

POSSIBLE CLOSURE ?

RO# 57 (Steven) "5C"

12/20/02

TO EVA

CASE HAS SIGNED CLOSURE
SUMMARY BUT NO
RECORD OF WELL DESTRUCTION.

~~IT~~ NOT PUTTING CLOSURE
SUMMARY IN PUBLIC FILES
UNTIL OFFICIALLY CLOSED.

10/31/02

To Chuck Headlee
From: Susan Hugo

SF AIRPORT

Rec'd 10/31/00

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: April 6, 2000

Agency Name: **Alameda County-HazMat**
City/State/ Zip: **Alameda, CA 94502**
Responsible Staff Person: **Susan L. Hugo**

Address: **1131 Harbor Bay Parkway**
Phone: **(510) 567-6700**
Title: **Hazardous Materials Specialist**

II. CASE INFORMATION

Site Facility Name: **Former Lerer Brothers Transmission**
Site Facility Address: **6340 Christie, Emeryville, CA 94608**
RB LUSTIS Case No.: **N/A**
URF Filing Date: **11/24/98**

Local Case No./ LOP Case No. **1247**
SWEEPS No.: **N/A**

Responsible Parties:

Addresses:

Phone Numbers:

Lerer Brothers Transmission
Attn: **Mr. Richard Gold**

P.O. Box 117820
Burlingame, CA 94011-7820

(650) 579-1919

Tank No:	Size in gal.	Contents:	Closed in-place or removed?:	Date:
1	2000	Gasoline	Removed	2/5/88

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown**
Date approved by oversight agency: **1/19/99**
Number: **Three (3)**
Highest GW depth below ground surface **3.86'**
Flow direction: **Generally to the southeast**
Are drinking water wells affected? **NO**
Is surface water affected? **NO**
Off-site beneficial use impacts (address / location): **Unknown**
Report (s) on file? **YES**

Site characterization complete: **YES**
Monitoring wells installed? **YES**
Proper screened interval? **YES**
Lowest depth: **5.08'**
Most sensitive current use: **Commercial**
Aquifer Name: **NA**
Nearest affected SW name: **NA**

Where is report (s) filed? **Alameda County, 1131 Harbor Bay Parkway, Alameda, CA 94502**

Treatment and Disposal of Affected Materials:

Materials	Amount (Include Units)	Action (Treatment /or Disposal w/ Destination)	Date
Tank	1- 2000 gallon	Disposed at H & H Ship Service, San Francisco, CA	2/5/88
Soil	Unknown	Unknown	

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Leaking Underground Fuel Storage Tank Program
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Maximum Documented Contaminant Concentrations -- Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before*	After**	Before***	After****
TPH gasoline	-	1,400	620,000	1,300
Benzene	-	<6.2	1,200	71
Toluene	-	25	4,900	7.2
Ethylbenzene	-	7.1	16,000	100
Xylene	-	15	64,000	210
MTBE	-	<6.2	<1,000	<10

* No analytical results were submitted for the soil and groundwater samples collected subsequent to the tank removal in 1988.

** Soil sample collected from boring BH-A at 6 feet below ground surface (bgs) on 10/9/98.

*** Grab water sample collected from boring BH-A on 10/9/98.

**** Represents water sample collected from monitoring well MW-1 on 10/22/99.

Comments (Depth of Remediation, etc.): See "Additional Comments" section.

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: **Deed Restriction is required and an acceptable Risk Management Plan must be recorded for subject property.**

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

Monitoring wells Decommissioned : **Three wells are in the process of being closed due to property renovation.**

Number Decommissioned: **Three wells will be closed**

Number Retained: **None (Three wells in the process of closure)**

List enforcement actions taken: **NA**

List enforcement actions rescinded: **NA**

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V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Susan L. Hugo** Title: **Hazardous Materials Specialist**
Signature: *Susan L. Hugo* Date: *4/27/00*

Reviewed by:

Name: **Don Hwang** Title: **Hazardous Materials Specialist**
Signature: *Don Hwang* Date: *4/27/00*

Name: **Thomas Peacock** Title: **Manager, LOP Program**
Signature: *Thomas Peacock* Date: *5-5-00*

VI. RWQCB NOTIFICATION

Date Submitted to RB: RB Response: *concur*

RWQCB Staff Name: **Chuck Headlee** Title: **Associate Engineering Geologist**
Signature: *Chuck Headlee* Date: *10/31/00*

VII. ADDITIONAL COMMENTS, DATA, ETC.

The subject site is located in an urban, former industrial area of Emeryville. The site is bounded to the north by a neighboring commercial building, Christie Avenue to the west, parking lots to both east and south of the property. The building at the subject site is currently vacant. Lerer Brothers Transmission operated a heavy duty differential and transmission shop at the site from 1980 to 1998. A commercial electric / light supply business intends to occupy the building in the future.

On February 5, 1988, a 2000- gallon underground storage tank which stored unleaded gasoline was removed at the site. Soil and groundwater samples were collected following the tank removal. However, no records of the analytical results of the soil and groundwater sampling can be located.

On October 9, 1998, soil and groundwater investigation was conducted at the site. Five borings were drilled and soil samples were collected, one sample from each boring at depths ranging from 3.5 feet to 6.0 feet bgs. In addition, temporary PVC well casings were driven and grab water samples were collected from each boring. Sediments encountered during drilling generally consisted of up to three feet of debris-free silty clay fill overlying a sandy fill material containing wood and asphalt shingle roofing material, brick and rubber to the total depth of 8 feet bgs. It was reported that no native soil was encountered. Groundwater was encountered at 4 to 6 feet bgs and stabilized at 4 feet bgs in each boring. A hydrocarbon sheen appeared to be present in boring BH-A. Results of soil and groundwater sampling showed petroleum hydrocarbon contamination at the site (see Tables 1 and 2). Lead was detected in all the soil samples collected from the borings at concentration ranging from 11 parts per million (ppm) to 310 ppm.

On January 21, 1999, additional site characterization was conducted which involved the installation of three shallow groundwater monitoring wells. Sediments encountered during drilling consisted of silty, gravelly sand with debris such as tar, tar paper, roofing shingle material, railroad ties and railroad spikes. Groundwater was encountered between 3.7 and 6.5 feet bgs. Soil samples collected from 4.5 feet bgs in each boring showed low levels of petroleum hydrocarbon concentrations (see Table 3). Lead was detected in soil ranging from 49 ppm to 130 ppm but was non-detect in groundwater. Sheen was present in all the wells. Groundwater samples showed elevated levels of petroleum

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Leaking Underground Fuel Storage Tank Program
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hydrocarbon contamination at the site. Groundwater flow direction beneath the site appeared to be to the south during this monitoring event and was not consistent with the westerly regional groundwater flow in the area.

The three shallow groundwater monitoring wells at the site were sampled on 3/29/99 and 7/20/99. Groundwater elevation slightly decreased in MW-1 and MW-2 but increased in MW-3 during the 7/20/99 sampling event. Groundwater flow direction was to the south (3/29/99 event) and southeast (7/20/99) direction, generally consistent with previous monitoring event. Petroleum hydrocarbon concentrations found in groundwater collected from the three wells appeared similar to previous results.

On October 22, 1999, two additional soil borings were drilled on the neighboring property to the south to determine the extent of groundwater contamination at the site. Soil borings BH-F and BH-G were drilled downgradient of the former tank area. Sediments encountered during drilling were similar to previously encountered materials (building debris at 3 feet to 7 feet bgs). Groundwater was encountered at 7 feet bgs. Grab water samples were collected from the two bore holes and three on site wells. Monitoring well MW-1 showed a slight increase in petroleum hydrocarbon concentration but decrease in MW-2 and MW-3. Grab water sample collected from boring BH-F and BH-G showed low levels of petroleum hydrocarbon (see Table 5).

This site is recommended for case closure as a low risk soil/groundwater case for the following rationale:

- 1) Aggressive source removal has occurred at the site. The UST was removed in 1988. Per notes in the file, two soil samples were collected following removal of the tank. The results (verbally communicated) showed 160 ppm and 180 ppm probably TPH gasoline in soil. No laboratory report was submitted.
- 2) The site has been adequately characterized. Two additional downgradient borings showed very low levels of petroleum hydrocarbon contaminants in the groundwater (see Table 5). In addition, it appears that the site and neighboring sites were filled with building materials at approximately 3 feet bgs. The subject site is surrounded by parking lots to the south (where the borings were drilled) and parking lots for the movie theater to the east. The fill materials at the site may have some contribution to the residual contaminants found in soil and groundwater at the site. Groundwater monitoring has been conducted and showed concentration of dissolved petroleum hydrocarbon. The extent of soil and groundwater contamination appeared to be adequately defined.
- 3) The dissolved petroleum hydrocarbon plume appears to be stable. The tank was removed in 1988. Approximately 10 ten to eleven years after the tank removal, soil and groundwater investigation was conducted. Groundwater beneath the site was sampled four times from 1/28/99 to 10/22/99.
- 4) No water wells, deeper drinking water wells, surface water or other sensitive receptors are likely to be impacted.
- 5) The site does not appear to present a significant risk to human health and the environment. Soil samples collected from borings BH-A to BH-E showed very low levels of benzene (0.011 ppm) which is below the ASTM RBCA CA-modified Tier 1 RBSL value (0.133 ppm) for a 1E-06 (1 in 1,000,000) excess cancer risk using the exposure pathway "Soil - Volatilization to Outdoor Air", for a commercial / industrial receptor scenario. Groundwater samples collected from the well MW-1 showed benzene at 71.0 ppb which is also below the ASTM RBCA CA - modified Tier 1 RBSL value (5,340 ppb) for a 1E-06 (1 in 1,000,000) excess cancer risk using the exposure pathway "Groundwater Volatilization to Outdoor Air", for a commercial / industrial receptor scenario. Using this conservative scenario and the current and future use of the subject site will remain commercial / industrial, the site does not appear to present a significant risk.
- 6) Deed restriction and risk management plans are required for site closure.

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

Boring	Depth Sampled	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
BH-A	6.0'	1400 1400	<6.2	25 25	7.7 7.7	75 75	<6.2
BH-B	3.5'	<1.0	0.0090	0.0083	0.012	0.039	<0.0050
BH-C	4.0'	<1.0	0.011	<0.0050	0.080	0.16	<0.0050
BH-D	4.0'	<1.0	<0.0050	<0.0050	<0.0050	0.0087	<0.0050
BH-E	5.5'	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
PRG		NE	1.4	880	230	320	NE

Notes:

Detectable concentrations are in bold.

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

PRG is the United States Environmental Protection Agency (US EPA) Region IX Preliminary Remediation Goal (PRG) for industrial soil.

NE = US EPA PRG is not established.

TABLE TWO

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

Boring	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
BH-A	620,000	1,200	4,900	16,000	64,000	<1,000
BH-B	40,000	280	110	3,200	6,400	<250
BH-C	18,000	56	280	150	120	<50
BH-D	<50	<0.5	<0.5	<0.5	<0.5	<5.0
BH-E	<50*	<0.5	<0.5	<0.5	1.2	<5.0
DTSC MCL	NE	1.0	150	700	1,750	35**

Notes:

DTSC MCL is the California Department of Toxic Substances Control maximum contaminant level for drinking water.

NE = DTSC MCLs is not established.

* = Hydrocarbons uncharacteristic of gasoline detected in gasoline range at 98 parts per billion.
** = DTSC interim action level for drinking water. MCL not established.

Detectable concentrations are in bold.

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

Boring	Depth Sampled	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	Total Lead
MW-1	4.5'	<100*	<6.2	<6.2	13	27	<6.2	130
MW-2	4.5'	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	49
MW-3	4.5'	<1.2	<0.005	<0.005	0.0073	0.027	<0.005	72
PRG		NE	0.62	520	230	210	NE	130

Notes:

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

Detectable concentrations are in bold.

* = Hydrocarbons uncharacteristic of gasoline detected in the gasoline range at 1,500 parts per million.

PRG is the United States Environmental Protection Agency (US EPA) Region IX Preliminary Remediation Goal (PRG) for residential soil.

None of the hydrocarbon or lead concentrations detected during this assessment exceeded US EPA PRGs for residential soil.

TABLE FOUR
 Groundwater Elevation Data

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-1	1-28-99	10.00	4.85	5.15
	3-29-99		4.85	5.15
	7-20-99		5.08	4.92
	10-22-99		5.08	4.92
MW-2	1-28-99	9.96	4.17	5.79
	3-29-99		3.89	6.07
	7-20-99		4.30	5.66
	10-22-99		4.36	5.60
MW-3	1-28-99	9.25	4.23	5.02
	3-29-99		4.41	4.84
	7-20-99		3.86	5.39
	10-22-99		3.94	5.31

TABLE FIVE
 Certified Analytical Results of **GROUNDWATER** Samples
 All results are in parts per billion

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Lead
<u>MW-1</u>							
1-28-99	730	22	3.3	24	61	<5.0	<5.0
3-29-99	950	37	5.7	27	60	<5.0	--
7-20-99	970	40	5.4	67	120	<5.0	--
10-22-99	1,300	71	7.2	100	210	< 10	--
<u>MW-2</u>							
1-28-99	710	20	180	14	67	<5.0	<5.0
3-29-99	500	8.6	44	4.3	25	<5.0	--
7-20-99	510	8.4	44	6.0	31	<5.0	--
10-22-99	280	13	10	6.2	36	< 5.0	--
<u>MW-3</u>							
1-28-99	<50*	<0.5	<0.5	<0.5	0.69	<5.0	<5.0
3-29-99	130	1.9	8.2	1.4	7.1	<5.0	--
7-20-99	170	<0.5	1.9	<0.5	0.89	<5.0	--
10-22-99	70**	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	--
BH-F	65	1.2	< 0.5	1.4	2.4	< 5.0	--
BH-G	180**	< 1.0	< 1.0	1.5	9.1	< 10	--
DHS MCL	NE	1	150	700	1,750	13	15
EPA METHOD	5030/ 8015M	8020	8020	8020	8020	8020	6010

Notes:

* = Hydrocarbons uncharacteristic of gasoline detected in the gasoline range at 68 ppb.

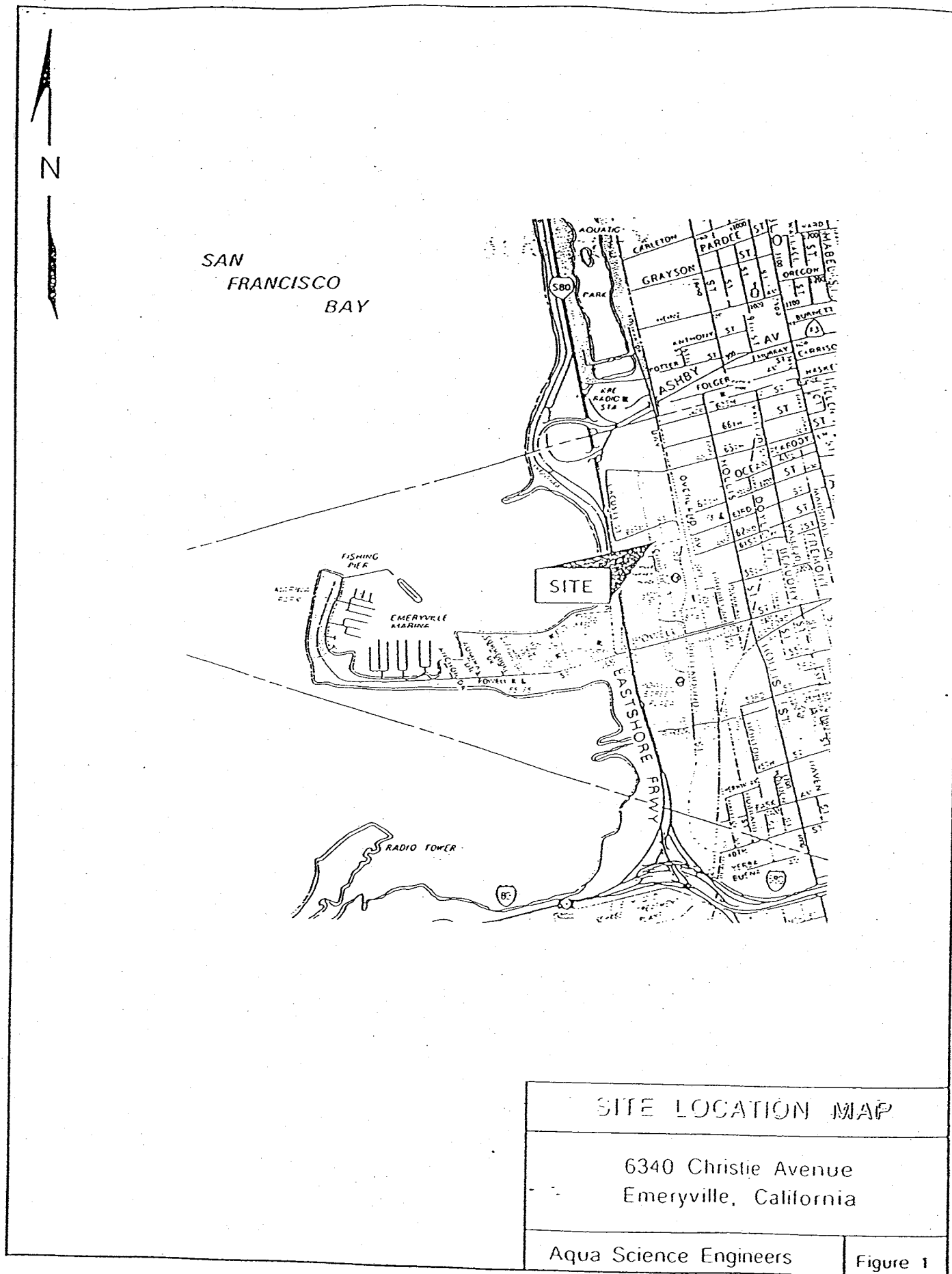
** = Hydrocarbons detected do not match a gasoline standard.

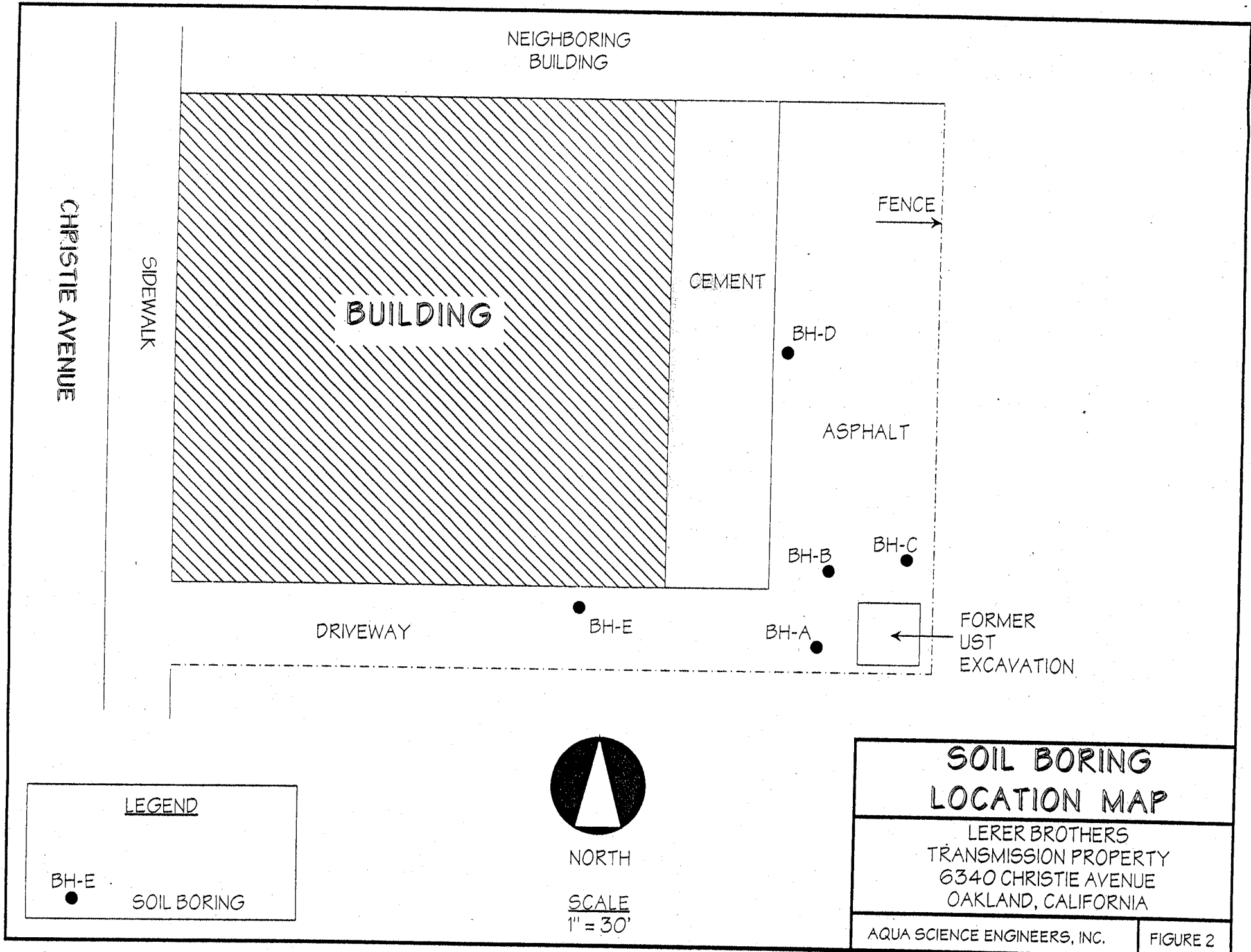
-- = Not analyzed

NE = DHS MCL not established

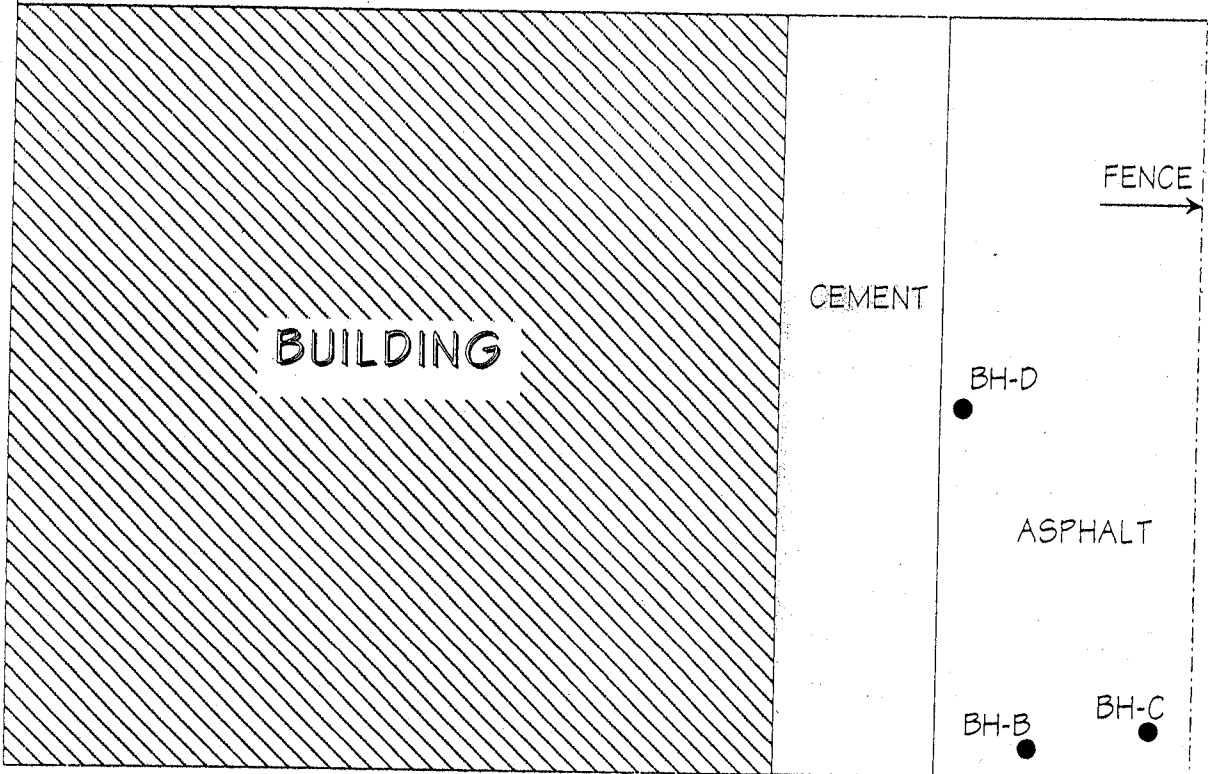
DHS MCL = Department of Health Services maximum contaminant level for drinking water.

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





NEIGHBORING BUILDING



CHRISTIE AVENUE

SIDEWALK

BUILDING

CEMENT

FENCE

BH-D

ASPHALT

BH-B

BH-C

DRIVEWAY

BH-E

BH-A

FORMER UST EXCAVATION

LEGEND

BH-E



SOIL BORING



NORTH

SCALE
1" = 30'

SOIL BORING LOCATION MAP

LERER BROTHERS
 TRANSMISSION PROPERTY
 6340 CHRISTIE AVENUE
 OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

FIGURE 2

NEIGHBORING BUILDING

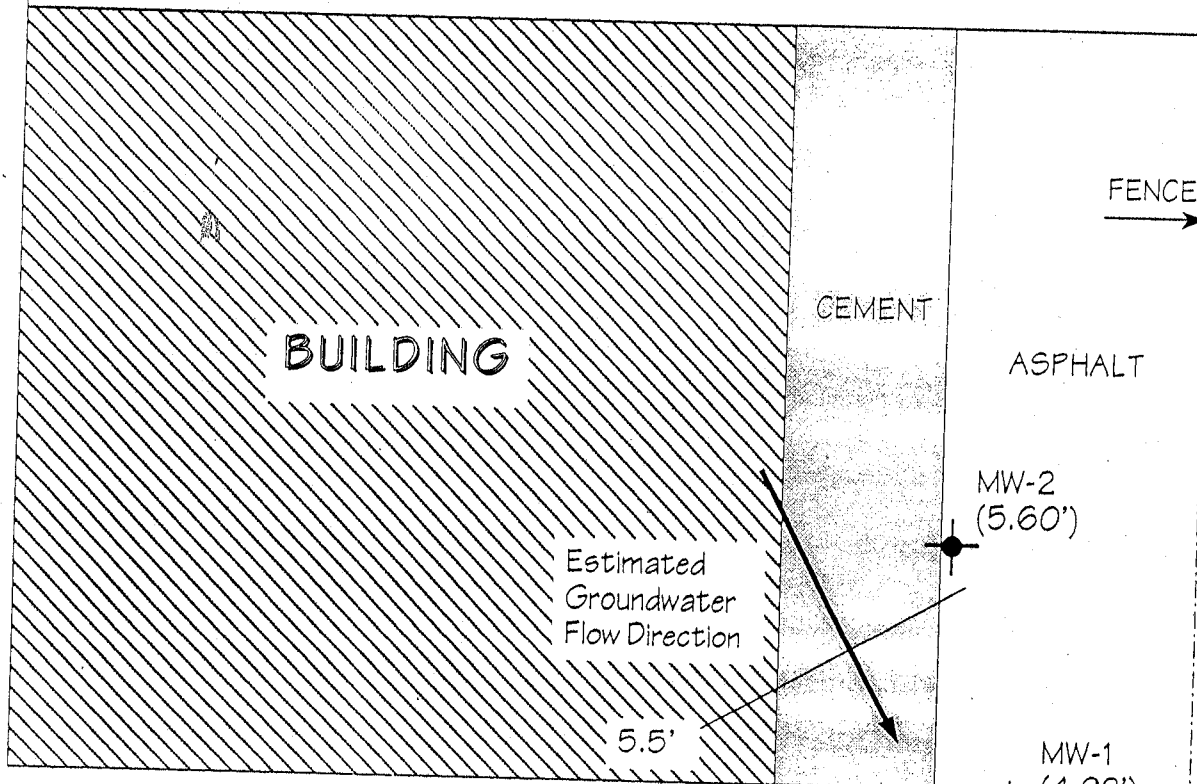


NORTH

SCALE
1" = 30'

CHRISTIE AVENUE

SIDEWALK



BUILDING

CEMENT

ASPHALT

FENCE

MW-2
(5.60')

Estimated
Groundwater
Flow Direction

5.5'

MW-1
(4.92')

DRIVEWAY
MW-3
(5.31')

5.0'

FORMER
UST
EXCAVATION

ENTRANCE ROAD INTO EMERYVILLE PUBLIC MARKET
AND MOVIE THEATER

BH-F

BH-G

PARKING

SOIL BORING LOCATION
AND GROUNDWATER ELEVATION
CONTOUR MAP - 10/22/99

LERER BROTHERS
TRANSMISSION PROPERTY
6340 CHRISTIE AVENUE
EMERYVILLE, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

FIGURE 3

LEGEND



Monitoring well location



Soil boring location

(5.60')

Groundwater elevation



Groundwater elevation contour

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

Well MW-1

Project Name: Lerer Bros. Trans.

Project Location: 6340 Christie Ave., Emeryville, CA

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Driller: Kvilhaug Drilling, Concord, CA

Type of Rig: Hollow-Stem Auger

Size of Drill: 8.0" Diameter

Logged By: Greg Schramm

Date Drilled: January 21, 1999

Checked By: Robert E. Kitay, R.G.

WATER AND WELL DATA

Total Depth of Well Completed: 17.7'

Depth of Water First Encountered: 5.7'

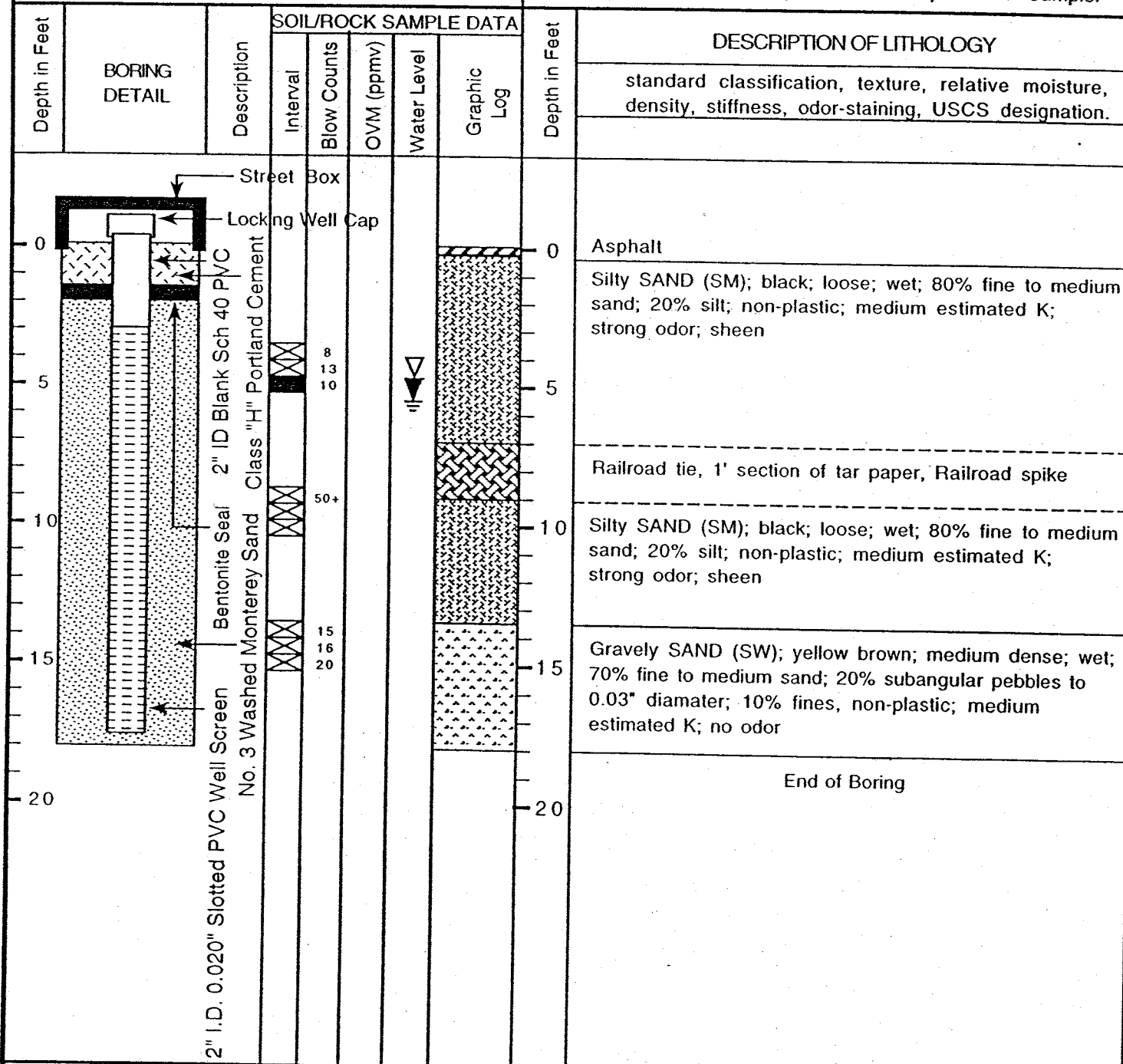
Well Screen Type and Diameter: 2" Diameter PVC Casing

Static Depth of Water in Well: 4.76'

Well Screen Slot Size: 0.020"

Total Depth of Boring: 18.0'

Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel Sampler



SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

Well MW-2

Project Name: Lerer Bros. Trans.

Project Location: 6340 Christie Ave., Emeryville, CA

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Driller: Kvilhaug Drilling, Concord, CA

Type of Rig: Hollow-Stem Auger

Size of Drill: 8.0" Diameter

Logged By: Greg Schramm

Date Drilled: January 21, 1999

Checked By: Robert E. Kitay, R.G.

WATER AND WELL DATA

Depth of Water First Encountered: 6.50'

Total Depth of Well Completed: 17.7'

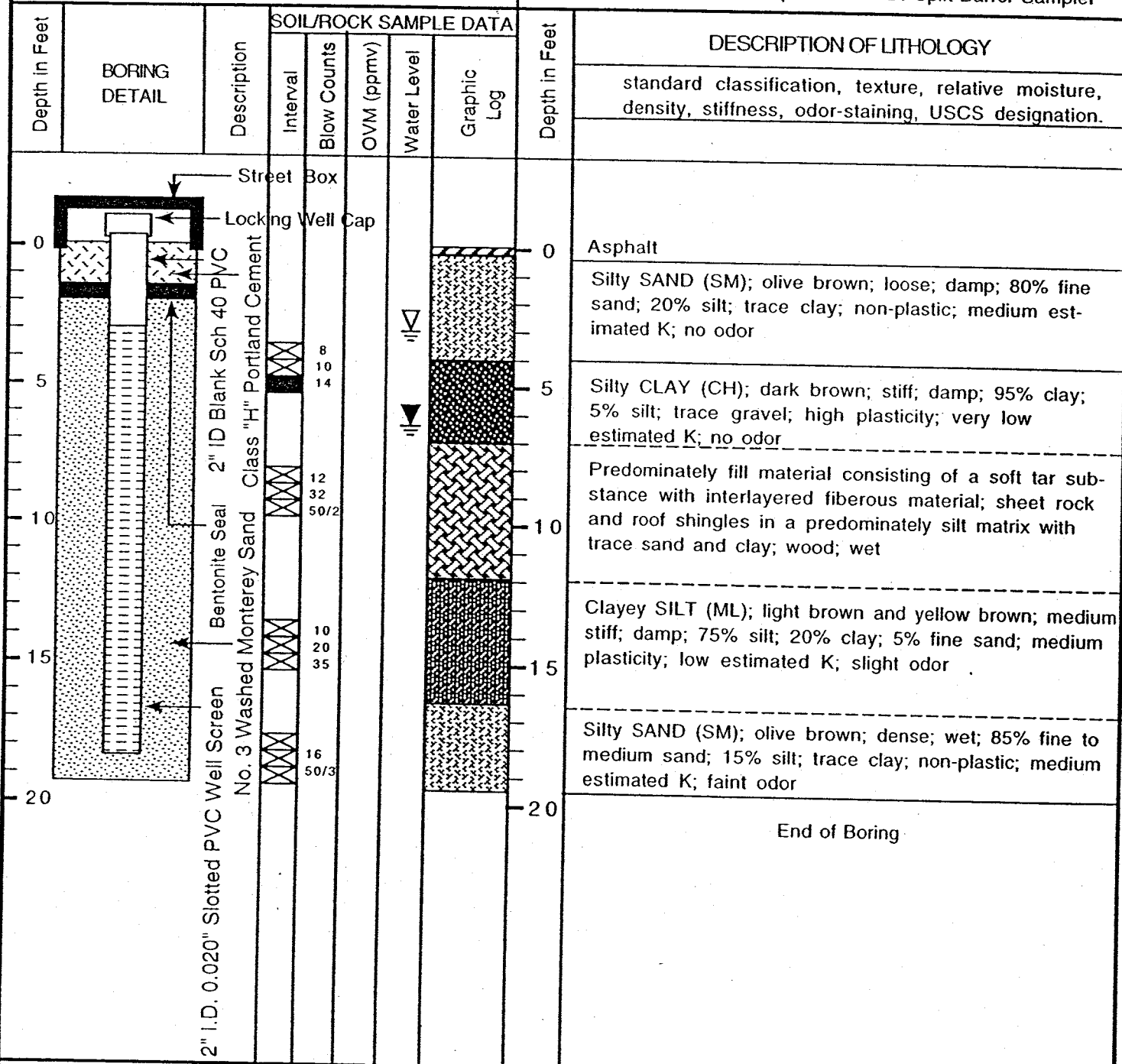
Well Screen Type and Diameter: 2" Diameter PVC Casing

Static Depth of Water in Well: 4.17'

Well Screen Slot Size: 0.020"

Total Depth of Boring: 19.5'

Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel Sampler



AQUA SCIENCE ENGINEERS, INC.

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

Well MW-3

Project Name: Lerer Bros. Trans.

Project Location: 6340 Christie Ave., Emeryville, CA

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Driller: Kvilhaug Drilling, Concord, CA

Type of Rig: Hollow-Stem Auger

Size of Drill: 8.0" Diameter

Logged By: Greg Schramm

Date Drilled: January 21, 1999

Checked By: Robert E. Kitay, R.G.

WATER AND WELL DATA

Depth of Water First Encountered: 3.75'

Total Depth of Well Completed: 15'

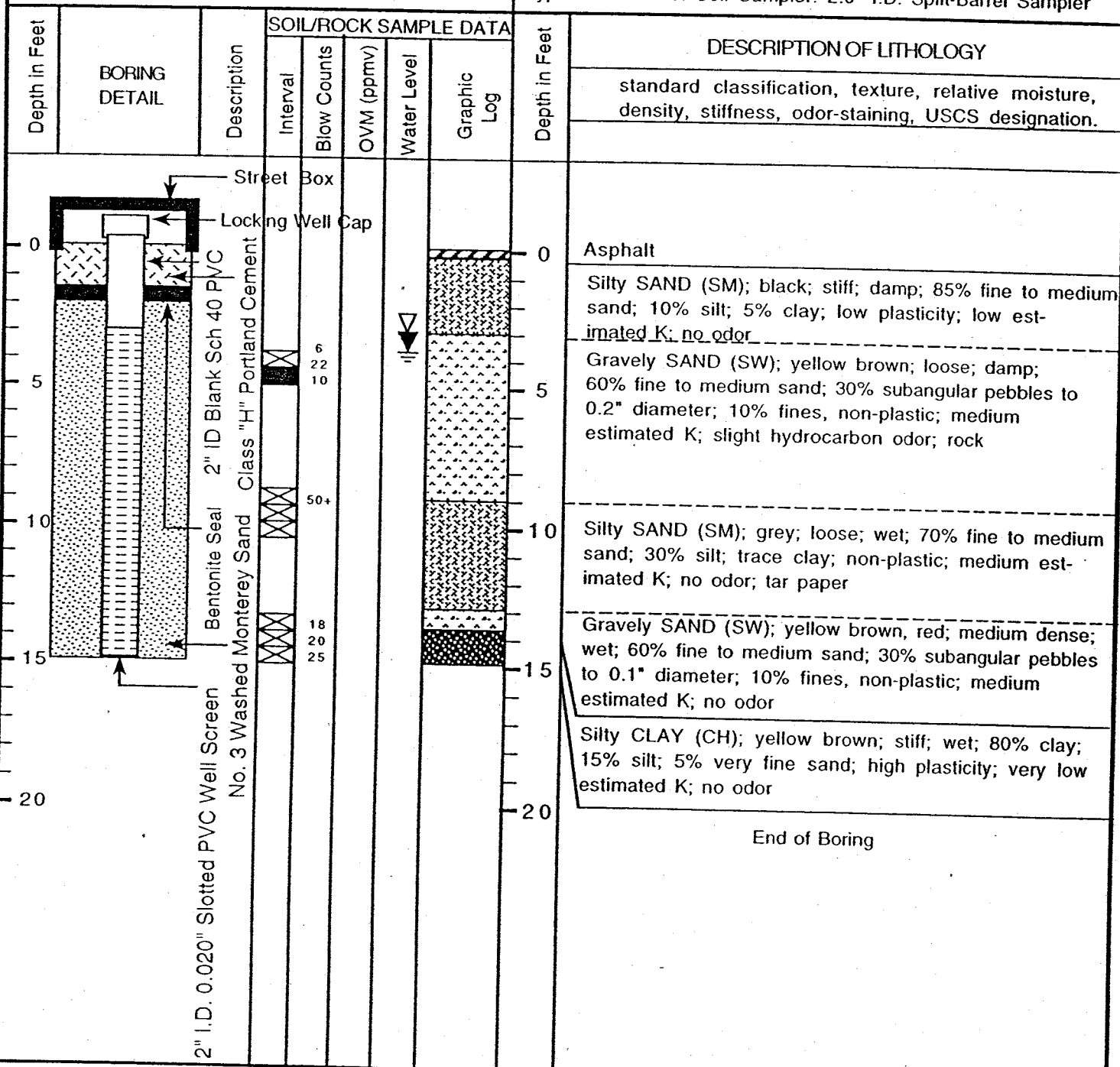
Well Screen Type and Diameter: 2" Diameter PVC Casing

Static Depth of Water in Well: 4.23'

Well Screen Slot Size: 0.020"

Total Depth of Boring: 15.0'

Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel Sampler



AQUA SCIENCE ENGINEERS, INC.

BORING LOG AND MONITORING WELL COMPLETION DETAILS

SOIL BORNG: BH-F

Project Name: Lerer Brothers

Project Location: 6340 Christie Avenue, Emeryville, CA

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Driller: Gregg Drilling

Type of Rig: Power Push

Size of Drill: 2" diameter macrocore

Logged By: Ian T. Reed

Date Drilled: October 22, 1999

Checked By: Robert E. Kitay, R.G.

WATER AND WELL DATA

Depth of Water First Encountered: 7.0'

Total Depth of Well Completed: NA

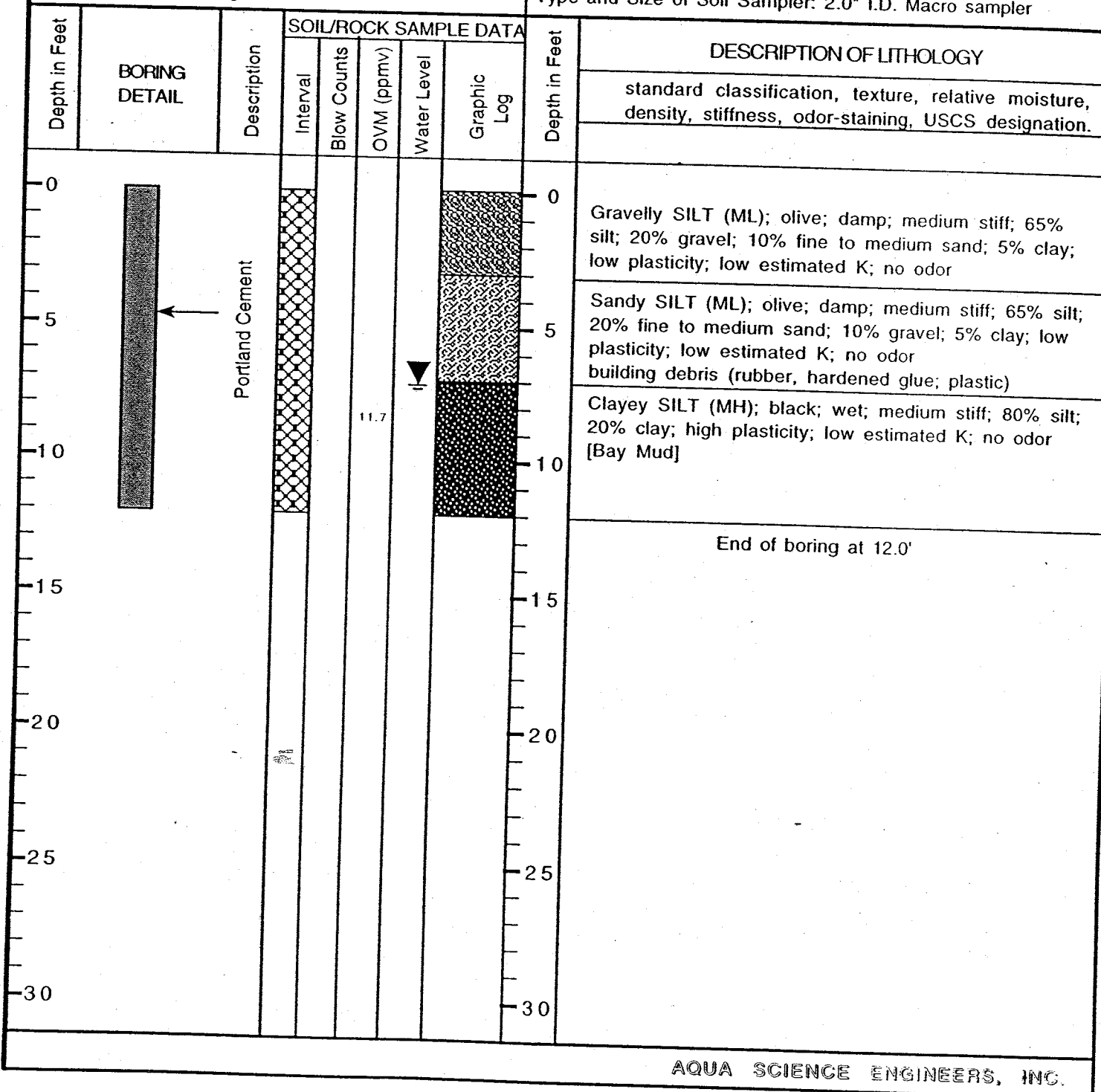
Well Screen Type and Diameter: NA

Static Depth of Water in Well: NA

Well Screen Slot Size: NA

Total Depth of Boring: 12.0'

Type and Size of Soil Sampler: 2.0" I.D. Macro sampler




AQUA SCIENCE ENGINEERS, INC.

BORING LOG AND MONITORING WELL COMPLETION DETAILS

SOIL BORNG: BH-G

Name: Lerer Brothers	Project Location: 6340 Christie Avenue, Emeryville, CA	Page 1 of 1
Driller: Gregg Drilling	Type of Rig: Power Push	Size of Drill: 2" Diameter Macrocore
Logged By: Ian T. Reed	Date Drilled: October 22, 1999	Checked By: Robert E. Kitay, R.G.

WATER AND WELL DATA	Total Depth of Well Completed: NA
Depth of Water First Encountered: 7.0'	Well Screen Type and Diameter: NA
Static Depth of Water in Well: NA	Well Screen Slot Size: NA
Total Depth of Boring: 12.0'	Type and Size of Soil Sampler: 2.0" I.D. Macro sampler

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA					Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Counts	OVM (ppmv)	Water Level	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
0		Portland Cement	0			0	0	Asphalt	
5			5			5	5	Gravelly SILT (ML); olive; damp; medium stiff; 65% silt; 20% gravel; 10% fine to medium sand; 5% clay; low plasticity; low estimated K; no odor	
10			10	10	10	10	10	Sandy SILT (ML); black; damp; medium stiff; 65% silt; 20% fine to medium sand; 10% gravel; 5% clay; low plasticity; low estimated K; no odor building debris (rubber, hardened glue; plastic)	
15								Clayey SILT (MH); black; wet; medium stiff; 80% silt; 20% clay; high plasticity; low estimated K; no odor [Bay Mud]	
20								End of boring at 12.0'	
25									
30									