

DOULOS ENVIRONMENTAL COMPANY
1537 PINE VALLEY CIRCLE
ROSEVILLE, CA 95661
(916) 782-9054

DO JAN 14 PM 3:52
ENVIRONMENTAL
PROTECTION

January 3, 2000

Mr. Terrence Fox
Ultramar, Inc.
525 West Third Street
Hanford, California 93230

Subject: Well Abandonment Report for Beacon #604
1619 First St., First Street, Livermore, CA, wells located in the Safeway parking lot

Dear Mr. Fox:

Ultramar, Inc. (Ultramar), has contracted Doulos Environmental Company (Doulos) to abandon vapor wells and air sparge wells and prepare this report for the subject site (figure enclosed). The purpose of this work was to remove wells installed by Ultramar from prior remedial activities for possible future remodeling by the landowners.

FIELD WORK

The work performed included: Obtaining well abandonment permits from Alameda County Flood Control and Water Conservation District (permit enclosed), abandonment of 20 vapor wells, 20 air sparge wells and preparing a report which presents field procedures and volumes of grout used. All activities were completed in compliance with the Alameda County guideline and California State Department of Water Resources Bulletin 74-81.

Pressure Grouting

On November 1 thru 3, 1999, Doulos personnel abandoned 20 vapor wells and 20 air sparge wells. Prior to pressure grouting the wells, the volume of grout needed to fill the pore space in the sand pack, and the volume of the casing were calculated. The wells were abandoned in place by pressure grouting with a neat cement slurry. The grout was placed with a trimmie hose from approximately five feet above the bottom of the well to the surface. If needed, additional grout was added to the well to keep the grout level with the top of the casing. The actual volume of grout placed in each well exceeded the calculated volume (see Table). On December 7 and 8, 1999 the well covers were removed and replaced with asphalt hot patch.

DISTRIBUTION

A copy of this report should be forwarded to:

Ms. Eva Chu
Alameda County Health Care Services, Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Wyman Hong
Alameda County Flood Control and Water Conservation District
5997 Parkside Drive
Pleasanton, CA 94588-5127

Sincerely,

DOULOS ENVIRONMENTAL COMPANY

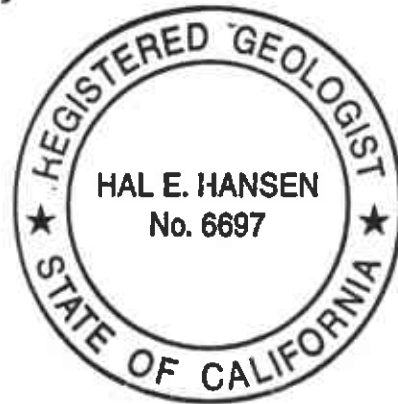
Hal Hansen

Hal Hansen, R.G. #6697, C-57 #730042

HEH/tjh

Attachments:

- Zone 7 Water Agency Permit
- Table
- Figure



TABLE

Well No.	Diameter (inches)	Depth (feet)	Calculated volume of grout (gallons)	Actual volume of grout used (gallons)
RW-8	2	25	9.6	10
RW-8S	1	65	5.2	6
RW-9	2	25	9.6	10
RW-9S	1	65	5.2	6
RW-10	2	25	9.6	10.2
RW-10S	1	65	5.2	6
RW-11	2	25	9.6	10
RW-11S	1	65	5.2	6.1
RW-12	2	25	9.6	10.3
RW-12S	1	65	5.2	6
RW-13	2	25	9.6	10
RW-13S	1	65	5.2	6.3
RW-14	2	25	9.6	10
RW-14S	1	65	5.2	6.2
RW-15	2	25	9.6	10.5
RW-15S	1	65	5.2	6
RW-16	2	25	9.6	10.5
RW-16S	1	65	5.2	6
RW-17	2	25	9.6	10
RW-17S	1	65	5.2	6
RW-18	2	25	9.6	10
RW-18S	1	65	5.2	6.5
RW-19	2	25	9.6	10.4
RW-19S	1	65	5.2	6.2
RW-20	2	25	9.6	10
RW-20S	1	65	5.2	6.2
RW-21	2	25	9.6	10

TABLE (continued)

Well No.	Diameter (inches)	Depth (feet)	Calculated volume of grout (gallons)	Actual volume of grout used (gallons)
RW-21S	1	65	5.2	6.2
RW-22	2	25	9.6	10.3
RW-22S	1	65	5.2	6
RW-23	2	25	9.6	10
RW-23S	1	65	5.2	6
RW-24	2	25	9.6	10.4
RW-24S	1	65	5.2	6
RW-25	2	25	9.6	10.4
RW-25S	1	65	5.2	6.4
RW-26	2	25	9.6	10
RW-26S	1	65	5.2	6.5
RW-27	2	25	9.6	10
RW-27S	1	65	5.2	6.1

S = Sparge



ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588-5127 VOICE (925) 484-2600 X235
FAX (925) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO

FOR OFFICE USE

LOCATION OF PROJECT 1554 First St
Silvermore, Ca 94550
(Safe Way Pumping Lot)
border on 604 1619 First St Silvermore Ca
California Coordinates Source _____ ft. Accuracy ± _____ ft.
CCN _____ ft. CCE _____ ft.
APN _____

PERMIT NUMBER 99200
WELL NUMBER 3S/2E 17B34 to 17B73
APN 097 0009 003 07

CLIENT
Name Ultraman, Inc.
Address 525 W. Third St Phone 559 583 3345
City Hanford Ca Zip 93232

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT
Name Douglas Env.
Address 1537 Pipe Valley Cir Phone 916 782 9054 Fax 916 782 9054
ROSEVILLE Zip 95661 *yes she done*

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.

TYPE OF PROJECT

Well Construction	Geotechnical Investigation
Cathodic Protection <input type="checkbox"/>	General <input type="checkbox"/>
Water Supply <input type="checkbox"/>	Contamination <input type="checkbox"/>
Monitoring <input type="checkbox"/>	Well Destruction <input checked="" type="checkbox"/>

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.

PROPOSED WATER SUPPLY WELL USE

New Domestic <input type="checkbox"/>	Replacement Domestic <input type="checkbox"/>
Municipal <input type="checkbox"/>	Irrigation <input type="checkbox"/>
Industrial <input type="checkbox"/>	Other _____ <input 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.

DRILLING METHOD:

Mud Rotary <input type="checkbox"/>	Air Rotary <input type="checkbox"/>	Auger <input type="checkbox"/>
Cable <input type="checkbox"/>	Other <input type="checkbox"/>	<i>Pressure grout</i>

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.

DRILLER'S LICENSE NO. 730042

WELL PROJECTS

Drill Hole Diameter <u>10</u> in.	Maximum _____
Casing Diameter <u>1" + 2"</u> in.	Depth <u>65</u> ft.
Surface Seal Depth <u>17</u> ft.	Number <u>20</u>

E.

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

GEOTECHNICAL PROJECTS

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

F.

WELL DESTRUCTION. See attached.

ESTIMATED STARTING DATE Nov 1, 1999
ESTIMATED COMPLETION DATE Nov 4, 1999

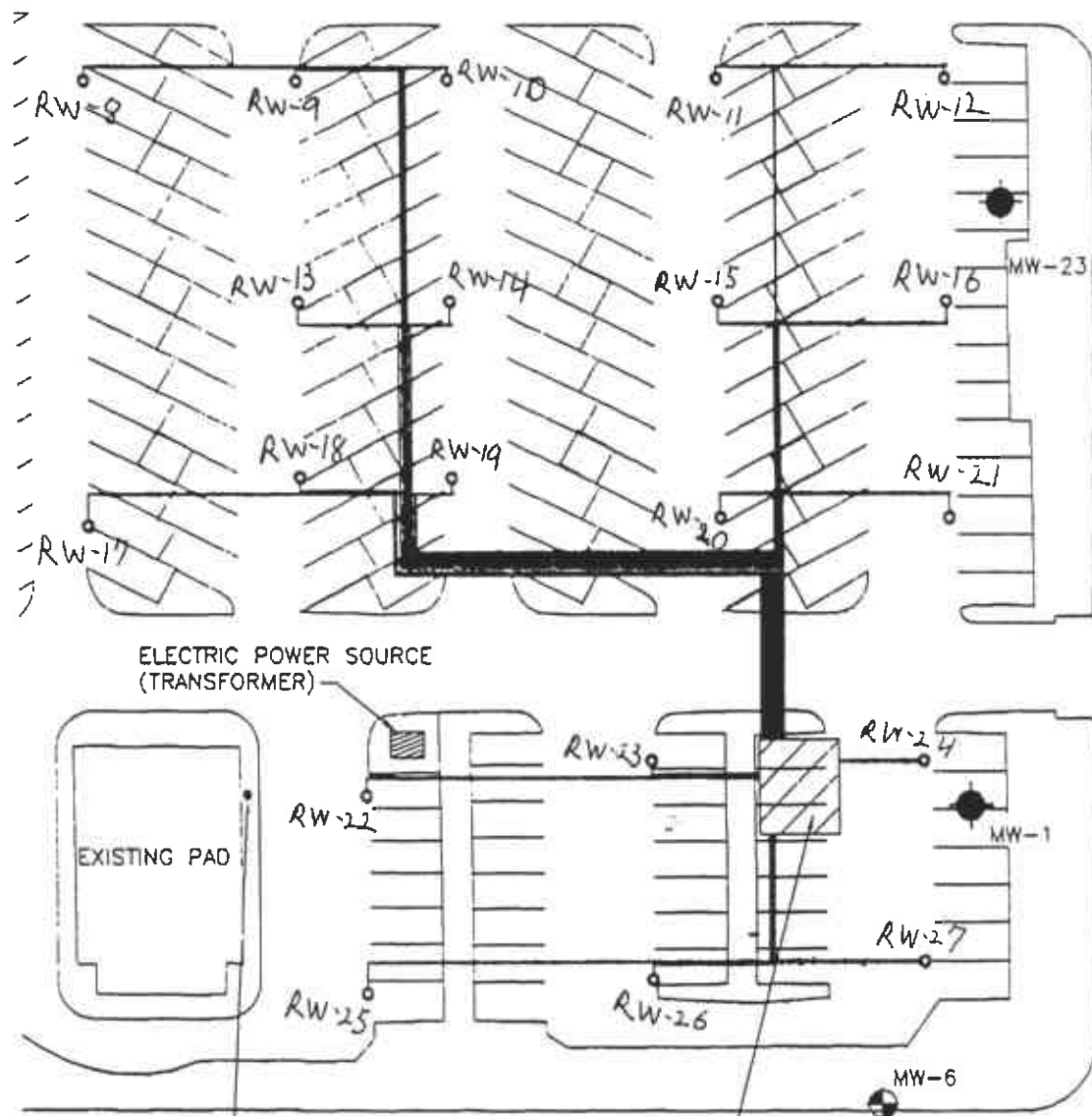
G.

SPECIAL CONDITIONS

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

APPLICANT'S SIGNATURE Hal Blansen Date _____

Approved Wyman Hong Date 11/1/99
Wyman Hong



LEGEND

- WELL NEST LOCATION
- AIR SPARGING AND VAPOR EXTRACTION LINES
- - - - - APPROXIMATE TRENCH BOUNDARY

NOTE: 1. TYPICAL NUMBER OF LINES FOR AIR SPARGING AND VAPOR EXTRACTION SYSTEM

2. TRENCHES ARE REQUIRED FOR ELECTRIC POWER AND NATURAL GAS SUPPLY SOURCE. THE TRENCH USED FOR THE VAPOR EXTRACTION/AIR SPARGING SOURCE CAN BE USED FOR ONE OF THE SOURCES BUT A SEPERATE TRENCH WILL BE NEEDED FOR THE OTHER SOURCE

Figure
AIR SPARGING AND VAPOR EXTRACTION LAYOUT FOR SAFEWAY SITE BEACON STATION No. 604