

**RECEIVED**

10:24 am, Jun 09, 2009

DAVID R. WILLIAMS  
DIRECTOR OF WASTEWATERAlameda County  
Environmental Health

June 3, 2009

Paresh C. Khatri, Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
Department of Environmental Health  
Environmental Protection Division  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

Dear Mr. Khatri:

Re: Monitoring Well Destruction for Case Closure of Fuel Leak Case No.  
RO0002979 and GeoTracker Global ID T0600100662, East bay Municipal Utility  
District Water Pollution Control Plant, 2020 Wake Avenue, Oakland, California.

This letter is in response to the letter from Alameda County Health Care Services dated March 6, 2009 requesting the monitoring well destruction for Case Closure of fuel Leak Number RO0002979 and GeoTracker Global ID T0600100662 for the wells located at 2020 Wake Ave in Oakland California. On May 22, 2009, the District has properly destroyed the monitoring wells in compliance with the California Water Code.

Attached to this cover letter is the requested Well Destruction Report that was completed by Alisto Engineering.

I declare under penalty of perjury, that the information and/or recommendations contained in the attached document is true and correct to the best of my knowledge.

If you have any questions or need additional information, please contact Mr. Robert Newman, Senior Environmental Compliance Specialist, at (510) 287-0509.

Sincerely,

DAVID R. WILLIAMS  
Director of Wastewater

DRW:RDN:kf

Attachments



**ALISTO ENGINEERING GROUP**

June 2, 2009

Mr. Robert Newman  
East Bay Municipal Utility District  
2020 Wake Avenue  
Oakland, California 94607

Subject: Well Destruction at  
EBMUD Wastewater Treatment Plant  
2020 Wake Avenue,  
Oakland, California  
ACHCSA Case No. RO0002979

Dear Mr. Newman:

Alisto Engineering Group (Alisto) is pleased to submit the following documentation of well destruction at the above-referenced site.

Prior to mobilization for well destruction, Alisto and EBMUD personnel attempted to locate the three wells permitted to be destroyed in your March 6, 2009 letter. The three wells installed at the site (PGS-01, PGS-02, and PGS-03) were originally installed in 1987. During the site recon, only Well PGS-01 could be located. Alisto and EBMUD personnel reviewed files maintained by EBMUD Engineering Section staff to determine the fate of Wells PGS-02 and PGS-03. Available records indicate that the Wells PGS-02 and PGS-03 were removed during installation of a new diesel UST; sometime after February 4, 1993. Copies of the notes obtained from EBMUD files are included in Attachment A.

During the site recon, two additional wells were discovered; Wells NME-01 and NME-02. It was determined that these wells were installed in 2007 for the purpose of geotechnical studies prior to scheduled plant improvements. The "NME Wells" were also determined to be in locations which will interfere with planned expansion of EBMUD power generation capability (turbine installation) planned to begin in July 2009. Copies of the boring logs showing well construction details of the "NME Wells" and PGS-1 through PGS-03 and well location maps are included in Attachment B.

2737 N. MAIN ST., SUITE 100, WALNUT CREEK, CA 94597 · (925) 279-5000 · FAX (925) 279-5001  
CALIFORNIA CONTRACTOR LICENSE NO. A-652544

Mr. Robert Newman  
June 2, 2009  
Page 2

Therefore, Alisto secured well destruction permits for Well PGS-01, NME-01 and NME-02 from Alameda County Public Works Agency (County PW) on May 20, 2009. Copies of the permits are included in Attachment C.

On March 22, 2009, Alisto supervised the destruction of monitoring wells using pressure grout method. Copies of the boring logs showing well construction details are included in Attachment B. The work was performed by Gregg Drilling and Testing, a California-licensed well driller.

The well boxes were first removed and the two 2-inch diameter wells (NME-01 and NME-02), and 4-inch diameter well PGS-01 were backfilled with tremied neat cement. Tremie pipe was placed in each well to its total depth and neat cement was introduced into each well using a diaphragm pump.

A diverter assembly at the wellhead was used to contain displaced groundwater. Once neat cement was observed coming out of the diverter assembly, the diverter was removed and a pressure tight fitting was attached to the wellhead. Neat cement was again pumped into each well at approximately 25 psi. A sufficient volume of neat cement was introduced into each well to fill the original boring volume. The well destruction activities were observed by a County PW representative.

The completed California Department of Water Resources (DWR) Form 188s are included in Attachment D.

Please call (925) 279-5000 if you have if questions or need additional information.

Sincerely;

ALISTO ENGINEERING GROUP



AI Sevilla, P.E.  
Principal

Attachments



**ATTACHMENT A**

**EBMUD MEMOS**

From: WDMS::MKO "Molly Ong" 11-DEC-1992 10:14:46.36  
To: RPL  
CC:  
Subj: MW at PGS

From: WDMS::DYH "DOUGLAS HIGASHI" 11-DEC-1992 08:05:50.33  
To: MKO  
CC: CRB  
Subj: We will have one monitoring well left after tank removal


From: WDMS::CRB "CONNIE BECKMAN" 10-DEC-1992 15:36:50.67  
To: DYH  
CC: CRB  
Subj: MONITORING WELLS

2 OF THE WELLS ARE ADJACENT TO THE FUEL OIL TANK AND WILL BE  
DEMOLISHED AS YOU STATED. THE 3RD WELL IS AT THE N.W. CORNER  
OF THE EXISTING SLOP OIL PIT, AND WILL REMAIN. THIS WELL CAN  
BE USED TO MONITOR GROUND WATER IF NEEDED.

DEC. 22 1992

MEMO TO: Molly Ong, Wastewater Control Representative  
F R O M: Roy P. Luna, Wastewater Control Inspector 11  
SUBJECT: Cogeneration Station Well Monitoring

Per the current procedure I sampled the three Cogeneration Station monitoring wells (PGS01, PGS02, and PGS03) on 21 DEC , 1992. I sampled each of the three wells, checked each for oil and grease visible on the surface, and checked each for any unusual odor or color. All samples appeared to be normal with no visible oil or grease and no unusual color.



---

04 FEB. 1993

MEMO TO: Molly Ong, Wastewater Control Representative

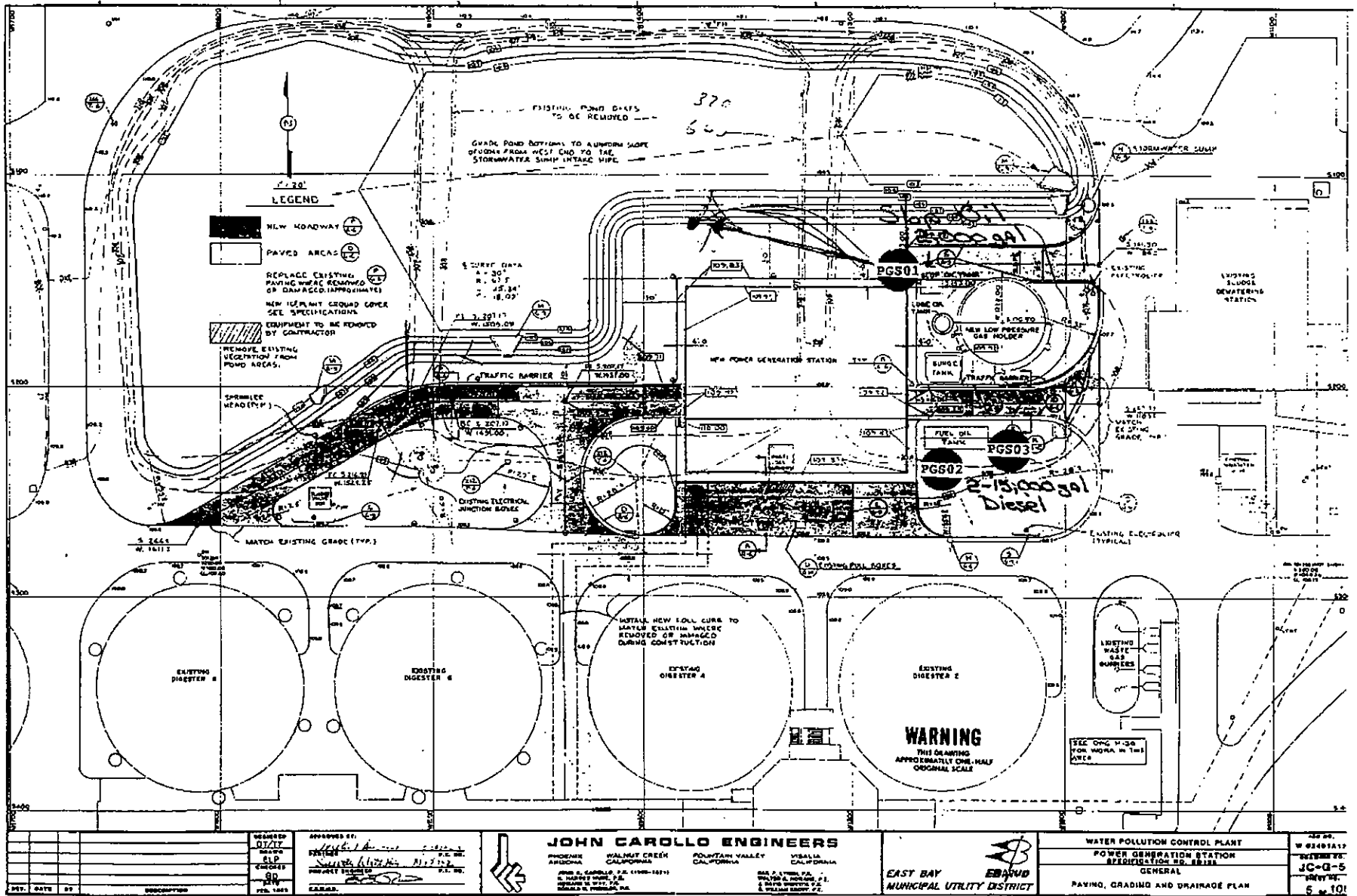
FROM: Roy P. Luna, Wastewater Control Inspector 11

SUBJECT: Cogeneration Station Well Monitoring

Per the current procedure, I sampled two wells (PGS01 and PGS02) on 4 Feb. 1993. The well site tagged PGS03 has been destroyed in the current construction project on the premises. The sampled wells were purged of 3 times of the standing water in each well; checked for any unusual odor or color; and sampled for analyses (EPA methods +8015 and +602). The samples appeared to be normal with no visible oil or grease and no unusual odor.

**ATTACHMENT B**  
**BORING LOGS AND MAPS**





REV.	DATE	BY	DESCRIPTION

DESIGNED BY DRAWN BY CHECKED BY DATE	APPROVED BY TITLE PROJECT NUMBER SHEET NUMBER TOTAL SHEETS
---	--

**JOHN CAROLLO ENGINEERS**

PHOENIX ARIZONA    WALNUT CREEK CALIFORNIA    MOUNTAIN VALLEY CALIFORNIA    VISALIA CALIFORNIA

JOHN CAROLLO, P.E. (1968-1971)  
 JOHN CAROLLO, P.E. (1971-1973)  
 JOHN CAROLLO, P.E. (1973-1975)  
 JOHN CAROLLO, P.E. (1975-1977)  
 JOHN CAROLLO, P.E. (1977-1979)

**EAST BAY MUNICIPAL UTILITY DISTRICT**

**EB&ND**

**WATER POLLUTION CONTROL PLANT**

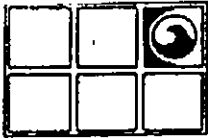
**POWER GENERATION STATION**

REVISION NO. 03-1818

GENERAL

PAVING, GRADING AND DRAINAGE PLAN

5 OF 10!



**GROUNDWATER  
TECHNOLOGY, INC.**  
OIL RECOVERY SYSTEMS

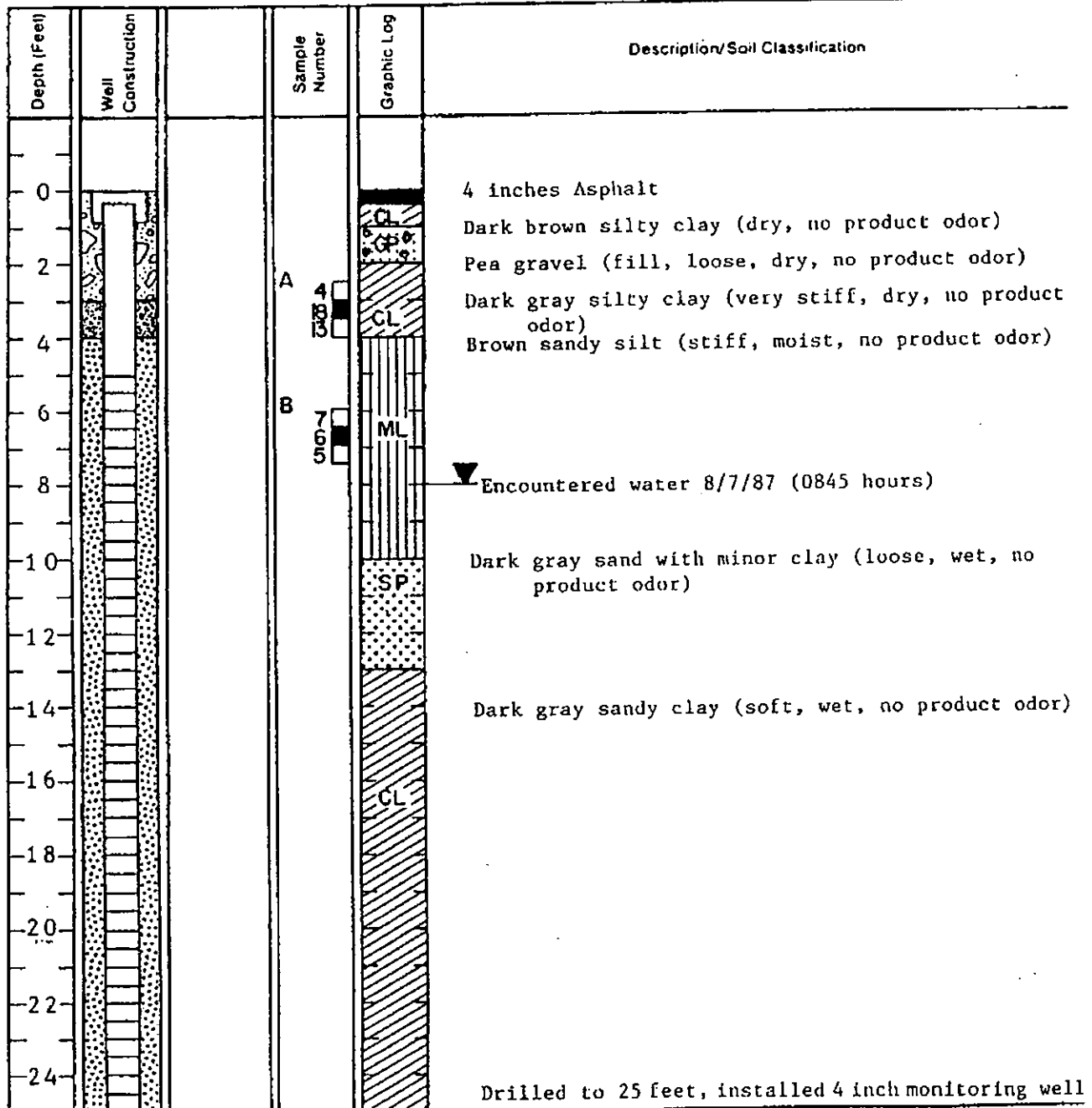
**Monitoring Well 1**

Drilling Log

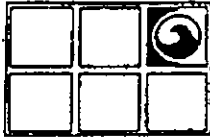
Project Cottle Engineering Owner East Bay Mud  
 Location Oakland, CA Project Number 203 799 5011  
 Date Drilled 8/7/87 Total Depth of Hole 25 ft. Diameter 10.5 in.  
 Surface Elevation \_\_\_\_\_ Water Level, Initial 8 ft. 24-hrs. \_\_\_\_\_  
 Screen: Dia. 4 in. Length \_\_\_\_\_ 20 ft. Slot Size .020 in.  
 Casing: Dia. 4 in. Length \_\_\_\_\_ 5 ft. Type PVC  
 Drilling Company Kvilhaug Drilling Method Hollow Stem Auger  
 Driller Chris Pruner Log by Neal Farrar

Sketch Map

Notes



Drilled to 25 feet, installed 4 inch monitoring well



**GROUND WATER TECHNOLOGY, INC.**  
OIL RECOVERY SYSTEMS

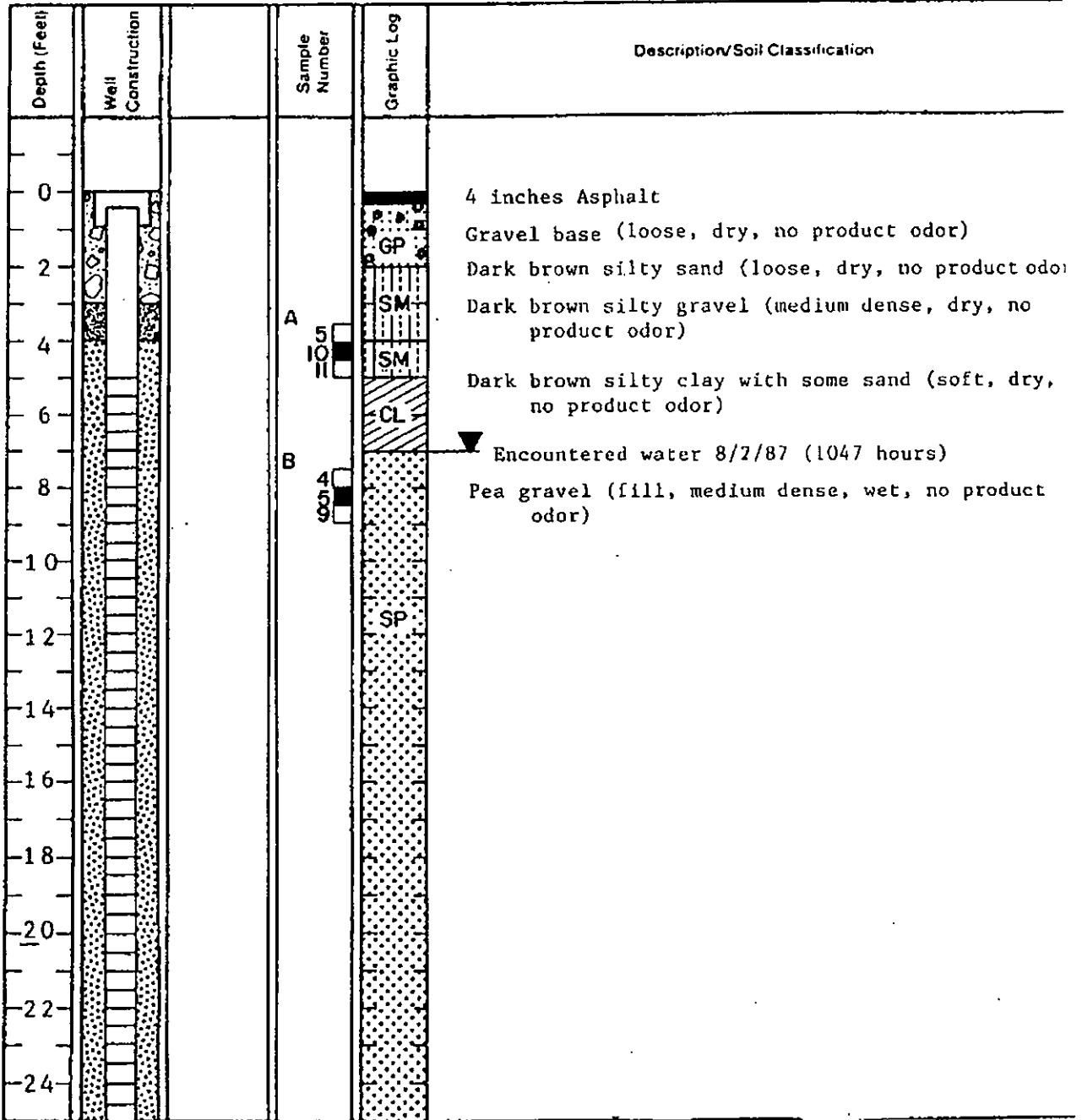
**Monitoring Well 2**

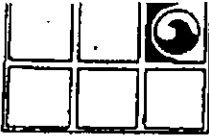
Drilling Log

Project Cottle Engineering Owner East Bay Mud  
 Location Oakland, CA Project Number 203 799 5011  
 Date Drilled 8/7/87 Total Depth of Hole 28 ft. Diameter 10.5 in.  
 Surface Elevation \_\_\_\_\_ Water Level, Initial 7 ft. 24-hrs. \_\_\_\_\_  
 Screen: Dia. 4 in. Length 23 ft. Slot Size 0.20 in.  
 Casing: Dia. 4 in. Length 5 ft. Type PVC  
 Drilling Company Kvilhaug Drilling Method Hollow Stem Auger  
 Driller Chris Pruner Log by Neal Farrar

Sketch Map

Notes





Depth (Feet)	Well Construction	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26				Pea gravel (fill, continued)
28				Drilled to 28 feet, installed 4 inch monitoring well
30				
32				
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36				
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**GROUNDWATER  
TECHNOLOGY, INC.**  
OIL RECOVERY SYSTEMS

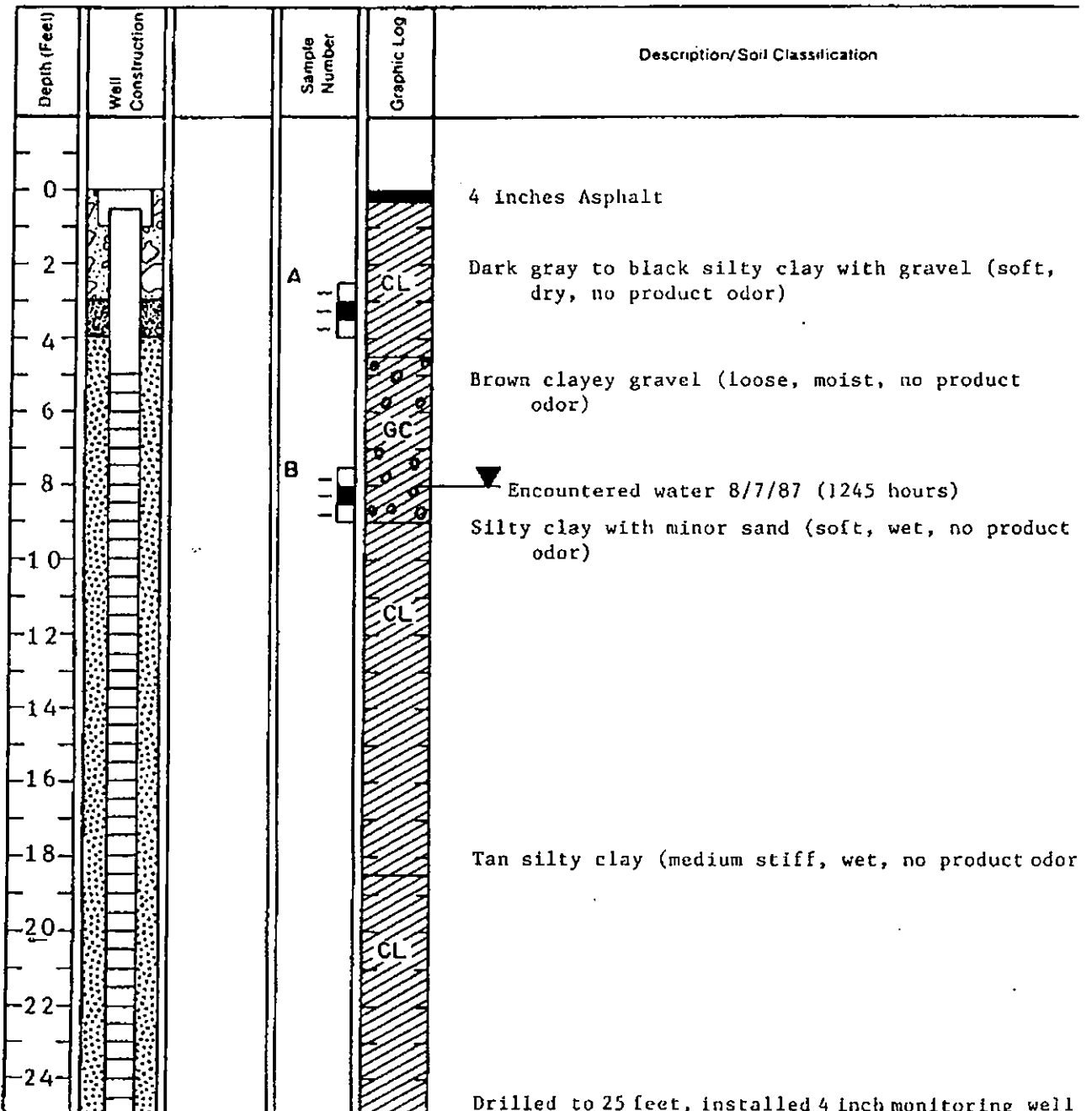
**Monitoring Well 3**

**Drilling Log**

Project Cottle Engineering Owner East Bay Mud  
 Location Oakland, CA Project Number 203 799 5011  
 Date Drilled 8/7/87 Total Depth of Hole 25 ft. Diameter 10.5 in.  
 Surface Elevation \_\_\_\_\_ Water Level Initial \_\_\_\_\_ 24-hrs. \_\_\_\_\_  
 Screen: Dia. 4 in. Length \_\_\_\_\_ 20 ft. Slot Size .020 in.  
 Casing: Dia. 4 in. Length \_\_\_\_\_ 5 ft. Type PVC  
 Drilling Company Kvilhaug Drilling Method Hollow Stem Auger  
 Driller Chris Pruner Log by Neal Farrar

Sketch Map

Notes



Drilled to 25 feet, installed 4 inch monitoring well



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94566 (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

(1) LOCATION OF PROJECT Wake Avenue, Oakland

PERMIT NUMBER 87153 LOCATION NUMBER

(2) CLIENT Name East Bay Municipal Utilities District Address P.O. Box 24055 City Oakland

Approved Craig A. Mayfield Date 2 Jul 87 RECIVED

(3) APPLICANT Name Cottle Engineering Address P.O. Box 163 City Antioch

DEC 9 1987 PERMIT CONDITIONS WASTEWATER Department

(4) DESCRIPTION OF PROJECT Water Well Construction Geotechnical Cathodic Protection Well Destruction

(5) PROPOSED WATER WELL USE Domestic Industrial Irrigation Municipal Monitoring Other

(6) PROPOSED CONSTRUCTION Drilling Method: Mud Rotary Air Rotary Auger Cable Other

- GENERAL 1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date. 2. Notify this office (484-2600) at least one day prior to starting work on permitted work and before placing well seals. 3. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or bore hole logs and location sketch for geotechnical projects. Permitted work is completed when the last surface seal is placed or the last boring is completed. 4. Permit is void if project not begun within 90 days of approval date.

WELL PROJECTS Drill Hole Diameter 10 in. Depth 40 ft. Casing Diameter 10 in. Number Surface Seal Depth 10 ft. approx. Driller's License No. 317628

- WATER WELLS, INCLUDING PIEZOMETERS 1. Minimum surface seal thickness is two inches of cement grout placed by tremie, or equivalent. 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic, irrigation, and monitoring wells unless a lesser depth is specially approved. C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. D. CATHODIC. Fill hole above anode zone with concrete placed by tremie, or equivalent. E. WELL DESTRUCTION. See attached.

GEOTECHNICAL PROJECTS Number 3 Diameter 4 in. Maximum Depth 40 ft.

(7) ESTIMATED STARTING DATE 7/14/87 ESTIMATED COMPLETION DATE 7/17/87

(8) I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

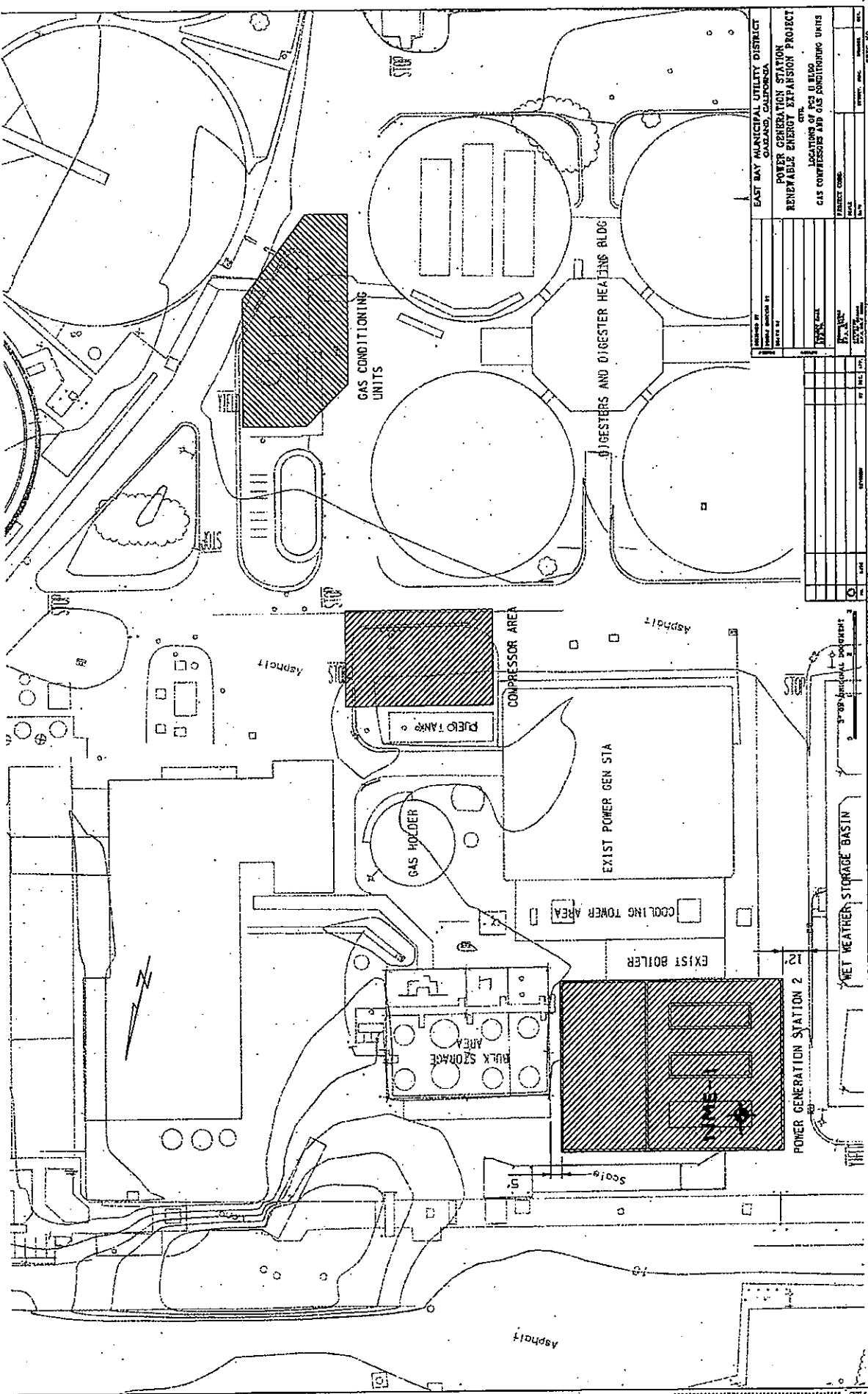
\* Cottle Engineering Representative: Mr. David Cottle

APPLICANT'S SIGNATURE Date 7/8/87

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**



EAST BAY MUNICIPAL UTILITY DISTRICT  
 POWER GENERATION STATION  
 RENEWABLE ENERGY EXPANSION PROJECT  
 LOCATIONS OF PG II BLDG  
 GAS COMPRESSORS AND GAS CONDITIONING UNITS

DATE: 11/15/11  
 DRAWN BY: J. L. [unreadable]  
 CHECKED BY: [unreadable]  
 SCALE: AS SHOWN

NO.	DATE	BY	REVISION
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DEPTH (feet)	Bulk Samples Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.	
							7/26/07	B-1	
							GROUND ELEVATION	SHEET	OF
							10±(MSL)	1	3
							METHOD OF DRILLING 8" Hollow Stem Auger (Exploration Geoservices)		
							DRIVE WEIGHT	DROP	
							140 lbs. (Wire-Line)	30"	
							SAMPLED BY	LOGGED BY	REVIEWED BY
							MKM	MKM	MRC
							DESCRIPTION/INTERPRETATION		
0						GP	<b>ASPHALT CONCRETE:</b> Approximately 3 inches thick.		
						SM	Brown, moist, dense, sandy GRAVEL; approximately 5 inches thick.		
							<b>FILL:</b> Gray, moist, medium dense, silty SAND with gravel.		
						SP	Dark brown and light gray, moist, medium dense, fine to medium poorly-graded SAND; trace coarse sand.		
5	45		7.5	120.7					
						SP-SM	Brown to gray, wet, medium dense, poorly graded SAND with silt.		
10	14		13.3						
							@ 13.5 feet: Groundwater encountered during drilling. Saturated.		
						CH	<b>BAY MUD:</b> Dark gray to black, saturated, very soft, fat CLAY.		
15	Push								
20									

**Ninyo & Moore**

**BORING LOG**

EBMUD POWER GENERATION STATION EXPANSION  
OAKLAND, CALIFORNIA

PROJECT NO.  
401336001

DATE  
8/07

FIGURE  
A-1

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.	
							7/26/07	B-1	
							GROUND ELEVATION	SHEET	OF
							10±(MSL)	2	3
							METHOD OF DRILLING 8" Hollow Stem Auger (Exploration Geoservices)		
							DRIVE WEIGHT	DROP	
							140 lbs. (Wire-Line)	30"	
							SAMPLED BY	LOGGED BY	REVIEWED BY
							MKM	MKM	MRC
							DESCRIPTION/INTERPRETATION		
20		Push				CH	<b>BAY MUD:</b> Dark gray to black, saturated, very soft, fat CLAY; trace organics.		
25		21	21.2			CL	<b>ALLUVIUM:</b> Gray, saturated, very stiff, sandy CLAY.  @ 26.25 feet: Interbed of gray, cemented SAND.		
30		36	20.7	105.6		SC	Mottled light gray and brown, saturated, medium dense, fine to coarse, clayey SAND; trace gravel; oxidation staining.		
35		18				CL/CH	Light gray to brown, saturated, very stiff, silty CLAY; trace fine to coarse SAND; oxidation staining.		
40						ML	Interbedded gray, saturated, very stiff, clayey SILT and brown, saturated, medium dense, sandy SILT; oxidation staining.		



**BORING LOG**

EBMUD POWER GENERATION STATION EXPANSION  
OAKLAND, CALIFORNIA

PROJECT NO.  
401336001

DATE  
8/07

FIGURE  
A-2

DEPTH (feet)	SAMPLES Bulk Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.	
							7/26/07	B-1	
							GROUND ELEVATION	SHEET	OF
							10±(MSL)	3	3
							METHOD OF DRILLING 8" Hollow Stem Auger (Exploration Geoservices)		
							DRIVE WEIGHT	DROP	
							140 lbs. (Wire-Line)	30"	
							SAMPLED BY	LOGGED BY	REVIEWED BY
							MKM	MKM	MRC
							DESCRIPTION/INTERPRETATION		
40		26	27.6	95.7		ML	<u>ALLUVIUM:</u> Interbedded gray, saturated, very stiff, clayey SILT and brown, saturated, medium dense, sandy SILT; oxidation staining.		
45		17				CL	Brown, saturated, very stiff, sandy CLAY; trace caliche; common pores.		
50		29	25.1	99.2					
55							<p>Total depth = 51.5 feet. Groundwater encountered during drilling at approximately 13.5 feet. Installed 2-inch diameter piezometer and protected with a traffic-rated cover on 7/26/07.</p> <p><u>NOTES:</u> Groundwater may rise to a level higher than that measured in borehole due to relatively slow rate of seepage in clay and several other factors as discussed in the report. Please refer to the report for groundwater monitoring recommendation.</p> <p>Boring hand-augered to a depth of approximately 5 feet as directed by EBMUD.</p> <p><u>PIEZOMETER:</u> 0'-16': Portland Cement 16'-18': Bentonite Seal 18'-50': #2/12 Sand Upper 20': Solid Schedule 40 PVC Lower 30': Slotted (0.010") Schedule 40 PVC</p> <p>This report has been prepared to provide information to Carollo Engineers for design purposes.</p>		
60									

**Ninyo & Moore**

**BORING LOG**

EBMUD POWER GENERATION STATION EXPANSION  
OAKLAND, CALIFORNIA

PROJECT NO.  
401336001

DATE  
8/07









FIGURE  
A-3

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**



DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>7/27/07</u> BORING NO. <u>B-2</u>	
	Bulk	Driven						GROUND ELEVATION <u>11'±(MSL)</u>	SHEET <u>1</u> OF <u>3</u>
								METHOD OF DRILLING <u>8" Hollow Stem Auger (Exploration Geoservices)</u>	
								DRIVE WEIGHT <u>140 lbs. (Wire-Line)</u> DROP <u>30"</u>	
								SAMPLED BY <u>MKM</u> LOGGED BY <u>MKM</u> REVIEWED BY <u>MRC</u>	
								<b>DESCRIPTION/INTERPRETATION</b>	
0							GP	<u>ASPHALT:</u> Approximately 2.5 inches thick.	
							SM	<u>FILL:</u> Light gray, damp, medium dense, sandy GRAVEL; approximately 5.5 inches thick. Brown, medium dense, damp, silty SAND; trace fine gravel; trace pockets of clay.	
5			8					Loose.	
10			61	12.1	100.6			Medium dense.	
							CH	<u>BAY MUD:</u> Dark gray to black, moist, very soft, fat CLAY.	
			Push				SM	Dark gray, moist, very loose, silty SAND; trace organics.	
15							CH	@ 16 feet: Groundwater encountered during drilling.	
			Push				CH	Dark gray to black, saturated, very soft, fat CLAY.	
20									

**Ninyo & Moore**




**BORING LOG**

EBMUD POWER GENERATION STATION EXPANSION  
OAKLAND, CALIFORNIA

PROJECT NO.  
401336001

DATE  
8/07

FIGURE  
A-4

DEPTH (feet)	SAMPLES		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED <u>7/27/07</u> BORING NO. <u>B-2</u>	
	Bulk	Driven						GROUND ELEVATION <u>11±(MSL)</u>	SHEET <u>2</u> OF <u>3</u>
								METHOD OF DRILLING <u>8" Hollow Stem Auger (Exploration Geoservices)</u>	
								DRIVE WEIGHT <u>140 lbs. (Wire-Line)</u> DROP <u>30"</u>	
								SAMPLED BY <u>MKM</u> LOGGED BY <u>MKM</u> REVIEWED BY <u>MRC</u>	
								<b>DESCRIPTION/INTERPRETATION</b>	
20							CH	<u>BAY MUD:</u> Dark gray to black, saturated, very soft, fat CLAY.	
							SC	<u>ALLUVIUM:</u> Mottled shades of gray and brown, saturated, medium dense, fine to coarse clayey SAND.	
25			29						
30			11	29.9	92.6			Loose; fine to medium grained; oxidation staining.	
35			22					Medium dense.	
							CL	<u>Brown, saturated, very stiff, silty CLAY; few fine to medium SAND.</u>	
40									

**Ninyo & Moore**

**BORING LOG**

EBMUD POWER GENERATION STATION EXPANSION  
OAKLAND, CALIFORNIA

PROJECT NO.  
401336001

DATE  
8/07

FIGURE  
A-5

DEPTH (feet)	BULK SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED	BORING NO.	
							7/27/07	B-2	
							GROUND ELEVATION	SHEET	OF
							11±(MSL)	3	3
							METHOD OF DRILLING 8" Hollow Stem Auger (Exploration Geoservices)		
							DRIVE WEIGHT	DROP	
							140 lbs. (Wire-Line)	30"	
							SAMPLED BY	LOGGED BY	REVIEWED BY
							MKM	MKM	MRC
							DESCRIPTION/INTERPRETATION		
40		15				CL	<u>ALLUVIUM:</u> Brown, saturated, stiff, silty CLAY; trace to some fine to medium SAND; common pores		
45		14	24.2						
50		30	23.5	96.1			Olive gray; very stiff.		
55							<p>Total depth = 51.5 feet. Groundwater encountered during drilling at approximately 51.5 feet. Installed 2-inch diameter piezometer and protected with a traffic-rated cover on 7/26/07.</p> <p><u>NOTES:</u> Groundwater may rise to a level higher than that measured in borehole due to relatively slow rate of seepage in clay and several other factors as discussed in the report. Please refer to the report for groundwater monitoring recommendation.</p> <p>Boring hand-augered to a depth of approximately 5 feet as directed by EBMUD.</p> <p><u>PIEZOMETER:</u> 0'-16': Portland Cement 16'-18': Bentonite Seal 18'-50': #2/12 Sand Upper 20': Solid Schedule 40 PVC Lower 30': Slotted (0.010") Schedule 40 PVC</p> <p>This report has been prepared to provide information to Carollo Engineers for design purposes.</p>		
60									

**Ninyo & Moore**

**BORING LOG**

EBMUD POWER GENERATION STATION EXPANSION  
OAKLAND, CALIFORNIA

PROJECT NO.  
401336001

DATE  
8/07

FIGURE  
A-6



**ATTACHMENT C**  
**ALAMEDA COUNTY PUBLIC WORKS PERMIT**

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 05/20/2009 By jamesy**

**Permit Numbers: W2009-0423 to W2009-0425**  
**Permits Valid from 05/22/2009 to 05/22/2009**

**Application Id:** 1242854295088  
**Site Location:** 2020 Wake Avenue, Oakland, CA 94607  
**Project Start Date:** 05/22/2009  
**Assigned Inspector:** Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

**City of Project Site:** Oakland  
**Completion Date:** 05/22/2009

**Applicant:** Alisto Engr. - Chris Reinheimer  
2737 N Main St Ste. 100, Walnut Creek, CA 94597  
**Property Owner:** East Bay Municipal Utility Dist.  
375 11th St., Oakland, CA 94607  
**Client:** \*\* same as Property Owner \*\*

**Phone:** 925-279-5000  
**Phone:** 510-287-0509

	<b>Total Due:</b>	\$1035.00
<b>Receipt Number: WR2009-0186</b>	<b>Total Amount Paid:</b>	\$1035.00
<b>Payer Name : Alisto</b>	<b>Paid By: CHECK</b>	<b>PAID IN FULL</b>

**Works Requesting Permits:**

Well Destruction-Monitoring - 3 Wells  
Driller: Gregg - Lic #: 485165 - Method: auger

**Work Total: \$1035.00**

**Specifications**

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2009-0423	05/20/2009	08/20/2009	NME-1	11.00 in.	4.00 in.	0.00 ft	25.00 ft			
W2009-0424	05/20/2009	08/20/2009	NME-2	11.00 in.	4.00 in.	0.00 ft	25.00 ft			
W2009-0425	05/20/2009	08/20/2009	PG5-1	11.00 in.	4.00 in.	0.00 ft	25.00 ft			

**Specific Work Permit Conditions**

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
  
2. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
  
3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.
  
4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

## **Alameda County Public Works Agency - Water Resources Well Permit**

5. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

8. Remove the Christy box or similar structure.

Destroy well by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil.

After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

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**ATTACHMENT D**  
**CALIFORNIA DWR FORM 188**

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**