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**Subsurface Consultants, Inc.**  
Consulting Engineers

**FAX TRANSMISSION COVER SHEET**

To: Susan Hugo Receiver's Fax: 569-4757  
Company: Alameda County Health Care Services Agency

From: Jim Bowers  **RUSH!**  
Please Deliver Immediately

Date: 6/9/93 SCI Job No.: 574,006 Pages Transmitted: 10

Project: 4050 Horton, Emeryville Subject: \_\_\_\_\_

For Your Review and Comment

As Requested

Original Will Be Mailed

Please Return an Executed Copy

For Your Information

Will call to discuss

Copies have also been sent to: \_\_\_\_\_  
\_\_\_\_\_

Remarks: 6/10/93  
Talked to Jim Bowers - proposed next  
step - additional borings (6 sit) to complete  
delineate @ 2 samples per boring & test for  
TPH & BTEX only. -> ?

**Subsurface Consultants, Inc.**

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Table 1  
Hydrocarbon Concentrations in Soil

| <u>Boring</u> | <u>Depth (feet)</u> | <u>Oil and Grease (mg/kg)<sup>3</sup></u> | <u>TEH<sup>1</sup> as Diesel (mg/kg)</u> | <u>TVH<sup>2</sup> as Gasoline (mg/kg)</u> | <u>Benzene (ug/kg)<sup>4</sup></u> | <u>Toluene (ug/kg)</u> | <u>Ethyl-Benzene (ug/kg)</u> |
|---------------|---------------------|---|--|--|------------------------------------|------------------------|------------------------------|
| 1             | 6.0                 | 60  | 30                                       | 150  | 5300                               | 5100                   | 5500                         |
| 1             | 8.0                 | ND(50)                                    | ND(1)                                    | 2  | 43                                 | 15                     | 7                            |
| 1             | 10.5                | ND(50)                                    | ND(1)                                    | 1  | 30                                 | 24                     | ND(5)                        |
| 2             | 4.0                 | ND(50)                                    | 3  | 13   | 250                                | 29                     | 180                          |
| 2             | 6.0                 | ND(50)                                    | 34                                       | 170  | ND(400)                            | 420                    | 1300                         |
| 3             | 6.0                 | 170                                       | 57                                       | 210  | 570                                | ND(400)                | 2100                         |
| 3             | 7.5                 | ND(50)                                    | ND(1)                                    | 1  | ND(5)                              | 6                      | ND(5)                        |
| 4             | 4.0                 | ND(50)                                    | ND(1)                                    | 2  | 14                                 | 5                      | ND(5)                        |
| 4             | 6.0                 | ND(50)                                    | ND(1)                                    | 2  | 14                                 | ND(5)                  | ND(5)                        |
| 5             | 6.0                 | ND(50)                                    | 4  | 160  | ND(200)                            | 490                    | 630                          |
| 5             | 8.0                 | ND(50)                                    | ND(1)                                    | ND(1)                                      | ND(5)                              | 11                     | ND(5)                        |
| 7             | 4.0                 | ND(50)                                    | 7  | 7  | 120                                | 68                     | 4                            |
| 7             | 6.0                 | ND(50)                                    | ND(1)                                    | 1  | 270                                | 28                     | ND(5)                        |

1 TEH = Total extractable hydrocarbons  
 2 TVH = Total volatile hydrocarbons  
 3 mg/kg = milligrams per kilogram  
 4 ug/kg = micrograms per kilogram  
 5 ND(50) = None detected (detection limit)

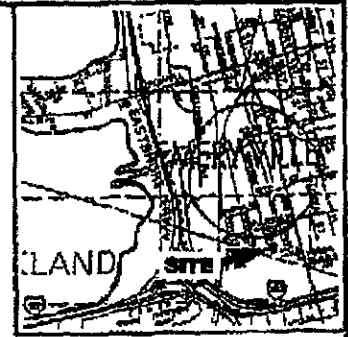
**Table 2**  
**Heavy Metal Concentrations in Soil**

| <u>Boring</u> | <u>Depth (feet)</u> | <u>Cadmium (mg/kg)<sup>1</sup></u> | <u>Chromium (total) (mg/kg)</u> | <u>Lead (mg/kg)</u> | <u>Nickel (mg/kg)</u> | <u>Zinc (mg/kg)</u> |
|---------------|---------------------|------------------------------------|---------------------------------|---------------------|-----------------------|---------------------|
| 1             | 6.0                 | 1.3                                | 33.3                            | 761                 | 44.7                  | 421                 |
| 2             | 4.0                 | 0.32                               | 36.8                            | 5                   | 35.0                  | 37                  |
| 3             | 6.0                 | ND(0.25) <sup>2</sup>              | 33.1                            | 5                   | 30.6                  | 171                 |
| 4             | 4.0                 | ND(0.25)                           | 36.6                            | 4                   | 32.3                  | 45                  |
| 5             | 6.0                 | ND(0.25)                           | 36.0                            | 3                   | 28.5                  | 30                  |

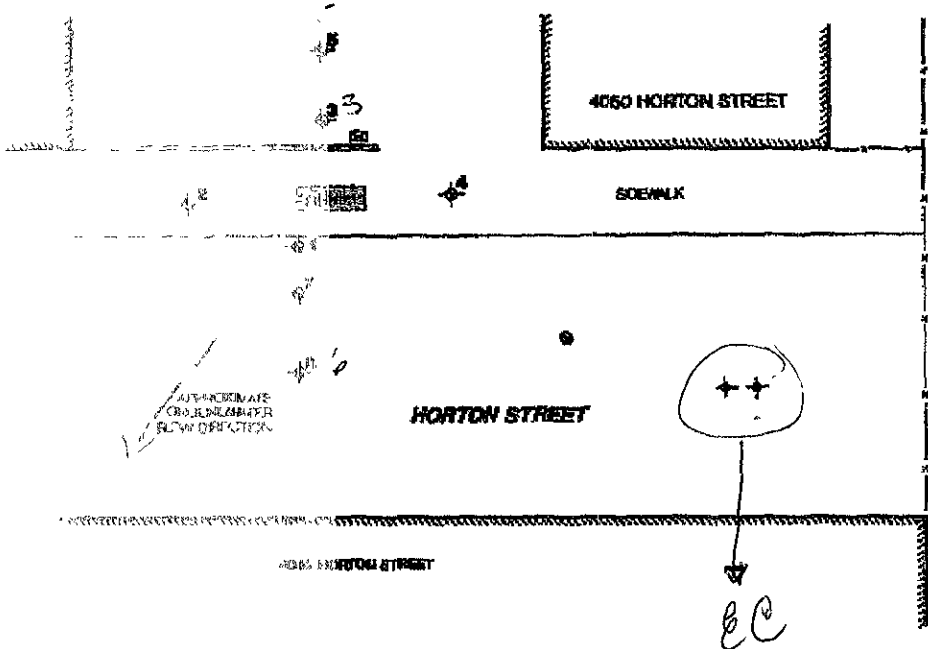
<sup>1</sup> mg/kg = milligrams per kilogram  
<sup>2</sup> ND(0.25) = Non detectable (detection limit)

**Table 3**  
**Volatile Organic Chemical Concentrations in Soil**

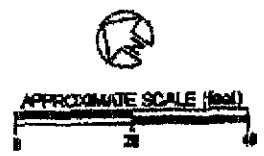
| <u>Boring</u> | <u>Depth (feet)</u> | <u>EPA 8010 Chemicals (mg/kg)</u> |
|---------------|---------------------|-----------------------------------|
| 1             | 6.0                 | ND                                |
| 2             | 4.0                 | ND                                |
| 3             | 6.0                 | ND                                |
| 4             | 4.0                 | ND                                |
| 5             | 6.0                 | ND                                |



VICINITY MAP



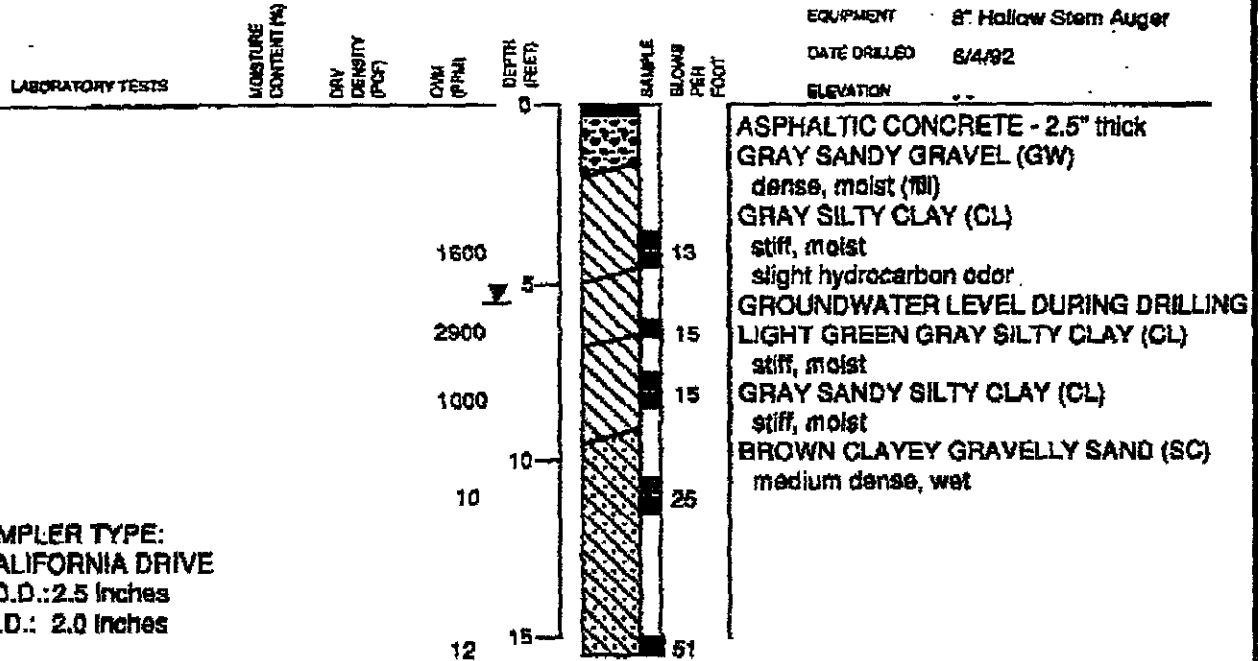
- ⊕ TEST BORING
- + EXISTING MONITORING WELL BY OTHERS
- ▣ PREVIOUS TANK
- ☒ PREVIOUS FUEL DISPENSER
- ▩ EXISTING BUILDING
- - - EXISTING FENCE
- MANHOLE COVER



|  |                 |                      |
|--|-----------------|----------------------|
| <b>SITE PLAN</b>                           |                 |                      |
| <b>4050 HORTON STREET - EMERYVILLE, CA</b> |                 | PLATE                |
| JOB NUMBER<br>574.006                      | DATE<br>8/24/92 | APPROVED<br><b>1</b> |

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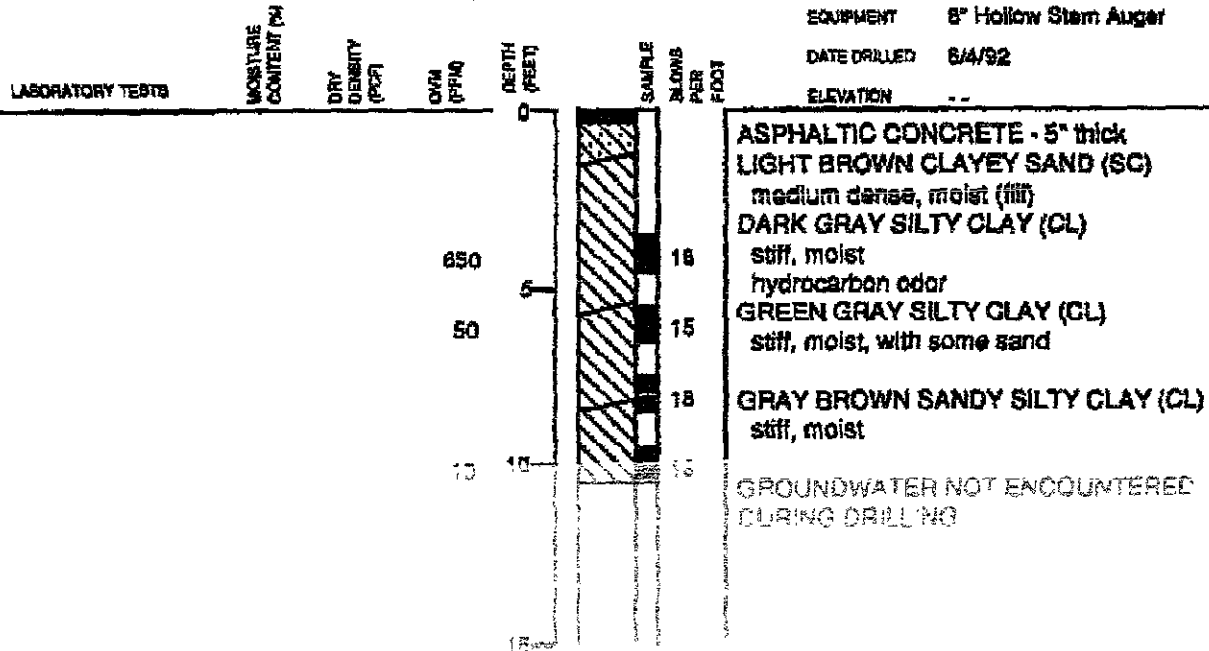
# LOG OF TEST BORING 1



SAMPLER TYPE:  
CALIFORNIA DRIVE  
O.D.: 2.5 Inches  
I.D.: 2.0 Inches

HAMMER WEIGHT: 140 pounds  
HAMMER DROP: 30 inches

# LOG OF TEST BORING 2



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4060 HORTON STREET - EMERYVILLE, CA

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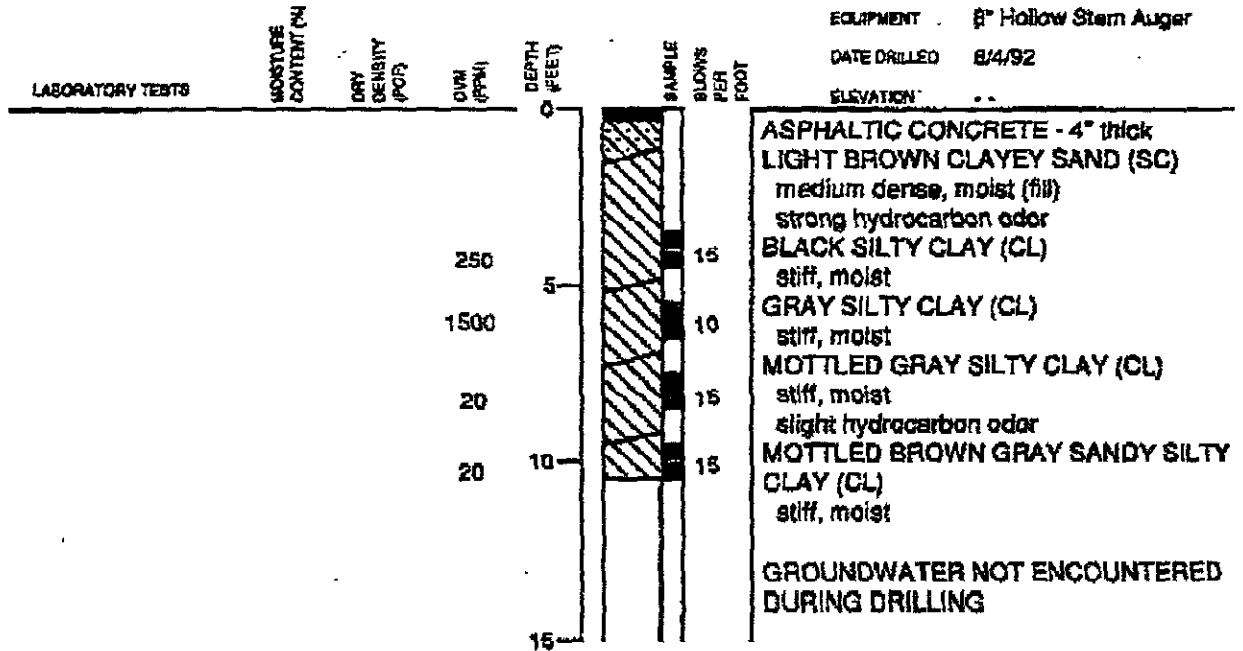
DATE  
6/24/92

APPROVED

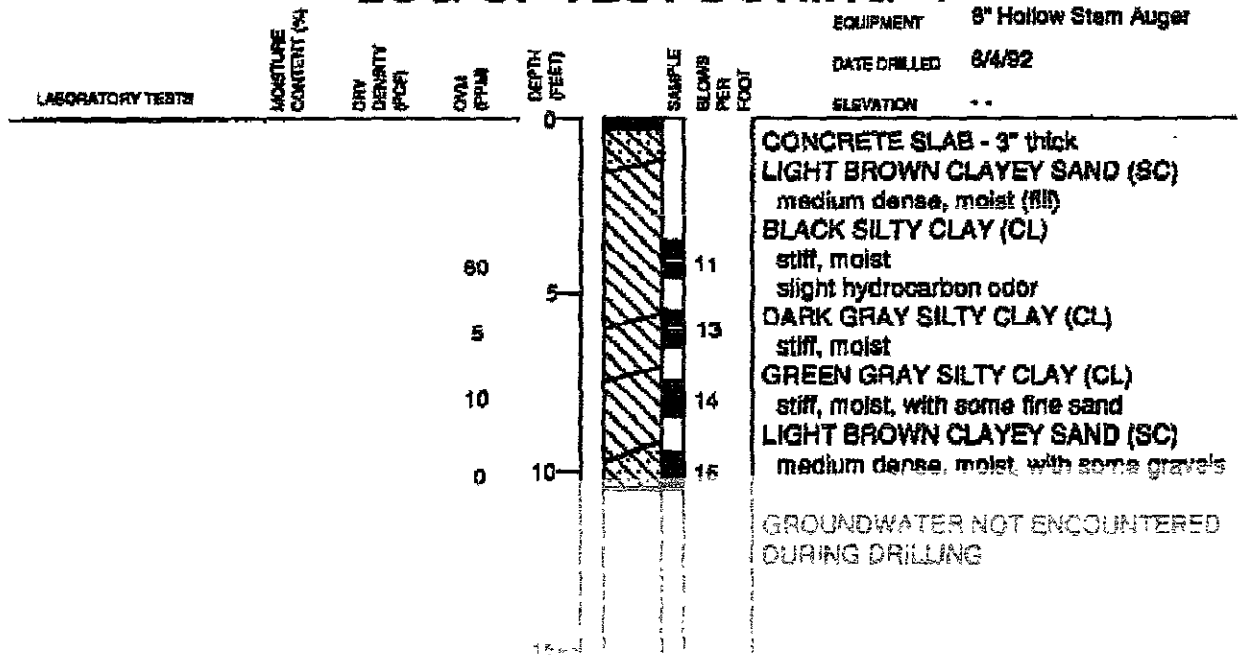
PLATE

2

# LOG OF TEST BORING 3



# LOG OF TEST BORING 4



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4050 HORTON STREET EMERYVILLE, CA

PLATE

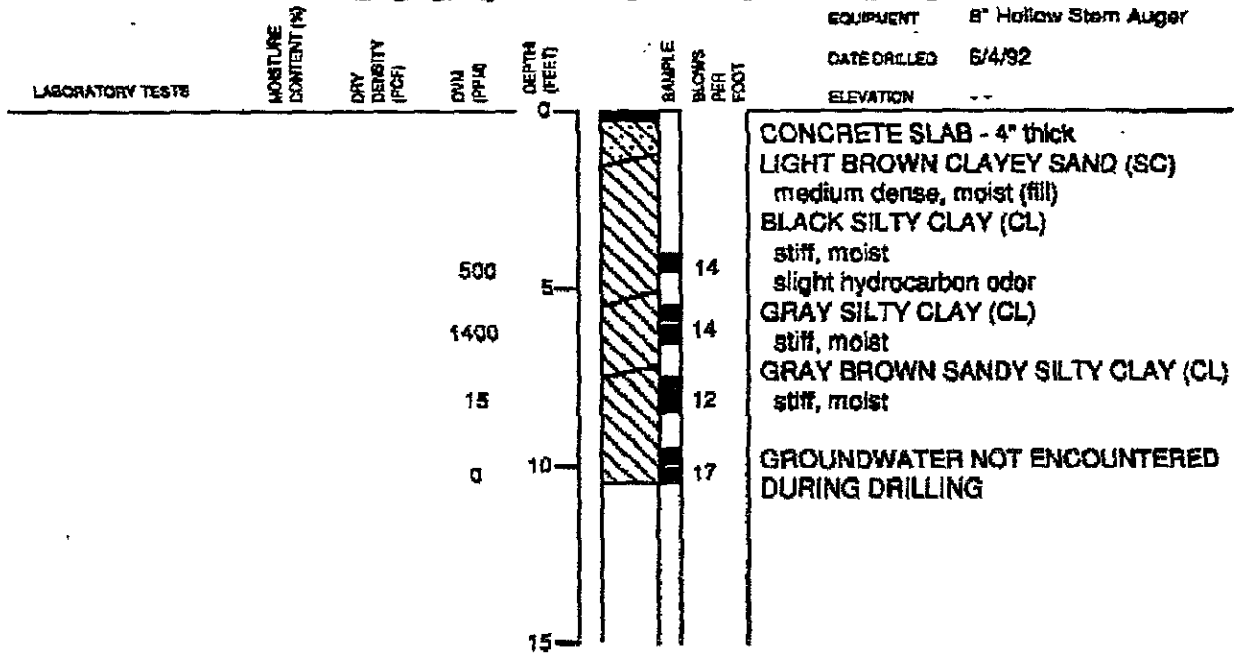
DWG NUMBER  
574 006

DATE  
8/24/92

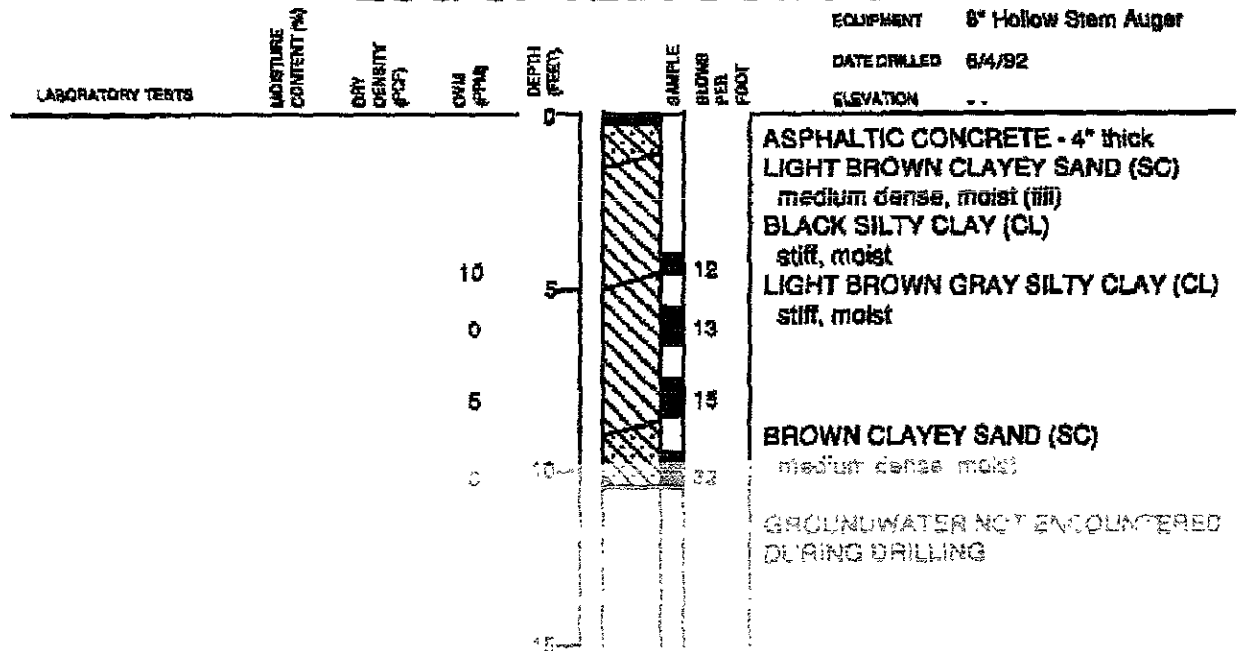
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3

# LOG OF TEST BORING 5



# LOG OF TEST BORING 6



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4050 HORTON STREET - EMERYVILLE, CA

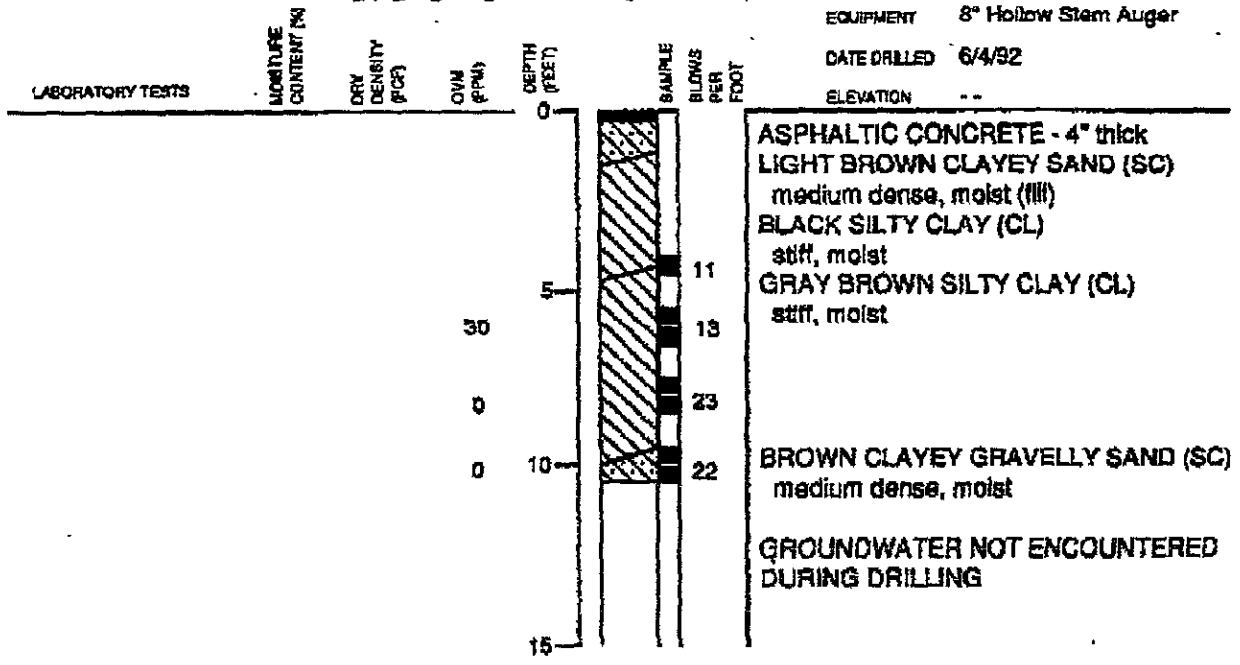
FILE NUMBER  
574,009

DATE  
6/24/92

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# LOG OF TEST BORING 7



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4050 HORTON STREET - EMERYVILLE, CA

LOG NUMBER  
574 006

DATE  
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| GENERAL SOIL CATEGORIES  |   |                                      | SYMBOLS   | TYPICAL SOIL TYPES                                     |
|--|---|--------------------------------------|---|--|
| <b>COARSE GRAINED SOILS</b><br>More than half is larger than No. 200 sieve | <b>GRAVEL</b><br>More than half coarse fraction is larger than No. 4 sieve size | Clean Gravel with little or no fines | GW  | Well Graded Gravel, Gravel-Sand Mixtures               |
|  |   |                                      | GP  | Poorly Graded Gravel, Gravel-Sand Mixtures             |
|  |   | Gravel with more than 12% fines      | GM  | Silty Gravel, Poorly Graded Gravel-Sand-Silt Mixtures  |
|  |   |                                      | GC  | Clayey Gravel, Poorly Graded Gravel-Sand-Clay Mixtures |
|  | <b>SAND</b><br>More than half coarse fraction is smaller than No. 4 sieve size  | Clean Sand with little or no fines   | SW  | Well Graded Sand, Gravelly Sand                        |
|  |   |                                      | SP  | Poorly Graded Sand, Gravelly Sand                      |
|  |   | Sand with more than 12% fines        | SM  | Silty Sand, Poorly Graded Sand-Silt Mixtures           |
|  |   |                                      | SC  | Clayey Sand, Poorly Graded Sand-Clay Mixtures          |
| <b>FINE GRAINED SOILS</b><br>More than half is smaller than No. 200 sieve  | <b>SILT AND CLAY</b><br>Liquid Limit Less than 50%                              | ML                                   | Inorganic Silt and Very Fine Sand, Rock Flour, Silty or Clayey Fine Sand, or Clayey Silt with Slight Plasticity |  |
|  |   | CL                                   | Inorganic Clay of Low to Medium Plasticity, Gravelly Clay, Sandy Clay, Silty Clay, Lean Clay                    |  |
|  |   | OL                                   | Organic Clay and Organic Silty Clay of Low Plasticity   |  |
|  | <b>SILT AND CLAY</b><br>Liquid Limit Greater than 50%                           | MH                                   | Inorganic Silt, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silt                               |  |
|  |   | CH                                   | Inorganic Clay of High Plasticity, Fat Clay   |  |
|  |   | OH                                   | Organic Clay of Medium to High Plasticity, Organic Silt   |  |
| <b>HIGHLY ORGANIC SOILS</b>  |   |                                      | PT  | Peat and Other Highly Organic Soils                    |

UNIFIED SOIL CLASSIFICATION SYSTEM

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4050 HORTON STREET - EMERYVILLE, CA

PLATE

JOB NUMBER

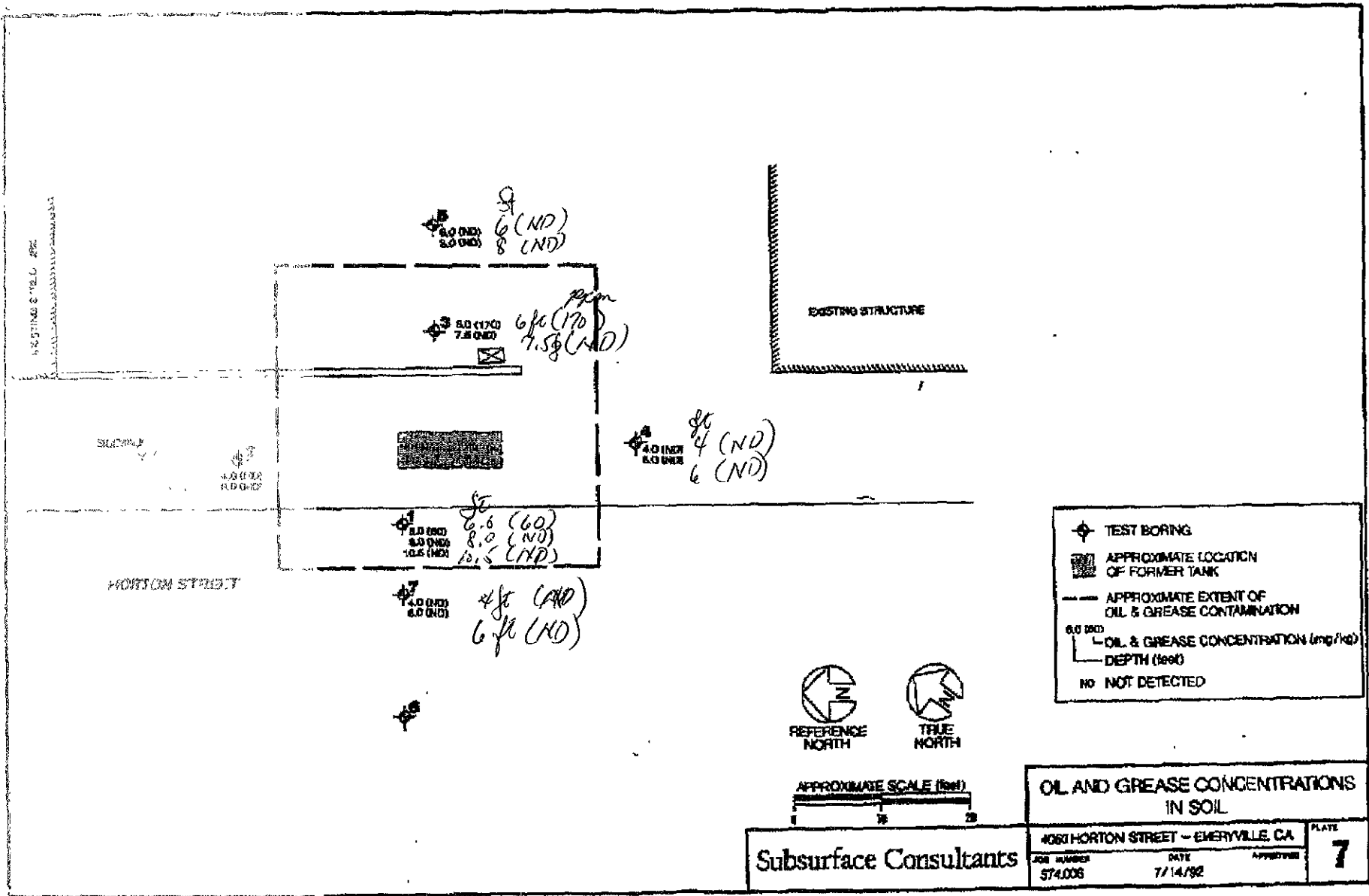
DATE

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574 006

6/24/92

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TEST BORING  
 APPROXIMATE LOCATION OF FORMER TANK  
 APPROXIMATE EXTENT OF OIL & GREASE CONTAMINATION  
 OIL & GREASE CONCENTRATION (mg/kg)  
 DEPTH (feet)  
 NO NOT DETECTED



| OIL AND GREASE CONCENTRATIONS IN SOIL |         |          | PLATE |
|---------------------------------------|---------|----------|-------|
| 4061 HORTON STREET - EMERYVILLE, CA   |         |          | 7     |
| JOB NUMBER                            | DATE    | APPROVED |       |
| 574.008                               | 7/14/92 |          |       |

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