



erSchy Environmental, Inc.

PO Box 229 ♦ Bass Lake, CA 93604-0229 ♦ Phone: 559-641-7320 ♦ Fax: 559-641-7340

June 18, 2008
Project A51-01

Mr. Paresh Khatri
Alameda County
Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Ste. 250
Alameda, California 94502-6577

Re: **Addendum to Site Conceptual Model**
Alaska Gasoline Company
6211 San Pablo Avenue
Oakland, California
Case #RO0000127

RECEIVED

2:49 pm, Jun 19, 2008

Alameda County
Environmental Health

Dear Mr. Khatri:

HerSchy Environmental, Inc. (HerSchy), on behalf of Mr. Pritpaul Sappal of the Alaska Gasoline Company, has prepared this *Addendum to Site Conceptual Model* for the site referenced above. The site is located at 6211 San Pablo Avenue, which is on the northwest corner of San Pablo Avenue and 62nd Street in Oakland, Alameda County, California. The original *Site Conceptual Model* (SCM) was prepared in response to Alameda County Environmental Health Services (ACEHS) correspondence dated March 28, 2008. The SCM was submitted to ACEHS on May 27, 2008. Due to shipping errors and the associated delays, the SCM was submitted without inclusion of the DWR report. The complete DWR ¼-Mile Well Survey Report is included as Attachment A.

Upon review of the DWR well survey report, it does not appear that any significant changes or updates to the submitted SCM (aside from basic inclusion) appear warranted.



HerSchy Environmental, Inc.
June 18, 2008

Alaska Gas
Oakland, CA

We appreciate the opportunity to work with you on this matter. Please contact Reijo Ratilainen (559) 760-0037 or Scott Jackson (559) 641-7320 with any questions or for additional information.

Sincerely,

HerSchy Environmental, Inc.

Reijo Ratilainen
Project Geologist

Scott Jackson
Professional Geologist #7948



Attachments

1 – Site Conceptual Model (SCM) “Appendix C – DWR ¼ Mile Well Survey Report”

cc: Mr. Pritpaul Sappal
Mr. Hernan Gomez, Oakland Fire Services Agency
Ms. Alyce Sandbach, Deputy District Attorney

APPENDIX C

DWR ¼ Mile Well Survey Report

Ads by Yahoo!

Moving Services in Boulder, CO

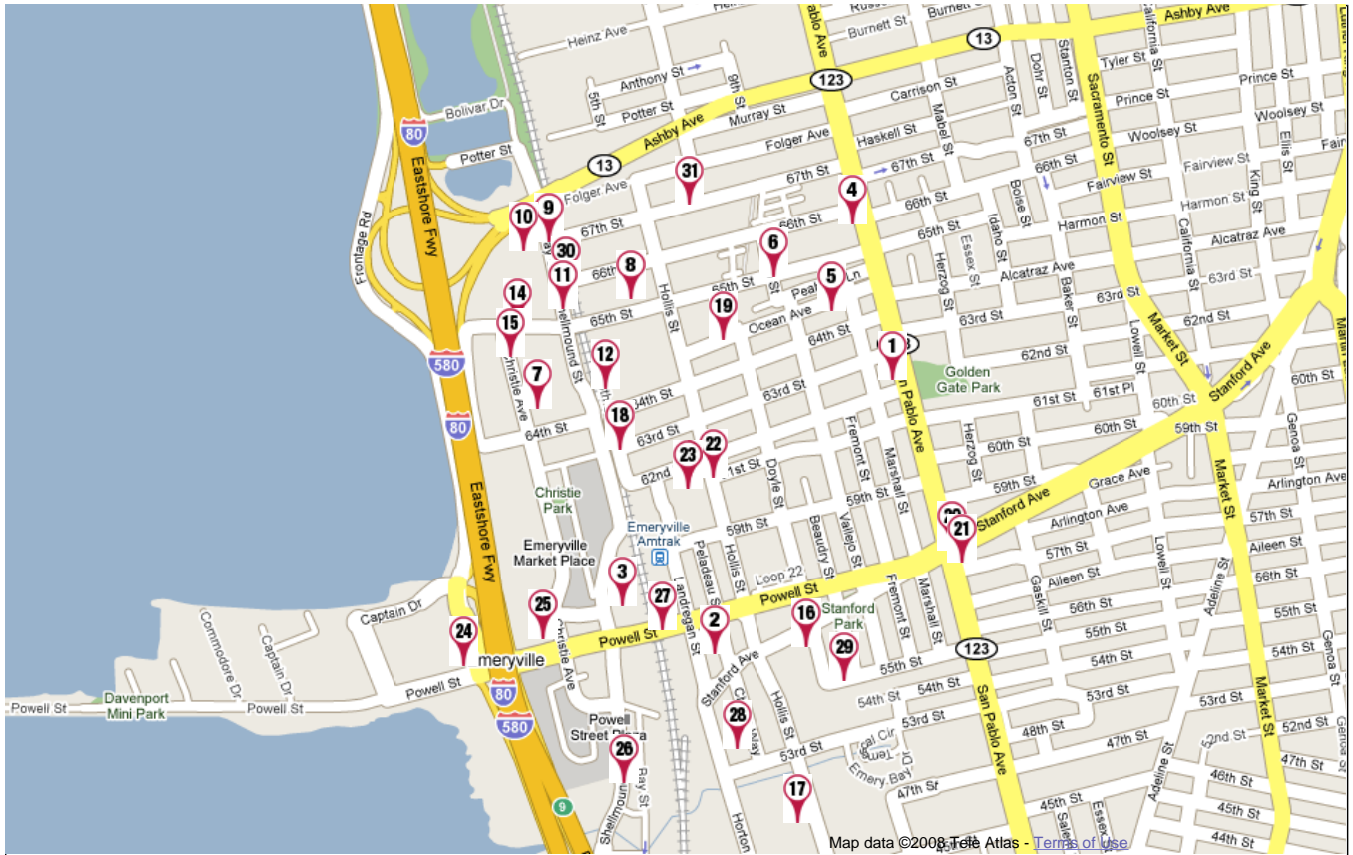
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6211 San Pablo Ave, emeryville, ca

5745 Peladeau Street Emeryville Ca

5800 Shellmound Street Emeryville CA

6549 San Pablo Ave. Oakland CA

1171 Ocean Avenue Oakland CA

1200 65th Street Oakland CA

1301 65th Street Emeryville CA

6529 Hollis Street Emeryville CA

67th & Bay St Emeryville CA

6707 Bay Street Emeryville CA

1650 Bay Street Emeryville CA

1600 64th Street Emeryville CA

1650 65th Street Emeryville CA

1650 65th Street Emeryville CA

6475 Christie Ave Emeryville CA

5521 Doyle Street Emeryville CA



	16
4525 Hollis Street Emeryville CA	17
63rd Street & Overland Ave Emeryville CA	18
1351 Ocean Ave Oakland CA	19
Stanford Ave & San Pablo Ave Emeryville CA	20
5714 San Pablo Ave Oakland CA	21
6000 Hollis Street Emeryville CA	22
6121 Hollis Street Emeryville CA	22
1800 Powell Street Emeryville CA	24
1700 Powell Street Emeryville CA	25
5600 Shellmound Street Emeryville CA	26
1520 Powell Street Emeryville CA	27
1400 53rd Street Emeryville CA	28
55th street and Horton street emeryville ca	29
69th & Vallejo Streets Emeryville CA	30
67th & Vallejo Streets Emeryville CA	31
1145 Park Avenue Emeryville CA	32
13 California st emeryville ca	33

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

DRIEL RIG: Mobile B-42

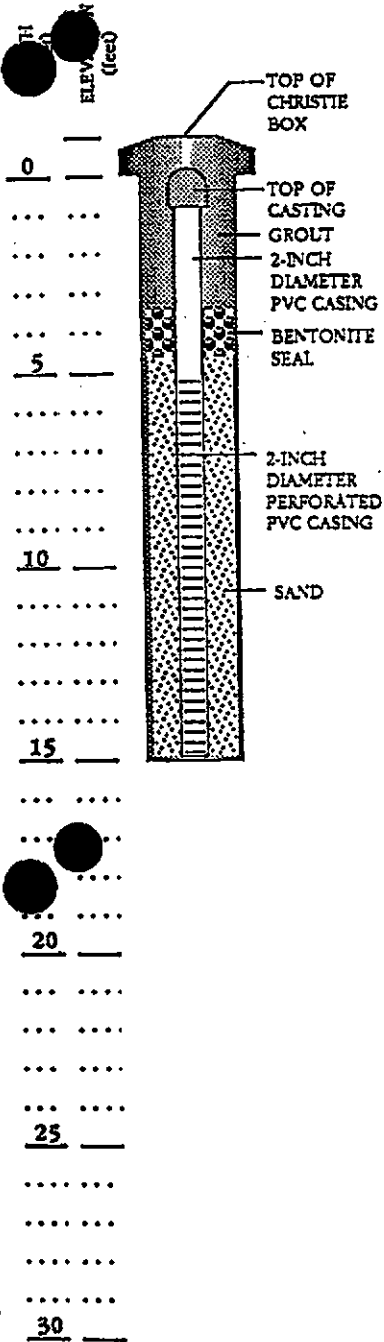
372215
SURFACE ELEVATION: 11.0 feet

01304W15P
LOGGED BY: TR

DEPTH TO GROUNDWATER: 7.5 feet
(From Surface Elevation)

BORING DIAMETER: 8 inches

DATE DRILLED: 2/18/93



DESCRIPTION	SYMBOL	CONSISTENCY	SOIL TYPE	LEGEND	DEPTH (feet)	SAMPLER	WATER CONTENT (%)	PENETRATION RESISTANCE (BLOWS/FT.)	ORGANIC VAPORS (ppm)
1 inch asphaltic concrete over 3 inches rockbase					0				
Black silty sand, strong petroleum odor, moist ↑ FILL			SM		0 - 4			>1,000	
Light brown silty clay, minor sand and gravel, wet		Hard	CL		4 - 5		100	2.0	
Silty sand with gravel, well-graded sand, fine grave, saturated		Very dense	SM		5 - 10		64	<1.0	
Brown sandy silty, fine sand, trace medium coarse sand, wet		Very stiff	ML		10 - 15		27	<1.0	
Bottom of Well = 15.0 feet					15				
					20				
					25				
					30				

NOTE: The stratification lines represent the approximate boundary between the soil types. The transition may be gradual.

617-21. 3/12 SP'EB

MONITORING WELL LOG - MW-1

5745 PELADEAU STREET
Emeryville, California

LOVNEY ASSOCIATES
Environmental/Geo'technical/Engineering Services

MW-1
517-21. March 1993

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

372217

015042158

DRILL RIG: Mobile B-42

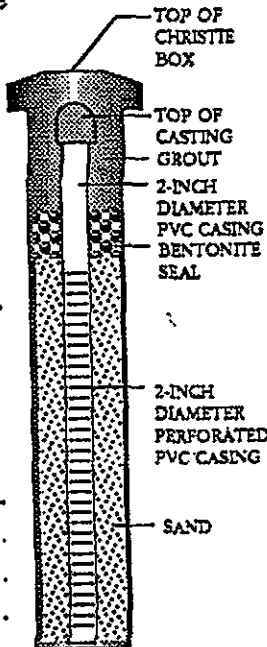
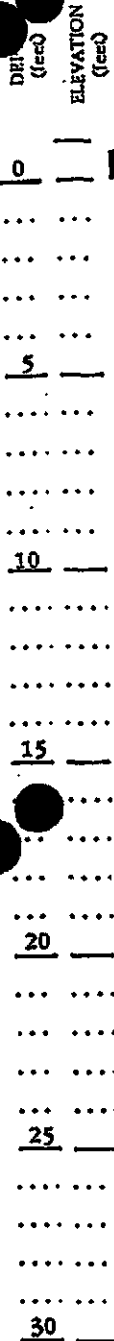
SURFACE ELEVATION: 11.0 feet

LOGGED BY: TR

DEPTH TO GROUNDWATER: 5.0 feet
(From Surface Elevation)

BORING DIAMETER: 8 inches

DATE DRILLED: 2/18/93



DESCRIPTION	SYMBOL	CONSISTENCY	SOIL TYPE	LEGEND	DEPTH (feet)	SAMPLER	WATER CONTENT (%)	PENETRATION RESISTANCE (BLOWS/FT.)	ORGANIC VAPORS (ppm)
2 inch asphaltic concrete over 6 inches rockbase									
Black and green mottled silty clay, wet, strong petroleum odor		Stiff	CL	[Diagonal Hatching]					
Free product at 4.0 feet, saturated at 5.0 feet					5	[Shaded]	12	200	
	↑ FILL								
Brown and gray mottled clayey silt, moist		Hard	ML	[Vertical Lines]					
					10	[Shaded]	50	<1.0	
Minor sand and gravel at 13.0 feet									
					13	[Shaded]	54	3.0	
Bottom of Well = 14.0 feet					15				
					20				
					25				
					30				

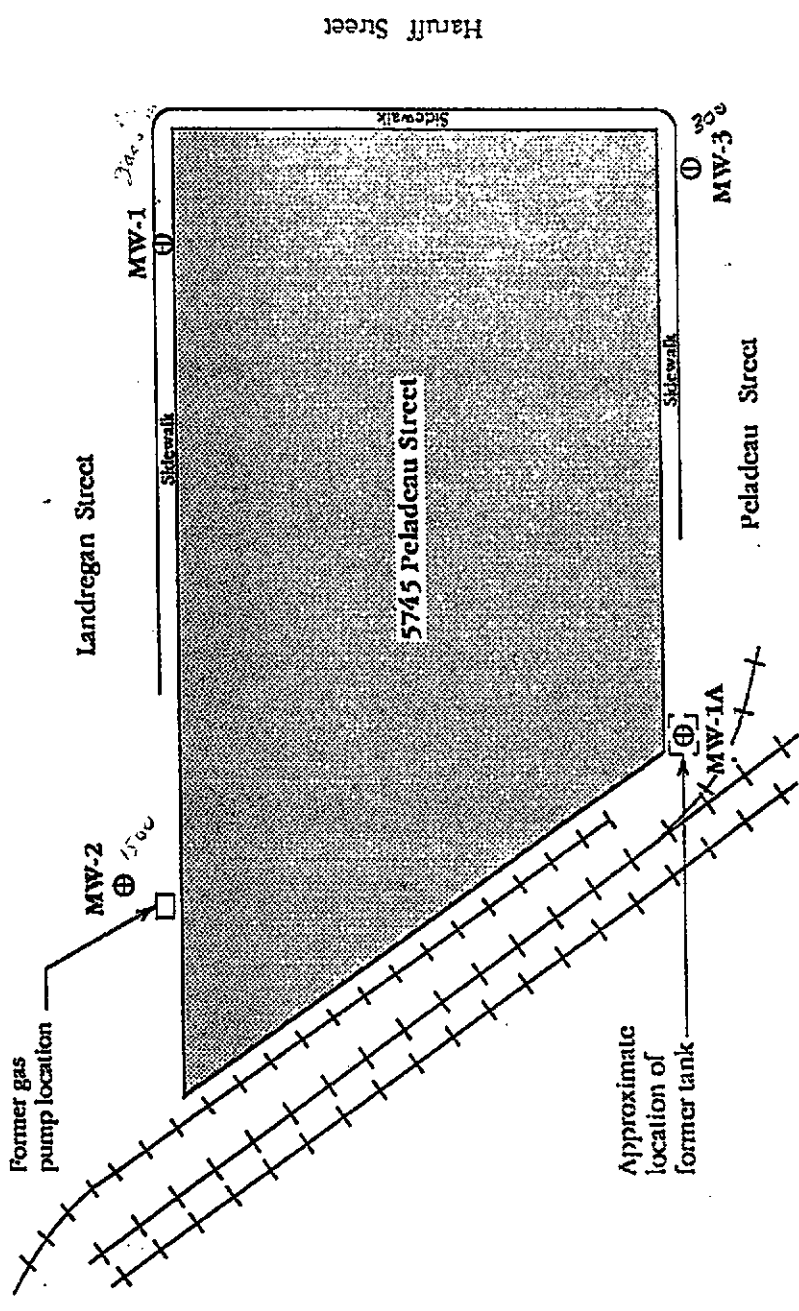
NOTE: The stratification lines represent the approximate boundary between the soil types. The transition may be gradual.

517-21, 3/12 SF'EB

MONITORING WELL LOG - MW-2

5745 PELADEAU STREET
Emeryville, California

N



Approximate Direction of Ground Water Flow



LEGEND

⊕ - Approximate location of monitoring well

Disc by VanBukklein-Cole Co., dated 1960.

517-21, 3/12 SF'EB

SITE PLAN

5745 PELADEAU STREET
Emeryville, California

LOWNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 2
517-21, March 1993

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

372216

01504W15P

DRILL RIG: Mobile B-42

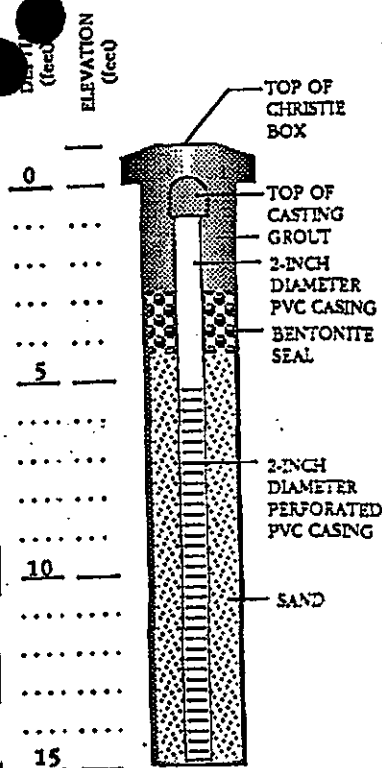
SURFACE ELEVATION: 11.0 feet

LOGGED BY: TR

DEPTH TO GROUNDWATER: 11.0 feet
(From Surface Elevation)

BORING DIAMETER: 8 inches

DATE DRILLED: 2/18/93



DESCRIPTION	SYMBOL	CONSISTENCY	SOIL TYPE	LEGEND	DEPTH (feet)	SAMPLER	WATER CONTENT (%)	PENETRATION RESISTANCE (BLOWS/FT.)	ORGANIC VAPORS (ppm)
2 inch asphaltic concrete over 6 inches rockbase									
Black silty sand, trace fine gravel, moist			SM						
↑ FILL									
Light brown silty clay, minor gravel and sand, medium plasticity, moist		Hard	CL		5			76	
Brown clayey silt, minor gravel and sand, low plasticity, wet		Hard	ML		10			53	
Saturated rootlet veins		Very stiff			15			29	
Bottom of Well = 15.0 feet									
					20				
					25				
					30				

NOTE: The stratification lines represent the approximate boundary between the soil types. The transition may be gradual.

517-21, 3/12 SF*EB

MONITORING WELL LOG - MW-3


5745 PELADEAU STREET
Emeryville, California

CONFIDENTIAL











STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

762156

PROJECT ▷ ANOTHER TREE		PROJECT NUMBER ▷ A901749A
LOGGED BY ▷ JOSEPH MELLO		START DATE ▷ 31 July 1991
CHECKED BY ▷ FRED R. CONWELL <i>[Signature]</i>		COMPLETION DATE ▷ 31 July 1991
GROUND SURFACE ELEVATION DATUM (FT-MSL) ▷ 8.2		DRILLING COMPANY ▷ SPECTRUM EXPLORATION
DRILLING EQUIPMENT ▷ ACKER DRILLING CO. AD-2		
BORING DEPTH (FT) ▷ 11.5	WELL DEPTH (FT) ▷ 11.5	WATER DEPTH (FT)-Initial: 4.5 Completion: 5.2
WELL MATERIALS ▷ No. 3 MONTEREY SAND		WELL SCREEN INTERVAL (FT) ▷ 4.0 TO 9.0
WELL CASING ELEVATION (FT-MSL) ▷ 7.95		OVM/OVA ▷ Hnu with 10.2 eV PROBE

BACKFILL MATERIAL ▷ CEMENT-BENTONITE GROUT

DEPTH (FT)	LITHOLOGY		WELL	BLOW COUNT	OVM/OVA (PPM)	SAMPLE		COMMENTS
	DESCRIPTION	GRAPHIC				RECOVERY %	TYPE	
0	Asphalt							
0-5	Light brown (5 YR 5/6), slightly damp, stiff SILT (ML) Becomes mottled light brown (5 YR 5/6) and dusky yellow (5 Y 6/4), moist, Clayey SILT with some coarse sands at 2 feet			9	<1	65	ATD7-1	Some organic matter, some oxidation (fill material!)
5	Bluish black (5 B 3/1), saturated, very soft, Silty CLAY (CL)			2	<1	75	ATD7-2	Water initially encountered at 4.5 feet Bay mud at 5 feet
5-10	Mottled light brown (5 YR 5/6) and bluish black (5 B 3/1), saturated, stiff CLAY (CH)			4	<1	70	ATD7-3	Hnu <1 part per million downhole at 5 feet
10-11.5	Boring terminated at 11.5 feet			12	<1	70	ATD7-4	Some debris observed in the bay mud. Bay mud used for fill Terminated boring approximately 7 feet below the initial encounter of water

BORING DESIGNATION
ATD7

BORING LOG

PAGE NUMBER
1 OF 1

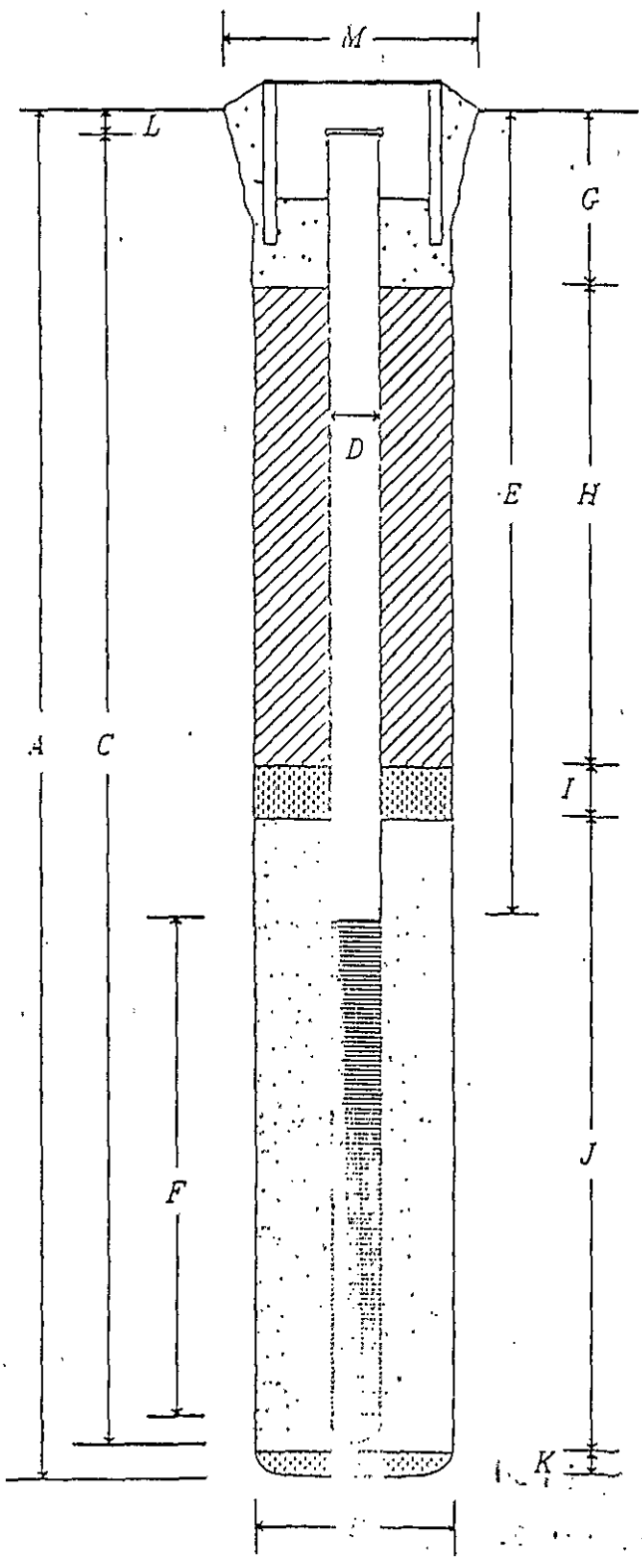
FIGURE NUMBER

762156

SINGLE COMPLETION WELL DETAILS

PROJECT NUMBER: A901749A
 PROJECT NAME: MARKETPLACE II
 COUNTY: ALAMEDA
 WELL PERMIT NO.: _____

BORING/WELL NO.: ATD7
 TOP OF CASING ELEV.: 7.95
 GROUND SURFACE ELEV.: 8.17
 DATUM: MEAN SEA LEVEL



EXPLORATION BORING

- A. Total Depth 11.5 ft
- B. Boring Diameter 10 in
- Drilling Method HOLLOW-STEM AUGER

WELL CONSTRUCTION

- C. Casing Length 9.5 ft
- Material SCHEDULE 40 PVC
- D. Diameter 4 in
- E. Depth to Top of Perforations 4.0 ft
- F. Perforated Length 5.0 ft
- Perforated Interval from 4.0 to 9.0 ft
- Perforation Type MACHINE SLOT
- Perforation Size 0.020 INCH
- G. Surface Seal 1.0 ft
- Seal Material CONCRETE
- H. Backfill 2.0 ft
- Backfill Material CEMENT-BENTONITE
- I. Seal 0.5 ft
- Seal Material BENTONITE PELLETS
- J. Gravel Pack 8.0 ft
- Material NO 3 LONESTAR SAND
- K. Bottom Seal 0 ft
- Material NONE
- L. Top of Casing Depth 0 in
- M. Protective Cover Diameter 12.25 in



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WELL COMPLETION REPORT
(WELL LOGS)

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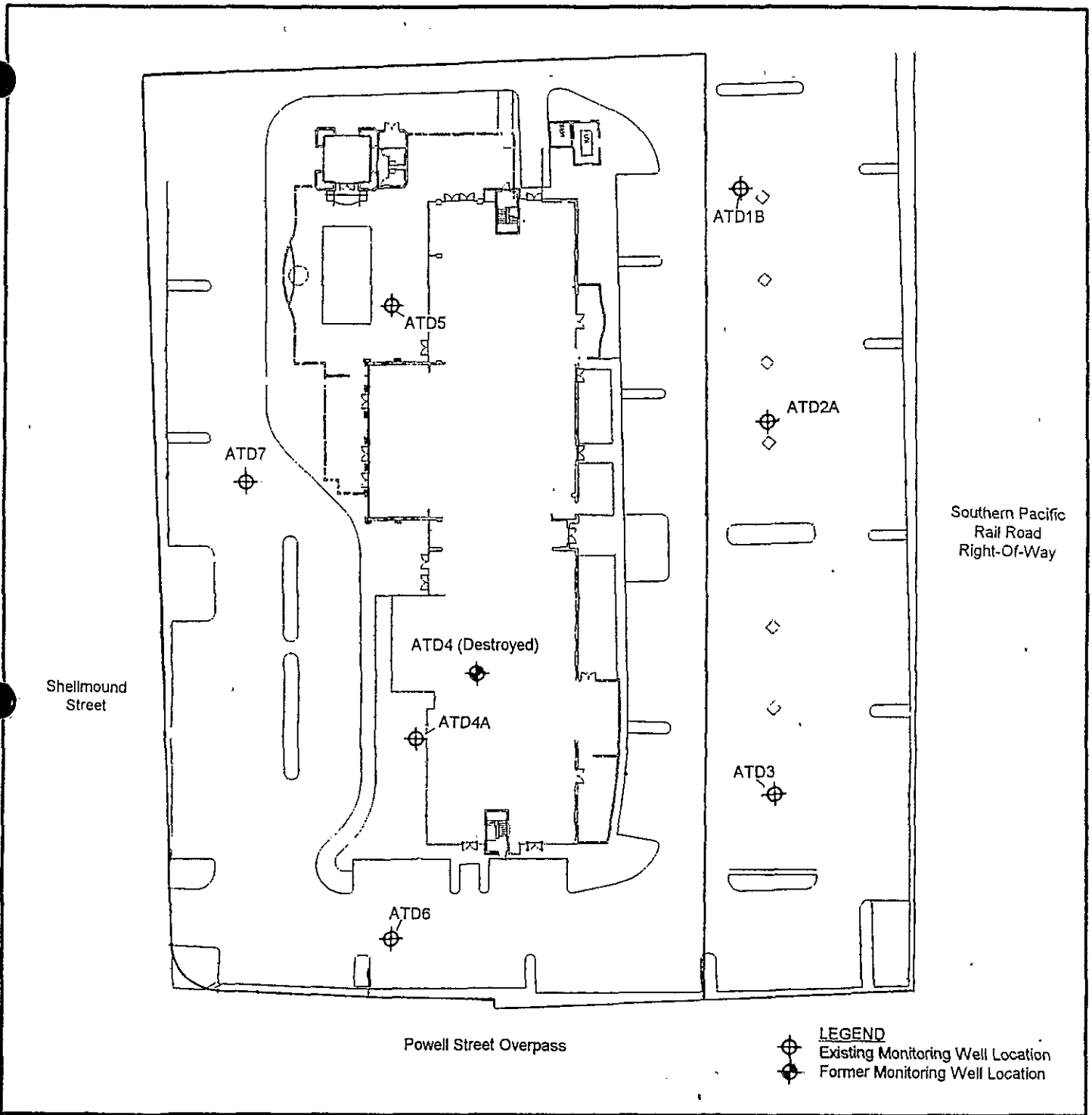
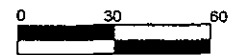


FIGURE 2
SITE PLAN
Hardage Construction Corporation Site
5800 Shellmound Street
Emeryville, California

Source:
Santina & Thompson, Inc.
Woodfin Suite Hotel
Monitoring Well Location and Elevation Map
March, 1999

RGA Environmental, Inc.
4701 Doyle Street, Suite 14
Emeryville, California 94608




SCALE IN FEET











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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

762155

PROJECT ▷ ANOTHER TREE	 APPLIED GEOSCIENCES INC.	PROJECT NUMBER ▷ A901749A
LOGGED BY ▷ JOSEPH MELLO		START DATE ▷ 31 July 1991
CHECKED BY ▷ FRED R. CONWELL <i>FRC</i>		COMPLETION DATE ▷ 31 July 1991
GROUND SURFACE ELEVATION DATUM (FT-MSL) ▷ 8.3		DRILLING COMPANY ▷ SPECTRUM EXPLORATION
DRILLING EQUIPMENT ▷ ACKER DRILLING CO. AD-2		
BORING DEPTH (FT) ▷ 11.5	WELL DEPTH (FT) ▷ 11.5	WATER DEPTH (FT)-Initial: 5.0 Completion: 5.4
WELL MATERIALS ▷ No. 3 MONTEREY SAND		WELL SCREEN INTERVAL (FT) ▷ 4.0 TO 9.0
WELL CASING ELEVATION (FT-MSL) ▷ 7.87		OVM/OVA ▷ Hnu with 10.2 eV PROBE
BACKFILL MATERIAL ▷ CEMENT-BENTONITE GROUT		

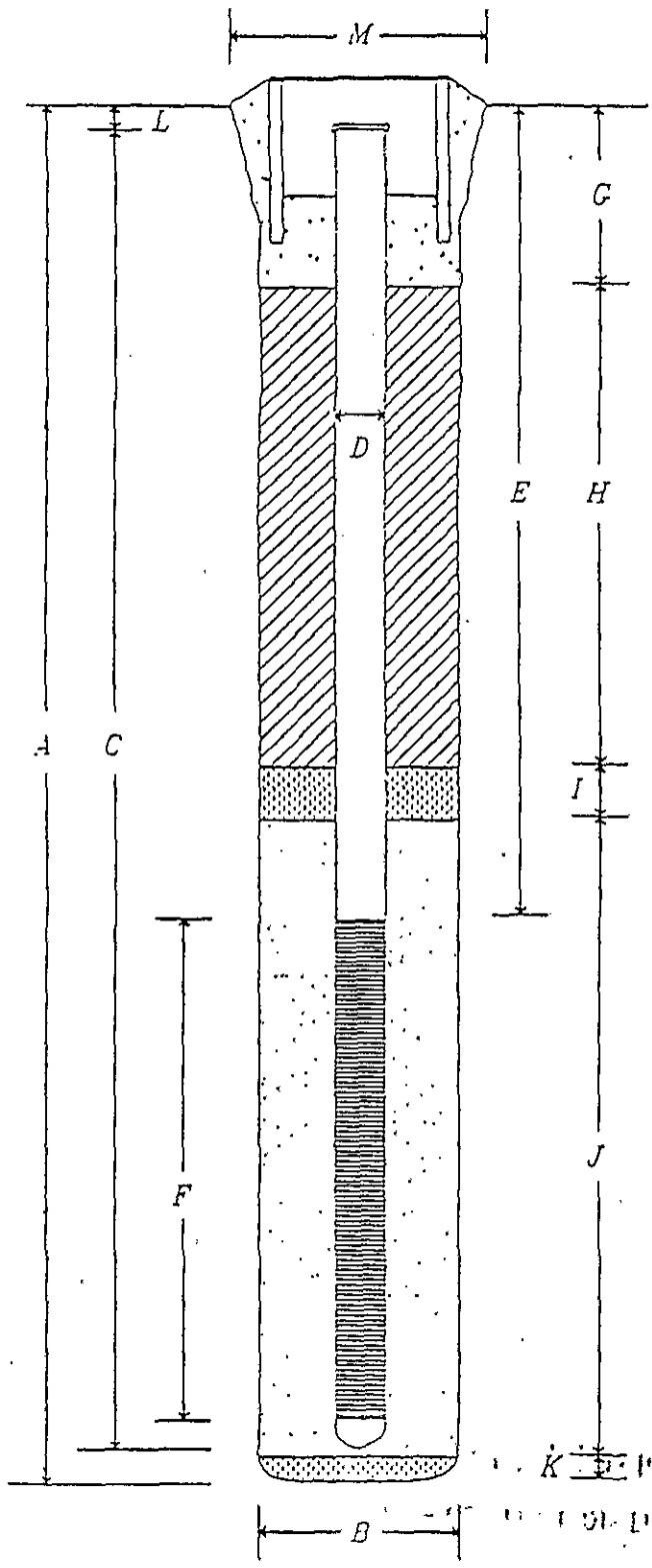
DEPTH (FT)	LITHOLOGY DESCRIPTION	GRAPHIC	WELL	BLOW COUNT	OVM/OVA (PPM)	SAMPLE		COMMENTS
						RECOVERY %	TYPE NUMBER	
0	Asphalt							
2.5	Grayish black (N2), damp, stiff, Clayey SILT (ML) with trace fine sand			11	78	75	ATD6-1	Diesel odor noted in the sample obtained at 2.5 feet
5	Mottled grayish blue (5 PB 5/2) and light brown (5 YR 5/6), saturated, firm, CLAY (CH)			7	94	70	ATD6-2	Analyze a sample from this boring for VOCs Hnu = 28 parts per million downhole at 5 feet
7.5	Moderate yellowish brown (10 YR 5/4), saturated, medium dense, Silty fine Sandy GRAVEL (GM) with minor clay			25	9	70	ATD6-3	Gasoline odor noted in the sample obtained at 7.5 feet
11.5	Boring terminated at 11.5 feet			27	1	85	ATD6-4	Terminated boring approximately 6.5 below the initial encounter of water

762155

SINGLE COMPLETION WELL DETAILS

PROJECT NUMBER: A901749A
 PROJECT NAME: MARKETPLACE II
 COUNTY: ALAMEDA
 WELL PERMIT NO.: _____

BORING/WELL NO.: ATD6
 TOP OF CASING ELEV.: 7.87
 GROUND SURFACE ELEV.: 3.28
 DATUM: MEAN SEA LEVEL



EXPLORATION BORING

- A. Total Depth 11.5 ft.
- B. Boring Diameter 10 in.
- Drilling Method HOLLOW-STEM AUGER

WELL CONSTRUCTION

- C. Casing Length 9.5 ft.
Material SCHEDULE 40 PVC
- D. Diameter 4 in.
- E. Depth to Top of Perforations 4.0 ft.
- F. Perforated Length 5.0 ft.
Perforated Interval from 4.0 to 9.0 ft.
Perforation Type MACHINE SLOT
Perforation Size 0.020 INCH
- G. Surface Seal 1.0 ft.
Seal Material CONCRETE
- H. Backfill 2.0 ft.
Backfill Material CEMENT-BENTONITE
- I. Seal 0.5 ft.
Seal Material BENTONITE PELLETS
- J. Gravel Pack 8.0 ft.
Material NO. 3 LONESTAR SAND
- K. Bottom Seal 0 ft.
Material NONE
- L. Top of Casing Depth 0 in.
- M. Protective Cover Diameter 12.25 in.



762155

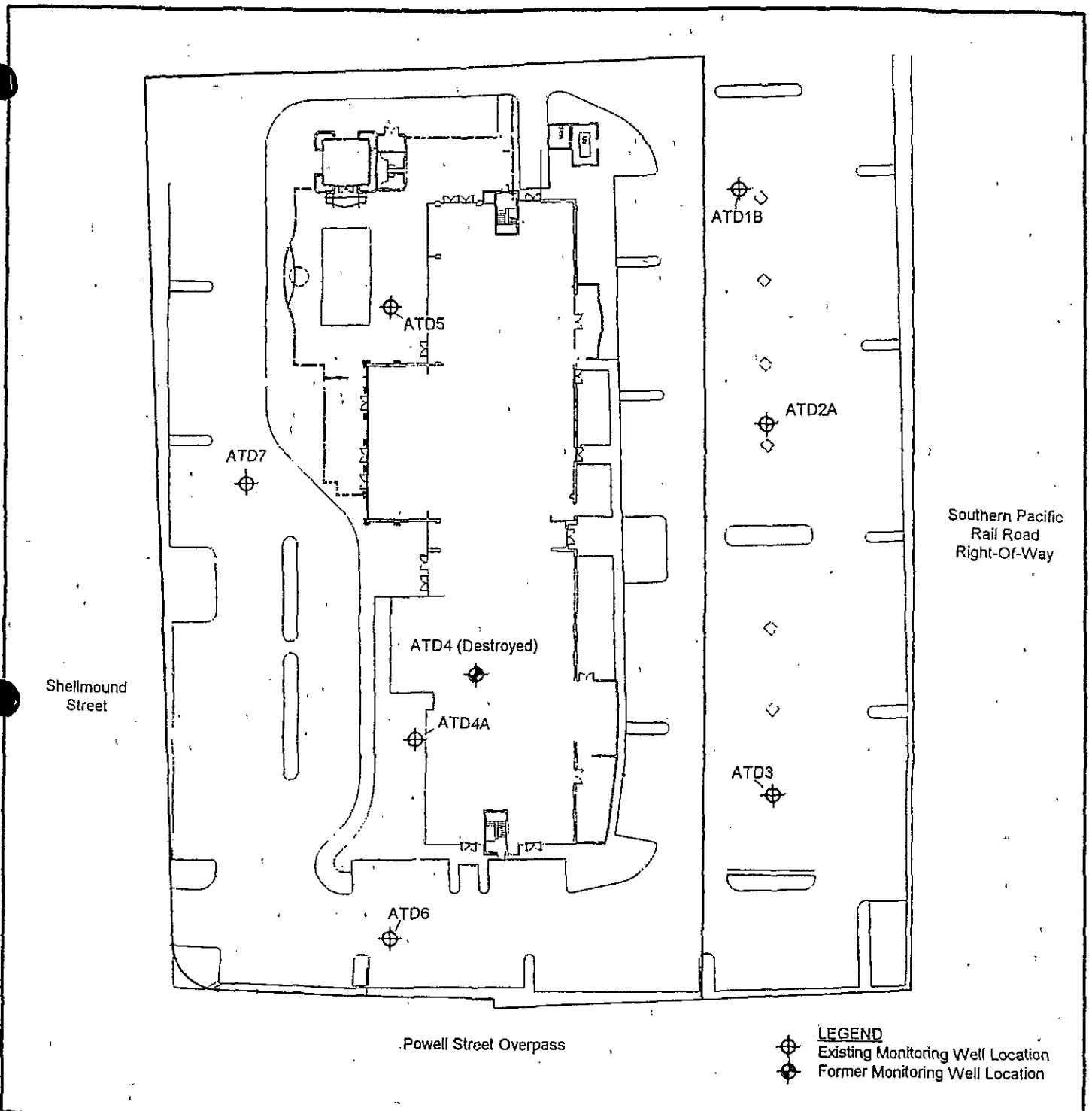
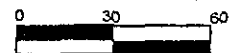


FIGURE 2
SITE PLAN
 Hardage Construction Corporation Site
 5800 Shellmound Street
 Emeryville, California



Source:
 Sarina & Thompson, Inc.
 Woodfin Suite Hotel
 Monitoring Well Location and Elevation Map
 March, 1999

RGA Environmental, Inc.
 4701 Doyle Street, Suite 14
 Emeryville, California 94608




SCALE IN FEET

CONFIDENTIAL









STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

762154

PROJECT ▷ ANOTHER TREE	 APPLIED GEOSCIENCES INC.	PROJECT NUMBER ▷ A901749A
LOGGED BY ▷ JOSEPH MELLO		START DATE ▷ 31 July 1991
CHECKED BY ▷ FRED R. CONWELL <i>FRC</i>		COMPLETION DATE ▷ 31 July 1991
GROUND SURFACE ELEVATION DATUM (FT-MSL) ▷ 7.9		DRILLING COMPANY ▷ SPECTRUM EXPLORATION
DRILLING EQUIPMENT ▷ ACKER DRILLING CO. AD-2		
BORING DEPTH (FT) ▷ 11.5	WELL DEPTH (FT) ▷ 11.5	WATER DEPTH (FT)-Initial: 5.0 Completion: 4.0
WELL MATERIALS ▷ No. 3 MONTEREY SAND		WELL SCREEN INTERVAL (FT) ▷ 4.0 TO 9.0
WELL CASING ELEVATION (FT-MSL) ▷ 7.56		OVM/OVA ▷ Hnu with 10.2 eV PROBE

BACKFILL MATERIAL ▷ CEMENT-BENTONITE GROUT

DEPTH (FT)	LITHOLOGY DESCRIPTION	GRAPHIC	WELL	BLOW COUNT	OVM/OVA (PPM)	SAMPLE		COMMENTS
						RECOVERY %	TYPE NUMBER	
0	Asphalt							
2.5	Light brown (5 Y 5/6), dry, very stiff, Sandy Clayey SILT (ML) with some fine gravels			17	-	40	ATD5-1	Hnu sample not obtained at 2.5 or 5 feet
5	Becomes black (N1) and saturated at 5 feet Black (N1), saturated, stiff, very fine Sandy SILT (ML) with some shell fragments			100	-	15	ATD5-2	Hnu < 1 part per million downhole at 5 feet Unable to obtain a sample at 5 feet
8.5	Mottled light olive brown (5 Y 5/6), light brown (5 YR 5/6), and light olive (10 Y 5/4), saturated, dense, Clayey Silty Sandy GRAVEL (GM)			12	< 1	95	ATD5-3	Slight odor (petroleum hydrocarbons?) Some shell fragments in the sample at 8.5 feet
11.5	Boring terminated at 11.5 feet .			30	< 1	65	ATD5-4	Terminated boring approximately 6.5 feet below the initial encounter of water

BORING DESIGNATION
ATD5

BORING LOG

PAGE NUMBER
1 OF 1

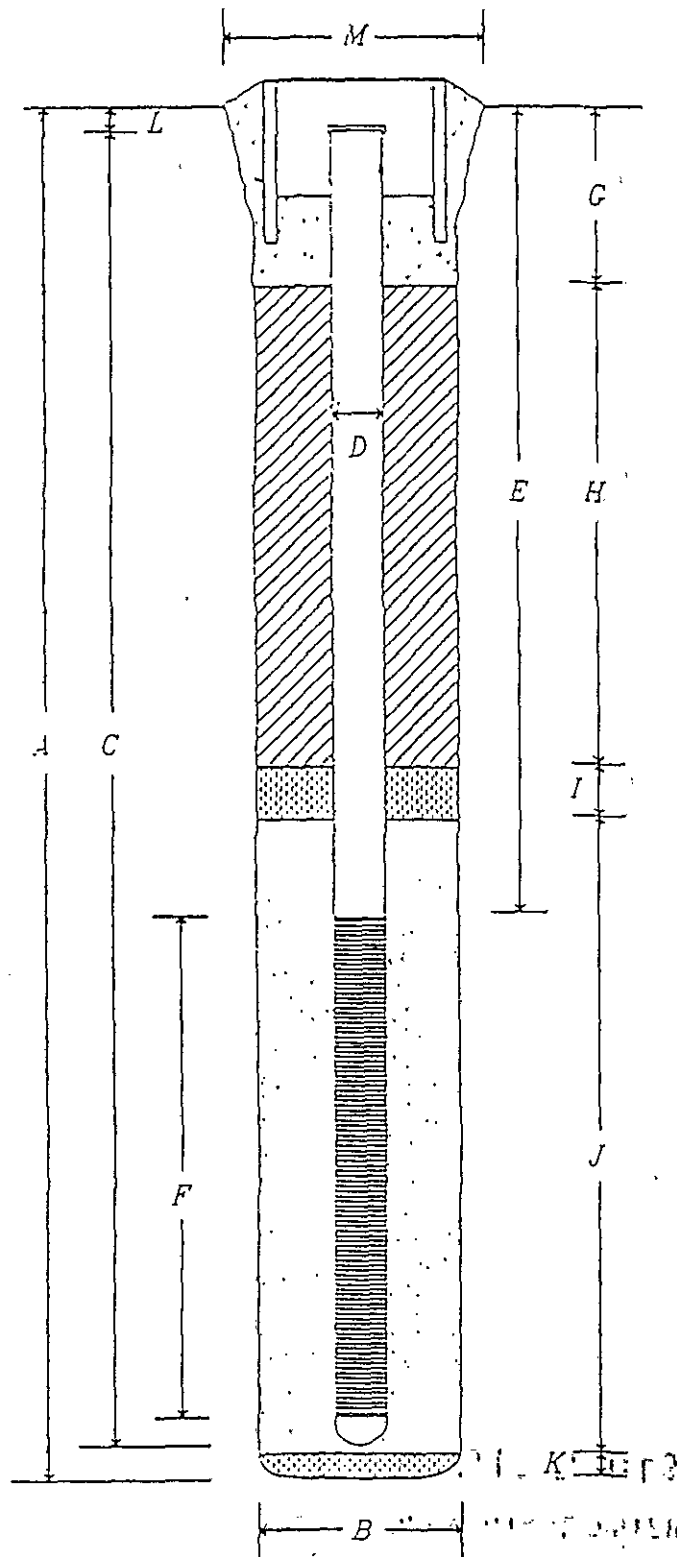
FIGURE NUMBER

762154

SINGLE COMPLETION WELL DETAILS

PROJECT NUMBER: A901749A
 PROJECT NAME: MARKETPLACE II
 COUNTY: ALAMEDA
 WELL PERMIT NO.: _____

BORING/WELL NO.: ATDS
 TOP OF CASING ELEV.: 7.56
 GROUND SURFACE ELEV.: 7.89
 DATUM: MEAN SEA LEVEL



EXPLORATION BORING

A. Total Depth 11.5 ft.
 B. Boring Diameter 1.0 in.
 Drilling Method HOLLOW-STEM AUGER

WELL CONSTRUCTION

C. Casing Length 9.5 ft.
 Material SCHEDULE 40 PVC
 D. Diameter 1 in.
 E. Depth to Top of Perforations 4.0 ft.
 F. Perforated Length 5 ft.
 Perforated Interval from 4.0 to 9.0 ft.
 Perforation Type MACHINE SLOT
 Perforation Size 0.020 INCH
 G. Surface Seal 1.0 ft.
 Seal Material CONCRETE
 H. Backfill 2.0 ft.
 Backfill Material CEMENT-BENTONITE
 I. Seal 0.5 ft.
 Seal Material BENTONITE PELLETS
 J. Gravel Pack 8.0 ft.
 Material NO.3 LONESTAR SAND
 K. Bottom Seal 0 ft.
 Material NONE
 L. Top of Casing Depth 0 in.
 M. Protective Cover Diameter 12.25 in.



762154

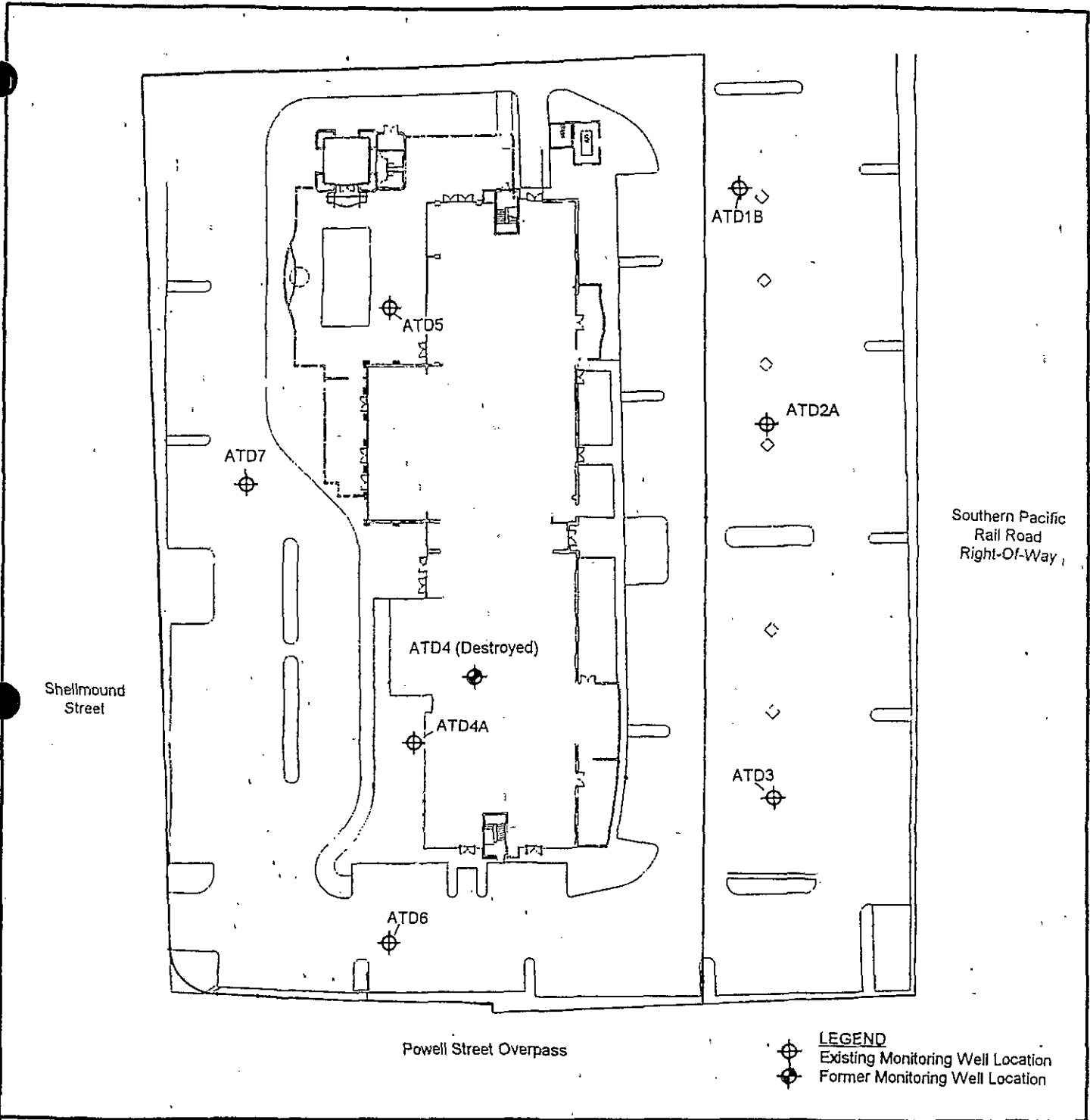


FIGURE 2
SITE PLAN
Hardage Construction Corporation Site
5800 Shellmound Street
Emeryville, California

STANDARD DRAWING

Source

Sarbina & Thompson, Inc.
Woodfin Suite Hotel
Monitoring Well Location and Elevation Map
March, 1999

RGA Environmental, Inc.
4701 Doyle Street, Suite 14
Emeryville, California 94608



SCALE IN FEET

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

BORING NO.: ATD4A		PROJECT NO.: HSHI4089		PROJECT NAME: HARDAGE CONSTRUCTION CORP.		
BORING LOCATION: CONSTRUCTION SITE			ELEVATION AND DATUM: TOP OF CASING = 8.45 FEET MEAN SEA LEVEL			
DRILLING AGENCY: Exploration Geoservices, Inc.		DRILLER: DAN & DANNY		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: MOBIL B56		10" OD HOLLOW STEM AUGER		3/4/99	3/4/99	
COMPLETION DEPTH: 10.0 FEET		BEDROCK DEPTH: NONE ENCOUNTERED		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: 6 FEET		NO. OF SAMPLES: 0		PHK		
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID/ppm	REMARKS
0	Gray Silty Sandy baserock, moist. No Petroleum Hydrocarbon (PHC) odor.	FILL	See Attached Diagram			
5	Gray block Silty Clay (CL); wood fragments, moist to saturated, stiff. No PHC odor.	CL	▽	10 6 6	0	Groundwater first encountered at 6 feet. Area immediately north of ATD4A was dewatered.
10				6 4 9	0	Borehole terminated at 10.0 feet. Borehole converted to groundwater monitoring well
15						
20						
25						
30						

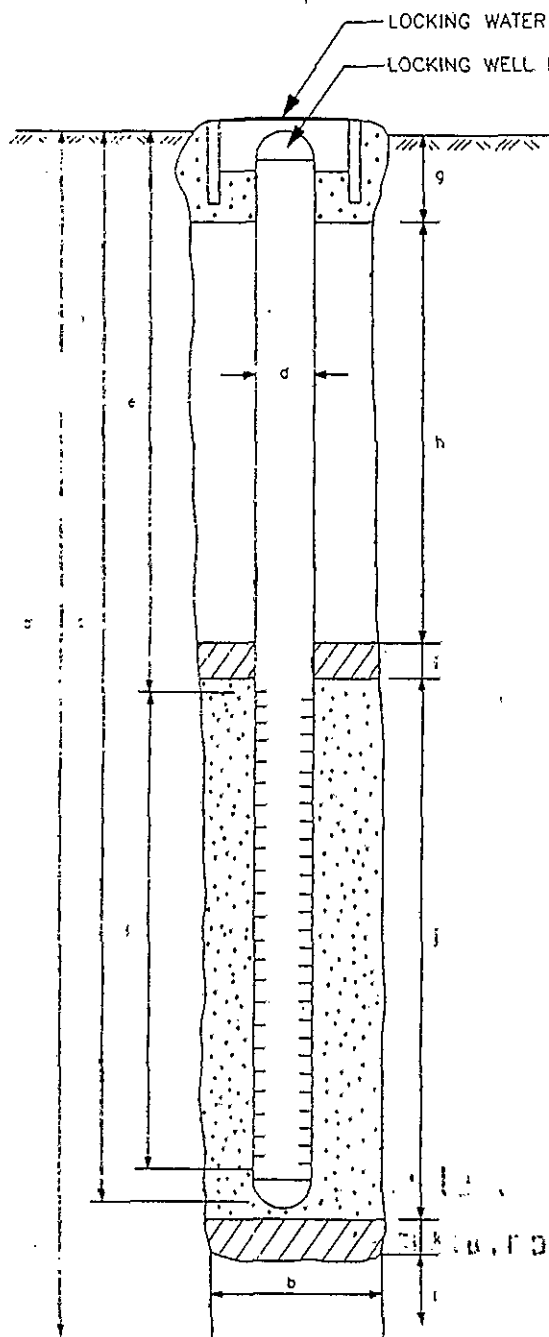
RGA ENVIRONMENTAL, INC.

762153

4701 Doyle Street, Suite 14
Emeryville, CA 94608
Telephone (510) 547-7771

WELL CONSTRUCTION DETAILS

PROJECT NUMBER HSH14089 BORING/WELL NO. ATD4A
 PROJECT NAME Hardoge Construction Corp. TOP OF CASING ELEV. 8.74 FEET
 COUNTY Alameda GROUND SURFACE ELEV. UNKNOWN
 WELL PERMIT NO. 98WR327 DATUM MEAN SEA LEVEL
 DATE INSTALLED 3/4/99



EXPLORATORY BORING

a. Total depth 10.0 FT.
 b. Diameter 10.0 IN.
 Drilling method Hollow Stem Auger

WELL CONSTRUCTION

c. Casing length 10 FT.
 Material Schedule 40 PVC
 d. Diameter 2 IN.
 e. Depth to top perforations 5.0 FT.
 f. Perforated length 5 FT.
 Perforated interval from 5 to 10 FT.
 Perforation type Factory Slot
 Perforation size 0.010 Inch
 g. Surface sanitary seal 0.5 FT.
 Seal material Concrete
 h. Sanitary seal 3.0 FT.
 Seal material Neat Cement
 i. Filter pack seal 1.0 FT.
 Seal material Bentonite Pellet
 j. Filter pack length 5.5 FT.
 Filter pack interval from 4.5 to 10 FT.
 Pack material #2/16 Lonestar Sack Sand
 k. Bottom seal 0 FT.
 Seal material
 l. Sluff in bottom of borehole 0 FT.

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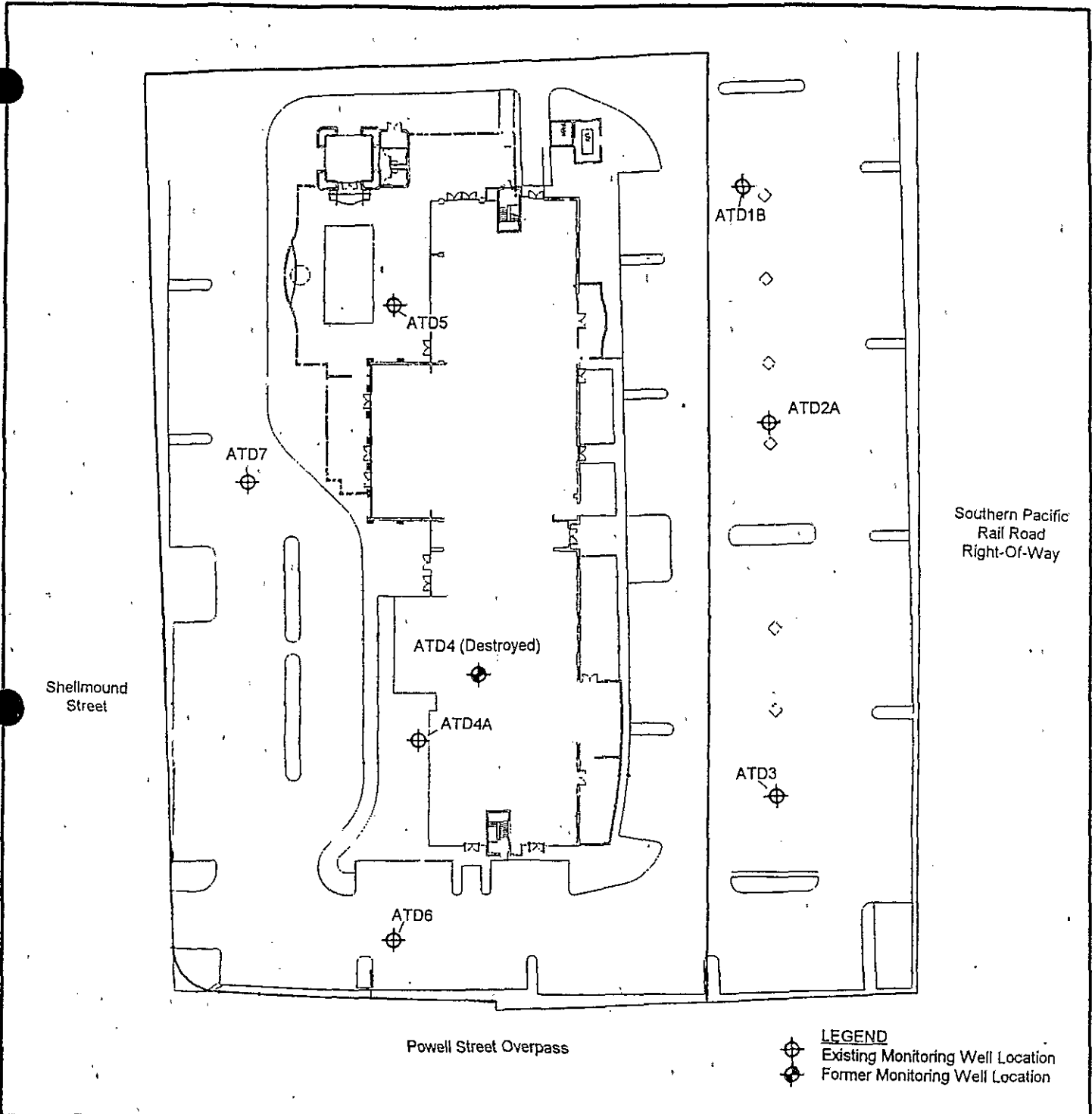
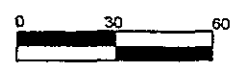


FIGURE 2
 SITE PLAN
 Hardage Construction Corporation Site
 5800 Shellmound Street
 Emeryville, California



Source
 Sartins & Thompson, Inc.
 Woodfin Suite Hotel
 Monitoring Well Location and Elevation Map
 March, 1999

RGA Environmental, Inc.
 4701 Doyle Street, Suite 14
 Emeryville, California 94608




SCALE IN FEET

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







STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

762152

PROJECT ▷ ANOTHER TREE		 APPLIED GEOSCIENCES INC.	PROJECT NUMBER ▷ A901749A	
LOGGED BY ▷ MICHAEL MILLER			START DATE ▷ 31 July 1991	
CHECKED BY ▷ FRED R. CONWELL <i>FRC</i>			COMPLETION DATE ▷ 31 July 1991	
GROUND SURFACE ELEVATION DATUM (FT-MSL) ▷ 8.8		DRILLING COMPANY ▷ SPECTRUM EXPLORATION		
DRILLING EQUIPMENT ▷ CME-55				
BORING DEPTH (FT) ▷ 22.0	WELL DEPTH (FT) ▷ 22	WATER DEPTH (FT)-Initial: 18.5 Completion: 3.5		
WELL MATERIALS ▷ No. 3 MONTEREY SAND		WELL SCREEN INTERVAL (FT) ▷ 16.5 TO 21.5		
WELL CASING ELEVATION (FT-MSL) ▷ 8.21		OVM/OVA ▷ Hnu with 10.2 eV PROBE		

BACKFILL MATERIAL ▷ CEMENT-BENTONITE GROUT

DEPTH (FT)	LITHOLOGY DESCRIPTION	GRAPHIC	WELL	BLOW COUNT	OVM/OVA (PPH)	SAMPLE			COMMENTS
						RECOVERY %	TYPE	NUMBER	
0	Asphalt								
12	Dark yellow brown (10 YR 4/2), moist, medium dense, Silty GRAVEL (GM)			12	<1			ATD-3-1	
11	Dark yellow brown (10 YR 4/2), moist, stiff, Silty CLAY (CL)			11	<1			ATD-3-2	
22	Becomes moderate yellow brown (10 YR 5/4) at 7 feet			22	<1			ATD-3-3	
38				38	<1			ATD-3-4	
29	Increase in gravel at 18.5 feet			29	<1			ATD-3-5	Water encountered at 18.5 feet
22	Boring terminated at 22 feet								Terminated boring approximately 3 feet below the initial encounter of water

BORING DESIGNATION
ATD3

BORING LOG

PAGE NUMBER
1 OF 1

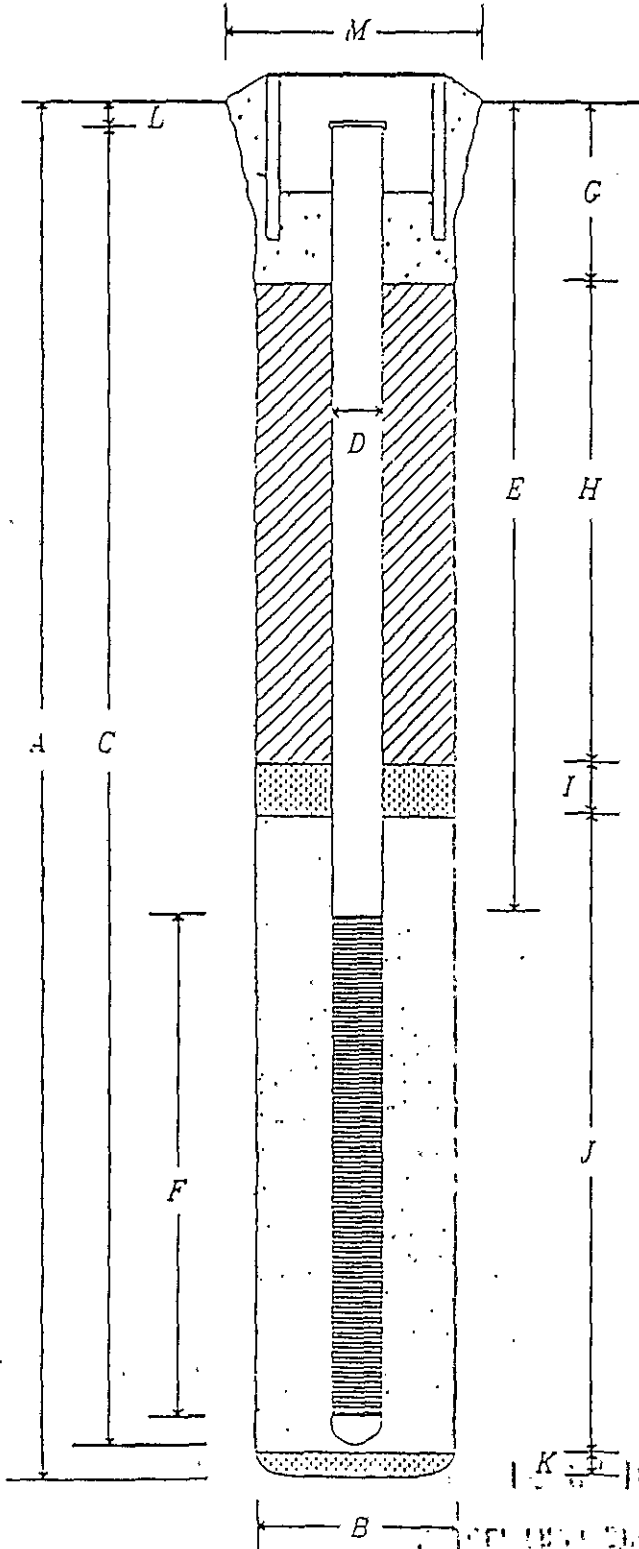
FIGURE NUMBER

762152

SINGLE COMPLETION WELL DETAILS

PROJECT NUMBER: A901749A
 PROJECT NAME: MARKETPLACE II
 COUNTY: ALAMEDA
 WELL PERMIT NO.: _____

BORING/WELL NO.: 47D3
 TOP OF CASING ELEV.: 8.21
 GROUND SURFACE ELEV.: 8.80
 DATUM: MEAN SEA LEVEL



EXPLORATION BORING

- A. Total Depth 22.0 ft
- B. Boring Diameter 10 in
- Drilling Method HOLLOW-STEM AUGER

WELL CONSTRUCTION

- C. Casing Length 21.5 ft
- Material SCHEDULE 40 PVC
- D. Diameter 4 in
- E. Depth to Top of Perforations 16.5 ft
- F. Perforated Length 5.0 ft
- Perforated Interval from 16.5 to 21.5 ft
- Perforation Type MACHINE SLOT
- Perforation Size 0.020 INCH
- G. Surface Seal 2.0 ft
- Seal Material CEMENT GROUT
- H. Backfill 12.5 ft
- Backfill Material CEMENT GROUT
- I. Seal 1.0 ft
- Seal Material BENTONITE PELLETS
- J. Gravel Pack 6.0 ft
- Material NO.3 LONESTAR SAND
- K. Bottom Seal 0 ft
- Material NONE
- L. Top of Casing Depth 6 in
- M. Protective Cover Diameter 12.25 in



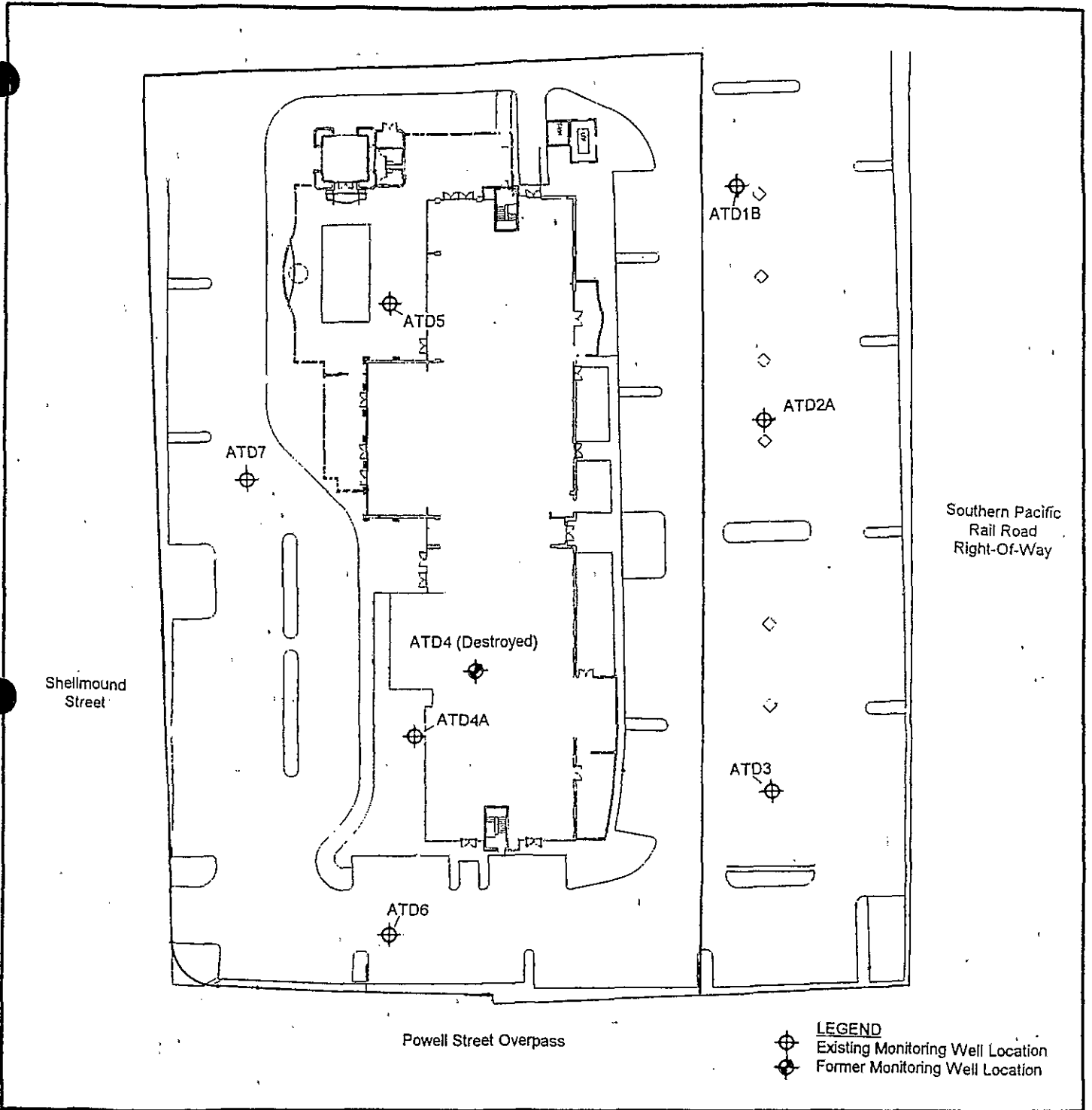
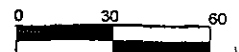


FIGURE 2
SITE PLAN
 Hardage Construction Corporation Site
 5800 Shellmound Street
 Emeryville, California



Source
 Sartina & Thompson, Inc.
 Woodin, Suite Hotel
 Monitoring Well Location and Elevation Map
 March, 1999

RGA Environmental, Inc.
 4701 Doyle Street, Suite 14
 Emeryville, California 94608



SCALE IN FEET

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

762151

RG ENVIRONMENTAL, INC.

BORING NO.: ATD2A		PROJECT NO.: HSH14089		PROJECT NAME: HARDAGE CONSTRUCTION CORP.		
BORING LOCATION: SEE MAP			ELEVATION AND DATUM:			
DRILLING AGENCY: GREGG DRILLING AND TESTING, INC.		DRILLER: TREVOR & GERMAN		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 10 INCH OUTSIDE DIAMETER HOLLOW STEM AUGER				1/14/00 8:30 AM	1/14/00	
COMPLETION DEPTH: 10 FEET		BEDROCK DEPTH: NONE ENCOUNTERED		LOGGED BY: GMB	CHECKED BY:	
FIRST WATER DEPTH: UNKNOWN		NO. OF SAMPLES: NONE				
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
5	Portland cement, monitoring well and construction debris (FILL), some brown sand, dense, wet.	FILL	See Attached Well Construction Detail Diagram			
10	Brown silt (ML), dense, wet.	ML				
15						Borehole terminated at 100 feet.
20						Borehole converted to groundwater monitoring well
25						
30						

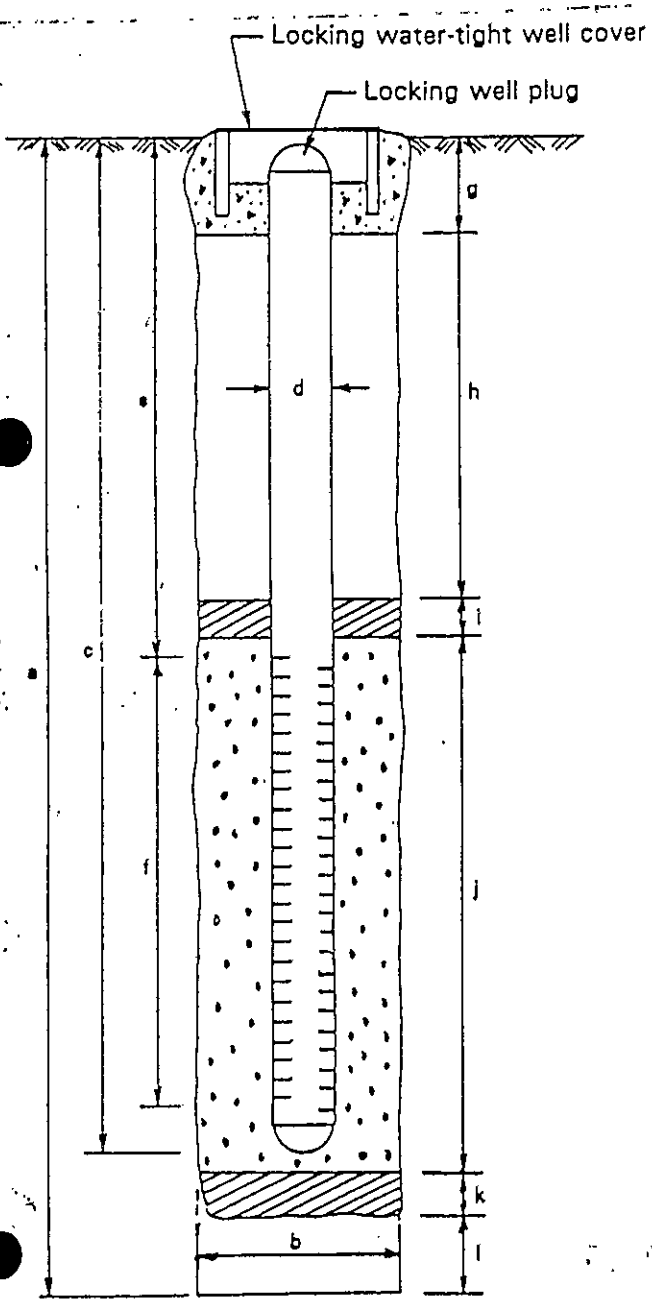
RGA Environmental, Inc.
 4701 Doyle Street, Suite 14
 Emeryville, California 94608
 Telephone: (510) 547-7771

762151

WELL CONSTRUCTION DETAILS

PROJECT NUMBER HSHI4089
 PROJECT NAME HARDAGE CONSTRUCTION CORP.
 COUNTY ALAMEDA
 WELL PERMIT NO. 99WR626

BORING/WELL NO. ATD2A
 TOP OF CASING ELEVATION TBA
 GROUND SURFACE ELEVATION TBA
 DATUM TBA



EXPLORATORY BORING

- a. Total Depth 10 ft.
- b. Diameter 10 in.
 Drilling Method Hollow Stem Auger

WELL CONSTRUCTION

- c. Casing Length 9.5 ft.
 Material Schedule 40 PVC
- d. Diameter 4 in.
- e. Depth to top perforations 4.5 ft.
- f. Perforated length 5 ft.
 Perforated interval from 4.5 to 9.5 ft.
 Perforation type Factory Slot
 Perforation size 0.010 inch
- g. Surface sanitary seal 2.5 ft.
 Seal material Neat cement grout
- h. Sanitary seal 0 ft.
 Seal material _____
- i. Filter pack seal 1 ft.
 Seal material Bentonite pellets
- j. Filter pack length 6.5 ft.
 Filter pack interval from 3.5 to 10 ft.
 Pack material #2/16 Lonestar sand
- k. Bottom seal 0 ft.
 Seal material _____
- l. Slough in bottom of borehole 0 ft.

5. 2012 17 1:03
 HARDAGE CONSTRUCTION CORP.

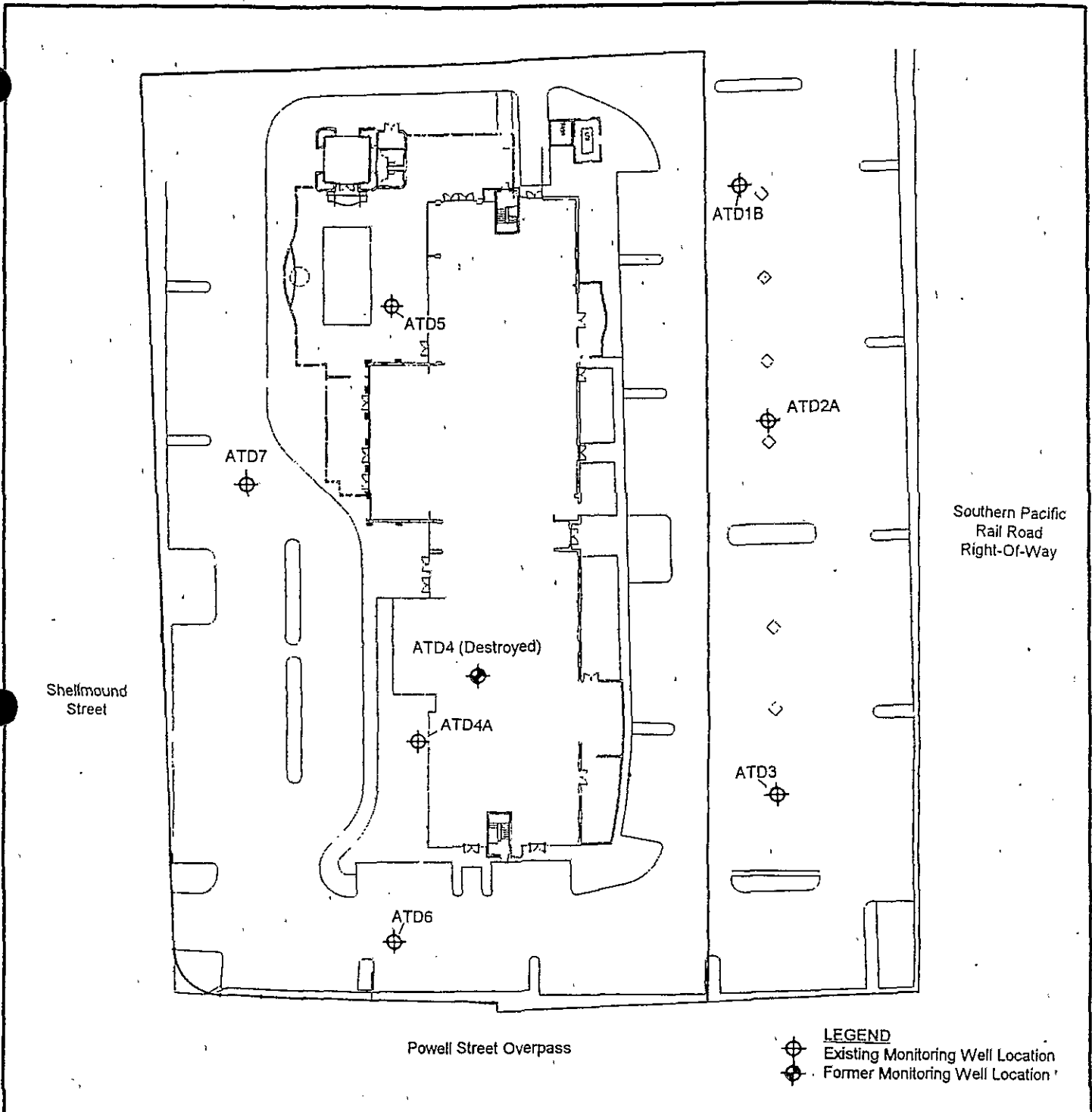
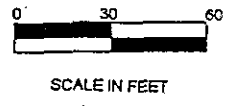


FIGURE 2
SITE PLAN
 Hardage Construction Corporation Site
 5800 Shellmound Street
 Emeryville, California

Source:
 Sarina & Thompson, Inc.
 Woodfin Suite Hotel
 Monitoring Well Location and Elevation Map
 March, 1999

RG&A Environmental, Inc.
 4701 Doyle Street, Suite 1411
 Emeryville, California 94608



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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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762150

RG&A ENVIRONMENTAL, INC.

BORING NO.: ATD1B		PROJECT NO.: HSH15835		PROJECT NAME: HARDAGE CONSTRUCTION CORP.		
BORING LOCATION: SEE MAP			ELEVATION AND DATUM:			
DRILLING AGENCY: GREGG DRILLING AND TESTING, INC.		DRILLER: PAUL & FAUSTO		DATE & TIME STARTED:	DATE & TIME FINISHED:	
DRILLING EQUIPMENT: 8 INCH OUTSIDE DIAMETER HOLLOW STEM AUGER				10/2/00	10/2/00	
COMPLETION DEPTH: 10 FEET		BEDROCK DEPTH: NONE ENCOUNTERED		LOGGED BY:	CHECKED BY:	
FIRST WATER DEPTH: UNKNOWN		NO. OF SAMPLES: NONE		GMB		
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS
5	Portland cement, monitoring well and construction debris (FILL), dense, moist.	FILL	See Attached Well Construction Detail Diagram			
10	Gray clayey silt (ML), dense, saturated.	ML				Saturated soil at approximately 8 feet.
15						Borehole terminated at 100 feet.
20						Borehole converted to groundwater monitoring well, designated ATD1B.
25						
30						

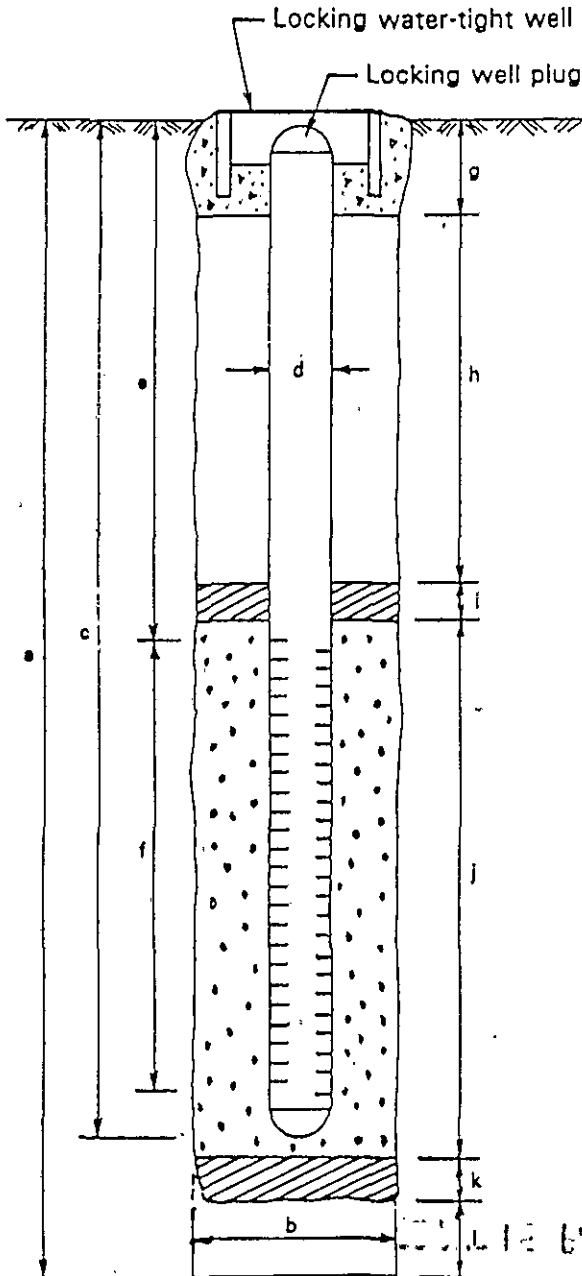
762150

RGA Environmental, Inc.
 4701 Doyle Street, Suite 14
 Emeryville, California 94608
 Telephone: (510) 547-7771

WELL CONSTRUCTION DETAILS

PROJECT NUMBER HSHI5835
 PROJECT NAME HARDAGE CONSTRUCTION CORP.
 COUNTY ALAMEDA
 WELL PERMIT NO. W00-544

BORINGWELL NO. ATD1B
 TOP OF CASING ELEVATION TBD
 GROUND SURFACE ELEVATION TBD
 DATUM TBD



EXPLORATORY BORING

- a. Total Depth 10 ft.
- b. Diameter 8 in.
- Drilling Method Hollow Stem Auger

WELL CONSTRUCTION

- c. Casing Length 10 ft.
- Material Schedule 40 PVC
- d. Diameter 2 in.
- e. Depth to top perforations 5 ft.
- f. Perforated length 5 ft.
- Perforated Interval from 5 to 10 ft.
- Perforation type Factory Slot
- Perforation size 0.010 inch
- g. Surface sanitary seal 2.5 ft.
- Seal material Neat cement grout
- h. Sanitary seal 0 ft.
- Seal material _____
- i. Filter pack seal 1 ft.
- Seal material Bentonite chips
- j. Filter pack length 6.5 ft.
- Filter pack interval from 3.5 to 10 ft.
- Pack material #2/16 Lonestar sand
- k. Bottom seal 0 ft.
- Seal material _____
- l. Slough in bottom of borehole 0 ft.

DATE: 12/12/07
 DRAWN BY: [Signature]

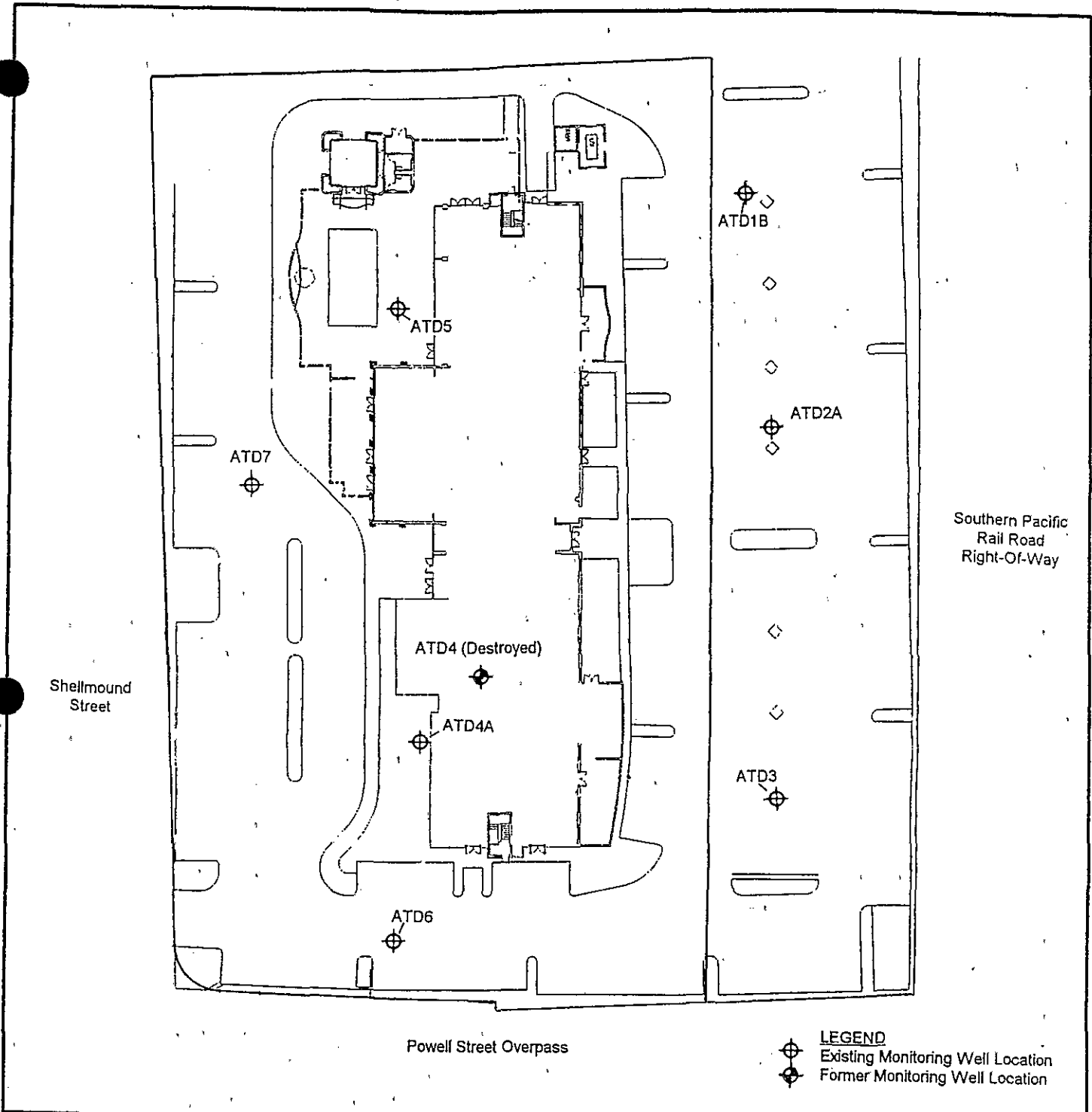


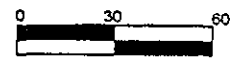
FIGURE 2
SITE PLAN
 Hardage Construction Corporation Site
 5800 Shellmound Street
 Emeryville, California

LEGEND
 Existing Monitoring Well Location
 Former Monitoring Well Location



Source
 Sabra & Thompson, Inc.
 Woodlin Suite Hotel
 Monitoring Well Location and Elevation Map
 March, 1999

RGAE Environmental, Inc.
 4701 Doyle Street, Suite 14
 Emeryville, California 94608



SCALE IN FEET

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(WELL LOGS)

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WELL COMPLETION REPORT
(WELL LOGS)**

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WELL COMPLETION REPORT
(WELL LOGS)

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**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

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WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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433468

15/4W ISA 6

Project Name: Myers Container Corp., Oakland		Date: 1/16/92	Boring Number: W-10
Project No: 11121-Q210	Borehole Depth: 15.5'	Surface Completion: Christie Box	
Drilling Co: Clear Heart, Guerneville CA	Well Depth: 15.0'	Surface Elevation: 36.12'	
Drilling Equip: COMBINATION, 6.75" HSA	Water Elev.: 26.48' on 1/20/92	Logged By: DRD	
Sampler Type: 2.5" CSS & CC	Casing Elevation: 35.68'	Checked By: CAH	

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/foot	OVM (ppm)	Remarks
Black (N1) asphalt paving.								
Dark gray (N3) silty GRAVEL with sand (GM); ~60% gravel, 20% sand, 20% silt; loose, damp; (fill).		1		2" PVC Blank Casing	Neat Cement with 5% Bentonite	8	0/0	
Dusky yellowish brown (10YR 2/2) sandy lean CLAY (CL); ~40% clay, 20% silt, 30% medium sand, 10% fine gravel; damp; (fill).		2						
Light olive gray (5Y 5/2) lean CLAY (CL); ~50% clay, 40% silt, 10% medium sand; damp.		3						
Color grades to greenish gray (5GY 6/1).		4						
Dusky yellow green (5GY 5/1) lean CLAY (CL); ~60% clay, 30% silt, 10% fine sand; damp to moist.		5						
Dusky yellow green (5GY 5/1) sandy SILT (ML); ~40% silt, 40% clay, 20% sand; medium dense, moist.		6		2" PVC Blank Casing	Bentonite Pellets	18	0/0	
		7						
		8						
Greenish gray (5GY 6/1) sandy SILT (ML); ~60% silt, 40% sand; damp.		9		0.010" Slotted PVC Screen	#2/12 Monterey Sand	36	0/0	
Dark gray (N3) well graded gravel with sand (GW); ~50% gravel, 40% coarse sand, 10% silt; medium dense, moist to wet.		10						
Saturated at 10 feet.		10		0.010" Slotted PVC Screen	#2/12 Monterey Sand	12	0/0	▼ 1/20/92
Brownish black (5YR 2/1) clayey GRAVEL with sand (GC); ~50% gravel, 30% coarse sand, 10% clay, 10% silt; loose, saturated.		11	W10-10					
Moderate brown (5YR 4/4) clayey GRAVEL with sand (GC); ~50% gravel, 30% coarse sand, 10% clay, 10% silt; saturated.		12						
Light brown (5YR 5/4) SILT (ML); ~60% silt, 30% clay, 10% fine sand; damp.		13						
Light olive gray (5Y 6/1) and dark yellowish orange (10YR 6/6) SILT with sand (ML); ~50% silt, 30% clay, 20% very fine sand; damp.		14						▽ Soil becomes softer with depth.
END BORING 15 FEET		15						



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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

433468

1S/4W-15A10

Project Name: Myers Container Corp., Oakland		Date: 1/16/92	Boring Number: W-10
Project No: 11121-Q210	Borehole Depth: 15.5'	Surface Completion: Christie Box	
Drilling Co: Clear Heart, Guerneville CA	Well Depth: 15.0'	Surface Elevation: 36.12'	
Drilling Equip: COMBINATION, 6.75" HSA	Water Elev.: 26.48' on 1/20/92	Logged By: DRD	
Sampler Type: 2.5" CSS & CC	Casing Elevation: 35.68'	Checked By: CAH	

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/foot	OVM (ppm)	Remarks
Black (N1) asphalt paving.								
Dark gray (N3) silty GRAVEL with sand (GM); ~60% gravel, 20% sand, 20% silt; loose, damp; (fill).		1		2" PVC Blank Casing	Neat Cement with 5% Bentonite	8	0/0	015 04W 15A10 1/20/92 Soil becomes softer with depth.
Dusky yellowish brown (10YR 2/2) sandy lean CLAY (CL); ~40% clay, 20% silt, 30% medium sand, 10% fine gravel; damp; (fill).		2						
Light olive gray (5Y 5/2) lean CLAY (CL); ~50% clay, 40% silt, 10% medium sand; damp.		3						
Color grades to greenish gray (5GY 6/1).		4						
Dusky yellow green (5GY 5/1) lean CLAY (CL); ~60% clay, 30% silt, 10% fine sand; damp to moist.		5						
Dusky yellow green (5GY 5/1) sandy SILT (ML); ~40% silt, 40% clay, 20% sand; medium dense, moist.		6		0.010" Slotted PVC Screen	#2/12 Monterey Sand	18	0/0	
		7						
		8						
Greenish gray (5GY 6/1) sandy SILT (ML); ~60% silt, 40% sand; damp.		9				36	0/0	
Dark gray (N3) well graded gravel with sand (GW); ~50% gravel, 40% coarse sand, 10% silt; medium dense, moist to wet.		10				12	0/0	
Saturated at 10 feet.								
Brownish black (5YR 2/1) clayey GRAVEL with sand (GC); ~50% gravel, 30% coarse sand, 10% clay, 10% silt; loose, saturated.		11	W10-10					
Moderate brown (5YR 4/4) clayey GRAVEL with sand (GC); ~50% gravel, 30% coarse sand, 10% clay, 10% silt; saturated.		12					0/0	
Light brown (5YR 5/4) SILT (ML); ~60% silt, 30% clay, 10% fine sand; damp.		13						
Light olive gray (5Y 6/1) and dark yellowish orange (10YR 6/6) SILT with sand (ML); ~50% silt, 30% clay, 20% very fine sand; damp.		14						
END BORING 15 FEET		15					0/0	



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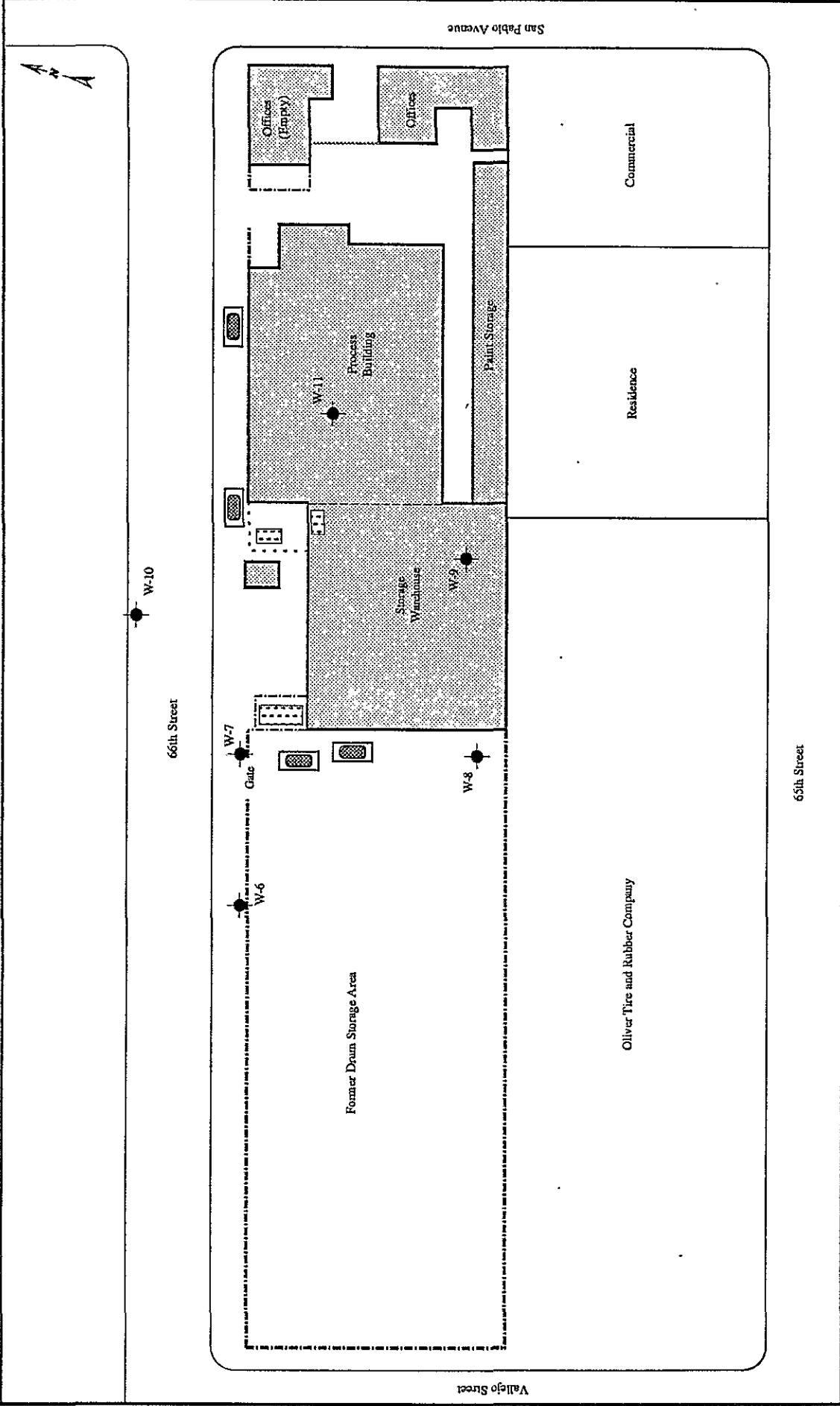
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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433467A, B

TRC



<p>Monitoring Well Location</p> <p>Underground Storage Tank</p> <p>Process Water Stump</p>		<p>0 50</p> <p>Approximate Scale (Feet)</p>	<p>SITE PLAN</p> <p>6549 SAN PABLO AVENUE OAKLAND, CALIFORNIA</p> <p>11121-Q210</p> <p>PLATE 2</p>
<p>EXPLANATION</p> <p>Property Boundary (Fence Line)</p> <p>Building</p>		<p>Revised 2/10/92</p>	

433467A

Project Name: Myers Container Corp., Oakland		Date: 10/15/91	Boring Number: W-9
Project No: 11121-Q210	Borehole Depth: 16.5'	Surface Completion: Stovepipe monumen	
Drilling Co: Precision Sampling, Mtn. View	Well Depth: 16'	Surface Elevation: 39.53' (floor)	
Drilling Equip: 2.37" Hydraulic Percussion	Water Elev.: 23.03' on 11/12/91	Logged By: DRD	
Sampler Type: 1" Continuous Core	Casing Elevation: 41.19'	Checked By: CAH	

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/Foot	OVM (ppm)	Remarks
Concrete.								
Olive black (5Y 2/1) clayey BRICK FILL~ 50% brick, 30% clay, 10% sand, 10% silt; dry to damp.		1						
Olive black (5Y 2/1) lean CLAY (CL); ~ 60% clay, 30% silt, 10% sand; damp to saturated.		2						
		3						
		4	W9-3		Neat Cement with 5% Bentonite			Mild sewage odor.
Olive gray (5Y 4/1) & dusky yellow (5Y 6/4) sandy lean CLAY (CL) ~ 40% clay, 30% sand, 30% silt; moist.		5						
Light olive gray (5Y 5/2) lean CLAY with sand (CL); ~ 50% clay, 15% very fine sand, 15% gravel (sandstone & chert), 20% silt; damp.		6						
Gradual color change to light olive gray (5Y 6/1).		7		1" PVC Casing				
Olive gray (5Y 4/1) & dark yellowish orange (10YR 6/6) lean CLAY with sand (CL); ~ 30% clay, 20% medium sand, 20% gravel (sandstone & chert), 30% silt; blocky fracture. damp.		8						
Light olive gray (5Y 6/1) lean CLAY with sand (CL); ~ 50% clay, 20% fine sand, 30% silt, charcoal flecks, iron oxide stains; moist.		9			Bentonite Pellets			
		10	W9-10					
		11						No sample recovery 10.5' to 11.5'.
Light olive gray (5Y 6/1) sandy lean CLAY (CL); ~ 40% clay, 30% fine sand, 30% silt; moist.		12						
Light olive gray (5Y 6/1) & dark yellowish orange (10YR 6/6) clayey GRAVEL with sand (GC); ~ 40% gravel, 20% sand, 20% clay, 20% silt.		13		0.010" Slotted PVC Screen				Poor sample recovery 12.5' to 16'.
		14			#2/16 Monterey Sand			
Light olive gray (5Y 6/1) clayey SAND (SC); ~ 50% very fine sand, 30% clay, 20% silt; saturated.		15						

015 04/2 15A08



433467A

15/4W-15A8

Project Name: Myers Container Corp., Oakland		Date: 10/15/91	Boring Number: W-9
Project No: 11121-Q210	Borehole Depth: 16.5'	Surface Completion: Stovepipe monumer	
Drilling Co: Precision Sampling, Mtn. View	Well Depth: 16'	Surface Elevation: 39.53' (floor)	
Drilling Equip: 2.37" Hydraulic Percussion	Water Elev.: 23.03' on 11/12/91	Logged By: DRD	
Sampler Type: 1" Continuous Core	Casing Elevation: 41.19'	Checked By: CAH	

Description	Lithology	Depth (feet)	Sample Number	Casing		Blows/foot	OVM (ppm)	Remarks
				Annular Seal	Blows/foot			
Same lithology.		16		Slotted Screen				
END BORING 16.5 FEET.		17						
		18						
		19						
		20						
		21						
		22						
		23						
		24						
		25						
		26						
		27						
		28						
		29						
		30						

4334679

Project Name: Myers Container Corp., Oakland		Date: 10/15/91	Boring Number: W-11
Project No: 11121-Q210	Borehole Depth: 15.5'	Surface Completion: Stovepipe monu	
Drilling Co: Precision Sampling, Mtn. View	Well Depth: 15.0'	Surface Elevation: 39.57'	
Drilling Equip: 2.37" Hydraulic Percussion	Water Elev.: 25.95' on 11/12/91	Logged By: DRD	
Sampler Type: 1" Continuous Core	Casing Elevation: 41.30'	Checked By: CAH	

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/Foot	OVM (ppm)	Remarks
Concrete.								
Dusky yellow green (5GY 5/2) gravelly SILT with sand (ML); ~ 30% silt, 30% gravel, 20% sand, 20% clay; damp to moist.		1						
		2						
		3	W11-2		Neat Cement with 5% Bentonite		21/ 0.4	Strong sweet odor.
		4						
Olive black (5Y 2/1) lean CLAY (CL); ~ 50% clay, 40% silt, 10% sand, trace chert fragments; damp.		5						
		6	W11-5				0/ 22	Strong odor.
Gradual color change to medium dark gray (N4).		7						
Dark greenish gray (5G 4/1) silty GRAVEL with sand (GM); ~ 40% gravel, 25% medium sand, 20% clay, 15% silt; damp.		8			Bentonite Pellets			Mild odor.
Greenish gray (5G 6/1) lean CLAY with sand (CL); ~ 45% clay, 25% very fine sand, 30% silt; blocky to hackly fracture.		9					0/ 1.3	
Greenish gray (5G 6/1), dark greenish gray (5G 4/1), & greenish gray (5GY 6/1) well graded GRAVEL with sand (GW); ~ 50% gravel, 30% medium sand, 10% clay, 10% silt; damp.		10						
		11						
		12						
Brownish gray (5YR 4/1) & dark yellowish orange (10YR 6/6) well graded SAND with clay (SW-SC); ~ 40% coarse sand, 30% medium to fine sand, 10% fine gravel, 10% clay, 10% silt; wet.		13						
Light brownish gray (5YR 6/1) sandy lean CLAY (CL); ~ 40% clay, 30% very fine & medium sand, 30% silt; plastic, moist. END BORING 15.5 FEET		14						
		15						

015 01/15 15A09

1" PVC Casing

0.010" Slotted PVC Screen

#2/16 Monterey Sand



CONFIDENTIAL

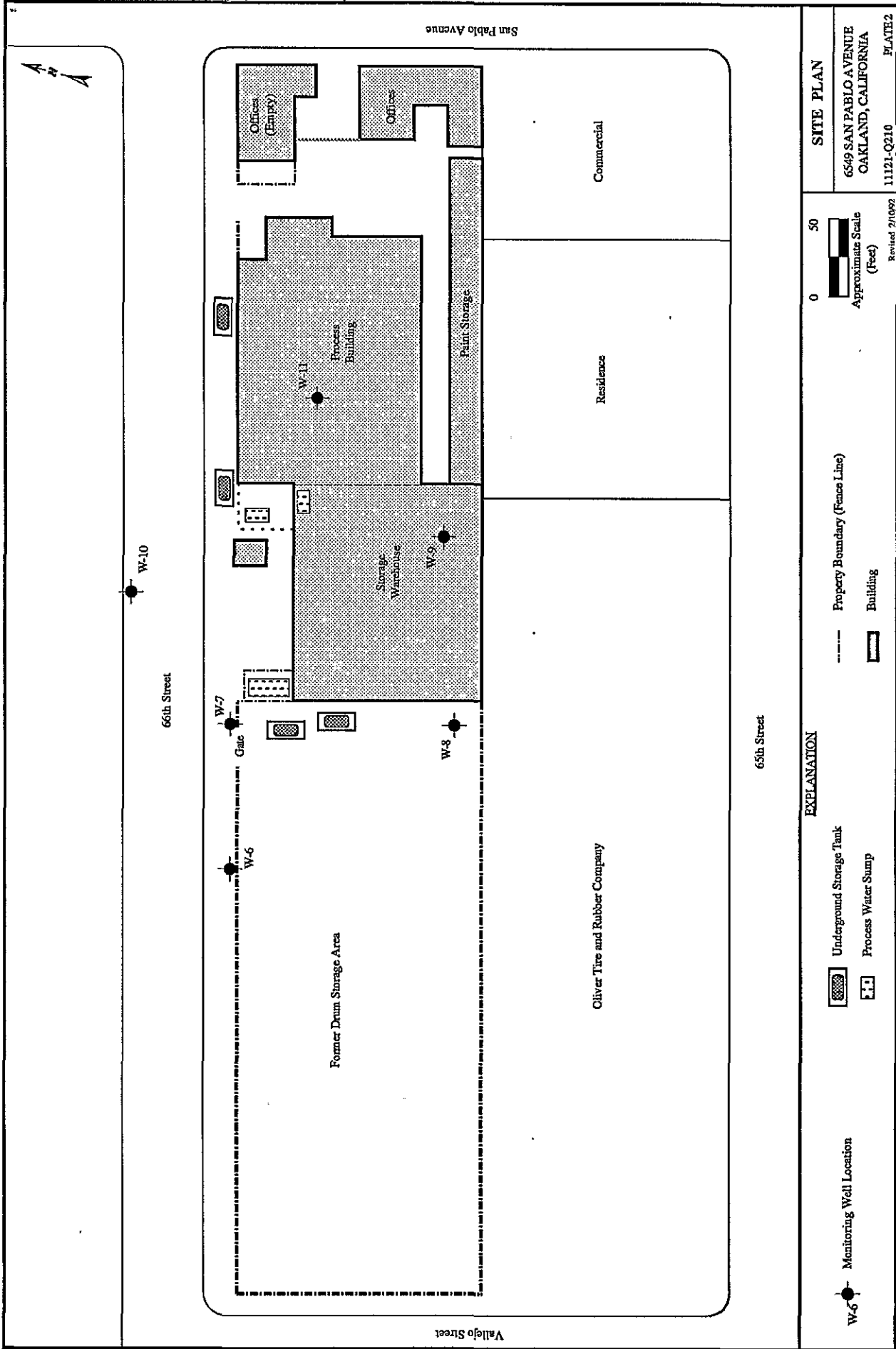
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

433467A-B, 433469A-C

15/4W 15 B

TRC



EXPLANATION

- Monitoring Well Location
- Underground Storage Tank
- Process Water Sump
- Property Boundary (Fence Line)
- Building

SITE PLAN

6549 SAN PABLO AVENUE
 OAKLAND, CALIFORNIA
 11121-Q210
 PLATE 2

0 50
 Approximate Scale
 (Feet)

Revised 2/1992

433469A

15/4W 15A 7

Project Name: Myers Container Corp., Oakland		Date: 10/15/91	Boring Number: W-6
Project No: 11121-Q210	Borehole Depth: 17'	Surface Completion: Christy box	
Drilling Co: Wayne Drilling, Lincoln CA	Well Depth: 15'	Surface Elevation: 34.07'	
Drilling Equip: CME 55, 7.75" HSA	Water Elev.: 24.11' on 10/22/91	Logged By: LKD	
Sampler Type: 2.5" CSS & CC	Casing Elevation: 33.91'	Checked By: CAH	

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/Foot	OVM (ppm)	Remarks
Silty GRAVEL with sand (GM) loose, dry; (ASB fill).		0-1						
Brownish black (5YR 2/1) SILT with sand (ML); ~ 50% silt, 35% clay, 10% fine & medium sand, 5% fine gravel; loose, damp. Gradual color change to brownish gray (5YR 4/1).		1-2	W6-1	2" PVC Casing	Neat Cement with 5% Bentonite	8	0	Hydrocarbon odor.
Gradual color change to brownish gray (5YR 5/1). Thin (2") gravel & coarse sand lense.		2-4						
Mottled light olive gray (5Y 6/2) & moderate yellowish orange (10YR 5/6) lean CLAY with sand (CL); 45% clay, 35% silt, 20% sand, wood fragments; stiff, damp.		4-5	W6-5			18		
Light olive gray (5Y 6/1) silty SAND (SM), loose, damp. Color mottled with moderate yellowish brown (10YR 5/6). Thin (2") gravel and coarse sand lenses 7.5' to 8.5'.		5-10			Bentonite Pellets			
Color change to light olive gray (5Y 5/2).		10-11						
Moderate yellowish brown (10YR 5/2) clayey SAND (SC); ~ 25% fine sand, 30% medium sand, 25% coarse sand, 10% clay, 10% silt, trace coarse gravel; medium dense, wet.		11-13	W6-G4	0.010" Slotted PVC Screen	#2/16 Monterey Sand	38		
		13-15						



433469A 1S/4W 15A 7

Project Name: Myers Container Corp., Oakland		Date: 10/15/91	Boring Number: W-6
Project No: 11121-Q210	Borehole Depth: 17'	Surface Completion: Christy box	
Drilling Co: Wayne Drilling, Lincoln CA	Well Depth: 15'	Surface Elevation: 34.07'	
Drilling Equip: CME 55, 7.75" HSA	Water Elev.: 24.11' on 10/22/91	Logged By: LKD	
Sampler Type: 2.5" CSS & CC	Casing Elevation: 33.91'	Checked By: CAH	

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/Foot	OVM (ppm)	Remarks
Same lithology.	[Hatched Pattern]	16			#2/16 Monterey Sand			
Mottled light olive gray (5Y 6/2) & moderate yellowish brown (10YR 5/6) sandy lean CLAY (CL); about 40% clay, 25% fine sand, 15% coarse & medium sand, 10% fine gravel, 10% silt; medium stiff, damp.		17						
END BORING 17 FEET.		18						
		19						
		20						
		21						
		22						
		23						
		24						
		25						
		26						
		27						
		28						
		29						
		30						



433469 B

15/4W 15B 4

Project Name: Myers Container Corp., Oakland		Date: 10/15/91	Boring Number: W-7
Project No: 11121-Q210	Borehole Depth: 15'	Surface Completion: Christy box	
Drilling Co: Wayne Drilling, Lincoln CA	Well Depth: 14'	Surface Elevation: 35.13'	
Drilling Equip: CME 55, 7.75" HSA	Water Elev.: 24.43' on 10/24/91	Logged By: LKD	
Sampler Type: 2.5" CSS & CC	Casing Elevation: 34.97'	Checked By: CAH	

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/Foot	OVN (ppm)	Remarks
Silty GRAVEL with sand (GM), loose, dry; (ASB fill).		1						
Olive black (5Y 2/1) to greenish black (5GY 2/1) lean CLAY with gravel (CL); ~ 45% clay, 20% gravel, 5% coarse sand, 30% silt; medium stiff, damp.		2	W7-1			12		
Dark olive gray (5Y 3/1) lean CLAY (CL); ~ 60% clay, 10% coarse sand, 30% silt; damp.		3						
		4						
		5						
Color change to greenish gray (5GY 5/1).		6						
		7						
Greenish gray (5GY 5/1) lean CLAY with sand (CL); ~ 45% clay, 15% medium & coarse sand, 10% fine gravel, 30% silt; moist.		8						
Greenish gray (5GY 5/1) lean CLAY (CL); ~ 60% clay, 10% coarse sand, 30% silt; damp.		9						
Greenish gray (5GY 5/1) sandy lean CLAY (CL); ~ 40% clay, 30% sand, trace fine gravel, 30% silt; damp.		10						
Greenish gray (5GY 5/1) lean CLAY (CL); ~ 60% clay, 10% coarse sand, 30% silt; damp.		11	W7-11				0/1.3	
Dark greenish gray (5GY 4/1) clayey SAND (SC); ~ 65% medium sand, 15% fine & coarse sand, 5% fine gravel, 10% clay, 5% silt; medium dense, moist.		12						
		13						
Moderate brown (5YR 4/5) lean CLAY (CL); ~60% clay, 40% silt; medium stiff, moist. Wet. Sandy CLAY (CL) lenses.		14						
END BORING 15 FEET.		15						



433469

15/4W 15B 5

Project Name: Myers Container Corp., Oakland		Date: 10/14/91	Boring Number: W-8
Project No: 11121-Q210	Borehole Depth: 15'	Surface Completion: Christy box	
Drilling Co: Wayne Drilling, Lincoln CA	Well Depth: 13.5'	Surface Elevation: 35.34'	
Drilling Equip: CME 55, 7.75" HSA	Water Elev.: 24.82' on 10/21/91	Logged By: LKD	
Sampler Type: 2.5" CSS & CC	Casing Elevation: 35.24'	Checked By: CAH	

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/Foot	OVM (ppm)	Remarks
Silty GRAVEL with sand (GM), loose, dry; (ASB fill).		1						
Brownish black (5YR 2/1) lean CLAY (CL); ~ 55% clay, 40% silt, 5% fine sand; soft, damp.		2	W8-1		Neat Cement with 5% Bentonite	6		Hydrocarbon odor in blackish zone.
Olive gray (5Y 4/1) lean CLAY (CL) thinly interbedded (6") with lean CLAY with gravel (CL); ~ 55% clay, 20-40% silt, 0-20% gravel, 5% fine sand; soft, damp.		3						
Mottled olive gray (5Y 4/1) & yellowish brown (10YR 6/4) lean CLAY with sand (CL); ~ 45% clay, 15% fine sand, 40% silt; soft, damp.		4						
Mottled olive gray (5Y 4/1) & yellowish brown (10YR 6/4) clayey SAND (SC); ~ 40% fine sand, 15% medium & coarse sand, 10% fine gravel, 20% clay, 15% silt; medium dense, damp.		5	W8-5	2" PVC Casing	Bentonite Pellets	35		
Mottled olive gray (5Y4/1) & yellowish brown (10YR 6/4) silty SAND with gravel (SM); ~ 45% coarse to fine sand, 15% gravel, 25% silt, 15% clay; medium dense, moist. Wet at 10 feet.		6						
		7						
		8						
		9						
		10	W8-10	0.010" Slotted PVC Screen	#2/16 Monterey Sand			
		11						
		12						
		13						
Olive gray (5Y 5/1) SILT with sand (ML); ~ 45% silt, 20% fine sand, 35% clay; medium dense, damp.		14						
END BORING 15 FEET.		15	W8-G5			21		

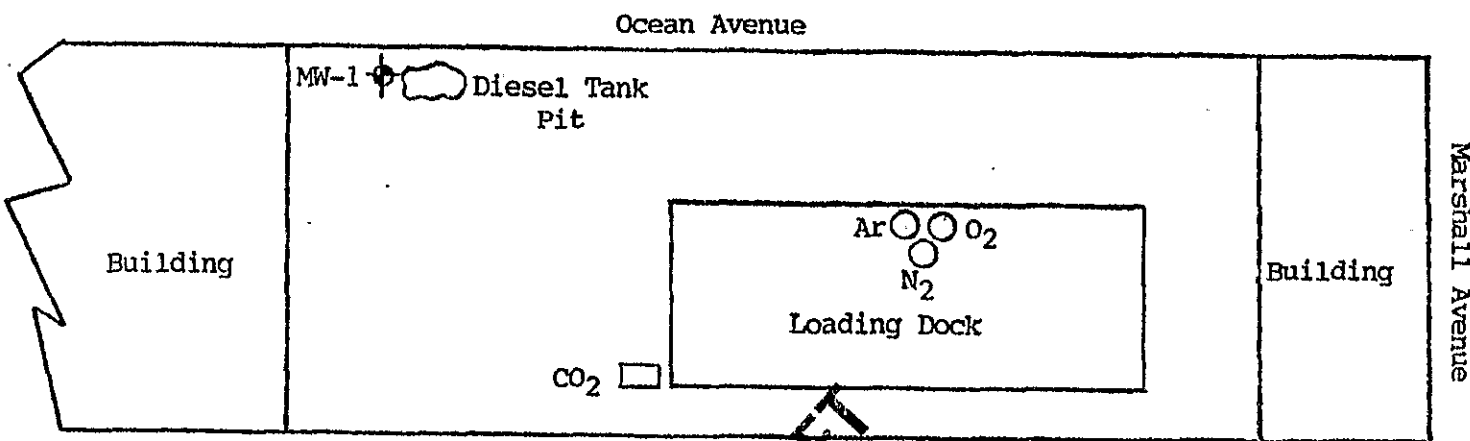
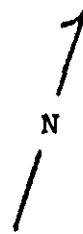


1S/4W 1SB1
01-4420

URIAH ENVIRONMENTAL SERVICES, INC.
AT:
1171 OCEAN AVENUE, OAKLAND, CA

Site Map

0 50
Scale (feet)

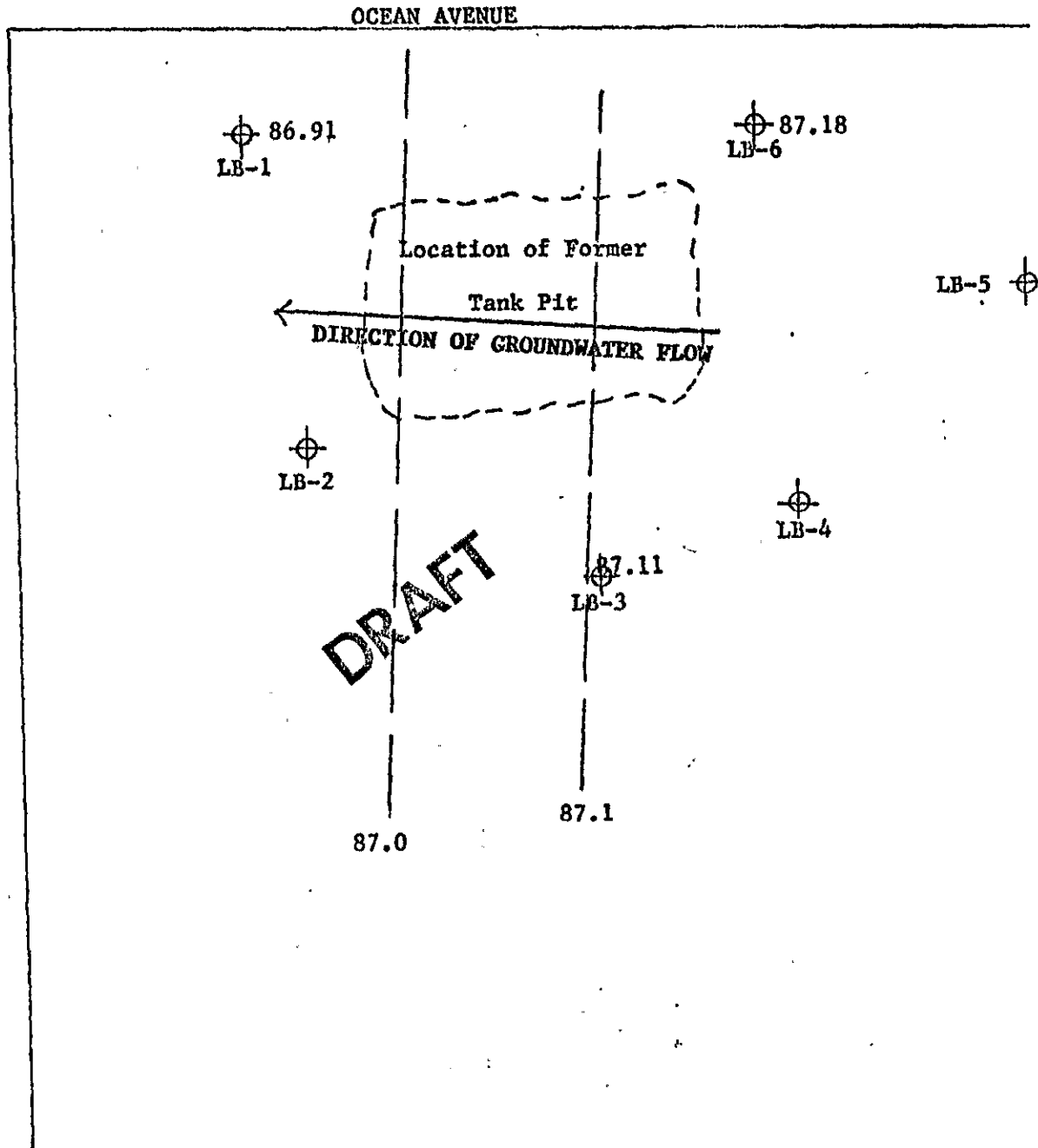
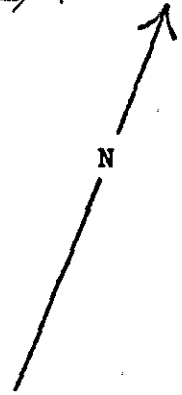


DRAFT

01-4420
1S/4W-15B1

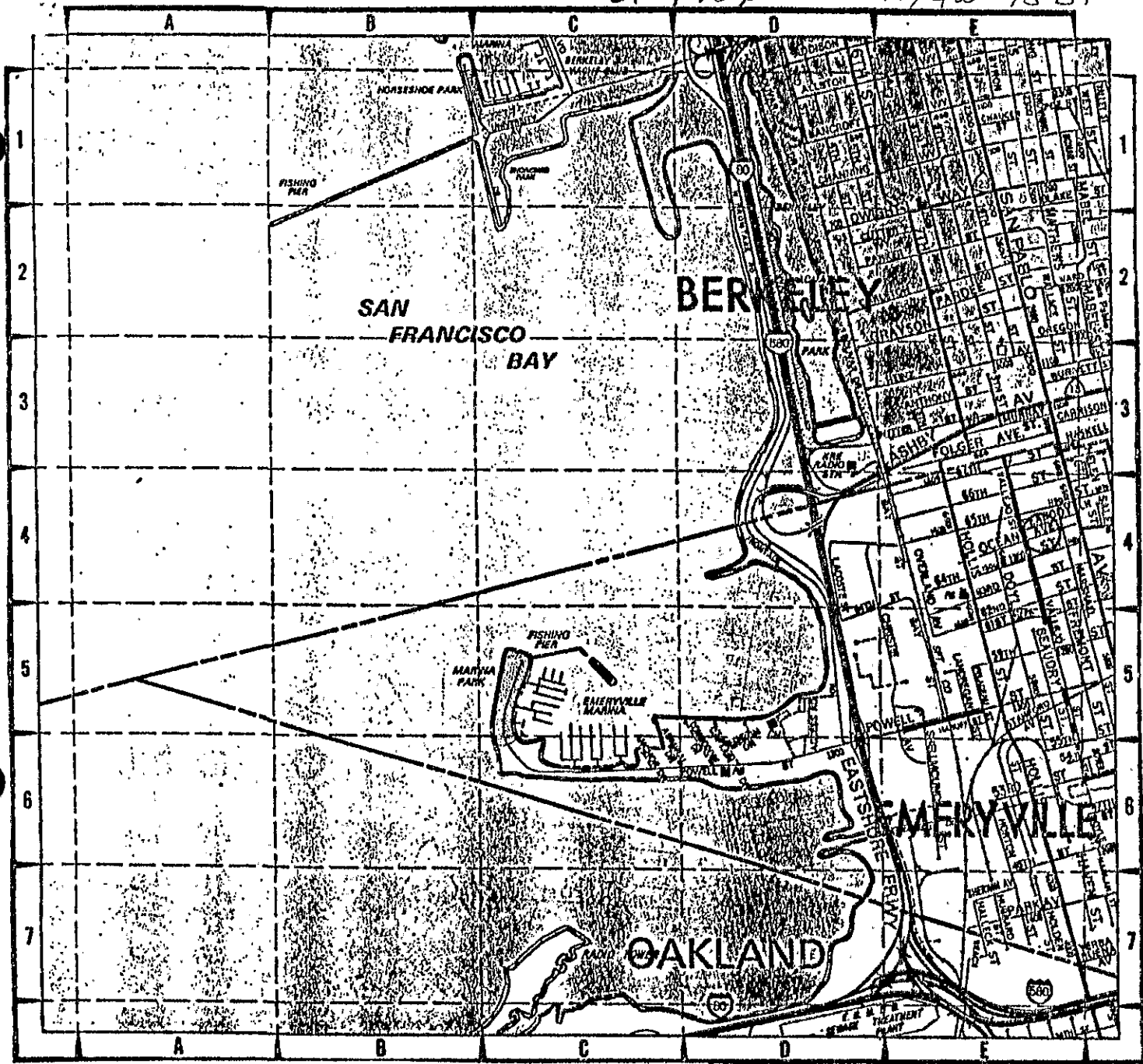
Work performed on 9/6/89

0 10
Scale (feet)



01-4426

1S/4W-15B1

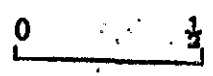


DRAFT

URIAH ENVIRONMENTAL SERVICES, INC.

SITE LOCATION:

1171 OCEAN AVENUE, OAKLAND, CA



Scale (miles)

N

01-4420

PROJECT NO. _____ LOCATION 1171 Ocean Avenue, Oakland, CA
 CLIENT. Linde Gases LOGGED BY. Walter Floyd, Geologist
 BORE HOLE NO. _____ MONITOR HOLE NO. MW-1 ELEVATION _____
 DATE DRILLED 12/26/89 START 1030 FINISH 130
 DRILLING METHOD H/S Auger SAMPLING METHOD CA MOD SS DRILLED BY H.E.W. Drilling

DEPTH BELOW SURFACE	SAMPLES COLLECTED			SOIL DESCRIPTION TEXTURE, COLOR, MOISTURE *CONSISTENCY, GRAIN SIZE, ETC.	UNWEI SOIL CLASS.	GRAPHIC LOG	PENETRATION COLLECTED		WELL CONSTRUCTION DETAILS	
	INT	OVR	SAMPLE NO				Blows	SP	Christy Box	
									0" x 6" x 6"	
0				CLAY- yellowish-brown, stiff, no odors, pebbles present (less than 5 pct).	CL				2" Blank PVC	Grout
5			OW-5	Change to CLAYEY-GRAVEL @ 7', orange-brown, angular clasts to 2", no odors.	GC	[Graphic Log]	4,7,10	11	2" Slotted PVC	Bentonite
10			OW-9'				5,10,11	15		
11.5'			OW-11.5'	Clay matrix is saturated.			7,10,11	17	2" Slotted PVC	#3 Monterey Sand
13.5'			OW-13.5'	Groundwater encountered at 14'.			4,6,9	10		
15			OW-15							
20			OW-20'	Change at 16' to SANDY-GRAVEL. Contains approx. 12 pct clay. Dark orange-brown, medium dense.			3,8	11	Screw	Cap
25			OW-25'				7,7	14		
30			OW-30'	Boring terminated at 29'.			11,35	46		

WELL DETAILS

01-4420 1S/4W-15B1

PROJECT NAME: Linde Gases

BORING/WELL NO. MW-1

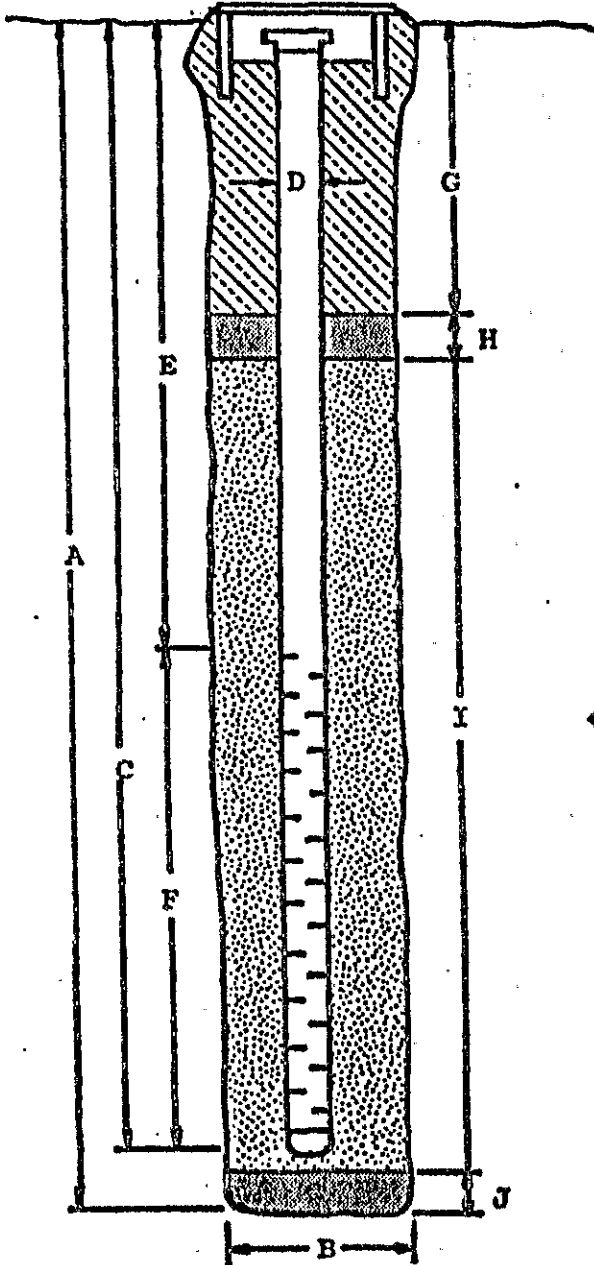
PROJECT NUMBER: _____

CASING ELEVATION: _____

WELL PERMIT NO.: _____

SURFACE ELEVATION: _____

G-5 Vault Box



A. Total Depth: 29'

B. Boring Diameter: 8"

Drilling method: H/S Auger

C. Casing Length: 29'

Material: PVC

D. Casing Diameter: 2"

E. Depth to Perforations: 9'

F. Perforated Length: 20'

Perforated Interval: 29'-9'

Perforation Type: Factory Slot

Perforation Size: 0.020"

G. Surface Seal: 5'-0'

Seal Material: Grout

H. Seal: 7.5'-5'

Seal Material: Bentonite

I. Gravel Pack: 29'-7.5'

Pack Material: Monterey Sand

Size: #3

J. Bottom Seal: _____

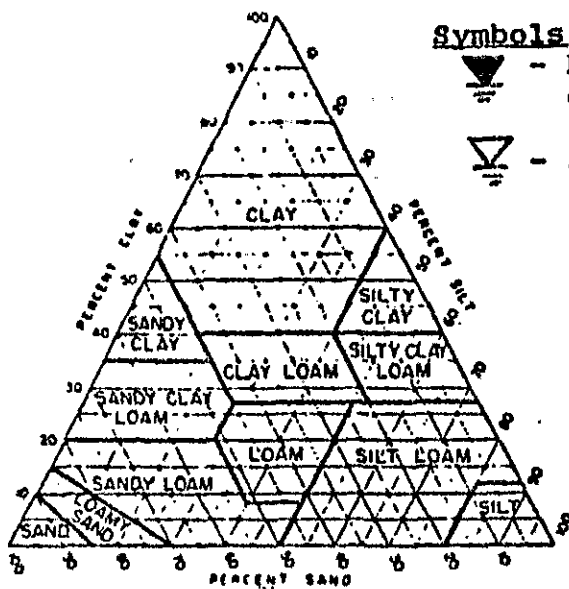
Seal Material: _____

DRAFT

**WELL LOG
KEY TO ABBREVIATIONS**

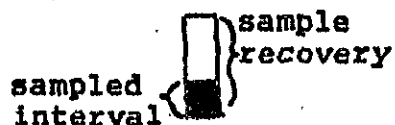
Sampling Method

- Cal. Mod. - California modified split-spoon sampler (2" inner diameter) driven 18" by a 140-pound hammer having a 30" drop. Where penetration resistance is designated "P", sampler was instead pushed by drill rig.
- Disturbed - Sample taken from drill-return materials as they surfaced.
- n/a - Not applicable



Symbols

- First encountered ground water
- Static ground recovery



Drilling Method

- HSA - Hollow stem auger
- CFA - Continuous flight auger
- Air - Reverse air circulation
- HND - Hand Auger

OVR (ppm)

ND - No Detection

SOIL TEXTURAL CLASSES GRAIN-SIZE SCALE

GRADE LIMITS		GRADE NAME
inches	U.S. Standard sieve size	
---12.0---		Boulders
---3.0---	3.0 in.	Cobbles
---0.19---	No. 4	Gravel
0.08	No. 10	Coarse Sand
	No. 40	Medium Sand
	No. 200	Fine Sand
		silt
		Clay

Key To Boring Logs

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS	
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS (LESS THAN 5% FINES)	GW	Well graded gravels, gravel-sand mixtures, little or no fines	
		GRAVEL WITH FINES	GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.	
		SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS (LESS THAN 5% FINES)	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines.
			SANDS WITH FINES	GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 50%	SW	Well graded sands, gravelly sands, little or no fines.	
			SP	Poorly graded sands or gravelly sands, little or no fines.	
		SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50%	SM	Silty sands, sand-silt mixtures, non-plastic fines.	
			SC	Clayey sands, sand-clay mixtures, plastic fines.	
			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity.	
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.	
			OL	Organic silts and organic silty clays of low plasticity.	
			MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.	
			CH	Inorganic clays of high plasticity, fat clays.	
			OH	Organic clays of medium to high plasticity, organic silts.	
HIGHLY ORGANIC SOILS			Pe	Peat and other highly organic soils.	

DEFINITION OF TERMS

SILTS AND CLAYS	U.S. STANDARD SERIES SIEVE			CLEAR SQUARE SIEVE OPENINGS			COBBLES	BOULDERS
	200	40	10	4	3/4"	3"		
	SAND			GRAVEL				
	FINE	MEDIUM	COARSE	FINE	COARSE			

GRAIN SIZES

SANDS AND GRAVELS	BLOWS/FOOT ¹
VERY LOOSE	0 - 4
LOOSE	4 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

SILTS AND CLAYS	STRENGTH ²	BLOWS/FOOT ¹
VERY SOFT	0 - 1/4	0 - 2
SOFT	1/4 - 1/2	2 - 4
FIRM	1/2 - 1	4 - 8
STIFF	1 - 2	8 - 15
VERY STIFF	2 - 4	16 - 32
HARD	OVER 4	OVER 32

RELATIVE DENSITY

¹ Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1-3/8 inch I.D.) split spoon (ASTM D-1586).

² Unconfined compressive strength in tons/sq. ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D-1586), pocket penetrometer, torvane, or visual observation.

CONSISTENCY

UNIFIED SOIL CLASSIFICATION SYSTEM

(ASTM D-2487)

Soil Color derived from the MUNSSELL Soil Color Charts



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94586 (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 1171 Ocean Avenue Oakland, CA

PERMIT NUMBER 89733 LOCATION NUMBER

APPLICANT Union Carbide - Linde Division 2420 Camino Ramon Phone (415) 866-6800 San Ramon Zip 94583

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT Uriah Environmental Services Inc. 464 Lindbergh Ave. Phone (415) 455-4991 Livermore Zip 94550

TYPE OF PROJECT Construction Geotechnical Investigation Cathodic Protection General Other Supply Contamination Monitoring X Well Destruction

PROPOSED WATER SUPPLY WELL USE Domestic Industrial Other Municipal Irrigation

DIGGING METHOD: Rotary Air Rotary Auger X Other

OPERATOR'S LICENSE NO. HEW 384167

PROJECTS Drill Hole Diameter 8 in. Maximum Casing Diameter 2 in. Depth 30 ft. Surface Seal Depth 4 ft.* Number 1

TECHNICAL PROJECTS Number of Borings Maximum Hole Diameter in. Depth ft.

ESTIMATED STARTING DATE 12/26/89 ESTIMATED COMPLETION DATE 12/26/89

I hereby agree to comply with all requirements of this Ordinance and Alameda County Ordinance No. 73-60.

APPLICANT'S SIGNATURE DATE 12-26-89

- A. GENERAL 1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date. 2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects. 3. Permit is void if project not begun within 90 days of approval date. B. WATER WELLS, INCLUDING PIEZOMETERS 1. Minimum surface seal thickness is two inches of cement grout placed by tremie. 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet. C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings. D. CATHODIC. Fill hole above anode zone with concrete placed by tremie. E. WELL DESTRUCTION. See attached. * 10 feet, depending on depth to water.

Approved Wyman Hong Date 19 Dec 89

192

01-543T

01504W15B06

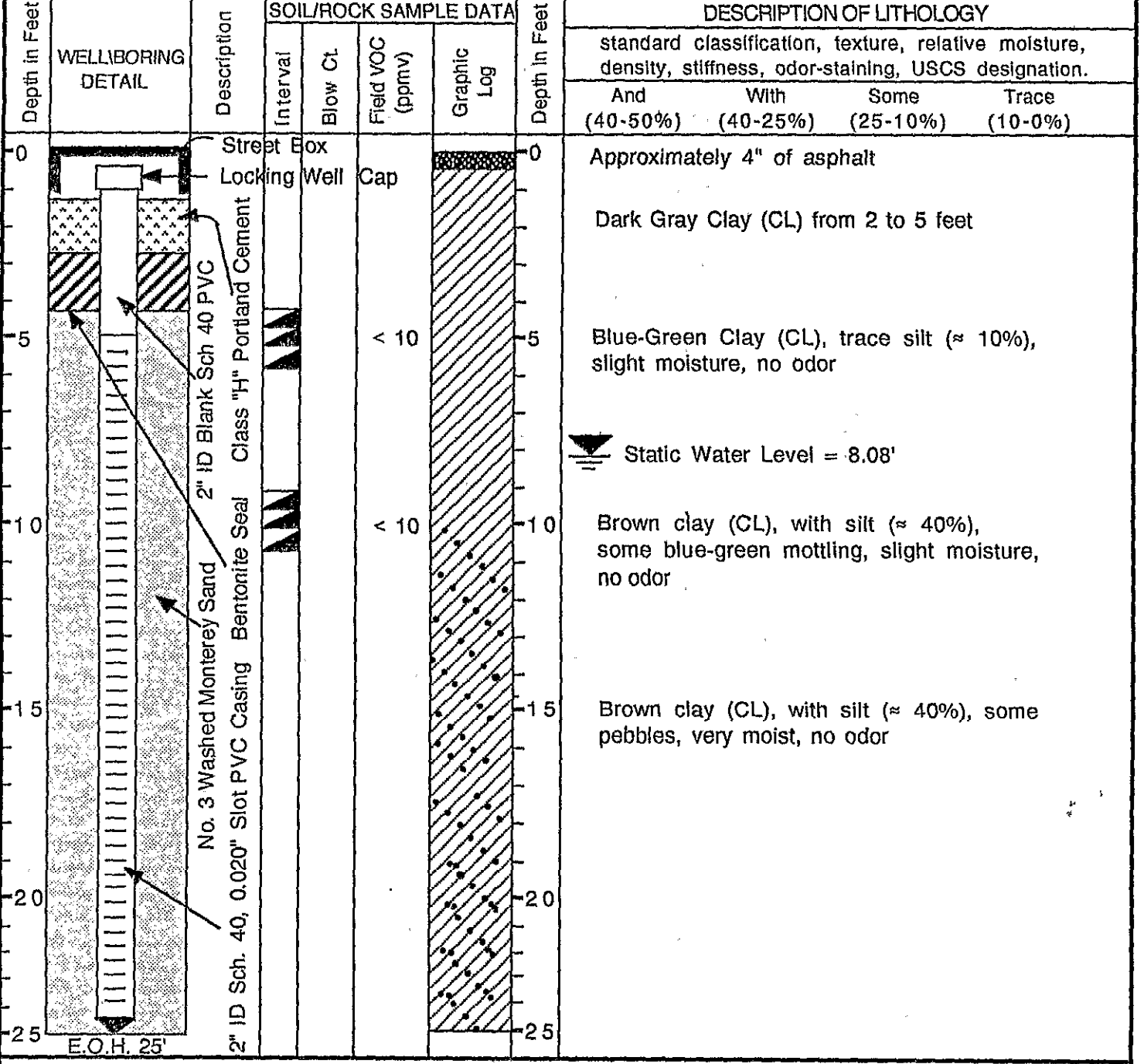
SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS	WELL NO. MW1
---	---------------------

Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland	Page 1 of 1
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Driller: WEST HAZMAT	Type of Rig: Simco 2400 SK-1	Type and Size of Auger: 6.00" O.D., H.S.
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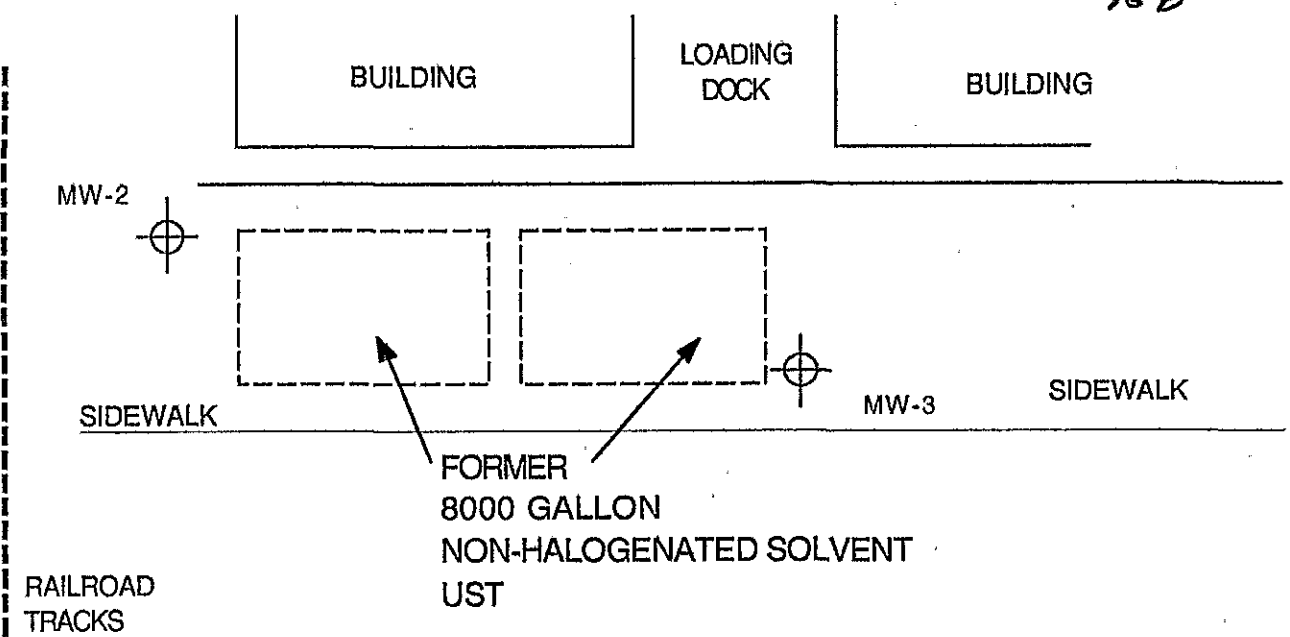
Logged By: WCL	Date Drilled: 10/01/92	Checked By: David M. Schultz, P.E.
----------------	------------------------	------------------------------------

WATER AND WELL DATA	Total Depth of Well Completed: 25.0'
Depth of Water First Encountered: ~ 15'	Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC
Static Depth of Water in Well: 8.08' Below T.O.C.	Well Screen Slot Size: 0.020"
Total Depth of Boring: 25'	Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon

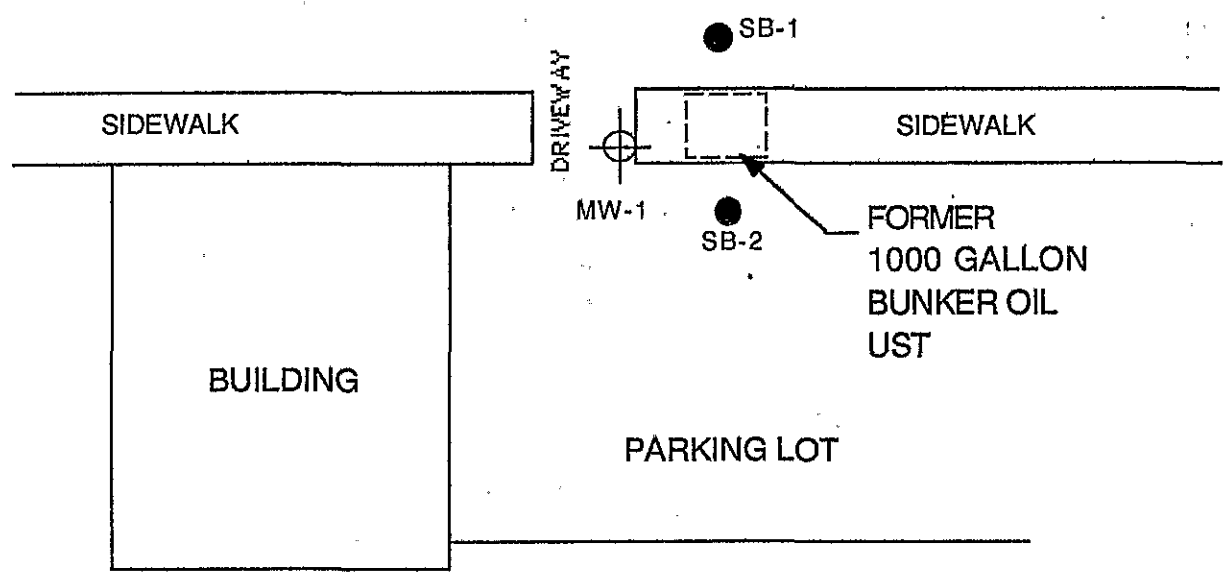


1621

24 282



65th Street



LEGEND

- SB-1 Soil Boring
- ⊕ MW-1 Monitoring Well



0 ft. 20 ft.
SCALE

SITE PLAN

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure 2

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01-5430

01504W15B07

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS

WELL NO. MW2

Project Name: Oliver Rubber

Project Location: 1200 65th Street, Oakland

Page 1 of 1

Driller: WEST HAZMAT

Type of Rig: CME 75

Type and Size of Auger: 8.0" O.D., H.S.

Logged By: WCL

Date Drilled: 10/01/92

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

WATER AND WELL DATA

Total Depth of Well Completed: 25.0'

Depth of Water First Encountered: ~ 15'

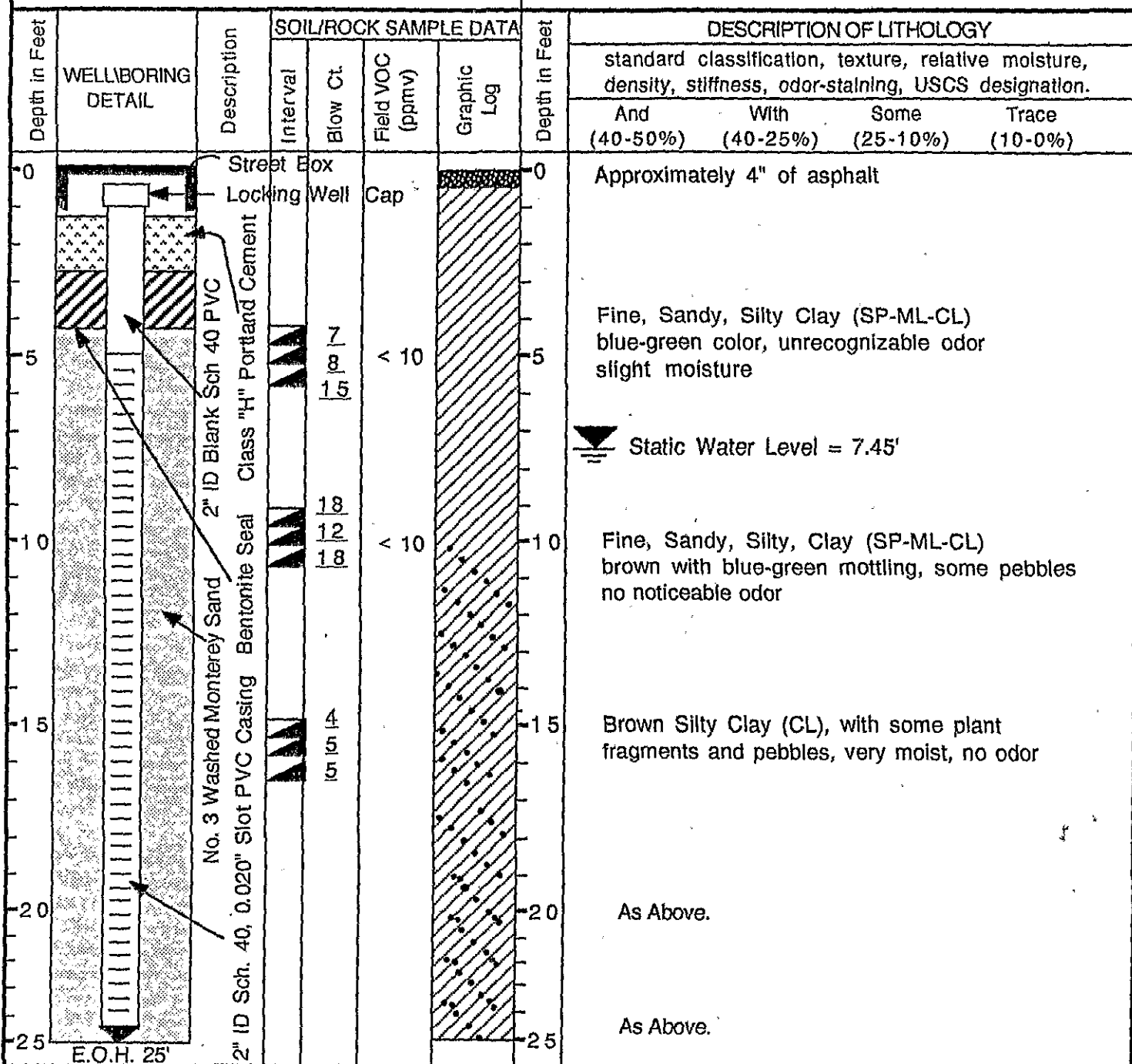
Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC

Static Depth of Water in Well: 7.45' Below T.O.C.

Well Screen Slot Size: 0.020"

Total Depth of Boring: 25'

Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon



ASE Form 20A

AQUA SCIENCE ENGINEERS, INC.

1621

172

01-543V

01504W15B08

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS	WELL NO. MW3
---	---------------------

Project Name: Oliver Rubber	Project Location: 1200 65th Street, Oakland	Page 1 of 1
-----------------------------	---	-------------

Driller: WEST HAZMAT	Type of Rig: CME 75	Type and Size of Auger: 8.0" O.D., H.S.
----------------------	---------------------	---

Logged By: WCL	Date Drilled: 10/01/92	Checked By: David M. Schultz, P.E.
----------------	------------------------	------------------------------------

WATER AND WELL DATA	Total Depth of Well Completed: 25.0'
Depth of Water First Encountered: ~ 17'	Well Screen Type and Diameter: 2" Diameter Schedule 40 PVC
Static Depth of Water in Well: 7.44' Below T.O.C.	Well Screen Slot Size: 0.020"
Total Depth of Boring: 25'	Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon

Depth in Feet	WELLBORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY			
			Interval	Blow Ct.	Field VOC (ppmv)	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.			
								And (40-50%)	With (40-25%)	Some (25-10%)	Trace (10-0%)
0	Street Box Locking Well Cap					0	Approximately 4" of asphalt				
5	2" ID Blank Sch 40 PVC Class "H" Portland Cement		6 12 14	< 10	[Diagonal Hatching]	5	Blue-green Clay (CL) moderate, unrecognizable odor slight moisture				
10	No. 3 Washed Monterey Sand 2" ID Sch. 40, 0.020" Slot PVC Casing Bentonite Seal		6 8 10	< 10	[Diagonal Hatching with dots]	10	Brown with blue-green Clay (CL) brown with blue-green mottling, some plant fragments, moderately moist, no noticeable odor				
15			4 6 6		[Diagonal Hatching with dots]	15	Brown with slight blue-green mottling Clay (CL), with silt, with abundant pebbles, very moist, no odor				
20					[Diagonal Hatching with dots]	20	As Above.				
25	E.O.H. 25'				[Diagonal Hatching with dots]	25	Brown Clay with silt (CL), mottled with plant fragments, moderately moist, no odor				
							As Above.				

Static Water Level = 7.45'

1621

172

02543W

01504W15B

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS						BORING NO. SB1									
Project Name: Oliver Rubber			Project Location: 1200 65th Street, Oakland			Page 1 of 1									
Driller: WEST HAZMAT		Type of Rig: Simco 2400 SK-1		Type and Size of Auger: 6.00" O.D., H.S.											
Logged By: WCL		Date Drilled: 10/01/92		Checked By: David M. Schultz, P.E.											
WATER AND WELL DATA						Total Depth of Well Completed: N/A									
Depth of Water First Encountered: N/A						Well Screen Type and Diameter: N/A									
Static Depth of Water in Well: N/A.						Well Screen Slot Size: N/A									
Total Depth of Boring: 15'						Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon									
Depth in Feet	WELLBORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY							
			Interval	Blow Ct.	Field VOC (ppmv)	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.							
								And (40-50%)	With (40-25%)	Some (25-10%)	Trace (10-0%)				
0						0	Approximately 4" of asphalt								
5				< 10		5	Dark Gray Clay (CL) from 2 to 5 feet								
10				< 10		10	Blue-Green Clay (CL), some plant matter, cobbles, slight moisture, no odor								
15						15	Brown clay (CL), some plant matter slight moisture, no odor								
20							Brown clay (CL), some plant matter, very moist some pebbles, no odor								
25							EOH = 15'								

1621

172

01-543X

01504W15B

SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DETAILS						BORING NO. SB2						
Project Name: Oliver Rubber			Project Location: 1200 65th Street, Oakland			Page 1 of 1						
Driller: WEST HAZMAT		Type of Rig: Simco 2400 SK-1		Type and Size of Auger: 6.00" O.D., H.S.								
Logged By: WCL		Date Drilled: 10/01/92		Checked By: David M. Schultz, P.E.								
WATER AND WELL DATA				Total Depth of Well Completed: N/A								
Depth of Water First Encountered: N/A				Well Screen Type and Diameter: N/A								
Static Depth of Water in Well: N/A.				Well Screen Slot Size: N/A								
Total Depth of Boring: 15'				Type and Size of Soil Sampler: 2" I.D., Calif. Split-Spoon								
Depth in Feet	WELLBORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY				
			Interval	Blow Ct.	Field VOC (ppmv)	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.				
							And (40-50%)	With (40-25%)	Some (25-10%)	Trace (10-0%)		
0						0	Approximately 4" of asphalt					
5					< 10	5	Dark Gray Clay (CL), no odor					
10					< 10	10	Blue-Green Clay (CL), some plant matter, slight moisture, no odor					
15					< 10	15	Brown, silty clay (CL), some plant matter, slight moisture, abundant pebbles, no odor					
20							Brown, silty clay (CL), some plant matter, very moist, abundant pebbles, no odor					
25							EOH = 15'					

1621

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(WELL LOGS)**

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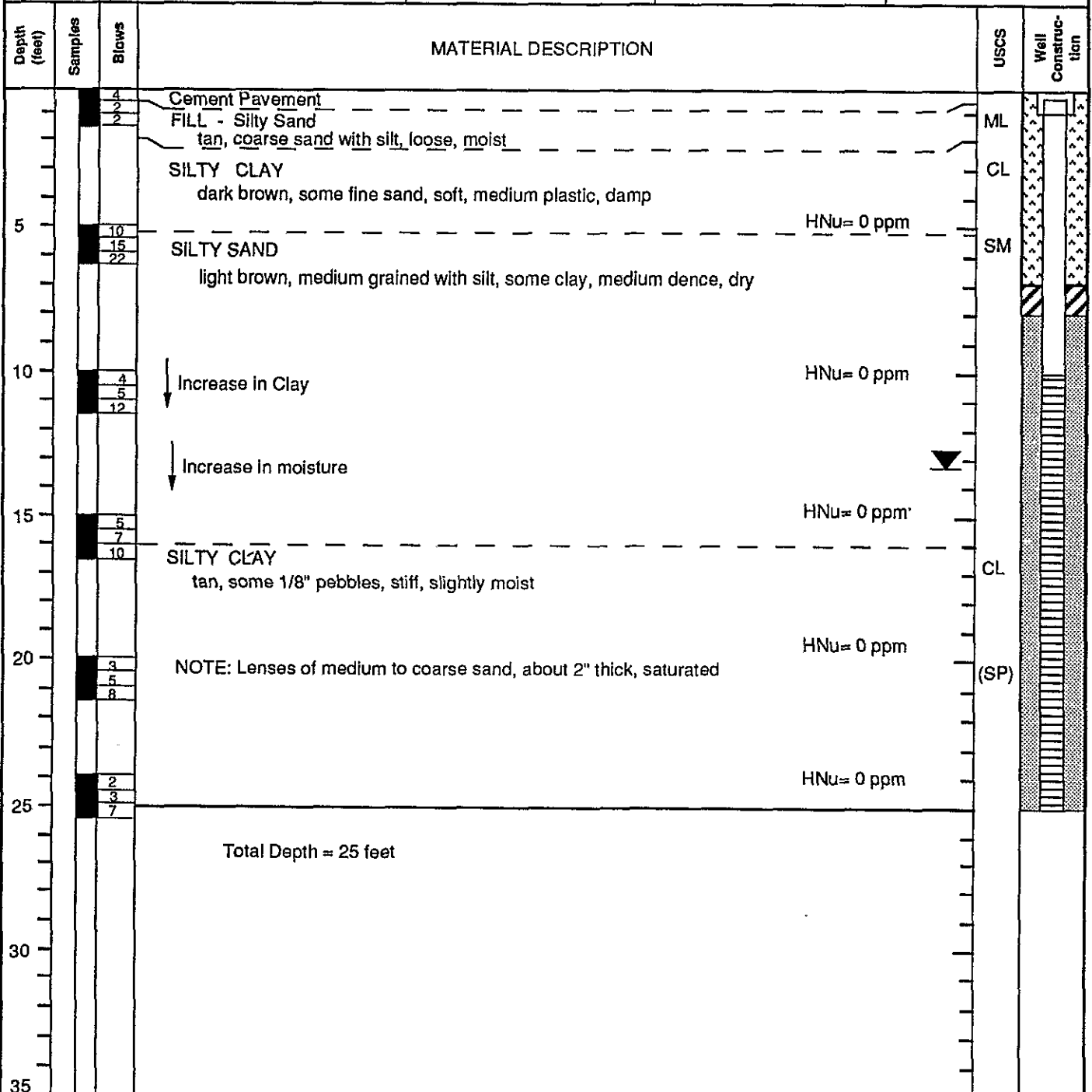
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15/4W 15C 2.

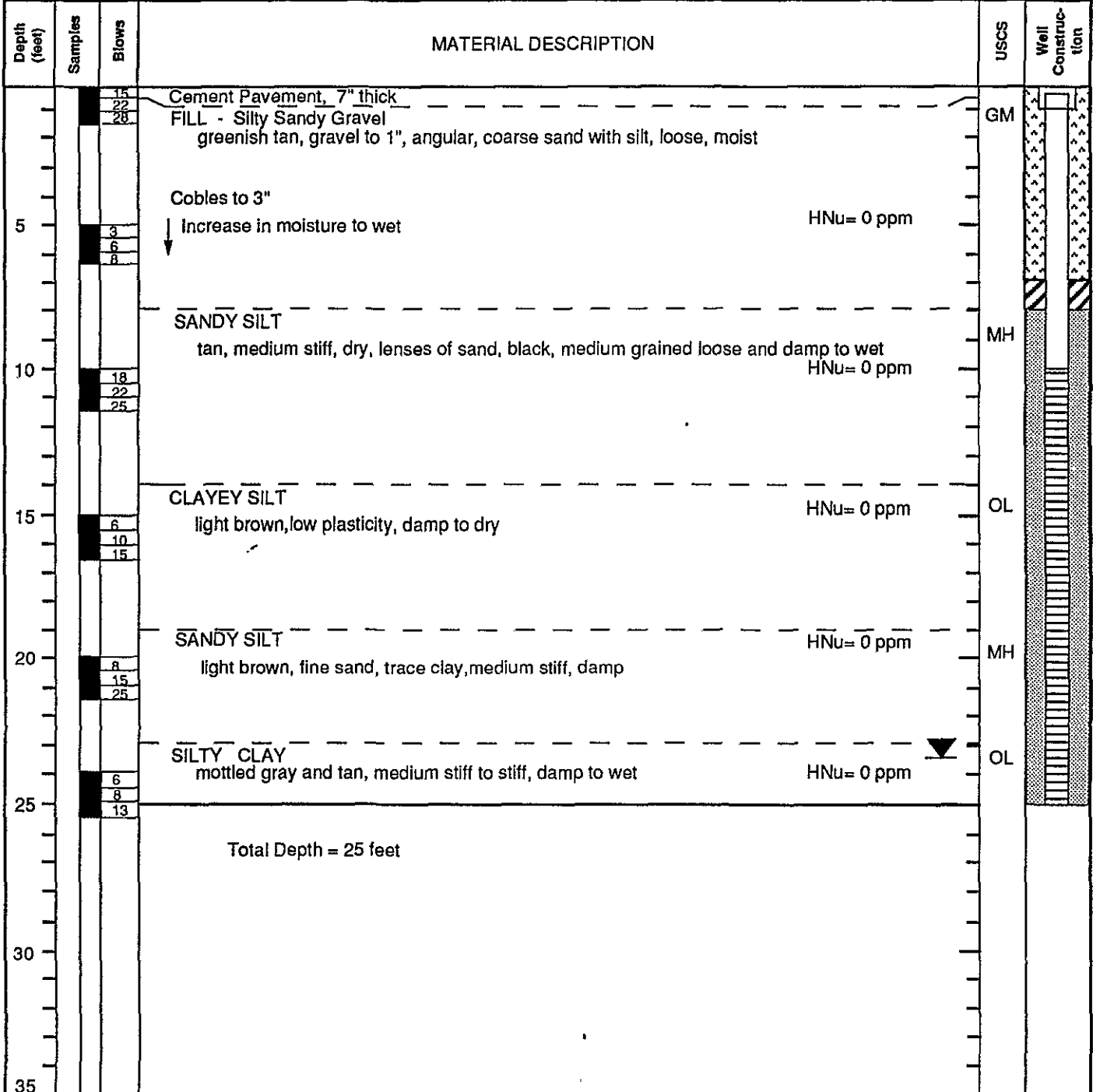
Woodward-Clyde Consultants

PROJECT NAME GROVE VALVE No. 91C0091A/2000

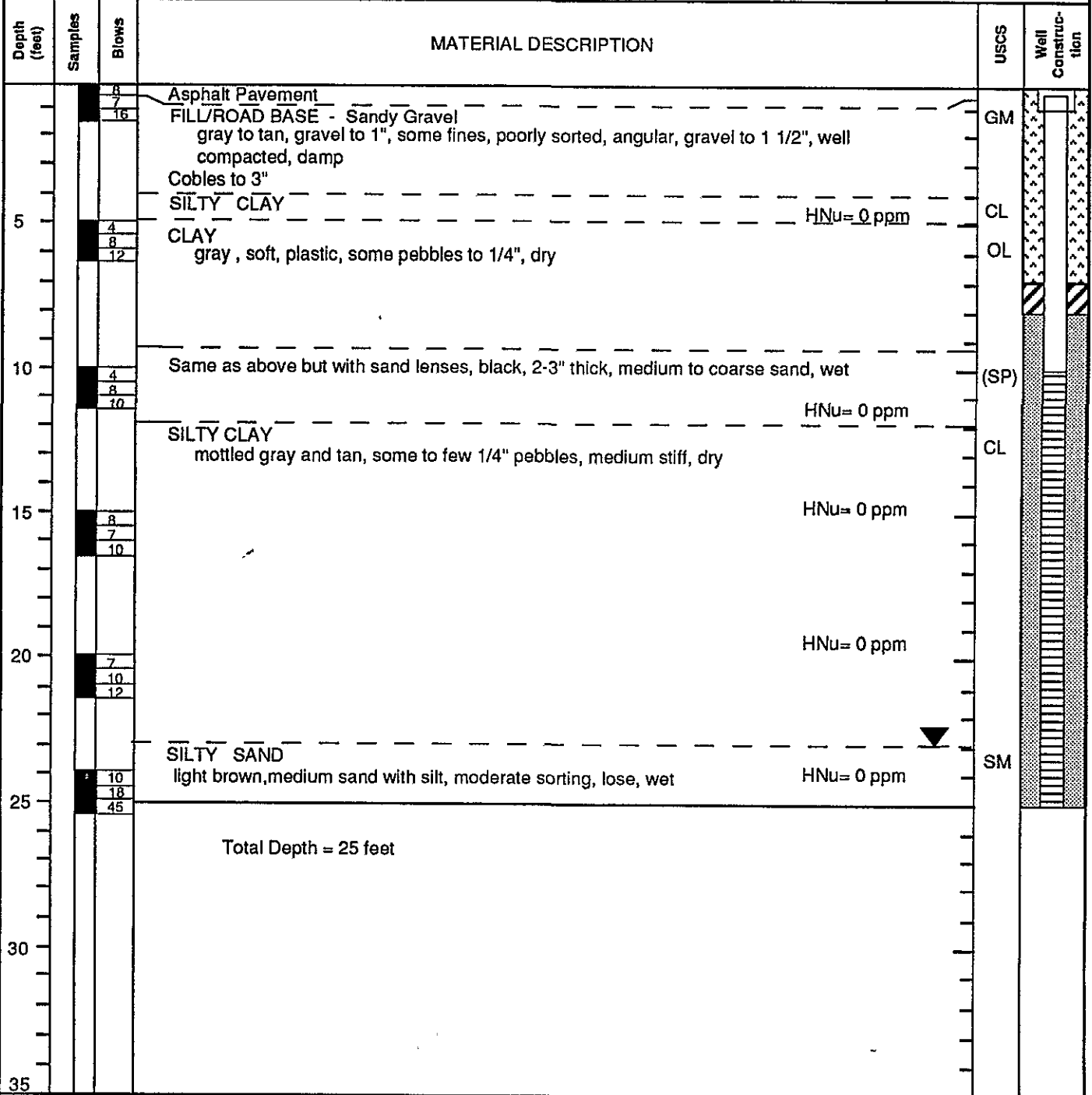
MONITORING WELL LOCATION Grove Valve and Regulator 6529 Hollis Street, Emeryville, CA		South east parking lot		ELEVATION AND DATUM 20.72' MSL	
DRILLING AGENCY Kvilhaug Well Drilling		DRILLER Rodney Furlow		DATE STARTED 2/27/92	
DRILLING EQUIPMENT Mobile Drill B-61				COMPLETION DEPTH 25	SAMPLER 2" split spoon
DRILLING METHOD Hollow stem auger		DRILL BIT		NO. OF SAMPLES	DIST.
SIZE AND TYPE OF CASING 4" Schedule 40 PVC		FROM 0.0 TO 10.0 FT.		WATER LEVEL	FIRST
TYPE OF PERFORATION 0.020" Slot		FROM 10.0 TO 25.0 FT.		LOGGED BY:	
SIZE AND TYPE OF PACK #2/12 Monterey sand		FROM 8.0 TO 25.0 FT.		CHECKED BY:	
TYPE OF SEAL	NO. 1 1/4" Bentonite pellets	FROM 7.0 TO 8.0 FT.		K. O. Guyer	
	NO. 2 Neat cement grout	FROM surface TO 7.0 FT.			



MONITORING WELL LOCATION Grove Valve and Regulator 6529 Hollis Street, Emeryville, CA		Southwest corner of main Plant building		ELEVATION AND DATUM 15.95' MSL	
DRILLING AGENCY Kvihaug Well Drilling		DRILLER Rodney Furlow		DATE STARTED DATE FINISHED 2/26/92	
DRILLING EQUIPMENT Mobile Drill B-61		COMPLETION DEPTH 25		SAMPLER 2" split spoon	
DRILLING METHOD Hollow stem auger		DRILL BIT		NO. OF SAMPLES DIST. UNDIST. 6	
SIZE AND TYPE OF CASING 4" Schedule 40 PVC		FROM 0.0 TO 10.0 FT.		WATER LEVEL FIRST COMPL. 24 HRS.	
TYPE OF PERFORATION 0.020" Slot		FROM 10.0 TO 25.0 FT.		LOGGED BY:	
SIZE AND TYPE OF PACK #2/12 Monterey sand		FROM 8.0 TO 25.0 FT.		K. O. Guyer	
TYPE OF SEAL		NO. 1 1/4" Bentonite pellets		FROM 7.0 TO 8.0 FT.	
		NO. 2 Neat cement grout		FROM surface TO 7.0 FT.	
				CHECKED BY: R. Ely	



MONITORING WELL LOCATION Grove Valve and Regulator 6529 Hollis Street, Emeryville, CA		Northwest corner outside of main Plant building		ELEVATION AND DATUM 16.98' MSL		
DRILLING AGENCY Kvihaug Well Drilling		DRILLER Rodney Furlow		DATE STARTED 2/26/92		
DRILLING EQUIPMENT Mobile Drill B-61				COMPLETION DEPTH 25	SAMPLER 2" split spoon	
DRILLING METHOD Hollow stem auger		DRILL BIT		NO. OF SAMPLES	DIST.	
SIZE AND TYPE OF CASING 4" Schedule 40 PVC		FROM 0.0	TO 10.0	FT.	UNDIST. 6	
TYPE OF PERFORATION 0.020" Slot		FROM 10.0	TO 25.0	FT.	COMPL. 24 HRS.	
SIZE AND TYPE OF PACK #2/12 Monterey sand		FROM 8.0	TO 25.0	FT.	LOGGED BY: K. O. Guyer	
TYPE OF SEAL	NO. 1 1/4" Bentonite pellets	FROM 7.0	TO 8.0	FT.		CHECKED BY: R. Ely
	NO. 2 Neat cement grout	FROM surface	TO 7.0	FT.		



REGION _____
 COUNTY _____
 NEAR _____

DIVISION OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR NO. 15/4W-15D B & M
 OTHER NOS. 15/4W-15D

WELL LOG

01-754

LOCATION _____

OWNER J.W. Carter & Co. ADDRESS 67 1/2 W. of Hwy. 99, Blythe

DRILLED BY Barnett ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED 7/13/48

SIZE OF CASING DEPTH 10" STRUCK WATER AT _____

PERFORATIONS N-30, 53-60, 66-69, 170-183, 187-202, 202-209 SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 2		top soil		
13		clay		
28		clay		
32		clay		
42		soft silty clay		
53		jointed clay & silt		
60		silty clay (drainage canals small)		
68		clay with silt		
74		clay with silt		
84		silty clay		
109		clay		
183		channel clay with little silt		
187		clay		
202		clay with silt		
230		clay with silt		
250		clay with silt		
277		clay		
301		clay		
325		clay		

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

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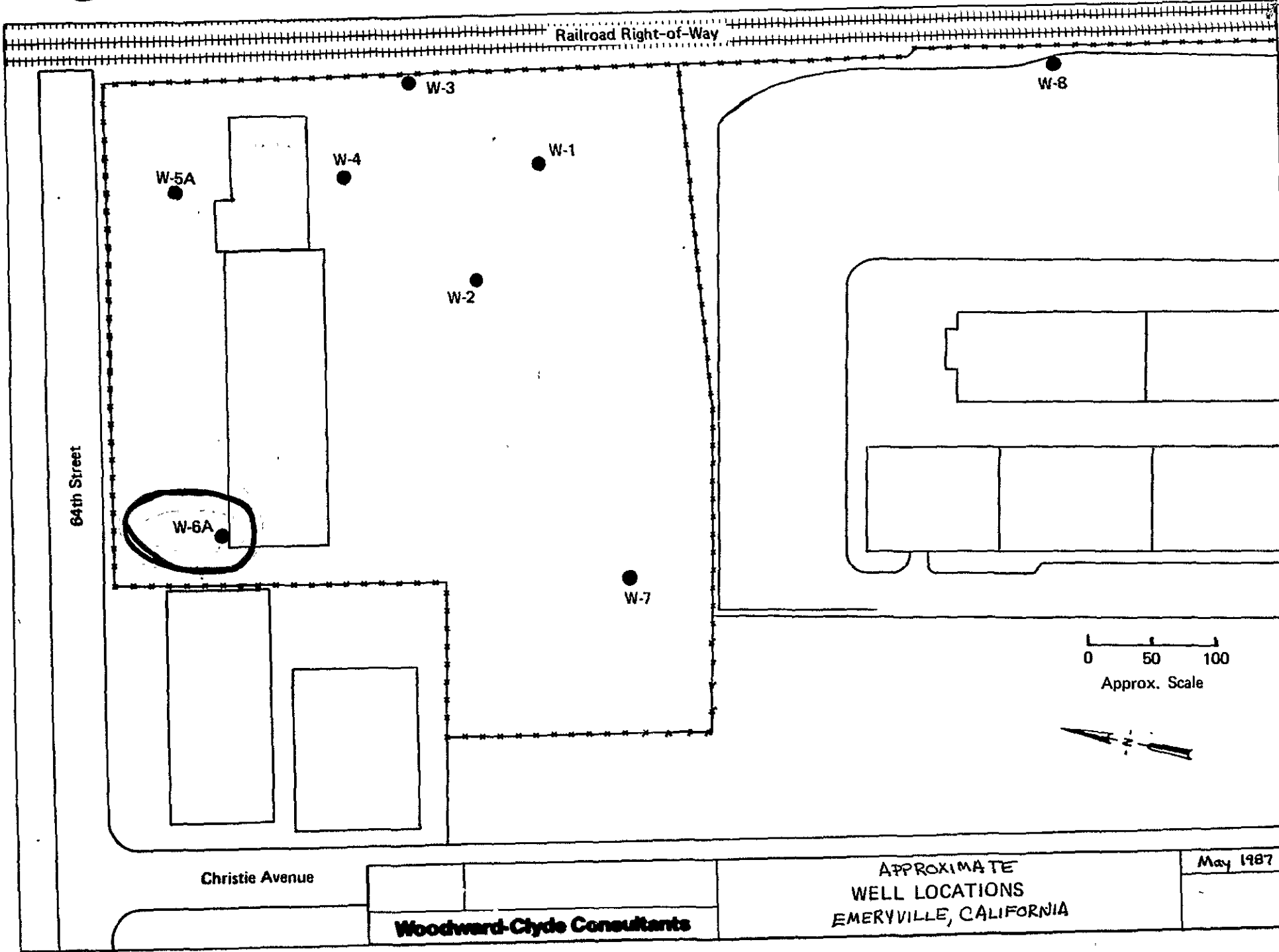
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298488

15/4W15E9

Christie Avenue

Woodward-Clyde Consultants

APPROXIMATE
WELL LOCATIONS
EMERYVILLE, CALIFORNIA

May 1987

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Railroad Right-of-Way

W-8

W-1

W-4

W-5A

W-2

W-3

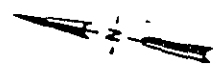
W-6A

W-7

64th Street

Christie Avenue

0 50 100
Approx. Scale



Woodward-Clyde Consultants

APPROXIMATE
WELL LOCATIONS
EMERYVILLE, CALIFORNIA

May 1987

298489 15/14W/SEID

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SOIL DRILLING LOG

SB/MW # W-19
 # D- 5757, 5758
 Page 1 of 2
 Sampler: M CHRISTENSEN



340014

PROJECT MARKETPLACE 59801-008 LOCATION 305'SE FROM CENTER OF 64 ST. & 340'NE FROM
 ELEVATION 10.265' (MSL) MONITORING DEVICE Hnu, BENZENE DREAGER CENTER OF CHRISTIE AVE
 SAMPLING DATE(S) 4-6-90 START 7:30 FINISH 11:00
 SAMPLING METHOD(S) 5' CONTINUOUS SAMPLER SUBCONTRACTOR & EQUIPMENT GREGG DRILLING
 MEMO HAND AUGER TO 5'. 0 ppm BENZENE DETECTED AT 20'. MOBILE B-53
MODIFIED CALIFORNIA SPLIT SPOON SAMPLER USED FROM 5' TO 10'.
PERCENTAGE ORDER: (GRAVEL-SAND-SILT-CLAY).

Depth Below Surface (ft.)	Penetration Results		Sampler Depth Interval (ft.)	Sample ID #	Hnu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
	Blows 6"-6"-6"	BPF								
0.0-0.5'	NA	NA	NA	NA		(0.0-0.5'); Asphalt	AC		NA	Vault box
0.5-2.0'					1.7	(0.5'-2.0'); clayey sand; (20-50-15-15); yellowish brown, (10YR5/6); slight plasticity; fine to coarse grained sand; sub-angular gravel (to 3.0 cm); soft; dense; moist. Contains minor brick fragments.	SC (RB)		2.0'	Locking well cap
2.0-6.0'					2.2	(2.0'-6.0'); sandy clay; (5-45-20-30); very dark gray, (10YR3/1); low plasticity; fine to medium grained sand; sub-angular gravel (to 1.0 cm); slightly stiff; moist, grading to slightly moist with depth. Contains wood and brick fragments; concrete occurs between 5.5'-6.0'.	CL		2.5'	Granular bentonite
6.0-9.0'					3.0	(6.0'-9.0'); clayey sand; (15-50-15-20); dark grayish brown, (2.5Y4/2); slight plasticity; fine to coarse grained sand; sub-angular gravel (to 2.0cm); soft; medium density; saturated. Contains wood and brick fragments; dark brown viscous oil droplets observed in cuttings.	SM/SC			2" ID Sch 40 PVC blank casing
9.0-10.5'					7.0	(9.0'-10.5'); sandy clay; (5-30-25-40); black, (10YR2/1); medium plasticity; fine to medium grained sand; sub-rounded gravel (to 3.0cm); stiff; moist. Strong petroleum odor.	CL			8/20 mesh sand
10.5-13.0'					3.2	(10.5'-13.0'); silty sand; (20-50-20-10); olive brown, (2.5Y4/4); non-plastic; fine to medium grained sand; sub-angular gravel (to 2.5cm); loose; moist.	SM			7.5" Borehole
13.0-14.0'					6.4	(13.0'-14.0'); silty sand; (0-70-20-10); black, (10YR2/1); non-plastic; dense; very fine to fine grained sand; very moist.	SM			2" ID Sch 40 PVC well screen 0.020" slot
14.0-14.5'					3.8	(14.0'-14.5'); sandy clay; (10-40-20-30); dark greenish gray (5GY4/1); medium plasticity; fine to coarse grained sand; sub-angular gravel (to 1.0cm); slightly stiff; moist.	SM			End cap
							CL			Granular bentonite

SIGNATURE OF FIELD SUPERVISOR
 ASSISTANT GEOLOGIST

Julie S. Mowatt RG # 9490
 SIGNATURE OF REVIEWER
 SENIOR HYDROGEOLOGIST

TITLE

TITLE



SOIL DRILLING LOG

SB/MW # W-19
 # D- 5757, 5758
 Page 2 of 2
 Sampler: M CHRISTENSEN

340014

PROJECT MARKETPLACE 59801-008 LOCATION 305'SE FROM CENTER OF 64 ST. & 340'NE FROM
 ELEVATION 10.265' (MSL) MONITORING DEVICE Hnu, BENZENE DREAGER CENTER OF CHRISTIE AVE
 SAMPLING DATE(S) 4-6-90 START 7:30 FINISH 11:00
 SAMPLING METHOD(S) 5' CONTINUOUS SAMPLER SUBCONTRACTOR & EQUIPMENT GREGG DRILLING
 MEMO HAND AUGER TO 5'. 0 ppm BENZENE DETECTED AT 20'. MOBILE B-53
MODIFIED CALIFORNIA SPLIT SPOON SAMPLER USED FROM 5' TO 10'.
PERCENTAGE ORDER: (GRAVEL-SAND-SILT-CLAY).

Depth Below Surface (ft.)	Penetration Results		Sampler Depth Interval (ft.)	Sample ID #	Hnu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
	Blows 6"-6"-6"	BPF								
17.5	NA	NA	15.0-20.0	NA	2.1	(14.5-16.0'); sandy clay; (0-35-30-35); yellowish brown, (10YR5/4) streaked with gray, (10YR6/1); medium plasticity; fine to medium grained sand; minor sub-angular gravel (to 0.5cm); stiff; moist.	CL		NA	<p>Granular bentonite 7.5" borehole 20' TD</p>
20.0					1.9	(16.0'-20.0'); sandy clay; (0-35-35-30); gray, (5Y5/1); medium plasticity; fine grained sand; stiff; moist.	CL			
22.5										
25.0										
27.5										
30.0										

SIGNATURE OF FIELD SUPERVISOR _____
 ASSISTANT GEOLOGIST
 TITLE _____

Julie S. Menard RG 4440
 SIGNATURE OF REVIEWER _____
 SENIOR HYDROGEOLOGIST
 TITLE _____

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SOIL DRILLING LOG

340015

SB/MW # W-20
 # D- 5753, 5754
 Page 1 of 2
 Sampler: M CHRISTENSEN

PROJECT MARKETPLACE 59801-008 LOCATION 670'SE FROM CENTER OF 64 ST. & 15'SW FROM
 ELEVATION 6.815' (MSL) MONITORING DEVICE Hnu, BENZENE DREAGER CENTER OF CHRISTIE AVE
 SAMPLING DATE(S) 4-5-90 START 7:30 FINISH 11:30
 SAMPLING METHOD(S) 5' CONTINUOUS SAMPLER SUBCONTRACTOR & EQUIPMENT GREGG DRILLING
 MEMO HAND AUGER TO 5'. 0 ppm BENZENE DETECTED AT 18'. MOBILE B-53
 PERCENTAGE ORDER: (GRAVEL-SAND-SILT-CLAY).

Depth Below Surface (ft.)	Penetration Results		Sampler Depth Interval (ft.)	Sample ID #	Hnu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
	Blows 6"-6"-6"	BPF								
0.0'-0.25'	NA	NA	NA	NA		(0.0'-0.25'); Asphalt.	AC		NA	Vault box
0.25'-2.0'						(0.25'-2.0'); clayey sand; (15-50-15-20); light olive brown, (2.5Y5/6); slight plasticity; fine to coarse grained sand; sub-angular gravel (to 4.0 cm); soft; slightly moist to moist.	SC (RB)			Locking well cap
2.0'-4.0'					7.1	(2.0'-4.0'); sandy clay; (5-35-25-35); dark grayish brown, (2.5Y4/2); medium plasticity; fine to medium grained sand; stiff; moist. Contains wood and brick fragments; petroleum odor.	CL			Granular bentonite
4.0'-6.0'			5.0-10.0		16.4	(4.0'-6.0'); sandy clay; (5-40-20-35); very dark gray, (5Y3/1); medium plasticity; fine to coarse grained sand; stiff; moist. Contains brick and shell fragments.	CL			2" ID Sch 40 PVC blank casing
6.0'-9.75'					10.9	(6.0'-9.75'); silty sand; (10-65-20-10); dark gray, (5Y4/1); non-plastic; very fine to medium grained sand; sub-angular gravel (to 4.0 cm); medium dense; saturated. Contains wood, glass, brick and shell fragments. Black asphaltic material occurs between 9.0'-9.75', hard, dense. Petroleum odor.	SM			8/20 mesh sand
9.75'-10.5'			10.0-15.0		33	(9.75'-10.5'); silty sand; (5-70-20-5); black, (2.5Y2/0); non-plastic; fine to medium grained sand; medium density; saturated. Contains wood and brick fragments.	SM			7.5" Borehole
10.5'-12.0'					10.2	(10.5'-12.0'); sandy clay; (5-30-25-40); dark greenish gray, (5G4/1); high plasticity; fine to medium grained sand; sub-angular gravel (to 1.0 cm); moist.	CL			2" ID Sch 40 PVC well screen 0.020" slot
12.0'-13.5'					3.4	(12.0'-13.5'); clayey gravel; (45-30-10-15); dark yellowish brown, (10YR 4/6); very slightly plastic; fine to coarse grained sand, well graded, sub-angular gravel (to 1.0cm); soft; dense; saturated.	GC			
13.5'-18.0'					3.3	(13.5'-18.0'); clayey gravel; (45-30-10-15); dark yellowish brown, (10YR 4/6); very slightly plastic; fine to coarse grained sand, well graded, sub-angular gravel (to 1.0cm); soft; dense; saturated.	SC			
						See following page				

SIGNATURE OF FIELD SUPERVISOR _____
 ASSISTANT GEOLOGIST
 TITLE _____

Julie S Menack RG # 4440
 SIGNATURE OF REVIEWER _____
 SENIOR HYDROGEOLOGIST
 TITLE _____

SOIL DRILLING LOG

SB/MW # W-20
 # D- 5753, 5754
 Page 2 of 2
 Sampler: M CHRISTENSEN



340015

PROJECT MARKETPLACE 59801-008 LOCATION 670'SE FROM CENTER OF 64 ST. & 15'SW FROM
 ELEVATION 6.815' (MSL) MONITORING DEVICE Hnu, BENZENE DREAGER CENTER OF CHRISTIE AVE
 SAMPLING DATE(S) 4-5-90 START 7:30 FINISH 11:30
 SAMPLING METHOD(S) CONTINUOUS SAMPLER SUBCONTRACTOR & EQUIPMENT GREGG DRILLING
 MEMO HAND AUGER TO 5'. 0 ppm BENZENE DETECTED AT 18'. MOBILE B-53
 PERCENTAGE ORDER: (GRAVEL-SAND-SILT-CLAY).

Depth Below Surface (ft.)	Penetration Results		Sampler Depth Interval (ft.)	Sample ID #	Hnu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
	Blows 6"-6"-6"	BPF								
<div style="display: flex; flex-direction: column; justify-content: space-between;"> 17.5 20.0 22.5 25.0 27.5 30.0 </div>	NA	NA	15.0-20.0	NA	2.5	(13.5'-16.0'); clayey sand; (15-50-15-20); dark yellowish brown, (10YR4/6); slightly plastic; fine to coarse grained sand, well graded, sub-angular gravel (to 1.0 cm); soft; dense; moist.	SC		NA	8/20 mesh sand 2" ID Sch 40 PVC well screen 0.020" slot End cap 7.5" borehole Granular bentonite TD
					2.9	(16.0'-17.5'); clayey sand; (15-55-15-15); yellowish brown (10YR5/6); very slightly plastic; fine to coarse grained sand, well graded, sub-angular gravel (to 1.5 cm); soft; dense; saturated.	SC			
			20.0-21.5		2.5	(17.5'-23.0'); sandy clay; (0-40-25-35); yellowish brown, (10YR5/4); medium plasticity; fine to medium grained sand, poorly graded; stiff; moist. Minor burrows, filled with greenish gray, (5GY5/1), silt.	CL			
			21.5-23.0			(20.0'-23.0'); samples obtained with Modified California Split Spoon Sampler.				

SIGNATURE OF FIELD SUPERVISOR _____
 ASSISTANT GEOLOGIST
 TITLE _____

Julie S. Menack RG #4446
 SIGNATURE OF REVIEWER _____
 SENIOR HYDROGEOLOGIST
 TITLE _____

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SOIL DRILLING LOG

340016

SB/MW # W-21
 # D- 5755, 5756
 Page 1 of 2
 Sampler: M CHRISTENSEN

PROJECT MARKETPLACE 59801-008 LOCATION 440'SE FROM CENTER OF 64 ST. & 360'NE FROM
 ELEVATION 9.475' (MSL) MONITORING DEVICE Hnu, BENZENE DREAGER CENTER OF CHRISTIE AVE
 SAMPLING DATE(S) 4-5-90 START 12:20 FINISH 16:00
 SAMPLING METHOD(S) 5' CONTINUOUS SAMPLER SUBCONTRACTOR & EQUIPMENT GREGG DRILLING
 MEMO HAND AUGER TO 5'. 0 ppm BENZENE DETECTED AT 20'. MOBILE B-53
 PERCENTAGE ORDER: (GRAVEL-SAND-SILT-CLAY).
 MODIFIED CALIFORNIA SPLIT SPOON SAMPLER USED 10.0'-15.0'.

Depth Below Surface (ft.)	Penetration Results		Sampler Depth Interval (ft.)	Sample ID #	Hnu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
	Blows 6"-6"-6"	BPF								
0.0	NA	NA	0.0-5.0	NA		Asphalt	AC		NA	Vault box
2.5			5.0-10.0		18.0	(0.5'-2.0'); clayey sand; (20-45-15-20); olive, (5Y5/4); slight plasticity; fine to coarse grained sand; sub-angular gravel (to 4.0 cm); well graded; soft; dense; moist. Road base.	SC (RB)		2.0'	Locking well cap
5.0					54	(2.0'-10.0'); clayey sand; (10-60-10-20); very dark gray, (10YR3/1); slight plasticity; coarse grained sand; sub-angular gravel (to 2.5 cm); soft; moist. Contains wood and brick fragments, brass gromets and patent plate from 1901.			2.5'	Granular bentonite
7.5						5'-10' No recovery				2" ID Sch 40 PVC blank casing
10.0					5.2	(10.0'-10.5'); Tar; black, (10YR2/1); solid.	SC			8/20 mesh sand
12.5					3.9	(10.5'-11.0'); silty sand; (20-60-15-5); black, (10YR2/1); non-plastic; fine to coarse grained sand; sub-angular gravel (to 2.0 cm); well graded; saturated.				7.5" Borehole
15.0					3.1	(11.0'-11.5'); sandy clay; (5-35-25-35); dark greenish gray, (5GY4/1); medium plasticity; fine to coarse grained sand; minor sub-angular gravel (to 0.5 cm); well graded; moist. Petroleum odor; contains brick fragments.	TAR			
					3.1	(11.5'-12.0'); clayey sand; (15-50-15-20); dark gray, (5Y4/1); slight to low plasticity; fine to coarse grained sand; sub-angular gravel (to 1.5 cm); saturated.	SM			2" ID Sch 40 PVC well screen 0.020" slot
					8.4	(12.0'-15.0'); sandy clay; (5-35-25-35); very pale brown, (10YR7/4) with very dark grayish brown, (10YR3/2) streaking; medium plasticity; fine to medium grained sand; stiff; moist. Contains burrows.	CL			End cap
					3.5				13'	Granular bentonite

SIGNATURE OF FIELD SUPERVISOR _____
 ASSISTANT GEOLOGIST
 TITLE _____

Julie S. Menard RG# 4440
 SIGNATURE OF REVIEWER _____
 SENIOR HYDROGEOLOGIST
 TITLE _____



SOIL DRILLING LOG

340016

SB/MW # W-21
 # D- 5755, 5756
 Page 2 of 2
 Sampler: M CHRISTENSEN

PROJECT MARKETPLACE 59801-008 LOCATION 440'SE FROM CENTER OF 64 ST. & 360'NE FROM
 ELEVATION 9.475' (MSL) MONITORING DEVICE Hnu, BENZENE DREAGER CENTER OF CHRISTIE AVE
 SAMPLING DATE(S) 4-5-90 START 12:20 FINISH 16:00
 SAMPLING METHOD(S) 5' CONTINUOUS SAMPLER SUBCONTRACTOR & EQUIPMENT GREGG DRILLING
 MEMO HAND AUGER TO 5'. 0 ppm BENZENE DETECTED AT 20'. MOBILE B-53
 PERCENTAGE ORDER; (GRAVEL-SAND-SILT-CLAY).

Depth Below Surface (ft.)	Penetration Results		Sampler Depth Interval (ft.)	Sample ID #	Hnu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
	Blows 6"-6"-6"	BPF								
17.5	NA	NA	15.0-20.0	NA		(15.0'-20.0'); sandy clay; (0-35-25-40); yellowish brown, (10YR5/6) with gray, (10YR6/1) streaking; medium plasticity; fine to medium grained sand; trace sub-rounded gravel (to 0.5 cm); stiff; moist. Contains burrows.	CL		NA	Granular bentonite 7.5" borehole 20' TD
20.0										
22.5										
25.0										
27.5										
30.0										

 SIGNATURE OF FIELD SUPERVISOR
 ASSISTANT GEOLOGIST

 TITLE

Julie S. Menack RG#4440

 SIGNATURE OF REVIEWER
 SENIOR HYDROGEOLOGIST

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SOIL DRILLING LOG



SB/MW # W-22
 # D-5759
 Page 1 of 2
 Sampler: M CHRISTENSEN

340017

PROJECT MARKETPLACE 59801-008 LOCATION 105' SE FROM CENTER OF 63 ST. & 15' SW FROM ELEVATION 11.67' (MSL) MONITORING DEVICE Hnu, BENZENE DREAGER CENTER OF OVERLAND SAMPLING DATE(S) 4-6-90 START 11:30 FINISH 15:00
 SAMPLING METHOD(S) 5' CONTINUOUS SAMPLER SUBCONTRACTOR & EQUIPMENT GREGG DRILLING
 MEMO HAND AUGER TO 5'. 0 ppm BENZENE DETECTED AT 20'. MOBILE B-53
 PERCENTAGE ORDER; (GRAVEL-SAND-SILT-CLAY).

Depth Below Surface (ft.)	Penetration Results		Sampler Depth Interval (ft.)	Sample ID #	Hnu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
	Blows 6"-6'-6"	BPF								
0 - 2.5	NA	NA	0 - 2.5	NA		Asphalt	AC	[Hatched pattern]	NA	
2.5 - 5.0			2.5 - 5.0		(0.33'-2.0') clayey sand; (20-50-15-15); gray, (10YR5/1); slight plasticity; fine to coarse grained sand; sub-angular gravel (to 4.0 cm); dense; slightly moist.	SC/ (RB)	[Dotted pattern]			
5.0 - 7.5			5.0 - 7.5		(2.0'-7.5') sandy clay; (0-35-35-30); very dark gray, (10YR3/1); medium plasticity; fine to medium grained sand; stiff; moist.	CL	[Diagonal lines]			
7.5 - 10.0			7.5 - 10.0		(7.5'-10.0') sandy clay; (5-30-25-30); grayish brown, (2.5Y 5/2); high plasticity; fine to medium grained sand; sub-rounded gravel (to 2.0 cm); very stiff; moist.	CL	[Diagonal lines]			
10.0 - 12.5			10.0 - 12.5		(10.0'-13.0') clayey sand; (20-50-15-15); yellowish brown, (10YR5/4); slight plasticity; fine to coarse grained sand; sub-angular gravel (to 2.5 cm); slightly dense; saturated.	CL	[Diagonal lines]			
12.5 - 14.5			12.5 - 14.5		(13.0'-14.5') sandy clay; (5-35-35-25); yellowish brown, (10YR 5/4); slight to medium plasticity; fine grained sand; sub-angular gravel (to 0.5cm); slightly stiff; moist.	SC	[Dotted pattern]			
14.5 - 15.5			14.5 - 15.5		(14.5'-15.5') clayey sand; (15-55-15-15); yellowish brown, (10YR5/4); slight plasticity; fine to coarse grained sand; sub-angular gravel (to 2.0 cm); slightly dense; very moist to saturated.	CL	[Diagonal lines]			

SIGNATURE OF FIELD SUPERVISOR _____
 TITLE ASSISTANT GEOLOGIST

Julie S. Menack RG # 9440
 SIGNATURE OF REVIEWER _____
 TITLE SENIOR HYDROGEOLOGIST

SOIL DRILLING LOG



340017

SB/MW # W-22
 # D- 5759
 Page 2 of 2
 Sampler: M CHRISTENSEN

PROJECT MARKETPLACE 59801-008 LOCATION 105'SE FROM CENTER OF 63 ST. & 15' SW FROM
 ELEVATION 11.67' (MSL) MONITORING DEVICE Hnu, BENZENE DREAGER CENTER OF OVERLAND
 SAMPLING DATE(S) 4-6-90 START 11:30 FINISH 15:00
 SAMPLING METHOD 5' CONTINUOUS SAMPLER SUBCONTRACTOR & EQUIPMENT GREGG DRILLING
 MEMO HAND AUGER TO 5'. 0 ppm BENZENE DETECTED AT 20'. MOBILE B-53
 PERCENTAGE ORDER; (GRAVEL-SAND-SILT-CLAY).

Depth Below Surface (ft.)	Penetration Results		Sampler Depth Interval (ft.)	Sample ID #	Hnu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
	Blows 6"-6"-6"	BPF								
	NA	NA	15.0-20.0	NA		See Previous Page			NA	<p>2" ID Sch 40 PVC blank casing 8/20 mesh sand End Cap Granular Bentonite 7.5" Borehole T.D.</p>
17.5'					1.6	(15.5'-18.0') sandy clay; (0-25-40-35); dark yellowish brown, (10YR4/4); medium plasticity; fine to medium grained sand; trace sub-angular gravel (to 0.5 cm); stiff; moist.	CL			
20'					1.7	(18.0'-20.0') sandy clay; (0-30-25-45); light olive brown, (2.5Y5/4); high plasticity; fine grained sand, poorly graded; very stiff; moist.	CL			
22.5'										
25'										
27.5'										
30'										

 SIGNATURE OF FIELD SUPERVISOR
 ASSISTANT GEOLOGIST

Julie S. Menade RG # 4440

 SIGNATURE OF REVIEWER
 SENIOR HYDROGEOLOGIST

TITLE

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SOIL DRILLING LOG

340018

SB/MW # W-23
 # D- 5751-5752
 Page 1 of 2
 Sampler: M CHRISTENSEN

PROJECT MARKETPLACE 59801-008 LOCATION 800'SE FROM CENTER OF 64TH ST. & 465' NE FROM ELEVATION 9.155' (MSL) MONITORING DEVICE Hnu, BENZENE DREAGER CENTER OF CHRISTIE AVE.
 SAMPLING DATE(S) 4-4-90 START 9:45 FINISH 13:30
 SAMPLING METHOD MOD. CALIF. SPLIT SPOON SMPLR SUBCONTRACTOR & EQUIPMENT GREGG DRILLING
 MEMO HAND AUGER TO 5'. 0 ppm BENZENE DETECTED AT 19'. MOBILE B-53
MODIFIED CALIFORNIA SPLIT SPOON SAMPLER USED FROM 5' TO 10'.
PERCENTAGE ORDER: (GRAVEL-SAND-SILT-CLAY).

Depth Below Surface (ft.)	Penetration Results		Sampler Depth Interval (ft.)	Sample ID #	Hnu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
	Blows 6"-6"-6"	BPF								
4-9-90	NA	NA	NA	NA		Asphalt.	AC		NA	
7.7					(0.67'-1.5') silty sand; (30-50-10-10); variegated; non to slight plasticity; fine to coarse grained sand; sub-angular gravel (to 4.0 cm); slightly dense; moist.	SM/(RB)				
17.2					(1.5'-3.0') silty sand; (10-65-15-10); olive brown, (2.5Y4/4); slight plasticity fine to medium grained sand; soft; moist. Contains brick & wood fragments.	SM-SC				
4.2			5.5-7.0		(3.0'-5.5') sandy clay; (5-40-25-30); very dark gray, (10YR3/1) with minor greenish gray, (5G5/1) streaking; med. plasticity; fine to medium grained sand; slightly stiff; moist. Contains brick fragments; concrete occurs between 5.0'-5.5'.	CL				
17			7.0-8.5		(5.5'-7.0') sandy clay; (5-40-20-35); very dark gray, (10YR3/1); medium plasticity; fine to medium grained sand; stiff; very moist. Contains brick fragments.	CL				
26			8.5-10.0		(7.0'-9.0') silty sand; (5-65-20-10); very dark gray, (10YR3/1); very slight plasticity; fine grained sand; soft; dense; saturated. Contains brick fragments; strong petroleum odor.	SM-SC				
9.2			10.0-11.5		(9.0'-10.0'); sandy clay; (5-30-25-40); gray, (5Y6/1) with olive gray, (5Y5/2) streaking; medium plasticity; very fine to fine grained sand; stiff; moist. Contains shell fragments. Color change to light olive brown, (2.5Y5/6) occurs at 9.5'.	CL				
5.4			11.5-13.0		(10.0'-11.5') sandy clay; (0-35-25-40); light yellowish brown, (2.5Y6/4); high plasticity; very fine grained sand; very stiff; moist.	CL				
5.7			13.0-14.5		(11.5'-14.5') sandy clay; (10-20-30-40); brownish yellow, (10YR6/6); high plasticity; very fine to coarse grained sand; sub-angular gravel (to 1.0 cm); very stiff; moist.	CL				
2.9			14.5-16.0							

SIGNATURE OF FIELD SUPERVISOR
 ASSISTANT GEOLOGIST
 TITLE

Julie S. Monette RG 4440
 SIGNATURE OF REVIEWER
 SENIOR HYDROGEOLOGIST
 TITLE

ISSI 8/2/90

SOIL DRILLING LOG

SB/MW # W-23
 # D- 5751-5752
 Page 2 of 2
 Sampler: M CHRISTENSEN



340018

PROJECT MARKETPLACE 59801-008 LOCATION 800'SE FROM CENTER OF 64th ST. & 465 NE FROM
 ELEVATION 9.155' (MSL) MONITORING DEVICE Hnu, BENZENE DREAGER CENTER OF CHRISTY AVE.
 SAMPLING DATE(S) 4-4-90 START 9:45 FINISH 13:30
 SAMPLING METHOD MOD. CA. SPLIT SPOON SUBCONTRACTOR & EQUIPMENT GREGG DRILLING
 MEMO HAND AUGER TO 5'. 0 ppm BENZENE DETECTED AT 19'. MOBILE B-53
MODIFIED CALIFORNIA SPLIT SPOON SAMPLER USED FROM 5' TO 10'.
PERCENTAGE ORDER: (GRAVEL-SAND-SILT-CLAY).

Depth Below Surface (ft.)	Penetration Results		Sampler Depth Interval (ft.)	Sample ID #	Hnu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
	Blows 6"-6"-6"	BPF								
17.5	NA	NA	16.0-17.5	NA	2.7	(14.5'-19.0') sandy clay; (0-20-45-35); brownish yellow, (10YR6/6); medium plasticity; very fine grained sand; trace gravels, sub-rounded (to 0.5 cm); moist.	CL		NA	<p>Granular Bentonite 7.5" Borehole T.D. 19'</p>
17.5			17.5-19.0		2.4					
20'										
22.5										
25'										
27.5										
30'										

SIGNATURE OF FIELD SUPERVISOR _____
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Julie S. Menade RG #4440
 SIGNATURE OF REVIEWER _____
 SENIOR HYDROGEOLOGIST
 TITLE _____

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SOIL DRILLING LOG



SB/MW # W-24
 # D- 5768,5769,5770
 Page 1 of 2
 Sampler: M CHRISTENSEN

340019

PROJECT MARKETPLACE LOCATION 420' S from 64th ST. & 35' E from CHRISTIE Ave.
 ELEVATION _____ MONITORING DEVICE Hnu, BENZENE DREAGER
 SAMPLING DATE(S) 6-6-90 START 8:20 FINISH 11:00
 SAMPLING METHOD 5' CONTINUOUS SAMPLER SUBCONTRACTOR & EQUIPMENT ENVIRONMENTAL
 MEMO HAND AUGER TO 4'. EXPLORATION CME 75
 PERCENTAGE ORDER: (GRAVEL-SAND-SILT-CLAY) I.E. (15-40-15-30).

Depth Below Surface (ft.)	Penetration Results		Sampler Depth Interval (ft.)	Sample ID #	Hnu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
	Blows 6"-6"-6"	BPF								
0	NA	NA				(0-2") Asphalt	AC			Vault Box
0						(2"-8") Road Base	RB			Locking Well cap
0						(8"-1.5') clayey sand; (25-40-15-20); dark grayish brown, (2.5Y4/2); low plastic fines; fine to coarse grained sand; sub-angular gravel, (to 5.0 cm); slightly stiff; slightly moist to moist.	SC			Granular Bentonite
2.5						(1.5'-3.5') silty sand; (25-45-20-10); light grayish brown, (2.5Y6/2); non-plastic fines; fine to medium grained sand; sub-rounded gravel (to 3.0 cm); dense; slightly moist.	SM		2.5'	2" ID Sch 40 PVC Blank Casing
0						(3.5'-5.0') silty sand; (0-80-15-5); olive gray, (5Y4/2); non-plastic fines; fine to medium grained sand; poorly graded; moist to very moist.	SM		3.5'	
5'			4.0-9.0			(5.0'-7.0') clayey sand; (15-50-15-20); olive gray, (5Y4/2); low plastic fines; fine to coarse grained sand; sub-angular gravel (to 2.0 cm); well graded; slightly stiff; moist to very moist.	SC			8" Borehole
0						(7.0'-8.5') sandy clay; (5-40-20-35); dark grayish brown, (2.5Y4/2); medium plastic fines; fine to medium grained sand; rounded gravel (to 1.0 cm); stiff; moist.	CL			8/20 Mesh Sand
0						(8.5'-11.0') silty sand; (15-50-20-15); grayish brown, (2.5Y5/2); slight plastic fines; fine to coarse grained sand; sub-rounded gravel, (to 1.5 cm); well graded; medium dense; moist to saturated at 9'.	SM-SC			2" ID Sch 40 PVC Well Screen 0.020" Slot
0						(11.0'-12.0') silty sand; (0-70-20-10); grayish brown, (2.5Y5/2) streaked with very dark gray, (2.5Y3/0); non-plastic fines; fine grained sand; dense; very moist.	SM			End Cap
0						(12.0'-13.0') silty sand; (0-75-20-5); very dark gray, (2.5Y3/0); non-plastic fines; fine to medium grained sand; sub-rounded gravel, (to 4.0 cm); moist to very moist. Contains shell fragments.	SM			Granular Bentonite
0						(13'-15') See following page	CL		13.5'	
15'									14.0'	

SIGNATURE OF FIELD SUPERVISOR _____
 ASSISTANT GEOLOGIST
 TITLE _____

Julie S. Menark RG 4440
 SIGNATURE OF REVIEWER _____
 SENIOR HYDROGEOLOGIST
 TITLE _____

SOIL DRILLING LOG

SB/MW # W-24
 # D- 5768.5769.5770
 Page 2 of 2
 Sampler: M CHRISTENSEN



340019

PROJECT MARKETPLACE LOCATION 420' S from 64th ST. & 35' E from CHRISTIE Ave.
 ELEVATION _____ MONITORING DEVICE Hnu, BENZENE DREAGER
 SAMPLING DATE(S) 6-6-90 START 8:20 FINISH 11:00
 SAMPLING METHODS' CONTINUOUS SAMPLER SUBCONTRACTOR & EQUIPMENT ENVIRONMENTAL
 MEMO HAND AUGER TO 4'. EXPLORATION CME 75
 PERCENTAGE ORDER: (GRAVEL-SAND-SILT-CLAY) I.E. (15-40-15-30).

Depth Below Surface (ft.)	Penetration Results		Sampler Depth Interval (ft.)	Sample ID #	Hnu reading (ppm)	Soil Description Color, Texture, Moisture, Etc.	Unified Classification	Graphic Log	Sampled Depth	Well Construction Details
	Blows 6"-6"-6"	BPF								
17.5	NA	NA	15.0-20.0		0	(13.0'-15.0') sandy clay; (15-35-15-35); yellowish brown, (10YR5/4); medium plastic fines; fine to coarse grained sand; sub-rounded gravel, (to 4.0 cm) well graded; stiff; moist.	SC		20.0'	
20'					0	(15.0'-15.5') clayey sand; (0-55-15-20); yellowish brown, (10YR5/4); fine to coarse grained sand; sub-rounded gravel, (to 4.0 cm); well graded; slightly stiff; very moist to saturated.	CL			
22.5'					0	(15.5'-20.0') sandy clay; (10-35-20-35); yellowish brown, (10YR5/4); medium plastic fines; fine to medium grained sand; sub-rounded gravel, (to 1.0 cm); stiff; moist.	(SC)			
25'						Grading to clayey sand from 18.5' to 20.0'.				
27.5'										
30'										

 SIGNATURE OF FIELD SUPERVISOR
 ASSISTANT GEOLOGIST

 TITLE

Julie S. Menard RG 4440.

 SIGNATURE OF REVIEWER
 SENIOR HYDROGEOLOGIST

 TITLE



01-532K ZONE 7 WATER AGENCY

01504W15Q03

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

RECEIVED

MAY 18 1993

ZONE 7, ACFC&WCD

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 5521 Doyle Street
Emeryville, CA

PERMIT NUMBER 93139
LOCATION NUMBER _____

CLIENT
Name Clementina Ltd.
Address 2177 Jerrold Ave Phone (415) 282-7725
City San Francisco, CA Zip 94124

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT
Name Geo Plexus, Inc.
Address _____ Fax (408) 988-0815
Address 1900 Wyatt Drive #1 Phone (408) 987-0210
City Santa Clara, CA Zip 95054

A. GENERAL

1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

TYPE OF PROJECT

Well Construction	_____	Geotechnical Investigation	_____
Cathodic Protection	_____	General	_____
Water Supply	_____	Contamination	_____
Monitoring	<u>XX</u>	Well Destruction	_____

B. WATER WELLS, INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

PROPOSED WATER SUPPLY WELL USE

Domestic	_____	Industrial	_____	Other	_____
Municipal	_____	Irrigation	_____		

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

DRILLING METHOD:

Mud Rotary	_____	Air Rotary	_____	Auger	<u>XX</u>
Cable	_____	Other	_____		

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

DRILLER'S LICENSE NO. C57 554979

E. WELL DESTRUCTION. See attached.

WELL PROJECTS

Drill Hole Diameter	<u>8</u> in.	Maximum	
Casing Diameter	<u>2</u> in.	Depth	<u>20</u> ft.
Surface Seal Depth	<u>5</u> ft.	Number	<u>1</u>

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum	
Hole Diameter	_____ in.	Depth	_____ ft.

ESTIMATED STARTING DATE 4/8/93
ESTIMATED COMPLETION DATE 4/8/93

Approved Wyman Hong Date 18 Mar 93
Wyman Hong

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

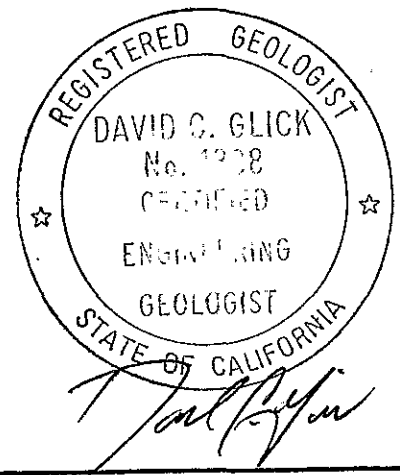
APPLICANT'S SIGNATURE David C. Glick Date 3/14/93
David C. Glick CEG 1338

01-532K

01504W15Q03

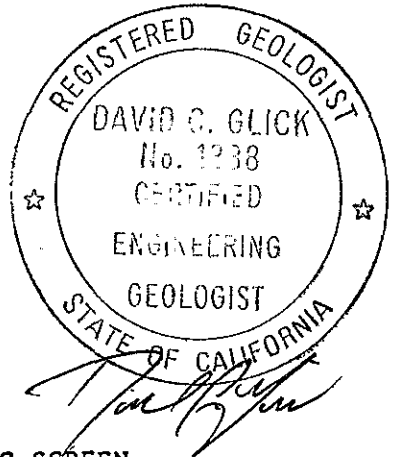
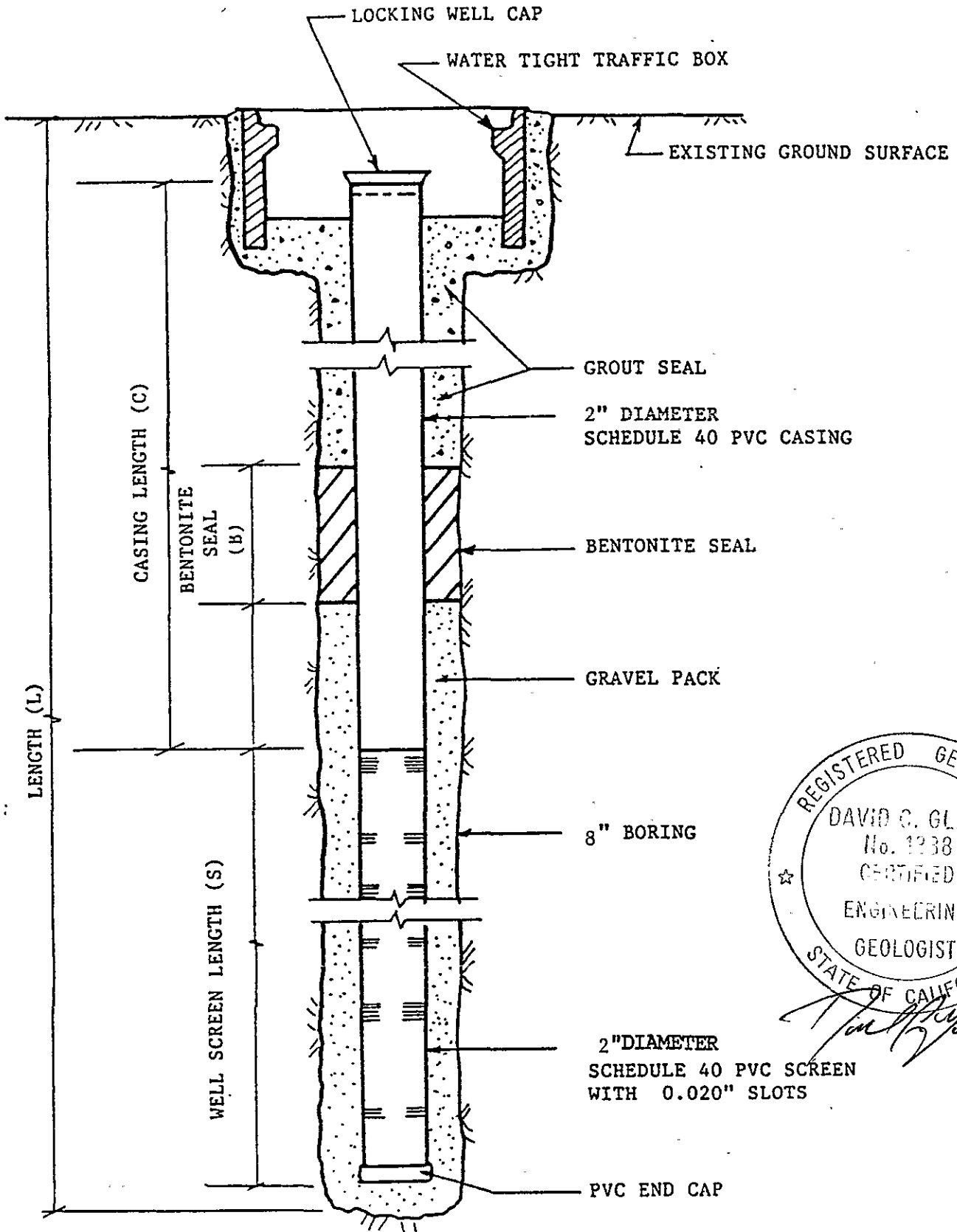
SUBSURFACE DATA LOG

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	OPTM READING (ppm)	SAMPLE TYPE	DEPTH (ft.)	LOG	U.S.C.
							LOG No. <u>MW-1</u> DATE: <u>4/29/93</u> <u>Clementina Equipment</u> LOCATION: <u>5521 Doyle Street, Emeryville</u> EQUIPMENT: <u>Mobile B61</u> PROJECT No. _____
							4" AC/6" Aggregate Base
							<u>SILTY SAND</u> , dark gray, moist, medium dense
							<u>SILTY SAND WITH GRAVEL</u> , orange-brown, moist, dense
	21	n/a	S1	5			
							<u>GRAVELLY SAND</u> , orange-brown, saturated, dense Sample S2 not retained due to high gravel/void content.
	19	n/a	S2	10			
							<u>SILTY SAND</u> , mottled orange-brown, moist, dense
	14	n/a	S3	15			
							Boring terminated at 17 feet. Ground water encountered at 14 feet and stabilized at 11.5 feet. 2-inch diameter monitoring well constructed.
					20		



01-532K

01S04W 15Q 03



L= 17 feet
 S= 10 feet
 C= 7 feet
 B= 1 foot

MONITORING WELL MW-1		
DATE 4/29/93	SCALE n/a	DRAWN BY dcg
CLEMENTINA PROPERTY		
		Figure

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

REMOVED

185593 15/4W1SF3

PROJECT: GETZ/1351 Ocean Avenue
Emeryville, California

Log of Well No. W-1A

BORING LOCATION: 1351/1354 Ocean Avenue

DATE STARTED: 11/3/88 DATE FINISHED: 11/3/88 CASING: NA

DRILLING METHOD: 8" hollow stem auger DEPTH TO WATER ATD: 10.0'

HAMMER WEIGHT: 140 lb. DROP: 30" LOGGED BY: DWN CHECKED BY: NTB

SAMPLER: 2" California modified sampler

DEPTH (feet)	SAMPLES		Blows/ Foot	MATERIAL DESCRIPTION	TEST RESULTS	WELL CONSTRUCTION DETAILS
	Sample No.	Sample				
Surface Elevation:						
0				SILTY CLAY (CL) Dark brown, damp, moderate plasticity		Slip Cap
2				SILTY CLAY (CL) Dark brown mottled orangish red, damp, very stiff, moderate plasticity		Cement with 5% bentonite powder
4	1-1		22	Some fine to medium grained sand		Bentonite pellets
6				Color change to light brown		Blank 2" SCH 40 casing
8						Lonestar #3 sand
10	1-2		41	GRAVELLY SAND (SW) Medium brown, saturated, very dense, sand fine to medium grained, gravel subrounded to rounded		2" SCH 40 0.020" slotted casing
12				SILTY SAND (SM) Orangish brown, saturated, dense, sand fine to medium grained		End cap
14				SILTY CLAY (CL) Gray brown, slightly damp, stiff, medium plasticity, iron staining around trace coarse sand grains, trace micas		Bentonite pellets
16	1-3		12	SANDY CLAY (CL) Gray brown, slightly damp, stiff, low plasticity		
18				SILTY CLAY (CH) Light blue gray, slightly damp, firm, high plasticity		
Bottom of boring 15.5 feet						

15/4W 15F3

185593, Aban.

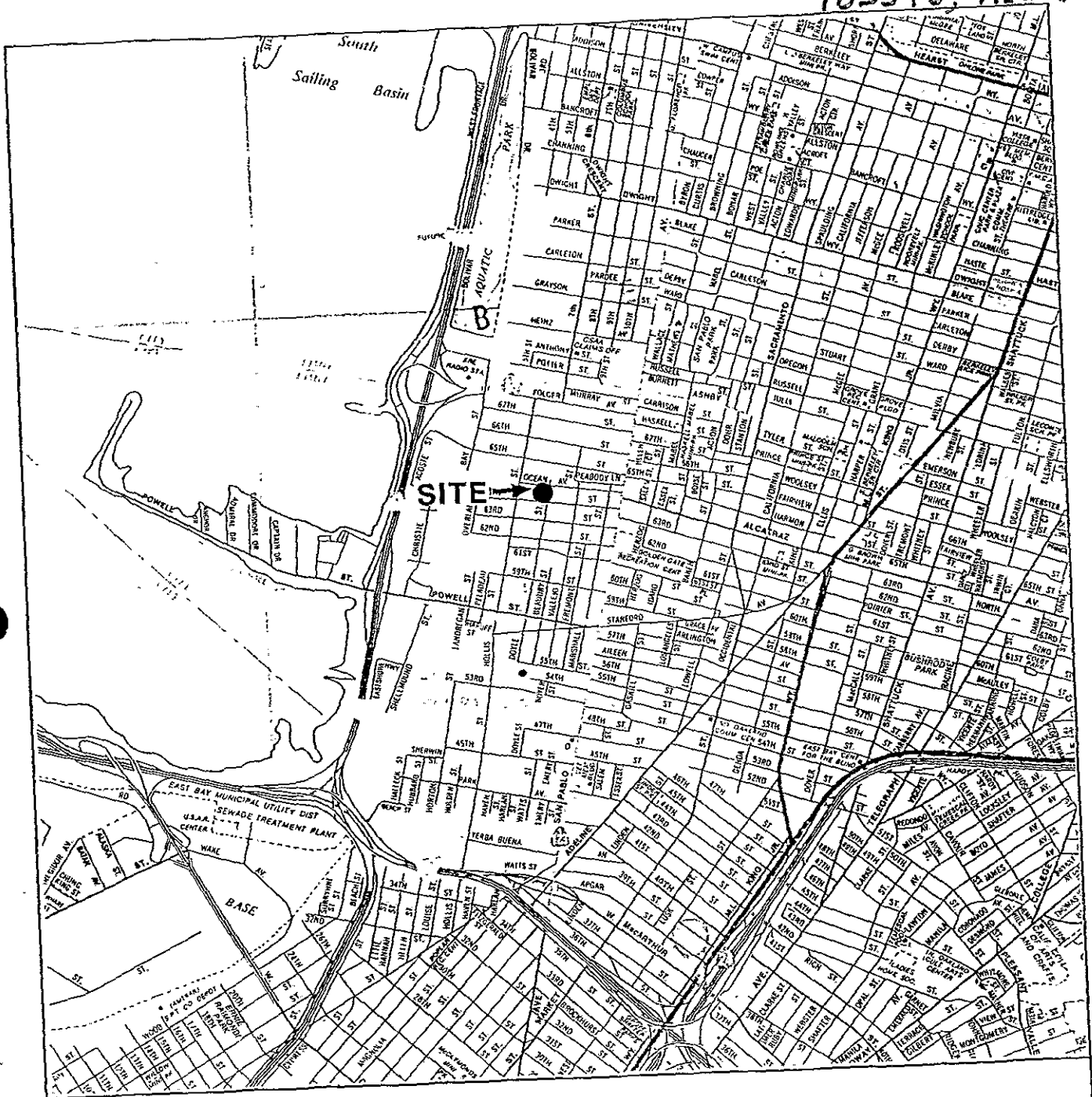
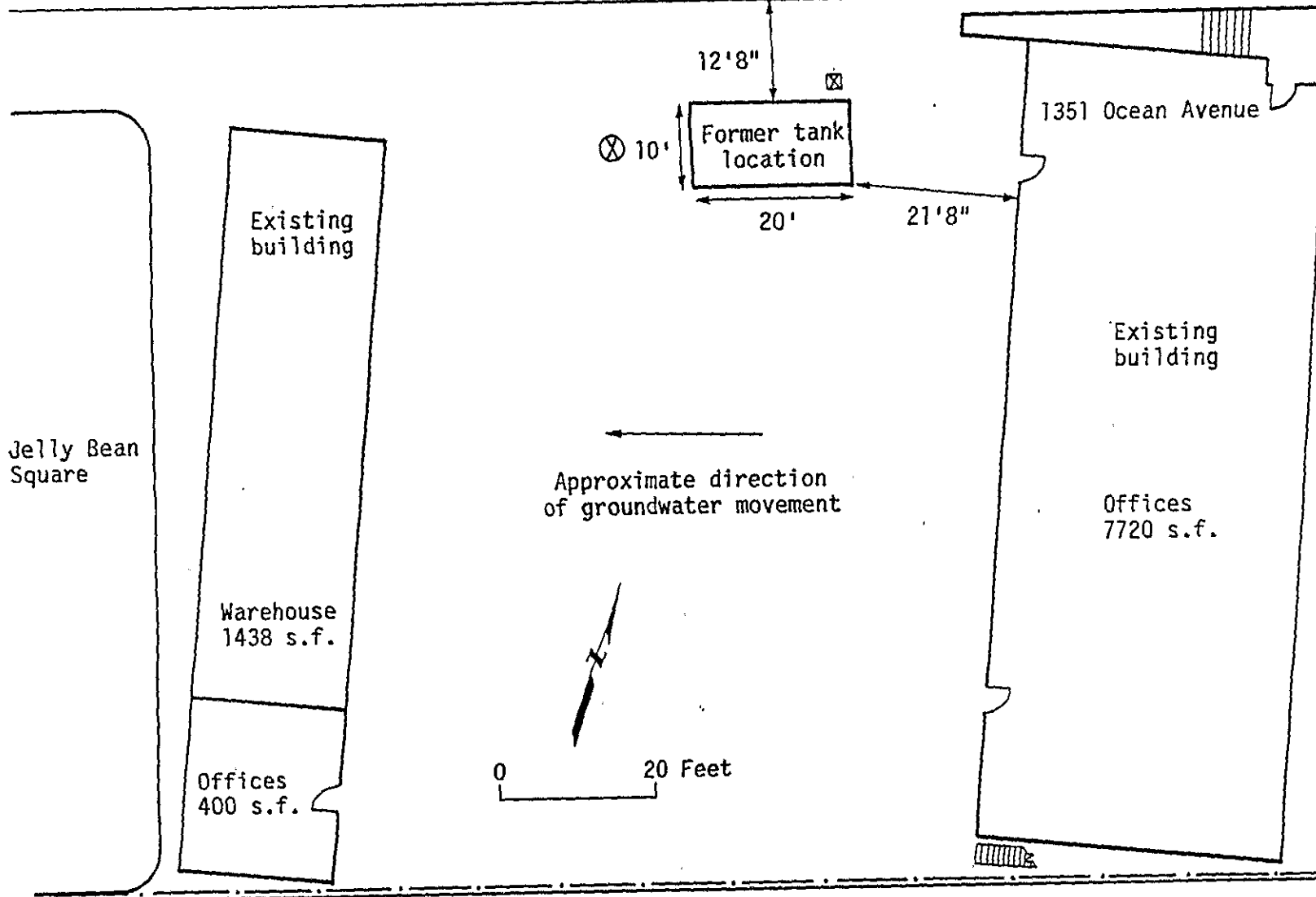


Figure 1

Ocean Avenue



EXPLANATION

- ⊠ Former diesel dispenser location
- ⊗ Approximate location of shallow groundwater monitoring well

185593/Alcon

15/4W 15 F 3

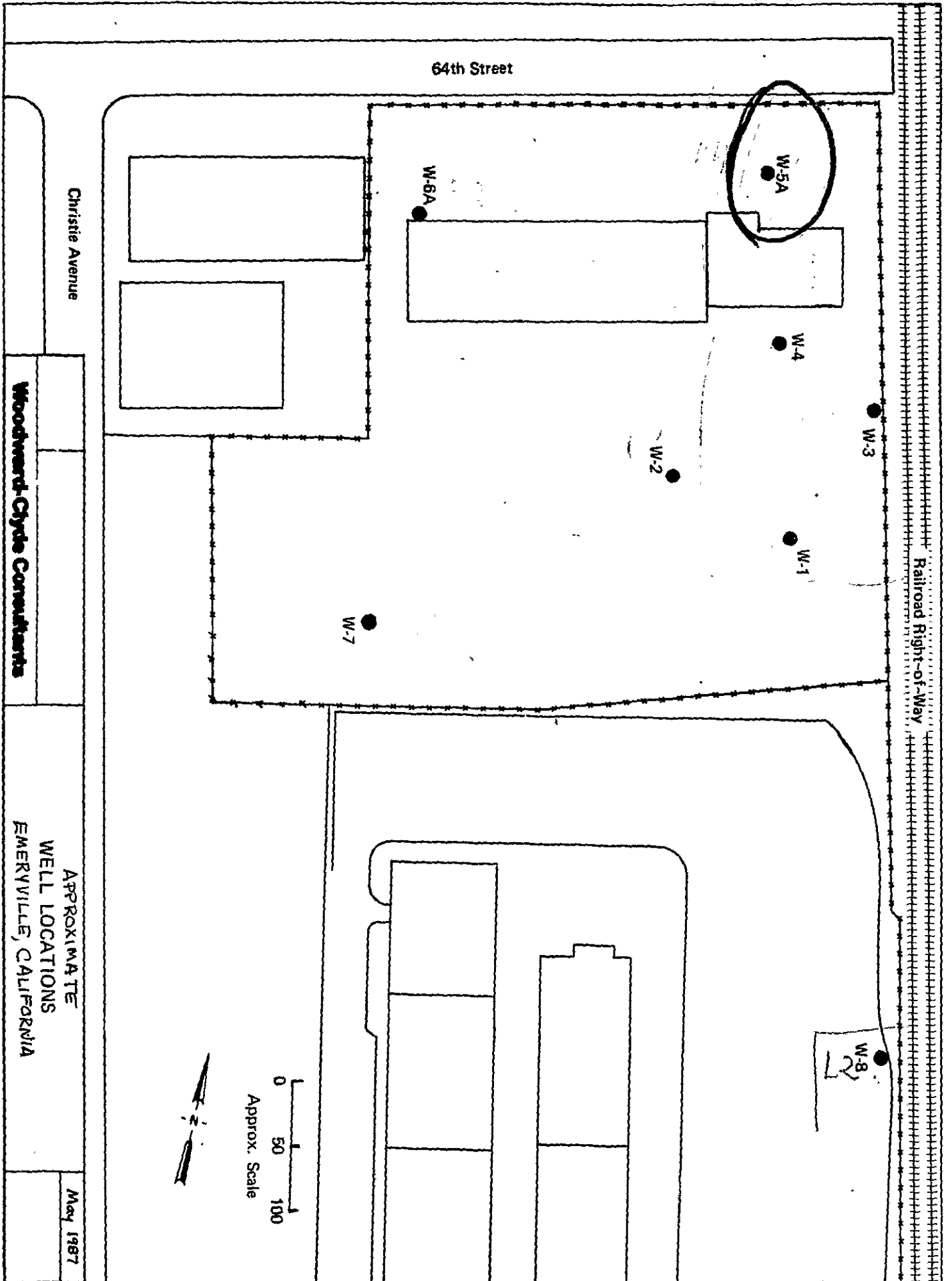
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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

298487

1S/4W 15F4



64th Street

Christie Avenue

Railroad Right-of-Way

Woodward-Clyde Consultants

APPROXIMATE
WELL LOCATIONS
EMERYVILLE, CALIFORNIA

May 1987

0 50 100
Approx. Scale



W-5A

W-6A

W-4

W-3

W-2

W-1

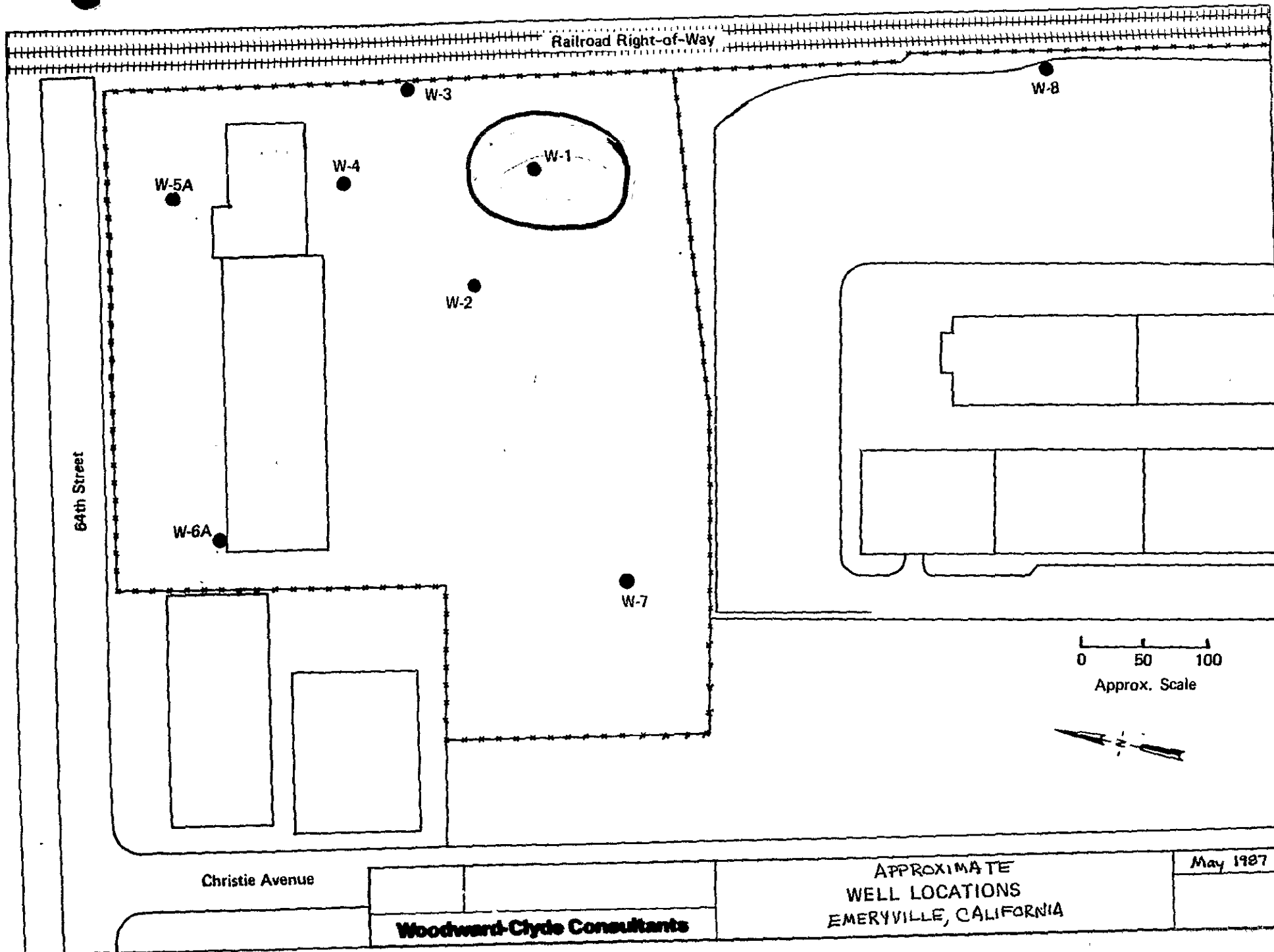
W-7

W-8

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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298482 1S/4W 1SFS

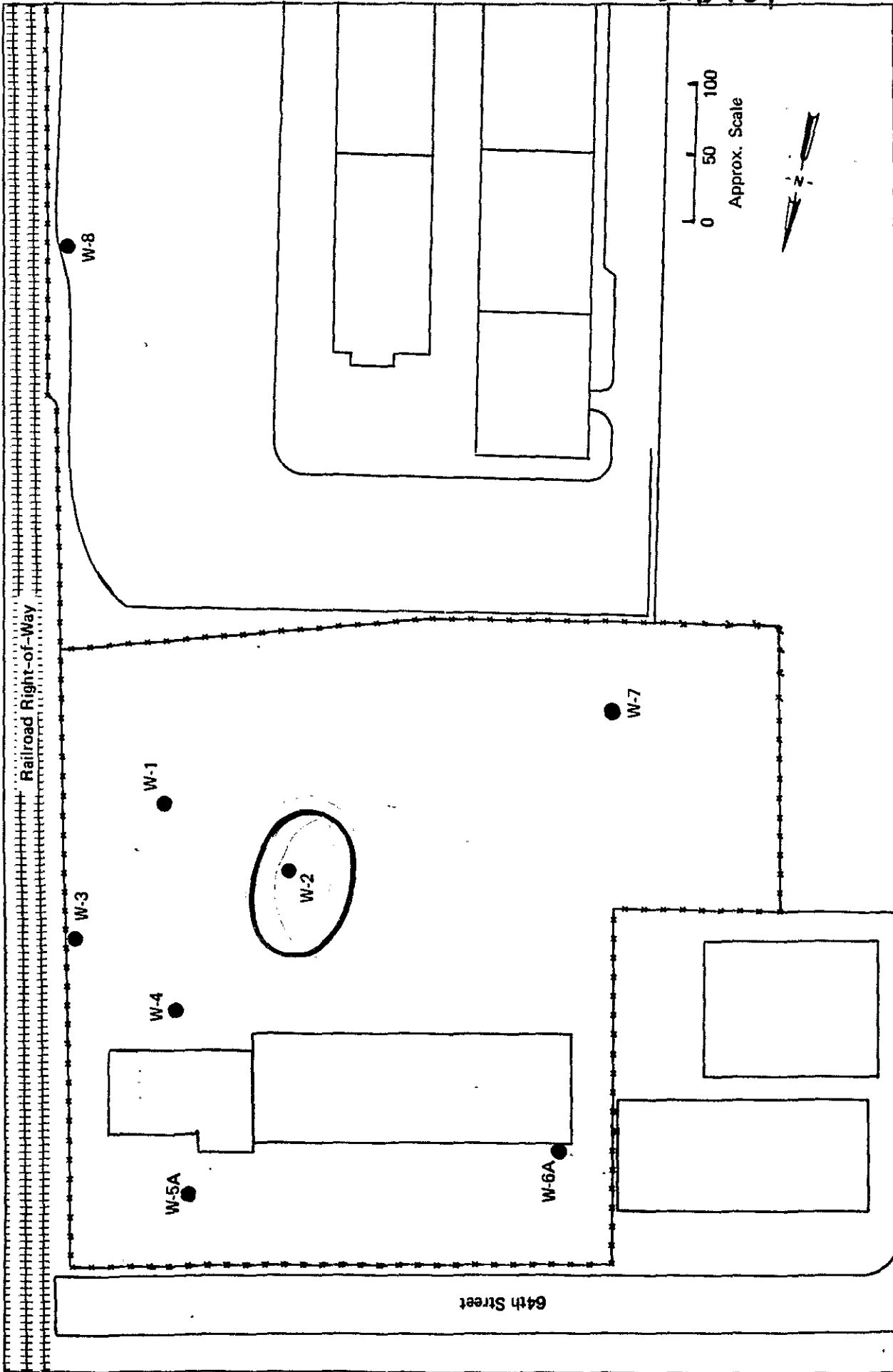
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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

298484

1S/4W 15F6



May 1987

APPROXIMATE
WELL LOCATIONS
EMERYVILLE, CALIFORNIA

Woodward-Clyde Consultants

Christie Avenue

64th Street

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Railroad Right-of-Way

W-3

W-8

W-4

W-1

W-5A

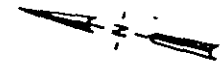
W-2

64th Street

W-6A

W-7

0 50 100
Approx. Scale



Christie Avenue

Woodward-Clyde Consultants

APPROXIMATE
WELL LOCATIONS
EMERYVILLE, CALIFORNIA

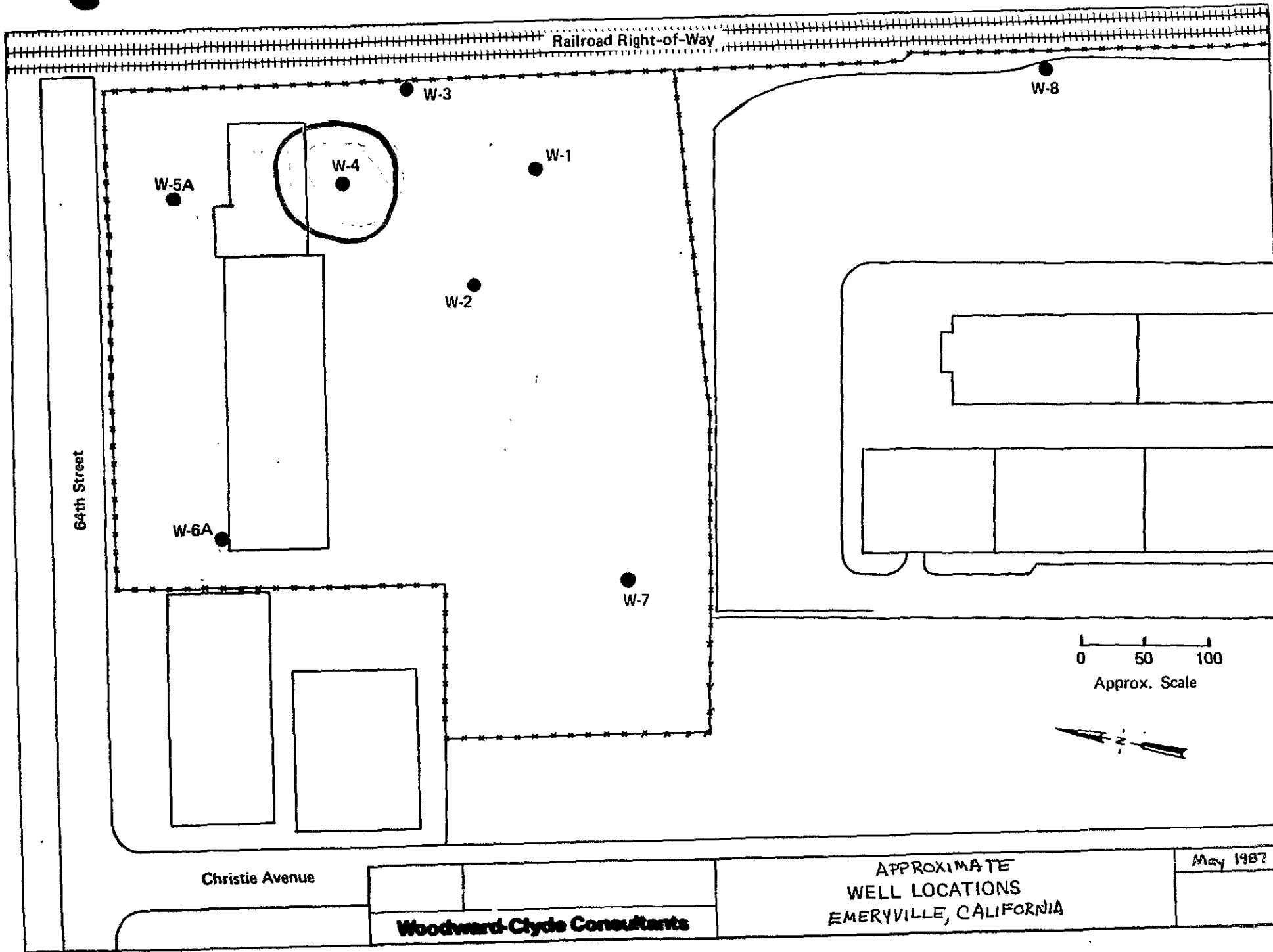
May 1987

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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298486 154W 15F8

APPENDIX A

SUBSURFACE SOIL SAMPLING

The subsurface investigation was performed using a truck-mounted drilling rig equipped with 8-inch diameter, continuous flight hollow stem augers. Five exploratory borings were drilled on February 9, 1989, to depths of 15 to 20 feet below existing grade. The approximate locations of the borings are shown on the Site Plan, Figure 2. The augers and equipment were steam-cleaned prior to the drilling operations. The borings were grouted to the ground surface at the completion of the drilling program.

The soils encountered in the borings were continuously logged in the field by our geologist. The soils were described in accordance with the Unified Soil Classification System (ASTM D-2487). The logs of the borings as well as a key for the classification of the soil (Figure A-1) and the symbols utilized on the logs (Figure A-2), are included.

Representative soil samples were obtained from the exploratory borings at selected depths based on our field observations at the time of drilling. The soil samples were obtained with the 2-1/2 inch O.D. California split spoon sampler. The locations where each soil sample was obtained are indicated in the "Sample" column of the logs as designated below. In addition, the depth of the selected soil sample to be utilized for possible analytical testing is designated by the cross-hatched area within the "sampler" column.

Each sample was collected in 2-inch diameter, 6-inch long, brass liners. The samplers and brass liners were decontaminated with a trisodium phosphate (TSP) solution, rinsed with fresh water, and then a final rinse of deionized water prior to each sampling. The ends of the soils samples were covered with aluminum foil, rubber capped, and placed in zip-lock, plastic bags. Each sample was labeled in such a manner as to maintain client confidentiality and immediately placed in refrigerated storage. A chain-of-custody form was completed by the sampler and accompanied the samples to Sequoia Analytical Laboratory, in Redwood City, California for analytical testing.

Resistance blow counts were obtained with the samplers by dropping a 140-pound hammer through a 30-inch free fall. The sampler was driven 18 inches and the number of blows were recorded for each 6 inches of penetration. The blows per foot recorded on the boring logs represent the accumulated number of blows that were required to drive the last 12 inches. Due to the higher energy of this

automatic hammer system, the blow counts obtained are not standard penetration resistance values. In order to convert, these blow counts should be multiplied by a factor of 1.56. Due to the larger diameter of California sampler, the blow counts calculated are not standard penetration resistance values, the indicated blow counts should be multiplied by an additional factor of 0.8.

01-423T

Inuv 15/4W 15J

DRILL RIG Mobile Rig B-53				SURFACE ELEVATION -		LOGGED BY ROB			
DEPTH TO GROUNDWATER 21 (see note 2)				BORING DIAMETER 8 inches		DATE DRILLED 2/9/89			
DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	WATER CONTENT (%)	P.I.D. (ppm)	UNCONFINED COMPRESSIVE STRENGTH (PSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
4" Asphalt over 1" Baserock				1					
CLAY, sandy (fine grained) with gravels (fine grained), some silt, damp	orange brown	very stiff	CL	2		21		2.8	
				3					
				4					
(grading with less gravels)				5		18		4.5	
(grading with less sand and more silt)				6					
				7					
				8					
		stiff		9					
				10		10		5.8	
				11					
CLAY, gravelly (fine to medium grained), some silt, wet	light orange brown	stiff	CL	12					
(grading to saturated)				13					
				14					
				15		28		4.3	
Bottom of Boring = 15 Feet				16					
Notes:				17					
1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.				18					
2) Groundwater level was measured at 13 feet 10 minutes after drilling				19					
3) These samplers were driven with a fully automatic hammer and the penetration resistance values should be converted as explained in Appendix A.				20					



EXPLORATORY BORING LOG		
STANFORD-SAN PABLO Oakland, California		
PROJECT NO. KE1094-1	DATE march 1989	BORING NO. CB-1

Envsco. 1486

Insd

15/4W 15J.

DRILL RIG Mobile Rig B-53				SURFACE ELEVATION -		LOGGED BY RDB				
DEPTH TO GROUNDWATER 13½' (see note 2)				BORING DIAMETER 8 inches		DATE DRILLED 2/9/89				
DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLDWS/FT)	WATER CONTENT (%)	P.I.D. (ppm)	UNCONFINED COMPRESSIVE STRENGTH (KSF)	
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE							
3½" Asphalt over 5" Baserock				1						
CLAY, sandy (fine to medium grained), with gravels (fine grained), some silt, damp, sands grading from fine to coarse grained	orange-brown	stiff	CL	2		12		3.2		
				3						
				4						
				5		13		4.6		
				6						
				7						
				CLAY, silty, some gravels (fine grained), moist (grading to saturated)	light orange-brown	very stiff	CL	8		
9										
10		25						24		
11										
12										
13										
14										
15		hard	29						7.8	
16										
17										
Notes: 1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual. 2) Groundwater level was measured at 13½ feet 10 minutes after drilling 3) These samplers were driven with a fully automatic hammer and the penetration resistance values should be converted as explained in Appendix A.				18						
				19						
				20		30		6.4		

Bottom of Boring = 20 Feet



Kaldveer Associates
Geoscience Consultants
A California Corporation

EXPLORATORY BORING LOG

STANFORD SAN PABLO
Oakland, California

PROJECT NO.	DATE	BORING NO
KE1094-1	march 1989	EB-2

Enso 1486

Inu ✓

15/LW 15J

DRILL RIG <u>Mobile Rig B-53</u>	SURFACE ELEVATION <u>-</u>	LOGGED BY <u>RDB</u>
DEPTH TO GROUNDWATER <u>13' (See Note 2)</u>	BORING DIAMETER <u>8 inches</u>	DATE DRILLED <u>2/9/89</u>

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	WATER CONTENT (%)	P. I. D. (ppm)	UNCONFINED COMPRESSIVE STRENGTH (PSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST	SOIL TYPE						
3" Asphalt over 1 1/2" Baserock				1					
CLAY, sandy (fine grained), some silt (slight petroleum odor, damp)	mottled light brown-olive-green	very stiff	CL	2		15		5.3	
				3					
				4					
(grading to no odor)				5		14		6.0	
				6					
CLAY, silty, trace of sand (fine grained), moist	light brown	very stiff	CL	7					
				8					
				9					
				10		13		4.9	
(grading to saturated)				11					
(grading with some gravels, fine grained)				12					
				13					
				14					
				15		22		6.2	
Bottom of Boring = 15 Feet				16					
Notes:				17					
1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.				18					
2) Groundwater level was measured at 13 feet 10 minutes after drilling				19					
3) These samplers were driven with a fully automatic hammer and the penetration resistance values should be converted as explained in Appendix A.				20					



Kaldveer Associates
Geoscience Consultants
A California Corporation

EXPLORATORY BORING LOG

STANFORD SAN PABLO
Oakland, California

PROJECT NO. KE1094-1	DATE March 1989	BORING NO. EB-3
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Inw 15/4W 155

DRILL RIG mobile rig B-53				SURFACE ELEVATION -		LOGGED BY RDB			
DEPTH TO GROUNDWATER Not Encountered				BORING DIAMETER 8 inches		DATE DRILLED 2/9/89			
DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	WATER CONTENT (%)	P.I.D. (ppm)	UNCONFINED COMPRESSIVE STRENGTH (KSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
3" Asphalt over 2" Baserock									
CLAY, silty, some sand (fine grained), damp (moderate petroleum odor)	mottled brown-green-black	very stiff	CL	1					
				2	///	16		11.9	
				3					
				4					
				5	///	16		268	
				6					
CLAY, silty, trace of sand (fine grained), moist (grading to wet) Notes: 1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual. 2) These samplers were driven with a fully automatic hammer and the penetration resistance values should be converted as explained in Appendix A.	light brown	stiff	CL	7					
				8					
				9					
				10	///	12		7.1	
				11					
				12					
				13					
				14					
				15	///	9		6.2	
				16					
17									
18									
19									
20	///	25		7.3					
Bottom of Boring = 20 Feet									



Kaldveer Associates
Geoscience Consultants
A California Corporation

EXPLORATORY BORING LOG		
STANFORD SAN PABLO Oakland, California		
PROJECT NO.	DATE	BORING NO.
KE1094-1	march 1989	NO. EB-4

Esca
1486

Inu

15/4W15J

DRILL RIG mobile rig B-53				SURFACE ELEVATION -		LOGGED BY RDB			
DEPTH TO GROUNDWATER Not Encountered				BORING DIAMETER 8 inches		DATE DRILLED 2/9/89			
DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	PENETRATION RESISTANCE (BLOWS/FT)	WATER CONTENT (%)	P.I.D. (ppm)	UNCONFINED COMPRESSIVE STRENGTH (PSF)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
SAND (fine to medium grained), trace of silt, damp (slight odor of petroleum) (grading to moist) (grading to moderate petroleum odor) (FILL) ↑	mottled brown-olive-green	loose	SW	1					
		2							
		3							
		4				4		5.4	
		5							
		6							
		7							
		8		very loose					
		9							
		10				2		18	
		11							
		12							
CLAY, silty, trace of sand (fine grained), trace of gravel (fine grained), moist to wet	orange-brown	stiff	CL	13					
		14		9		6.3			
		15							
Bottom of Boring = 15 Feet				16					
Notes: 1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual. 2) These samplers were driven with a fully automatic hammer and the penetration resistance values should be converted as explained in Appendix A.				17					
				18					
				19					
				20					



Kaldveer Associates
 Geoscience Consultants
 A California Corporation

EXPLORATORY BORING LOG

STANFORD SAN PABLO
 Oakland, California

PROJECT NO.

KE1094-1

DATE

March 1989

BORING

NO EB-0

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CONFIDENTIAL

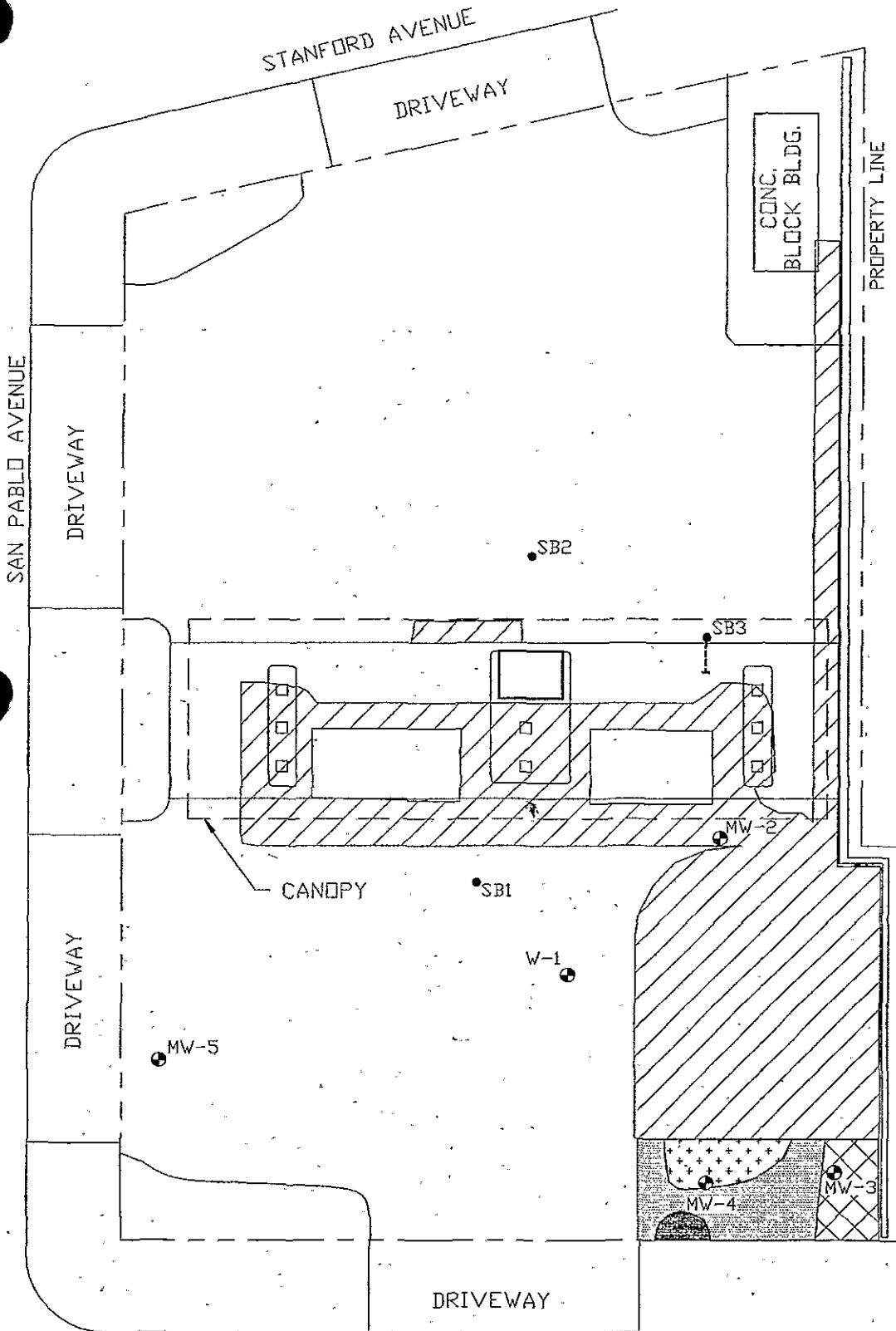
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

243

482477

15/4W 15J6



SCALE: 1" = 20'

- APPROX. SOIL BORING LOCATION
- ⊙ MONITORING WELL LOCATION



57TH STREET
ENGINEERING INC.

RCE #27011 LIC. #537901

373

482477

15/4W 15J6



ENGINEERING INC.
LIC. #537901

PROJECT NAME SAN PABLO

WELL LOG

PROJECT NO. 1129

MW# 2

PAGE 1 OF 1

BORING DIAMETER 10.5" LOCATION APPROXIMATELY 18 FEET WEST APPROVED:
 SCREEN LENGTH 14' OF CORNER IN CONCRETE WALL
 SLOT 0.020" DRILLING METHOD HOLLOW STEM AUGER
 BLANK LENGTH 5' SAMPLING METHOD CA SPLIT SPOON
 DIAMETER 4" LOGGED BY: JOHN N. CHURCH
 DATE START 5/20/92 DRILLING CO. B & F DRILLING
 DATE FINISH 5/21/92 OPERATOR CHRIS FISCUS

DEPTH (FEET)	BLOWS/FT COUNT	HEAD SPACE	SAMPLE ID #	LITHOLOGY	CONSTRUCTION
				Class 2 AB backfill.	
5	2/4/5		MW2-5	Sandy silty clay; 10YR 4/4 dark yellowish brown; moist; stiff. CL Material caved off wall of excavation.	
10	4/5/7	0.3ppm	MW2-10	▼	
15	3/6/10			Sandy silty clay; 10YR 4/4 dark yellowish brown; moist; stiff. CL In-place material.	
20				TOTAL DEPTH = 19 FEET	
25					
30					
35					

CONFIDENTIAL

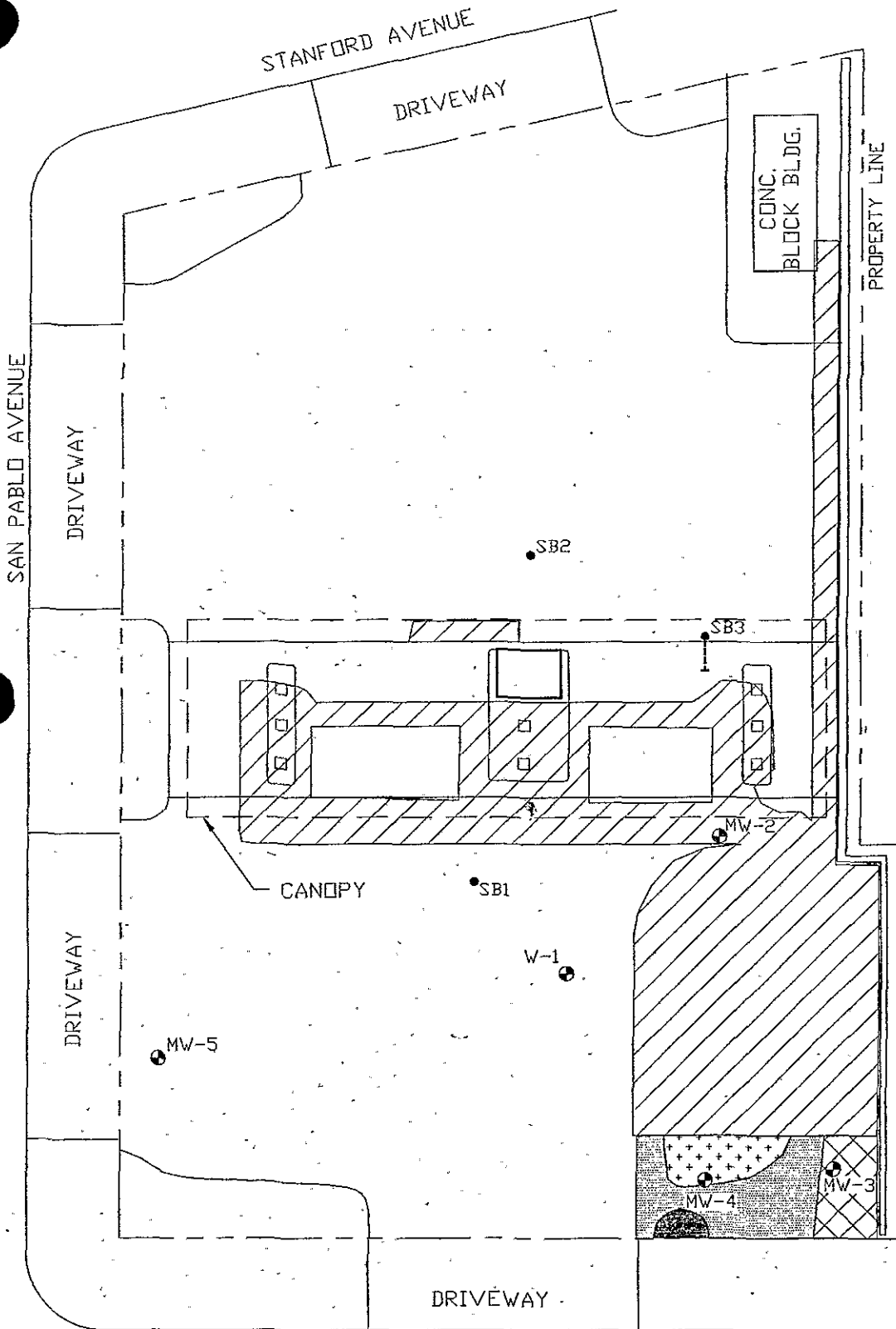
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

283

482878

15/4W 15J7



SCALE: 1" = 20'

- APPROX. SOIL BORING LOCATION
- ⊗ MONITORING WELL LOCATION



57TH STREET
ENGINEERING INC.

RCE #27011 LIC. #537901

3 23

482478

15/4 W 15 J 7



ENGINEERING INC.
LIC. #537901

8084 OLD AUBURN ROAD CITRUS HEIGHTS, CA 95610

WELL LOG

PROJECT NAME SAN PABLO

PROJECT NO. 1129

MW# 3

PAGE 1 OF 1

BORING DIAMETER 10.5" LOCATION APPROX. 8' FROM SE CORNER OF
 SCREEN LENGTH 14' SITE BOUNDARY & SIDE WALK
 SLOT 0.020" DRILLING METHOD HOLLOW STEM AUGER
 BLANK LENGTH 5' SAMPLING METHOD CA SPLIT SPOON
 DIAMETER 4" LOGGED BY JOHN. N. CHURCH
 DATE START 5/20/92 DRILLING CO. B & F DRILLING
 DATE FINISH 5/21/92 OPERATOR CHRIS FISCUS

APPROVED:

DEPTH (FEET)	BLOWS/FT COUNT	HEAD SPACE	SAMPLE ID #	LITHOLOGY	CONSTRUCTION
				Class 2 AB backfill.	
5	7/9/11	0.6ppm	MW3-5	Sandy silty clay; 2.5Y 5/4 light olive brown; damp; very stiff. CL	
10	10/12/18	0.3ppm	MW3-10	▼ Zone containing coarse sand & sand sized metamorphic rock fragments.	
15	4/11/17	0.6ppm	MW3-15	Clay, with <5% sand sized metamorphic rock fragments; 10YR 3/6 dark yellowish brown; moist; small fractures in clay with slight grayish color & containing ground water. CL	
20				TOTAL DEPTH = 19 FEET	
25					
30					
35					

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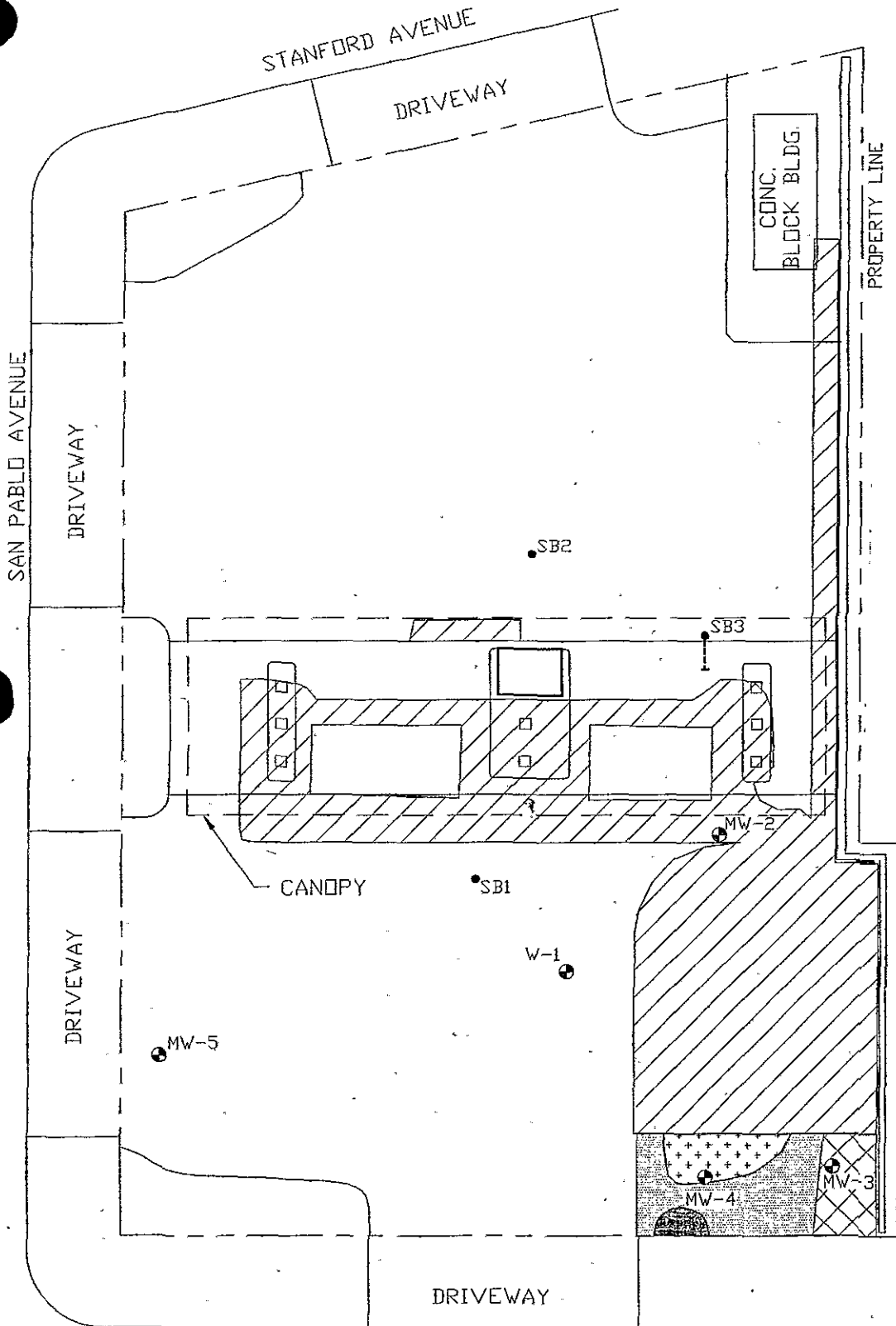
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

2 of 3

482479

1S/4W 15J8



SCALE: 1" = 20'

- APPROX. SOIL BORING LOCATION
- ⊙ MONITORING WELL LOCATION



57TH STREET
ENGINEERING INC.

RCE #27011 LIC. #537901

383

482479

1S/4W15J8



ENGINEERING INC.
LIC. #537901
8084 OLD AUBURN ROAD CITRUS HEIGHTS, CA 95610

WELL LOG

PROJECT NAME SAN PABLO
PROJECT NO. 1129
MW# 4
PAGE 1 OF 1

BORING DIAMETER 10.5" LOCATION APPROX. 25' WEST OF EAST CONC.
SCREEN LENGTH 14' WALL 5' N OF SIDEWALK, 5' S OF PROPERTY
SLOT 0.020" DRILLING METHOD HOLLOW STEM AUGER
BLANK LENGTH 5' SAMPLING METHOD CA SPLIT SPOON
DIAMETER 4" LOGGED BY: JOHN N. CHURCH
DATE START 5/21/92 DRILLING CO. B & F DRILLING
DATE FINISH 5/21/92 OPERATOR CHRIS FISCUS

APPROVED:

DEPTH (FEET)	BLOWS/FT COUNT	HEAD SPACE	SAMPLE ID #	LITHOLOGY	CONSTRUCTION
5				Class 2 AB backfill.	
10	5/8/11	31ppm	ES13	Sandy silty clay, 2.5Y 5/6 light olive brown; damp. CL ▼Hydrocarbon odor. Water on fractures. Coarse sand zone in clay.	
15				Clay; 10YR 4/6 dark yellowish-brown; damp. CL	
20				TOTAL DEPTH = 19 FEET	
25					
30					
35					

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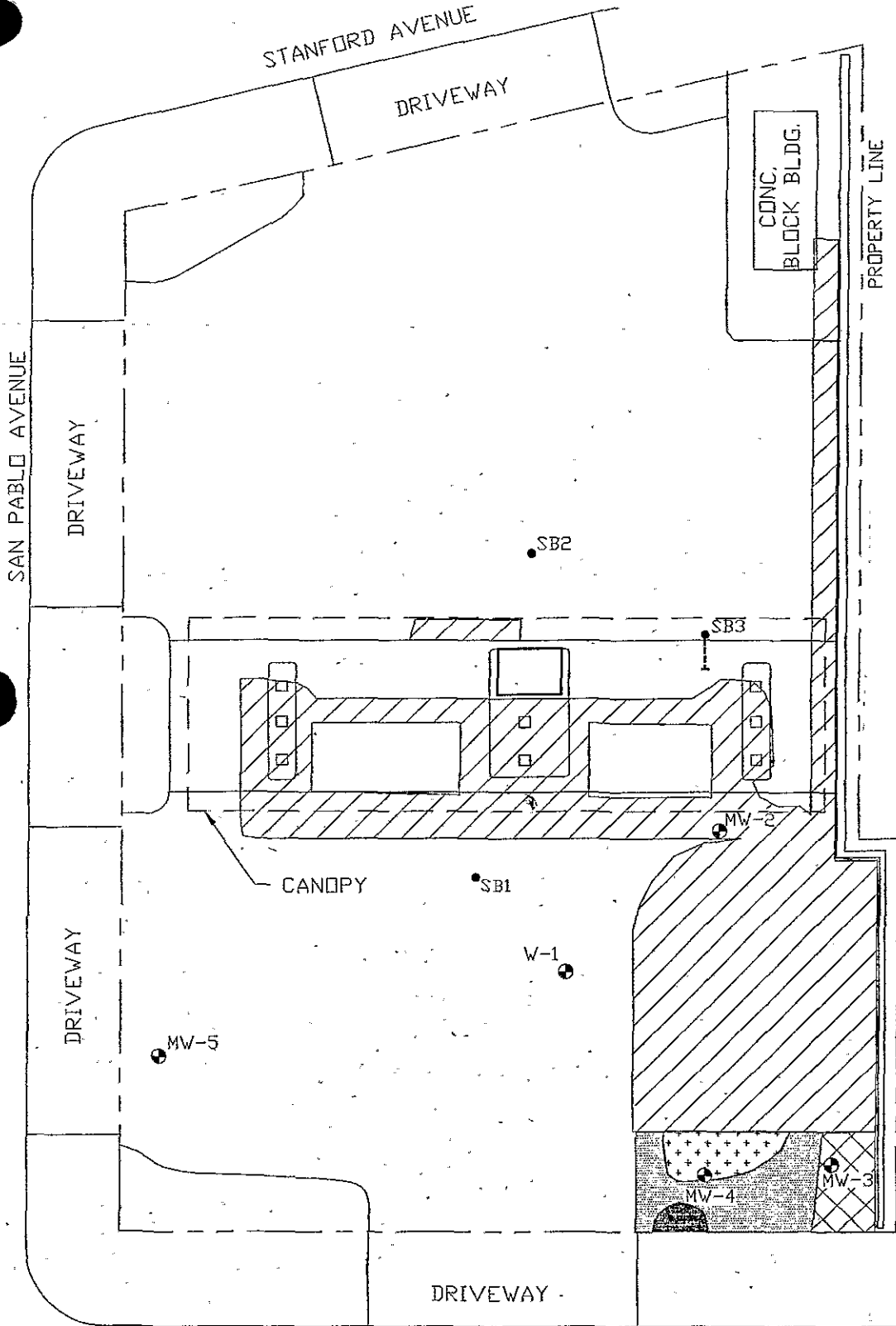
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

2 of 3

482480

1S/4W 15J 9



SCALE: 1" = 20'

- APPROX. SOIL BORING LOCATION
- ⊗ MONITORING WELL LOCATION



57TH STREET ENGINEERING INC.

RCE #27011 LIC. #537901

373

482480

18/4W 15J9

GHH

ENGINEERING INC.

LIC. #537901

8084 OLD AUBURN ROAD

CITRUS HEIGHTS, CA 95610

WELL LOG

PROJECT NAME SAN PABLO

PROJECT NO. 1129

MW# 5

PAGE 1 OF 1

BORING DIAMETER 10.5" LOCATION APPROX 25' NORTH OF
 SCREEN LENGTH 14' SW CORNER OF SITE
 SLOT 0.020" DRILLING METHOD HOLLOW STEM AUGER
 BLANK LENGTH 5' SAMPLING METHOD CA SPLIT SPOON
 DIAMETER 4" LOGGED BY: JOHN N. CHURCH
 DATE START 5/20/92 DRILLING CO. B & F DRILLING
 DATE FINISH 5/21/92 OPERATOR CHRIS FISCUS

APPROVED:

DEPTH (FEET)	BLOWS/FT COUNT	HEAD SPACE	SAMPLE ID #	LITHOLOGY	CONSTRUCTION
5	6/5/7	0.3ppm	MW5-5	Asphalt & subgrade. Sandy silt; 2.5Y 3/2 very dark grayish brown; damp. ML Clay; 10YR 3/6 dark yellowish brown; stiff; damp. CL	
10	5/6/12		MW5-10	▼ Groundwater in fractures. Zone containing coarse sand sized grains.	
15					
20				TOTAL DEPTH = 19 FEET	
25					
30					
35					

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

REGION _____
 COUNTY _____
 NEAR _____

STATE OF CALIFORNIA
 DEPARTMENT OF WATER RESOURCES

BASIN _____
 DWR NO. _____ B & M
 OTHER NOS. 177-11-11

WELL LOG

01-756

LOCATION _____
 OWNER Griffin and Skelly ADDRESS Emeryville
Rogers 110 Sutter, S. F. California, 1738 Larkin
 DRILLED BY _____ ADDRESS _____
 DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED _____
 SIZE OF CASING DEPTH 12" STRUCK WATER AT _____
 PERFORATIONS _____ SIZE _____ No. _____
 WATER LEVEL BEFORE PERFORATING _____ AFTER _____
 TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____
 OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____
 SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION Drillers' Log

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0-4		fill		
8		adobe		
12		yellow clay		
14		gray clay		
17		yellow clay		
25		stone clay		
36		sandy clay		
45		gray clay		
49		yellow clay		
53		cement coarse sand		
57		gray clay		
75		cement clay		
88		gray clay		
100		yellow clay		
108		cement		
123		hard yellow clay		
127		dirty gravel		
139		gray clay		
149		coarse sand		
152		sandy clay		
156		cement gravel		
166		sandy clay		
180		yellow clay		
194		coarse sandy clay		
200		sandy yellow clay		
210		gravel		
213		yellow clay		

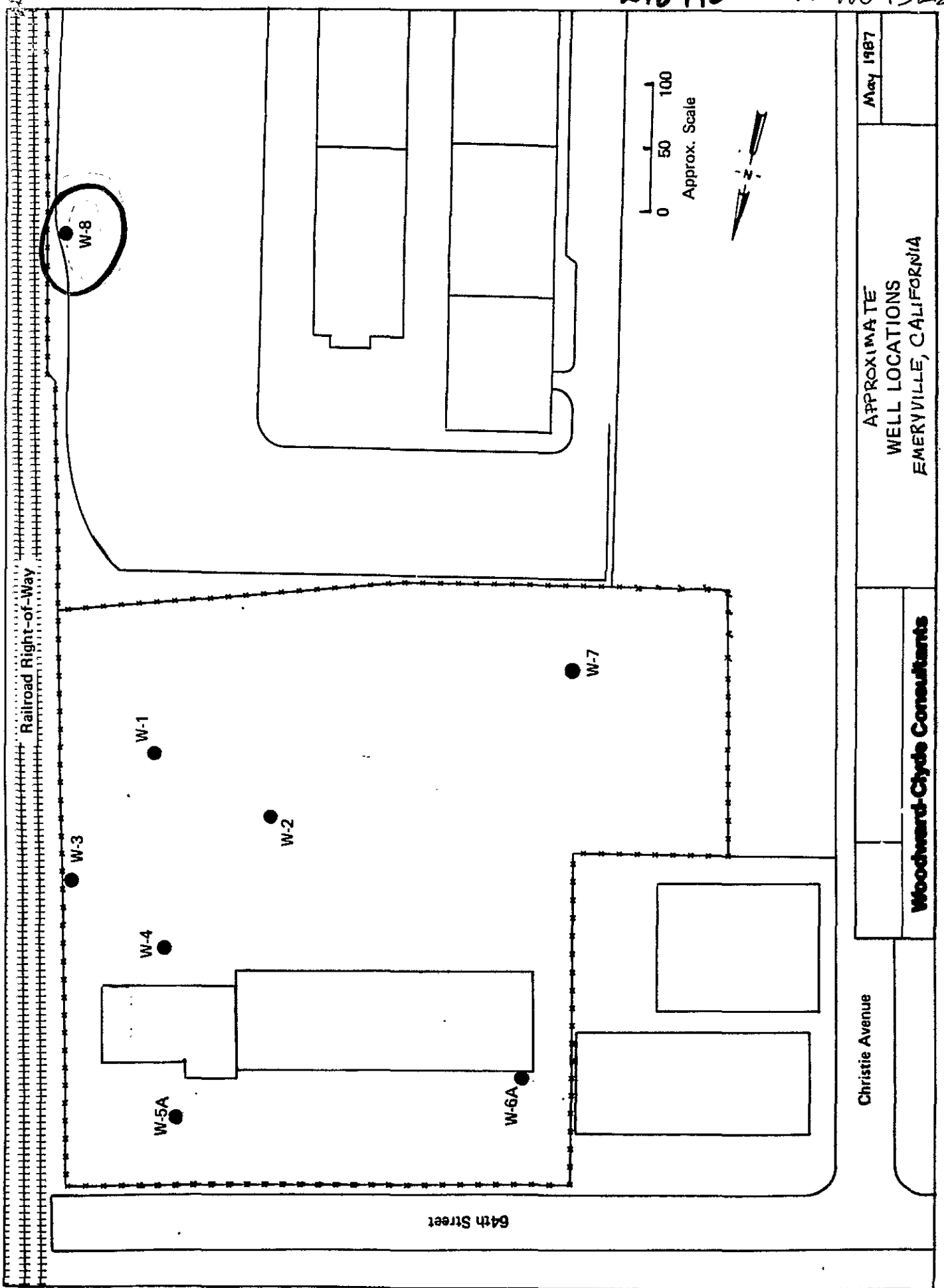
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298490

1514W 15L2



May 1987

APPROXIMATE
WELL LOCATIONS
EMERYVILLE, CALIFORNIA

Woodward-Clyde Consultants

Christie Avenue

64th Street

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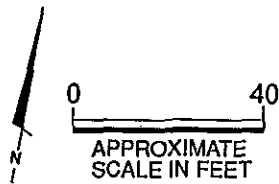
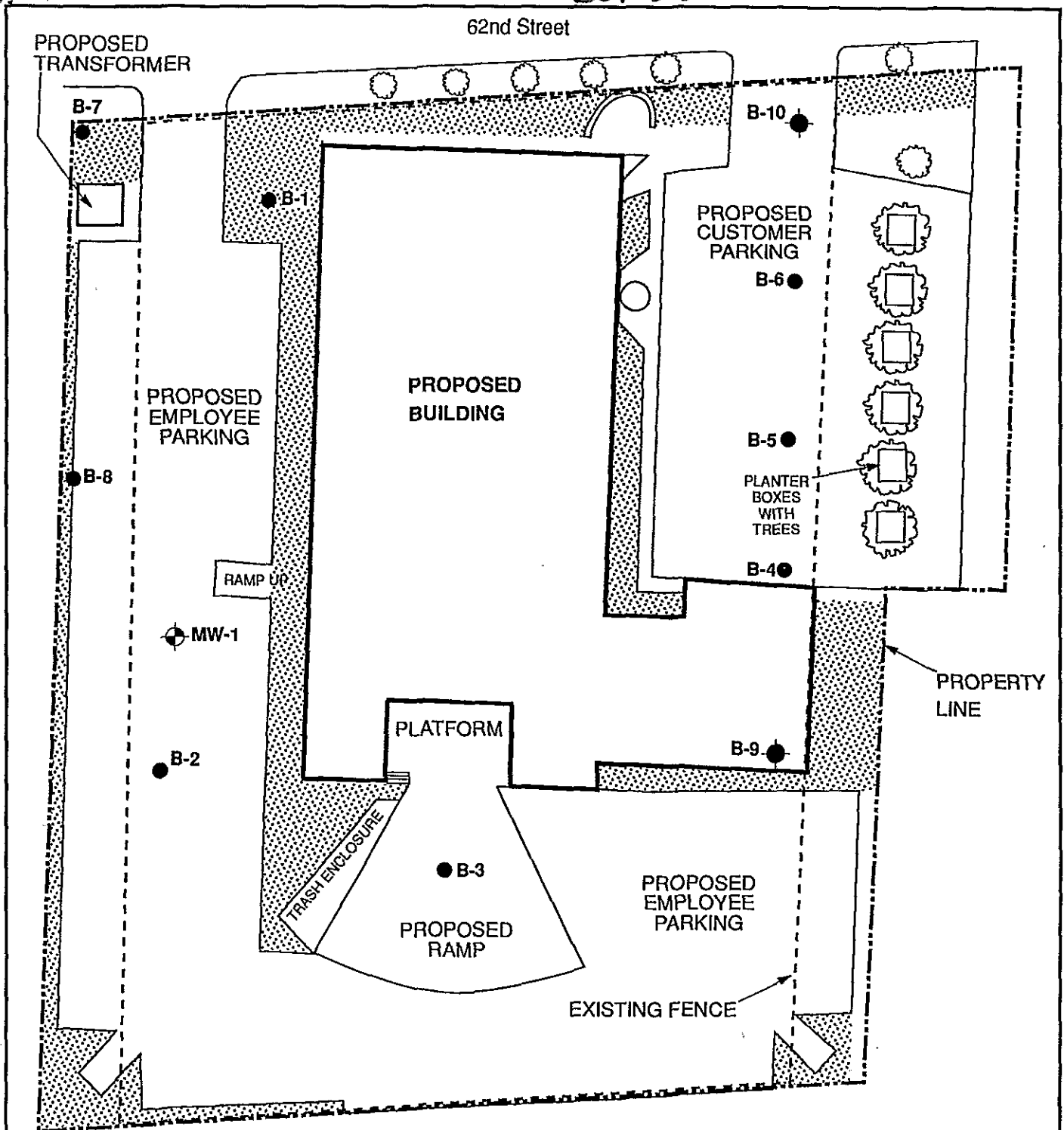
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WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



EXPLANATION

- Shallow Boring Location
- Boring with Grab Groundwater Samples
- ⊕ Monitoring Well Location

Proposed Landscaping

0219ab



Harding Lawson Associates
 Engineering and Environmental Services

Boring Location Map
 Proposed USPS Facility
 Emeryville, California

PLATE

2

DRAWN: NJBc
 JOB NUMBER: 5525,134.02

APPROVED

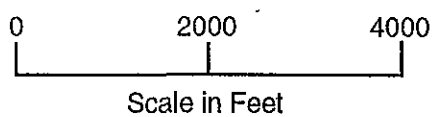
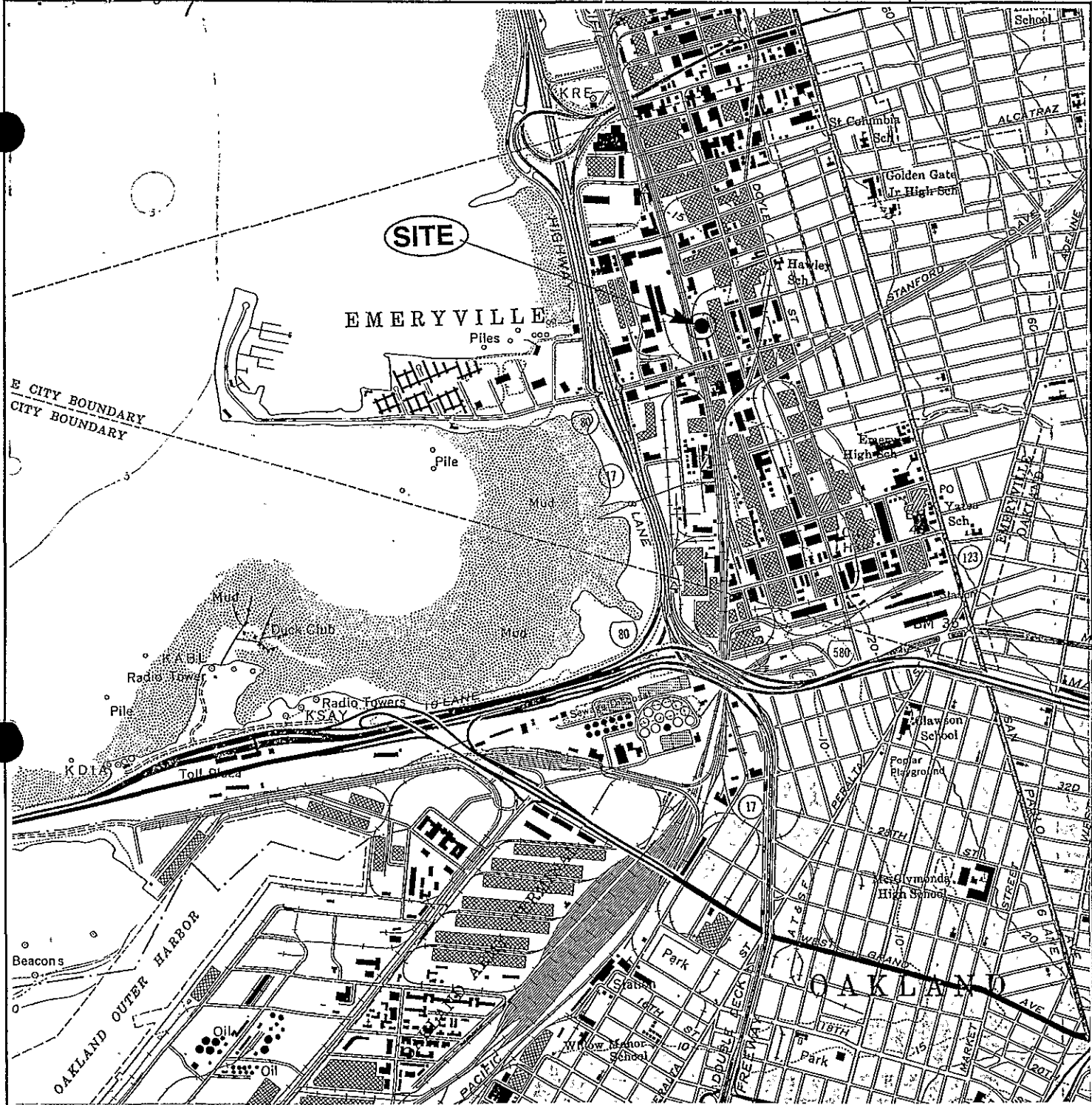
DATE: 1/92

REVISED DATE

174/6

01-544A-D

01S04W15L



REFERENCE: U.S. Geological Survey map, Oakland West
 Quadrangle, Photorevised 1980

Landorgan St. & Powell St.

EMERYVILLE AMTRAK STATION
 Emeryville, California

TREADWELL & ROLLO, INC.
 Consulting Scientists and Engineers

SITE LOCATION MAP

Project No. 1097.03

Figure 1

Permit # 92614

EXISTING WESTINGHOUSE BUILDING

Gate

Existing Fence

Existing slurry wall

B-2

B-4

PROPOSED AMTRAK TRAIN STATION

Existing fill stock (approx. 5 feet)

B-1

B-3

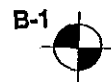
standing water observed on 12/1/92

PROPOSED PEDESTRIAN BRIDGE

SOUTHERN PACIFIC RIGHT

Existing parking lot

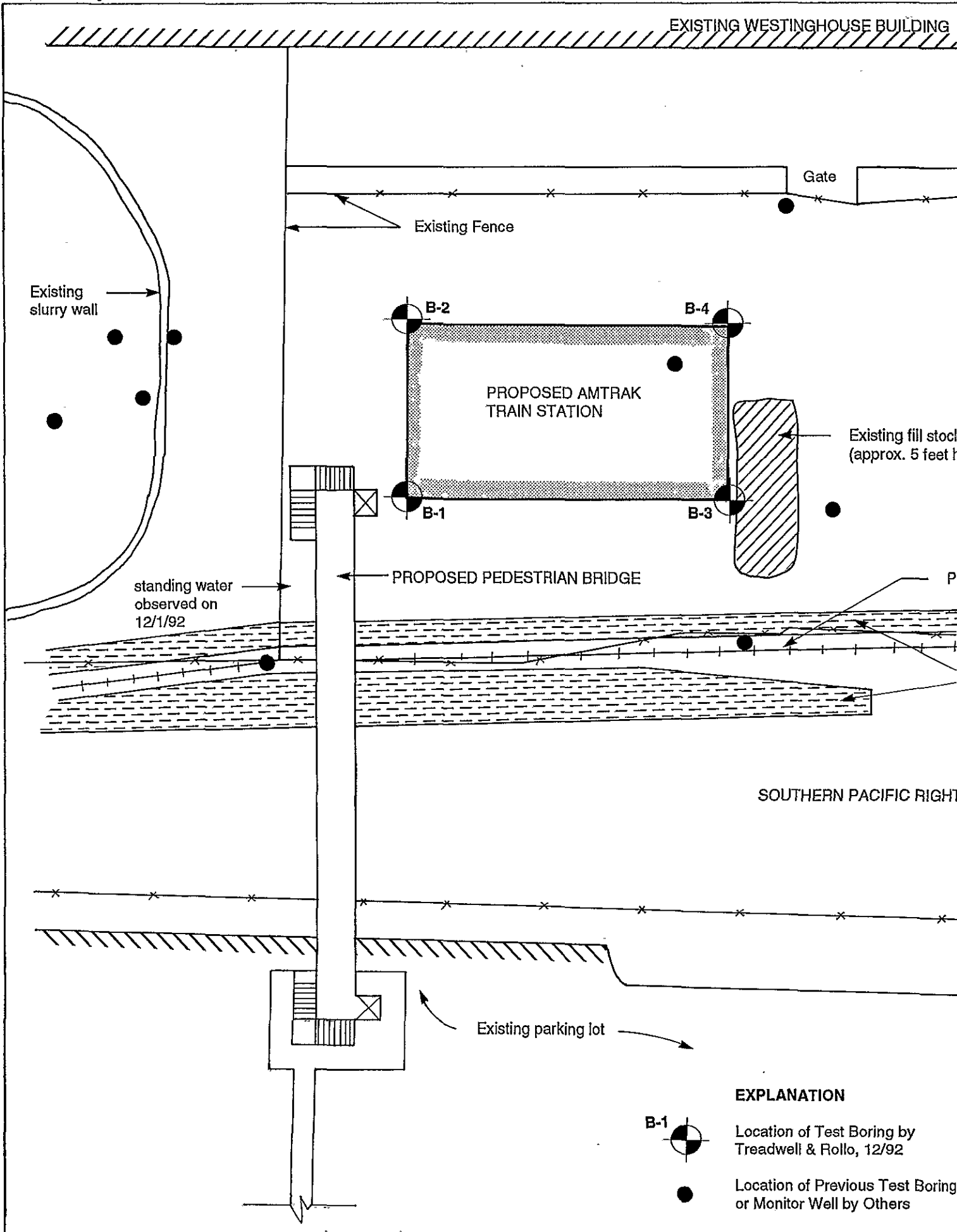
EXPLANATION

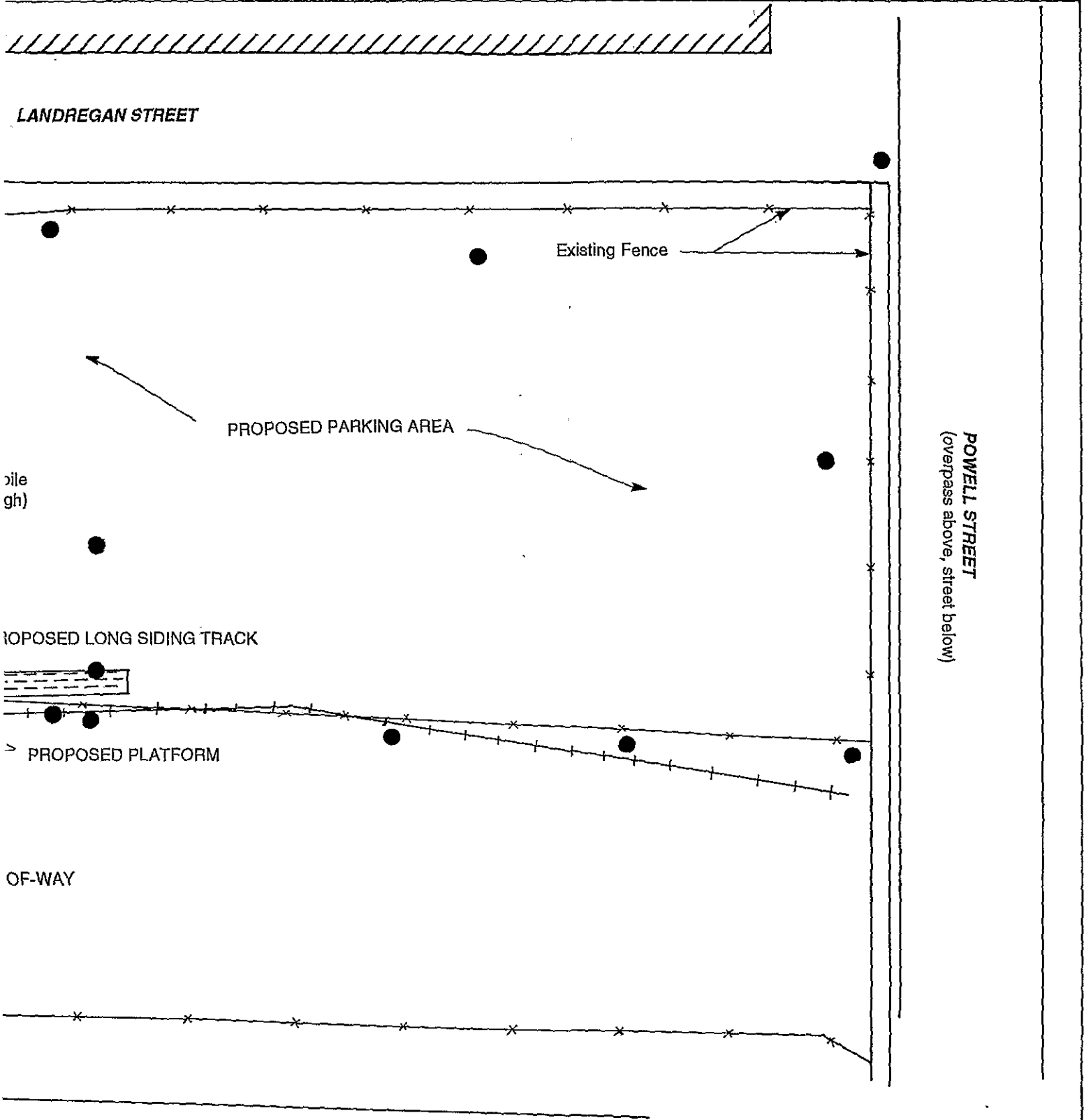


Location of Test Boring by Treadwell & Rollo, 12/92



Location of Previous Test Boring or Monitor Well by Others



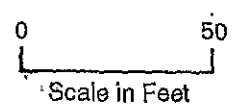


pile
gh)

PROPOSED LONG SIDING TRACK

PROPOSED PLATFORM

OF-WAY



REFERENCE:
City of Emeryville,
Interim Amtrak Station,
by Korve Engineering, dated 11/20/92.

<p>EMERYVILLE AMTRAK STATION Emeryville, California</p>	<p>SITE PLAN</p>	
<p>TREADWELL & ROLLO, INC. Consulting Engineers and Scientists</p>	<p>Project No. 1097.03</p>	<p>Figure 2</p>

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OL 544 A-D





Unified Soil Classification System

Major Divisions		Symbols	Typical Names
Coarse-Grained Soils (more than half of soil > no. 200 sieve size)	Gravels (More than half of coarse fraction > no. 4 sieve size)	GW	Well-graded gravels or gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels or gravel-sand mixtures, little or no fines
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	Sands (More than half of coarse fraction < no. 4 sieve size)	SW	Well-graded sands or gravelly sands, little or no fines
		SP	Poorly-graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils (more than half of soil < no. 200 sieve size)	Silts and Clays LL = < 50	ML	Inorganic silts and very fine sands, rock flour, silty fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays LL = > 50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of high plasticity, organic silty clays, organic silts
Highly Organic Soils		Pt	Peat and other highly organic soils

Grain Size Chart

Classification	Range of Grain Sizes	
	U.S. Standard Sieve Size	Grain Size in Millimeters
Boulders	Above 12"	Above 305
Cobbles	12" to 3"	305 to 76.2
Gravel coarse fine	3" to No. 4	76.2 to 4.76
	3" to 3/4"	76.2 to 19.1
	3/4" to No. 4	19.1 to 4.76
Sand coarse medium fine	No. 4 to No. 200	4.76 to 0.074
	No. 4 to No. 10	4.76 to 2.00
	No. 10 to No. 40	2.00 to 0.420
	No. 40 to No. 200	0.420 to 0.074
Silt and Clay	Below No. 200	Below 0.074

Sample Designation

-  Undisturbed sample taken with Sprague & Henwood (3-inch outside diameter) sampler
-  Classification sample taken with Standard Penetration Test (2-inch outside diameter) sampler
-  Undisturbed sample taken with 3-inch outside diameter Shelby tube
-  Attempted sample with no recovery

EMERYVILLE AMTRAK STATION
Emeryville, California

TREADWELL & ROLLO, INC.
Consulting Engineers and Scientists

CLASSIFICATION CHART

Project No. 1097.03

Figure 7

476

01-544A

01S04W15L

PROJECT: EMERYVILLE AMTRAK STATION Emeryville, California					Log of Boring B-1					PAGE 1 OF 3	
Boring location: See Figure 2											
Date started: 12/1/92				Date finished: 12/1/92				NOTES: Logged by Lou Gilpin			
Drilling method: Rotary Wash											
Hammer weight: 140 lbs.						Drop: 30 inches					
Sampler: 3.0-inch O.D. split barrel, SPT, Shelby tube											
DEPTH (Feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	Type of Strength Test	Test Surcharge Pressure Lbs/Sq Ft	Fines %	Shear Strength Lbs/Sq Ft	MOISTURE-DENSITY DATA	
	Sample No.	Sample	Blows/foot ²							Natural Moisture Content	Dry Density Lbs/Cu Ft
					Ground Surface Elevation: 9.2 feet ¹ (approx.)						
1				CL	3/4-inch gravel at ground surface	FILL				15.0	108
2	1		16		CLAY WITH GRAVEL (CL) dark brown, very stiff, moist						
3	2		10	CL	LL=34, PI=12, See Figure 8					17.3	
4					becomes medium stiff to stiff and wet at 3 feet						
5			50	CH	CLAY (CH)						
6	3		psl		dark brown, soft, wet, with gravel						
7				CH	CLAY (CH)						
8					olive, stiff, wet, with gravel						
9	4		12	CH	3-inch O.D. sampler driven, bag recovery only						
10					increased gravel content at 8 feet						
11				GC	CLAYEY GRAVEL WITH SAND (GC)						
12					red-brown, medium-dense, wet						
13				GC							
14	5		27								
15				CH	CLAY (CH)						
16					dark yellow-brown, very stiff, wet						
17				CH							
18	6		16								
19				SC	CLAYEY SAND WITH GRAVEL (SC)						
20					mottled olive-brown and gray, medium dense, wet						
21				CH	SILT (ML)						
22					mottled olive-brown and gray, stiff, wet, with clay						
23	7		15	CH							
24											
25				CH							
26											
27				CH							
28	8		10								
29											
30											

TREADWELL & ROLLO, INC.
Consulting Engineers and Scientists

Project No. 1097.03

Figure 3a

576

01-544A

PROJECT: **EMERYVILLE AMTRAK STATION**
Emeryville, California

Log of Boring B-1

DEPTH (Feet)	SAMPLES				MATERIAL DESCRIPTION	STRENGTH		DATA		MOISTURE-DENSITY DATA	
	Sample No.	Sample	Blows/foot	LITHOLOGY		Type of Strength Test	Test Surcharge Pressure Lbs/Sq Ft	Fines %	Shear Strength Lbs/Sq Ft	Natural Moisture Content	Dry Density Lbs/Cu Ft
31				ML	SILT (ML) mottled olive-brown and gray, stiff, wet, with clay						
32											
33	9	X	11	ML	SANDY SILT (ML) dark blue-gray, stiff, wet, with clay						
34				ML							
35											
36					CLAY (CH) dark blue-gray, very stiff, wet, with sand						
37											
38	10		27								
39											
40				CH							
41											
42					gravel lens at 42 to 43 feet						
43					mottled brown and olive from 42 to 45 feet						
44											
45											
46											
47											
48	11		29	SC	CLAYEY SAND (SC) light olive-brown, medium dense, wet, with gravel						
49				SC							
50											
51				CH	CLAY (CH) olive-brown, stiff, wet						
52											
53					CLAYEY SAND (SC) light olive-brown, dense, wet, with gravel						
54											
55											
56				SC							
57											
58	12	X	36								
59											
60											

676

01-544A

PROJECT: **EMERYVILLE AMTRAK STATION**
Emeryville, California

Log of Boring B-1

DEPTH (Feet)	SAMPLES				MATERIAL DESCRIPTION	STRENGTH		DATA		MOISTURE-DENSITY DATA			
	Sample No.	Sample	Blows/foot	LITHOLOGY		Type of Strength Test	Test Surcharge Pressure Lbs/Sq Ft	Fines %	Shear Strength Lbs/Sq Ft	Natural Moisture Content	Dry Density Lbs/Cu Ft		
61				SC	CLAYEY SAND (SC) light olive-brown, dense, wet, with gravel								
62													
63				CH	CLAY (CH) mottled light olive-brown and gray, very stiff to hard, wet								
64													
65													
66													
67				CH	gravel lens from 69 to 70 feet								
68	13		50										
69													
70													
71				GC	CLAYEY GRAVEL WITH SAND (GC) yellow-brown, very dense, wet								
72													
73				GC	CLAYEY GRAVEL WITH SAND (GC) yellow-brown, very dense, wet								
74													
75				GC	CLAYEY GRAVEL WITH SAND (GC) yellow-brown, very dense, wet								
76													
77				GC	CLAYEY GRAVEL WITH SAND (GC) yellow-brown, very dense, wet								
78	14		57/ 10"										
79				GC	Boring terminated at depth of 78.5 feet. Boring sealed with cement/bentonite grout. Groundwater level obscured by rotary-wash fluid. Notes: ¹ Ground surface elevations estimated based on topographic information given plan entitled "City of Emeryville, Interim Amtrak Station," by Korve Engineering, dated 11/20/92. ² Blow counts have been corrected to SPT N-values.								
80													
81													
82													
83													
84													
85													
86													
87													
88													
89													
90													

474

01-544B

PROJECT: **EMERYVILLE AMTRAK STATION**
Emeryville, California

Log of Boring B-2

Boring location: See Figure 2

Date started: 12/1/92 Date finished: 12/2/92

NOTES: Logged by Lou Gilpin

Drilling method: Rotary Wash (no fluid used)

Hammer weight: 140 lbs. Drop: 30 inches

Sampler: SPT, 3.0-inch O.D. split barrel, Shelby tube

DEPTH (Feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	STRENGTH		DATA		MOISTURE-DENSITY DATA	
	Sample No.	Sample	Blows/foot			Type of Strength Test	Test Surcharge Pressure Lbs/Sq Ft	Fines %	Shear Strength Lbs/Sq Ft	Natural Moisture Content	Dry Density Lbs/Cu Ft
					Ground Surface Elevation: 11.3 feet (approx.)						
1				CL	3/4- inch gravel at ground surface	TXUU	400	850	20.6	109	
2	1		8		GRAVELLY CLAY (CL)						
3	2		5		dark gray, medium stiff, wet						
4					groundwater level on 12/2/92						
5	3		200		becomes stiff at 5-1/2 feet						
6				GC	CLAYEY GRAVEL WITH SAND (GC)						
8	4		29		yellow-brown, medium dense, wet						
9					3-inch O.D. sampler driven at 7 feet, bag sample only						
11	5		11	CH	CLAY (CH) brown, medium stiff to stiff, wet						
12					Boring terminated at a depth of 11.5 feet.						
13					Boring sealed with cement/bentonite grout.						
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											

4 3 4

01-544e

PROJECT: **EMERYVILLE AMTRAK STATION**
Emeryville, California

Log of Boring B-3

Boring location: See Figure 2

Date started: 12/2/92 Date finished: 12/2/92

NOTES: Logged by Lou Gilpin

Drilling method: Rotary Wash (no fluid used)

Hammer weight: 140 lbs. Drop: 30 inches

Sampler: 3.0-inch O.D. split barrel, Shelby tube

DEPTH (Feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	STRENGTH		DATA		MOISTURE-DENSITY DATA	
	Sample No.	Sample	Blows/foot			Type of Strength Test	Test Surcharge Pressure Lbs/Sq Ft	Fines %	Shear Strength Lbs/Sq Ft	Natural Moisture Content	Dry Density Lbs/Cu Ft
1					Ground Surface Elevation: 9.5 feet (approx.)						
2	1		20	CL	GRAVELLY CLAY (CL) dark gray-brown, very stiff, moist, with sand LL=36, PI=17, see Figure 8	TXUU	300	1280	19.3	105	14.5
3	2	200 psi	stiff at 3 feet								
4				CH	CLAY (CH) olive-brown, stiff, wet						29.4
5											
6	3	200-300 psi									
7											
8					very stiff to hard at 8 feet						
9	4		28								
10					Boring terminated at a depth of 9.5 feet.						
11					Boring sealed with cement/bentonite grout.						
12					Groundwater did not enter boring prior to grouting.						
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											

FILL

By *[Signature]*

01-544D

PROJECT: **EMERYVILLE AMTRAK STATION**
Emeryville, California

Log of Boring B-4 PAGE 1 OF 2

Boring location: See Figure 2

Date started: 12/1/92 Date finished: 12/2/92

NOTES: Logged by Lou Gilpin

Drilling method: Rotary Wash

Hammer weight: 140 lbs. Drop: 30 inches

Sampler: 3.0-inch O.D. split barrel

DEPTH (Feet)	SAMPLES			LITHOLOGY	MATERIAL DESCRIPTION	STRENGTH		DATA		MOISTURE-DENSITY DATA	
	Sample No.	sample	Blows/foot			Type of Strength Test	Test Surcharge Pressure Lbs/Sq Ft	Fines %	Shear Strength Lbs/Sq Ft	Natural Moisture Content	Dry Density Lbs/Cu Ft
Ground Surface Elevation: 11.2 feet (approx)											
1				GC	CLAYEY GRAVEL (GC) dark gray, medium dense, wet						
2	1		22		FILL ↑↓						
3	2		7	ML	CLAYEY SILT (ML) dark gray, medium stiff, wet						
4											
5											
6	3		10	CH	CLAY (CH) olive, stiff, wet				24.9	99	
7											
8											
9											
10											
11	4		18	CH	CLAY WITH SAND (CH) mottled olive-brown and gray, very stiff, wet						
12											
13											
14											
15											
16	5		16		light olive-brown at 16 feet						
17											
18											
19											
20											
21	6		23	ML	SILT (ML) dark yellow-brown, very stiff, wet, with clay						
22											
23											
24					CLAY (CH) mottled light olive-brown and gray, very stiff, wet						
25											
26	7		21	CH	gravel lens from 27 to 28 feet						
27											
28											
29											
30											

5 2

01-544D

PROJECT: GOLDEN GATE BRIDGE San Francisco, California		Log of Boring B-4			PAGE 2 OF 2						
DEPTH (Feet)	SAMPLES				MATERIAL DESCRIPTION	STRENGTH		DATA		MOISTURE-DENSITY DATA	
	Sample No.	Sample	Blows/foot	LITHOLOGY		Type of Strength Test	Test Surcharge Pressure Lbs/Sq Ft	Fines %	Shear Strength Lbs/Sq Ft	Natural Moisture Content	Dry Density Lbs/Cu Ft
31	8		24	CH	CLAY (CH) continued						
32				SM	SILTY SAND (SM) mottled olive-brown and gray, medium dense, wet						
33					CLAY (CH)						
34					green-gray, very stiff, wet, with some gravel						
35											
36											
37											
38											
39				CH							
40											
41	9		30								
42					gravel lenses between 42 and 46 feet						
43											
44											
45											
46											
47											
48					gravel lens at 48 feet						
49											
50					color change to light olive-brown at 51 feet						
51	10		23								
52					Boring terminated at depth of 51.5 feet.						
53					Boring sealed with cement/bentonite grout.						
54					Groundwater level obscured by rotary-wash fluid.						
55											
56											
57											
58											
59											
60											

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WELL COMPLETION REPORT
(WELL LOGS)**

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

15/4W 15N4
316903

PROJECT: ASSESSOR'S PARCEL No. 1495-LOT 21 Frontage Road, Emeryville, California				WELL NO. MW-1							
DRILLING SUPERVISOR: Dale R. Dell'Osso		CASING: 2 in. PVC		DATE: 06/27/90							
DRILLING LOGGER: Dale R. Dell'Osso		SLOT SIZE: 0.02 in.		SEAL: 4 ft. - 6 ft.							
DRILLER: Spectrum Exploration, Stockton, California		PERF: 7.5 ft. - 22.5 ft.		WELL DEPTH: 23.5 ft.							
DRILL RIG: Acker AD-11 Truck-mount		GRAPHIC WELL DESIGN		Number/Diameter	Blows per foot	PID Field Screen (ppm)	Comments and Other Tests*				
DRILLING METHOD: 8" OD/5" ID Hollow Stem Auger								Depth (ft.)	Pedology	Annulus	Casing
GROUNDWATER DEPTH: 6.6 ft. 06/29/90											
DESCRIPTION OF MATERIALS		Depth (ft.)	Pedology	Annulus	Casing	Number/Diameter	Blows per foot	PID Field Screen (ppm)	Comments and Other Tests*		
Top of casing elevation: ~15.1 ft.; (2.1 ft. above existing grade)											
Surface Elevation: ~13.0 ft.		0		Locking cover in concrete							
Stiff dark yellow brown silty clay (fill)				Neat Cement		1) 2"	14	ND			
Stiff gray brown silty clay (fill)						2) 2"	14	ND			
Stiff dark gray black silty clay (fill)		5		Bentonite Pellets		3) 2"	52	ND			
Medium dense gray gravelly medium grained sand (fill); sandstone and chert clasts <2"						4) 2"	9	ND			
Medium stiff medium gray silty sandy clay with wood detritus (fill)		10				5) 2"	6	ND	06/29/90 1st free water @ 10 ft.		
Medium stiff gray green silty clay (fill)						6) 2"	14	ND			
Medium stiff olive black silty clay with minor subrounded gravel <2" (fill)						7) 2"	25	0.5			
Red and black asphalt shingles/roofing felt (fill)		15				8) 2"	16	0.5			
Medium stiff saturated black silty clay Minor recovery - reeds (Old Marsh Deposit)											
Medium stiff black silty clay		20							2nd free water @ 19.5 ft.		









JOB NO. 6646.1-9005

HALLENBECK & ASSOCIATES

FIGURE NO. 3

15/4W15N4

316903

PROJECT: ASSESSOR'S PARCEL No. 1495-LOT 21 Frontage Road, Emeryville, California				WELL NO. MW-1				
DRILLING SUPERVISOR: Dale R. Dell'Osso		CASING: 2 in. PVC		DATE: 06/27/90				
DRILLING LOGGER: Dale R. Dell'Osso		SLOT SIZE: 0.02 in.		SEAL: 4 ft. - 6.0 ft.				
DRILLER: Spectrum Exploration, Stockton, California		PERF: 7.5 ft. - 22.5 ft.		WELL DEPTH: 23.5 ft.				
DRILL RIG: Acker AD-11 Truck-mount		GRAPHIC WELL DESIGN		Number/Diameter	Blows per foot	PID Field Screen (ppm)	Comments and Other Tests*	
DRILLING METHOD: 8" OD/5" ID Hollow Stem Auger								
GROUNDWATER DEPTH: 6.6 ft. 06/29/90		Depth (ft.)	Pedology	Annulus	Casing	Blows per foot	PID Field Screen (ppm)	Comments and Other Tests*
DESCRIPTION OF MATERIALS								
Top of casing elevation: ~15.1 ft.; (2.1 ft. above existing grade)								
Surface Elevation: ~13. ft.								
<i>Continued from Figure 3</i>		20		↑ No. 3 Monterey Sand ↓	0.02" PERFORATED SCREEN			
Medium stiff black silty clay					9) 2"	5	0.5	
Medium stiff black sandy silty clay					10) 2"	5	0.5	
TOTAL WELL DEPTH @ 23.5 FT.		25						
<ul style="list-style-type: none">  - Silty Clay  - Silty Sandy Clay  - Sandy Silty Clay  - Sand  - Gravel  - Artificial Fill 								
Notes: 1) Groundwater depth reported is stabilized.		30						
* See Appendix 1		35						
		40						

Road

Frontage

Driveway

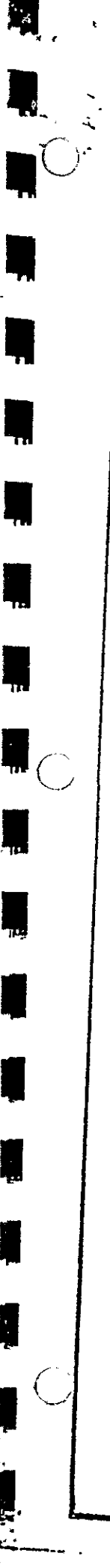
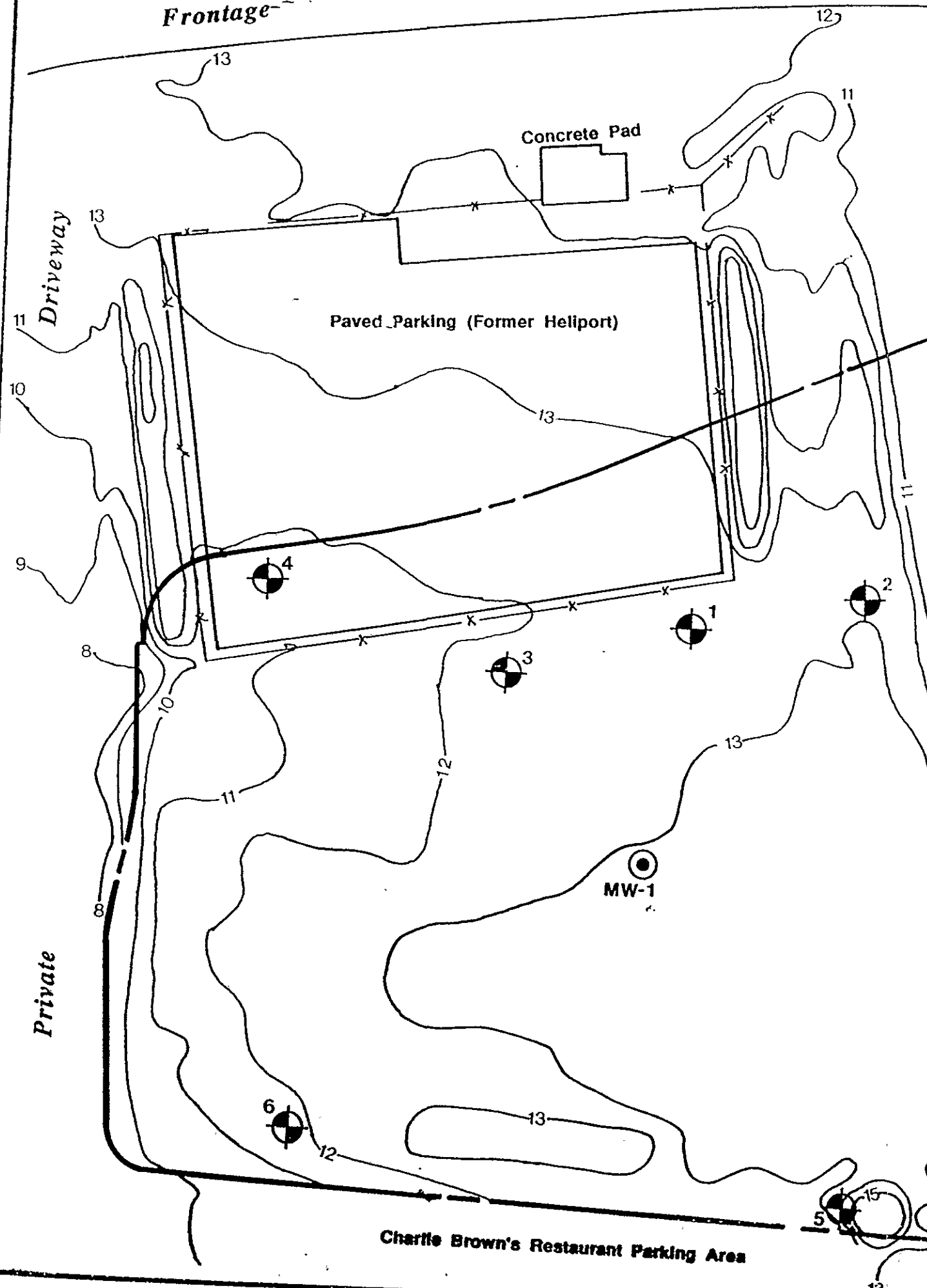
Private

Concrete Pad

Paved Parking (Former Heliport)

MW-1

Charlie Brown's Restaurant Parking Area



1S/4W 18N4

LEGEND

14 Contour with elevation

Parcel boundary

x Fence

Exploratory boring

Monitoring well

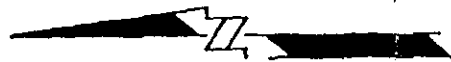
Frontage Road Property

Present Day Site Plan with Exploratory Borings

Emeryville, California

Holiday Inn Parking Area

Scale: 1 inch = 50 feet
Contour Interval: 1 foot

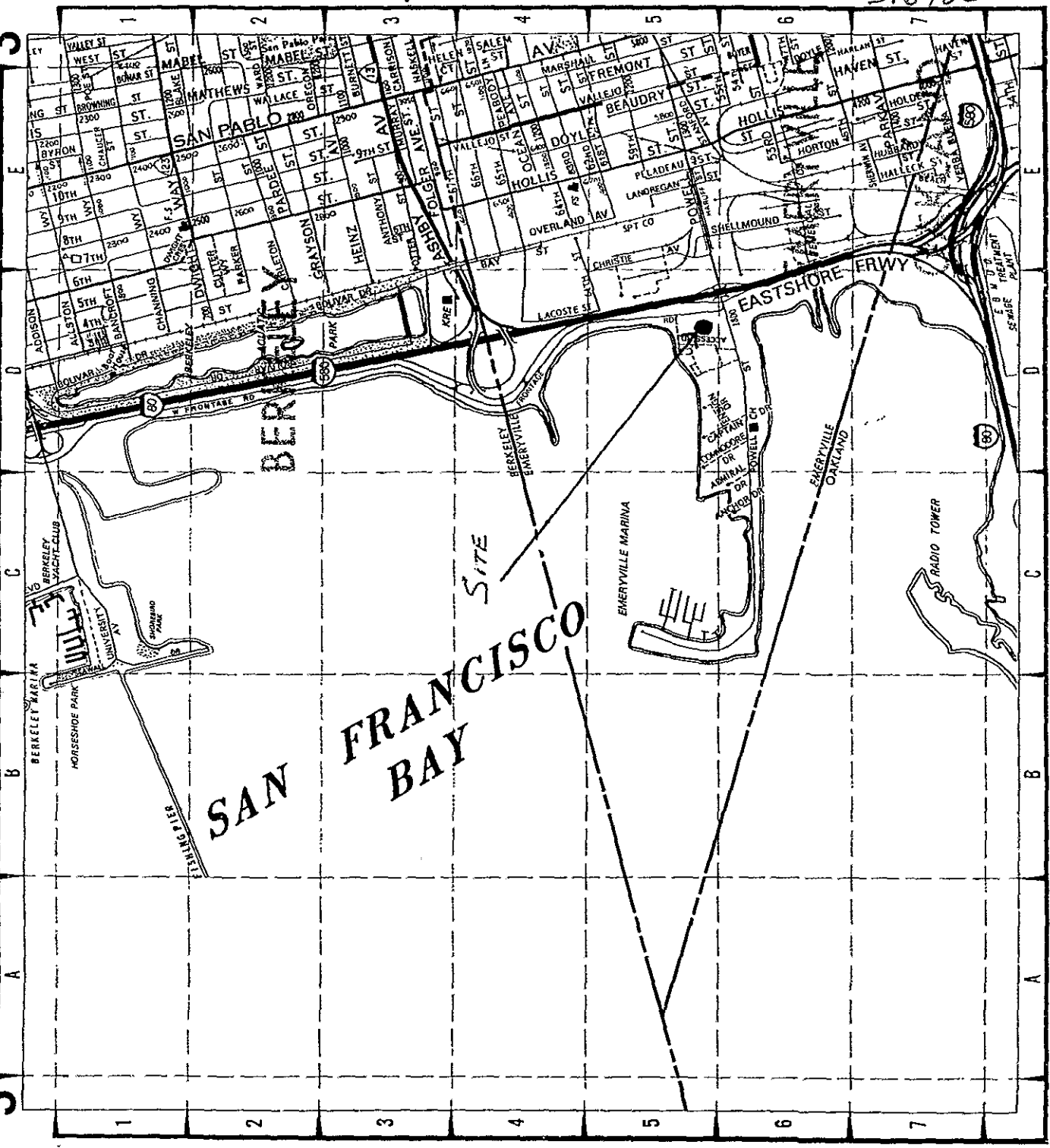


After Nolte & Associates, 1988



1S/4W 15-N4

316903



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1472

7

3

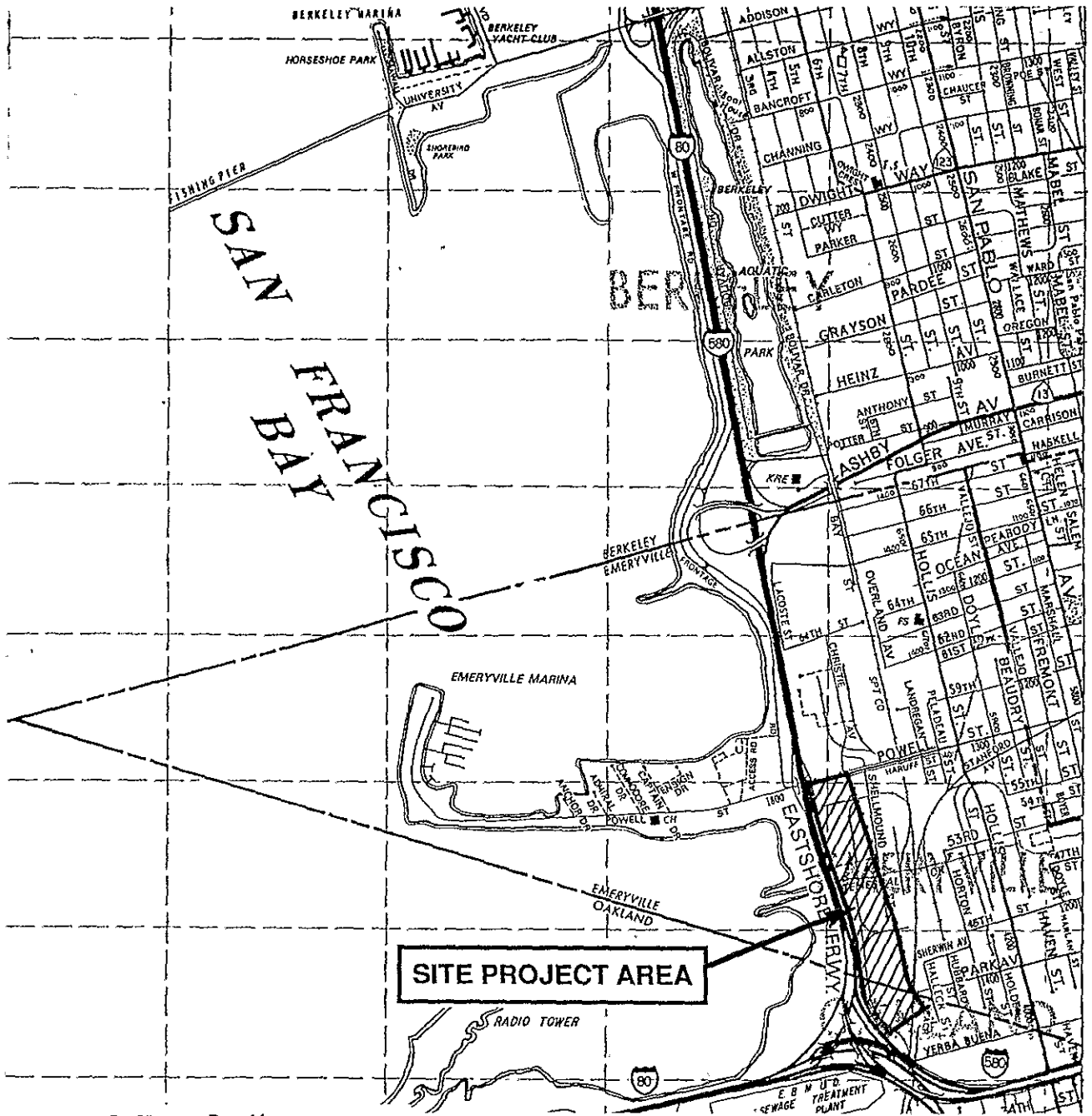
1472

3

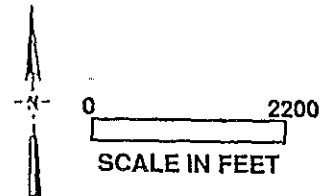
17


01-544F-1

013 04W 15N 05-15N 08



REFERENCE : Thomas Bros Map,
Alameda & Contra Costa Counties



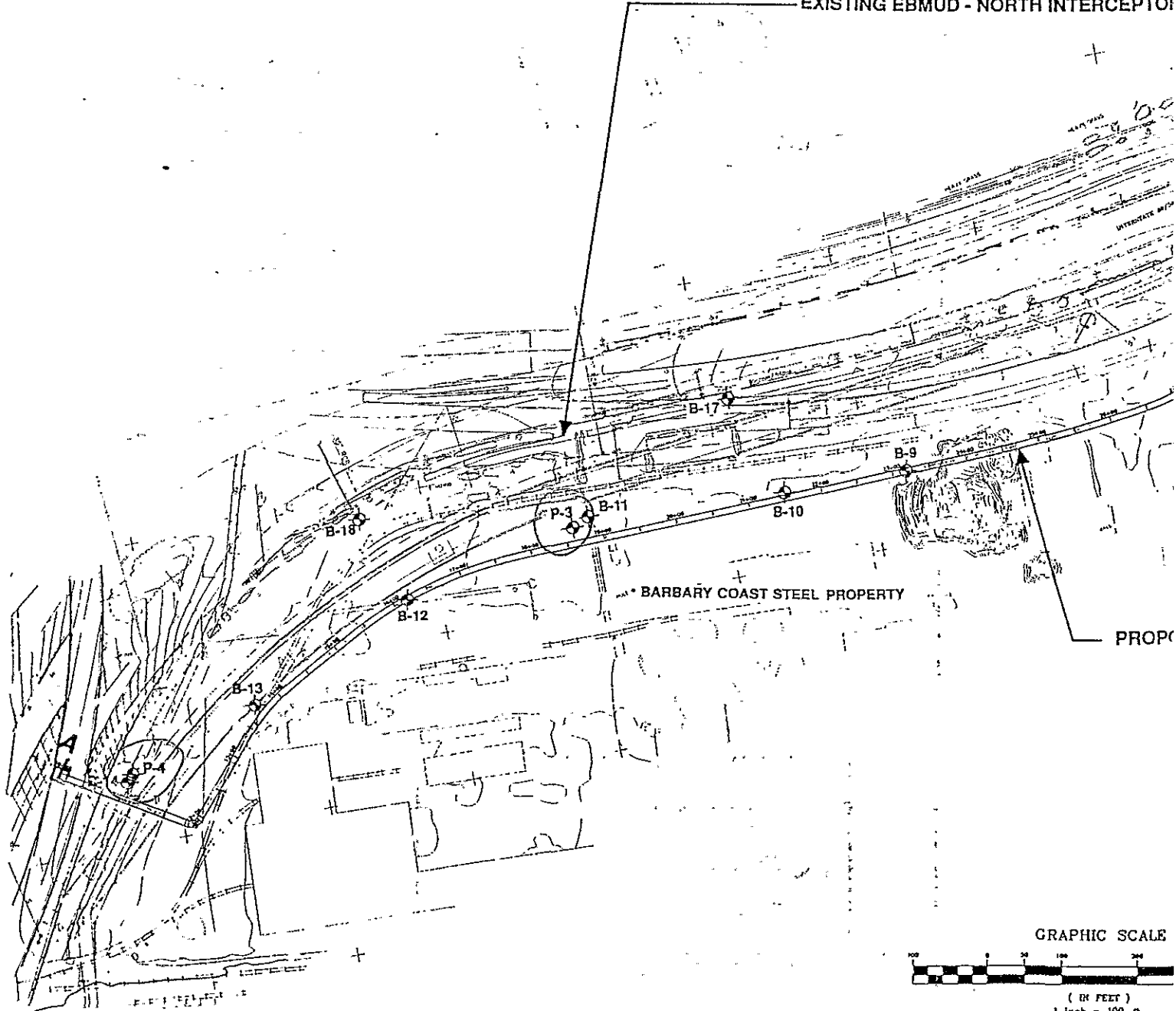
 **Geo/Resource Consultants, Inc.**
GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS
505 BEACH STREET, SAN FRANCISCO, CALIFORNIA 94133

Job No. 1748-002-00 Appr. _____ Date 12/11/92

VICINITY MAP
EAST BAY MUNICIPAL UTILITY DISTRICT
INTERSTATE 80
NORTH INTERCEPTOR RELOCATION
EMERYVILLE/OAKLAND, CALIFORNIA

FIGURE
1

EXISTING EBMUD - NORTH INTERCEPTOR

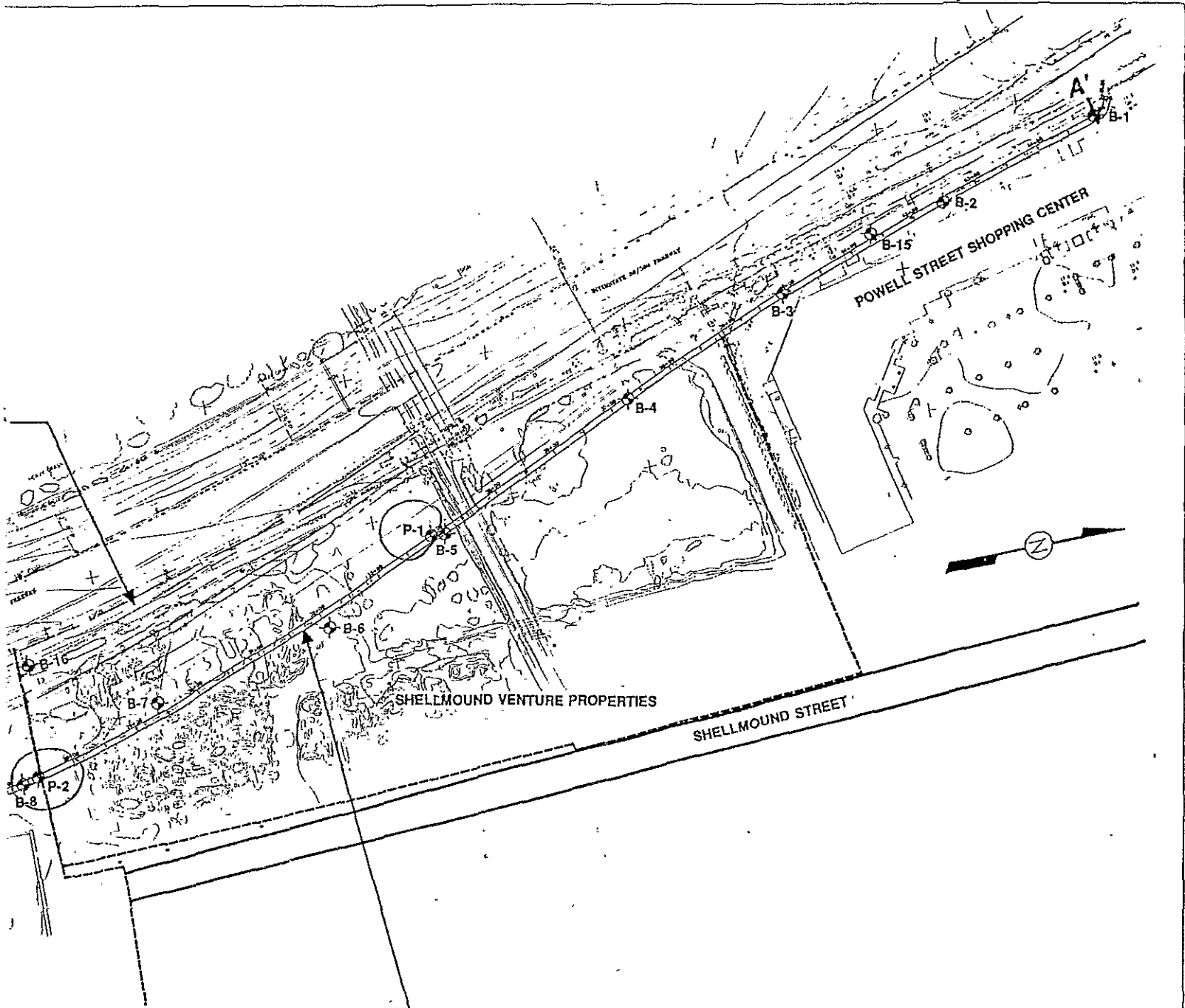


GRAPHIC SCALE



(IN FEET)
1 inch = 100 ft.

REFERENCE : Base from JOHN CARC




SED NEW EBMUD - NORTH INTERCEPTOR

EXPLANATION	
B-1 THROUGH B-14 :	SOIL BORING LOCATIONS ALONG PROPOSED EBMUD - NORTH INTERCEPTOR
B-15 THROUGH B-18 :	SOIL BORING LOCATIONS ALONG EXISTING EBMUD - NORTH INTERCEPTOR
P-1 THROUGH P-4 :	PIEZOMETER LOCATIONS ALONG PROPOSED EBMUD - NORTH INTERCEPTOR

SOIL BORING AND PIEZOMETER LOCATION MAP
 GEOTECHNICAL AND SITE CHARACTERIZATION
 EBMUD - NORTH INTERCEPTOR RELOCATION PROJECT

Reference _____
 Scale _____ Approved by _____ Drawn by _____

 **Geo/Resource Consultants, Inc.**
 GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS
 831 HARRISON STREET, SAN FRANCISCO, CALIFORNIA 94107



393

01-544F

01804W15N05

LOG OF BORING P-1

Equipment 6" Hollow Stem Auger, B-61 Mobile Drill Rig

Elevation ~110 ft. Date 10/7/92

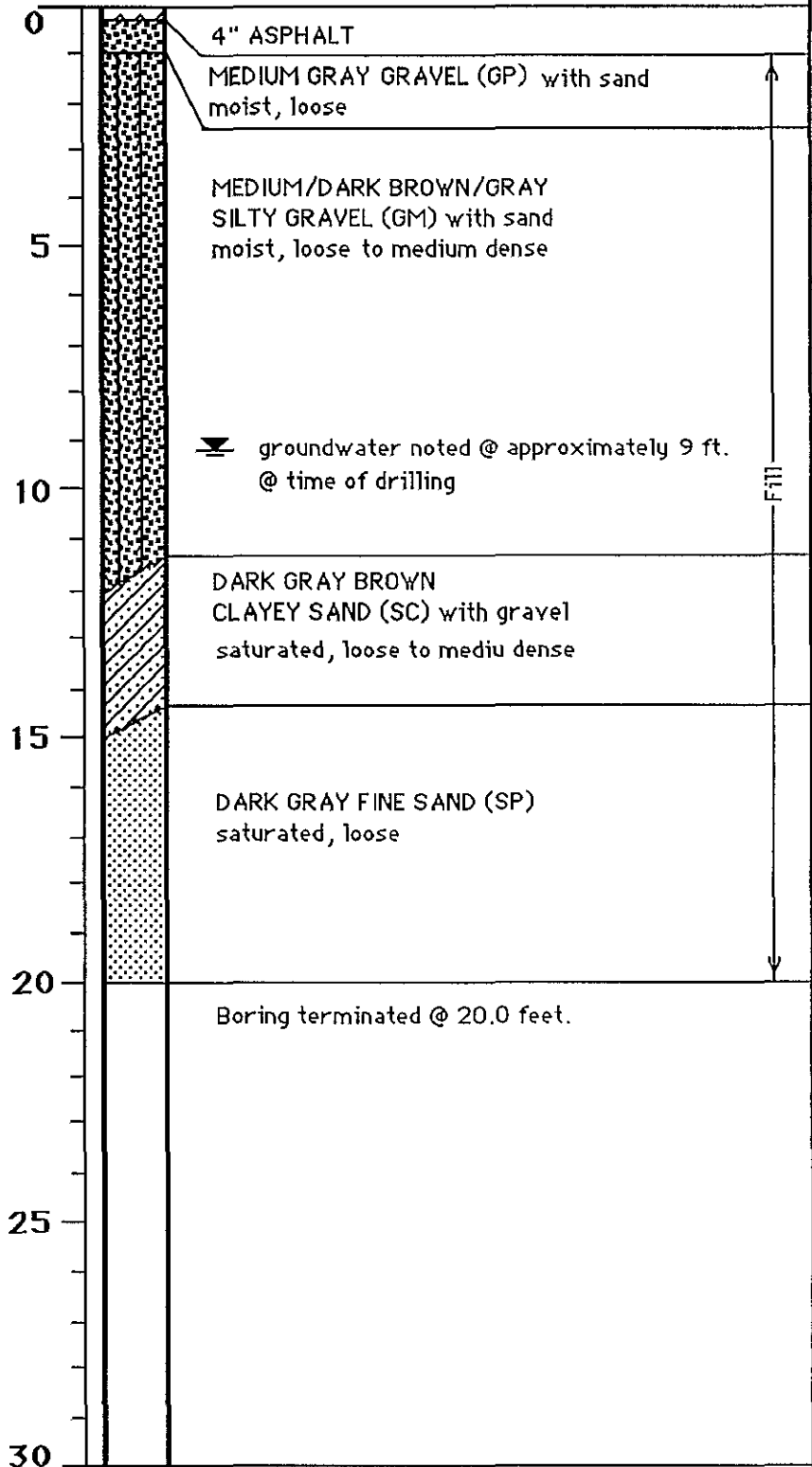
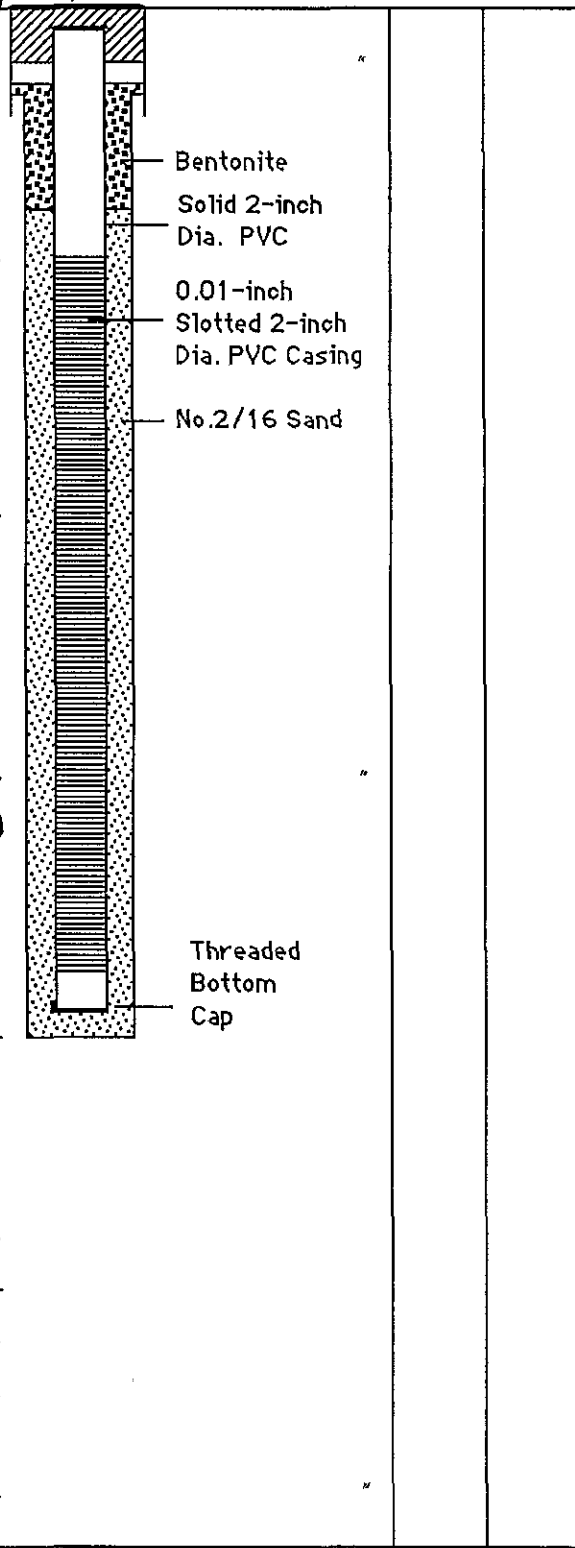
Well Installation Diagram

8" Diameter "Christy Box" Well Cover

Blows/ft.

Dry Density (pcf)

Depth (ft.)
Sample prts.



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LOG OF BORING P-1
NORTH INTERCEPTOR RELOCATION
EBMUD
EMERYVILLE/OAKLAND
CALIFORNIA

FIGURE
A-15

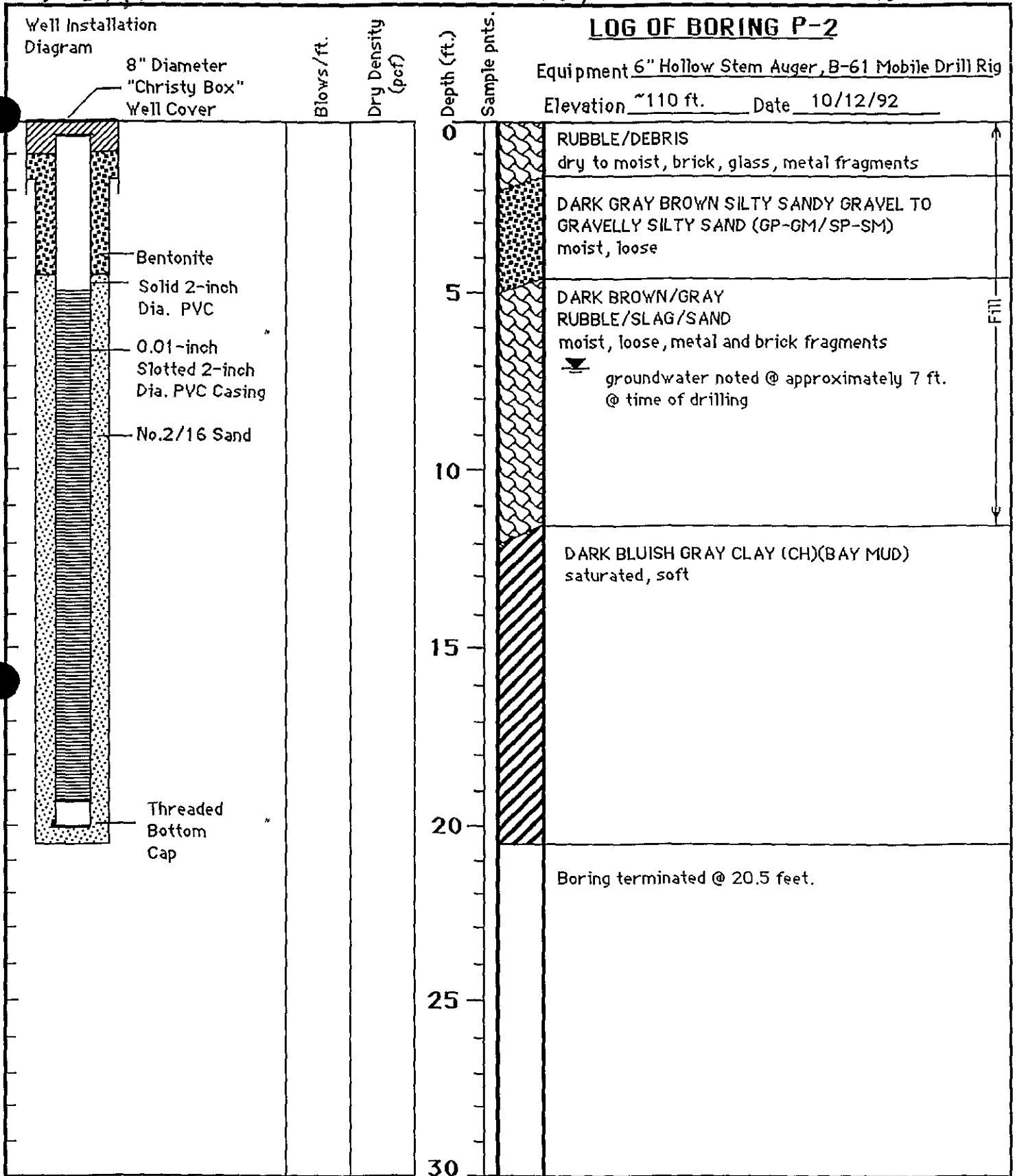
Job No. 1748-002 Appr: _____ Date 10/17/92

ph: 415 ~ 775 ~ 3177 PERMIT 92471 257 554979 1621

3.93

01-5446

01804W15N06



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LOG OF BORING P-2
NORTH INTERCEPTOR RELOCATION
EBMUD
EMERYVILLE/OAKLAND
CALIFORNIA

FIGURE
A-16

Job No. 1748-002 Appr: _____ Date 10/17/92

1621

3 of 3

06-544H

01804W15N07

LOG OF BORING P-3

Equipment 6" Hollow Stem Auger, B-61 Mobile Drill Rig

Elevation ~108 ft. Date 10/9/92

Well Installation
Diagram

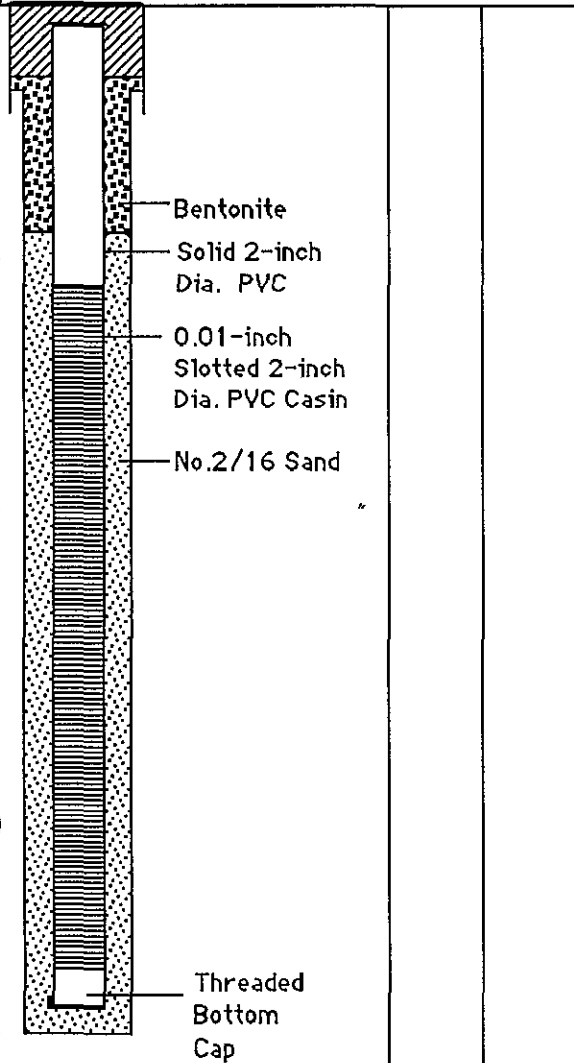
8" Diameter
"Christy Box"
Well Cover

Blows/ft.

Dry Density
(pcf)

Depth (ft.)

Sample pnts.



0	4" ASPHALT
0 - 5	DARK BROWN GRAY TO BLACK SILTY GRAVEL (GM) with sand slightly moist, loose
5 - 10	DARK GRAY BROWN SAND/SLAG very moist to wet, loose ⚡ groundwater noted @ approximately 6 ft. @ time of drilling
10 - 11	DARK GRAY/BLACK FINE SAND (SP) saturated, loose, scattered gravel
11 - 20	DARK GRAY/BLACK CLAY (CH)(BAY MUD) saturated, soft
20 - 20.5	LIGHT BROWN TAN SILTY CLAY (CL-ML)(TEMESCAL) saturated, soft to firm
20.5 - 30	Boring terminated @ 20.5 feet.



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LOG OF BORING P-3
NORTH INTERCEPTOR RELOCATION
EBMUD
EMERYVILLE/OAKLAND
CALIFORNIA

FIGURE
A-17

Job No. 1748-002 Appr: _____ Date 10/17/92

1621

383

01-544I

01S04W15N08

LOG OF BORING P-4

Equipment 6" Hollow Stem Auger, B-61 Mobile Drill Rig

Elevation ~107 ft. Date 10/12/92

Well Installation Diagram

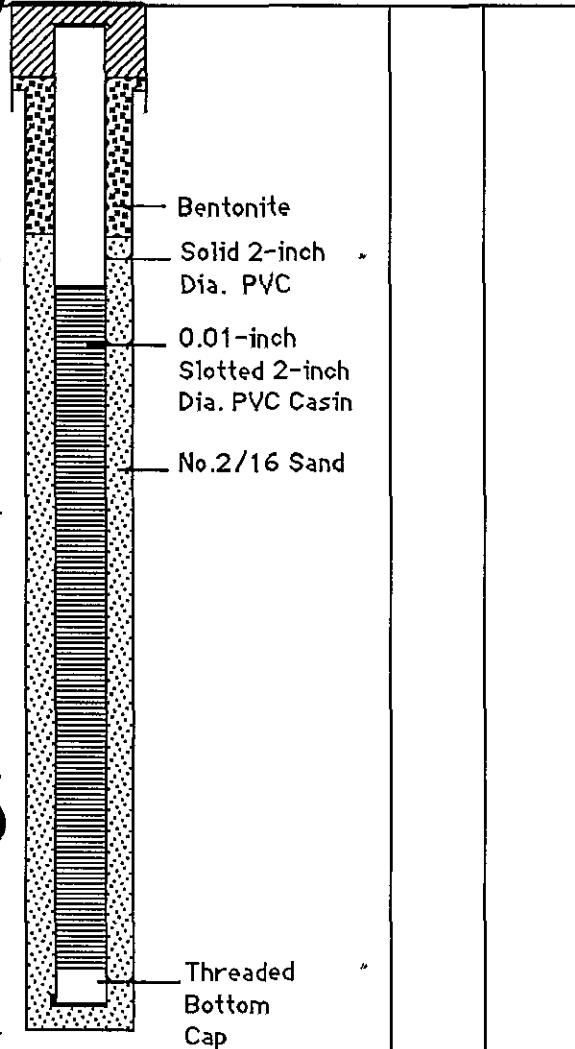
8" Diameter "Christy Box" Well Cover

Blows/ft.

Dry Density (pcf)

Depth (ft.)

Sample pnts.



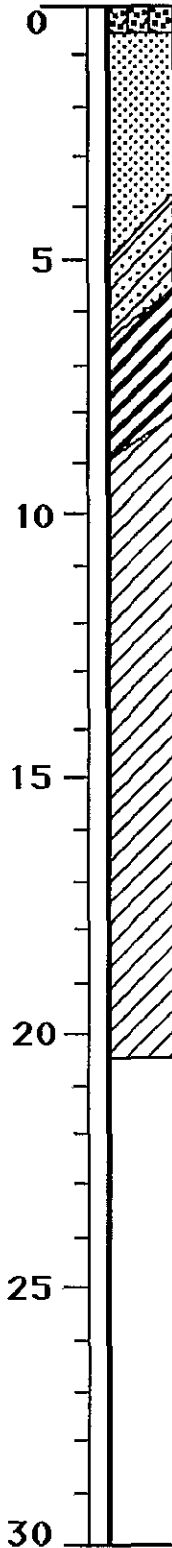
Bentonite

Solid 2-inch Dia. PVC

0.01-inch Slotted 2-inch Dia. PVC Casing

No. 2/16 Sand

Threaded Bottom Cap



LIGHT TAN-BROWN SILTY GRAVEL (GM) with sand moist, loose

MEDIUM BROWN/GRAY SAND/SLAG (SP/GP) slightly damp, loose, angular rock fragments to 3 in.

MEDIUM DARK BROWN SILTY SAND (SM) with gravel damp to moist, loose

MEDIUM BLACK-BLUIISH GRAY CLAY (CH) (BAY MUD) saturated, soft
groundwater noted @ approximately 7 ft. @ time of drilling

MEDIUM TO LIGHT ORANGE TAN WITH OLIVE GREEN STREAKS SILTY CLAY (CL-ML) TO SILT (MH) saturated, firm

Boring terminated @ 20.5 feet.



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LOG OF BORING P-4
NORTH INTERCEPTOR RELOCATION
EBMUD
EMERYVILLE/OAKLAND
CALIFORNIA

FIGURE
A-18

Job No. **1748-002** Appr: _____ Date **10/17/92**

1624

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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SOURCE:
 USGS MAP, OAKLAND WEST QUADRANGLE, CALIFORNIA.
 7.5 MINUTE SERIES, 1959, PHOTOREVISED 1980.

FIGURE 1

SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11126
 1700 POWELL STREET
 EMERYVILLE, CALIFORNIA

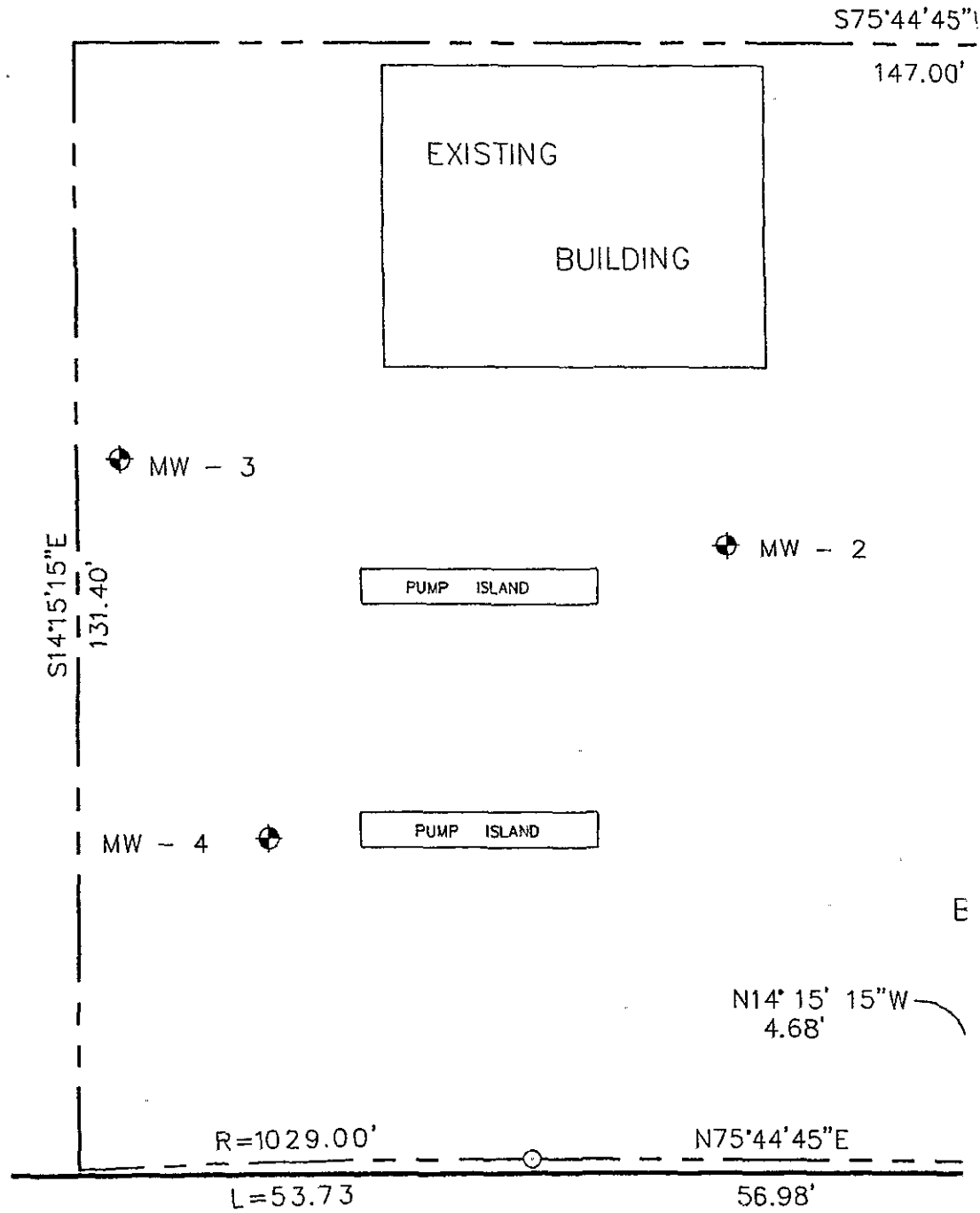


ALISTO PROJECT NO. 10-061



ALISTO ENGINEERING GROUP
 CONCORD, CALIFORNIA

39 5



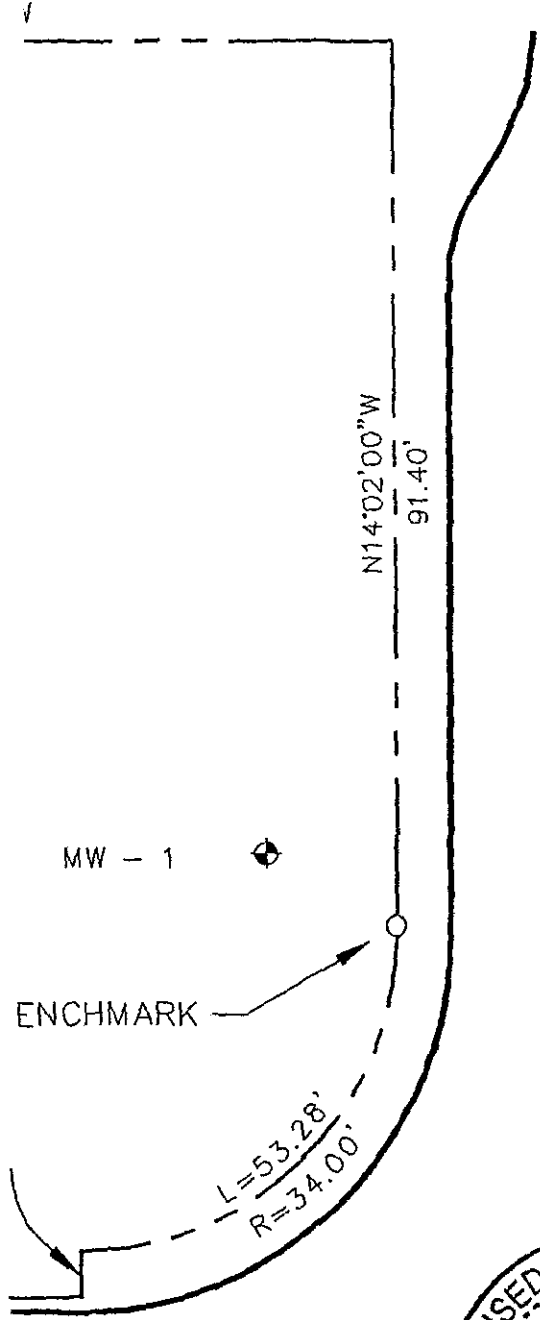
POWELL ST.

NOTE:
 THIS IS NOT A SURVEY OF THE BOUNDARY.
 ALL REPRESENTATIONS HEREIN ARE BASED
 UPON RECORD INFORMATION.

424779A



SCALE: 1" = 20'



CHRISTIE AVE

MONITORING WELL ELEVATION

MW - 1	7.73
MW - 2	8.56
MW - 3	8.26
MW - 4	8.11

LEGEND

⊕ MONITORING WELL

BENCHMARK

5/8" REBAR & CAP AT PROP. LINE RETURN. EL= 8.11

BP STATION NO. 11126
EMERYVILLE CA.

MONITORING WELL LOCATIONS

NOVEMBER 13, 1992

ELLIOTT V. INGRAM
LAND SURVEYOR

1310 LA VISTA CONCORD, CA. 94521
(510) 888 - 4578



Elliott V. Ingram



ALISTO ENGINEERING GROU
CONCORD, CALIFORNIA

575

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01504W15N09



ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA

LOG OF BORING B-2/MW-1

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-061 DATE DRILLED: 10/20/92

CLIENT: BP Oil Company

LOCATION: 1700 Powell Street, Emeryville, California

DRILLING METHOD: Hollow-stem Auger (8")

DRILLING COMPANY: Great Sierra Exploration CASING ELEVATION: 7.73' MSL

LOGGED BY: Ted Malse APPROVED BY: Al Sevilla

BLOWS/6 IN.	PID VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
9	47	<p>3" Asphalt.</p> <p>grout</p> <p>2" Sch. 40 PVC</p> <p>0.010" slotted PVC screen</p> <p>#2/12 Lanester Sand</p> <p>Bentonite seal</p>	0			SW	3" Asphalt.
1,1			5	■		ML	gravelly SAND: brown/green, damp, very loose, medium- to very coarse- grained sand, abundant rounded gravel to 1".
			10	■		CL	sandy SILT: gray/blue, damp, soft, abundant very fine-grained sand, minor clay.
			15	■		SM	silty CLAY: dark gray, wet, very soft, abundant silt, very fine- to medium-grained sand, minor rounded gravel to 1".
23,3			20	■		CL	silty SAND: blue/gray, wet, very loose, very fine- to fine-grained sand, minor clay.
			25				silty CLAY: blue/green, wet, medium firm, minor very fine-grained sand.
			30				Groundwater Monitoring Well MW-1 was installed in Soil Boring B-2. Soil Boring B-2 was drilled within three feet of Soil Boring B-1. Soil classification/contacts, PID readings, and blow counts presented on this boring log were copied from Soil Boring B-1.

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01S04W15N10



ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA

LOG OF BORING B-3/MW-2

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-081

DATE DRILLED: 10/20/92

CLIENT: BP Oil Company

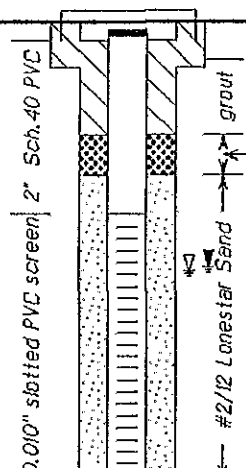
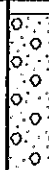




LOCATION: 1700 Powell Street, Emeryville, California

DRILLING METHOD: Hollow-Stem Auger (8")

DRILLING COMPANY: Great Sierra Exploration CASING ELEVATION: 8.58' MSL

LOGGED BY: Ted Moise

APPROVED BY: Al Sevilla

BLOWS/6 IN.	PTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							
1,3,3	288		5			SW	3" Asphalt. gravelly SAND: brown, damp, loose, fine- to very coarse-grained sand, gravel to 1", minor fines.
1,3,3			7			ML	sandy SILT: black, moist/wet, medium firm, very fine- to medium- grained sand, minor clay.
5,3,4			9			CL	silty CLAY: gray, wet, medium firm, minor very fine- to fine-grained sand, minor angular to 1/2".
4,3,4			11			SM	silty SAND: gray, wet, loose, very fine- to medium-grained sand, minor clay.
			12			CL	silty CLAY: blue/green, wet, medium firm, minor silt, rootlets.

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CONCORD, CALIFORNIA

LOG OF BORING B-4/MW-3

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-061

DATE DRILLED: 10/20/92

CLIENT: BP Oil Company

LOCATION: 1700 Powell Street, Emeryville, California

DRILLING METHOD: Hollow-Stem Auger (8")

DRILLING COMPANY: Great Sierra Exploration CASING ELEVATION: 8.26' MSL

LOGGED BY: Ted Moise

APPROVED BY: Al Sevilla

BLOWS/6 IN.	PTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
		<p>0.010" slotted PVC screen 2" Sch. 40 PVC grout #2/12 Lonestar Sand Bentnite seal</p>					3" Asphalt.
50/5"			5	☒	○ ○ ○ ○ ○ ○ ○ ○ ○ ○	SW	gravelly SAND: tan, damp, loose, medium- to very coarse-grained sand, gravel to 1".
4,8,8	0.2				■	SM	Concrete slab.
3,4,5				10			CL
4,3,4							silty CLAY: blue/green, damp, medium firm, minor silt, rootlets.
			15				
			20				
			25				
			30				

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ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA

LOG OF BORING B-1

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-061 DATE DRILLED: 10/20/92

CLIENT: BP Oil Company

LOCATION: 1700 Powell Street, Emeryville, California

DRILLING METHOD: Hollow-stem Auger (8")

DRILLING COMPANY: Great Sierra Exploration CASING ELEVATION: N/A ft. MSL

LOGGED BY: Ted Moise APPROVED BY: Al Sevilla

BLOWS/6 IN.	PID VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						SW	3" Asphalt.
9	47					ML	gravelly SAND: brown/green, damp, very loose, medium- to very coarse-grained sand, abundant rounded gravel to 1".
1,1,1 1,1				5		CL	sandy SILT: gray/blue, damp, soft, abundant very fine-grained sand, minor clay.
						SM	silty CLAY: dark gray, wet, very soft, abundant silt, very fine- to medium-grained sand, minor rounded gravel to 1".
2,3,3				10		CL	silty SAND: blue/gray, wet, very loose, very fine- to fine-grained sand, minor clay.
7,7,8						CL	silty CLAY: blue/green, wet, medium firm, minor very fine-grained sand.
							Same: no sand, minor silt, plant rootlets.
7,11,12				15			Plant rootlets, very fine- to fine-grained sand.
8,14,14					ML	sandy SILT: blue/brown, wet, very stiff, very fine- to medium-grained sand, minor clay, minor angular gravel to 1/2".	
10,11 12,12			20		SM	silty SAND: brown, wet, medium dense, fine- to very coarse-grained sand, minor angular gravel to 1/2".	
			25				
			30				

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ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA

LOG OF BORING B-4a

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-061

DATE DRILLED: 10/20/92

CLIENT: BP Oil Company




LOCATION: 1700 Powell Street, Emeryville, California

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Great Sierra Exploration CASING ELEVATION: N/A ft. MSL

LOGGED BY: Ted Morse

APPROVED BY: Al Sevilla

BLOWS/6 IN.	PID VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
			0			SW	3" Asphalt.
			2.5			ML	gravelly SAND: brown, damp, very loose, fine- to very coarse-grained sand, angular gravel to 1-1/2".
			5				sandy SILT: black, damp, soft, fine- to medium-grained sand, minor clay, minor gravel to 1".
			2.5				Auger refusal at 2.5 Feet (Concrete slab).

1763

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01504W15N



ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA

LOG OF BORING B-4b

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-061

DATE DRILLED: 10/20/92

CLIENT: BP Oil Company




LOCATION: 1700 Powell Street, Emeryville, California

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Great Sierra Exploration CASING ELEVATION: N/A ft. MSL

LOGGED BY: Ted Moise

APPROVED BY: Al Sevilla

BLOWS/6 IN.	PID VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
			0			SW	3" Asphalt.
			2.5			ML	gravelly SAND: brown, damp, very loose, fine- to very coarse-grained sand, angular gravel to 1-1/2".
			5				sandy SILT: black, damp, soft, fine- to medium-grained sand, minor clay, minor gravel to 1".
			5				Auger refusal at 2.5 Feet (Concrete slab).
			10				
			15				
			20				
			25				
			30				

1763

5 2/5

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01504W15N



ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA

LOG OF BORING B-5a

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-081

DATE DRILLED: 10/20/92

CLIENT: BP Oil Company

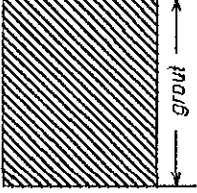
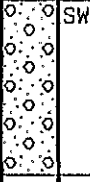
LOCATION: 1700 Powell Street, Emeryville, California

DRILLING METHOD: Hand Auger

DRILLING COMPANY: Great Sierra Exploration CASING ELEVATION: N/A ft. MSL

LOGGED BY: Ted Moise

APPROVED BY: Al Sevilla

BLOWS/6 IN.	PID VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
			5			SW	3" Asphalt. gravelly SAND: tan, damp, loose, fine- to very coarse-grained sand, rounded gravel to 3/4".
			10				Boring terminated at 5', (6" clay pipe).
			15				
			20				
			25				
			30				

1763

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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WELL COMPLETION REPORT
(WELL LOGS)

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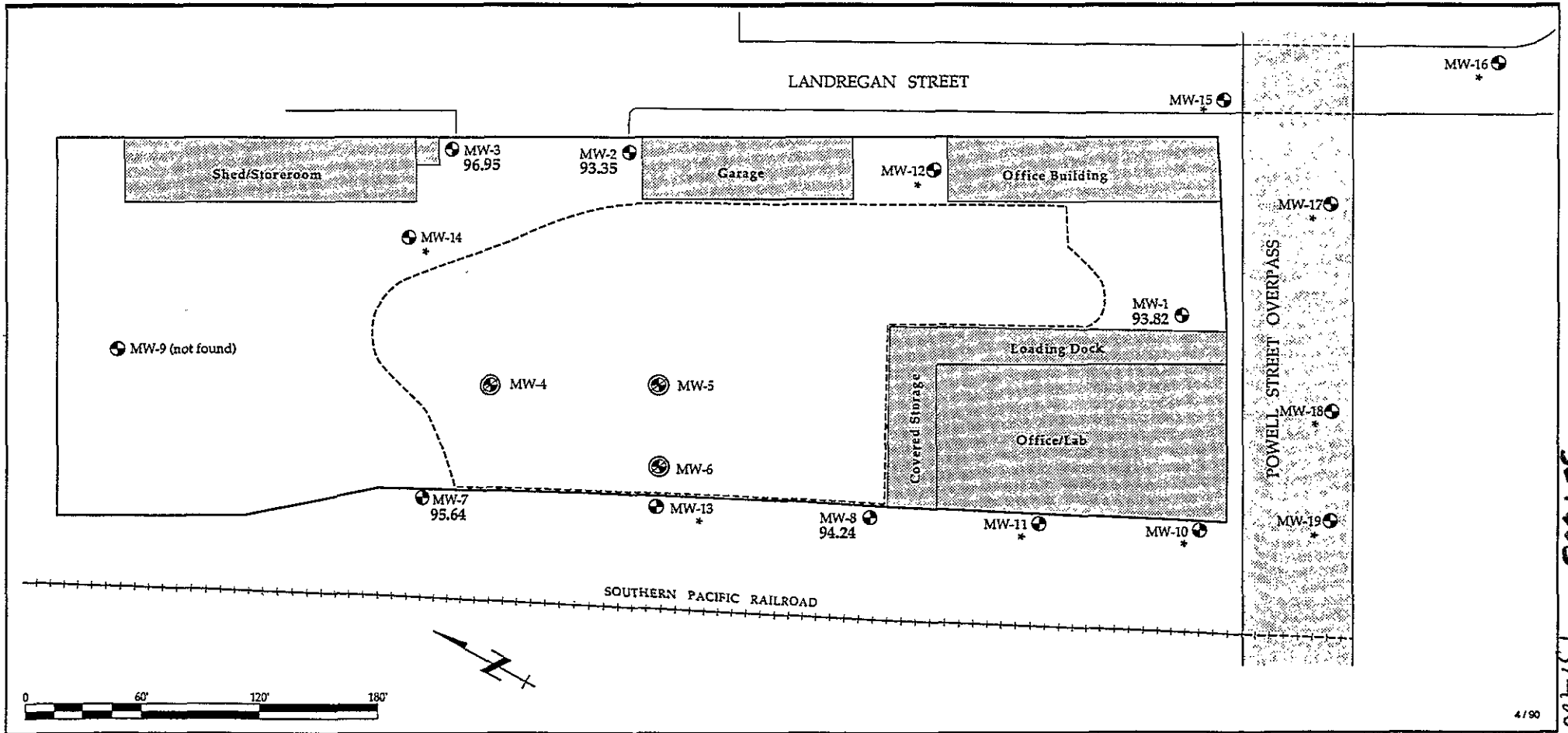
**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



LEGEND

- MW-1
93.82
Monitor Well Location and Groundwater Surface Elevation, feet above mean sea level
- MW-5
Destroyed or Abandoned Monitor Well Location
- *
Top of casing elevation unknown
- - - - -
Boundary of Excavation

Site Map with Monitor Well Locations
and known Groundwater Surface Elevation
21 March 1990
Former Chevron Asphalt Plant and Terminal
Emeryville, California

FIGURE

2

327603

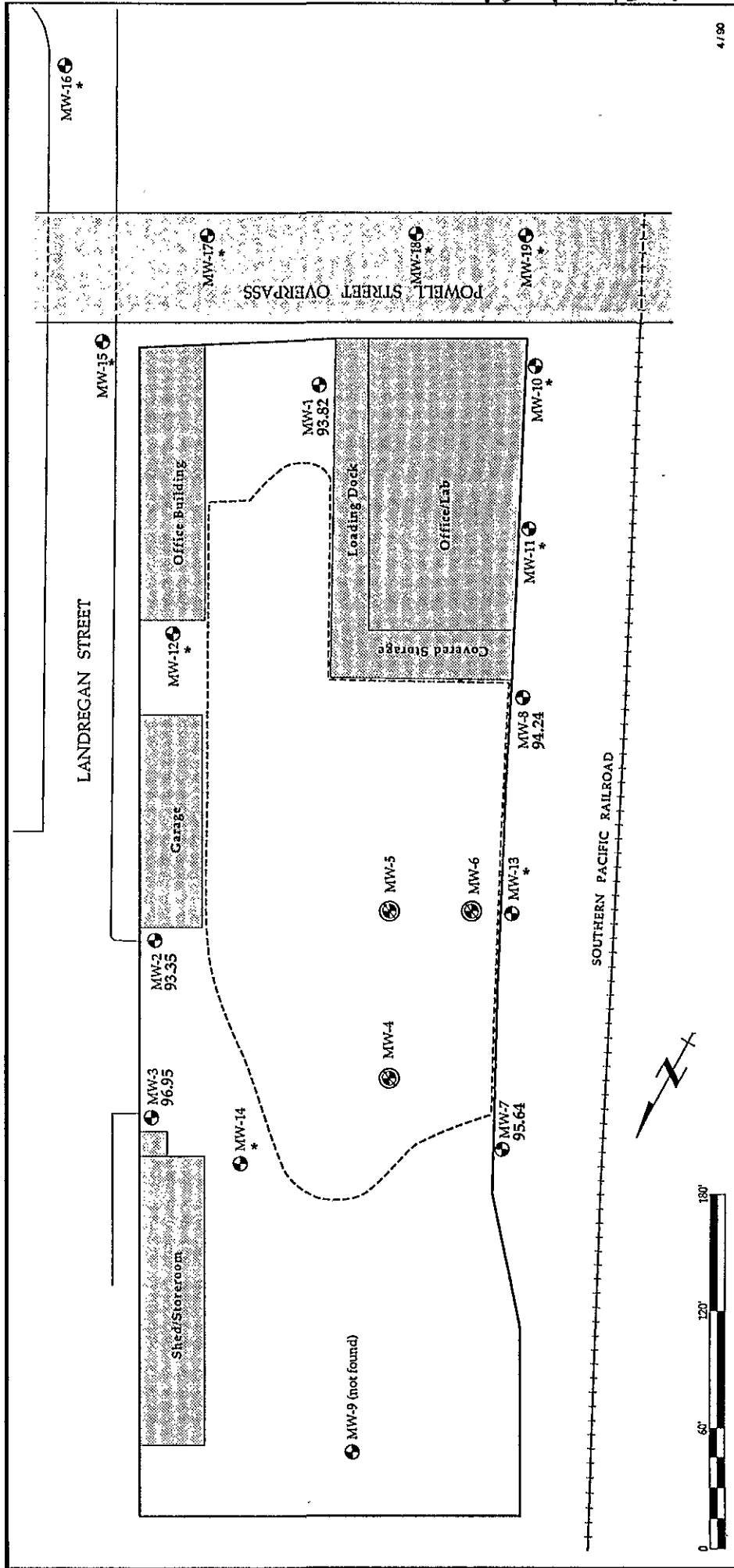
15/4W

15 P80

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



4/90

FIGURE 2

Site Map with Monitor Well Locations and known Groundwater Surface Elevation
 21 March 1990
 Former Chevron Asphalt Plant and Terminal
 Emeryville, California

WESTERN GEOLOGIC RESOURCES, INC.

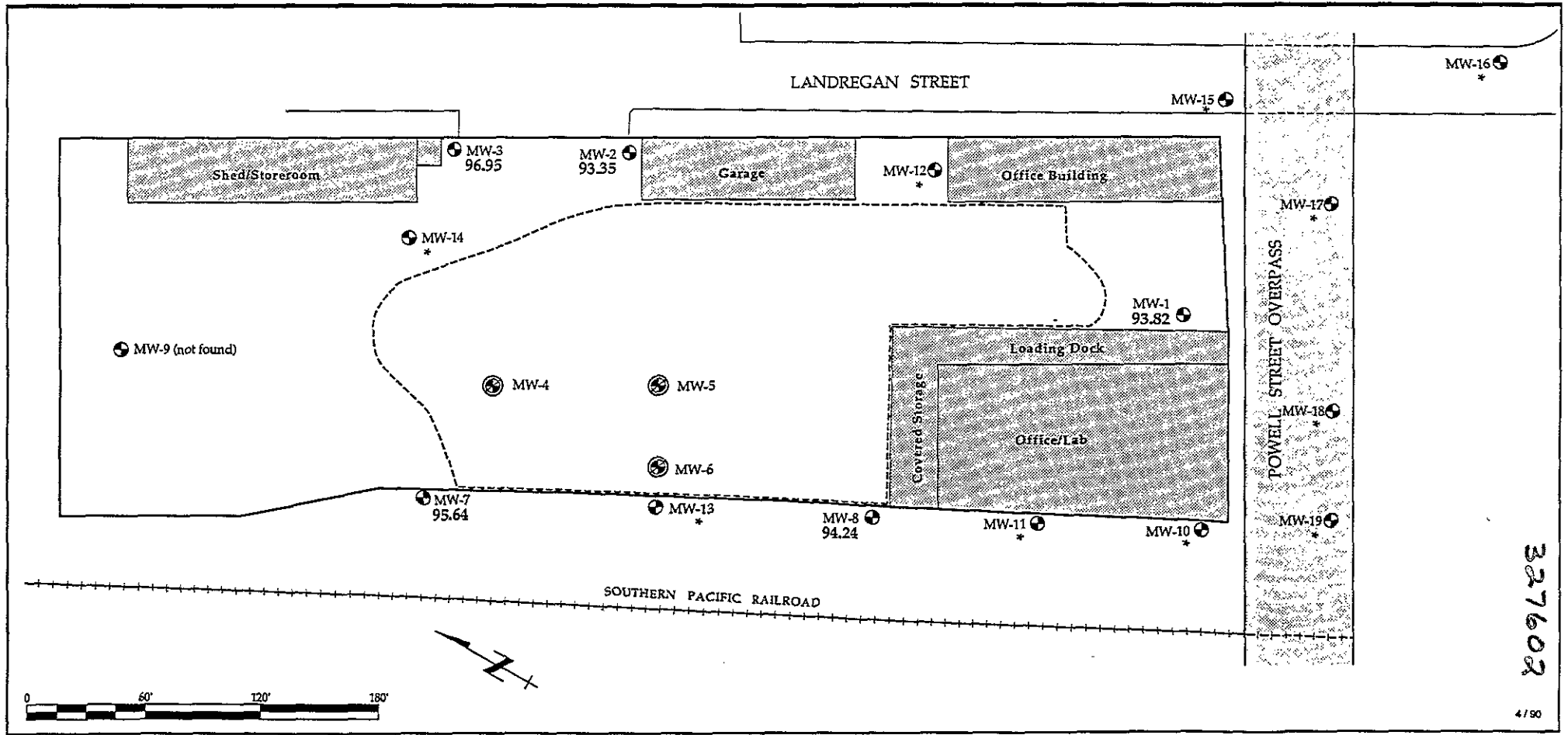
1-045.07

LEGEND	
	Monitor Well Location and Groundwater Surface Elevation, feet above mean sea level
	Destroyed or Abandoned Monitor Well Location
	Top of casing elevation unknown
	Boundary of Excavation

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WELL COMPLETION REPORT
(WELL LOGS)

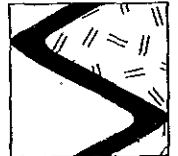
REMOVED



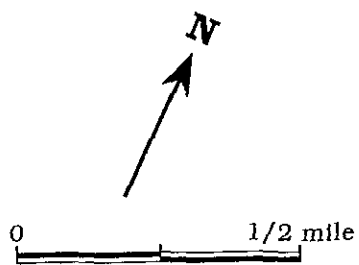
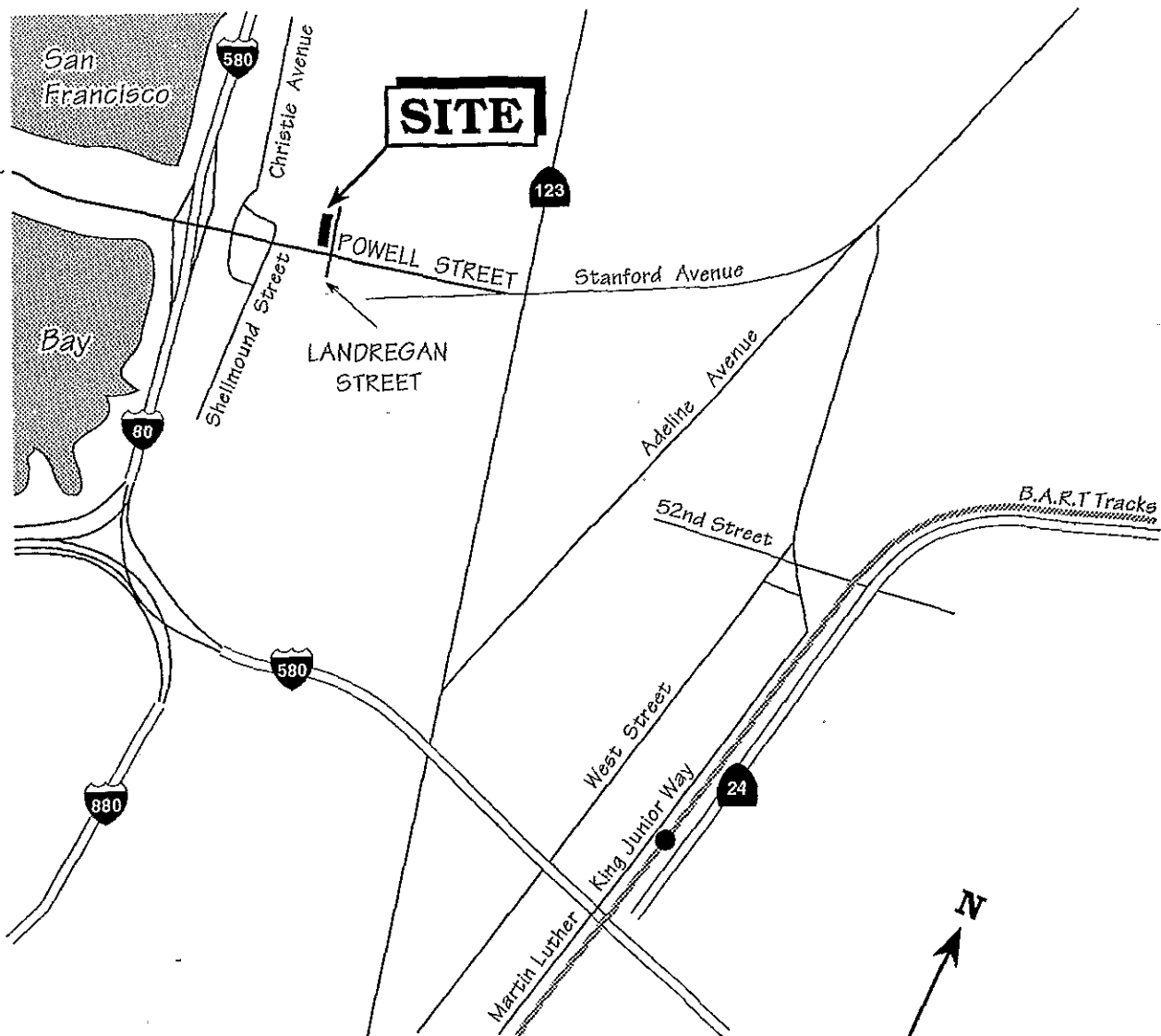
LEGEND		
	MW-1 93.82	Monitor Well Location and Groundwater Surface Elevation, feet above mean sea level
	MW-5	Destroyed or Abandoned Monitor Well Location
*		Top of casing elevation unknown
		Boundary of Excavation

Site Map with Monitor Well Locations and known Groundwater Surface Elevation
 21 March 1990
 Former Chevron Asphalt Plant and Terminal
 Emeryville, California

FIGURE
2

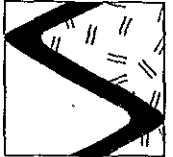


SIERRA






Base map ref: California State Automobile Association (AAA)

Figure 1. Site Location Map - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

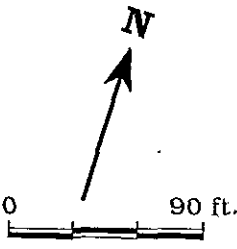


SIERRA

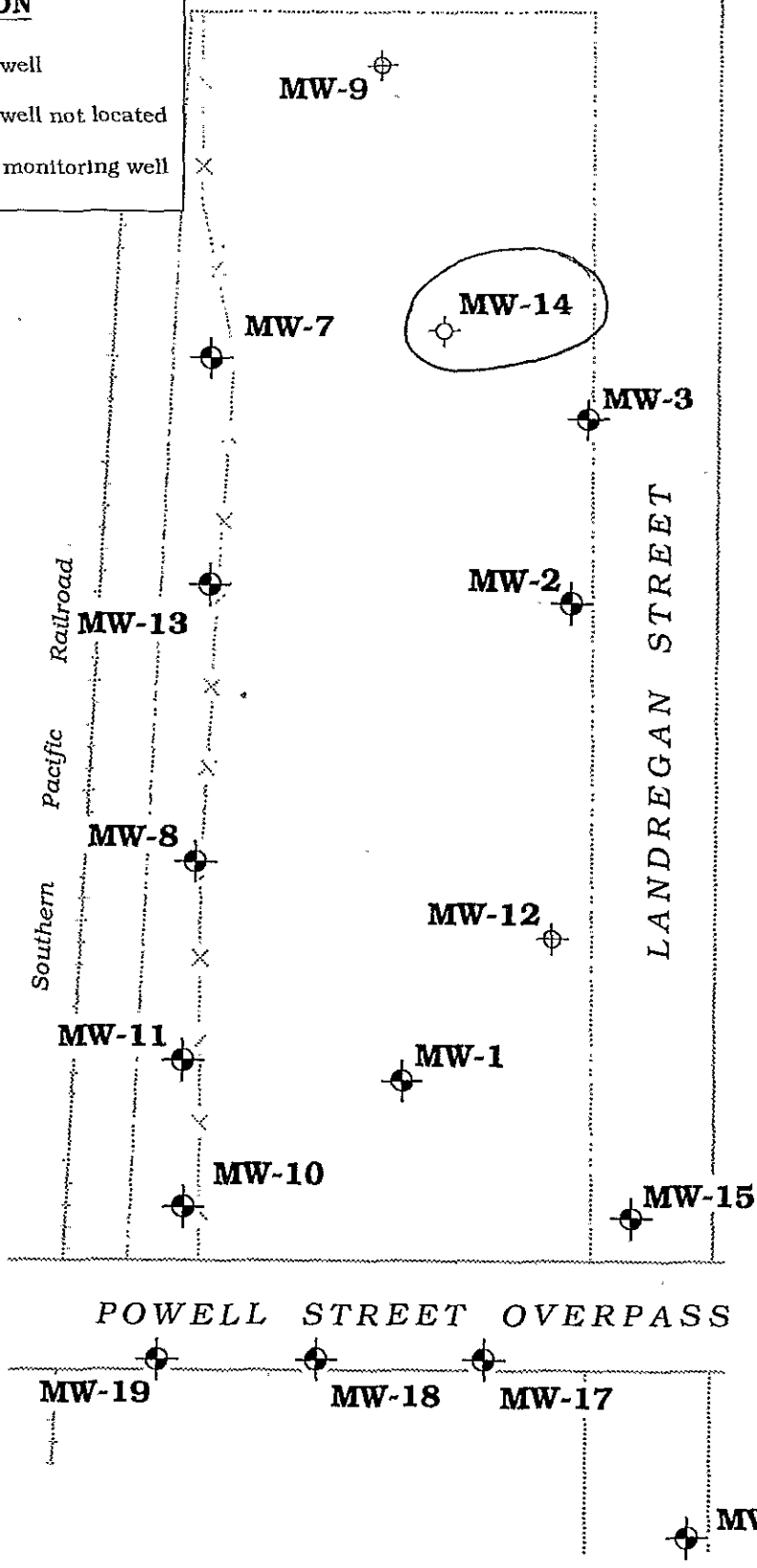
EXPLANATION

-  **MW-19** Monitoring well
-  **MW-12** Monitoring well not located
-  **MW-14** Abandoned monitoring well

Approximate ground water flow direction



Scale Approximate



Base map after Western Geologic Resources, Inc.

Figure 2. Monitoring Well Locations - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

378

01-542Z
Already
Entered

01504W15P(64)



March 15, 1993

Lucia Chou
Chevron USA
P.O. Box 5004
San Ramon, CA 94583

Re: Well Abandonment
Former Chevron Asphalt Plant
and Terminal #1001067
1520 Powell Street
Emeryville, California
SES Project # 1-191-06

Dear Ms. Chou:

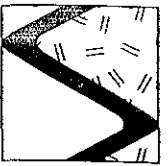
As required, Sierra Environmental Services (SES) has prepared this letter report documenting well abandonment activities at the above-referenced location (Figure 1, Appendix A). One on-site monitoring well was abandoned, MW-14 (Figure 2, Appendix A).

On March 10, 1993 SES personnel supervised the abandonment of one on-site monitoring well. The monitoring well was abandoned by Soils Exploration Services of Vacaville, California (C57 #58296) using a CME-55 truck mounted drill rig. The well was drilled out to a depth of 13 feet below ground surface. Soil samples were collected at approximately 2.5 foot intervals for soil disposal purposes. The boring hole was filled with Portland cement grout with 5% bentonite powder, allowed to settle, then refilled with grout to match the existing grade.

Soil samples generated during well abandonment activities were collected according to SES Standard Operating Procedures - Soil Sampling (Appendix B). Soil samples were analyzed by Superior Precision Analytical, Inc. of San Francisco, California. SES is not responsible for laboratory omissions or errors.

Drill cuttings generated during the well abandonment were left on-site and covered with visqueen pending disposal. Approximately 1 cubic yard of cuttings were generated during the work.

1658



SIERRA

SES STANDARD OPERATING PROCEDURE

SOIL SAMPLING

The following describes sampling procedures used by SES field personnel to collect, handle, and transport soil samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis.

All drilling and sampling equipment is steam-cleaned between boreholes to prevent cross-contamination. The sampler is washed with an EPA approved detergent (such as liquinox or trisodium phosphate) between sample collection. Collection methods specific to soil sampling are presented below.

Soil samples are collected at pre-specified depth intervals or at a sediment/lithologic change for hydrogeologic description and possible chemical analysis. Samples are collected using a modified California split-spoon sampler lined with 2- or 2.5-inch I.D. x 4- or 6-inch long steam-cleaned or new stainless steel or brass tubes. The sampler is lowered into the borehole and driven 18 inches, using a 140-pound hammer. The drilling contractor provides the SES field personnel with the number of blows required to drive the sampler for each 6 inches of penetration.

The sampler is then extracted from the borehole and the middle or bottom brass tube is carefully removed for possible analysis. The soil material is immediately trimmed flush with the tube ends, and sealed with Teflon tape beneath polyethylene end caps. The caps are hermetically sealed to the brass tube with duct tape. The sample is then labeled to include the date, boring number, depth of sample, project number, SES, and the SES field personnel's initials. The samples are put into a plastic "zip-lock" type bag and placed into an ice chest maintained below 4°C with blue ice or dry ice, for transport under chain of custody to the laboratory. The chain-of-custody form includes the project number, analysis requested, sample ID, date analysis and the SES field personnel's name. The form is signed, dated and timed by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.

628

01-542Z

01502015P



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

Sierra Environmental
Attn: ARGY MENA

Project 1-191-06
Reported 03/12/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
88030- 1	MW14-SC1-SC2-SC3-SC4	03/10/93	03/11/93 Soil

RESULTS OF ANALYSIS

Laboratory Number: 88030- 1

Gasoline: ND<1
 Benzene: ND<0.005
 Toluene: 0.008
 Ethyl Benzene: ND<0.005
 Xylenes: 0.027

Concentration: mg/Kg

7088

01-542Z

015 04W 15P



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

C E R T I F I C A T E O F A N A L Y S I S

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 88030

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
mg/kg = parts per million (ppm)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Soil: 50mg/kg

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Soil: 1mg/kg

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Soil: 0.003mg/kg

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	106/113	6	70-130
Benzene:	96/101	5	70-130
Toluene:	94/102	8	70-130
Ethyl Benzene:	91/101	11	70-130
Xylenes:	88/97	10	70-130

Richard Srna, Ph.D.

Afsaneh Salimpour
Laboratory Director

Fax copy of Lab Report and COC to Chevron Contact: Yes No

Chain-of-Custody-Record ⁸⁸⁰⁰⁰

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number <u>100106</u>	Chevron Contact (Name) <u>Lucia Chow</u>
	Facility Address <u>1520 Powell St., Emeryville</u>	(Phone) <u>842-9655</u>
	Consultant Project Number <u>1-191-06</u>	Laboratory Name <u>Superior Precision Analytical</u>
	Consultant Name <u>Sierra Environmental Serv.</u>	Laboratory Release Number <u>8734331</u>
Address <u>P.O. Box 2546, Martinez CA</u>	Samples Collected by (Name) <u>Carol Eaton</u>	Collection Date <u>3/10/93</u>
Project Contact (Name) <u>Argy Mena</u>	(Phone) <u>370-1280 (Fax Number) 370-7959</u>	Signature <u>Carol Eaton</u>

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Chocool	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analytes To Be Performed										Remarks
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)			
MW14-SC1		2	S	G		none	Y	✓										Composite And Analyze
-SC2								✓										
-SC3								✓										
-SC4								✓										

Note:
Do Not Bill
TB-LB Samples

Please Initial: FL
 Samples Stored in Ice. hand carried cold
 Appropriate containers. ✓
 Samples preserved. _____
 VOA's without headspace. _____
 Comments _____

Please Initial _____
 Samples Stored in Ice. _____
 Appropriate containers. _____
 Samples preserved. _____
 VOA's without headspace. _____
 Comments _____

Relinquished By (Signature) <u>Carol Eaton</u>	Organization <u>SES</u>	Date/Time <u>3/10/93</u>	Received By (Signature) _____	Organization _____	Date/Time _____	Turn Around Time (Circle Choice) 24 Hrs. <u>48 Hrs.</u> 5 Day 10 Day As Contracted
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received By (Signature) _____	Organization _____	Date/Time _____	
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received For Laboratory By (Signature) <u>FTanguilis</u>	Date/Time <u>3-10-93</u>		

4:20 PM

COC-3-10-93

01-5112Z

15/40-1570

15/4/64
01-760

Job #1621. Shell Development Company,
33rd. & Horton Streets,
Emeryville, California.

LOG OF TEST HOLE #1.

Soil	11 to	11 Feet
Sandy yellow clay, hard	16 "	"
Sand	17 "	"
Sandy yellow clay	27 "	"
Gravel	30 "	"
Yellow clay	31 "	"
Blue clay	32 "	"
White Clay	44 "	"
Sandy yellow clay	45 "	"

56 Feet of 8" No. 16 R. H. Collar Casing with
Flush Collar on bottom and 12 Feet perforated.

Water Table 13 Feet.

Work done by J. M. Ough,
1201 - East Twelfth Street,
Oakland, California.

Job completed October 4 - 1964.

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

12/15/15
 Emeryville

Job #1637.

 F. A. B. Company, 69th. & Vallejo Sts.
 Boring Test Holes.
Log of Test Hole #1. (12")

Fill, black soil ----- 1½ ft.
 Yellow sandy clay ----- 1½ to 7 "
 Soft yellow gravel ----- 7 " 12 "
 Hard yellow clay ----- 12 " 13½ "

----- 0 -----

Log of Test Hole #2. (12")

Black soil, mixed yel. clay ----- 5 ft.
 Sticky yellow clay ----- 5 to 9 "
 Soft yellow sand & gravel -- 9 " 13 "
 Hard gray sand clay ----- 13 " 16 "
 Hard yellow clay ----- 16 " 17 "

----- 0 -----

Log of Test Hole #3. (8")

Fill, yel. clay, black adobe,
 small rock, broken glass ----- 6 ft.
 Yellow sand clay ----- 6 to 8 "
 Soft yellow sand clay ----- 8 " 11 "
 Soft yellow water gravel -- 11 " 14 "
 Hard yellow cement clay --- 14 " 21 "
 Hard yellow clay ----- 21 " 22 "

----- 0 -----

Log of Test Hole #4. (8")

Black soil with yellow clay ----- 3 ft.
 Soft yellow sand clay ----- 3 to 8 "
 Soft yellow sand sediment -- 8 " 11 "
 Hard cement gravel mixed
 with yellow clay ----- 11 " 14 "
 Hard yellow sticky clay --- 14 " 17 "

----- 0 -----

Log of Test Hole #5.

Black adobe & yellow clay ----- 4 ft.
 Soft yellow sand clay ----- 4 to 9 "
 Hard yellow cement gravel - 9 " 12 "
 Hard yellow cement clay --- 12 " 15 "

----- 0 -----

Log of Test Hole #6.

Fill, yel. clay broken
 rock with clay ----- 5 ft.
 Soft yel. sand clay --- 5 to 8 "
 Hard yel. cement gravel 8 " 12 "
 Hard yel. sand clay -- 12 " 14 "

----- 0 -----

Log of Test Hole #7.

Fill, yel. clay, black
 dirt ----- 5 ft.
 Soft yel. sand clay -- 5 to 9 "
 Hard yel. cement gravel 9 " 11½ "

----- 0 -----

Log of Test Hole #8.

Black soil, some yel.
 clay in it ----- 4 ft.
 Hard yel. sandy clay -- 4 to 9 "
 Hard yel. sticky clay 9 " 11½ "

----- 0 -----

Log of Test Hole #9.

Fill, black dirt, some
 clay in it ----- 5 ft.
 Hard yellow sandy clay 5 to 8 "
 Hard yel. cement grav. 8 " 10 "
 Hard yel. sandy clay 10 " 12 "

Total footage ---- 155½ feet.

Job # 1748.

F. A. B. Company,
67th. & Vallejo Streets,
EmeryvilleTEST HOLE #1. (12")

Rock & dirt fill	-----	2 feet
Hard black adobe	----	2 to 5 "
Hard yellow sand clay	5 "	8 "
Hard cement gravel	-- 8 "	12 "
Hard sandy clay	---- 12 "	15 1/2 "

TEST HOLE #2. (12")

Black adobe		3 feet
Hard yellow sand clay	3 to 5 "	
Dry water sand	----- 5 "	8 "
Hard yellow clay	--- 8 "	10 1/2 "

TEST HOLE #3. (12")

Black adobe	-----	3 feet
Yellow sand clay	----- 3 to 7 "	
Hard cement gravel	-- 7 "	9 "
Hard yellow clay	--- 9 "	10 "

TEST HOLE #4. (12")

Black adobe	-----	5 feet
Soft blue sand clay	5 to 9 "	
Soft brown sand clay	9 "	13 "
Hard yellow clay	--- 13 "	15 "

01-763

LOG OF WELL. American Rubber Company,
1145 Park Avenue, Emeryville.

Top soil -----	10 feet
Gravel -----	10 to 12 "
Clay -----	12 " 42 "
Gravel -----	42 " 43 "
Clay -----	43 " 80 "
Red cement gravel -----	80 " 100 "
Clay -----	100 " 110 "
Cement gravel -----	110 " 132 "
Loose gravel -----	132 " 134 "
Clay -----	134 " 148 "
Sandy clay -----	148 " 150 "
Clay -----	150 " 158 "
Sandy clay -----	158 " 160 "

J. B. Rogers

Artesian and Oil Wells

15/40-15

01-764

Drilled and Bored
 Test Holes and Foundation Work
 Prospect Holes for Mines

San Francisco, _____ 19__

Well #2 for Griffin & Skelley Cannery,
 Lodi, Calif.

12" / #14 D. D. with steel ring and 10 Ft.
 perforated column. #14 Galv. on bottom.-
 1.7". 14" Surface Casing Collar.

Filled ground		to 5 Ft.
Blue mud	7	" 12 "
Gray clay	8	" 20 "
Blue clay	5	" 25 "
Gravel & sand	4	" 29 "
Gray clay	4	" 33 "
Yellow clay	7	" 40 "
Blue clay	6	" 46 "
Gray clay	20	" 66 "
Light gray clay	10	" 76 "
Gravel	4	" 80 "
Yellow stoney clay	10	" 90 "
Light gray clay	5	" 95 "
Gravel	10	" 105 "
Yellow clay	20	" 125 "
Brown stoney clay	10	" 135 "
Yellow sandy clay	10	" 145 "
Yellow cement	8	" 153 "
Brown clay	9	" 162 "
Sand & gravel light	8	" 170 "
Brown clay	5	" 175 "
Sand	5	" 180 "
Sandy clay	8	" 188 "
Yellow clay	9	" 197 "
Gravel & sand	15	" 212 "
Clay	2 1/2	" 212 1/2 "

10" D. D. #16 outside casing. 12" B. S.
 12 1/2 Ft.

Filled ground		to 4 Ft.
Blue mud	3 Ft.	" 10 "
Yellow clay	4 "	" 14 "
Gray clay	3 "	" 17 "
Yellow sand clay	2 "	" 19 "
Yellow gravel	4 "	" 23 "
Blue clay	1 "	" 24 "
Yellow gravel	5 "	" 29 "
Gray clay	4 "	" 33 "
Yellow clay	3 "	" 36 "
Yellow sand	2 "	" 41 "
Gray clay	25 "	" 66 "
Yellow sand clay	6 "	" 72 "
Gray clay	4 "	" 76 "
Yellow cement	4 "	" 80 "
Yellow clay	4 "	" 84 "
Yellow cement	6 "	" 90 "
Yellow clay	2 "	" 92 "
Yellow cement	6 "	" 98 "
Yellow clay	5 "	" 103 "
Yellow cement	3 "	" 111 "
Yellow clay	9 "	" 120 "
Yellow cement	4 "	" 124 "
Yellow clay	6 "	" 130 "
Yellow cement	3 "	" 133 "
Yellow clay	4 "	" 137 "
Sticky hard sand	4 "	" 141 "
Yellow cement	3 "	" 144 "
Yellow clay	5 "	" 149 "
Yellow cement	7 "	" 156 "
Yellow clay	12 "	" 168 "
Gravel (water)	8 1/2 "	" 176 1/2 "
Yellow clay	2 "	" 178 1/2 "
Casing shoved 2 feet into clay below gravel.		