BASELINE

ENVIRONMENTAL CONSULTING

8 March 1989
S9-105

Mr. Francis Collins
BANTA COLLINS
6000 Hollis Street
Emeryville, CA 94608

Subject: Documentation for Monitoring Well Installation at 6050 Hollis Street, Emeryville

Dear Mr. Collins:

In accordance with a Work Plan submitted to and approved by Alameda County Health Agency, BASELINE has installed one groundwater monitoring well at 6050 Hollis Street in Emeryville (see attached Figure 1 for regional site location and Figure 2 for location of the installed monitoring well). This letter transmits the documentation for well installation and well sampling activities.

Background

In 1987, a 500-gallon underground fuel storage tank was removed from the site (former tank location is shown on Figure 2). One soil sample was collected by Brown and Caldwell Laboratories at the northeast corner of the tank excavation. The sample was analyzed for total petroleum hydrocarbons (TPH) and benzene, toluene, and xylenes (BTX). The sample contained 1,700 mg/kg of TPH (no speciation) and BTX above detection limits. In response to these analytical results, the property owner excavated additional materials from the excavation and collected two additional soil samples from the excavation at depths of 10 and 11 feet below the ground surface to be analyzed for TPH and BTX. One sample did not contain compounds above detection limits; the second sample contained benzene and xylenes above detection limits and TPH at a concentration of 95 mg/kg.

A Work Plan was submitted to Alameda County Health Agency for installation of one groundwater monitoring well in the downgradient direction from the former tank location. The well was installed on 9 February 1989.

Well Installation

The monitoring well was installed in a 8-inch borehole, drilled with a hollow-stem auger. The drilling equipment was decontaminated by steam-cleaning prior to being brought onto the site. The well was installed through the hollow stem, through which the gravel pack, bentonite seal, and grout were also tremied following casing and screen installation. The casing consisted of 2-inch PVC and the screen consisted of 2-inch, 0.020 machine-slotted PVC. The well was developed with a power pump until pH and electrical conductivity stabilized. Drill cuttings and development water were retained on-site in secured and

labelled 55-gallon drums, awaiting receipt of analytical results. A well construction summary and well development log are included as Attachment A, which also includes the boring log for the well bore, the well sampling form, and the well drillers report.

The well was completed to a depth of 20.5 feet, with a screened interval from 6.0 to 20.0 feet, with a gravel pack extending to a depth of 4.5 feet below the ground surface. During well drilling, groundwater was encountered at a depth of 8.0 feet below the ground surface. A soil sample was collected above the shallow groundwater at a depth of 6.0 feet. The sample was collected from a California Modified sampler attached to the drill rig and fitted with 6-inch brass liners. After sample retrieval, the brass liner was sealed with aluminum foil, capped, taped, placed in a zip-lock bag, refrigerated, and brought to the laboratory for analysis under proper chain-of-custody. The sample was analyzed for TPH as gasoline, diesel, and kerosine (EPA Method modified 8015) and BTX and ethylbenzene (E) (EPA Method 8020). The laboratory report is included as Attachment B. No compounds were identified above the laboratory detection limits.

Groundwater Sampling

One groundwater sample was collected from the installed monitoring well on 10 February 1989. The sample was collected in accordance with the procedures outlined in Attachment C. Purged water was retained on-site in a 55-gallon drum. The collected sample was brought to the laboratory under chain-of-custody and analyzed for TPH as gasoline, diesel, and kerosine (EPA Method modified 8015) and BTXE (EPA Method 602). The laboratory report is contained in Attachment D. No compounds were identified above detection limits.

Recommendations

1. The stored drill cuttings and development and purged water can be disposed of with no restrictions.

2. The well should be sampled quarterly for one year to confirm that no compounds are present in the shallow groundwater. The well should be sampled using the same procedures used during the initial well sampling. The results from additional well sampling events should be submitted to the County for their review and files. Following one year of sampling activities, the analytical results should be reviewed and evaluated. If no compounds have been identified in the well, a request should be submitted to the County for well abandonment.

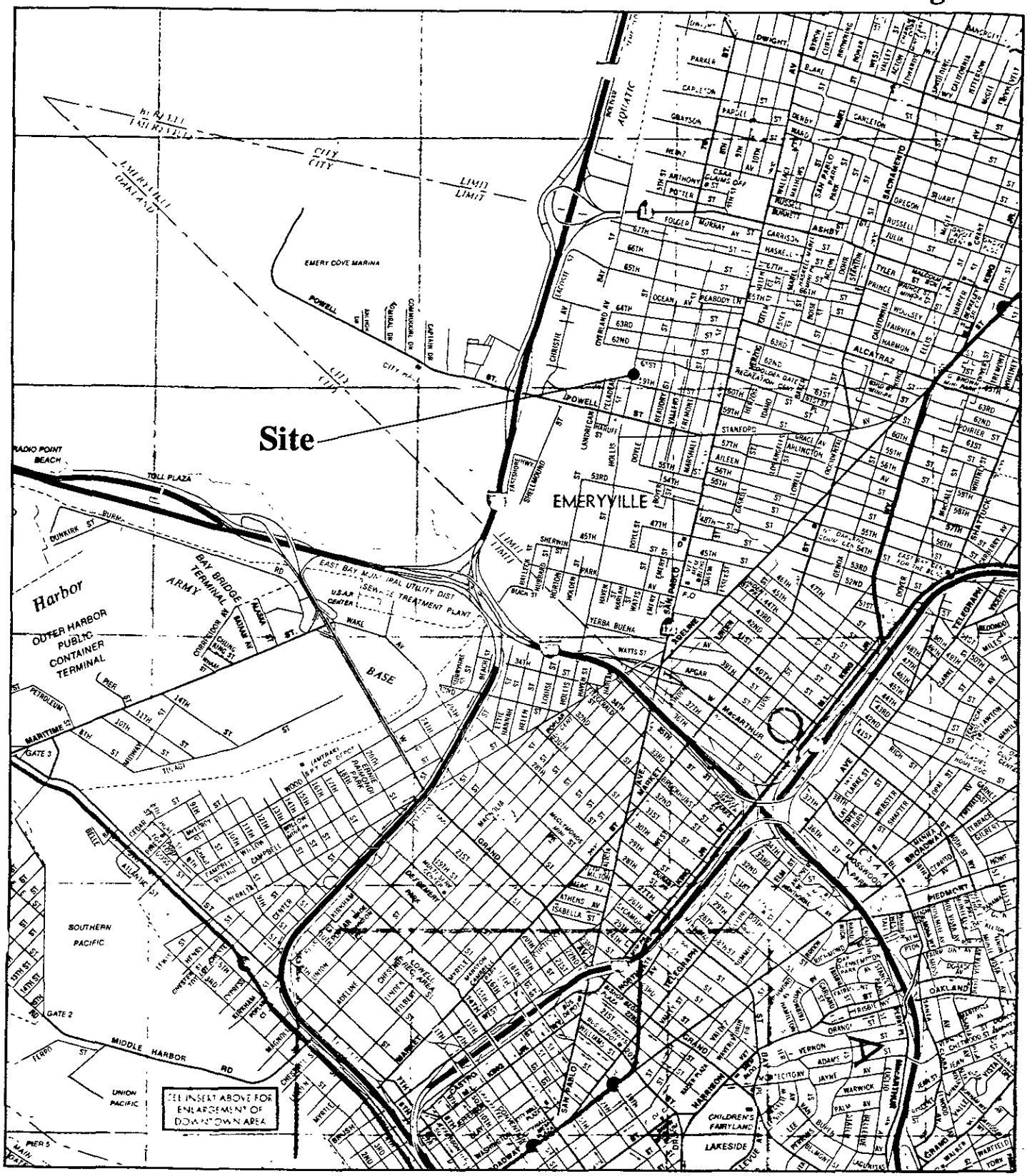
It has been a pleasure providing you with our service, should you have any questions, please do not hesitate to contact us at your convenience.

Sincerely,

Yane Nordhav
Principal
Reg. Geologist No. 4009

REGIONAL LOCATION

Figure 1



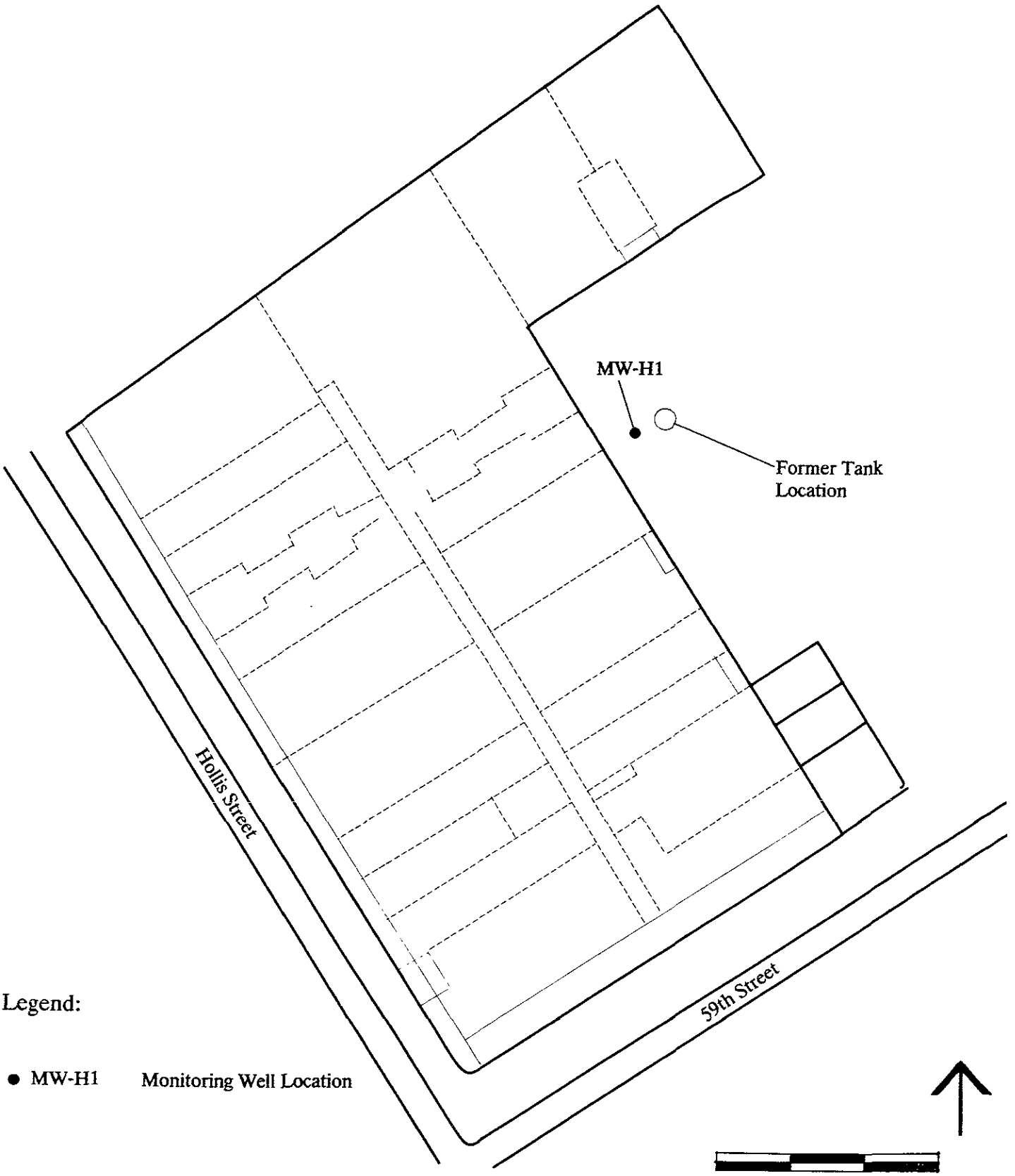
6050 and Hollis Street
Emeryville, California

0 4000 Feet

BASELINE

SITE PLAN

Figure 2



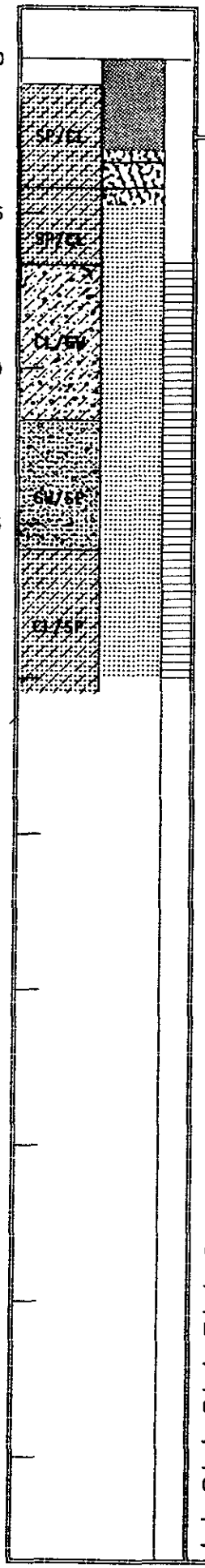
6050 Hollis Street
Emeryville, California

BASELINE

ATTACHMENT A

WELL CONSTRUCTION SUMMARY
WELL DEVELOPMENT
DRILLING LOG
GROUNDWATER SAMPLING
WELL DRILLERS REPORT

WELL CONSTRUCTION SUMMARY



Project Banta Collins - 6050 Hollis St. WELL MW-H1

Personnel WKS Job No. S9-105

Location of Coords: _____ Elevation: Ground Level _____

Top of Casing _____

DRILLING SUMMARY

Total Depth: 20.5'

Borehole Diameter: 7"

Driller: ASE Drilling

Rig: Mobile B-53

Bit(s): Hollow Stem Cont. Flight

Drilling Fluid: None

Surface Casing: Iron well cap

WELL DESIGN

Basis: Geologic Log X

Geophysical Log _____

Casing String(s): C=Casing S=Screen

0	6'	C			
6'	20'	S			

Casing: C1 PVC, sch 40

C2 _____

C3 _____

C4 _____

Screen: S1 PVC, sch 40, 20 slots

S2 _____

S3 _____

S4 _____

Centralizers: _____

Filter Material: Lonestar sand #3
4.5' - 20.5'

Cement: Neat 0 - 3.5'

Other: Bentonite 4.5' - 3.5'

CONSTRUCTION TIME LOG

TASK	Start Date	Start Time	Finish Date	Finish Time
Drilling:	2/8/89	8:52	2/8/89	10:26
Geophys Logging:				
Casing:	2/8/89	10:35	2/8/89	10:36
Filter Placement	2/8/89	11:37	2/8/89	11:53
Cementing:	2/8/89	11:54	2/8/89	12:10
Development:	2/8/89	12:15	2/8/89	14:40
Other:				

WELL DEVELOPMENT

Power pump 2-8-89 50 gallons

COMMENTS

Water level during drilling: 8.0'

2/10/89: 4.85'

BASELINE ENVIRONMENTAL CONSULTING

5900 Hollis St., "D"

Emeryville, CA 94608

(415) 420-8686

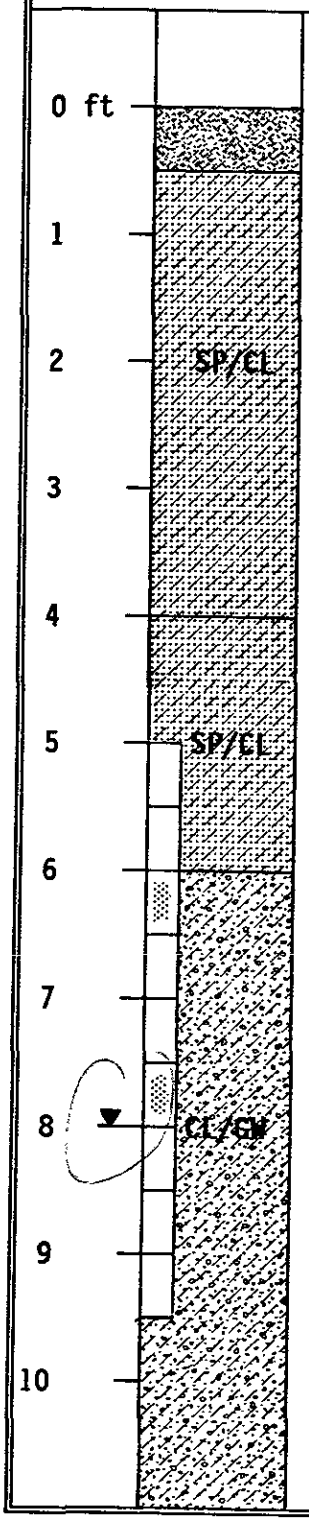
SIGN. Jane Davidson

DRILLING LOG

BASELINE
5900 Hollis St., "D"
Emeryville, CA 94608
(415) 420-8686

Location Banta Collins - 6050 Hollis Street
Driller ASE Drilling
Method Hollow Stem Continuous Flight
Logger WKS Datum

Boring No. MW-H1
Date 2/8/89
Bore size 7"
Casing size 2"



Depth	Graphic	Lithology	Notes
0 ft		Concrete.	
1	SP/CL	Very dark gray/black, sandy CLAY, damp.	Petroleum odor
4		Light yellowish brown, sandy CLAY, moist.	Slight petroleum odor
5	SP/CL		6-12-22 Blow counts
6		Dark yellowish brown, sandy clayey GRAVEL, moist-wet, some larger cobble-sized clasts.	
7			5-16-25
8	CL/GW		No recovery 9-12-19
9			
10			

DRILLING LOG

BASELINE
5900 Hollis St., "D"
Emeryville, CA 94608
(415) 420-8686

Location Banta Collins - 6050 Hollis Street
Driller ASE Drilling
Method Hollow Stem Continuous Flight
Logger WKS Datum

Boring No. MW-H1
Date 2/8/89
Bore size 7"
Casing size 2"

Depth	Graphic	Lithology	Notes
11 ft	CL/GW		
12		Dark yellowish brown, clayey gravelly SAND, very fine-grained, moist-wet.	2-8-12
13	GW/SP		
14			
15			
16		Dark yellowish brown, clayey SAND, very fine-grained, moist-wet.	
17			
18	CL/SP		
19			
20			
		Total depth 20.5 feet.	
21			

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

BASELINE
5900 Hollis St., "D"
Emeryville, CA 94608
(415) 420-8686

Project: Banta Collins - 6050 Hollis Street

Project No: S9-105

WELL DEVELOPMENT

WELL No: MW-H1

WEATHER

DATE: 2/8/89

Wind: Windy, Cloudy

TIME: 11:40

Precip in last 5 days approx. 1 inch

RECORDED BY: TA

ELEVATION OF WELL: N/A

DEPTH OF WELL: 20'

SCREENED: 6' - 20'

WATER LEVEL: 5.735'

WELL DIAMETER: 2"

DEVELOPMENT METHOD: Power pump

APPEARANCE OF WATER: Slightly murky

pH	EC (umhos/cm)	Temp	Gallons
7.4	1600	11 C	0
7.2	2300	14	10
7.2	1500	16	20
7.2	1150	15	30
7.3	1100	16	35
7.3	1150	18	40
7.2	1100	15	45