

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY  
DAVID J. KEARS, Agency Director



~~300~~  
B.C.

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

June 6, 2006

Mr. Karey Krantz  
Interstate Brands Corporation  
1324 Arden Way  
Sacramento, CA 95815

Dear Mr. Krantz:

Subject: Fuel Leak Site Case Closure Columbo Bakery, 580 Julie Ann Way, Oakland, CA 94621; Case No. RO0000336

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 Health (ACEH) 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 2800 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPHg), 2300 ppm total petroleum hydrocarbons as diesel (TPHd), 4100 ppm oil and grease and 28, 4.9, 58, 230 ppm, benzene, toluene, ethyl benzene and xylenes, respectively, remain in soil at this site.
- Up to 3500 parts per billion (ppb) TPHg, 1400 ppb TPHd, 900 ppb oil and grease, 88, 3.7, 190, 1.7, 60 ppb, benzene, toluene, ethyl benzene, xylenes and methyl tertiary butyl ether (MTBE), respectively, remain in groundwater at this site.

If you have any questions, please call Barney Chan at (510) 567-6765. Thank you.

Sincerely,

Donna L. Drogos, P.E.  
LOP and Toxics Program Manager

Enclosures:

1. Remedial Action Completion Certificate
2. Case Closure Summary

cc:

Mr. Leroy Griffin (w/enc)  
Oakland Fire Department  
250 Frank Ogawa Plaza, Suite 3341  
Oakland, CA 94612

Mr. Toru Okamoto (w/enc)  
State Water Resources Control Board  
UST Cleanup Fund  
P.O. Box 944212  
Sacramento, CA 94244-2120

(B. Chan) (w/orig enc), D. Drogos (w/enc), R. Garcia (w/enc)

ALAMEDA COUNTY  
HEALTH CARE SERVICES

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Interstate Brands Corporation  
1324 Arden Way  
Sacramento, CA 95815

Dear Mr. Krantz:

Subject: Fuel Leak Site Case Closure Columbo Bakery, 580 Julie Ann Way, Oakland, CA 94621; Case No. RO0000336

This letter confirms the completion of a site investigation and remedial action for the 1-8000 gallon gasoline and the 1- 10000 gallon diesel 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(s) 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, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

Please contact our office if you have any questions regarding this matter.

Sincerely,

*William W. Pitcher*  
William Pitcher  
Acting Director  
Alameda County Environmental Health

**CASE CLOSURE SUMMARY  
LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM**

**I. AGENCY INFORMATION**

Date: 4/6/06

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6765
Responsible Staff Person: Barney Chan	Title: Hazardous Materials Specialist

**II. CASE INFORMATION**

Site Facility Name: Columbo Bakery		
Site Facility Address: 580 Julie Ann Way, Oakland, CA, 94621		
RB Case No.: 01-2293	Local Case No.: STID 4008	LOP Case No.: RO0000336
URF Filing Date: 11/15/95	SWEEPS No.: ---	APN: 041-3906-010-01
<b>Responsible Parties</b>	<b>Addresses</b>	<b>Phone Numbers</b>
Interstate Brands Corporation, Mr. Karey Krantz	1324 Arden Way Sacramento, CA 95815	916-561-3601

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	8000	Gasoline	Removed	9/15/95
2	10000	Diesel	Removed	9/15/95
Piping			Removed	9/15/95

**III. RELEASE AND SITE CHARACTERIZATION INFORMATION**

Cause and Type of Release: Possible leak from dispenser		
Site characterization complete? Yes	Date Approved By Oversight Agency: ----	
Monitoring wells installed? Yes	Number: 7	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 3.66'	Lowest Depth: 4.70'	Flow Direction: nw-ne
Most Sensitive Current Use: Potential drinking water source, however TDS is > 3000 ppm and groundwater would, therefore, not be considered potable.		

Summary of Production Wells in Vicinity: The Fitchburg Well field was located where the Oakland Coliseum currently exists. The well field was shut down by EBMUD in 1930. It was located approximately 1 mile to the southeast of this site and therefore would not be affected by the release from this site.

Are drinking water wells affected? No	Aquifer Name: East Bay Plain- Oakland Sub basin
Is surface water affected? No	Nearest SW Name: Lined culvert running parallel to the 880 freeway exists ~ 200' west of the site
Off-Site Beneficial Use Impacts (Addresses/Locations): none identified	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health and City of Oakland Fire Department

**TREATMENT AND DISPOSAL OF AFFECTED MATERIAL**

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	1-8000 gallon 1-10000 gallon	Disposed by H&H, San Francisco, CA	9/15/95
Piping	Unknown, likely <25'	Disposed by H&H, San Francisco, CA	9/15/95
Free Product	----	----	----
Soil	90 cy	Disposed at Forward Landfill, Manteca, CA	9/27/06
Groundwater/ Liquid Waste	2,400 gallons from USTs, 400 gallons from the tank pits	Disposed by Seaport, in Redwood City, CA	9/15/95

**MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP**  
(Please see Attachments for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	4800	2800	44000	3500
TPH (Diesel)	2300	2300	360000	1400
Oil & Grease	4100	4100	4000	900
Benzene	28	28	2400	88
Toluene	4.9	4.9	1200	3.7
Ethylbenzene	58	58	2300	190
Xylenes	230	230	5500	1.7
Heavy Metals	--	--	--	--
MTBE * ( run by EPA 8020)	NA	NA	60	60
Other (8240/8270)	ND	--	--	--
TDS			43,000,000	

\* 60 ppb MTBE, TAME, ETBE, DIPE, TBA, EtOH, EDB and EDC were not analyzed

#### Site History and Description of Corrective Actions:

The site is located in a mixed commercial/industrial area one mile north of the Oakland Coliseum and consists of a large warehouse/bakery and an open asphalt parking lot/work area. The site is used to prepare and distribute baked food products. The site formerly operated an 8K-gallon gasoline and a 10K-gallon diesel UST, which were located in the parking lot near the northern property boundary. See Attachment 1 for site location map.

In June 1991, a soil investigation was conducted in the vicinity of the USTs to determine if there had been releases from the USTs. Six soil borings (SB-A through SB-F) were advanced to depths ranging from 5-10' bgs. Soil samples were collected for analysis. Up to 4800 ppm TPHg, 28 ppm benzene, 2300 ppm diesel and 1300 ppm TOG were detected in these samples. Groundwater was encountered at depths of 5.5-8' bgs, however, no samples were collected for analysis. See Attachment 2 for borings map and Table 1 for analytical results.

In November 1993, seven additional soil borings (SB-G through SB-M) were advanced to depths of 6-9' further outward from the previous borings. Soil samples collected from 2.5-5.5' from these borings contained lower levels of TPHg and TPHd, with the exception of SB-G and SB-I. Up to 2700 ppm TPHg, 1400 ppm TPHd, and 24, 4.9, 58, 230 ppm BTEX, respectively were reported in these borings. The presence of TOG, up to 4100 ppm and TRPH up to 5100 ppm is likely related to imported fill material and not the USTs. Information at the neighboring site (563 Julie Ann Way, RO920) exhibited similar contamination, which was attributed to fill material. See Attachment 3 for borings map and Table 2 for analytical results.

In September 1995, the two USTs were removed from the site. Two soil samples were collected from each end of the two USTs at approximately 12' bgs (SSDE, SSDW, SSGE, and SSGW) and one sample from beneath each pump dispenser (OSE-1' and DSW-3'). Approximately 2,400 gallons of water and residual fuel was pumped from the USTs and approximately 200 gallons of groundwater was pumped from each of the tank pits. When groundwater recharged, a grab water sample was collected from each excavation (DTP and GTP). Up to 270 ppm TPHg, 840 ppm TPHd, 2,100 ppm TRPH, and 5.1, 1.4, 3.3, and 12 ppm BTEX, respectively, were detected in the soil samples. The water samples contained up to 44,000 ppb TPHg, 360,000 ppb TPHd, and 2,400, 1,200, 2,300, and 5,500 ppb BTEX, respectively. See Attachment 4 for sample locations and Table 3 for analytical results.

In February 1996, monitoring well MW-1 was installed approximately 6' west of the former southwest dispenser. The well was screened from 5-15' bgs. Soil encountered from surface to 5' was sand and gravelly sand (fill). From 5-16.5' the soil consisted of sandy clay. Initial sampling results reported 5900 ppb TPHg, <100 ppb TPHd and 540, 9, 950 and 110 ppb, BTEX, respectively. On August 1996, three additional monitoring wells (MW-2 through MW-4) were installed. Soil in these borings consisted of fill material to approximately 7' to 9' bgs, underlain by Bay Mud to the total depth explored of 20' bgs. The heavier petroleum hydrocarbons identified in the fill material resembled heavy oil or asphalt which appears to be pervasive in the fill soil at the site and at adjacent properties (eg 563 Julie Ann Way and at 8000 South Coliseum Way). Groundwater appears to be confined since it was initially encountered at approximately 8' to 9' bgs and stabilized at 4' to 6' bgs. Groundwater was extremely slow to recharge in the wells when they were purged. Petroleum hydrocarbons were detected in each well. See Attachment 5 for well location map and Table 4 for soil boring analytical results.

In May 1998 wells MW-5 through MW-7 were installed to delineate the extent of the contaminant plume. Soil type in these borings consisted of fill material in the upper 7-9.5' underlain with Bay Mud to the total depth explored, 16'. The only significant soil result was 2.1 ppm benzene reported in the 4-4.5' sample from boring MW-5. This result is suspect since the laboratory dilution was reported as 1, while, the detection limits of the analytes, TPHg and BTEX, ranged from 10-100x that of the other sample detection limits. Benzene in groundwater from this well reported 7 ppb. Groundwater monitoring at the site began in February 1996 and has been monitored up to March 1999. Up to 3500 ppb TPHg and 88, 3.7, 190, 1.7 ppb BTEX, respectively, persist in groundwater wells MW-1, MW-2, MW-4, and MW-5 and TPHd up to 1400 ppb is found in all wells. See Table 5 for a summary of monitoring results.

Cross-section A-A' was drawn depicting the hydrogeology along the west to east transect across the site. The cross section depicts the asphalt cap, a zone of fill material ranging from 5-9' in thickness underlain by bay mud. See Attachment 6. Boring logs for the wells and borings are attached, see Attachment 8.

A Tier 2 risk assessment was performed on the site using the most conservative estimate for risk. The highest observed soil and groundwater samples were used in the evaluation. Because the site is totally surfaced with asphalt, the only exposure pathways evaluated were groundwater and soil volatilization to indoor air for commercial worker and construction worker exposure to soil and groundwater. The results of this evaluation for the commercial worker were a hazard index of 0.2 and an excess cancer risk of  $1 \times 10^{-5}$ . The results for the construction worker were a hazard index of 20 and an excess cancer risk of  $5 \times 10^{-5}$ . A Risk Management Plan was prepared to mitigate this potential risk to the construction worker in the event contaminated soil and/or groundwater is exposed during future subsurface activities. A copy of the RMP is included in the closure document. A copy of the RMP must be

maintained at the site facility and transferred to all future owners of the property. See Attachment 7.

The Risk Assessment assumed that the chemical of concern (benzene) is present at its historical maximum with no degradation since its detection in 1991, that these concentrations are prevalent throughout the site and that an office building might be located directly over this contamination, all of which are unlikely. Using the arithmetic mean for soil samples would yield a benzene concentration of 1.1 ppm, resulting in a construction worker hazard index of 2.6 and an excess cancer risk of  $9 \times 10^{-6}$ . Note that this perceived risk is for a construction worker exposure scenario only. See Tables 4-5, 4-7 and Table A-1 for a summary of analytical data and this RBCA evaluation.

Site closure is recommended based upon the removal of the sources ie USTs and highly impacted soil and groundwater, adequate soil and groundwater characterization, the existence of a stable plume, the groundwater has been shown to be non-potable, no water wells or other sensitive receptors are likely to be impacted, a RMP has been provided to address soil and groundwater exposure to construction workers and the site presents no significant risk to human health or the environment.

#### IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes No		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes No		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and current building (s) configuration.		
Site Management Requirements: Site is recommended for closure based on the current commercial use only. Site is to be included in the City of Oakland Permit Tracking System. Our office must be informed if any other site use other than the current commercial/industrial use occurs and/or if buildings are constructed in the vicinity of the former UST system.		
Should corrective action be reviewed if land use changes? Yes		
Was a deed restriction or deed notification filed? No		Date Recorded: --
Monitoring Wells Decommissioned: Yes	Number Decommissioned: 7	Number Retained: 0
List Enforcement Actions Taken: none		
List Enforcement Actions Rescinded: none		

#### V. ADDITIONAL COMMENTS, DATA, ETC.

##### Considerations and/or Variances:

- Residual soil and groundwater exist at the site. Contamination has likely migrated in the groundwater, through the shallow fill material. The residual impacted area appears to be localized northeast of the former diesel UST and it's limit is defined by MW-4 and MW-5.
- The ether oxygenates other than MTBE and the lead scavengers were not analyzed
- MTBE was run by EPA Method 8020 not 8240, therefore, that reported in groundwater, 60 ppb, has not been confirmed. The MTBE concentration may be less than that reported.
- The presence of oil and grease and TRPH is likely from fill material and present within this area
- The Tier 2 Risk Assessment used the highest detected soil and groundwater concentrations ever detected and likely overestimates risk. The contamination is actually localized and has likely decreased since the original sampling, nearly 15 years ago.
- Residual shallow benzene contamination of up to 28 ppm remains in place at depths of 5'-7' bgs, near the property boundary at Julie Ann Way, currently used as a parking lot. This site will need to be re-evaluated if buildings are constructed in the vicinity of the former UST system.

Conclusion:

Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment under the current commercial land use (warehouse and bakery) and building configuration, based upon the information available in our files to date. Residual soil and groundwater contamination in vicinity of former USTs appears localized and attenuating. ACEH staff recommend closure for this site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Barney Chan	Title: Hazardous Materials Specialist
Signature: <i>Barney Chan</i>	Date: 4/6/06
Approved by: Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature: <i>Donna L. Drogos</i>	Date: 4/7/06

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: C. Mc Caulou	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature:	Date:

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: 6/21/00	Date of Well Decommissioning Report: 8/29/05	
All Monitoring Wells Decommissioned: Yes	Number Decommissioned: 7	Number Retained: 0
Reason Wells Retained: ---		
Additional requirements for submittal of groundwater data from retained wells: ---		
ACEH Concurrence - Signature:	Date:	

Attachments:

1. Site Location Map
2. SB-A through SB-F Borings Map, Table 1-Analytical Results
3. SB-A through SB-M Borings Map, Table 2-Analytical Results
4. UST Removal Sample Location Map, Table 3, Analytical Results
5. MW-1 through MW-7 Well Location Map, Table 4 Analytical Results  
Table 5, Groundwater Monitoring Results
6. Cross Section A-A'  
Tables 4-5, 4-7 and Table A-1- Risk Assessment Summary and Analytical Data
7. Risk Management Plan
8. Boring Logs

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.



**Conclusion:**  
 Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment under the current commercial land use (warehouse and bakery) and building configuration, based upon the information available in our files to date. Residual soil and groundwater contamination in vicinity of former USTs appears localized and attenuating. ACEH staff recommend closure for this site.

**VI. LOCAL AGENCY REPRESENTATIVE DATA**

Prepared by: Barney Chan	Title: Hazardous Materials Specialist
Signature: <i>Barney Chan</i>	Date: 4/6/06
Approved by: Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature: <i>Donna L. Drogos</i>	Date: 4/7/06

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

**VII. REGIONAL BOARD NOTIFICATION**

Regional Board Staff Name: C. McCaulou	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature: <i>Cherie McCaulou</i>	Date: 6/6/06

**VIII. MONITORING WELL DECOMMISSIONING**

Date Requested by ACEH: 6/21/00	Date of Well Decommissioning Report: 8/29/05	
All Monitoring Wells Decommissioned: Yes	Number Decommissioned: 7	Number Retained: 0
Reason Wells Retained: ---		
Additional requirements for submittal of groundwater data from retained wells: ---		
ACEH Concurrence - Signature: <i>Barney Chan</i>	Date: 6/6/06	

**Attachments:**

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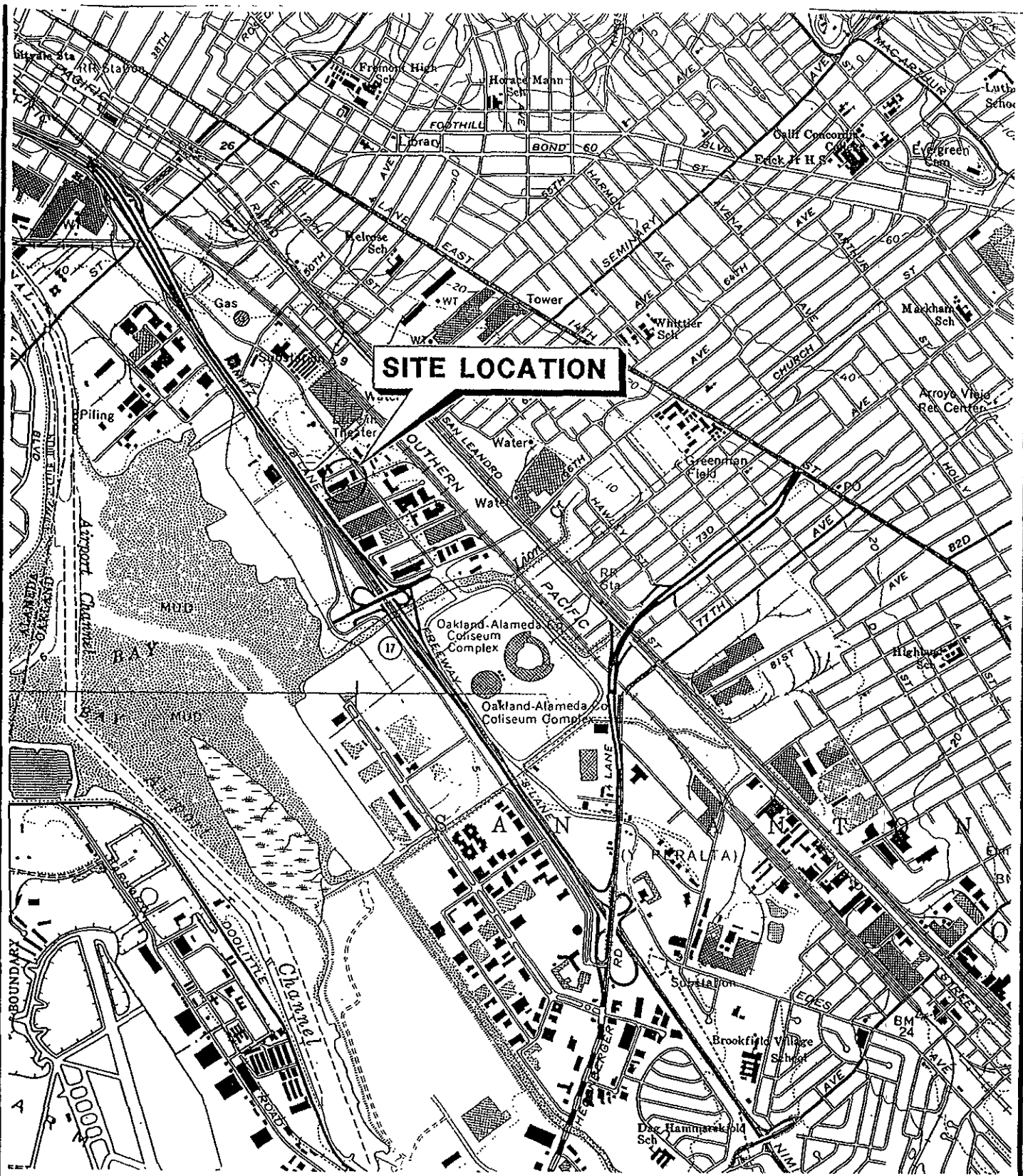
This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

Page 5 of 5

RO336 - Closure Summary

Alameda County  
 JUN 06 2006  
 Environmental Health

Post-it® Fax Note	7671	Date	4/6/06	# of pages	1
To	<i>Barney Chan</i>	From	<i>Cherie McCaulou</i>		
Co./Dept.	<i>ACEH</i>	Co.	<i>RWQCB</i>		
Phone #		Phone #	<i>5106222342</i>		
Fax #	<i>510-337-9335</i>	Fax #	<i>5106222464</i>		



**SITE LOCATION**

SOURCE: BASE MAP FROM U.S.G.S. OAKLAND EAST AND SAN LEANDRO CA QUADRANGLES. 7.5 MINUTE SERIES TOPOGRAPHIC MAP, PHOTOREVISED 1980.



NORTH



**ATTACHMENT 1**

SAN FRANCISCO FRENCH BREAD  
580 JULIE ANN WAY  
OAKLAND, CALIFORNIA

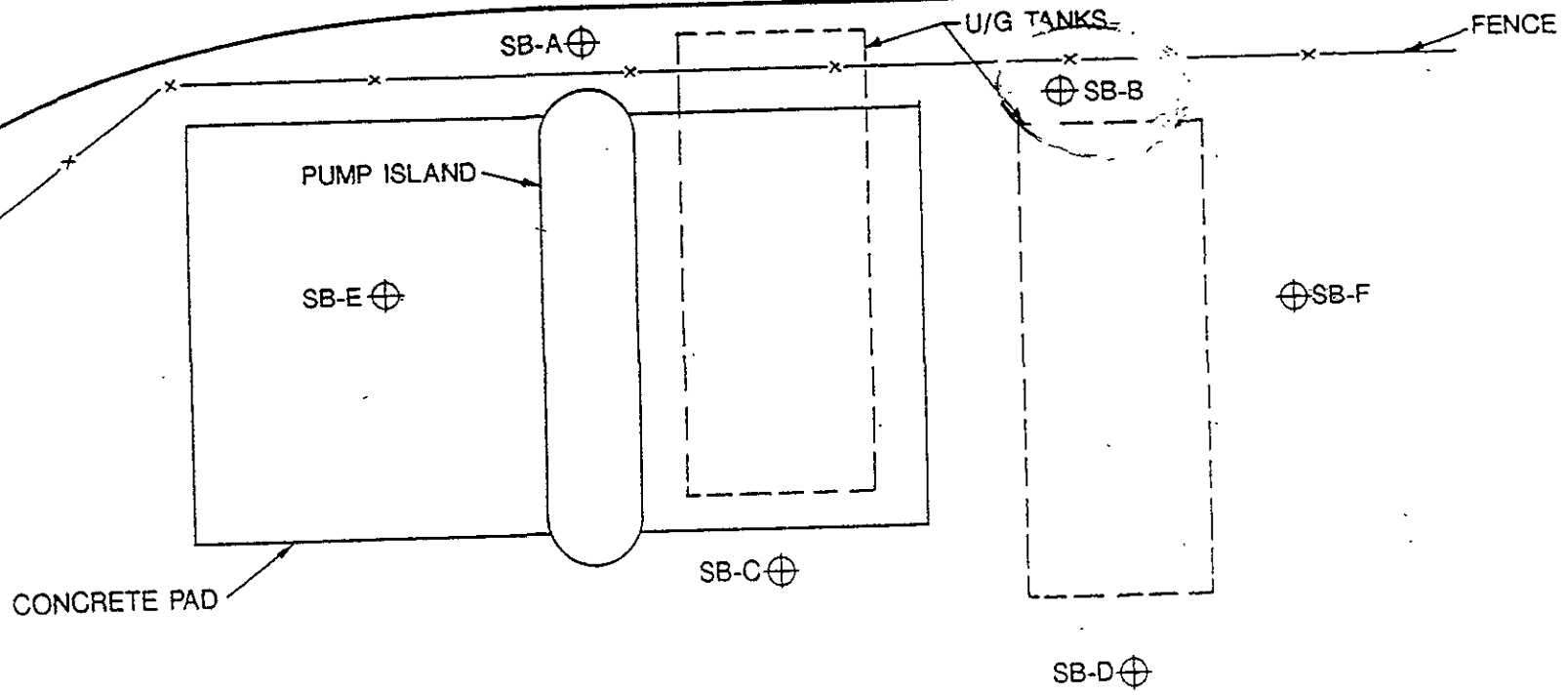
**SITE LOCATION MAP**

**SECOR**  
INTERNATIONAL  
INCORPORATED

DRAWN	CCR
APPR	DWM
DATE	120CT95
JOB NO.	70007-001-01

199510.171511. X:19F-BREAD\JULIE\181TEPLAN

JULIE ANNE WAY



LEGEND  
⊕ SOIL BORING



FIGURE 3  
SOIL BORING LOCATION MAP

0 FEET 10

SAN FRANCISCO FRENCH BREAD  
OAKLAND, CALIFORNIA

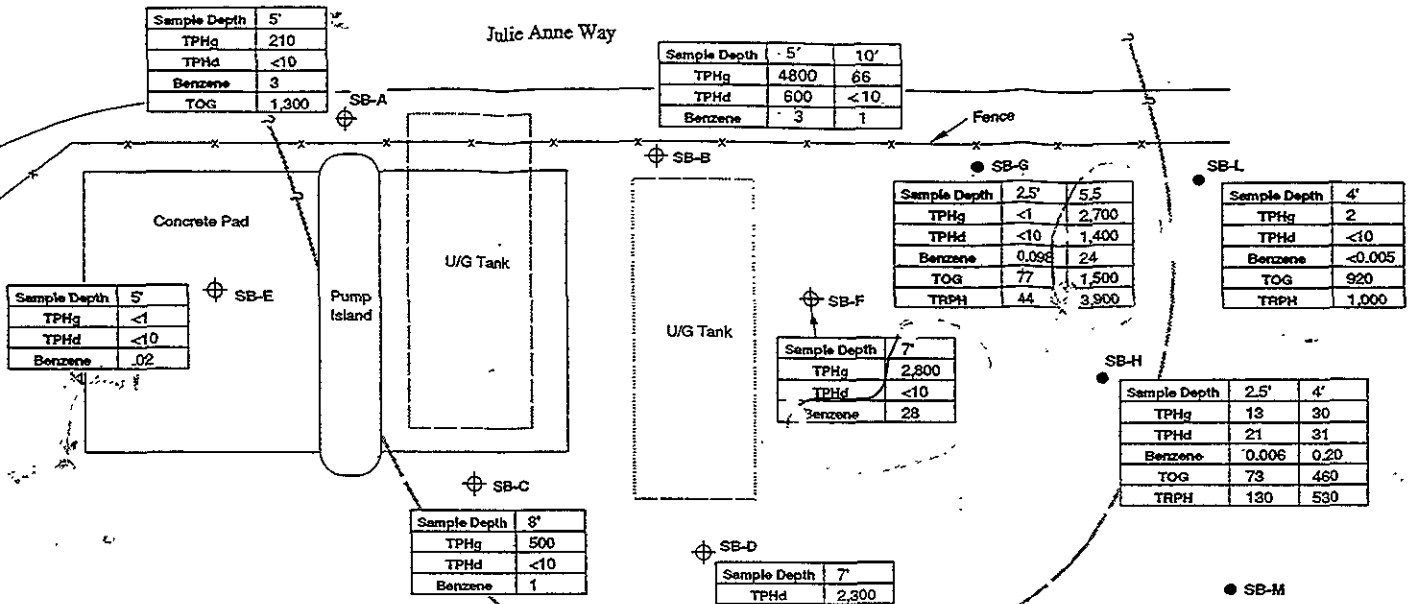
DRAWN BY: ML 7/91



GROUNDWATER  
TECHNOLOGY, INC.

ATTACHMENT 2

Julie Anne Way



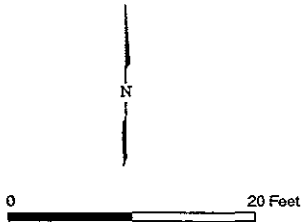
**LEGEND**

- ⊕ GTI Soil Boring, June 19, 1991
- SEACOR Soil Boring, Nov. 19, 1993
- Approximate TPH as Gasoline Distribution Contour

**Chemical Analytical Results**

Total Petroleum Hydrocarbons as Gasoline	Sample Depth	5'
	TPHg	<0.3
Total Petroleum Hydrocarbons as Diesel	TPHd	4
	Benzene	<0.05
Total Oil and Grease	TOG	100
Total Recoverable Petroleum Hydrocarbons	TRPH	1,000

Concentrations in ppm



**ATTACHMENT 3**

DRAFTED BY: DH	CHECKED BY: PJ	San Francisco French Bread 580 Julie Anne Way Oakland, California	CHEMICAL CONCENTRATION IN SOIL	COR 1390 Willow Pass Road Suite 360 Concord, CA 94520
DATE: REV. DATE:	FILE NAME:			

JULIE ANNE WAY

TPHg	20
TPHd	11
TRPH	17
B	1.1
T	0.17
E	0.48
X	1.3

TPHg	62
TPHd	12
TRPH	20
B	5.1
T	1.4
E	3.3
X	12

TPHg	12
TPHd	NA
TRPH	23
B	0.75
T	0.010
E	0.043
X	0.083

TPHg	NA
TPHd	220
TRPH	2,100
B	0.75
T	0.084
E	0.35
X	0.35

TPHg	550
TPHd	1,900
TRPH	2,900
B	0.41
T	0.79
E	5.6
X	22

TPHg	1,300
TPHd	2,900
TRPH	3,600
B	1.8
T	3.7
E	18
X	73

TPHg	15
TPHd	41
TRPH	120
B	0.034
T	ND
E	0.10
X	0.22

TPHg	270
TPHd	840
TRPH	2,000
B	0.59
T	0.40
E	0.38
X	1.2

SOIL STOCKPILE

LIMITS OF EXCAVATION

SIDEWALK

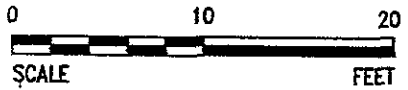
**LEGEND:**  
 ● SPS1 SAMPLE LOCATION  
 x x x FENCE LINE

NOTE: SAMPLE NUMBERS DO NOT CORRELATE WITH DIRECTION (N,S,E,W) DUE TO A MISLABELLING OF NORTH DIRECTION BY PACIFIC RIM ENVIRONMENTAL (PRE) ON THE PRE SITE PLAN.

**CHEMICAL ANALYTICAL RESULTS**

**ANALYTES**

Total Petroleum Hydrocarbons as Gasoline	TPHg 270	← Not Detected at or Above the Laboratory Reporting Limit
Total Petroleum Hydrocarbons as Diesel	TPHd ND	
Total Recoverable Petroleum Hydrocarbons	TRPH 2,000	← Concentration (mg/kg)
Benzene	B 0.59	
Toluene	T 0.40	← Not Analyzed
Ethylbenzene	E 0.38	
Total Xylenes	X 1.2	

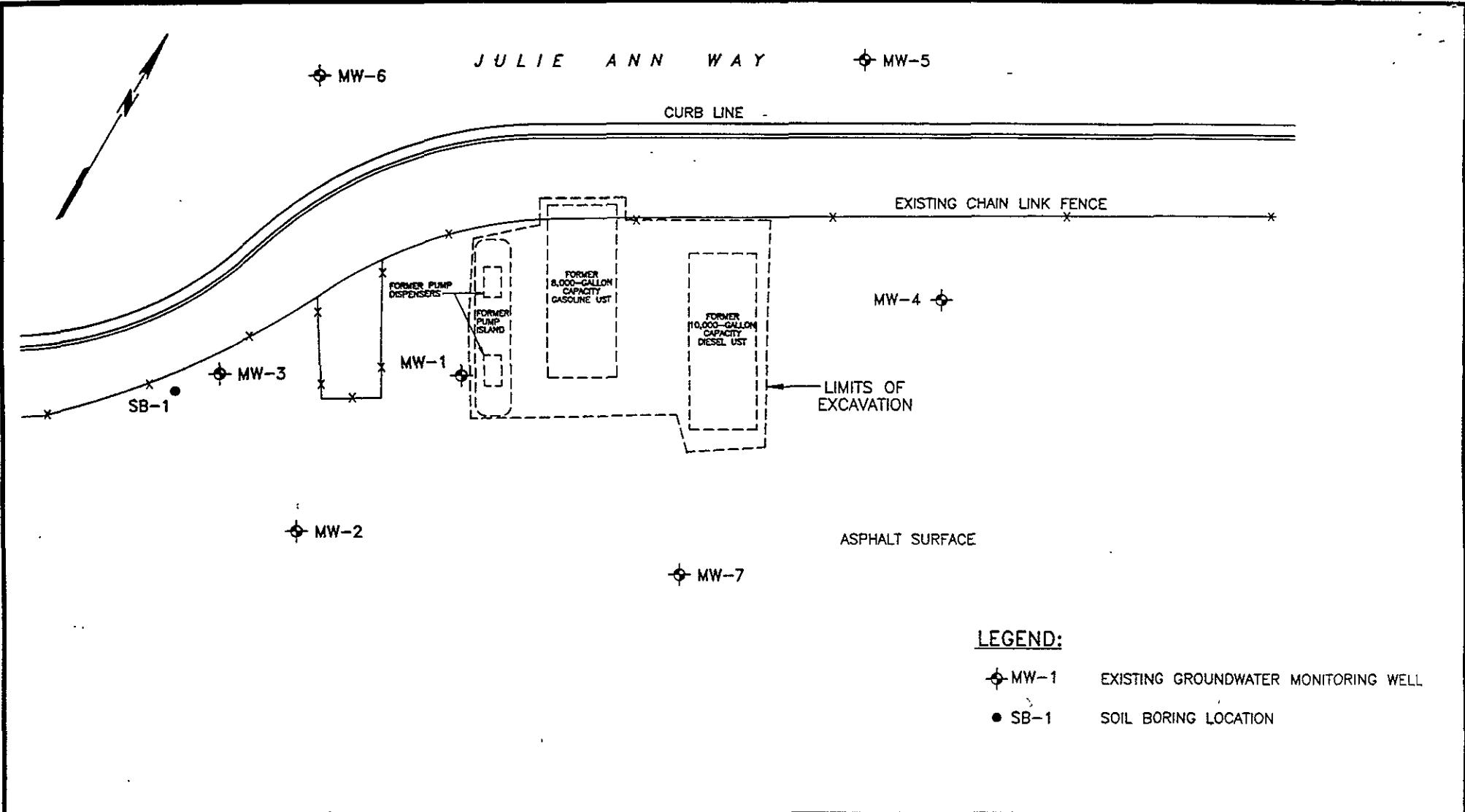


<b>SECOR</b> INTERNATIONAL INCORPORATED	DRAWN	CCR
	APPR	DWM
	DATE	12OCT95
	JOB NO.	70007-001-01

**ATTACHMENT 4**

SAN FRANCISCO FRENCH BREAD  
 580 JULIE ANN WAY  
 OAKLAND, CALIFORNIA

**SOIL CHEMICAL ANALYTICAL RESULTS**

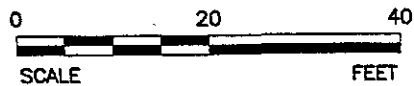


**LEGEND:**

- ⊕ MW-1      EXISTING GROUNDWATER MONITORING WELL
- SB-1      SOIL BORING LOCATION

EXISTING BUILDING

REFERENCE: RON ARCH



**SECOR**  
INTERNATIONAL  
INCORPORATED

DRAWN	CCR
APPR	LZ
DATE	02FEB99
JOB NO.	50090-009-04

**ATTACHMENT 5**

SAN FRANCISCO FRENCH BREAD  
580 JULIE ANN WAY  
OAKLAND, CALIFORNIA

**SITE PLAN**

**TABLE 3**  
**SOIL ANALYTICAL RESULTS**  
 580 Julie Ann Way  
 Oakland, California

Sample Number	Sample Date	TPHg <sup>(a)</sup> (mg/kg) <sup>(b)</sup>	TPHd <sup>(c)</sup> (mg/kg)	TRPH <sup>(d)</sup> (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
10,000-Gallon Capacity Diesel UST								
SSDE-12'	9/15/95	62	12	20	5.1	1.4	3.3	12
SSDW-12'	9/15/95	NA <sup>(e)</sup>	220	2,100	0.75	0.084	0.35	0.35
3,000-Gallon Capacity Gasoline UST								
SSGE-12'	9/15/95	20	11	17	1.1	0.17	0.48	1.3
SSGW-12'	9/15/95	12	NA	23	0.75	0.010	0.043	0.063
Pump Dispensers								
DSE-1'	9/15/95	15	41	120	0.034	ND <sup>(f)</sup> < 0.005	0.10	0.22
DSW-3'	9/15/95	270	840	2,000	0.59	0.40	0.38	1.2
Soil Stockpile								
SPN 1-4	9/15/95	550	1,900	2,900	0.41	0.79	5.6	22
SPS 1-4	9/15/95	1,300	2,900	3,600	1.8	3.7	18	73

**NOTES:**

- (a) Total petroleum hydrocarbons as gasoline.
- (b) Milligrams per kilogram.
- (c) Total petroleum hydrocarbons as diesel.
- (d) Total recoverable petroleum hydrocarbons as oil and grease.
- (e) NA: Not analyzed.
- (f) ND: Not detected at specified laboratory reporting limit.

**TABLE 3**  
**GROUNDWATER ANALYTICAL RESULTS**  
 580 Julie Ann Way  
 Oakland, California

Sample Number	Sample Date	TPHg <sup>(a)</sup> (µg/l) <sup>(b)</sup>	TPHd <sup>(c)</sup> (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)
DTP	9/15/95	33,000	360,000	2,400	ND <sup>(d)</sup> < 50	1,300	2,600
GTP	9/15/95	44,000	15,000	1,700	1,200	2,300	5,500

NOTES:

- (a) Total petroleum hydrocarbons as gasoline.
- (b) Micrograms per liter.
- (c) Total petroleum hydrocarbons as diesel.
- (d) ND: Not detected at specified laboratory reporting limit.



**TABLE 4**  
**SOIL AND GROUNDWATER ANALYTICAL RESULTS**  
 580 Julie Ann Way  
 Oakland, California

SAMPLE NUMBER	SAMPLE DEPTH <sup>(a)</sup>	TPHg <sup>(b)</sup> (mg/kg) <sup>(c)</sup>	TPHd <sup>(d)</sup> (mg/kg)	TPHmo <sup>(e)</sup> (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
<b>SOIL</b>								
MW-1-5.5	5.5-6.0	15	ND <sup>(f)</sup> < 10	240	0.170	0.030	1.3	0.84
SAMPLE NUMBER	SCREENED INTERVAL <sup>(a)</sup>	TPHg ( $\mu$ g/l) <sup>(g)</sup>	TPHd ( $\mu$ g/l)	TPHmo ( $\mu$ g/l)	Benzene ( $\mu$ g/l)	Toluene ( $\mu$ g/l)	Ethylbenzene ( $\mu$ g/l)	Xylenes ( $\mu$ g/l)
<b>GROUNDWATER</b>								
MW-1	4.5-14.5	5,900	ND < 100	1,700	540	9.0	950	110

**NOTES:**

- (a) Measured in feet below ground surface.
- (b) Total petroleum hydrocarbons as gasoline.
- (c) Milligrams per kilogram.
- (d) Total petroleum hydrocarbons as diesel.
- (e) Total petroleum hydrocarbons as motor oil.
- (f) ND: Not detected at specified laboratory reporting limit.
- (g) Micrograms per liter.

**TABLE 4**  
**SOIL ANALYTICAL RESULTS**  
 580 Julie Ann Way  
 Oakland, California

SAMPLE NUMBER	SAMPLE DEPTH <sup>(a)</sup>	TPH <sub>g</sub> <sup>(b)</sup> (mg/kg) <sup>(c)</sup>	TPH <sub>d</sub> <sup>(d)</sup> (mg/kg)	TPH <sub>m</sub> <sup>(e)</sup> (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
MW-2-6	6.0-6.5	8	ND <sup>(f)</sup> <1	110	0.13	0.02	0.57	1.8
MW-3-5	5.0-5.5	ND<1	ND<10	220	ND<0.005	ND<0.005	ND<0.005	0.01
MW-4-6	6.0-6.5	15	ND<10	1,000	ND<0.005	0.049	0.046	0.072

NOTES:

- (a) Measured in feet below ground surface.
- (b) Total petroleum hydrocarbons as gasoline.
- (c) Milligrams per kilogram.
- (d) Total petroleum hydrocarbons as diesel.
- (e) Total petroleum hydrocarbons as motor oil.
- (f) ND: Not detected at specified laboratory reporting limit.

**TABLE 4**  
**SOIL ANALYTICAL RESULTS**  
 580 Julie Ann Way  
 Oakland, California

SAMPLE NUMBER	SAMPLE DEPTH <sup>(a)</sup>	TPH <sup>(b)</sup> (mg/kg)	TPH <sup>(d)</sup> (mg/kg)	TPH <sup>(e)</sup> (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE <sup>(f)</sup> (mg/kg)	TOC <sup>(g)</sup> (mg/kg)	PAH <sup>(h)</sup> (mg/kg)
MW-54	4.0-4.5	ND <sup>(i)</sup> <10	ND<1	ND<50	2.1	ND<0.62	ND<0.62	1.2	ND<0.62	NA <sup>(j)</sup>	ND <sup>(k)</sup>
MW-64	4.0-4.5	ND<1.0	12 <sup>(l)</sup>	110	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA	ND <sup>(k)</sup>
MW-74	4.0-4.5	ND<1.0	3.3 <sup>(l)</sup>	ND<50	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	6,220	ND <sup>(k)</sup>
MW-7-10	10.0-10.5	NA	NA	NA	NA	NA	NA	NA	NA	7,310	NA
MW-7-15	15.0-15.5	NA	NA	NA	NA	NA	NA	NA	NA	778	NA

**NOTES:**

- (a) Measured in feet below ground surface.
- (b) Total petroleum hydrocarbons as gasoline.
- (c) Milligrams per kilogram.
- (d) Total petroleum hydrocarbons as diesel.
- (e) Total petroleum hydrocarbons as motor oil.
- (f) Methyl tertiary butyl ether.
- (g) Total organic carbon.
- (h) Polynuclear aromatic hydrocarbons.
- (i) ND: Not detected at specified laboratory reporting limit.
- (j) NA: Not analyzed.
- (k) Laboratory reporting limit for polynuclear aromatic hydrocarbons ranging from 0.05 mg/kg to 0.2 mg/kg.
- (l) Hydrocarbon reported is in the late diesel range and does not match the laboratory diesel standard, see attached certified laboratory analytical report.

**TABLE 5**  
**GROUNDWATER CHEMICAL RESULTS**

580 Julie Ann Way  
Oakland, California

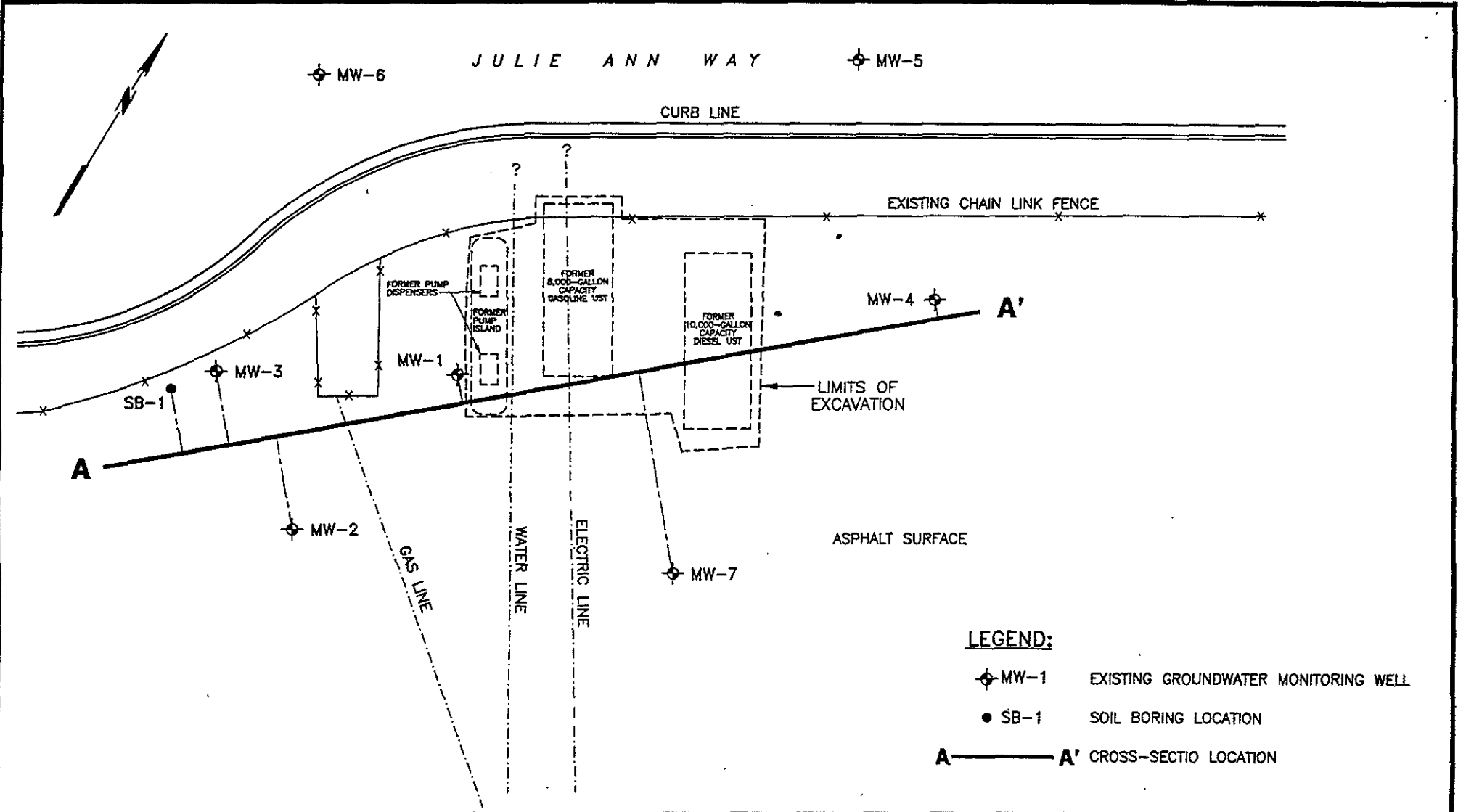
SAMPLE NUMBER	DATE	TPH <sup>(a)</sup> (µg/l) <sup>(b)</sup>	TPH <sup>(a)</sup> (µg/l)	TPH <sup>(a)</sup> (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE <sup>(c)</sup> (µg/l)	DO <sup>(e)</sup> (mg/l) <sup>(d)</sup>	ORP <sup>(e)</sup> (mV) <sup>(d)</sup>
MW-1	02/28/96	5,900	ND <sup>(f)</sup> <10	1,700	540	9.0	950	110	NA <sup>(k)</sup>	NA	NA
	08/16/96	5,600	5,400 <sup>(f)</sup>	4,000	540	7.3	950	110	NA	NA	NA
	07/31/97	5,900	3,200	1,600	630	8.0	900	34	ND<10	NA	NA
	06/04/98	1,800	1,600 <sup>(m)</sup>	640 <sup>(m)</sup>	160	2.6	300	1.6	ND<5.0	NA	NA
	09/11/98	4,800	3,300 <sup>(e)</sup>	900	270	15	510	41	ND<50	NA	NA
	12/03/98	ND<100	1,500 <sup>(m)</sup>	ND<500	140	5.7	170	1.4	ND<10	NA	NA
	03/17/99	2,000	1,000 <sup>(m)</sup>	740	88	3.3	190	1.2	60	1.20	-146
MW-2	08/16/96	2,700	3,000 <sup>(f)</sup>	1,800	63	36	65	100	NA	NA	NA
	07/31/97	1,800	3,300	1,800	20	1.8	22	4.6	7.0	NA	NA
	06/04/98	ND<50	4,100 <sup>(m)</sup>	ND<500	10	0.72	2.3	3.5	ND<5.0	NA	NA
	09/11/98	ND<500	3,700 <sup>(e)</sup>	750	65	15	39	5.7	ND<50	NA	NA
	12/03/98	ND<100	3,800 <sup>(m)</sup>	ND<500	15	4.3	3.5	5.3	ND<10	NA	NA
	03/17/99	3,500	1,400 <sup>(m)</sup>	ND<500	33	3.7	28	1.7	21	1.25	139
MW-3	08/16/96	ND<50	730 <sup>(f)</sup>	640	3.1	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA
	07/31/97	ND<50	1,600	1,500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	06/04/98	ND<50	860 <sup>(m)</sup>	ND<500	3.9	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	09/11/98	ND<50	570 <sup>(m)</sup>	ND<500	4.0	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	12/03/98	ND<50	1,200 <sup>(m)</sup>	ND<500	3.3	2.1	ND<0.5	ND<0.5	ND<5.0	NA	NA
	03/17/99	ND<50	870 <sup>(m)</sup>	590	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	3.42	24
MW-4	08/16/96	460	2,800 <sup>(f)</sup>	3,000	17	1.0	9.1	1.4	NA	NA	NA
	07/31/97	360	2,000	1,800	1.8	0.6	7.6	0.8	ND<5.0	NA	NA
	06/04/98	ND<50	1,400 <sup>(m)</sup>	710 <sup>(m)</sup>	18	1.6	2.5	1.9	ND<5.0	NA	NA
	09/11/98	ND<50	1,200 <sup>(m)</sup>	ND<500	0.93	ND<0.5	1.0	ND<0.5	ND<5.0	NA	NA
	12/03/98	ND<50	1,700 <sup>(m)</sup>	980	23	2.1	2.3	2.4	ND<5.0	NA	NA
	03/17/99	600	840 <sup>(m)</sup>	900	2.2	ND<0.5	ND<0.5	ND<0.5	39	1.50	-121

**TABLE 5 (Continued)**  
**GROUNDWATER CHEMICAL RESULTS**  
 580 Julie Ann Way  
 Oakland, California

SAMPLE NUMBER	DATE	TPH <sup>(a)</sup> (µg/l) <sup>(b)</sup>	TPH <sup>(a)</sup> (µg/l)	TPH <sup>(a)</sup> (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE <sup>(e)</sup> (µg/l)	DO <sup>(f)</sup> (mg/l) <sup>(g)</sup>	ORP <sup>(h)</sup> (mV) <sup>(i)</sup>
MW-5	06/04/98	ND<50	970 <sup>(m)</sup>	ND<500	7.2	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	09/11/98	ND<50	810 <sup>(m)</sup>	ND<500	5.7	ND<0.5	ND<0.5	ND<0.5	10	NA	NA
	12/03/98	ND<50	840 <sup>(m)</sup>	ND<500	8.4	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	03/17/99	130	820 <sup>(m)</sup>	640	7.4	ND<0.5	ND<0.5	ND<0.5	17	2.30	-113
MW-6	06/04/98	ND<50	120 <sup>(m)</sup>	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	09/11/98	ND<50	410 <sup>(o)</sup>	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	12/03/98	ND<50	350 <sup>(m)</sup>	ND<500	ND<0.5	2.6	ND<0.5	ND<0.5	ND<5.0	NA	NA
	03/17/99	ND<50	290 <sup>(m)</sup>	770	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	1.74	-105
MW-7	06/04/98	ND<50	900 <sup>(m)</sup>	540 <sup>(n)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	09/11/98	ND<50	3,700 <sup>(o)</sup>	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	12/03/98	ND<50	780 <sup>(m)</sup>	ND<500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	NA	NA
	03/17/99	ND<50	700 <sup>(m)</sup>	600	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	1.1	-157

NOTES:

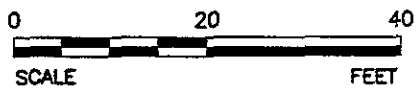
- (a) Total petroleum hydrocarbons as gasoline.
- (b) Micrograms per liter.
- (c) Total petroleum hydrocarbons as diesel.
- (d) Total petroleum hydrocarbons as motor oil.
- (e) Methyl tertiary butyl ether
- (f) Dissolved oxygen - field measured
- (g) Milligrams per liter
- (h) Oxidation-reduction potential - field measured
- (i) Millivolts
- (j) ND: Not detected at specified laboratory reporting limit.
- (k) NA: Not Analyzed.
- (l) Lighter and heavier hydrocarbons were found in the range of diesel, but do not resemble a diesel fingerprint. Possible gasoline and motor oil
- (m) Hydrocarbon reported does not match the pattern of the laboratory diesel standard
- (n) Hydrocarbon reported does not match the pattern of the laboratory motor oil standard
- (o) Hydrocarbon reported is in the early diesel range and does not match the pattern of the laboratory diesel standard



**LEGEND:**

- ⊕ MW-1    EXISTING GROUNDWATER MONITORING WELL
- SB-1    SOIL BORING LOCATION
- A ——— A'    CROSS-SECTION LOCATION

EXISTING BUILDING

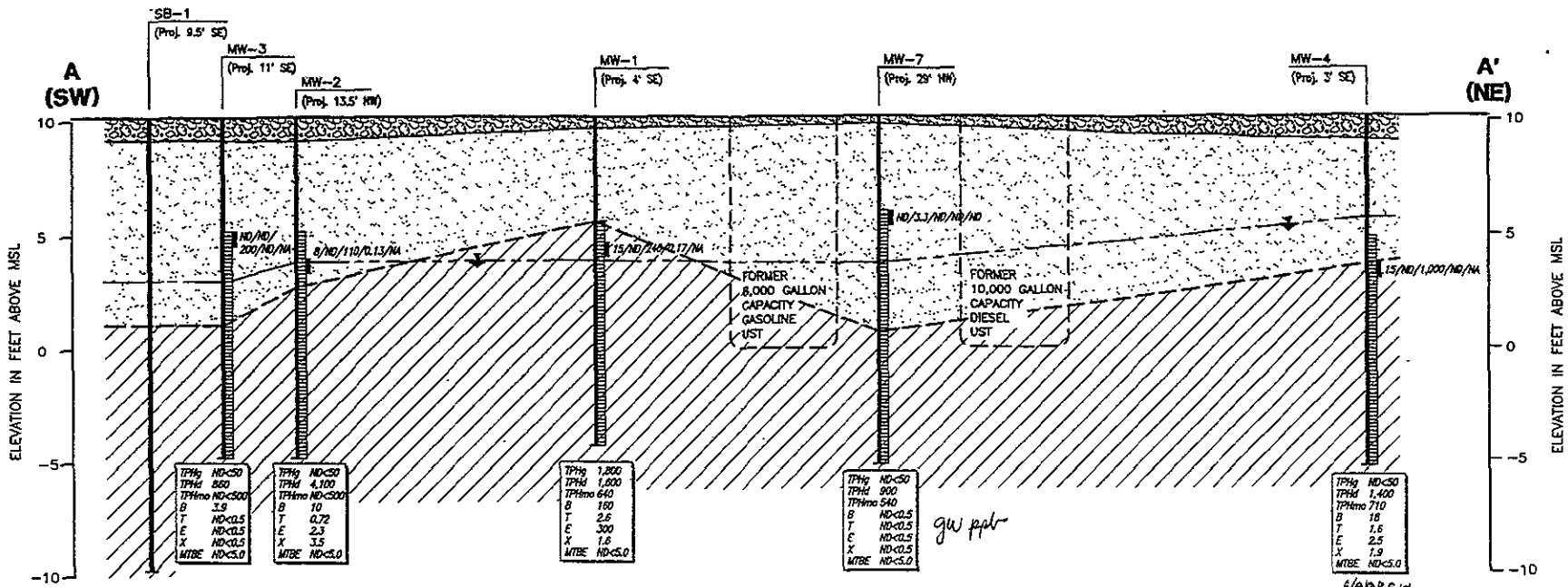


<b>SECOR</b> INTERNATIONAL INCORPORATED	DRAWN	CCR
	APPR	LZ
	DATE	09JUL98
	JOB NO.	50090-009-04
	REFERENCE:	RON AR

**ATTACHMENT 6**

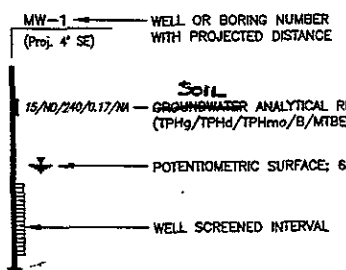
SAN FRANCISCO FRENCH BREAD  
580 JULIE ANN WAY  
OAKLAND, CALIFORNIA

**SITE PLAN WITH  
CROSS-SECTION LOCATION**



**CROSS-SECTION A-A'**

**EXPLANATION:**

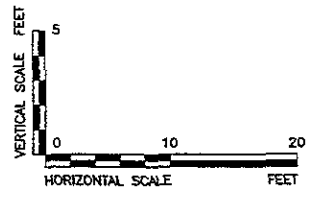


**ANALYTES**

**CHEMICAL ANALYTICAL RESULTS**

Total Petroleum Hydrocarbons as Gasoline	TPHg ND<50	← Concentration (mg/kg for Soil; ug/l for Groundwater)
Total Petroleum Hydrocarbons as Diesel	TPHd 1,400	
Total Petroleum Hydrocarbons as Motor Oil	TPHmo 710	← Not Detected at or Above the Laboratory Reporting Limit
Benzene	B 18	
Toluene	T 1.6	
Ethylbenzene	E 2.5	
Xylenes	X 1.9	
Methyl Tertiary Butyl Ether	MTBE ND<5.0	
	NA	

- NOTES:**
- GROUNDWATER ANALYTICAL RESULTS FOR MW-1, MW-2, MW-3, MW-4, MW-7 FROM 6/4/98.
  - SOIL ANALYTICAL RESULTS FOR MW-1 FROM 2/27/96; FOR MW-2, MW-3, AND MW-4 FROM 8/14/96, AND FOR MW-7 FROM 5/20/98.



**SECOR INTERNATIONAL INCORPORATED**

DRAWN	CCI
APPR	LZ
DATE	08JUL98
JOB NO.	50090-009-04

**ATTACHMENT 6**

UNIVERSITY OF CALIFORNIA  
**GENERALIZED GEOLOGIC CROSS-SECTION A-A'**

100007.001107 X:\18F-BREAD1\SLI\SECTION

**Table 4-5-New Soil Data.**  
**Exposure Point Concentrations for the Chemicals Evaluated Under the Tier II RBCA Evaluation<sup>a</sup>**  
**Metz Baking Company Risk-Based Corrective Action Evaluation**  
**580 Julie Ann Way**  
**Oakland, California**  
**Project No. 005.02811.002**

COPC	Construction Worker Receptor					Indoor Commercial Worker Receptor	
	Soil (mg/kg) <sup>b</sup>	Groundwater (mg/L) <sup>c</sup>	Outdoor Air			Indoor Air	
			From Soil (mg/m <sup>3</sup> ) <sup>d</sup>	From Groundwater (mg/m <sup>3</sup> )	Dust-in-Air (mg/m <sup>3</sup> )	From Soil (mg/m <sup>3</sup> )	From Groundwater (mg/m <sup>3</sup> )
<b><u>Volatile Organic Compounds</u></b>							
Benzene	28	0.270	3.38E-01	3.77E-03	-- <sup>f</sup>	3.95E-03	1.12E-03
Methyl Tert Butyl Ether	--	0.060	--	8.86E-05	--	--	3.50E-04
<b><u>Semi-Volatile Organic Compounds</u></b>							
Naphthalene	NSC <sup>e</sup>	0.26	--	--	--	--	--
2-Methylnaphthalene	3.6	0.093	--	--	2.74E-09	--	--

**Footnotes:**

<sup>a</sup> These outdoor and indoor air concentrations account for concentrations of chemicals of potential concern (COPCs) in either soil or groundwater. In all cases vapor fluxes were estimated separately for COPCs detected in both soil and groundwater.

<sup>b</sup> mg/kg = milligrams per kilogram.

<sup>c</sup> mg/L = milligrams per liter.

<sup>d</sup> mg/m<sup>3</sup> = milligrams per cubic meter.

<sup>e</sup> Chemical not identified as a COPC for this medium.

<sup>f</sup> Not applicable for this chemical and medium



**Table 4-7-New Soil Data.**  
**Summary of Noncancer Adverse Health Effects and Excess Cancer Risks for Hypothetical Onsite Receptors**  
**Metz Baking Company Risk-Based Corrective Action Evaluation**  
**580 Julie Ann Way**  
**Oakland, California**  
**Project No. 005.02811.002**

Exposure Pathway	Hypothetical Potential Receptors			
	Indoor Commercial Worker Receptor		Onsite Construction Worker Receptor	
	Hazard Index	Cancer Risk	Hazard Index	Cancer Risk
<b>Soil</b>				
Incidental Ingestion of Soil	-- <sup>a</sup>	--	2 E-02	7 E-08
Dermal Contact with Soil	--	--	5 E-03	2 E-08
Inhalation of Fugitive Dust	--	--	2 E-16	--
Inhalation of Vapors Emanating from Soil	2 E-01	1 E-05	2 E+01	4 E-05
<b>Multipathway Total for Soil</b>	<b>2.E-01</b>	<b>1.E-05</b>	<b>2.E+01</b>	<b>4.E-05</b>
<b>Groundwater</b>				
Dermal Contact with Groundwater	--	--	2.E+00	7.E-06
Inhalation of Vapors Emanating From Groundwater	5.E-02	3.E-06	2.E-01	4.E-07
<b>Multipathway Total for Groundwater</b>	<b>5.E-02</b>	<b>3.E-06</b>	<b>2.E+00</b>	<b>8.E-06</b>
<b>Total Multipathway</b>	<b>2.E-01</b>	<b>1.E-05</b>	<b>2.E+01</b>	<b>5.E-05</b>

**Footnote:**

<sup>a</sup> "--" = Not applicable.

**TABLE A-1-New Soil Data**  
**SOIL ANALYTICAL RESULTS**  
Metz Baking Company Risk-Based Corrective Action Evaluation  
580 Julie Ann Way  
Oakland, California  
Project No. 005.02811.002

Sample Number	Media	Sample Date	Sample Depth <sup>a</sup>	Units	TPH <sup>b</sup>	TPH <sup>c</sup>	TPHmo <sup>d</sup>	TRPH <sup>e</sup>	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE <sup>f</sup>	TOC <sup>g</sup>	PAH <sup>h</sup>	Naphthalene	2-Methylnaphthalene	Di-n-Butylphthalate				
MW-1-5 <sup>h</sup>	Soil	2/27/96	5.5-6.0	mg/kg <sup>i</sup>	15	15	ND	5	240	240	0.17	0.17	0.03	0.03	1.3	1.3	0.84	0.84		3.3	3.6	0.76
MW-2-6	Soil	8/14/96	6.0-6.5	mg/kg	8	8	ND	0.5	110	110	0.13	0.13	0.02	0.02	0.57	0.57	1.8	1.8				
MW-3-5	Soil	8/14/96	5.0-5.5	mg/kg	ND	0.5	ND	5	220	220	ND	0.0025	ND	0.0025	ND	0.0025	0.01	0.01				
MW-4-6	Soil	8/14/96	6.0-6.5	mg/kg	15	15	ND	5	1,000	1,000	ND	0.0025	0.049	0.049	0.046	0.046	0.072	0.072				
MW-5-4	Soil	5/20/98 <sup>j</sup>	4.0-4.5	mg/kg	ND	5	ND	0.5	ND	25	2.1	2.1	ND	0.31	ND	0.31	1.2	1.2	ND	0.31	ND <sup>j</sup>	ND <sup>j</sup>
MW-6-4	Soil	5/20/98	4.0-4.5	mg/kg	ND	0.5	12	12	110	110	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025		
MW-7-4	Soil	5/20/98	4.0-4.5	mg/kg	ND	0.5	3.3	3.3	ND	25	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025	ND	0.0025		
MW-7-10	Soil	5/20/98	10.0-10.5	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6,220	6,220		
MW-7-25	Soil	5/20/98	15.0-15.5	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--	778	778		
SSDE-12	Soil	9/15/95	12'	mg/kg	62	--	12	12	20	20	5.1	5.1	1.4	1.4	3.3	3.3	12	12				
SSDW-17	Soil	9/15/95	12'	mg/kg	--	--	220	220	2100	2100	0.75	0.75	0.084	1.4	0.35	0.35	0.35	0.35				
SSGE-12	Soil	9/15/95	12'	mg/kg	20	20	11	11	17	17	1.1	1.1	0.17	0.17	0.48	0.48	1.3	1.3				
SSGW-12	Soil	9/15/95	12'	mg/kg	12	12	12	12	23	23	0.75	0.75	0.010	0.010	0.043	0.043	0.063	0.063				
DSE-1*	Soil	9/15/95	1'	mg/kg	15	15	41	41	120	120	0.034	0.034	ND	0.005	0.10	0.10	0.22	0.22				
DSW-3*	Soil	9/15/95	3'	mg/kg	270	270	840	840	2000	2000	0.59	0.59	0.59	0.59	0.38	0.38	1.2	1.2				
SB-A-5	Soil	6/19/91	5	mg/kg	210		ND	0.5			3	3										
SB-B-5	Soil	6/19/91	5	mg/kg	4800		600				3	3										
SB-B-10	Soil	6/19/91	10	mg/kg	66		ND	5			1	1										
SB-C-8	Soil	6/19/91	8	mg/kg	500		ND	5			1	1										
SB-D-7	Soil	6/19/91	7	mg/kg			2300	2300														
SB-E-5	Soil	6/19/91	5	mg/kg	ND	0.5	ND	5			0.02	0.02										
SB-F-7	Soil	6/19/91	7	mg/kg	2800	2800	ND	5			28	28										
SB-G	Soil	11/12/93	2.5	mg/kg	ND	0.5	ND	5	44	44	0.098	0.098	0.031	0.031	ND	0.0025	ND	0.0025				
SB-G	Soil	11/12/93	5.5	mg/kg	2700	2700	1400	1400	3900	3900	24	24	4.9	4.9	58	58	230	230				
SB-H	Soil	11/12/93	2.5	mg/kg	13	13	21	21	130	130	0.006	0.003	0.099	0.099	0.14	0.14	0.17	0.17				
SB-H	Soil	11/12/93	4	mg/kg	30	30	31	31	530	530	0.2	0.2	0.072	0.072	0.11	0.11	0.45	0.45				
SB-I	Soil	11/12/93	4	mg/kg	ND	0.5	1600	1600	5100	5100	ND	0.0025	0.14	0.14	ND	0.0025	ND	0.0025				
SB-J	Soil	11/12/93	4	mg/kg	ND	0.5	ND	5	270	270	ND	0.0025	0.049	0.049	ND	0.0025	ND	0.0025				
SB-K	Soil	11/12/93	4.5	mg/kg	ND	0.5	ND	5	1300	1300	ND	0.0025	0.065	0.065	ND	0.0025	ND	0.0025				
SB-L	Soil	11/12/93	4	mg/kg	2	2	ND	5	100	100	ND	0.0025	0.24	0.24	ND	0.0025	0.010	0.010				
SB-M	Soil	11/12/93	4	mg/kg	2	2	270	270	1700	1700	ND	0.0025	1.3	1.3	ND	0.0025	0.008	0.008				

<sup>a</sup> Measured in feet below ground surface.

<sup>b</sup> Total petroleum hydrocarbons as gasoline.

<sup>c</sup> Total petroleum hydrocarbons as diesel.

<sup>d</sup> Total petroleum hydrocarbons as motor oil/Total recoverable petroleum hydrocarbons.

<sup>e</sup> Methyl tertiary butyl ether.

<sup>f</sup> Milligrams per kilogram.

<sup>g</sup> ND: Not detected at specified laboratory reporting limit.

<sup>h</sup> Hydrocarbon reported is in the late diesel range and does not match the laboratory diesel standard.

<sup>i</sup> By Bayland Drilling of Menlo Park, Ca.

<sup>j</sup> By Gregg Drilling & Testing, Inc. of Martinez, Ca.

<sup>k</sup> Unmodified or weakly modified gasoline is significant.

<sup>l</sup> Heavier gasoline range compounds are significant (aged gasoline?).

<sup>m</sup> Lighter gasoline range compounds (the most mobile fraction) are significant.

<sup>n</sup> Gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?

<sup>o</sup> Strongly aged gasoline or diesel range compounds are significant.

## 5.0 RISK MANAGEMENT PLAN

This Risk Management Plan (RMP) has been prepared to address the presence of residual petroleum-related hydrocarbons at and near the Site. The residual concentrations found in soil and groundwater do not pose a threat to current onsite workers based upon the detailed risk-based evaluation summarized in the previous sections of this report. However, exposure to petroleum-related hydrocarbons, and particularly benzene may pose a threat to a construction worker if soil is disturbed and/or groundwater is exposed at the Site. As a result, onsite workers performing short-term construction activities at the Site in the future will need to be notified and prepared for potential exposure to benzene, and minimal exposures to other TPH-related hydrocarbons. The RMP provides a decision framework to manage exposures to gasoline-related hydrocarbons and the potential short-term exposure to onsite construction workers, if soil or groundwater containing residual petroleum-related hydrocarbons are disturbed. This RMP also contains a description of monitoring well abandonment activities. These activities would be performed upon approval of Site closure and of this RMP by the RWQCB.

### 5.1 WELL ABANDONMENT PLAN

This section summarizes activities to be performed during well abandonment activities. Each of the seven groundwater monitoring wells at the Site will be abandoned by over-drilling, or as required by the Alameda County Water Resources Agency (ACWRA). A permit for abandonment of the wells will be obtained from the ACWRA and an encroachment permit will be obtained from the City of Oakland Engineering Division to perform work in the public right-of-way for those wells located in the street or on sidewalks. The wells will be over-drilled to just beyond the total depth of the original boring. These boreholes will then be backfilled with neat cement using a tremie pipe. All nearby storm drains will be protected from any accidental runoff, soil cuttings generated will be stockpiled onsite with plastic sheeting placed under and over the pile, and liquids generated will be stored in 55-gallon drums. Both soils and liquids will be disposed of at an offsite location after profiling of the waste materials. A report of the well abandonment activities will be prepared for submittal to the ACHSA, RWQCB and ACWRA.

#### 5.1.1 Risk Management Protocols

This section identifies protocols to be followed to prepare for earthwork and construction at the Site that may be implemented by the current, or a future, owner. These protocols include:

- Establishing worker health and safety training requirements, worker notification and protection objectives, and worker health and safety monitoring procedures for workers who may directly contact hydrocarbon-containing soil or groundwater during Site preparation, grading, or foundation construction;

**ATTACHMENT 7**

- Establishing notification objectives for offsite receptors who may be exposed to petroleum hydrocarbons; and
- Establishing procedures to manage soil and/or groundwater on the Site during construction to minimize worker or offsite receptor exposures.

### **5.1.2 Site-Specific Worker Health and Safety Planning Requirements**

During construction activities those workers that may directly contact soil or groundwater will perform construction activities in accordance with a Site-specific health and safety plan (HASP). Preparation of the Site specific HASP will be required for earthwork construction (e.g., site preparation, grading and foundation construction) or other activity in which workers may directly contact soil or groundwater potentially containing petroleum hydrocarbons. The contractor or owner will be responsible for preparing the HASP. The HASP will be consistent with State and Federal Occupational Safety and Health Administration (OSHA) standards for potential hazardous waste operations (CCR, Title 8, Section 5192 and 29 CFR 1910.120, respectively).

### **5.1.3 Offsite Resident Notification**

Prior to any construction activities, notification of pending construction activities shall be given to the ACHSA and RWQCB. If deemed necessary by the local regulatory agencies, a fact sheet can be prepared to notify nearby residents of potential exposures to petroleum-related hydrocarbons. The fact sheet will include owner, contractor, and regulatory contact names and telephone numbers that can be used by the public to gather information on Site conditions.

### **5.1.4 Soil Management Protocols**

The general protocol for excavating and handling soil potentially containing petroleum hydrocarbons at the Site is as follows:

- Excavated or exposed soil will be managed in such a manner as to minimize exposure of onsite workers or offsite residents to petroleum-related hydrocarbons;
- Soil excavated from the Site with detectable concentrations of petroleum hydrocarbons will not be used as fill at the Site;
- Excavated soil is to be disposed offsite. Sampling frequencies and parameters will be determined by the disposal facility; and

- Excavated soil will be managed in such a manner as to minimize transport of sediments from the Site in surface water runoff, in airborne dust particles, or on the tires or shells of construction equipment.

Based on the results of the Tier II RBCA, a construction worker should not be allowed to work in a trench in excess of 30 days due to potential exposures to benzene vapors in areas where the soil concentration exceeds 2 mg/kg.

### **5.1.5 Groundwater Management Protocols**

The general protocol for managing exposed groundwater or groundwater removed from beneath the Site is as follows:

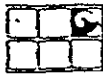
- No shallow groundwater from beneath the Site will be used for irrigation or as drinking water;
- Exposed groundwater or groundwater removed during construction will be managed in such a manner as to minimize exposure by onsite workers or offsite residents to petroleum-related hydrocarbons; and
- Groundwater that is removed during construction activities will either be discharged to surface water under the terms of a National Pollutant Discharge Elimination System (NPDES) permit issued by the RWQCB or disposed appropriately at an offsite treatment facility.

Based on the results of the Tier II RBCA, a construction worker should either wear protective clothing to reduce skin contact with groundwater or implement appropriate engineering controls (e.g., dewatering) to prevent prolonged skin contact with groundwater containing benzene above 0.16 mg/L.

### **5.2 REPORTING PROTOCOLS**

The following protocols will be followed by the current Site owners and their successors to maintain compliance with the RMP:

- If title to the property is transferred to a new owner, the former owner is responsible to notify the new owner of the conditions of this RMP; and
- If during activities associated with any construction, environmental conditions are found to differ from those described in the historic reports of investigation and remedial activities, then the ACHSA and RWQCB will be notified and risk management protocols may have to be modified to accommodate the differing conditions.



GROUNDWATER  
TECHNOLOGY, INC.

Soil Boring SB-A  
Drilling Log

Project SFFB/580 Jule Anne Owner San Francisco French Bread  
 Location Oakland, CA Project Number 020501446.020503  
 Date Drilled 6/19/91 Total Depth of Hole 10.0 ft. Diameter 2.0 in.  
 Surface Elevation \_\_\_\_\_ Water Level Initial 5.5 ft. 24-hour \_\_\_\_\_  
 Screen Dia \_\_\_\_\_ Length \_\_\_\_\_ Slot Size \_\_\_\_\_  
 Casing Dia \_\_\_\_\_ Length \_\_\_\_\_ Type \_\_\_\_\_  
 Filter Pack Material \_\_\_\_\_  
 Drilling Company Powercore Drilling Method Solid stem pushrod  
 Driller George Evans Log by William L. Hughes  
 Geologist/Engineer \_\_\_\_\_ License No \_\_\_\_\_

See Site Map  
For Boring Location

NOTES:

Depth (feet)	Well Completion	PID (ppm)	Sample ID Blow Count	Graphic Log	Soil Class	Description (Color, Texture, Structure)
0						BASE coarse
2		18			CL	Greenish gray CLAY with some medium coarse grained sand (damp) (grades to dark gray, medium stiff)
4		32			SP	Light brown to white SAND with some gravel (dry, very loose)
6		175	SBA5		CL	Dark gray CLAY with rare gravel (10%), some sand (20%) Encountered water at 5.5 feet on 6/19/91
8					GC	Dark gray sandy clayey GRAVEL (loose, saturated, wood fragments)
10		319 364			SP	Fine SAND with some coarse sand (saturated, wood fragments)
10						End of boring at 10.0 feet. Backfilled with neat cement grout.
12						
14						
16						
18						
20						
22						
24						
26						



**GROUNDWATER  
TECHNOLOGY, INC.**

**Soil Boring SB-B  
Drilling Log**

Project SFFE/580 Jefe Anne Owner San Francisco French Bread  
 Location Oakland, CA Project Number 020501446.020503  
 Date Drilled 6/19/91 Total Depth of Hole 10.0 ft. Diameter 2.0 in.  
 Surface Elevation \_\_\_\_\_ Water Level Initial 6.0 ft. 24-hour \_\_\_\_\_  
 Screen Dia \_\_\_\_\_ Length \_\_\_\_\_ Slot Size \_\_\_\_\_  
 Casing Dia \_\_\_\_\_ Length \_\_\_\_\_ Type \_\_\_\_\_  
 Filter Pack Material \_\_\_\_\_  
 Drilling Company Powercore Drilling Method Solid stem pushrod  
 Driller George Evans Log by William L. Hughes  
 Geologist/Engineer \_\_\_\_\_ License No \_\_\_\_\_

See Site Map  
For Boring Location

NOTES:

Depth (feet)	Well Completion	PTD (ppm)	Sample ID Blow Count	Graphic Log	Soil Class	Description (Color, Texture, Structure)
0						BASE coarse
2		25			CL	Dark brown silty CLAY (damp)
4		14.4			SP	Brownish gray fine grained poorly sorted SAND
6		185	SBB5		SW	Dark greenish gray medium to fine grained SAND with subangular gravel (medium stiff, saturated, sheen, strong hydrocarbon odor) Encountered water at 6.0 feet on 6/19/91
8		331			SW	
10		257	SBB10		CL	Dark greenish gray CLAY (very soft, very moist to saturated, strong hydrocarbon odor)
10.0						End of boring at 10.0 feet. Backfilled with neat cement grout.
12						
14						
16						
18						
20						
22						
24						
26						



**GROUNDWATER  
TECHNOLOGY, INC.**

**Soil Boring SB-C**

**Drilling Log**

Project SFFB/580 Jile Anne Owner San Francisco French Bread  
 Location Oakland, CA Project Number 020501446.020503  
 Date Drilled 6/19/91 Total Depth of Hole 10.0 ft. Diameter 2.0 in.  
 Surface Elevation \_\_\_\_\_ Water Level Initial 8.0 ft. 24-hour \_\_\_\_\_  
 Screen: Dia \_\_\_\_\_ Length \_\_\_\_\_ Slot Size \_\_\_\_\_  
 Casing: Dia \_\_\_\_\_ Length \_\_\_\_\_ Type \_\_\_\_\_  
 Filter Pack Material \_\_\_\_\_  
 Drilling Company Powercore Drilling Method Solid stem pushrod  
 Driller George Evans Log by William L. Hughes  
 Geologist/Engineer \_\_\_\_\_ License No \_\_\_\_\_

See Site Map  
For Boring Location

NOTES:

Rig refusal encountered at 2 feet. Rig was moved 8 inches west. Sampling was resumed at 2 feet below grade.

Depth (feet)	Well Completion	PID (ppm)	Sample ID Blow Count	Graphic Log	Soil Class	Description (Color, Texture, Structure)
0						BASE coarse
2		10.6			CL	Green mottled black CLAY with angular 3/4" diameter gravel and sand (stiff to very stiff, damp to dry)
4		19	SBC5		CL	
6					GC	Light brown to white coarse grained GRAVEL with fine grained sand and traces of dark gray to black clay and silt (loose, dry, hydrocarbon odor)
8		177	SBC8		GC	
8		145			CL	Encountered water at 8.0 feet on 6/19/91 (1047 hours) Black to dark gray sandy CLAY (very soft, saturated, sheen)
10		98			CL	End of boring at 10.0 feet. Backfilled with neat cement grout.
12						
14						
16						
18						
20						
22						
24						
26						





**GROUNDWATER  
TECHNOLOGY, INC.**

**Soil Boring SB-E**

**Drilling Log**

Project SFFB/580 Julie Anne Owner San Francisco French Breez  
 Location Oakland, CA Project Number 020501446.020503  
 Date Drilled 6/19/91 Total Depth of Hole 10.0 ft. Diameter 2.0 in.  
 Surface Elevation \_\_\_\_\_ Water Level Initial 7.5 ft. 24-hour \_\_\_\_\_  
 Screen: Dia \_\_\_\_\_ Length \_\_\_\_\_ Slot Size \_\_\_\_\_  
 Casing: Dia \_\_\_\_\_ Length \_\_\_\_\_ Type \_\_\_\_\_  
 Filter Pack Material \_\_\_\_\_  
 Drilling Company Powercore Drilling Method Solid stem pushrod  
 Driller George Evans Log by William L. Hughes  
 Geologist/Engineer \_\_\_\_\_ License No \_\_\_\_\_

See Site Map  
For Boring Location

NOTES:

Depth (feet)	Well Completion	PID (ppm)	Sample ID Blow Count	Graphic Log	Soil Class	Description (Color, Texture, Structure)
0						BASE coarse
2		3.1			GC	Sandy clayey GRAVEL (mottled dark green clasts up to 3/4" in diameter, very stiff, damp, hydrocarbon odor)
4		4.8	SBE5		CL	Dark green to black CLAY with some gravel (medium stiff, damp, hydrocarbon odor) (grades to black)
6		3.1			CL	(grades decreasing gravel)
8					SP	Encountered water at 7.5 feet on 6/19/91
10		4.0	SBE9		SP	Dark gray to black interbedded SAND with gravel and clay (damp clay-sand beds, dry sand-gravel beds, stiff clay)
10					CL	Black sandy CLAY (soft, saturated)
10						End of boring at 10.0 feet. Backfilled with neat cement grout.
12						
14						
16						
18						
20						
22						
24						
26						



**GROUNDWATER  
TECHNOLOGY, INC.**

**Soil Boring SB-F  
Drilling Log**

Project SFFB/520 Julie Anne Owner San Francisco French Bread  
 Location Oakland, CA Project Number 020501446.020503  
 Date Drilled 6/19/91 Total Depth of Hole 10.0 ft. Diameter 2.0 in.  
 Surface Elevation \_\_\_\_\_ Water Level Initial \_\_\_\_\_ 24-hour \_\_\_\_\_  
 Screen Dia \_\_\_\_\_ Length \_\_\_\_\_ Slot Size \_\_\_\_\_  
 Casing Dia \_\_\_\_\_ Length \_\_\_\_\_ Type \_\_\_\_\_  
 Filter Pack Material \_\_\_\_\_  
 Drilling Company Powercore Drilling Method Solid stem pushrod  
 Driller George Evans Log by William L. Hughes  
 Geologist/Engineer \_\_\_\_\_ License No \_\_\_\_\_

See Site Map  
For Boring Location

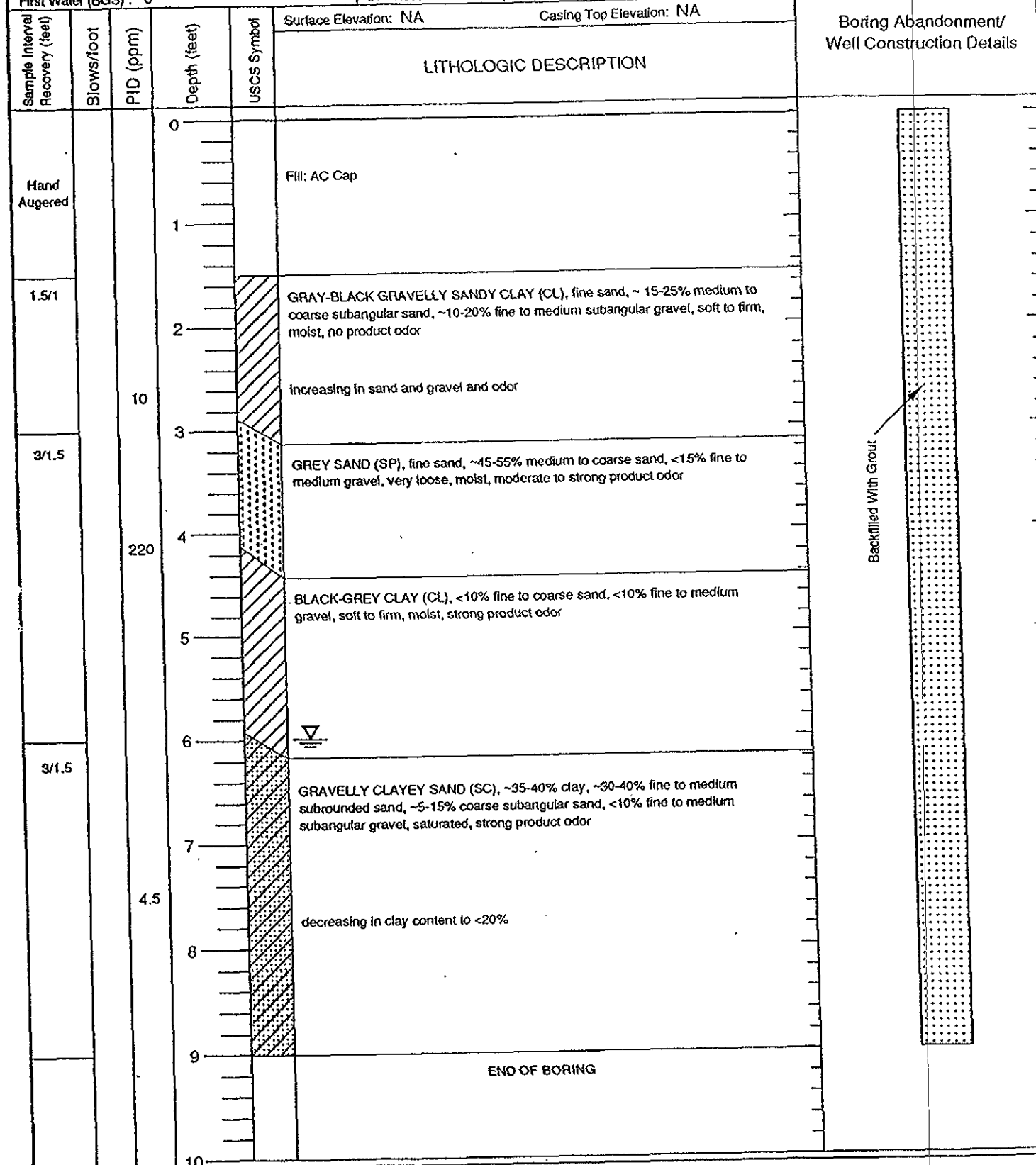
NOTES

Depth (feet)	Well Completion	PID (ppm)	Sample ID Blow Count	Graphic Log	Soil Class	Description (Color, Texture, Structure)
0						BASE coarse
2		10			CL	Dark gray to black CLAY with some gravel (medium stiff, damp, red brick fragments)
4		220			SW	(2 inch diameter wood fragments) SAND with some gravel
6		230	SBF5		CL	Dark gray to black CLAY with some gravel
6		277	SBF7		GW	(3 inch diameter wood fragments) Light gray to white GRAVEL with some sand (loose, dry)
8		220			CL	CLAY with some gravel (grades decreasing gravel) (grades to dark grayish black)
10		297	SBF10			End of boring at 10.0 feet. Backfilled with neat cement grout.
12						
14						
16						
18						
20						
22						
24						
26						

Project: San Francisco French Bread		Log of Boring/ Monitoring Well:	Page 1 of 1
Boring Location: 580 Julie Ann Way		Project No.: 70007-001-01	<b>SB-G</b>
Subcontractor and Equipment: PSI, MD-1		Logged By: D.E.M.	
Sampling Method: Continuous		Monitoring Device: OVM	Comments:
Start Date/ Time: 11/12/93 // 9:00		Finish Date/ Time: 11/12/93 // 9:38	
First Water (BGS): 7'		Stabilized Water Level (BGS): NA	

Sample Interval Recovery (feet)	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	Surface Elevation: NA Casing Top Elevation: NA	LITHOLOGIC DESCRIPTION	Boring Abandonment/ Well Construction Details
Hand Augered			0				
1.5/1			1			GREY-BLACK CLAY (CL), <5% medium to coarse subangular sand, trace fine subangular gravel, soft to firm, moist, no product odor to faint product odor	
		35	2			GREY GRAVELLY CLAYEY SAND (SC), ~30-40% clay, fine to medium sand, ~5-15% fine subangular gravel, loose to medium dense, moist, faint to moderate product odor	
			3			GREY CLAY (CL), <5% medium to coarse subangular sand, ~5-15% fine to medium subangular gravel, soft to firm, moist, moderate product odor	
3/2.5			4			GREY GRAVELLY CLAYEY SAND (SC), ~30-40% clay, fine to medium sand, ~5-15% fine subangular gravel, loose to medium dense, moist, moderate product odor	
			5			BLACK CLAY (CL), trace sand, trace gravel, moist, moderate product odor to strong product odor	
			6			trace brick debris	
3/2		206	7			GRAVELLY CLAYEY SAND (SC), ~35-45% clay, fine to medium sand, ~5-15% fine subangular gravel, wood products, plant material, saturated, strong product odor ▽ Encountered water	Backfilled With Grout
			8			GREY CLAY (CL), trace plant material, saturated	
		262	9			END OF BORING	
			10				

Project: San Francisco French Bread		Log of Boring/ Monitoring Well:	Page 1 of 1
Boring Location: 580 Julie Ann Way		Project No.: 70007-001-01	<b>SB-H</b>
Subcontractor and Equipment: PSI, MD-1		Logged By: D.E.M.	
Sampling Method: Continuous		Monitoring Device: OVM	Comments
Start Date/ Time: 11/12/93 // 9:40		Finish Date/ Time: 11/12/93 // 10:20	
First Water (BGS): 6'		Stabilized Water Level (BGS): NA	



**SEACOR**

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

Project: <b>San Francisco French Bread</b>		Log of Boring/ Monitoring Well:	Page 1 of 1
Boring Location: <b>580 Julie Ann Way</b>		Project No.: <b>70007-001-01</b>	
Subcontractor and Equipment: <b>PSI, MD-1</b>		Logged By: <b>D.E.M.</b>	
Sampling Method: <b>Continuous</b>		Monitoring Device: <b>OVM</b>	
Start Date/ Time: <b>11/12/93 // 10:25</b>		Finish Date/ Time: <b>11/12/93 // 10:50</b>	
First Water (BGS): <b>NA</b>		Stabilized Water Level (BGS): <b>NA</b>	

**SB-1**

Comments :

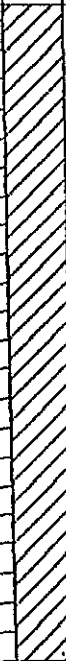
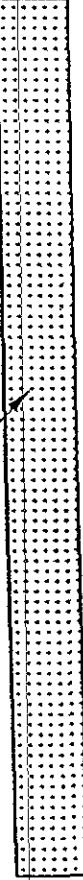
Sample Interval Recovery (feet)	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	Surface Elevation: <b>NA</b> Casing Top Elevation: <b>NA</b>	Boring Abandonment/ Well Construction Details
LITHOLOGIC DESCRIPTION						
Hand Augered			0		Fill: AC Cap	
1.5'			1			
		1.4	2		LIGHT BROWN SAND (SP), fine sand, ~20-30% medium to coarse sand, trace fine gravel, dry to moist, no product odor	
			3		GREY CLAY (CL), soft, moist, no product odor to faint product odor	
3'/1.5			4		BROWN CLAY (CL), <10% fine sand, trace medium sand to fine gravel, firm, moist, no product odor to faint product odor	
		2.9	5		GREY GRAVEL (GP), trace clay, trace fine sand, ~30-40% medium to coarse sand, ~50-60% fine to medium subangular gravel, moist to wet, no product odor to faint product odor	
			6		END OF BORING	
			7			
			8			
			9			
			10			

**SEACOR**

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

Project: <b>San Francisco French Bread</b>		Log of Boring/ Monitoring Well:	Page 1 of 1
Boring Location: <b>580 Julie Ann Way</b>		Project No.: <b>70007-001-01</b>	
Subcontractor and Equipment: <b>PSI, MD-1</b>		Logged By: <b>D.E.M.</b>	
Sampling Method: <b>Continuous</b>	Monitoring Device: <b>OVM</b>		Comments :
Start Date/ Time: <b>11/12/93 // 10:55</b>	Finish Date/ Time: <b>11/12/93 // 11:55</b>		
First Water (BGS): <b>NA</b>	Stabilized Water Level (BGS): <b>NA</b>		

**SB-J**

Sample Interval Recovery (feet)	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	Surface Elevation: <b>NA</b>	Casing Top Elevation: <b>NA</b>	Boring Abandonment/ Well Construction Details
					LITHOLOGIC DESCRIPTION		
Hand Augered			0		Fill: AC Cap		
1.5/1.5		2.9	2		BLACK GRAVELLY SANDY CLAY (CL), fine sand, ~5-15% medium to coarse subangular sand, ~5-15% fine to medium subangular gravel, wet, no product odor		 Backfilled With Grout
3/2			3		decreasing in sand and gravel to ~5%, moist to wet, faint product odor		
		0.9	5				
			6		END OF BORING		
			7				
			8				
			9				
			10				

**SEACOR**

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

Project: <b>San Francisco French Bread</b>		Log of Boring/ Monitoring Well:	Page 1 of 1
Boring Location: <b>580 Julie Ann Way</b>		Project No.: <b>70007-001-01</b>	<b>SB-K</b>
Subcontractor and Equipment: <b>PSI, MD-1</b>		Logged By: <b>D.E.M.</b>	
Sampling Method: <b>Continuous</b>		Monitoring Device: <b>OVM</b>	Comments :
Start Date/ Time: <b>11/12/93 // 12:00</b>		Finish Date/ Time: <b>11/12/93 // 12:18</b>	
First Water (BGS): <b>NA</b>		Stabilized Water Level (BGS): <b>NA</b>	

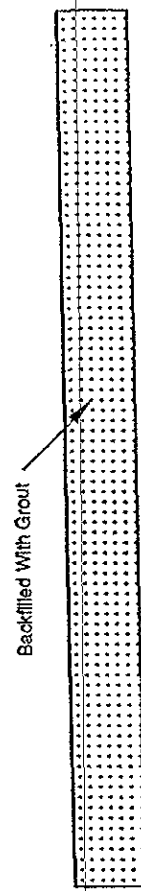
Sample Interval Recovery, Feet	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	Surface Elevation: <b>NA</b>	Casing Top Elevation: <b>NA</b>	Boring Abandonment/ Well Construction Details
					LITHOLOGIC DESCRIPTION		
Hand Augered			0		Fill: AC Cap		
1.5/1.5		1.0	2		BROWN GRAVELLY CLAYEY SAND (SC), ~35-45% clay, fine sand, ~30-40% medium to coarse subangular sand, ~5-15% fine to coarse subangular sand, dry to moist, no product odor		
3/2		142	3		DARK BROWN SANDY CLAY (CL), ~5-15% medium to coarse sand, <5% fine gravel, moist to wet, no product odor to faint product odor		
			4		wood and plant products, saturated, organic odor		
			6		END OF BORING		Backfilled With Grout
			7				
			8				
			9				
			10				

Project: <b>San Francisco French Bread</b>					Log of Boring/ Monitoring Well:		Page 1 of 1	
Boring Location: <b>580 Julie Ann Way</b>				Project No.: <b>70007-001-01</b>		<b>SB-L</b>		
Subcontractor and Equipment: <b>PSI, MD-1</b>				Logged By: <b>D.E.M.</b>				
Sampling Method: <b>Continuous</b>			Monitoring Device: <b>OVM</b>		Comments :			
Start Date/ Time: <b>11/12/93 // 12:45</b>			Finish Date/ Time: <b>11/12/93 // 13:03</b>					
First Water (BGS): <b>NA</b>			Stabilized Water Level (BGS): <b>NA</b>					
Sample Interval Recovery, Feet		Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	Surface Elevation: <b>NA</b> Casing Top Elevation: <b>NA</b>		Boring Abandonment/ Well Construction Details
LITHOLOGIC DESCRIPTION								
Hand Augered				0		Fill: AC Cap		Backfilled With Grout
1.5/0.5		1	2		GREY SANDY CLAY (CL), ~ 10-20% medium to coarse subangular sand, trace coarse gravel, soft, moist, no product odor			
3/1		10	3		BLACK SANDY GRAVELLY CLAY, fine sand, ~ 10-20% medium subangular sand, ~10-20% fine to medium gravel, soft, moist, no product odor, organic odor			
			4					
			5					
			6		END OF BORING			
			7					
			8					
			9					
			10					



Project: <b>San Francisco French Bread</b>		Log of Boring/ Monitoring Well:	Page 1 of 1
Boring Location: <b>580 Julie Ann Way</b>		Project No.: <b>70007-001-01</b>	<b>SB-M</b>
Subcontractor and Equipment: <b>PSI, MD-1</b>		Logged By: <b>D.E.M.</b>	
Sampling Method: <b>Continuous</b>		Monitoring Device: <b>OVM</b>	Comments :
Start Date/ Time: <b>11/12/93 // 13:05</b>		Finish Date/ Time: <b>11/12/93 // 13:35</b>	
First Water (BGS) : <b>NA</b>		Stabilized Water Level (BGS): <b>NA</b>	

Sample Interval/ Recovery, Feet	Blows/foot	PID (ppm)	Depth (feet)	USCS Symbol	Surface Elevation: <b>NA</b> Casing Top Elevation: <b>NA</b>	Boring Abandonment/ Well Construction Details
LITHOLOGIC DESCRIPTION						
Hand Augered			0		Fill: AC Cap	
1.5/0.5		3	1		DARK BROWN GRAVELLY SANDY CLAY (CL), ~10-25% medium to coarse subangular sand, ~5-15% fine to medium subangular gravel, moist, no product odor	
3/1		4	2		Increasing in sand and gravel with depth	
			3			
			4			
			5			
			6			
			7			
			8			
			9			
			10		END OF BORING	



**SEACOR**

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

SFFBC - 580 JULIE ANN WAY, OAKLAND, CA

Log of Boring/Monitoring Well:

8 FEET SW OF FORMER GASOLINE UST

Project No.: 50090-009-02

MW-1

Drill and Equipment: BAYLAND DRILLING CME 55

Logged By: LZ

Comments:

Method: CAL. MOD. SPLIT SPOON

Monitoring Device: OVM 580B

Date/Time: 2/27/96//0910

Finish Date/Time: 2/27/96//1130

Stabilized Water Level (bgs): 6.0 FEET

Stabilized Water Level (bgs): 4.16 FEET

Surface Elevation: NA Top Casing Elevation: NA

Boring Abandonment/  
Well Construction Details

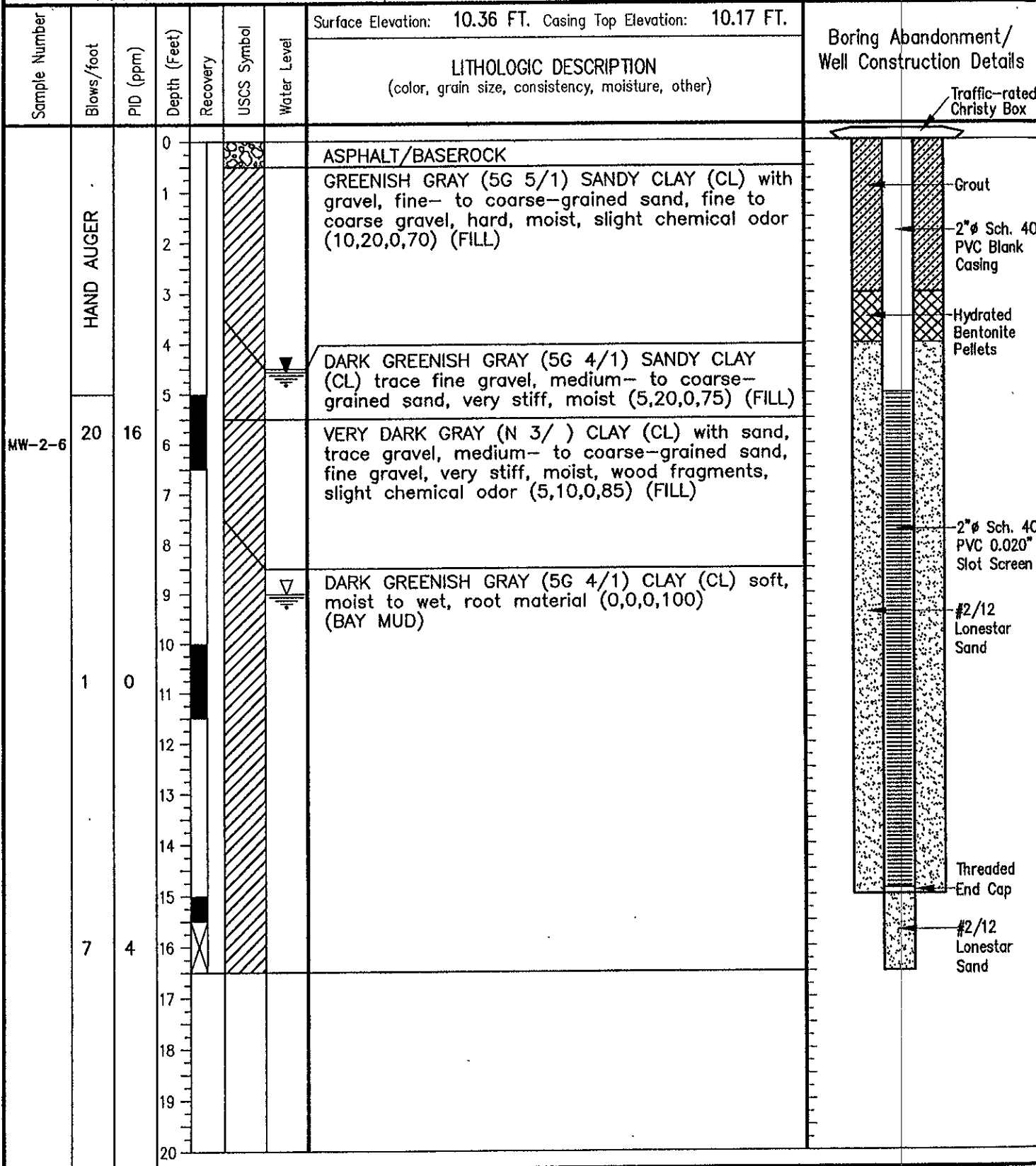
LITHOLOGIC DESCRIPTION

(color, grain size, consistency, moisture, other)

Sample Number	Blows/foot	PID (ppm)	Depth (Feet)	Recovery	USCS Symbol	Water Level	Lithologic Description	Well Construction Details
HAND AUGER			0				ASPHALT/BASEROCK	
MW-1-3.5	25	24	1				GRAYISH GREEN (5G 4/2) GRAVELLY SAND (SW) fine- to coarse-grained, trace clay, fine to coarse gravel, loose, moist (20,75,0,5) (FILL)	Traffic-rated Christy Box
			2				DARK YELLOWISH BROWN (10YR 4/4) SANDY CLAY (CL) with fine gravel, fine- to coarse-grained sand, stiff, moist (10,20,0,70) (FILL)	Grout
			3				BLACK (10YR 2/1) SAND (SW) fine- to coarse-grained, with fine to coarse gravel, medium dense, moist, slight chemical odor (10,90,0,0) (FILL)	Bentonite Pellets
MW-1-5.5	19	617	4				DARK GREENISH GRAY (5G 4/1) SANDY CLAY (CL) medium- to coarse-grained sand, very stiff, moist to wet (0,25,0,75)	2" Sch.40 0.020" Slot Screen
			5				GREENISH GRAY (5BG 5/1) CLAY (CL) soft, wet, abundant root material (0,0,0,100)	Lonestar #3 Filter Pack
	2	5	6				DARK GREENISH GRAY (5G 4/1) SANDY CLAY (CL) with fine gravel, fine- to coarse-grained sand, yellow silt nodules, slight chemical odor (10,25,0,65)	End Cap
			7					
			8					
			9					
			10					
			11					
			12					
			13					
			14					
			15					
	16	19	16					
			17					
			18					
			19					
			20					
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			30					

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Project: 580 JULIE ANN WAY, OAKLAND, CA			Log of Boring/Monitoring Well:		
Boring Location: SOUTHWEST OF FORMER USTs		Project No.: 50090-009-03			<b>MW-2</b>
Subcontractor and Equipment: BAYLAND DRILLING CME 75 HT		Logged By: L.Z.	Drawn By: C.R.		
Sampling Method: CAL. MOD. SPLIT SPOON		Monitoring Device: OVM 580B			
Start Date/Time: 8/14/96//0800		Finish Date/Time: 8/14/96//0920			
First Water (bgs): 9.0 FEET		Stabilized Water Level (bgs): 4.52 FEET			Comments:



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Project: 580 JULIE ANN WAY, OAKLAND, CA			Log of Boring/Monitoring Well:		
Boring Location: WEST OF FORMER USTs		Project No.: 50090-009-03		<b>MW-3</b>	
Subcontractor and Equipment: BAYLAND DRILLING CME 75 HT		Logged By: L.Z. Drawn By: C.R.			
Sampling Method: CAL. MOD. SPLIT SPOON		Monitoring Device: OVM 580B		Comments:	
Start Date/Time: 8/14/96//0930		Finish Date/Time: 8/14/96//1040			
First Water (bgs): NOT ENCOUNTERED		Stabilized Water Level (bgs): 12.66 FEET			

Sample Number	Blows/foot	PID (ppm)	Depth (Feet)	Recovery	USCS Symbol	Water Level	Surface Elevation: 10.39 FT. Casing Top Elevation: 10.12 FT.		Boring Abandonment/ Well Construction Details
							LITHOLOGIC DESCRIPTION (color, grain size, consistency, moisture, other)		
			0		ASPHALT/BASEROCK				Traffic-rated Christy Box
			1		GREENISH GRAY (5G 5/1) GRAVELLY SAND (SW) fine- to coarse-grained, trace clay, fine to coarse gravel, loose, moist (20,75,0,5) (FILL)				Grout
			2						2" Sch. 40 PVC Blank Casing
			3						Hydrated Bentonite Pellets
			4		YELLOWISH BROWN (10YR 5/6) SANDY CLAY (CL) trace fine gravel, medium- to coarse-grained sand, stiff, moist (5,20,0,75) (FILL)				
MW-3-5			5						
	14	0	6		VERY DARK GRAY (N 3/ ) SANDY CLAY (CL) with gravel, fine- to coarse-grained sand, fine to coarse gravel, stiff, moist, wood fragments (10,20,0,70) (FILL)				
			7						
			8		YELLOWISH BROWN (10YR 5/6) SANDY CLAY (CL) trace fine gravel, medium- to coarse-grained sand, very stiff, moist (5,15,0,80)				2" Sch. 40 PVC 0.020" Slot Screen
MW-3-8.5			9						
			10		DARK GREENISH GRAY (5G 4/1) CLAY (CL) medium stiff, moist, plant and root material (0,0,0,100) (BAY MUD)				#2/12 Lonestar Sand
	5	0	11						
			12						
			13						
			14		DARK GREENISH GRAY (5BG 4/1) SANDY CLAY (CL) trace fine gravel, coarse-grained sand, stiff, moist, root and wood material (5,15,0,80) (BAY MUD)				Threaded End Cap
			15						
	9	0	16						#2/12 Lonestar Sand
			17						
			18						
			19						
			20						

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Project: 580 JULIE ANN WAY, OAKLAND, CA			Log of Boring/Monitoring Well:		
Boring Location: EAST OF FORMER USTs		Project No.: 50090-009-03		<b>MW-4</b>	
Subcontractor and Equipment: BAYLAND DRILLING CME 75 HT		Logged By: L.Z. Drawn By: C.R.			
Sampling Method: CAL. MOD. SPLIT SPOON		Monitoring Device: OVM 580B		Comments:	
Start Date/Time: 8/14/96//1110		Finish Date/Time: 8/14/96//1210			
First Water (bgs): 8.0 FEET		Stabilized Water Level (bgs): 5.72 FEET			

Sample Number	Blows/foot	PID (ppm)	Depth (feet)	Recovery	USCS Symbol	Water Level	Surface Elevation: 9.86 FT. Casing Top Elevation: 9.70 FT.		Boring Abandonment/ Well Construction Details
							LITHOLOGIC DESCRIPTION (color, grain size, consistency, moisture, other)		
			0						Traffic-rated Christy Box
	HAND AUGER		1						Grout
			2						2" Sch. 40 PVC Blank Casing
			3						Hydrated Bentonite Pellets
			4						
			5						
MW-4-6	19	28	6						
			7						
MW-4-7.5	1	6	8						2" Sch. 40 PVC 0.020" Slot Screen
			9						
			10						#2/12 Lonestar Sand
			11						
			12						
			13						
			14						
			15						Threaded End Cap
	13	2	16						#2/12 Lonestar Sand
			17						
			18						
			19						
			20						

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Project: 580 JULIE ANN WAY, OAKLAND, CA						Log of Boring/Monitoring Well:	
Boring Location: NORTH OF FORMER USTs ON JULIE ANN WY				Project No.: 50090-009-04		MW-5	
Subcontractor and Equipment: GREGG/HSA				Logged By: CM Drawn By: CCR			
Sampling Method: CAL MODIFIED SPLIT-SPOON				Monitoring Device: OVM 580B		Comments:	
Start Date/Time: 5/20/98//0800				Finish Date/Time: 5/20/98//0930			
First Water (bgs): NOT ENCOUNTERED				Stabilized Water Level (bgs) 5.44 FT.			
Sample Number	Blows/foot	PTD (ppm)	Depth (Feet)	Recovery	USCS Symbol	Water Level	Surface Elevation: NA Casing Top Elevation: NA
LITHOLOGIC DESCRIPTION (color, grain size, consistency, moisture, other)							
Boring Abandonment/ Well Construction Details							
HAND AUGER			0		ASPHALT		<p>2" Sch.40 PVC Blank Casing Cement Grout Bentonite Pellets #2/12 Sand 2" Sch.40 PVC 0.020" Slot Screen End Cap Sand</p>
MW-5-4	50/6	85	1		LIGHT OLIVE BROWN (2.5Y 5/3) GRAVELLY SAND (SP) with silt, fine-grained sand, dense, moist (30,55,15,0) (FILL)		
			2		BLACK (2.5Y N2/0) SANDY CLAY (CL) with silt and trace gravel, fine-grained sand, gravel is fine pieces of concrete and brick, stiff, moist, pieces of tire, wood, moderate chemical odor (5,25,15,55) (FILL)		
			4				
			5				
			6				
			7				
			8				
			9				
MW-5-10	5	1	10		VERY DARK GRAY (2.5Y N3/0) ORGANIC CLAY (OH) soft, moist, high plasticity, low density, fibrous organic material in zones, weak platy structure (0,0,0,100) (BAY MUD)		
			11				
			12				
			13				
			14				
MW-5-15	34	2	15		DARK GREENISH GRAY (5GY 4/1) CLAY (CL) very stiff, moist, moderate to high plasticity, roots and rootholes, subangular blocky soil structure (0,0,0,100) (BAY MUD)		
			16				
			17				
			18				
			19				
			20				
			21				
			22				
			23				
			24				
			25				
			26				
			27				
			28				
			29				
			30				

PROJECT NO. 580 JULIE ANN WAY, OAKLAND, CA

**SECOR**

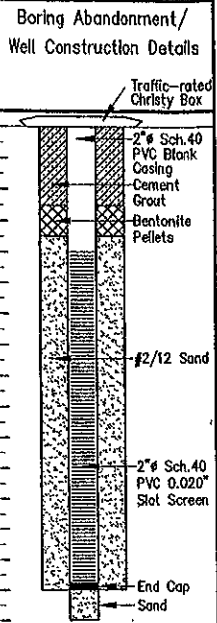
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 Revised By: \_\_\_\_\_ Date: \_\_\_\_\_

Project: 580 JULIE ANN WAY, OAKLAND, CA						Log of Boring/Monitoring Well:	
Boring Location: NW OF FORMER USTs ON JULIE ANN WY				Project No.: 50090-009-04		MW-6	
Subcontractor and Equipment: GREGG/HSA				Logged By: CM Drawn By: CCR			
Sampling Method: CAL MODIFIED SPLIT-SPOON				Monitoring Device: OVM 580B			
Start Date/Time: 5/20/98//0930				Finish Date/Time: 5/20/98//1030			
First Water (bgs): NOT ENCOUNTERED				Stabilized Water Level (bgs): 7.92 FT.			
Sample Number	Blows/foot	PIV (ppm)	Depth (feet)	Recovery	USCS Symbol	Water Level	Surface Elevation: NA Casing Top Elevation: NA
LITHOLOGIC DESCRIPTION (color, grain size, consistency, moisture, other)							
Boring Abandonment/ Well Construction Details							
HAND AUGER			0		ASPHALT		
MW-6-4	32	2	1		LIGHT OLIVE BROWN (2.5Y 5/3) GRAVELLY SAND (SP) with silt, fine-grained sand, dense, moist (30,55,15,0) (FILL)		
			2		VERY DARK GRAY (5Y 3/1) SANDY CLAY (CL) with silt and trace gravel, fine-grained sand, stiff, fine to medium gravel, angular pieces of brick and concrete, moist, moderate plasticity, faint chemical odor (5,25,15,55) (FILL)		
			3				
			4				
			5				
			6				
			7				
			8				
MW-6-10	6	1	9		OLIVE GRAY (5Y 5/2) ORGANIC CLAY (OH) stiff, moist, high plasticity, low density, buttery texture, roots, faint H2O odor, weak platy structure (0,0,0,100) (BAY MUD)		
			10				
			11				
			12				
			13				
MW-6-15	22	2	14		DARK GREENISH GRAY (5GY 4/1) CLAY (CL) stiff, moist, moderate to high plasticity, subangular blocky soil structure (0,0,0,100) (BAY MUD)		
			15		DARK GREENISH GRAY (5GY 4/1) SANDY CLAY (CL) fine-grained sand, very stiff, moist, low plasticity (0,40,0,60) (BAY MUD)		
			16				
			17				
			18				
			19				
			20				
			21				
			22				
			23				
			24				
			25				
			26				
			27				
			28				
			29				
			30				

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Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Revised By: \_\_\_\_\_ Date: \_\_\_\_\_

Project: 580 JULIE ANN WAY, OAKLAND, CA						Log of Boring/Monitoring Well:	
Boring Location: SE OF FORMER USTs				Project No: 50090-009-04		<b>MW-7</b>	
Subcontractor and Equipment: GREGG/HSA				Logged By: CM Drawn By: CCR			
Sampling Method: CAL MODIFIED SPLIT-SPOON				Monitoring Device: OVM 580B		Comments:	
Start Date/Time: 5/20/98//1300				Finish Date/Time: 5/20/98//1400			
First Water (bgs): 10.0 FEET				Stabilized Water Level (bgs): 3.58 FT.			
Sample Number	Blows/foot	PID (ppm)	Depth (Feet)	Recovery	USCS Symbol	Water Level	Surface Elevation: NA Casing Top Elevation: NA
LITHOLOGIC DESCRIPTION (color, grain size, consistency, moisture, other)							
HAND AUGER			0		ASPHALT		
MW-7-4	50	5	1		GREENISH GRAY (5G 5/1) GRAVELLY SAND (SP) with silt, fine-grained sand, dense, moist (30,55,15,0) (FILL)		
			2				
			3		VERY DARK GRAY (5Y 3/1) SANDY CLAY (CL) with silt and trace gravel, fine-grained sand, fine to coarse gravel, angular pieces of concrete and brick, hard, moist, moderate plasticity, pieces of wire, faint chemical odor (5,25,15,55) (FILL)		
			4				
			5				
			6				
			7				
MW-7-10	7	0	8				
			9				
			10		VERY DARK GRAY (5Y 3/1) ORGANIC CLAY (OH) stiff, moist, high plasticity, low density, buttery texture, subangular blocky soil structure, roots, faint H2S odor (0,0,0,100) (BAY MUD)		
			11				
			12				
			13				
			14		DARK GREENISH GRAY (5GY 4/1) CLAY (CL) very stiff, moist, moderate to high plasticity (0,0,0,100) (BAY MUD)		
MW-7-15	25	0	15				
			16				
			17				
			18				
			19				
			20				
			21				
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			29				
			30				



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Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_  
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