

May 11, 2012

Mark Detterman
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6540

RECEIVED

2:58 pm, Jun 04, 2012

Alameda County
Environmental Health


Re: Well Survey Report, May 2012
Ras-Co Manufacturing
RWQCB Case #01-2121
ACEH Case #RO0000164
413 West Sunset Blvd
Hayward, CA

Dear Mr. Detterman,

I have directed ERS to provide, on our behalf, professional environmental consulting services to the best of their ability. To the best of my knowledge the information in this report is accurate and all local Agency and/or Regional Water Quality Control Board regulations and guidelines have been followed.

This report was prepared by ERS and I have relied on their advice and assistance. I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,



Karniel Lang
Property Owner

Attachment: Report

March 26, 2012

RAS-CO Manufacturing
413 West Sunset Boulevard
Hayward, CA 94541

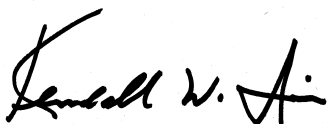
RE: Well Survey Report, March 2012
413 W. Sunset Blvd., Hayward, California
ACEH Case No: RO0000164

Dear Mr. Lang:

Environmental Risk Specialties Corporation (ERS) has enclosed one hard copy of the Well Survey Report, March 2012 for 413 W. Sunset Blvd., Hayward, California. ERS will also upload the Report to the Regional Water Quality Control Board's GeoTracker database.

If you have any questions regarding this report or the findings of the work, please contact me at (408) 496-0801, extension 11 or email me at kprice@erscorp.us.

Sincerely,



Kendall W. Price

CEG, REA

Principal Geologist



cc: Mr. Mark Detterman, Alameda County Health Care Services Agency

WELL SURVEY REPORT

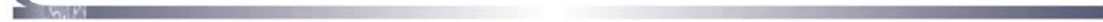
MARCH 2012

RAS-CO Manufacturing
413 W. Sunset Blvd
Hayward, California



ers

Environmental Risk Specialties Corporation



WELL SURVEY REPORT

MARCH 2012

413 W. Sunset Blvd.

Hayward, California

Prepared for:

RAS-CO Manufacturing

413 West Sunset Boulevard

Hayward, CA 94541

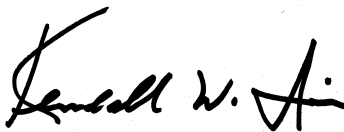
Prepared by:

Environmental Risk Specialties Corporation

Santa Clara, California

March 26, 2012

Reviewed By:



— Kendall Price, CEG, REA —

Principal Geologist

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1. INTRODUCTION

This Well Survey Report was prepared by Environmental Risk Specialties Corporation (ERS) on behalf of RAS-CO Manufacturing. This Report describes work performed at 413 W. Sunset Blvd., Hayward, California (Site). In accordance with a January 27, 2012 letter from Alameda County Environmental Health, the project objectives were to conduct a well survey to locate potential migration pathways, evaluate acquired data, and report the findings.

2. BACKGROUND

The Site is located at 413 West Sunset Boulevard in Hayward, CA. The Site is comprised of a single large structure with paved parking to the west and south. The Site is bounded by residences to the west, north, south, and by Interstate Highway 880 to the east (Appendix A).

Two gasoline USTs (500 and 250-gallon) were removed in November 1994 and limited overexcavation was conducted at that time. A total of 230 cubic yards of soil were excavated in two phases in April and June of 1995 to a total depth of 21 feet below ground surface (bgs). Five grab soil samples were collected at the extent of the second excavation (S-1 through S5) (TPE 1994) and one grab ground water sample was collected at the base of the excavation (S-1) (TPE 1994). All samples were analyzed by Total Petroleum Hydrocarbon (TPH) as gasoline and benzene, toluene, ethylbenzene and xylenes (BTEX).

TPH as gasoline concentrations from the confirmation soil samples collected at the excavation extent contained ranged from 9.1 to 160 mg/kg. The grab water sample collected at the base of the pit contained measurable concentrations of TPH as gasoline at 10 mg/l.

Stockpiled soil was aerated by moving the soil between the onsite treatment areas with a front end loader and spraying with a hydrogen peroxide solution. The stockpiled soil was characterized both before and after treatment. In October 1995, approximately four months after the excavation, the pit was backfilled with approval from Alameda County Health Care Services (TPE, 1996).

One well was installed in June 1999 within 10 feet of the excavated area in accordance with California Regional Water Quality Control Board's recommendations (RWQCB, 1990). The well is screened from 18 to 30 feet bgs. A soil sample was collected during the well installation from 15.5 to 16 feet bgs and ground water was sampled once in June of 1999. An agricultural well, located approximately 60 feet to the west was sampled in February and June of 1999. While the screened zone for the agricultural well is unknown, the total depth of the well was measured at 71.24 feet bgs in December of 2010. All samples were analyzed for TPH as gasoline, BTEX and Methyl tert butyl ether (MTBE).

Methyl tert-butyl ether (MTBE) was the only detected compound, measured at a concentration of 1,200 µg/l in the agricultural well in February 1996. The agricultural well was sampled again

in 1999 and no compounds were detected. Both wells were sampled in December 2010 by ERS and again no constituents were detected in ground water.

2.1 SUBSURFACE CONDITIONS

Lithology at the site was not recorded during the investigation, but according to the USTCF 5-Year Review Summary (Appendix B) and nearby sites in the SWRCB Geotracker database (CKG, 2010), the Site is underlain by sandy clay, fine grained sands and silts to approximately 30 feet. Ground water was encountered at approximately 23.0 below ground surface (bgs) in December 2010.

3. PREFERENTIAL PATHWAY (WELL) SURVEY

Due to the fact that MTBE was detected at a relatively high concentration in the agricultural well in 1996, but has not been detected in subsequent samples collected in 1999 and 2010, a January 27, 2012 letter from the Alameda County Environmental Health Department requested that a Preferential Pathway (well) Survey be conducted (Appendix C). The purpose of this survey was to locate and identify potential migration pathways, in the form of other nearby wells, and determine the probability that these pathways could have spread contamination historically measured at the Site. The survey consisted of two parts: a well data survey and a neighborhood well survey.

3.1 WELL DATA SURVEY

Data for all wells within a ¼-mile of the site was reviewed from two separate data sources: the California Department of Water Resources (DWR) and the Alameda County Public Works Agency (ACPWA). Results of these database searches are included in Appendix D.

3.1.1 Review of DWR Well Completion Reports

The data request through the DWR yielded over 300 pages of well completion data pertaining to approximately 130 wells. Based on available information, 22 of these wells were determined to be within a ¼-mile radius of the Site. Of these 22 wells, 20 are monitoring wells with total depths less than or equal to 41 feet below ground surface (bgs) and screened intervals ranging from 10 to 40 feet bgs. However, the agricultural well was measured to have a total depth of 72 feet bgs in 2010. As these wells are much shallower than the agricultural well where MTBE was initially detected, it is not likely that they would act as preferential pathways for vertical migration of MTBE. Of the remaining two wells within a ¼-mile radius of the Site, a test well with total depth of 49 feet is located at 22302 Hathaway Ave, approximately 0.2 miles directly east of the subject site. Due to its up gradient location, this well is also unlikely to act as a preferential pathway. Finally, a well constructed to 72 feet bgs and located at 20555 Garden Avenue lies approximately 0.15 miles to the west, or down gradient, of the Site. This well was flagged for additional review in the neighborhood well survey.

3.1.2 Review of ACPWA Well Data Search

The data request through ACPWA returned an excel file listing 72 total wells, 10 of which were determined to be within ¼ mile of the Subject Site and potentially active. Of these 10 wells, four are monitoring wells with total depths less than 40 feet and are unlikely to act as potential conduits for vertical migration based on the fact that they are much shallower than the agricultural well where MTBE was initially detected. Of the remaining six wells, ranging in total depths from 60 to 85 feet bgs and having either domestic or irrigation use, two are located up gradient to the northeast and southeast, respectively, and are unlikely to influence contaminant migration. Therefore, four wells from the ACPWA data search, located at 442 W. Sunset Blvd. (80 feet deep), 20555 Garden Ave. (72 feet deep), 421 Bartlett St. (60 feet deep), and 21367 Garden Ave. (85 feet deep) were flagged for additional review in the neighborhood well survey (Figure 1).

3.2 NEIGHBORHOOD WELL SURVEY

A door-to-door neighborhood well survey was conducted on March 1st, 2012 in the area bounded by West Sunset Boulevard on the south, Royal Avenue on the west, Bartlett Avenue on the north, and homes on the east side of Garden Avenue on the east (Figure 1). Of the 39 residences visited, ERS spoke directly to residents at 23 properties. For the remaining 16 cases in which a resident was not home or did not answer, a letter and Well Survey Questionnaire were left in the mailbox along with a self-addressed stamped envelope to return the completed questionnaire to ERS. As of March 21st, 2012, four questionnaires had been completed and returned (Appendix E). Original ERS field notes are also included as Appendix F.

ERS confirmed the presence of the irrigation well at 20555 Garden Ave., and visually confirmed two additional wells, also apparently irrigation wells, at 565 W. Sunset Blvd and at 20943 Garden Avenue (Figure 1). In all three cases, residents confirmed that the wells have been inactive for at least 15 years, and the questionnaire for 571 W. Sunset attests to the well at 565 W. Sunset being unused for at least 30 years. Photographs of the three wells are included in Appendix G. There exists a possible fourth well at 472 Bartlett; the resident claimed that it was somewhere between the 462 and 472 Bartlett properties and that it has not been used for at least 20 years. However, the resident at 462 Bartlett could not confirm the presence of any such well adjacent to the property. None of the residents knew any additional details about any of the wells, such as installation date, total depth, or most recent active date.

ERS also visited the three additional properties identified by the DWR and ACPWA well data searches: 442 W. Sunset Blvd., 421 Bartlett St., and 21367 Garden Ave. (Figure 1). Neither the status nor the presence of these wells could be confirmed.

4. CONCLUSIONS

According to the USTCF 5-Year Review Summary, results from samples collected in February 1996 indicated a presence of MTBE at a maximum concentration of 1,200 µg/L in the agricultural well, which has a total depth of 72 feet bgs. Analytical results from ground water samples collected in December 2010 revealed no measurable concentrations of TPHg, BTEX, MTBE, lead scavengers, fuel oxygenates, EDB, and EDC. Alameda County Environmental Health therefore requested that this well survey be conducted in order to identify possible pathways for vertical migration of the previously detected contamination. The results are summarized below:

- The DWR well data search did not identify any domestic wells down gradient of the Site with a total depth greater than that of the agricultural well where MTBE was detected in 1996. It did, however, identify one irrigation well that lies down gradient of the Site and has a total depth equal to the agricultural well (72 feet bgs).
- The ACPWA well data search identified three wells in addition to the DWR well that lie within ¼ mile down gradient of the site and have total depths similar to or deeper than the agricultural well, ranging from 60 to 85 feet.
- The neighborhood well survey successfully confirmed both the presence and status of one of the four wells identified by the DWR and ACPWA well data searches. Two additional wells were also identified in the door-to-door survey (Figure 1).

5. REFERENCES

ASTM, Standard Practice for Low-Flow Purging and Sampling for Wells and Devices Used for Ground-Water Quality Investigations, 2002

CKG Environmental, *Fourth Quarter 2010 Groundwater and Remediation Effectiveness Monitoring Report, Former Owens-Brockway Glass Container Facility, Hayward Ca, 2010*

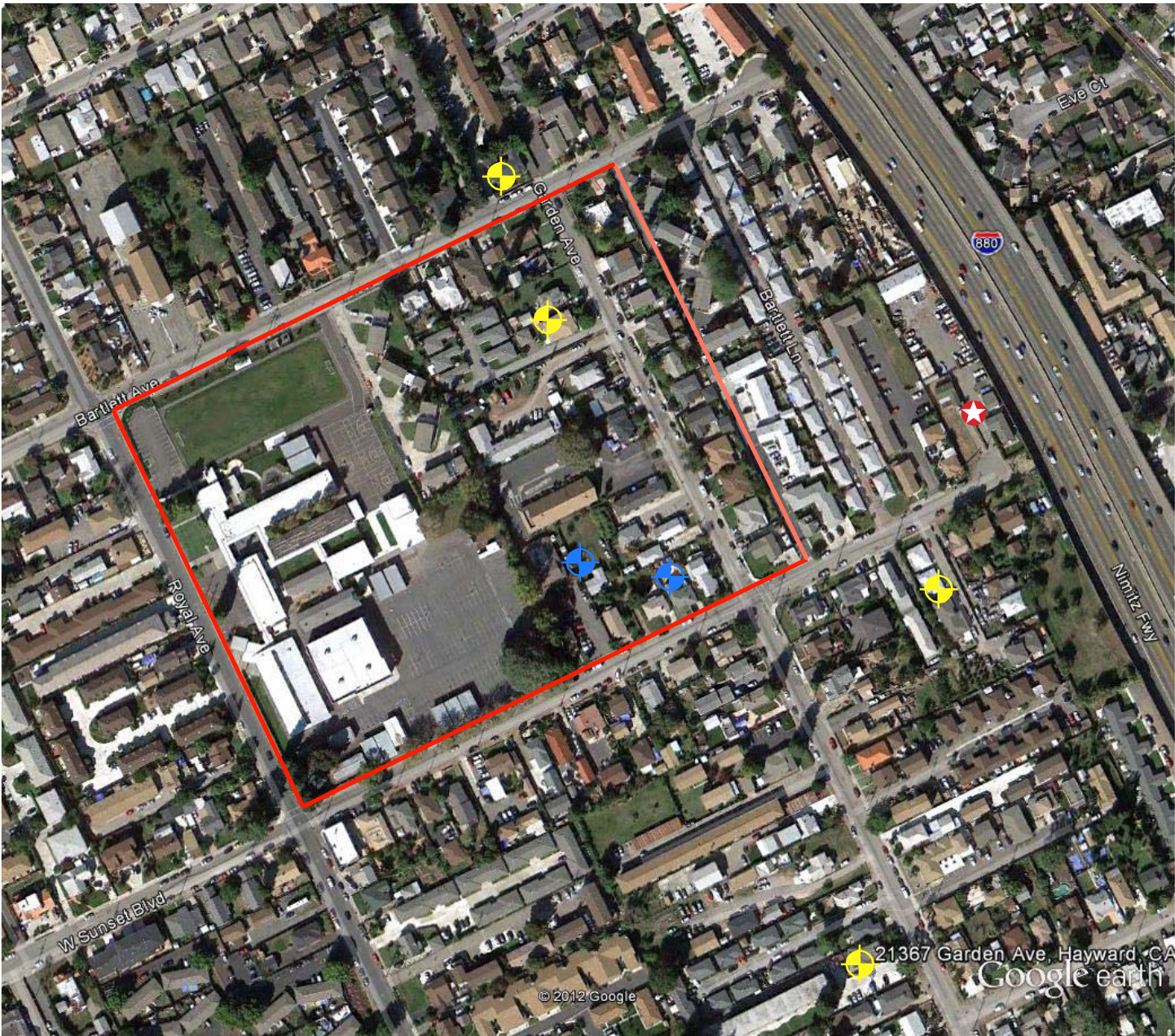
Regional Water Quality Control Board, *Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites, August 1990.*

Tank Protect Engineering, *Groundwater Monitoring Well Installation Report, Aug. 5, 1999*

Tank Protect Engineering, *Report on Excavation of Contaminated Soil and Work Plan for Installation of a Ground water Monitoring Well, Feb. 8, 1996*


Tank Protect Engineering, *Tank Closure Report, Dec. 16, 1994*

FIGURES



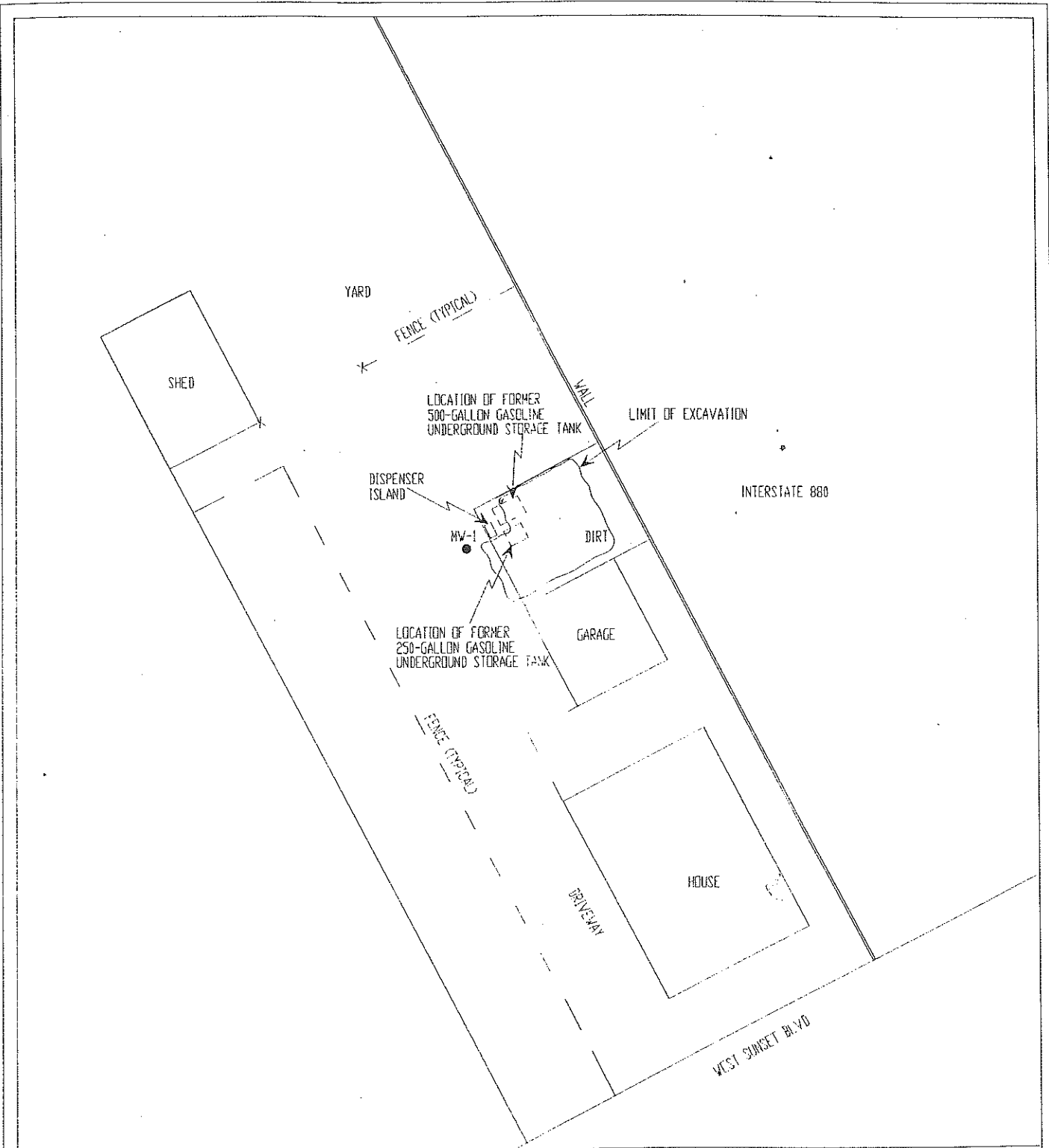
feet  1000



	<p>Wells identified in neighborhood well survey</p>	<h2>Location Map and Nearby Wells</h2> <p>413 W. Sunset Blvd. Hayward, CA</p>	<p>Figure 1</p> 
	<p>Nearby down gradient Municipal or Irrigation Wells from DWR and ACPWA databases</p>		
	<p>Designated boundaries for neighborhood well survey</p>		
	<p>Subject site - 413 W. Sunset Blvd</p>		

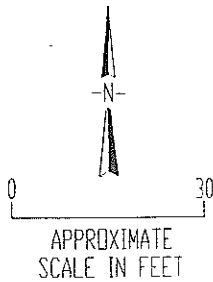
APPENDIX A

Well Location Map for 413 W. Sunset



LEGEND

MW-1 ● NAME AND LOCATION OF GROUNDWATER MONITORING WELL



TANK PROTECT ENGINEERING

SITE PLAN:
MONITORING WELL LOCATION

RASCO MANUFACTURING CO.
413 W. SUNSET BLVD.
HAYWARD, CA 94141

DATE	06/29/99
FIGURE	2
FILE #	329-11
DRAWN BY	VK
CHECKED BY	RD

APPENDIX B

USTCF 5-Year Review Summary by State

Water Resources Control Board



Linda S. Adams
Secretary for
Environmental Protection

State Water Resources Control Board



Arnold Schwarzenegger
Governor

Division of Financial Assistance

1001 I Street • Sacramento, California 95814
P.O. Box 944212 • Sacramento, California • 94244-2120
(916) 341-5660 FAX (916) 341-5806 ♦ www.waterboards.ca.gov/cwphome/ustcf

USTCF 5-YEAR REVIEW SUMMARY

Agency Information

Agency Name: Alameda County LOP	Address: 1131 Harbor Bay Parkway
Agency Caseworker: Mark Detterman	Alameda, CA 94502-6577

Case Information

Case No: RO0000164	Global ID: T060001947
Site Name: RAS-CO Manufacturing Company	Site Address: 413 West Sunset Boulevard, Hayward, CA 94541
Responsible Party: Oscar Lang	Address: 413 West Sunset Boulevard, Hayward, CA 94541
USTCF Claim No.: 10081	Number of Years Case Open: 16
USTCF Expenditures to Date: \$34,789	

Tank Information

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active ?	Date
1	500	Gasoline	Remove	November 1994
2	250	Gasoline	Remove	November 1994

Release Information

- Source of Release: UST system
- Date of Release: The reported date of the release is 22 November 1994.
- Affected Media: Soil and groundwater.

Site Information

- GW Basin: East Bay Plain
- Beneficial Uses: Agricultural, Municipal and domestic supply
- Land Use Designation: Residential
- Distance to Nearest Supply Well: According to data available in GeoTracker, there are no water supply wells within ½ mile of the Site. An agricultural supply well is located approximately 75 feet west of the former UST locations.
- Minimum Groundwater Depth: Unknown
- Maximum Groundwater Depth: Unknown

- Groundwater Flow Direction: Predominately to the westerly with an unknown gradient.
- Soil Types: The Site is underlain by sandy clay.
- Maximum Depth Sampled: 15.5 feet bgs

Monitoring Well Information

Well Designation	Date Installed	Screen Interval (feet bgs)	Most Recent DTW (feet bgs) (June 1999)
MW-1	June 1999	18-33	~25
MW-2	Unknown	Unknown	Unknown
MW-3	Unknown	Unknown	Unknown

Petroleum Hydrocarbon Constituent Concentration

Contaminant	Soil (mg/kg)		Water (ug/L)		WQOs (ug/L)
	Maximum	Latest	Maximum	Latest (June 1999)	
TPHg	9,800	NA	<500	<50	--
Benzene	10	NA	<5	<0.50	1
Toluene	330	NA	<5	<0.50	150
Ethylbenzene	190	NA	<5	<0.50	700
Xylenes	620	NA	<15	<0.50	1,750
MTBE	NA	NA	1,200	<0.50	5
TBA	NA	NA	NA	NA	12
1,2-DCA	NA	NA	NA	NA	0.5

NA: Not Analyzed, Not Applicable or Data Not Available
 mg/kg: milligrams per kilogram, parts per million
 ug/L: micrograms per liter, parts per billion
 WQOs: Water Quality Objectives

Site Description

The Site is located at 413 West Sunset Boulevard in Hayward, CA. The Site is comprised of a single large structure with paved parking to the west and south. The Site is bounded by residences to the west, north, south, and by Interstate Highway 88 to the east.

Site History/Assessments

The USTs were removed in November 1994, and over excavation of affected soil occurred in the following months. In 1999, one monitoring well was installed and sampled. At some later time two additional monitoring wells may have been installed. Numerous notices of violation letters have been written, the Alameda County District Attorney was involved during the mid 1990's but no additional data could be found in the files reviewed.

Remediation Summary

- Free Product: None reported

- Soil Excavation: Approximately 150 cubic yards of affected soil was excavated. This soil was treated spraying dilute hydrogen peroxide and water when the stockpile was being constructed. In 1995, the LOP approved the stockpiled soil to be reused as backfill for the UST excavation.
- In-Situ Soil Remediation: None reported
- Groundwater Remediation: None reported

General Site Conditions

- Geology and Hydrogeology: No data in files reviewed.
- Estimate of Hydrocarbon Mass in Soil: Not reported
- Groundwater Trends: No data in files reviewed.

Sensitive Receptor Survey

No data in files reviewed.

Risk Evaluation

No data in files reviewed.

Recommendation

The UST Fund staff have completed a 5-Year Review for this claim and offer these recommendations for LOP consideration.

- The UST Fund Staff recommend the LOP either proceed with enforcement actions or close the site.

Original signed by 8/26/2010

Pat G. Cullen P. G. Date
Water Resources Control Engineer
Technical Review Unit
(916) 341-5735

Original signed by 8/26/2010

Robert Trommer, CHg Date
Senior Engineering Geologist
Chief, Technical Review Unit
(916) 341-5684

APPENDIX C

Environmental Health Department Letter Request for Well Survey



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

January 27, 2012

Karniel Lang
RAS-CO Manufacturing
143 West Sunset Boulevard
Hayward, CA 94541

Karniel Lang
20 Via Matero Dr.
San Lorenzo, CA 94580

Oscar & Mildred Lang
Unknown Address

Subject: Request for Well Survey; Fuel Leak Case No. RO0000164 and GeoTracker Global ID T0600101947, RAS-CO Manufacturing, 413 West Sunset Boulevard, Hayward, CA 94541

Dear Mr. Lang:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including your emailed response to the December 19, 2011 letter from ACEH concerning the status of the agricultural well at the adjacent property, approximately 45 feet downgradient of the release. Your response was that you do not intend on using the agricultural well in the future. A brief review of Alameda County Public Works Agency (ACPWA) well records indicates that this well was unknown to the agency. This is not unusual for wells in older regions of the East Bay. As a consequence, ACEH requests that you address the following technical comments and send us the reports described below.

TECHNICAL COMMENTS

- 1. Preferential Pathway (Well) Survey** –The purpose of a preferential pathway (well) survey is to locate potential migration pathways and conduits and determine the probability of a groundwater plume encountering preferential pathways that could spread contamination. We request that you perform a well survey that details the potential migration pathways for vertical migration that may be present in the vicinity of the site.

Please discuss in your analysis and interpretation the results of the preferential pathway study and report your results in the report requested below. The results of your study shall contain all information required by California Code of Regulations, Title 23, Division 3, Chapter 16, §2654(b).

- a. Well Survey** - This preferential pathway study is requested to include a well survey of all wells (monitoring and production wells: active, inactive, standby, decommissioned (sealed with concrete), abandoned (improperly decommissioned or lost); and dewatering, drainage, and cathodic protection wells) within a ¼ mile radius of the subject site. Please utilize both ACPWA and the California Department of Water Resources (DWR) sources; the sources are sufficiently different to warrant review of both.
- b. Neighborhood Well Survey** – As briefly noted above many older areas of the East Bay are known to contain an above average number of "backyard" residential or irrigation wells that are both registered and unregistered (and are thus unknown if unregistered). In general, assumptions are made that because domestic water is available in the area, the wells are

unused. ACEH has continued, and recent, experience that this is an erroneous assumption. A quick review of the downgradient vicinity of the site on Google Maps located several older larger residential (and non-residential) parcels, which have been found to typically predate urbanization of this region of the East Bay Plain, and typically have a higher probability of containing an older well (registered or unregistered). Because this site has previously had detected elevated MTBE concentrations in the agricultural well, and because the MTBE concentration in the downgradient agricultural well suggests an impact to a water supply well, ACEH requests a focused neighborhood door to door well survey in an attempt to locate known registered wells, to locate potential unregistered wells, and depending on location, may require the sampling of those wells for site related contaminants. Specifically ACEH requests the door to door survey to be bound by West Sunset Boulevard on the south, Royal Avenue on the west, Bartlett Avenue on the north, and homes on the east side of Garden Avenue on the east. ACEH requests the submittal of a technical report, including a door to door tabulation of the results, by the date identified below.

TECHNICAL REPORT REQUEST

Please submit previously requested technical reports to ACEH (Attention: Mark Detterman), according to the following revised schedule:

- **March 2, 2012** – Results of Well Survey

Should you have any questions, please contact me at (510) 567--6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,



Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou, email,
c=US
Date: 2012.01.27 15:26:48 -08'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

cc: Ken Price; Environmental Risk Specialties Corporation, 1600 Riviera Avenue, Suite 310, Walnut Creek, California 94596; (sent via electronic mail to kprice@erscorp.us)

Donna Drogos, ACEH, (sent via electronic mail to donna.drogos@acgov.org)
Mark Detterman, ACEH, (sent via electronic mail to mark.detterman@acgov.org)
Geotracker, Electronic File

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	REVISION DATE: July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

APPENDIX D

DWR and ACPWA Well Survey Data

Permit	Tr	Section	Address	Longcity	Owner	Update	Xcoord	Ycoord	Matchleve	Tsrqg	Rec code	Phone	City	Drilldate	Elevation	Totaldept	Waterdept	Diameter	Use	WCR #	WELL #, COMMENT TS
	3S/2W	17E 81	1338 SOLANO ST	San Leandro	ALEX FARKAS	8/3/1984	1.22E+08	37672550	9	3S/2W 17E	4607	0	SLE	4/53	40	61	11	4	DOM		
	3S/2W	17E 80	1330 SOLANO ST	San Lorenzo	DONALD H. RUDE	8/3/1984	1.22E+08	37672550	9	3S/2W 17E	4606	0	SLZ	4/53	0	61	18	0	DOM		
	3S/2W	17E 3	?	Hayward	TOM CAWATA	8/3/1984	1.22E+08	37672550	9	3S/2W 17E	4605	0	HAY	4/49	0	104	0	0	?		
95808	3S/2W	17E 80	556 Solano Ave	Hayward	Alfred P. Perozzo	2/1/2010				3S/2W 17E			HAY	1/3/1996		23			DES	568025	
	3S/2W	17F 4	310 Bartlett	Hayward	Anderson Lift Truck MW1	9/23/1992	1.22E+08	37671869	1	3S/2W 17F	7950	0	HAY	4/92	52	37	23	2	MON		
	3S/2W	17F 5	310 Bartlett Ave	Hayward	Anderson Lift Truck MW-2	9/23/1992	1.22E+08	37671875	1	3S/2W 17F	7951	0	HAY	4/92	52	38	22	2	MON		
	3S/2W	17F 6	310 Bartlett Ave	Hayward	Anderson Lift Truck MW-3	9/23/1992	1.22E+08	37671875	1	3S/2W 17F	7952	0	HAY	4/92	52	38	22	2	MON		
	3S/2W	17F 3	20165 HATHAWAY	Hayward	PERKINS	7/30/1984	1.22E+08	37672550	9	3S/2W 17F	4610	0	HAY	6/31	55	200	0	0	IRR		
	3S/2W	17F 2	20987 MEEKLAND AV	Hayward	SHIMAMURA	7/30/1984	1.22E+08	37672550	9	3S/2W 17F	4609	0	HAY	/52	58	75	0	8	IRR		
	3S/2W	17F 1	20161 TIMES AV	Hayward	URBANSKI	7/30/1984	1.22E+08	37672550	9	3S/2W 17F	4608	0	HAY	/52	54	55	0	8	IRR		
	3S/2W	17G 4	21123 Meekland Avenue	Hayward	Beck Roofing	3/9/1992	1.22E+08	37674033	1	3S/2W 17G	7354	0	HAY	Oct-91	0	39	32	2	MON		
	3S/2W	17G 5	21123 Meekland Avenue	Hayward	Beck Roofing	3/9/1992	1.22E+08	37674033	1	3S/2W 17G	7355	0	HAY	Oct-91	0	38	32	2	MON		
	3S/2W	17G 6	21123 Meekland Avenue	Hayward	Beck Roofing	3/9/1992	1.22E+08	37674033	1	3S/2W 17G	7356	0	HAY	Oct-91	0	38	32	2	MON		
	3S/2W	17G	21123 Meekland Blvd	Hayward	Beck Roofing B-1	9/30/1992	1.22E+08	37674033	1	3S/2W 17G	8155	0	HAY	Oct-91	0	26	0	0	BOR*		
	3S/2W	17G 7	21123 Meekland Ave	Hayward	Beck Roofing MW-1	10/3/1992	1.22E+08	37674033	1	3S/2W 17G	8354	0	HAY	Oct-91	0	46	31	2	MON		
	3S/2W	17G 8	21123 Meekland Ave	Hayward	Beck Roofing MW-2	10/3/1992	1.22E+08	37674033	1	3S/2W 17G	8355	0	HAY	Oct-91	0	38	33	2	MON		
	3S/2W	17G 9	21123 Meekland Ave	Hayward	Beck Roofing MW-3	10/3/1992	1.22E+08	37674033	1	3S/2W 17G	8356	0	HAY	Oct-91	0	38	33	2	MON		
	3S/2W	17G11	21123 Meekland Ave	Hayward	Beck Roofing MW-4	4/17/1995	1.22E+08	37674193	1	3S/2W 17G	0	0	HAY	7/94	0	40	28	2	MON		
	3S/2W	17G 1	21559 WEST ST	Hayward	DENNIS	7/30/1984	1.22E+08	37672550	9	3S/2W 17G	4612	0	HAY	/54	65	76	0	8	IRR		
	3S/2W	17G 2	21568 MEEKLAND AV	Hayward	FUENTES	7/30/1984	1.22E+08	37672550	9	3S/2W 17G	4613	0	HAY	5/34	60	92	0	8	IRR		
88212	3S/2W	17G	21560 MEEKLAND AVE	Hayward	JACA CONSTRUCTION	12/14/1988	1.22E+08	37672550	9	3S/2W 17G	4611	5380604	HAY	Jun-88	0	25	0	0	DES	299143	
77686	3S/2W	17G 3	21455 MEEKLAND	Hayward	JOHN DE NOBRIGA	8/3/1984	1.22E+08	37672550	9	3S/2W 17G	4614	0	HAY	Oct-77	0	80	37	6	IRR	33287	
91428	3S/2W	17G10	21454 Meekland Ave.	Hayward	Jon Otteson	6/17/1993	1.22E+08	37673400	1	3S/2W 17G	0	0	HAY	8/91	0	36	0	2	DES		
	3S/2W	17K 2	W. A ST & HATHAWAY ST	Hayward	HUNT FOOD PRODUCTS INC.	8/3/1984	1.22E+08	37669080	9	3S/2W 17K	4622	0	HAY	7/65	0	680	0	0	TES	107557	
	3S/2W	17L 1	21335 HATHAWAY AV	Hayward	BRANELLA	7/30/1984	1.22E+08	37671485	0	3S/2W 17L	4623	0	HAY	/51	55	70	0	8	IRR		
	3S/2W	17L 2	442 SUNSET BLVD	Hayward	SILVERA	7/30/1984	1.22E+08	37669080	9	3S/2W 17L	4624	0	HAY	/51	52	80	0	8	DOM		
95303	3S/2W	17L80	20461 Garden Ave	Hayward	Jack Lucas	6/22/2010				3S/2W 17L			HAY	5/17/1995		35	17	10	DES	568013	#1
	3S/2W	17M 2	20555 GARDEN AV	Hayward	FERNANDES	8/8/1984	1.22E+08	37670689	0	3S/2W 17M	4627	0	HAY	/53	49	72	30	6	IRR		
	3S/2W	17M 1	421 BARTLETT ST	Hayward	LEYMURA	8/8/1984	1.22E+08	37669080	9	3S/2W 17M	4626	0	HAY	/48	46	60	0	8	DOM		
82040	3S/2W	17M	21134 ROYAL AVE.	Hayward	STAN FELSON	2/2/1988	1.22E+08	37666823	0	3S/2W 17M	4625	0	HAY	6/82	0	65	0	8	DES	245011	
	3S/2W	17P25	21749 Garden Av	Hayward	EZ Serve Management Co.	7/16/1997	1.22E+08	37666646	1	3S/2W 17P	0	0	HAY	6/93	0	30	17	2	MON		
	3S/2W	17P 1	22005 ARBOR AV	Hayward	B. COLOMBO	8/8/1984	1.22E+08	37665507	9	3S/2W 17P	4635	0	HAY	/51	50	75	0	0	DOM		
	3S/2W	17P21	525 West A St	Hayward	EZ Serve 100877 MW3	9/21/1992	1.22E+08	37666400	1	3S/2W 17P	7905	0	HAY	1/92	102	30	22	4	MON		
	3S/2W	17P19	525 West A St	Hayward	EZ Serve 100877 MW-1	9/21/1992	1.22E+08	37666400	1	3S/2W 17P	7903	0	HAY	1/92	0	30	21	4	MON		
	3S/2W	17P20	525 West A St	Hayward	EZ Serve 100877 MW-2	9/21/1992	1.22E+08	37666400	1	3S/2W 17P	7904	0	HAY	1/92	101	30	22	4	MON		
	3S/2W	17P22	525 West A St	Hayward	EZ Serve 100877 MW-4	9/21/1992	1.22E+08	37666400	1	3S/2W 17P	7906	0	HAY	1/92	101	30	21	4	MON		
	3S/2W	17P23	525 West A St	Hayward	EZ Serve 100877 MW-5	9/21/1992	1.22E+08	37666400	1	3S/2W 17P	7907	0	HAY	1/92	100	30	21	4	MON		
	3S/2W	17P24	525 West A St	Hayward	EZ Serve 100877 MW-6	9/21/1992	1.22E+08	37666400	1	3S/2W 17P	7908	0	HAY	1/92	101	30	21	4	MON		
	3S/2W	17P26	525 W A St	Hayward	EZ Serve Management Compa	7/28/1997	1.22E+08	37666400	1	3S/2W 17P	0	0	HAY	7/93	0	30	17	2	MON		
	3S/2W	17P28	525 W A Street	Hayward	EZ Serve Management Compa	7/29/1997	1.22E+08	37666400	1	3S/2W 17P	0	0	HAY	6/93	0	30	18	2	MON		
	3S/2W	17P27	525 W A St	Hayward	EZ Serve Management Compa	7/28/1997	1.22E+08	37666371	1	3S/2W 17P	0	0	HAY	6/93	0	30	16	2	MON		
	3S/2W	17P 4	525 WEST A STREET	Hayward	E-Z SERVE OF CALIFORNIA	3/6/1987	1.22E+08	37666400	0	3S/2W 17P	4638	0	HAY	Dec-86	0	30	18	2	MON		
	3S/2W	17P 5	525 WEST A STREET	Hayward	E-Z SERVE OF CALIFORNIA	3/14/1988	1.22E+08	37666400	0	3S/2W 17P	4639	0	HAY	Dec-86	0	30	18	4	MON		
	3S/2W	17P 6	525 WEST A STREET	Hayward	E-Z SERVE OF CALIFORNIA	3/14/1988	1.22E+08	37666400	0	3S/2W 17P	4640	0	HAY	Dec-86	0	30	18	4	MON		
	3S/2W	17P 7	525 WEST A STREET	Hayward	E-Z SERVE OF CALIFORNIA	4/27/1989	1.22E+08	37666400	0	3S/2W 17P	4641	0	HAY	6/87	0	31	30	2	MON		
	3S/2W	17P 8	525 WEST A STREET	Hayward	E-Z SERVE OF CALIFORNIA	4/27/1989	1.22E+08	37666400	0	3S/2W 17P	4642	0	HAY	Jun-87	0	31	29	2	MON		
	3S/2W	17P 9	525 WEST A STREET	Hayward	E-Z SERVE OF CALIFORNIA	4/27/1989	1.22E+08	37666400	0	3S/2W 17P	4643	0	HAY	Jun-87	0	31	30	2	MON		
	3S/2W	17P 4	525 West A St	Hayward	E-Z Serve Petroleum MW1	9/22/1992	1.22E+08	37666400	1	3S/2W 17P	7938	0	HAY	1/92	0	0	0	2	MON		
	3S/2W	17P 7	525 West A St	Hayward	E-Z Serve Petroleum MW4	9/22/1992	1.22E+08	37666400	1	3S/2W 17P	7937	0	HAY	1/92	0	0	0	0	ABN		
	3S/2W	17P 5	525 West A St	Hayward	E-Z Serve Petroleum MW-2	9/22/1992	1.22E+08	37666400	1	3S/2W 17P	7936	0	HAY	1/92	0	0	0	0	ABN		
	3S/2W	17P 2	21367 GARDEN AV	Hayward	LORANG	8/8/1984	1.22E+08	37668321	0	3S/2W 17P	4636	0	HAY	/18	51	85	0	0	IRR		
	3S/2W	17P13	391 West A Street	Hayward	Unocal Corporation	6/21/1990	1.22E+08	37666700	0	3S/2W 17P	294	0	HAY	2/90	0	37	34	4	MON		
	3S/2W	17P12	391 West A Street	Hayward	Unocal Corporation	6/21/1990	1.22E+08	37666700	0	3S/2W 17P	295	0	HAY	2/90	0	40	30	4	MON		
	3S/2W	17P11	391 West A Street	Hayward	Unocal Corporation	6/21/1990	1.22E+08	37666700	0	3S/2W 17P	296	0	HAY	2/90	0	38	30	4	MON		
	3S/2W	17P10	391 West A Street	Hayward	Unocal Corporation	6/21/1990	1.22E+08	37666700	0	3S/2W 17P	297	0	HAY	2/90	0	40	37	4	MON		
	3S/2W	17P14	391 West A Street	Hayward	Unocal Corporation	7/9/1990	1.22E+08	37666700	0	3S/2W 17P	492	0	HAY	Oct-89	0	40	28	4	MON		

Permit	Tr	Section	Address	Longcity	Owner	Update	Xcoord	Ycoord	Matchleve	Tsrqg	Rec code	Phone	City	Drilldate	Elevation	Totaldepth	Waterdept	Diameter	Use	WCR #	WELL #, COMMENT TS
	3S/2W	17P15	391 West A Street	Hayward	Unocal Corporation	7/9/1990	1.22E+08	37666700	0	3S/2W 17P	493	0	HAY	Oct-89	0	36	28	4	MON		
	3S/2W	17P16	391 West A Street	Hayward	Unocal Corporation	7/9/1990	1.22E+08	37666700	0	3S/2W 17P	494	0	HAY	Oct-89	0	41	28	4	MON		
	3S/2W	17P17	391 West A Street	Hayward	Unocal Corporation	7/9/1990	1.22E+08	37666700	0	3S/2W 17P	495	0	HAY	Oct-89	0	40	25	4	MON		
	3S/2W	17P18	391 West A Street	Hayward	Unocal Corporation	7/9/1990	1.22E+08	37666700	0	3S/2W 17P	496	0	HAY	Oct-89	0	40	28	4	MON		
86056	3S/2W	17P 3	411 WEST A ST	Hayward	VIC HUBBARD	5/21/1986	1.22E+08	37666584	0	3S/2W 17P	4637	0	HAY	Apr-86	0	34	10	2	TES	198739	
	3S/2W	17P 3	411 West A St.	Hayward	Gary Light	6/17/1993	1.22E+08	37666575	1	3S/2W 17Q	0	0	HAY	1/93	0	34	0	2	DES		
96362	3S/2W	17P84	391 West A St	Hayward	Unocal Corp	7/13/2010				3S/2W 17P			HAY	4/23/1996		16			DES	445589	
	3S/2W	17Q 3	351 A ST	Hayward	GEORGE BOWMAN	8/8/1984	1.22E+08	37668857	0	3S/2W 17Q	4646	0	HAY	?	55	63	0	6	IRR		
	3S/2W	17Q 1	C & BURBANK	Hayward	UNITED CANNING CO	8/7/1984	1.22E+08	37666600	0	3S/2W 17Q	4644	8814500	HAY	?	0	400	0	16	IND		
	3S/2W	17Q 2	C & BURBANK	Hayward	UNITED CANNING CO	8/7/1984	1.22E+08	37666600	0	3S/2W 17Q	4645	8814500	HAY	3/37	59	603	0	16	IND		
	3S/2W	17Q 5	360 W. A St.	Hayward	Unocal Corp. MW-16	7/26/1993	1.22E+08	37666508	1	3S/2W 17Q	0	0	HAY	Oct-92	54	40	27	4	TES		
	3S/2W	17Q 6	360 W. A St.	Hayward	Unocal Corp. MW-17	7/26/1993	1.22E+08	37666508	1	3S/2W 17Q	0	0	HAY	Oct-92	53	40	26	4	TES		
	3S/2W	17Q 7	360 W. A St.	Hayward	Unocal Corp. MW-18	7/26/1993	1.22E+08	37666508	1	3S/2W 17Q	0	0	HAY	Oct-92	53	40	27	4	TES		
	3S/2W	17Q 4	391 West A Street	Hayward	Unocal Corporation	8/15/1991	1.22E+08	37666700	0	3S/2W 17Q	1952	0	HAY	2/91	0	18	0	0	DES		
	3S/2W	17Q 4	391 WEST 'A' ST.	Hayward	UNOCAL STATION #3791	12/14/1988	1.22E+08	37665541	9	3S/2W 17Q	4647	0	HAY	Sep-88	0	45	26	2	MON		
	3S/2W	17Q 4					0	0	9	3S/2W 17Q	6851	0		Jun-88	0	25	0	0	DES		

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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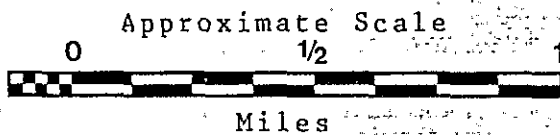
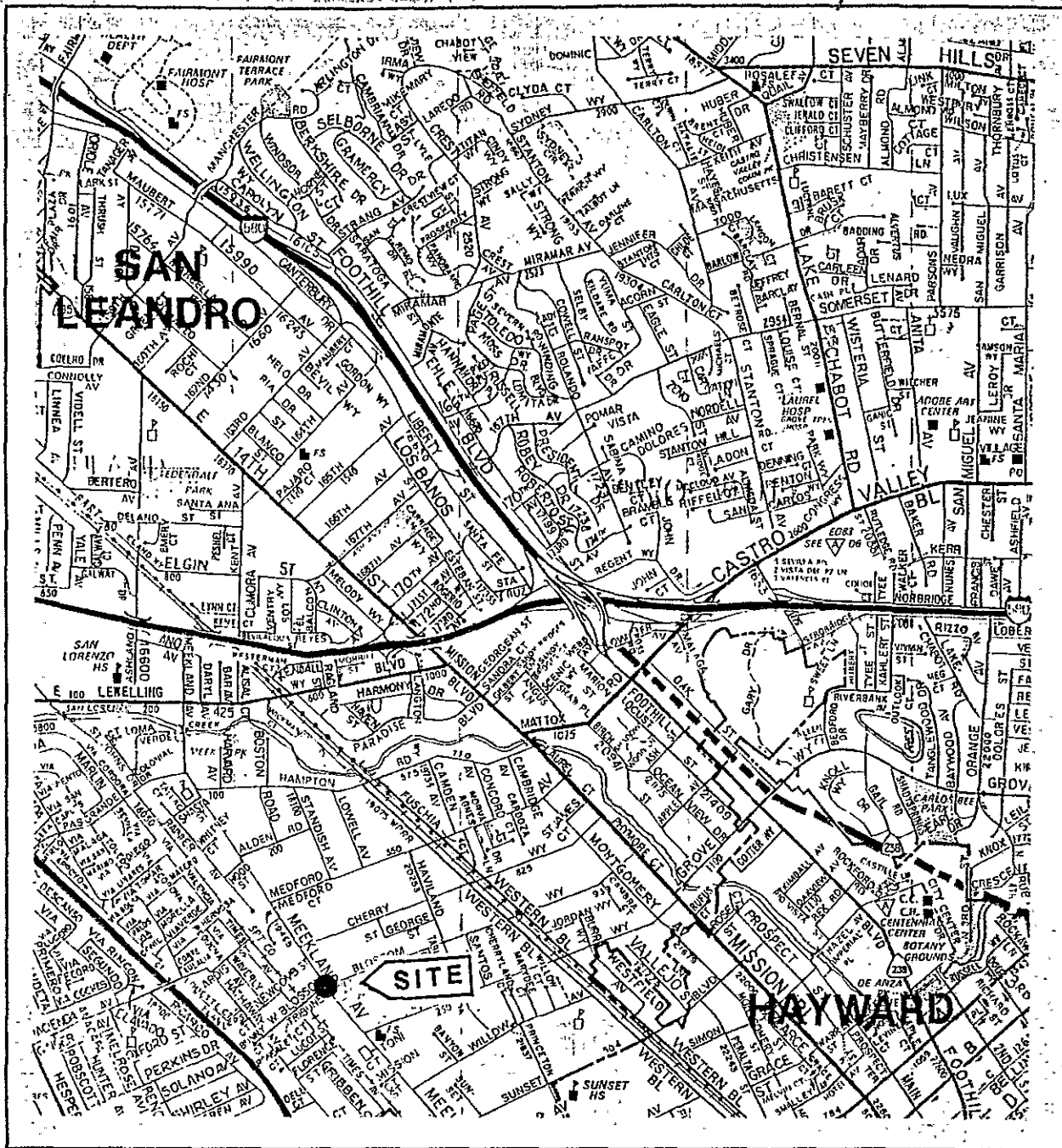
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

REMOVED



Source: Thomas Bros. Maps,
Alameda County, 1985



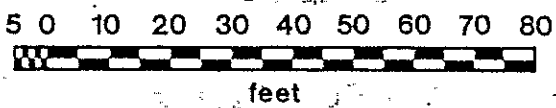
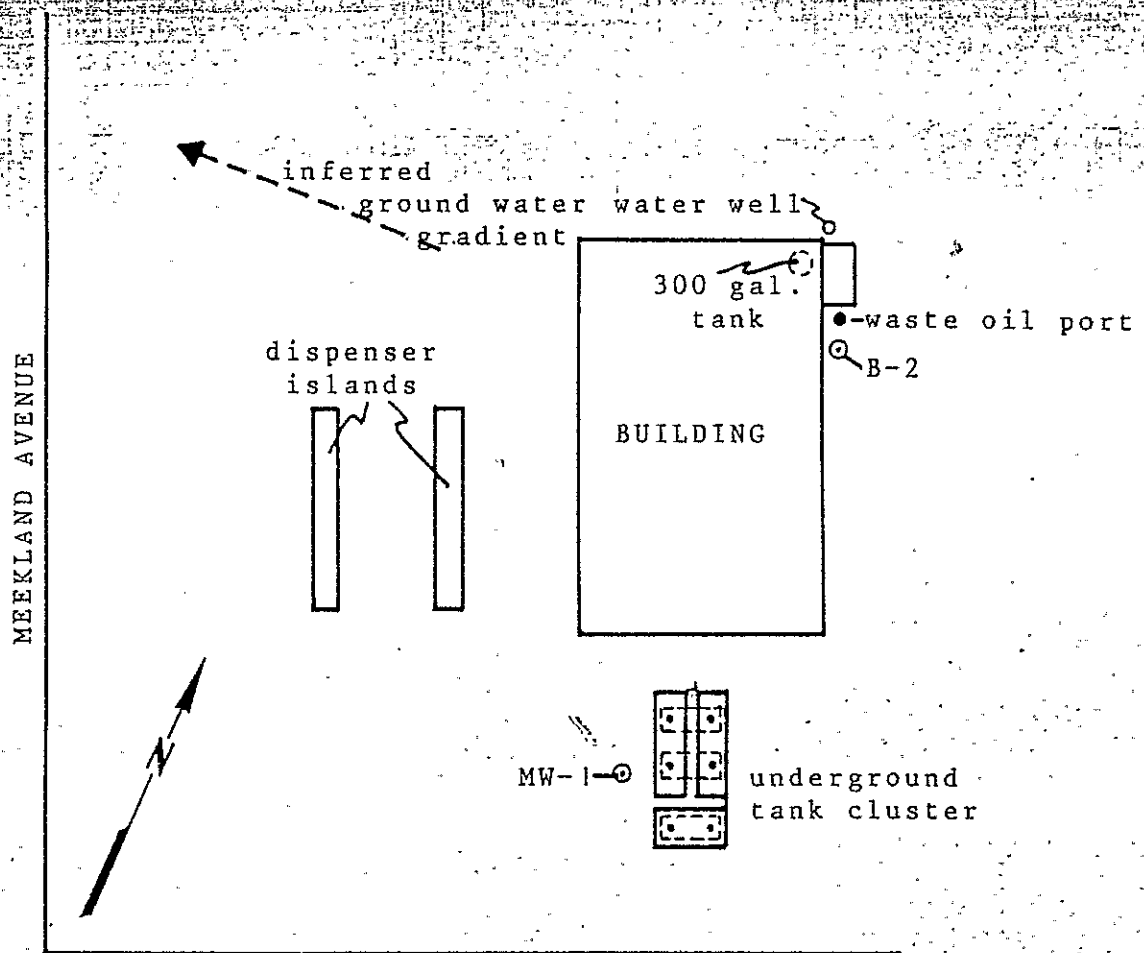
Applied GeoSystems
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PROJECT NO. 8660-1

SITE VICINITY MAP
Harbert Transportation
Hayward, California

PLATE
P-1

01-16-21
3S/PW-170



Approximate Scale



43255 Mission Blvd. Suite B Fremont, CA 94539 4151651-1906

GENERALIZED SITE PLAN
Harbert Transportation
Hayward, California

PLATE

P-2

PROJECT NO. 8660-1

01-1527 3S/2W 17 CS

DEPTH IN FEET	Blows/ Ft.	Sample No.	USCS	DESCRIPTION	WELL CONST.
				6" asphalt	
2			ML	Silty clay, red-brown to black, slightly damp, very stiff, slight plasticity, no product odor.	
4					
6	17	S-5			
8					
10					
12					
14	32	S-13		Green-brown to dark brown, slight odor.	
16	25	S-15		Light green-brown to red-brown, dry, slight to moderate product odor.	
18					
20	15	S-20	CH	Clay, dark brown, moist, stiff, high plasticity, moderate to strong product odor.	
22					
24					
26	39	S-25		Light green-brown, wet, hard, moderate product odor.	
28					
30				Clay continues downward, continued on next plate.	



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LOG OF BORING B1/MW-1

Harbert Transportation
Hayward, California

PLATE

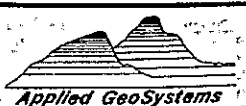
P-4

PROJECT NO. 8660-1

01-1527

35/2W/17 CS

DEPTH IN FEET	Blows/ Fl.	Sample No.	USCS	DESCRIPTION	WELL CONST.
30					
32	18	S-30	CH	Clay, light green-brown, wet, hard, high plasticity, moderate product odor. Dark green-brown, very stiff.	
34					
36	38	S-35		Red-brown, hard, slight product odor.	CAVED
38					
40					
42				Total depth = 41.5 feet.	



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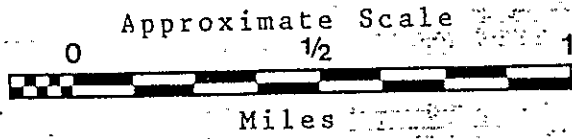
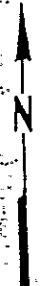
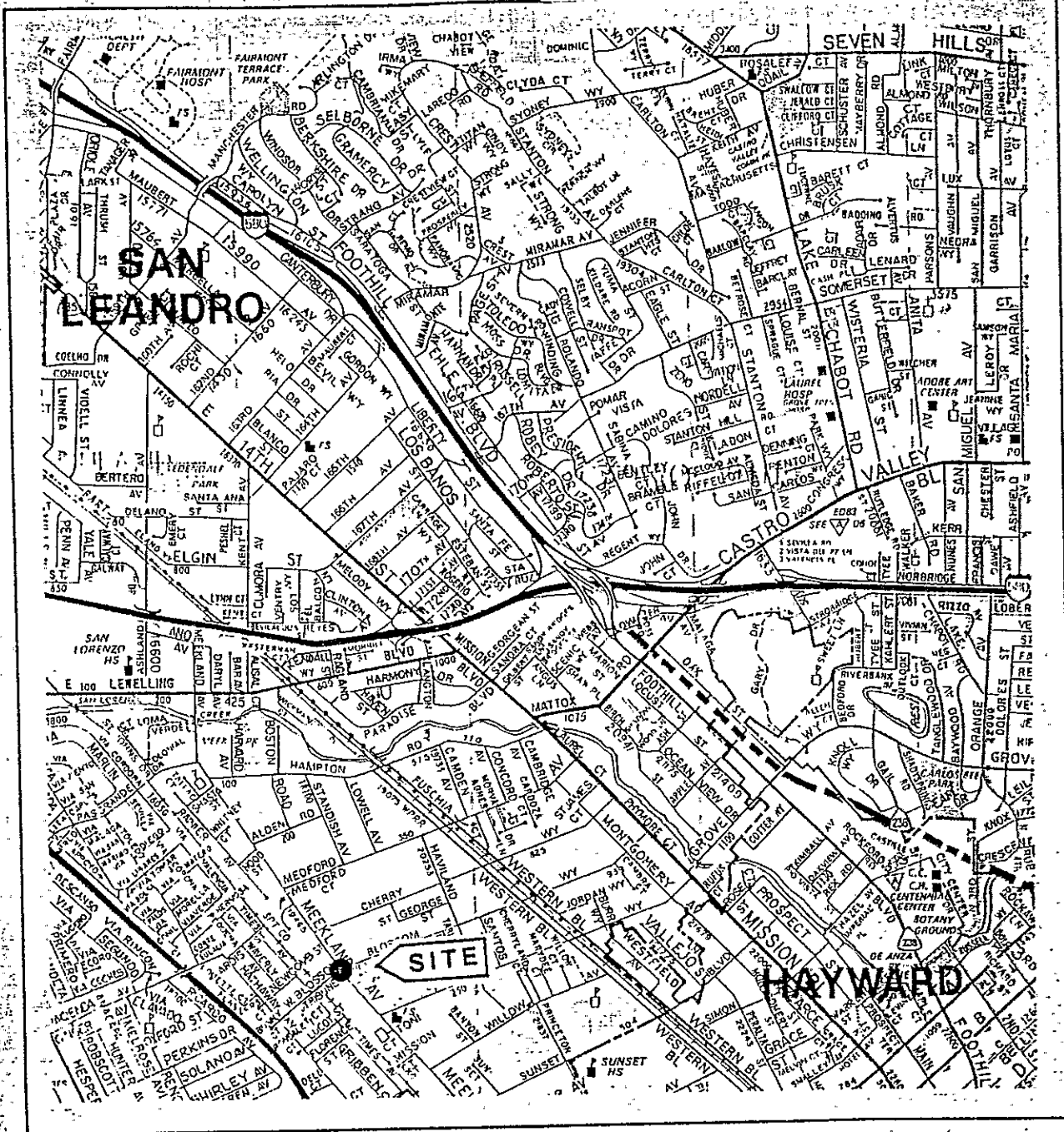
LOG OF BORING B-1/MW-1

Harbert Transportation
Hayward, California

PLATE

P-5

PROJECT NO. 8660-1



Source: Thomas Bros. Maps, Alameda County, 1985



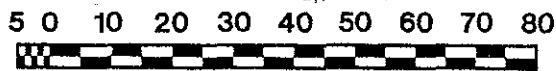
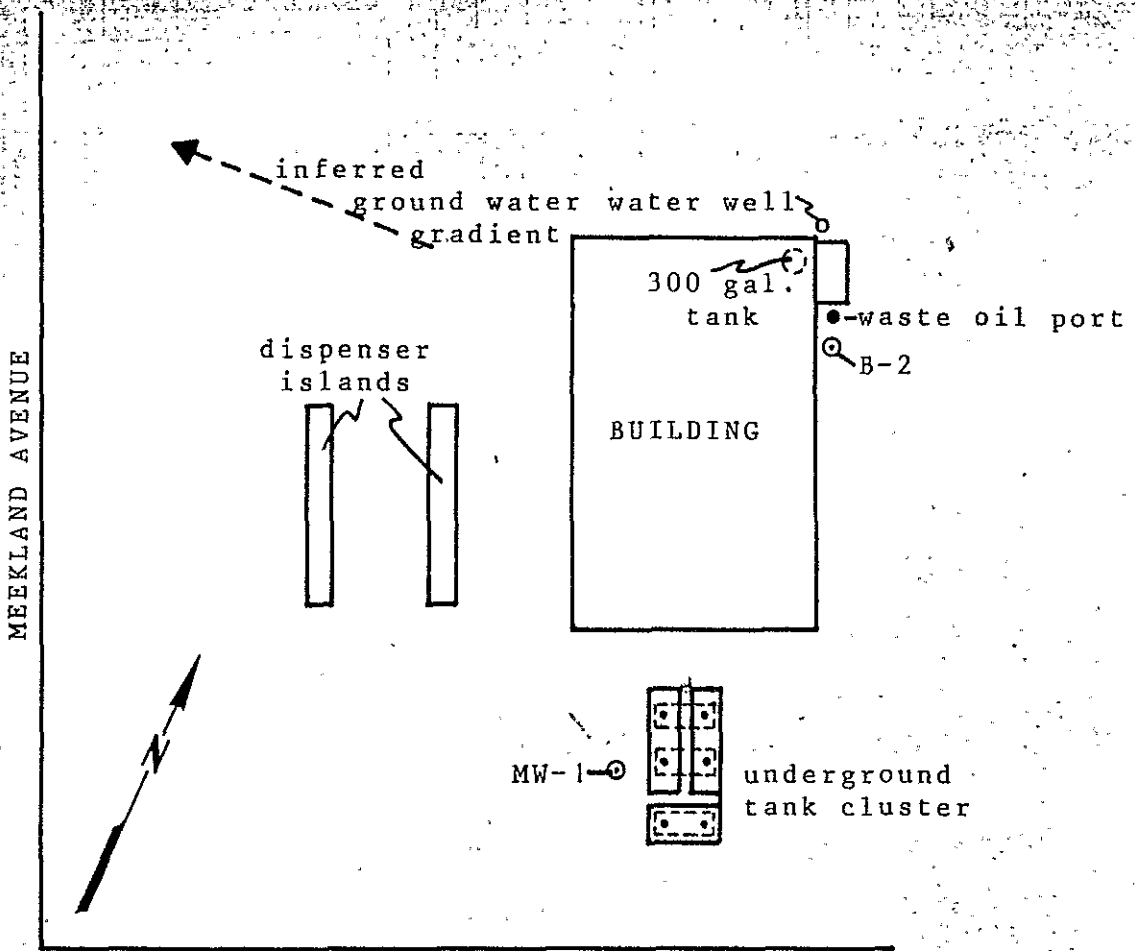
Applied GeoSystems
41255 Alameda Blvd. Suite B Fremont, CA 94539 (415) 651-1906

SITE VICINITY MAP
Herbert Transportation
Hayward, California

PLATE
P-1

01-1628

3S/2W/7C



Approximate Scale



41255 Mission Blvd. Suite B Fremont, CA 94539 (415) 651-1906

GENERALIZED SITE PLAN
 Harbert Transportation
 Hayward, California

PLATE

P-2

PROJECT NO. 8660-1

01-1628 33/2W/FC

DEPTH IN FEET

Blows/ Ft.	Sample No.	USCS	DESCRIPTION	WELL CONST.
0			6" asphalt	
2		ML	Silty clay, slightly pebbly, dark brown, wet, very stiff, medium plasticity, no product odor.	
6	17	S-5		
10	19	S-10	Red-brown.	
16	13	S-15	CH Clay, green-gray, wet, stiff, high plasticity, very slight product odor.	
20		ML	Silty clay, red-brown, wet, stiff, medium plasticity, no product odor.	
22	11	S-20	CH Clay, dark green-brown, wet, stiff, medium plasticity, no product odor.	
24	29		Total depth = 23 feet.	



Applied GeoSystems
33255 Mission Blvd. Suite B Fremont, CA 94539 (415) 651-1906

LOG OF BORING B-2

Harbert Transportation
Hayward, California

PLATE

P-6

PROJECT NO. 8660-1

 toxic technology services inc.

~~15/4W~~

01-444U
3S/2W 17C6

February 16, 1990
File No. 89-12

RECEIVED
FEB 22 1990
ZONE 7, ACFC&WCD

Mr. Craig Mayfield
Zone 7
5997 Parkside Drive
Pleasanton, California 94566

Subject: Well Installation Report
19984 Meekland Road, Hayward

Dear Mr. Mayfield:

Enclosed is the groundwater monitoring well and well destruction report for 19984 Meekland Road in Hayward, California. The property is currently owned by Durham Transportation.

For your information, the permit numbers are as follows:

Well Construction Permit Number 89690
Well Destruction Permit Number 89691

Just to clear up any misconceptions, the well which was abandoned was an unregistered well that was used for on-site operations. A permitted monitoring well was installed on-site in 1986 by Applied Geosystems. S This well is currently operational and is referred to in the attached report as MW-1.

For your convenience, the information which is of the most interest to you has been tagged with yellow markers.

Thank you for your time and help in this matter. If you have any questions, please call the undersigned at (415) 799-1140.

Sincerely,



Lisa A. Polos, REA
Senior Scientist
Toxic Technology Services
CTTS, Inc.

casing. Above the sand-pack, at least two feet of bentonite pellets was used as a seal, and the remainder of the annulus was filled with cement grout. Monitoring Well Installation Reports with more detailed information on each of the well installations were recorded and are in the files.

The units encountered in the borings for monitoring wells MW-3 and MW-4 are shown on the boring logs (Appendix B). The soil samples collected from MW-3 had no odor above a depth of 20 feet. The sample at 20 feet had a slight solvent odor. The sample was moist and was probably within the capillary fringe of the groundwater table. The sample at a depth of 25 feet had a very strong odor of gasoline. Below 25 feet the samples were from the saturated zone and had a slight odor of gasoline. The sample at 25 feet is probably within the zone of groundwater fluctuation and the contamination in the soil was deposited during a period of a higher groundwater level.

The soil samples from MW-4 had a slight odor of gasoline from a depth of 20 feet to the bottom of the boring. A very slight odor was detected in the sample from a depth of 15 feet.

Photographs taken during the sampling and installation of MW-3 and MW-4 are enclosed with this report.

During the well installation, Mr. Tom Peacock of the Alameda County Health Agency, Hazardous Materials Division, visited the site. He requested that a water sample be taken from the well that was to be abandoned and submitted for chemical analysis. A copy of Mr. Peacock's Hazardous Materials Inspection Form is presented under Appendix C.

On November 29, 1989, Mr. John Alt and Ms. Lisa Polos developed the wells by evacuating 15 gallons of water from each well by bailing prior to sampling. After the wells were developed, groundwater samples were collected using separate three-foot disposable bailers.

The first sample from each well was retrieved from the surface of the water, and the contents of the bailer were inspected to assess whether or not there was any floating product present. Groundwater from both wells had odor and sheen, but both were more noticeable in MW-3. Sample vials and jars, provided by the laboratory, were filled from the bailer.

MW-1, which was installed in 1986, was not sampled at this time, however, upon opening the well cap and checking the water level, a strong odor was detected. A sheen was observed on the water purged from this well in August 1989.

WELL ABANDONMENT

A water well was located at the northeast corner of the building

and connected to a holding water tank inside the building by a galvanized surface pipe. Previous attempts to activate the pump to sample the well were not successful.

Alameda County Public Works Department has no record of a well at the subject site prior to the 1986 installation of one monitoring well by Applied Geosystems. No data were available regarding the total depth, screened interval or condition of the well. Because of the potential that the well could act as a conduit for downward migration of the near surface contamination, it was decided that the well should be grouted and abandoned.

The grouting was done on December 12, 1989 by HEW Drilling, Inc.

The well head and surface piping was removed and the pump was then taken out of the well. The well was four inches in diameter with a PVC casing. The total depth of the well was measured at 67.9 feet to the ground surface. The top of the casing was approximately one foot below the ground surface.

The depth to standing water in the well was measured at 29.9 feet from the ground surface. The well was purged by bailing and a water sample collected. The initial bailer of water has no odor, sheen or product. After bailing approximately 2 gallons, a solvent odor was detected. The odor increased in intensity as more water was extracted from the well, however, the samples collected had no noticeable odor. The sample was shipped in a cooled ice chest to TMA/Norcal and analyzed for Volatile Halogenated Hydrocarbons, Total Petroleum Hydrocarbons as gasoline and Benzene, Toluene, Ethylbenzene and Xylenes (BTEX). Results are presented in the following section.

The well was pressured grouted using a tremie pipe starting from the bottom and continuing upward. The grout mix was one 90lb. sack of Lonestar Cement Type I & II per five gallons of water. A total of 22 sacks of cement were used to grout the well. The level of the cement grout was brought up to where it overflowed the top of the casing.

Photos of the abandoned well are presented at the end of this report.

CHEMICAL DATA SUMMARY

Table 2 is a summary of positive analytical results from the soil and water samples collected.

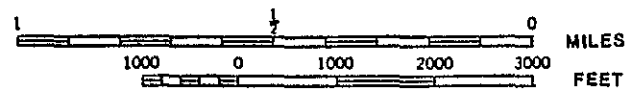
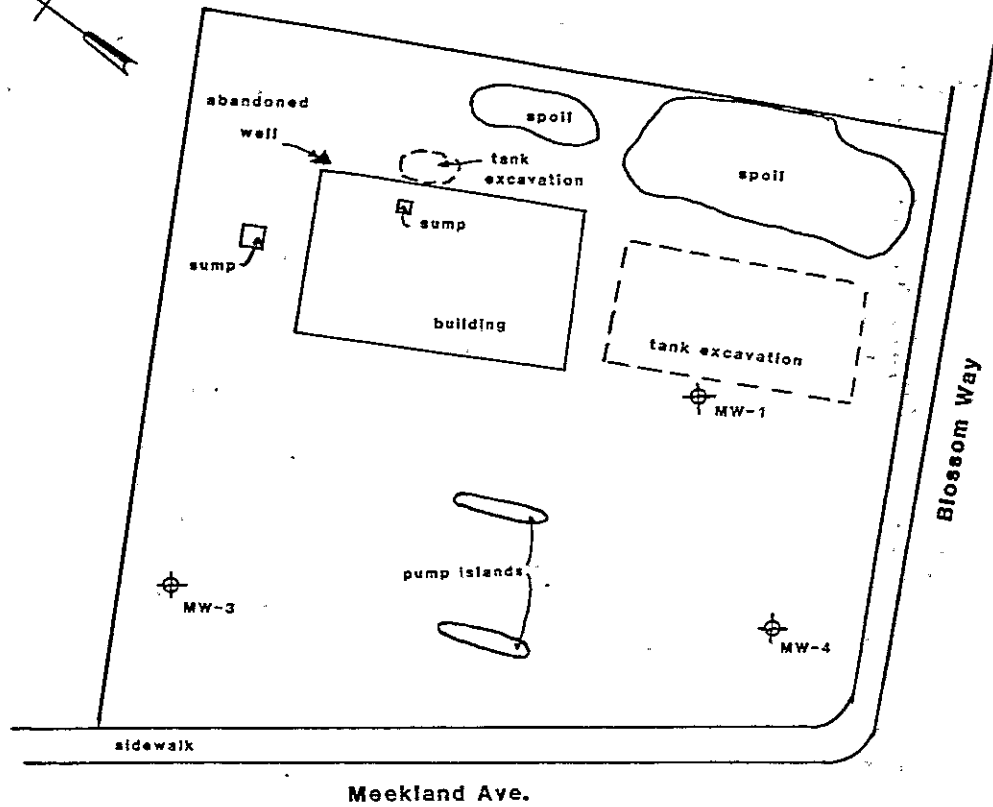
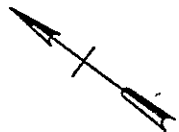


PLATE	No. 1
SITE LOCATION MAP	

01-4440



SITE PLAN - DURHAM TRANSPORTION

SCALE: 1" = 20'	APPROVED BY:	DRAWN BY:
DATE: JANUARY 1990		REVISED:
CTIS, Inc.		DRAWING NUMBER: 3

01-444U

3S/2W 17C6



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94566 (415)

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

(1) LOCATION OF PROJECT 19984 Markland Rd Hayward, CA

PERMIT NUMBER 89691 LOCATION NUMBER 3S/2W 17G80

(2) CLIENT Name Durham Transportation (415) Address 27577(A) Industrial Hayward, CA Phone 887-6005 City Hayward, CA Zip 94545

PERMIT CONDITIONS Circled Permit Requirements Apply

(3) APPLICANT Name Lisa Palos GTS, Inc (415) Address P.O. Box 515 Redwood, CA Phone 777-1140 City Redwood, CA Zip 94572

- A. GENERAL 1. A permit application should be submitted so as arrive at the Zone 7 office five days prior proposed starting date. 2. Submit to Zone 7 within 60 days after complet of permitted work the original Department Water Resources Water Well Drillers Report equivalent for well projects, or drilling l and location sketch for geotechnical projects. 3. Permit is void if project not begun within days of approval date. B. WATER WELLS, INCLUDING PIEZOMETERS 1. Minimum surface seal thickness is two inches cement grout placed by tremie. 2. Minimum seal depth is 50 feet for municipal Industrial wells or 20 feet for domestic, Irrl tion, and monitoring wells unless a lesser de is specially approved. C. GEOTECHNICAL. Backfill bore hole with compacted c tings or heavy bentonite and upper two feet with c pacted material. In areas of known or suspec contamination, tremied cement grout shall be used place of compacted cuttings. D. CATHODIC. Fill hole above anode zone with concr placed by tremie. E. WELL DESTRUCTION. See attached.

(4) DESCRIPTION OF PROJECT Water Well Construction ___ Geotechnical Investigation ___ Cathodic Protection ___ General ___ Well Destruction X Contamination ___

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

(6) PROPOSED CONSTRUCTION Drilling Method: Mud Rotary ___ Air Rotary ___ Auger ___ Cable ___ Other ___ DRILLER'S LICENSE NO. 384167

WELL PROJECTS Drill Hole Diameter ___ in. Maximum Casing Diameter ___ in. Depth ___ ft. Surface Seal Depth ___ ft. Number ___

GEOTECHNICAL PROJECTS Number of Borings ___ Maximum Hole Diameter ___ in. Depth ___ ft.

(7) ESTIMATED STARTING DATE Nov 28 1989 ESTIMATED COMPLETION DATE Nov 29, 1989

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

Approved [Signature] Date 22 Nov Todd N. Wendler

APPLICANT'S SIGNATURE Lisa A. Palos Date 11-22-89



toxic technology services inc.

~~15/4WF~~

01-444V
3S/2W 17C7

(MW3)

RECEIVED
FEB 22 1990
ZONE 7, ACFC&WCD

February 16, 1990
File No. 89-12

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Sincerely,

Lisa A. Polos, REA
Senior Scientist
Toxic Technology Services
CTTS, Inc.

John Alt and witnessed by representatives of the Eden Fire District. Product lines to the gasoline dispensers were excavated and removed on August 15, 1989.

Soil samples from the tank and pipe excavation were collected for analysis. The existing groundwater monitoring well (MW-1) was purged and sampled.

Analytical data from the soil samples taken in the pit excavation show significant gasoline, benzene, toluene, ethylbenzene and xylene contamination, particularly around tanks 1 and 2. Soil from the waste oil excavation contained low levels of contaminants. The groundwater sample had detectable levels of toluene and xylene.

On November 28, 1989, two groundwater monitoring wells were installed (Plate 3). Prior to drilling, permits were obtained. On November 29, 1989, the wells were developed and sampled. On December 12, 1989. The existing water well behind the building was purged, sampled and then abandoned according to state and local regulations.

HYDROGEOLOGIC SETTING

The subject site is underlain by generally fine-grained alluvial fan and flood plain deposits derived from the hills located approximately two miles east of the site. The deposits are late Quaternary in age and overlie rock of the Franciscan Assemblage at an unknown but probably great depth.

Three to four feet of fill generally overlies the Quaternary deposits at the site. The fill consists primarily of a clayey to sandy gravel.

The native deposits underlying the fill consist primarily of silty clay to clayey silt with minor and varying amounts of sand and gravel. Lenses of silty sand and gravel, approximately 3 to 4 inches thick, were encountered in the two borings. No other significant bedding or stratification of the units was observed to the depth explored (40 feet) and the deposits are considered to be homogeneous for hydrologic considerations.

The groundwater gradient at the site is essentially flat. The elevation of the groundwater was measured in the three monitoring wells on-site by surveying the elevation of the top of the casing and measuring the depth to groundwater using an electronic probe. The elevations are based on Alameda County benchmark BLO-MEEK located in the middle of the intersection of Blossom Way and Meekland Ave. The depth to groundwater was measured on December 19, 1989 and again on January 29, 1990. The data are presented on Table 1. They indicate a very low westward to northwestward gradient. The elevations of groundwater in the three wells are within 0.1 foot and are about at the level of error in the

measuring techniques. Therefore an exact gradient was not calculated.

TABLE 1
DEPTH TO GROUNDWATER

Monitoring Well	Elev. Top of Casing	12/19/89		1/29/90	
		Depth	Elev.	Depth	Elev.
MW-1	55.13	29.07	26.06	28.73	26.35
MW-3	54.34	28.35	25.99	28.00	26.34
MW-4	54.61	28.59	26.02	28.18	26.43

Note: All measurements are in feet.

GROUNDWATER MONITORING WELL INSTALLATION AND SAMPLING

On November 28, 1989, two groundwater monitoring wells, identified as MW-3 and MW-4, were installed at the subject site by HEW Drilling, Inc., using a CME 55 drill rig with hollow stem augers. Mr. John Alt, CEG and Ms. Lisa Polos supervised the installation. The locations of the wells are shown on Plate 2. Augers were steam cleaned prior to the drilling of the wells. A standard split barrel sampler with 2-5/8" OD and 2" ID was used for soil sampling. It had the capacity for obtaining an 18 inch sample using three six-inch long brass liners. Prior to obtaining each sample, the disassembled sampler and the brass liners were washed in a solution of TSP in water. Each piece was triple rinsed, with the final rinse being distilled water.

A boring log was prepared for each well. Copies of these logs are presented in Appendix B. Blow counts were recorded for each six inches of penetration of the sampler, and the time at which each sample was taken was noted on the field log. Soil samples were collected at five foot intervals during the drilling. The lower-most sample liner (next to the shoe) was retained for any required chemical analysis. The soil exposed in the ends of the tube was quickly noted, and the ends were then sealed with teflon tape and snug-fitting plastic caps. The edges of the caps were sealed with plastic tape. The cap was labeled with the sample number, depth, date, and project name. The soil samples were placed in a chilled ice chest as they were collected, and selected soil samples were marked to be sent to TMA/Norcal, a State certified hazardous waste laboratory for analysis. The second and third samples were inspected and used for the sample description.

Two-inch (ID) Schedule 40 PVC pipe was used for the well casings. Each well was screened with slotted (0.020 inch openings) casings in the lower 15 feet of the well and capped at the bottom with a slip on cap. The 8-inch diameter borings were filled in the annular space between the casing and bore wall with clean #3 sand to a depth of approximately 2 feet above the top of the slotted

casing. Above the sand-pack, at least two feet of bentonite pellets was used as a seal, and the remainder of the annulus was filled with cement grout. Monitoring Well Installation Reports with more detailed information on each of the well installations were recorded and are in the files.

The units encountered in the borings for monitoring wells MW-3 and MW-4 are shown on the boring logs (Appendix B). The soil samples collected from MW-3 had no odor above a depth of 20 feet. The sample at 20 feet had a slight solvent odor. The sample was moist and was probably within the capillary fringe of the groundwater table. The sample at a depth of 25 feet had a very strong odor of gasoline. Below 25 feet the samples were from the saturated zone and had a slight odor of gasoline. The sample at 25 feet is probably within the zone of groundwater fluctuation and the contamination in the soil was deposited during a period of a higher groundwater level.

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Photographs taken during the sampling and installation of MW-3 and MW-4 are enclosed with this report.

During the well installation, Mr. Tom Peacock of the Alameda County Health Agency, Hazardous Materials Division, visited the site. He requested that a water sample be taken from the well that was to be abandoned and submitted for chemical analysis. A copy of Mr. Peacock's Hazardous Materials Inspection Form is presented under Appendix C.

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MW-1, which was installed in 1986, was not sampled at this time, however, upon opening the well cap and checking the water level, a strong odor was detected. A sheen was observed on the water purged from this well in August 1989.

WELL ABANDONMENT

A water well was located at the northeast corner of the building

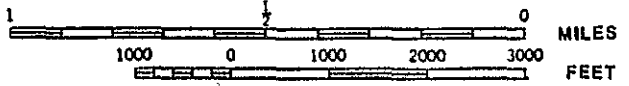
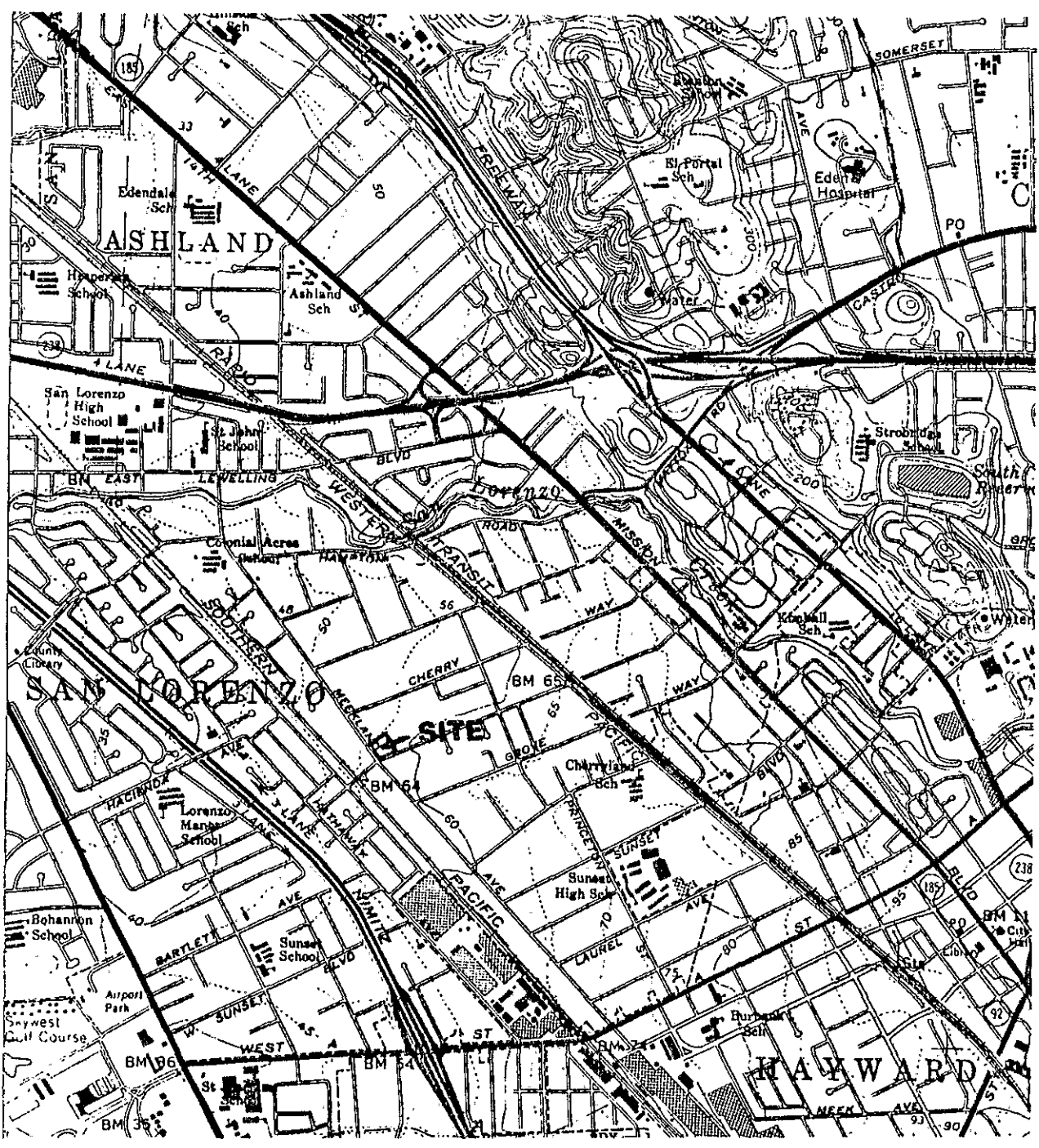
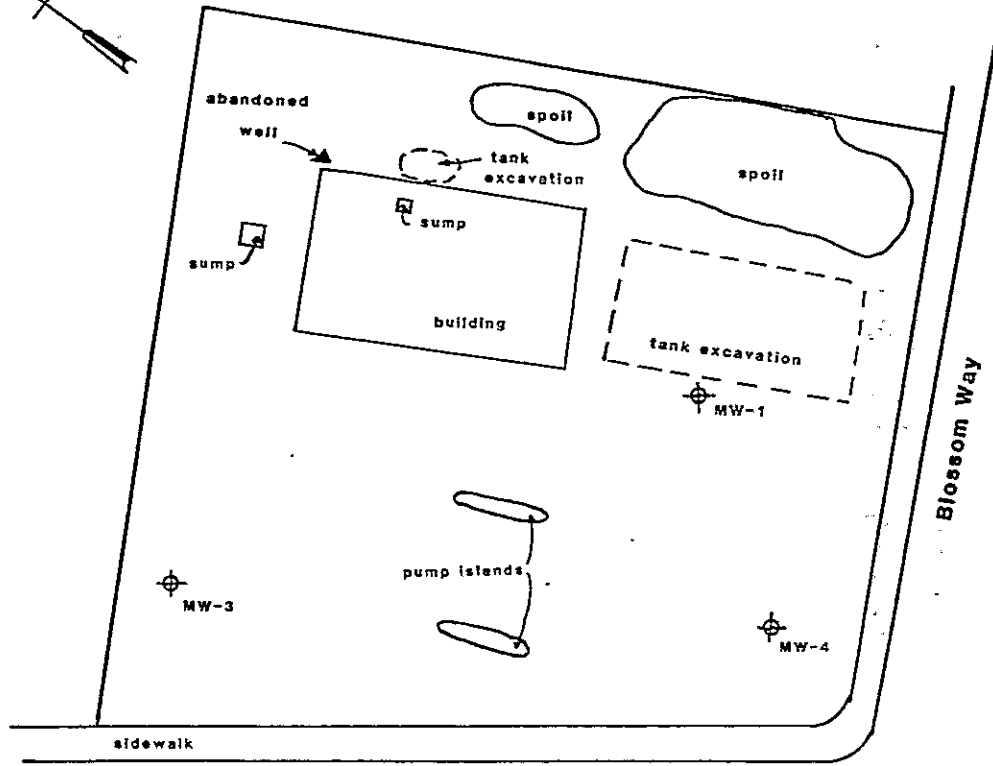
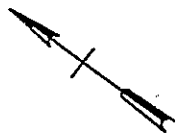


PLATE	No. 1
SITE LOCATION MAP	

01-444 N



Meekland Ave.

Blossom Way

SITE PLAN - DURHAM TRANSPORTION

SCALE: 1" = 20'

APPROVED BY:

DRAWN BY

DATE JANUARY 1990

REVISED

CTTS, Inc.

DRAWING NUMBER

3

35/2W 17C7-8
01-444V



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DIS

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94566 • (415) 4

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

(1) LOCATION OF PROJECT 19984 Meekland Road
Hayward, CA

PERMIT NUMBER 89690
LOCATION NUMBER _____

(2) CLIENT
Name Duchan Transportation (415)
Address 27577(A) Industrial Phone 887-6005
City Hayward, CA Zip 94545

PERMIT CONDITIONS

Cited Permit Requirements Apply

(3) APPLICANT
Name Lisa Polas
CITS, INC. (415)
Address P.O. Box 515 Phone 779-1140
City Redwood, CA Zip 94572

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

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

(6) PROPOSED CONSTRUCTION
Drilling Method:
Mud Rotary Air Rotary Auger
Cable Other Hollow-Stem Auger
DRILLER'S LICENSE NO. 384167

WELL PROJECTS
Drill Hole Diameter 8.8 in. Maximum
Casing Diameter 2 in. Depth 40 ft.
Surface Seal Depth 19.0 ft. Number 2

GEOTECHNICAL PROJECTS
Number of Borings 2 Maximum
Hole Diameter 8.8 in. Depth 40 ft.

(7) ESTIMATED STARTING DATE Nov. 28, 1989
ESTIMATED COMPLETION DATE Nov. 29, 1989

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

Approved Todd N. Wendler Date 22 Nov
Todd N. Wendler

APPLICANT'S
SIGNATURE Lisa A. Polas Date 11-23-89

01-494V

BORING LOCATION Meekland and Blossom Ave		ELEVATION AND DATUM	
DRILLING CONTRACTOR HEW Drilling	DRILLER Jeff	DATE STARTED 11-28-89	DATE FINISHED 11-28-89
DRILLING EQUIPMENT CME 55		COMPLETION DEPTH (FT) 40	ROCK DEPTH (FT) -
DIAMETER OF BORING		NO. OF UNDIST. SAMPLES 7	CORE
PURPOSE OF BORING Monitoring Well		WATER FIRST DEPTH (FT) 34	COMPL.
SAMPLING EQUIPMENT		LOGGED BY: J. Alt	CHECKED BY:
COMMENTS			

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG LITHOLOGY	SAMPLES				REMARKS
			NO.	TYPE	BLOW COUNT	DRILLING RATE/TIME	
0	Fill						
5	dark brown clay, dry, adobe				6 8 10		
10	reddish brown fine sandy silt with some clay, dry				3 5 8		
15	Tan sandy silt to silty sand. Thin lens of coarse sand at 11 ft.; dry, becoming moist at 15 ft.				2 4 6		
20	Gray clay, moist, mottled brown, moderately plastic				2 4 5		
25					4 7 10		
30							

Project Durham Site
Project No.

LOG OF BORING

B-3

01-444V

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG	LITHOLOGY	SAMPLES				REMARKS
				NO.	TYPE	BLOCK COUNT	DRILLING RATE/ TIME	
30	Gray clay mottled brown, moist, moderately plastic.					4 4 5		
35	Brown clayey sand and gravel, grades downward to brown clayey silt.					5 7 11		
40	Bottom of boring No sample							
45								
50								
55								
60								
65								
70								

Project

Project No.

CONT. LOG OF BORING B-3

01-444W



toxic technology services inc.

~~TS/4W~~

3S/2W 17C8

February 16, 1990
File No. 89-12

(MW4)
RECEIVED
FEB 22 1990
ZONE 7, ACFC&WCD

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The first sample from each well was retrieved from the surface of the water, and the contents of the bailer were inspected to assess whether or not there was any floating product present. Groundwater from both wells had odor and sheen, but both were more noticeable in MW-3. Sample vials and jars, provided by the laboratory, were filled from the bailer.

MW-1, which was installed in 1986, was not sampled at this time, however, upon opening the well cap and checking the water level, a strong odor was detected. A sheen was observed on the water purged from this well in August 1989.

WELL ABANDONMENT

A water well was located at the northeast corner of the building

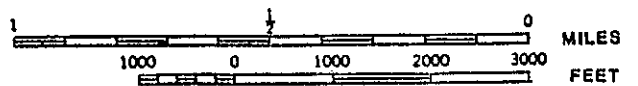
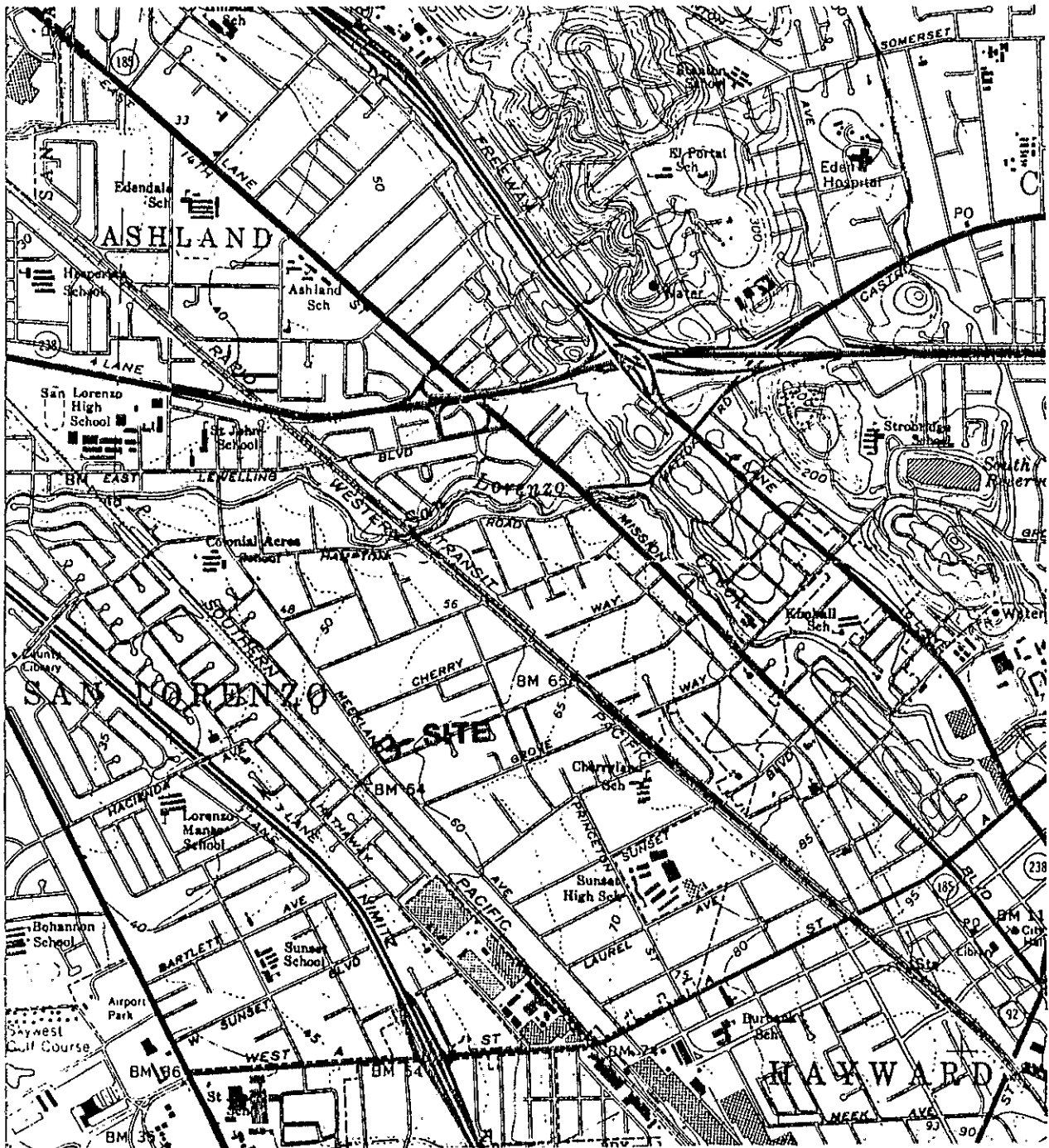
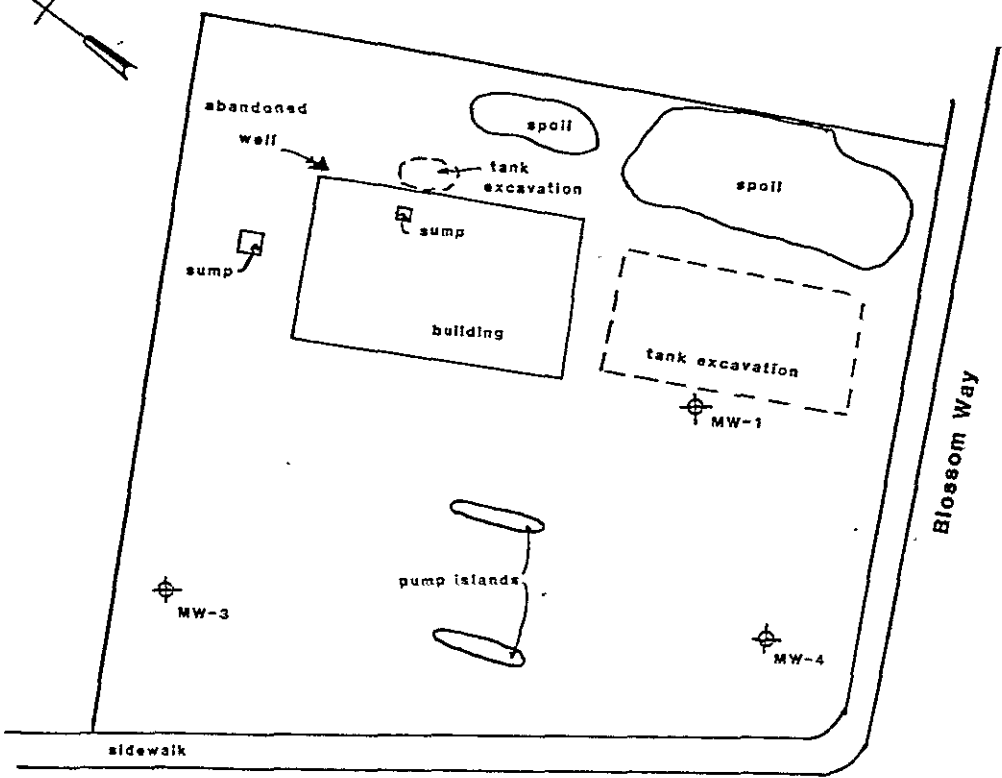
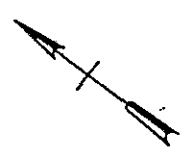


PLATE	No. 1
SITE LOCATION MAP	

01-444 W



Meekland Ave.

Blossom Way

SITE PLAN - DURHAM TRANSPORTION		
SCALE: 1" = 20'	APPROVED BY:	DRAWN BY:
DATE: JANUARY 1990		REVISED:
CFTS, Inc.		DRAWING NUMBER: 3



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94566 (415) 444-4444

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

35/2W 17C 88
01-444W

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

(1) LOCATION OF PROJECT 19984 Meekland Road
Hayward, CA

PERMIT NUMBER 89690
LOCATION NUMBER _____

(2) CLIENT
Name Durban Transportation (415)
Address 27577(A) Industrial Phone 887-6005
City Hayward, CA Zip 94545

PERMIT CONDITIONS

Cited Permit Requirements Apply

(3) APPLICANT
Name Lisa Polos
GTS, Inc. (415)
Address Po Box 515 Phone 779-1140
City Reno, CA Zip 94572

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

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

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

DRILLER'S LICENSE NO. 384167

WELL PROJECTS
Drill Hole Diameter 8.8 in. Maximum
Casing Diameter 2 in. Depth 40 ft.
Surface Seal Depth 19.0 ft. Number 2

GEOTECHNICAL PROJECTS
Number of Borings 2 Maximum
Hole Diameter 8.8 in. Depth 40 ft.

(7) ESTIMATED STARTING DATE Nov. 28, 1989
ESTIMATED COMPLETION DATE Nov. 29, 1989

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

Approved Todd N. Wendler Date 22 Nov
Todd N. Wendler

APPLICANT'S SIGNATURE Lisa A. Polos Date 11-23-89

01-444W

BORING LOCATION Meekland and Blossom Ave		ELEVATION AND DATUM	
DRILLING CONTRACTOR HEW Drilling	DRILLER Jeff E	DATE STARTED 11-28-89	DATE FINISHED 11-28-89
DRILLING EQUIPMENT CME 55		COMPLETION DEPTH (FT) 40	ROCK DEPTH (FT) -
DIAMETER OF BORING		NO. OF UNDIST. SAMPLES 7	CORE
PURPOSE OF BORING Monitoring Well		WATER FIRST DEPTH (FT)	COMPL.
SAMPLING EQUIPMENT		LOGGED BY: J. Alt	CHECKED BY:
COMMENTS			

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG LITHOLOGY	SAMPLES				REMARKS
			NO.	TYPE	BLOW COUNT	DRILLING RATE/TIME	
0	Fill - Sand and Gravel						
5	Dark brown clay, dry				8 6 4		
	Tan silty clay, dry						
10	brown sandy gravel				5 6 9		
15	Gray clayey silt to silty clay, locally sandy				2 4 4		
20	Same as above moist				1 4 4		
25	Same as above with brown mottlings				4 5 6		
30							

Project Durham Site
Project No.

LOG OF BORING B-4

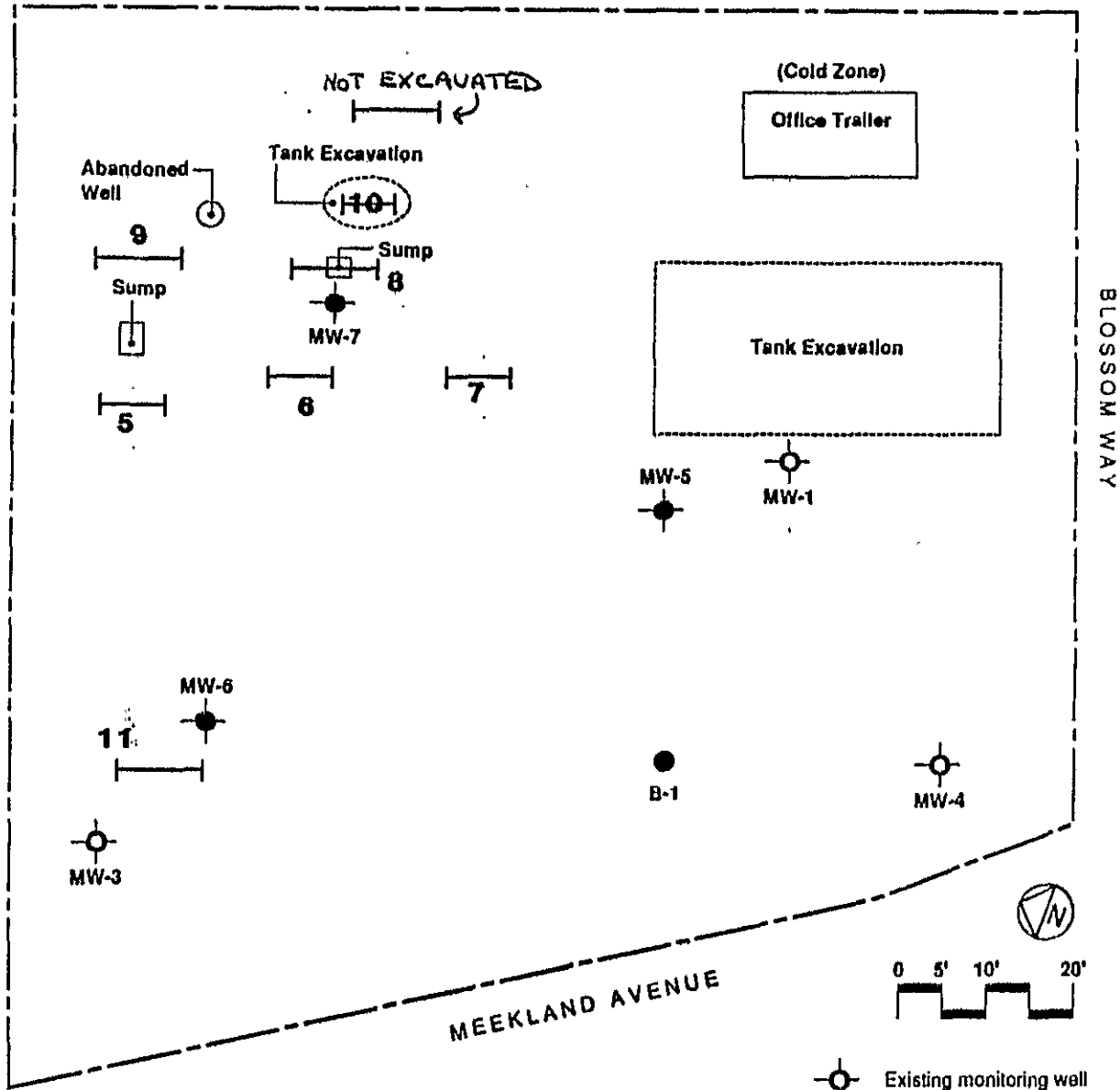
01-444W

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG LITHOLOGY	SAMPLES			REMARKS
			NO.	TYPE	BLOW COUNT	
30	Gray clay, moist, mottled brown				4 7 13	
35	Brown silty clay, wet				6 7 9	
40	bottom of boring					
45						
50						
55						
60						
65						
70						

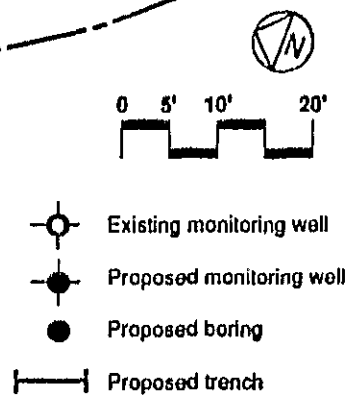
Project
Project No.

CONT. LOG OF BORING B-4

01-475H-J
35/2W 17C9-11



19884 Meekland Ave.



Durham Transportation - Work Plan Amendment

Plate No.: 6
Date: July 90
Scale: 1" = 20'-0"
CTTS, Inc. - Toxic Technology Services

BORING LOG

01-475H

3S/2W 17C9

Project <u>Durham Transportation</u>	Hole/Well # <u>MW-5</u>
Location <u>see location map</u>	Diameter of Drill Hole <u>8"</u>
Job # <u>90-4</u>	Total Depth of Hole <u>45 ft.</u>
Geologist/Engineer <u>J. Alf</u>	Date Started <u>Aug. 31, 1990</u>
Drill Agency <u>HEW Drilling</u>	Date Completed <u>Aug. 31, 1990</u>

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
0					gravelly sand-fill, dry dark brown clay-soil horizon
5		14	1		medium brown sandy clay, moist
10		7	2		blue gray sandy clay grading to a clayey sand, moist
15		12	3		grayish brown sandy clay, moist, scattered small gravel
20		4	4		grayish brown fine to medium grained sand, moist
					light brown clay, moist plastic, reddish brown mottling

BORING LOG

35/2w 17C 9

PROJECT: Durham Transportation
 JOB NUMBER: 90-4

HOLE / WELL #: MW-5
 PAGE: 2 OF 2

DEPTH (FEET)	COMPLETION DETAIL	SAMPLE #	BLOW COUNTS / FOOT	USCS SYMBOL	DESCRIPTION
25	bentonite seal	5	18	V	gray mottled brown clay, moist to damp, plastic; gray clay; mottled brown, moist, plastic
30	sand pack	6	6		
35	4" slotted PVC casing	7	16		
40		8	15		brown clay, moist, silty, moderately plastic
45		9	8		tight brown, fine to medium grained sand, wet, dark brown

BORING LOG

01-475I
3512W 17C10

Project <u>Durham Transportation</u>	Hole/Well # <u>MW-6</u>
Location <u>see location map</u>	Diameter of Drill Hole <u>8 inches</u>
Job # <u>90-4</u>	Total Depth of Hole <u>45 ft.</u>
Geologist/Engineer <u>J. Alt</u>	Date Started <u>Aug. 30, 1990</u>
Drill Agency <u>HEW Drilling</u>	Date Completed <u>Aug. 30, 1990</u>

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION			
0	<p>4" solid PVC pipe</p> <p>grout</p>				3" asphalt			
					sand and gravel			
5					11	1		
10					12	2		medium brown silty to sandy clay, moist, locally scattered gravel up to 1/2" in size medium brown clay to clayey silt
15		7	3		brown fine-grained sand, loose, moist			
20		NA	4		gray mottled brown clay, moist to damp, plastic			

01-475I
3S/2W 17C10

BORING LOG

PROJECT: Durham Transportation
JOB NUMBER: 90-4

HOLE/WELL #: MW-6
PAGE: 2 OF 2

DEPTH (FEET)	COMPLETION DETAIL	SAMPLE #	BLOW COUNTS / FOOT	USCS SYMBOL	DESCRIPTION
25	bentonite seal	5	20	▽	light brown clay, moist plastic, reddish brown mottling
30	sand pack	6	11		same as above, except grading to gray in color
35	4" slotted PVC casing	7	17		gray clay, wet, plastic, locally sandy
40		8	7		light brown clay, wet plastic
45		9	15		light brown clay, wet plastic, locally silty to sandy
					light brown sandy clay, wet plastic

BORING LOG

01-475J
3S12W 17C11

Project Durham Transportation

Hole/Well # M W - 7

Location see location map

Diameter of Drill Hole 8"

Job # 90-4

Total Depth of Hole 45 ft.

Geologist/Engineer J. Alt

Date Started Oct. 1, 1990

Drill Agency HEW Drilling

Date Completed Oct. 1, 1990

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION	
0	<p>4" solid PVC pipe</p> <p>grout</p> <p>4" concrete</p>				4" concrete	
					fill - sand and gravel	
						dark brown clay, damp grading to medium brown silty clay
5			17	1		
10			8	2		medium brown clayey silt, damp
15		9	3			
20		4	4		gray sand, medium grained, damp	
					gray clay, moist with brown mottering	

01-475J

35/2W 17C11

BORING LOG

PROJECT: Durham Transportation
 JOB NUMBER: 90-4

HOLE/WELL #: MW-7
 PAGE: 2 OF 2

DEPTH (FEET)	COMPLETION DETAIL	SAMPLE #	BLOW COUNTS / FOOT	USCS SYMBOL	DESCRIPTION
25	bentonite seal				gray clay, moist with brown mottering
30	sand pack	5	13		tan mottled gray silty clay, locally sandy
35	4" slotted PVC casing	6	12	▽	
40		7	16		tan clay; very plastic
45		8	10		tan clay-mottled brown; very plastic, some silt
		9	11		fine grain tan-mottled brown silty sand; very wet, some plasticity

01-475I-J
3S/2W 17C9-11

TABLE 3 (cont.)
GROUNDWATER ELEVATION

Date	MW-5	MW-6	MW-7
Elevation top of casing	54.95	54.92	54.57
9/28/90	25.27 (O,-)	25.21 (O,S)	Not Installed
10/12/90	25.16 (O,-)	25.07 (O,-)	24.11 (O,S)

Note: All measurements are in feet.
(O) = strong odor; (o) = slight odor; (S) = sheen;
(-) = non-detectable

BORING LOG

01-475K
3512W17C

Project Durham Transportation
 Location see location map
 Job # 90-4
 Geologist/Engineer J. Alt
 Drill Agency HRW Drilling

Hole/Well # B-1
 Diameter of Drill Hole 8 inches
 Total Depth of Hole 25 ft.
 Date Started Oct. 1, 1990
 Date Completed Oct. 1, 1990

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
0					backfill gravel, etc.
5		15	1		
10	boring log only; no well was installed	13	2		fine grain sand green with hydrocarbons; slightly silty the first foot, brown clay with black streaks
15		10	3		gravel fill in first foot, next comes green soil (silty, sandy clay), odor of old petroleum, last foot sandy clay gray (slight green tinge), some plasticity
20		8	4		dark gray silty clay; very plastic mottled brown down to approximately 21'; has greenish tint.

01-475R
3S/2W 17C

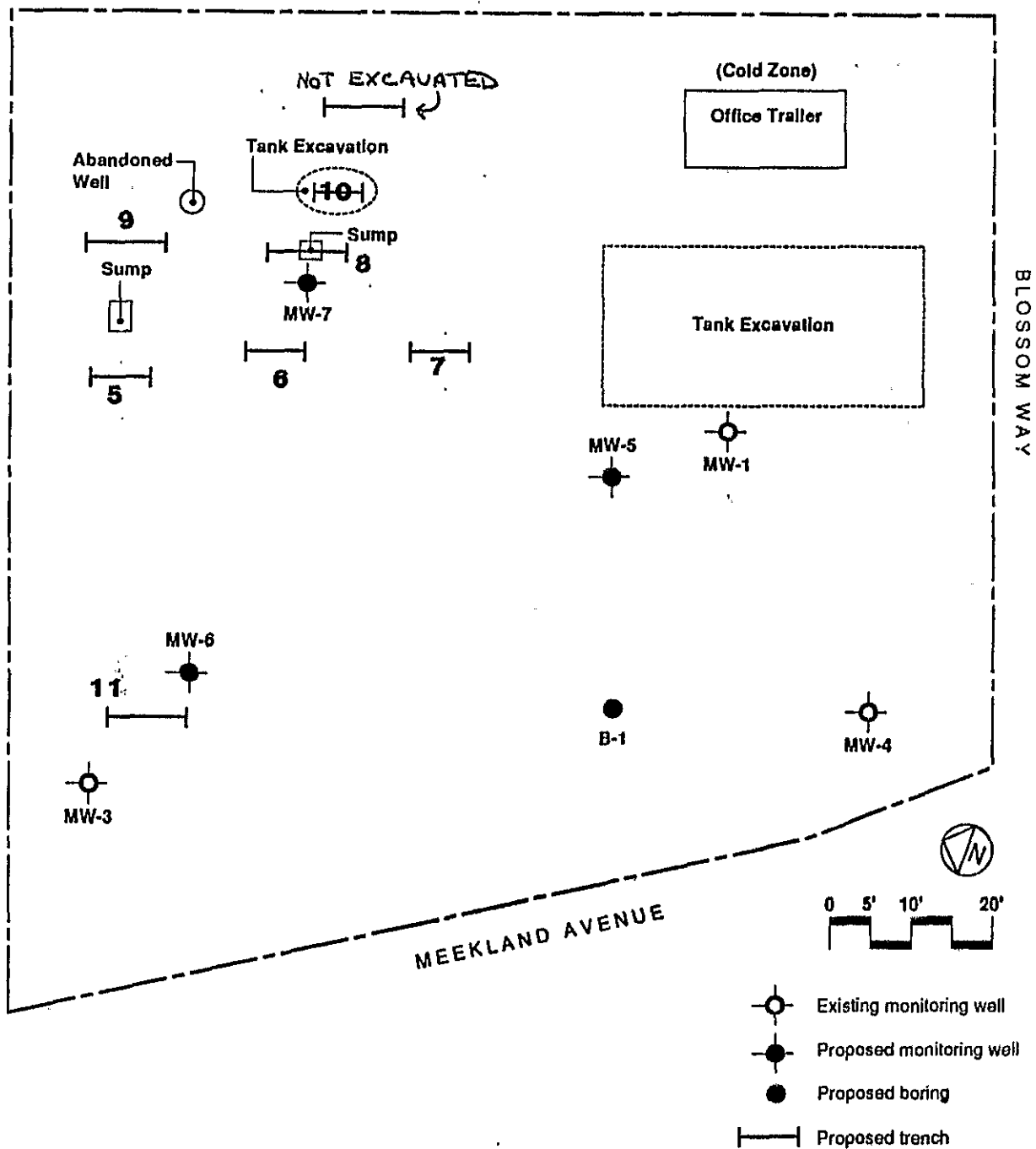
BORING LOG

PROJECT: Durham Transportation
JOB NUMBER: 90-4

HOLE / WELL #: B-1
PAGE : 2 OF 2

DEPTH (FEET)	COMPLETION DETAIL	SAMPLE #	BLOW COUNTS / FOOT	USCS SYMBOL	DESCRIPTION
25		5	15		gray with slight green tinge first 10". brown clay, mottled green and orange; very plastic soil, still pretty dry.

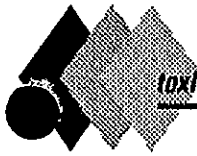
01-4751K
35/2w 17C



19884 Meekland Ave. Hayward

Durham Transportation - Work Plan Amendment

Plate No.: 6
Date: July 90
Scale: 1" = 20'-0"
CTTS, Inc. - Toxic Technology Services



CTTS, Inc.
toxic technology services

35/2W 17C11-12

0L498G-H

April 2, 1991
Project No. 91-6

Mr. Jack Worthington
Durham Transportation
P.O. Box 948
Rosemead, CA 91770

Subject: Report of Additional
Well Installations
19984 Meekland Avenue
Hayward, California

Dear Mr. Worthington:

Toxic Technology Services (CTTS, Inc) is pleased to present a report on the additional well installations requested by Alameda County for the property located at 19984 Meekland Avenue in the unincorporated area of Alameda County.

This report covers the following topics:

- Introduction
- Well Installations And Sampling
- Groundwater Data
- Conclusions and Recommendations

After your review of this document, it is recommended that a copy be sent to Ms. Pam Evans of the Alameda County health Care Services Department, Hazardous Materials Division. An extra copy of this report has been provided to you for this purpose.

Thank you for this opportunity to provide Durham Transportation with these environmental services.

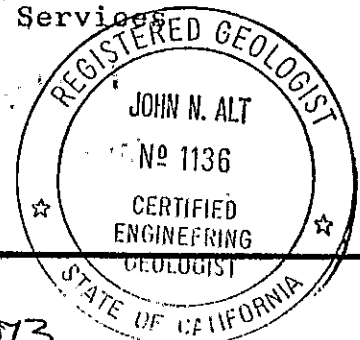
Sincerely,

Lisa A Polos, REA, CHMM
Senior Scientist
Toxic Technology Services
CTTS, Inc.

John N. Alt, CEG
Consulting Geologist
Toxic Technology Services
CTTS, Inc.

LAP/JNA/lap

Enclosure



INTRODUCTION

On January 15, 1991, Lisa Polos and John Alt of Toxic Technology Services and Jack Worthington of Durham Transportation met with Pam Evans of the Alameda County Health Care Services Agency, Hazardous Materials Division. The topic of discussion was the phase II site characterization report dated November 27, 1990 for the subject site. The County and the Water Quality Control Board requires further investigation into the contaminant plume migration.

As a result of this meeting, and to further define the extent of the contaminant plume, two more wells, one up gradient and one down gradient will be installed.

The up gradient well, MW-8, is located at the southeast corner of the subject site (Plate 1). It was originally discussed that the down gradient well would be located off-site, preferably on Meekland Avenue at the site of Hank's Liquors (50 Blossom Way). Mr. Worthington discussed the installation of a well on this property with the property owner and was unable to obtain permission. The well, labeled MW-9, was instead installed on-site at the northwest quadrant of the property (Plate 1).

WELL INSTALLATIONS AND SAMPLING

On February 13, 1991, two groundwater monitoring wells, identified as MW-8 and MW-9, were installed at the subject site by HEW Drilling, Inc., using a CME 75 drill rig with hollow stem augers. Ms. Lisa Polos supervised the installation under the direction of Mr. John Alt, CEG. The locations of the wells are shown on Plate 1. Augers were steam cleaned prior to the drilling of the wells. A standard split barrel sampler with 2-5/8" OD and 2" ID was used for soil sampling. It had the capacity for obtaining an 18 inch sample using three six-inch long brass liners. Prior to obtaining each sample, the disassembled sampler and the brass liners were washed in a solution of TSP in water. Each piece was triple rinsed, with the final rinse being distilled water.

A boring log was prepared for each well. Copies of these logs are presented in Appendix A. Blow counts were recorded for each six inches of penetration of the sampler, and the time at which each sample was taken was noted on the field log. Soil samples were collected at five foot intervals during the drilling. One liner from each depth was retained for any required chemical analysis. The soil exposed in the ends of the tube was quickly noted, and the ends were then sealed with teflon tape and snug-filling plastic caps. The edges of the caps were sealed with

plastic tape. The cap was labeled with the sample number, depth, date, and project name. The soil samples were placed in a chilled ice chest as they were collected, and selected soil samples were marked and sent under chain-of-custody to NET Pacific laboratory, a State certified hazardous waste laboratory for analysis. The second and third samples were inspected and used for the sample description.

Four-inch (ID) Schedule 40 PVC pipe was used for the well casings. Each well was screened with slotted (0.020 inch openings) casings in the lower 15 feet of the well and capped at the bottom with a slip on cap. The 10-inch diameter borings were filled in the annular space between the casing and bore wall with clean #3 sand to a depth of approximately 2 feet above the top of the slotted casing. Above the sand-pack, at least two feet of bentonite pellets was used as a seal, and the remainder of the annulus was filled with cement grout. Monitoring Well Installation Reports with more detailed information on each of the well installations were recorded and are in the files.

The units encountered in the borings for monitoring wells MW-8 and MW-9 are shown on the boring logs (Appendix A). The soil samples collected from MW-8 had no odor above 20 feet. Samples at 20 and 25 feet had an organic, "earthy" odor, but not that of petroleum hydrocarbons. The units encountered were unstained and indicated no obvious signs of contamination.

The soil samples collected from MW-9 had a definite petroleum odor starting at 20 feet. The odor was stronger at 30 feet. The samples collected at 35 and 40 feet had no petroleum odor.

It is our opinion that 20 feet is within the zone of groundwater fluctuation and the contamination in MW-9 was deposited during a period of a higher groundwater level rather than some undiscovered source of contamination.

On February 18, 1991, Mr. John Alt and Ms. Lisa Polos purged the wells by evacuating a minimum of 15 gallons from each well by using a trilock pump. After the wells were purged, groundwater samples were collected using separate three-foot disposable bailers.

The first sample from each well was retrieved from the surface of the water, and the contents of the bailer were inspected to assess whether or not there was any floating product present. Groundwater from neither well had odor nor sheen. Sample vials and jars, provided by the laboratory, were filled from the bailer and put into a chilled ice chest.

Chemical data from the soil and groundwater samples is presented in a separate section of this report.

35/2W 17C11-12

Prior to well installation, a monitoring well installation permit was obtained from Alameda County Zone 7. A copy of this permit is presented under Appendix B.

GROUNDWATER DATA

The elevation of the groundwater has been measured in the newly installed monitoring wells by surveying the elevation of the top of the casing and measuring the depth to groundwater using an electronic probe. The elevations are based on Alameda County benchmark BLO-MEEK located in the middle of the intersection of Blossom Way and Meekland Avenue. The depth to groundwater was measured on February 18, 1991. Table 1 presents the groundwater elevations for MW-8 and MW-9.

TABLE 1
GROUNDWATER ELEVATION

Date	MW-8	MW-9
Elevation top of casing	55.07	54.12
2/18/91	25.48 (-, -)	25.40 (o, -)

Note: All measurements are in feet.
(O) = strong odor; (o) = slight odor; (S) = sheen;
(-) = non-detectable

Chemical data from samples collected from MW-8 and MW-9 indicate that MW-8 is clean and that MW-9 is contaminated, but not at as high a level of contamination as has been found in MW-1 and MW-3.

MW-8 represents the up gradient quadrant of the site. Data indicates some minor soil contamination by Toluene, but not at levels that would indicate an off-site source of petroleum hydrocarbon contamination.

MW-9 is in the down gradient direction and soil contains low levels of contamination and water contains moderate levels of contamination. The soil contamination is at the depth of the capillary fringe and is thought to be caused by migration of groundwater contamination.

Tables 2 and 3 present summaries of results. Appendix C presents full analytical reports from NET Pacific.

3S12W 17C11-12

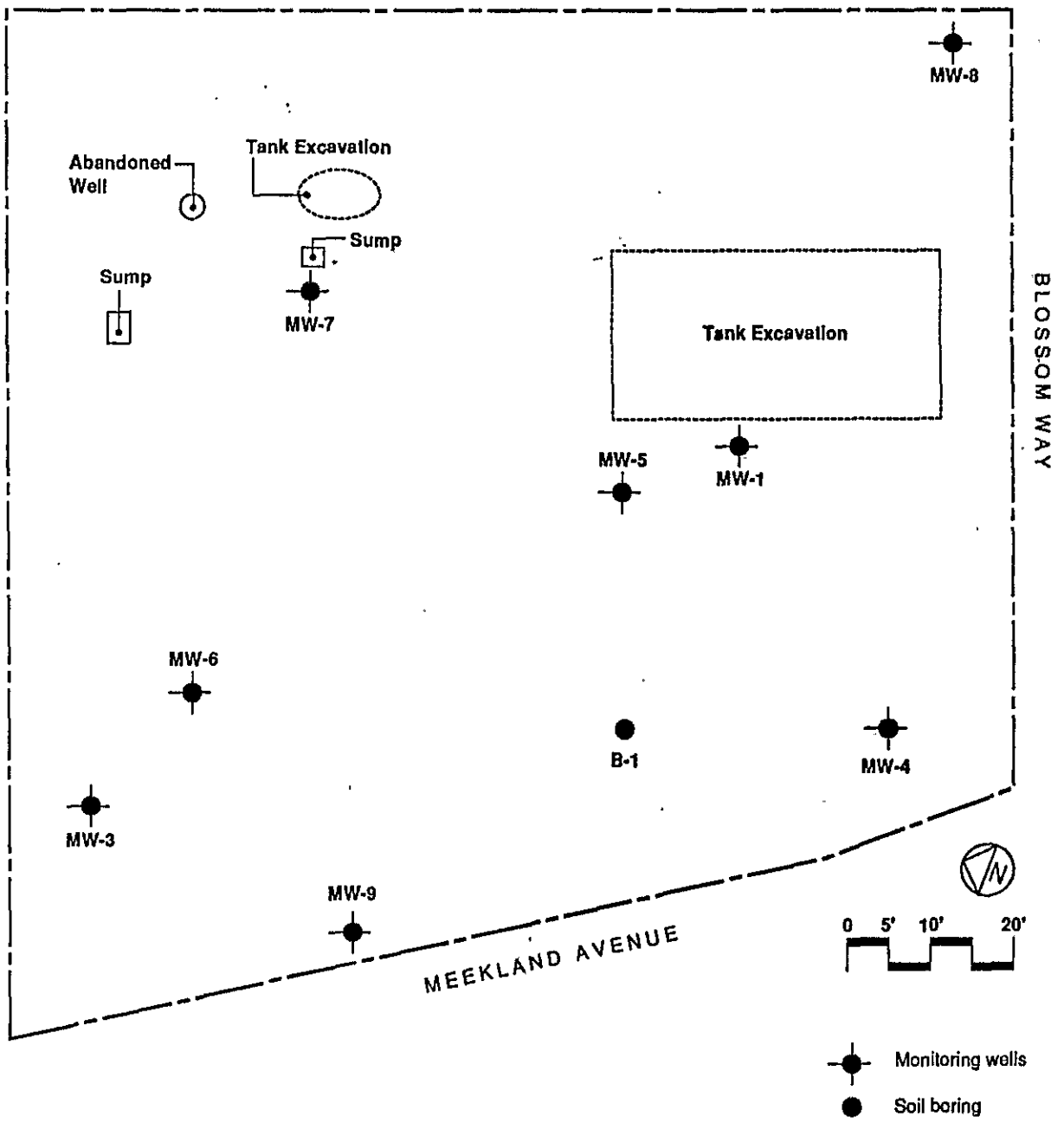
TABLE 2
ANALYTICAL SUMMARY OF SOIL BORING SAMPLES

MW-8			
25'	Toluene	3.3	ug/Kg
35'	Toluene	28	ug/Kg
MW-9			
20'	1,2-Dichloroethane	7.9	ug/Kg
	Gasoline	2.2	mg/Kg
	Benzene	150	ug/Kg
	Ethylbenzene	29	ug/Kg
	Toluene	66	ug/Kg
	Xylenes	67	ug/Kg
	30'	1,2-Dichloroethane	11
Gasoline		39	mg/Kg
Benzene		180	ug/Kg
Ethylbenzene		230	ug/Kg
Toluene		340	ug/Kg
Xylenes		1000	ug/Kg
Diesel		6.0	mg/Kg
40'	Toluene	11	ug/Kg
	Xylenes	8.2	ug/Kg

TABLE 3
SUMMARY OF GROUNDWATER DATA

Constituent	MW-8	MW-9	
1,2-Dichloroethane	ND	13	ug/L
Gasoline	ND	6.0	mg/L
Benzene	ND	180	ug/L
Ethylbenzene	ND	19	ug/L
Toluene	ND	170	ug/L
Xylenes	ND	200	ug/L
Diesel	ND	1.6	mg/L

3S/2W 17C11-12



Durham Transportation - Site Plan

Plate No.: 1
 Date: February 1991
 Scale: 1" = 20'-0"
 CTTS, Inc. - Toxic Technology Services

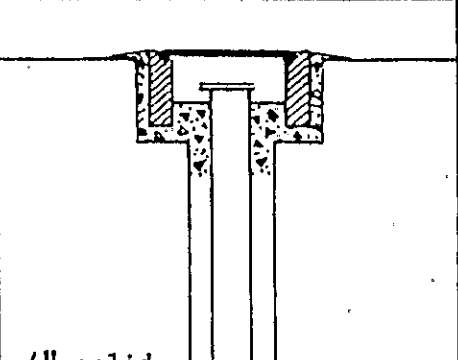
BORING LOG

01-498G

35/2W 17C11

Project Durham Transportation
 Location see location map
 Job # 91-6
 Geologist/Engineer J. Alt
 Drill Agency HEW Drilling

Hole/Well # MW-8
 Diameter of Drill Hole 10"
 Total Depth of Hole 40'
 Date Started Feb. 13, 1991
 Date Completed Feb. 13, 1991

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
0	 <p>4" solid PVC pipe</p> <p>grout</p> <p>bentonite seal</p>				
5		15	1		Brown clay, somewhat plastic, dry
10		15	2		Brownish gray sandy clay
15		18	3		Brownish clay, somewhat plastic; clay lead to medium coarse sandy clay-had pebbles in it and was quite dry. This leads to brown sand
20		5	4		Brown clayey sand grading to gray clay, mottled brown, very plastic

01-498G

3S/2W 17C 11

BORING LOG

PROJECT: Durham Transportation
JOB NUMBER: 91-6

HOLE / WELL #: MW-8
PAGE: 2 OF 2

DEPTH (FEET)	COMPLETION DETAIL	SAMPLE #	BLOW COUNTS / FOOT	USCS SYMBOL	DESCRIPTION
25	<p>sand pack</p> <p>4" slotted PVC casing</p>	5	11		Top: mottled brown mud with some sandy clay Bottom: brown mud with gray mottling
30		6	5		Brown silty clay with gray mottling, becoming moist
35		7	11		Tight brown clay, very plastic
40		8	7		Brown clay with dark brown mottling, moist, plastic

BORING LOG

01-4984
35/2W17C12

Project Durham Transportation
 Location see location map
 Job # 91-6
 Geologist/Engineer J. Alt
 Drill Agency HEW Drilling

Hole/Well # MW-9
 Diameter of Drill Hole 10"
 Total Depth of Hole 40'
 Date Started Feb. 13, 1991
 Date Completed Feb. 13, 1991

DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE	GRAPHIC SYMBOL	DESCRIPTION
0	<p>4" solid PVC pipe</p> <p>grout</p> <p>bentonite seal</p>				
5		15	1		Medium brown clayey sily, somewhat plastic, some small angular rock fragments, dry
10		8	2		Same as above
15		12	3		Brown clayey silt, locally sandy, moderated to low plasticity, grading to fine grain sand, loose, moist
20		6	4		Brown sandy clay, gray mottling

3S/2W 17 C12

BORING LOG

PROJECT: Durham Transportation
 JOB NUMBER: 91-6

HOLE / WELL #: MW-9
 PAGE: 2 OF 2

DEPTH (FEET)	COMPLETION DETAIL	SAMPLE #	BLOW COUNTS / FOOT	USCS SYMBOL	DESCRIPTION
25	<p>sand pack</p> <p>4" slotted PVC casing</p>	5	9		Greenish-gray clay
30		6	10		Brown clay with some silt greenish gray mottling
35		7	15		Medium brown clay, gray mottling, moist
40		8	7		Medium brown clay, very plastic, moist

MW10
11

03S 02W 17C13
03S 02W 17C14



CTTS, Inc.
toxic technology services

01-516A, B

03802W17C13
17C14

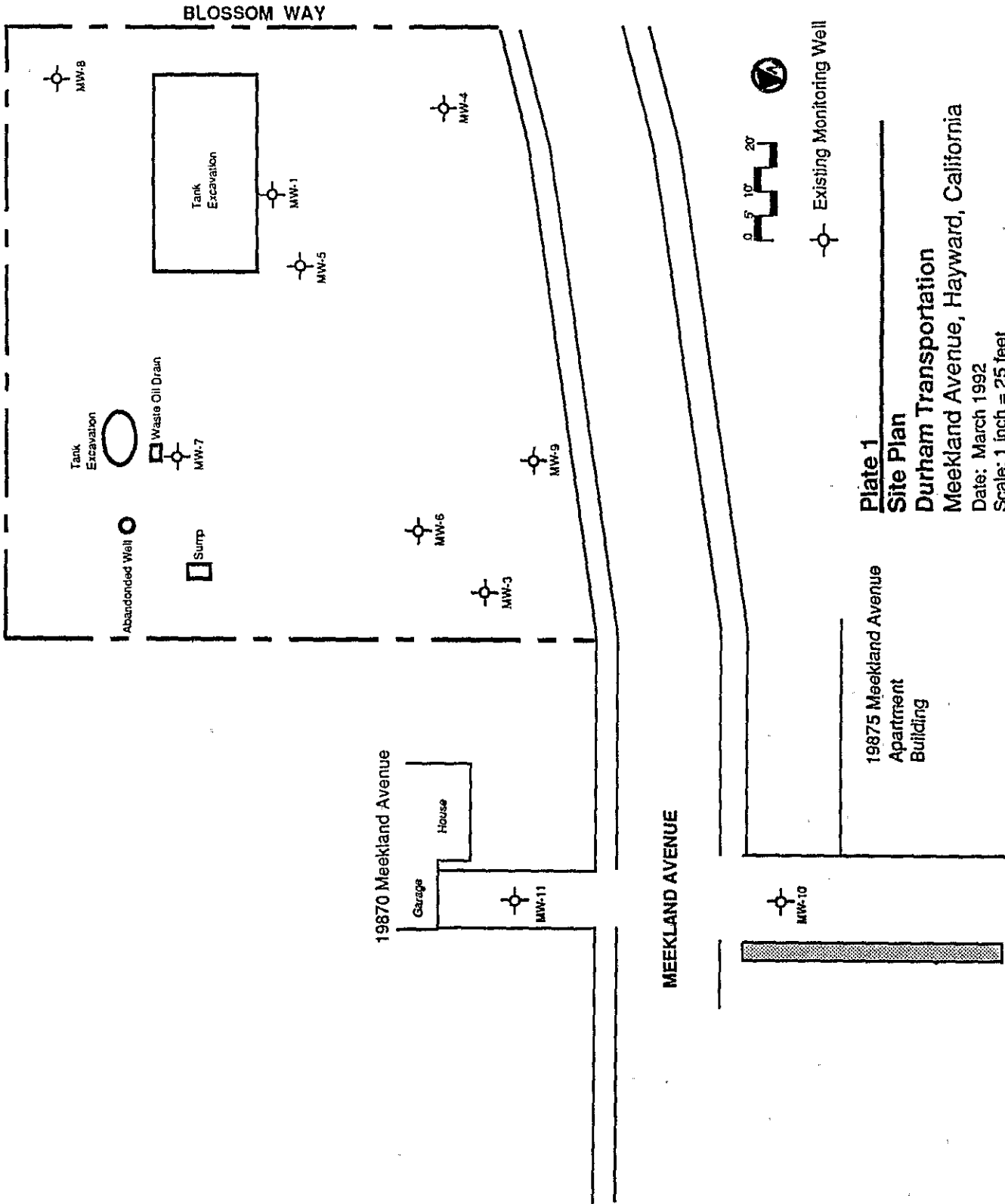


Plate 1
Site Plan
 Durham Transportation
 Meekland Avenue, Hayward, California
 Date: March 1992
 Scale: 1 inch = 25 feet
 CTTS, Inc. - Toxic Technology Services

19875 Meekland Avenue
 Apartment
 Building

MEEKLAND AVENUE

19870 Meekland Avenue

BLOSSOM WAY

01-516A

03582W17C13M

BORING LOG AND RECORD OF MONITORING WELL INSTALLATION				Figure 1 MW-10	
DEPTH (feet)	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE #	DESCRIPTION	
0				4" Asphalt over 1" Gravel Base, Sandy	
5				Dark brown clay, Organic Plastic, Moist Reddish brown clay, Moist, Moderately plastic	
10		4/4/10		Light brown clayey silt, Moist, No odor Grades to silty clay	
15		4/4/8		Light brown clayey sand, Scattered coarse sand to pebbles, Moist Grading to sandy gravel	
20		3/3/5		Light brown sandy to silty clay Plastic, Moist Thin (~2" thick) lenses of coarse sand No hydrocarbon odor	
25		4/5/7	1	Gray clay with brown mottling Moist, moderately plastic Abundant root holes No hydrocarbon odor	
30		4/8/9	2	Gray clay, brown mottling Moist, Plastic	
35		3/7/9	3	Light brown clayey fine sand, Grey mottling, Faint hydrocarbon odor (locally moderate), Scattered pebbles	
40		5/10/12		Light brown clayey fine sand to fine sandy clay, Moist (not saturated), Very faint hydrocarbon odor, Grey mottling, Oxidized roots	
45					End of Boring



CTTS, Inc.
toxic technology services
P.O. Box 515 • Rodeo, California 94572
(310) 799-1140

Project	Durham Transportation	Depth	10
Location	Apartment, 19875 Meekland Ave	Diameter of DR Hole	10"
Job #	91-15	Total Depth of Hole	40'
Geologist/Engineer	J. N. Alt	Date Started	1/21/92
Driller	HEW	Date Completed	1/21/92

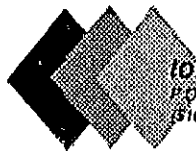
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01-516 B

BORING LOG AND RECORD OF MONITORING WELL INSTALLATION

**Figure 2
MW-11**

DEPTH (feet)	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE #	DESCRIPTION
0	Locking, Vapor-proof Cap			4" Concrete over 6" Base
5		10/10/11		Dark brown clay, Moist, Plastic
10	2" Solid Schedule 40 PVC	8/10/10		Light brown silty fine sand, Moist
15	Grout, Portland cement	4/6/8		Light brown clayey silt with some fine sand, Moist, No hydrocarbon odor
20	Bentonite Seal	3/5/5	1	Medium brown silty clay Moderately plastic, Moist, No hydrocarbon odor, Grades into clayey to silty sand
25	# 3 Sand	8/12/15		Lost most of sample-- Tan sandy clay with gray mottling, Very faint hydrocarbon odor
30	2" Schedule 40 PVC Slotted 0.002"	4/6/7	2	Tan sandy clay, Wet, Grey mottling, Moderate hydrocarbon odor
35		8/9/10	3	Medium brown silty to fine sandy clay, Grey mottling, Moist to wet, No hydrocarbon odor
40	Screw-on Endcap			End of Boring
45				



CTTS, Inc.
toxic technology services
P.O. Box 515 • Rodeo, California 94572
(510) 799-1140

Project	Durham Transportation	Worksheet #	11
Location	Residence, 19870 Meekland Ave.	Diameter of Drill Hole	8"
Job #	91-15	Total Depth of Hole	40'
Geologist/Engineer	J. N. Alt	Date Started	1/24/92
Owner	HEW	Date Completed	1/24/92



01-5270

1-46-11
3S/2W 17C15

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588

(415) 484-2600

25 July 1991

Pellegrini Construction Company
P.O. Box 28
Hayward, CA 94543

Gentlemen:

Enclosed is Drilling permit 91404 for the destruction of well 3S/2W 17C80 at 19515 Meekland Avenue in Hayward for Jon Otteson.

Please note that permit condition A-2 requires that a well destruction report be submitted after completion of the work. The report should include a description of methods and materials used to destroy the well, location sketch, date of destruction, and permit number.

If you have any questions, please contact Wyman Hong or me at 484-2600.

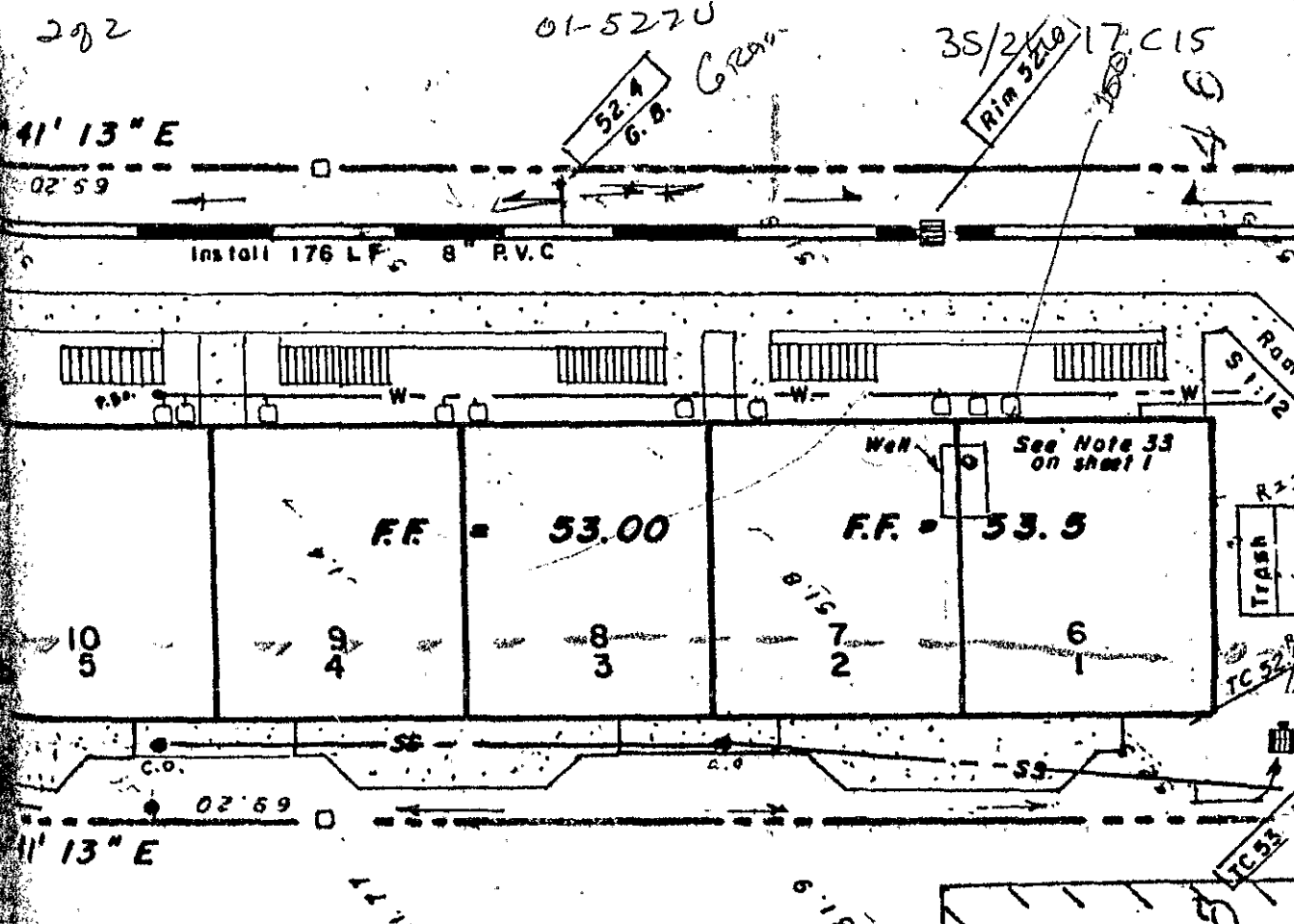
Very truly yours,

Craig A. Mayfield

Craig A. Mayfield
Water Resources Engineer

WH:mm
Enc.

phone: 415-881-8943



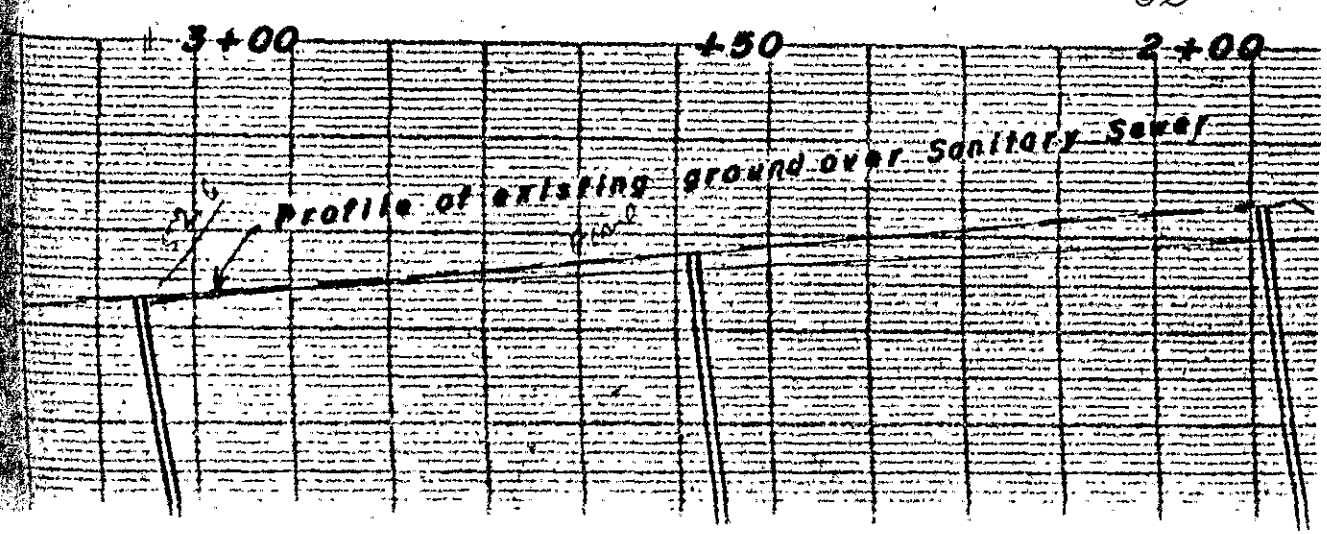
Location of Well
 permit # 91404. For well # 35/2w 17C80.
 19515 MEEKLAND

Peragonal to 22"± Balance of Casson
 Filled w/ Mortar Concrete to 2' Below ground
 approx 27"± Test depth? Below Ground

Paul [Signature]

PRC

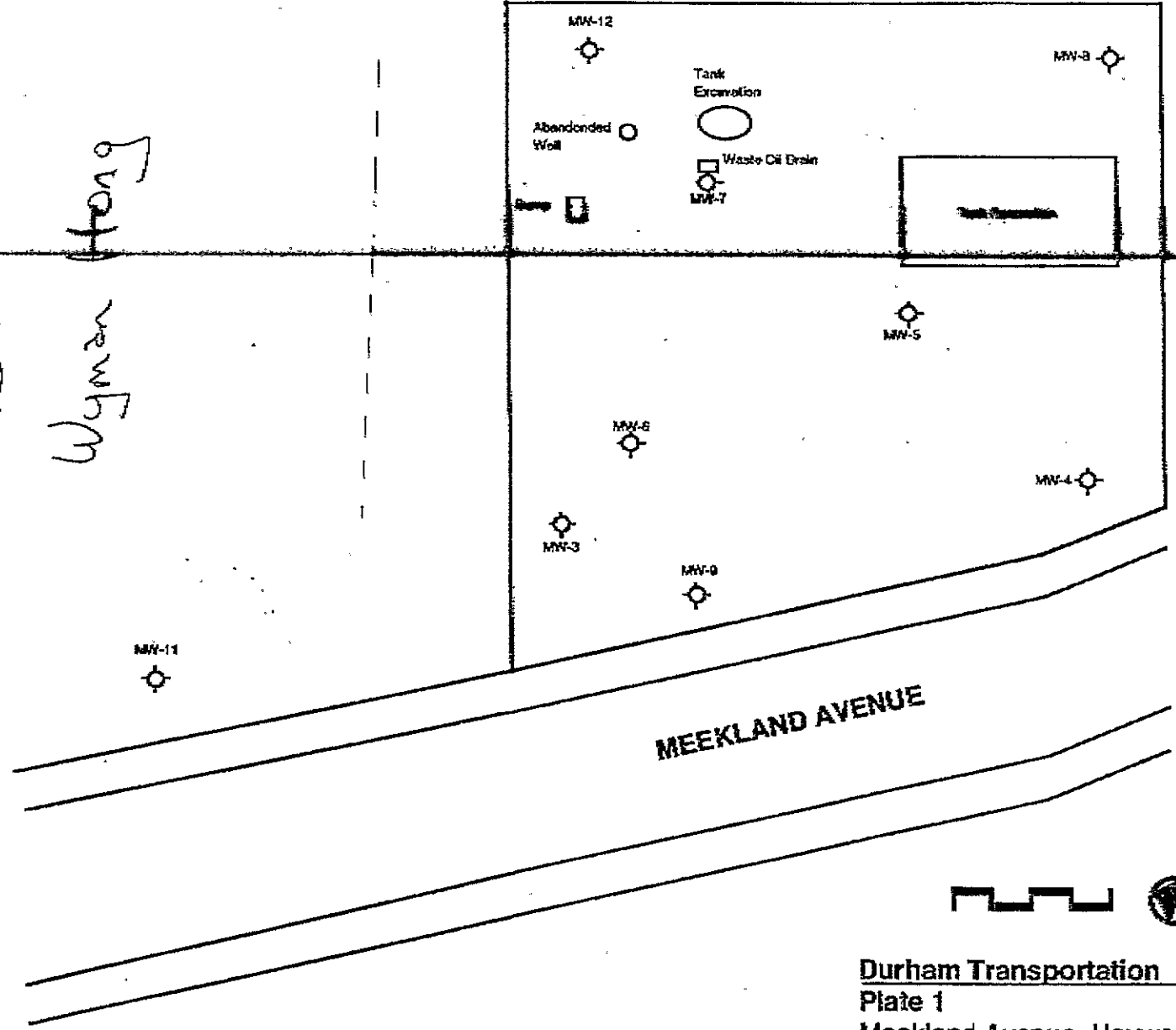
66 PL.



01-537W 08502W17C16

CTTS INC.

KG:
Wyman
Tong



Durham Transportation
Plate 1
 Meekland Avenue, Hayward, California
 Date: January 1993
 Scale: 1 inch = 30 feet
 CTTS, Inc. - Toxic Technology Services

01-3370

03302WTC16

BORING LOG AND RECORD OF MONITORING WELL INSTALLATION

Plate 2
MW-12

DEPTH (feet)	WELL CONSTRUCTION DETAIL	N-VALUE	SAMPLE #	DESCRIPTION	
0				4" Asphalt	
				Fill, Brown sand	
5				Dark brown clay, Organic, Dry, Locally silty	
			22/23/18	1	Reddish brown clayey silt, Dry, Grading to yellowish brown silt
10			8/7/8	2	Brown clayey silt, Dry
15			4/5/7	3	Brown clayey silt, Dry, Tan mottling, locally with very fine sand
20			3/3/4	4	Gray silty clay with reddish brown mottling, Moist, Plastic
25			5/5/9	5	Brownish gray clay with reddish brown mottling, Moist, Plastic Mottling is oxidation along small root zones
30		5/5/9	6	Brownish gray clay with blue green mottling, Moist to wet, Plastic	
35		5/5/9	7	Brown clay with reddish brown oxidation, Wet, Plastic	
40		4/5/8	8	Grayish brown silty to sandy clay with reddish brown mottling, Wet, Grading to clayey silt	
45				End of Boring	



Project	Durham Transportation	Tube Well #	10
Location	19984 Meekland Ave	Diameter of DRP Hole	10"
Job #		Total Depth of Hole	40'
Geologist/Engineer	J. N. Alt	Date Started	12/14/92
Driller	HEW	Date Completed	12/14/92

SOUTH ALAMEDA
COUNTY INVESTIGATION

WELL LOG

NUMBER: 3217D1

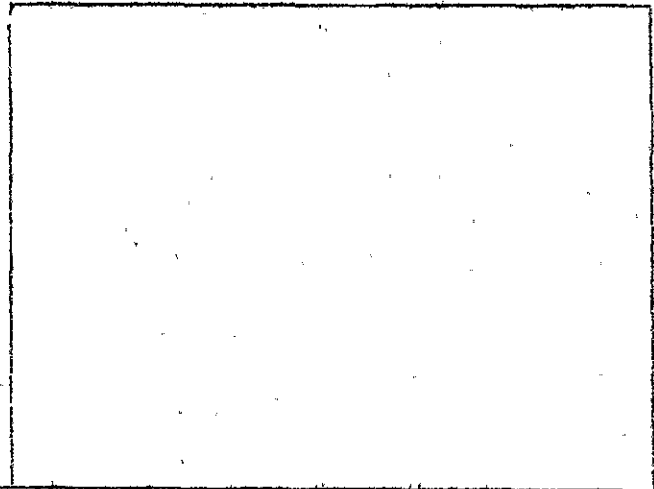
LOCATION: San Lorenzo

01-1529

LOCAL DESIGNATION: X

OWNER: Robert King
 DATE COMPLETED: 5-21-30
 DIAMETER OF CASING:
 DRILLED BY:
 SOURCE OF INFORMATION: Poland
 INSPECTED WHILE DRILLING:
 SEE FILE NO:
 SURFACE ELEVATION: 47 Williams

SKETCH



Depth	Elevation of Bottom of Stratum	Material	Thick-ness Feet	% Voids	Absolute Voids Feet	Total Voids Feet
0-3		soil				
7		c.				
17		sd.				
46		c.				
47		sd.				
52		c.				
53		gr.				
100		c.				
102		sd. c.				
110		b. c.				
140		y. c.				
152		b. c.				
153		b. sd.				
156		gr.				
175		y. c.				
180		b. c.				
183		y. c.				
184		sd.				
190		y. c.				
200		b. c.				
202		y. sd. c.				
205		rx. & c.				
220		c.				
221		y. sd.				
224		sd. & rx.				
225		sd. c.				
229		gr.				
242		y. c.				
247		gr.				
273		y. c.				

Log obtained by: R.G.T.

Date: 9/11/50

REGION 2
 COUNTY Southern Alameda
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR NO. 39/2W-17D1
 OTHER NOS. _____

WELL LOG
 01-1530

LOCATION _____

OWNER Givich ADDRESS Highway 17 and Hathaway

DRILLED BY R. DeLucchi ADDRESS _____

DRILLING METHOD Cable GRAVEL PACKED _____ DATE COMPLETED _____

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS 48-60 SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER 19

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION DeLucchi

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 5		Soil		
30		Sandy yellow clay		
64		gravel		
68		Yellow clay		

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY CL DATE 12-12-57 SHEET 1 OF _____

REGION 2

COUNTY Southern Alameda

NEAR _____

DEPARTMENT OF WATER RESOURCES
DEPARTMENT OF PUBLIC WORKS
STATE OF CALIFORNIA

BASIN _____
DWR No. 3S/2W-17D2 ; MD B & M
OTHER No. Not field checked

WELL LOG 01-1531

[Handwritten signatures and initials]

LOCATION Hayward

OWNER Robert King ADDRESS _____

DRILLED BY Silva Brothers ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED October 1947

SIZE OF CASING DEPTH 12" #12 STRUCK WATER AT _____

PERFORATIONS 126, 128 153-165 SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE; WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. 46 USGS DATUM _____ SOURCE OF INFORMATION Driller's log

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 4		Top soil		
20		Yellow clay		
41		Yellow sandy clay		
44		Yellow sandy clay		
76		Yellow clay		
103		Yellow sandy clay		
108		Yellow sandy clay		
121		Hard yellow clay		
124		Yellow sand		
128		Gravel		
138		Yellow clay		
144		Blue clay		
150		Yellow sandy clay		
162		Gravel		
165		Rocks and clay		
180		Yellow clay		

LOG OBTAINED BY RGT DATE 12-23-49 SHEET 1 OF _____

REGION _____
 COUNTY _____
 NEAR _____

DEPARTMENT OF WATER RESOURCES

DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR No. 38/24-1703 B & M
 OTHER Nos. _____

WELL LOG

01-1532

LOCATION _____

OWNER Givich ADDRESS Hiway 17 and Hathway

DRILLED BY R. De Lucchi ADDRESS _____

DRILLING METHOD cable GRAVEL PACKED _____ DATE COMPLETED _____

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS 48-60 SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE; WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 5		soil		
5 - 30		sandy yellow clay		
30 - 64		gravel		
64 - 68		yellow clay		

FORM 263, 65981 11-57 10M Δ SPO

REGION _____
 COUNTY _____
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR No. 3S/2W-1704 B & M
 OTHER NOS. _____

WELL LOG 01-1533

LOCATION _____

OWNER Robert King ADDRESS San Lorenzo

DRILLED BY Silva ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED 5/21/30

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 3		soil		
3 - 7		clay		
7 - 17		sand		
17 - 46		clay		
46 - 47		sand		
47 - 52		clay		
52 - 53		dirty gravel		
53 - 100		clay		
100 - 102		sandy clay		
102 - 110		brown clay		
110 - 140		yellow clay		
140 - 152		brown sand		
152 - 153		brown sand		
153 - 156		gravel		
146 - 175		yellow clay		

*Plotted and checked
 the Well*

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

REGION 2
 COUNTY Southern Alameda
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR NO. 35/21-1713
 OTHER NOS. _____

WELL LOG 01-1534

LOCATION 100 feet west of intersection of Lucot and Hathaway, 210 feet northwest of

intersection of Florence and Hathaway well by old water tank in corn field south of house.

OWNER Percina ADDRESS Hayward well is at 20165 Hathaway

DRILLED BY Silva ADDRESS _____

DRILLING METHOD Cable GRAVEL PACKED _____ DATE COMPLETED 6-12-31

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. 2 1/8

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. 52 DATUM USGS SOURCE OF INFORMATION Silva

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 3		Soil		
20		Yellow clay		
23		Sand		
56		Yellow sandy clay		
64		Gravel		
76		Soft yellow clay		
78		Sand		
87		Gravel		
100		Yellow clay		
115		Blue clay		
130		Yellow clay		
150		Blue clay		
160		Yellow clay		
166		Yellow sandy clay		
168		Gravel		
170		Yellow sandy clay		
189		Gravel		
201		Yellow clay		

FOR FIELD COPIES USE ALTERNATE LINES

REGION _____
COUNTY S. Alameda
NEAR _____

DIVISION OF WATER RESOURCES
DEPARTMENT OF PUBLIC WORKS
STATE OF CALIFORNIA

BASIN _____
DWR No. _____ B & M
OTHER Nos. 3S/2W-17E30

WELL LOG 01-1534

LOCATION Tom Kawata

OWNER Tom Kawata ADDRESS _____

DRILLED BY Meyers ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED April, 1949

SIZE OF CASING _____ DEPTH _____ STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
	<u>0 - 1 1/2</u>	<u>top soil</u>		
	<u>26</u>	<u>s s</u>		
	<u>44</u>	<u>sdv c</u>		
	<u>53</u>	<u>gr</u>		
	<u>58</u>	<u>sdv c</u>		
	<u>104</u>	<u>cs s</u>		

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY WF DATE 3/17/50 SHEET 1 OF _____

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

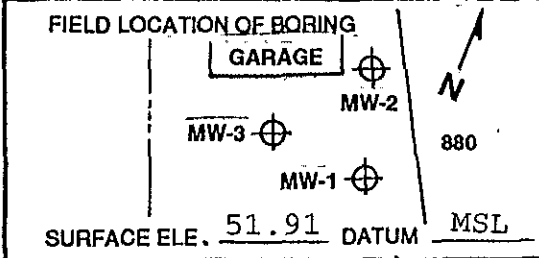
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**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

REMOVED

ALISTO ENGINEERING GROUP EXPLORATORY BORING LOG

DATE 4/9/92 DRILLED 4/9/92 BORING NO. MW-1
 CLIENT Anderson Lift Truck Transport WELL NO. MW-1
 LOCATION 310 Bartlett, Hayward
 LOGGED BY B. Nagle APPROVED BY A. Sevilla



DRILLING METHOD Hollow Stem Auger HOLE DIAMETER 8"
 SAMPLER TYPE Split-spoon sampler
 CASING INSTALLATION DATA 2" sch 40 PVC w/ 0.020" slots
 DRILLER West Hazmat Drilling

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	DESCRIPTION
			0			
			2		CL	Silty CLAY, dark brown, damp, medium plasticity, stiff
			4			
7-13-15	0		6			
			8			
6-9-16	2		10		SC	Clayey SAND, brown, damp, medium dense
			12			
			14			Color change to mottled brown/orange-brown; very moist at 15 feet
5-6-6	0		16		CL	Silty CLAY, brown, very moist, moderate plasticity, stiff
			18		SC	Sandy CLAY, brown, very moist to wet, low plasticity, stiff
			20			
5-8-12	0		22			
			24		CL	Silty CLAY, light brown, moist, low plasticity, very stiff; abundant carbon granules, minor fine-grained sand
27-27-27	0		26			
			28			
			30		SC	Clayey SAND, light brown, moist to wet, dense
14-19-25			32		SM	
3-5-9						

NEAT CEMENT

.NO. 3 LONESTAR SAND

ALISTO ENGINEERING GROUP EXPLORATORY BORING LOG

PROJECT NO. 10-011 DATE DRILLED 4/9/92
 CLIENT Anderson Lift Truck Transport
 LOCATION 310 Bartlett, Hayward
 LOGGED BY B. Nagle APPROVED BY Sevilla

BORING NO.
 MW-1
 WELL NO.
 MW-1

FIELD LOCATION OF BORING

DRILLING METHOD Hollow-Stem Auger HOLE DIAMETER 8"
 SAMPLER TYPE Split-spoon sampler
 CASING INSTALLATION DATA 2" sch 40 PVC w/0.020" slots
 DRILLER West Hazmat Drilling

SURFACE ELE. _____ DATUM _____

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	WATER LEVEL					
						DATE					
						TIME					
DESCRIPTION											
			30		SC	Clayey SAND, light brown, moist to wet, dense					
14-19-25			32		SM	Silty SAND, light brown, wet, medium dense					
3-5-9			34		CL	Silty CLAY, brown, moist, very stiff					
4-12-17			36			Boring terminated at 37 feet below grade. Free groundwater encountered at approximately 30 feet below grade					
			38								
			40								

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

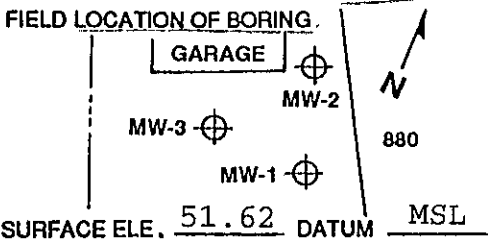
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ALISTO ENGINEERING GROUP EXPLORATORY BORING LOG

PROJECT NO. 10-011 DATE 4/9/92
 CLIENT Anderson Lift Truck Transport
 LOCATION 310 Bartlett, Hayward
 LOGGED BY B. Nagle APPROVED BY A. Sevilla

BORING NO. MW-2
 WELL NO. MW-2



DRILLING METHOD Hollow Stem Auger HOLE DIAMETER 8"
 SAMPLER TYPE Split-spoon sampler
 CASING INSTALLATION DATA 2" sch 40 PVC w/0.020" slots
 DRILLER West Hazmat Drilling

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	DESCRIPTION				
						WATER LEVEL	DATE	TIME		
			0			4" Concrete				
			2		CL	Silty CLAY, dark brown, damp, medium plasticity, stiff				
6-9-12	0	NEAT CEMENT	4							
			6							
			8		SC	Sandy CLAY, brown, damp, low plasticity, stiff; occasional course-grained sand				
4-7-9	0	NEAT CEMENT	10							
			12							
7-9-13	0		14		ML	Clayey SILT, mottled light brown/orange-brown, very moist to wet, low plasticity, firm				
			16							
			18							
5-10-12	0	NO. 3 LONESTAR SAND	20		CL	Sandy CLAY, mottled brown/orange-brown, moist, low plasticity, stiff				
			22							
			24							
7-13-20	0	NO. 3 LONESTAR SAND	26		SC	Clayey SAND, light brown, very moist to wet, medium dense				
			28							
			30		CL	Silty CLAY, light brown, moist, moderate plasticity, stiff				
4-7-10		NO. 3 LONESTAR SAND	32		SC					

497204

035 022 17F05

**ALISTO ENGINEERING GROUP
EXPLORATORY BORING LOG**

PROJECT NO. 10-011 DATE DRILLED 4/9/92
 CLIENT Anderson Lift Truck Transport
 LOCATION 310 Bartlett, Hayward
 LOGGED BY B. Nagle APPROVED BY Sevilla

BORING NO. MW-2
 WELL NO. MW-2

FIELD LOCATION OF BORING

DRILLING METHOD Hollow-Stem Auger HOLE DIAMETER 8"
 SAMPLER TYPE Split spoon sampler
 CASING INSTALLATION DATA 2" sch 40 PVC w/0.020" slots
 DRILLER West Hazmat Drilling

SURFACE ELE. _____ DATUM _____

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	WATER LEVEL				
						DATE				
						TIME				
						DESCRIPTION				
					SC					
			30		CL	Clayey SAND, light brown, very moist to wet, medium dense				
4-7-10			32		▽	Silty CLAY, light brown, moist, moderate plasticity, stiff				
						Driller felt softer drilling at 32 feet				
			34		SC					
7-20-25	0		36			Clayey SAND, brown, wet, medium dense				
			38		CL	Silty CLAY, brown, moist, medium plasticity, very stiff				
			40			Boring terminated at 38 feet below grade. Free groundwater encountered at approximately 32 feet below grade.				

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

497203

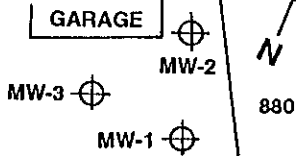
035 02W 17F06

ALISTO ENGINEERING GROUP EXPLORATORY BORING LOG

DATE _____
PROJECT NO. 10-011 DRILLED 4/9/92
CLIENT Anderson Lift Truck Transport
LOCATION 310 Bartlett, Hayward
LOGGED BY B. Nagle APPROVED BY Sevilla

BORING NO.
MW-3
WELL NO.
MW-3

FIELD LOCATION OF BORING



SURFACE ELE. 51.60 DATUM MSL

DRILLING METHOD Hollow Stem Auger HOLE DIAMETER 8"
SAMPLER TYPE Split-spoon sampler
CASING INSTALLATION DATA 2" sch 40 PVC w/0.020" slots
DRILLER West Hazmat Drilling

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	WATER LEVEL	22.48				
						DATE	4-14-92				
						TIME	1:58				
DESCRIPTION											
		NEAT CEMENT	0			4" concrete					
			2			Silty CLAY, dark brown, damp, medium plasticity, stiff					
5-9-10	0		4		CL	Color change to brown, abundant sand, low plasticity					
			6								
			8								
5-9-14	0		10		CL	Sandy CLAY, brown, damp, low plasticity, stiff					
			12								
3-9-11	0		14								
			16		SC	Clayey SAND, brown, damp, medium dense					
			18								
3-4-7	0	NO. 3 LONESTAR SAND	20			Silty CLAY, mottled brown/orange-brown, moist, medium plasticity, firm					
			22		CL						
		24									
8-12-20	0	26		SC	Clayey SAND, brown, moist to wet, medium dense						
		28									
4-9-9		30		ML	Clayey SILT, light brown, wet, low plasticity, stiff						
		32									

**ALISTO ENGINEERING GROUP
EXPLORATORY BORING LOG**

PROJECT NO. 10-011 DATE 4/9/92
 CLIENT Anderson Lift Truck Transport
 LOCATION 310 Bartlett, Hayward
 LOGGED BY B. Nagle APPROVED BY Sevilla

BORING NO.
 MW-3
 WELL NO.
 MW-3

FIELD LOCATION OF BORING

DRILLING METHOD Hollow-Stem Auger HOLE DIAMETER 8"
 SAMPLER TYPE Split-spoon sampler
 CASING INSTALLATION DATA 2" sch 40 PVC w/ 0.020" slots
 DRILLER West Hazmat Drilling

SURFACE ELE. _____ DATUM _____

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	WATER LEVEL				
						DATE				
						TIME				
DESCRIPTION										
					▽					
	4-9-9		30		ML					Clayey SILT, light brown, wet, low plasticity, stiff
			32							
			34							
	4-8-9		36		SC					Clayey SAND, light brown, wet, medium dense; occasional sand stringers
			38							
	9-12-16		40		CL					Silty CLAY, light brown, moist, low plasticity, very stiff
										Boring terminated at 38 feet below grade. Free groundwater encountered at approximately 29 feet below grade.

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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(WELL LOGS)**

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WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

01-028Q-U

2 BORINGS

03502W 176
MAY 2 03502W 17608
MUN 17609
MUN 17607



Environmental Services, Inc.

2111 Jennings Street, San Francisco, CA 94124-3224, Phone (415) 822-4555; FAX (415) 822-5290

PROGRESS REPORT QUARTER ENDING DECEMBER 31, 1991

BECK ROOFING
21123 Meekland Avenue
Hayward, California

Prepared for:
Charlie and Mary Beck
21123 Meekland Avenue
Hayward, CA 94541

L&W Project 2116
January 7, 1992



John Carver
John Carver
Civil Engineer 23772

Michael J. Killoran
Michael J. Killoran
Geologist

George Wilson
Vice President

sand layer is approximately 5 feet thick and is underlain by more clay down to approximately 45 feet, and is followed by another sand layer of unknown thickness.

On November 4, 1991, the three wells were surveyed, observed and monitored for depth to groundwater, and the presence of oil sheen or free product. The observations and measurements are presented below:

Location	Date Measured	Top of Casing Elevation	Sheen or Free Product (feet)	Depth to Groundwater (feet)	Piezometric Surface Elevation
MW1	10/18/91	100.01	None	32.32	67.69
MW2	10/18/91	100.13	None	32.44	67.69
MW3	10/18/91	100.00	None	32.40	67.60

Groundwater Hydrology

Based on the results of the exploration program, the groundwater below the site appears to be an aquifer located near the interface of the clay and sand in all three wells. Groundwater was initially encountered at about 33 feet below ground surface in all three wells, and has apparently stabilized at about 33 feet below ground surface.

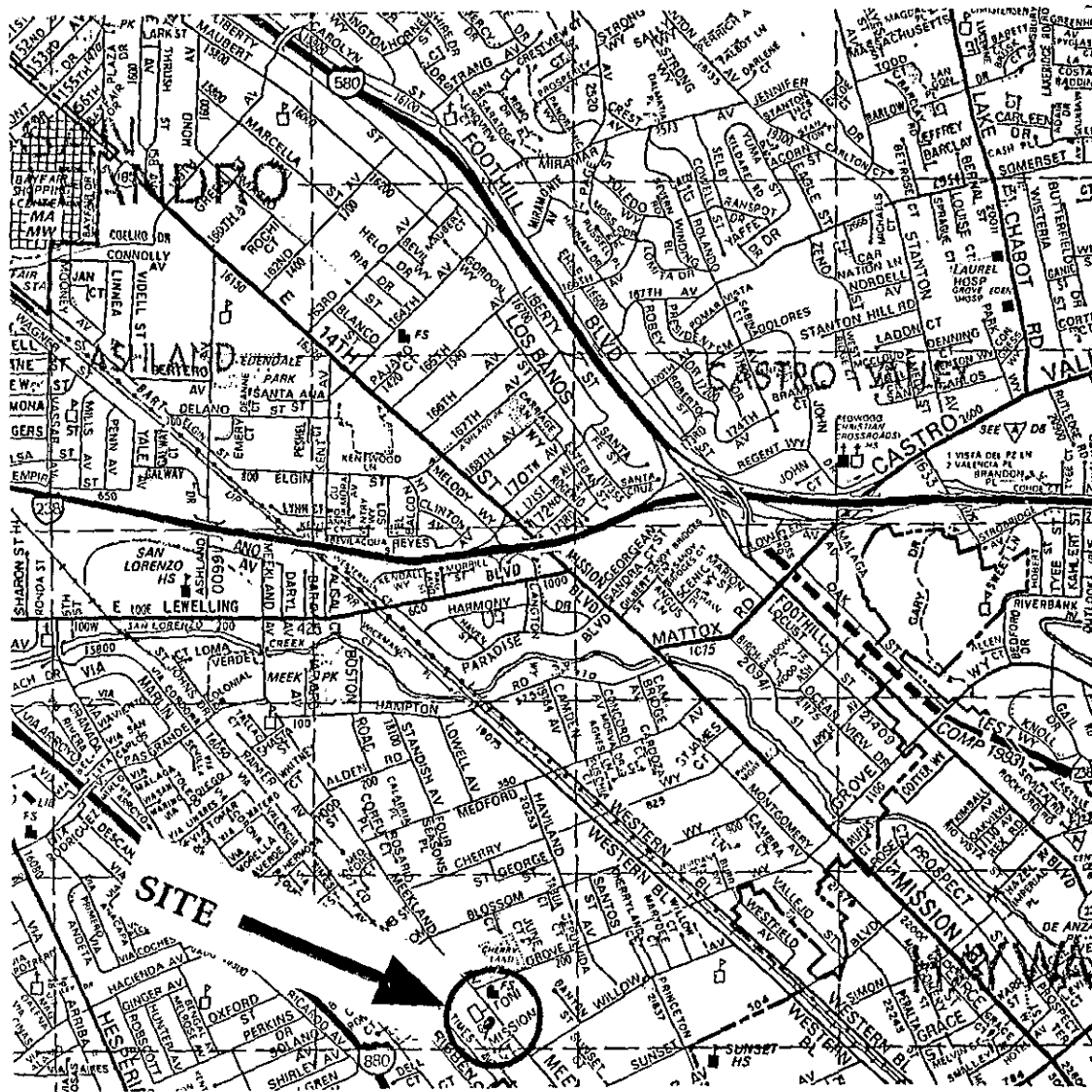
The groundwater gradient was calculated based on the measurements taken November 4, 1991. The gradient is about 0.1 foot per 80 feet to the northeast. Figure 13 of Appendix A is a graphic representation of the calculated groundwater gradient.

Analytical Results

The following table summarizes the analytical results of the soil samples taken by Blaine Technical Services during the tank removal and the 16 confirmation soil samples taken by L&W Environmental Services, Inc. during the overexcavation.

Blaine Technical Services
(sample results during tank removal)

Sample ID	Date Sampled	TPH-G (ppm)	BTEX (ppm)	TOG (ppm)	LEAD (ppm)
#1	6/91	1,300	64/77/28/230	NT	0.22
#2	6/91	1,800	5.8/75/33/2107	NT	0.66
#3 A-D	6/91	11	ND/ND/ND/ND	NT	ND



L & W Environmental Services, Inc.

2111 Jennings Street
San Francisco, California

Vicinity Map

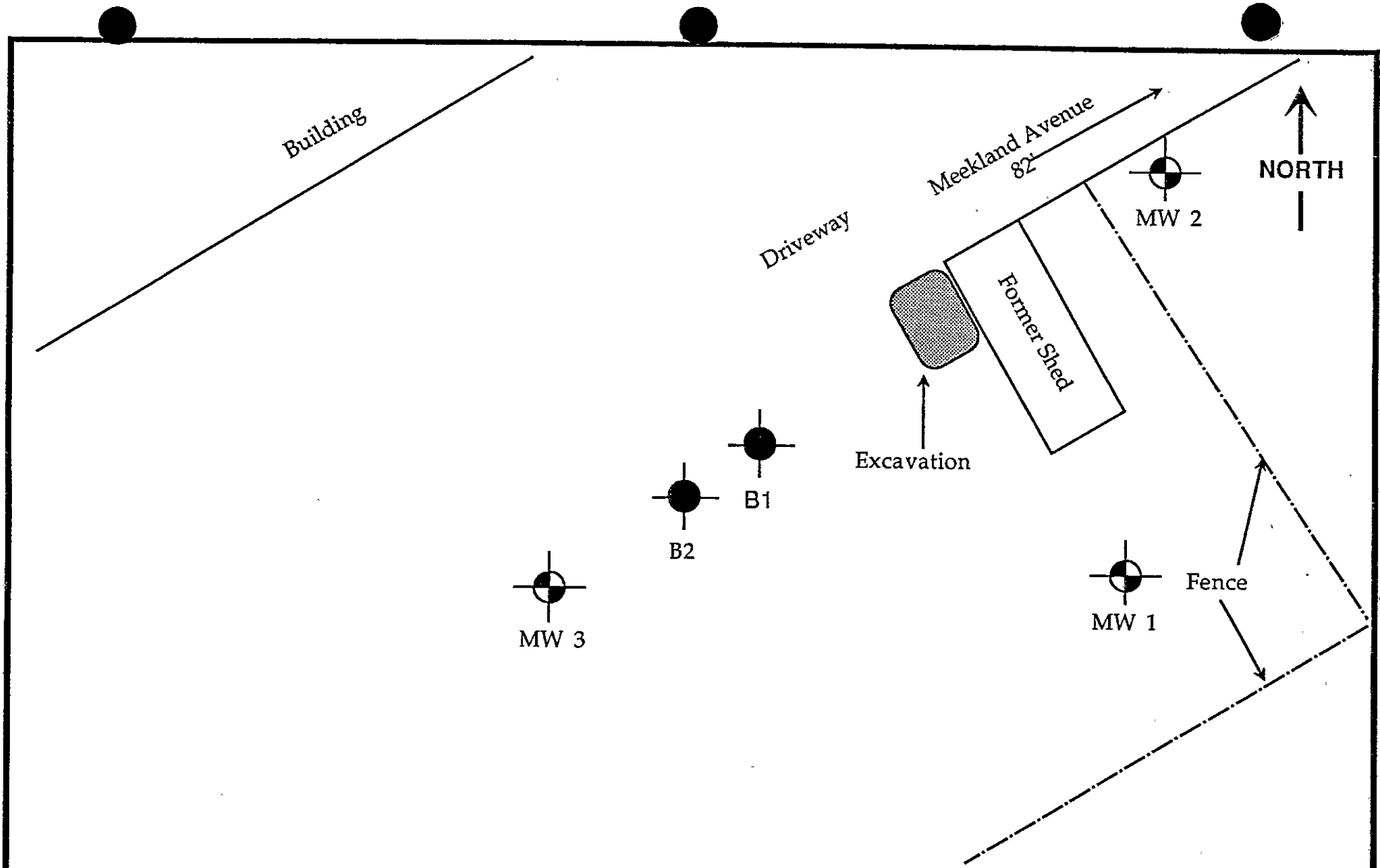
Beck Roofing
21123 Meekland Avenue
Hayward, California

Project Number: 2116

Drawn by: MJK

Date: November, 1991

Figure Number: 1



01-528 Q-U

035020175



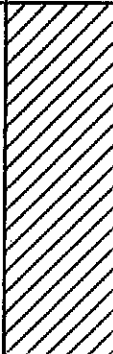

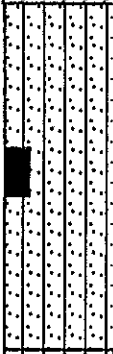
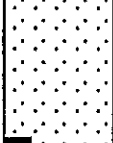
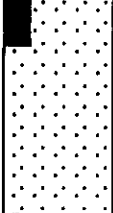
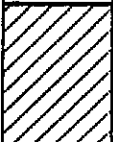

Approximate boring location

Scale 1"=20"

L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California		Boring Location Plan Beck Roofing Hayward, California	
Project Number: 2116	Drawn by: MJK	Date: December, 1991	Figure Number: 4

01-528 Q

035 02.17.907
DESCRIPTION

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
					0	
2116-5-MW1	20	CL	911		5	Brown sandy silty clay, moist, no odor, medium plasticity.
						
2116-10-MW1	15	SM	917		10	Brown silty sand, fine-grained, medium dense, moist, no odor.
						
2116-15-MW1	12	SP	925		15	Brown sand with subangular gravel, fine-grained, medium dense, moist, no odor.
						
2116-20-MW1	5	CL	935			Brown silty clay, medium stiff, moist, no odor, low plasticity.

L & W Environmental Services, Inc.

2111 Jennings Street
San Francisco, California

Log of Boring Number: MW 1

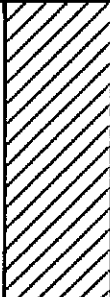
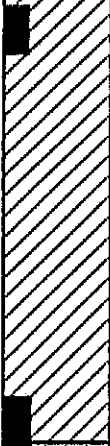
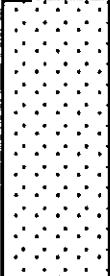

Sheet 1 of 3

Beck Roofing
21123 Meekland Avenue
Hayward, California

Project Number: 2116


Date: November, 1991

Figure Number: 5

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
2116-25-MW1	13	CL	944		25	Same, with medium plasticity.
2116-30-MW1	9	CL/ SP	959		30	Same, but stiff.
2116-35-MW1	9	SP/ CL	1008		35	Brown sand, fine-grained, medium loose, moist, no odor.
2116-40-MW1	11	CL	1025		40	Brown silty clay, stiff, moist to wet near top of sample, no odor, medium plasticity.

<p>L & W Environmental Services, Inc.</p> <p>2111 Jennings Street San Francisco, California</p>	<p>Log of Boring Number: MW 1 Sheet 2 of 3 Beck Roofing 21123 Meekland Avenue Hayward, California</p>
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Project Number: 2116	Date: November, 1991	Figure Number: 5
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Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
2116-45-MW1	13	CL/SP	1035		45	Same. Brown sand, fine-grained, medium dense, wet, no odor.

Boring terminated at 45.5 feet.
 Groundwater encountered at 30.5 feet.
 Boring drilled 10/30/91 with CME 75 rig.
 Boring grouted from 45.5 to 39 feet and converted
 into Monitoring Well 1 on 10/30/91

L & W Environmental Services, Inc.

2111 Jennings Street
 San Francisco, California

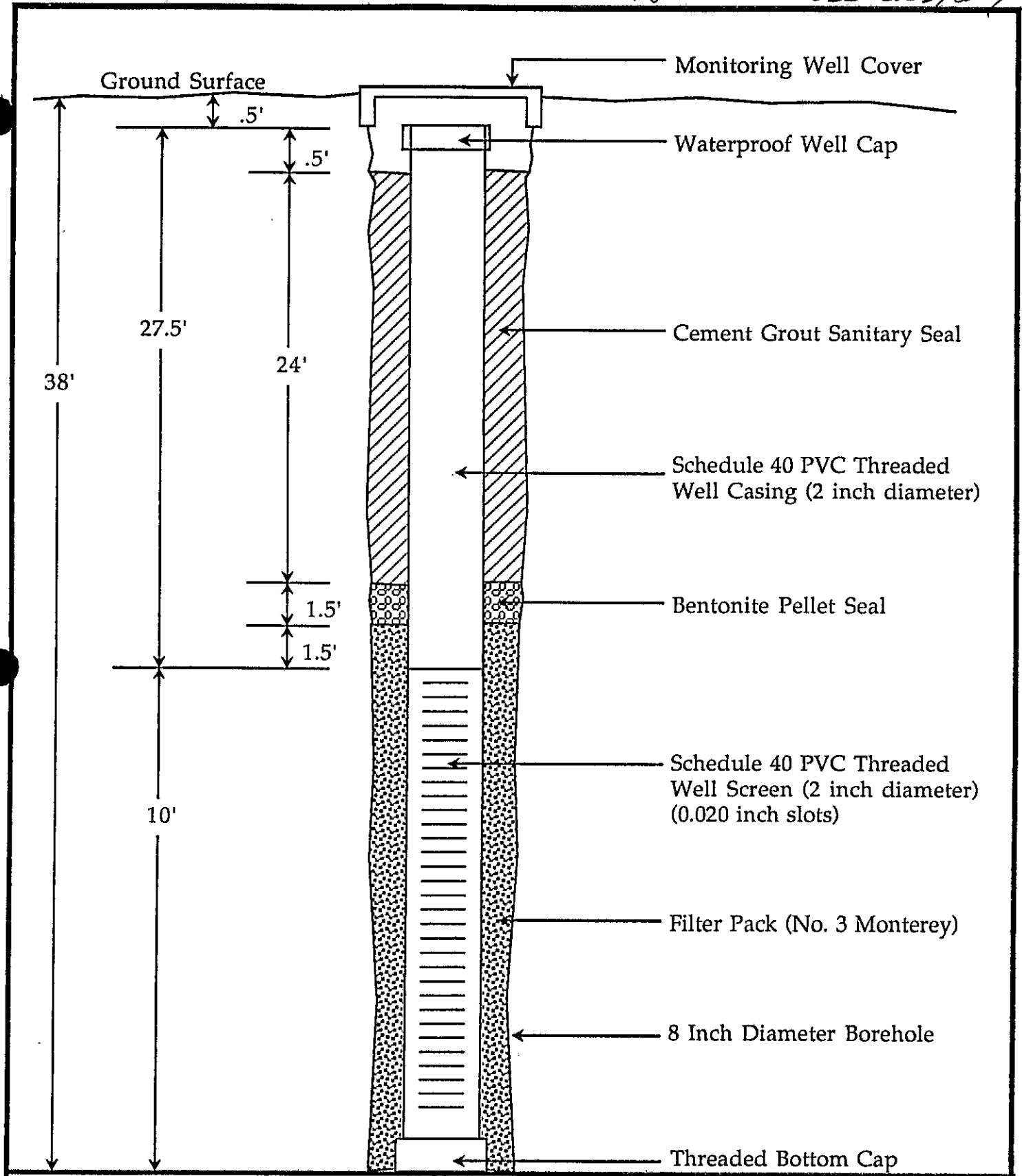
Log of Boring Number: MW 1

Sheet 3 of 3
 Beck Roofing
 21123 Meekland Avenue
 Hayward, California

Project Number: 2116

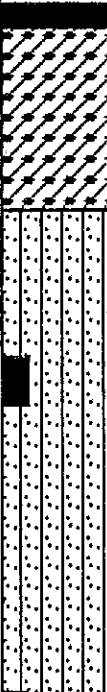
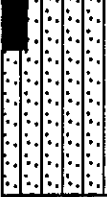

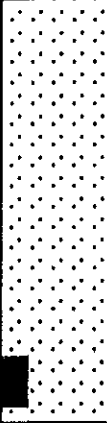
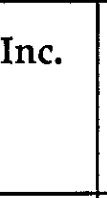
December, 1991

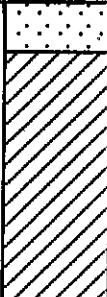


Figure Number: 5



<p>L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California</p>	<p>Beck Roofing 21123 Meekland Avenue Hayward, California</p>	<p>Monitoring Well MW-1 Installation Detail</p>
<p>Project Number: 2116</p>	<p>Date: December, 1991</p>	<p>Figure Number: 10</p>

01-528R

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	<p style="text-align: right;">03502W 17000</p> DESCRIPTION
2116-5-MW2	18	GC	145		0	3" asphalt cover. Brown gravel-sand-clay mixture, moist, no odor.
2116-10-MW2	10	SM	150		5	Brown silty sand, fine-grained, medium dense, moist, no odor.
2116-15-MW2	12	SP	200		10	Brown silty sand, fine-grained, loose to medium dense, moist, no odor.
2116-20-MW2	6	SP			15	Brown sand, fine-grained, medium dense, moist, no odor.
					20	Same, but loose.
L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California				Log of Boring Number: MW 2 Sheet 1 of 2 Beck Roofing 21123 Meekland Avenue Hayward, California		
Project Number: 2116				Date: December, 1991		Figure Number: 6

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
2116-25-MW2	19	CL	235		25	Brown sandy silty clay, very stiff, moist, no odor, medium plasticity.
2116-30-MW2	18	CL	245		30	Same.
2116-35-MW2	12	SM	255		35	Brown sand, fine-grained, medium stiff, wet, no odor.

Boring terminated at 38 feet.
 Groundwater encountered at 33 feet.
 Boring drilled 10/30/91 with CME 75 rig.
 Boring converted into Monitoring Well 2 on 10/30/91

L & W Environmental Services, Inc.

2111 Jennings Street
 San Francisco, California

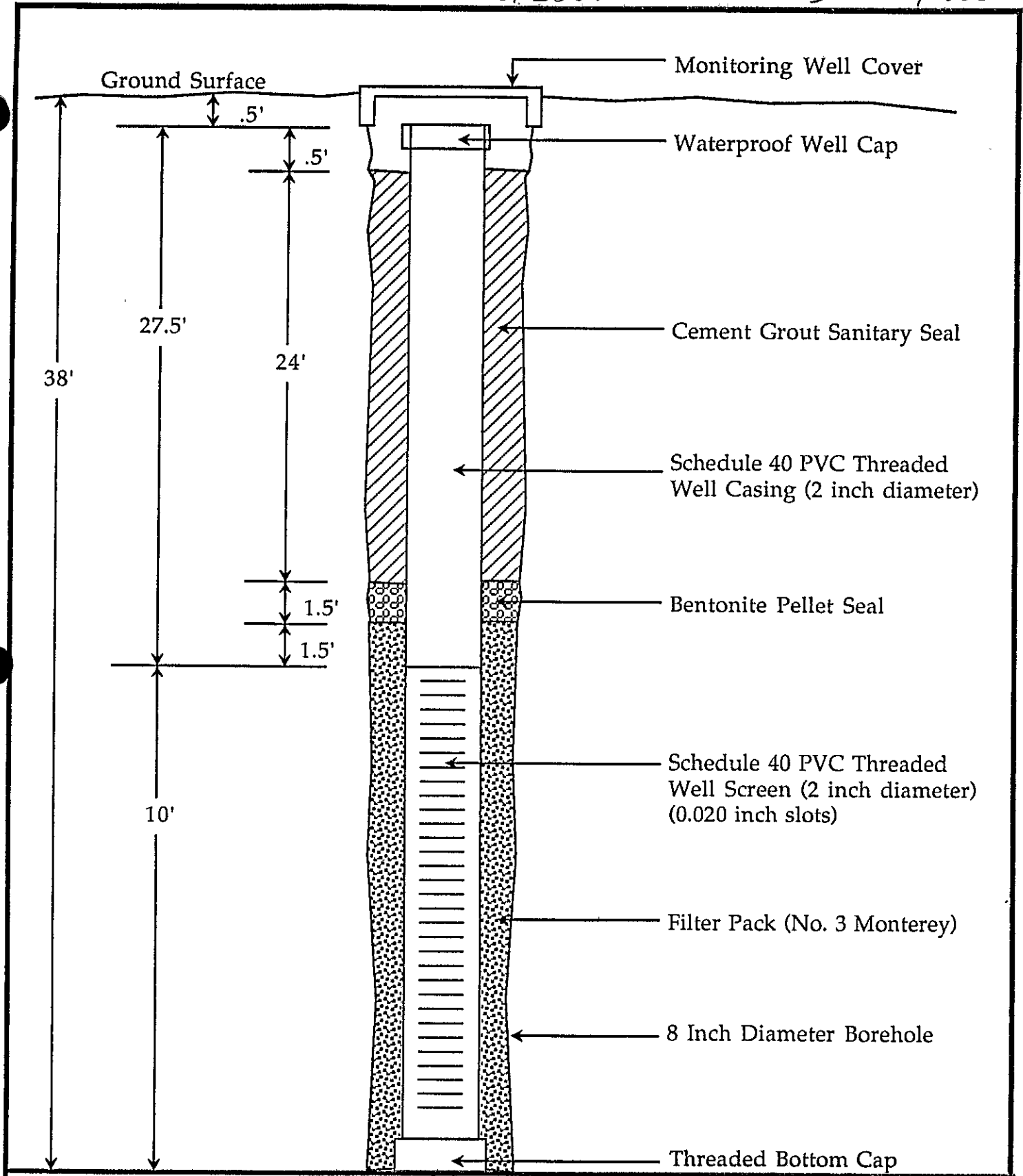
Log of Boring Number: MW 2

Sheet 2 of 2
 Beck Roofing
 21123 Meekland Avenue
 Hayward, California

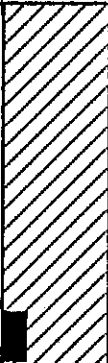


Project Number: 2116

Date: December, 1991

Figure Number: 6



<p>L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California</p>	<p>Beck Roofing 21123 Meekland Avenue Hayward, California</p>	<p>Monitoring Well MW-2 Installation Detail</p>
<p>Project Number: 2116</p>	<p>Date: December, 1991</p>	<p>Figure Number: 11</p>

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
2116-25-MW3	14	CL	207		25	Same.
2116-30-MW3	13	CL	225		30	Same.
2116-35-MW3	13	SM	230		35	Brown silty sand, fine-grained, medium dense, wet.

Boring terminated at 38 feet.
 Groundwater encountered at 33 feet.
 Boring drilled 10/31/91 with CME 75 rig.
 Boring converted into Monitoring Well 3 on 10/31/91

L & W Environmental Services, Inc.

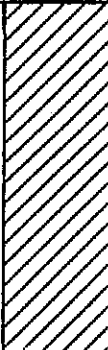







2111 Jennings Street
 San Francisco, California

Log of Boring Number: MW 3
 Sheet 2 of 2
 Beck Roofing
 21123 Meekland Avenue
 Hayward, California

Project Number: 2116

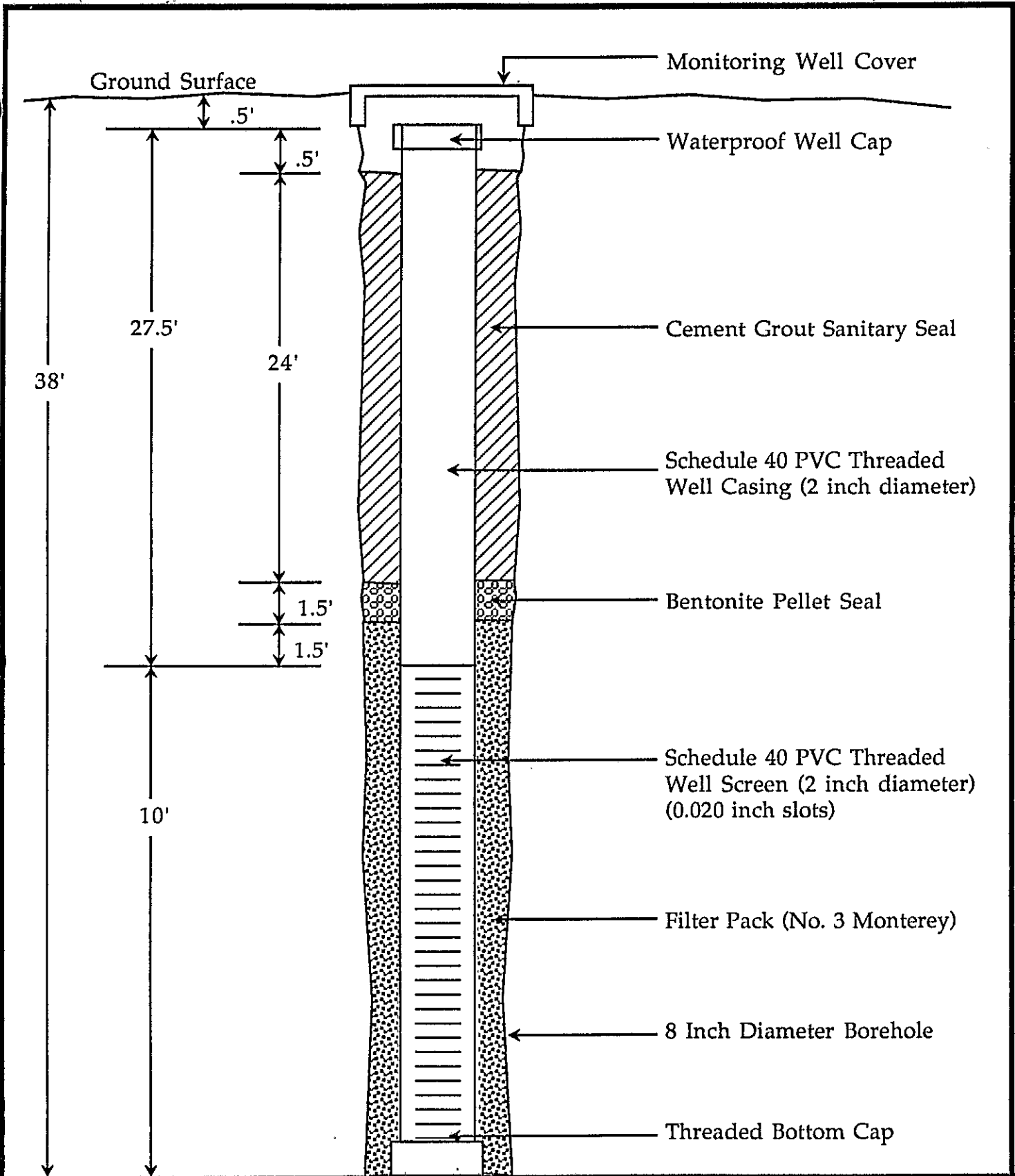
Date: December, 1991

Figure Number: 9





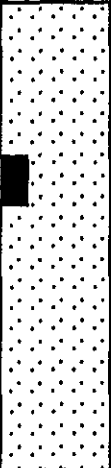

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
					0	Brown silty clay with sand and gravel, moist, no odor.
2116-5-MW3	9	CL	115		5	Brown silty clay, stiff, moist, no odor medium plasticity.
						
2116-10-MW3	12	SM	125		10	Brown silty sand, fine-grained, medium dense, moist, no odor.
						
2116-15-MW3	12	SM	135		15	Same.
						
2116-20-MW3	5	CL			20	Brown silty clay, medium stiff, moist, odor, medium plasticity.

<p>L & W Environmental Services, Inc.</p> <p>2111 Jennings Street San Francisco, California</p>	<p>Log of Boring Number: MW 3 Sheet 1 of 2 Beck Roofing 21123 Meekland Avenue Hayward, California</p>
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Project Number: 2116	Date: December, 1991	Figure Number: 9
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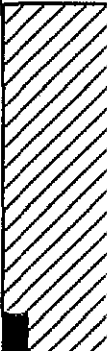


<p>L & W Environmental Services, Inc. 2111 Jennings Street San Francisco, California</p>	<p>Beck Roofing 21123 Meekland Avenue Hayward, California</p>	<p>Monitoring Well MW-3 Installation Detail</p>
<p>Project Number: 2116</p>	<p>Date: December, 1991</p>	<p>Figure Number: 12</p>

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
					0	
2116-5-B1	12	CL	910		5	Brown sandy silty clay, moist, no odor, medium plasticity.
		SC				Brown clayey sand, fine-grained, moist, no odor, grades downward to a silty clay.
2116-10-B1	10	CL	915		10	Brown sandy silty clay, stiff, moist, no odor, low plasticity.
						
2116-15-B1	12	SP	927		15	Brown sand, fine-grained, medium dense, moist, no odor.
2116-20-B1	8	CL	940		20	Brown sandy silty clay, medium stiff, moist, odor.
L & W Environmental Services, Inc.				Log of Boring Number: B1		
2111 Jennings Street San Francisco, California				Sheet 1 of 2		
				Beck Roofing		
				21123 Meekland Avenue		
				Hayward, California		
Project Number: 2116				Date: December, 1991		Figure Number: 7

01-528T

03S02W17G

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
2116-25-B1	10	CL	950		25	Brown sandy silty clay, stiff, moist, strong odor, medium plasticity.

Boring terminated at 25.5 feet.
 Groundwater not encountered.
 Boring drilled 10/31/91 with CME 75 rig.

L & W Environmental Services, Inc.

2111 Jennings Street
 San Francisco, California

Log of Boring Number: B1

Sheet 2 of 2

Beck Roofing
 21123 Meekland Avenue
 Hayward, California




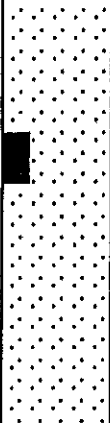

Project Number: 2116

Date: December, 1991

Figure Number: 7

01-5-280

035020176
~~035020176~~

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
2116-5-B2	16	CL	1050		0	
2116-10-B2	10	SM	1112		5	Brown silty sandy clay, very stiff, moist, no odor, medium plasticity.
2116-15-B2	9	SP	1120		10	Brown silty sand, fine-grained, loose to medium dense, moist, no odor.
2116-20-B2	7	CL	1130		15	Brown sand, fine-grained, loose, moist, no odor.
					20	Brown silty clay, medium stiff, moist, no odor, medium plasticity.

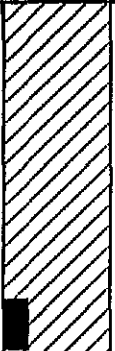
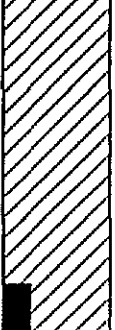
L & W Environmental Services, Inc.
 2111 Jennings Street
 San Francisco, California

Log of Boring Number: B2
 Sheet 1 of 2
 Beck Roofing
 21123 Meekland Avenue
 Hayward, California

Project Number: 2116

Date: December, 1991

Figure Number: 8

Sample Number	Blows per Foot	Soil Type	Time	Log	Depth in Feet	DESCRIPTION
2116-25-B2	9	CL	1136		25	Brown sandy silty clay, stiff, moist, strong odor, medium plasticity.
2116-30-B2	8	CL	1145		30	Same.

Boring terminated at 30.5 feet.
 Groundwater not encountered.
 Boring drilled 10/31/91 with CME 75 rig.

L & W Environmental Services, Inc.

2111 Jennings Street
 San Francisco, California

Log of Boring Number: B2

Sheet 2 of 2

Beck Roofing
 21123 Meekland Avenue
 Hayward, California

Project Number: 2116

Date: December, 1991

Figure Number: 8

482

01-527V

3S/2W 17G10



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

597 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 (415) 884-2600

1 August 1991

Pellegrini Construction Company
P.O. Box 28
Hayward, CA 94543

Gentlemen:

Enclosed is Drilling permit 91428 for the destruction of well 3S/2W 17G80 at 21454 Meekland Avenue in Hayward for Jon Otteson.

Please note that permit condition A-2 requires that a well destruction report be submitted after completion of the work. The report should include a description of methods and materials used to destroy the well, location sketch, date of destruction, and permit number.

If you have any questions, please contact me at 484-2600.

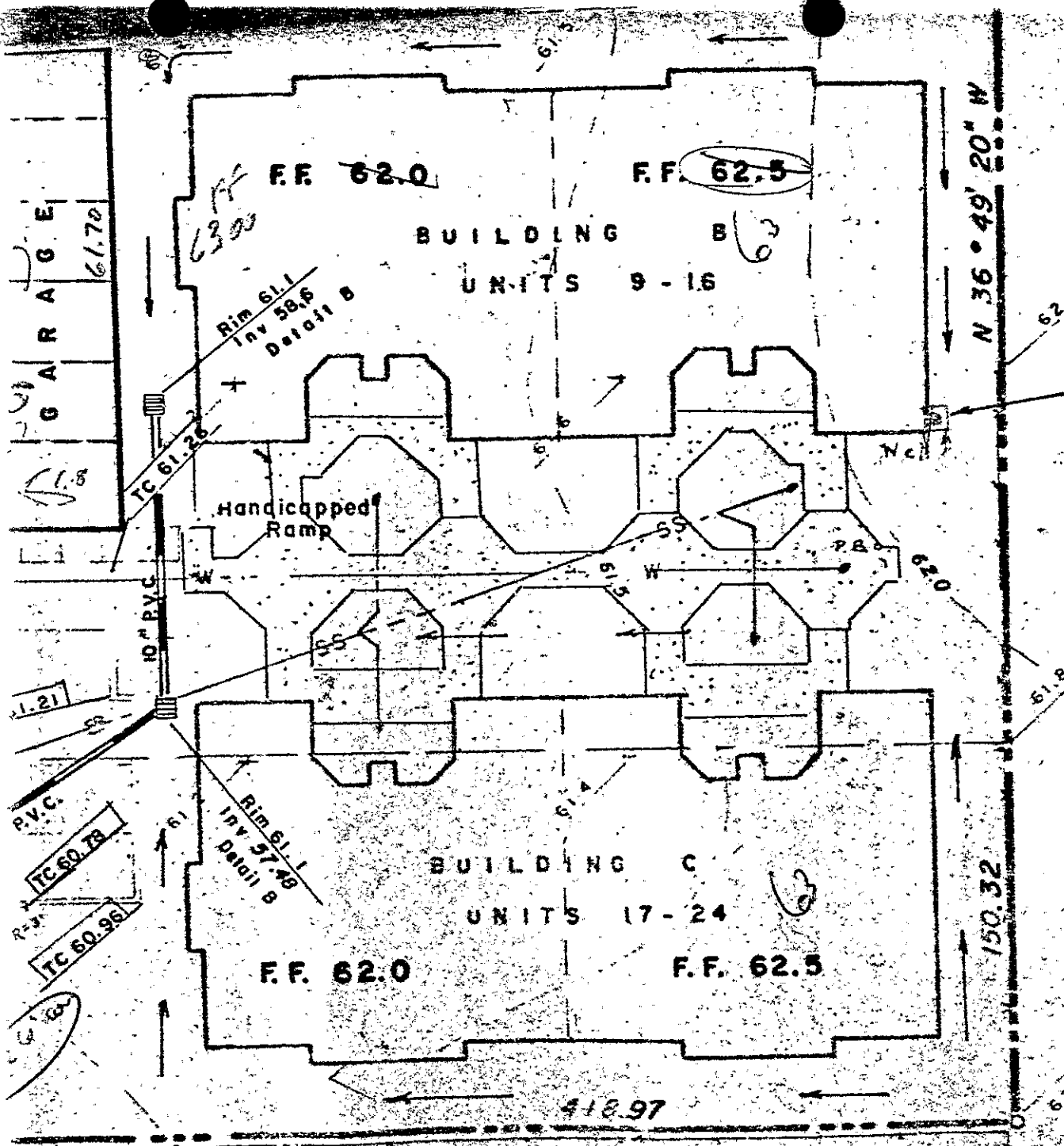
Very truly yours,

A handwritten signature in cursive script that reads "Wyman Hong".

Wyman Hong
Water Resources Technician

WH:mm
Enc.

phone: 415-881-8943



Existing Well to be abandoned.
 A A.C.F.C Permit, Zone 7, shall
 be issued prior to commencement
 of grading

Well location
 21.454 MEEKUMS
 35.6' Deep
 permit # 91428
 well 35/2w 17680

Proposed to 22±' Filled Balance
 of Casson w. Mortar/Concrete to
 2' fast below grade Before grading

Robert D. [Signature]

PLAN SCALE
 1" = 20' Horizontal

292

01-527V

35/2w 17610

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

REGION _____
 COUNTY S. Alameda
 NEAR _____

DIVISION OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN 3S/2W-17H
 DWR No. 3/2-17H B & M
 OTHER NOS. 3S/2W-17H

WELL LOG 01-1536

LOCATION Hayward, Willow Avenue

7
 No 14170

~~357~~
 357

OWNER McCune ADDRESS _____

DRILLED BY Murphy ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED 4/28/42
aband 2/50

SIZE OF CASING DEPTH 8 STRUCK WATER AT _____

PERFORATIONS 52-54; 58-64; 76-78; 84-86; 95-99; and 105-107 SIZE _____ NO. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION Murphy

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
1	4	top soil		
	32	c		
	39	c (WT at 35)		
	40	s fast (quicksand)	1	
	45	s tight	5	
	51	c		
	52	s fine	1	
	53	s cs	1	
	56	c		
	61	s	5	
	75	c		
	76	s	1	
	81	c		
	83	s	2	
	93	c		
	99	s	6	
	104	c		
	105	s	1	
	107	gr light	2	
	109	s	2	
	111	c		
	113	s	2	
	115	c		
	116	s	1	
	119	s and gr	3	
	120	c		
	122	s and small gr	2	
	124	s quicksand		
	128	c		

*Walled and Cased
 the Well*

21 C2

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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(WELL LOGS)

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(WELL LOGS)

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WELL COMPLETION REPORT
(WELL LOGS)

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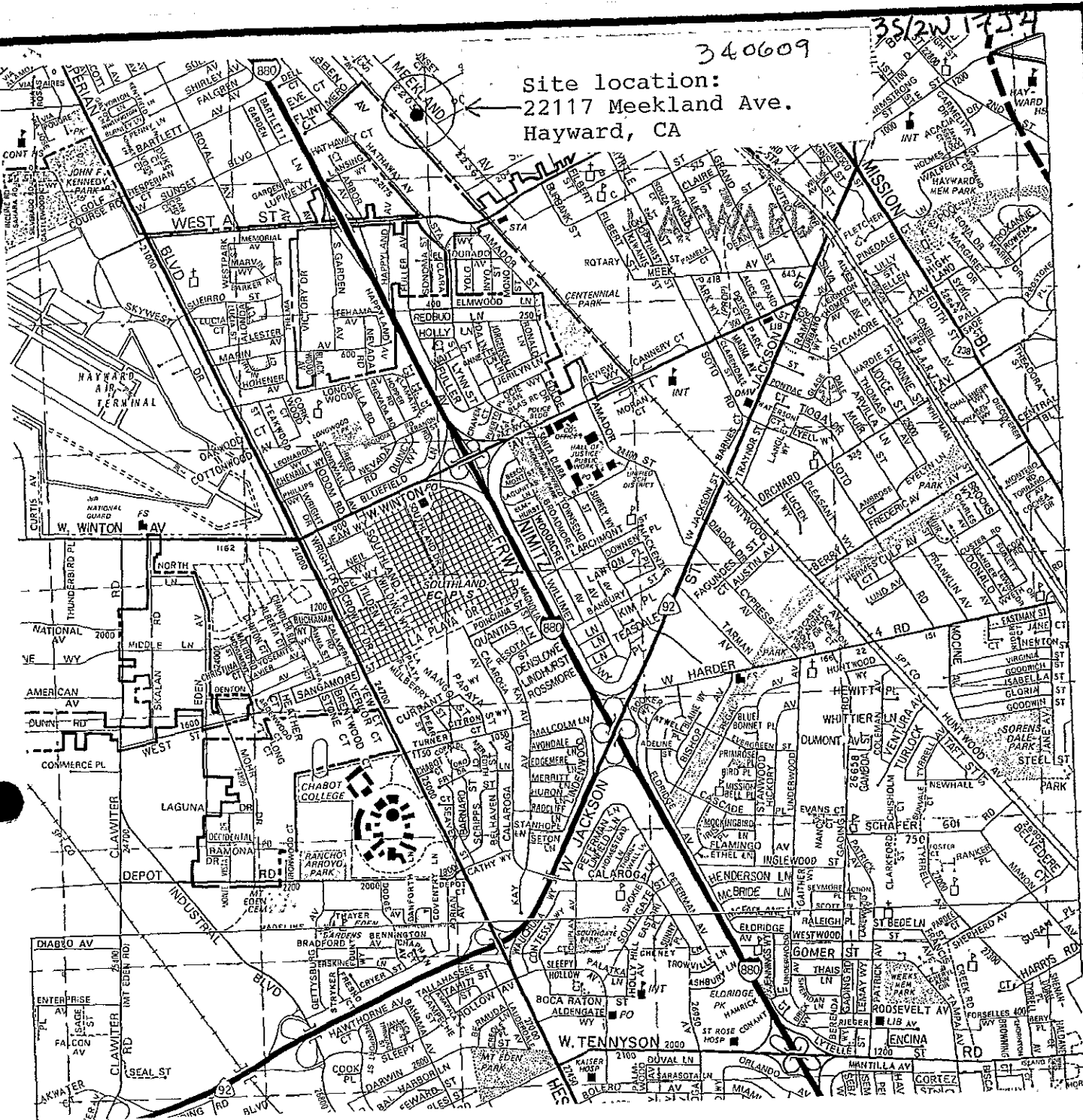
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

340609

352W 1734

Site location:
22117 Meekland Ave.
Hayward, CA



Emergency routes: Map attached. Route: Proceed South-East on Meekland to West A st. Turn Right on to West A st. Get on to Hwy. 880 south bound. Exit at W. Tennyson. Turn Right from Exit on to W. Tennyson. Turn Right on Calaroga Av. Enter the Emergency entrance.



CROSBY & OVERTON, INC.
Environmental Management

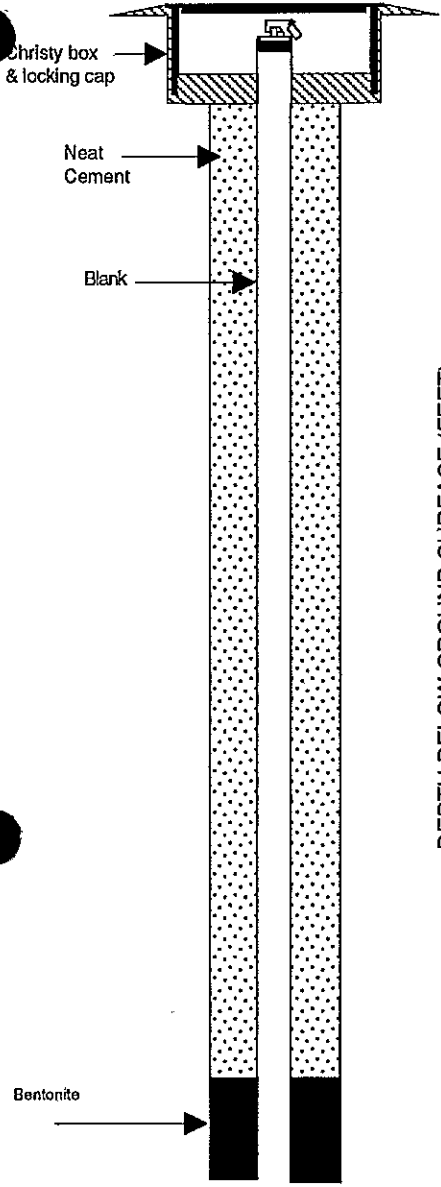
22217 Meekland Ave.
Hayward, CA

DATE: 2/20/91

JOB NUMBER: 8205-S

DRAWN BY: MARK AYALA

MONITOR WELL COMPLETION



DEPTH BELOW GROUND SURFACE (FEET)

0
4
8
12
16
20
24

SAMPLES		SOIL BORING GRAPHIC LOG		LITHOLOGIC DESCRIPTION
NO.	TYPE	BLOW		
				8" of Concrete 6" of Aggregate Base
				Silty Clay
S-1	Grab	5 7 7		Dark Brown, Black Clay; Medium Plasticity. No Odor
S-2	Grab	7 8 8		Brown Clay; Medium Plasticity No Odor
S-3	Grab	5 5 7		Heterogenous, interbedded very fine sands-silts-brown clays. Medium Plasticity when homogenized. No odor.
S-4	Grab	8 7 8		Heterogenous, interbedded very fine sands-silts- brown clays. Medium Plasticity when homogenized. No odor.

4" Diameter Well
10" Bore Hole

Continues

Logged by: Dave Sadoff Drilling Company: Layne Environmental Well Head Completion: Christy box & locking cap
 Dates Drilled: 3-21-91 Drilling Method: CF HSA Type of Sampler: CA Split Spoon
 Driller: Jim TD (Total Depth): 53.0 ft.

EXPLANATION

	Water level during drilling		Contacts
	Water level in completed well		Solid where certain
	Location of recovered drill sample		Dotted where approximate
	Location of sample sealed for chemical analysis		Dashed where uncertain
	Sieve sample		Hachured where gradational
	Grab sample		Estimated permeability (hydraulic conductivity)
			No recovery

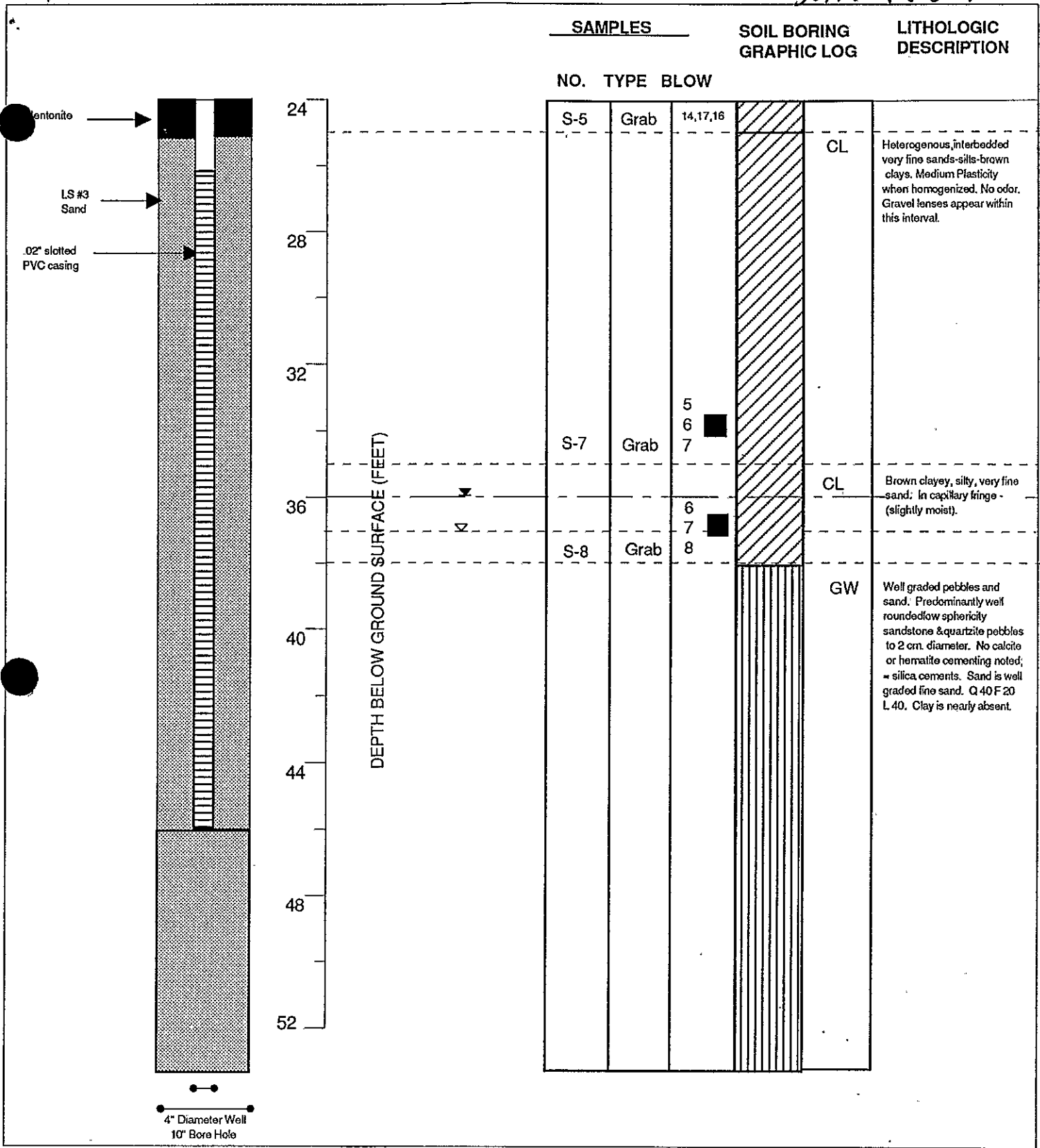
est K 1K = primary 2K = secondary

CROSBY & OVERTON, INC.

WELL MW-1, PAGE 1

22117 Meekland Avenue, Hayward, CA
 Owner, Hoyt/Buettner
 Job No. 8205-S

NO.	DATE	DESCRIPTION	APP'D
REVISIONS			
<small>This Drawing, including the information it contains is the property of CROSBY & OVERTON, INC. The drawing is to be used only in connection with the project to which it pertains and must not be used in any manner detrimental to the interests of CROSBY & OVERTON, INC. This drawing is not to be copied and must be returned upon request.</small>			
DATE	5-8-91	SCALE	SHEET
APP'D			



EXPLANATION	
☒ Water level during drilling	— Contacts Solid where certain
● Water level in completed well	- - - Dotted where approximate - - - Dashed where uncertain
▣ Location of recovered drill sample	▨ Hatched where gradational
■ Location of sample sealed for chemical analysis	est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
▣ Sieve sample	NR No recovery
☒ Grab sample	

NO.	DATE	DESCRIPTION	APP'D
REVISIONS			
<small>This Drawing, including the information it contains is the property of CROSBY & OVERTON, INC. This drawing is to be used only in connection with the project to which it pertains and must not be used in any manner detrimental to the interests of CROSBY & OVERTON, INC. This drawing is not to be copied and must be returned upon request.</small>			

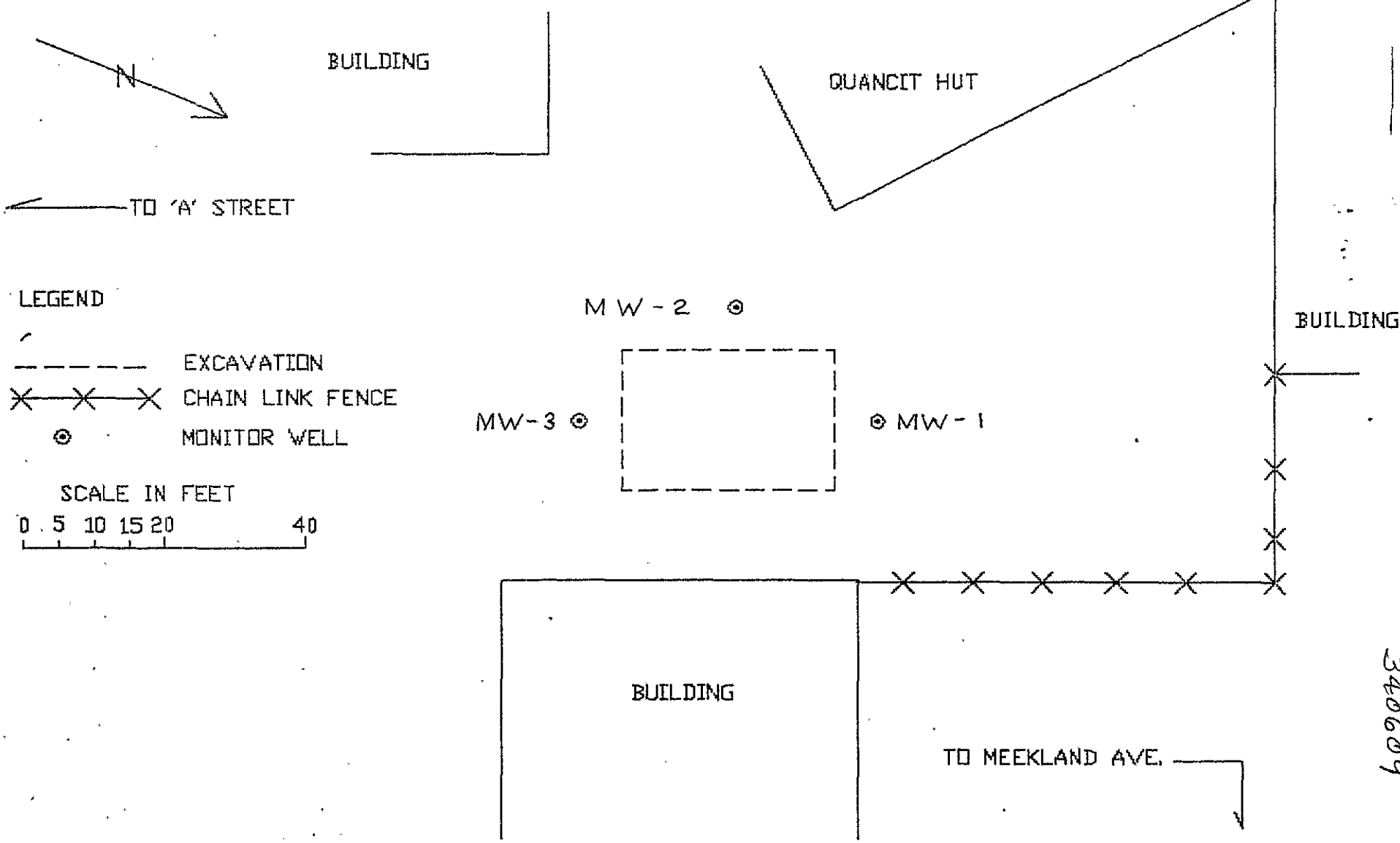
CROSBY & OVERTON, INC.

WELL MW-1, PAGE 2

22117 Meekland Avenue, Hayward, CA
Owner, Hoyt/Buettner
Job No. 8205-S

DATE 5-2-91	SCALE SHEET
APP'D	

35/2w 17J4



340609



CROSBY & OVERTON, INC.
 Environmental Management

VINCE HOYTT
 22117 Meekland Ave.
 Hayward, CA

Figure 2

DATE: 3/5/91

JOB NUMBER: 8205-S

DRAWN BY: M.S.A.

35/2w-17J4

340609

35/2W17J4

DUPLICATE
RETAIN THIS COPY

No. 252705

NOTICE OF INTENT

DEPARTMENT OF WATER RESOURCES:

MARCH 5, 1991

On or about MARCH 20, 19 91, I plan to commence drilling deepening
reconditioning or destruction of a cable rotary or other HSA type

well, for GROUNDWATER MONITORING purposes. The work will be done for

V. HOLT, 11433 CULL CANYON RD., CASTRO VALLEY, CA
(Proposed use of well) (Name of client and address) 94552

Approximate location of well is 22117 MEERLAND AVE.,
HAYWARD, CA 94541

(Legal subdivision or by reference to some landmark), in ALAMEDA County.

LAYNE ENVIRONMENTAL Lic. No. 157-600469

(Well driller) 4300 EDUCA RD., PITTSBURGH, CA
(Address)

Need log forms Need notice cards

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
INFORMATION ON NOTICE OF INTENT

LEGISLATION

The Notice of Intent form has been prepared by the Department of Water Resources in accordance with legislative direction given by Chapter 1088, Statutes of 1965, amended in 1967 as follows:

"13750 Every person who hereafter intends to dig, bore, or drill a water well, or who intends to deepen or reperform any such well, or to abandon or destroy a water well, shall file with the department a notice of intent to engage in such construction or repair prior to commencing such construction or repair; provided, that when such construction or repair must be accomplished immediately in order to prevent damage to persons or property due to the loss of an existing water supply, such notice shall be filed with the department as soon as possible thereafter, but in any event not more than five days after commencement of such construction or repair.

"The report shall be made on forms furnished by the department and shall contain such information as the department may require, including, but not limited to: (a) description of the well site sufficiently exact to permit location and identification of the well; (b) proposed date of construction of well; (c) the use for which the water well is intended; (d) the work to be done and a description of type of construction; and (e) in event of late filing, the reasons therefor."

INSTRUCTIONS

Complete original and mail to Department of Water Resources district office in whose area the well was drilled. This is a preaddressed form and no postage stamp is necessary. Retain duplicate for your records. Should you drill wells in more than one area, preaddressed forms for these areas will be sent on request.

CONFIDENTIAL

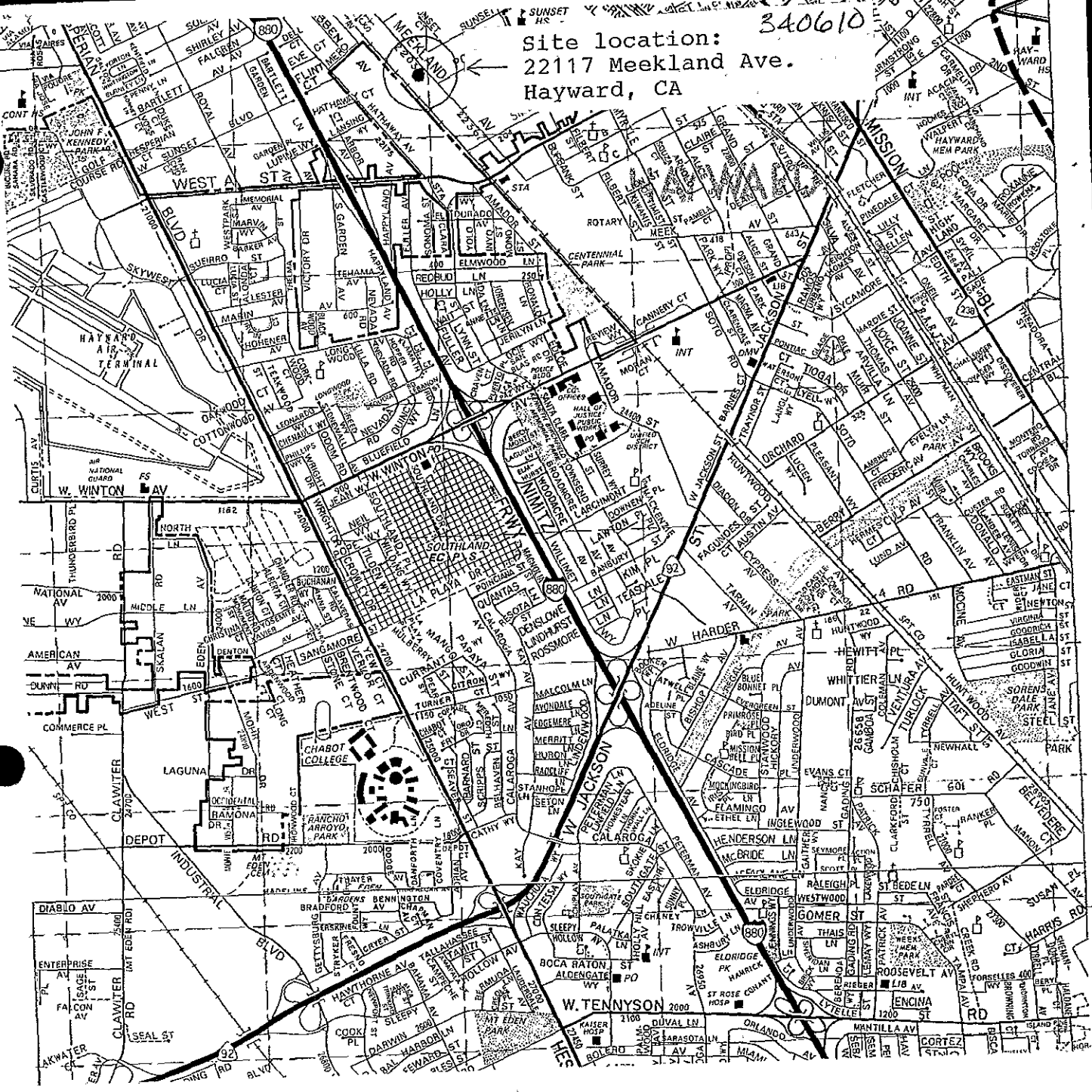
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

35/2W 1755

Site location:
22117 Meekland Ave.
Hayward, CA

340610



Emergency routes: Map attached. Route: Proceed South-East on Meekland to West A st. Turn Right on to West A st. Get on to Hwy. 880 south bound. Exit at W. Tennyson. Turn Right from Exit on to W. Tennyson. Turn Right on Calaroga Av. Enter the Emergency entrance.



CROSBY & OVERTON, INC.
Environmental Management

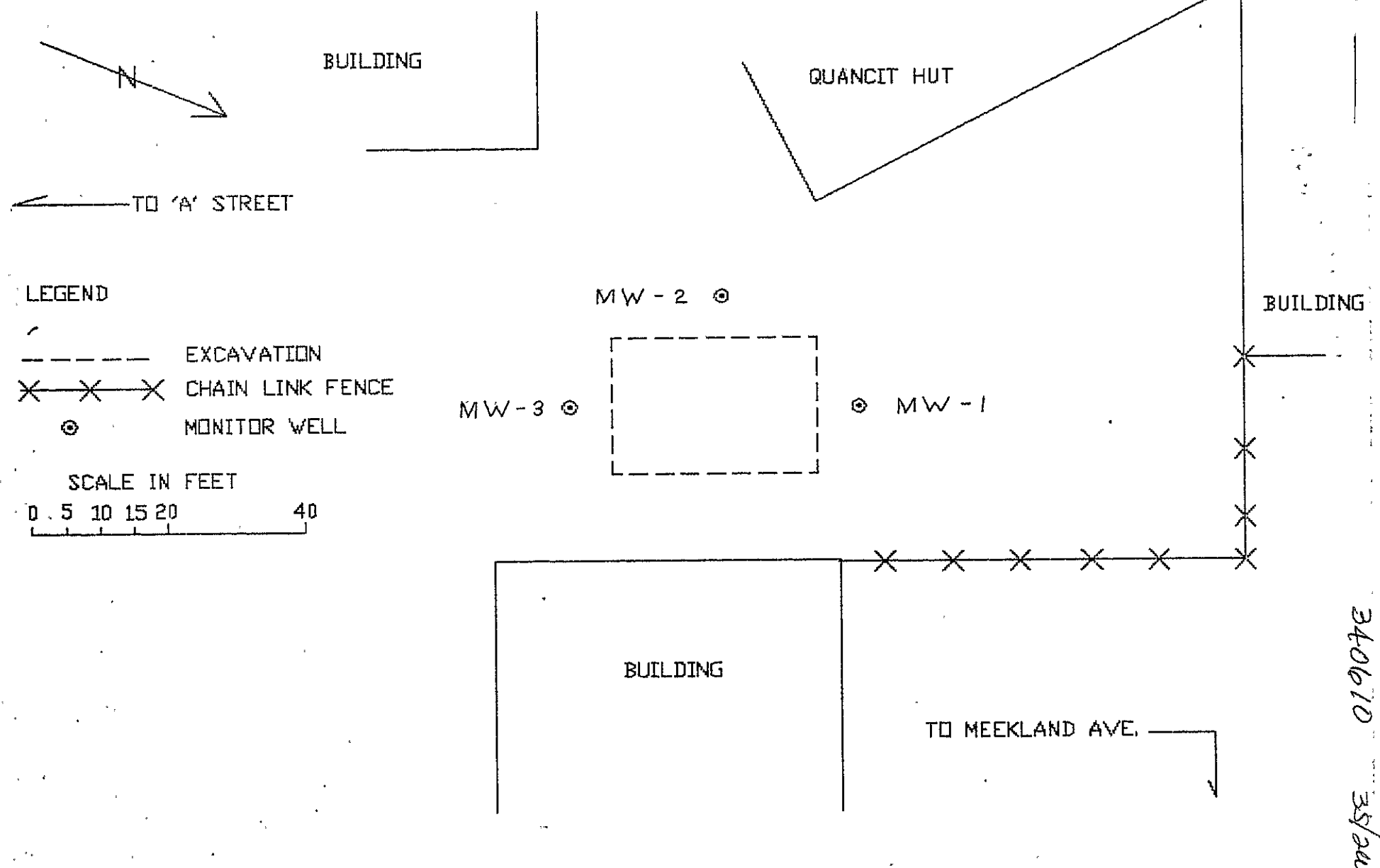
222117 Meekland Ave.
Hayward, CA

DATE: 2/20/91

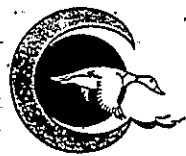
JOB NUMBER: 8205-S

DRAWN BY: MARK AYALA

35/2W 17J5



340610
35/2W-17J5



CROSBY & OVERTON, INC.
Environmental Management

VINCE HOYTT
22117 Meekland Ave.
Hayward, CA

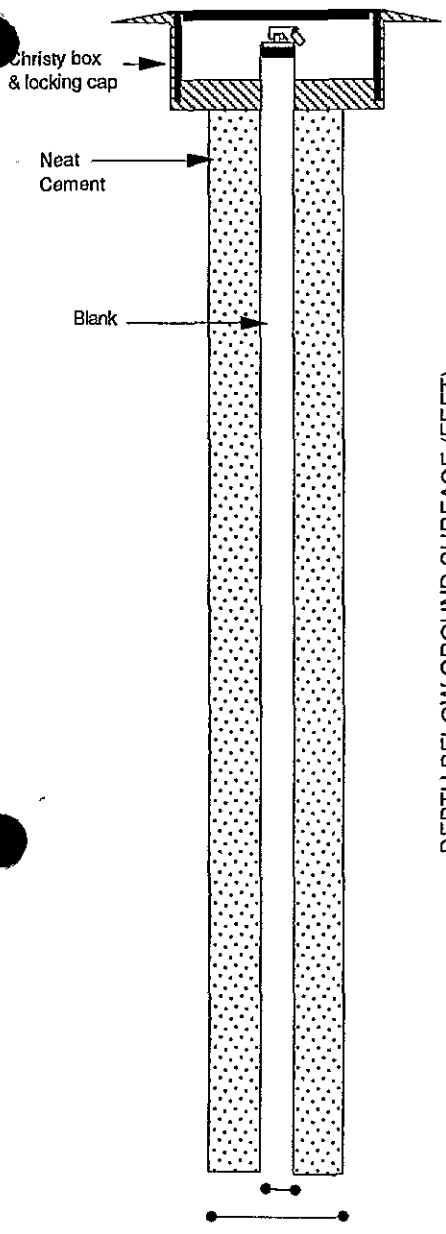
Figure 2

DATE: 3/5/91

JOB NUMBER: 8205-S

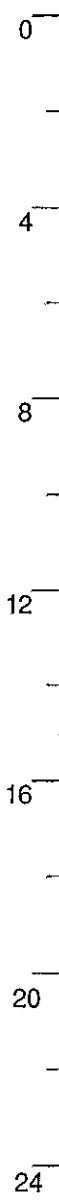
DRAWN BY: M.S.A.

MONITOR WELL COMPLETION



4" diameter Well
10" diameter Borehole

DEPTH BELOW GROUND SURFACE (FEET)



SAMPLES			SOIL BORING GRAPHIC LOG	LITHOLOGIC DESCRIPTION
NO.	TYPE	BLOW		
			Concrete	Concrete
			Aggregate Base	Aggregate Base
			OL	Dark brown clayey silt
			CL	Light brown sandy clay
S-9	Grab	3 7 10		
			CL	Dark brown, very fine sandy clay. Medium plasticity. No odor.
S-10	Grab	6 7 11		
			CL	Light brown sandy silty clay. Medium plasticity. No odor.
S-11	Grab	4 7 7		
			CL	Light brown sandy clay grading at 14.5 feet into well rounded poorly sorted gravelly (to 0.75 cm), sandy clay. (Gravel lens from channel deposit). Medium plasticity, no odor.
S-12	Grab	3 4 7		
			CL to MH	Light brown silty clay with interstratified very fine sandy lenses. Medium to high plasticity. No odor.

Continues

Logged by: Matt Walraven Drilling Company: Layne Environmental Well Head Completion: Christy box & locking cap
 Date Drilled: 3-22-91 Drilling Method: CF HSA Type of Sampler: CA Split Spoon
 Driller: Jim TD (Total Depth): 53.5 ft.

EXPLANATION

- ☒ Water level during drilling
- ☒ Water level in completed well
- ☒ Location of recovered drill sample
- ☒ Location of sample sealed for chemical analysis
- ☒ Sieve sample
- ☒ Grab sample
- Contacts, Solid where certain
- Dotted where approximate
- - - - Dashed where uncertain
- ▨ Hachured where gradational Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR No recovery

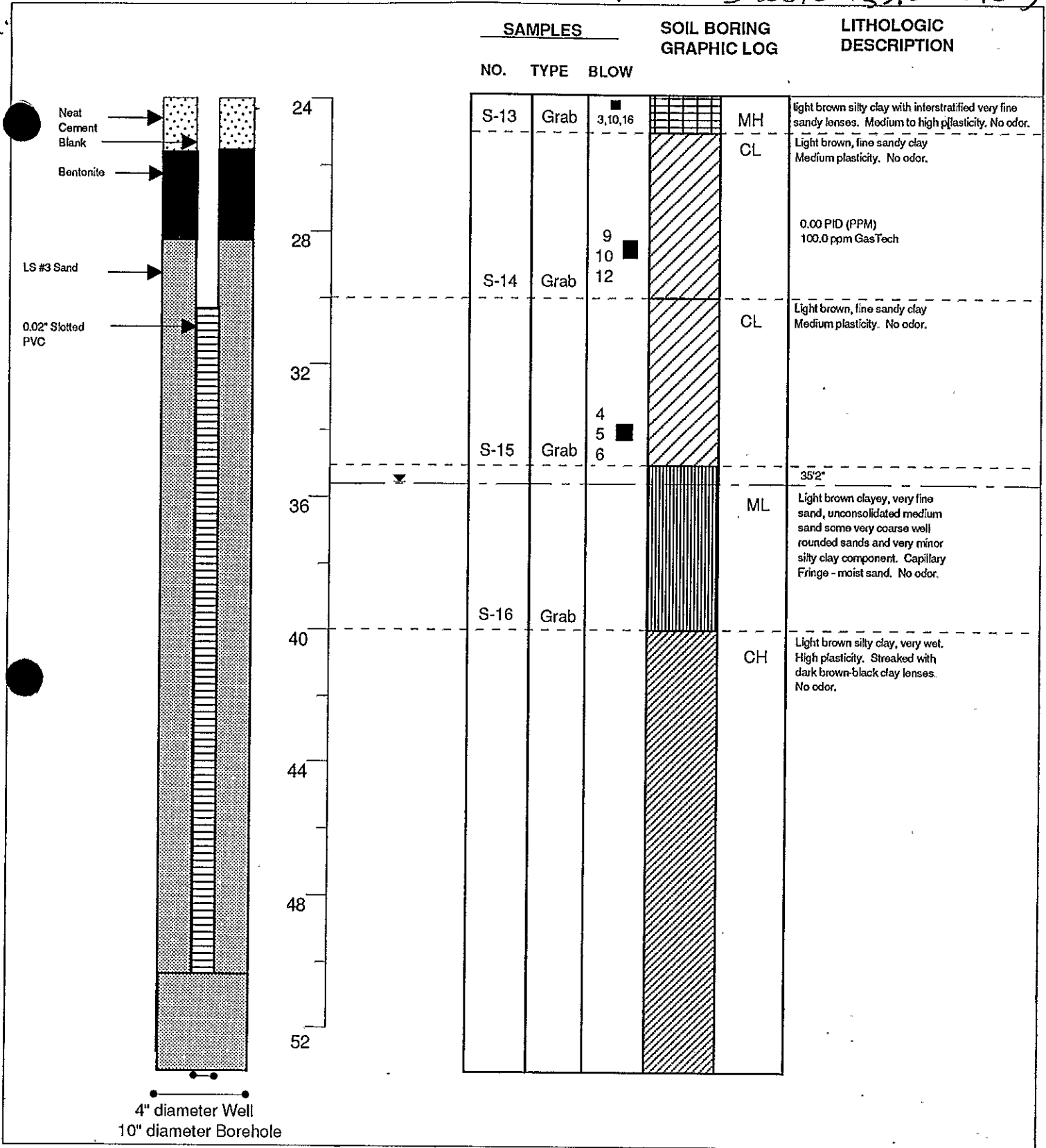
NO	DATE	DESCRIPTION	APP'D
REVISIONS			
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CROSBY & OVERTON, INC.

WELL MW-2, PAGE 1

22117 Meekland Avenue, Hayward, CA
Owner, Hoyt/Buettner
Job No. 8205-S

DATE 5-8-91	SCALE	SHEET
APP'D		



EXPLANATION	
	Water level during drilling
	Water level in completed well
	Location of recovered drill sample
	Location of sample sealed for chemical analysis
	Sieve sample
	Grab sample
	Contacts, Solid where certain
	Dotted where approximate
	Dashed where uncertain
	Hachured where gradational
est K	Estimated permeability (hydraulic conductivity)
1K	primary 2K = secondary
NR	No recovery

NO.	DATE	DESCRIPTION	APP'D
REVISIONS			
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CROSBY & OVERTON, INC.

WELL MW-2, PAGE 2

22117 Meekland Avenue, Hayward, CA
Owner, Hoyt/Buettner
Job No. 8205-S

DATE 5-8-91	SCALE
APP'D	SHEET

340610 35/2W 1755

DUPLICATE
RETAIN THIS COPY

No. 252705

NOTICE OF INTENT

DEPARTMENT OF WATER RESOURCES: MARCH 5, 19 91

On or about MARCH 20, 19 91, I plan to commence drilling deepening
reconditioning or destruction of a cable rotary or other HSA type
well, for BROWNDWATER MONITORING purposes. The work will be done for

V. HOYT, 11433 CULL CANYON RD., CASTRO VALLEY, CA
(Proposed use of well)

Approximate location of well is 22117 MEERLAND AVE.,
(Name of client and address) 94552

HAYWARD, CA 94541

(Legal subdivision or by reference to some landmark)
ALAMEDA County.

LAYNE ENVIRONMENTAL Lic. No. LS7-600469
(Well driller)

4300 EUDORA RD., PITTSBURG, CA
(Address)

Need log forms

Need notice cards

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
INFORMATION ON NOTICE OF INTENT

LEGISLATION

The Notice of Intent form has been prepared by the Department of Water Resources in accordance with legislative direction given by Chapter 1088, Statutes of 1965, amended in 1967 as follows

"13750. Every person who hereafter intends to dig, bore, or drill a water well, or who intends to deepen or reperform any such well, or to abandon or destroy a water well, shall file with the department a notice of intent to engage in such construction or repair prior to commencing such construction or repair; provided, that when such construction or repair must be accomplished immediately in order to prevent damage to persons or property due to the loss of an existing water supply, such notice shall be filed with the department as soon as possible thereafter, but in any event not more than five days after commencement of such construction or repair

"The report shall be made on forms furnished by the department and shall contain such information as the department may require, including, but not limited to: (a) description of the well site sufficiently exact to permit location and identification of the well, (b) proposed date of construction of well, (c) the use for which the water well is intended, (d) the work to be done and a description of type of construction; and (e) in event of late filing, the reasons therefor."

INSTRUCTIONS

Complete original and mail to Department of Water Resources district office in whose area the well was drilled. This is a preaddressed form and no postage stamp is necessary. Retain duplicate for your records. Should you drill wells in more than one area, preaddressed forms for these areas will be sent on request

38/2W 1756
340611

DUPLICATE
RETAIN THIS COPY

No. 252705

NOTICE OF INTENT

DEPARTMENT OF WATER RESOURCES: MARCH 5, 19 91

On or about MARCH 20, 19 91, I plan to commence drilling deepening
reconditioning or destruction of a cable rotary or other HSA type
well, for GROUNDWATER MONITORING purposes. The work will be done for

V. HOYT, 11433 COLL CANYON RD., CASTRO VALLEY, CA
(Proposed use of well)
(Name of client and address) 94552

Approximate location of well is 22117 MEERLAND AVE.,
HAYWARD, CA 94541

(Legal subdivision or by reference to some landmark), in ALAMEDA County.

LAYNE ENVIRONMENTAL Lic. No. 157-600469
(Well driller)
4300 EUCATA RD., PITTSBURG, CA
(Address)

Need log forms Need notice cards

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
INFORMATION ON NOTICE OF INTENT

LEGISLATION

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"13750. Every person who hereafter intends to dig, bore, or drill a water well, or who intends to deepen or re-perforate any such well, or to abandon or destroy a water well, shall file with the department a notice of intent to engage in such construction or repair prior to commencing such construction or repair; provided, that when such construction or repair must be accomplished immediately in order to prevent damage to persons or property due to the loss of an existing water supply, such notice shall be filed with the department as soon as possible thereafter, but in any event not more than five days after commencement of such construction or repair.

"The report shall be made on forms furnished by the department and shall contain such information as the department may require, including, but not limited to: (a) description of the well site sufficiently exact to permit location and identification of the well, (b) proposed date of construction of well; (c) the use for which the water well is intended; (d) the work to be done and a description of type of construction, and (e) in event of late filing, the reasons therefor."

INSTRUCTIONS

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CONFIDENTIAL

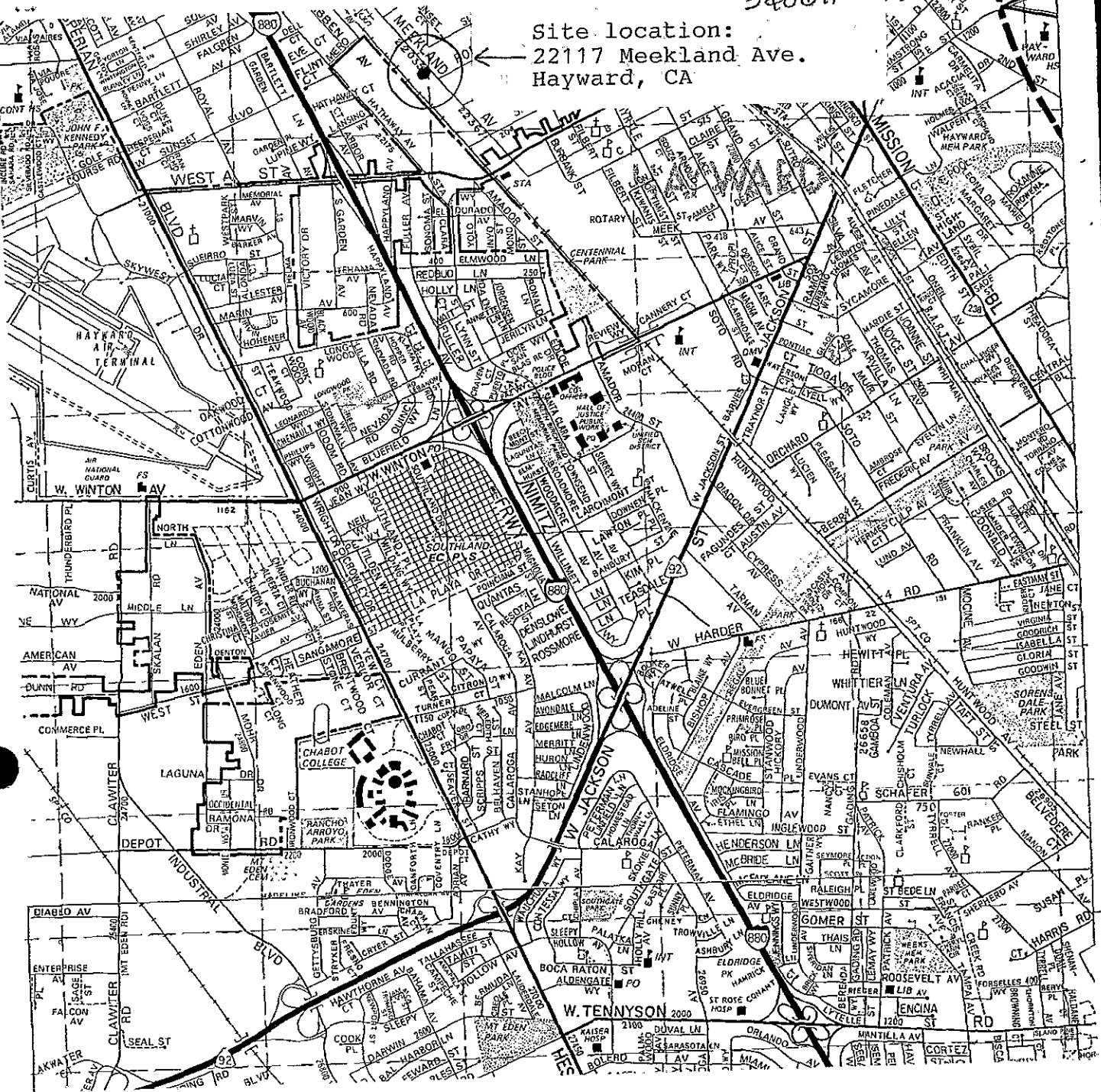
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

340611

3512W1736

Site location:
← 22117 Meekland Ave.
Hayward, CA



Emergency routes: Map attached. Route: Proceed South-East on Meekland to West A st. Turn Right on to West A st. Get on to Hwy. 880 south bound. Exit at W. Tennyson. Turn Right from Exit on to W. Tennyson. Turn Right on Calaroga Av. Enter the Emergency entrance.



CROSBY & OVERTON, INC.
Environmental Management

22217 Meekland Ave.
Hayward, CA

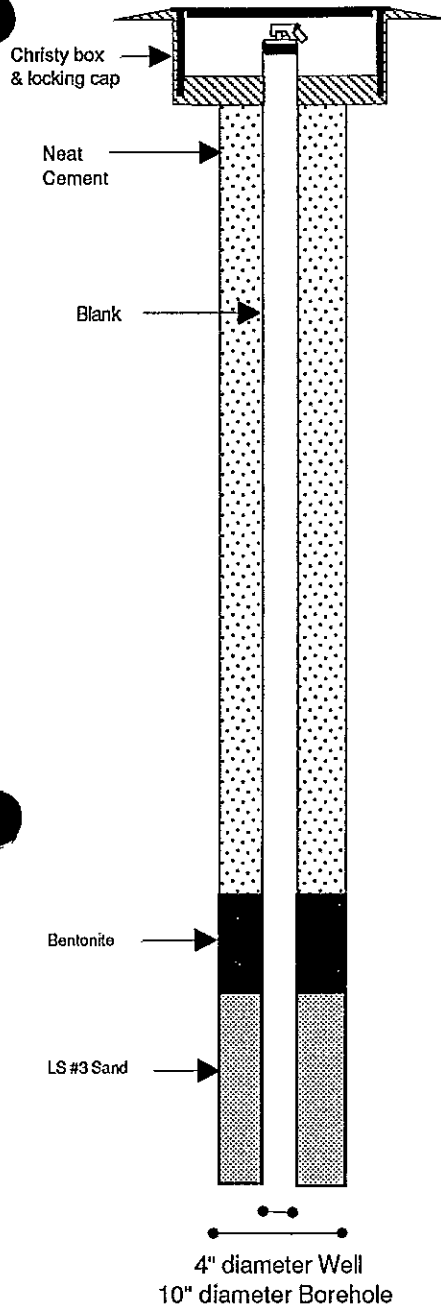
DATE: 2/20/91

JOB NUMBER: 8205-S

DRAWN BY: MARK AYALA

340611

MONITOR WELL COMPLETION



SAMPLES			SOIL BORING GRAPHIC LOG	LITHOLOGIC DESCRIPTION
NO.	TYPE	BLOW		
				Concrete & Aggregate Base
				Turquoise clay & aggregate Strong hydrocarbon odor.
S-17	Grab	4 5 7	CL	Dark brown silty clay, 5% coarse to very coarse sand. Medium plasticity. No odor.
S-18	Grab	4 7 8	CL	Brown fine sandy clay.
S-19	Grab	3 4 8	CL	Light brown, very fine, sandy clay. Occasional very coarse lithic sand. Medium Plasticity. No odor
			GC	Light brown clayey poorly sorted sandy gravel. Well rounded, low sphericity, to 1.5 cm. diameter, chert, quartzite and lithic gravel. Low plasticity. No odor.
S-20	Grab	7 12 15	CL	Light and dark streaked heterogeneous very fine sand and clay mixture., (sandy, silty, clay when homogenous), unconsolidated, fractured. Fractures contain precipitate (FeO(x)) - dissolution from chert or sandstone cements. Low-medium plasticity. No odor.

3S/2W 7756

*125.0 ppm Gastech and 1.0 ppm PID

Continues

Logged by: Matt Walraven Drilling Company: Layne Environmental Well Head Completion: Christy box & locking cap
 Dates Drilled: 3-22-91 Drilling Method: CF HSA Type of Sampler: CA Split Spoon
 3-23-91 Driller: Jim/Bob TD (Total Depth): 51.0 ft.

EXPLANATION

- ☒ Water level during drilling
- ☒ Water level in completed well
- ☒ Location of recovered drill sample
- ☒ Location of sample sealed for chemical analysis
- ☒ Sieve sample
- ☒ Grab sample
- Contacts: Solid where certain
- Dotted where approximate
- - - Dashed where uncertain
- ▨ Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)
- 1K = primary 2K = secondary
- NR No recovery

CROSBY & OVERTON, INC.

WELL MW-3, PAGE 1

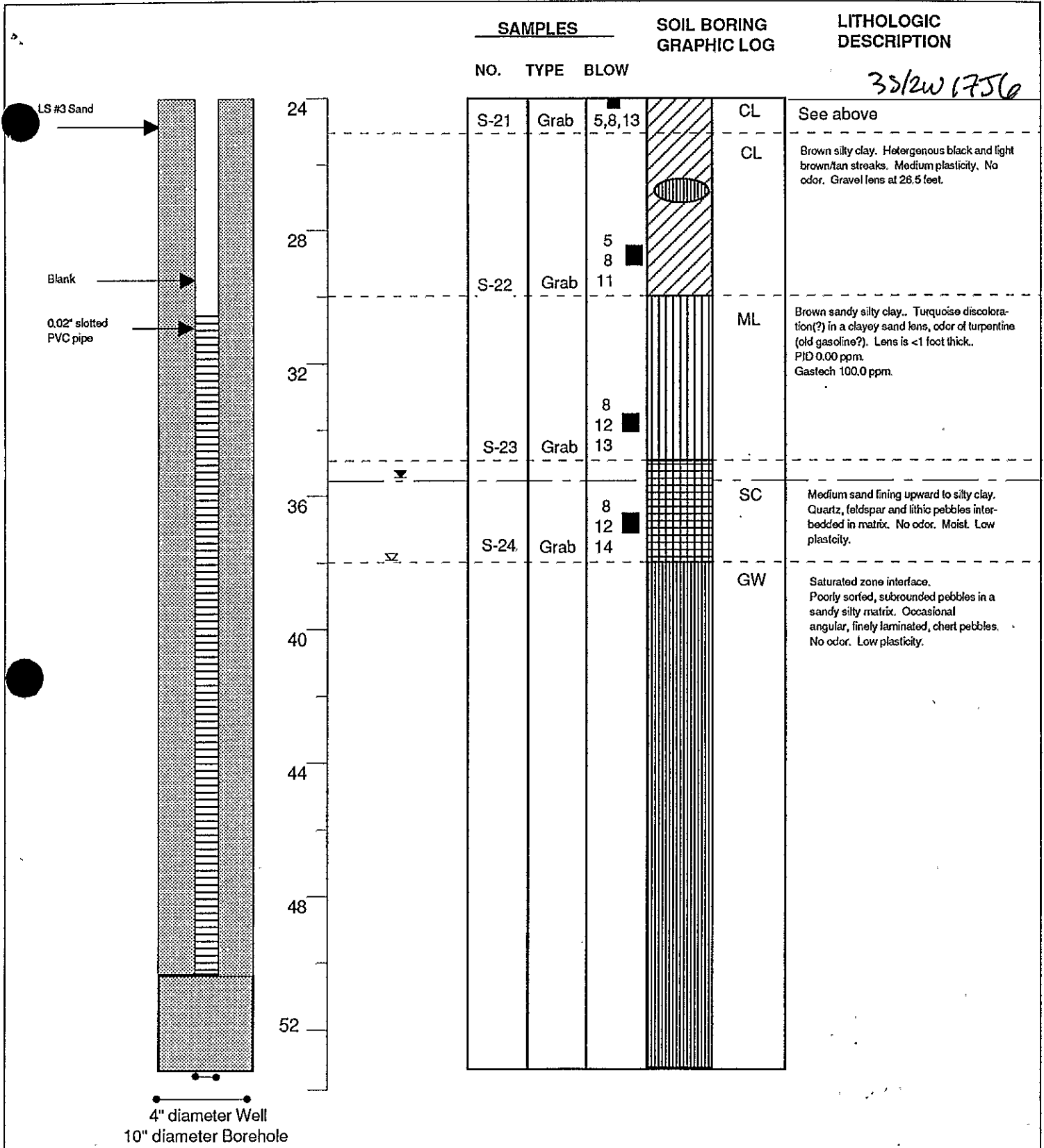
22117 Meeekland Avenue, Hayward, CA
 Owner, Hoyt/Buettner
 Job No. 8205-S

REVISIONS

NO	DATE	DESCRIPTION	APP'D
This Drawing, including the information it contains is the property of CROSBY & OVERTON, INC. This drawing is to be used only in connection with the project to which it pertains and must not be used in any manner detrimental to the interests of CROSBY & OVERTON, INC. This drawing is not to be copied and must be returned upon request.			

DATE 5-8-91
 APP'D *[Signature]*

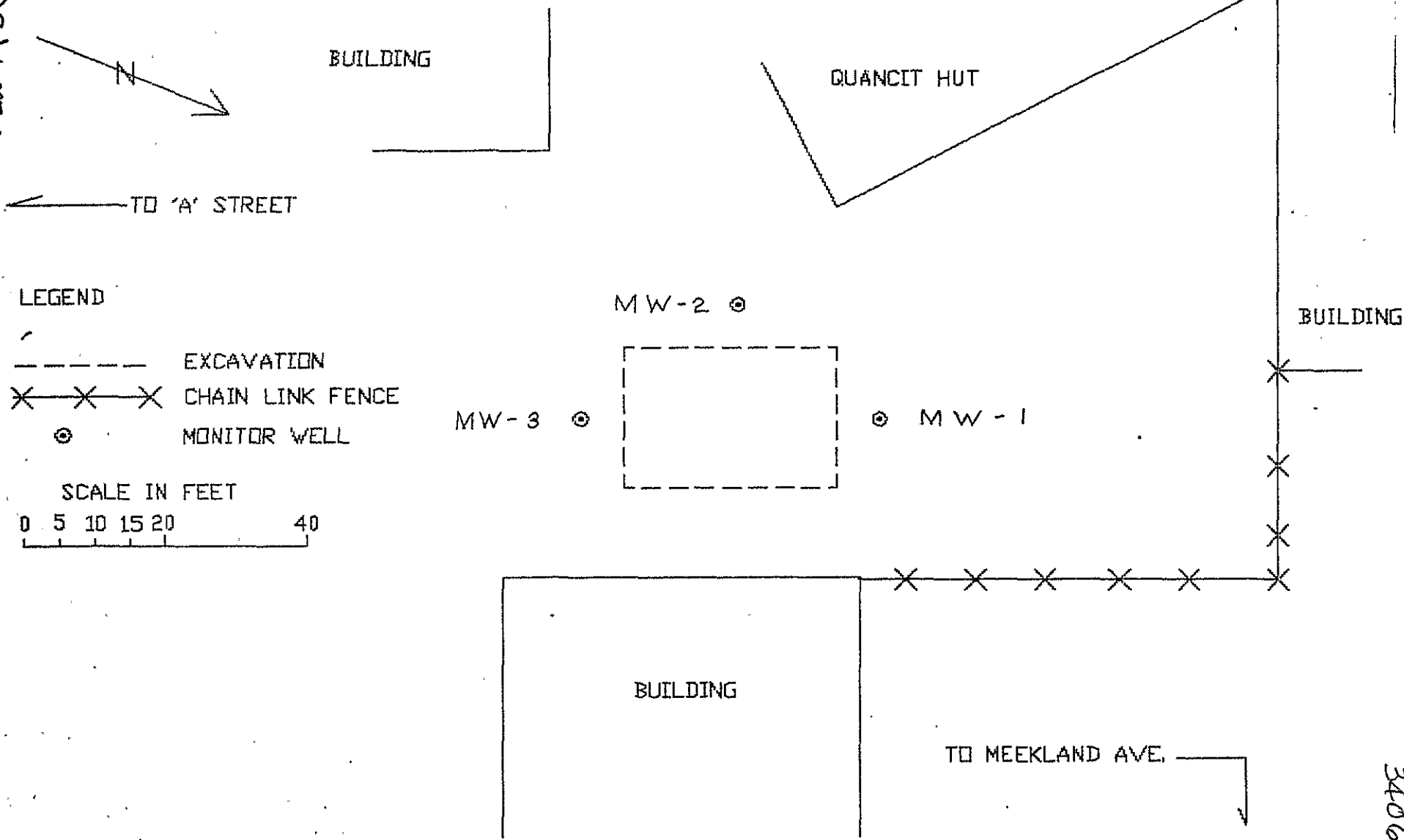
SCALE SHEET



EXPLANATION	
∇	Water level during drilling
●	Water level in completed well
▣	Location of recovered drill sample
■	Location of sample sealed for chemical analysis
▤	Sieve sample
⊠	Grab sample
—	Contacts
—	Solid where certain
⋯	Dotted where approximate
- - -	Dashed where uncertain
////	Hachured where gradational
est K	Estimated permeability (hydraulic conductivity)
1K	primary 2K = secondary
NR	No recovery

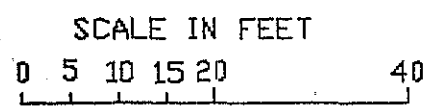
CROSBY & OVERTON, INC.			
WELL MW-3, PAGE 2			
22117 Meekland Avenue, Hayward, CA Owner, Hoyt/Buettner Job No. 8205-S			
REVISIONS		DATE <u>5-8-91</u>	SCALE
This Drawing, including the information it contains is the property of CROSBY & OVERTON, INC. This drawing is to be used only in connection with the project to which it pertains and must not be used in any manner detrimental to the interests of CROSBY & OVERTON, INC. This drawing is not to be copied and must be returned upon request.		APP'D	SHEET

35/2w 17JG

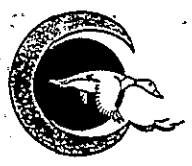


LEGEND

- EXCAVATION
- X-X-X CHAIN LINK FENCE
- ⊙ MONITOR WELL



340611



CROSBY & OVERTON, INC.
 Environmental Management

VINCE HOYTT
 22117 Meekland Ave.
 Hayward, CA

Figure 2

DATE: 3/5/91

JOB NUMBER: 8205-S

DRAWN BY: M.S.A.

35/2w-17JG



RIEDEL ENVIRONMENTAL SERVICES, INC. 403245
 4138 LAKESIDE DRIVE
 RICHMOND, CALIFORNIA 94806
 (510) 222-7810
 6 of 7

035024 1709
 SHEET 2
 OF 3

FILE NAME PRICE\CLUB3-4

LOG OF BORING\MONITORING WELL B-3\MW-3

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 47.5
 PROJECT NAME PRICE CLUB-HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 65.51
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 30' - 43'
 DATE 8/13/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT. MSL) 65.88

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION	
20	<p>HOLE = 10" DIA</p> <p>BENTONITE PELLETS</p> <p>4" ID SCH 40 0.02" SLOT WELL SCREEN 30' TO 43'</p> <p>#2/12 (12X20) MONTEREY SAND</p>	24				20	CL	SANDY CLAY (CL): DARK YELLOWISH BROWN (10YR4/4); VERY STIFF; DAMP; 10-25% FINE SAND	
21						21	CL	SANDY CLAY AS ABOVE	
22							22		
23							23		
24							24		
25			21				25	CL	SANDY CLAY AS ABOVE
26							26	SC	CLAYEY SAND (SC): DARK YELLOWISH BROWN (10YR4/6); MEDIUM DENSE; DAMP; 30-50% FINES; FINE SAND
27							27		
28							28		
29							29		
30							30	SM	SILTY SAND (SM): OLIVE BROWN (2.5Y4/4); MEDIUM DENSE; DAMP; 5-15% FINES; VERY FINE TO FINE SAND
31			28				31	SW	GRAVELLY SAND (SW): OLIVE BROWN (2.5Y4/3); MEDIUM DENSE; DAMP; 5-10% FINES; FINE TO COARSE SAND
32							32		
33							33	GW	SANDY GRAVEL (GW): DARK GRAYISH BROWN (2.5Y4/2); MEDIUM DENSE; DRY TO DAMP; 0-10% FINES; 20-30% FINE TO COARSE SAND; FINE TO COARSE GRAVEL
34							34		
35							35		
36			24				36	SP	SAND (SP): OLIVE BROWN (2.5Y4/4); MEDIUM DENSE; DAMP; FINE SAND
37							37	SW	GRAVELLY SAND (SW): DARK GRAYISH BROWN (2.5Y4/2); LOOSE; DAMP; 0-10% FINES; FINE TO COARSE SAND; 10-20% FINE TO COARSE GRAVEL
38			10		10:20 8/29/92		38		
39			15				39		
40			17		10:30 8/13/92		40	CL	SILTY CLAY (CL): DARK BROWN (10YR4/3); STIFF; DAMP; 0-10% FINE SAND
								GC	CLAYEY GRAVEL (GC): OLIVE BROWN (2.5Y4/3); MEDIUM DENSE; WET 39.5'-40'; 20-30% FINES; 30-40% FINE TO COARSE SAND; FINE TO COARSE GRAVEL



EDDEL ENVIRONMENTAL SERVICES, INC.
 4138 LAKESIDE DRIVE
 RICHMOND, CALIFORNIA 94806
 (510) 222-7810

403245
 777

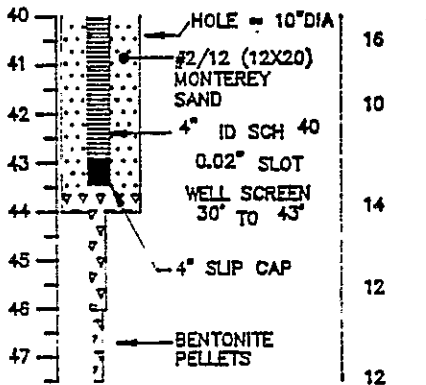
03802017709
 SHEET 3
 OF 3

FILE NAME PRICE\CLUB3-4

LOG OF BORING MONITORING WELL B-3\MW-3

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 47.5
 PROJECT NAME PRICE CLUB- HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT. MSL) 65.51
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 30' - 43'
 DATE 8/13/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT. MSL) 65.88

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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40	CL	SILTY CLAY (CL): OLIVE BROWN (2.5Y4/4); STIFF; MOIST; 5-10% FINE SAND
41	SC	CLAYEY SAND: OLIVE BROWN (2.5Y4/3); LOOSE; WET AT 41'-42.4'; 30-50% VERY FINE TO FINE SAND
42	CL	SILTY CLAY (CL): OLIVE BROWN (2.5Y4/4); STIFF; DAMP; 0-10% FINE SAND
43	CL	AS ABOVE; OLIVE BROWN (2.5Y4/3)
44	CL	AS ABOVE; OLIVE BROWN (2.5Y4/3)
45	CL	AS ABOVE; OLIVE BROWN (2.5Y4/3)
46	CL	AS ABOVE; OLIVE BROWN (2.5Y4/3)
47	CL	SILTY CLAY AS ABOVE

TOTAL DEPTH = 47.5 FEET

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WELL COMPLETION REPORT
(WELL LOGS)

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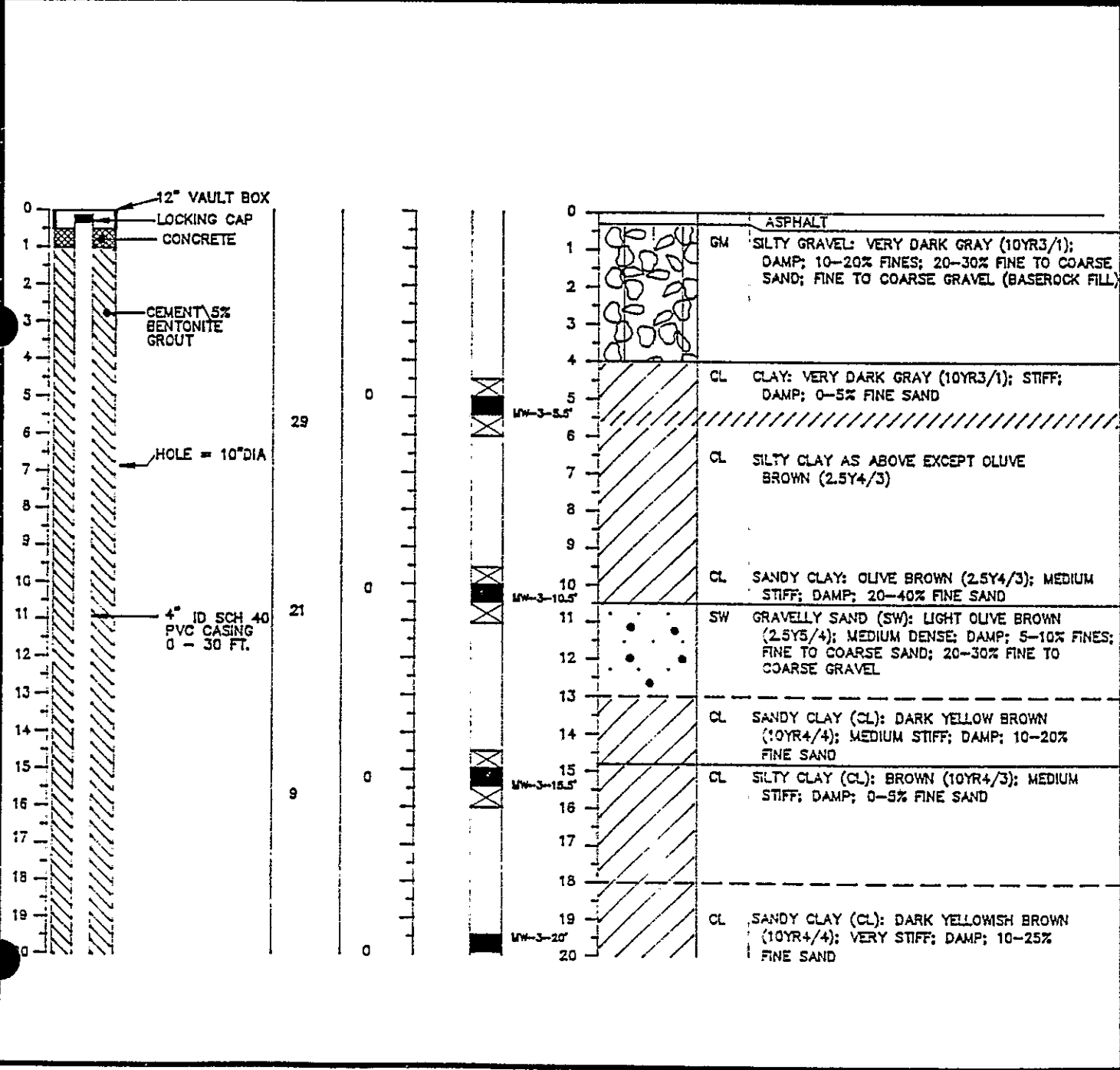
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SHEET 1
OF 3

FILE NAME PRICE\CLUB3-4

LOG OF BORING\MONITORING WELL B-3\MW-3

PROJECT NO	4014-9008	LOGGED BY	LEN NILES	BORING TOTAL DEPTH (FT.)	47.5
PROJECT NAME	PRICE CLUB- HAYWARD	DRILLING CO.	BAYLAND	TOP OF CASING ELEV. (FT.MSL)	65.51
LOCATION	HAYWARD, CA	DRILLING METHOD	HOLLOW STEM AUGER	SCREENED INTERVAL (FT.)	30' - 43'
DATE	8/13/92	DRILL RIG MODEL	CME-75	TOP OF VAULT BOX ELEV. (FT. MSL)	65.88

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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 SHEET 1
 OF 3

FILE NAME PRICE\CLUB1-2

LOG OF BORING\MONITORING WELL B-2\MW-2

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 50
 PROJECT NAME PRICE CLUB- HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 63.79
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 30' - 50'
 DATE 8/11/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT. MSL) 64.40

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
0	12" VAULT BOX					0		ASPHALT
1	LOCKING CAP					1	GM	SANDY GRAVEL (GW): VERY DARK GRAY (10YR3/1); DAMP; 5-15% FINES; 20-30% FINE TO COARSE SAND; FINE TO COARSE GRAVEL (BASEROCK FILL)
2	CONCRETE					2		
3	CEMENT 5% BENTONITE GROUT					3	CL	CLAY (CL): VERY DARK GRAY (10YR3/1); STIFF; DRY TO DAMP; 0-5% FINE SAND
4		20	0			4		
5						5	CL	SILTY CLAY AS ABOVE EXCEPT DARK OLIVE GRAY; 5-10% FINE SAND
6	HOLE = 10" DIA					6		
7						7		
8						8		
9						9	ML	SANDY SILT (ML): DARK GREENISH GRAY (5GY4/1); VERY STIFF; DAMP; 30-50% VERY FINE TO FINE SAND
10		23	0			10		
11						11		
12						12		
13						13		
14						14		
15	4" ID SCH 40 PVC CASING 0 - 30 FT.	9	0			15	CL	SILTY CLAY (CL): OLIVE BROWN (2.5Y4/4); MEDIUM STIFF; MOIST; DAMP; 0-5% FINE SAND
16						16		
17						17		
18						18		
19						19	ML	SANDY-CLAYEY SILT (ML): DARK YELLOW BROWN (10YR4/3); VERY STIFF; SILTY AND CLAYEY FINES; 20-30% FINE SAND
20						20		



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 OF 3

FILE NAME PRICE\CLUB1-2

LOG OF BORING\MONITORING WELL B-2\MW-2

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 50
 PROJECT NAME PRICE CLUB-HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 63.79
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 30' - 50'
 DATE 8/11/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT. MSL) 64.40

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PTD (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
40	<p>HOLE = 10" DIA 4" ID SCH 40 0.02" SLOT WELL SCREEN 30' TO 50' #2/12 (12X20) MONTEREY SAND 4" END CAP</p>	15				40	SC	CLAYEY SAND (SC): OLIVE BROWN (2.5Y4/3); MOIST; 20-30% FINES; VERY FINE TO FINE SAND; MEDIUM DENSE
41		24				41		AS ABOVE; MOIST TO WET; FINE SAND
42		24				42		AS ABOVE; WET AT 42'; FINE TO MEDIUM SAND
43		30				43	CL	SANDY CLAY: OLIVE BROWN (2.5Y4/3); MOIST; VERY STIFF; 30-40% FINE SAND
44		23	0			44	SC	CLAYEY SAND (SC): OLIVE BROWN (2.5Y4/3); MEDIUM DENSE; MOIST; 43.5'-44'; WET 44'-46.5'
45		24				45		20-30% FINES; FINE SAND
46		34				46		AS ABOVE EXCEPT FINE TO COARSE SAND 44.5'-45'
47						47	SW	GRAVELLY SAND: OLIVE GRAY (5Y4/3); MEDIUM DENSE; WET; 5-10% FINES; FINE TO COARSE SAND; 10-20% FINE GRAVEL
48						48	CL	SANDY CLAY: OLIVE BROWN (2.5Y4/4); VERY STIFF; DAMP; 10-20% FINE SAND
49						49	SP	SAND (SP): OLIVE GRAY (5Y4/2); DENSE; WET; 5-10% FINES; FINE SAND
50					50	SW	GRADES TO GRAVELLY SAND: OLIVE GRAY; DENSE; WET; 5-10% FINES; FINE TO COARSE SAND; 20-30% FINE TO COARSE GRAVEL	
							CL	SANDY CLAY: OLIVE BROWN (2.5Y4/4); VERY STIFF; DAMP; 10-20% FINE SAND

TOTAL DEPTH = 50 FEET

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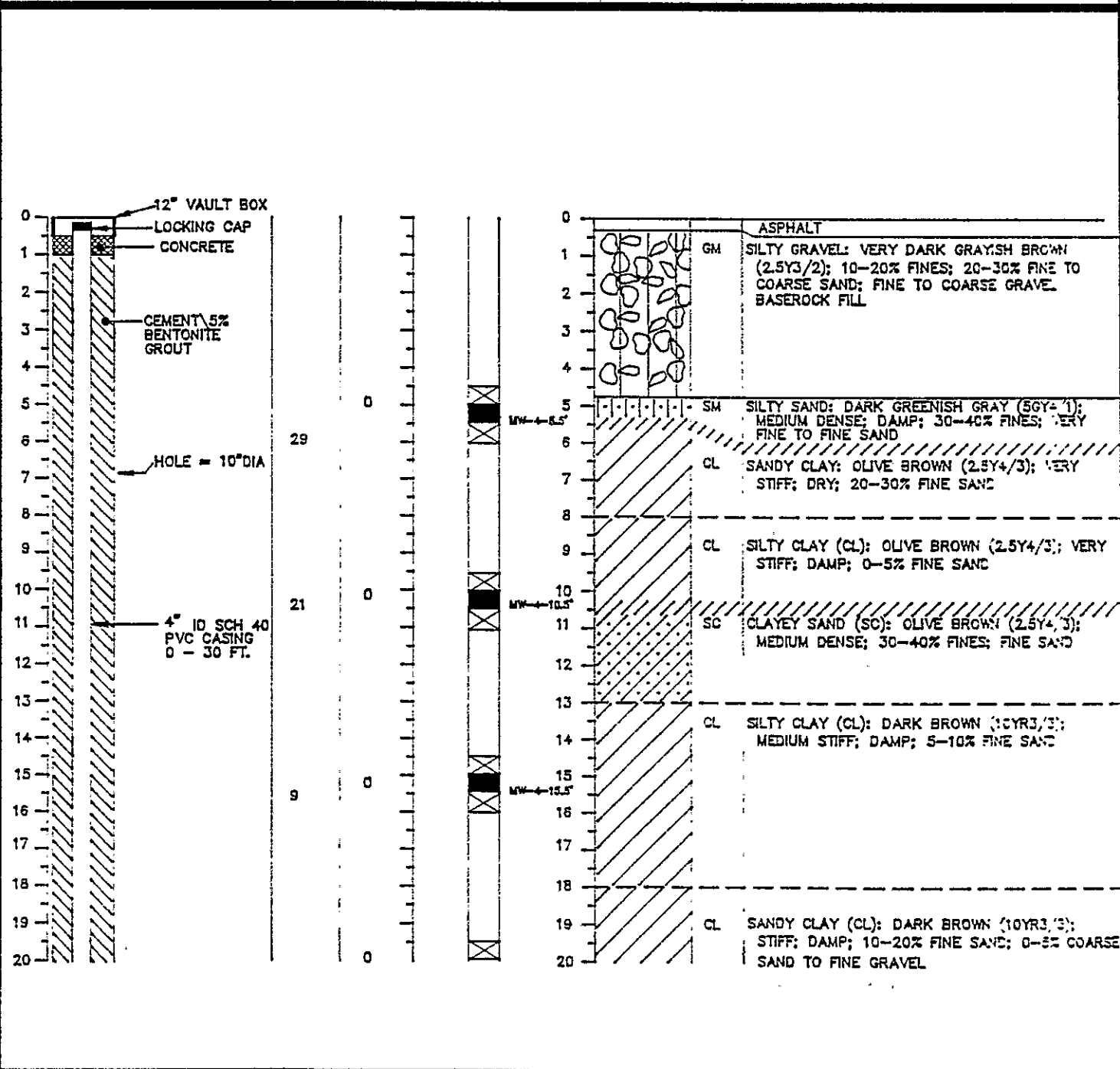


FILE NAME PRICE\CLUB3-4

LOG OF BORING\MONITORING WELL B-4\MW-4

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 48
 PROJECT NAME PRICE CLUB- HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 65.06
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 30' - 43.5'
 DATE 8/13/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT. MSL) 65.72

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PHD (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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OF 3

FILE NAME PRICE\CLUB3-4

LOG OF BORING\MONITORING WELL B-4\MW-4

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 48
PROJECT NAME PRICE CLUB- HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 65.06
LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 30' - 43.5'
DATE 8/13/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT. MSL) 65.72

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
20	<p>HOLE = 10" DIA</p> <p>BENTONITE PELLETS</p> <p>4" ID SCH 40 0.02" SLOT WELL SCREEN 30' TO 43.5'</p> <p>#2/12 (12X20) MONTEREY SAND</p>	19				20	CL	SANDY CLAY (CL) DARK BROWN (10YR3/3); STIFF; DAMP; 10-20% FINE SAND; 0-5% COARSE SAND TO FINE GRAVEL
21						21	CL	
22						22	CL	
23						23	CL	
24						24	CL	
25						25	CL	SANDY CLAY AS ABOVE; COLOR CHANGE TO DARK YELLOWISH BROWN (10YR4/4) INCREASE IN FINE SAND TO 20-30%
26			17			26	SC	GRADING TO CLAYEY SAND (SC); DARK YELLOWISH BROWN; MEDIUM DENSE; DAMP; 30-50% FINES; FINE SAND
27						27	SC	
28						28	CL	SANDY CLAY (CL); DARK BROWN (10YR3/3); STIFF; DAMP; 10-20% FINE SAND
29						29	CL	
30						30	SM	SILTY SAND (SM); OLIVE BROWN (2.5Y4/4); MEDIUM DENSE; DAMP; 30-40% FINES; VERY FINE TO FINE SAND
31			18			31	SM	
32						32	SM	
33						33	GW	
34						34	GC	SANDY GRAVEL (GW); VERY DARK GRAYISH BROWN (2.5Y3/2); MEDIUM DENSE; MOIST 34.5'-35.5'; WET 35.5'-38'; 5-15% FINES; 30-40% FINE TO COARSE SAND; FINE TO COARSE GRAVEL; LARGE SANDSTONE CLAST
35			30			35	GC	
36					15:00 8/13/92	36	GC	
37			29		10:27 8/20/92	37	CL	SANDY CLAY (CL); OLIVE BROWN (2.5Y3/3); VERY STIFF; DAMP; 20-30% FINE SAND
38			17			38	CL	
39			6			39	CL	AS ABOVE EXCEPT INCREASING SAND; MOIST
40						40	SC	CLAYEY SAND (SC); OLIVE BROWN (2.5Y4/4); LOOSE; WET; 30-40% FINES; VERY FINE TO FINE SAND; LENS OF FINE TO COARSE GRAVEL FROM 39.8'-40'



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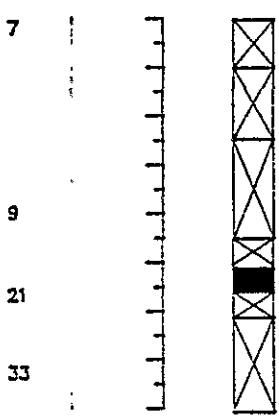
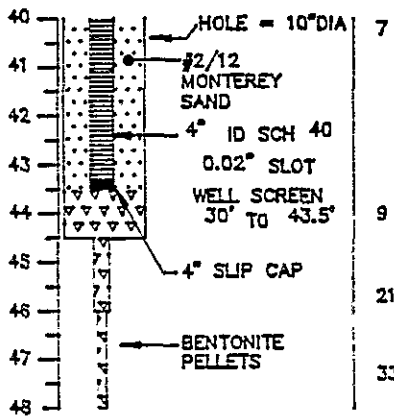
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FILE NAME PRICE\CLUBS-4

LOG OF BORING\MONITORING WELL B-4\MW-4

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 48
 PROJECT NAME PRICE CLUB- DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 65.06
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 30' - 43.5'
 DATE 8/13/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT. MSL) 65.72

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
40	SC	AS ABOVE
41	CL	SANDY CLAY (CL): OLIVE BROWN (5Y4/4); MEDIUM STIFF; MOIST; 15-25% FINE SAND
42	CL	AS ABOVE EXCEPT 30-40% FINE SAND; MOIST TO 43.5'
43	CL	AS ABOVE
44	CL	AS ABOVE EXCEPT 20-30% FINE SAND; DAMP
45	CL	AS ABOVE EXCEPT 10-20% FINE SAND; VERY STIFF
46	CL	AS ABOVE
47	CL	AS ABOVE
48	CL	AS ABOVE EXCEPT HARD

TOTAL DEPTH = 48 FEET

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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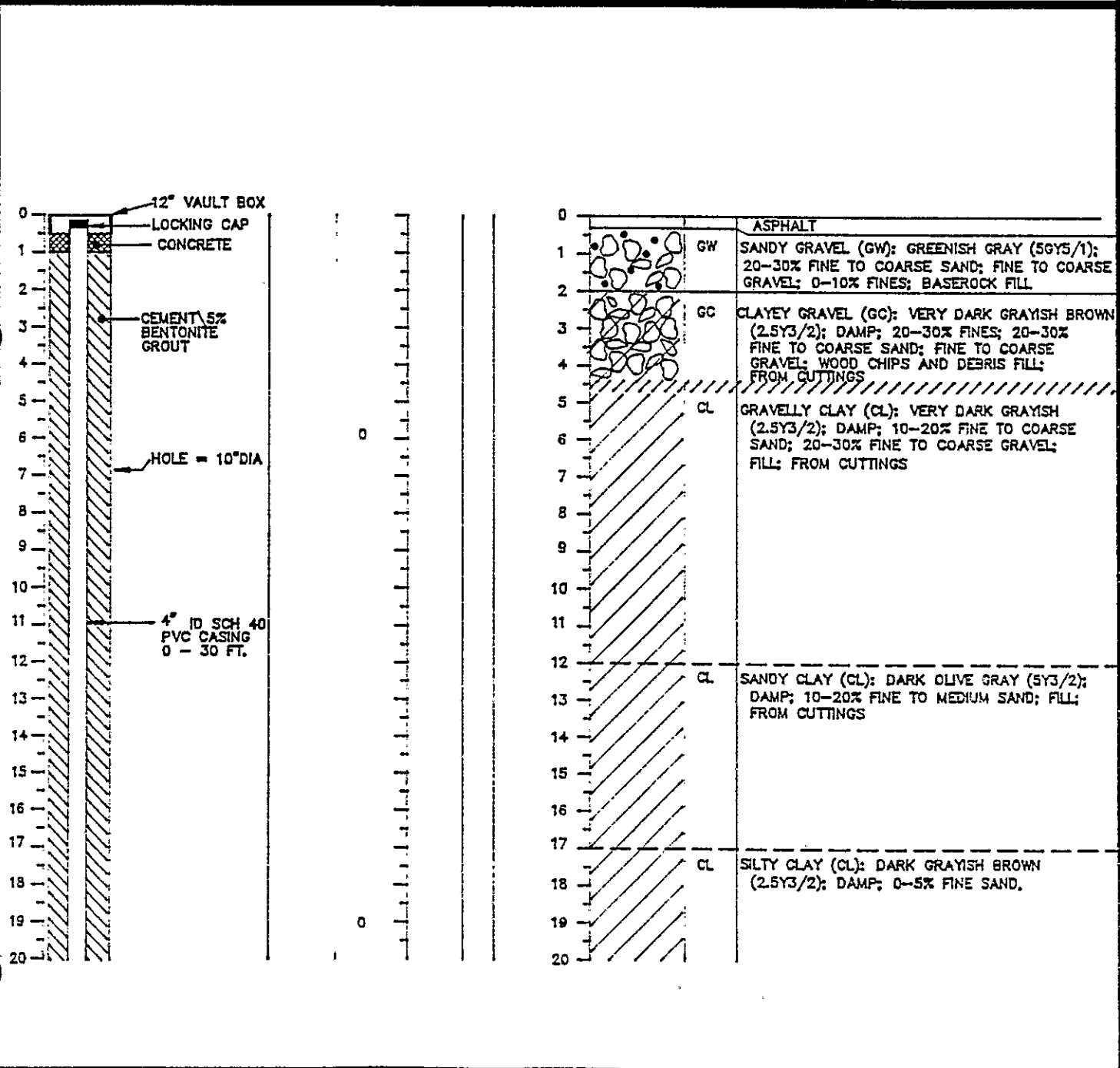
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FILE NAME PRICE\CLUBS-6

LOG OF BORING\MONITORING WELL B-5\MW-5

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 50
 PROJECT NAME PRICE CLUB- DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 64.44
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 30' - 45'
 DATE 8/18/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT.MSL) 64.88

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PIB (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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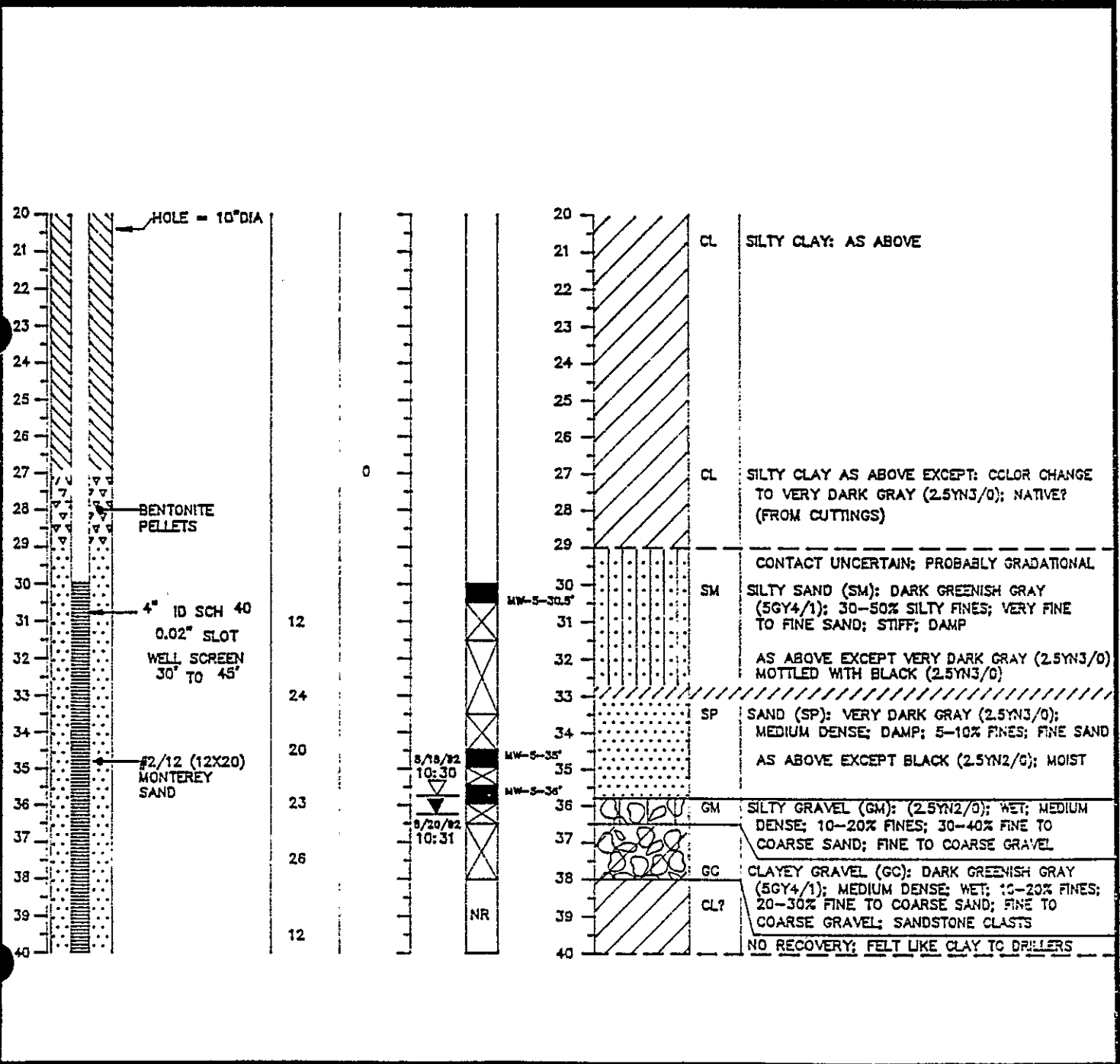
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OF 3

FILE NAME PRICE\CLUB5-8

LOG OF BORING\MONITORING WELL B-5\MW-5

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 50
PROJECT NAME PRICE CLUB- HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 64.44
LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 30' - 45'
DATE 8/18/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT.MSL) 64.88

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PIB (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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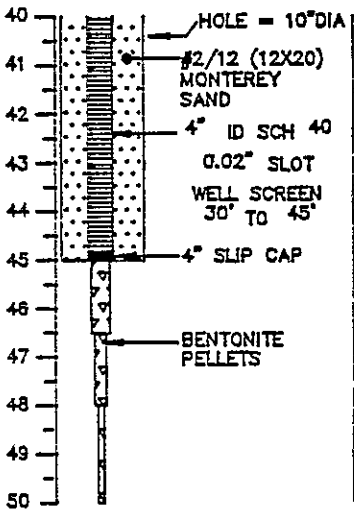
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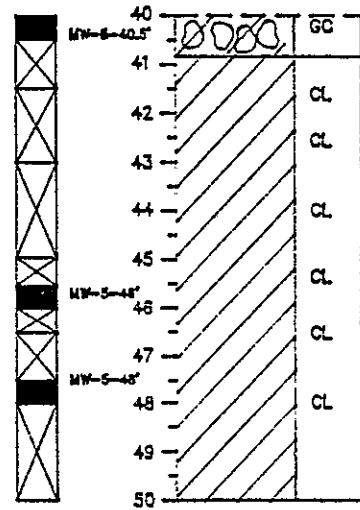
LOG OF BORING\MONITORING WELL B-5\MW-5

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 50
 PROJECT NAME PRICE CLUB- HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 64.44
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 30' - 45'
 DATE 8/18/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT.MSL) 64.88

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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0	
14	
10	
13	
16	0
19	0



GC CLAYEY GRAVEL (GC): DARK GREENISH GRAY; WET; 10-20% FINES; 20-30% FINE TO COARSE SAND; FINE TO COARSE GRAVEL
 CL SANDY CLAY (CL): DARK GREENISH GRAY (5G4/1); STIFF; DAMP; 20-30% FINE SAND AS ABOVE EXCEPT 30-50% FINE SAND; MOIST TO WET 41.5' - 45'
 CL AS ABOVE; MOIST TO WET
 CL SANDY CLAY: DARK GREENISH GRAY (5GY4/1); MEDIUM STIFF; MOIST; 20-30% FINE SAND
 CL SANDY CLAY AS ABOVE EXCEPT 10-20% FINE SAND; MOIST
 CL AS ABOVE EXCEPT COLOR CHANGE TO DARK OLIVE GRAY (5Y3/2); DAMP

TOTAL DEPTH = 50 FEET

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WELL COMPLETION REPORT
(WELL LOGS)

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FILE NAME PRICE\CLUBS-6

LOG OF BORING\MONITORING WELL B-6\MW-6

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 46.5
 PROJECT NAME PRICE CLUB-- HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 66.51
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 31' - 41'
 DATE 8\17\92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT.MSL) 66.92

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
0	12" VAULT BOX					0	ASPHALT	
0-1	LOCKING CAP CONCRETE					1	GW	SANDY GRAVEL (GW): GREENISH GRAY (5GY5/1); 20-30% FINE TO COARSE SAND; FINE TO COARSE GRAVEL; 0-10% FINES; BASEROCK FILL
1-3	CEMENT 5% BENTONITE GROUT					2	GC	CLAYEY GRAVEL (GC): VERY DARK GRAYISH BROWN (2.5Y3/2); DAMP; 15-25% FINES; 20-30% FINE TO COARSE SAND; FINE TO COARSE GRAVEL; WOOD CHIPS FILL; FROM CUTTINGS
3-5						3		
5-6						4		
6-7	HOLE = 10" DIA					5	CL	GRAVELLY CLAY (CL): VERY DARK GRAYISH BROWN (2.5Y3/2); 20-30% FINE TO COARSE SAND; 20-30% FINE TO COARSE GRAVEL; (FILL; FROM CUTTINGS)
7-8						6		
8-9						7	CL	SILTY CLAY: DARK BROWN (10YR4/3); DAMP; 0-10% FINE TO COARSE SAND;
9-10						8		
10-11						9	CL	SANDY CLAY (CL): OLIVE GRAY (2.5Y4/1); DAMP; MOIST; 30-40% FINE SAND
11-12	4" ID SCH 40 PVC CASING 0 - 31 FT.					10	SM	SILTY SAND: YELLOWISH BROWN (10YR6/4); DAMP; 10-20% FINES; FINE TO COARSE SAND; 20-30% FINE TO COARSE GRAVEL;
12-13						11		
13-14						12		
14-15						13		
15-16						14	CL	SANDY CLAY (CL): DARK BROWN (10YR2/3); DAMP; MOIST; 5-15% FINE SAND; 0-10% FINE GRAVEL;
16-17						15		
17-18						16		
18-19						17		
19-20						18		
20						19		
						20		

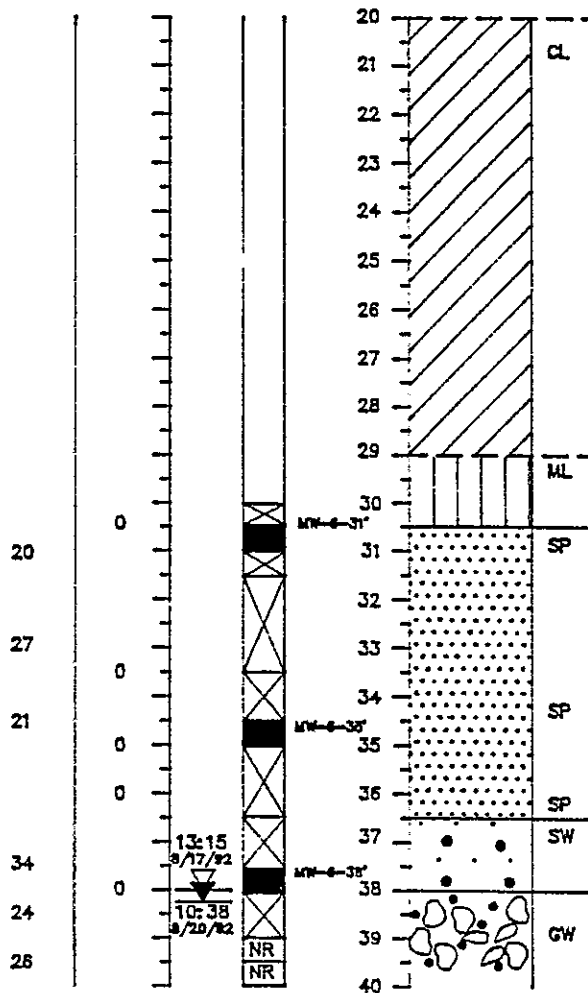
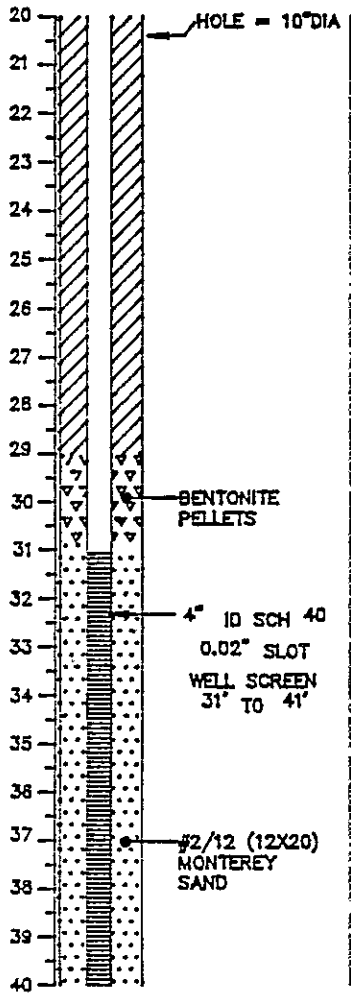


FILE NAME PRICE\CLUB5-6

LOG OF BORING\MONITORING WELL B-6\MW-6

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 48.5
 PROJECT NAME PRICE CLUB-- HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 66.51
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 31' - 41'
 DATE 8\17\92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT.MSL) 66.92

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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20-29	CL	SILTY CLAY: AS ABOVE EXCEPT 0-10% FINE SAND; NO GRAVEL
29-30	ML	SANDY SILT (ML); OLIVE BROWN (2.5Y4/3); 30-40% VERY FINE TO FINE SAND; STIFF; DAMP
30-31	SP	SAND (SP); GRAY (5Y5/1); MEDIUM DENSE; DAMP; 0-10% FINES; FINE SAND;
31-34	SP	AS ABOVE
34-35	SP	AS ABOVE EXCEPT DARK GRAYISH BROWN (2.5Y4/2); 0-5% FINE GRAVEL
35-37	SP	AS ABOVE; 0-10% MEDIUM TO COARSE SAND
37-38	SW	GRAVELLY SAND (SW); OLIVE GRAY (5Y4/2); MEDIUM DENSE; MOIST; WET AT 38'; 0-10% FINES; FINE TO COARSE SAND; 30-50% FINE TO COARSE GRAVEL
38-40	GW	SANDY GRAVEL (GW); DARK GREENISH GRAY (5GY4/1); MEDIUM DENSE; WET; 5-15% FINES; 20-30% FINE TO COARSE SAND; FINE TO COARSE GRAVEL; SANDSTONE CLASTS WET 38' - 40.5'



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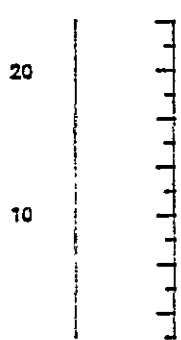
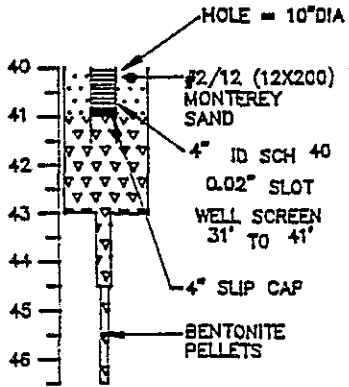
SHEET 3
 OF 3

FILE NAME PRICE\CLUBS-8

LOG OF BORING\MONITORING WELL B-6\MW-6

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 46.5
 PROJECT NAME PRICE CLUB-HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 86.51
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 31' - 41'
 DATE 8\17\92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT.MSL) 66.92

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PIB (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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DEPTH IN FT.	SAMPLES	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
40		GW	AS ABOVE
41		CL	SANDY CLAY (CL): OLIVE (5Y5/3); STIFF MOIST TO DAMP; 10-20% FINE SAND; DARK REDDISH BROWN (2.5YR3/4); ROOT TRACES (IRON OXIDE STAINING)
42	NR		NO RECOVERY (CLAY)
43		CL	SILTY CLAY (CL): DARK GREENISH GRAY (5GY4/1); STIFF; DAMP; 0-10% FINE SAND TO MEDIUM SAND
44	NR		NO RECOVERY
45		CL	SANDY CLAY (CL): AS ABOVE EXCEPT 10-20% FINE SAND
46	NR		NO RECOVERY

TOTAL DEPTH = 46.5 FEET

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 (415) 484-2600
DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 22300 HATHAWAY AVENUE
HAYWARD, CALIFORNIA

PERMIT NUMBER 92379
LOCATION NUMBER

CLIENT Name Price Company
Address 469 MORENA BLVD Phone (619) 581-4703
City SAN DIEGO, CA Zip 92117

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT Name RIEDEL ENVIRONMENTAL SERVICES
Address 438 LAKESIDE DR Phone (510) 222-7810
City RICHMOND, CA Zip 94806

- A. 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. 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 drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.
B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.
D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.
E. WELL DESTRUCTION. See attached.

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

PROPOSED WATER SUPPLY WELL USE n/a
Domestic Industrial Other
Municipal Irrigation

DRILLING METHOD:
Mud Rotary Air Rotary Auger *
Cable Other

DRILLER'S LICENSE NO. Bayland C-57-374152

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 4 in. Depth 50 ft.
Surface Seal Depth 30 ft. Number 9

GEOTECHNICAL PROJECTS n/a
Number of Borings Maximum
Hole Diameter in. Depth ft.

ESTIMATED STARTING DATE August 10th, 1992
ESTIMATED COMPLETION DATE August 21, 1992

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

Approved Wyman Hong Date 6 Aug 92

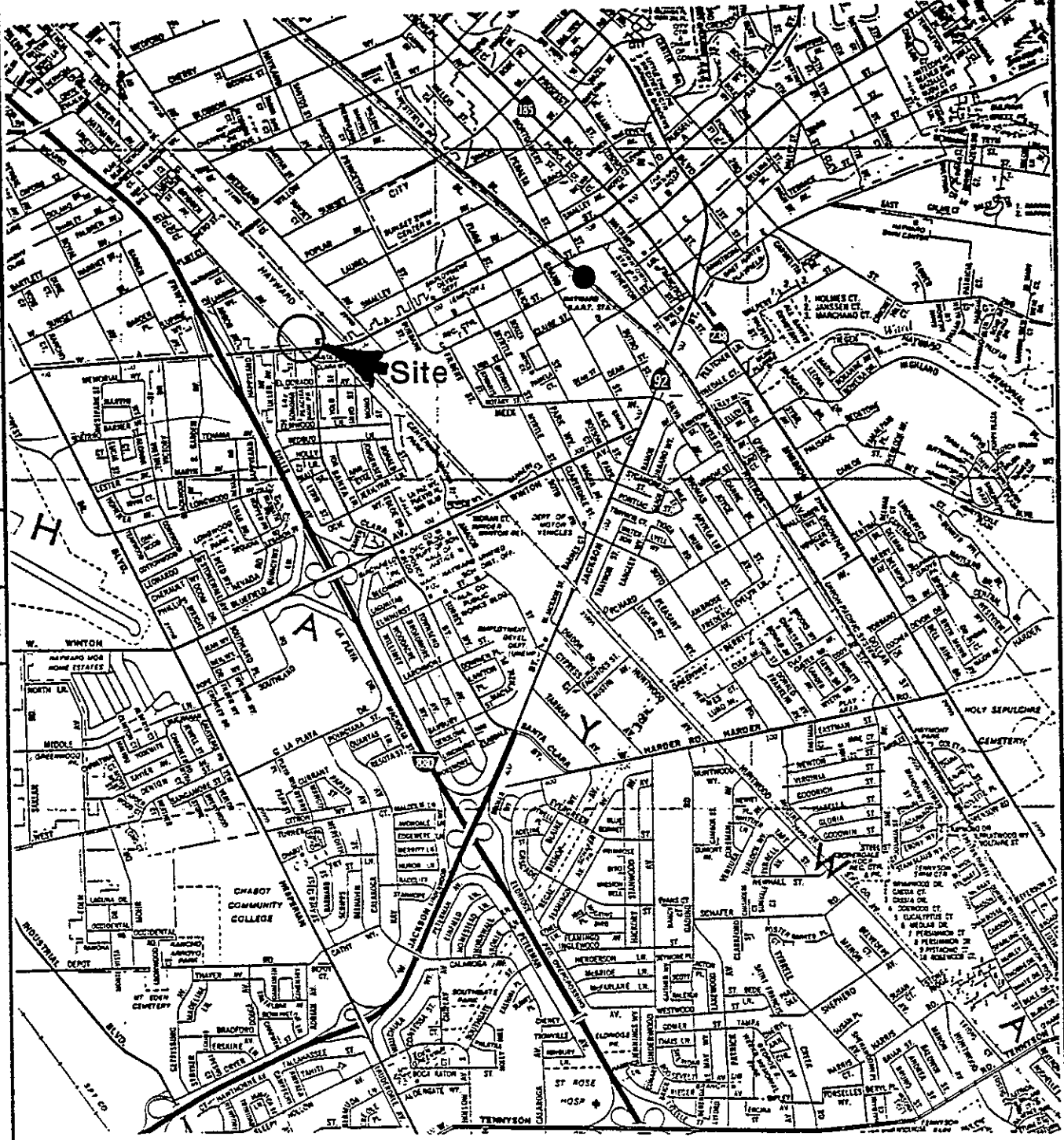
APPLICANT'S SIGNATURE Garb Cellat Date 07/30/92

37 6/7

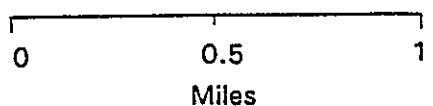
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DRAWING NUMBER
CHECKED BY
APPROVED BY
DRAWN BY



Scale



Site Location Map
 Price Club
 22300 Hathaway Avenue
 Hayward, CA
 RES Project 4014-9008



RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

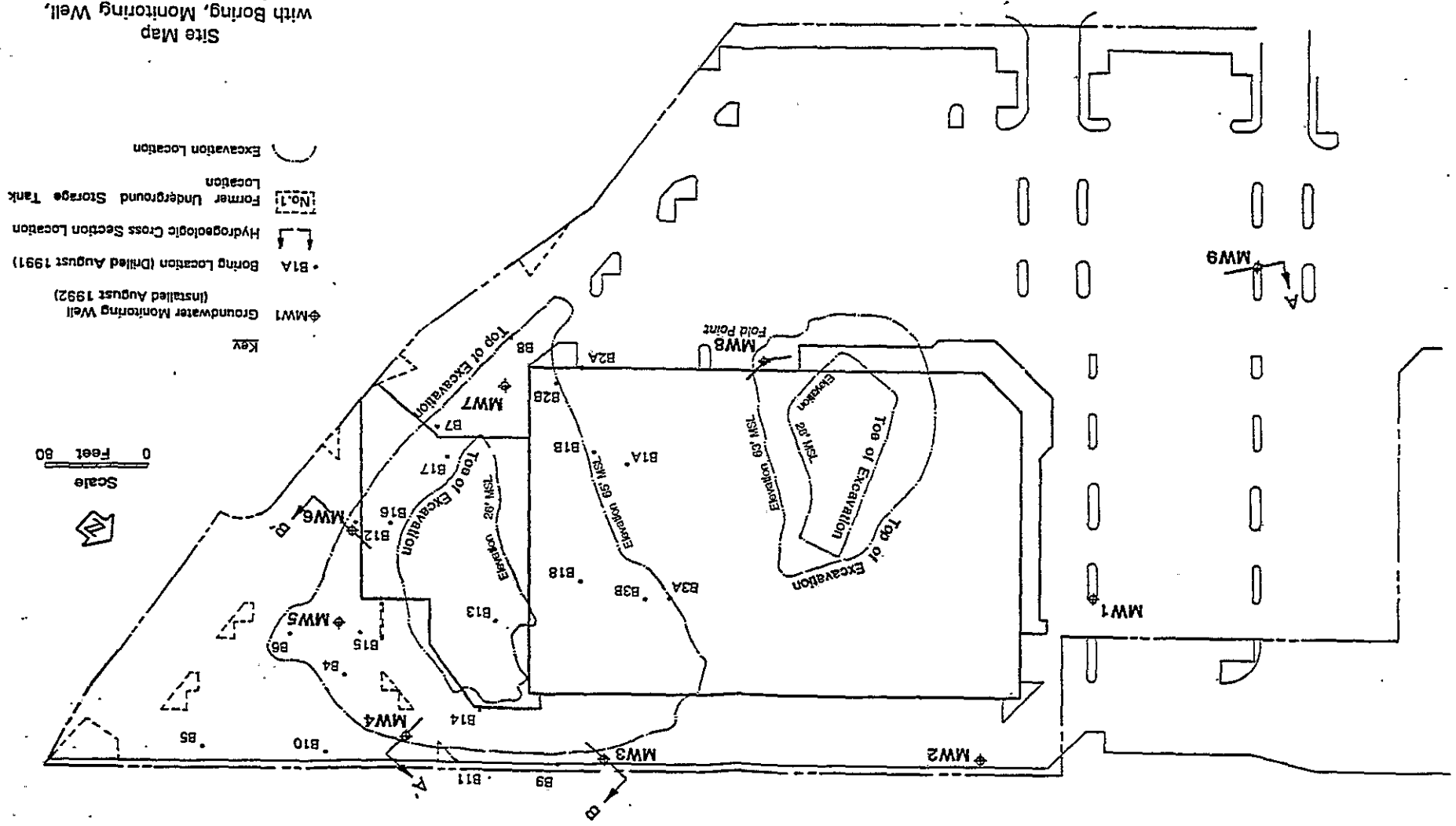
FIGURE
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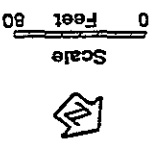
REDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

RES Project No. 4014-9008

Site Map with Boring, Monitoring Well, and Excavation Locations
Price Club
22300 Hathaway Avenue
Hayward, California



- Key
- ◊ MW1 Groundwater Monitoring Well (Installed August 1992)
 - B1A Boring Location (Drilled August 1991)
 - ⌋ Hydrogeologic Cross Section Location
 - ⌋ No. 1 Former Underground Storage Tank Location
 - ⌋ Excavation Location



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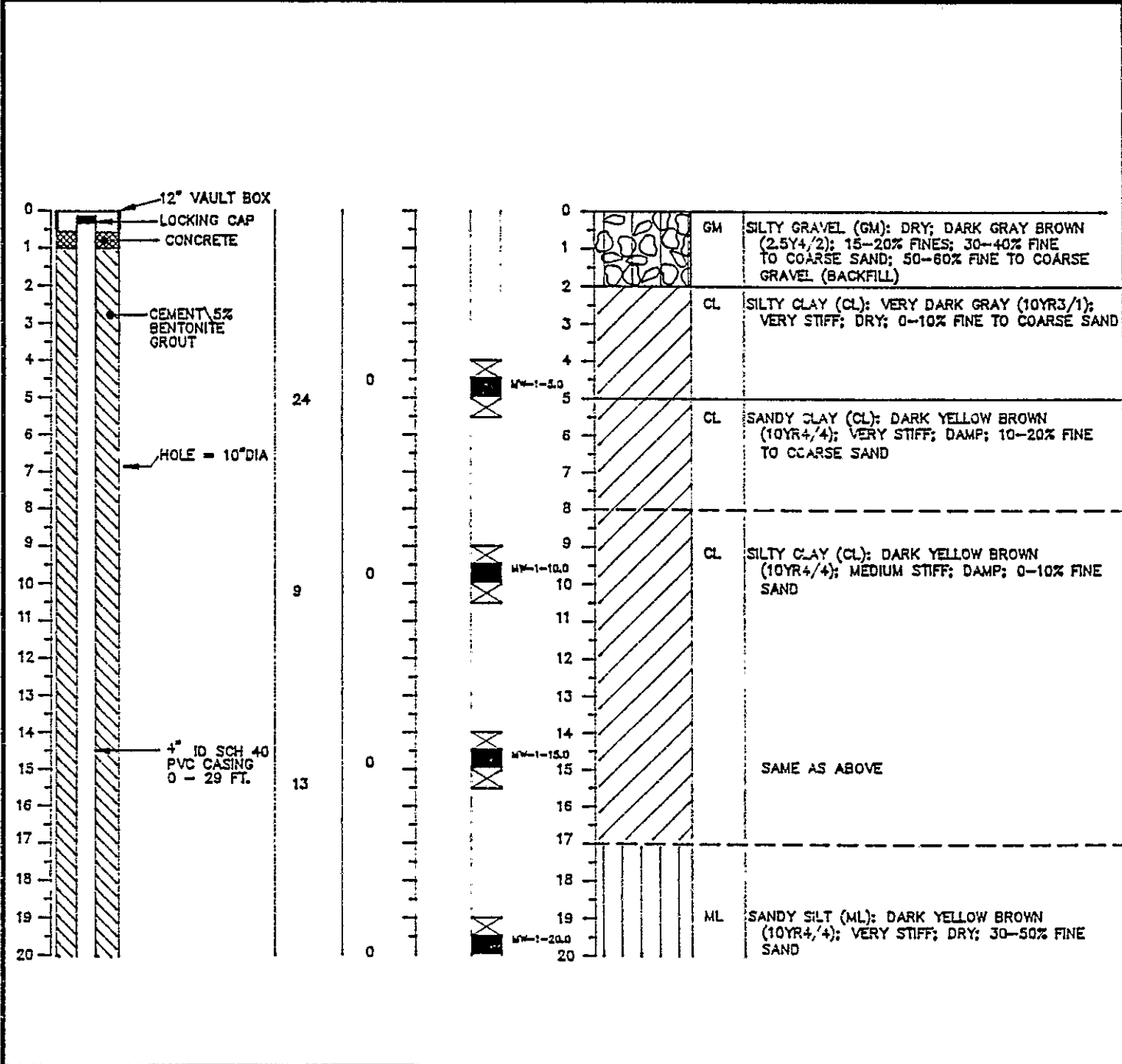


FILE NAME PRICE\CLUB1-2

LOG OF BORING\MONITORING WELL B-1\MW-1

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 38
 PROJECT NAME PRICE CLUB- HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 62.61
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 29' - 36.5'
 DATE 8/10/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT. MSL) 63.29

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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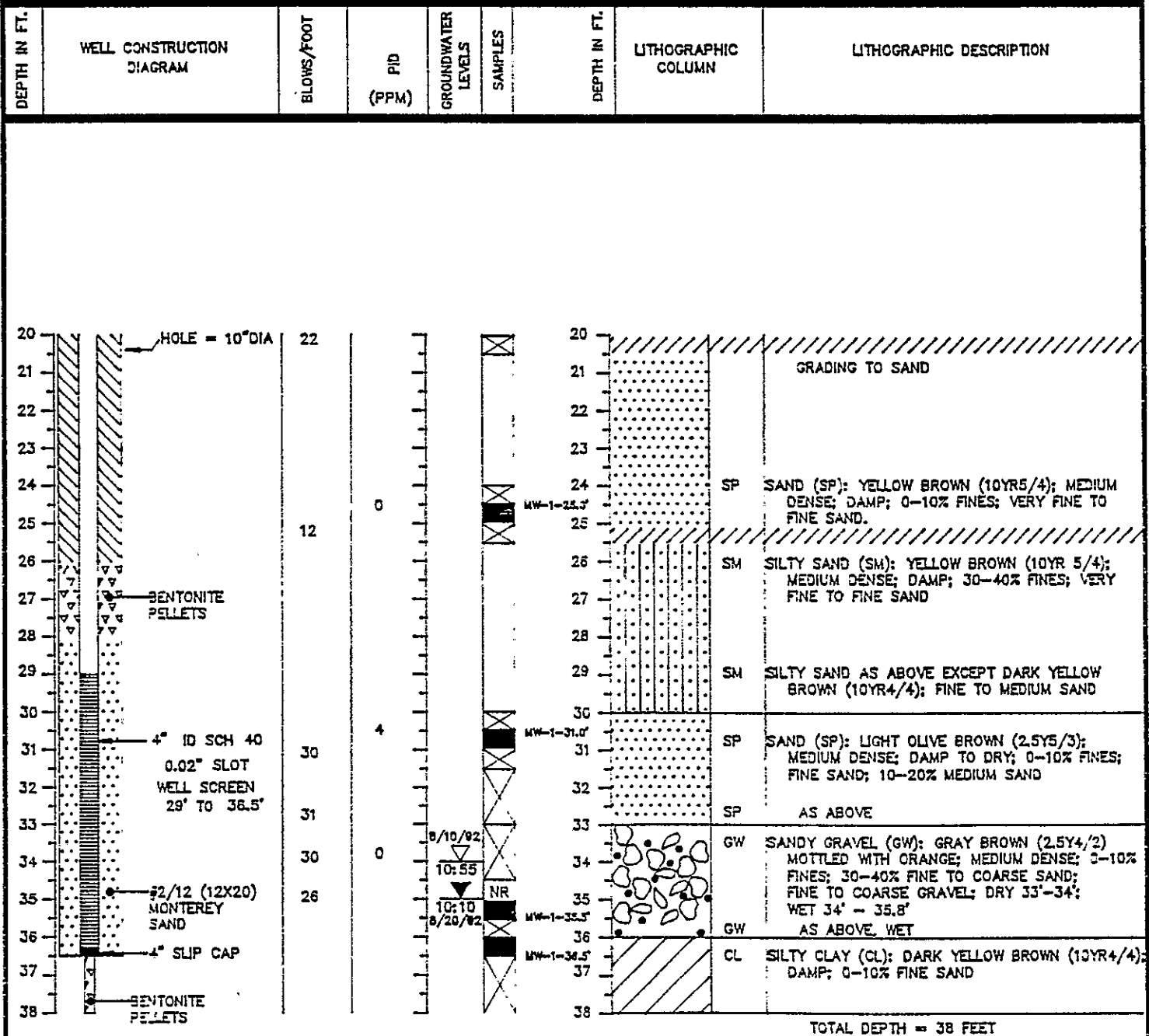
RIEDEL ENVIRONMENTAL SERVICES, INC. 403243
 4138 LAKESIDE DRIVE
 RICHMOND, CALIFORNIA 94806
 (510) 222-7810
 576

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 SHEET 2
 OF 2

FILE NAME PRICE\CLUB1-2

LOG OF BORING\MONITORING WELL B-1\MW-1

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 38
 PROJECT NAME PRICE CLUB- HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 62.61
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 29' - 36.5'
 DATE 8/10/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT. MSL) 63.29



TOTAL DEPTH = 38 FEET

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STATE OF CALIFORNIA DWR
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SHEET 1
 OF 3

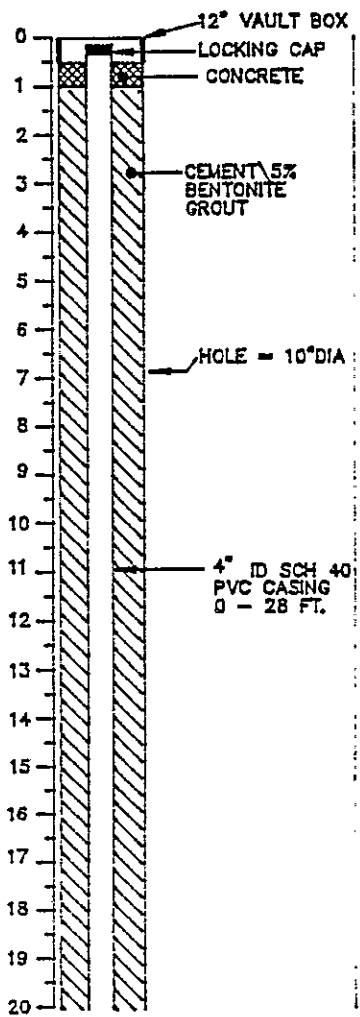
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FILE NAME PRICE\CLUB7-8

LOG OF BORING\MONITORING WELL B-7\MW-7

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 50
 PROJECT NAME PRICE CLUB-HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 62.98
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 28' - 48'
 DATE 8/25/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT.MSL) 63.99

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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0						0		ASPHALT
1						1	GW	SANDY GRAVEL: VERY DARK GRAYISH BROWN (2.5Y3/2); 5-10% FINES; 30-40% FINE TO COARSE SAND; FINE TO COARSE GRAVEL; DAMP (BASEROCK FILL)
2						2		
3						3	CL	GRAVELLY CLAY (CL): VERY DARK GRAYISH BROWN (2.5Y3/2); 40-60% FINES; 20-30% FINE TO COARSE SAND; 20-30% FINE TO COARSE GRAVEL; DAMP; BACKFILL
4						4		
5						5	CL	GRAVELLY CLAY AS ABOVE (FILL: FROM CUTTINGS)
6						6		
7						7		
8						8		
9						9		
10						10	CL	GRAVELLY CLAY AS ABOVE (FILL: FROM CUTTINGS)
11						11		
12						12		
13						13		
14						14		
15						15	SC	CLAYEY SAND (SC): DARK GRAYISH BROWN (2.5Y4/2); DAMP; 30-40% FINES; FINE TO COARSE SAND; 20-30% FINE TO COARSE GRAVEL; (BACKFILL; FROM CUTTINGS)
16						16		
17						17		
18						18		
19						19		
20						20	GC	CLAYEY GRAVEL (GC): DARK GRAYISH BROWN (2.5Y4/2); DAMP; 10-20% FINES; 20-30 FINE TO COARSE SAND; FINE TO COARSE GRAVEL;



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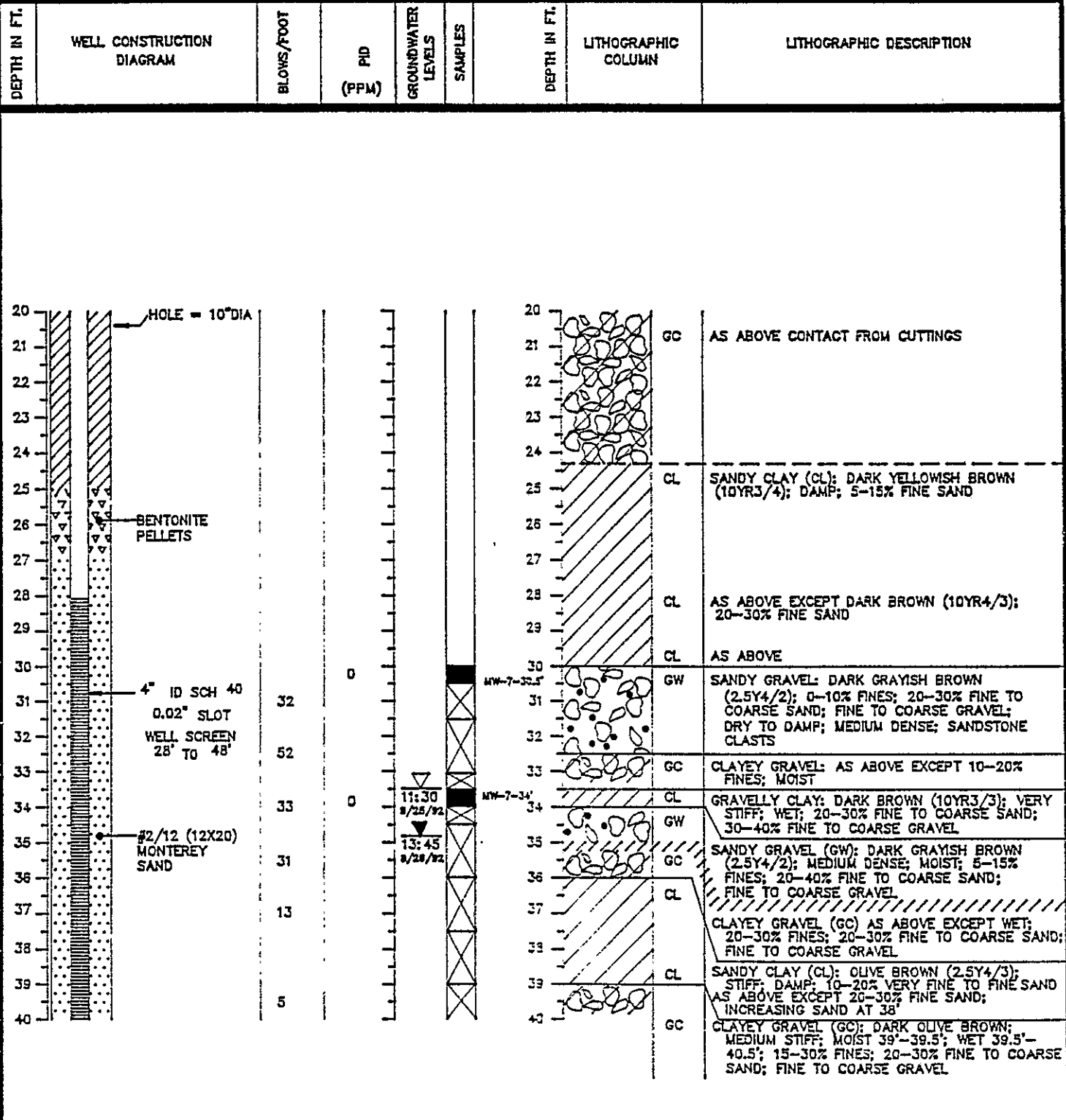
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 OF 3

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FILE NAME PRICE\CLUB7-8

LOG OF BORING\MONITORING WELL B-7\MW-7

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 50
 PROJECT NAME PRICE CLUB-HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 82.98
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 28' - 48'
 DATE 8/25/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT.MSL) 63.89





4138 LAKESIDE DRIVE
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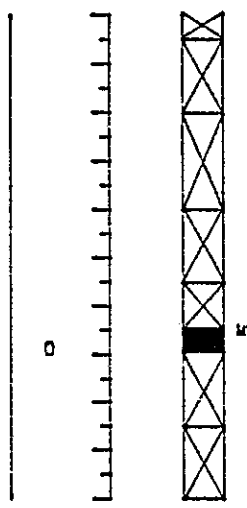
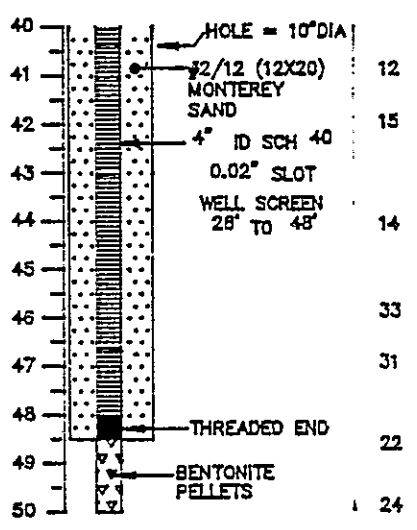
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FILE NAME PRICE\CLUB7-8

LOG OF BORING\MONITORING WELL B-7\MW-7

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 50
 PROJECT NAME PRICE CLUB-HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 62.96
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 28' - 48'
 DATE 8/25/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT.MSL) 63.69

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PH (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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40	GC	CLAYEY GRAVEL AS ABOVE
41	CL	GRAVELLY CLAY: OLIVE BROWN (2.5YR4/3); MOIST TO WET
42	SC	CLAYEY SAND (SM): OLIVE BROWN (2.5Y4/3); MEDIUM DENSE; WET; 20-40% FINES; FINE SAND
43	CL	SILTY CLAY: OLIVE BROWN BROWN (2.5Y4/3); STIFF; DAMP; 0-10% FINE SAND
44	CL	SANDY CLAY: OLIVE BROWN (2.5Y4/3); VERY STIFF; MOIST TO WET; 30-50% FINE SAND; 0-10% COARSE GRAVEL
45	CL	SANDY CLAY AS ABOVE; MOIST TO WET
46	CL	SANDY CLAY AS ABOVE; 30-40% FINE TO COARSE SAND; MOIST
47	CL	SANDY CLAY AS ABOVE; 10-20% FINE TO COARSE SAND; DAMP
48	CL	SANDY CLAY AS ABOVE; 10-20% FINE TO COARSE SAND; DAMP
49	CL	SILTY CLAY: OLIVE BROWN (2.5Y4/3); VERY STIFF; DAMP; 0-10% FINE SAND
50	CL	SILTY CLAY: OLIVE BROWN (2.5Y4/3); VERY STIFF; DAMP; 0-10% FINE SAND

TOTAL DEPTH = 50 FEET

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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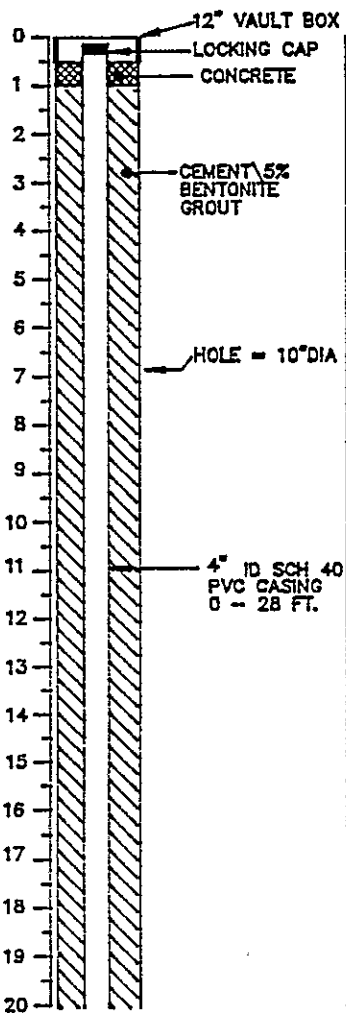
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FILE NAME PRICE\CLUB7-8

LOG OF BORING\MONITORING WELL B-8\MW-8

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 48.5
 PROJECT NAME PRICE CLUB-- HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 63.32
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 28' - 45.5'
 DATE 8\24\82 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT.MSL) 63.86

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PFM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
0		ASPHALT
1	GM	SILTY GRAVEL (GM): VERY DARK GRAY BROWN (2.5Y3/2); 10-15% FINES; 20-30% FINE TO COARSE SAND; FINE TO COARSE GRAVEL (BASE/ROCK FILL); DAMP
2	CL	SANDY CLAY (CL): VERY DARK GRAY BROWN (10YR3/2); 20-30% FINE TO COARSE SAND; 10-20% FINE TO COARSE GRAVEL; (BACKFILL) (CUTTINGS); DAMP
6	SW	GRAVELLY SAND (SW): LIGHT YELLOWISH BROWN (2.5Y6/3); DRY; 5-10% FINES; FINE TO COARSE SAND; 30-40% FINE TO COARSE GRAVEL; DAMP
8	CL	SANDY CLAY (CL): DARK BROWN (10YR4/3); DAMP; 10-20% FINE TO COARSE SAND;
12	CL	SILTY CLAY: DARK YELLOWISH BROWN (10YR4/4); MOIST; 0-5% FINE SAND;
18		AS ABOVE EXCEPT DARK BROWN (10YR3/3); 0-10% FINE SAND



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4138 LAKESIDE DRIVE
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SHEET 2
OF 3

FILE NAME PRICE\CLUB7-8

LOG OF BORING\MONITORING WELL B-8\MW-8

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 48.5
PROJECT NAME PRICE CLUB-HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 63.32
LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 28' - 45.5'
DATE 8\24\92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT.MSL) 63.86

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PID (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION	
20						20	CL	AS ABOVE	
21						21	CL	SANDY CLAY: BROWN (10YR4/3); DAMP; 10-20% FINE SAND; 0-10% FINE GRAVEL (FROM CUTTINGS)	
22						22	CL	SILTY CLAY: OLIVE BROWN (2.5Y4/4); DAMP; VERY STIFF; 0-10% FINE SAND	
23						23	CL	AS ABOVE	
24						24	CL	AS ABOVE	
25						25	CL	AS ABOVE	
26						26	CL	AS ABOVE	
27						27	CL	AS ABOVE	
28						28	CL	AS ABOVE	
29						29	CL	AS ABOVE	
30						30	CL	AS ABOVE	
31			21	0			31	CL	AS ABOVE
32							32	CL	SANDY CLAY (CL): LIGHT OLIVE BROWN (2.5Y5/4); MOIST; 30-50% FINE SAND; STIFF
33			20		10:50 8/24/92		33	SC	CLAYEY SAND (SC): LIGHT OLIVE BROWN (2.5Y4/4); MOIST TO WET; 30-50% FINES; FINE SAND MEDIUM DENSE
34							34	CL	CLAYEY SAND (SC): OLIVE BROWN (2.5Y4/4); LOOSE; MOIST TO WET; 30-50% FINES; FINE SAND
35			9	0			35	SC	SILTY CLAY (CL): DARK BROWN (10YR4/3); MEDIUM STIFF; DAMP; 5-10% FINE SAND
36							36	CL	CLAYEY SAND (SC): OLIVE BROWN (2.5Y4/4); LOOSE; MOIST TO WET; 30-50% FINES; FINE SAND
37			13		12:15 8/24/92		37	SC	SILTY CLAY (CL): LIGHT OLIVE BROWN (2.5Y5/3); STIFF; DAMP; 0-5% FINE SAND
38			12				38	CL	CLAYEY SAND (SC) CROSS-BEDDED WITH SANDY CLAY (CL): OLIVE BROWN (2.5Y4/3); MOIST TO WET; 30-60% FINES; FINE SAND
39							39	CL	SILTY CLAY (CL): OLIVE BROWN (2.5Y4/3); STIFF; MOIST ALONG CRACKS; FRACTURES AND VOIDS; 0-10% FINE SAND
40			10	0			40	SC	CLAYEY SAND (SC): OLIVE BROWN (2.5Y4/3); LOOSE; MOIST TO WET; 30-50% FINES; FINE SAND



4138 LAKESIDE DRIVE
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SHEET 3
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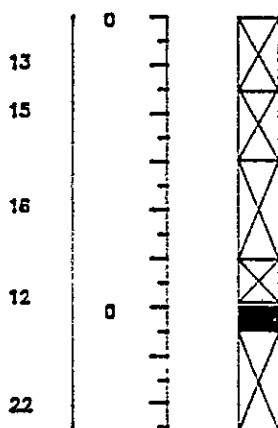
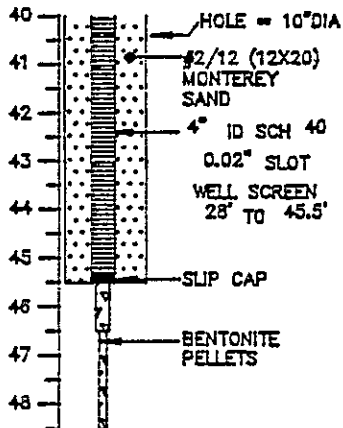
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FILE NAME PRICE\CLUB7-8

LOG OF BORING\MONITORING WELL B-8\MW-8

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 48.5
 PROJECT NAME PRICE CLUB- HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 63.32
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 28' - 45.5'
 DATE 8\24\92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT.MSL) 63.86

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PH (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
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40	SC	CLAYEY SAND AS ABOVE
41	CL	SANDY CLAY: OLIVE BROWN (2.5Y4/3); STIFF DAMP; 10-20% FINE SAND
42	CL-SC	SANDY CLAY-CLAYEY SAND AS ABOVE EXCEPT MOIST TO WET; 30-50% FINES
43	CL	SANDY CLAY AS ABOVE EXCEPT 10-20% FINES; DAMP; DARK YELLOWISH BROWN (10YR4/4)
44	CL	SANDY CLAY AS ABOVE EXCEPT 20-30% FINES
45	SC-CL	CLAYEY SAND-SANDY CLAY: OLIVE BROWN (2.5Y4/3); MEDIUM DENSE; WET; 40-50% FINES; 40-60% VERY FINE TO FINE SAND
46	CL	SANDY CLAY: OLIVE BROWN (2.5Y4/4); STIFF; DAMP; 20-30% FINE SAND
47		
48		

TOTAL DEPTH = 48.5 FEET

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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 (510) 222-7810

403251
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 SHEET 1
 OF 3

FILE NAME PRICE\CLUB9

LOG OF BORING\MONITORING WELL B-9\MW-9

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 46.5
 PROJECT NAME PRICE CLUB- DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 80.39
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 25' - 45'
 DATE 8/14/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT. MSL) 80.79

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PPD (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
0	12" VAULT BOX					0		TOP SOIL: ROOT MATERIAL
1	LOCKING CAP					1	GC	CLAYEY GRAVEL (GC): DARK GREENISH GRAY (5GY4/1); 10-20% FINES; 20-30% FINE TO COARSE SAND; FINE TO COARSE GRAVEL BASEROCK FILL
2	CONCRETE					2		
3	CEMENT 5% BENTONITE GROUT					3		
4						4		
5		30	0		MW-8-5.5'	5	CL	SILTY CLAY: VERY DARK GRAYISH BROWN (10YR3/2); VERY STIFF; DAMP TO DRY; 0-10% FINE SAND
6						6		
7	HOLE = 10" DIA					7		
8						8		
9						9		
10			0		MW-8-10.5'	10	CL	AS ABOVE EXCEPT STIFF; DARK BROWN (10YR4/3)
11	4" ID SCH 40 PVC CASING 0 - 25'	12				11		
12						12		
13						13		
14						14		
15			0		MW-8-15.5'	15	CL	SANDY CLAY (CL): DARK BROWN (10YR3/3); STIFF; DAMP TO DRY; 10-15% FINE SAND
16		18				16		
17						17		
18						18		
19						19		
20						20	CL	AS ABOVE; 20-30% FINE SAND; DARK BROWN (10YR4/3)

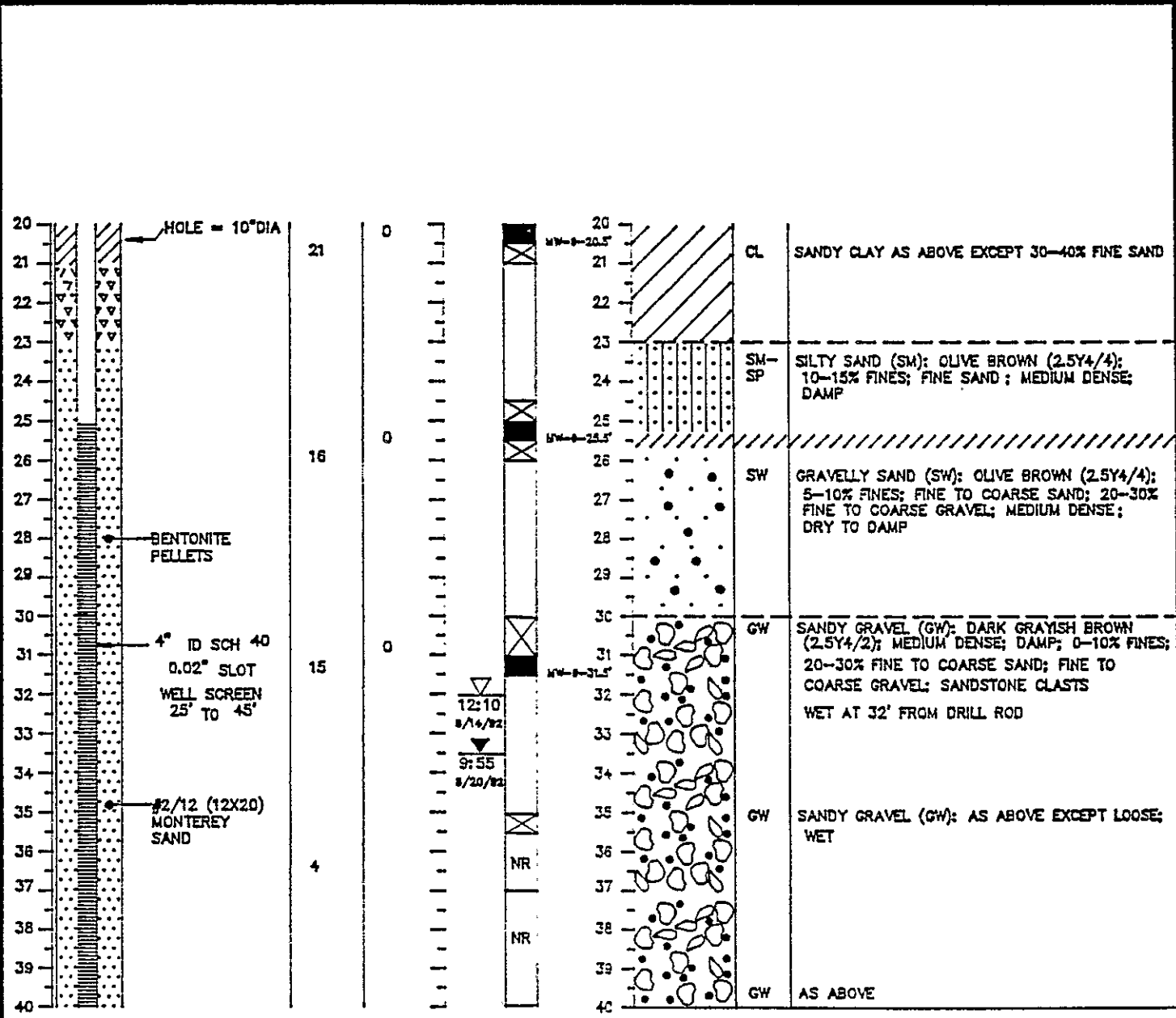


FILE NAME PRICE\CLUB9

LOG OF BORING\MONITORING WELL B-9\MW-9

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 46.5
 PROJECT NAME PRICE CLUB-- DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 60.39
HAYWARD
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 25' - 45'
 DATE 8/14/92 DRILL RIG MODEL CME-75 TOP OF VAULT BOX ELEV. (FT. MSL) 60.79

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PD (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
--------------	---------------------------	------------	----------	--------------------	---------	--------------	---------------------	--------------------------





RIEDEL ENVIRONMENTAL SERVICES, INC.
 4138 LAKESIDE DRIVE
 RICHMOND, CALIFORNIA 94806
 (510) 222-7810

403251
 297

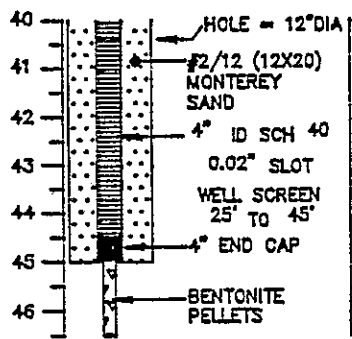
03502017J15
 SHEET 3
 OF 3

FILE NAME PRICE\CLUB9

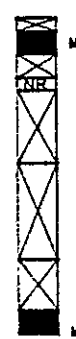
LOG OF BORING\MONITORING WELL B-9\MW-9

PROJECT NO 4014-9008 LOGGED BY LEN NILES BORING TOTAL DEPTH (FT.) 46.5
 PROJECT NAME PRICE CLUB-HAYWARD DRILLING CO. BAYLAND TOP OF CASING ELEV. (FT.MSL) 60.39
 LOCATION HAYWARD, CA DRILLING METHOD HOLLOW STEM AUGER SCREENED INTERVAL (FT.) 25' - 45'
 DATE 8/14/92 DRILL RIG MODEL GME-75 TOP OF VAULT BOX ELEV. (FT. MSL) 60.79

DEPTH IN FT.	WELL CONSTRUCTION DIAGRAM	BLOWS/FOOT	PI (PPM)	GROUNDWATER LEVELS	SAMPLES	DEPTH IN FT.	LITHOGRAPHIC COLUMN	LITHOGRAPHIC DESCRIPTION
--------------	---------------------------	------------	----------	--------------------	---------	--------------	---------------------	--------------------------



40			
41	15	0	
42	20		
43			
44			
45	16		
46	18	0	



40	CL	SILTY CLAY (CL): OLIVE BROWN (2.5Y4/3); STIFF; DAMP; 0-10% FINE SAND
41	SC	CLAYEY SAND: OLIVE BROWN (2.5Y4/4); MEDIUM DENSE; WET; 20-30% FINES; FINE SAND
42		
43	GC	CLAYEY GRAVEL (GC): DARK GRAYISH BROWN (2.5Y4/2); MEDIUM DENSE; WET; 10-20% FINES; 20-40% FINE TO COARSE SAND; FINE TO COARSE GRAVEL
44		
45	SW	GRAVELLY SAND (SW): VERY DARK GRAYISH BROWN (2.5Y3/2); 5-10% FINES; FINE TO COARSE SAND; 20-40% FINE TO COARSE GRAVEL; MEDIUM DENSE; WET
46	CL	SANDY CLAY (CL): OLIVE BROWN (2.5Y4/3); STIFF; DAMP; 20-30% FINE SAND
		SANDY CLAY: AS ABOVE EXCEPT 5-15% SAND

TOTAL DEPTH = 46.5 FEET

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

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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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)**

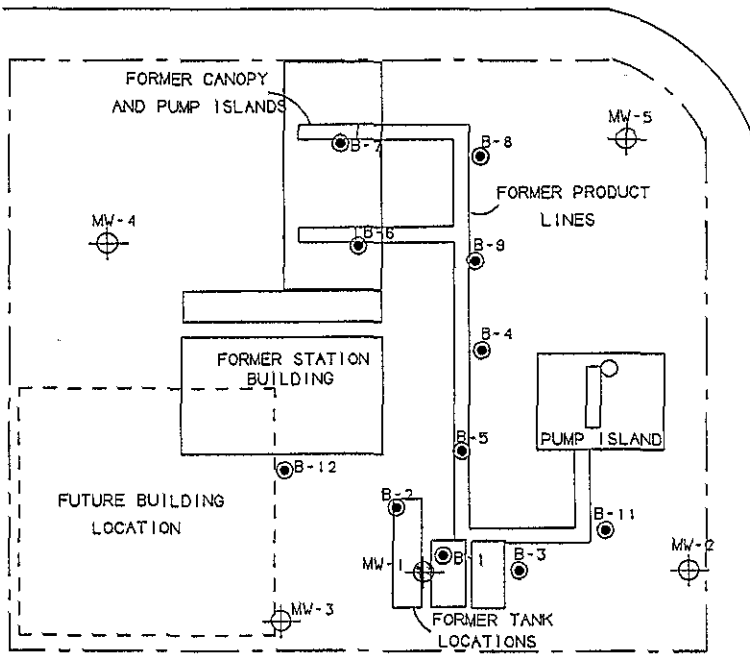
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CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

WEST A STREET



ROYAL AVENUE

EXPLANATION

- Property Limits
- B-12 Soil Borings
- ⊕ MW-5 Proposed Monitoring Wells



SITE PLAN

SCALE: As shown	APPROVED	DRAWN BY: ACC
DATE: 4-11-89		REVISED:
Thrifty Oil Service Station # 179 700 West A Street Hayward, California		
Du Pont Biosystems		DRAWING NUMBER P1154-71

BASE: Map is modified from a site plan entitled "Site Plan of Former Site Features Thrifty Oil SS # 179, Figure 2", dated, February 1989, at a scale of 1 inch = 30 feet.

Figure 2

303326
BS/2W-17N3

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

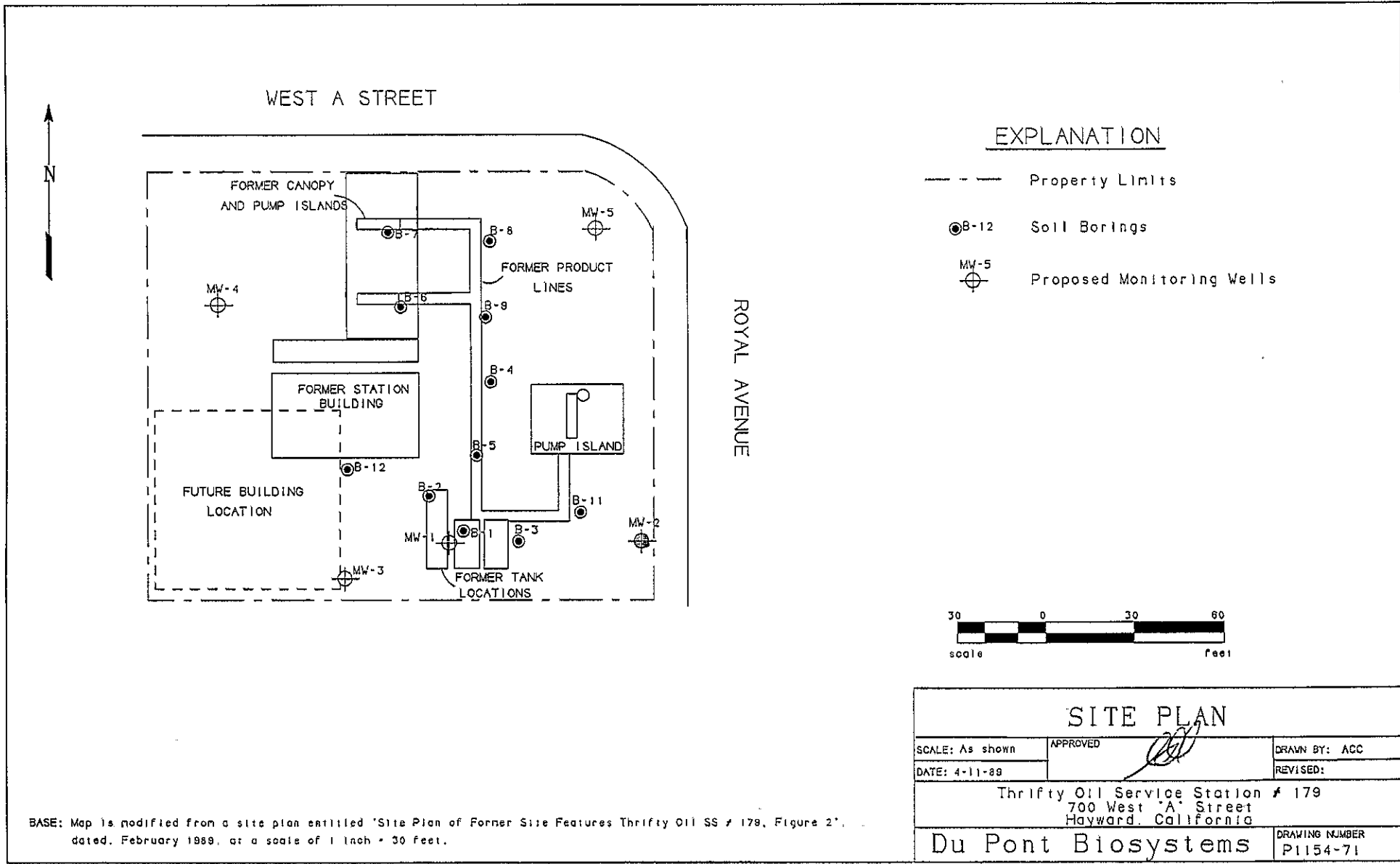


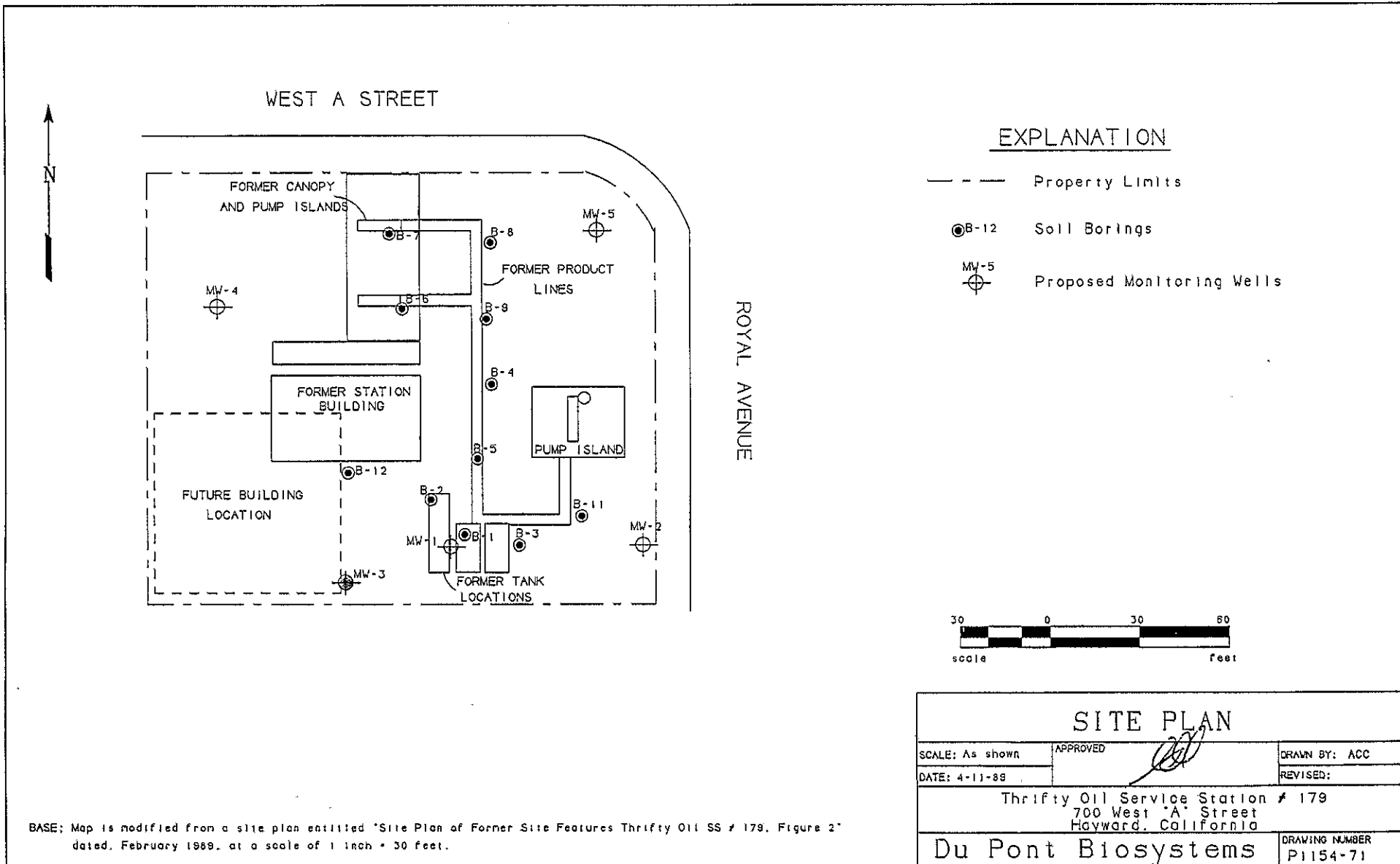
Figure 2

308897
ES/20-17N4

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



BASE: Map is modified from a site plan entitled "Site Plan of Former Site Features Thrifty Oil SS # 179, Figure 2" dated, February 1989, at a scale of 1 inch = 30 feet.

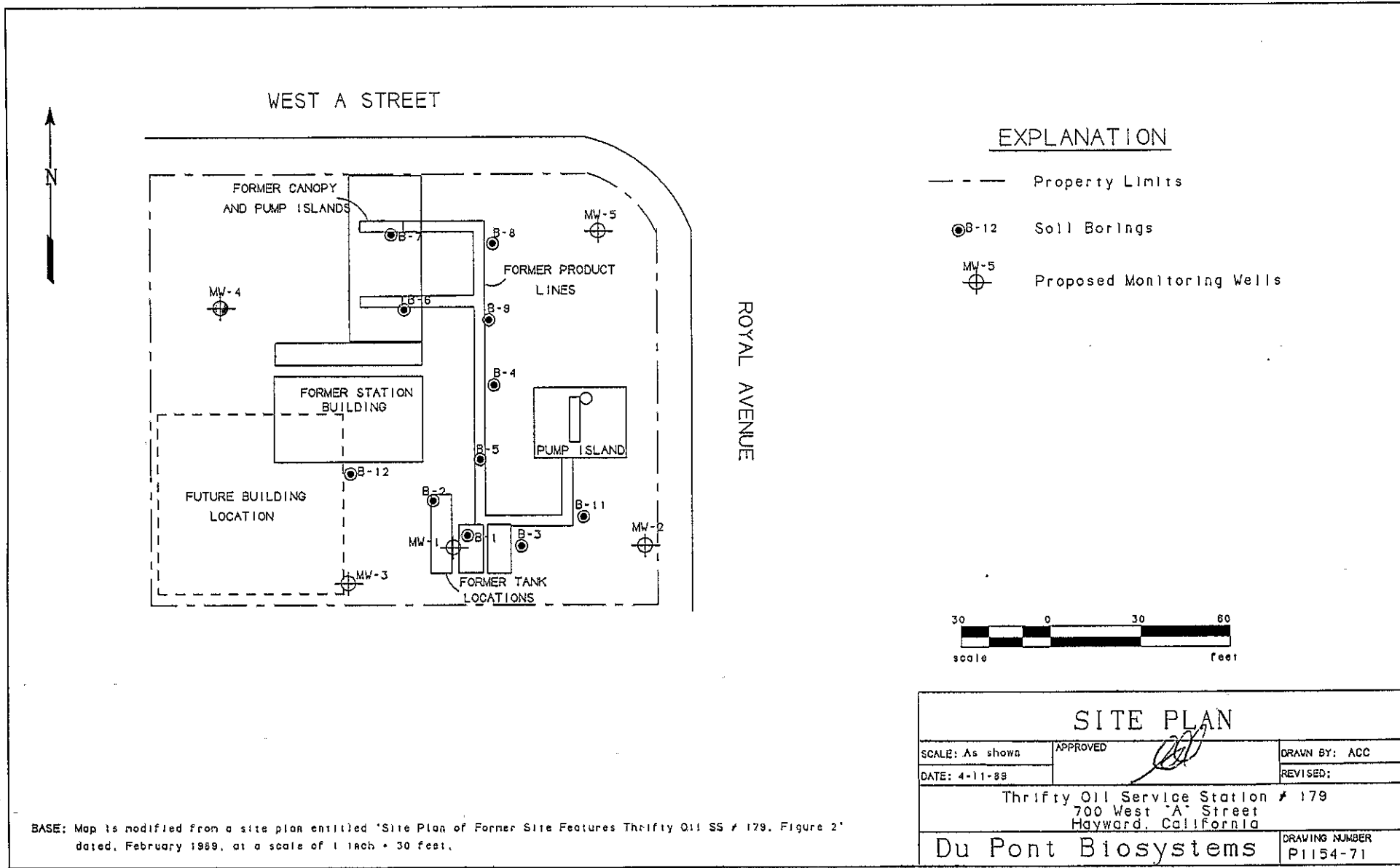
Figure 2

303328
35/200-1715

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



WEST A STREET

EXPLANATION

- Property Limits
- ⊙ B-12 Soil Borings
- ⊕ MW-5 Proposed Monitoring Wells



SITE PLAN

SCALE: As shown	APPROVED <i>[Signature]</i>	DRAWN BY: ACC
DATE: 4-11-89		REVISED:
Thrifty Oil Service Station # 179 700 West A Street Hayward, California		
Du Pont Biosystems		DRAWING NUMBER P1154-71

BASE: Map is modified from a site plan entitled 'Site Plan of Former Site Features Thrifty Oil SS # 179, Figure 2' dated, February 1989, at a scale of 1 inch = 30 feet.

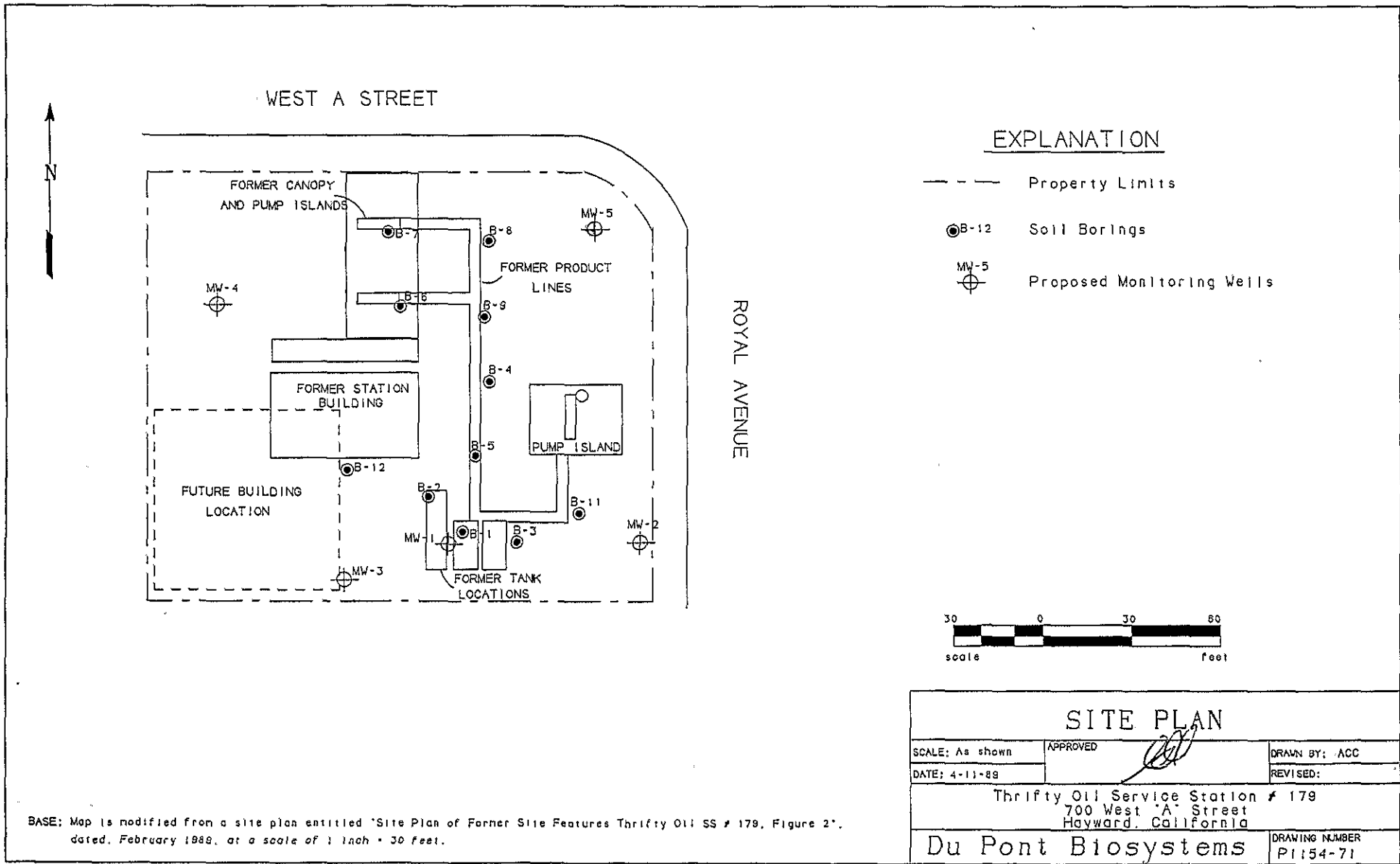
Figure 2

3/20/89-17N6
203339

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



BASE: Map is modified from a site plan entitled "Site Plan of Former Site Features Thrifty Oil SS # 179, Figure 2", dated, February 1988, at a scale of 1 inch = 30 feet.

Figure 2

35/200-17N7 202330

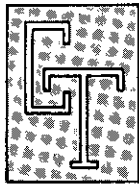
01-516 I-R

MW2 - 03S 02W 17P 22 = 160794A
MW4 - 17P 26072 200104D
MW1 - 17P 27046 160793A

RECEIVED

APR 27 1992

ZONE 7, ACFC&WCD



CONSOLIDATED TESTING LABORATORIES, INC.

Soils And Materials Testing

Geotechnical And Environmental Drilling

Field Inspection

April 24, 1992

*EZ Serve Petroleum
525 W "A" St
Hayward*

Mr. Craig Mayfield
Alameda County Flood Control
and Water Conservation District
5997 Parkside Drive
Pleasanton, CA 94588

Project:

Subject: Groundwater Monitoring Well Abandonment Project
Alameda County - Permit #92020

Dear Mr. Mayfield:

In accordance with your letter dated March 17, 1992, concerning the destruction methods and materials used to destroy on-site groundwater monitoring wells we are submitting the following information for your files. On January 28, 1992 MW # 2, (4" PVC) - 17P5 and MW # 4, (2" PVC) were drilled out using a 4-1/4" and 6-5/8" I.D. hollow stem auger. The augers were used to drill on the outside of the existing casing and screen to the total well depth. After the grout seal and well gravel was drilled out and removed, the existing casing and screen was removed through the inside of the hollow stem augers.

The borehole was backfilled with a neat cement containing 5% bentonite additive as the augers were removed from the borehole, the backfill was extended from the bottom of the borehole to ground surface. A chem-grout pump using 2" diameter threaded tremie pipe was used to place the neat cement.

Only MW 2 and MW 4 were abandoned. MW 1 (2" PVC) was reconstructed 17P4 at the surface by installing a new manhole cover and pouring at 3 X 3' concrete top. MW 3, 5 and 6 were not located, due to the 17P6, 8, 9 previous demolition project. The surface pavement was removed at the site causing the monitoring well tops to be destroyed. An 8' diameter area around the existing MW 3, 5 and 6 was probed and excavated to a depth of approximately 4" to 8", however the monitoring wells were not detected. A more detailed account of the work performed is described in the environmental site assessment report dated March 2, 1992, by Associated Soils Analysis, Inc.

Please find attached testhole boring location map showing the approximate location of the abandoned wells.

C57 544541

Logo No. 160793 A - MW1 = 03502W17P04
160794 A - MW-2 = 03502W17P05
200104 D - MW4 = 03502W17P07

Mr. Craig Mayfield
April 24, 1992
Page Two

If you should have any further questions concerning the work performed, please contact our office.

Sincerely,

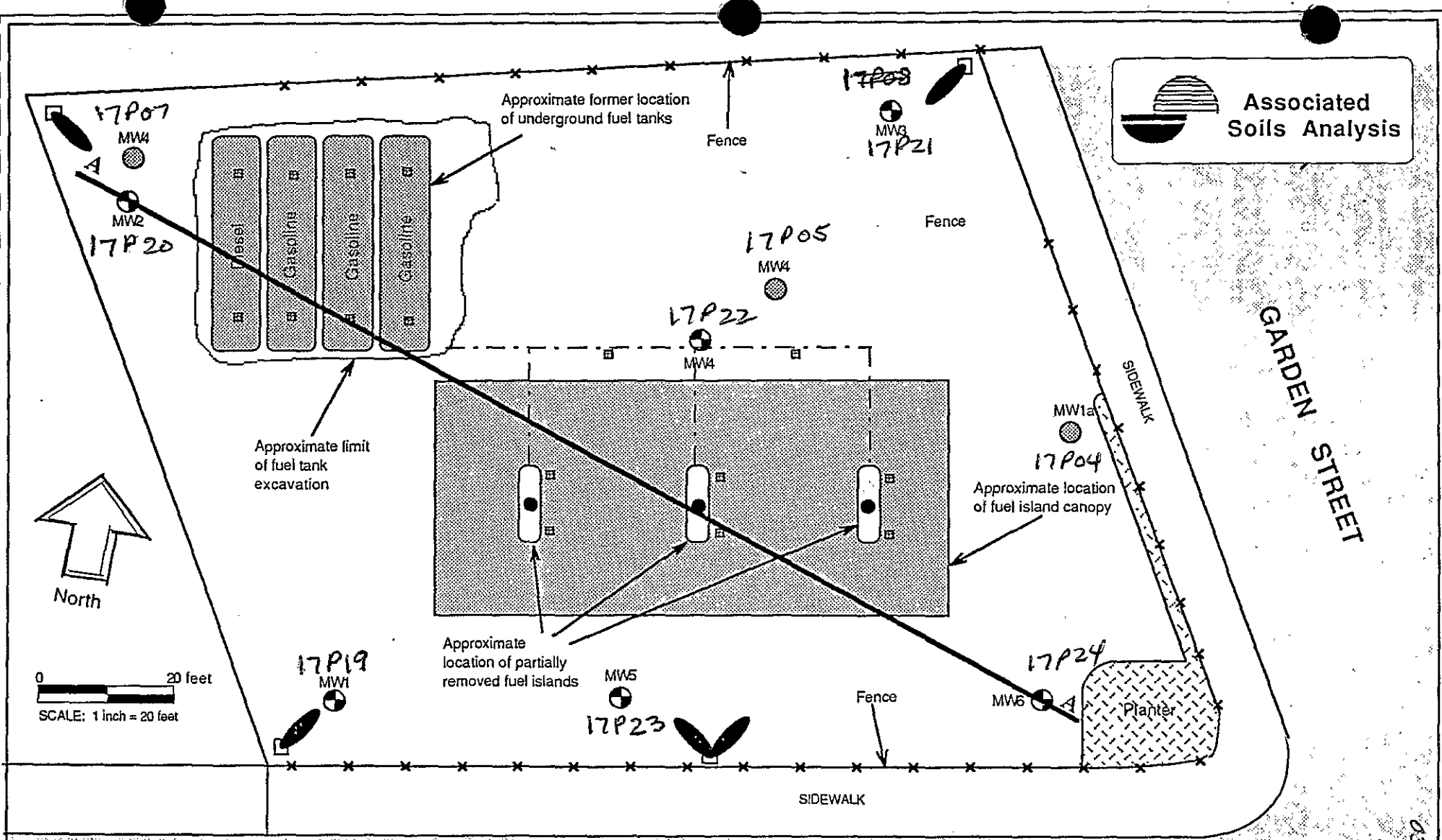
CONSOLIDATED TESTING LABORATORIES, INC.



David Harris
Environmental Assessor

DH:sr

		DIAM.	DEPTH
MW1 = B-1 = 17P04		.02	31'
2	5	.04	30
3	6	.04	31'
4	7	.02	31
5	8		31'
6	9		



MW6
 Approximate location of groundwater monitoring wells installed by Associated Soils Analysis, Inc. on February 28-28, 1992

 Approximate location of soil samples collected during fuel tank removal and subsequent dispenser/line testing

MW4
 Approximate location of groundwater monitoring wells destroyed or reconstructed by Associated Soils Analysis, Inc. on February 28-28, 1992

A A' Line of cross section

 Approximate location of light standard

TESTHOLE BORING LOCATION MAP

FIGURE 3

01-5160-H

035 0225 17P19 C
 17P08
 17P21
 17P09
 17P22
 17P19
 17P23
 17P04
 17P24

01-516C

PROJECT: E-Z Serve, Loc # 100877
525 W. "A" Street
Hayward, California



Associated Soils Analysis
1141 Batavia Court • Tulare, California 93274
(209) 688-1011 • FAX (209) 688-1195

OSS 02W 17P19
JOB NO.: 238-91
DATE: 01/28/92
BY: G. Sullivan
ELEV.: 99.91'

BORING LOG NUMBER MW1

page 1 of 1

DEPTH	% REC	BLOW COUNTS	SAMPLE NO.	FTU METER	SOIL GROUP	SOIL DESCRIPTION
0'						0" - 1" Baserock
					ML	1" - 4' <u>Clayey silt</u> : dark brownish grey, moist, dense to hard, moderately cohesive, moderately plastic silt with moderately plastic clay, highly organic. No petroleum odor.
5'					ML	4' - 10' <u>Clayey silt</u> : moderate yellowish brown, moist, medium dense, slight to moderate cohesive, moderately plastic silt with moderately cohesive clay. Soil is stained light olive grey below 8 feet. Slight petroleum odor below 8 feet.
10'		5 7 8	1	50	SP	10'-14' <u>Sand</u> : light yellowish brown, moist, medium dense very fine to fine, poorly graded, sub-rounded to rounded sand. Stained light olive grey. Slight to moderate petroleum odor.
15'		5 9 19	2	10	CH	14'-23' <u>Clay</u> : moderate yellowish brown, moist, stiff, moderate to highly cohesive, moderate to highly plastic clay. Slight petroleum odor. Localized dark grey petroleum staining.
20'		7 15 15	3	18	SW	23'-28' <u>Sand</u> : light yellowish brown, moist, medium dense, very fine to medium, well graded, sub-rounded to rounded sand, slightly silty. Slight to moderate petroleum odor.
25'					CH	28'-30' <u>Clay</u> : moderate yellowish brown, very moist to saturated, medium dense, highly cohesive, highly plastic clay. Slight to moderate petroleum odor.
30'						Boring terminated at 30 feet. Freestanding groundwater encountered at 21 feet.

LOCATION: See testhole boring location map

EQUIPMENT: Mobile B80 drill rig with 11 inch O.D. and 6.25 I.D and 2.5 inch split spoon sampler.

NOTES:

ph: 209 688 2925 PERMIT 92019 C57 544541

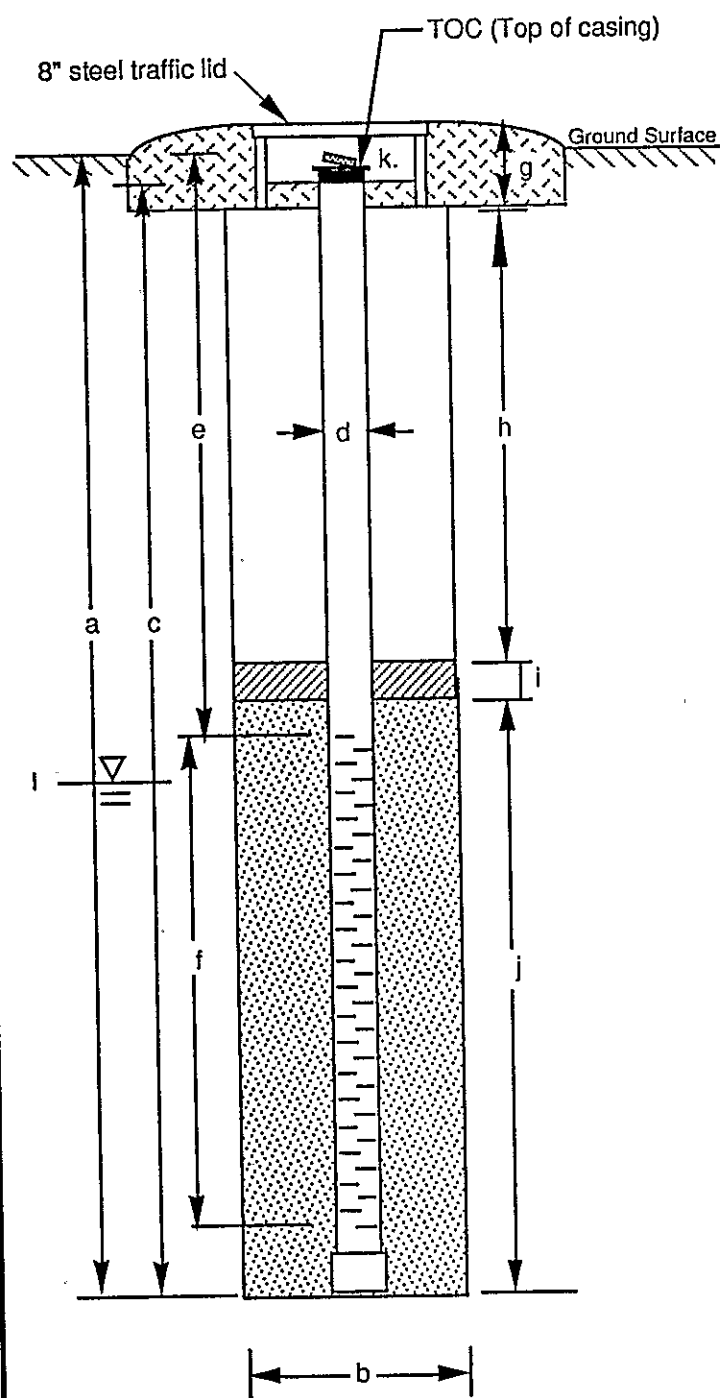
17/6

WELL DETAILS

01-516C 03502W17P19

PROJECT NUMBER 238-91
 PROJECT NAME EZ Serve location #100877
525 West A Street, Hayward, California
 LOCATION See Testhole Boring location map
 WELL PERMIT NO. N/A

BORING / WELL NO. MW1
 TOP OF CASING ELEV. 99.91'
 GROUND SURFACE ELEV. NA
 DATUM Temporary Bench Mark
 INSTALLATION DATE 1/28/92



EXPLORATORY BORING

a. Total depth 30 ft.
 b. Diameter 11 in.
 Drilling method Hollow stem auger

WELL CONSTRUCTION

c. Total casing length 29.5 ft.
 Material Schedule 40 PVC
 d. Diameter 4 in.
 e. Depth to top perforations 14.5 ft.
 f. Perforated length 14 ft.
 Perforated interval from 14.5 to 28.5 ft.
 Perforation type Slotted
 Perforation size 0.02 in.
 g. Surface seal 0.5 ft.
 Material Concrete
 h. Backfill 10.5 ft.
 Material 7 sack cement slurry with 3% bentonite
 i. Seal 2.5 ft.
 Material 3/8" Bentonite pellets
 j. Gravel pack 16.5 ft.
 Gravel pack interval from 13.5 to 30 ft.
 Material #3 Silica Sand
 k. Locking wellcap
 l. Depth to groundwater 20.82 ft.

01-516D

035 02W 17P20

PROJECT: E-Z Serve, Loc # 100877
525 W. "A" Street
Hayward, California



Associated Soils Analysis
1141 Batavia Court • Tulare, California 93274
(209) 688-1011 • FAX (209) 688-1195

JOB NO.: 238-91
DATE: 01/28/92
BY: G. Sullivan
ELEV.: 101.45'

BORING LOG NUMBER MW2

page 1 of 1

DEPTH	% BLC	BLOW COUNTS	SAMPLE NO.	HNU METER	SOIL GROUP	SOIL DESCRIPTION
0'						0" - 1" Baserock
1' - 5'					ML	Clay silt: dark grey, moist, dense, moderately cohesive, moderately plastic silt, with moderately plastic clay. No petroleum odor.
5' - 10'					ML	Clayey silt: moderate yellowish brown, moist, medium dense, moderately cohesive, moderately plastic silt with approximately 20-30% moderately cohesive clay. Soil is stained light grey below 9 feet. Slight petroleum odor below 9 feet.
10' - 13'	2 3 6		4	15	SM	Silty sand: light yellow brown, moist, loose, very fine to fine, poorly graded, rounded sand with approximately 5-15% very slight cohesive silt. Soil is stained light olive grey. Slight to moderate petroleum odor.
13' - 23'	4 9 9		5	55	CH	Clay: dark yellowish brown, moist to saturated, medium dense to stiff, highly cohesive, moderately to highly plastic clay. Locally stained light olive grey. Slight to moderate petroleum odor.
23' - 30'	8 15 19		6	130	SM	Silty sand: light olive grey, saturated, loose to medium dense, very fine to fine, poorly graded, rounded sand, with approximately 25-35% slight cohesive silt. Moderate petroleum odor.
30'						Boring terminated at 30 feet. Freestanding groundwater encountered at 21 feet.

LOCATION: See testhole boring location map
EQUIPMENT: Mobile B80 drill rig with 11 inch O.D. and 6.25 I.D and 2.5 inch split spoon sampler.

NOTES: _____

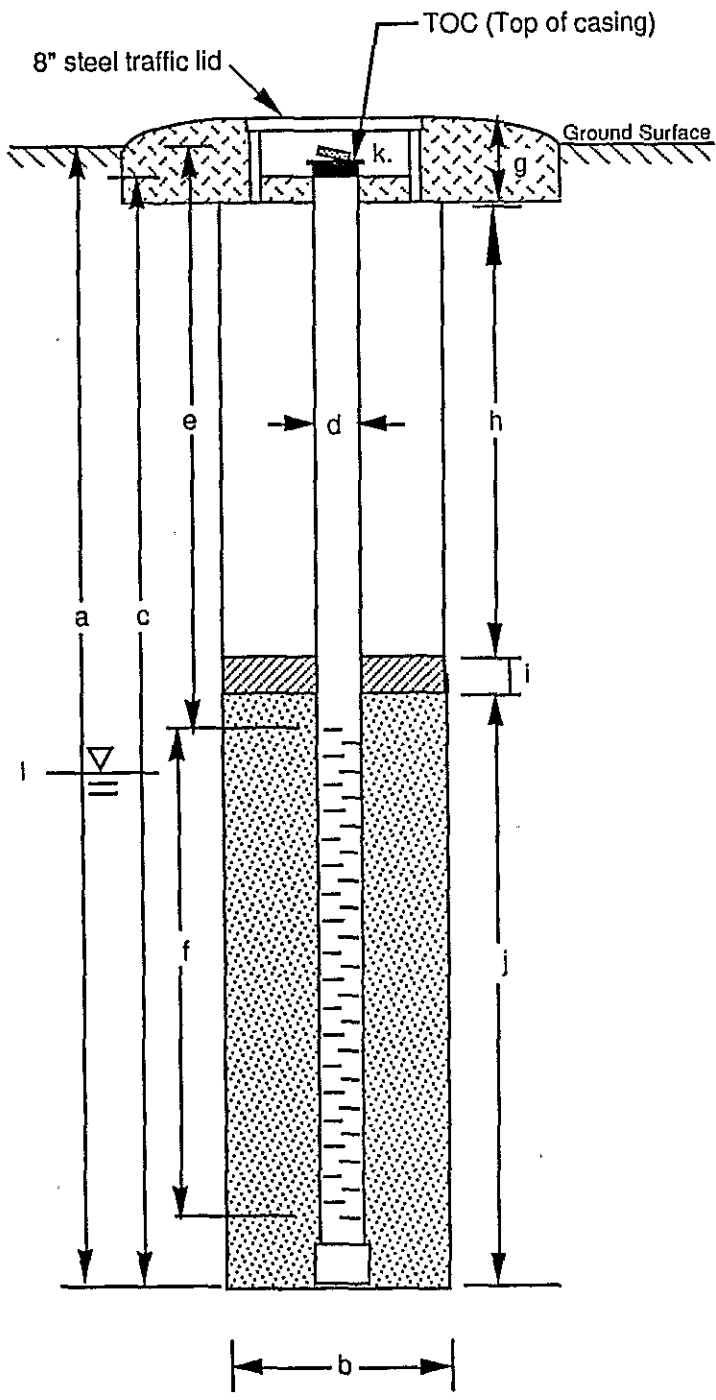
01-5160.

03502017P20

WELL DETAILS

PROJECT NUMBER 238-91
 PROJECT NAME EZ Serve location #100877
525 West A Street, Hayward, California
 LOCATION See Testhole Boring location map
 WELL PERMIT NO. N/A

BORING / WELL NO. MW2
 TOP OF CASING ELEV. 101.45'
 GROUND SURFACE ELEV. NA
 DATUM Temporary Bench Mark
 INSTALLATION DATE 1/28/92



EXPLORATORY BORING

a. Total depth 30 ft.
 b. Diameter 11 in.
 Drilling method Hollow stem auger

WELL CONSTRUCTION

c. Total casing length 30 ft.
 Material Schedule 40 PVC
 d. Diameter 4 in.
 e. Depth to top perforations 15 ft.
 f. Perforated length 14 ft.
 Perforated interval from 15 to 29 ft.
 Perforation type Slotted
 Perforation size 0.02 in.
 g. Surface seal 0.5 ft.
 Material Concrete
 h. Backfill 10.5 ft.
 Material 7 sack cement slurry with 3% bentonite
 i. Seal 3 ft.
 Material 3/8" Bentonite pellets
 j. Gravel pack 16 ft.
 Gravel pack interval from 14 to 30 ft.
 Material #3 Silica Sand
 k. Locking wellcap
 l. Depth to groundwater 22.35 ft.

PROJECT: E-Z Serve, Loc # 100877
525 W. "A" Street
Hayward, California



Associated Soils Analysis
 1141 Batavia Court • Tulare, California 93274
 (209) 688-1011 • FAX (209) 688-1195

01-516E

03K 02W 17P21

JOB NO.: 238-91
 DATE: 01/28/92
 BY: G. Sullivan
 ELEV.: 101.5'

BORING LOG NUMBER MW3

page 1 of 1

DEPTH	% BEC	BLOW COUNTS	SAMPLE NO.	HNJ METER	SOIL GROUP	SOIL DESCRIPTION
0'						0" - 2" Baserock
1' - 3.5'					ML	<u>Clayey silt</u> : dark greyish brown, moist, medium dense, slight to moderately cohesive, slight to medium plastic silt, with medium cohesive clay. No petroleum odor.
3.5' - 10.5'					ML/MH	<u>Clayey silt</u> : moderate yellowish brown, moist, medium dense, moderate to highly cohesive, moderate to highly plastic silt with highly cohesive clay. Soil is stained light olive grey below 6 feet. Slight to moderate petroleum odor below 7 feet.
10.5' - 14'		4 5 7	7	10	SM	<u>Silty sand</u> : light yellowish brown, moist, loose, very fine to fine, poorly graded, rounded sand with approximately 10-20% slight cohesive silt. Slight petroleum odor. Soil is stained light olive grey.
14' - 22'		8 11 13	8	40	CL/CH	<u>Silty clay</u> : moderate yellowish brown, moist, stiff, moderately to highly cohesive, moderately to highly plastic clay with silt. Slight petroleum odor.
22' - 30'		10 18 25	9	25	SM	<u>Silty sand</u> : light olive grey, saturated, loose to medium density, very fine to fine, poorly graded, rounded sand, with approximately 23-30% slight cohesive silt. Moderate petroleum odor.
						Boring terminated at 30 feet. Freestanding groundwater encountered at 21 feet.

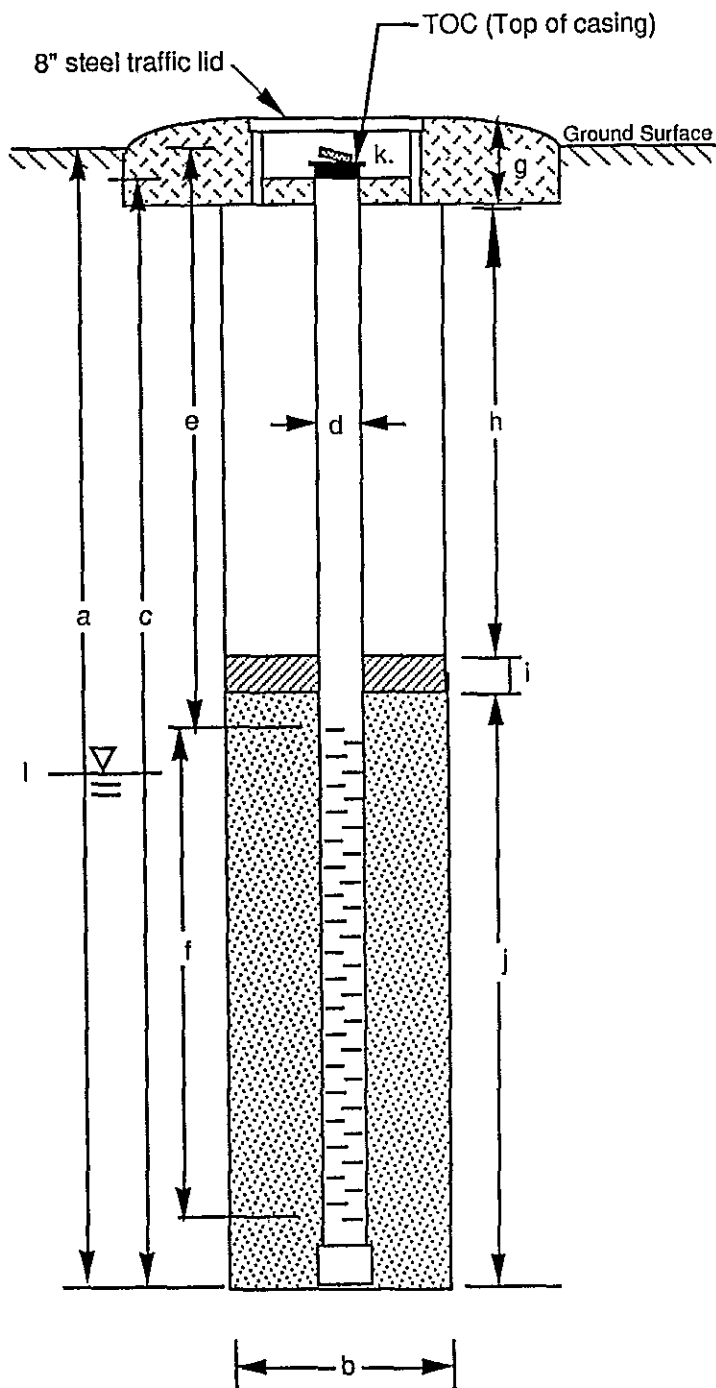
LOCATION: See testhole boring location map

EQUIPMENT: Mobile B80 drill rig with 11 inch O.D. and 6.25 I.D and 2.5 inch split spoon sampler.

NOTES: _____

WELL DETAILS

PROJECT NUMBER 238-91 BORING / WELL NO. MW3
 PROJECT NAME EZ Serve location #100877 TOP OF CASING ELEV. 101.05'
525 West A Street, Hayward, California GROUND SURFACE ELEV. NA
 LOCATION See Testhole Boring location map DATUM Temporary Bench Mark
 WELL PERMIT NO. N/A INSTALLATION DATE 1/28/92



EXPLORATORY BORING

a. Total depth 30 ft.
 b. Diameter 11 in.
 Drilling method Hollow stem auger

WELL CONSTRUCTION

c. Total casing length 30 ft.
 Material Schedule 40 PVC
 d. Diameter 4 in.
 e. Depth to top perforations 15 ft.
 f. Perforated length 14 ft.
 Perforated interval from 15 to 29 ft.
 Perforation type Slotted
 Perforation size 0.02 in.
 g. Surface seal 0.5 ft.
 Material Concrete
 h. Backfill 10.5 ft.
 Material 7 sack cement slurry with 3% bentonite
 i. Seal 3 ft.
 Material 3/8" Bentonite pellets
 j. Gravel pack 16 ft.
 Gravel pack interval from 14 to 30 ft.
 Material #3 Silica Sand
 k. Locking wellcap
 l. Depth to groundwater 21.85 ft.

01-516R

PROJECT: E-Z Serve, Loc # 100877
 525 W. "A" Street
 Hayward, California



Associated Soils Analysis
 1141 Batavia Court • Tulare, California 93274
 (209) 688-1011 • FAX (209) 688-1195

035 02W 17P22
 JOB NO.: 238-91
 DATE: 01/28/92
 BY: G. Sullivan
 ELEV.: 100.50'

BORING LOG NUMBER MW4

page 1 of 1

DEPTH	% REC	BLOW COUNTS	SAMPLE NO.	HNU METER	SOIL GROUP	SOIL DESCRIPTION
0'						0" - 2" Baserock
					SW	2" - 2' Gravelly sand: light yellowish brown, moist, medium density, very fine to very coarse, well graded, sub-rounded sand, with granules to 3 cm. No petroleum odor. (Backfill?).
					ML	2'-7' Clayey silt: Moderate yellowish brown, moist, medium density, moderately cohesive, moderately plastic silt, with moderately cohesive clay. Slight petroleum odor below 6 feet.
5'	4	16	10	5	SM	7'-14' Silty sand: Light yellowish brown, moist very fine to fine, poorly graded, rounded sand, with approximately 5-15% very slightly cohesive silt. Slight petroleum odor. Stained light olive grey from 8 feet and below.
	4	3	11	20		
		5			CH	14'-22' Clay: dark yellowish brown, moist to saturated, medium dense, highly cohesive, highly plastic clay. Locally stained medium olive grey. Slight to moderate petroleum odor.
15'	5	8	12	180		
		13				
20'	7	15	13	150	SM	22'-30' Silty sand: light olive grey, saturated, loose to medium dense, very fine to medium, well graded, sub rounded sand. Slight petroleum odor.
		18				
25'						
30'						Boring terminated at 30 feet. Freestanding groundwater encountered at 21 feet.

LOCATION: See testhole boring location map
 EQUIPMENT: Mobile B80 drill rig with 11 inch O.D. and 6.25 I.D and 2.5 inch split spoon sampler.

NOTES:

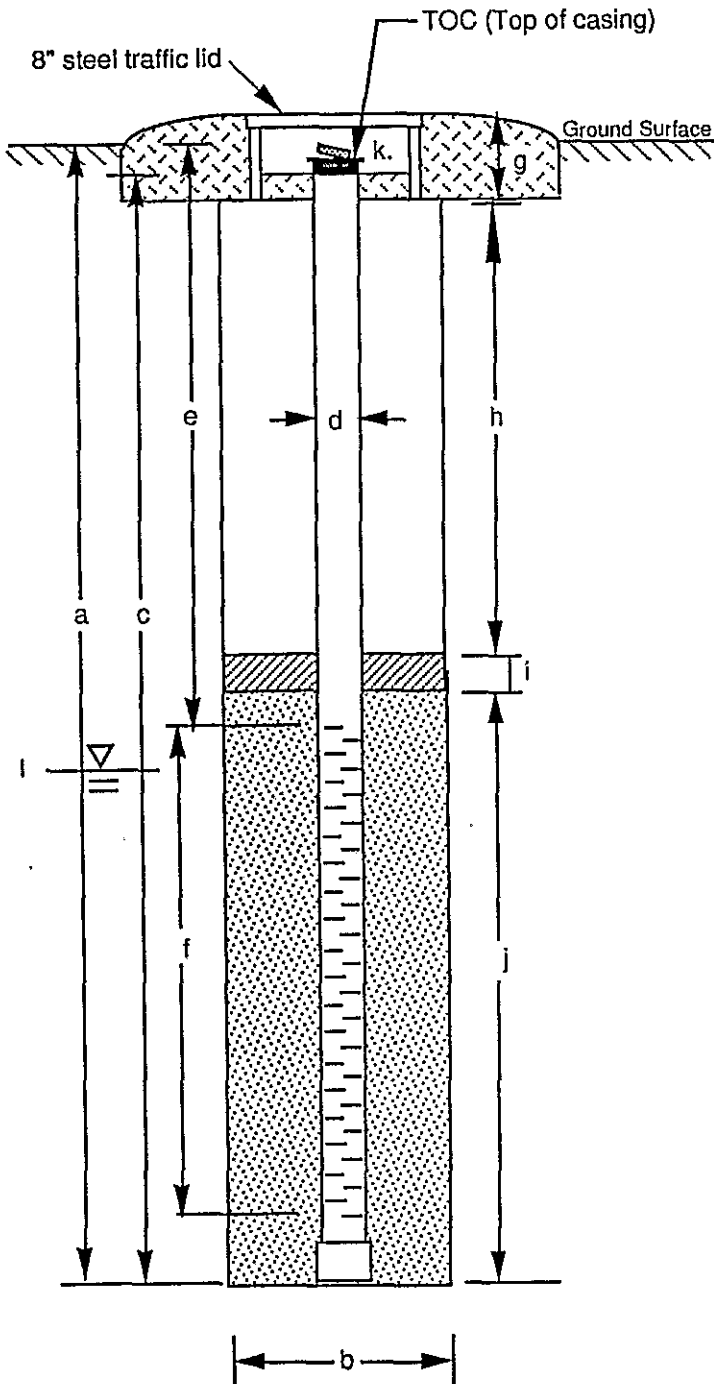
01-516F

03502W17P22

WELL DETAILS

PROJECT NUMBER 238-91
 PROJECT NAME EZ Serve location #100877
525 West A Street, Hayward, California
 LOCATION See Testhole Boring location map
 WELL PERMIT NO. N/A

BORING / WELL NO. MW4
 TOP OF CASING ELEV. 100.50'
 GROUND SURFACE ELEV. NA
 DATUM Temporary Bench Mark
 INSTALLATION DATE 1/28/92



EXPLORATORY BORING

a. Total depth 30 ft.
 b. Diameter 11 in.
 Drilling method Hollow stem auger

WELL CONSTRUCTION

c. Total casing length 30 ft.
 Material Schedule 40 PVC
 d. Diameter 4 in.
 e. Depth to top perforations 15 ft.
 f. Perforated length 14 ft.
 Perforated interval from 15 to 29 ft.
 Perforation type Slotted
 Perforation size 0.02 in.
 g. Surface seal 0.5 ft.
 Material Concrete
 h. Backfill 9.5 ft.
 Material 7 sack cement slurry with 3% bentonite
 i. Seal 3 ft.
 Material 3/8" Bentonite pellets
 J. Gravel pack 17 ft.
 Gravel pack interval from 13 to 30 ft.
 Material #3 Silica Sand
 k. Locking wellcap
 l. Depth to groundwater 21.31 ft.

PROJECT: E-Z Serve, Loc # 100877
525 W. "A" Street
Hayward, California



Associated Soils Analysis
 1141 Batavia Court • Tulare, California 93274
 (209) 688-1011 • FAX (209) 688-1195

01-5164

038 02W 17P23
 JOB NO.: 238-91
 DATE: 01/29/92
 BY: G. Sullivan
 ELEV.: 100.48'

BORING LOG NUMBER MWS

page 1 of 1

DEPTH	% BEC	BLOW COUNTS	SAMPLE NO.	HNU METER	SOIL GROUP	SOIL DESCRIPTION
0'						0" - 2" Baserock
					ML	2" - 4.5' <u>Clayey silt</u> : dark brownish grey, moist, medium dense, moderately cohesive, moderately plastic silt with clay, highly organic. No petroleum odor.
5'					ML	4.5' - 10' <u>Clayey silt</u> : Moderate yellowish brown, moist, medium to stiff, moderately cohesive, moderately plastic silt with clay. Soil is stained light olive grey below 6.5 feet. Slight petroleum odor below 6.5 feet.
10'			14	15	SM	10' - 16' <u>Silty sand</u> : light yellowish brown, moist, loose to medium dense, very fine to fine, poorly graded, rounded sand, with approximately 5-20% slightly cohesive silt. Soil is stained a light olive grey. Slight to moderate petroleum odor.
15'			15	70	CH	16' - 22' <u>Clay</u> : moderate yellowish brown, moist to very moist, stiff, moderate to highly cohesive, moderate to highly plastic clay. Slight to moderate petroleum odor. Localized staining (medium gray).
20'			16	130	SM	22' - 29' <u>Silty sand</u> : light yellowish brown, very moist to saturated, very fine to medium, well graded, sub-rounded sand with approximately 10-20% slightly cohesive silt. Slight to moderate petroleum odor, stained light olive grey.
25'					CH	29' - 30' <u>Clay</u> : moderate yellowish brown, saturated, stiff, highly cohesive, highly plastic clay. Slight petroleum odor. Stained light olive grey.
30'						Boring terminated at 30 feet. Freestanding groundwater encountered at 21 feet.

LOCATION: See testhole boring location map

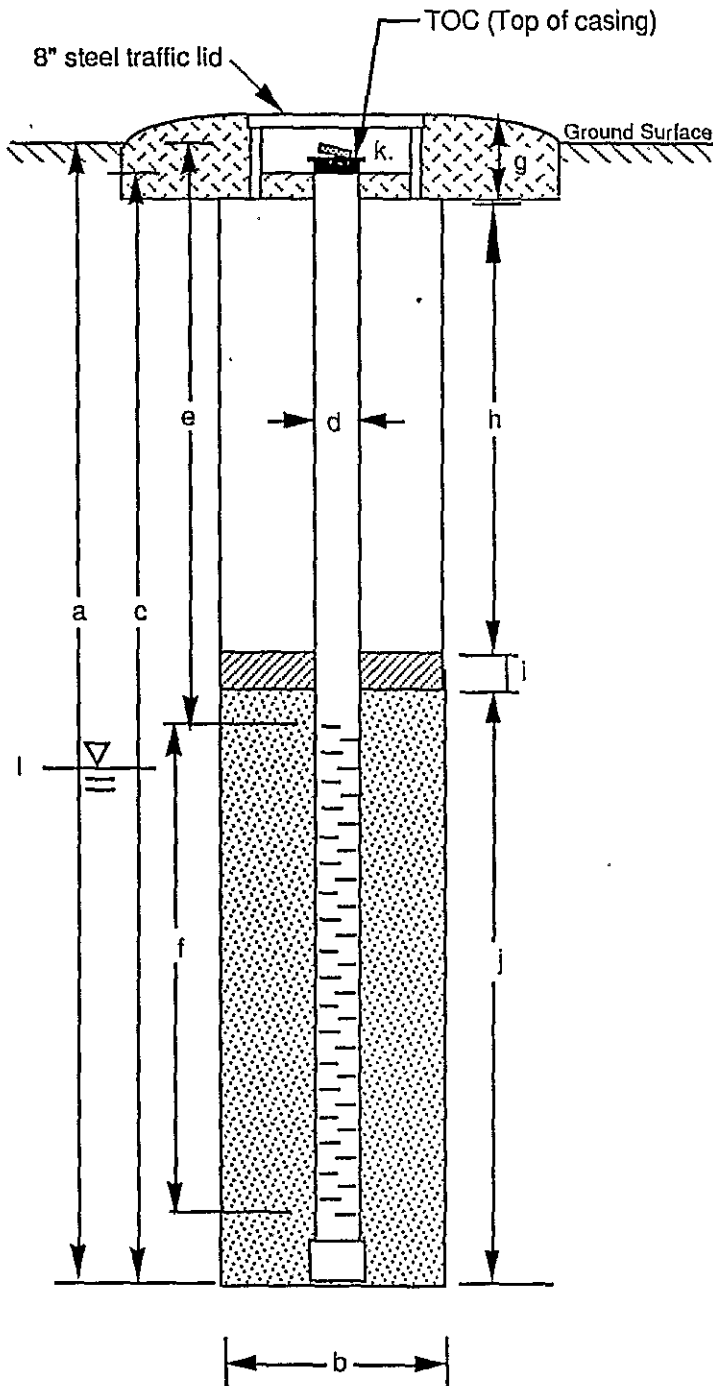
EQUIPMENT: Mobile B80 drill rig with 11 inch O.D. and 6.25 I.D and 2.5 inch split spoon sampler.

NOTES: _____

WELL DETAILS

01-5169 03582017P23

PROJECT NUMBER 238-91 BORING / WELL NO. MW5
 PROJECT NAME EZ Serve location #100877 TOP OF CASING ELEV. 100.12'
525 West A Street, Hayward, California GROUND SURFACE ELEV. NA
 LOCATION See Testhole Boring location map DATUM Temporary Bench Mark
 WELL PERMIT NO. N/A INSTALLATION DATE 1/29/92



EXPLORATORY BORING

a. Total depth 30 ft.
 b. Diameter 11 in.
 Drilling method Hollow stem auger

WELL CONSTRUCTION

c. Total casing length 30 ft.
 Material Schedule 40 PVC
 d. Diameter 4 in.
 e. Depth to top perforations 15 ft.
 f. Perforated length 14 ft.
 Perforated interval from 15 to 29 ft.
 Perforation type Slotted
 Perforation size 0.02 in.
 g. Surface seal 0.5 ft.
 Material Concrete
 h. Backfill 10.5 ft.
 Material 7 sack cement slurry with 3% bentonite
 i. Seal 3 ft.
 Material 3/8" Bentonite pellets
 j. Gravel pack 16 ft.
 Gravel pack interval from 14 to 30 ft.
 Material #3 Silica Sand
 k. Locking wellcap
 l. Depth to groundwater 20.93 ft.

PROJECT: E-Z Serve, Loc # 100877
525 W. "A" Street
Hayward, California



Associated Soils Analysis
 1141 Batavia Court • Tulare, California 93274
 (209) 688-1011 • FAX (209) 688-1195

015/64 035 02W 4724

JOB NO.: 238-91
 DATE: 01/29/92
 BY: G. Sullivan
 ELEV.: 100.97'

BORING LOG NUMBER MW6

page 1 of 1

DEPTH	% REC	BLOW COUNTS	SAMPLE NO.	HNU METER	SOIL GROUP	SOIL DESCRIPTION
0'						0" - 1" Baserock
					ML	1" - 4' <u>Clayey silt</u> : dark brownish grey, moist, medium dense to dense, moderately cohesive, moderately plastic, sity with clay. No petroleum odor.
5'					ML	4' - 10.5' <u>Clayey silt</u> : Moderate yellowish brown, moist, medium dense, slight to moderately plastic, moderate cohesive silt with clay. Stained light olive grey below 7.5 feet. Slight petroleum odor below 7.5 feet.
10'		4 7 10	17	25	SM	10.5' - 15.5' <u>Silty sand</u> : light yellowish brown, moist, loose to medium dense, very fine to fine, poorly graded, rounded sand, with approximately 15-20% slightly cohesive silt. Soil is stained a moderate olive grey. Slight to moderate petroleum odor.
15'		6 9 20	18	40	CL / CH	15.5' - 24' <u>Clay</u> : moderate yellowish brown, moist to saturated, stiff, moderate to highly cohesive, moderate to highly plastic. Slight to moderate petroleum odor. Localized petroleum staining.
20'		7 8 18	19	110	▼ ≡	
25'					SM	24' - 30' <u>Silty sand</u> : light yellowish brown, saturated, medium dense, very fine to medium, well-graded, sub-rounded to rounded sand with slight cohesive silt. Slight petroleum odor. Soil is stained light olive grey.
30'						Boring terminated at 30 feet. Freestanding groundwater encountered at 21 feet.

LOCATION: See testhole boring location map
 EQUIPMENT: Mobile B80 drill rig with 11 inch O.D. and 6.25 I.D and 2.5 inch split spoon sampler.

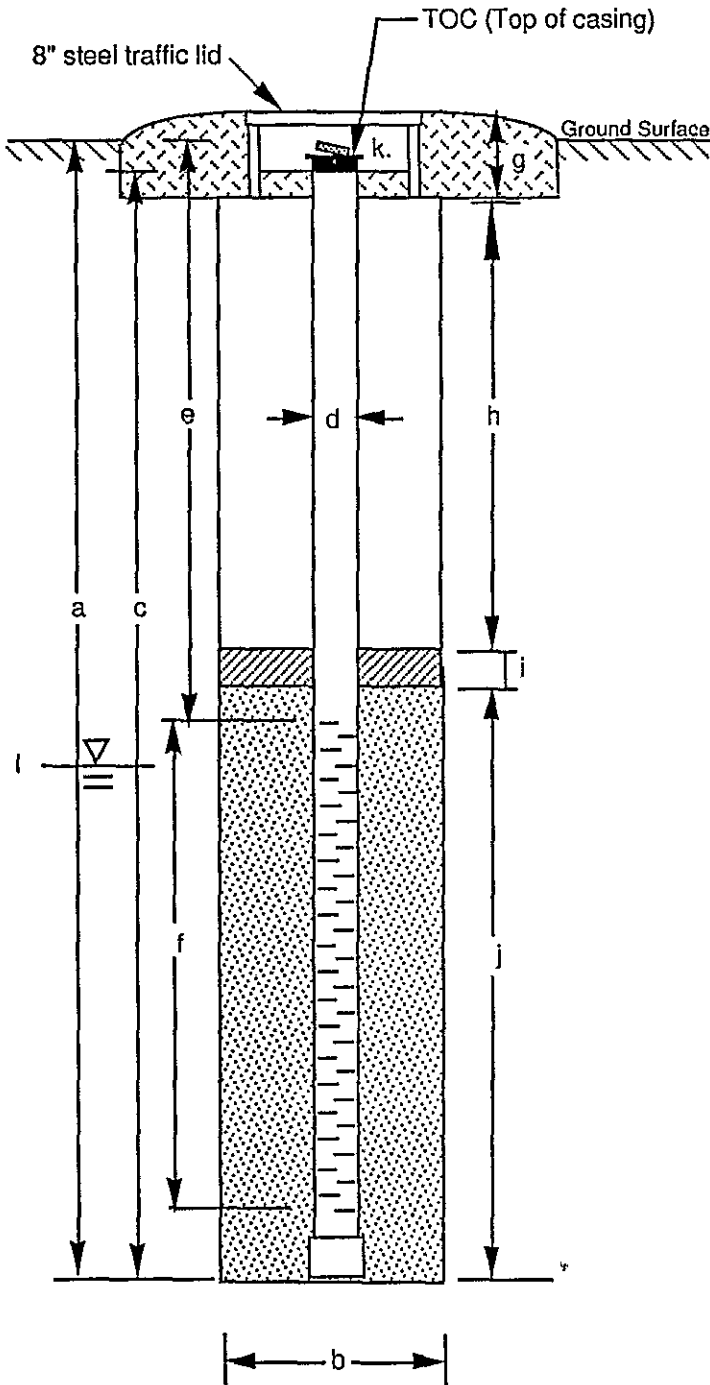
NOTES: _____

WELL DETAILS

01-5/6H 03502W 17P24

PROJECT NUMBER 238-91
 PROJECT NAME EZ Serve location #100877
525 West A Street, Hayward, California
 LOCATION See Testhole Boring location map
 WELL PERMIT NO. N/A

BORING / WELL NO. MW6
 TOP OF CASING ELEV. 100.48'
 GROUND SURFACE ELEV. NA
 DATUM Temporary Bench Mark
 INSTALLATION DATE 1/29/92



EXPLORATORY BORING

a. Total depth 30 ft.
 b. Diameter 11 in.
 Drilling method Hollow stem auger

WELL CONSTRUCTION

c. Total casing length 30 ft.
 Material Schedule 40 PVC
 d. Diameter 4 in.
 e. Depth to top perforations 15 ft.
 f. Perforated length 14 ft.
 Perforated interval from 15 to 29 ft.
 Perforation type Slotted
 Perforation size 0.02 in.
 g. Surface seal 0.5 ft.
 Material Concrete
 h. Backfill 10.5 ft.
 Material 7 sack cement slurry with 3% bentonite
 i. Seal 3 ft.
 Material 3/8" Bentonite pellets
 j. Gravel pack 16 ft.
 Gravel pack interval from 14 to 30 ft.
 Material #3 Silica Sand
 k. Locking wellcap
 l. Depth to groundwater 21.29 ft.

Alan -

Re E-Z Serve Wells

These are a bit complex - so I'll try to straighten the mess out.

The original 6 monitoring wells were installed by Canonic (consultant), and were drilled by DAVUM (1578). They were numbered as follows:

LOG #	MW #	SW #
160793	MW-1	03502W17P04
160794	MW-2	03502W17P05
160795	MW-3	03502W17P06
200104A	MW-4	03502W17P07
200104B	MW-5	03502W17P08
200104C	MW-6	03502W17P09

MW's 4, 5, and 6 were originally mislocated and assigned 035 02W 24P05, -24P06, and -24P07, respectively. They were later corrected to the above numbers.

Now, along comes Associated Soils Analysis & drills a new set of MW's 1 through 6, which you have (correctly) numbered 03502W17P19 through -17P24. The original MW-1 (now designated MW-1A) was reconstructed; how-

01-1612

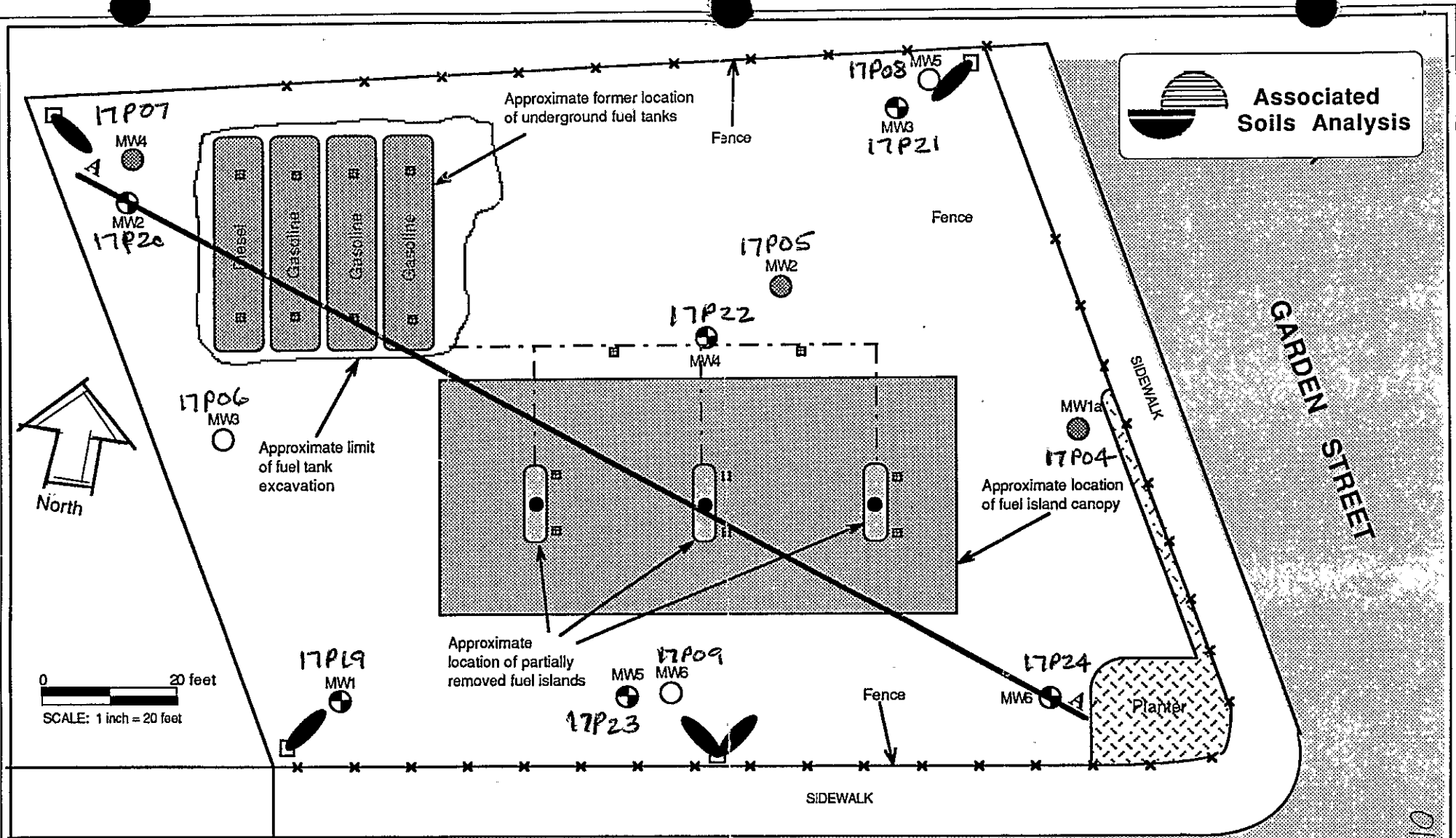
ever, no significant change was made that would alter the well's characteristics, so the SW# of 03502W17P.04 remains the same. MW's 3 and 4 (17P05 and 17P07) were properly destroyed. MW's 3, 5, and 6 (-17P06, -17P08 and -17P09) could not be located.






So - finally - the new MW's 1 through 6 are properly numbered. Reconditioned MW-1a (old MW-1) is actually -17P04, not 17P27 as you've indicated on the letter from Consolidated Testing Laboratories. Likewise, MW-2 is really 17P05 (not 17P25) and MW 4 is really 17P07 (not 17P26).

I've put the SW#s on one of the map copies & attached it for your reference. If you need further confusion - or - clarification, please give me a call.

Betty

NOV 16 1944
NOV 16 1944
NOV 16 1944



-  MW6 Approximate location of groundwater monitoring wells installed by Associated Soils Analysis, Inc. on January 28-29, 1992
-  Approximate location of soil samples collected during fuel tank removal and subsequent dispenser/line testing
-  MW4 Approximate location of groundwater monitoring wells destroyed or reconstructed by Associated Soils Analysis, Inc. on January 28, 1992
-  MW4 Approximate location of previously installed groundwater monitoring wells which were not able to be located for destruction
-  Approximate location of light standard

A — A' Line of cross section

TESTHOLE BORING LOCATION MAP

FIGURE 3

01-1512

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

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**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

REMOVED

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

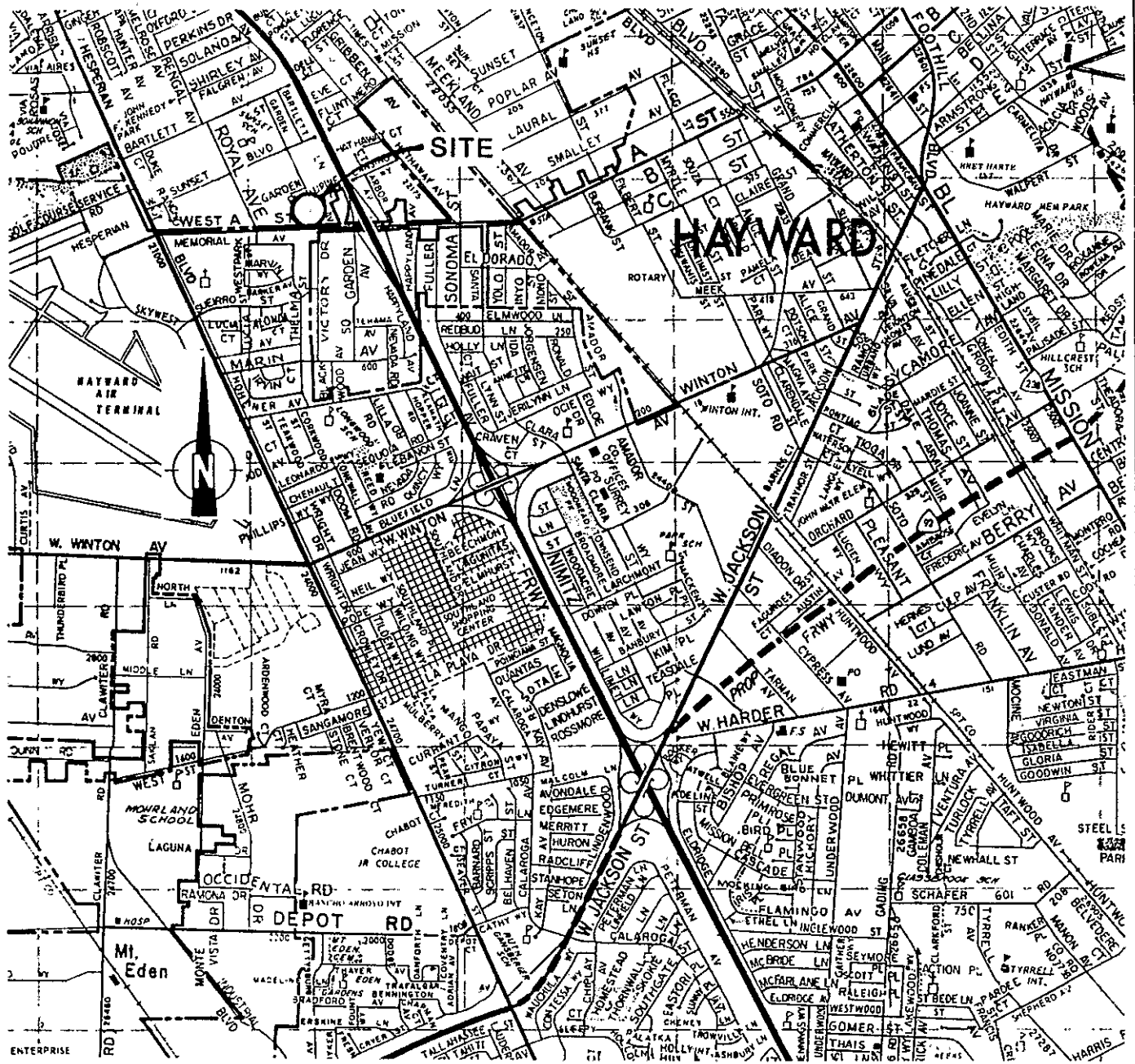
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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

87142

17
38241770
200104



Source: Thomas Brothers Maps
Alameda County, 1972



SITE LOCATION MAP

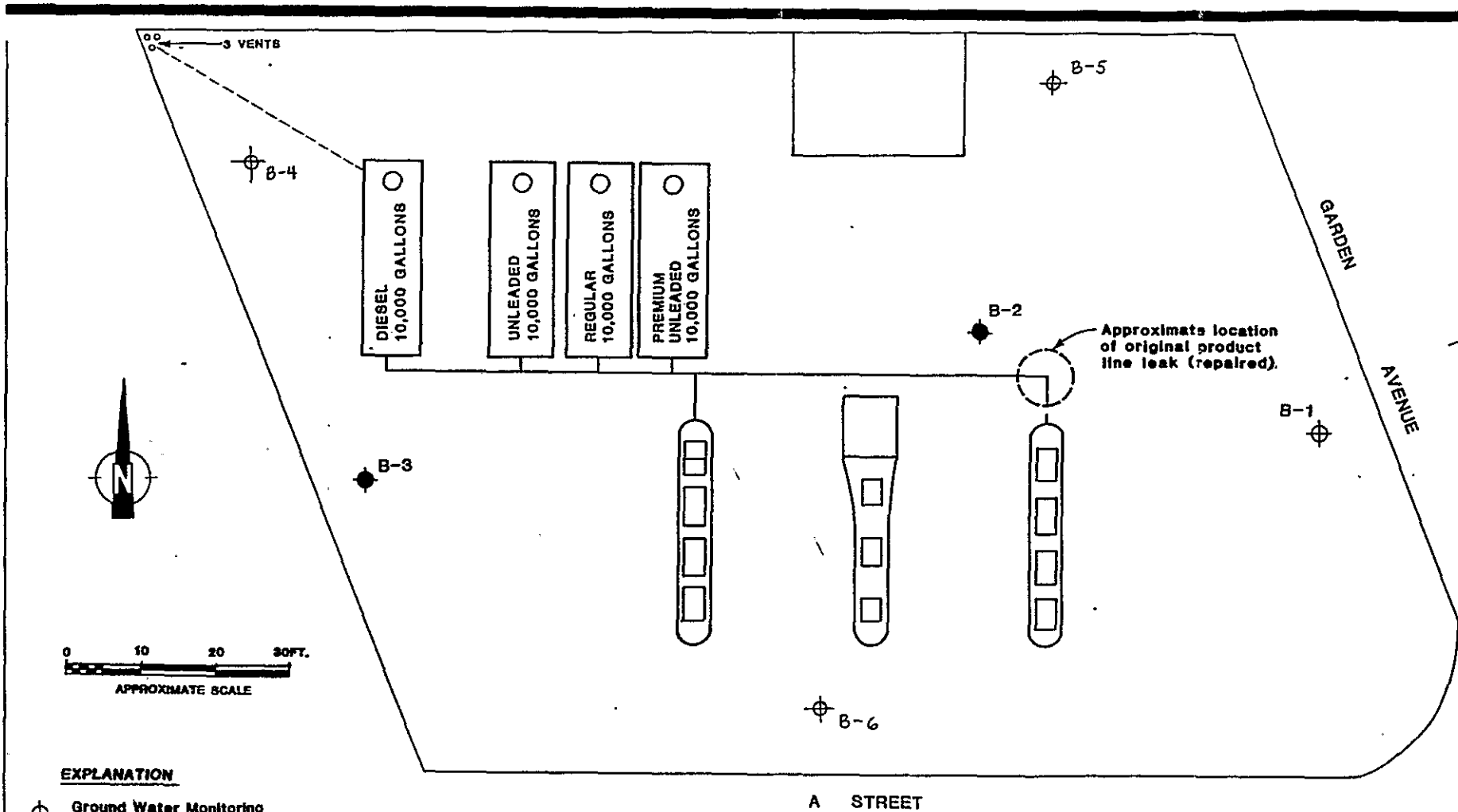
E-Z SERVE-MOBIL No. 1235
525 West A Street
Hayward, California

Scale	AS SHOWN	Project No.	86-44-361-02
Prepared by	RRS	Date	1-13-87
Checked by	JLG	Drawing No.	
Approved by			1



**Converse Environmental
Consultants California**

Consulting Engineers
and Geologists



EXPLANATION

- ⊕ Ground Water Monitoring Well 2" Diameter
- ◆ Ground Water Monitoring Well 4" Diameter
- Estimated elevation 45 feet above mean sea level.
- Estimated Water Gradient is westward direction.

E-Z SERVE OF CALIFORNIA E-Z SERVE-MOBIL No. 1235
 525 West A Street
 Hayward, California

SITE PLAN

Scale	AS SHOWN	Project No.	
Date	1-13-87	86-44-361-02	
Prepared by	RRS	Drawing No.	
Checked by	JLG		
Approved by	JDR		



Converse Environmental Consultants California

107112
 INV
 AD-
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 AD-
 3512 W 1197-9
 INV
 3512 W 1197-9
 INV
 3512 W 1197-9

200104

DATE DRILLED 6-18-87

#87142

DEPTH

m. II. SAMPLES SYMBOL

LOG OF BORING NO. : B4
 THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

200104
 TESTS
 EXP. MOISTURE
 WATER / CUI
 CONSTRUCTION
 WELL

EQUIPMENT: 8" Dia Hollow Stem Auger

DEPTH (m)	SYMBOL	ELEVATION	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION	CLASSIFICATION	TESTS
0 - 0.5						ASPHALT		
0.5 - 1.5						SILTY SAND	SM	
1.5 - 8.5			slightly moist	very stiff	dark brown	SILTY CLAY trace fine sand	CL CH	
8.5 - 9.5	D1							
9.5 - 10.5	D2		moist	stiff	brown	-- occasional thin sand (SM-SP) lense		
10.5 - 11.5								
11.5 - 12.5	D3		moist	stiff	gray	SANDY SILT fine, trace clay slight odor	ML	
12.5 - 13.5								
13.5 - 14.5			moist	stiff	mottled gray brown	SILTY CLAY odor	CL	
14.5 - 15.5								
15.5 - 16.5	P1							

E-Z SERVE MOBILE NO. 1235
 525 West A Street
 Hayward, California

Project No
 86-44-361-03



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 and Applied Sciences

Drawing No

LOG OF BORING NO. B4 P7

Total Hydrocarbons mg/kg 200104

DATE DRILLED 6-18-87

#P7192

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THE BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

DEPTH
m. ft. SAMPLES SYMBOL

ELEVATION

EQUIPMENT 8" Dia Hollow Stem Auger

CONSTRUCTION	WELL	WATER	MOISTURE	TESTS

7	P2	moist	stiff	mottled gray-brown	SILTY CLAY CL	31.0-11.97	6-18	
				gray				
25		wet	loose					
8								
9	P3	wet	medium	brown	CLAYEY SILT ML			
30					with thin sand lenses			
10					Bottom of Boring 31.0'			
35								
11								
12								
40								

E-Z SERVE MOBILE NO. 1235
525 West A Street
Hayward, California

Project No
86-44-361-03

 Converse Environmental
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and Applied Sciences

Drawing No

LOG OF BORING NO. **B5 10**

DATE DRILLED **6-18-87**

AP 7172

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

total hydrocarbons mg/kg
 water content
 20004

DEPTH
m.

SYMBOL

ELEVATION:

EQUIPMENT **8" Dia Hollow Stem Auger**

CONSTRUCTION

WELL

TESTS

7		slightly moist moist	stiff	dark brown	ASPHALT ± 2"	CL/CH	35/20-12P8		
					CLAYEY SAND, tv. rock frag. (FILL)				
					SILTY CLAY (no odor)				
8		moist	medium	gray-brown	SANDY CLAY CL				
9					- with fine sand lenses				
10		stiff	mottled gray-brown		- trace fine sand				
11									
12	PI								

E-Z SERVE MOBILE NO. 1235
 525 West A Street
 Hayward, California

Project No
 86 44-361-03



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Drawing No

DATE DRILLED 6-18-87

LOG OF BORING NO. B5P-8

Total Hydrocarbons mg/kg

200104

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THE BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

DEPTH

m. ft.

SAMPLES

SYMBOL

ELEVATION

EQUIPMENT

8" Dia Hollow Stem Auger

WELL CONSTRUCTION
 WATER TABLE
 SUCROSE CONTENT
 TESTS

7		moist	stiff	mottled gray-brown	SANDY CLAY	CL		35/20-17P8	
		very moist	stiff	mottled gray-brown	CLAYEY SILT - trace fine sand	ML			
	25	very moist	stiff	brown	CLAYEY SAND/ SANDY CLAY	SC/ CL			
8									
9	30	wet	medium		↓ increasing clay ↓			6-10	
10					Bottom of Boring 31.0'				
11	36								
12	40								

E-Z SERVE MOBILE NO. 1235
 525 West A Street
 Hayward, California

Project No
 86-44-361-03



Converse Environmental
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 and Applied Sciences

Drawing No

LOG OF BORING NO. B6 P-9

Total Hydrocarbons mg/kg
200104

DATE DRILLED 6-18-87
#P7142

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

DEPTH
m. II. SAMPLES SYMBOL

ELEVATION:

EQUIPMENT: 8" Dia Hollow Stem Auger

CONSTRUCTION	WELL	TESTS	
water	moisture	pH	

DEPTH (m)	SYMBOL	ELEVATION	MOISTURE	STIFFNESS	COLOR	DESCRIPTION	TESTS	OTHER
						ASPHALT 12"		
					yellow-brown	CLAYEY SAND (FILL) with rock fragments		
7			moist	stiff	black	SILTY CLAY	CL/CH	
7.5	D1							
8			moist	stiff	gray-brown	SANDY CLAY with fine sand lenses	CL/SC	
8.5	D2							
9								
10								
10.5	D3		moist	stiff/very stiff	mottled gray-brown	SILTY CLAY odor	CL	
11								
12	P1							

E-Z SERVE MOBILE NO. 1235
525 West A Street
Hayward, California

Project No
86-44-361-03



Geotechnical Engineering
and Applied Sciences

Drawing No

LOG OF BORING NO. B 6 P 9

Total Hydrocarbons mg/kg

DATE DRILLED 6-18-87

71X2

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF ACTUAL CONDITIONS ENCOUNTERED.

CONSTRUCTION	WELL	TESTS
		200104

DEPTH
m. II. SAMPLES SYMBOL

ELEVATION:

EQUIPMENT: 8" Dia Hollow Stem Auger

7		moist	stiff	mottled gray-brown	SILTY CLAY	CL			
25	P2	moist	stiff	gray	SILTY CLAY trace fine sand	ML			
30	P3			brown	SAND fine	SP/SM		6-18	
35					Bottom of Boring 31.0'				
11									
12									

E-Z SERVE MOBILE NO. 1235
525 West A Street
Hayward, California

Project No
86-44-361-03

 Converse Environmental
Consultants California

Geotechnical Engineering
and Applied Sciences

Drawing No

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

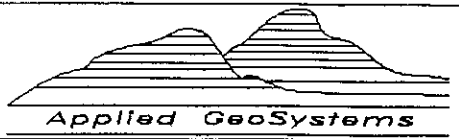
REMOVED

Total depth of boring: 41 feet Diameter of boring: 10 inches Date drilled: 2-8-90
 Casing diameter: 4 inches Length: 40 feet Slot size: 0.020-inch
 Screen diameter: 4 inches Length: 20 feet Material type: Sch 40 PVC
 Drilling Company: Kvilhaug Well Drilling, Inc. Driller: Rod
 Method Used: Hollow-Stem Auger Field Geologist: Russell Bak

Signature of Registered Professional: _____
 Registration No.: _____ State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0					Gravel and debris (2 inches).	
2				CH	Silty clay, black, damp, high plasticity, stiff.	
4		7		CL	Silty clay, with trace gravel, dark brown, damp, medium plasticity, hard.	
6	S-5	16	0.2			
		26				
8		7				
10	S-9	8	0.2		With trace sand, tan-brown, very stiff.	
12		10				
14	S-13	12	0.2		With yellow-brown staining, moist.	
		13				
16		10				
18	S-18	20	0.2			
		40				
20						

(Section continues downward)



PROJECT NO. 18075-3

LOG OF BORING B-12/MW-12
 Unocal Station No. 3791
 391 West A Street
 Hayward, California

PLATE
 B - 2

Depth	Sample No.	BLOWS	P.I.D.	USCS Code	Description	Well Const.
22	S-23	20	18	CL	Silty clay, trace gravel and sand, brown-tan with yellow-brown mottling, moist, medium plasticity, hard. Clayey silt, with trace sand, tan-brown, moist, low plasticity, hard, trace root holes. Grades to silty clay.	
24		40				
26	S-25.5	18	18.9	CL	Silty clay, trace wet sand lenses, gray-brown, moist, medium plasticity, very stiff. Very fine-grained sandy silt, gray-brown, wet.	
28		12				
30	S-28	5	168	ML	Silty clay, with trace sand, brown with yellow-brown, wet, low to medium plasticity, stiff, trace black iron nodules.	
32		6				
34	S-30.5	7	3.2	CL	Moist, very dense, trace rock fragments. Lenses of clayey silt, brown, moist, low plasticity.	
36		8				
38	S-33	10	17.2	CL	Silty clay, with trace sand, brown with yellow-brown wet, low to medium plasticity, stiff. Clayey very fine-grained sand, gray-brown, wet, dense.	
40		16				
42	S-35.5	5	0.4	SC	Silty, clayey sand, brown and yellow-brown, moist, medium plasticity, hard. Clayey sand, with silty clay lenses, brown, wet, dense.	
44		13				
46	S-38	20	7.3	CL	Silty clay, brown with yellow-brown mottling, damp to moist, medium plasticity, hard, sandy carbonaceous material.	
48		8				
50	S-40.5	4		CL	Total Depth = 41 feet.	



PROJECT NO. 18075-3

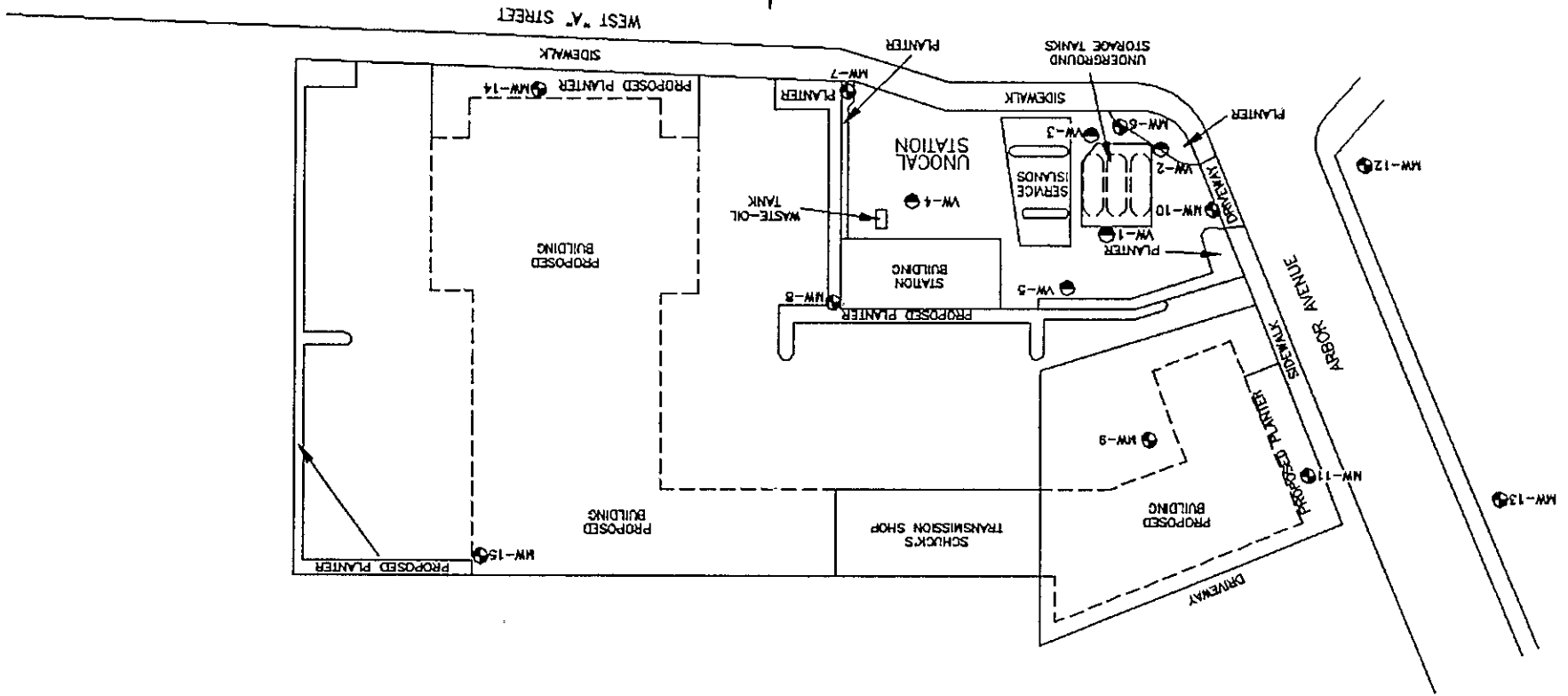
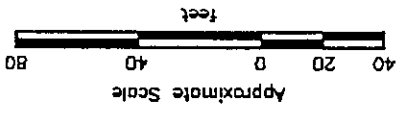
LOG OF BORING B-12/MW-12

Unocal Station No. 3791
391 West A Street
Hayward, California

PLATE

B - 62

Source: Modified from plan supplied by Unocal
 (Applied Geosystems, 1987)
 MW-5 = Vadose well
 MW-6 = Ground-water monitoring well



312820

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Total depth of boring: 40 feet Diameter of boring: 10 inches Date drilled: 2-8-90
 Casing diameter: 4 inches Length: 38 feet Slot size: 0.020-inch
 Screen diameter: 4 inches Length: 18 feet Material type: Sch 40 PVC
 Drilling Company: Kvilhaug Well Drilling, Inc. Driller: Rod
 Method Used: Hollow-Stem Auger Field Geologist: Russell Bak

Signature of Registered Professional: _____

Registration No.: _____ State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0					Backfill.	
2				CL	Silty clay, black, dry, low to medium plasticity, hard.	
4	S-4	20 50	0			
6				ML	Sandy silt, brown-red, dry, low plasticity,	
8						
10	S-9.5	13 15 18	0.2	SC	Clayey, fine- to medium-grained sand, trace gravel, brown, dry, dense.	
12						
14	S-14.5	10 12 15	0.3	CL	Silty clay, with some fine-grained sand, damp, low to medium plasticity, very stiff, with rootlets.	
16						
18						
20	S-19.5	11 15 25	0.2		Brown with yellow-brown staining.	

(Section continues downward)



PROJECT NO. 18075-3

LOG OF BORING B-13/MW-13

Unocal Station No. 3791
 391 West A Street
 Hayward, California

PLATE
 B - 4

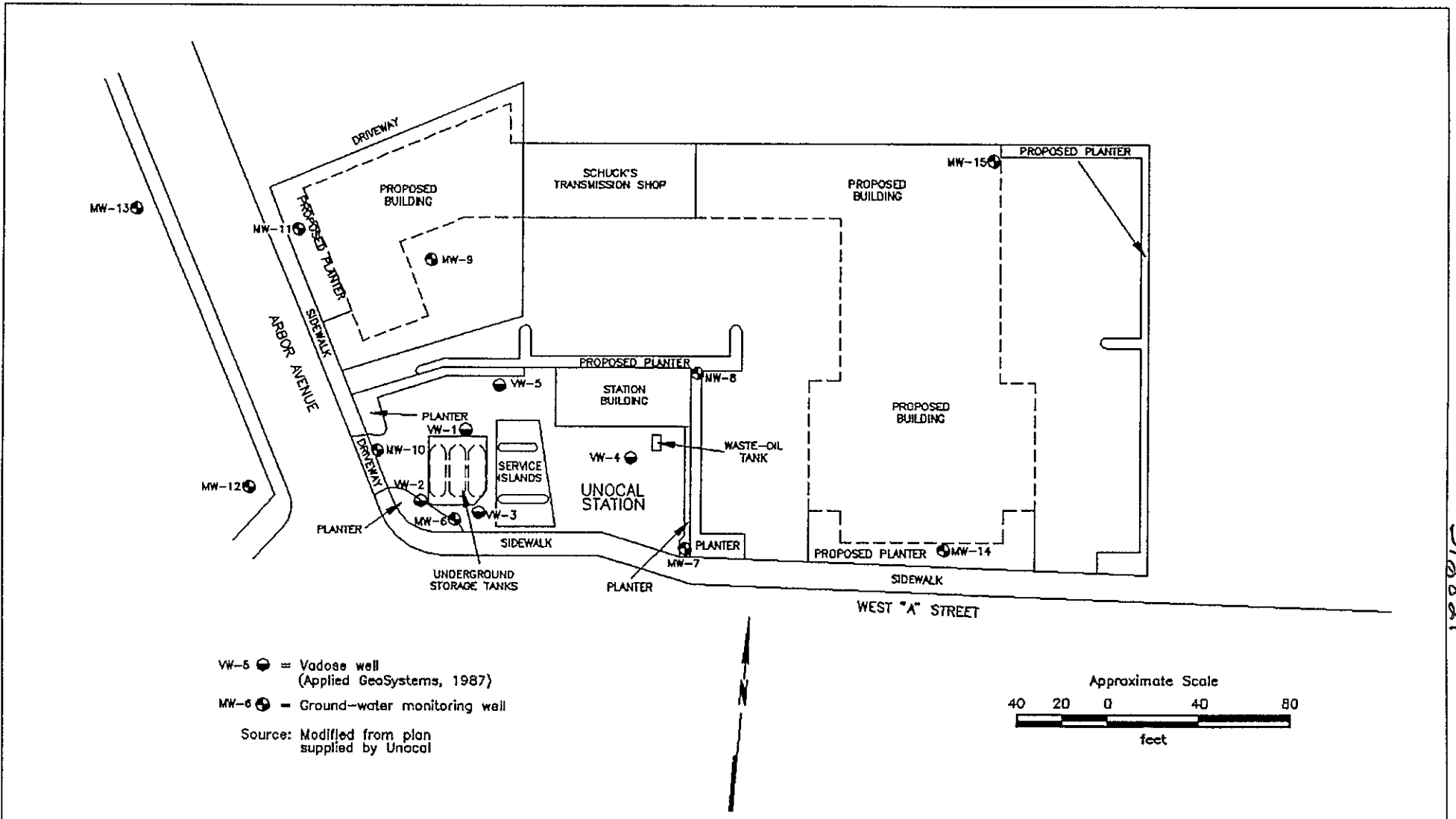
Depth	Sample No.	BLOWS	P.I.D.	USCS Code	Description	Well Const.
-22				CL	Silty clay, with some fine-grained sand, brown with yellow-brown staining, damp, low to medium plasticity, very stiff, with rootlets.	
-24		8				
		18				
	S-25	30	0.2		Brown-red, moist, hard, grades to silt.	
-26		10				
		15				
	S-27	15	0.2			
-28		8				
		16				
-30	S-29.5	10	2.1	ML CL	Clayey silt, gray-brown, wet, low plasticity, very stiff, with trace carbonaceous material.	
		5				
		7			Silty clay, light red-brown, moist, medium plasticity, very stiff.	
-32	S-32	10	54.7	ML	Clayey silt, gray, wet, low to medium plasticity, stiff.	
		5				
		10				
-34	S-34.5	20	4.5	CL	Silty clay, red-brown and gray mottled, moist, low to medium plasticity, very stiff, trace carbonaceous material.	
		4				
		8				
	S-37	12	0.6	CL	Silty clay, brown and minor gray mottling, damp, medium plasticity, stiff.	
-38						
-40	S-39.5			GW	Gravelly, fine- to medium-grained sand, gray-brown, wet.	
					Total Depth = 40 feet.	
-42						
-44						
-46						
-48						
-50						



PROJECT NO. 18075-3

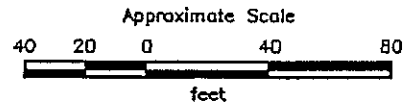
LOG OF BORING B-13/MW-13
 Unocal Station No. 3791
 391 West A Street
 Hayward, California

PLATE
 B - 5



- VW-5 ● = Vadose well
(Applied GeoSystems, 1987)
- MW-6 ● = Ground-water monitoring well

Source: Modified from plan
supplied by Unocal



312821

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Total depth of boring: 40 feet Diameter of boring: 10 inches Date drilled: 2-9-90
 Casing diameter: 4 inches Length: 40 feet Slot size: 0.020-inch
 Screen diameter: 4 inches Length: 20 feet Material type: Sch 40 PVC
 Drilling Company: Kvitthaug Well Drilling, Inc. Driller: Rod
 Method Used: Hollow-Stem Auger Field Geologist: Russell Bak

Signature of Registered Professional: _____
 Registration No.: _____ State: CA

Depth	Sample No.	USCS Code	P.I.D.	Description	Well Const.
0		CH		Slightly silty clay, black, moist, medium to high plasticity, stiff.	
2		CL		Silty clay, with some sand, brown, dry, low to medium plasticity, very stiff.	
4	S-4		0.4	Sandy, fine- to medium-grained clay, brown-yellow, low plasticity, hard.	
6					
8					
10	S-9.5		0.4	Increasing sand.	
12					
14	S-14.5		0.2	Silty clay, trace sand, brown and red, moist, medium plasticity, hard, with trace black iron staining.	
16					
18					
20	S-19.5				

(Section continues downward)



PROJECT NO. 18075-3

LOG OF BORING B-14/MW-14
 Unocal Station No. 3791
 391 West A Street
 Hayward, California

PLATE
 B - 6

Depth	Sample No.	BLOWS	P.I.D.	USCS Code	Description	Well Const.
-22				CL	Silty clay, trace sand, brown and red, moist, medium plasticity, hard, with trace black iron staining.	
-24	S-24.5	15 30 30	0.2		Brown and yellow-brown, with silt laminae.	
-26	S-27	10 20 20	0.2		With trace sand.	
-30	S-29.5	10 12 15	0.2	▽ =	Grades very stiff, with silt laminae and rootlets containing carbonaceous material.	
-32	S-32	6 12 25	0.2	ML	Clayey silt, brown, moist, low plasticity, very stiff, trace root holes, grades to silty clay.	
-34	S-34.5	7 12 12	0.2	CL	Silty clay, brown, moist, low plasticity, very stiff.	
-36	S-37	6 12 20	0.2		Dark brown, damp, medium plasticity.	
-40	S-39.5	6 15 20	0	ML	Clayey silt, trace sand, brown and red, moist, low plasticity, hard.	
					Total Depth = 40 feet.	
-42						
-44						
-46						
-48						
-50						



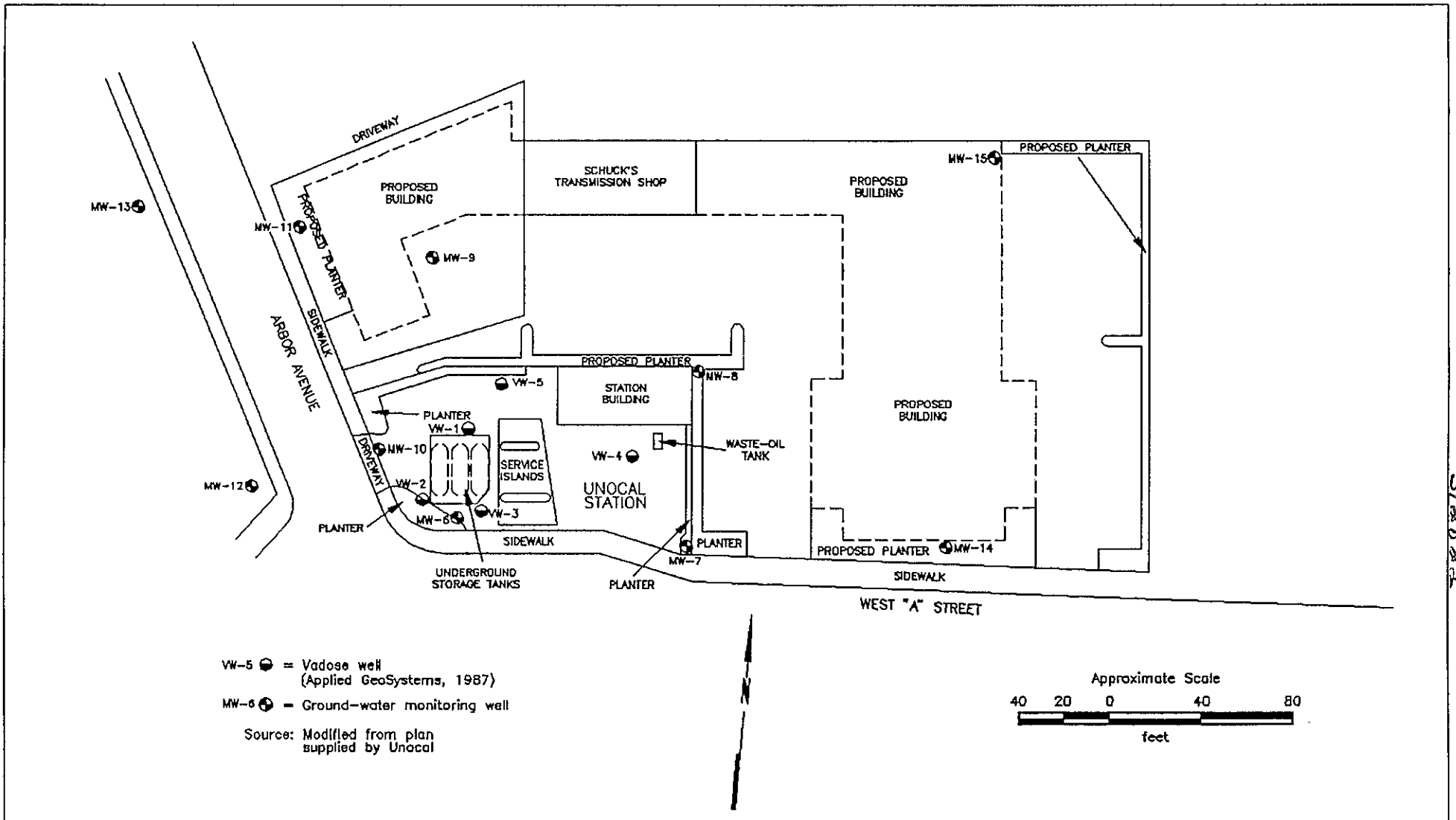
PROJECT NO. 18075-3

LOG OF BORING B-14/MW-14

Unocal Station No. 3791
391 West A Street
Hayward, California

PLATE

B - 7



VW-5 ● = Vadose well
(Applied GeoSystems, 1987)

MW-6 ● = Ground-water monitoring well

Source: Modified from plan
supplied by Unocal



PROJECT NO. 18076-2

GENERALIZED SITE PLAN
 Unocal Station No. 3791
 391 West A Street
 Hayward, California

PLATE



3/2822

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

312823

Total depth of boring: 40-1/2 feet Diameter of boring: 10 inches Date drilled: 2-12-90
 Casing diameter: 4 inches Length: 37 feet Slot size: 0.020-inch
 Screen diameter: 4 inches Length: 20 feet Material type: Sch 40 PVC
 Drilling Company: Kvilhaug Well Drilling, Inc. Driller: Rod
 Method Used: Hollow-Stem Auger Field Geologist: Russell Bak

Signature of Registered Professional: _____

Registration No.: _____ State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0				CH	Silty clay, black, moist, high plasticity, stiff.	
2				CL	Silty clay, with trace sand, red-brown, dry, low plasticity, hard.	
4	S-5	10	0.2			
		40				
6		50				
8						
10	S-10	12	0.4		Sandy clay, more sand, damp.	
		25				
12		21				
14	S-14	12	0		Brown-red.	
		30				
16		30				
18						
20	S-19.5	12	0.2		Silty clay, brown-red with yellow-brown staining, damp, medium plasticity.	
		30				
		40				

(Section continues downward)



PROJECT NO. 18075-3

LOG OF BORING B-15/MW-15
 Unocal Station No. 3791
 391 West A Street
 Hayward, California

PLATE
 B - 8

Depth	Sample No.	BLOWS	P.I.D.	USCS Code	Description	Well Const.
-22				CL	Silty clay, brown-red, damp, medium plasticity, hard, with yellow-brown staining.	
-24	S-25	10 21 12	0.4		Light red-brown, moist, trace rootlets.	
-26	S-27	10 12 14	0.2			
-28		8				
-30	S-29.5	10 12	0.2			
-32	S-32	10 15 20	0.2			
-34	S-34.5	10 10 10	0.2	∇ =	With trace coarse-grained sand, wet.	
-36	S-37	5 10 15	0.2	ML	Clayey silt, red-brown, wet, low plasticity, very stiff.	
-38		4				
-40	S-40	8 12	0	SM	Silty sand, brown, wet, medium dense, "flowing sand".	
-42					Total Depth = 40-1/2 feet.	
-44						
-46						
-48						
-50						

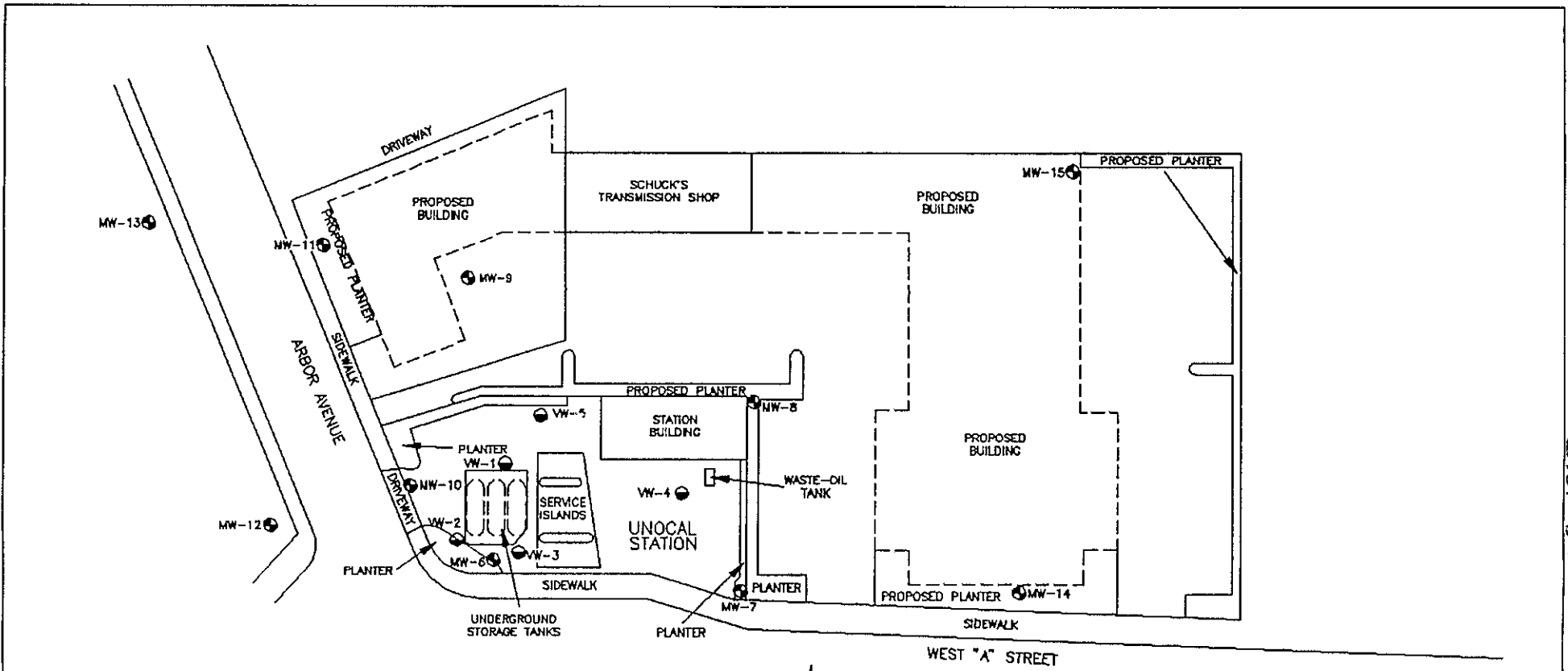


PROJECT NO. 18075-3

LOG OF BORING B-15/MW-15
 Uncal Station No. 3791
 391 West A Street
 Hayward, California

PLATE
 B - 9

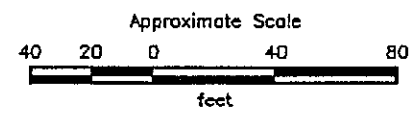
312823



VW-5 ● = Vadose well
 (Applied GeoSystems, 1987)

MW-6 ● = Ground-water monitoring well

Source: Modified from plan
 supplied by Unocal



CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

318038

3S12W 17P14

Total depth of boring: 40-1/2 feet Diameter of boring: 10 inches Date drilled: 10-16-89Casing diameter: 4 inches Length: 40 feet Slot size: 0.010-inchScreen diameter: 4 inches Length: 20 feet Material type: Sch 40 PVCDrilling Company: Kvilhaug Well Drilling Inc. Driller: Chris and PaulMethod Used: Hollow-Stem Auger Field Geologist: Steve Johnston

Signature of Registered Professional: _____

Registration No.: _____ State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0				CH	Silty clay, with trace gravel, dark brown, damp, high plasticity, very stiff.	
2						
4		10				
	S-5	24	0		Brown, hard.	
6		29		CL	Silty clay, red-brown, damp, medium plasticity, very stiff.	
8						
10		5				
	S-10	8	0			
12		12				
14		5				
	S-15	8	0		Moist.	
16		10				
18						
20		5				
	S-20	12	0		With small organic inclusions.	
		18				

(Section continues downward)



PROJECT NO. 18075-2

LOG OF BORING B-7/MW-7

Unocal Station No. 3791
391 West 'A' Street
Hayward, California

PLATE

4 - D

318038

3S/2W 17P14

Depth	Sample No.	BLOW	P.I.D.	USCS Code	Description	Well Const.
				CL	Silty clay, red-brown with small organic inclusions, moist, medium plasticity, very stiff.	
-22	S-22.5	6 9 12	0		Grades from moist to damp.	
-24		10 15			Grades siltier and moister.	
-26	S-25	8	0		Siltier, gray, medium plasticity, very stiff.	
-28	S-27.5	7 7 10	0	▽	Very fine sandy clay, olive gray, very moist.	
-30	S-30	7 8 10	0		Grades brown and wet. Grades clayier. Grades sandier, olive gray.	
-32	S-32.5	11 8 12	2.2		Grades clayier, brown. Grades siltier, very moist. Grades clayier.	
-34		5 10				
-36	S-35	20	0			
-38	S-37.5	10 12 18	0		Grades siltier.	
-40	S-40	3 6 9	0		Sandy clay.	
-42					Total Depth = 40-1/2 feet.	
-44						
-46						
-48						
-50						



Applied GeoSystems

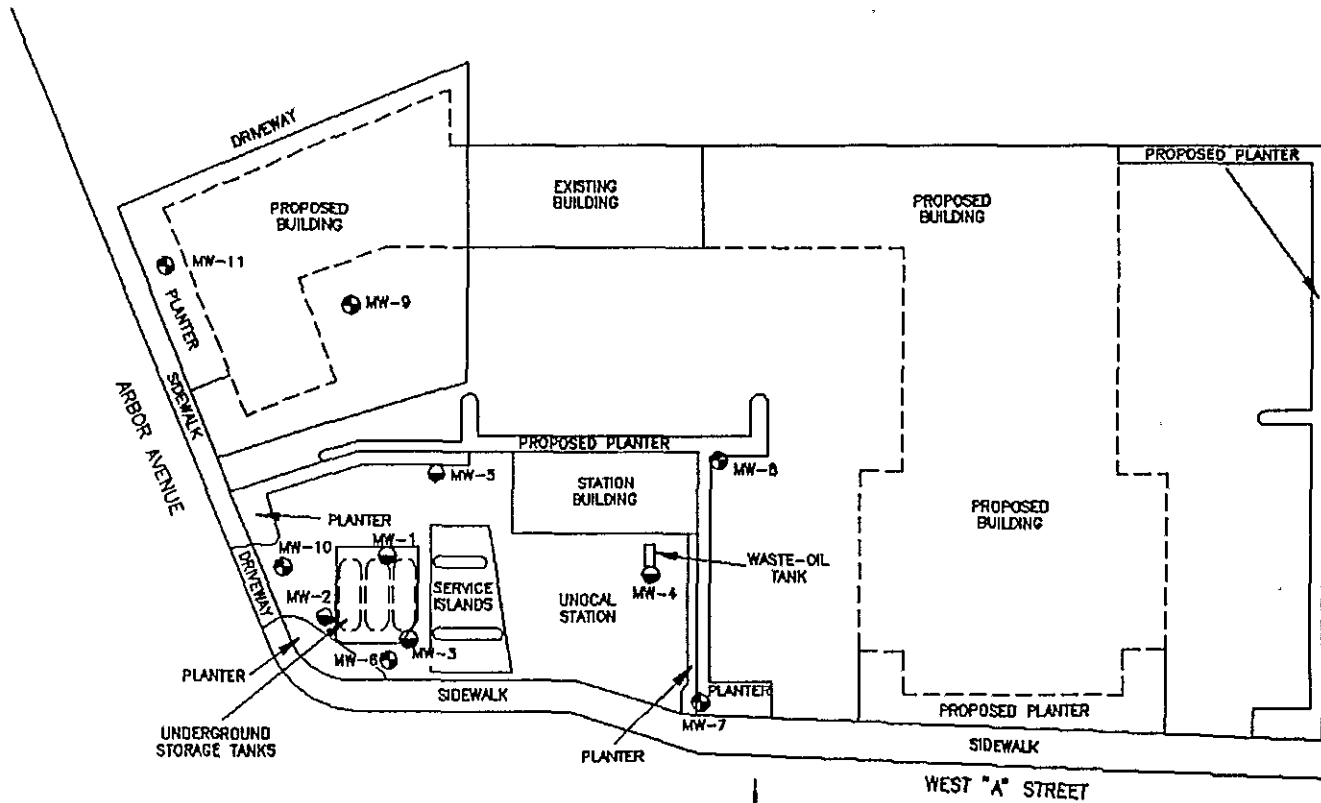
PROJECT NO. 18075-2

LOG OF BORING B-7/MW-7
 Unocal Station No. 3791
 391 West 'A' Street
 Hayward, California

PLATE
 5 - D

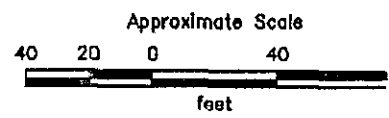
318038

35/2W 17P14



- MW-5 (with well symbol) = Existing vadose well (Applied GeoSystems, 1987)
- MW-6 (with well symbol) = Existing monitoring well (Applied GeoSystems, 1988)
- MW-11 (with well symbol) = Existing monitoring well (Applied GeoSystems, 1989)

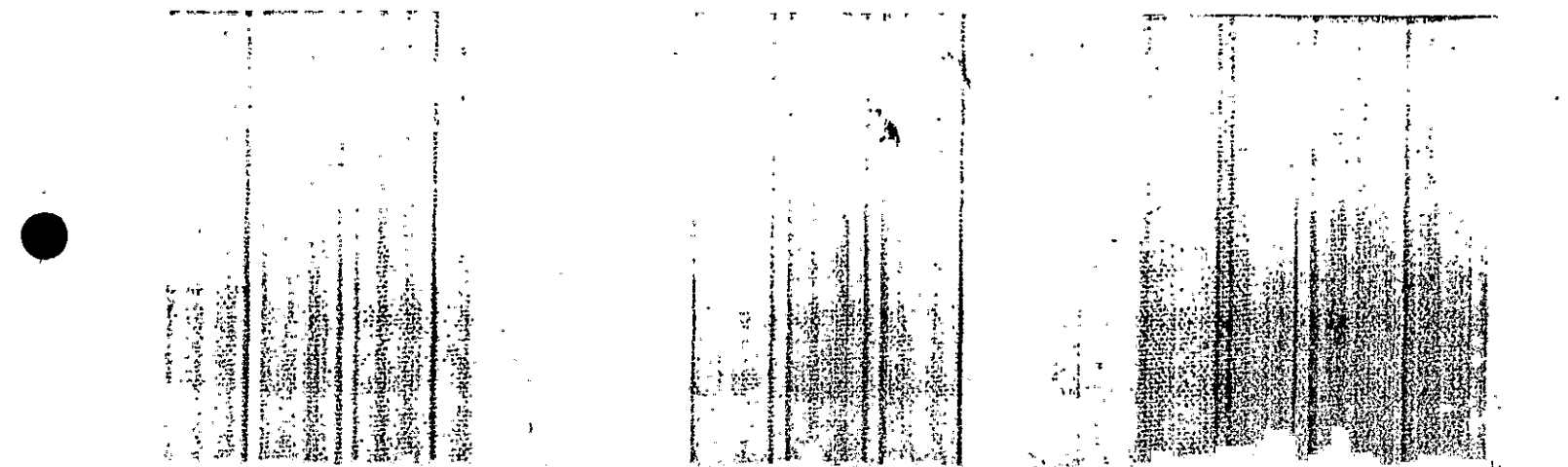
Source: Modified from plan
 supplied by Unocal
 Wells surveyed by
 Ron Ancher, Civil Engineer, Inc.



GENERALIZED SITE PLAN
 Unocal Station No. 3791
 391 West A Street
 Hayward, California

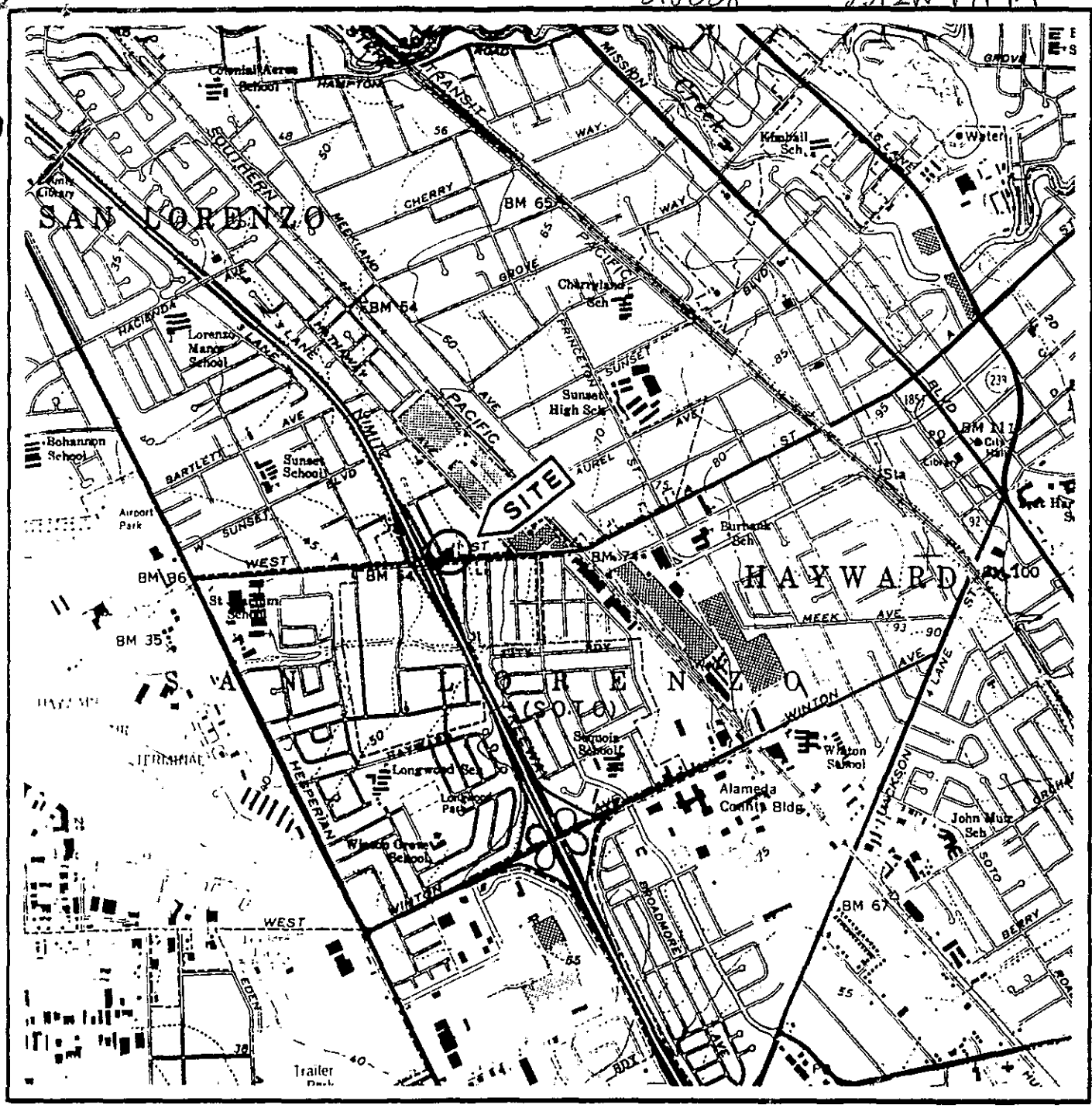
P-2

0. 18078-2

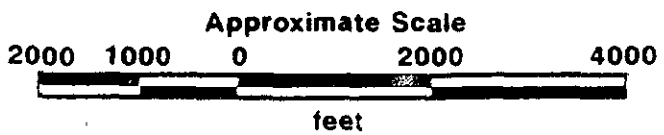


318038

35/2W 17P14



Source: U.S. Geological Survey
 7.5-Minute Quadrangle
 Hayward, California
 Photorevised 1980



PROJECT NO 18075-2

SITE VICINITY MAP
 Unocal Station No. 3791
 391 West "A" Street
 Hayward, California

PLATE
 P - 1

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

318089

3512W 17P15

Total depth of boring: 38 feet Diameter of boring: 10 inches Date drilled: 10-16-89
 Casing diameter: 4 inches Length: 35-1/2 feet Slot size: 0.010-inch
 Screen diameter: 4 inches Length: 15 feet Material type: Sch 40 PVC
 Drilling Company: Kvilhaug Well Drilling Inc. Driller: Chris and Paul
 Method Used: Hollow-Stem Auger Field Geologist: Steve Johnston
 Signature of Registered Professional: _____
 Registration No.: _____ State: CA

Depth	Sample No.	BLOWS	P.I.D.	USCS Code	Description	Well Const.
0					Gravel over blacktop (1 inch).	
2				CH	Silty clay, dark brown, damp, high plasticity, hard.	
4	S-5	10	0	CL	Silty clay, with trace very fine sand, red-brown, damp, medium plasticity, very stiff.	
		28				
6		34				
10	S-10	5	0		Grades less sand.	
		10				
12		14				
14	S-15	8	0			
		8				
16		10				
20	S-20	20	0		With small organic inclusions.	
		20				
		25				

(Section continues downward)



LOG OF BORING B-8/MW-8
 Unocal Station No. 3791
 391 West 'A' Street
 Hayward, California

PLATE
5 - D

PROJECT NO. 18075-2

Depth	Sample No.	BLOWS	P.I.D.	USCS Code	Description	Well Const.
-22				CL	Silty clay, with very fine sand, red-brown with small organic inclusions, damp, medium plasticity, very stiff.	
-24		20				
-24		20				
-26	S-25	22	0		Grades siltier.	
-28		10				
-28		12			Less silt.	
-28	S-27.5	20	0	▽	Gray-brown, wet.	
-30		10			Less silt, brown.	
-30		10				
-30	S-30	12	26		With some very fine sand, gray-brown.	
-32		6				
-32		9				
-32	S-32.5	8	0		With some coarse sand.	
-34		7				
-34		9				
-34	S-35	12	0		Brown.	
-36		10				
-36		14				
-36	S-37.5	15	0		With some very fine sand.	
-38					Total Depth = 38 feet.	
-40						
-42						
-44						
-46						
-48						
-50						



PROJECT NO. 18075-2

LOG OF BORING B-8/MW-8

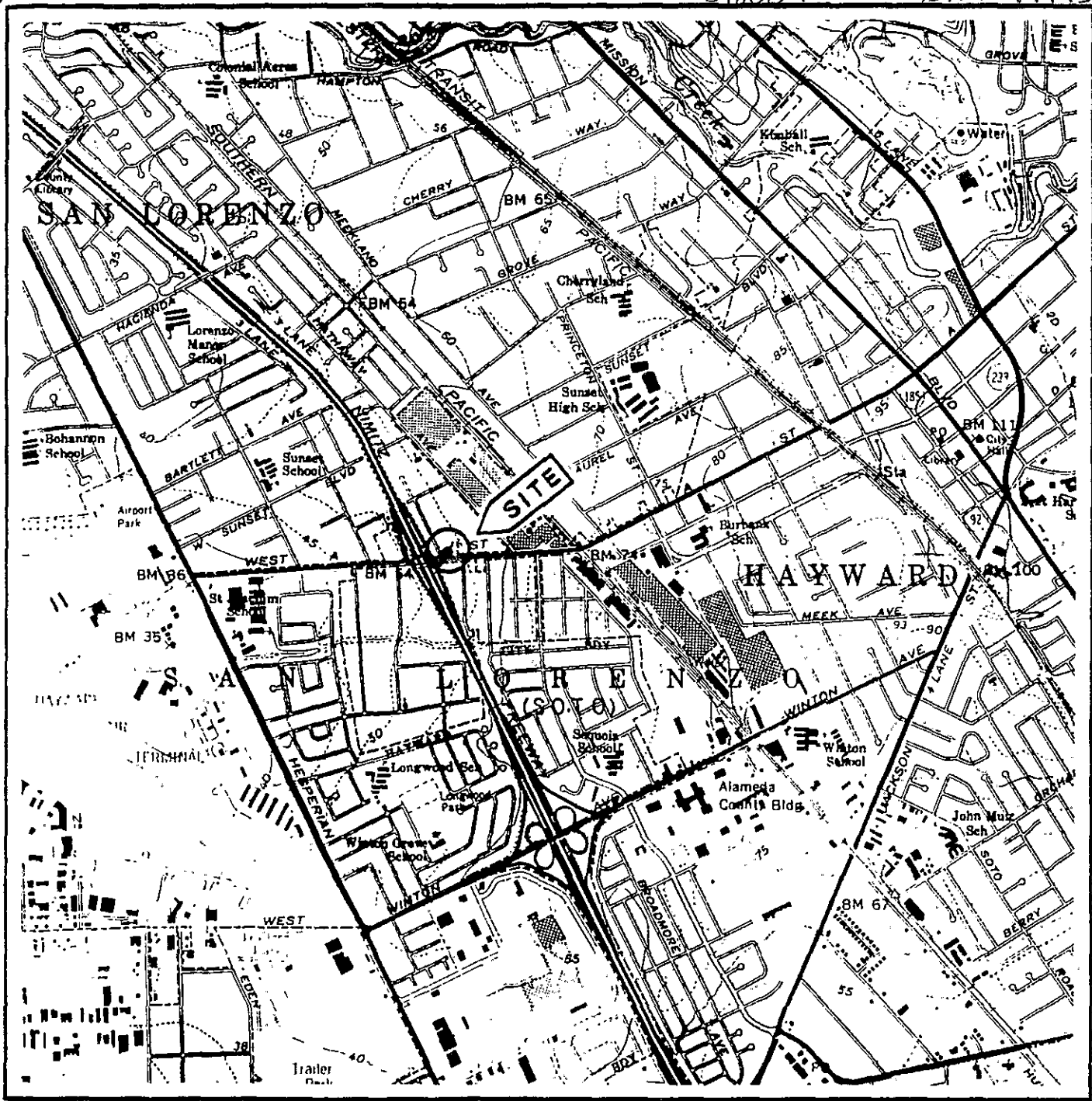
Unocal Station No. 3791
391 West 'A' Street
Hayward, California

PLATE

7 - D

318039

3512W 17P15



Source: U.S. Geological Survey
 7.5-Minute Quadrangle
 Hayward, California
 Photorevised 1980



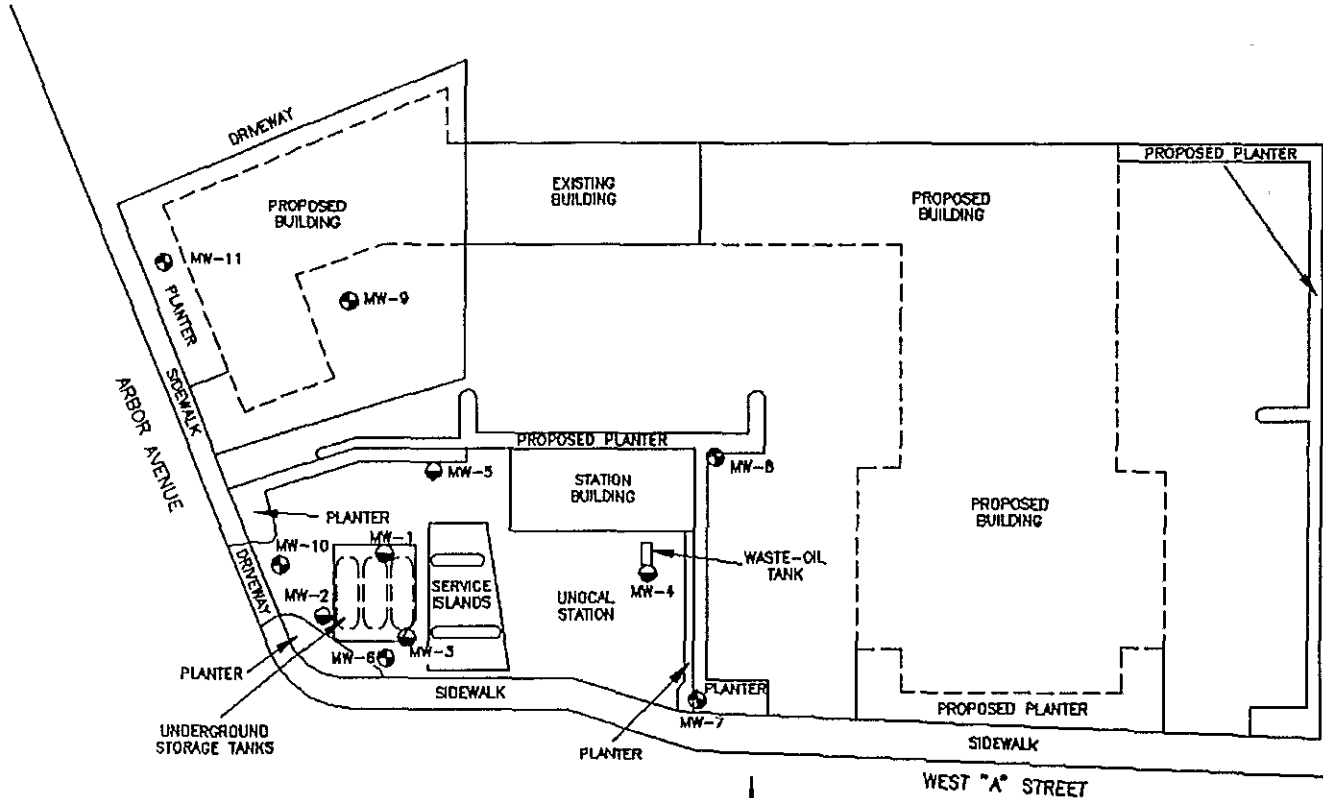
PROJECT NO 18075-2

SITE VICINITY MAP
 Unocal Station No. 3791
 391 West "A" Street
 Hayward, California

PLATE
 P - 1

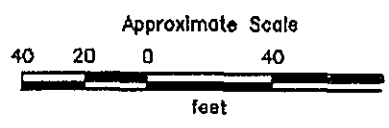
318039

35/2W 17P15



- MW-5 (⊙) = Existing vadose well (Applied GeoSystems, 1987)
- MW-6 (⊙) = Existing monitoring well (Applied GeoSystems, 1988)
- MW-11 (⊙) = Existing monitoring well (Applied GeoSystems, 1989)

Source: Modified from plan supplied by Unocal
Wells surveyed by Ron Ancher, Civil Engineer, Inc.



GENERALIZED SITE PLAN
Unocal Station No. 3701
391 West A Street
Hayward, California

P-2

J. 18075-2

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

38040

35/2W 17P10

Total depth of boring: 40-1/2 feet Diameter of boring: 10 inches Date drilled: 10-17-89

Casing diameter: 4 inches Length: 40-1/2 feet Slot size: 0.010-inch

Screen diameter: 4 inches Length: 20 feet Material type: Sch 40 PVC

Drilling Company: Kvilhaug Well Drilling Inc. Driller: Chris and Paul

Method Used: Hollow-Stem Auger Field Geologist: Steve Johnston

Signature of Registered Professional: _____

Registration No.: _____ State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0				CH	Silty clay, with trace gravel and sand, damp, high plasticity, very stiff to hard.	
2						
4	S-4,5	16 50	0		Red-brown, dry.	
6						
8				CL	Silty clay, with trace fine sand, red-brown, damp to moist, medium plasticity, very stiff.	
10	S-10	7 12 14	0			
12						
14						
16	S-15	6 6 10	0		Moist.	
18						
20	S-20	10 15 20	0		With green mottling, vertical rootlets.	

(Section continues downward)



PROJECT NO. 18075-2

LOG OF BORING B-9/MW-9

Unocal Station No. 3791
391 West 'A' Street
Hayward, California

PLATE

8 - D

Depth	Sample No.	BLOWS	P.I.D.	USCS Code	Description	Well Const.
-22				CL	Silty clay, with trace fine sand, red-brown with green-gray mottling, moist, medium plasticity, very stiff, vertical rootlets.	
-24		10				
-24		10				
-26	S-25	16	0			
-28		7				
-28		8				
-28	S-27.5	9	17	▽	Siltier, wet.	
-30		7				
-30		8				
-30	S-30	12	145		Green-gray. Brown. Gray.	
-32		7				
-32		7				
-32	S-32.5	8	0.1		With some sand, brown.	
-34		20				
-34		20				
-34	S-35	20	0.1		Less silt, moist, hard.	
-36		10				
-36		10				
-36		10			Sandy clay, red-brown, wet, very stiff.	
-38	S-37.5	30	0.1	SC	Clayey sand, red-brown, wet, dense.	
-40		7				
-40		8				
-40	S-40	20	0	CL	Silty clay, red-brown, wet, medium plasticity, very stiff to hard.	
-42					Total Depth = 40-1/2 feet.	
-44						
-46						
-48						
-50						



PROJECT NO. 18075-2

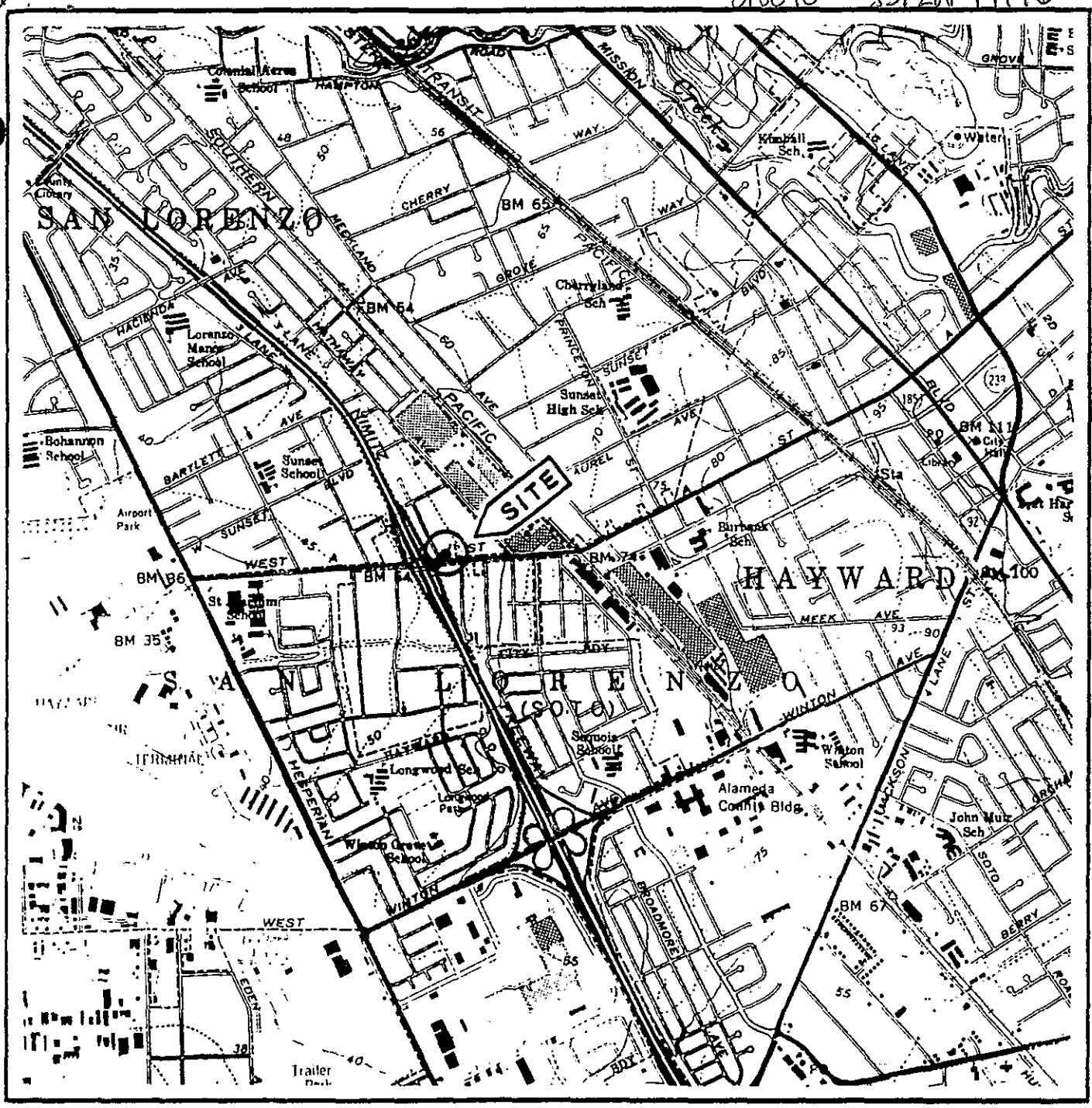
LOG OF BORING B-9/MW-9

Unocal Station No. 3791
391 West 'A' Street
Hayward, California

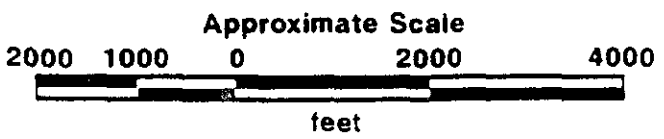
PLATE

9 - D

318040 3512W 17P16



Source: U.S. Geological Survey
 7.5-Minute Quadrangle
 Hayward, California
 Photorevised 1980

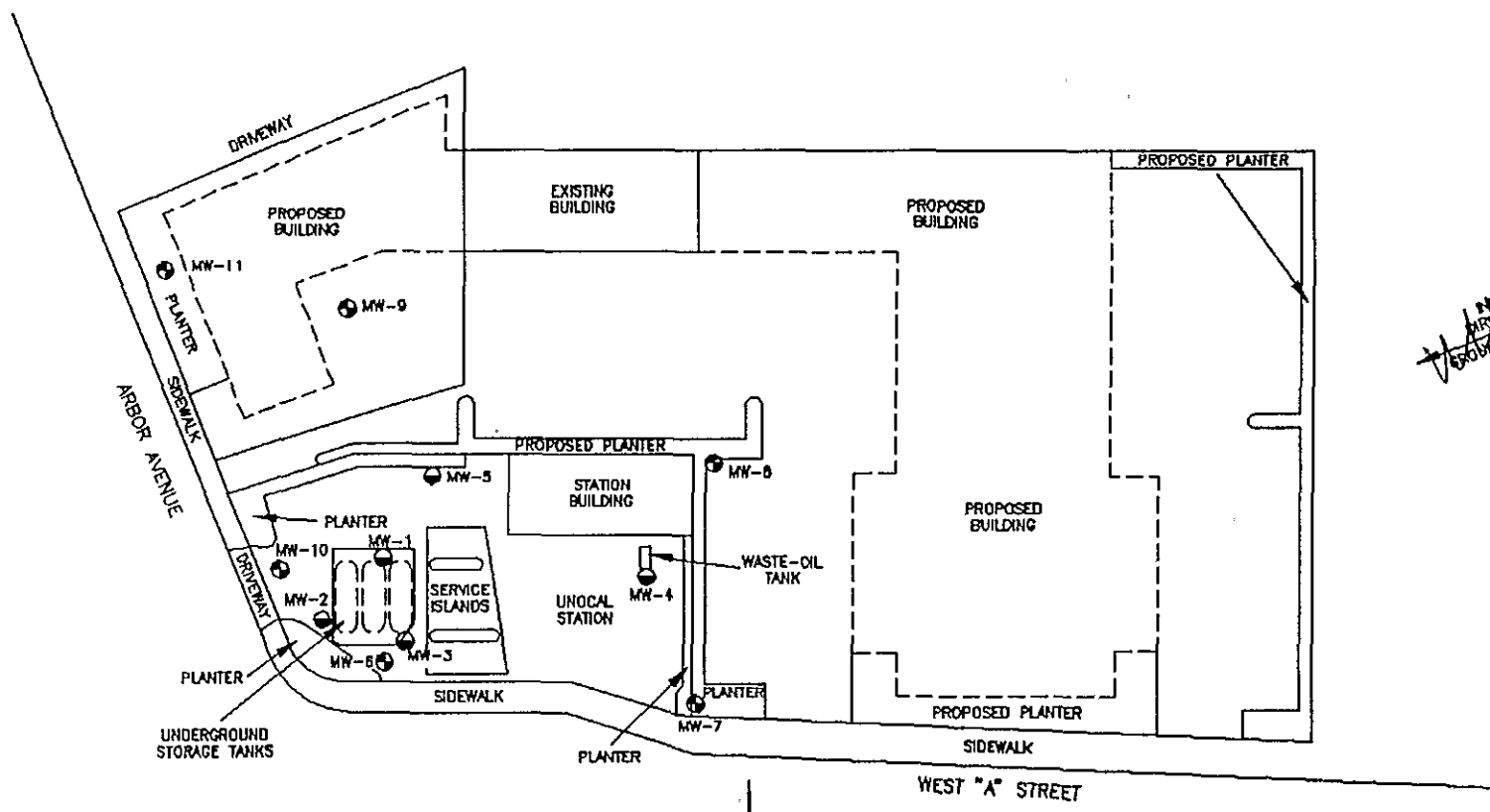


SITE VICINITY MAP
Unocal Station No. 3791
391 West "A" Street
Hayward, California

PLATE
P - 1

PROJECT NO 18075-2

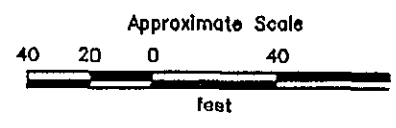
3512W 17P16
318040



Handwritten note: *1/2" = 1' (approx)*

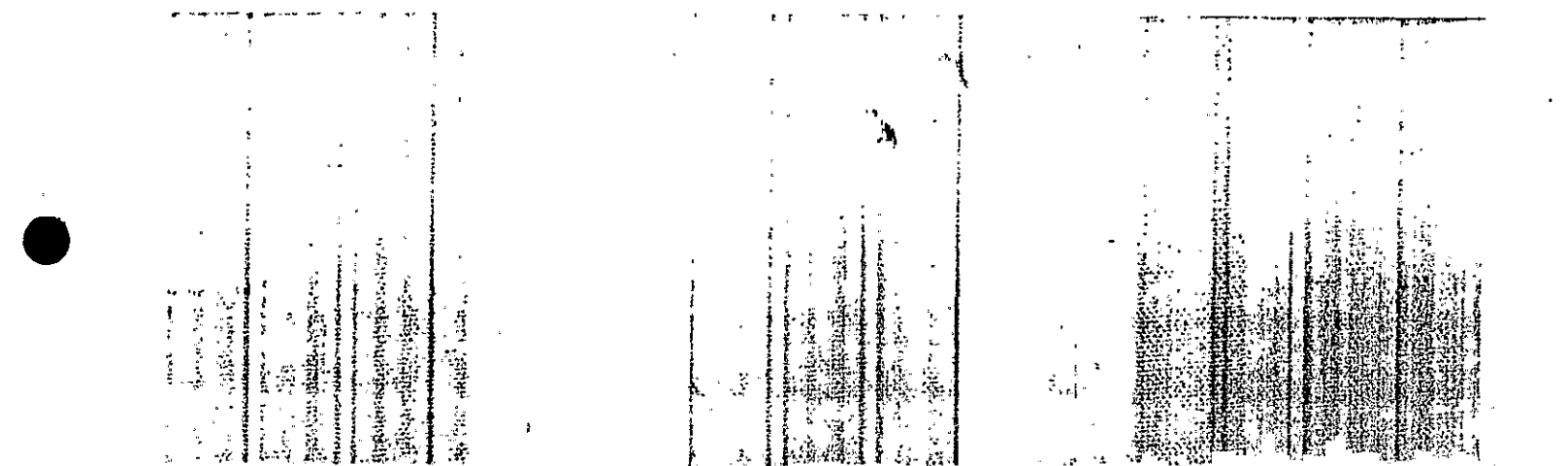
- MW-5 (with well symbol) = Existing vadose well (Applied GeoSystems, 1987)
- MW-6 (with well symbol) = Existing monitoring well (Applied GeoSystems, 1988)
- MW-11 (with well symbol) = Existing monitoring well (Applied GeoSystems, 1989)

Source: Modified from plan supplied by Unocal
wells surveyed by Ron Ancher, Civil Engineer, Inc.



GENERALIZED SITE PLAN
Unocal Station No. 3791
391 West A Street
Hayward, California

P-2



CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

318041

3512W 17P17

Total depth of boring: 40 feet Diameter of boring: 10 inches Date drilled: 10-17-89Casing diameter: 4 inches Length: 40 feet Slot size: 0.010-inchScreen diameter: 4 inches Length: 20 feet Material type: Sch 40 PVCDrilling Company: Kvilhaug Well Drilling Inc. Driller: Chris and PaulMethod Used: Hollow-Stem Auger Field Geologist: Steve Johnston

Signature of Registered Professional: _____

Registration No.: _____ State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0					Asphalt.	
2					Baserock.	
4	S-4.5	12 20 21	0	CH	Silty clay, with coarse sand, dark brown, damp, high plasticity, hard.	
6						
8						
10	S-9.5	8 12 14	0		Grades to sandy clay, red-brown.	
12						
14	S-14.5	5 5 10	0	CL	Silty clay, brown, damp, medium plasticity, stiff.	
16						
18						
20	S-19.5	10 18 20	8.8		With green-gray mottling.	

(Section continues downward)



PROJECT NO. 18075-2

LOG OF BORING B-10/MW-10

Unocal Station No. 3791
391 West 'A' Street
Hayward, California

PLATE

10 - D

Depth	Sample No.	BLOWS	P.I.D.	USCS Code	Description	Well Const.
-22				CL	Silty clay, brown, with green-gray mottling, damp, medium plasticity, stiff.	
-24	S-24.5	10 15 28	287		Brown with occasional very thin horizontal green layers, moist.	
-26	S-27	10 10 12	95.7	▽ =	Very fine sandy clay, gray-brown with green mottling, wet, very stiff.	
-30	S-29.5	5 5 10	280		Grades less sandy, more silty.	
-32	S-32	10 15 26	10.0		Silty clay, brown, very moist, hard.	
-34	S-34.5	7 7 7	31		Red-brown with green mottling, stiff.	
-36	S-37	15 15 15	1.8	SC	Clayey fine sand, brown, wet, dense.	
-38		10		CL	Very fine sandy clay, brown, very moist, medium plasticity, very stiff.	
-40	S-39.5	12 15	2.2		Grades to silty clay.	
					Total Depth = 40 feet.	
-42						
-44						
-46						
-48						
-50						



LOG OF BORING B-10/MW-10

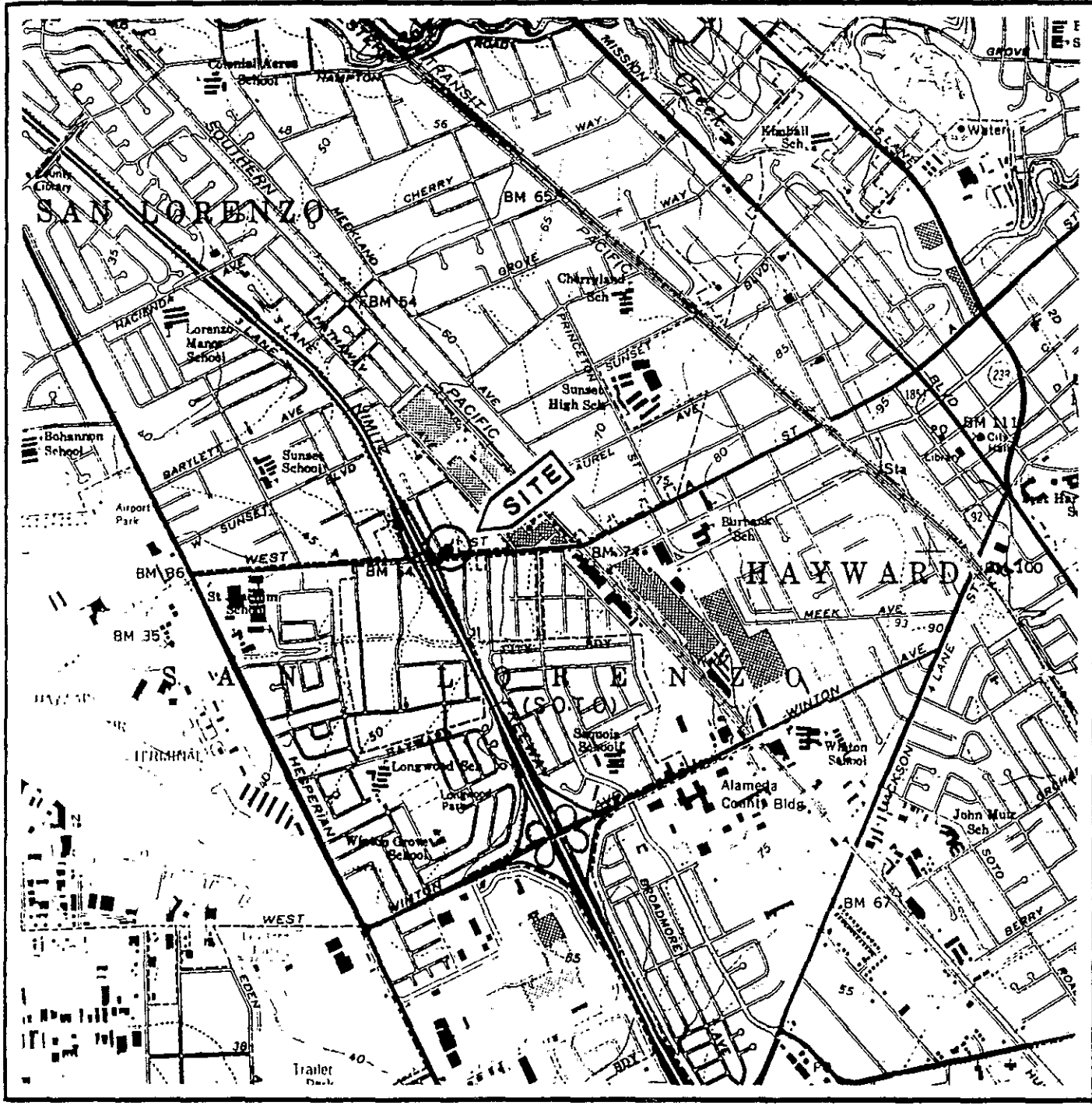
Unocal Station No. 3791
391 West 'A' Street
Hayward, California

PLATE

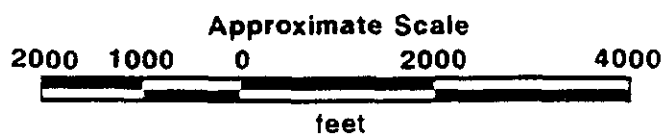
11 - D

PROJECT NO. 18075-2

31804 25/2W 17P17



Source: U.S. Geological Survey
 7.5-Minute Quadrangle
 Hayward, California
 Photorevised 1980

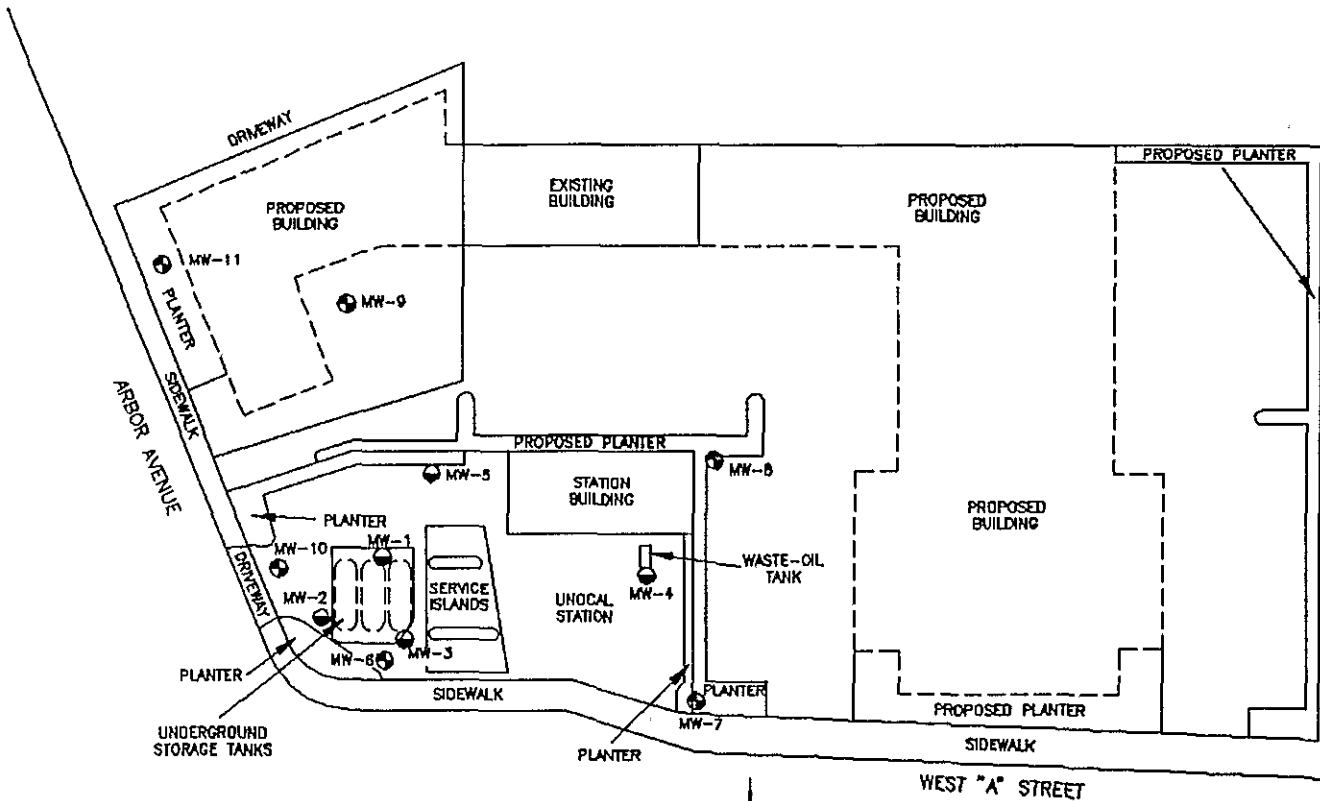


PROJECT NO 18075-2

SITE VICINITY MAP
 Unocal Station No. 3791
 391 West "A" Street
 Hayward, California

PLATE
 P - 1

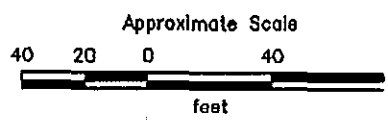
3512W 17P17
31804H



Handwritten note: 1/2" = 10' SCALE

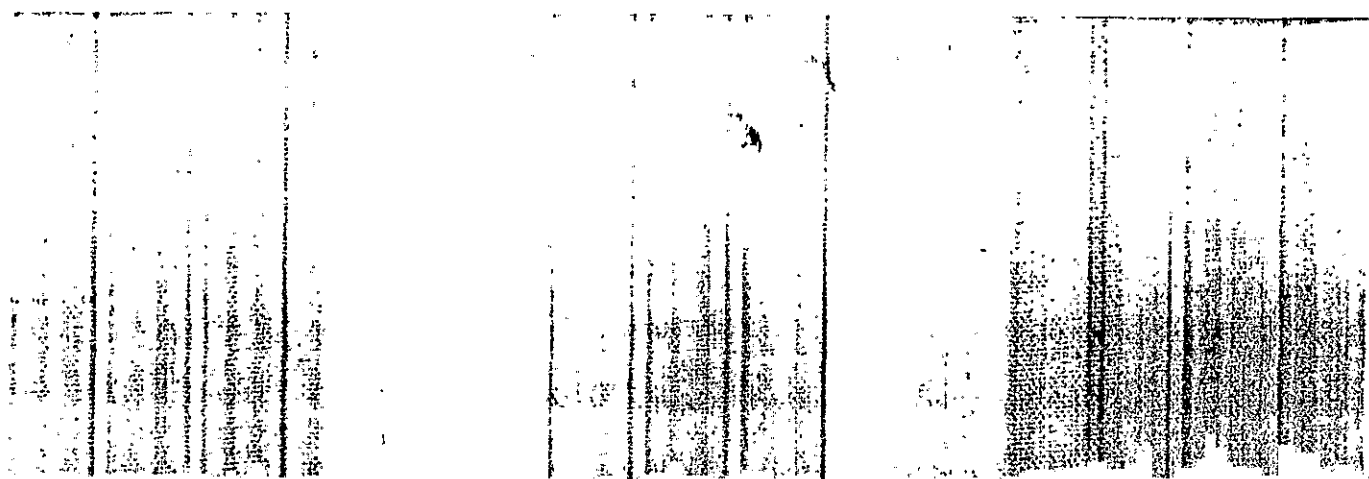
- MW-5 (circle with dot) = Existing vadose well (Applied GeoSystems, 1987)
- MW-6 (circle with dot) = Existing monitoring well (Applied GeoSystems, 1988)
- MW-11 (circle with dot) = Existing monitoring well (Applied GeoSystems, 1989)

Source: Modified from plan supplied by Unocal
Wells surveyed by Ron Ancher, Civil Engineer, Inc.



GENERALIZED SITE PLAN
Unocal Station No. 3791
391 West A Street
Hayward, California

P-2



CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

318042

35/2W 17P18

Total depth of boring: 40-1/2 feet Diameter of boring: 10 inches Date drilled: 10-18-89
 Casing diameter: 4 inches Length: 40 feet Slot size: 0.020-inch
 Screen diameter: 4 inches Length: 20 feet Material type: Sch 40 PVC
 Drilling Company: Kvilhaug Well Drilling Inc. Driller: Chris and Paul
 Method Used: Hollow-Stem Auger Field Geologist: Steve Johnston
 Signature of Registered Professional: _____
 Registration No.: _____ State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0				CH	Silty clay, dark brown, dry to damp, high plasticity, hard.	
4	S-4.5	50 50	0		Grades to red-brown.	
8				CL	Very fine sandy clay, red-brown, dry, medium plasticity, hard.	
10	S-10	12 17 18	0			
14	S-15	15 15 15	0		Silty clay, light brown, very stiff.	
20	S-20	17 23 27	0		With black organic inclusions and green mottling, damp, hard.	

(Section continues downward)



PROJECT NO. 18075-2

LOG OF BORING B-11/MW-11
 Unocal Station No. 3791
 391 West 'A' Street
 Hayward, California

PLATE

12 - D

Depth	Sample No.	LOG	P.I.D.	USCS Code	Description	Well Const.
-22				CL	Silty clay, red-brown with black organic inclusions and green mottling, damp, medium plasticity, hard.	
-24						
-26	S-25	10 10 10	4.0		Green-gray, very stiff.	
-28	S-27.5	7 7 7	1.2	▽ ML	Brown. Very fine sandy silt, wet, medium plasticity, stiff.	
-30	S-30	6 6 7	15	CL	Very silty clay with trace very fine sand, gray-brown, wet, medium plasticity, stiff. Grades siltier.	
-32						
-34	S-32.5	6 6 7	2.2		Very fine sandy clay, brown.	
-36	S-35	7 8 9	1.2		Silty clay, red-brown, very moist, very stiff.	
-38	S-37.5	6 8 10	1.4			
-40	S-40		0		Very fine sandy clay, dense.	
-42					Total Depth = 40-1/2 feet.	
-44						
-46						
-48						
-50						



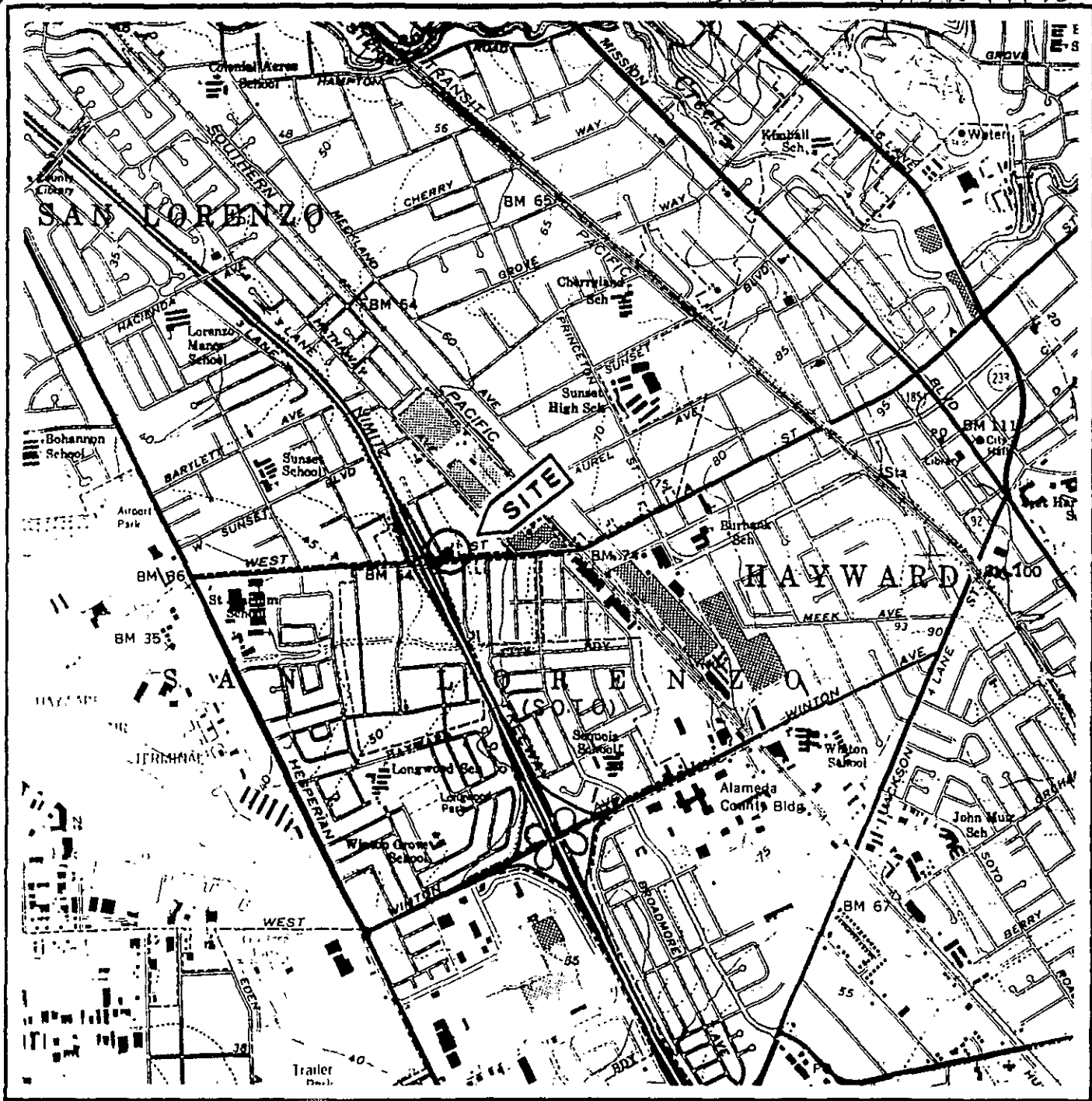
LOG OF BORING B-11/MW-11

Unocal Station No. 3791
391 West 'A' Street
Hayward, California

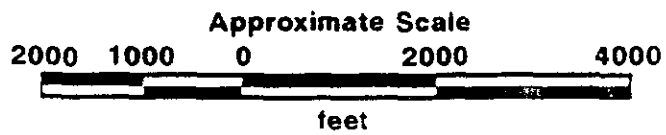
PLATE

13 - D

318042 2517W 17P18



Source: U.S. Geological Survey
 7.5-Minute Quadrangle
 Hayward, California
 Photorevised 1980

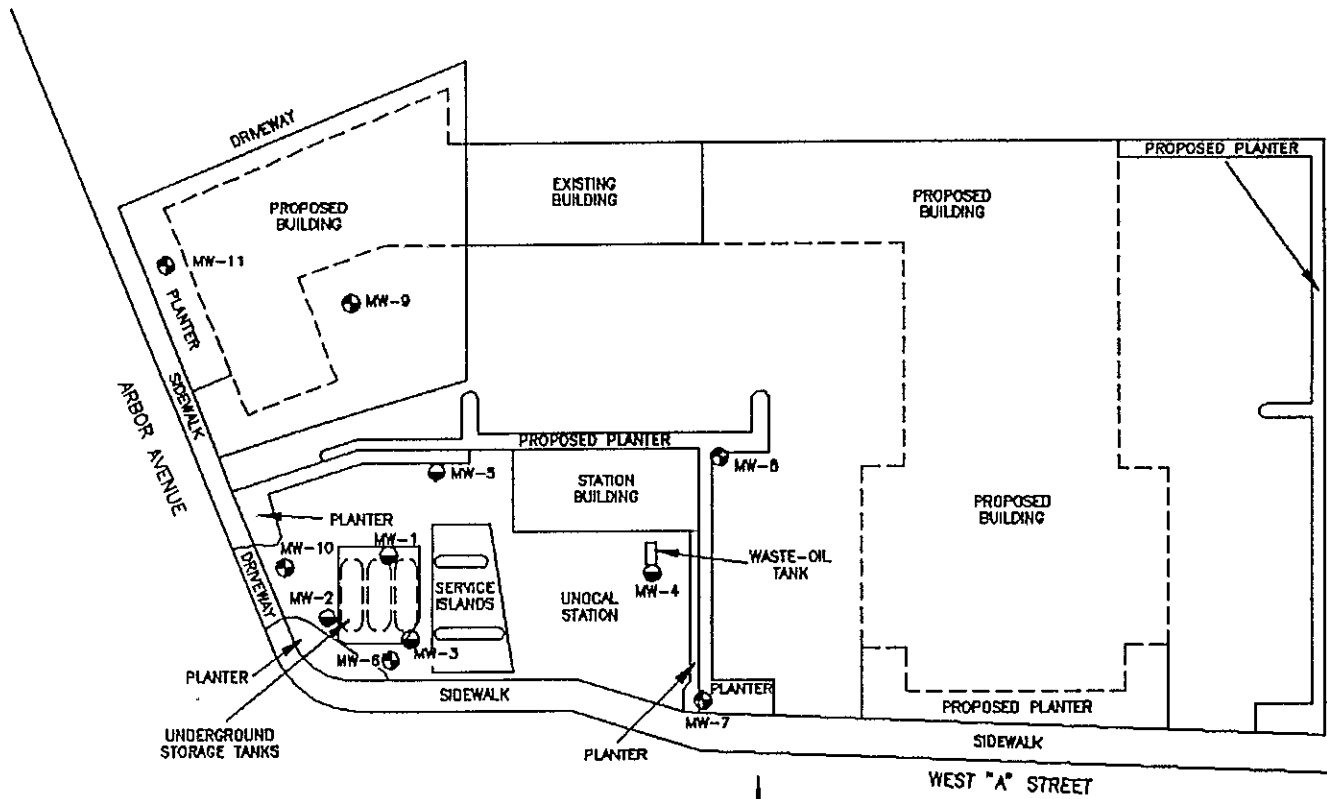


PROJECT NO 18075-2

SITE VICINITY MAP
 Unocal Station No. 3791
 391 West "A" Street
 Hayward, California

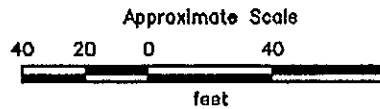
PLATE
 P - 1

35/2W 17P18
318042



- MW-5 ● = Existing vadose well (Applied GeoSystems, 1987)
- MW-6 ● = Existing monitoring well (Applied GeoSystems, 1988)
- MW-11 ● = Existing monitoring well (Applied GeoSystems, 1989)

Source: Modified from plan supplied by Unocal
Wells surveyed by Ron Ancher, Civil Engineer, Inc.



GENERALIZED SITE PLAN
Unocal Station No. 3701
391 West A Street
Hayward, California

P-2

0. 18078-2

SOUTH ALAMEDA
COUNTY INVESTIGATION

WELL LOG

NUMBER: 321791

LOCAL DESIGNATION: _____

LOCATION: Hayward, California 01-1513

OWNER: The Union Ice Company

DATE COMPLETED: April, 1941

DIAMETER OF CASING: 10" - 12 ga.

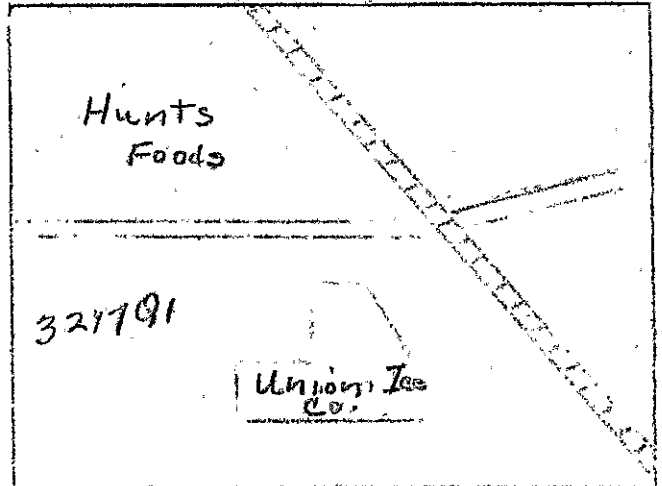
DRILLED BY: Silva Bros., Centerville, Calif.

SOURCE OF INFORMATION:

INSPECTED WHILE DRILLING:
SEE FILE NO: _____

SURFACE ELEVATION: 67 USGS

SKETCH



Depth	Elevation of Bottom of Stratum	Material	Thickness Feet	% Voids	Absolute Voids Feet	Total Voids Feet
3-ft.		dark soil				
3-10		yellow clay				
10-13		yellow sand				
13-32		yellow clay				
32-42		dry gravel				
42-58		yellow clay				
58-60		rocks & clay				
60-125		yellow sandy clay				
125-153		yellow sand				
153-185		hard yellow clay				
185-190		yellow sand				
190-215		yellow clay				
215-218		blue clay				
218-252		yellow clay				
252-261		rocks clay				
261-285		yellow clay				
285-286		rocks & clay				
286-308		yellow clay				
308-310		yellow sand				
310-315		cement gravel				
315-365		yellow clay				
365-369		cement gravel				
369-430		yellow clay				
430-440		cement gravel				
440-445		yellow clay				
445-460		gray clay				
460-480		reddish clay				
480-486		yellow sandy clay				
486-489		cement clay				

Log obtained by: _____ Date: _____

SOUTH ALAMEDA
COUNTY INVESTIGATION

WELL LOG

NUMBER: 3217Q1 (Continued)

LOCAL DESIGNATION: _____

LOCATION:

01-1513

OWNER:

DATE COMPLETED:

DIAMETER OF CASING:

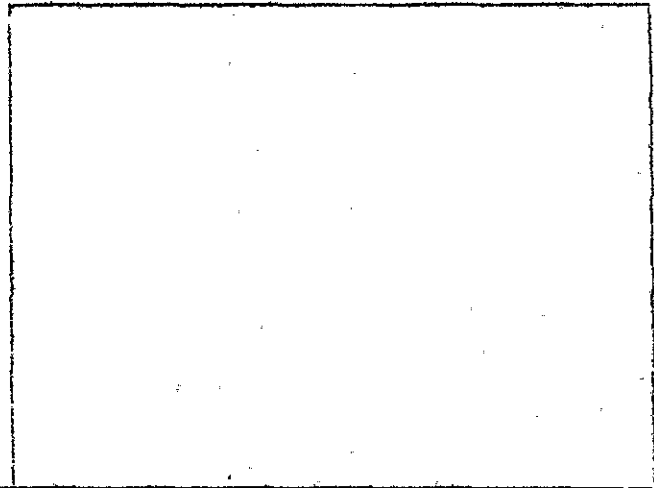
DRILLED BY:

SOURCE OF INFORMATION:

INSPECTED WHILE DRILLING:
SEE FILE NO:

SURFACE ELEVATION:

SKETCH



Depth	Elevation of Bottom of Stratum	Material	Thickness Feet	% Voids	Absolute Voids Feet	Total Voids Feet
-------	--------------------------------	----------	----------------	---------	---------------------	------------------

489-496		yellow clay				
496-498		fair gravel				
498-501		yellow clay				
501-530		good gravel				
530-540		yellow clay				

Perf. (502-530)

By Silva Bros.
Centerville

Log obtained by: _____

Date: _____

REGION _____
 COUNTY _____
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR No. 35/2W-1701 B & M
 OTHER NOS. _____

WELL LOG 01-1514

LOCATION North of Russel city road. where Barracks now stand (National Guard

Dom. Bldgs. west of hanger

OWNER N.P. Nielson

ADDRESS _____

DRILLED BY A. Swanson

ADDRESS _____

DRILLING METHOD _____

GRAVEL PACKED _____

DATE COMPLETED March 3, 1938

SIZE OF CASING DEPTH 49' of 8" 16 gage.

STRUCK WATER AT _____

PERFORATIONS 33-43

SIZE _____

No. _____

WATER LEVEL BEFORE PERFORATING _____

AFTER _____

TEST DATA: DISCHARGE G. P. M. _____

DRAWDOWN FT. _____

HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____

ANALYSIS _____

SURFACE ELEV. _____

DATUM _____

SOURCE OF INFORMATION _____

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 14		old dug well		
14 - 18		clay		
18 - 20		water sand		
20 - 32		clay		
32 - 43		gravel		
43 - 47		clay		

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY _____

DATE _____

SHEET 1 OF _____

REGION _____
 COUNTY _____
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR No. 3S/24-177E B & M
 OTHER Nos. _____

WELL LOG

01-1515

1707

LOCATION _____

OWNER The Union Ice Co. ADDRESS _____

DRILLED BY Silva Bros. ADDRESS Centerville

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED April 1941

SIZE OF CASING DEPTH 10" 12 ga. STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 3		dark soil		
10		yellow clay		
13		yellow sand		
32		yellow clay		
42		dry gravel		
58		yellow clay		
60		rocks and clay		
125		yellow sandy clay		
153		yellow sand		
185		hard yellow clay		
190		yellow sand		
245		yellow clay		
248		blue clay		
252		yellow clay		
261		rocks- clay		
285		yellow clay		
286		rocks and clay		
308		yellow clay		
310		yellow sand		
315		cement gravel		
365		yellow clay		
369		cement gravel		
430		yellow clay		
440		cement gravel		
445		yellow clay		
460		gray clay		
480		reddish clay		
486		yellow sandy clay		
489		cement clay		

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

REGION 2
 COUNTY Southern Alameda
 NEAR Hayward

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR NO. 3S/2W-1702 B & M
 OTHER NOS. Well #2
"A" St. Plant

WELL LOG 01-1516

LOCATION Next to Peterson's yard. 30 feet northeast of Hathaway 480 feet northwest of "A" Street, well adjacent to north end of Bldg. #24. (Hunts).

OWNER California Conserving Company ADDRESS _____

DRILLED BY G P Nelson ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED March 1937

SIZE OF CASING DEPTH 603 feet of 16" in double 10 gauge STRUCK WATER AT _____

PERFORATIONS 322-328; 365-369; 489-493; 495-497; 503-516; 523-525; 526-533; 533-541 SIZE 3 1/4 x 7/16 No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. 57 DATUM USGS SOURCE OF INFORMATION _____

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 2 1/2		Adobe		
2 1/2 - 59		Yellow clay 59 Surface Water		
59 - 76		Yellow Sandy Clay		
76 - 79		Yellow sandy		
82		Yellow sand and gravel mixed		
88		Yellow clay and gravel mixed		
125		Clay		
130 1/2		Clay - sandy		
135		Gravel and clay mixed		
184		Yellow clay		
188		Yellow clay sandy water 51 feet from surface		
208		Yellow clay		
232		Yellow clay sandy		
248 1/2		Yellow clay		
253 1/2		Yellow gravel and clay mixed		
270		Yellow clay		
276		Yellow clay sandy		
280 1/2		Gravel and sand mixed		
312		Yellow clay		
319 1/2		Yellow clay sandy		
327		Gravel 7 1/2 feet		
364		Yellow clay		
368 1/2		Gravel 4 1/2 feet		
385		Yellow clay		
389 1/2		Yellow sandy clay water 57 feet from surface		
390 1/2		Clay and gravel mixed		
425		Yellow clay water 67 feet from surface		
426		Gravel and clay		

LOG OBTAINED BY RKBcom DATE 6 7-15-58 SHEET 1 OF 2

Southern Alameda

NUMBER 39/27-1702

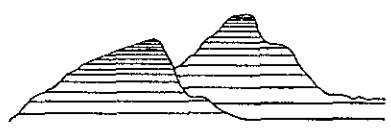
WELL LOG

LOCAL DESIGNATION

DEPTH	ELEVATION OF BOTTOM OF STRATUM	MATERIAL	THICKNESS FEET	% VOIDS	ABSOLUTE VOIDS FEET	TOTAL VOIDS FEET
426 - 429		Yellow clay				
433		Sandy clay and gravel mixed				
462		Yellow clay				
486		Yellow clay				
492 1/2		Gravel and clay				
494		Yellow Clay				
497		Gravel 3 feet water 59 feet from surface				
501		Yellow clay				
515		Gravel and clay mixed 14 feet water level 56 feet				
521		Yellow clay				
541		20 feet gravel clay and sand mixed				
560		Yellow clay				
563		Yellow clay sandy				
589		Yellow clay				
597		Yellow clay sandy water 59 feet				
603		Yellow clay bottom of well.				

FOR FIELD COPIES USE ALTERNATE LINES

01-408Z



Applied GeoSystems

43255 Mission Boulevard, Fremont, CA 94539 (415) 651-1906

- FREMONT
- COSTA MESA
- SACRAMENTO
- HOUSTON

RECEIVED
 35/2W 17 Q OCT 28 1988
 ZONE 7, ACFC3WCS
 INV
 ADD

October 27, 1988
 AGS 018075-1
 1027cmay

Mr. Craig Mayfield
 Alameda County Flood Control and Water Conservation District
 5997 Parkside Drive
 Pleasanton, California 94566

Subject: Transmittal of Groundwater Monitoring Well Construction Report (Permit No. 88459).

Mr. Mayfield:

At the request of UNOCAL Corporation and in compliance with condition A-3 of Groundwater Protection Ordinance permit No. 88459, we are forwarding the information requested in your letter dated September 8, 1988.

The following information is included as an attachment to this letter of transmittal: A well construction report consisting of a drilling and completion log and a "location sketch" including a site vicinity map and generalized site plan for ground-water monitoring well MW-6.

The above referenced ground-water monitoring well was constructed on September 12, 1988 at UNOCAL Service Station No. 3791 located at 391 West "A" Street, Hayward, California. Drilling and completion of the well was performed under Groundwater Protection Ordinance permit No. 88459, effective September 8, 1988.

01-408Z

Well Construction Report, Transmittal
UNOCAL Station No. 3791, Hayward, California

October 27, 1988
AGS 18075-1

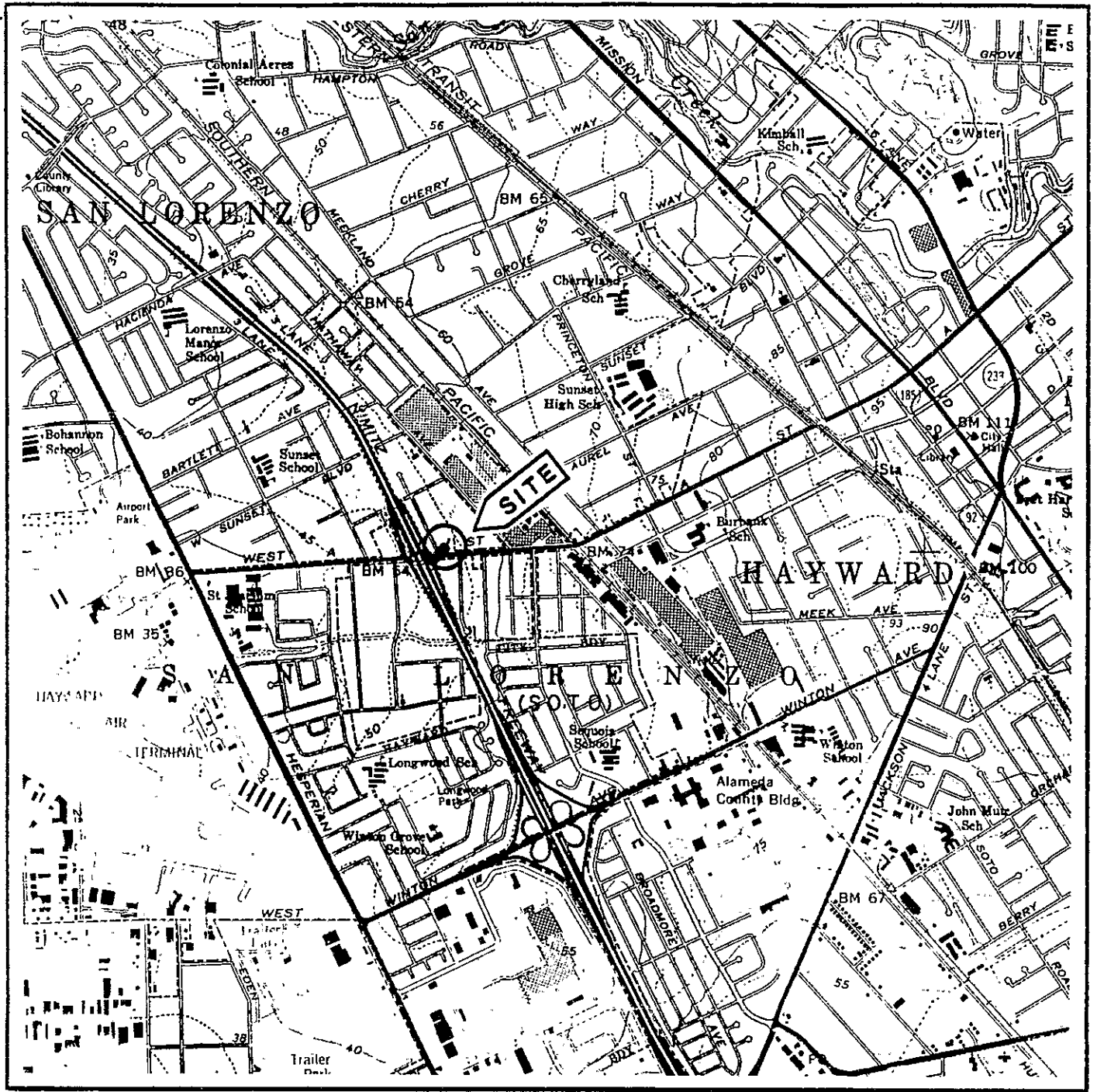
Please do not hesitate to call if you have any questions regarding this report.

Sincerely,
Applied GeoSystems

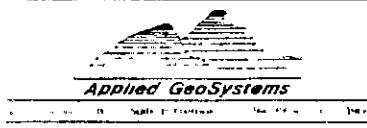
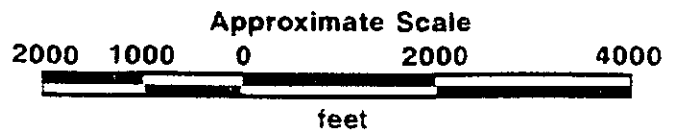
Walter H. Howe
Project Geologist

Attachments: Site Vicinity Map, Generalized Site Plan, Unified Soil Classification System and Symbol Key, Drilling and completion logs (2), copy permit No. 88459

cc: Tim Ross, UNOCAL Corporation



Source: U.S. Geological Survey
 7.5-Minute Quadrangle
 Hayward, California
 Photorevised 1980



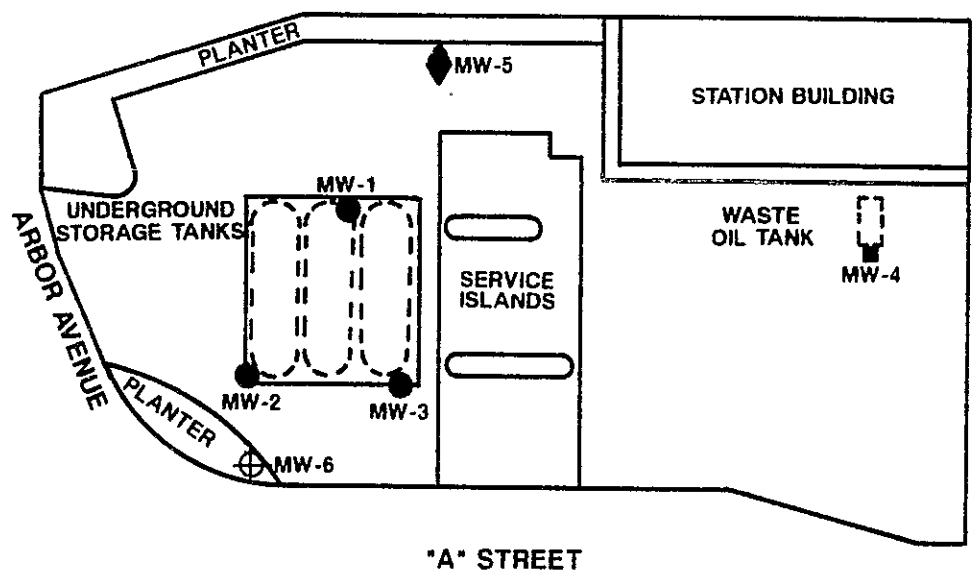
PROJECT NO. 18075-1

SITE VICINITY MAP
 UNOCAL Station No. 3791
 391 West "A" Street
 Hayward, California

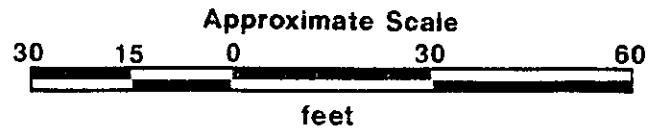
PLATE
 P - 1

35/2W 17 @ 4

Plan, showing gradient



- MW-6
⊕ = Proposed ground-water monitoring well location
- MW-4
◻ = Waste oil tank vadose monitoring well location
- MW-3
● = Product tank vadose monitoring well location
- MW-5
◆ = Background vadose monitoring well location



Source: Modified from map supplied by UNOCAL

Note: Inferred gradient is based on local topography.



GENERALIZED SITE PLAN
UNOCAL Station No. 3791
391 West "A" Street
Hayward, California

PLATE
P - 2

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		LTR	DESCRIPTION	MAJOR DIVISIONS		LTR	DESCRIPTION
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW	Well-graded gravels or gravel sand mixtures, little or no fines.	FINE GRAINED SOILS	SILTS AND CLAYS LL<50	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		GP	Poorly-graded gravels or gravel sand mixture, little or no fines			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
		GM	Silty gravels, gravel-sand-clay mixtures.			OL	Organic silts and organic silt-clays of low plasticity.
		GC	Clayey gravels, gravel-sand-clay mixtures.			MH	Inorganic silts, siliceous or diatomaceous fine sandy or silty soils, elastic silts.
	SAND AND SANDY SOILS	SW	Well-graded sands or gravelly sands, little or no fines.		SILTS AND CLAYS LL<50	CH	Inorganic clays of high plasticity, fat clays.
		SP	Poorly-graded sands or gravelly sands, little or no fines.			OH	Organic clays of medium to high plasticity.
		SM	Silty sands, sand-silt mixtures.			Pt	Peat and other highly organic soils.
		SC	Clayey sands, sand-clay mixtures.			HIGHLY ORGANIC SOILS	

Depth through which sampler is driven

Relatively undisturbed sample

Missed sample

Ground water level observed in boring

S-10 Sample number

Sand pack

Bentonite annular seal

Neat cement annular seal

Blank PVC

Machine-slotted PVC

BLOW/FT. REPRESENTS THE NUMBER OF BLOWS OF A 140-POUND HAMMER FALLING 30 INCHES TO DRIVE THE SAMPLER THROUGH THE LAST 12 INCHES OF AN 18 INCH PENETRATION.

DASHED LINES SEPARATING UNITS ON THE LOG REPRESENT APPROXIMATE BOUNDARIES ONLY. ACTUAL BOUNDARIES MAY BE GRADUAL. LOGS REPRESENT SUBSURFACE CONDITIONS AT THE BORING LOCATION AT THE TIME OF DRILLING ONLY.



Applied GeoSystems
4155 Shuman Blvd. San Diego, CA 92121-4400

UNIFIED SOIL CLASSIFICATION SYSTEM
AND SYMBOL KEY
UNOCAL Station No. 3791
391 West "A" Street
Hayward, California

PLATE
P - 3

PROJECT NO. 18075- 1

014082

Total depth of boring: 45.5 feet Diameter of boring: 8 inches Date drilled: 9-12-88
 Casing diameter: 2 inches Length: 45.5 feet Slot size: 0.020-inch
 Screen diameter: 2 inches Length: 35 feet Material type: PVC
 Drilling Company: Datum Exploration Driller: Anthony and Randy
 Method Used: Hollow Stem Auger Field Geologist: Dan Kirkman
 Signature of Registered Professional: _____
 Registration No.: C.E. 2023 State: CA

DEPTH	SAMPLE NO.	BLOWS	P.I.D.	USCS CODE	DESCRIPTION	WELL CONST.
0					Asphalt (3 inches) over concrete (3 inches).	
2						
4					Pea gravel.	
6						
8						
10	S-10	5 5 8				
12						
14	S-15	5 7 11		CL	Silty clay, light brown, moist, medium plasticity, very stiff.	
16						
18						
20	S-20	8 16 30	412			

(Section continues downward)



PROJECT NO. 18075-1

LOG OF BORING B-6/MW-6
 UNOCAL Station No. 3791
 391 West 'A' Street
 Hayward, California

PLATE
 P - 4

Depth	Sample No.	BLOWS	P.I.D.	USCS Code	Description	Well Const.
22				CL	Silty clay, light brown, moist, medium plasticity, very stiff.	
24		7		SC	Clayey fine-grained sand, light brown, wet, medium dense.	
24		7				
25	S-25	12	100			
26						
28						
30		7		SM	Silty fine-grained sand, light brown, wet, medium dense.	
30	S-30	10	10.5			
32		8				
34		7		ML	Clayey silt, some fine-grained sand, light brown, wet, slight plasticity, very stiff.	
34		11				
35	S-35	13				
36						
38						
40		10		1.9		
40	S-40	50				
42		20				
44		18		1.7	Some clay.	
44		28				
45	S-45	42				
46						
48						
50						



LOG OF BORING B-6/MW-6

UNOCAL Station No. 3791
 391 West 'A' Street
 Hayward, California

PLATE

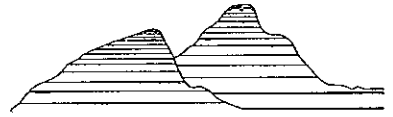
P = 5

PROJECT NO. 18075-1

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



3S/2W 17Q4

(Orig 01-408Z)

Applied GeoSystems

42501 Albrae Street, Suite 100, Fremont, CA 94538 (415) 651-1906

• FREMONT • IRVINE • BOSTON • SACRAMENTO • CULVER CITY • SAN JOSE

June 18, 1991
AGS 18075-5D

Mr. Craig A. Mayfield
Alameda County Flood Control, Zone 7
5997 Parkside Drive
Pleasanton, California 94588

Subject: Well Destruction Report for Ground-Water Monitoring Well MW-6 (3S/2W 17Q4) at Unocal Station No. 3791, 391 West "A" Street, Hayward, California.

Mr. Mayfield:

As required for Drilling Permit 91279 we are submitting this Destruction Report for ground-water monitoring well MW-6 (3S/2W 17Q4) at Unocal Station No. 3791, 391 West "A" Street, Hayward, California. As required this includes a description of methods and materials used to destroy the well, a site plan showing the location of the destroyed well (Plate 1), date of destruction, and permit number.

The well was destroyed on May 21, 1991, by Exploration Geoservices of San Jose, California, with a Mobil B-61 drill rig. The well was originally installed using 8-inch outside-diameter augers. The well was drilled out with 9-inch outside-diameter continuous-flight hollow-stem augers to a total depth of 47 feet, 2 feet deeper than the original depth. The well was then backfilled with a sand/cement slurry from the total depth to within a foot of the ground surface using the hollow-stem augers to tremie the grout. The remaining hole was backfilled with concrete. Well destruction details are shown on Plates 2 and 3.

Sincerely,
Applied GeoSystems

James A. Perkins
Project Manager

Enclosures:
Generalized Site Plan, Plate 1
Monitoring Well MW-6 Boring Log, Plates 2 and 3.
cc: Mr. Ron Bock, Unocal Corporation

DEST
01-498I 3S/2W 17Q4
(01-408Z)

INSTALLATION

Total depth of boring: 45.5 feet Diameter of boring: 8 inches Date drilled: 9-12-88
 Casing diameter: 2 inches Length: 45.5 feet Slot size: 0.020-inch
 Screen diameter: 2 inches Length: 35 feet Material type: PVC
 Drilling Company: Datum Exploration Driller: Anthony and Randy
 Method Used: Hollow Stem Auger Field Geologist: Dan Kirkman

DESTRUCTION

Total depth of boring: 47 feet Diameter of boring: 9 inches Date destroyed: 5-21-91
 Drilling Company: Exploration GeoServices Driller: John Collin and David Ryan
 Method Used: Hollow Stem Auger Field Geologist: Kate McCutchen

Depth	Sample No.	Blows	OVM	USCS Code	Description	Well Const.
0					Asphalt (3 inches) over concrete (3 inches).	
2					Pea gravel, fill.	
4						
6						
8						
10	S-10	5 5 8				
12						
14		5 7				
16	S-15	11		CL	Silty clay, light brown, moist, medium plasticity, very stiff.	
18						
20	S-20	8 16 30	412			

(Section continues downward)



PROJECT NO. 18075-5

LOG OF BORING B-6/MW-6

**UNOCAL Station No. 3791
391 West 'A' Street
Hayward, California**

PLATE

2

C57 484288

DEST.
 01-4981 3S/2W 17Q4
 (01-408Z)

Depth	Sample No.	Blows	OVN	USCS Code	Description	Well Const.
				CL	Silty clay, light brown, moist, medium plasticity, very stiff.	
-22				SC	Clayey fine-grained sand, light brown, wet, medium dense.	
-24		7				
-24	S-25	7	100			
-26		12				
-28						
-30		7				
-30	S-30	8	10.5	SM	Silty fine-grained sand, light brown, wet, medium dense.	
-32						
-34		7				
-34	S-35	11		ML	Clayey silt, some fine-grained sand, light brown, wet, slight plasticity, very stiff.	
-36		13				
-38						
-40		10				
-40	S-40	20	1.9			
-42		50				
-44						
-44	S-45	18			Some clay.	
-44		28	1.7			
-44		42				
-46					Original Boring Total Depth = 45.5 feet. Well Destruction Total Depth = 47 feet.	
-48						
-50						

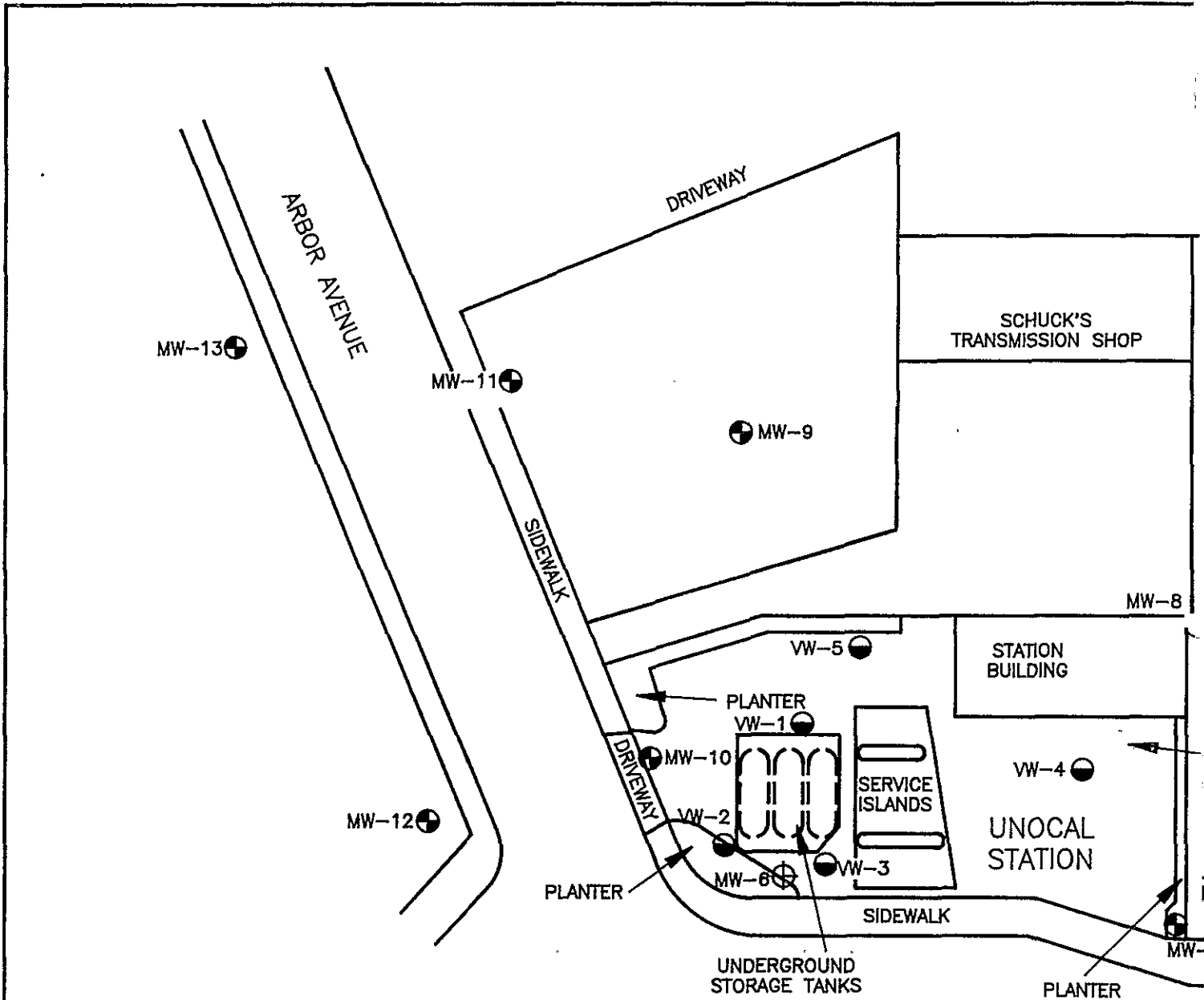
Sand/cement slurry



LOG OF BORING B-6/MW-6
 Unocal Station No. 3791
 391 West 'A' Street
 Hayward, California

PLATE
3

PROJECT NO. **18075-1**

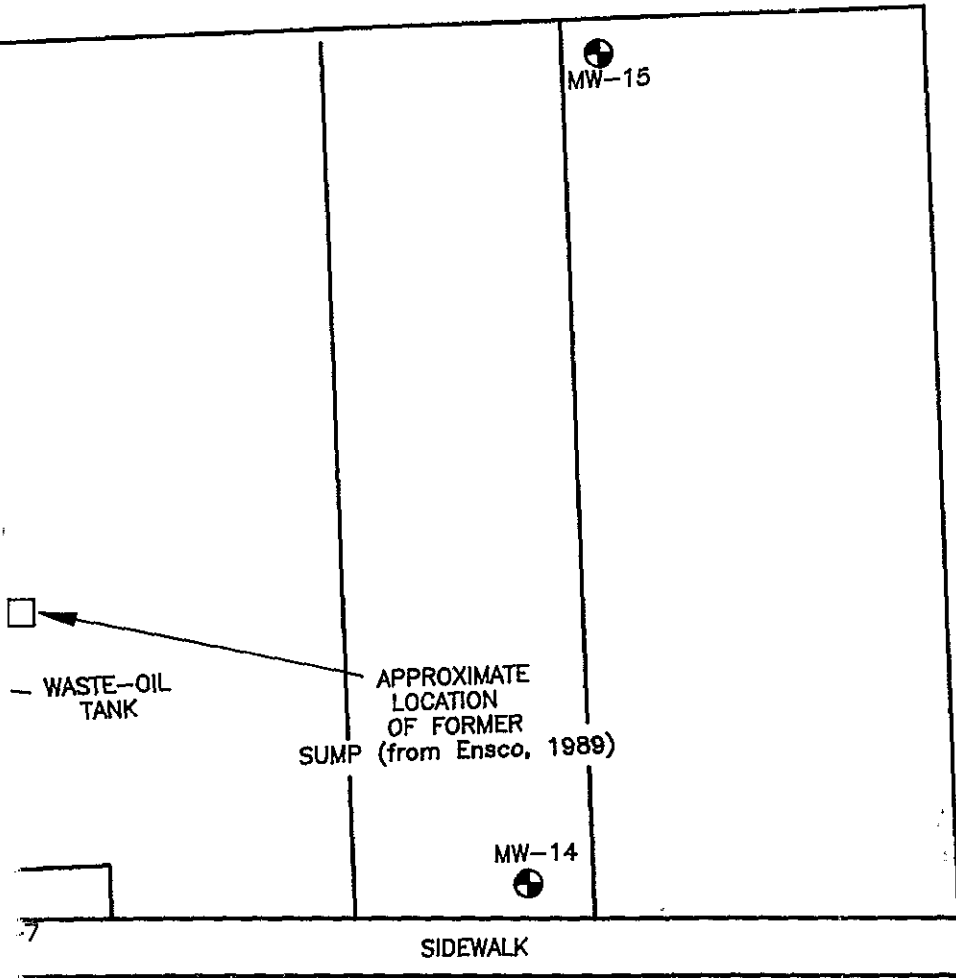


- VW-5 ● = Vadose well
(Applied GeoSystems, 1987)
- MW-15 ⊕ = Ground-water monitoring well
- MW-6 ⊕ = Abandoned ground-water monitoring well

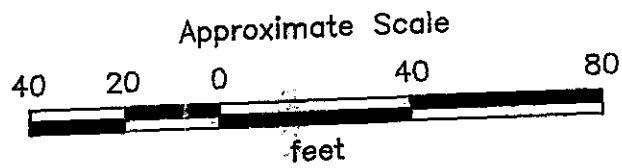
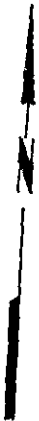


PROJECT NO. 18075-5

01-498 I (DEST.)
3S/2W 17Q4
(01-408 Z)



WEST "A" STREET



Source: Modified from plan
supplied by Unocal

GENERALIZED SITE PLAN
Unocal Station No. 3791
391 West A Street
Hayward, California

PLATE

1

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

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

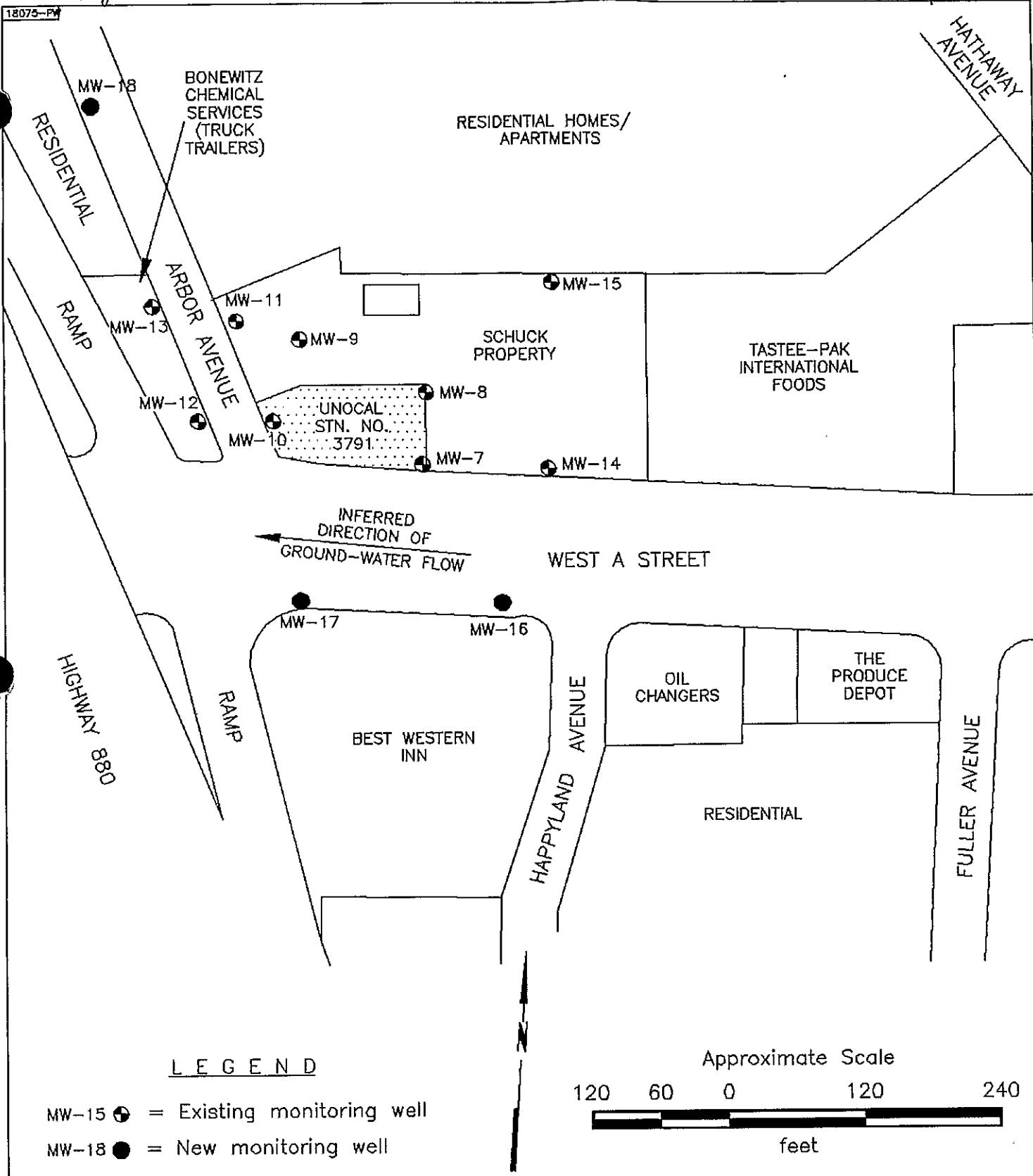
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

284

342624
342684-5-

03S02W17Q05-7



	PROPOSED WELL LOCATIONS	PLATE 2
	UNOCAL STATION NO. 3791	
	391 WEST A STREET	
PROJECT NO. 18075-6C	HAYWARD, CALIFORNIA	


374

342624

03S02W17Q05

Total depth of boring: 40-1/2 feet
 Diameter of boring: 8 inches
 Date drilled: 10-21-92
 Drilling Company: Exploration Geoservices
 Driller: John Collins
 Drilling method: Hollow-Stem Auger
 Field Geologist: Sheryl Fontaine

Casing diameter: 4 inches
 Casing material: Sch 40 PVC
 Slot size: 0.010-inch
 Sand size: No. 2/12 Sand
 Blank casing from 0 feet to 20 feet
 Perforated casing from 20 feet to 40 feet
 Annular seal from 0 feet to 16-1/2 feet
 Bentonite plug from 16-1/2 feet to 18 feet
 Sand pack from 18 feet to 40 feet

Depth	Sample No.	Blows	OVM	USCS Code	Description	Well Const.
					Concrete (6 inches). Aggregate base/fill.	
2				CL	Silty clay, 10% very fine sand, medium to dark brown, mottled, low plasticity, moist.	
4	S-5	21	14.6			
6						
8				CL/ML	Silty clay/clayey silt, trace fine sand, medium brown, low to moderate plasticity.	
10	S-10	11	8.4			
12						
14				CL	Silty clay, 10% fine to medium sand, trace very fine gravel, low plasticity, oxidation spots.	
16	S-15	8	13.9			
18						
20	S-19.5	16	0		Sandy clay with silt, fine gravel, light brown with gray mottling, moderate plasticity. Light brown.	
22						
24	S-22.5	19	0		Silty clay, trace fine sand, dark brown, low plasticity, wet, hard.	
26		15		CL/ML	Silty clay/clayey silt, 10% fine sand, light brown, low plasticity, wet.	
28		9			No sand, moderate plasticity, moist to wet.	
30		8			10% fine sand, brown to gray mottled, very moist, soft, 3 feet water in hole.	
32		20		CL	Silty clay, 5-10% very fine sand, medium brown, moderate plasticity, damp, medium stiff.	
34		20		CL/ML	Silty clay/clayey silt, 10-15% fine to medium sand, medium gray with medium brown mottling, moderate plasticity, damp to moist, hard, roots.	
36		20				
38		14		ML	Sandy silt with clay, 30-40% fine to medium sand, medium brown, some oxidation spots, moderate plasticity, damp, medium stiff.	
40		13		CL/ML	Silty clay/clayey silt with 10-15% fine sand, medium brown, moderate plasticity, damp.	
					Total Depth = 40-1/2 feet.	

LOG OF BORING FOR MW-16

PLATE

UNOCAL STATION NO. 3791

391 WEST A STREET

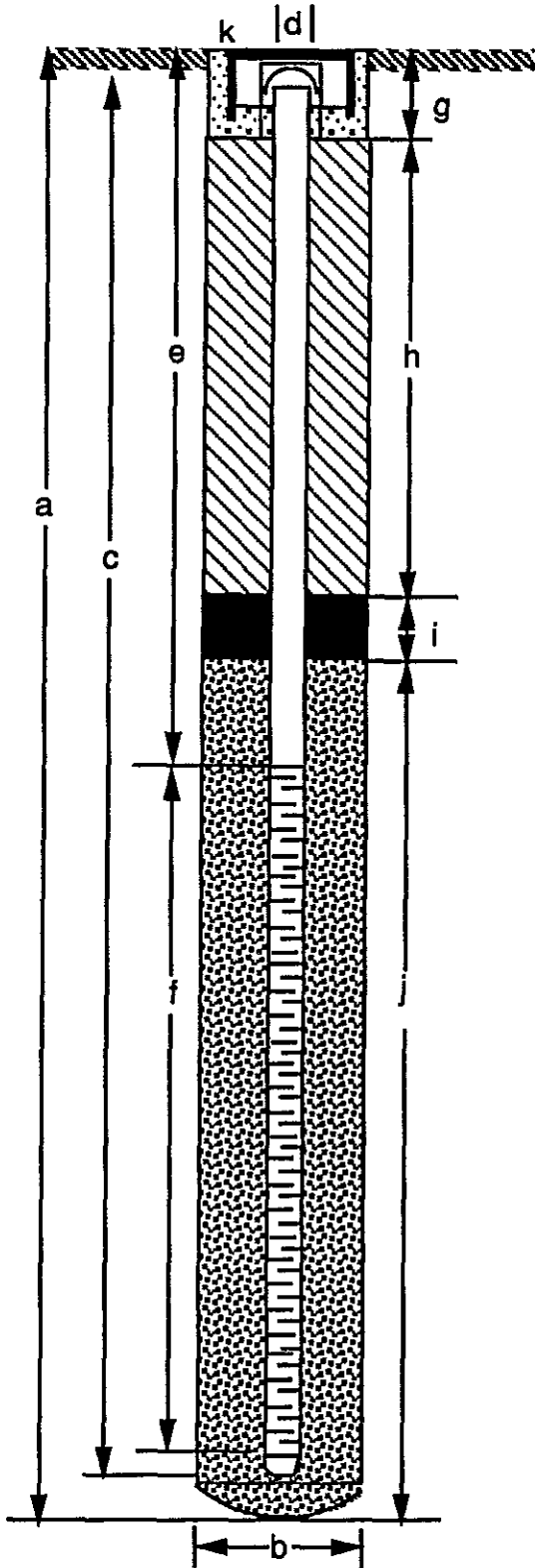
4

PROJECT NO. 18075-6C

HAYWARD, CALIFORNIA

MONITORING WELL DETAIL

Project Number	<u>18075.6c</u>	Boring/Well No.	<u>B-16/MW-16</u>
Project Name	<u>Unocal A Street</u>	Top of Casing Elev.	<u>54.24</u>
County	<u>Alameda</u>	Ground Surface Elev.	<u>54.69</u>
Well Permit No.	<u>92439</u>	Datum	<u>MSL</u>



EXPLORATORY BORING

- a. Total depth 40 ft.
- b. Diameter 8 in.
- Drilling method Hollow Auger

WELL CONSTRUCTION

- c. Casing length 40 ft.
Material Schedule 40 PVC
- d. Diameter 4 in.
- e. Depth to top perforations 20 ft.
- f. Perforated length 20 ft.
Perforated interval from 40 to 20 ft.
Perforation type Machine Slot
Perforation size 0.010 in.
- g. Surface seal 1.0 ft.
Seal material Concrete (sidewalk)
- h. Backfill 15.5 ft.
Backfill material sand slurry grout
- i. Seal 1.5 ft.
Seal material 3/8" hydrated bentonite pellets
- j. Gravel pack 22 ft.
Pack material Lonestar # 2/12 Sand
- k. Locking expansion cap, traffic-rated
water-tight christy box

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

374

342684

03502017206

Total depth of boring: 40-1/2 feet
 Diameter of boring: 8 inches
 Date drilled: 10-22-92
 Drilling Company: Exploration Geoservices
 Driller: John Collins
 Drilling method: Hollow-Stem Auger
 Field Geologist: Sheryl Fontaine

Casing diameter: 4 inches
 Casing material: Sch 40 PVC
 Slot size: 0.010-inch
 Sand size: No. 2/12 Sand
 Blank casing from 0 feet to 20 feet
 Perforated casing from 20 feet to 40 feet
 Annular seal from 0 feet to 16-1/2 feet
 Bentonite plug from 16-1/2 feet to 18 feet
 Sand pack from 18 feet to 40 feet

Depth	Sample No.	Blows	OVM	USCS Code	Description	Well Const.
					Concrete. Base.	
2				CL/ML	Silty clay/clayey silt, dark gray to black, low plasticity, slightly damp; cuttings-fill.	
4				ML	Clayey silt with 5% fine sand, medium brown, low to moderate plasticity, slightly damp, medium stiff; some roots.	
6	S-5	17	20			
8				CL/ML	Silty clay/clayey silt, no sand, medium brown, low to moderate plasticity, slightly damp, soft; some voids.	
10	S-10	8	9.1		5-10% fine to medium sand, medium brown with gray mottling, some oxidation spots, moderate plasticity, damp.	
12						
14						
16	S-15	10	0			
18				CL	Silty clay with 5% very fine sand, medium brown, some gray mottling, moderate plasticity, damp, soft; some voids.	
20	S-19.5	10				
22	S-22.5	24	0	CL/ML	Silty clay/clayey silt, no sand, medium to dark brown, moderate plasticity, damp, hard; some void spaces.	
24						
26	S-25	13	0	▽	10% fine to medium sand, medium brown.	
28				▽	Medium brown. 5% very fine to fine sand, medium brown and gray mottling, wet; rootholes.	
30				CL	Silty clay with 10% fine sand, gray with medium brown mottling and dark gray streaking, moderate plasticity, wet; rootholes and strong product odor. Grades to less gray, more brown.	
32						
34					No sand, medium brown with some gray mottling, very moist; some voids, slight product odor.	
36				ML	Clayey silt with 30% fine to medium sand, medium brown, moderate plasticity, wet; oxidation spots. Grades to silty sand.	
38				CL/ML	Silty clay/clayey silt with 5% fine sand, medium brown, moderate plasticity, very moist; oxidation spots, some void spaces. With 5-10% fine to medium sand.	
40						
					Total Depth = 40-1/2 feet.	

LOG OF BORING FOR MW-17

PLATE

UNOCAL STATION NO. 3791

391 WEST A STREET

5

PROJECT NO. 18075-6C

HAYWARD, CALIFORNIA

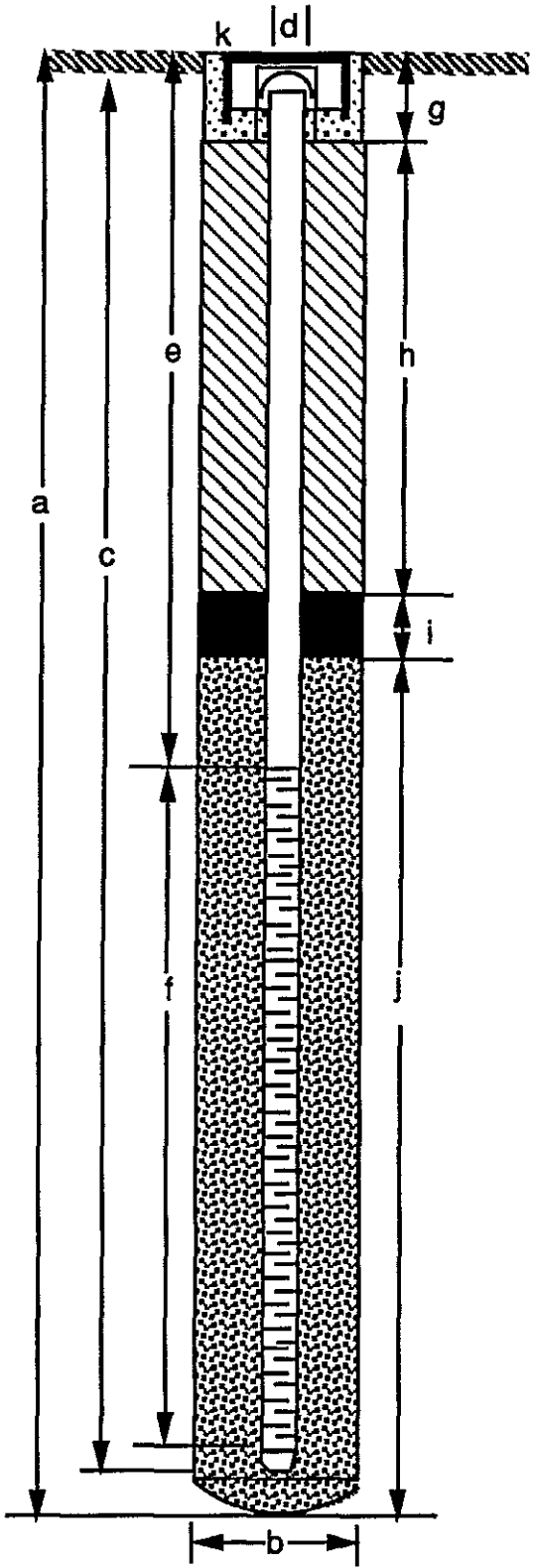
MONITORING WELL DETAIL

4 of 4

342684

03505W17Q06

Project Number	<u>18075.6c</u>	Boring/Well No.	<u>B-17/MW-17</u>
Project Name	<u>Unocal A Street</u>	Top of Casing Elev.	<u>52.52</u>
County	<u>Alameda</u>	Ground Surface Elev.	<u>52.92</u>
Well Permit No.	<u>92439</u>	Datum	<u>MSL</u>



EXPLORATORY BORING

- a. Total depth 40 ft.
- b. Diameter 8 in.
- Drilling method Hollow Auger

WELL CONSTRUCTION

- c. Casing length 40 ft.
Material Schedule 40 PVC
- d. Diameter 4 in.
- e. Depth to top perforations 20 ft.
- f. Perforated length 20 ft.
Perforated interval from 20 to 40 ft.
Perforation type Machine Slot
Perforation size 0.010 in.
- g. Surface seal 1.0 ft.
Seal material Concrete (sidewalk)
- h. Backfill 15.5 ft.
Backfill material sand slurry grout
- i. Seal 1.5 ft.
Seal material 3/8" hydrated bentonite pellets
- j. Gravel pack 22 ft.
Pack material Lonestar # 2/12 Sand
- k. Locking expansion cap, traffic-rated
water-tight christy box

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

374

342685

03502W17Q07

Total depth of boring: 40-1/2 feet
 Diameter of boring: 8 inches
 Date drilled: 10-23-92
 Drilling Company: Exploration Geoservices
 Driller: John Collins
 Drilling method: Hollow-Stem Auger
 Field Geologist: Sheryl Fontaine

Casing diameter: 4 inches
 Casing material: Sch 40 PVC
 Slot size: 0.010-inch
 Sand size: No. 2/12 Sand
 Blank casing from 0 feet to 20 feet
 Perforated casing from 20 feet to 40 feet
 Annular seal from 0 feet to 16-1/2 feet
 Bentonite plug from 16-1/2 feet to 18 feet
 Sand pack from 18 feet to 40 feet

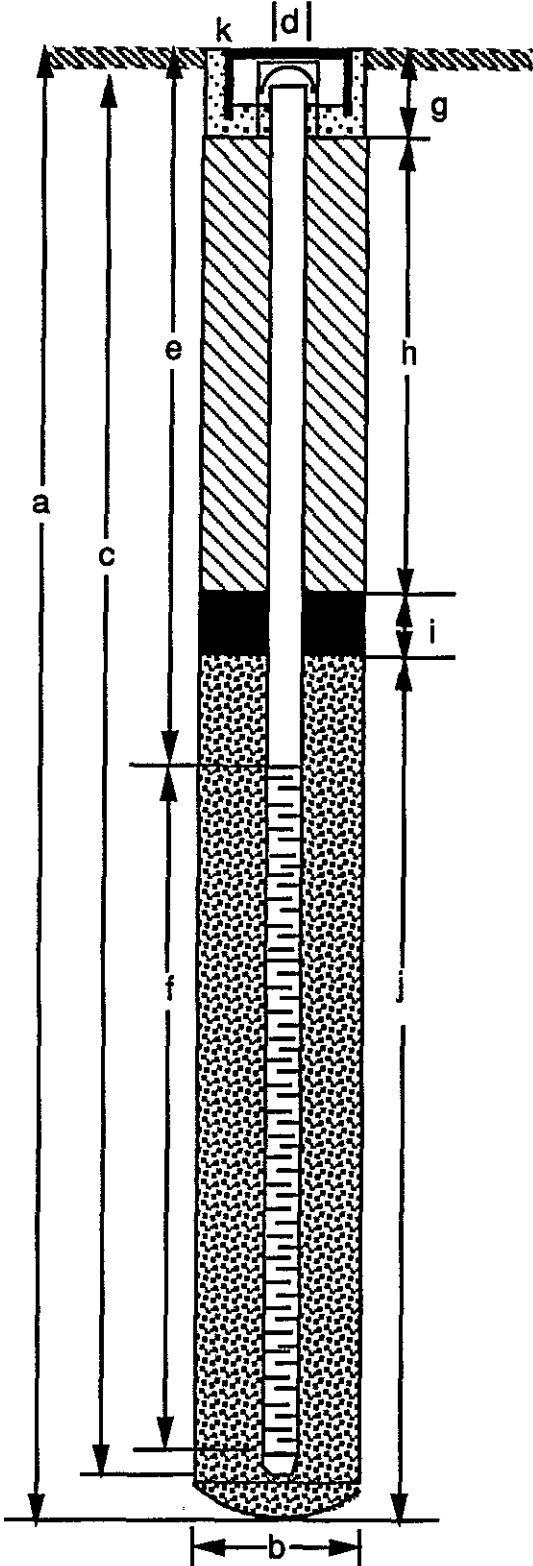
Depth	Sample No.	Blows	OVM	USCS Code	Description	Well Const.
					Asphalt (4 inches). Base (8 inches).	
2				CL	Silty clay, dark brown, low to moderate plasticity, slightly damp; cuttings-fill.	
4						
6	S-5	17	56.9		With trace fine to medium sand, medium brown, moderate plasticity, medium soft.	
8						
10	S-10	8	0	ML	Sandy silt with trace clay, sand is fine grained, medium brown, very low plasticity, slightly damp, soft.	
12						
14				CL/ML	Silty clay/clayey silt, 5-10% fine sand, medium brown, moderate plasticity, slightly damp, medium stiff; some voids and yellow mottling.	
16	S-15	7	0			
18						
20	S-19.5	18	0		5% fine to medium sand, medium brown with light and dark brown mottling, damp, stiff.	
22	S-22.5	21	0	CL	Silty clay, trace fine sand, medium brown, moderate plasticity, damp, hard.	
24						
26	S-25	6	0		With trace fine sand, medium brown with light and dark brown mottling, medium stiff.	
28		7			With trace fine to medium sand, medium brown with light brown and gray mottling, very moist, medium soft.	
30		7		CL/ML	Silty clay/clayey silt with trace fine to medium sand, medium brown to gray, some dark gray mottling, low plasticity, wet, medium soft.	
32				SM	Silty sand, fine to medium grained, medium brown, wet, loose.	
34		12		SP	Gravelly sand, medium to coarse sand, fine gravel, medium brown, wet, loose.	
36		15		CL/ML	Silty clay/clayey silt, trace fine sand, medium brown with dark brown staining, moderate plasticity, very moist, medium stiff. Coarse sand stringers, medium brown to gray, wet, hard.	
38		9			Trace fine to medium sand, medium stiff to stiff.	
40		15		SM	Silty sand with 20% clay, sand is fine to medium grained, medium brown, saturated, loose.	
				CL	Silty clay, with trace fine sand, medium brown, moderate plasticity, very moist, hard.	
					Total Depth = 40-1/2 feet.	

PROJECT NO. 18075-6C	LOG OF BORING FOR MW-18	PLATE 6
	UNOCAL STATION NO. 3791	
	391 WEST A STREET	
	HAYWARD, CALIFORNIA	



MONITORING WELL DETAIL

Project Number	<u>18075.6c</u>	Boring/Well No.	<u>B-18/MW-18</u>
Project Name	<u>Unocal A Street</u>	Top of Casing Elev.	<u>53.08</u>
County	<u>Alameda</u>	Ground Surface Elev.	<u>53.70</u>
Well Permit No.	<u>92439</u>	Datum	<u>MSL</u>



EXPLORATORY BORING

- a. Total depth 40 ft.
- b. Diameter 8 in.
- Drilling method Hollow Auger

WELL CONSTRUCTION

- c. Casing length 40 ft.
Material Schedule 40 PVC
- d. Diameter 4 in.
- e. Depth to top perforations 20 ft.
- f. Perforated length 20 ft.
Perforated interval from 40 to 20 ft.
Perforation type Machine Slot
Perforation size 0.010 in.
- g. Surface seal 1.0 ft.
Seal material Asphalt
- h. Backfill 15.5 ft.
Backfill material sand slurry grout
- i. Seal 1.5 ft.
Seal material 3/8" hydrated bentonite pellets
- j. Gravel pack 22 ft.
Pack material Lonestar # 2/12 Sand
- k. Locking expansion cap, traffic-rated
water-tight christy box

SOUTH ALAMEDA
COUNTY INVESTIGATION

WELL LOG

NUMBER: 301701

LOCAL DESIGNATION: 41

LOCATION: 01-1518

X

OWNER: Hunt Foods

SKETCH

DATE COMPLETED: 1/8/34

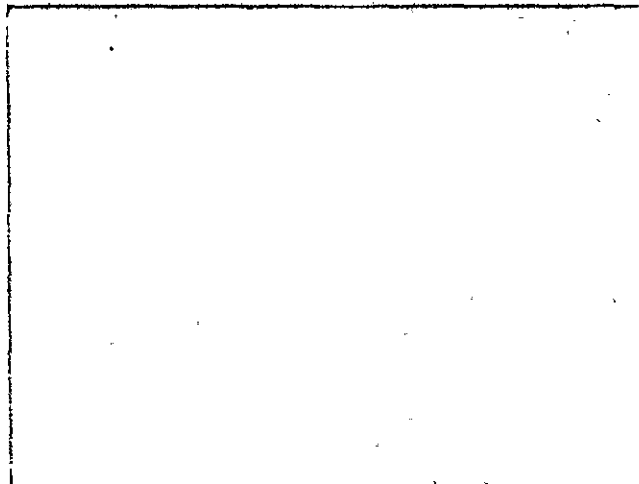
DIAMETER OF CASING:

DRILLED BY:

SOURCE OF INFORMATION: Owner

INSPECTED WHILE DRILLING:
SEE FILE NO:

SURFACE ELEVATION: 75



Depth	Elevation of Bottom of Stratum	Material	Thick-ness Feet	% Voids	Absolute Voids Feet	Total Voids Feet
0-3		soil				
10		brown sdy. c.				
37		y. sdy. c.				
53		b. sdy. c.				
66		y. sdy. c.				
68		sd. & gr. ---W.L. 66 ft.				
125		y. sdy. c.				
130		med. gr.				
150		y. sdy. c.				
153		med. gr.				
158		cs. gr.				
168		y. sdy. c.				
172		b. sdy. c.				
184		y. sdy. c.				
188		cs. gr.				
240		y. sdy. c.				
248		cs. gr.				
294		y. sdy. c.				
299		cs. gr.				
322		y.c.				
333		gr. & sd.				
356		y. sdy. c.				
364		y. sdy. c.				
371		firm sd. & gr. ---W.L. 75 ft.				
409		y. sdy. c.				
418		firm gr.				
425		y. sdy. c.				
429		y. hard sd.				
431		firm gr. & sd.				

Log obtained by: _____ Date: _____

(Continued next page)

01-1518

<u>Depth</u>	<u>Material</u>
482	y. c.
520	cs. gr. -- perf.
530	y.c.
532	sdv. c.
532-538	cs. gr. -- perf.
544	y.c.
550	cs. gr. -- perf.
560	y.c.

New pump 1937

pulled 1941
1944
1945

1948

1949
60HP BJ
600 Gpm w/300 ft. head

85 H.P. sub.
5 stage at 240'
8" column
1,200 gpm at 200 ft.
burned out

REGION _____
 COUNTY _____
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR No. 3S/2W-17R1 B & M _____
 OTHER Nos. _____

WELL LOG 01-1519

LOCATION 700 feet south east of intersection of "A" street and Front
630' south west of Walnut st

OWNER Hunt Foods ADDRESS _____

DRILLED BY G.P. Nelson ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED 1/8/34

SIZE OF CASING DEPTH 12", 12 gage casing to depth of 561' STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 3		soil		
3 - 10		brown sandy clay		
10 - 37		yellow sandy clay		
37 - 53		brown sandy clay		
53 - 66		yellow sandy clay		
66 - 68		sand and gravel- W.L. 66'		
68-125		yellow sandy clay		
125 - 130		medium gravel		
130 - 150		yellow sandy clay		
150 - 153		medium gravel		
153 - 158		coarse gravel		
158 - 168		yellow sandy clay		
168 - 172		brown sandy clay		
172 - 184		yellow sandy clay		
184 - 188		coarse gravel		
188 - 240		yellow sandy clay		
240 - 248		coarse gravel		
248 - 294		yellow sandy clay		
294 - 299		coarse gravel		
299 - 322		yellow clay		
322 - 333		gravel and sand		
333 - 356		yellow sandy clay		
356 - 364		yellow sandy clay		
364 - 371		firm sand and gravel, W.L. 75'		
371 - 409		yellow sandy clay		
409 - 418		firm gravel		
418 - 425		yellow sandy clay		
425 - 429		yellow hard sand		
429 - 431		firm gravel and sand		

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

REGION _____
 COUNTY _____
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR No. 3S/2 W-17R1 B & M
 OTHER Nos. _____

WELL LOG 01-1519

LOCATION _____

OWNER _____ ADDRESS _____

DRILLED BY _____ ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED _____

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
431 - 482		yellow clay		
482 - 520		coarse gravel - perf		
520 - 530		yellow clay		
530 - 532		sandy clay		
532 - 538		coarse gravel - perf		
538 - 544		yellow clay		
544 - 550		coarse gravel - perf.		
550 - 560		yellow clay		
		new pump 1937		
		pulled - 1941		
		1944		
		1945		
		1948		
		1949		
		60 HP BJ		
		600 gpm w/300' head		
		85 HP sub		
		5 stage at 240'		
		8" column		
		1,200' gpm at 200'		
		burned out		

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

REGION _____
 COUNTY _____
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR No. 3S/2W-17R2 B & M
 OTHER No. _____

WELL LOG

01-1520

LOCATION _____

OWNER Kavesall ADDRESS San Lorenzo

DRILLED BY R. De Lucchi ADDRESS _____

DRILLING METHOD cable GRAVEL PACKED _____ DATE COMPLETED _____

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS 48 -60 SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 5		soil		
5 - 14		sandy yellow clay		
14 - 30		yellow clay		
30 - 40		sandy yellow clay		
40 - 45		yellow clay		
45 - 53		sandy yellow clay		
53 - 58		gravel		
58 - 68		yellow clay		

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

FORM 263, 69981 11-57 10M A SPO

REGION _____
 COUNTY _____
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR No. 3S/2W-17R2 B & M
 OTHER Nos. B-St. plant
well no. 2

WELL LOG 01-1521

LOCATION 700' south east of intersection of "A" st. and Front
630' south west of Walnut st. 361

OWNER Hunt Bros ADDRESS _____

DRILLED BY G.P. Nelson ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED Feb. 1934

SIZE OF CASING DEPTH 12"-12 gauge- Red Steel casing to depth of 561' STRUCK WATER AT _____

PERFORATIONS 488-521 (245-holes) SIZE 3 1/4 x 3/8 No. 330
532-539.5 (45 holes) 544-550 (40 holes)

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 3		adobe		
3 - 10		brown sandy clay		
10 - 37		yellow clay		
53		blue clay		
66		yellow sandy clay		
68		yellow sand and gravel mixed		
125		yellow sandy clay		
130		gravel		
150.5		yellow sandy clay		
153.5		loose gravel		
156		yellow sandy clay		
168		gravel		
168		sandy clay		
172		blue clay		
184		yellow sandy clay		
188		gravel		
240		yellow sandy clay		
248		gravel		
294		yellow clay-sandy		
299		gravel- hard		
322		yellow clay		
333		gravel		
364		yellow sandy clay		
371.5		gravel		
409		yellow sandy clay		
418		gravel		
425		yellow sandy clay		
429		yellow sand hard		

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

REGION _____
 COUNTY _____
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR No. 35/2W-17R2 B & M
 OTHER NOS. _____

WELL LOG 01-1621

LOCATION _____

OWNER _____ ADDRESS _____

DRILLED BY _____ ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED _____

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
429-431.5		fine gravel and sand mixed		
445		yellow sandy clay		
482		reddish yellow clay		
500		gravel hard		
501		yellow clay		
520		gravel		
532		yellow clay		
538.5		gravel		
544		yellow sandy clay		
550		gravel		
561		yellow clay		
		bottom of well		

REGION _____
 COUNTY _____
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR No. 3S/2 W-17R B & M
 OTHER Nos. _____

WELL LOG 01-1522

LOCATION _____

OWNER Hunt Foods, Inc ADDRESS _____

DRILLED BY C & N ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED May, 1948

SIZE OF CASING DEPTH 1 1/4" STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP-YIELD %
0 - 32		red clay		
32 - 33		sand		
33 - 58		red sand		
58 - 66		sand		
66 - 72		gravel		
72 - 99		red sand		
99 - 103		gravel-		
103 - 106		red clay		
106 - 120		sand and fine gravel		
120 - 139		red sand		
139 - 149		gravel and clay		
149 - 160		sand		
160 - 179		red clay		
179 - 185		sandy clay		
185 - 196		gravel		
196 - 224		yellow clay		
224 - 241		gravel		
241 - 294		yellow clay		
294 - 301		gravel		
301 - 376		clay		
376 - 384		sand and fine gravel		
384 - 396		sand and gravel		
396 - 424		yellow clay		
424 - 433		gravel		
433 - 471		red clay		
471 - 472		gravel		
472 - 474		red clay		

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

REGION _____
COUNTY _____
NEAR _____

DEPARTMENT OF WATER RESOURCES
DEPARTMENT OF PUBLIC WORKS
STATE OF CALIFORNIA

BASIN _____
DWR No. 3S/2W-17R8 B & M
OTHER Nos. _____

WELL LOG

01-1622

LOCATION _____

OWNER _____ ADDRESS _____

DRILLED BY _____ ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED _____

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
174 - 175		gravel		
175 - 178		gravelly clay		
178 - 502		gravel		
502 - 503		sand		
503 - 511		gravel and clay		
511 - 558		gravel		
558 - 560		red clay		
560 - 562		sand		
562 - 578		red clay		
		20 HP 625 gpm at 100' head		

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

SOUTH ALAMEDA
COUNTY INVESTIGATION

WELL LOG

NUMBER: 301735

LOCATION:

01-1523

LOCAL DESIGNATION: _____

OWNER: Hunt Foods

SKETCH

DATE COMPLETED: 12/18/19

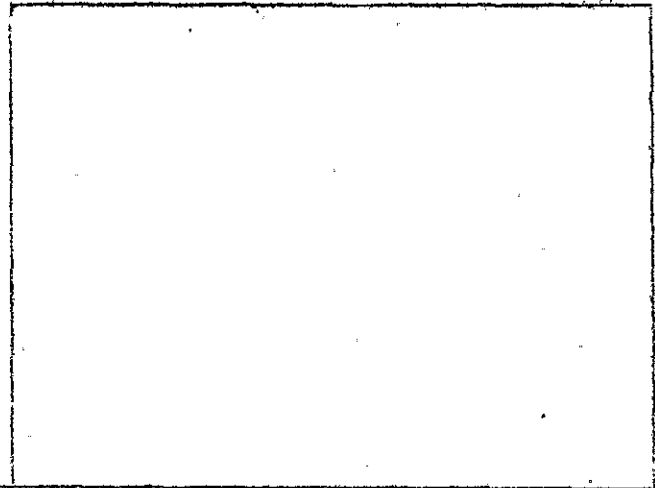
DIAMETER OF CASING: abandoned

DRILLED BY:

SOURCE OF INFORMATION: City Hayward

INSPECTED WHILE DRILLING:
SEE FILE NO:

SURFACE ELEVATION:



Depth	Elevation of Bottom of Stratum	Material	Thickness Feet	% Voids	Absolute Voids Feet	Total Voids Feet
0-8		soil				
22		clay				
38		hardpan				
57		sand				
68		clay				
72		sand				
82		hardpan				
112		hard gr.				
153		c.				
157		gr.				
183		c.				
199		gr.				
226		hard c.				
236		soft c.				
241		hard c.				
252		gr.				
264		soy. gr.				
295		hard c.				
303		cs. gr.				
382		c.				
393		soft gr.				
425		c.				
432		cs. gr.				
484		c.				
494		soft gr.				
498		c.				
510		soft gr.				
515		c.				
526		sd. rock & gr.				

Log obtained by: _____ Date: _____

Number: 321735 (Continued)

01-1523

Depth

Material

528
533
551
589

solid rock
sdy. rock
c.
cl. & blds.

Log obtained by: R.G.T.

Date: 5/16/50

REGION _____
 COUNTY _____
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR No. 3S/2W-17R5 B & M
 OTHER Nos. _____

WELL LOG 01-1524

268

LOCATION _____

OWNER Hunt Foods ADDRESS _____

DRILLED BY _____ ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED 12/18/19

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE; WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICK-NESS	SP. YIELD %
0 - 8		soil		
8 - 22		clay		
22 - 38		hard pan		
38 - 57		sand		
57 - 68		clay		
68 - 72		sand		
72 - 82		hard pan		
82 - 112		hard gravel		
112 - 153		clay		
153 - 157		gravel		
157 - 183		clay		
183 - 199		gravel		
199 - 226		hard clay		
226 - 236		soft clay		
236 - 241		hard clay		
241 - 252		gravel		
252 - 264		sandy gravel		
264 - 295		hard clay		
295 - 303		coarse gravel		
303 - 382		clay		
382 - 393		soft gravel		
393 - 425		clay		
425 - 432		coarsse gravel		
432 - 484		clay		
484 - 494		soft gravel.		

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

REGION _____
COUNTY _____
NEAR _____

DEPARTMENT OF WATER RESOURCES
DEPARTMENT OF PUBLIC WORKS
STATE OF CALIFORNIA

BASIN _____
DWR No. 3S/2W-1785, B & M
OTHER NOS. _____

WELL LOG 01-1824

LOCATION _____

OWNER _____ ADDRESS _____

DRILLED BY _____ ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED _____

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION _____

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
494 - 498		clay		
498 - 510		soft gravel		
510 - 515		clay		
515 - 526		sand rock and gravel		
526 - 528		solid rock		
528 - 533		sandy rock		
533 - 551		clay		
551 - 589		clay and boulders		

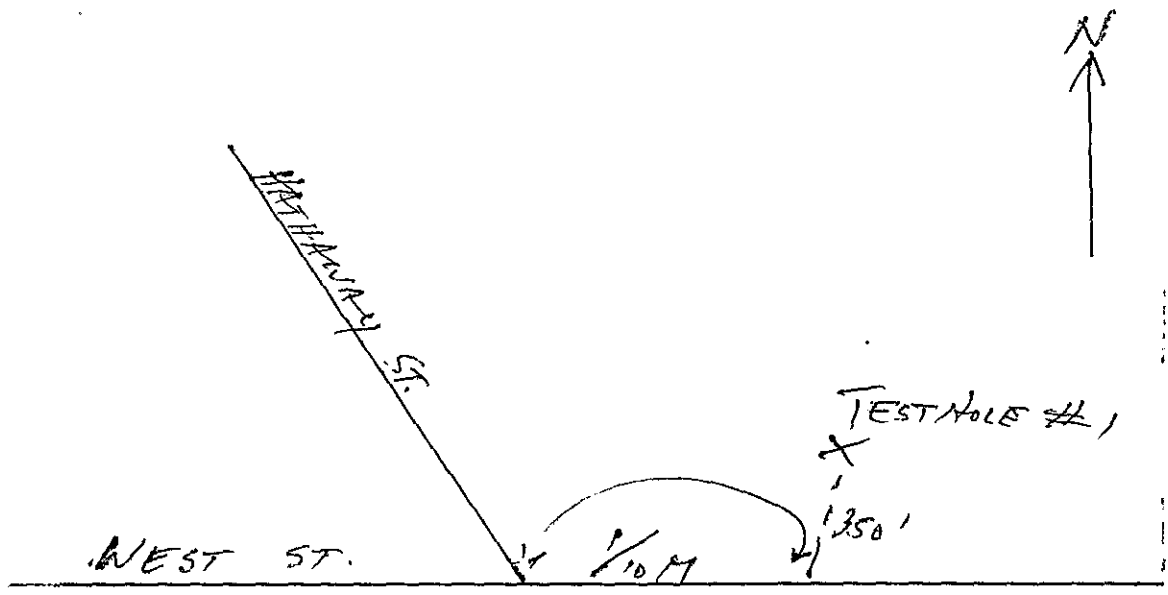
FOR FIELD COPIES USE ALTERNATE LINES

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

107650



HUNT'S FOOD
MAYNARD AREA

RECEIVED
REGIONAL WATER POLLUTION
CONTROL BOARD #2
AUG 2 1965

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

ALA01

03S02W

17

CONFIDENTIAL

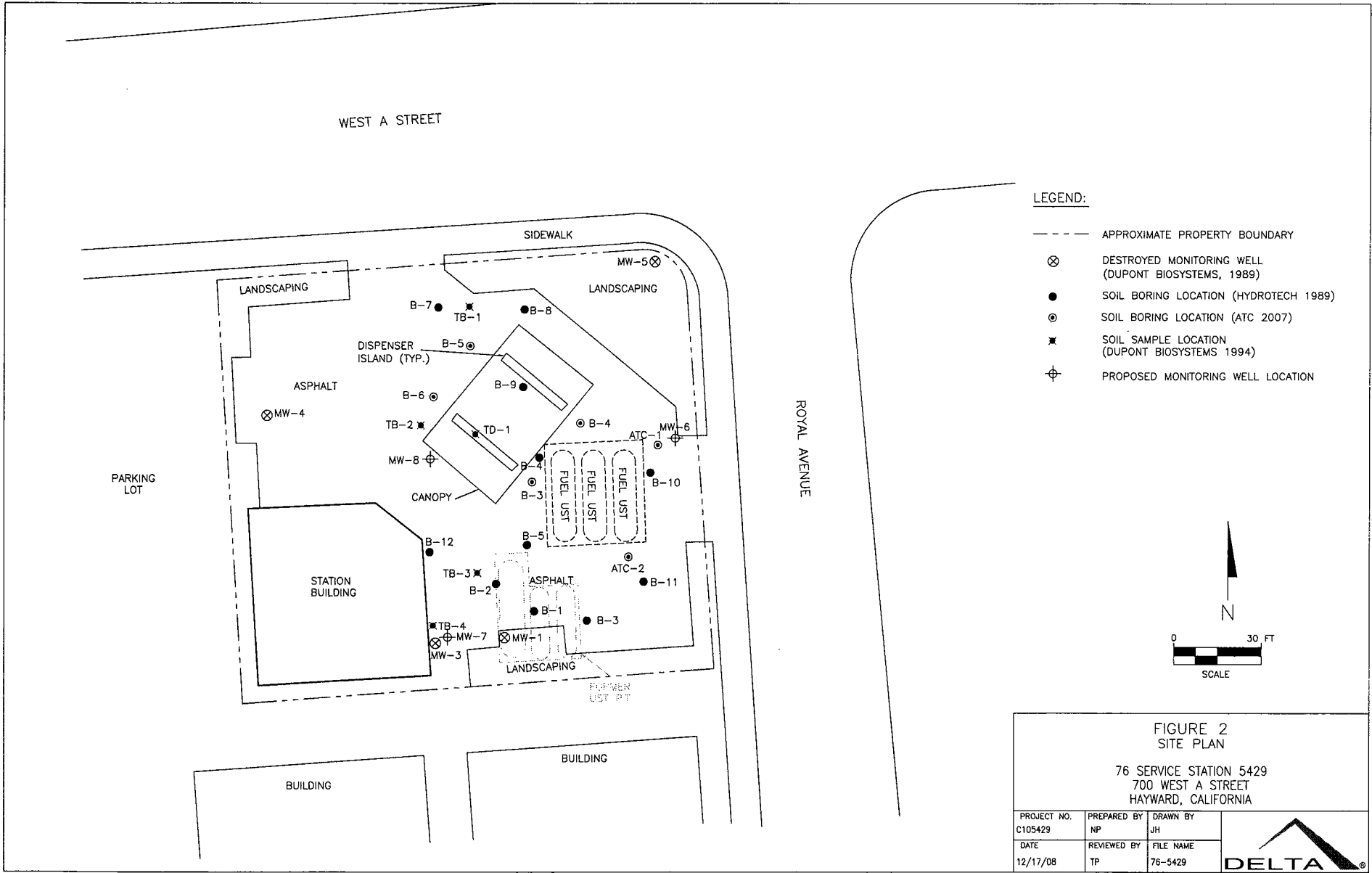
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

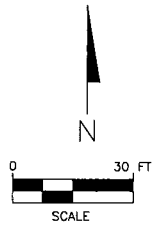
CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



- LEGEND:**
- APPROXIMATE PROPERTY BOUNDARY
 - ⊗ DESTROYED MONITORING WELL (DUPONT BIOSYSTEMS, 1989)
 - SOIL BORING LOCATION (HYDROTECH 1989)
 - ⊙ SOIL BORING LOCATION (ATC 2007)
 - ✱ SOIL SAMPLE LOCATION (DUPONT BIOSYSTEMS 1994)
 - ⊕ PROPOSED MONITORING WELL LOCATION



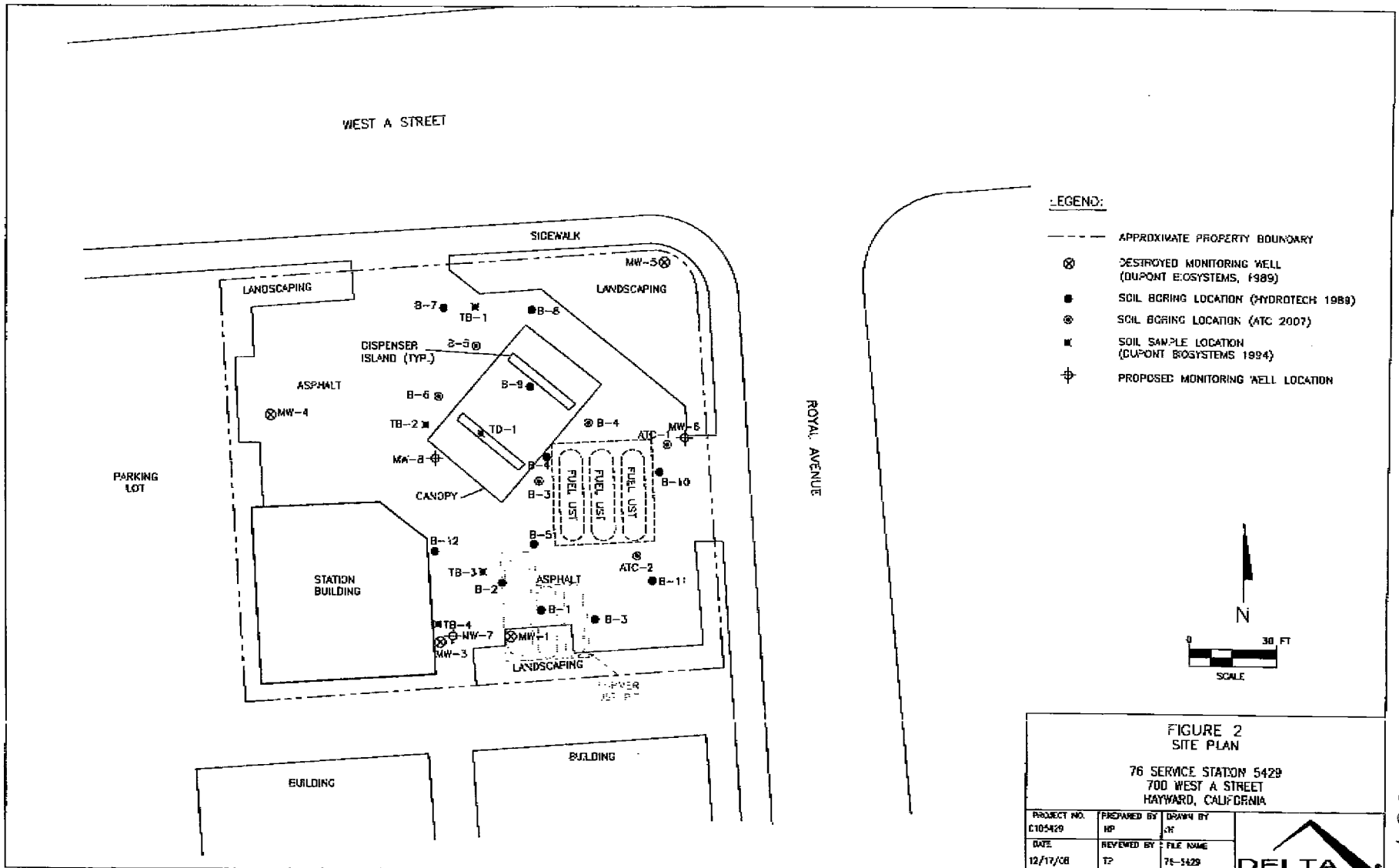
**FIGURE 2
SITE PLAN**

76 SERVICE STATION 5429
700 WEST A STREET
HAYWARD, CALIFORNIA

PROJECT NO. C105429	PREPARED BY NP	DRAWN BY JH	
DATE 12/17/08	REVIEWED BY TP	FILE NAME 76-5429	

09 41580

0941581



APPENDIX E

Sample Letter and Completed Well Survey Questionnaires

Hayward Resident
Vicinity of W. Sunset Blvd. and Garden Ave.
Hayward, CA

March 1, 2012

Dear Resident and/or Property Owner:

You are receiving this letter because today we attempted to contact you in person as part of a neighborhood well survey conducted today, March 1st, 2012.

Environmental Risk Specialties Corp (ERS) is conducting a neighborhood well survey requested by Mark Detterman of Alameda County Environmental Health (mark.detterman@acgov.org, 510-567-6876). The goal of this survey is to identify any domestic or agricultural wells within the boundaries of West Sunset Boulevard on the south, Royal Avenue on the west, Bartlett Avenue on the north, and homes on the east side of Garden Avenue on the east.

Environmental Health is attempting to determine if ground water contamination from a local site has extended off site and whether this contamination might be affecting local wells. Since your property is located within the designated survey boundaries, we passed by your house today to inquire about the existence of a water well on this property, and we will not do so again.

Therefore, please contact us if you have any information regarding a water well on this property or nearby properties so that our survey can be as effective and complete as possible. We have included a brief questionnaire and a stamped envelope addressed to our office. Please complete the survey and mail it to us at the soonest convenient time, as we hope to present the results of the survey in less than two weeks.

If you have any questions, I can be reached at (408) 496-0801 ext. 23, or via email at llinderman@erscorp.us.

Thank you,

Logan Linderman
Geologist

Environmental Risk Specialties Corp
2314 Walsh Ave.
Santa Clara, CA 95051

Well Survey Questionnaire

Today's date 3/10/2012

Your address:

571 W. Sunset Blvd
Hayward, CA 94541

1) Is there a water well located on your property?

Yes / No

2) Do you know of a water well on any nearby properties?

Yes No

If yes, please provide the address for the nearby well:

If you answered yes to either Question 1 or 2,

3) Is the well currently active or being used?

Yes / No / Don't know

4) Approximately when was the last time the well was in use?

Lived at this address over 30 years - well covered
pump doesn't work

5) Please provide the following details, if known:

-Well use (domestic, irrigation, monitoring, etc.):

-Depth of well:

-Diameter of well:

Don't know - we don't and have
never had interest in
using it

Well Survey Questionnaire

Today's date 3-2-12

Your address:

70665 GARDEN AVE.
HAYWARD, CA, 94541
LUCERO, Res.

1) Is there a water well located on your property?

Yes / No

2) Do you know of a water well on any nearby properties?

Yes / No

If yes, please provide the address for the nearby well:

If you answered yes to either Question 1 or 2,

3) Is the well currently active or being used?

Yes / No / Don't know

4) Approximately when was the last time the well was in use?

5) Please provide the following details, if known:

-Well use (domestic, irrigation, monitoring, etc.):

-Depth of well:

-Diameter of well:

Well Survey Questionnaire

Today's date 3/5/12

Your address:

20664 Garden Avenue

Hayward, CA

94541

1) Is there a water well located on your property?

Yes / No

2) Do you know of a water well on any nearby properties?

Yes / No

If yes, please provide the address for the nearby well:

If you answered yes to either Question 1 or 2,

3) Is the well currently active or being used?

Yes / No / Don't know

4) Approximately when was the last time the well was in use?

5) Please provide the following details, if known:

-Well use (domestic, irrigation, monitoring, etc.):

-Depth of well:

-Diameter of well:

Well Survey Questionnaire

Today's date 3-1-12

Your address:

20971 Garden Ave
Hayward, CA
94541

1) Is there a water well located on your property?

Yes No

2) Do you know of a water well on any nearby properties?

Yes No

If yes, please provide the address for the nearby well:

If you answered yes to either Question 1 or 2,

3) Is the well currently active or being used?

Yes / No / Don't know

4) Approximately when was the last time the well was in use?

5) Please provide the following details, if known:

-Well use (domestic, irrigation, monitoring, etc.):

-Depth of well:

-Diameter of well:

APPENDIX F

Neighborhood Well Survey Field Sheets

Survey Conducted 3/1/2012 @ 1400-1630

Address	Was Resident Home	Survey Left	Well On Property	Nearby Well	Use(s)	Notes / Details
390 Bartlett	N	Y				for sale
20429 Garden	N	Y				appears vacant
20461	N	Y				
20531	N	Y				appears vacant
20555	Y		Y		Irr	inactive 10-15 yrs.
20550	N	Y				
20600	N	Y				
20634	N	Y				
20664	N	Y	X	X		
20736	N	Y				
20780	Y		N	N		
20818	Y		N	N		
20842	Y		N	N		resident says there is "50 ft deep trench" in street.
20956	Y		N	N		
489 Sunset	Y		N	N		
593	Y		N	N		visual inspection
591	Y		N	N		
589	Y		N	N		
587	Y		N	N		
585	Y		N	N		
571	N	Y	Y	X		
565	Y		Y			abandoned. photo taken
551	N	Y				
537	Y		N			
20971 Garden	N	Y	X	X		
20943	Y	N	Y			} photo taken. } non-functional for many years.
20941	Y		Y			
20735	N	Y				
20665	N	Y	X	X		

Y=15
N=14

Address	Was Resident Home	Survey Left	Well On Property	Nearby Well	Use(s)	Notes / Details
20633 Garden	Y		N			
20625-20631 ↓	Y		N			
20567	Y		N			
20571 ↓	Y		N	Y		20555 Garden
452 Bartlett	N	Y				
462 ↓	Y		N			
472	Y		Y			not used at least 20 years. Between properties.
482	Y	Y				Apartment complex (X)
511	N	Y				
509 ↓	Y		N			
<hr/>						
442 Sunset	N	Y				could not confirm visually
444 ↓	Y		?	?		
438 ↓	Y		N			
421 Bartlett	N	Y				
21367 Garden	N	Y				

^{Y=8}
^{N=2}
 (X) 482 Bartlett: Tenants were informed of wells when they moved in, but don't know where. No wells seen upon walkthrough of property.
 - One tenant thought the well was under ~8' x 20' concrete pads in back, or in a covered wooden area that was inaccessible due to overgrowth.
 Birchfield Property Mgmt. - (510) 581-2521

APPENDIX G

Photos of Identified Wells



Photo 1 – 20555 Garden Ave.



Photo 2 – 565 W. Sunset Blvd.



Photo 3 – 20943 Garden Ave.