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

RAFAT A. SHAHID, Assistant Agency Director

CC4580

May 26, 1995

Alameda County
Environmental Protection Division
1131 Harbor Bay Parkway, Room 250
Alameda CA 94502-6577

STID 2678

REMEDIAL ACTION COMPLETION CERTIFICATE

B.F. Ltd
% Author Gilbert
9560 Wilshire Boulevard
Beverly Hills, CA 90212

RE: NORTH AMERICAN TOOL AND DIE, INC., 2025 PIKE AVENUE, SAN LEANDRO

Dear Mr. Gilbert:

This letter confirms the completion of site investigation and remedial action associated with the single underground fuel storage tank at the referenced location.

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

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721(e) of the California Code of Regulations.

Please contact Scott Seery at (510) 567-6783 if you have any questions regarding this matter.

Sincerely,

Rafat A. Shahid

Rafat A. Shahid
Director of Environmental Services

cc: Edgar B. Howell, Chief, Environmental Protection Division
Kevin Graves, RWQCB
Mike Harper, SWRCB
Mike Bakaldin, San Leandro Fire Department
files/SOS

- SIGNED COPY -

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: 05/02/95

Agency name: **Alameda County-EPD** Address: **1131 Harbor Bay Pkwy #250**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Scott Seery** Title: **Sr. Haz. Materials Spec.**

II. CASE INFORMATION

Site facility name: **North American Tool & Die, Inc.**
Site facility address: **2025 Pike Ave., San Leandro, CA 94577**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **2678**
URF filing date: 3-17-95 SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
B F Ltd. % Author Gilbert	9560 Wilshire Blvd. Beverly Hills, CA 90212	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	8000	gas / diesel	removed	1984

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: (apparent) piping/dispenser leak

Site characterization complete? YES

Date approved by oversight agency: NA

Monitoring Wells installed? YES Number: 5

Proper screened interval? YES

Highest GW depth below ground surface: 2.40' Lowest depth: 3.70'

Flow direction: SW ↔ NW

Most sensitive current use: industrial

Are drinking water wells affected? NO Aquifer name: San Leandro Cone

Is surface water affected? NO Nearest affected SW name: NA

Off-site beneficial use impacts (addresses/locations): NA

Leaking Underground Fuel Storage Tank Program

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

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tank	8000 gallons	UNK	12/84
Piping	UNK	"	12/84 (?)
Free Product	"	"	
Soil	75 yds^3	treatment/disposal- BFI, Livermore, CA	11/92- 1/93
Groundwater	770 gallons	disposal - Gibson Env. Redwood City, CA	12/8/93

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

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	UNK	1100[1]	11,000[3]	ND
TPH (Diesel)	"	NA[2]	NA	NA
Benzene	"	5.9[1]	460	ND
Toluene	"	25	730	"
Xylene	"	19	220	1.1
Ethylbenzene	"	120	2200	ND

NOTE:

1 "After" TPH-G and BTEX soil concentrations are for sidewall soil sample JSEX-5-4 collected from the resulting excavation following pit over-excavation, below the base of the building/loading ramp at a depth of 4' below grade (BG).

2 Soil was not tested for TPH-D concentrations following over-excavation.

3 "Before" water samples are for those collected from MW-4, subsequently destroyed due to compromised construction.

Comments (Depth of Remediation, etc.):

A single 8000 gallon fuel (gasoline and/or diesel) UST was reportedly removed at sometime during December 1984. Records documenting any aspect of UST removal activities, including soil or ground water (GW) sampling and UST disposal, have reportedly not been discovered. What is reported, however, is that the UST was apparently removed "due to a leak."

During 1/93 a geophysical study was performed to verify that the UST had, in fact, been removed. The results of this study reportedly confirmed the removal of the subject UST and associated piping.

Several phases of soil (CPT) and initial GW studies were conducted.

Shallow soil contamination of up to 1700 ppm TPH-G (boring SB1 @ 4' BG) was identified. Based on the results of these preliminary investigations and the physical locations of the former dispenser and piping, it was concluded that piping leaks and/or overspills had been the source of the soil contamination beginning at shallow depth and extending to ≤ 4-6' BG, located between the former UST pit and building.

A plan to excavate affected shallow soil was presented and implemented during late November and early December 1993. Soil was excavated to a depth of approximately 6 - 6½' BG. Approximately 75 yds^3 of material were excavated.

During excavation sand/gravel fill was reportedly encountered below pavement to ~6" BG. Dark gray CLAY was encountered to the total depth excavated. Hydrocarbon (HC) odors and occasional "sheen" were noted. Water seeped into the excavation beginning @ ~ 4' BG, apparently originating from the sand backfill of the former UST pit. The native CLAY reportedly did not appear to be water-bearing.

Four (4) soil samples were collected from the base of the resulting excavation, and two (2) from the final excavation sidewalls. Sidewall samples were collected from a depth of ~4' BG directly below the building and loading ramp foundations. All bottom samples exhibited only low concentrations (≤ 22 ppm) TPH-G and benzene (≤ 0.15 ppm). Sidewall samples indicate that up to 1100 ppm TPH-G and 5.9 ppm benzene remain in place.

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: NA

Should corrective action be reviewed if land use changes? YES

Monitoring wells Decommisioned: YES

Number Decommisioned: 1 Number Retained: 4, pending case closure

List enforcement actions taken: NONE

List enforcement actions rescinded: NONE

Leaking Underground Fuel Storage Tank Program

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Scott Seery Title: Sr. Haz Mat Specialist
Signature: Date: 5-2-95

Reviewed by
Name: Barney Chan Title: Haz Mat Specialist
Signature: Barney Chan Date: 5/2/95

Name: Juliet Shin Title: Sr. Haz Mat Specialist
Signature: Date: 5-2-95

VI. RWQCB NOTIFICATION

Date Submitted to RB: 5-2-95 RB Response: Approved
RWQCB Staff Name: Kevin Graves Title: San. Engineering Assoc. Date: 5/22/95

VII. ADDITIONAL COMMENTS, DATA, ETC.

Preliminary data submitted by I.T. Corp (IT) reportedly from an initial assessment performed by IT sometime during late December 1992 and/or January 1993 indicate the presence of TPH-D range compounds in a soil sample collected from CPT point #6, one of several reportedly emplaced. The lab apparently indicated the chromatogram did not match a typical diesel pattern, however. A final report from IT presenting these data in final form (with supporting documents) was not submitted. Shortly thereafter SEACOR took over the project at this site.

SEACOR's 4/29/93 report states that during the referenced IT study, five (5) CPTs were advanced adjacent to the UST pit. Total depth was between 14.5 to 16' BG. Both soil and GW were reportedly collected from each point. GW was encountered @ ~ 12' BG. Part per million range TPH-G/D and BTEX were reportedly detected in sampled GW. No supporting documents (i.e., lab reports, logs, etc.) were presented by SEACOR in their summary of the IT work.

During March and April 1993, SEACOR advanced seven (7) additional soil borings and constructed three (3) monitoring wells at the site. Continuous coring techniques were used.

Shallow soil contamination was identified adjacent to the former UST pit, between the pit and building. GW appeared to be under confined conditions. One grab GW sample collected from boring SB-2 exhibited 1200 ug/l TPH-G and 3.1 ug/l benzene. GW samples collected from each of the 3 wells indicate single peaks in the chromatograms identified as "...a non-gasoline matrix interferant in the gasoline range." Benzene was noted in MW-3 at 1.1 ug/l.

Leaking Underground Fuel Storage Tank Program

Based on DTW data from the initial set of 3 wells, GW flow was calculated towards the southeast on 4/5/93. Such suggested that none of the wells were located downgradient of the apparent source.

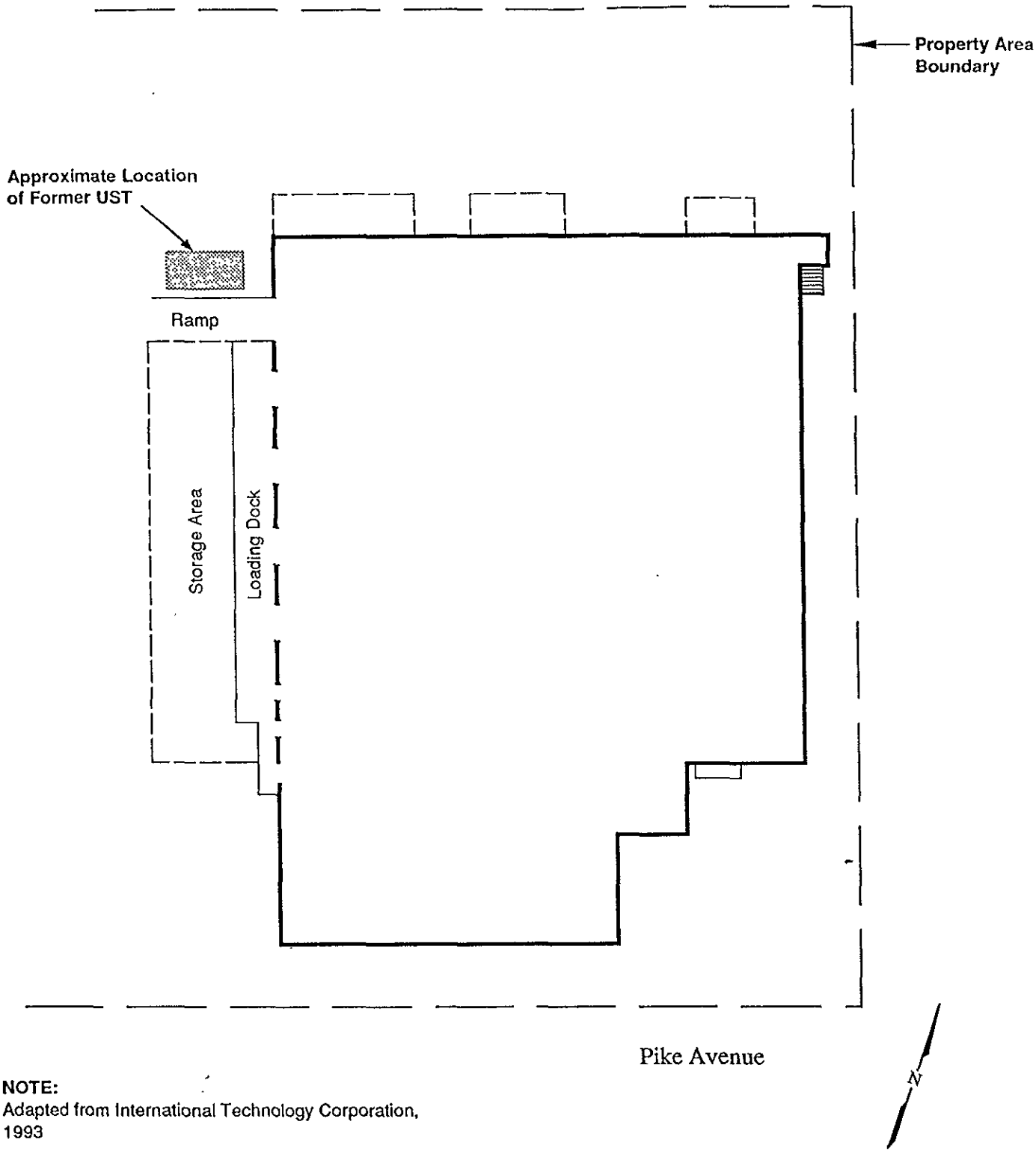
During Nov. and Dec. 1993, SEACOR initiated shallow soil excavation in which ~75 yds^3 of contaminated soil were removed, treated at an adjoining site (Coca-Cola Co.) at grade, and eventually disposed at BFI Vasco Road landfill, Livermore. Approximately 770 gallons of GW were vacuumed from the excavation, transported by Integrated Wastestream Management (Milpitas), and disposed at Gibson Environmental, Redwood City, for treatment.

Following soil removal activities, an additional well, MW-4, was installed through the former tank pit. Initial GW samples were very "hot" (11,000 ug/l TPH-G; 460 ug/l benzene, etc.). Review of boring and well construction logs illustrated that the well filter pack was in hydraulic contact with the permeable UST pit backfill (present above the base of the confining clay unit) through which the well was constructed. Such a configuration allowed water that had collected in the former UST pit to infiltrate into well MW-4, reportedly skewing the sample data by showing contaminant concentrations which were not indicative of ambient GW conditions.

Well MW-4 was subsequently destroyed and replaced by well MW-4A. MW-4A was constructed to preclude infiltration by pit water. Initial samples collected from this well were ND for all compounds. Data provided by the 4 well network indicates GW to be towards the west ↔ north, more consistent with expected flow directions based on the regional flow, and contrary with initial calculations. Subsequent gradient determinations were similar, ranging from SW to NW through completion of the project.

Analyses of GW collected quarterly from each of the 4 wells between March and September 1994 indicate, with one exception, "ND" results for each analyte sought. The noted exception occurred during the 9/94 event in which toluene was noted in GW collected from wells MW-1, -2, and -4A. However, toluene was also detected in the QA/QC trip blank sample, suggesting probable lab contamination.

In addition, this site is located within a mapped HVOC plumes identified during Cal EPA's (DTSC) central San Leandro study. The laboratory performing the GW analyses during this investigation has consistently identified the presence of non-gasoline, single peak interferants in the TPH-G chromatograms. The presence of single peak interferants in the TPH-G range is consistent with the presence of HVOCs. Such required the raising of detection limits for this analyte as high as 500 ug/l to accommodate this interferant.



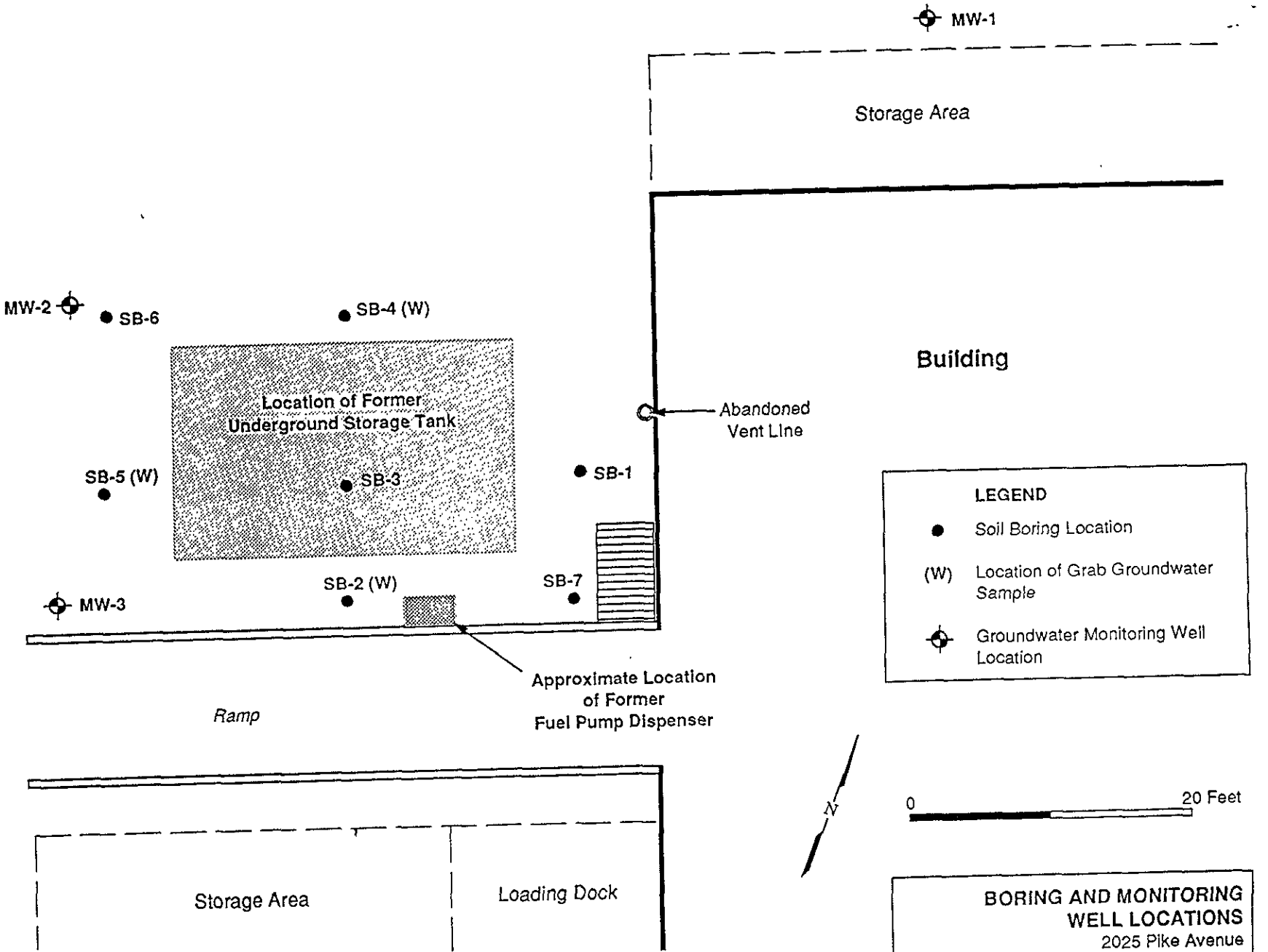
NOTE:
Adapted from International Technology Corporation, 1993

KEY

Perimeter of Covered Storage Area

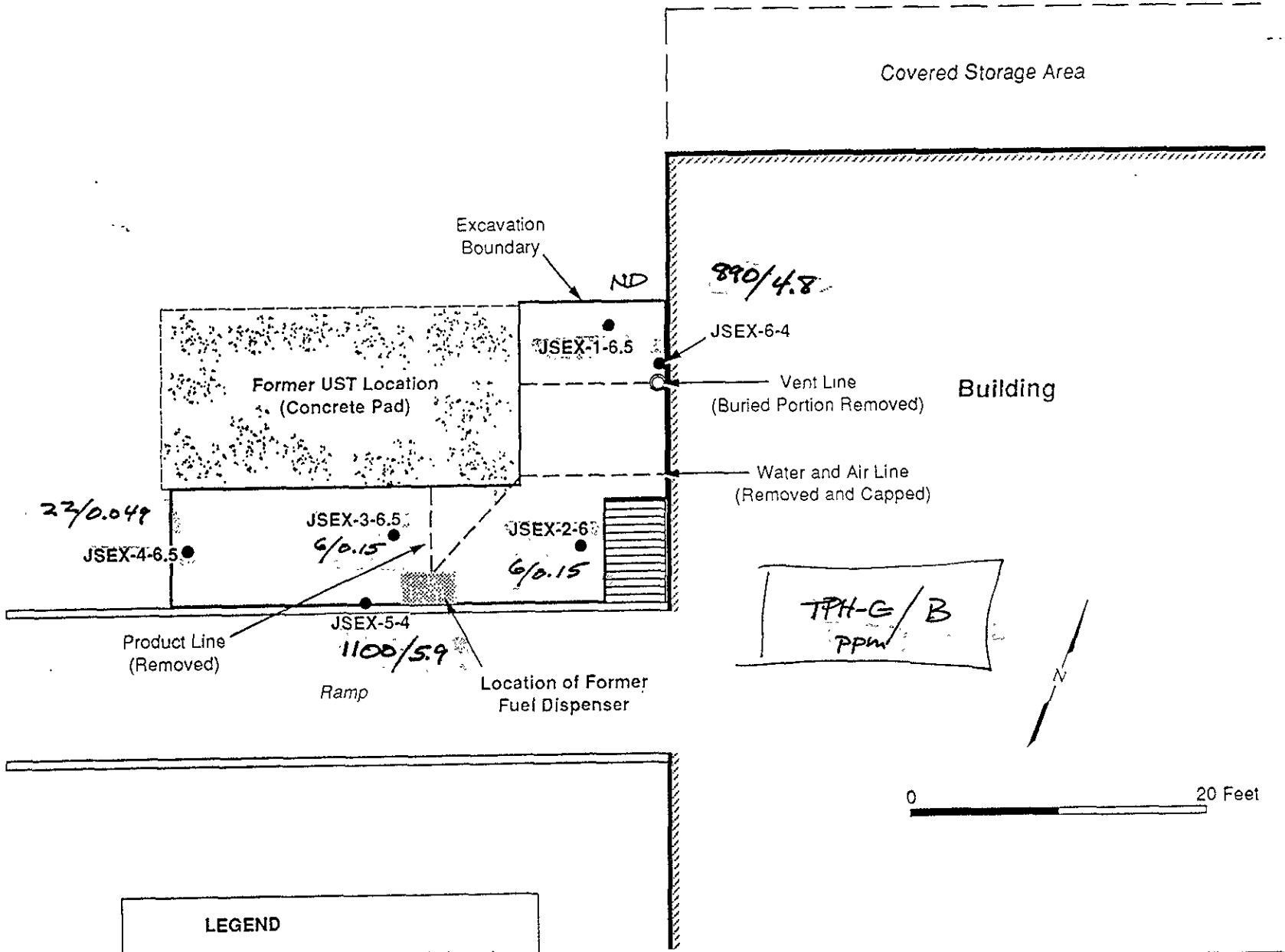
SITE PLAN
2025 Pike Avenue
San Leandro, California
FIGURE 2

SEACOR
SJN 50082-001-01



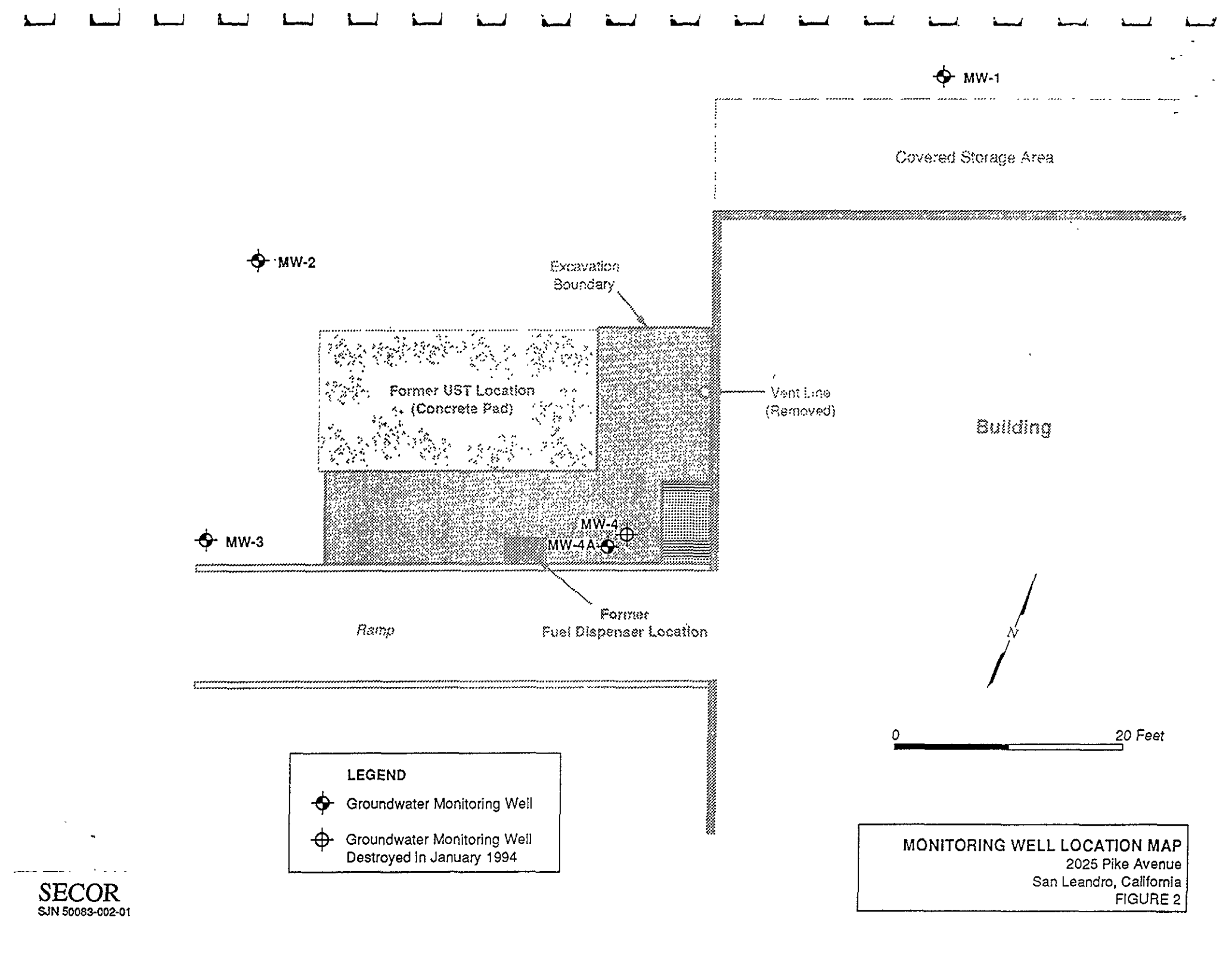
BORING AND MONITORING WELL LOCATIONS
2025 Pike Avenue
San Leandro, California
FIGURE 3

SEACOR
SJN 50082-001-01



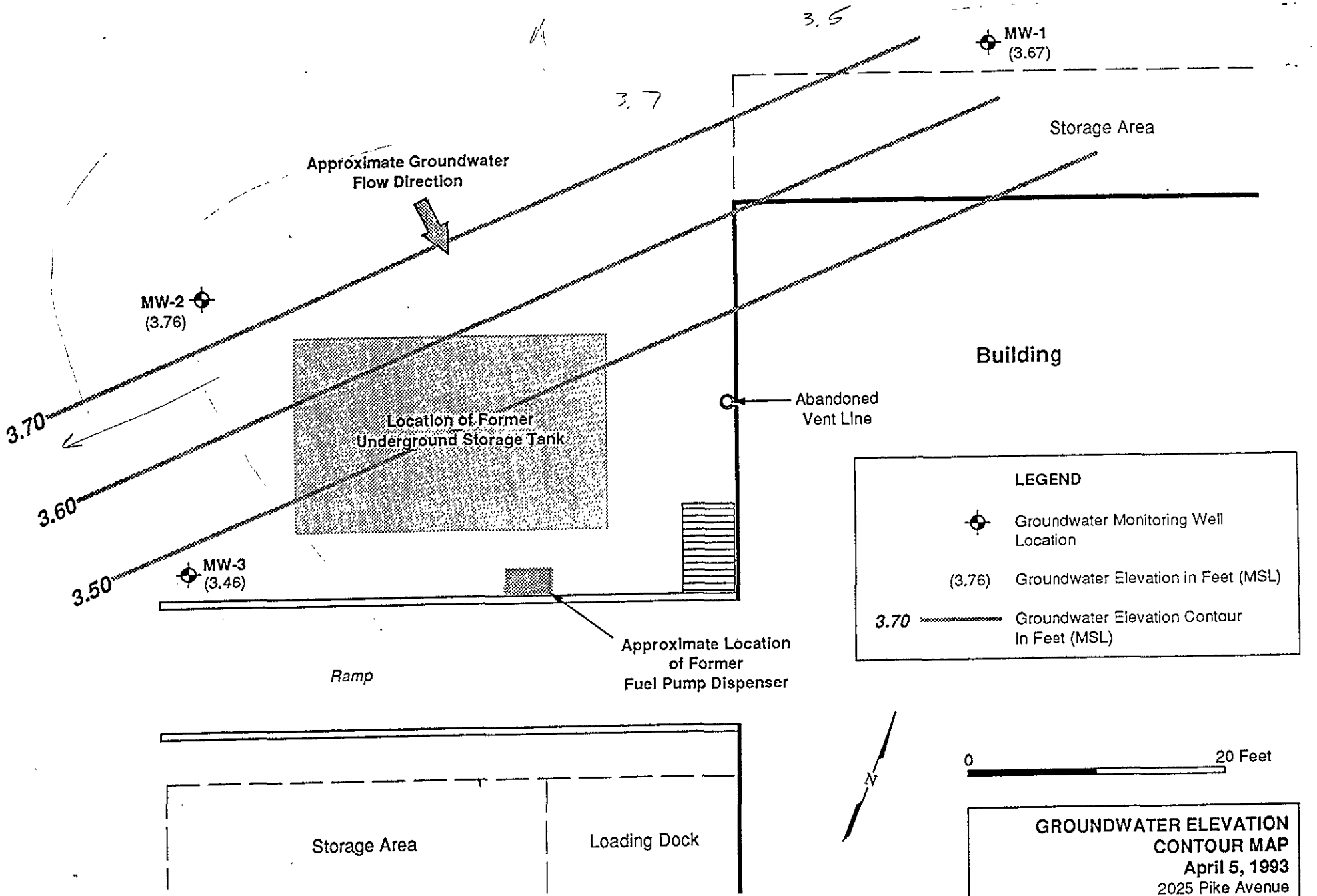
EXCAVATION AND SOIL SAMPLING LOCATIONS
2025 Pike Avenue
San Leandro, California
FIGURE 3

SEACOR
SJN 50083-002-01



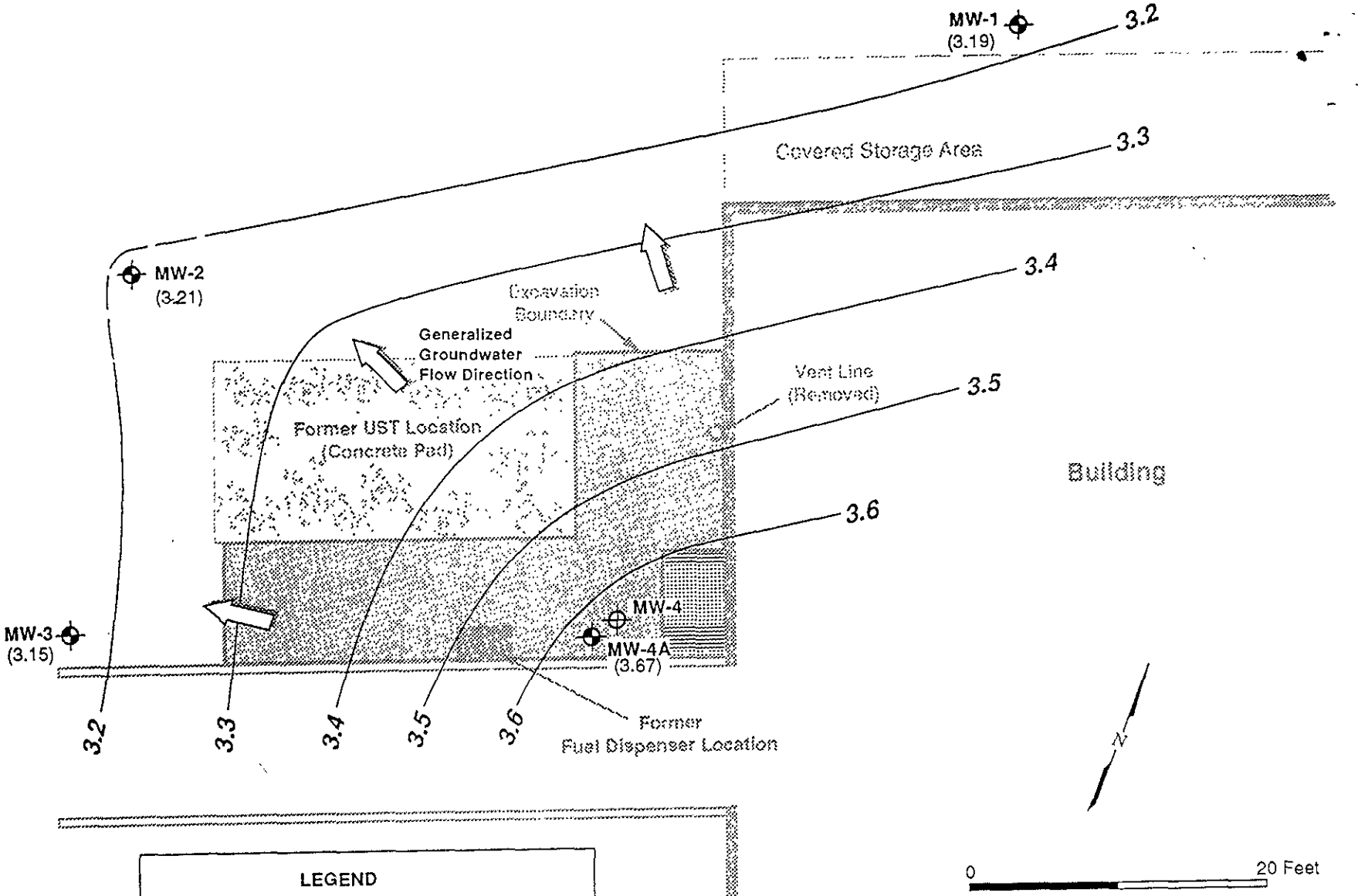
MONITORING WELL LOCATION MAP
2025 Pike Avenue
San Leandro, California
FIGURE 2

SECOR
SJN 50083-002-01



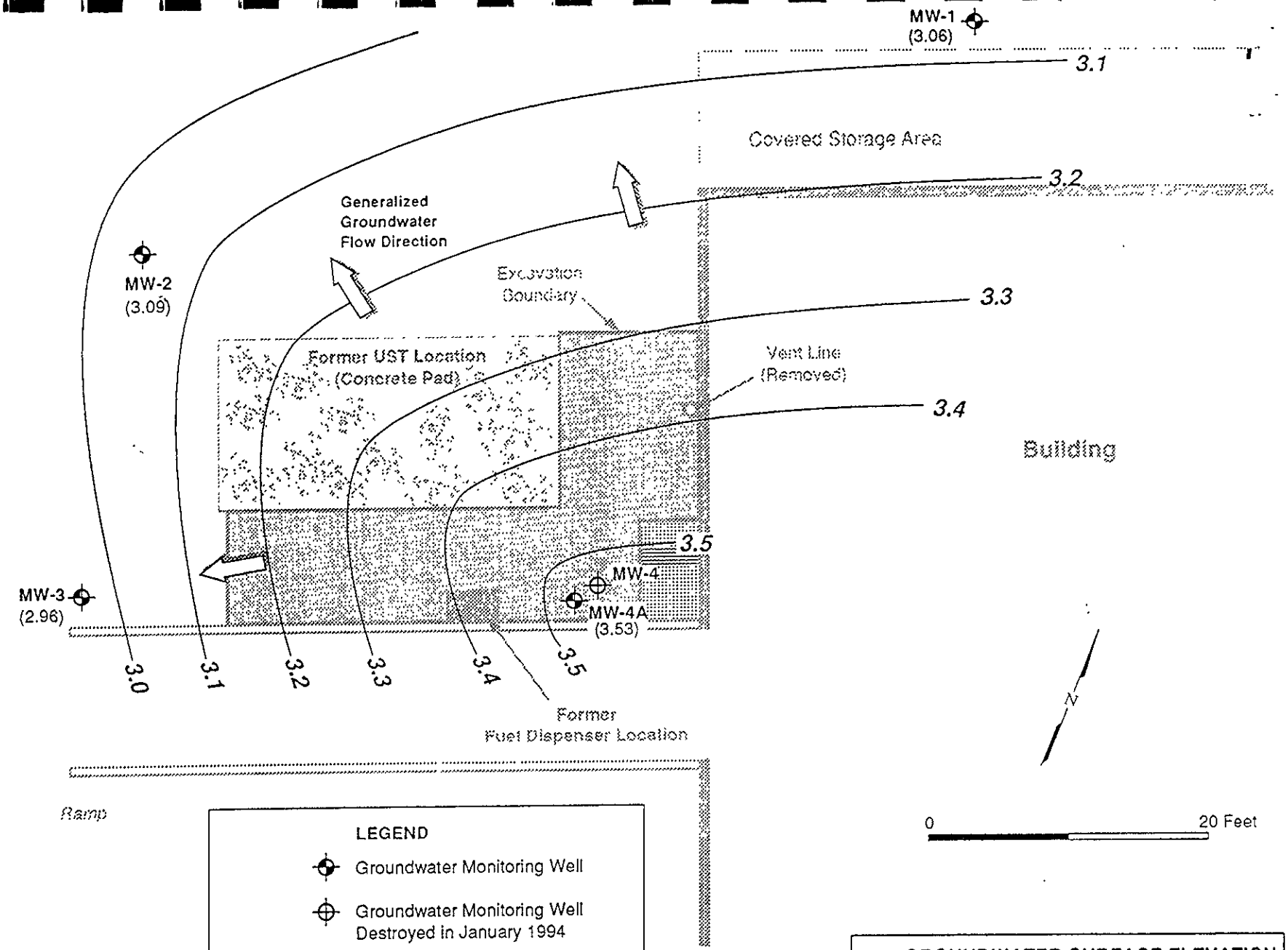
GROUNDWATER ELEVATION CONTOUR MAP
April 5, 1993
2025 Pike Avenue
San Leandro, California
FIGURE 4

SEACOR
SJN 50082-001-01



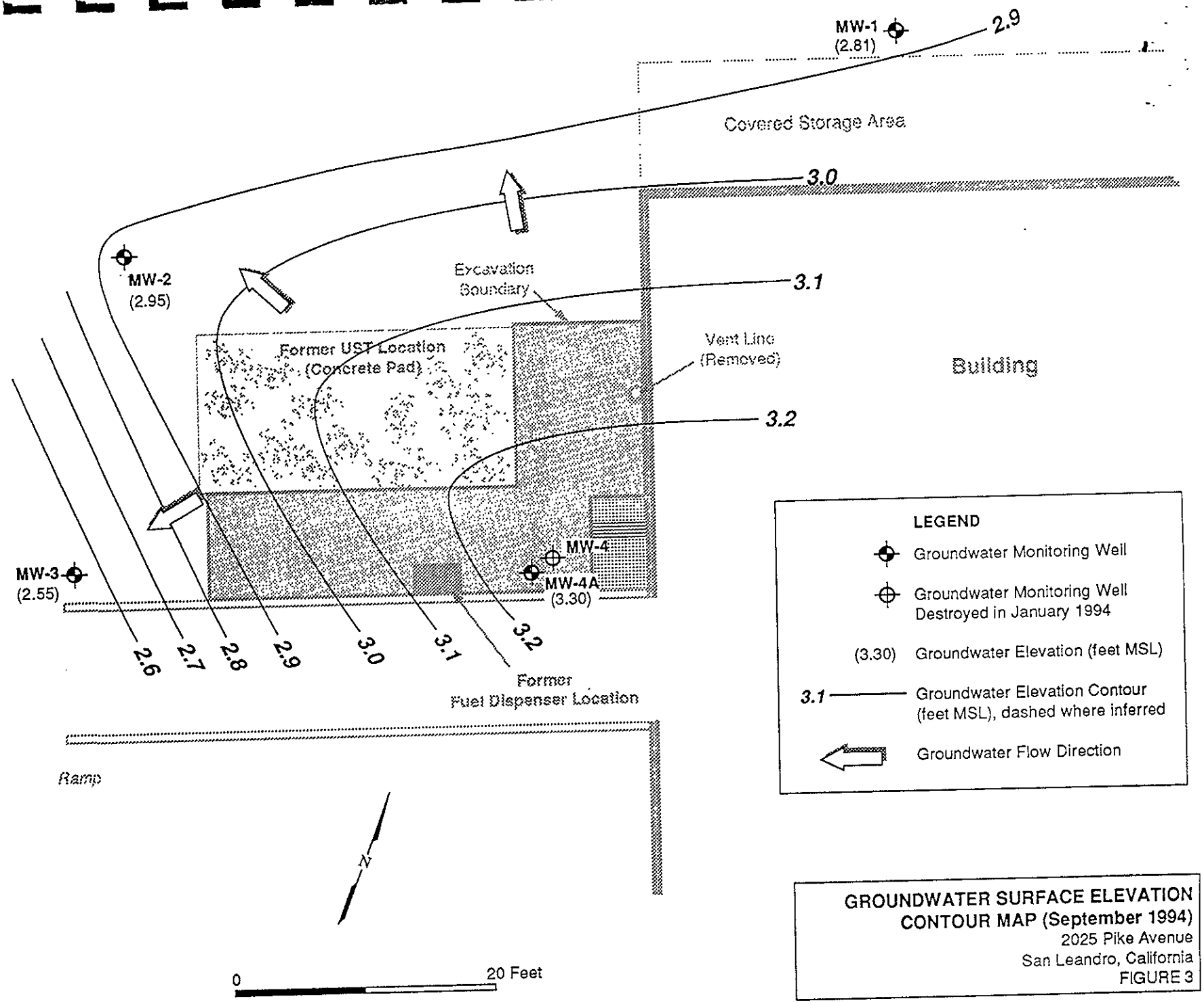
SEACOR
SJN 50083-002-01

GROUNDWATER SURFACE ELEVATION
CONTOUR MAP (March 1994)
2025 Pike Avenue
San Leandro, California
FIGURE 3



SEACOR
SJN 50083-002-01

GROUNDWATER SURFACE ELEVATION CONTOUR MAP (June 1994)
2025 Pike Avenue
San Leandro, California
FIGURE 3



GROUNDWATER SURFACE ELEVATION CONTOUR MAP (September 1994)
2025 Pike Avenue
San Leandro, California
FIGURE 3

SECOR
SJN 50083-002-01

TABLE 1
Chemical Testing Results for Post-Excavation Soil Samples
2025 Pike Avenue
San Leandro, California

SIDEWALL

Sample No.	JSEX-1-6.5	JSEX-2-6	JSEX-3-6.5	JSEX-4-6.5	JSEX-5-4	JSEX-6-4
Sample Depth (ft/bgs)	6.5	6	6.5	6.5	4	4
TPHg (mg/kg)	ND < 1	6	6	22	1,100	890
Benzene (mg/kg)	ND < .005	0.15	0.15	0.049	5.9	4.8
Toluene (mg/kg)	ND < .005	0.053	0.16	0.32	25	13
Ethylbenzene (mg/kg)	ND < .005	0.12	0.17	0.43	19	21
Xylenes (mg/kg)	ND < .005	0.34	0.74	2.0	120	120

Notes:

(1) feet bgs: feet below ground surface
(2) TPHg: total petroleum hydrocarbons as gasoline (EPA Method 8015, Modified).
(3) Samples JSEX-5-4 and JSEX-6-4 were collected from excavation sidewalls.
(4) ND: not detected at detection limit indicated.

TABLE 2
Analytical Results for Soil Samples
2025 Pike Avenue
San Leandro, California

SAMPLE NUMBER	SAMPLE DEPTH (ft)	TPHg (mg/kg)	TPHd (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYLBENZENE (mg/kg)	XYLENES (mg/kg)
SB1-4	4	1700	84*	1.3	30	24	160
SB1-9	9	2	ND	ND	ND	0.029	0.010
SB1-16	16	ND	ND	ND	0.006	0.007	0.057
SB2-6	6	16	ND	0.19	0.35	0.35	1.1
SB2-10	10	ND	ND	ND	0.009	0.006	0.030
SB2-15	14.5	ND	ND	ND	ND	ND	ND
SB4-6	5.5	ND	ND	ND	ND	ND	ND
SB4-11	11	ND	ND	ND	ND	ND	ND
SB4-17	14	ND	ND	ND	ND	ND	ND
SB5-6	5.5	ND	ND	ND	ND	ND	ND
SB5-11	11	ND	ND	ND	ND	ND	ND
SB5-17	17	ND	ND	ND	ND	ND	ND
SB6-6	5.5	ND	ND	ND	ND	ND	ND
SB6-11	11	ND	'ND	ND	ND	ND	ND

TABLE 2 (continued)
Analytical Results for Soil Samples
2025 Pike Avenue
San Leandro, California

SAMPLE NUMBER	SAMPLE DEPTH (ft)	TPHg (mg/kg)	TPHd (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYLBENZENE (mg/kg)	XYLENES (mg/kg)
SB6-15	14	ND	ND	ND	ND	ND	ND
SB7-6	5.5	75	ND	0.29	0.61	1.1	5.5
SB7-11	11	ND	ND	ND	ND	ND	ND
SB7-16	14.5	ND	ND	ND	ND	ND	ND
MW1-10	10	ND	ND	ND	ND	ND	ND
MW2-10	10	ND	ND	ND	ND	ND	ND
MW3-10	10	ND	ND	ND	ND	ND	ND

Notes:

TPHg: total petroleum hydrocarbons as gasoline
TPHd: total petroleum hydrocarbons as diesel
ND: not detected above the following laboratory reporting limits: 1 mg/kg for TPHg, 10 mg/kg for TPHd and 0.003 to 0.009 mg/kg for BTEX
mg/kg: milligrams per kilogram or parts per million
*: Does not match diesel standard pattern

TABLE 3
Analytical Results for Water Samples
2025 Pike Avenue
San Leandro, California

SAMPLE NUMBER	TPHg ($\mu g/\ell$)	TPHd ($\mu g/\ell$)	BENZENE ($\mu g/\ell$)	TOLUENE ($\mu g/\ell$)	ETHYLBENZENE ($\mu g/\ell$)	XYLENES ($\mu g/\ell$)
SB-2	1200	ND	3.1	36	21	100
SB-2(dup)[1]	890	55*	2.4	28	16	59
SB-4	ND**	ND	ND	ND	ND	ND
SB-5	ND**	ND	ND	ND	ND	ND
MW-1	ND**	ND	ND	ND	ND	ND
MW-2	ND**	ND	ND	ND	ND	ND
MW-3	ND**	ND	1.1	ND	ND	ND
MCLs	NA	NA	1.0	100	680	1,750

Notes:

ND: not detected above the following laboratory reporting limits: 50 $\mu g/\ell$ for TPHg and TPHd and 0.3 to 0.9 $\mu g/\ell$ for BTEX

$\mu g/\ell$: micrograms per liter

*: Does not match typical diesel pattern. Pattern of peaks indicative of hydrocarbons lighter than diesel.

**: Single peak in chromotogram. Detection limit increased to between 200 and 750 $\mu g/\ell$ due to non-gasoline matrix interferant in the gasoline range.

(1): The blind duplicate sample for SB-2 was identified to the laboratory as SB-8

NA: not applicable

TABLE 3
Current and Historic Water Quality Data
2025 Pike Avenue
San Leandro, California

WELL	SAMPLE DATE	TPHd (ug/l)	TPHg (ug/l)	BENZENE (ug/l)	TOLUENE (ug/l)	ETHYLBENZENE (ug/l)	XYLENES (ug/l)
MW-1	04/05/93	ND < 50	ND < 600*	ND < 0.3	ND < 0.3	ND < 0.3	ND < 0.9
	12/20/93	NA	ND < 400*	ND < 0.5	0.7	ND < 0.5	ND < 0.5
	03/25/94	NA	ND < 500*	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	09/09/94	NA	ND < 500*	ND < 0.5	1.1**	ND < 0.5	ND < 0.5
MW-2	04/05/93	ND < 50	ND < 300*	ND < 0.3	ND < 0.3	ND < 0.3	ND < 0.9
	12/20/93	NA	ND < 200*	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	03/25/94	NA	ND < 500*	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	09/09/94	NA	ND < 250*	ND < 0.5	0.6**	ND < 0.5	ND < 0.5
MW-3	04/05/93	ND < 50	ND < 200*	1.1	ND < 0.3	ND < 0.3	ND < 0.9
	12/20/93	NA	ND < 100*	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	03/25/94	NA	ND < 500*	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	09/09/94	NA	ND < 250*	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
MW-4	12/20/93	NA	11,000	460	730	220	2200
MW-4A	02/01/94	NA	ND < 500*	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	03/25/94	NA	ND < 500*	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	06/13/94	NA	ND < 300*	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	09/09/94	NA	ND < 500*	ND < 0.5	0.7**	ND < 0.5	ND < 0.5
Trip Blank	04/05/93	NA	ND < 50	ND < 0.3	ND < 0.3	ND < 0.3	ND < 0.9
	12/20/93	NA	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	03/25/94	NA	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
	09/09/94	NA	ND < 50	ND < 0.5	0.6	ND < 0.5	ND < 0.5

Project: Earle M. Jorgensen

Boring Location: See Figure 2

Project No.: 50083-001-01

Subcontractor and Equipment:: West Hazmat / CME 65

Logged By : T. J. P. K.

Sampling Method: California Split Spoon

Monitoring Device: OVM 560B

Start Date/ Time: 4/1/93 // 0900

Finish Date/ Time: 4/1/93 // 1030

First Water (BGS) : 8.5 Feet

Stabilized Water Level (BGS) :

Log of Boring/ Monitoring Well: **MW-1**

Comments :

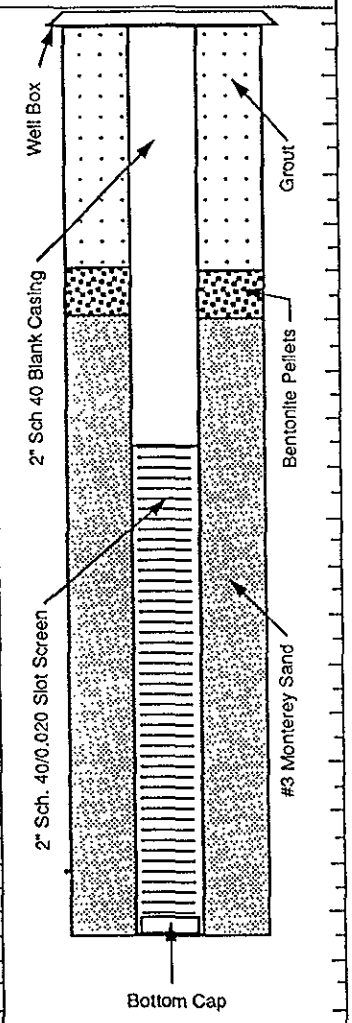
Hand Auger to 5 feet

Surface Elevation:

Casing Top Elevation:

Sample Number	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	LITHOLOGIC DESCRIPTION
			0		*Asphalt*
			1		BLACK BROWN CLAY (CL), caliche, rootlets, plastic, slightly moist, no odor
			2		
			3		
			4		
	29	0	5		
			6		
			7		
			8		
			9		MOTTLED TAN AND BROWN FINE SANDY SILT (ML) with rootlets, wet, no odor
			10		
MW-1-10	11	0	11		
	11	0	12		
			13		
	23	0	14		DARK TAN SILTY FINE SAND (SM) with occasional gravel, rust staining, wet, no odor
			15		
	32	0	16		grades with angular gravel and rust staining
	37	0	17		
			18		
			19		
			20		
			21		
			22		
			23		
			24		
			25		
			26		
			27		
			28		
			29		
			30		

Boring Abandonment/ Well Construction Details



SEACOR

Reviewed by: _____ Date: _____

Revised by: _____ Date: _____

Project: Earle M. Jorgensen

Boring Location: See Figure 2

Project No.: 50083-001-01

Subcontractor and Equipment:: West Hazmat / CME 65

Logged By : T. J. P. K.

Sampling Method: California Split Spoon

Monitoring Device: OVM 560B

Start Date/ Time: 4/1/93 // 1100

Finish Date/ Time: 4/1/93 // 1230

First Water (BGS) : 10.0 Feet

Stabilized Water Level (BGS) :

Log of Boring/ Monitoring Well: Page 1 of 1

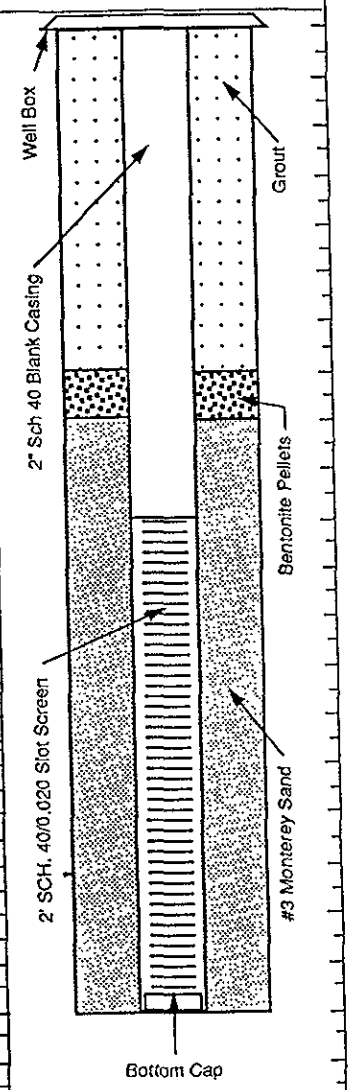
MW-2

Comments :

Surface Elevation: Casing Top Elevation:

Sample Number	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	LITHOLOGIC DESCRIPTION
			0		BROWNISH BLACK CLAY (CL) with rootlets, plastic, slightly moist, no odor
	13	0	5		
MW-2-10	31	0	10		MOTTLED TAN AND BROWN CLAYEY SILT (ML) black staining, wet, no odor
	21	0	12		grades with decreasing clay
	51	0	14		TAN FINE TO MEDIUM GRAINED SAND (SW), rust staining, wet, no odor
	25	0	15		TAN MEDIUM GRAINED SAND (SP) with angular gravel, wet, no odor
	30	0	17		grades with gravel
	50	0	18		

Boring Abandonment/ Well Construction Details



SEACOR

Reviewed by: _____ Date: _____

Revised by: _____ Date: _____

Project: Earle M. Jorgensen

Boring Location: See Figure 2

Project No.: 50083-001-01

Subcontractor and Equipment:: West Hazmat / CME 65

Logged By : T. J. P. K.

Sampling Method. California Split Spoon

Monitoring Device: OVM 560B

Start Date/ Time: 4/1/93 // 1345

Finish Date/ Time: 4/1/93 // 1530

First Water (BGS) : 10 Feet

Stabilized Water Level (BGS) .

Log of Boring/ Monitoring Well: Page 1 of 1

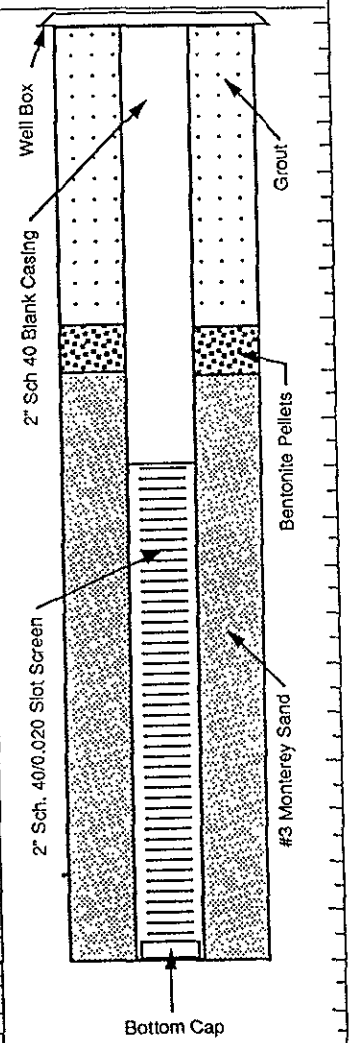
MW-3

Comments :

Surface Elevation: Casing Top Elevation:

Sample Number	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	LITHOLOGIC DESCRIPTION
			0		
			1		
			2		
			3		
			4		
			5		
	23	0	6		
			7		
			8		
			9		BROWNISH BLACK CLAY (CL) with *rootlets, rust staining, slightly moist, no odor*
			10		
MW-3-10	12	0	11		MOTTLED TAN AND BROWN SILT (ML) with rust staining, wet, no odor
	26	0	12		
			13		grades with sand and rust staining
	20	0	14		
	23	0	15		TAN SILTY SAND (SM) with some gravel, wet, no odor
			16		
	37	0	17		TAN GRAVELLY SAND (SP), wet, no odor
	13	0	18		
			19		
			20		
			21		
			22		
			23		
			24		
			25		
		0	26		
			27		
			28		
		0	29		
			30		

Boring Abandonment/ Well Construction Details



SEACOR

Reviewed by: _____ Date: _____

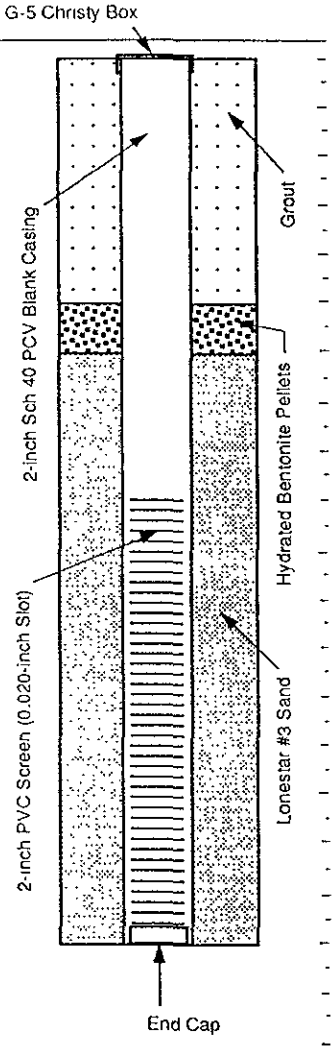
Revised by: _____ Date: _____

Project: **Earle M. Jorgenson - San Leandro, CA**			Log of Boring/ Monitoring Well: **MW-4** Page 1 of 1
Boring Location: 2025 Pike Avenue, San Leandro		Project No.: **50082-002-01**	
Subcontractor and Equipment:: Great Sierra Exploration		Logged By : S.E.B.	
Sampling Method: CA Mod. Split Spoon	Monitoring Device: FID		Comments :
Start Date/ Time: 12/17/93	Finish Date/ Time: 12/17/93		
First Water (BGS) : 9 Feet	Stabilized Water Level (BGS) :		

Surface Elevation: 6.73 Casing Top Elevation: 6.30

Sample No.	Blows/foot	FID (ppm)	Depth (feet)	USCS Symbol	LITHOLOGIC DESCRIPTION
			0–4		REDDISH BROWN SANDY CLAY (CL) with gravel, moist (FILL)
			4–7		GREY PEA GRAVEL , wet (FILL)
MW-4-1	12	0	7–8		LIGHT GRAY CLAY (CL), trace coarse sand to fine gravel, rounded to subrounded, rootlets, moist, no petroleum odor
MW-4-2	8	0	8–12		
MW-4-3	11	0	12–17		DARK YELLOWISH BROWN SILTY SAND (SM), very fine to fine-grained, 5-10% fine gravel, wet, no petroleum odor
MW-4-4	32	0	17–18		DARK YELLOWISH BROWN SANDY SILT (ML), trace coarse sand to fine gravel, moist, no petroleum odor

Boring Abandonment/ Well Construction Details



SEACOR

Reviewed by: Date: 2/14/94

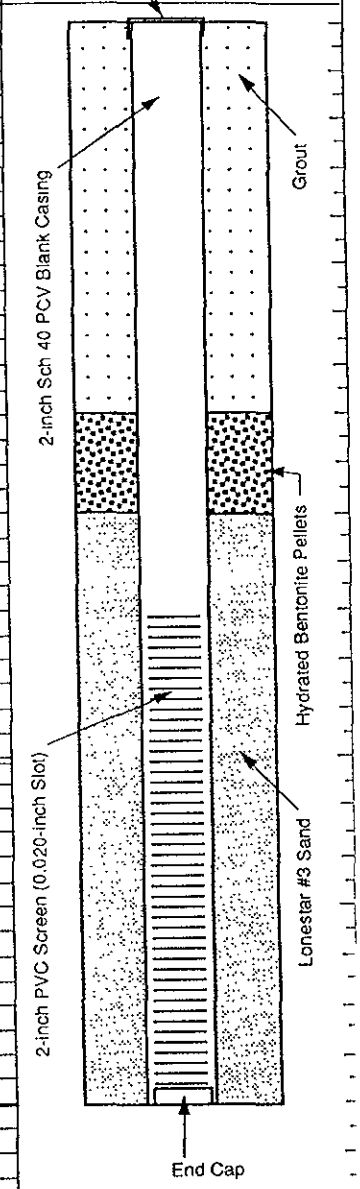
Revised by: Date:

Project: Earle M. Jorgenson - San Leandro, CA		Log of Boring/ Monitoring Well:	Page 1 of 1
Boring Location: 2025 Pike Avenue, San Leandro	Project No.: 50083-002-01	**MW-4A**	
Subcontractor and Equipment:: Great Sierra CME75	Logged By : Robitaille		
Sampling Method: CA Mod. Split Spoon	Monitoring Device: PID	Comments : MW-4A located 6 feet west of former well MW-4	
Start Date/ Time: 01-28-94	Finish Date/ Time: 01-28-94		
First Water (BGS) :	Stabilized Water Level (BGS) :		

Surface Elevation: 6.62 Casing Top Elevation: 6.18

Sample No.	Blows/foot	FID (ppm)	Depth (feet)	USCS Symbol	LITHOLOGIC DESCRIPTION
			0		Concrete
			1–4		REDDISH BROWN SANDY SILTY CLAY (CL), moist, stiff, no odor, (FILL)
			4–6		GREY PEA GRAVEL, wet (FILL)
			6–9		DARK GREY (N/4) CLAY (CL), trace fine sand and silt, wet at upper contact, faint gasoline odor, (0,5,5,90)
			9–12		GREENISH GREY (56Y 5/1) SILTY CLAY (CL), moist, stiff, no odor, (0,0,10, 90) grades with yellowish brown color, (10YR 5/4) and increasing silt
			12–15		BROWN (10YR 5/3) CLAYEY SILT (ML) with fine sand, dry to moist, (0,10,60,30)
			15–22		DARK BROWN (10YR 4/3) GRAVELLY SAND (SW), fine to coarse sand, subangular to subrounded, gravel to 3/4-inch diameter, loose, wet, no odor grades with coarse sand, gravel to 1-inch diameter
			22–30		

Boring Abandonment/ Well Construction Details



SEACOR

Reviewed by: _____ Date: _____

Revised by: _____ Date: _____

Project: Earle M. Jorgensen

Boring Location: See Figure 3

Project No.: 50083-001-01

Subcontractor and Equipment:: Precision Sampling

Logged By : T. J. P. K.

Log of Boring/ Monitoring Well: Page 1 of 1

SB-1

Sampling Method: Continuous Coring

Monitoring Device: OVM 580B

Comments :

Start Date/ Time: 3/22/93 // 0900

Finish Date/ Time: 3/22/93 // 1000

First Water (BGS) : 13 Feet

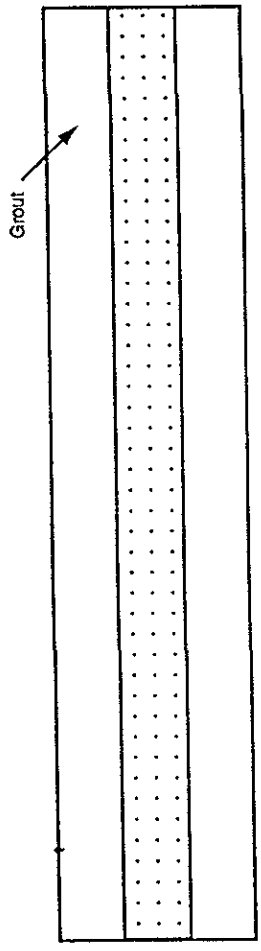
Stabilized Water Level (BGS) :

Surface Elevation:

Casing Top Elevation:

Sample Number	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	LITHOLOGIC DESCRIPTION
			0		Asphalt
			1		GREY BLACK SILTY CLAY (CL) with cemented sand fragments, plastic, slightly moist, moderate to strong hydrocarbon odor
			2		
			3		
SB-1-4		143	4		
		106	5		
			6		
			7		
			8		DARK GREEN SILTY CLAY (CL) with tan cemented sand fragments, plastic, slightly moist, moderate hydrocarbon odor
SB-1-9		0	9		
			10		
		0	11		MOTTLED BROWN AND GREENISH BROWN SANDY CLAY (CL) with black streaks, slightly moist, no odor
			12		
			13		
			14		MOTTLED TAN AND GREY SILTY SAND (SM) with occasional pebbles, wet, no odor
		0	15		
SB-1-16		0	16		
		0	17		
			18		
			19		
			20		
			21		
			22		
			23		
			24		
			25		
			26		
			27		
			28		
			29		
			30		

Boring Abandonment/ Well Construction Details



SEACOR

Reviewed by: _____ Date: _____

Revised by: _____ Date: _____

Project: Earle M. Jorgensen

Boring Location: See Figure 3

Project No.: 50083-001-01

Subcontractor and Equipment:: Precision Sampling

Logged By : T. J. P. K.

Log of Boring/ Monitoring Well: Page 1 of 1

SB-2

Sampling Method: Continuous Coring

Monitoring Device: OVM 580B

Comments :

Start Date/ Time: 3/22/93 // 1000

Finish Date/ Time: 3/22/93 // 1045

First Water (BGS) : 14 Feet

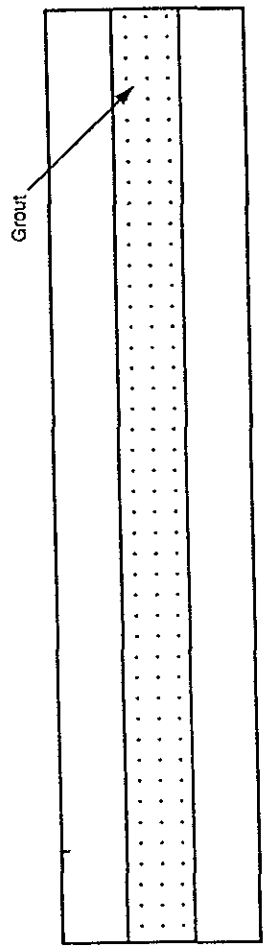
Stabilized Water Level (BGS) :

Surface Elevation:

Casing Top Elevation:

Sample Number	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	LITHOLOGIC DESCRIPTION
			0		Concrete
			1		GREY BLACK SANDY CLAY (CL) with tan cemented sand fragments plastic, moist, slight to moderate hydrocarbon odor
		126	2		
			3		
			4		
			5		
SB-2-6		24	6		
			7		DARK GREEN SILTY CLAY (CL) with tan cemented sand fragments, plastic, moist, slight hydrocarbon odor
		0	8		
SB-2-10			9		
			10		MOTTLED BROWN AND TAN BROWN SILTY (CL) with some black staining, slightly moist, no odor
		0	11		
			12		
			13		
			14		TAN SILTY SAND (SM), rust staining, moist to wet, no odor
SB-1-14.5		0	15		
			16		
			17		sand grading coarser
		0	18		
			19		
			20		
			21		
			22		
			23		
			24		
			25		
			26		
			27		
			28		
			29		
			30		

Boring Abandonment/ Well Construction Details



SEACOR

Reviewed by: _____ Date: _____

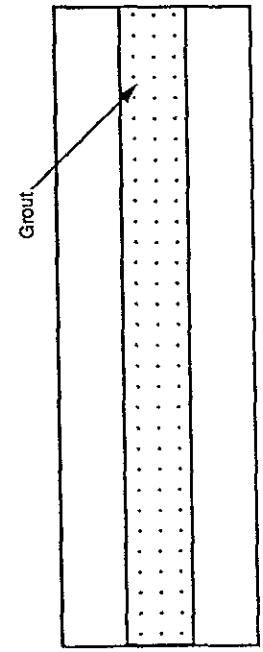
Revised by: _____ Date: _____

Project: Earle M. Jorgensen			Log of Boring/ Monitoring Well: Page 1 of 2
Boring Location: See Figure 3		Project No.: 50083-001-01	**SB-3**
Subcontractor and Equipment:: Precision Sampling		Logged By : T. J. P. K.	
Sampling Method: Continuous Coring	Monitoring Device: OVM 580B		Comments :
Start Date/ Time: 3/22/93 // 1045	Finish Date/ Time: 3/22/93 // 1130		
First Water (BGS) :	Stabilized Water Level (BGS) :		

Surface Elevation: Casing Top Elevation:

Sample Number	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	LITHOLOGIC DESCRIPTION
			0		Concrete
		0	1		BROWN MEDIUM GRAINED SAND (SP), well sorted (fill), wet, no odor
			2		
			3		?
			4		NO FURTHER RECOVERY
			5		
			6		
			7		
			8		
			9		
			10		
			11		
			12		
			13		
			14		
			15		
			16		
			17		
			18		
			19		
			20		
			21		
			22		
			23		
			24		
			25		
			26		
			27		
			28		
			29		
			30		

Boring Abandonment/ Well Construction Details



SEACOR

Reviewed by: _____ Date: _____

Revised by: _____ Date: _____

Project: Earle M. Jorgensen

Boring Location: See Figure 3 | Project No.: 50083-001-01

Subcontractor and Equipment:: Precision Sampling | Logged By : T. J. P. K.

Sampling Method: Continuous Coring | Monitoring Device: OVM 580B

Start Date/ Time: 3/22/93 // 1200 | Finish Date/ Time: 3/22/93 // 1300

First Water (BGS) : 13.5 Feet | Stabilized Water Level (BGS) :

Log of Boring/ Monitoring Well: Page 1 of 1

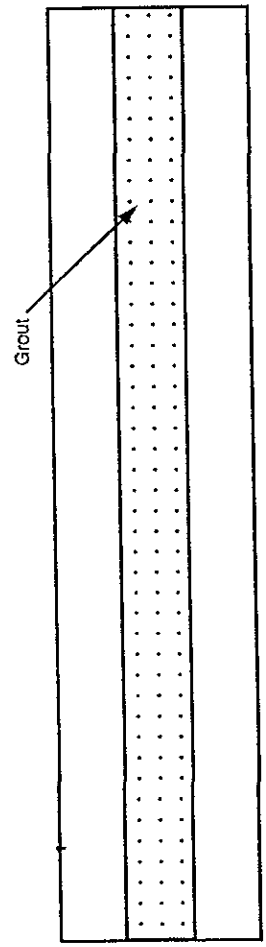
SB-4

Comments :

Surface Elevation: Casing Top Elevation:

Sample Number	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	LITHOLOGIC DESCRIPTION
			0		Asphalt
			1		GREY BLACK SANDY CLAY (CL) with tan cemented sand fragments, slightly moist, slight hydrocarbon odor
		0	3		
SB-4-5.5		0	6		
			7		DARK BLACKISH GREEN SILTY CLAY (CL), slightly moist, no odor
			8		MOTTLED BROWN AND GREENISH BROWN SANDY CLAY (CL) with black staining and rust staining, slightly moist to moist, no odor
		0	9		
SB-4-11		0	11		
			12		MOTTLED BROWN AND GREENISH BROWN CLAYEY SILT (ML) with black and rust staining, slightly moist to moist, no odor
			13		
					TAN BROWN SILTY SAND (SM), grades coarser toward shoe, wet, no odor
SB-4-14		0	14		
		0	15		
			18		
		0	19		
			30		

Boring Abandonment/ Well Construction Details



SEACOR

Reviewed by: _____ Date: _____

Revised by: _____ Date: _____

Project: Earle M. Jorgensen

Boring Location: See Figure 3

Project No.: 50083-001-01

Subcontractor and Equipment:: Precision Sampling

Logged By : T. J. P. K.

Log of Boring/ Monitoring Well: Page 1 of 1

SB-5

Sampling Method: Continuous Coring

Monitoring Device: OVM 580B

Comments :

Start Date/ Time: 3/22/93 // 1300

Finish Date/ Time: 3/22/93 // 1345

First Water (BGS) : 14 Feet

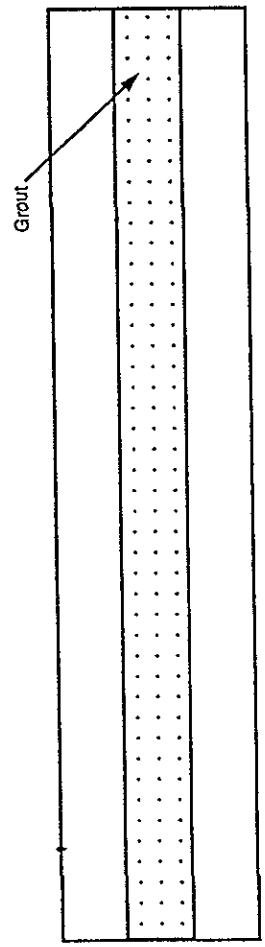
Stabilized Water Level (BGS) :

Surface Elevation:

Casing Top Elevation:

Sample Number	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	LITHOLOGIC DESCRIPTION
			0		Asphalt
			1		GREY BLACK SLIGHTLY SILTY CLAY (CL) with tan cemented sand fragments, plastic, slightly moist, no odor
		0	2		
			3		
			4		
			5		
SB-5-5.5		0	6		
			7		GREEN SILTY CLAY (CL) with cemented sand fragments, slightly moist, plastic, no odor
		0	8		
			9		MOTTLED BROWN AND TAN SILTY CLAY (CL), with iron staining, occasional coarse sand lens, slightly moist to moist, no odor
			10		
SB-5-11		0	11		
			12		
			13		
			14		TAN SILTY SAND (SM), grades coarser toward shoe, wet, no odor
		0	15		
			16		
			17		
SB-5-17		0	18		
			19		
			20		
			21		
			22		
			23		
			24		
			25		
			26		
			27		
			28		
			29		
			30		

Boring Abandonment/ Well Construction Details



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Reviewed by: _____ Date: _____

Revised by: _____ Date: _____

Project: Earle M. Jorgensen

Log of Boring/ Monitoring Well: Page 1 of 1

SB-6

Boring Location: See Figure 3

Project No.: 50083-001-01

Subcontractor and Equipment:: Precision Sampling

Logged By : T. J. P. K.

Sampling Method: Continuous Coring

Monitoring Device: OVM 580B

Comments :

Start Date/ Time: 3/22/93 // 1410

Finish Date/ Time: 3/22/93 // 1520

First Water (BGS) : 15 Feet

Stabilized Water Level (BGS) :

Surface Elevation:

Casing Top Elevation:

Sample Number	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	LITHOLOGIC DESCRIPTION
			0		Asphalt
			1		GREY BLACK SANDY CLAY (CL) with cemented sand fragments, plastic, moist, no odor
		0	2		
			3		
			4		
			5		
SB-6-5.5		0	6		
			7		OLIVE GREEN SILTY CLAY (CL) with tan cemented sand fragments, black staining, slightly moist, no odor
		0	8		
			9		
			10		MOTTLED BROWN AND TAN SILTY CLAY (CL), with black staining, slightly moist, no odor
SB-6-11		0	11		
			12		
			13		
SB-6-14		0	14		
			15		TAN GRAY SILTY SAND (SM), grades coarser toward shoe, wet, no odor
			16		
			17		
			18		
			19		
			20		
			21		
			22		
			23		
			24		
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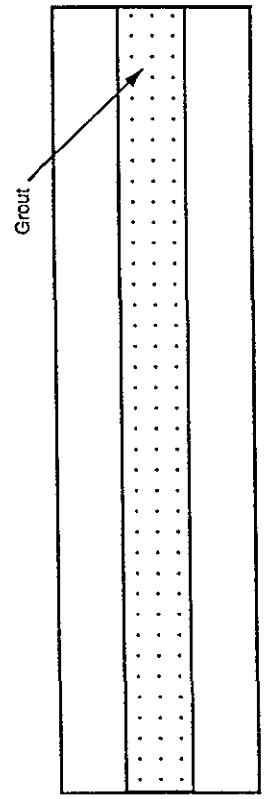
Boring Abandonment/ Well Construction Details



SEACOR

Reviewed by: _____ Date: _____

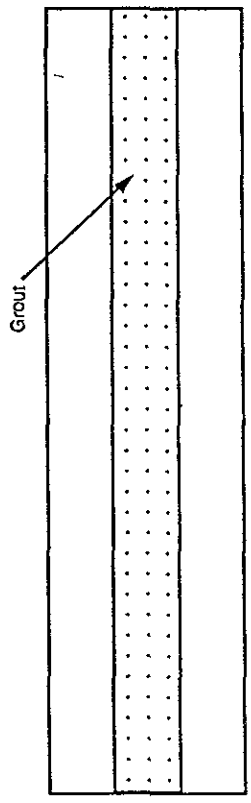
Revised by: _____ Date: _____

Project: Earle M. Jorgensen			Log of Boring/ Monitoring Well: SB-7 — Page 1 of 1
Boring Location: See Figure 3		Project No.: 50083-001-01	
Subcontractor and Equipment:: Precision Sampling		Logged By : T. J. P. K.	
Sampling Method: Continuous Coring	Monitoring Device: OVM 580B		Comments :
Start Date/ Time: 3/22/93 // 1520	Finish Date/ Time: 3/22/93 // 1600		
First Water (BGS) : 13 Feet	Stabilized Water Level (BGS) :		

Surface Elevation: Casing Top Elevation:

Sample Number	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	LITHOLOGIC DESCRIPTION
			0–7	CL	GREY BLACK SANDY CLAY (CL), plastic, slightly moistslight to moderate hydrocarbon odor
SB-7-5.5		0	5		
			8	CL	DARK BLACKISH GREEN SLIGHTLY SILTY CLAY (CL), plastic, slightly moist, slight hydrocarbon odor
		0	9	CL	MOTTLED BROWN AND GREENISH BROWN SILTY CLAY (CL) with black satining, slightly moist, no odor
SB-7-11		0	11		
			13	SM	TAN GRAY SILTY SAND (SM), grades coarser towards shoe, occasional pebbles, wet, no odor
SB-7-14.5		0	15		

Boring Abandonment/ Well Construction Details



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Reviewed by: _____ Date: _____

Revised by: _____ Date: _____