

Chevron Environmental
Management Company
6001 Bollinger Canyon Rd, K2236
P.O. Box 6012
San Ramon, CA 94583-2324
Tel 925-842-9559
Fax 925-842-8370

Dana Thurman
Project Manager

RECEIVED

By loprojectop at 11:08 am, Apr 11, 2006

ChevronTexaco

April 10, 2006
(date)

Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Chevron Service Station # 9-1924

Address: 4904 Southfront Road, Livermore, California

I have reviewed the attached report titled Revised Response to Comments
and dated April 10, 2006.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Cambria Environmental Technology, Inc., upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,



Dana Thurman
Project Manager

Enclosure: Report

April 10, 2006

Mr. Jerry Wickham
Alameda County Health Care Services Agency (ACHCSA)
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: **Revised Response to Comments**
Chevron Service Station 9-1924
4904 Southfront Road, Livermore, California
Fuel Leak Case No. RO0000477



Dear Mr. Wickham:

On behalf of Chevron Environmental Management Company (Chevron), Cambria Environmental Technology, Inc. (Cambria) has prepared this letter report in response to the ACHCSA letter dated January 10, 2006 (Attachment A). The ACHCSA letter requested the following:

1. Obtain well information from Zone 7 Water Agency on water supply wells within 2,000 feet of the site;
 2. Revise Figure 2 from Cambria's November 23, 2005, *Response to Comments* to include nearby Unocal wells and revised extent of groundwater impact; and,
 3. Discuss the potential impact to deeper water bearing zones from dissolved fuel hydrocarbons at the subject site.
- 1) Obtain well information from Zone 7 Water Agency on water supply wells within 2,000 feet of the site.**

On March 27, 2006, Cambria reviewed files at the Zone 7 Water Agency (Zone 7). Cambria identified six existing and nine former water supply wells in the vicinity of the site, and obtained well log and construction information for nine of the wells including the existing wells. Of the six existing wells, only one well, an irrigation well owned by PG&E, is located within 2,000 feet of the site. The PG&E well, located at the Las Positas Sub Station at 5179 Preston Avenue, is upgradient of the site. Figure 1 shows the locations of the nearby water supply wells, and Table 1 summarized information on the wells obtained from Zone 7. Available well log and construction information obtained from Zone 7 is included in Attachment B.

- 2) Revise Figure 2 from Cambria's November 23, 2005, *Response to Comments* to include nearby Unocal wells and revised extent of groundwater impact.**

Revised map is attached as Figure 2.

**Cambria
Environmental
Technology, Inc.**

2000 Opportunity Drive
Suite 110
Roseville, CA 95678
Tel (916) 677-3407
Fax (916) 677-3687

C A M B R I A

3) **Discuss the potential impact to deeper water bearing zones from dissolved fuel hydrocarbons at the subject site.**




Figure 3 presents subsurface stratigraphic information from four of the existing water supply wells in the vicinity of the site. As shown on Figure 3, the subsurface in the vicinity of the site consists mostly of clay with minor saturated, discontinuous horizons of sand and gravel to approximately 200 feet below grade (fbg), where sand and gravel become more prominent. Based on known depth to groundwater data, there appears to be at least four distinct water bearing zones beneath the site. Historically, groundwater in monitoring wells on-site has fluctuated between approximately 10 to 15 fbg. This suggests that shallow groundwater beneath the site may represent a perched zone. On Figure 3, the wells #1 and #4 with screened intervals above 117 fbg, within narrow sand and gravel horizons, had initial water in the wells at 55 and 42 fbg, respectively. These narrow sand and gravel horizons appear to represent a second, discontinuous water bearing zone beneath the shallow perched zone at the site. Other wells included in Table 1, specifically #7 and #8, support this second, discontinuous water bearing zone. With the significant clay content of this second zone, it is unlikely that significant vertical migration of impact occurs from the shallow perched zone. Wells #2 and #3 in Figure 3 show initial water levels in the wells at 125 and 129 fbg, respectively. Based on screen intervals, this appears to represent a third, distinct water bearing zone. This third zone suggests that the clay present between approximately 117 to 140 fbg acts as an aquitard. In wells #2, #3, and #4 there appears to be a fourth water bearing zone below approximately 184 fbg. This fourth zone is distinct in that it is non-potable due to high boron concentrations. Both wells #2 and #4 were filled with cement to approximately 190 and 184 fbg, respectively, to seal off this lower boron impacted zone. Water from the third zone does not have this high boron content, so there appears to be a distinct separation of the third and fourth zones.

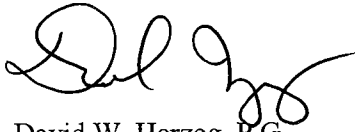
From the available data reviewed at Zone 7, no distinct trend as to historic changes in groundwater level beneath the site could be discerned, except that depth to water differences are based on screen interval within distinct water bearing sand and gravel horizons. Based on distinct, discontinuous water bearing sand and gravel horizons and extensive clay content encountered to approximately 200 fbg, there does not appear to be significant risk of downward migration of dissolved hydrocarbon impact beneath the site, and the observed decline of the hydrocarbon plume beneath the site is likely due to natural attenuation. No significant risk appears to exist at this site and the site should be closed as low risk.

Mr. Jerry Wickham
April 10, 2006

C A M B R I A

If you have any questions or require additional information, please do not hesitate to contact me at (916) 677-3407 (ext. 112).

Sincerely,
Cambria Environmental Technology, Inc.



David W. Herzog, P.G.
Senior Project Geologist



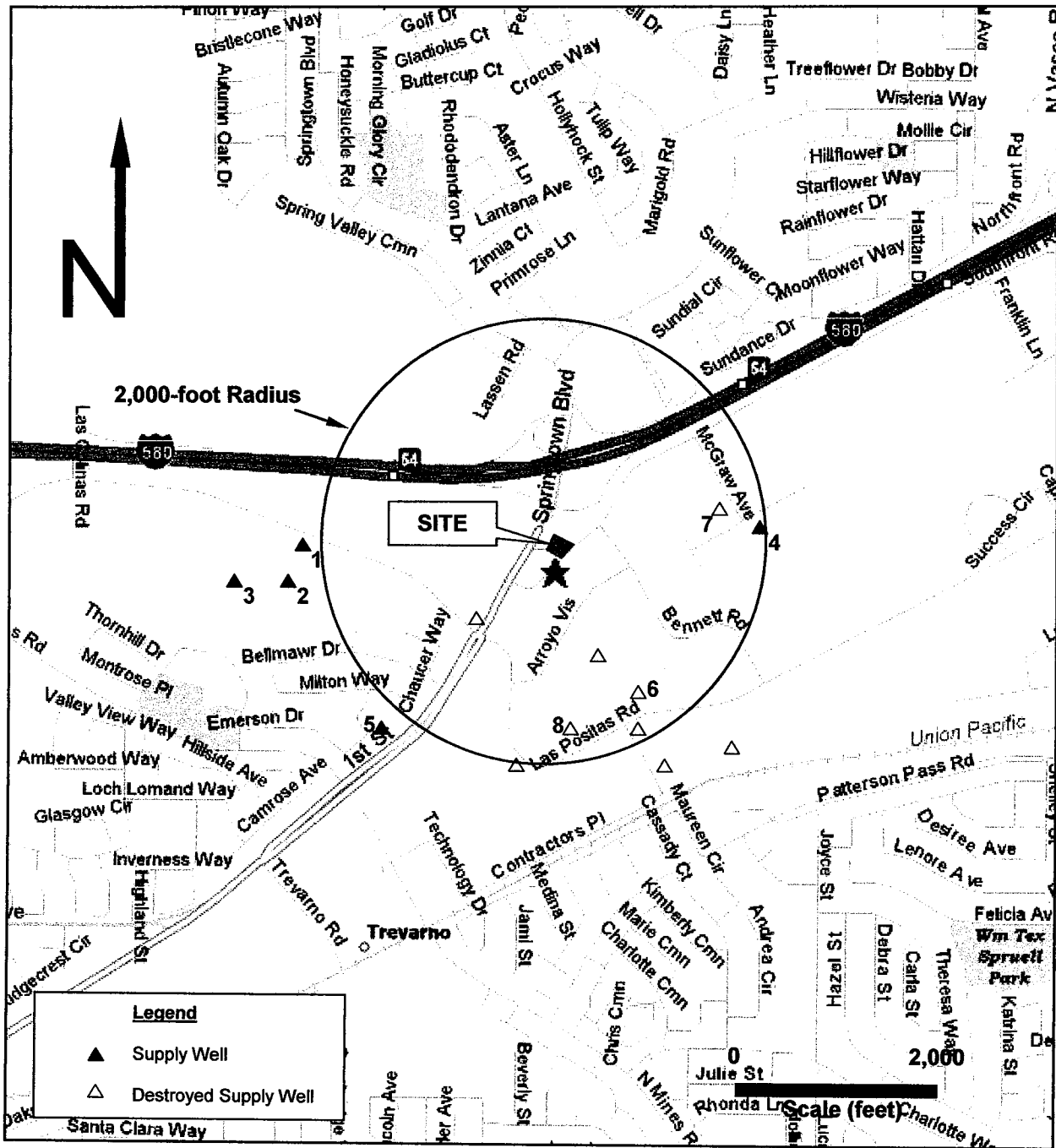
Figures: 1 – Zone 7 Well Survey Map
 2 – Concentration Map
 3 – Subsurface Stratigraphy

Table: 1 – Zone 7 Water Agency Well Survey

Attachments: A – ACHCSA January 10, 2006 Letter
 B – Zone 7 Water Supply Well Logs

cc: Mr. Dana Thurman, Chevron Environmental Management Company, 6001 Bollinger Canyon Road, K2236, P.O. Box 6012, San Ramon, CA 94583

R:\9-1924 Livermore\Revised Response to Comments.doc



Basemap: Mapquest.com

Chevron Service Station 9-1924
 4904 Southfront Road
 Livermore, California

Figure 1
Zone 7 Well Survey Map

LA-ROCKLING-1924 LIVERMORE FIGURES 9-1924_4005.TPHG-BENZ.DWG

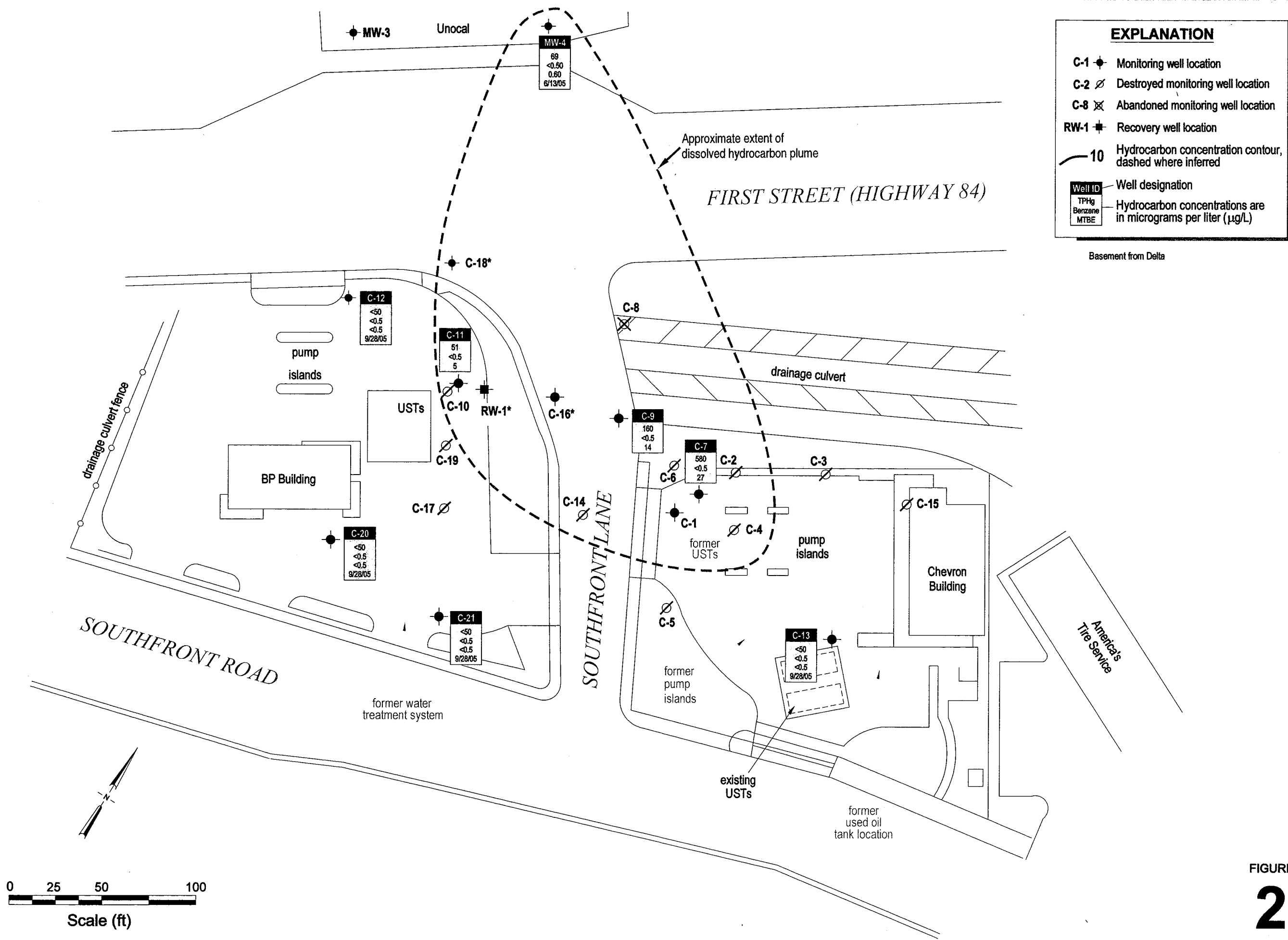
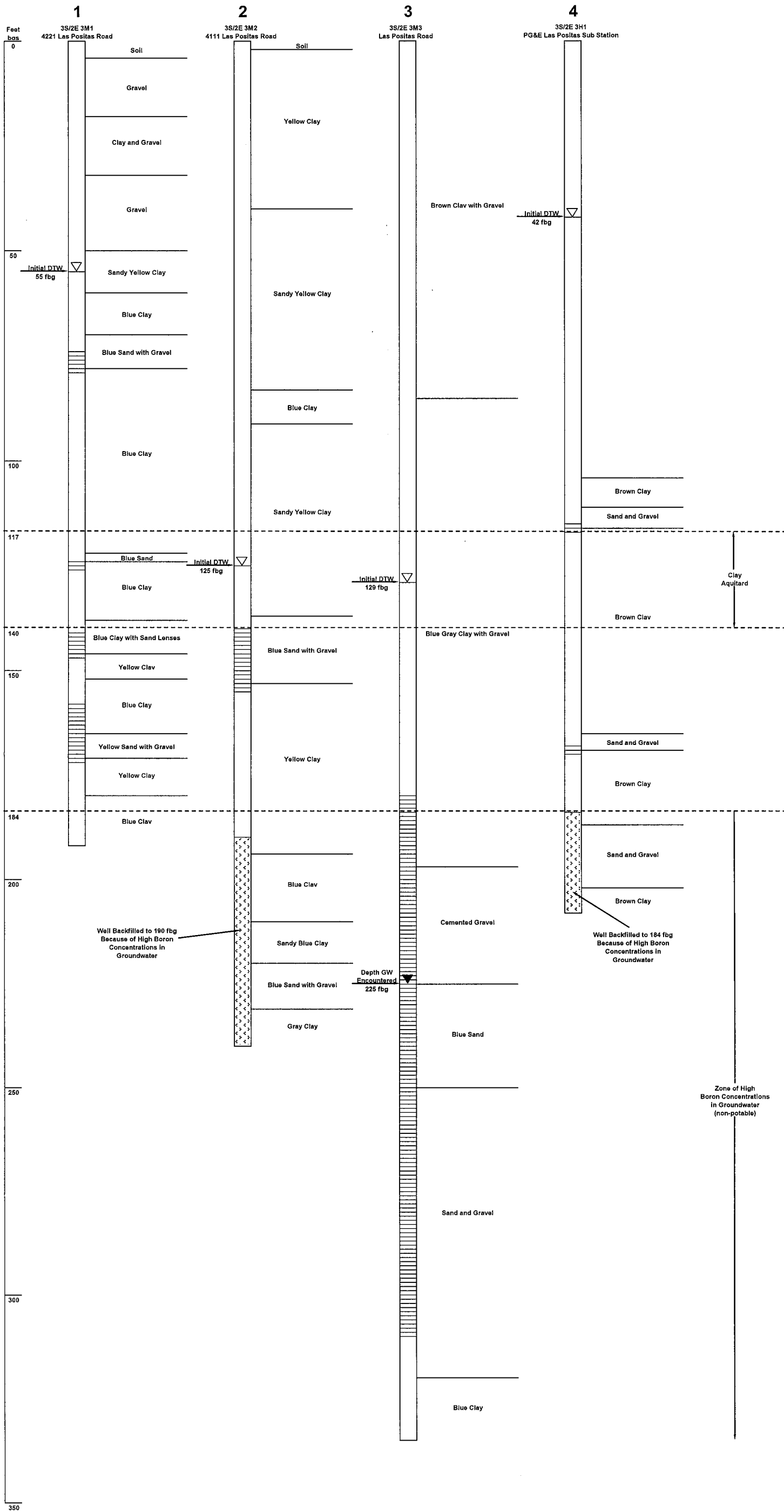


FIGURE
2

Figure 3 - Subsurface Stratigraphy
Chevron Service Station 9-1924, 4904 Southfront Road, Livermore, California



CAMBRIA

Table 1
Zone 7 Water Agency Well Survey
 Chevron Service Station 9-1924
 4904 Southfront Road, Livermore, California

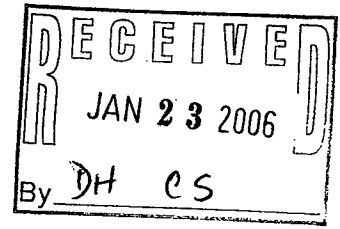
Map ID	State Well No.	Well Owner	Well Location	Well Type	Year Installed	Year Destroyed	Well Depth (fbg)	Perforated Interval (fbg)	Initial Depth to Water (fbg)
1	3S/2E 3M1	Robert Dickinson	4221 Las Positas Rd.	Unknown	1963		192	74-79 124-126 141-147 158-172	55
2	3S/2E 3M2	Lawrence Hoffman (McCann)	4111 Las Positas Rd.	Domestic	1977		240	140-155	125
3	3S/2E 3M3	Robin Heal	Las Positas Rd.	Domestic	1982		335	180-310	129
4	3S/2E 3H1	PG&E	Las Positas Sub Station (5179 Preston Ave.)	Irrigation	1973		208	115-117 168-170	42
5	3S/2E 3P1		4260 First Street	Supply	1961(?)		95	Unknown	25.9 (1982)
5	3S/2E 3P2	Mr. Layton	4260 First Street	Unknown	Unknown		172.4	Unknown	29.6 (1982)
7	3S/2E 3R2	Graham Nissan	Vasco Rd. & 1st Street	Unknown	1951	1984	639	Unknown	53
8	3S/2E 3H2	Preston Park Associates	5153 McGraw Avenue	Domestic	1956	1986	240	57-70 130-135	58
9	3S/2E 3Q1	Graham Nissen	Vasco Rd. & 1st Street	Unknown	1952	1984	282	68-72 191-195 260-265	36.5

ATTACHMENT A

ACHCSA January 10, 2006 Letter

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



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

January 10, 2006

Mr. Dana Thurman
Chevron Environmental Management Company
6001 Bollinger Canyon Road
P.O. Box 6012
San Ramon, CA 94583-2324

Subject: Fuel Leak Case No. RO0000477, Chevron #9-1924, 4904 Southfront Road, Pleasanton, CA

Dear Mr. Thurman:

Alameda County Environmental Health (ACEH) staff have reviewed the fuel leak case file for the above-referenced site and the document entitled, "Response to Comments," dated November 23, 2005. The document was received by ACEH on December 1, 2005, beyond the scheduled submittal date of November 15, 2005. In previous correspondence, Chevron Environmental Management Company has requested site closure based upon review of site conditions and comparison to the low-risk fuel site criteria described in the January 5, 1996 Regional Water Quality Control Board memorandum, "Interim guidance on Required Cleanup at Low-Risk Fuel Sites." ACEH requested additional information prior to making a determination regarding case closure. The "Response to Comments," provides additional information to partially address the technical comments contained in ACEH correspondence dated September 27, 2005. However, the "Response to Comments," does not provide additional information to fully address the technical comments that affect consideration of case closure. We have expanded the technical comments below to identify the items that have not been addressed. In order to facilitate review of case closure, we request that you supplement your response to comments with site-specific information as requested in the technical comments below.

We concur that the concentrations of dissolved fuel hydrocarbons in shallow groundwater are decreasing and that the shallow plume appears to be shrinking. Therefore, continued groundwater monitoring of the existing wells is not necessary to make a determination regarding site closure. Quarterly groundwater monitoring may be suspended at this time.

We request that you prepare a revised Response to Comments to address the technical comments below and provide the requested information **by March 9, 2006**. Case closure will be considered following submittal of the information requested in the technical comments below.

TECHNICAL COMMENTS

1. **Water Wells near the Site.** We requested that you also obtain well information from the Zone 7 Water Agency to confirm that no other water supply wells exist within 2,000 feet of the site and to confirm that irrigation and domestic wells identified by previous well surveys were destroyed. The location of a Zone 7 water-producing well approximately 1.5 miles

south of the site as shown on a generalized map was discussed but no further information on the construction of known wells or confirmation that no other wells exist in the local area was provided. The purpose of this information is to help assess potential risks if the plume extends deeper than currently presumed. Please see the discussion in comment 3 regarding the vertical extent of contamination.

2. **Horizontal Extent of Plume in Shallow Groundwater.** We concur that TPHg and MTBE concentrations in shallow groundwater are decreasing over time and that the shallow groundwater plumes at the site appear to be shrinking. However, the approximate extents of the TPHg and MTBE plumes shown on Figure 2 most likely underestimate the extent of the shallow groundwater contamination. Historical potentiometric surface maps constructed using data collected jointly from monitoring wells at the Unocal station at 4700 First Street, Chevron station at 4904 Front Street, and the ARCO station on the west side of Southfront Road indicate that the Unocal station at 4700 First Street is downgradient of the Chevron Station at 4904 Southfront Road. Monitoring well MW-4, which is on the southeast boundary of the Unocal station property, is upgradient from sources at the Unocal station but is downgradient from the Chevron station. Dissolved fuel hydrocarbons have consistently been detected in this well since monitoring began in 1989. During the most recently reported groundwater monitoring event, TPHg was detected at a concentration of 69 micrograms per liter ($\mu\text{g/L}$) and MTBE was detected at 0.6 $\mu\text{g/L}$. Therefore, the extent of the TPHg and MTBE plume from the Chevron site is larger than shown on Figure 2. Please revise Figure 2 accordingly.
3. **Impact to Lower Water-Bearing Zones.** Due to the fact that no soil or groundwater samples have been collected below 30 feet bgs at the site, we requested that the potential for impact to lower water-bearing zones be discussed using, but not limited to, additional information on the stratigraphy, depth to water-bearing zones, likely vertical gradients, history of fuel releases, and historic water level fluctuations. We also suggested that a nearby Zone 7 monitoring well located in close proximity to the site may be a source of useful information to help address the above items, particularly historic groundwater fluctuations. Broad regional information was discussed but no site-specific information, local data on the depth to water-bearing zones, likely vertical gradients, history of releases at the site, or historic water level fluctuations was presented in the November 23, 2005 "Response to Comments." The response concludes by assuming that the plume is shrinking and is of limited extent; therefore, potential impact to lower water-bearing zones is unlikely.

One of the reasons that we requested local information on the depth to water-bearing zones, likely vertical gradients, history of releases at the site, and historic water level fluctuations is to assess whether the observed decreases in concentrations are related to natural attenuation within shallow groundwater or whether the decreases are due to downward migration of fuel hydrocarbons below the depth of the existing monitoring wells. The potential for vertical gradients and downward migration of contaminants is not addressed or considered in the Response to Comments. Information on historic releases and historic groundwater fluctuations was requested in order to assess whether releases at the site may have occurred during periods of lower groundwater levels. In such cases, fuel hydrocarbons would migrate below current groundwater levels and below the zone of current groundwater monitoring to lower water-bearing zones. The potential for releases to have occurred during periods of lower water level and to have impacted lower water-bearing zones is also not considered in the Response to Comments. Therefore, we request that you evaluate potential

impacts to lower water-bearing zones by considering factors beyond presumptions that are based solely on concentration trends in the existing monitoring wells.

4. **Lead Scavengers.** The historic water quality data provided for ethylene dibromide are sufficient to address our previous comment on lead scavengers.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **March 9, 2006** – Revised Response to Comments

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

Effective **January 31, 2006**, 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. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

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. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for 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 monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at jerry.wickham@acgov.org.

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.

If you have any questions, please call me at (510) 567-6791.

Sincerely,



Jerry Wickham
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

Dana Thurman
January 10, 2006
Page 5

cc: Matt Katen, QIC 80201
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

Danielle Stefani
Livermore-Pleasanton Fire Department
3560 Nevada Street
Pleasanton, CA 94566

✓ David Herzog
Cambria Environmental Technology, Inc.
4111 Citrus Avenue, Suite 12
Rocklin, CA 95667

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

ATTACHMENT B

Zone 7 Water Supply Well Logs

3S/2E-3M1
0*
(3/2-3M80)

Robert G. Dickinson

Dec. 22, 63
4221 Los Posetos Rd.
Livermore

<u>Feet</u>	<u>Description</u>
0-4	soil 5
4-18	gravel 20
18-32	clay and gravel 5
32-50	gravel 20
50-60	sandy yellow clay 5
60-70	blue clay 3
70-78	blue sand with some gravel 20
78-122	blue clay 3
122-124	blue sand 3
124-138	blue clay 3
138-146	blue clay with layers of sand 5
146-152	yellow clay 3
152-165	blue clay 3
165-171	yellow sand with some gravel 20
171-180	yellow clay 3
180-192	blue clay 3
perf. 74-79	water level 55 feet
124-126	
141-147	
158-172	

* location verified

ACFC & WCB

R. Dickinson

please send copy of
report to [unclear]

3S/2E-3M1

35/2E-3M2

STATE OF CALIFORNIA
THE RESOURCES AGENCY

Do Not Fill In

TRIPPLICATE
Retain this copy

DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

No 120418

State Well No. 35/2E-3M2

Other Well No.

77338

(Our invoice # 20937)

(1) OWNER:
Name Lawrence Hoffman

Address 1046 Vintner Way
Pleasanton, Ca. 94566

(2) LOCATION OF WELL: Next door to 4221
County Alameda Los Positas Way
Township, Range, and Section
Distance from cities, roads, railroads, etc.

(3) TYPE OF WORK (check):
New Well Deepening Reconditioning Destroying
If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE (check):
Domestic Industrial Municipal
Irrigation Test Well Other

(5) EQUIPMENT:
Rotary
Cable
Other

(11) WELL LOG: Drilled 10" well
Total depth ft. Depth of completed well ft.

Formation: Describe by color, character, size of material, and structure
ft. to ft.
0-2 Soil
2-40 yellow clay
40-83 sandy yellow clay
83-91 blue clay
91-137 sandy yellow clay
137-153 blue sand with some small gravel
153-194 yellow clay
194-210 blue clay
210-220 sandy blue clay
220-231 blue sand with some small gravel
231-240 gray clay

(6) CASING INSTALLED:
STEEL OTHER:
SINGLE DOUBLE
If gravel packed
Table with columns: From ft., To ft., Diam., Gage or Wall, Diameter of Bore, From ft., To ft.

Water sample from 220' - 231' shows
boron - 13.2 mg/l--filled well to 190'
final boron content: 2.6 mg/l

Size of shoe or well ring: 10 X 1/2 X 4
Size of gravel:
Describe joint welded

(7) PERFORATIONS OR SCREEN:
Type of perforation or name of screen

Table with columns: From ft., To ft., Perf. per row, Rows per ft., Size in. x in.
204 - 232 filled w/sand-topped w/ 1 sack cement
140 155 Mills knife 1/2 x 1 1/2 blade

(8) CONSTRUCTION: by owner
Was a surface sanitary seal provided? Yes No To what depth 50 ft.
Were any strata sealed against pollution? Yes No If yes, note depth of strata
From ft. to ft.
From ft. to ft.

Work started 19 Completed 19

(9) WATER LEVELS:
Depth at which water was first found, if known ft.
Standing level before perforating, if known ft.
Standing level after perforating and developing 125 ft.

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME DeLucchi Well & Pump, Inc.
(Person, firm, or corporation) (Typed or printed)
Address 35137 Mission Blvd.
Fremont, Ca. 94536

(10) WELL TESTS:
Was pump test made? Yes No If yes, by whom?
400 5 gal./min. with ft. drawdown after 1 hrs.
Temperature of water Was a chemical analysis made? Yes No
Was electric log made of well? Yes No If yes, attach copy

[SIGNED] (Well Driller)
License No. 116079 Dated June 10, 1977, 19

SKETCH LOCATION OF WELL ON REVERSE SIDE

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

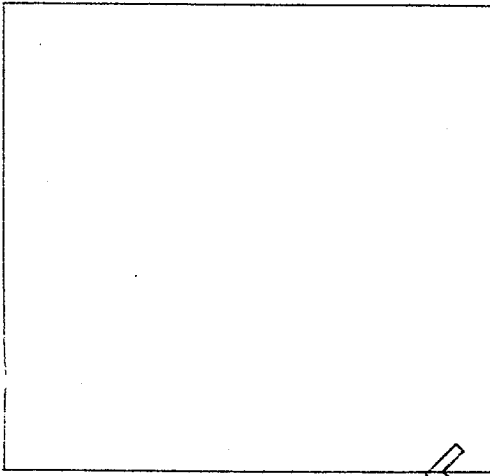
Do not fill in
No. 062558

Permit No. _____
Local Permit No. or Date 82-003

State Well No. _____
Other Well No. 3S/2E 3MB

(1) OWNER: Name Robin W. Heal
Address 1478 2nd. ST.
City Livermore Zip 94550

(2) LOCATION OF WELL (See instructions):
County Alameda Owner's Well Number _____
Well address if different from above Las Positas Rd.
Township Livermore Range _____ Section _____
Distance from cities, roads, railroads, fences, etc. 1/2 mile west of
Hyw 84 on las Positas Rd. on south
side 800' Plot F lot 7



- (3) TYPE OF WORK:
- New Well Deepening
 - Reconstruction
 - Reconditioning
 - Horizontal Well
 - Destruction (Describe destruction materials and procedures in Item 12)
- (4) PROPOSED USE:
- Domestic
 - Irrigation
 - Industrial
 - Test Well
 - Stock
 - Municipal
 - Other

(12) WELL LOG: Total depth 335 ft. Depth of completed well 330 ft.
from ft. to ft. Formation (Describe by color, character, size or material)

0	-	85	Brown clay W/gravels
85	-	197	Blue grey clay W/gravels
197	-	225	Cemented gravels
225	-	250	Blue sand Almost sandstone
250	-	320	Dirty sand & gravels
320	-	335	Blue clay

(5) EQUIPMENT:

Rotary Reverse Yes No Size 18"
Cable Air Diameter of bore 12"
Other Bucket Racked from 30 to 330 ft.

(6) GRAVEL PACK: _____

(7) CASING INSTALLED: Steel Plastic Concrete

(8) PERFORATIONS: Type sawcut or size of screen _____

From ft.	To ft.	Dia. in.	Cage or Wall	From ft.	To ft.	Slot size
0	330	6	160	180	310	1/8"

(9) WELL SEAL:

Was surface sanitary seal provided? Yes No If yes, to depth 30 ft.
Were strata sealed against pollution? Yes No Interval 30 ft.
Method of sealing cement grout

(10) WATER LEVELS:
Depth of first water, if known 225 ft.
Standing level after well completion 129 ft.

(11) WELL TESTS:
Was well test made? Yes No If yes, by whom? driller
Type of test Pump 129 Bailer Air lift
Depth to water at start of test _____ ft. At end of test ukn. ft.
25 gal/min after 1 hours Water temperature ukn
Chemical analysis made? Yes No If yes, by whom? _____
Was electric log made? Yes No If yes, attach copy to this report

Work started 1-15-82 19 2-2-82 Completed _____ 19 _____

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
SIGNED Glenn Martell (Well Driller)
NAME Glenn Martell & Son Inc.
(Person, firm, or corporation) (Typed or printed)
Address 1818 Loveridge Rd.
City Pittsburg Zip 94565
License No. 296448 Date of this report 8-4-82

WATER WELL DRILLERS REPORT

(Sections 7679, 7680, 7681, 7682, Water Code)

No. **17180**

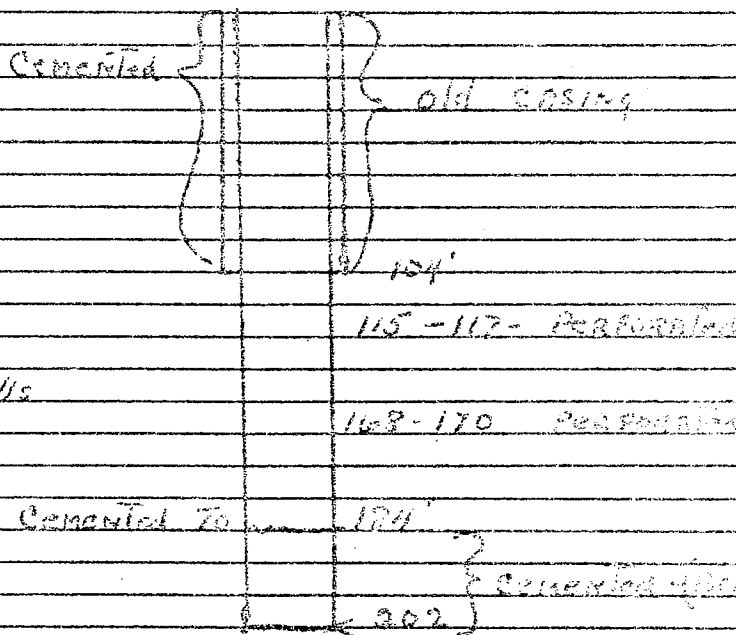
THE RESOURCES AGENCY OF CALIFORNIA

DEPARTMENT OF WATER RESOURCES

State Well No. 3528 341

Other Well No. 35116 2420

Our invoice #17361 + 17674

OWNER: Name P.G. & E. Address S/S 21-24300 Clawiter Rd. Hayward, Ca.				(11) WELL LOG: Total depth _____ ft. Depth of completed well 184' ft. Formation: Describe by color, character, size of material, and structure _____ ft. to _____ ft. Old Well 104'																																						
(2) LOCATION OF WELL: County <u>Alameda</u> Owner's number, if any _____ Township, Range, and Section <u>Los Positos Sub STATION</u> Distance from cities, roads, railroads, etc. <u>1/2 MILE MORE</u> <u>near road from center of McGowan Ave</u>				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">104-111</td><td style="width: 40%;">brown clay</td><td style="width: 50%;"></td></tr> <tr><td>111-116</td><td>sand & gravel</td><td>(115-116-1)</td></tr> <tr><td>116-165</td><td>brown clay</td><td></td></tr> <tr><td>165-169</td><td>sand & gravel</td><td>(168-169-1)</td></tr> <tr><td>169-187</td><td>brown clay</td><td></td></tr> <tr><td>187-202</td><td>sand & gravel</td><td></td></tr> </table>				104-111	brown clay		111-116	sand & gravel	(115-116-1)	116-165	brown clay		165-169	sand & gravel	(168-169-1)	169-187	brown clay		187-202	sand & gravel																		
104-111	brown clay																																									
111-116	sand & gravel	(115-116-1)																																								
116-165	brown clay																																									
165-169	sand & gravel	(168-169-1)																																								
169-187	brown clay																																									
187-202	sand & gravel																																									
(3) TYPE OF WORK (check): New Well <input type="checkbox"/> Deepening <input checked="" type="checkbox"/> Reconditioning <input type="checkbox"/> Destroying <input type="checkbox"/> If destruction, describe material and procedure in Item 11.				(5) EQUIPMENT: Rotary <input type="checkbox"/> Cable <input checked="" type="checkbox"/> Other <input type="checkbox"/>																																						
(4) PROPOSED USE (check): Domestic <input type="checkbox"/> Industrial <input type="checkbox"/> Municipal <input type="checkbox"/> Irrigation <input checked="" type="checkbox"/> Test Well <input type="checkbox"/> Other <input type="checkbox"/>				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">201-202</td><td style="width: 40%;">brown clay</td><td style="width: 50%;"></td></tr> <tr><td>202-208</td><td></td><td></td></tr> </table>				201-202	brown clay		202-208																															
201-202	brown clay																																									
202-208																																										
(6) CASING INSTALLED: STEEL: <input checked="" type="checkbox"/> SINGLE <input type="checkbox"/> DOUBLE <input type="checkbox"/> OTHER: _____ If gravel packed _____ <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>From ft.</th><th>To ft.</th><th>Diam.</th><th>Gage or Wall</th><th>Diameter of Bore</th><th>From ft.</th><th>To ft.</th></tr> </thead> <tbody> <tr> <td>1</td><td>200</td><td>8"</td><td>1/2"</td><td></td><td></td><td></td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> of shoe or well ring: <u>SAFETY</u> Size of gravel: _____ Describe joint <u>WELDED</u>				From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore	From ft.	To ft.	1	200	8"	1/2"																									2-sacks of cement 1-ton of gravel  <p style="text-align: right;">104' 115-117 - Perforated 168-170 Perforated 184' 202' } Cemented</p>			
From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore	From ft.	To ft.																																				
1	200	8"	1/2"																																							
(7) PERFORATIONS OR SCREEN: Type of perforation or name of screen _____ <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>From ft.</th><th>To ft.</th><th>Perf. per row</th><th>Rows per ft.</th><th>Size in. x in.</th></tr> </thead> <tbody> <tr><td>115</td><td>117</td><td>4</td><td>1</td><td>3/16 x 1/16 Mills</td></tr> <tr><td>168</td><td>170</td><td>-</td><td>2x</td><td>"</td></tr> <tr><td>196</td><td>202</td><td>"</td><td>"</td><td>"</td></tr> </tbody> </table>				From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.	115	117	4	1	3/16 x 1/16 Mills	168	170	-	2x	"	196	202	"	"	"	Cemented DAF - Due TO BORDO - Cemented To 184' Cemented 184' to 202'																		
From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.																																						
115	117	4	1	3/16 x 1/16 Mills																																						
168	170	-	2x	"																																						
196	202	"	"	"																																						
(8) CONSTRUCTION: Was a surface sanitary seal provided? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> To what depth <u>104'</u> ft. Were any strata sealed against pollution? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, note depth of strata _____ From _____ ft. to _____ ft. From _____ ft. to _____ ft. Method of sealing <u>CEMENT</u>				Work started <u>5-3-73</u> Completed <u>6-19-73</u> WELL DRILLER'S STATEMENT: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. NAME DeLucchi Well & Pump, Inc. (Person, firm, or corporation) (Typed or printed) Address 35137 Mission Blvd. Fremont, Ca. [SIGNED] <u>[Signature]</u> (Well Driller) License No. 116079 Dated July 19, 1973																																						
(9) WATER LEVELS: Depth at which water was first found, if known _____ ft. Standing level before perforating, if known _____ ft. Standing level after perforating and developing <u>42</u> ft.				(10) WELL TESTS: Was pump test made? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, by whom? _____ Yield _____ gal./min. with _____ ft. drawdown after _____ hrs. _____ cure of water Was a chemical analysis made? Yes <input type="checkbox"/> No <input type="checkbox"/> Was electric log made of well? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, attach copy _____																																						

SKETCH LOCATION OF WELL ON REVERSE SIDE

ZONE 7
WATER RESOURCES ENGINEERING

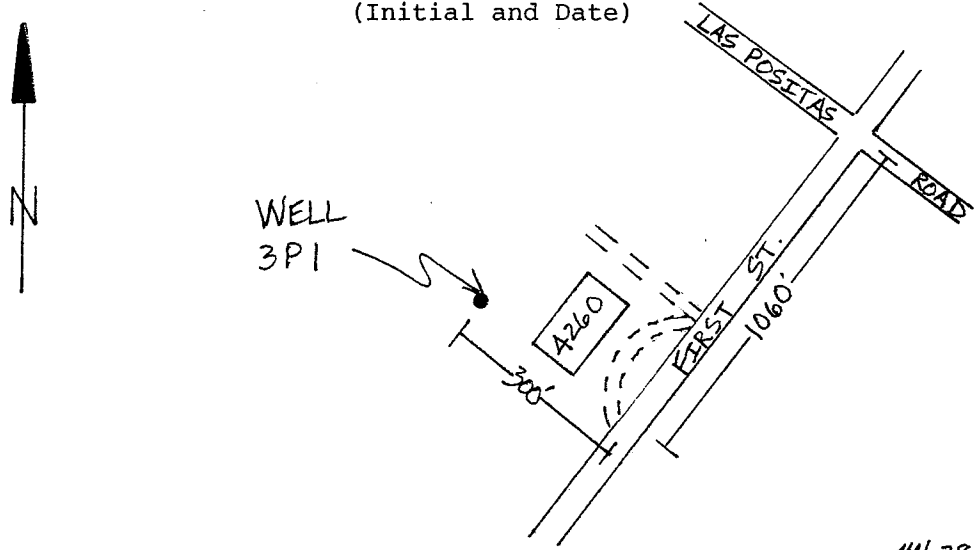
WELL LOCATION DATA

WELL NUMBER 3S / 2E - 3P1

ADDRESS <u>4260 First Street, Livermore</u>	OTHER
OWNER _____	DESIGNATION _____
PRIMARY USE: <u>WATER SUPPLY</u> <input checked="" type="checkbox"/>	PUMP: TYPE _____
<u>CATHODIC</u> <u>MONITORING</u>	MAKE _____
DRILLER <u>Precision Drilling Co.</u>	HP _____
DATE COMPLETED _____	METER NUMBER _____
DEPTH: COMPLETED _____ FT	SOUNDED DEPTH <u>95</u> FT
DRILLED _____ FT	DATE SOUNDED <u>3-20-61</u>
DIAMETER <u>12</u> IN	DATE DESTROYED _____
	DATE UNLOCATABLE _____

REMARKS (Initial and date entry) _____

LOCATION SKETCH
(Initial and Date)



ALAMEDA COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

WELL DATA

LOCATION NUMBER 35/2E 3P2

WELL ADDRESS 4260 First St
OWNER Mr Loyton
OWNER ADDRESS _____

OTHER See
DESIGNATION 35/2E 3P1
USE _____

MEASURABLE Yes ⁴⁴⁷⁻³⁴⁶⁰ ₄₄₃₋₈₈₁₅

SAMPLEABLE Yes

SAMPLING POINT DESCRIPTION _____

MEASURING POINT DESCRIPTION 10 feet behind well shed where 35/2E 3P1 is located
measure from top of plug

MEASURING POINT 0.22 FEET above pad ~~18" DISCHARGE~~

MEASURING POINT ELEV. 539.8 FEET DETERMINED FROM Survey (County survey paid)
= 539.619

SOUNDED DEPTH AND YEAR 172.4 (DWL 7 Jun 82)

CASING DIAMETER 8"
DISCHARGE DIAMETER 1.5" faucet pipe
LOCATION TAG _____

PUMP TYPE _____ MAKE _____ HP _____

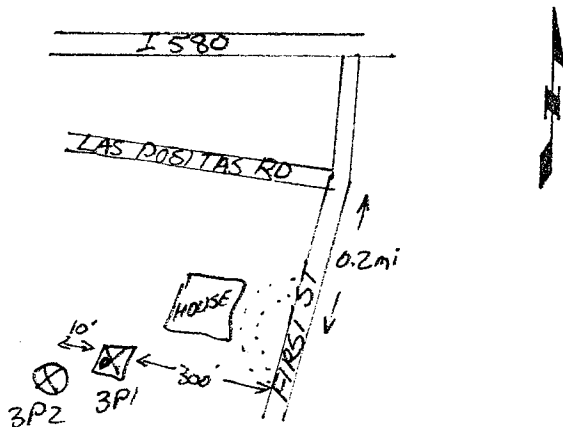
PG&E METER _____ TEST _____

OWNER OR USER INTERVIEW, NAME AND DATE STEWART STONE 15 July 82 from Unitarian church 422-4233
He remembers well was in existence prior to 1961

DRILLER _____ DATE _____ DEPTH _____ YIELD _____

LOG _____ QUALITY see attached SPECIFIC CAPACITY _____

SKETCH



REMARKS

	3P1	3P2
	<u>old well (in shed)</u>	<u>new well</u>
number	<u>3P3</u>	<u>3P2</u>
RP	<u>539.2'</u>	<u>539.8'</u>
DTW	<u>25.9'</u>	<u>29.6'</u>
depth	<u>92.6'</u>	<u>172.4'</u>

(measured 7 Jun 82 DWL)

RECORDED BY JS DATE 9.1.82

ORIGINAL

STATE OF CALIFORNIA

Do not fill in

File with DWR

THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

No. 225546

Intent No.

State Well No.

35/E3RZ

Permit No. or Date

84/D1

Other Well No.

(1) OWNER: Name

Address

City Zip

(2) LOCATION OF WELL (See instructions):

County Alameda Owner's Well Number 3R2

Well address if different from above Vasco Rd. & 1st St.

Township Range Livermore ca.

Distance from cities, roads, railroads, fences, etc.

Vasco Rd. Assessment Dist 84-1

(12) WELL LOG: Total depth ft. Depth of completed well ft.
from ft to ft. Formation (Describe by color, character, size or material)

Filled per specs

386 - 18' filled with pea gravel

18' - 3' filled with concrete

3' - 0 surface surface materials

(3) TYPE OF WORK:

New Well Deepening

Reconstruction

Reconditioning

Horizontal Well

Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

Domestic

Irrigation

Industrial

Test Well

Stock

Municipal

Other

WELL LOCATION SKETCH

(5) EQUIPMENT:

Rotary Reverse Yes No Size

Cable Air Diameter of bore

Other Bucket Packed from to

(6) GRAVEL PACK:

Yes No Size

Diameter of bore

Packed from to

(7) CASING INSTALLED:

Steel Plastic Concrete

(8) PERFORATIONS:

Type of perforation or size of screen

From To Dia. Gauge or From To Slot
ft. ft. in. Wall ft. ft. size

(9) WELL SEAL:

Was surface sanitary seal provided? Yes No If yes, to depth ft.

Were strata sealed against pollution? Yes No Interval ft.

Method of sealing

Work started 19 Completed 19

(10) WATER LEVELS:

Depth of first water, if known ft.

Standing level after well completion ft.

WELL DRILLER'S STATEMENT:

This well was drilled under my supervision and this report is true to the best of my knowledge and belief

(11) WELL TESTS:

Was well test made? Yes No If yes, by whom?

Type of test Pump Bailer Air lift

Depth to water at start of test ft. At end of test ft.

Discharge gal/min after hours Water temperature

al analysis made? Yes No If yes, by whom?

Was electric log made? Yes No If yes, attach copy to this report

SIGNED (Well Driller)

NAME Viking Drillers, Inc.

(Person, firm, or corporation) (Typed or printed)

Address 859x P.O. Box 642

City Penngrove, Cal. Zip 94951

License No. 442153 Date of this report 17 Oct 84

NUMBER 32E-04

INVESTIGATION OF WATER
INVESTIGATION

Destroyed Aug. 1984
WELL LOG
Can 15 Oct 84

LOCAL DESIGNATION 0920
32/2E-3R2
4/26

LOCATION _____

OWNER Graham Nissen

SKETCH

DATE COMPLETED November 10, 1951

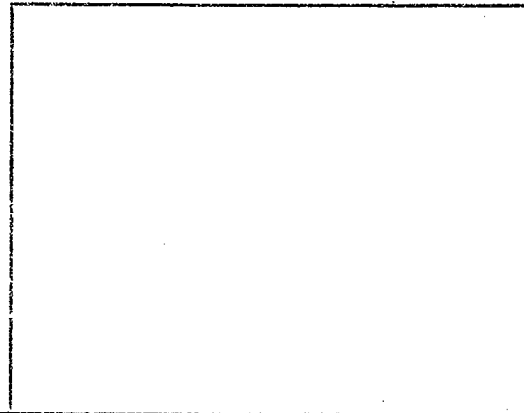
DIAMETER OF CASING _____

DRILLED BY Jim Hawthorne *36*

SOURCE OF INFORMATION Driller

INSPECTED WHILE DRILLING _____ SEE FILE NO. _____

SURFACE ELEVATION _____



FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEVATION OF BOTTOM OF STRATUM	MATERIAL	THICKNESS FEET	% Voids	ABSOLUTE VOIDS FEET	TOTAL VOIDS FEET
0-5		Soil	5	5		
5-10		Sticky top soil	5	5		
10-17		Sticky yellow clay	7	3		
17-25		Dry sandy gravel	8	20		
25-45		Sticky yellow clay	20	3		
45-50	5'	Cement gravel (yellow)	5	10		
50-55		Sticky yellow clay	5	3		
55-63	8'	Cement gravel (yellow)	8	10		
63-82		Sticky yellow clay	19	3		
82-85	3'	Cement gravel (yellow)	3	10		
85-115		Sandy grey clay	30	5		
115-141		Sticky grey clay	26	3		
141-149	8'	Cement gravel (yellow)	8	10		
149-192		Sticky grey clay	43	3		
192-199		Sandy grey clay	7	5		
199-215		Sticky grey clay	16	3		
215-217	2'	Cement gravel (yellow)	2	10		
217-229		Sticky yellow clay	12	3		
229-252	23'	Cement gravel (yellow)	23	10		
252-256		Sticky grey clay	4	3		
256-263	7'	Cement gravel (yellow)	7	10		
263-285		Sticky yellow clay	22	3		
285-299		Sticky grey clay	14	3		
299-314		Sandy grey clay	15	5		
314-317	3'	Cement gravel (yellow)	3	10		
317-321		Sandy yellow clay	4	5		
321-327	6'	Cement gravel (yellow)	6	10		
327-339		Sticky grey clay	12	3		
339-341	2'	Cement gravel (yellow)	2	10		
341-348		Sticky grey clay	7	3		
348-357		Sticky yellow clay	9	3		
357-381		Sticky grey clay	24	3		
381-389		Sticky blue clay	8	3		

LOG OBTAINED BY K. Atwood DATE July 13, 1952

35/2E-3R2

DIVISION OF WATER RESOURCES
DEPARTMENT OF PUBLIC WORKS
STATE OF CALIFORNIA

NUMBER
35/2E-3R2

WELL LOG

LOCAL DESIGNATION

DEPTH	ELEVATION OF BOTTOM OF STRATUM	MATERIAL	THICKNESS FEET	% VOIDS	ABSOLUTE VOIDS FEET	TOTAL VOIDS FEET
389-396		Sticky grey clay	7	3		
396-426		Sticky yellow clay	30	3		
426-430		Sandy yellow clay	4	5		
430-458		Sticky yellow clay	28	3		
458-467		Sandy yellow clay	9	5		
467-474		Cement gravel (yellow) 7' WL 34'5"	7	10		
474-476		Sticky yellow clay	2	3		
476-478		Cement gravel 2' WL 34'5"	2	10		
478-533		Sticky yellow clay	55	3		
533-602		Sticky blue clay	69	3		
602-615		Sandy blue clay	13	5		
615-626		Cement gravel (blue) 11' WL 63'	11	10		
626-639		Sticky blue clay	13	3		
		Final Water Level 53'2"				
<i>(This well was filled in to 389 because of high boron content.)</i>						

FOR FIELD COPIES USE ALTERNATE LINES

35/2E-3R2

Report No. 710

Owner Guadalupe Placer

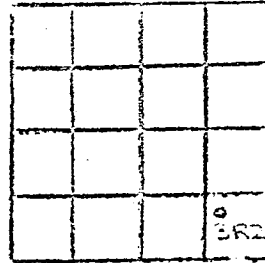
Meter No. 251746

Pump No. 2EJ 472213

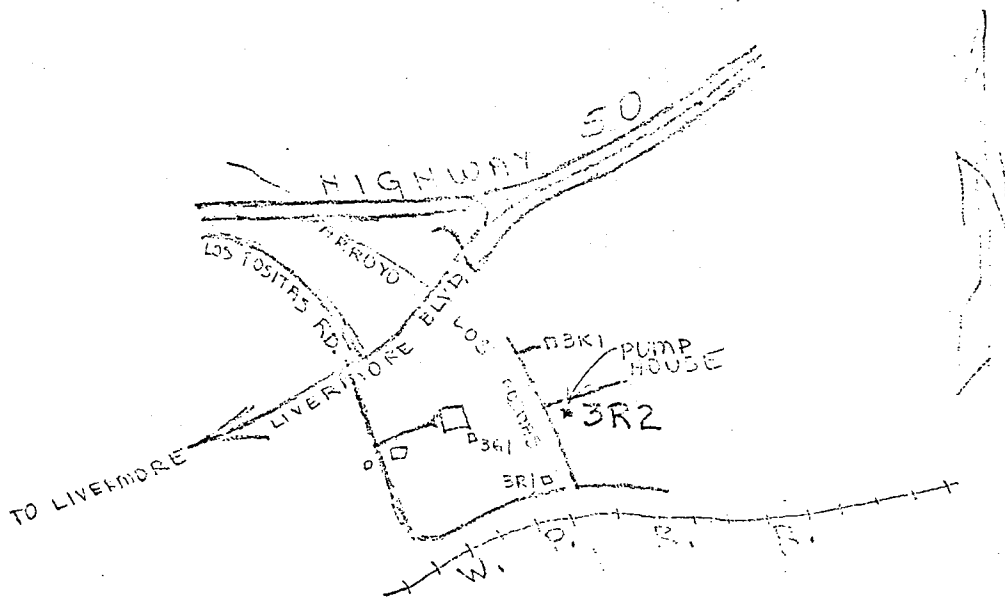
Region 2; County FLAVIN

Township 35, Range 2E, Section 3R2, MDB&M.

1000 ft. north, 1000 ft. west from southeast corner of Section.



SKETCH



DESCRIPTION OR REMARKS

0.4 mi. SW/o junction of Hwy. 50 & Livermore Blvd. on
 Livermore Blvd.; 0.35 mi. south, 0.2 mi. east, 0.15 mi. north
 on highway then dirt road from Livermore Blvd.
 TONDER #2

Checked by J. H. ZIFF

Date Aug. 1, 1957

35/2E-3R2

ORIGINAL

STATE OF CALIFORNIA

Do not fill in

File with DWR

THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

No. 150995

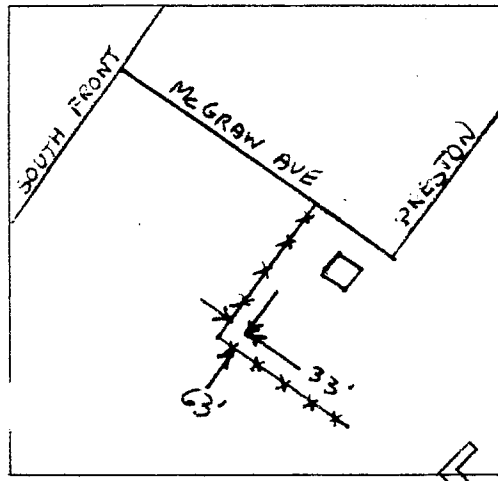
of Intent No. 206236
Permit No. or Date 86082

26803

State Well No. 3S/2E-03H02
Other Well No.

(1) OWNER: Name Preston Park Associates
Address 1307 Maglee Ave
City San Jose, CA. Zip 95126

(2) LOCATION OF WELL (See instructions):
County Alameda Owner's Well Number
Well address if different from above Livermore
Township 3 south Range 2 east Section 3
Distance from cities, roads, railroads, fences, etc.
5153 McGraw Ave., 63' from the back fence,
33' from northern fence.



(3) TYPE OF WORK:

- New Well [] Deepening []
Reconstruction []
Reconditioning []
Horizontal Well []
Destruction [X] (Describe destruction materials and procedures in Item 12)
(4) PROPOSED USE:
Domestic []
Irrigation []
Industrial []
Test Well []
Stock []
Municipal []
Other []

(12) WELL LOG: Total depth ft. Depth of completed well ft.
from ft. to ft. Formation (Describe by color, character, size or material)
1. Fished for and removed jet pump and line. shaft turbine.
2. Perforated 5'-10'
3. Filled the 12" casing:
- 178 - 1/2 Pea gravel
- 12 2 neat cement
- 2 0 native material
4. Removed casing 2' below grade.

(5) EQUIPMENT:
Rotary [] Reverse []
Cable [] Air []
Other [X] Bucket []

(6) GRAVEL PACK:
Yes [] No [] Size
Diameter of bore
Packed from to

(7) CASING INSTALLED:
Steel [] Plastic [] Concrete []
Table with columns: From ft., To ft., Dia. in., Gauge or Wall

(8) PERFORATIONS:
Table with columns: From ft., To ft., Slot size
- 5 10 mills

(9) WELL SEAL:
Was surface sanitary seal provided? Yes [X] No [] If yes, to depth 12 ft.
Were strata sealed against pollution? Yes [] No [X] Interval ft.
Method of sealing neat cement

(10) WATER LEVELS:
Depth of first water, if known ft.
Standing level after well completion ft.

(11) WELL TESTS:
Was well test made? Yes [] No [X] If yes, by whom?
Type of test Pump [] Bailer [] Air lift []
Depth to water at start 9 ft. At end of test ft.
Discharge gal/min after hours Water temperature
ical analysis made? Yes [] No [X] If yes, by whom?
s electric log made? Yes [] No [X] If yes, attach copy to this report

Work started April 15, 1986 Completed April 18, 1986

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
SIGNED J.H. DeLucchi (Well Driller)
NAME DeLucchi Well & Pump, Inc.
Address 35137 Mission Blvd.
City Fremont, CA. Zip 94536-159
License No. C57 394454 Date of this report April 9, 1986

(1) LOCATION OF WELL:

Location: **Highway, Livermore**

(3) TYPE OF WORK (check):

New well Deepening Reconditioning Abandon

If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic Industrial Municipal
Irrigation Test Well Other

(5) EQUIPMENT:

Rotary
Cable
Dug Well

(6) CASING INSTALLED:

SINGLE <input type="checkbox"/> DOUBLE <input type="checkbox"/>			Gage or Wall	If gravel packed		
From	ft. to	Diam.		Diameter of Bore	from ft.	to ft.
	200	11	2 1/2			

Type and size of shoe or well ring: _____
Describe joint: **3/4 1052**

(7) PERFORATIONS:

Type of perforator used		Size of perforations		From	ft. to	Rows per ft.
torch and mill		135	130	70	57	6
7 ft. starter blower, then 20 ft. torch out perforations						

(8) CONSTRUCTION:

Was a surface sanitary seal provided? Yes No To what depth _____ ft.
Were any strata sealed against pollution? Yes No If yes, note depth of strata _____

Method of Sealing

(9) WATER LEVELS:

Depth at which water was first found: **will probably produce 100 gals. at 20 ft.**
Standing level before perforating: **40** ft.
Standing level after perforating: **58** ft.

(10) WELL TESTS:

Was a pump test made? Yes No If yes, by whom? _____
Yield: _____ gal./min. with _____ hrs.
Temperature of water: _____ Was a chemical analysis made? Yes No
Was electric log made of well? Yes No

Depth	Strata
60	
65	
70	
75	
80	
85	
90	
95	
100	
105	
110	
115	
120	
125	
130	
135	
140	
145	
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485	
490	
495	
500	

RECORDED
MAR 31 1958

CONFIDENTIAL LOG
Water Code Sec. 7050

Work started: **March 13 1958** Completed: **March 25 1958**

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME: **Rock Drilling Service**
Address: **Rt. 1, Box 696, Livermore, Calif.**

[SIGNED]: **R. G. Jones**
Well Driller

License No. **12294** Dated **March 27 1958**

ORIGINAL

File with DWR

STATE OF CALIFORNIA THE RESOURCES AGENCY DEPARTMENT OF WATER RESOURCES WATER WELL DRILLERS REPORT

Do not fill in

No. 225549

State Well No. 35/2E 3Q1 Other Well No.

Permit No. or Date 84099

(1) OWNER: Name Address City Zip

(12) WELL LOG: Total depth ft. Depth of completed well ft. from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions): County Alameda Owner's Well Number 3Q1 Well address if different from above Vasco Rd. & 1st St. Township Livermore, Cal Section Distance from cities, roads, railroads, fences, etc.

283 - 28x 18' Graveled with pea gravel 18' - 4' filled with concrete

Vasco Rd. Assessment Dist. 84/1

4 - 0' filled with native surface materials



(3) TYPE OF WORK: New Well Deepening Reconstruction Reconditioning Horizontal Well Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE: Domestic Irrigation Industrial Test Well Stock Municipal Other

(5) EQUIPMENT: Rotary Reverse Yes No Size Cable Air Diameter of bore Other Bucket Packed from

(7) CASING INSTALLED: Steel Plastic Concrete (8) PERFORATIONS: Type of perforation or size of screen Table with columns: From ft., To ft., Dia. in., Gauge or Wall, From ft., To ft., Size

(9) WELL SEAL: Was surface sanitary seal provided? Yes No If yes, to depth ft. Were strata sealed against pollution? Yes No Interval ft. Method of sealing

Work started 8/28/84 Completed 8/30/84

(10) WATER LEVELS: Depth of first water, if known ft. Standing level after well completion ft.

WELL DRILLER'S STATEMENT: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief

(11) WELL TESTS: Was well test made? Yes No If yes, by whom? Type of test Pump Baller Air lift Depth to water at start of test ft. At end of test ft. Discharge gal/min after hours Water temperature ical analysis made? Yes No If yes, by whom? Was electric log made? Yes No If yes, attach copy to this report

SIGNED (Well Driller) NAME Viking Drillers, Inc. (Person, firm, or corporation) (Typed or printed) Address P.O. Box 642 City Penngrave, Ca. Zip 94951 License No 442153 Date of this report 17 Oct 84

REGION 2
 COUNTY Alameda
 NEAR Livermore

DIVISION OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

BASIN _____
 DWR No. 3S/2E-301 B & M
 OTHER NOS. Well No. 8

*Destroyed Aug 84
 (Cm 10 1984)*
WELL LOG

LOCATION 0.4 mi. SW of Junction of Hwy 50 & Livermore Blvd. on Livermore Blvd. 1/2 mi. S. & East of Livermore Blvd. on paved driveway; S. of house in field

OWNER Graham Nissen ADDRESS Tonder Ranch - House well, Livermore.
 DRILLED BY J. F. Hawthorne ADDRESS _____

DRILLING METHOD Cable GRAVEL PACKED No DATE COMPLETED April 14, 1952

SIZE OF CASING DEPTH 10 STRUCK WATER AT _____

PERFORATIONS 68-72; 191-195; 260-265 SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. 20 DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. _____ DATUM _____ SOURCE OF INFORMATION L.F. Zipt

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICK. NESS	SP. YIELD %
0- 4		Top soil		5
4- 10		Sandy soil		5
10- 12		Sandy gravel		20
12- 30		Sticky yellow clay		3
30- 40		Sticky yellow clay		3
40- 45		Sandy gravel (yellow)		20
45- 68		Sticky yellow clay		3
68- 72		Cement gravel (yellow)		10
72-100		Sticky yellow clay		3
100-122		Sticky gray clay		3
122-140		Sticky yellow clay		3
140-152		Sandy yellow clay		5
152-163		Sticky blue clay		3
163-174		Sandy blue clay		5
174-185		Sticky gray clay		3
185-191		Sandy yellow clay		5
191-196		Cement gravel (yellow)		10
196-203		Sticky gray clay		3
203-227		Sticky yellow clay		3
227-236		Sandy yellow clay		5
236-240		Clay & gravel		5
240-260		Sandy yellow clay		5
260-265		Cement gravel (yellow)		10
265-282		Sandy yellow clay		5
		Water level = 36' 6"		

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

Report No. _____

Owner GEORGE W. DICKSON

Meter Pump No. 8B5625

Meter No. 311039

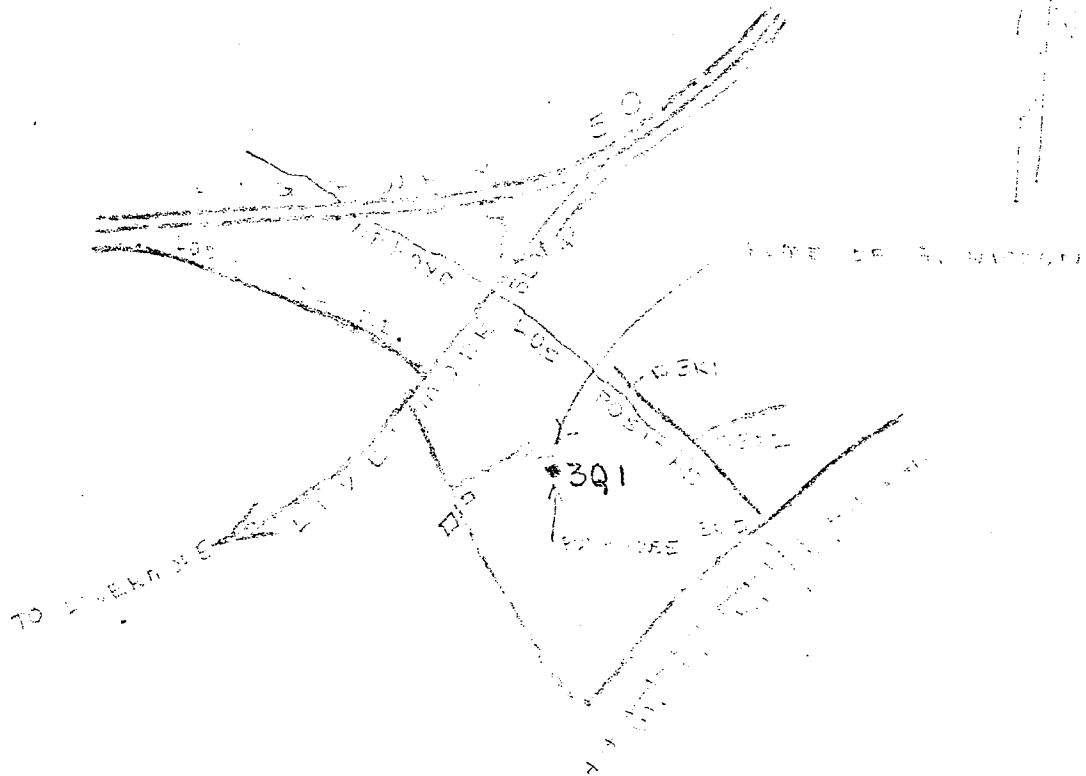
Region _____; County FLORIDA

Township 38, Range 3E, Section 361, MD B&M.

700 ft. north, 2000 ft. west from southeast corner of Section.

		361	

SKETCH



DESCRIPTION OR REMARKS

0.4 mi. SW of ...
 ...
 ...

Checked by _____

Date _____