

January 26, 2007
Project No. SJ45-30L-1
SAP: 135444

RECEIVED

By dehloptoxic at 1:26 pm, Jan 29, 2007

Mr. Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

**Re: Well Destructions Report
Shell-branded Service Station
4530 Las Positas Road
Livermore, California**



Dear Mr. Wickham:

Delta Environmental Consultants, Inc. (Delta), on behalf of Shell Oil Products US (Shell), has prepared this letter documenting the destruction of four monitoring wells (MW-1 through MW-4) associated with above referenced site. Former well locations are shown on Figure 1.

BACKGROUND

Following submittal of Delta's Soil and Groundwater Investigation Report and Request for Case Closure on September 9, 2006 the Alameda County Environmental Health (ACEH) and California Regional Water Quality Control Board granted case closure in a letter dated December 1, 2006 and requested that the monitoring wells at the site be properly destroyed (Attachment A).

WELL DESTRUCTIONS

In order to obtain a remedial action completion certificate, Shell destroyed the site wells. Delta obtained well destruction permits from the Zone 7 Water Agency (Attachment B). The four wells, at depths of 22.5 feet, were destroyed on January 22, 2007 utilizing a pressure grouting method as authorized by the well destruction permits. Gregg Drilling and Testing, Inc. (Gregg) (License C57-485165) provided the field equipment and materials. A Delta scientist oversaw and directed the well destruction activities.

On January 22, 2007 depth to groundwater in the 22.5 foot deep site wells was measured by Delta to be between 11.33 and 13.66 feet bgs (indicating a 10-foot water column in site wells). A cement/bentonite grout was pumped into the top of the well-casing to approximately 0.5-feet below grade. The grout did not displace groundwater out the top of the well casing, and Delta assumed that groundwater within the well casing was forced back into the surrounding formation. A steel fitting with hose connector was then attached to the wellhead. The grout hose was connected to the fitting and grout was pumped into the well under 5 psi of pressure for 5-10 minutes.

Following grout placement, the 6-inch deep well boxes were removed. The remaining hole was capped with concrete to match to the surrounding grade.

REMARKS

The information contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.

Please call if you have any questions regarding the contents of this letter.

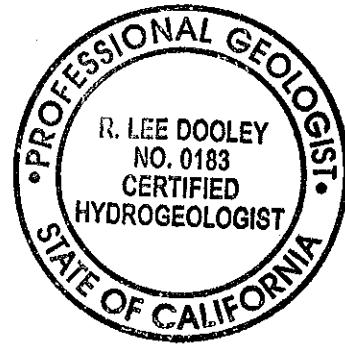
Sincerely,
Delta Environmental Consultants, Inc.



Matt Lambert
Staff Scientist



Lee Dooley, CHG
Sr. Hydrogeologist



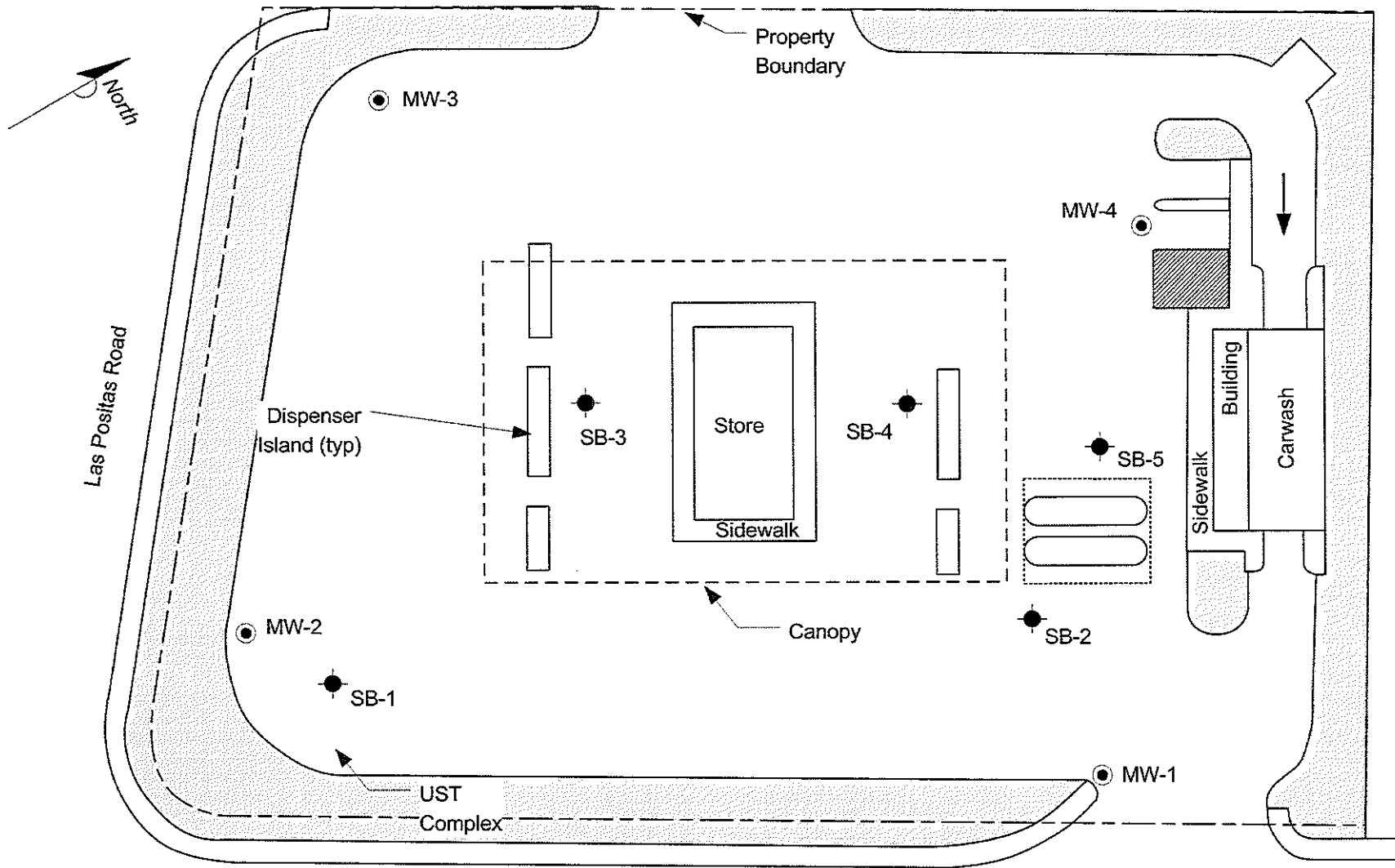
Attachments:

Figure 1 – Site Map

Attachment A – ACEH Case Closure Letter

Attachment B – Zone 7 Water Agency – Well Destruction Permit

cc: Denis Brown, Shell Oil Products US, Carson
Carl Cox, C and J Cox Corporation, Pleasanton
Colleen Winey, Zone 7 Water Agency, Livermore
Danielle Stefani, Livermore-Pleasanton, Fire Department, Pleasanton



North First

LEGEND

- MW-2 ● **GROUNDWATER MONITORING WELL**
- SB-1 ● **SOIL BORING LOCATIONS**

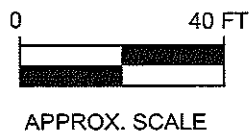


FIGURE 2
SITE MAP

SHELL-BRANDED SERVICE STATION
4530 Las Positas Road
Livermore, California

PROJECT NO. SJ45-30L-1.2006	DRAWN BY JL 02/27/06
FILE NO. SJ45-30-1.2006	PREPARED BY AP
REVISION NO. 1	REVIEWED BY



Attachment A

ALAMEDA COUNTY ENVIRONMENTAL HEALTH CLOSURE

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

December 1, 2006

Mr. Denis Brown
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810-1039

Subject: Fuel Leak Case No. RO0002523, Shell #13-5444, 4530 Las Positas Road, Livermore, CA – Request for Well Decommissioning

Dear Mr. Brown:

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 at the site are to be properly destroyed, should the monitoring wells have no further use at the site. 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 (<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

R. Lee Dooley, Delta Environmental Consultants, Inc., 175 Bernal Road, Suite 200
San Jose, CA 95119

Debbie Arnold, Delta Environmental Consultants, Inc., 175 Bernal Road, Suite 200
San Jose, CA 95119

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

Attachment B

ZONE 7 WATER AGENCY – WELL DESTRUCTION PERMIT



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551

PHONE (925) 454-5000

January 18, 2007

Mr. Matt Lambert
Delta Environmental Consultants
175 Bernal Road, Suite 200
San Jose, CA 95119

Dear Mr. Lambert:

Enclosed is drilling permit 27015 for the destruction of monitoring wells 3S/2E-3L6 (MW-1), 3S/2E-3L7 (MW-2), 3S/2E-3L8 (MW-3) and 3S/2E-3L9 (MW-4). Drilling permit applications for future projects can be downloaded from our web site (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,

Wyrhan Hong
Water Resources Specialist

Enc.

Attachment B

ZONE 7 WATER AGENCY – WELL DESTRUCTION PERMIT



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 4530 Las Positas Road, Livermore, CA

PERMIT NUMBER 27015
WELL NUMBER 3S/2E-3L6, 3L7, 3L8 & 3L9
APN 099-0021-018-00 (MW-1 to MW-4)

California Coordinates Source _____ ft. Accuracy • _____ ft.
CCN _____ ft. CCE _____ ft.
APN 99-21-18 (Assessor's Office Lists address as:)
4550 LAS POSITAS

PERMIT CONDITIONS

(Circled Permit Requirements Apply)

CLIENT
Name SHELL OIL PRODUCTS US
Address 20745 S. Wilmington Ave Phone (707) 865-0251
City CARSON Zip 90810

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 DELTA CONSULTANTS Fax (408) 225-8506
Address 175 Bernal Rd. St. 200 Phone (408) 826-1872
City SAN JOSE Zip 95118

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	<input checked="" type="checkbox"/>

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.

PROPOSED WELL USE			
New Domestic	••	Irrigation	••
Municipal	••	Remediation	••
Industrial	••	Groundwater Monitoring	••
Dewatering	••••••••••	Other	•••••

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.

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

E.

CATHODIC. Fill hole above anode zone with concrete placed by tremie.

DRILLING COMPANY GREGG DRILLING
DRILLER'S LICENSE NO. 485165

F.

WELL DESTRUCTION. See attached. 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.

WELL PROJECTS - See attached well construction details...
Drill Hole Diameter _____ in. Maximum _____ ft.
Casing Diameter _____ in. Depth _____ ft.
Surface Seal Depth _____ ft. Number 4 wells
(MW1-MW4) to be destroyed

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

ESTIMATED STARTING DATE 1/22/06
ESTIMATED COMPLETION DATE 1/22/06

Approved Wyman Hong Date 1/17/07
Wyman Hong

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

APPLICANT'S SIGNATURE Matt Lambert Date 12/12/06
Matt Lambert

ATTACH SITE PLAN OR SKETCH

January 18, 2007

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

**Shell Oil Products
4530 Las Positas Road
Livermore**

**Wells 3S/2E-3L6 (MW-1), 3S/2E-3L7 (MW-2), 3S/2E-3L8 (MW-3) and
3S/2E-3L9 (MW-4)
Permit 27015**

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).