

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

October 3, 2000

Catherine Jung Gong, Administrator of the Estate of Wesley D. Jung  
c/o Chase & Chase  
11 Embarcadero West  
Oakland, CA 94607

Dear Ms. Gong,

Subject: Accutune, 4045 Broadway, Oakland, CA 94603  
StId 1142

This office and the California Regional Water Quality Control Board, San Francisco Bay Region, have reviewed the case closure summary for the above referenced site and concur that no further action related to the underground tank release is required at this time. Before a remedial action completion letter is sent, the onsite monitoring wells, MW-1, MW-2, MW-3, and MW-4, must be decommissioned. Please submit a copy of the well destruction permit and a report of the well destruction so a closure letter can be issued. (Well destruction permits may be obtained from James Yoo, Alameda County Public Works Agency, at 510/670-6633.)

If you have any questions, I can be reached at (510) 567-6746.

Sincerely,

Don Hwang  
Hazardous Materials Specialist

*u* C: All Environmental, Inc., 901 Moraga Rd., Suite C, Lafayette, CA 94549

file

ALAMEDA COUNTY  
HEALTH CARE SERVICES



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November 17, 2000

Catherine Jung Gong, Administrator of the Estate of Wesley D. Jung  
c/o Chase & Chase  
11 Embarcadero West  
Oakland, CA 94607

Dear Ms. Gong,

Subject: Accutune, 4045 Broadway, Oakland, CA 94603  
StId 1142

This office and the California Regional Water Quality Control Board, San Francisco Bay Region, have reviewed the case closure summary for the above referenced site and concur that no further action related to the underground tank release is required at this time. Before a remedial action completion letter is sent, the onsite monitoring wells, MW-1, MW-2, MW-3, and MW-4, must be decommissioned. Please submit a copy of the well destruction permit and a report of the well destruction so a closure letter can be issued. (Well destruction permits may be obtained from James Yoo, Alameda County Public Works Agency, at 510/670-6633.)

If you have any questions, I can be reached at (510) 567-6746.

Sincerely,

~~Don Hwang~~  
Hazardous Materials Specialist

*u* C: All Environmental, Inc., 3210 Old Tunnel Rd., Suite B, Lafayette, CA 94549

file

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



February 20, 2001

Catherine Jung Gong  
Administrator of the Estate of Wesley D. Jung  
c/o Chase & Chase  
11 Embarcadero West  
Oakland, CA 94607

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

Dear Ms. Gong,

Subject: Accutune, 4045 Broadway, Oakland, CA 94603  
StId 1142

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Protection Division is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

**SITE INVESTIGATION AND CLEANUP SUMMARY**

Please be advised that the following conditions exist at the site:

- up to 1,700 ppm Total Petroleum Hydrocarbons as gasoline (TPHg), up to 84 ppm TPH as diesel (TPHd), up to 5.3 ppm Benzene, up to 8.1 ppm Toluene, up to 21 ppm Ethyl benzene, and up to 18 ppm Xylene (BTEX), 69 ppm Chromium exists in soil beneath the site. (sampled December 21, 1995, September 3, 1997)
- up to 950 ug/l TPHg, up to 310 ug/l TPHd, up to 31 ug/l Benzene, up to 29 ug/l Toluene, up to 19 ug/l Ethyl benzene, up to 88 ug/l Xylene (BTEX), and up to 1,900 ug/l Lead exists in groundwater beneath the site. (sampled May 31, 1996, October 9, 1998)

If you have any questions, please contact me at (510) 567-6746.

Sincerely,

Don Hwang  
Hazardous Materials Specialist

cc

Enclosures: 1. Remedial Action Completion Certificate 2. Case Closure Summary

C: Frank Kliewer, City of Oakland, Planning Dept., 1330 Broadway, 2<sup>nd</sup> Floor, Oakland, CA

94612  
✓ file

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



02-20-01

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

REMEDIAL ACTION COMPLETION CERTIFICATION

February 9, 2001

Catherine Jung Gong, Administrator of the Estate of Wesley D. Jung  
c/o Chase & Chase  
11 Embarcadero West  
Oakland, CA 94607

Dear Ms. Gong,

Subject: Accutune, 4045 Broadway, Oakland, CA 94603  
StId 1142

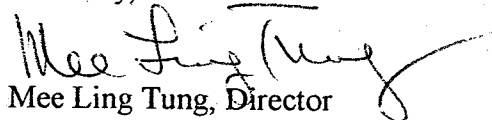
This letter confirms the completion of site investigation and remedial action for the one (1) 550 gallon waste oil underground storage tank formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank are greatly appreciated.

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

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

Please contact Don Hwang at (510) 567-6746 if you have any questions regarding this matter.

Sincerely,

  
Mee Ling Tung, Director

c: Chuck Headlee, RWQCB  
Dave Deaner, SWRCB  
Hernan Gomez, OFD  
Peter McIntyre, All Environmental, Inc., 3210 Old Tunnel Rd., Suite B, Lafayette, CA  
94549  
File

RB# 01-2417

CASE CLOSURE SUMMARY  
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: July 28, 2000

Agency name: Alameda County-HazMat      Address: 1131 Harbor Bay Pkwy  
City/State/Zip: Alameda, CA 94502      Phone: (510) 567-6746  
Responsible staff person: Don Hwang      Title: Hazardous Materials Spec.

00 SEP 25 AM 9:13  
ENVIRONMENTAL PROTECTION

II. CASE INFORMATION

Site facility name: Accutune  
Site facility address: 4045 Broadway, Oakland, CA 94603  
RB LUSTIS Case No: N/A      Local Case No./LOP Case No.: 1142  
URF filing date: April 10, 2000      SWEEPS No: N/A

Responsible Parties:

Catherine Jung Gong, Administrator of the Estate of Wesley D. Jung  
Addresses: c/o Chase & Chase, 11 Embarcadero West, Oakland, CA 94607  
Phone Numbers:

<u>Tank No:</u>	<u>Size in gal:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
	550	waste oil	removed, Erickson, Inc., Richmond, CA	December 21, 1995

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: tank was very corroded and had holes; groundwater  
Site characterization complete? YES  
Date approved by oversight agency: August 19, 1997  
Monitoring Wells installed? YES      Number: 4  
Proper screened interval? YES  
Highest GW depth below ground surface: 8.11 ft.      Lowest depth: 10.22 ft.  
Flow direction: 10/9/98, 5/15/98, 1/28/98: south- southwest, 9/24/97: southwest, 2/21/97: west, 9/24/96: southwest  
Most sensitive current use: commercial  
Are drinking water wells affected? no      Aquifer name: na  
Is surface water affected? na      Nearest affected SW name: na  
Off-site beneficial use impacts (addresses/locations):  
Report(s) on file? YES      Where is report(s) filed? Alameda County      Oakland Fire Dept  
1131 Harbor Bay Pkwy      and      505 - 14<sup>th</sup> St., Suite 510  
Alameda, CA 94502      Oakland, CA 94612

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount (include units)</u>	<u>Action (Treatment or Disposal w/destination)</u>	<u>Date</u>
Tank	550 gallon	Disposal: Erickson, Inc., Richmond, CA	12/21/95
Soil	7 cy	Disposal: BFI, Livermore, CA	8/2/96

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before <sup>1</sup>	After	Before	After
TPH (Gas)	1700 <sup>2</sup>	NA <sup>2</sup>	18,000 <sup>5</sup>	950 <sup>8</sup>
TPH (Diesel)	84 <sup>2</sup>	NA	6,800 <sup>4</sup>	310 <sup>8</sup>
Benzene	5.3 <sup>2</sup>	NA	440 <sup>4</sup>	31 <sup>8</sup>
Toluene	8.1 <sup>2</sup>	NA	1,300 <sup>5</sup>	29 <sup>8</sup>
Ethylbenzene	21 <sup>2</sup>	NA	200 <sup>5</sup>	19 <sup>8</sup>
Xylenes	18 <sup>2</sup>	NA	2,300 <sup>5</sup>	88 <sup>8</sup>
Cadmium	<0.5 <sup>1</sup>	NA	NA	NA
Chromium	69 <sup>1</sup>	NA	NA	NA
Lead	<3.0 <sup>1</sup>	NA	1,900 <sup>7</sup>	NA

- <sup>1</sup> 12/21/95, EB-N(5')
- <sup>2</sup> 9/3/97, SB-6, 5'
- <sup>3</sup> 5/31/96, EB-10 Not Analyzed
- <sup>4</sup> 9/26/96, MW-2
- <sup>5</sup> 9/26/96, D-1
- <sup>6</sup> 9/24/97, MW-3
- <sup>7</sup> 5/31/96, W-2
- <sup>8</sup> 10/9/98, MW-2
- <sup>9</sup> 10/9/98, MW-4
- ND=NonDetectable
- NA=Not Analyzed

Nickel	86 <sup>1</sup>	NA	NA	NA
Zinc	67 <sup>1</sup>	NA	NA	NA
Methyl Tertiary-Butyl Ether (MTBE)	5.3 <sup>2</sup>	NA	180 <sup>5</sup>	6.3 <sup>9</sup>
Total Oil & Grease	470 <sup>3</sup>	NA	<5.0 <sup>6</sup>	<5.0 <sup>3</sup>
Polynuclear Aromatic Hydrocarbons	ND	NA	NA	NA

Comments (Depth of Remediation, etc.):

See Section VII, Additional Comments, etc...

#### IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? undetermined

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? undetermined

Does corrective action protect public health for current land use? YES

Site management requirements: A site safety plan must be prepared for construction workers in the event excavation/trenching is proposed in the vicinity of residual soil and groundwater contamination.

Should corrective action be reviewed if land use changes? YES

Monitoring wells Decommissioned: no

Number Decommissioned: 0      Number Retained: 4

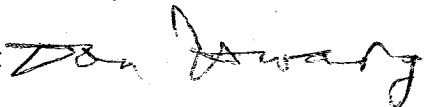
List enforcement actions taken: none

List enforcement actions rescinded: none

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Don Hwang

Title: Haz Mat Specialist


Signature: 

Date: 9/2/00

Reviewed by

Name: Eva Chu


Title: Haz Mat Specialist

Signature: 

Date: 7/28/00

Name: Thomas Peacock

Title: Supervisor

Signature: 

Date: 9-11-00

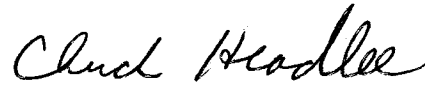
VI. RWQCB NOTIFICATION

Date Submitted to RB: 9/12/00

RB Response: *concur*

RWQCB Staff Name: Chuck Headlee

Title: AEG

Signature: 

Date: 9/19/00

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site is currently an automotive repair facility.

On December 21, 1995, a 550 gallon waste oil tank was removed. The tank was very corroded and had holes on top and on the sides. Soil samples, EB-S-9 and EB-N-5, were collected beneath the tank at 9 and 5 feet below ground surface (bgs), respectively. The samples were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH-G), TPH-Diesel (TPH-D), benzene, toluene, ethyl benzene, xylene (BTEX), volatile halocarbons, and LUFT metals. EB-S-9 had 3.4 mg/kg TPH-D, 0.010 mg/kg xylene, 53 mg/kg chromium, 65 mg/kg nickel, and 53 mg/kg zinc. EB-N-5 had 6.0 mg/kg TPH-D, 0.012 mg/kg xylene, 69 mg/kg chromium, 86 mg/kg nickel, and 67 mg/kg zinc. TPH-G, benzene, toluene, ethyl benzene, volatile halocarbons, cadmium, and lead were Nondetectable (ND) for both samples. An additional sample, EB-10, was collected from the bottom of the excavation on May 31, 1996. This sample was collected at 10 feet bgs. The sample was analyzed for total oil & grease (TOG) and polynuclear aromatic hydrocarbons (PAHs). These concentrations were 470 mg/kg and ND, respectively.

On February 1, 1996, a geophysical survey done to determine if underground tanks were located under a patched area at another location on the property did not reveal any magnetic anomalies consistent with the presence of tanks.



On May 31, 1996, 3 soil borings, BH-2, BH-3, and BH-4, were drilled in the patched area and soil samples were collected at 6 and 11 feet bgs. Groundwater was encountered at 11 feet bgs. The 11 feet bgs samples were analyzed for TPH-G, TPH-D, BTEX, methyl tertiary-butyl ether (MTBE), and total lead. Concentrations of these constituents were found as high as 150, 86, 0.16, 0.30, 3.8, 3.7, 0.52, and 34 mg/kg, respectively. A grab groundwater sample, W-2, was collected from BH-3. This sample was analyzed for the same constituents as for soil. The results were 1200 ug/L, 1800 ug/L, ND, 1.4 ug/L, 3.8 ug/L, 3.7 ug/L, ND, and 1.9 mg/L.

On September 11, 1996, 3 soil borings, SB-1, SB-2, and SB-3, were drilled. Two of the soil borings, SB-1 and SB-2, were located around the patched area. SB-3 was located by the waste oil tank excavation. Samples were collected from each borings at 10 feet bgs for analysis. The borings were converted into groundwater monitoring wells, MW-1, MW-2, and MW-3, respectively. On September 24, 1996, groundwater samples, MW-1, MW-2, and MW-3, were collected from each of the wells. The soil and groundwater samples were analyzed for TPH-G, TPH-D, BTEX, MTBE, and SB-3 was additionally analyzed for TOG. The highest concentrations in soil were found in SB-2. These concentrations were 2900, 850, 1.6, 12, 49, 160, and 12 mg/kg, respectively. TOG was ND for SB-3. The highest concentrations in groundwater were also found in MW-2. Two samples were collected from this well, MW-2 and D-1. D-1 was a duplicate. The results found in the samples were consistent. The highest concentrations found were 20,000, 6,800, 440, 1,300, 200, 2,300, and 180 ug/L.

On February 21, 1997, groundwater samples were collected from each well for analyses for TPH-G, TPH-D, BTEX, and MTBE. MW-2 had the highest concentrations. These concentrations were 2,100, 1,600, 71, 82, 30, 110, and 27 ug/L. MW-1 and MW-3 were ND for all constituents.

On September 3, 1997, 8 soil borings, SB-1, SB-2, SB-3, SB-4, SB-5, SB-6, SB-7, and SB-8, were drilled. Soil borings, SB-1, SB-2, SB-3, and SB-4, were installed to delineate soil contamination around the patched area. Soil borings, SB-5, SB-6, SB-7, and SB-8, were installed to delineate soil contamination south of the patched area. Additionally, soil boring, SB-8, was used to collect a groundwater sample by the south boundary of the property. On September 12, 1997, a soil boring, SB-9, drilled by SB-8, was converted into a groundwater monitoring well, MW-4. Two samples from each of the soil borings were analyzed for TPH-G, TPH-D, BTEX, and MTBE. The highest concentrations for TPH-G in soil were 1700 mg/kg found in SB-6, 5', and 1400 mg/kg found in SB-9, 10'. The highest concentrations for TPH-D in soil was 150 mg/kg found in SB-2, 10'. The highest concentrations for BTEX were found in SB-9, 10'. The concentrations were 6.8, 3.3, 23, and 110 mg/kg, respectively. The next highest concentrations were found in SB-6, 5'. The concentrations were 4.3, 8.1, 21, and 18 mg/kg, respectively. MTBE was highest in SB-9, 10'. This was 27 mg/kg. On September 3, 1997, a grab groundwater sample was collected from SB-8. The sample was analyzed for TPH-G, TPH-D, BTEX, and MTBE. The concentrations found were 50, 51, 4.4, 1.5, 0.8, 3.8 ug/L, and ND. On September 24, 1997, groundwater samples were collected from each well, MW-1, MW-2, MW-3, and MW-4. These samples were analyzed for TPH-G, TPH-D, BTEX, and MTBE. Additionally, MW-3, was analyzed for TOG. MW-2 had 260, 170, 5.6, 6.8, 3.2, 9.4 ug/L, and ND, respectively. MW-4 had 160, 68, 19, 1.5, ND, 18 ug/L, and ND, respectively. MW-1 and MW-3 were ND for all constituents, including ND for TOG in MW-3.

On January 28, 1998, groundwater samples were collected from each well for analyses for TPH-G, TPH-D, BTEX, and MTBE. MW-2 had the highest concentrations. These concentrations were 990, 500, 74, 33, 21, 66 ug/L, and ND. MW-1 was ND for all constituents. MW-3 was ND for all constituents except TPH-D, which

was 53 ug/L. MW-4 was ND for TPH-G and TPH-D, 6.1, 0.65, ND, 0.74 ug/L, for BTEX, and 9.3 ug/L, for MTBE.

On May 15, 1998, groundwater samples were collected from each well for analyses for TPH-G, TPH-D, BTEX, and MTBE. All wells were ND for all constituents except MW-2 which had 6.6 ug/L benzene and 1.0 xylene, MW-4 with 110 ug/L TPH-D, 7.4 ug/L benzene, and 1.6 ug/L xylene.

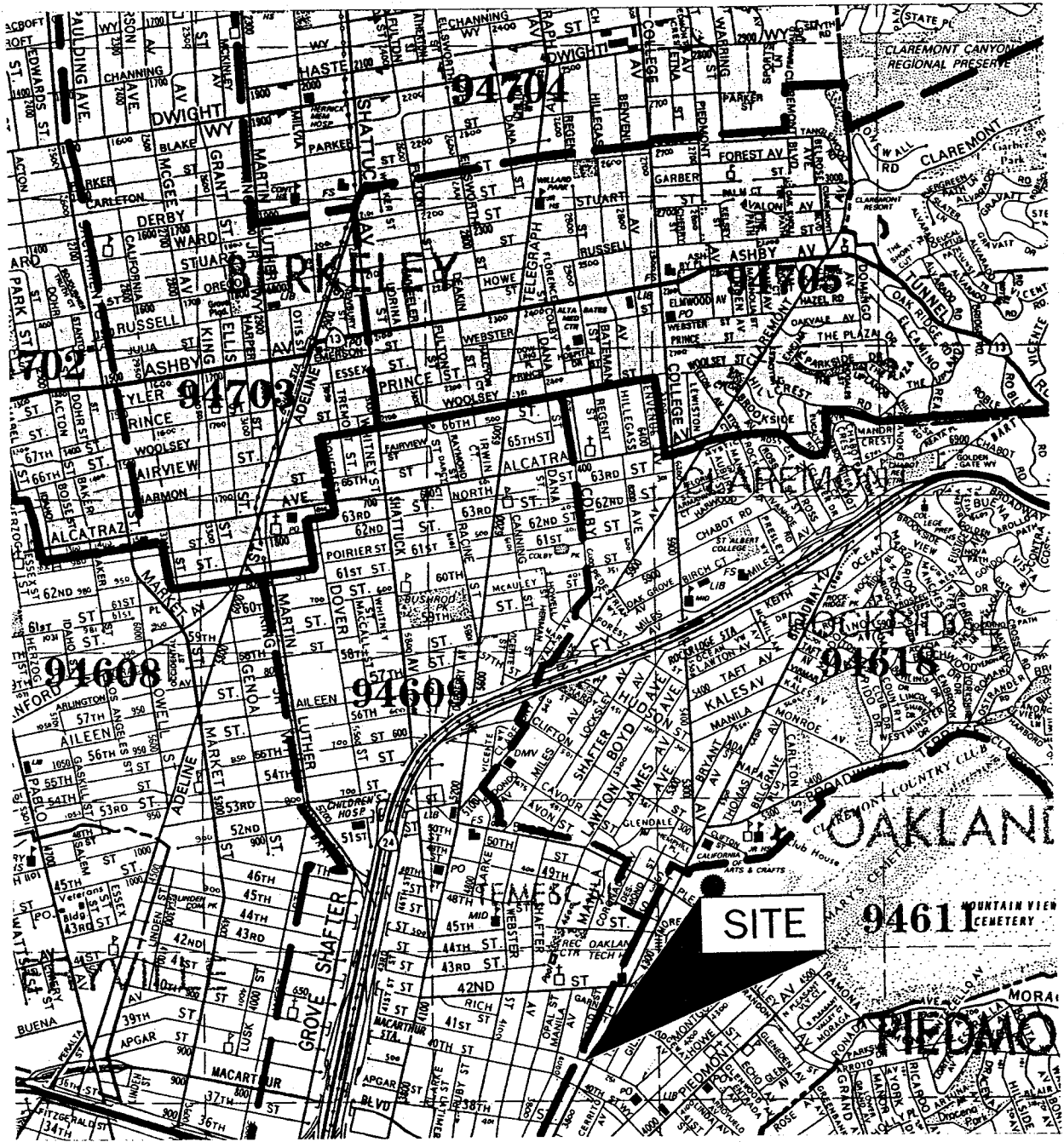
On October 9, 1998, groundwater samples were collected from each well for analyses for TPH-G, TPH-D, BTEX, and MTBE. MW-2 had 950, 310, 31, 29, 19, 88 ug/L, and ND. MW-4 had 5 ug/L benzene and 6.3 ug/L MTBE. MW-1 and MW-3 were ND for all constituents.

The near surface sediments beneath the site consist mainly of clayey and silty sand to approximately 18 feet bgs (soil boring logs by All Environmental, Inc.) The water-bearing stratum is comprised of silty sand, grading to clean sand at 20 feet bgs.

After 4 to 6 consecutive quarters of groundwater monitoring, hydrocarbon constituents show a declining trend. The plume extends 50 feet from the former tank pit. Residual hydrocarbons in groundwater should continue to naturally bioattenuate. Continued monitoring is not warranted.

In summary, case closure is recommended because:

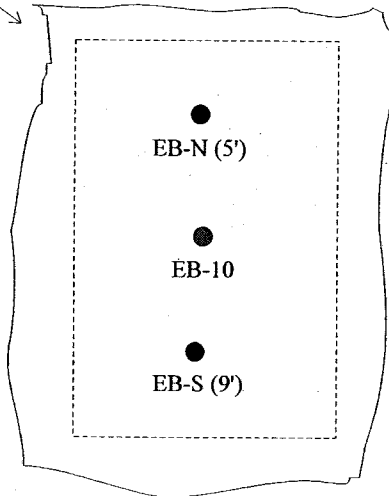
- o the leak and ongoing sources have been removed;
- o the site has been adequately characterized;
- o the dissolved plume is not migrating;
- o no water wells, surface water, or other sensitive receptors are likely to be impacted; and,
- o the site presents no significant risk to human health or the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



THOMAS BROS. MAPS  
1994

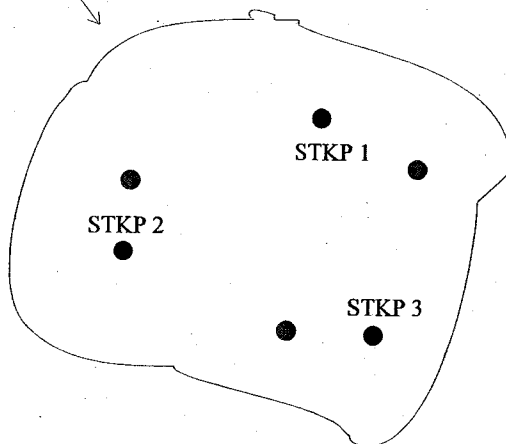
<b>ALL ENVIRONMENTAL, INC.</b> 3364 MT. DIABLO BOULEVARD, LAFAYETTE		
SCALE: 1 IN = 2200 FT	APPROVED BY:	DRAWN BY:
DATE: 17 JUNE 96		REVISED:
<b>SITE LOCATION MAP</b>		
4045 BROADWAY OAKLAND		DRAWING NUMBER: FIGURE 1

WASTE OIL  
UNDERGROUND  
STORAGE TANK  
EXCAVATION



BUILDING

STOCKPILED  
SOIL



**KEY**

- SOIL SAMPLES COLLECTED 12/21/95
- SOIL SAMPLES COLLECTED 5/31/96

NOTE: STOCKPILED MATERIAL RETURNED TO  
EXCAVATION PRIOR TO 5/31/96 SAMPLING

**ALL ENVIRONMENTAL, INC.**  
3364 MT. DIABLO BOULEVARD, LAFAYETTE

SCALE: NOT TO SCALE

APPROVED BY:

DRAWN BY: J.S. ANDERSON

DATE: 17 JUNE 96

REVISED: J.S. ANDERSON

**SAMPLE LOCATION MAP**

4045 BROADWAY  
OAKLAND

DRAWING NUMBER:

FIGURE 3

**Table 1: Soil Sample Analyses**

Sample I.D.	TPH as gasoline (mg/kg)	TPH as diesel (mg/kg)	benzene (mg/kg)	toluene (mg/kg)	ethyl-benzene (mg/kg)	total xylenes (mg/kg)	volatile halo-carbons (mg/kg)
EB-S (9')	<1.0	3.4	<0.005	<0.005	<0.005	0.010	N.D.
EB-N (5')	<1.0	6.0	<0.005	<0.005	<0.005	0.012	N.D.
STKP (1-3)*	32	120	<0.005	<0.005	<0.005	0.31	N.D.

**Table 1: Soil Sample Analyses (cont.)**

Sample I.D.	cadmium (mg/Kg)	chromium (mg/Kg)	lead (mg/Kg)	nickel (mg/Kg)	zinc (mg/Kg)
EB-S (9')	<0.5	53	<3.0	65	53
EB-N (5')	<0.5	69	<3.0	86	67
STKP (1-3)*	<0.5	52	0.023	90	55

(mg/kg) = ppm (parts per million)

N.D. = Not detected above reporting limit

\* Composite soil sample

At the request of ACHCSA-DEH, additional soil samples were collected from the stockpiled soil and excavation bottom on May 31, 1996. The samples were collected during a Phase II soil and groundwater investigation performed in the northeast corner of the property. One sample (EB-10) was collected from the bottom of the excavation at 10 feet bgs using a geoprobe drilling rig. Three discrete samples were collected from the stockpiled soil and analyzed as one composite sample. The soil samples collected were analyzed for total oil & grease (TOG) (EPA method

5520) and polynuclear aromatic hydrocarbons (PAHs) (EPA method 8270). The additional analyses are presented in the following table.

**Table 2: Additional Soil Sample Analyses**

Sample I.D.	TOG (mg/kg)	PAHs (mg/kg)
EB-10	470	N.D.
STKP (1-3)*	410	N.D.

(mg/kg) = ppm (parts per million)

N.D. = Not detected above reporting limit

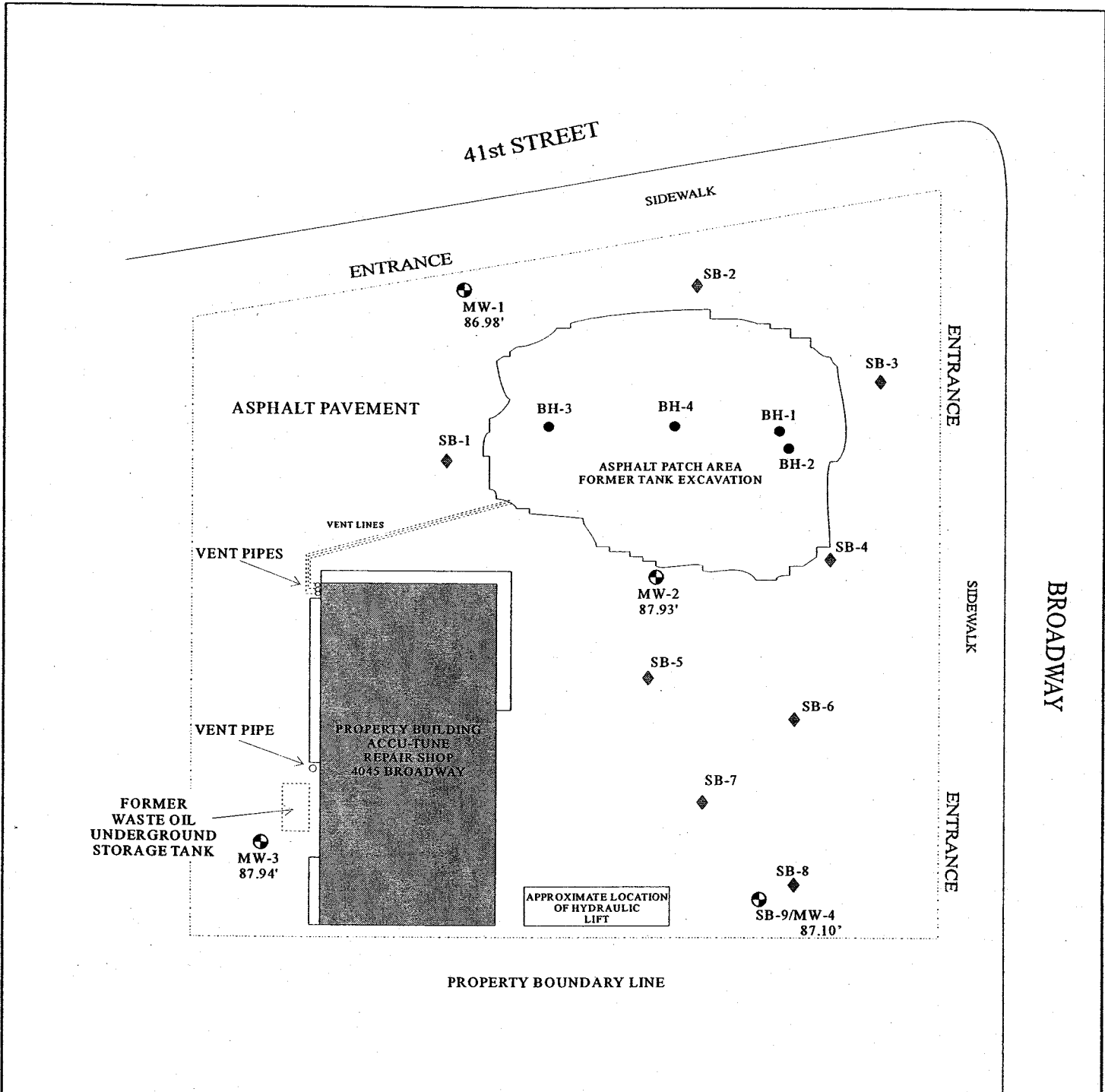
\* Composite soil sample

Copies of all analytical results and Chain of Custody documentation are located in Appendix D: Sample Analytical Documentation.

## 5.0 DISCUSSIONS AND CONCLUSIONS

On December 21, 1995, one 550-gallon waste oil underground storage tank was removed from behind the property building. The tank was transported as hazardous waste to the Erickson Disposal Facility in Richmond, California where the tank was cleaned and disposed of as scrap metal.

Soil samples collected from the bottom of the excavation were impacted with 470 ppm TOG and minor concentrations of TPH as diesel, xylenes and metals. TPH as gasoline, benzene, toluene, ethylbenzene, PAHs, volatile halocarbons were not present within the excavation bottom samples above the detection limits. Soil samples collected from the stockpiled material were impacted with 410 ppm TOG, 32 ppm TPH as gasoline, 120 ppm TPH as diesel and minor concentrations



FORMER WASTE OIL UNDERGROUND STORAGE TANK

- KEY**
- FORMER SOIL BORING LOCATION ADVANCED 5/31/96
  - ⊕ GROUNDWATER MONITORING WELL LOCATION
  - ◆ SOIL BORING LOCATION



<b>ALL ENVIRONMENTAL, INC.</b> 3364 MT. DIABLO BOULEVARD, LAFAYETTE		
SCALE: 1 IN = 20 FT	APPROVED BY:	DRAWN BY: J. PUCCI
DATE: 24 SEPTEMBER 97		REVISED: J. PUCCI
<b>SOIL BORING AND WELL LOCATION MAP</b>		
4045 BROADWAY OAKLAND, CALIFORNIA		DRAWING NUMBER: FIGURE 2

**IV Findings**

Soil and groundwater samples collected during the investigation were transported to McCampbell Analytical, Inc. (DOHS Certification Number 1644) on June 3, 1996 for analysis. Analytical results of soil collected at eleven feet bgs from the borings indicated the presence of up to 150 ppm TPH as gasoline, 86 ppm TPH as diesel, 0.16 ppm benzene, 0.30 ppm toluene, 0.18 ppm ethylbenzene, 0.67 ppm xylenes and 0.52 MTBE.

The groundwater sample, W-2, collected from BH-3 indicated up to 1,200 ppb of TPH as gasoline, 1,800 ppb TPH as diesel, 1.4 ppb toluene, 3.8 ppb ethylbenzene and 3.7 ppb xylenes. Benzene and MTBE were not present within the groundwater sample above the detection limits.

The following tables summarize the soil and groundwater analytical results. The analytical results and chain of custody are included as Attachment B.

*Table 1 - Soil Sample Analyses*

Sample Identification	TPHg mg/kg	TPHd mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes mg/kg	MTBE mg/kg	Lead mg/kg
BH-2, L-2, (11')	30	86	0.028	0.059	0.13	0.11	0.087	16
BH-3, L-2, (11')	130	40	<0.005	0.14	0.16	<0.005	<0.1	18
BH-4, L-2, (11')	150	54	0.16	0.30	3.8	3.7	0.52	34

*Table 2 - Groundwater Sample Analyses*

Sample Identification	TPHg ug/L	TPHd ug/L	Benzene ug/L	Toluene ug/L	Ethylbenzene ug/L	Xylenes ug/L	MTBE ug/L	Lead mg/L
W-2	1200	1800	<0.05	1.4	3.8	3.7	<0.05	1.9

Total Petroleum Hydrocarbons as gasoline = TPHg  
 Total Petroleum Hydrocarbons as diesel = TPHd  
 mg/kg = ppm  
 ug/L = ppb



**TABLE 2 - Soil Sample Analytical Data**

Sample Number/ Depth	TPH as gasoline (mg/kg)	TPH as diesel (mg/kg)	MTBE (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Xylenes (mg/kg)	Total Oil & Grease (mg/kg)
SB1,S-2,10	7.7	5.0	<0.05	<0.005	0.015	0.050	0.050	NA
SB2,S-2,10	2900	850	12	1.6	12	49	160	NA 50
SB3,S-2,10	19	22.0	<0.05	<0.005	0.017	<0.005	0.014	NA NA

mg/kg = milligrams per kilogram (ppm)  
 NA = Not Analyzed

Significant concentrations of dissolved petroleum hydrocarbons were present in groundwater collected from MW-2. Up to 18,000 parts per billion (ppb) TPH as gasoline, 6,800 ppb TPH as diesel, 170 ppb benzene, 1,200 ppb toluene, 190 ppb ethylbenzene and 2,200 xylenes were present in the groundwater. Results were consistent for the analysis of D-1, a duplicate groundwater sample from MW-2. Up to 190 ppb TPH as gasoline, 110 ppb TPH as diesel and 5.7 ppb xylenes were present in the groundwater sample collected from MW-1. No concentrations of petroleum hydrocarbons were detected during analysis of the water sample collected from MW-3. The groundwater sample analytical data is summarized below in Table 3.

9/26/96

**TABLE 3 - Groundwater Sample Analytical Data**

Sample Number/ Depth	TPH as gasoline (ug/L)	TPH as diesel (ug/L)	MTBE (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Xylenes (ug/L)
MW-1	190	110	<5.0	<0.5	<0.5	<0.5	5.7
MW-2	18,000	6,800	170	440	1,200	190	2,200
MW-3	<50.0	<50.0	<5.0	<0.5	<0.5	<0.5	<0.5
D-1	20,000	NA	180	410	1,300	200	2,300

ug/L = micrograms per liter (ppb)  
NA = Not Analyzed

Laboratory results and chain of custody documentation are included in Appendix C.



9/13/97

Table 2  
Soil Sample Analytical Data

Sample ID	TPH as gasoline (mg/kg)	TPH as diesel (mg/kg)	MTBE (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- Benzene (mg/kg)	Xylenes (mg/kg)
SB-1, 3'	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
SB-1, 5'	<1.0	3.4	0.018	0.0083	<0.005	<0.005	0.0074
SB-2, 8'	1.8	95*	0.0078	0.024	0.017	0.012	0.028
SB-2, 10'	240	150*	<0.62	<0.62	0.97	0.78	1.3
SB-3, 5'	<1.0	3.7*	<0.005	<0.005	<0.005	<0.005	<0.005
SB-3, 10'	ND<120	11	ND<.62	ND<.62	ND<.62	0.71	1.8
SB-4, 5'	<1.0	14*	0.012	0.086	<0.005	<0.005	0.024
SB-4, 10'	180	17	0.8	ND<.62	ND<.62	1.3	4.6
SB-5, 3'	<1.0	20*	<0.005	<0.005	<0.005	<0.005	<0.005
SB-5, 7'	470	3.4	1.6	1.8	ND<1.2	10	20
SB-6, 3'	4.9	<1.0	0.054	0.18	0.015	0.3	0.033
SB-6, 5'	1700	84	5.3	4.3	8.1	21	18
SB-7, 5'	<1.0	4.9	0.0057	0.009	<0.005	<0.005	0.0086
SB-7, 10'	<120	<1.0	ND<.62	ND<.62	ND<.62	ND<.62	ND<.62
SB-8, 5'	3.3	<1.0	0.071	0.056	0.022	0.064	0.073
SB-8, 10'	140	6	ND<.62	ND<.62	ND<.62	1.4	7.5
SB-9, 5'	<1.0	46	<0.005	<0.005	<0.005	<0.005	<0.005
SB-9, 10'	1400	45	27	6.8	3.3	23	110

\* Motor oil detected in sample

**Table 2**  
**Groundwater Sample Analytical Data**

Well ID	Date	TPHg (µg/L)	TPHd (µg/L)	Total Oil & Grease (mg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/l)	Ethyl- Benzene (µg/l)	Xylenes (µg/l)
MW-1	9/24/96	190	110	NA	<5.0	<0.5	<0.5	<0.5	5.7
	2/21/97	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	<0.5
	9/24/97	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	<0.5
	1/28/98	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	<0.5
	5/15/98	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	<0.5
	10/9/98	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	<0.5
MW-2	9/24/96	18,000	6800	NA	170	440	1200	190	2200
	2/21/97	2,100	1,600	NA	27	71	82	30	110
	9/24/97	260	170	NA	<5.0	5.6	6.8	3.2	9.4
	1/28/98	990	500	NA	ND<25	74	33	21	66
	5/15/98	<50	<50	NA	<5.0	6.6	<0.5	<0.5	1.0
	10/9/98	950	310	NA	ND<20	31	29	19	88.0
MW-3	9/24/96	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	5.7
	2/21/97	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	<0.5
	9/24/97	<50	<50	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5
	1/28/98	<50	53	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5
	5/15/98	<50	<50	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5
	10/9/98	<50	<50	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5
MW-4	9/24/97	160	68	NA	ND<10	19	1.5	<0.5	18
	1/28/98	<50	<50	NA	9.3	6.1	0.65	<0.5	0.74
	5/15/98	<50	110	NA	<5.0	7.4	<0.5	<0.5	1.6
	10/9/98	<50	<50	NA	6.3	5	<0.5	<0.5	<0.5

TPHg - Total Petroleum Hydrocarbons as gasoline

TPHd - Total Petroleum Hydrocarbons as diesel

TOG - Total Oil & Grease

MTBE - Methyl Tertiary Butyl Ether

µg/L - Micrograms per Liter (ppb)

mg/L - Milligrams per Liter (ppm)

NA - Not analyzed

<b>PROJECT:</b> GONG - #1630		<b>LOG OF BOREHOLE:</b> SB-1	
BORING LOC.: West of former tank hold		ELEVATION, TOC: --	
DRILLING CONTRACTOR: GREGG		START DATE: 9/3/97	END DATE: 9/3/97
DRILLING METHOD: DIRECT PUSH		TOTAL DEPTH: 12.0'	
DRILLING EQUIPMENT: GEOPROBE		DEPTH TO WATER: NA	
SAMPLING METHOD: CONTINUOUS CORE		LOGGED BY: B. CAMPBELL	
HAMMER WEIGHT and FALL: N/A		RESPONSIBLE PROFESSIONAL: JPD	

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES			COMMENTS
			SAMPLE NO.	INTERVAL	BLOW COUNTS	
0		Concrete Pad Foundation; 3" Aggregate Base.				
1	AB					
2			L-1			Strong Hyd. Odor 30.0 ppm
3						
4	CL	Clay: dark gray with green mottling moderate plasticity				
5			L-2			Strong Hyd. Odor 10.0 ppm
6						
7						
8		Clay (cont.)				
9						
10			L-3			Slight Hyd. Odor 10.0 ppm
11						
12		Borehole terminated.				Borehole backfilled with cement grout.
13						
14						

<b>PROJECT:</b> GONG - #1630		<b>LOG OF BOREHOLE:</b> SB-2	
BORING LOC.: North of former tank hold		ELEVATION, TOC: --	
DRILLING CONTRACTOR: GREGG		START DATE: 9/3/97	END DATE: 9/3/97
DRILLING METHOD: DIRECT PUSH		TOTAL DEPTH: 12.0'	
DRILLING EQUIPMENT: GEOPROBE		DEPTH TO WATER: NA	
SAMPLING METHOD: CONTINUOUS CORE		LOGGED BY: B. CAMPBELL	
HAMMER WEIGHT and FALL: N/A		RESPONSIBLE PROFESSIONAL: JPD	

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES			COMMENTS
			SAMPLE NO.	INTERVAL	BLOW COUNTS	
0		Concrete Pad Foundation; 3" Aggregate Base.				
1	AB					
2		Clay; dark gray with green mottling low plasticity				Slight Hyd. Odor 50.0 ppm
3			L-1			
4	CL					
5		Clay (cont.); Low plasticity				Slight Hyd. Odor 137.0 ppm
8			L-2			
9		Clayey Sand; dark gray				Slight Hyd. Odor 359.0 ppm
10	SC		L-3			
11						
12		Borehole terminated.				
13						Borehole backfilled with cement grout.
14						

<b>PROJECT:</b> GONG - #1630		<b>LOG OF BOREHOLE:</b> SB-3	
BORING LOC.: East of former tank hold		ELEVATION, TOC: --	
DRILLING CONTRACTOR: GREGG		START DATE: 9/3/97	END DATE: 9/3/97
DRILLING METHOD: DIRECT PUSH		TOTAL DEPTH: 12.0'	
DRILLING EQUIPMENT: GEOPROBE		DEPTH TO WATER: NA	
SAMPLING METHOD: CONTINUOUS CORE		LOGGED BY: B. CAMPBELL	
HAMMER WEIGHT and FALL: N/A		RESPONSIBLE PROFESSIONAL: JPD	

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES		COMMENTS
			SAMPLE NO.	INTERVAL BLOW COUNTS	
0 - 1	AB	Concrete Pad Foundation; 3" Aggregate Base.			
1 - 3		<u>Silty Clay</u> ; dark gray; low plasticity	L-1		Slight Hyd. Odor 11.0 ppm
3 - 5	CL	<u>Clay</u> (cont.)	L-2		Slight Hyd. Odor 11.0 ppm
5 - 9					
9 - 10	SM	<u>Silty Sand</u> ; gray, with dark yellowish orange modeling.	L-3		Strong Hyd. Odor 245.0 ppm
10 - 12					
12 - 13		Borehole terminated.			Borehole backfilled with cement grout.
13 - 14					

<b>PROJECT:</b> GONG - #1630		<b>LOG OF BOREHOLE:</b> SB-4	
BORING LOC.: South of former tank hold		ELEVATION, TOC: --	
DRILLING CONTRACTOR: GREGG		START DATE: 9/3/97	END DATE: 9/3/97
DRILLING METHOD: DIRECT PUSH		TOTAL DEPTH: 12.0'	
DRILLING EQUIPMENT: GEOPROBE		DEPTH TO WATER: NA	
SAMPLING METHOD: CONTINUOUS CORE		LOGGED BY: B. CAMPBELL	
HAMMER WEIGHT and FALL: N/A		RESPONSIBLE PROFESSIONAL: JPD	

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES			COMMENTS
			SAMPLE NO.	INTERVAL	BLOW COUNTS	
0		Concrete Pad Foundation; 3" Aggregate Base.				
1	AB					
2		<u>Silty Clay</u> ; dark gray with dark green modeling.				Slight Hyd. Odor 5.0 ppm
3			L-1			
4	CL					
5		<u>Clay (cont.)</u>				Slight Hyd. Odor 11.0 ppm
6			L-2			
7						
8						
9						
10	SM	<u>Silty Sand</u> ; gray, with dark yellowish orange modeling.				Strong Hyd. Odor 88.0 ppm
11			L-3			
12		Borehole terminated.				
13						Borehole backfilled with cement grout.
14						



<b>PROJECT:</b> GONG - #1630		<b>LOG OF BOREHOLE:</b> SB-5	
BORING LOC.: South of former tank hold		ELEVATION, TOC: --	
DRILLING CONTRACTOR: GREGG		START DATE: 9/3/97	END DATE: 9/3/97
DRILLING METHOD: DIRECT PUSH		TOTAL DEPTH: 12.0'	
DRILLING EQUIPMENT: GEOPROBE		DEPTH TO WATER: NA	
SAMPLING METHOD: CONTINUOUS CORE		LOGGED BY: B. CAMPBELL	
HAMMER WEIGHT and FALL: N/A		RESPONSIBLE PROFESSIONAL: JPD	

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES		COMMENTS
			SAMPLE NO.	BLOW COUNTS	
		Concrete Pad Foundation; 3" Aggregate Base.			
1	AB				
2	CL	Clay; greenish gray; moderate plasticity.			Strong Hyd. Odor 119.0 ppm
3			L-1		
4					
5					
6					
7		Clay; dark gray with dark green modeling, moderate plasticity.			Slight Hyd. Odor 48.0 ppm
8					
9					
10		Clay (cont.)			Strong Hyd. Odor 100.0 ppm
11					
12		Borehole terminated.			Borehole backfilled with cement grout.
13					
14					

**PROJECT:** GONG - #1630

**LOG OF BOREHOLE:** SB-6

**BORING LOC.:** South of former tank hold

**ELEVATION, TOC:** --

**DRILLING CONTRACTOR:** GREGG

**START DATE:** 9/3/97

**END DATE:** 9/3/97

**DRILLING METHOD:** DIRECT PUSH

**TOTAL DEPTH:** 12.0'

**DRILLING EQUIPMENT:** GEOPROBE

**DEPTH TO WATER:** NA

**SAMPLING METHOD:** CONTINUOUS CORE

**LOGGED BY:** B. CAMPBELL

**HAMMER WEIGHT and FALL:** N/A

**RESPONSIBLE PROFESSIONAL:** JPD

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES		COMMENTS
			SAMPLE NO.	BLOW COUNTS	
0 - 1	AB	Concrete Pad Foundation; 3" Aggregate Base.			
1 - 3		<u>Silty Clay</u> ; dark gray with green modeling; low plasticity.	L-1		Strong Hyd. Odor 191.0 ppm
3 - 5	CL	<u>Silty Clay</u> (cont.)	L-2		Strong Hyd. Odor 147.0 ppm
5 - 10		<u>Clay</u> (cont.)	L-3		Strong Hyd. Odor 136.0 ppm
10 - 12		Borehole terminated.			Borehole backfilled with cement grout.
12 - 13					
13 - 14					

<b>PROJECT:</b> GONG - #1630		<b>LOG OF BOREHOLE:</b> SB-7				
BORING LOC.: South of former tank hold		ELEVATION, TOC: --				
DRILLING CONTRACTOR: GREGG		START DATE: 9/3/97	END DATE: 9/3/97			
DRILLING METHOD: DIRECT PUSH		TOTAL DEPTH: 12.0'				
DRILLING EQUIPMENT: GEOPROBE		DEPTH TO WATER: NA				
SAMPLING METHOD: CONTINUOUS CORE		LOGGED BY: B. CAMPBELL				
HAMMER WEIGHT and FALL: N/A		RESPONSIBLE PROFESSIONAL: JPD				
DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES			COMMENTS
			SAMPLE NO.	INTERVAL	BLOW COUNTS	
		Concrete Pad Foundation; 3" Aggregate Base.				
1	AB					
2		<u>Silty Clay</u> ; moderate yellowish brown with green modeling.				Slight Hyd. Odor 4.0 ppm
3			L-1			
4	CL					
5		<u>Silty Clay</u> (cont.)				Slight Hyd. Odor 24.0 ppm
6			L-2			
7						
8						
9						
10		<u>Silty Clay</u> (cont.)				Slight Hyd. Odor 79.0 ppm
11			L-3			
12						
13		Borehole terminated.				Borehole backfilled with cement grout.
14						

<b>PROJECT:</b> GONG - #1630		<b>LOG OF BOREHOLE:</b> SB-8	
BORING LOC.: Near southern property boundary		ELEVATION, TOC: --	
DRILLING CONTRACTOR: GREGG		START DATE: 9/3/97	END DATE: 9/3/97
DRILLING METHOD: DIRECT PUSH		TOTAL DEPTH: 16.0'	
DRILLING EQUIPMENT: GEOPROBE		DEPTH TO WATER: NA	
SAMPLING METHOD: CONTINUOUS CORE		LOGGED BY: B. CAMPBELL	
HAMMER WEIGHT and FALL: N/A		RESPONSIBLE PROFESSIONAL: JPD	

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES			COMMENTS
			SAMPLE NO.	INTERVAL	BLOW COUNTS	
0 - 1	AB	Concrete Pad Foundation; 3" Aggregate Base.				
1 - 3	CL	Clay; dark gray with dark green modeling, moderate plasticity.	L-1			Slight Hyd. Odor 40.0 ppm
3 - 5	CL	Clay (cont.)	L-2			Slight Hyd. Odor 67.0 ppm
5 - 10	CL	Silty Clay (cont.)	L-3			Strong Hyd. Odor 236.0 ppm
10 - 12	CL					
12 - 14	CL	Silty Sand, dark yellowish orange.				

PROJECT: GONG - #1630

LOG OF BOREHOLE: SB-8

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES			COMMENTS
			SAMPLE NO.	INTERVAL	BLOW COUNTS	
15	SM	<u>Silty Sand (cont.)</u>	L-4			Slight Hyd. Odor 61.0 ppm
16						
17		Borehole terminated.				Borehole backfilled with cement grout.
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

**PROJECT:** GONG # 1630

**LOG OF WELL NUMBER:** SB-9/MW-4

**BORING LOC.:** SOUTH OF FORMER TANK HOLD

**ELEVATION, TOC:** 87.10

**DRILLING CONTRACTOR:** GREGG DRILLING

**START DATE:** 9/12/97

**END DATE:** 9/12/97

**DRILLING METHOD:** HOLLOW STEM AUGER

**TOTAL DEPTH:** 20'

**SCREEN INT:** 4.5-20'

**DRILLING EQUIPMENT:** MOBILE B-61

**DEPTH TO WATER:** 12'

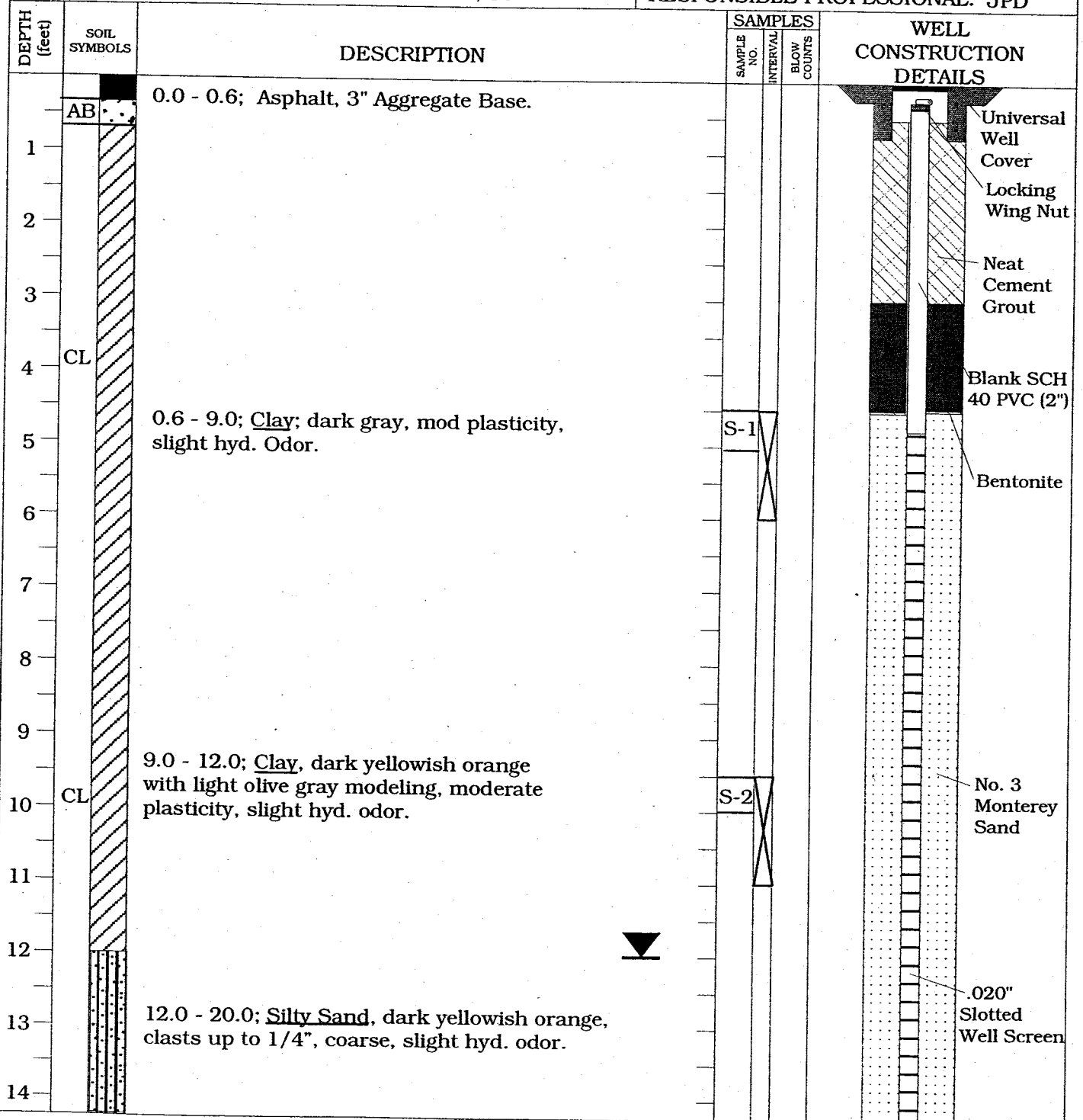
**CASING:** 2" PVC

**SAMPLING METHOD:** 2" DRIVE SAMPLER

**LOGGED BY:** BC

**HAMMER WEIGHT and FALL:** 140 lb, 30"

**RESPONSIBLE PROFESSIONAL:** JPD



PROJECT: GONG #1434

LOG OF BOREHOLE: SB-9/MW-4

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES			WELL CONSTRUCTION DETAILS
			SAMPLE NO.	INTERVAL	BLOW COUNTS	
15	SM	12.0 - 20.0; Silty Sand (cont.)	S-3	[Interval marked with X]	[Blow counts]	[Well construction details]
16						
17						
18						
19						
20	Terminated at 20.0'					End Cap
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

**Table 2**  
**Groundwater Sample Analytical Data**

Well ID	Date	TPHg (µg/L)	TPHd (µg/L)	Total Oil & Grease (mg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/l)	Ethyl- Benzene (µg/l)	Xylenes (µg/l)
MW-1	9/24/96	190	110	NA	<5.0	<0.5	<0.5	<0.5	5.7
	2/21/97	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	<0.5
	9/24/97	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	<0.5
	1/28/98	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	<0.5
	5/15/98	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	<0.5
	10/9/98	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	<0.5
MW-2	9/24/96	18,000	6800	NA	170	440	1200	190	2200
	2/21/97	2,100	1,600	NA	27	71	82	30	110
	9/24/97	260	170	NA	<5.0	5.6	6.8	3.2	9.4
	1/28/98	990	500	NA	ND<25	74	33	21	66
	5/15/98	<50	<50	NA	<5.0	6.6	<0.5	<0.5	1.0
	10/9/98	950	310	NA	ND<20	31	29	19	88.0
MW-3	9/24/96	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	5.7
	2/21/97	<50	<50	NA	<5.0	<0.5	<0.5	<0.5	<0.5
	9/24/97	<50	<50	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5
	1/28/98	<50	53	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5
	5/15/98	<50	<50	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5
	10/9/98	<50	<50	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5
MW-4	9/24/97	160	68	NA	ND<10	19	1.5	<0.5	18
	1/28/98	<50	<50	NA	9.3	6.1	0.65	<0.5	0.74
	5/15/98	<50	110	NA	<5.0	7.4	<0.5	<0.5	1.6
	10/9/98	<50	<50	NA	6.3	5	<0.5	<0.5	<0.5

TPHg - Total Petroleum Hydrocarbons as gasoline

TPHd - Total Petroleum Hydrocarbons as diesel

TOG - Total Oil & Grease

MTBE - Methyl Tertiary Butyl Ether

µg/L - Micrograms per Liter (ppb)

mg/L - Milligrams per Liter (ppm)

NA - Not analyzed



**PROJECT:** GONG # 1434

**LOG OF WELL NUMBER:** MW-1

**BORING LOC.:** REFER TO SITE PLAN

**ELEVATION, TOC:** 78.23

**DRILLING CONTRACTOR:** GREGG DRILLING

**START DATE:** 9/11/96

**END DATE:** 9/11/96

**DRILLING METHOD:** HOLLOW STEM AUGER

**TOTAL DEPTH:** 19'

**SCREEN INT:** 9'-19'

**DRILLING EQUIPMENT:** MOBILE B-61

**DEPTH TO WATER:** 12'

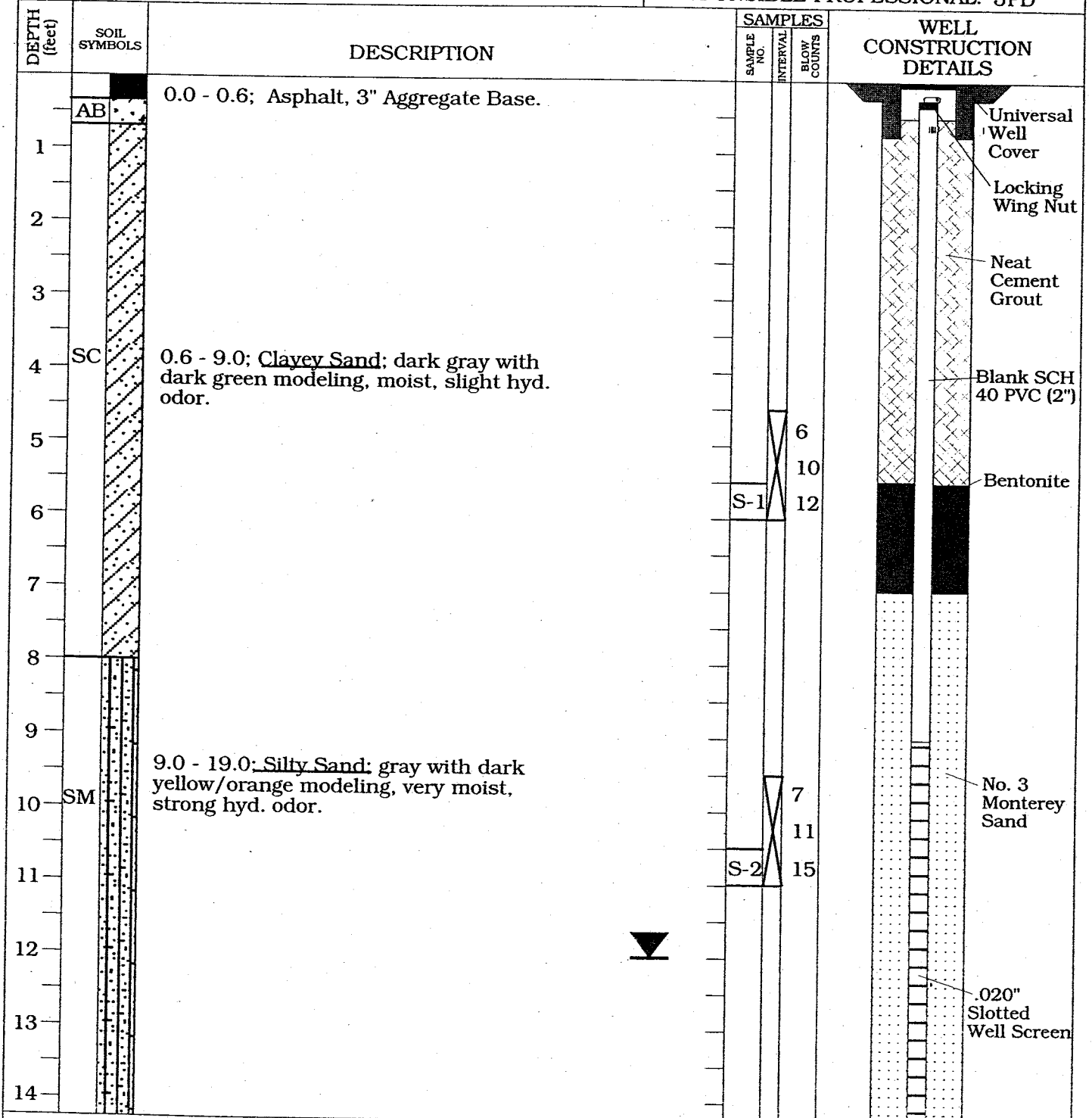
**CASING:** 2" PVC

**SAMPLING METHOD:** 2" DRIVE SAMPLER

**LOGGED BY:** BC

**HAMMER WEIGHT and FALL:** 140 lb, 30"

**RESPONSIBLE PROFESSIONAL:** JPD

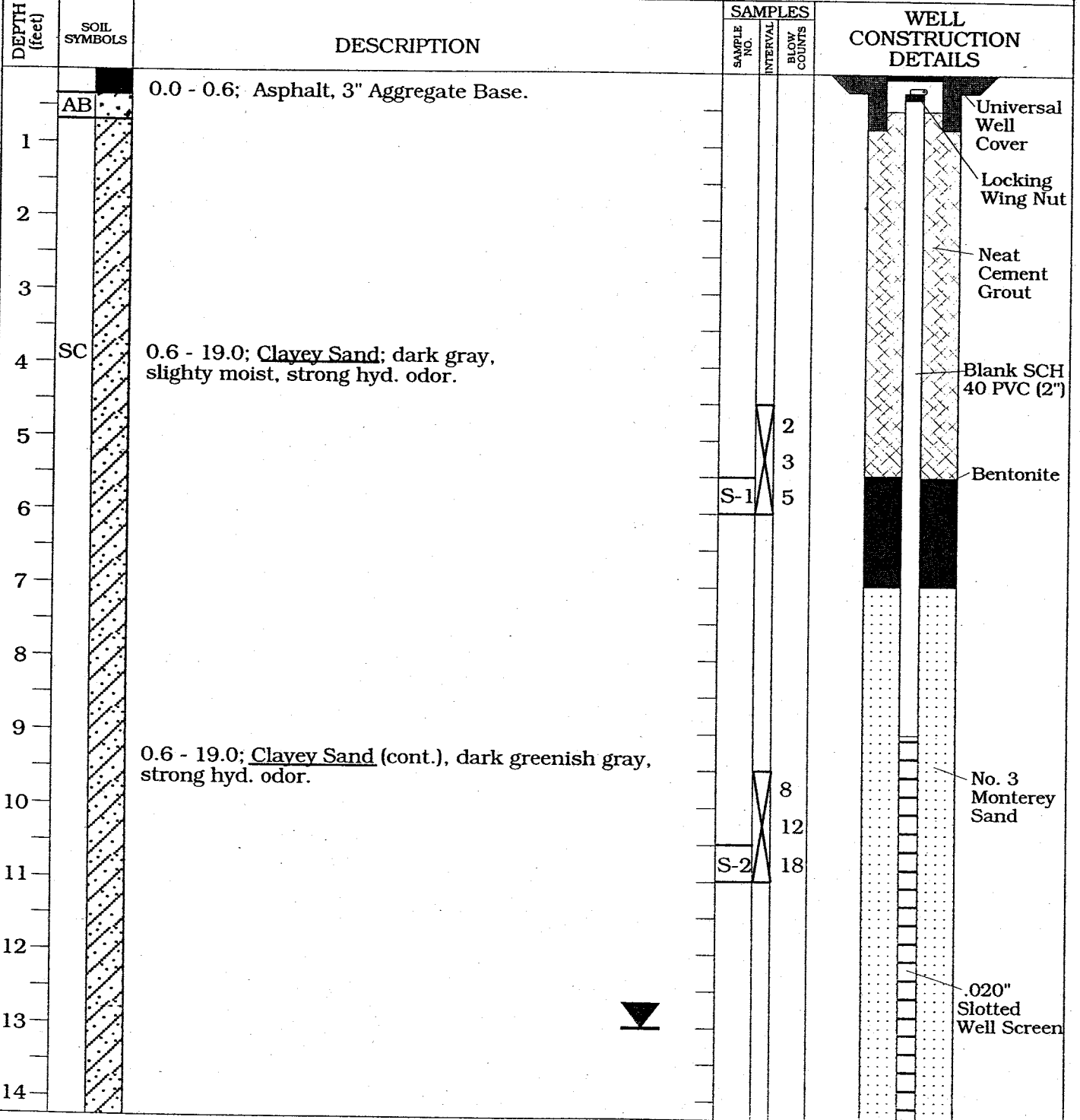


PROJECT: GONG #1434

LOG OF BOREHOLE: MW-1

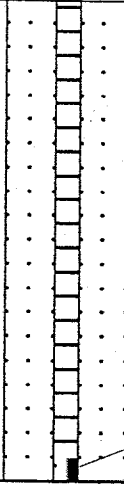
DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES			WELL CONSTRUCTION DETAILS
			SAMPLE NO.	INTERVAL	BLOW COUNTS	
15	SM	9.0 - 19.0; Silty Sand (cont.)			6	
16					26	
17					29	
18						
19		Terminated at 19.0'				End Cap
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

<b>PROJECT:</b> GONG # 1434		<b>LOG OF WELL NUMBER:</b> MW-2	
BORING LOC.: REFER TO SITE PLAN		ELEVATION, TOC: 78.03	
DRILLING CONTRACTOR: GREGG DRILLING	START DATE: 9/11/96	END DATE: 9/11/96	
DRILLING METHOD: HOLLOW STEM AUGER	TOTAL DEPTH: 19'	SCREEN INT: 9'-19'	
DRILLING EQUIPMENT: MOBILE B-61	DEPTH TO WATER: 13'	CASING: 2" PVC	
SAMPLING METHOD: 2" DRIVE SAMPLER	LOGGED BY: BC		
HAMMER WEIGHT and FALL: 140 lb, 30"	RESPONSIBLE PROFESSIONAL: JPD		

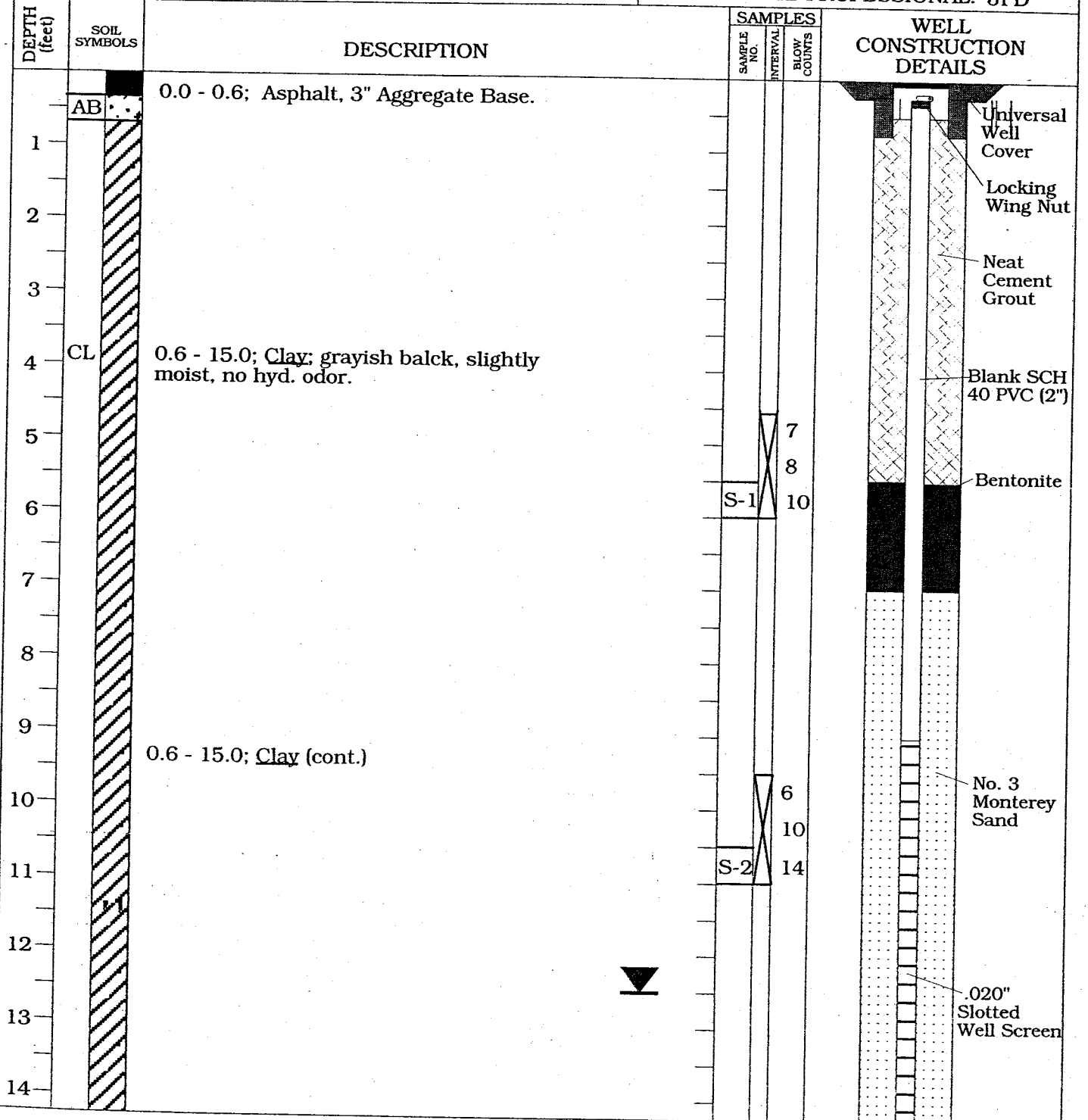


PROJECT: GONG #1434

LOG OF BOREHOLE: MW-2

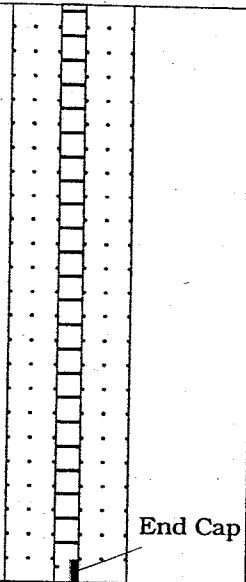
DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES			WELL CONSTRUCTION DETAILS
			SAMPLE NO.	INTERVAL	BLOW COUNTS	
15	SC	0.6 - 19.0; Clayey Sand (cont.)				
16			S-3			
17						
18						
19		Terminated at 19.0'				
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

<b>PROJEC :</b> GONG # 1434		<b>LOG OF WELL NUMBER:</b> MW-3	
<b>BORING LOC.:</b> REFER TO SITE PLAN		<b>ELEVATION, TOC:</b> 77.74	
<b>DRILLING CONTRACTOR:</b> GREGG DRILLING		<b>START DATE:</b> 9/11/96	<b>END DATE:</b> 9/11/96
<b>DRILLING METHOD:</b> HOLLOW STEM AUGER		<b>TOTAL DEPTH:</b> 20	<b>SCREEN INT:</b> 9'-20"
<b>DRILLING EQUIPMENT:</b> MOBILE B-61		<b>DEPTH TO WATER:</b> 12.5'	<b>CASING:</b> 2" PVC
<b>SAMPLING METHOD:</b> 2" DRIVE SAMPLER		<b>LOGGED BY:</b> BC	
<b>HAMMER WEIGHT and FALL:</b> 140 lb, 30"		<b>RESPONSIBLE PROFESSIONAL:</b> JPD	



PROJECT: GONG #1434

LOG OF BOREHOLE: MW-3

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES			WELL CONSTRUCTION DETAILS	
			SAMPLE NO.	INTERVAL	BLOW COUNTS		
15	SC	15.0 - 19.0; <u>Clayey Sand</u> ; pale yellowish brown with dark yellowish orange modeling, very moist, no hyd. odor.			4		
16			S-3		8		
17							12
18							
19							
20		Terminated at 20.0'				End Cap	
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							