

R0248



ENVIRONMENTAL ENGINEERING, INC

2680 Bishop Drive, Suite 203, San Ramon, CA 94583

TEL (925) 244-6600 • FAX (925) 244-6601

August 16, 2001

Ms. Susan Hugo
Alameda County
Environmental Health Services
1131 Harbor Bay Parkway
2nd Floor
Alameda, California 94502

AUG 20 2001

Subject: Well Decommissioning Report, 4550 San Pablo Avenue Emeryville,
California

Dear Susan:

Per your verbal approval, SOMA Environmental Engineering, Inc. (SOMA) decommissioned the existing groundwater monitoring wells at the subject site. Attached is a copy of our report entitled "Well Decommissioning Report" dated August 15, 2001. Please review the attached report and call me at (925) 244-6600, if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mansour Sepehr', is written over a horizontal line.

Mansour Sepehr, Ph.D., P.E.
Principal Hydrogeologist

Enclosure

cc: Carol Light, Silverman & Light



ENVIRONMENTAL ENGINEERING, INC

2680 Bishop Drive, Suite 203, San Ramon, CA 94583

TEL (925) 244-6600 • FAX (925) 244-6601

WELL DECOMMISSIONING REPORT

**4550 San Pablo Ave.
Emeryville, California**

August 15, 2001

Project 2370

Prepared for
Emeryville Farms and Associates
4550 San Pablo Avenue
Emeryville, California 94608

Prepared by
SOMA Environmental Engineering, Inc.
2680 Bishop Drive, Suite 203
San Ramon, California 94583

Certification

This report has been prepared by SOMA Environmental Engineering, Inc. on behalf of Emeryville Farms and Associates, the property owner at 4550 San Pablo Avenue, Emeryville, California, to comply with the Alameda County Environmental Health Services' requirements for the decommissioning of monitoring wells at the site.



Mansour Sepehr, Ph.D., P.E.

Principal Hydrogeologist



AUG 20 2001

Table of Contents

LIST OF TABLES.....	III
LIST OF FIGURES.....	III
LIST OF APPENDICES.....	III
1.0 INTRODUCTION.....	1
2.0 FIELD WORK.....	3
2.1 Scope of work.....	3
2.2 Prepare HASP.....	3
2.3 Obtain Permits.....	3
2.4 Locate and Decommission Wells.....	3

List of Tables

Table 1: Well Destruction Details

List of Figures

Figure 1: Site Vicinity Map

Figure 2: Site Map Showing Locations of Wells Decommissioned by SOMA

List of Appendices

Appendix A: Alameda County Environmental Health Services' Letter Dated April 12, 2000.

Appendix B: Well Destruction Permits, Well Logs, Well Construction Details

the ACEHS for the Site. In a letter dated April 12, 2000, ACEHS concurred with the SOMA's recommendation and required three additional quarterly groundwater monitoring events to be conducted prior decommissioning of the groundwater monitoring wells at the Site. Appendix A includes ACEHS letter dated April 12, 2001. Subsequently, SOMA conducted additional three quarterly groundwater monitoring events during year 2000. After submission of last quarterly groundwater monitoring report to ACEHS, SOMA contacted ACEHS to acquire permission to decommission the groundwater monitoring wells. In July 2001, Ms Susan Hugo of ACEHS verbally agreed decommissioning of the two existing groundwater monitoring wells. This report contains the procedure for closure of existing groundwater monitoring wells based on the Alameda County monitoring well abandonment guidelines.

2.0 FIELD WORK

2.1 Scope of work

The work included the following tasks:

1. Prepare a site-specific Health and Safety Plan (HASP)
2. Obtain permits for well destruction from Alameda County
3. Locate and decommission two groundwater monitoring wells

These tasks are described below.

2.2 Prepare HASP

Before commencement of the field activities, a site-specific health and safety plan (HASP) was prepared by SOMA. The HASP was designed to address safety provisions during the field activities. It provided procedures to protect the field crew from physical and chemical hazards resulting from drilling, and groundwater sampling. The HASP established personnel responsibilities, general safe work practices and field procedures, personal protective equipment standards, decontamination procedures, and emergency action plans.

2.3 Obtain Permits

Prior to drilling, all necessary drilling permits were obtained from the Alameda County Public Works Agency. (See Appendix A)

2.4 Locate and Decommission Wells

Prior field activities SOMA personnel visited the site and located the two monitoring wells, MW-1 and MW-2, scheduled for decommissioning. SOMA contracted Fisch Drilling of Valley Springs, California, to decommission the wells according to Alameda County Public Works Agency's published guidelines. The locations of these well are shown in Figure 2.

The first step to decommissioning the wells was to over-drill the well box of each well using an eight-inch diameter, hollow-stem auger. After the asphalt and cement was removed from around the well box, the box itself was removed, exposing the well. The well was then over-drilled using an eight-inch diameter hollow-stem auger, and all existing well casing was removed from the borehole. The well was drilled to the bottom depth indicated on the well logs supplied by the previous contractor (see Appendix A), and re-measured in the field also. Once the drilling was completed and all casing removed from the hole, the auger was withdrawn as the hole was simultaneously filled with Portland-cement grout, mixed with 5% bentonite. In this fashion, each well was fully grouted to land surface.

3.0 REFERENCES

SOMA Environmental Engineering, Inc., February 1, 2000 "Comprehensive Site Closure Report, 4550 San Pablo Avenue, Emeryville, California"

TABLES

Table 1: Well Destruction Details
4550 San Pablo Ave.
Emeryville, California

Well	Depth of Well (Ft)	Diameter of Well Casing (in)	Diameter of Borehole (in)	Diameter of Over-Drilled Borehole
MW-1	22	2	8	8
MW-2	22	2	8	8

FIGURES

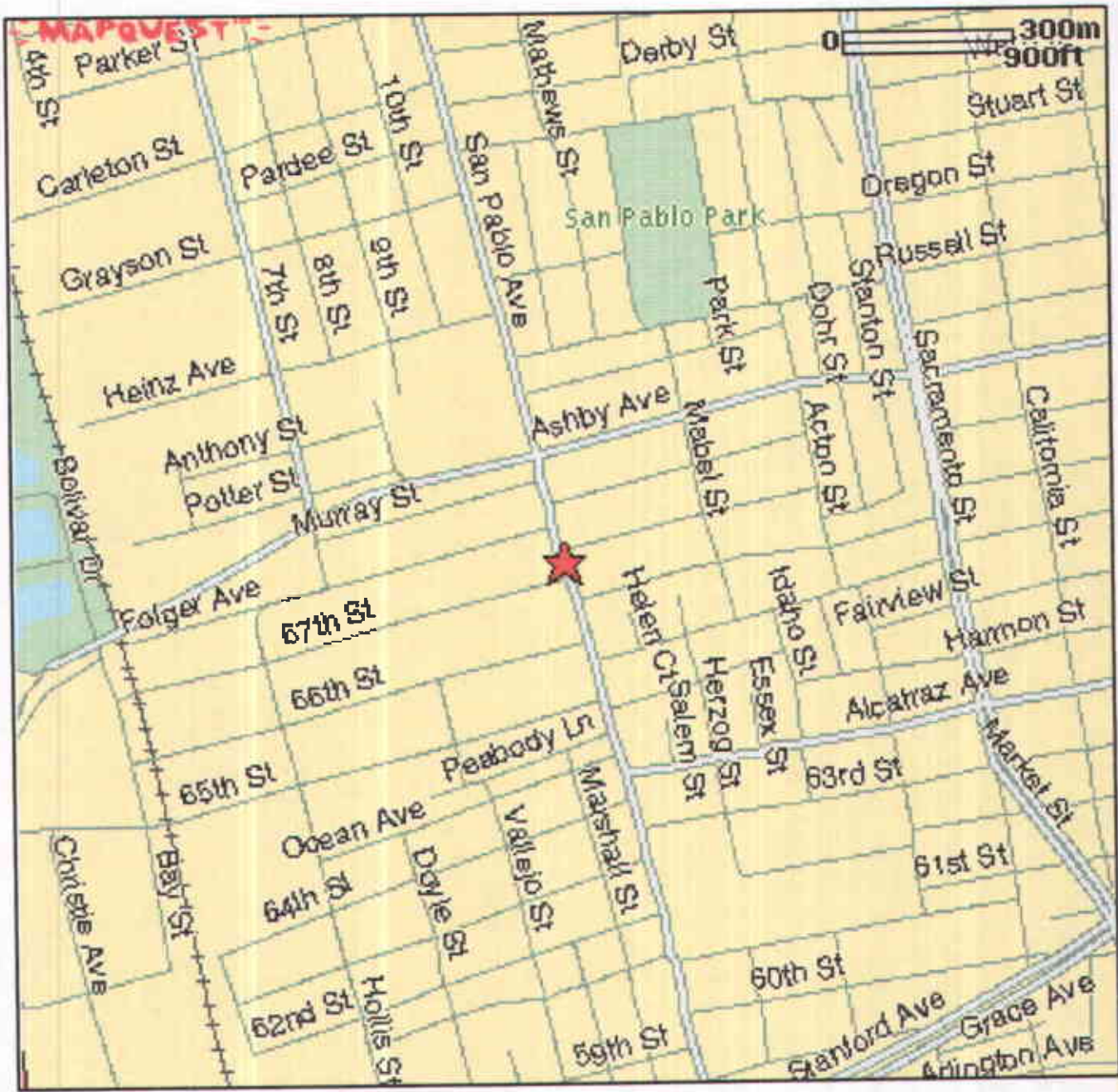


Figure 1: Site Vicinity Map



Former Waste Oil Tank



Truck Repair Shop



Former Tank Pit



45th Street

San Pablo Avenue

Berkeley Farms Dairy Facility

MW-2Δ

MW-1Δ

Former USTs

45th Street

Δ Groundwater Monitoring Well

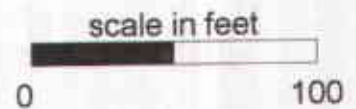


Figure 2: Site Map Showing Location of Wells Decommissioned by SOMA

APPENDIX A

Alameda County Environmental Health Services' Letter Dated April 12, 2000

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

April 12, 2000

Ms. Carol Light
Emeryville Farms, L.L.C.
1201 Park Avenue, Suite 100
Emeryville, CA 94608

**Subject: Former Berkeley Farms Facility (STID # 1754)
4550 San Pablo Avenue, Emeryville, California 94608**

Dear Ms. Light:

The Alameda County Environmental Health Services has reviewed the "Comprehensive Site Closure Report" dated February 1, 2000 and Addendum to Comprehensive Site Closure Report dated March 6, 2000, prepared and submitted by Soma Environmental Engineering, Inc. for the above subject site.

The subject site was formerly a dairy facility from 1946 up to 1997. A vacant two-story building occupies the northwestern portion of the property. The site is bounded by San Pablo Avenue to the west, 47th Street to the north and 45th Street to the south. The site is proposed to be developed into commercial office building.

The referenced reports document the recent investigation conducted at the site and included historical data to validate that the site meets the low risk soil and /or groundwater case. The Site Closure Report also addresses the short-term and long-term potential risks to human health and the environment from residual soil and groundwater contaminants at the site and provided guidelines to be followed during the planned redevelopment of the site as commercial offices.

This agency concurs with the general scope of the Comprehensive Site Closure Report. Based upon the available information and with the provision that the information provided to this agency is accurate and representative of site conditions, no further action is required at the site at this time other than quarterly groundwater monitoring of existing wells MW-1 and MW-2 for three additional sampling events. The groundwater at the site must be analyzed for the following target compounds: Total Petroleum Hydrocarbon (TPH) as diesel, TPH as gasoline, benzene, toluene, ethyl benzene, xylene, methyl

Ms. Carol Light
RE: 4550 San Pablo Avenue, Emeryville, CA
April 12, 2000
Page 2 of 2

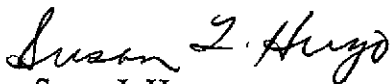
tertiary butyl ether (MTBE) and semivolatile organic compounds by EPA Method 8270.

As you know, one of the groundwater monitoring wells at the former Berkeley Farms Truck Repair Yard located west of the subject site is being used historically as the downgradient monitoring well. You will need to coordinate groundwater sampling with the former Berkeley Farms Truck Repair Yard or install a downgradient monitoring well for your site. Data collected during the three additional monitoring events will be evaluated and if results indicate that the groundwater plume is stable and the concentrations are decreasing over time, then the site will go through case closure process until issuance of "Remedial Action Completion Certificate" or closure letter.

The construction risk management plan should be implemented during redevelopment of the subject site. Please notify this office when redevelopment will begin at the site.

If you have any questions regarding this letter or the subject site, please contact me at (510) 567-6780.

Sincerely,



Susan L Hugo
Hazardous Materials Specialist

cc: Mee Ling Tung, Director, Environmental Health Services
Ariu Levi, Chief, Hazardous Materials and Household Hazardous Programs
Chuck Headlee, San Francisco Bay RWQCB
Patrick O'Keefe, City of Emeryville, 2200 Powell Street, Emeryville, CA 94608
Barrie Cromartie, City of Emeryville, 2200 Powell Street, Emeryville, CA 94608
✓ Norman Albert, Berkeley Land Co., 1211 Newell Ave., #120, Walnut Creek, CA 94596
Mansour Sepehr, SOMA Environmental, 2680 Bishop Dr., Suite 203, San Ramon, CA 94583
SH / files

APPENDIX B

**Well Destruction Permits, Well Logs,
Well Construction Details**

JUL 20 01 10:55a

JUL-12-01 THU 02:31 PM

ALAMEDA COUNTY PWA RM239

FAX NO. 5107821939

P. 02



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94541-1395
PHONE (510) 670-3554
FAX (510) 782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT
4550 SPADELLO AVE.
EMERYVILLE, CA

PERMIT NUMBER W01-575
WELL NUMBER _____
APN _____

CLIENT
Name Emeryville Farms & Assoc.
Address 101 Park Ave, Ste. 100 Phone _____
City Emeryville, CA Zip 94608

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT
Name SOMA Equipmentz
1690 Bishop Dr. Fax 725-244-6601
Address Suite 203 Phone 725-244-6600
City San Ramon, CA Zip 94583

A. GENERAL

1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 20 feet for municipal and industrial wells or 30 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with encapsulated cuttings.

E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

Attached

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input checked="" type="checkbox"/>

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input checked="" type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

DRILLER'S NAME David Fisch

DRILLER'S LICENSE NO. 683865

WELL PROJECTS

Drill Hole Diameter	<u>8</u> in.	Maximum Depth	<u>22</u> ft.
Casing Diameter	<u>8</u> in.	Owner's Well Number	<u>MW-1</u>
Surface Seal Depth	<u>2</u> ft.		

GEOTECHNICAL PROJECTS

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

ESTIMATED STARTING DATE 7/30/01

ESTIMATED COMPLETION DATE 7/30/01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 77-68.

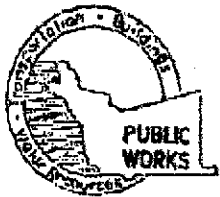
APPLICANT'S SIGNATURE Patrick Sullivan DATE 7/20/01

PLEASE PRINT NAME Patrick Sullivan Rev. 6-78-00

APPROVED

DATE

7-23-01



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 678-5554
FAX (510)782-4939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT
4550 San Pablo Ave.
Emeryville, CA

PERMIT NUMBER NO1-574
WELL NUMBER
APN

CLIENT
Name Emeryville Farms & Assoc.
Address 1201 Park Ave. Ste. 100
City Emeryville, CA

PERMIT CONDITIONS
Checked Permit Requirements Apply

APPLICANT
Name SOMA Environmental
Address 1690 Bishop Dr. Suite 203
City San Ramon, CA

- A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

TYPE OF PROJECT
Well Construction
Cathodic Protection
Water Supply
Monitoring
Geotechnical Investigation
General
Construction
Well Destruction

- B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum test depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

PROPOSED WATER SUPPLY WELL USE
New Domestic
Municipal
Industrial
Replacement Domestic
Irrigation
Other

- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum test depth for monitoring wells is the maximum depth practicable or 20 feet.

DRILLING METHOD:
Mud Rotary
Cable
Air Rotary
Cable
Auger

- D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted screenings.

DRILLER'S NAME David Fisch
DRILLER'S LICENSE NO. 683865

- E. CATHODIC
Fill hole anode zone with concrete placed by tremie.
F. WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

WELL PROJECTS
Drill Hole Diameter 8 in.
Casing Diameter 2 in.
Surface Seal Depth 0 ft.
Maximum Depth 22 ft.
Owner's Well Number MW-2

G. SPECIAL CONDITIONS
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.
Attached

GEO TECHNICAL PROJECTS
Number of Borings
Hole Diameter
Maximum Depth

ESTIMATED STARTING DATE 7/30/01
ESTIMATED COMPLETION DATE 7/30/01

APPROVED [Signature] DATE 7-23-01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 75-68.

APPLICANT'S SIGNATURE [Signature] DATE 7/24/01
PLEASE PRINT NAME Patrick Sullivan

BORING LOG

Project No. 1011	Boring and casing diameter: 8", 2"	Logged By: JG
Project: Former Berkeley Farms Dairy	Well Cover Elevation: 42.43	Date drilled: 2/26/99
Boring No. MW-2-Dairy	Drilling Method: Hollow Stem Auger	Drilling Company: Woodward Drilling

Penetration Blows/5" PID	G.W. level	Sample Depth (ft)	Stratigraphy (USCS)	Description
		0		6" of concrete pavement over 4" of sand and gravel base
		1	CL	@ 1' - Silty clay (CL), black (5Y 2.5/2), moist, very stiff.
5/6/10/12	PID-0 	5		@ 5' - Clayey silt (ML), dark olive gray (5Y 3/2), moist, very stiff, trace angular gravels to 3/8" diameter.
10/14/15/15		10	ML	@ 10' - Clayey silt with gravel (ML), olive gray (5Y 5/3), very moist, very stiff, estimated 15-25% variable gravel content, gravels are angular, to 1.5" diameter. @ 11.5' - Sandy silt (ML), yellowish brown (10YR 5/4), v. moist, v. stiff. @ 13' - Silt (ML), light olive gray (5Y 6/2), saturated, very stiff, locally with up to 15% angular gravels to 1/2" diameter, locally clayey to sandy. Abundant FeO staining.
13/5/16/20		15		
		20	SM ML	@ 20' - Silty sand with gravel, weak red (2.5Y 4/2), saturated, medium dense, sand very fine to coarse-grained, 15% subangular gravels to 1/4" diameter, 10-15% silt and clay. @ 20.5' - Clayey silt (ML), olive gray (5Y 5/3), saturated, hard, trace angular gravels to 1/8" diameter, abundant FeO and MnO staining.
8/12/19/22		25		
		30		Total Depth: 22 feet Screen: 0.010 slot from 6-22 feet Sandpack: #2/12 sand from 5-22 feet Seal: Bentonite 3.5-5 feet, neat cement grout 0-3.5 feet.

Former Berkeley Farms Dairy 4550 San. Pablo Avenue Emeryville, California	MW2 -Dairy	Date: March 12, 1999 Drawn By: JG/Geo-Logic
---	-----------------------	--

Boring Log and Well Completion Details

BORING LOG

Project No. 1011	Boring and casing diameter: 8", 2"	Logged By: JG
Project: Former Berkeley Farms Dairy	Well Cover Elevation: 43.27	Date drilled: 2/26/98
Boring No. MW-1-Dairy	Drilling Method: Hollow Stem Auger	Drilling Company: Woodward Drilling

Penetration Blows/5" PID	G.W. level	Sample Depth (ft)	Stratigraphy (USCS)	Description	
		0		8" of concrete pavement over 4" of sand and gravel base.	
3/6/12/15	PID-0 	5	CL	@1' - Silty clay (CL), black (5Y 2.5/2), moist, very stiff. @5' - Silty clay (CL), very dark gray (5Y 3/1), moist, very stiff, estimated 10% subangular gravels to 1/4" diameter. @7' - As above except gray (5Y 3/1), very moist, very stiff, slight odor of hydrocarbons.	
5/6/10/14		10	ML	@9' - Clayey silt with gravel (ML), dark greenish gray (5G 4/1), wet, estimated 15-30% variable gravel content, mod. odor of hydrocarbons.	
9/14/14/15		15	GW	@11' - Sandy gravel, dk. greenish gray (5G 4/1), saturated, v. silty, v. fine to med.-grained angular gravels to 1/2" est. 10% silt, str. odor.	
15/15/8/11		20	ML	@12.4' - Sandy silt (ML), yellowish brown (10YR 5/4), saturated, slight odor of hydrocarbons. @16' - Sandy silt, as above except very hard.	
18/26/50-6"		25			@20' - Clayey silt with gravel (ML), yellowish brown (10YR 5/4), saturated, hard, up to 15% variable subangular gravels to 3/8" diameter, trace to 10% v. fine-grained sand, sl. of hydrocarbons.
16/20/20/36		30			Total Depth: 22 feet Screen: 0.010 silt from 5-22 feet Sandpack: #2/12 sand from 5-22 feet Seal: Bentonite 3.5-5 feet, neat cement grout 0-3.5 feet.

Former Berkeley Farms Dairy 4550 San Pablo Avenue Emeryville, California	MW1 -Dairy	Date: March 12, 1999 Drawn By: JG/Geo-Logic
--	-----------------------	--

Boring Log and Well Completion Details