



January 9, 2007

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

Re: **Well Destruction Report**  
Chevron Service Station 9-1924  
4904 Southfront Road  
Livermore, California  
Fuel Leak Case No. RO000047



Dear Mr. Wickham:

Cambria Environmental Technology, Inc. (Cambria) has prepared this well destruction report on behalf of Chevron Environmental Management Company (Chevron) for the site referenced above (Figure 1). Cambria properly destroyed all site monitoring wells in response to a case closure letter issued by the ACHCSA, dated October 26, 2006 (Attachment A).

On December 11, 2006, Cambria Senior Staff Scientist Leon Gearhart observed Gregg Drilling and Testing, Inc. (C57# 485165) properly destroyed monitoring wells C-7, C-9, C-11 through C-13, C-20, and C-21 (Figure 2).

Alameda County Flood Control and Water Conservation District Zone #7 (Zone #7) approved pressure grouting of the monitoring wells. The wells were grouted in place with Portland I/II cement and held under pressure for five minutes. All wellboxes were removed and finished to grade with concrete. Table A below presents the well destructions and methods of all site groundwater monitoring wells.

**Cambria  
Environmental  
Technology, Inc.**

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

Table A - Well Destruction Methods				
Well I.D.	Destruction Date	Destruction Method	Report Reference	Comments
C-1	4/2000	Unknown	Delta, <i>Monitoring Well Destruction Results Report</i> , January 23, 2002	Unable to Locate- Presumed destroyed during April 2000 station up-grades.
C-2	4/2000	Unknown	Delta, <i>Workplan for Monitoring Well Destruction</i> , April 5, 2001	Destroyed during April 2000 station up-grades.
C-3	4/2000	Unknown	Delta, <i>Workplan for Monitoring Well Destruction</i> , April 5, 2001	Destroyed during April 2000 station up-grades.
C-4	1985	Unknown	Delta, <i>Workplan for Monitoring Well Destruction</i> , April 5, 2001	Destroyed during UST removal activities 1985
C-5	11/2001	Drill Out	Delta, <i>Monitoring Well Destruction Results Report</i> , January 23, 2002	
C-6	4/2000	Unknown	Delta, <i>Workplan for Monitoring Well Destruction</i> , April 5, 2001	Destroyed during April 2000 station up-grades.
C-7	12/11/2006	Pressure Grout	<b>Cambria</b>	<b>Total Well Depth: 21.89'</b>
C-8	11/2001	Pressure Grout	Delta, <i>Monitoring Well Destruction Results Report</i> , January 23, 2002	
C-9	12/11/2006	Pressure Grout	<b>Cambria</b>	<b>Total Well Depth: 23.06'</b>
C-10	11/2001	Drill Out	Delta, <i>Monitoring Well Destruction Results Report</i> , January 23, 2002	
C-11	12/11/2006	Pressure Grout	<b>Cambria</b>	<b>Total Well Depth: 19.04'</b>
C-12	12/11/2006	Pressure Grout	<b>Cambria</b>	<b>Total Well Depth: 18.39'</b>
C-13	12/11/2006	Pressure Grout	<b>Cambria</b>	<b>Total Well Depth: 21.35'</b>
C-14	11/2001	Drill Out	Delta, <i>Monitoring Well Destruction Results Report</i> , January 23, 2002	
C-15	4/2000	Unknown	Delta, <i>Workplan for Monitoring Well Destruction</i> , April 5, 2001	Destroyed during April 2000 station up-grades.
C-16	4/2000	Unknown		Unable to Locate- Presumed destroyed during street construction activities.
C-17	11/2001	Drill Out	Delta, <i>Monitoring Well Destruction Results Report</i> , January 23, 2002	
C-18	4/2000	Unknown		Unable to Locate- Presumed destroyed during street construction activities.
C-19	11/2001	Drill Out	Delta, <i>Monitoring Well Destruction Results Report</i> , January 23, 2002	
C-20	12/11/2006	Pressure Grout	<b>Cambria</b>	<b>Total Well Depth: 24.05'</b>
C-21	12/11/2006	Pressure Grout	<b>Cambria</b>	<b>Total Well Depth: 25.03'</b>
RW-1	1/1995	Unknown	Delta, <i>Monitoring Well Destruction Results Report</i> , January 23, 2002	Unable to Locate- Presumed destroyed during destruction of former groundwater treatment system.

Mr. Jerry Wickham  
January 9, 2007


Concrete waste generated during destruction activities was removed by Gregg Drilling and Testing, Inc.

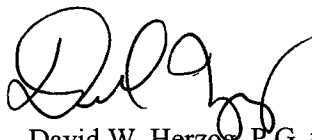
Cambria's standard operating procedures for well destructions are presented as Attachment B. Copies of the well destruction permits from Zone #7 are presented as Attachment C. Department of Water Resources (DWR) well completion reports are confidential documents and therefore are not included in this report. The forms have been submitted to Zone #7, ACHCSA, DWR, and copies are maintained in Cambria's files and will be made available for agency review upon request. On behalf of Chevron, Cambria requests that a No Further Action letter be prepared and distributed for this site.



Cambria appreciates your assistance with this project. Please call Leon Gearhart at (916) 677-3407 ext. 115 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc.**

  
Leon Gearhart  
Senior Staff Scientist

  
David W. Herzog, P.G. #7211  
Senior Project Geologist



Figures: 1 – Vicinity Map  
2 – Site Plan

Attachments: A – Regulatory Correspondence  
B – Standard Operating Procedures  
C – Permits

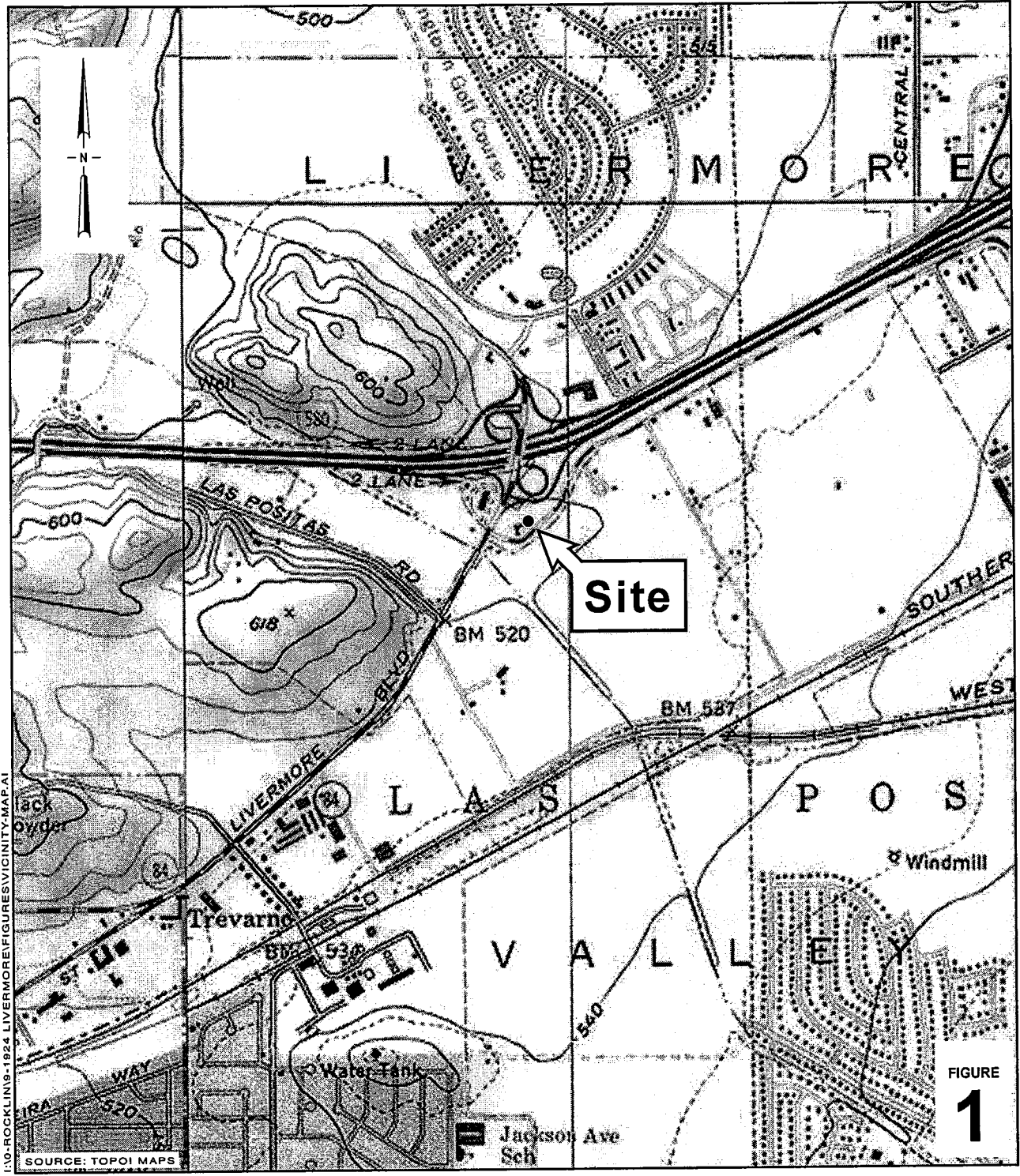
cc: Mr. Dana Thurman, Chevron Environmental Management Company, P.O. Box 6012  
K2236, San Ramon, CA 94583

Mr. Wyman Hong, Alameda County Flood Control and Water Conservation District  
Zone #7, 100 North Canyons Parkway, Livermore, CA 94551

Cambria Environmental Technology, Inc.

Cambria Environmental Technology, Inc. (Cambria) prepared this document for use by our client and appropriate regulatory agencies. It is based partially on information available to Cambria from outside sources and/or in the public domain, and partially on information supplied by Cambria and its subcontractors. Cambria makes no warranty or guarantee, expressed or implied, included or intended in this document, with respect to the accuracy of information obtained from these outside sources or the public domain, or any conclusions or recommendations based on information that was not independently verified by Cambria. This document represents the best professional judgment of Cambria. None of the work performed hereunder constitutes or shall be represented as a legal opinion of any kind or nature.





I:\0-ROCKLIN\9-1924 LIVERMORE\FIGURES\VICINITY-MAP.A1

SOURCE: TOPOI MAPS

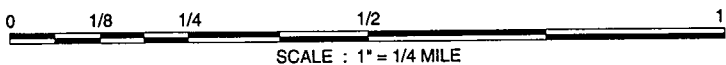


FIGURE  
**1**

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



**Vicinity Map**

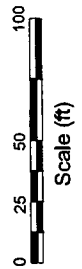
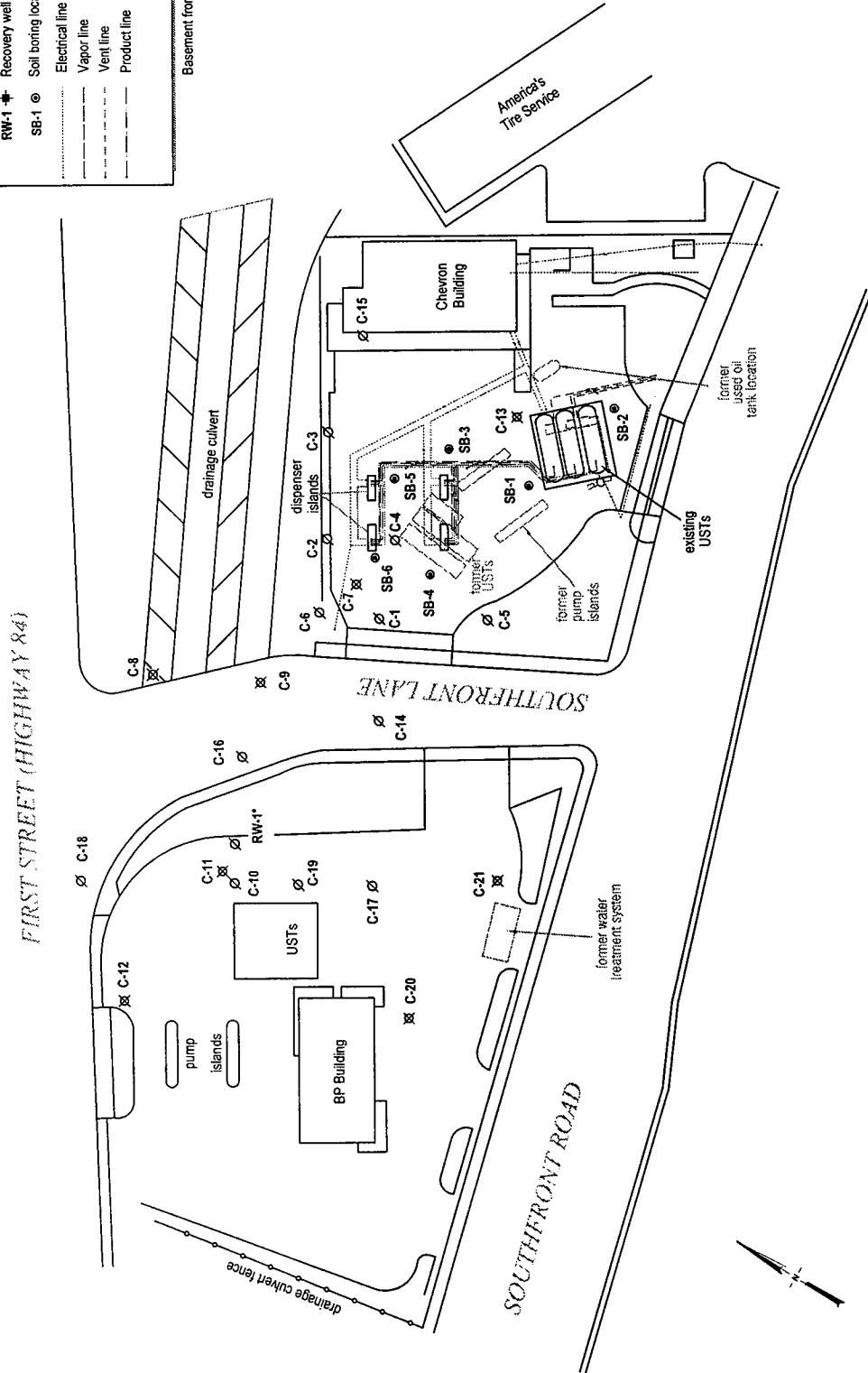
C A M B R I A



FIGURE 2

EXPLANATION	
C-1	Monitoring well location
C-2	Destroyed monitoring well location
C-8	Abandoned monitoring well location
RW-1	Recovery well location
SB-1	Soil boring location
-----	Electrical line
-----	Vapor line
-----	Vent line
-----	Product line

Basement from Delta

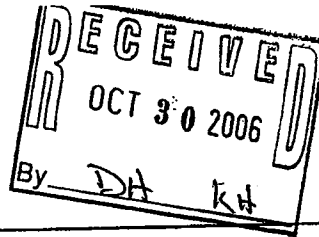


**ATTACHMENT A**  
**Regulatory Correspondence**



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

October 26, 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 – Request for Well Decommissioning

Dear Mr. Thurman:

Alameda County Environmental Health (ACEH) and California Regional Water Quality Control Board staff have reviewed the fuel leak case file and case closure summary for the above-referenced site and concur that no further action related to the underground storage tank fuel release is required at this time. Prior to issuance of a remedial action completion certificate, the monitoring wells installed at the site and off-site are to be properly destroyed, should the monitoring wells have no further use. Please decommission the monitoring wells and provide documentation of the well decommissioning to this office. A remedial action completion certificate will be issued following receipt of the documentation.

Well destruction permits may be obtained from the Zone 7 Water Agency ([www.Zone7water.com](http://www.Zone7water.com)). 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

cc: Colleen Winey, 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., 2000 Opportunity Drive, Suite 110,  
Roseville, CA 95678

Donna Drogos, ACEH  
Jerry Wickham, ACEH  
File

**ATTACHMENT B**  
**Standard Operating Procedures**

# CAMBRIA

## STANDARD FIELD PROCEDURES FOR ABANDONING MONITORING WELLS

This document presents standard field methods for abandoning ground water monitoring wells. The objective of well abandonment is to destroy wells in a manner that is protective of potential water resources. The two procedures most commonly used are pressure grouting and drilling out the well. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

### **Pressure Grouting**

Pressure grouting consists of injecting neat Portland cement through a tremie pipe under pressure to the bottom of the well. The cement is composed of about five gallons of water to a 94 lb. sack of Portland I/II Cement. Once the well casing is full of grout, it remains pressurized by applying pressure with a grout pump. The well casing can also be pressurized by extending the well casing to the appropriate height and filling it with grout. In either case, the additional pressure allows the grout to be forced into the sand pack. After grouting the sand pack and casing, the well vault is removed and the area resurfaced or backfilled as required.

### **Well Drill Out**

When well drill out is required, a hollow-stem auger drilling rig is used to drill out the well casing and pack materials. First, drill rods are dropped down the well and used to guide the augers as they drill out the well. Once the well is drilled out, the boring is filled with Portland cement injected through the augers or a tremie pipe under pressure to the bottom of the boring. The well vault is removed and the area resurfaced or backfilled as required.

**ATTACHMENT C**  
**Permits**

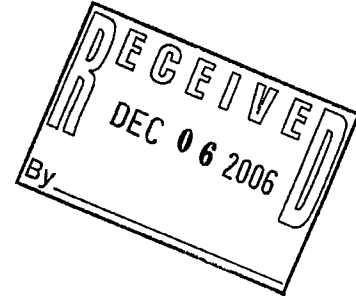


ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551

PHONE (925) 454-5000

December 1, 2006



Mr. Leon Gearhart  
Cambria Environmental  
2000 Opportunity Drive, Suite 110  
Roseville, CA 95678

Dear Mr. Gearhart:

Enclosed is drilling permit 26201 for the destruction of monitoring wells 3S/2E-3K5 (C-11), 3S/2E-3K15 (C-7), 3S/2E-3K17 (C-9), 3S/2E-3K18 (C-12), 3S/2E-3K23 (C-13), 3S/2E-3K32 (C-20) and 3S/2E-3K33 (C-21). Drilling permit applications for future projects can be downloaded from our web site ([www.zone7water.com](http://www.zone7water.com)).

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 wells, location sketch, date of destruction, and permit numbers. Please submit the original of your completion report. We will forward your submittal to the California Department of Water Resources.

If you have any questions, please contact me at extension 5056 or Matt Katen at extension 5071.

Sincerely,

Wyman Hong  
Water Resources Specialist

Enc.



# ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 454-5728

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT CHEVRON SERVICE STATION 9-1924  
4904 SOUTHERN ROAD  
LIVERMORE, CA

PERMIT NUMBER 26201  
WELL NUMBER 3S/2E-3K5, 3K15, 3K17, 3K18, 3K23,  
APN 099-0040-013-34 3K32 & 3K33

California Coordinates Source \_\_\_\_\_ ft. Accuracy: \_\_\_\_\_ ft.  
CCN \_\_\_\_\_ ft. CCE \_\_\_\_\_ ft.  
APN \_\_\_\_\_

### PERMIT CONDITIONS

(Circled Permit Requirements Apply)

CLIENT  
Name CHEVRON ENVIRONMENTAL MANAGEMENT CO.  
Address P.O. BOX 6012 Phone (925) 942-9559  
City SAN RAMON Zip 94593

- 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.

APPLICANT  
Name CAMPEA ENVIRONMENTAL Fax (916) 677-3687  
Address 2000 ORCHARDVIEW DR. #110 Phone (916) 677-3407  
City ROSEVILLE Zip 95678

- B. WATER SUPPLY WELLS
  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.
  3. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
  4. A sample port is required on the discharge pipe near the wellhead.

TYPE OF PROJECT

Well Construction	Geotechnical Investigation
Cathodic Protection ..	General ..
Water Supply ..	Contamination ..
Monitoring ..	Well Destruction <u>10X WELLS</u>

PROPOSED WELL USE

New Domestic ..	Irrigation <u>7 WELLS</u>
Municipal ..	Remediation ..
Industrial ..	Groundwater Monitoring ..
Dewatering ..	Other ..

- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
  1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
  2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
- D. GEOTECHNICAL. Backfill bore hole 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.
- E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.
- F. WELL DESTRUCTION. See attached.
- G. SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after the completion of permitted work the well installation report including all soil and water laboratory analysis results.

DRILLING METHOD:  
Mud Rotary .. Air Rotary .. Hollow Stem Auger ..  
Cable Tool .. Direct Push .. Other PRESSURE GROUT

DRILLING COMPANY GREGG DRILLING AND TESTING  
DRILLER'S LICENSE NO. 445115

WELL PROJECTS

Drill Hole Diameter _____ in.	Maximum _____
Casing Diameter _____ in.	Depth _____ ft.
Surface Seal Depth _____ ft.	Number _____

SOIL BORINGS

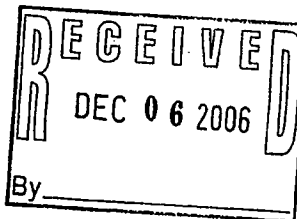
Number of Borings _____	Maximum _____
Hole Diameter _____ in.	Depth _____ ft.

ESTIMATED STARTING DATE DECEMBER (2 DAYS) 11, 2006  
ESTIMATED COMPLETION DATE DECEMBER

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

APPLICANT'S SIGNATURE Leon Gearhart Date 11/2/06

Approved Wyman Hong Date 11/8/06  
Wyman Hong



ATTACH SITE PLAN OR SKETCH

Revised: April 27, 2005

December 1, 2006

**Zone 7  
Water Resources Engineering  
Groundwater Protection Ordinance**

**Chevron  
4904 Southfront Road  
Livermore**

**Well 3S/2E-3K5 (C-11), 3S/2E-3K15 (C-7), 3S/2E-3K17 (C-9), 3S/2E-3K18  
(C-12), 3S/2E-3K23 (C-13), 3S/2E-3K32 (C-20) and 3S/2E-3K33 (C-21)  
Permit 26201**

**Destruction Requirements:**

1. Clean out all bridged or poorly compacted materials to the bottom of the well.
2. Sound the well as deeply as practicable and record for your report.
3. Pressure grout the casing to two feet below the finished grade or original ground, whichever is the lower elevation.
4. Remove the casing, seal, and gravel pack to two feet below the finished grade or original ground, whichever is the lower elevation (optional).
5. After the seal has set, backfill the remaining hole with compacted material(optional).