection limit.

"DCE" means either total DCE, or DCE not differentiated into cis—or trans—isomers.

All values in mg/L.

cont. Table 16
MW-17

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene				NA	<0.5	<0.5	<0.5	<0.5	NA
Toluene				NA	<0.5	<0.5	<0.5	<0.5	NA
Ethylbenzene				NA	<0.5	<0.5	<0.5	<0.5	NA
Xylenes				NA	<0.5	<0.5	<0.5	<0.5	NA
1,2-DCA				ND	<2	<0.5	<0.5	<0.5	NA
1,1-DCE									
cis-1,2-DCE					NR	<0.5	<0.5	<0.5	NA
trans-1,2-DCE					<1	<0.5	<0.5	<0.5	NA
"DCE"				NA					
PCE				ND	2.4	<0.5	<0.5	<0.5	NA
TCE				ND	<2	<0.5	<0.5	<0.5	NA
Chloroform					<1	4	<0.5	<0.5	NA
1,1,2-TCA									
Bromoform									
Chlorobenzene					<1	<0.5	<0.5	<0.5	
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

cont. Table 16

MW-18

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene				NA	<0.5				
Toluene				NA	<0.5				
Ethylbenzene				NA	<0.5				
Xylenes				NA	<0.5				
1,2-DCA				ND	<2				
1,1-DCE					<2				
cis-1,2-DCE									
trans-1,2-DCE					<1				
"DCE"				NA					
PCE				ND	1.4				
TCE				ND	<2				
Chloroform									
1,1,2-TCA									
Bromoform									
Chlorobenzene					<1				
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

cont. Table 16

MW-19

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene				NA	<0.5	<0.5	<0.5	<0.5	NA
Toluene				NA	<0.5	<0.5	<0.5	<0.5	NA
Ethylbenzene				NA	<0.5	<0.5	<0.5	<0.5	NA
Xylenes				NA	<0.5	<0.5	<0.5	<0.5	NA
1,2-DCA				ND	<2	<0.5	<0.5	<0.5	NA
1,1-DCE									
cis-1,2-DCE					NR	<0.5	<0.5	<0.5	NA
trans-1,2-DCE					<1	<0.5	<0.5	<0.5	NA
"DCE"				NA					
PCE				ND	1.1	<0.5	<0.5	<0.5	NA
TCE				ND	<2	<0.5	<0.5	<0.5	NA
Chloroform					<1	4.6	<0.5	<0.5	NA
1,1,2-TCA									
Bromoform									
Chlorobenzene					<1	<0.5	<0.5	<0.5	
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

cont. Table 16

MW-20

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene				NA	21				<0.5
Toluene				NA	<0.5				<0.5
Ethylbenzene				NA	<0.5				<0.5
Xylenes				NA	<0.5				<0.5
1,2-DCA				ND	<2				<0.5
1,1-DCE					<2				
cis-1,2-DCE									16
trans-1,2-DCE					58				0.61
"DCE"				NA					
PCE				ND	57				<0.5
TCE				ND	32				3.7
Chloroform									<0.5
1,1,2-TCA									
Bromoform									
Chlorobenzene					<1				
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

cont. Table 16

MW-21

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene				NA	<0.5				<0.5
Toluene				NA	<0.5				<0.5
Ethylbenzene				NA	<0.5				<0.5
Xylenes				NA	<0.5				<0.5
1,2-DCA				ND	<2				<0.5
1,1-DCE					<2				
cis-1,2-DCE									<0.5
trans-1,2-DCE					<1				<0.5
"DCE"				NA					
PCE				ND	<1				<0.5
TCE				ND	<1				<0.5
Chloroform									<0.5
1,1,2-TCA									
Bromoform									
Chlorobenzene					<1				
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

cont. Table 16

MW-22

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene				ND	<0.5	<0.5	<0.5	<0.5	NA
Toluene				ND	<0.5	<0.5	<0.5	<0.5	NA
Ethylbenzene				ND	<0.5	<0.5	<0.5	<0.5	NA
Xylenes				ND	<0.5	<0.5	<0.5	<0.5	NA
1,2-DCA				22	15	14	8.2	11	NA
1,1-DCE					<2				
cis-1,2-DCE					NR	<0.5	<0.5	<0.5	NA
trans-1,2-DCE					<1	<0.5	<0.5	<0.5	NA
"DCE"				ND					
PCE				ND	<1	<0.5	<0.5	<0.5	NA
TCE				ND	<2	<0.5	<0.5	<0.5	NA
Chloroform					<1	0.65	<0.5	<0.5	NA
1,1,2-TCA									
Bromoform									
Chlorobenzene					<1	<0.5	<0.5	<0.5	

Blank cells indicate that nothing was reported for the given chemical.

NA means the chemical was reported as "not analyzed."

ND means the chemical was analyzed, but "not detected."

< means the chemicals was analyzed and reported below the given detection limit.

"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.

All values in micrograms per liter.

cont. Table 16

MW-23

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene				ND	<0.5				
Toluene				ND	<0.5				
Ethylbenzene				ND	<0.5				
Xylenes				ND	<0.5				
1,2-DCA				ND	<2	0.53	<0.5	0.99	NA
1,1-DCE									
cis-1,2-DCE					NR	<0.5	<0.5	<0.5	NA
trans-1,2-DCE					<1	<0.5	<0.5	<0.5	NA
"DCE"				ND					
PCE				ND	<1	<0.5	<0.5	<0.5	NA
TCE				ND	<2	<0.5	<0.5	<0.5	NA
Chloroform					<1	<0.5	<0.5	<0.5	NA
1,1,2-TCA									
Bromoform									
Chlorobenzene					<1	<0.5	<0.5	<0.5	
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

Cont. Table 16

MW-24

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	Feb-95	May-95	Nov-95
Benzene				ND	<0.5		7700	53	71	NA
Toluene				ND	<0.5		1600	21	130	NA
Ethylbenzene				ND	<0.5		1200	20	110	NA
Xylenes				ND	<0.5		2100	46	200	NA
1,2-DCA				ND	<2		6.6		3	NA
1,1-DCE										
cis-1,2-DCE					NR		<0.5		1.1	1.1
trans-1,2-DCE					<1		<0.5		<0.5	<0.5
"DCE"				ND						
PCE				ND	1.9		<0.5		<0.5	<0.5
TCE				ND	<2		<0.5		<0.5	<0.5
Chloroform					<1		<0.5		<0.5	<0.5
1,1,2-TCA										
Bromoform										
Chlorobenzene					<1		<0.5		<0.5	

Blank cells indicate that nothing was reported for the given chemical.

NA means the chemical was reported as "not analyzed."

ND means the chemical was analyzed, but "not detected."

The first "Feb-95" column is for sampling by the Mark Group; the second column is for sampling performed by Soil Tech Engineers (BTEX only).

< means the chemicals was analyzed and reported below the given detection limit.

NR means not reported by the laboratory.

"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.

All values in micrograms per liter.

cont. Table 16

MW-25

Chemical	Nov-90	Apr-91	Jul-91	Feb-93	Apr-94	Oct-94	Feb-95	May-95	Nov-95
Benzene				100	<0.5	<0.5			NA
Toluene				230	<0.5	<0.5			NA
Ethylbenzene				270	<0.5	<0.5			NA
Xylenes				500	<0.5	<1			NA
1,2-DCA				ND	9.3	5.2	NA	NA	NA
1,1-DCE									
cis-1,2-DCE					NR	<0.5	NA	NA	NA
trans-1,2-DCE					<1	<0.5	NA	NA	NA
"DCE"				ND					
PCE				ND	3.9	<0.5	NA	NA	NA
TCE				11	<2	<0.5	NA	NA	NA
Chloroform					<1	1.3	NA	NA	NA
1,1,2-TCA									
Bromoform									
Chlorobenzene					<1	<0.5	NA	NA	
	Blank cells indicate that nothing was reported for the given chemical.								
	NA means the chemical was reported as "not analyzed."								
	ND means the chemical was analyzed, but "not detected."								
	< means the chemicals was analyzed and reported below the given detection limit.								
	"DCE" means eithter total DCE, or DCE not differentiated into cis or trans isomers.								
	All values in micrograms per liter.								

Woodward-Clyde Consultants

PROJECT NAME Alameda-Harsch Investments NO. 8910116A

BORING LOCATION	Alameda - Harsch Investments MW-1	ELEVATION AND DATUM	
DRILLING AGENCY	Datum Drilling	DRILLER K. Teague	DATE STARTED / DATE FINISHED June 8, 1989
DRILLING EQUIPMENT	CME 75	COMPLETION DEPTH 10.0'	SAMPLER 2" Modified California Type
DRILLING METHOD	8" Hollowstem Augers	DRILL BIT	NO. OF SAMPLES DIST. NA / UNDIST. 3
SIZE AND TYPE OF CASING	2" PVC		WATER LEVEL FIRST NA / COMPL. NA / 6-16-89 4.75'
TYPE OF PERFORATION	0.010" Slotted PVC	FROM 4.0 TO 9.0 Ft.	LOGGED BY: K. Teague / CHECKED BY: N. Gorczyca
SIZE AND TYPE OF PACK	#2/12 Monterey Type Sand	FROM 3.0 TO 9.0 Ft.	
TYPE OF SEAL	NO. 1 Bentonite	FROM 2.5 TO 3.0 Ft.	
	NO. 2 Volclay Grout	FROM 0 TO 2.5	

DEPTH (feet)	DESCRIPTION	GRAPHIC LOG Piezometer Installation	Water Content	DEPTH (feet)	SAMPLES Drive Number	Sample Number	Recov. (Feet)	Blow Counts	REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
0	ASPHALT, coarse rock								
	SAND (SP)								
	- brown, medium, moderately sorted				1	1-A		4, 6, 10	- OVA = 1.2 ppm
5	- trace silt, with clayey blebs approximately 1" diameter; abundant oyster shells, red oxidized concretions		▽	5					
	- grey, cohesive				2	2-A		6, 10, 16	- OVA = 7.0 ppm hydrocarbon odor
10		Caved Sand (SP)		10					
					3	3-A		7, 12, 12	- OVA = 0 ppm decreased hydrocarbon odor
15	Bottom of Boring at 15.0'			15					
20				20					
25				25					
30				30					
35				35					

Clayton
ENVIRONMENTAL CONSULTANTS

LOG OF EXPLORATORY BORING

Project No.: 39744.00 **Date:** 2/24/92
Client: Harsch Investment Corporation
Location: Park & Shore Line Drive
Logged By: D. Dastmalchi **Driller:** B&F

BORING NO. MW-15
Sheet 1 of 2

Field Location of Boring:

Ground Elevation: **Datum:**

Drilling Method: Hollow stem
Hole Diameter: 8"
Casing Installation Data: 2" casing, 15' of 0.01 Schedule 40 PVC screen, 5' of blank, 16' sand, 1' bentonite, 3' concrete

Water Level						
Time						
Date						

Blow Count	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (uscs)	Litho-graphic Symbol	DESCRIPTION
						Asphalt & packing material
	0	1				Reddish-yellow sand (5 YR 6/6), little to no silt, well rounded, poorly sorted, moist
		2				
		3				
		4				
	0	5			▽	
						Shell fragments wet
		6				
		7				
				SP		
		8				
		9				Grayish sand (2.5 YR 5/0), wet
		10				
		11				
		12				
		13				
		14				
		15				
		16				
		17				
		18				

Clayton
ENVIRONMENTAL CONSULTANTS

LOG OF EXPLORATORY BORING

Project No.: 39744.00 **Date:** 2/24/92
Client: Harsch Investment Corporation
Location: Park & Shore Line Drive
Logged By: D. Dastmalchi **Driller:** B&F

BORING NO. MW-15
Sheet 2 of 2

Field Location of Boring:

Ground Elevation: **Datum:**

Drilling Method: Hollow stem
Hole Diameter: 8"
Casing Installation Data: 2" casing, 15' of 0.01 Schedule 40 PVC screen, 5' of blank, 16' sand, 1' bentonite, 3' cement

Water Level					
Time					
Date					

Blow Count	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (uscs)	Litho-graphic Symbol	DESCRIPTION
		19				
		20				Gray, clayey sand (2.5 YR 5/0), sulfur smell (bay mud)
		21				TD = 20'
		22		CL		
		23				
		24				
		25				
		26				
		27				
		28				
		29				
		30				
		31				
		32				
		33				
		34				
		35				
		36				

Clayton
ENVIRONMENTAL CONSULTANTS

LOG OF EXPLORATORY BORING

Project No.: 39744.00 **Date:** 2/24/92
Client: Harsch Investment Corporation
Location: Park & Shore Line Drive
Logged By: D. Dastmalchi **Driller:** B&F

BORING NO. MW-16

Sheet 1 of 2

Field Location of Boring:

Ground Elevation: **Datum:**

Drilling Method: Hollow stem
Hole Diameter: 8"
Casing Installation Data: 5' of 0.01 Schedule 40 PVC screen, 25' of blank, 6' sand, 1' bentonite, 23' concrete (2" casing)

Water Level					
Time					
Date					

Blow Count	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (uscs)	Litho-graphic Symbol	DESCRIPTION
						Asphalt & packing
		1				Reddish-yellow (5 YR 6/6), clayey sand
		2				
						Reddish-yellow (5 YR 6/6) sand with little to no silt or clay
		3				Sample refusal
		4				
		5			▽	
		6				
		7				
		8		SP		
		9				
		10				Gray (2.5 YR 5/0) sand with shell fragments
		11				
		12				
		13				
		14				
		15				
		16				
		17				
		18				

Clayton
ENVIRONMENTAL CONSULTANTS

LOG OF EXPLORATORY BORING

Project No.: 39744.00 **Date:** 2/24/92
Client: Harsch Investment Corporation
Location: Park & Shore Line Drive
Logged By: D. Dastmalchi **Driller:** B&F

BORING NO. MW-16
Sheet 2 of 2

Field Location of Boring:

Ground Elevation: **Datum:**

Drilling Method: Hollow stem
Hole Diameter: 8"
Casing Installation Data: 5' of 0.01 Schedule 40 PVC screen, 25' of blank, 6' sand, 1' bentonite, 23' concrete (2" casing)

Water Level						
Time						
Date						

Blow Count	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (uses)	Litho-graphic Symbol	DESCRIPTION
		19		SP		
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				
		30				Grayish (2.5 YR 5/0) clay, no sand, sulfur odor, shell fragments
		31		CL		TD = 30'
		32				
		33				
		34				
		35				
		36				

Clayton
ENVIRONMENTAL CONSULTANTS

LOG OF EXPLORATORY BORING

Project No.: 39744.00 **Date:** 2/25/92
Client: Harsch Investment Corporation
Location: Park & Shore Line Drive
Logged By: D. Dastmalchi **Driller:** B&F

BORING NO. MW-17
Sheet 1 of 2

Field Location of Boring:

Ground Elevation: **Datum:**

Drilling Method: Hollow stem
Hole Diameter: 8"
Casing Installation Data: 5' 0.01 Schedule 40 PVC screen, 20' blank, 6' sand, 1' bentonite, 18' grout (2" casing)

Water Level						
Time						
Date						

Blow Count	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (uscs)	Litho-graphic Symbol	DESCRIPTION
						Reddish yellow (5 YR 6/6) sand, well rounded, poorly sorted, little to no silt, moist
		1				
		2				
		3				
		4				
		5				
		6			▽	Wet
		7		SP		
		8				
		9				
		10				
		11				
		12				
		13				
		14				
		15				Gray (2.5 YR 5/0) silty sand with little clay
		16				
		17				
		18				

Clayton
ENVIRONMENTAL CONSULTANTS

LOG OF EXPLORATORY BORING

Project No.: 39744.00 **Date:** 2/25/92
Client: Harsch Investment Corporation
Location: Park & Shore Line Drive
Logged By: D. Dastmalchi **Driller:** B&F

BORING NO. MW-17
Sheet 2 of 2

Field Location of Boring:

Ground Elevation: **Datum:**

Drilling Method: Hollow stem
Hole Diameter: 8"
Casing Installation Data: 5' 0.01 Schedule 40 PVC screen, 20' blank, 6' sand, 1' bentonite, 18' grout (2" casing)

Water Level										
Time										
Date										

Blow Count	PID – OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (uscs)	Litho-graphic Symbol	DESCRIPTION
		19				
		20				Gray (2.5 YR 5/0) silty sand, very fine with little clay, sulfur odor
		21				
		22		SP		
		23				
		24				
		25				TD = 25'
		26		CL		Gray (2.5 YR 5/0) silty clay with little sand
		27				
		28				
		29				
		30				
		31				
		32				
		33				
		34				
		35				
		36				

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ENVIRONMENTAL CONSULTANTS

LOG OF EXPLORATORY BORING

Project No.: 39744.00 **Date:** 2/25/92
Client: Harsch Investment Corporation
Location: Park & Shore Line Drive
Logged By: D. Dastmalchi **Driller:** B&F

BORING NO. MW-18
Sheet 1 of 2

Field Location of Boring:

Ground Elevation: **Datum:**

Drilling Method: Hollow stem
Hole Diameter: 8"
Casing Installation Data: 5' screen, 20' blank, 6' sand, 1' bentonite, 18' grout (2" casing)

Water Level						
Time						
Date						

Blow Count	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (uscs)	Litho-graphic Symbol	DESCRIPTION
		1				Reddish-yellow (5 YR 6/6) sand, well rounded, poorly sorted, moist
		2				
		3				
		4				
		5				
		6			▽	
		7				
		8		SP		
		9				
		10				Grayish (2.5 YR 5/0) sand with some silt
		11				
		12				
		13				
		14				
		15				Grayish (2.5 YR 5/0) sand with little silt
		16				
		17				
		18				

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ENVIRONMENTAL CONSULTANTS

LOG OF EXPLORATORY BORING

Project No.: 39744.00 **Date:** 2/25/92
Client: Harsch Investment Corporation
Location: Park & Shore Line Drive
Logged By: D. Dastmalchi **Driller:** B&F

BORING NO. MW-18
Sheet 2 of 2

Field Location of Boring:

Ground Elevation: **Datum:**

Drilling Method: Hollow stem
Hole Diameter: 8"
Casing Installation Data: 5' screen, 20' blank, 6' sand, 1' bentonite, 18' grout

Water Level					
Time					
Date					

Blow Count	PID -- OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (uscs)	Litho-graphic Symbol	DESCRIPTION
		19				
		20				
		21		SP		
		22				
		23				
		24				
		25				TD = 25'
		26		CL		Grayish green silty clay with little sand
		27				
		28				
		29				
		30				
		31				
		32				
		33				
		34				
		35				
		36				

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LOG OF EXPLORATORY BORING

Project No.: 39744.00 **Date:** 2/25/92
Client: Harsch Investment Corporation
Location: Park & Shore Line Drive
Logged By: D. Dastmalchi **Driller:** B&F

BORING NO. MW-19
Sheet 1 of 2

Field Location of Boring:

Ground Elevation: **Datum:**

Drilling Method: Hollow stem
Hole Diameter: 8"
Casing Installation Data: 5' 0.01 Schedule 40 PVC screen, 20' blank, 6' sand, 1' bentonite, 18' grout (2" casing)

Water Level	--					--
Time						
Date						

Blow Count	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (uscs)	Litho-graphic Symbol	DESCRIPTION
		1				Reddish-yellow (5 YR 6/6) sand, well rounded, poorly sorted, moist
	0	2				
		3				
		4				
		5				
	0	6			▽	
		7				
		8		SP		
		9				
		10				Grayish (2.5 YR 5/0) sand with very little to no silt
		11				
		12				
		13				
		14				
		15				
		16				
		17				
		18				

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LOG OF EXPLORATORY BORING

Project No.: 39744.00 **Date:** 2/25/92
Client: Harsch Investment Corporation
Location: Park & Shore Line Drive
Logged By: D. Dastmalchi **Driller:** B&F

BORING NO. MW-19
Sheet 2 of 2

Field Location of Boring:

Ground Elevation: **Datum:**

Drilling Method: Hollow stem
Hole Diameter: 8"
Casing Installation Data: 5' 0.01 Schedule 40 PVC screen, 20' blank, 6' sand, 1' bentonite, 18' grout (2" casing)

Water Level			---		
Time					
Date					

Blow Count	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (uscs)	Litho-graphic Symbol	DESCRIPTION
		19				
		20				
		21		SP		
		22				
		23				
		24				
		25				TD = 25'
		26		CL		Silty clay with little to no sand
		27				
		28				
		29				
		30				
		31				
		32				
		33				
		34				
		35				
		36				

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LOG OF EXPLORATORY BORING

Project No.: 39744.00 **Date:** 2/26/92
Client: Harsh Investment Corporation
Location: Park & Shore Line Drive
Logged By: D. Dastmalchi **Driller:** B&F

BORING NO. MW-20
Sheet 1 of 2

Field Location of Boring:

Ground Elevation: **Datum:**

Drilling Method: Hollow stem
Hole Diameter: 8"
Casing Installation Data: 2" casing, 5' screen (0.01 Schedule 40 PVC), 15' blank, 6' sand, 1' bentonite, 18' grout

Water Level										
Time										
Date										

Blow Count	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (usca)	Litho-graphic Symbol	DESCRIPTION
		1				Reddish yellow (5 YR 6/6) sand
		2				
		3				Asphalt and packing material
		4				Light brown sand
		5				
		6			▽	
		7				
		8		SP		
		9				
		10				Grayish green silty sand with shell fragments
		11				
		12				
		13				
		14				
		15				
		16				
		17				
		18				

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LOG OF EXPLORATORY BORING

Project No.: 39744.00 **Date:** 2/26/92
Client: Harsch Investment Corporation
Location: Park & Shore Line Drive
Logged By: D. Dastmalchi **Driller:** B&F

BORING NO. MW-20
Sheet 2 of 2

Field Location of Boring:

Ground Elevation: **Datum:**

Drilling Method: Hollow stem
Hole Diameter: 8"
Casing Installation Data: 2" casing, 5' screen (0.01 Schedule 40 PVC), 15' blank, 6' sand, 1' bentonite, 18' grout

Water Level					
Time					
Date					

Blow Count	PID — OVA (ppm)	DEPTH	SAMPLE	Soil Group Symbol (uses)	Litho-graphic Symbol	DESCRIPTION
		19				
		20				
		21				
		22				
		23				
		24				
		25				TD = 25'
		26		CL		Sandy clay to silty clay Silty clay
		27				
		28				
		29				
		30				
		31				
		32				
		33				
		34				
		35				
		36				