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By Alameda County Environmental Health at 2:54 pm, Nov 13, 2013

October 31, 2013

Ms. Dilan Roe
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Well Destruction Report
Site: Unocal Station No. 6419
6401 Dublin Boulevard
Dublin, California
Fuel Leak Case No. RO0000459

Dear Ms. Roe;

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please call:

Walter T. Sprague
Pacific Convenience & Fuel
7180 Koll Center Parkway, Suite 100
Pleasanton, California 94566
Tel: (925) 931-5714
Fax: (925) 905-2746
WSprague@pcandf.com

Sincerely,

PACIFIC CONVENIENCE & FUEL



WALTER SPRAGUE
Director of Retail Services

Attachment

Well Destruction Report

*Unocal Station No. 6419
6401 Dublin Blvd
Dublin, California*

*Alameda County Health Care Services Agency
Fuel Leak Case No. RO0000459*

*Regional Water Quality Control Board - San
Francisco Bay, Case No.01-1568*

GeoTracker Global ID No.T0600101443

Antea Group Project No. I42705748

October 31, 2013

Prepared for:
Ms. Dilan Roe
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Suite 250
Alameda, CA 94502-6577

Prepared by:
Antea®Group
11050 White Rock Road, Suite 110
Rancho Cordova, CA 95670
+1 800 477 7411

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1.0 INTRODUCTION

Antea Group is pleased to submit this Well Destruction Report for the site located at 6401 Dublin Boulevard, Dublin, California (**Figure 1 and Figure 2**). This report summarizes the destruction of three monitoring wells associated with the site, on October 29, 2013. The well destruction was conducted as required for site closure. This report has received a technical review by Mr. Dennis Dettloff a California Professional Geologist No. 7480.

2.0 SCOPE OF WORK

The scope of work completed for the monitoring well destruction included the following activities:

- Obtained well destruction permits from the Zone 7 Water Agency;
- Updated the site-specific health and safety plan;
- Conducted a utility clearance;
- Pressure grouted the three monitoring wells;
- Used jack hammer and hand tools to remove the well boxes of all monitoring wells;
- Patched well locations with concrete dyed to match existing surface conditions;
- Disposed of generated waste.

2.1 Pre-Field Activities

The Alameda County Health Care Services Agency (ACHCSA) email approving the well destruction work as part of site closure is presented as **Attachment A**. Prior to beginning field operations, Antea Group obtained permits for well destruction from the Zone 7 Water Agency (**Attachment B**).

Antea Group prepared a site-specific Health and Safety Plan (HASP) in accordance with Title 8, Section 5192 of the California Code of Regulations. The HASP contained a list of emergency contacts, as well as a hospital route map to the nearest emergency facility.

A utility survey was conducted prior to the field operations. Underground Service Alert (USA) was notified prior to well destruction and a private utility locator was retained to minimize the risk of damage to underground utilities.

2.2 Well Destruction Activities

On October 29, 2013, Cascade Drilling (Cascade), under supervision of an Antea Group field geologist, destroyed three on-site monitoring wells [MW-1R, MW-3, and MW-5] (**Figure 2**).

The construction and destruction details of each monitoring well are shown in **Table 1**.

All of the monitoring wells associated with this site were destroyed by pressure grouting. Neat Cement grout was poured into each monitoring well using a tremie pipe. Then an air compressor was attached to the wellhead and pressure was applied at a minimum of 25 pounds per square inch (psi) for five minutes.

Subsequent to the destruction of each monitoring well, their well boxes were removed using a jack hammer and hand tools. The remaining well box cavity was filled with concrete and dyed to match the surrounding site conditions.

The completed Department of Water Resources (DWR) forms were sent to the DWR. DWR Well Completion Reports for the three monitoring wells are presented as **Attachment C**.

2.3 Disposal of Derived Waste

The inert waste, well boxes, well casing, and concrete, generated during the well destruction activities were removed from the site by Cascade and properly disposed of.

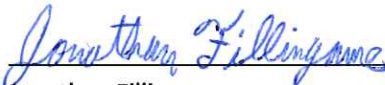
3.0 CONCLUSIONS

The previously discussed groundwater monitoring well destruction activities conclude Antea Group's environmental work at the subject site.

4.0 REMARKS

The recommendations contained in this report represent Antea USA, Inc.'s professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. For any reports cited that were not generated by Delta or Antea Group, the data from those reports is used "as is" and is assumed to be accurate. Antea Group does not guarantee the accuracy of this data for the referenced work performed nor the inferences or conclusions stated in these reports. The contract between Antea USA, Inc. 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 Antea USA, Inc.'s client and anyone else specifically identified in writing by Antea USA, Inc. as a user of this report. Antea USA, Inc. will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea USA, Inc. makes no express or implied warranty as to the contents of this report.

Prepared by:


Jonathan Fillingame
Staff Geologist

Information, conclusions, and recommendations provided by Antea Group in this document regarding the site have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Licensed Approver:


Dennis S. Dettloff, P.G.
Senior Project Manager
California Registered Professional Geologist No. 7480



cc: Electronic copy uploaded to GeoTracker

Figures

- Figure 1 Site Location Map
Figure 2 Site Map

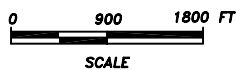
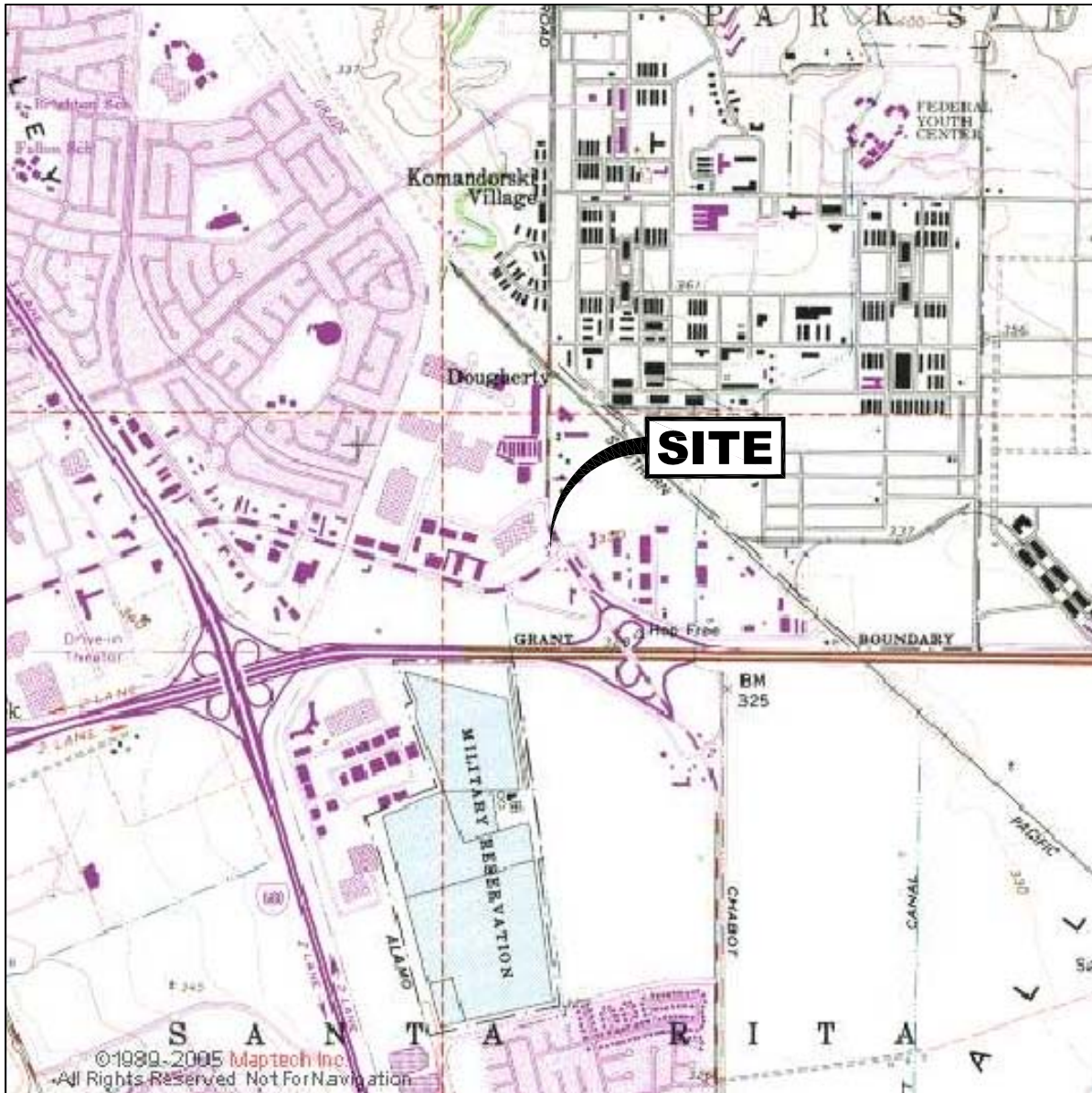


FIGURE 1

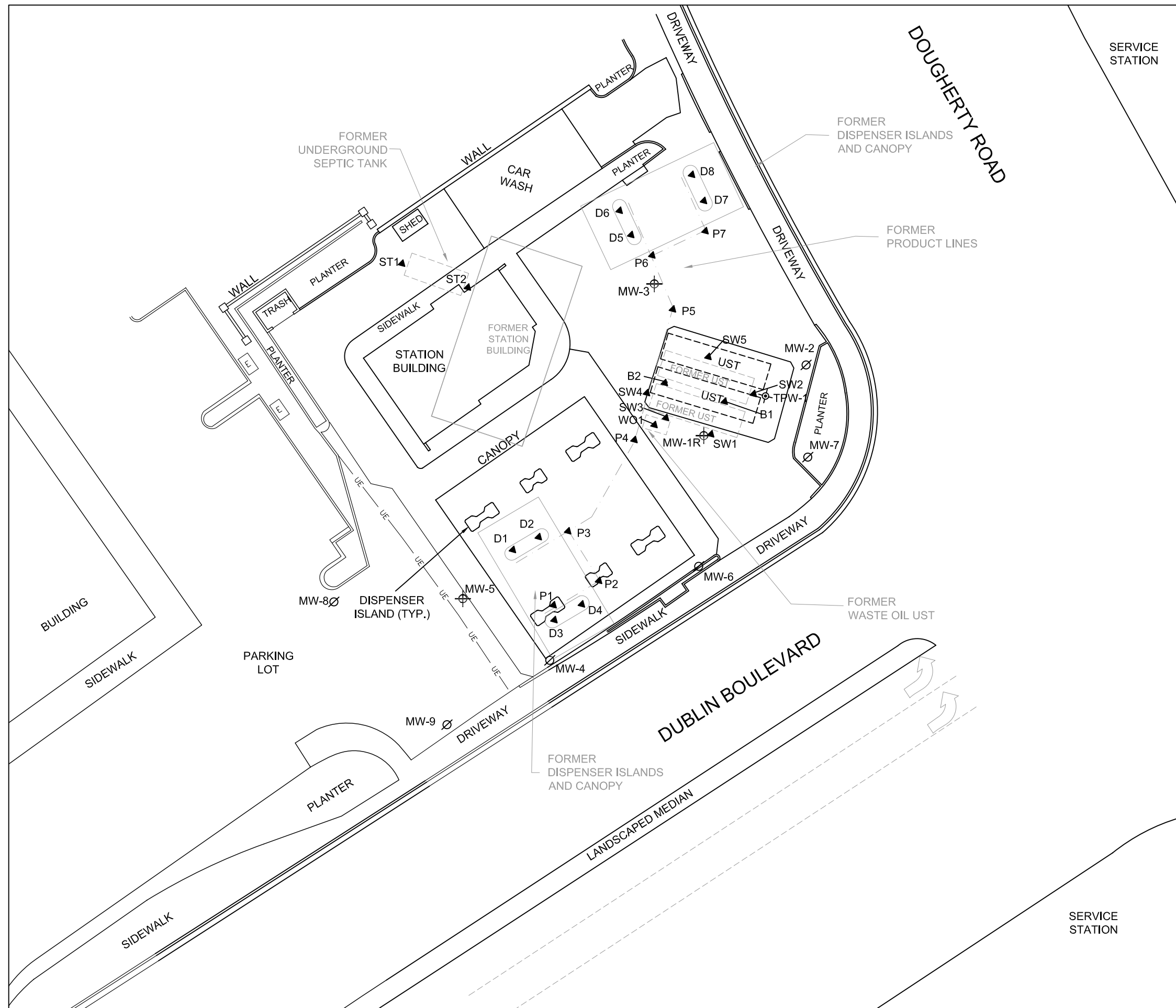
SITE LOCATION MAP

76 STATION NO. 5748 / 6419
 6401 DUBLIN BOULEVARD
 DUBLIN, CALIFORNIA

PROJECT NO. C105748	DRAWN BY JH 2/2/11
FILE NO. 5748-SiteLocator	PREPARED BY JH
REVISION NO.	REVIEWED BY DD

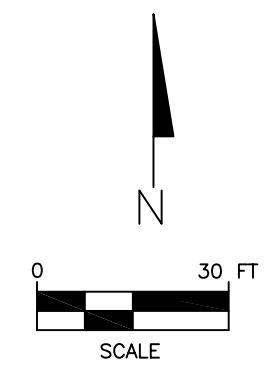


SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, DUBLIN (1998) QUADRANGLE



EXPLANATION:


- ⊕ MONITORING WELL
- ∅ ABANDONED MONITORING WELL
- ⊖ UST BACKFILL WELL
- ▲ SOIL SAMPLE LOCATION
- UE — UNDERGROUND ELECTRIC LINE



SITE PLAN BASED OFF OF A SURVEY BY MORROW SURVEYING ON 12/29/10.

**FIGURE 2
SITE PLAN**

76 STATION NO. 5748/6419
6401 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

PROJECT NO. I42705748	PREPARED BY JF	DRAWN BY JH	
DATE 04/04/11	REVIEWED BY DD	FILE NAME 76-5748S	

Table

Table 1 Well Destruction Details

**TABLE 1
WELL CONSTRUCTION DETAILS
UNOCAL STATION NO. 6419
6401 DUBLIN BLVD
DUBLIN, CALIFORNIA**



Well I.D.	Construction Date	Elevation (TOC feet above MSL)	Boring Depth (feet bgs)	Borehole Diameter (inches)	Casing Diameter (inches)	Casing Material	Slot Size (inches)	Screened Interval (feet bgs)	Filter Pack Interval (feet bgs)	Bentonite Seal Interval (feet bgs)	Cement Seal Interval (feet bgs)	Destruction Date	Destruction Method
Groundwater Monitoring Wells													
MW-1R	12/21/10	333.08	20	10	4	PVC	0.02	5-15	4-15	3-4, 15-20	0-3	10/29/13	Pressure Grout
MW-3	02/24/94	333.40	20	8	2	PVC	0.01	4-19	3-19	2-3	0-2	10/29/13	Pressure Grout
MW-5	05/10/99	333.05	19	8	2	PVC	0.02	4-19	3.5-19	2.5-3.5	0-2.5	10/29/13	Pressure Grout

Notes:

bgs = below ground surface

TOC = top of casing

MSL = mean sea level

Elevations are in US survey feet, Vertical Datum is NAD 83

All wells were surveyed on December 29, 2010

*Well Destruction Report
Unocal Station No. 6419
Dublin, California
Antea Group Project No. I42705748*



Attachment A

Regional Water Quality Control Board Email

Jonathan Fillingame

From: Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>
Sent: Tuesday, September 17, 2013 11:13 AM
To: Dennis Dettloff
Cc: Walter T. Sprague (wsprague@pcandf.com); Josh Mahoney; Lockwood, George@Waterboards (George.Lockwood@waterboards.ca.gov)
Subject: RE: Fuel Leak Case No. RO0000459, Unocal Site 6419, 6401 Dublin Boulevard, Dublin

Hi Dennis:

The public participation period for the subject site closed on July 10, 2013. As no comments were received, please proceed with properly destroying all wells and borings installed for the purpose of investigation, remediating, or monitoring the unauthorized release in accordance with the State Water Resources Low Threat Underground Storage Tank Closure Policy. Please contact the appropriate agency to obtain the required well decommissioning permits (i.e., Alameda County Public Works Agency or Zone 7 Water Agency). Additionally, please proceed with removal of all waste piles, drums, debris and other investigation or remediation derived materials from the site and properly manage in accordance with regulatory agency requirements.

Please provide notification to Alameda County Environmental Health (ACEH) that you have contracted a licensed drilling contractor for the decommissioning of all remaining wells at the site. Please document the well decommissioning and waste removal activities in a report and submit to ACEH by November 30, 2013.

If you have any questions or concerns regarding this correspondence or your case, please call me at (510) 567-6767.

Thank-you,

Dilan Roe, P.E.

Program Manager - Land Use & Local Oversight Program

Alameda County Environmental Health

1131 Harbor Bay Parkway

Alameda, CA 94502

510.567.6767; Ext. 36767

QIC: 30440

dilan.roe@acgov.org

PDF copies of case files can be reviewed/downloaded at:

<http://www.acgov.org/aceh/lop/ust.htm>

From: Dennis Dettloff [<mailto:Dennis.Dettloff@anteagroup.com>]
Sent: Monday, September 16, 2013 11:27 AM
To: Roe, Dilan, Env. Health
Cc: Walter T. Sprague (wsprague@pcandf.com); Josh Mahoney; Lockwood, George@Waterboards (George.Lockwood@waterboards.ca.gov)
Subject: Fuel Leak Case No. RO0000459, Unocal Site 6419, 6401 Dublin Boulevard, Dublin

Ms. Roe:

I see from the attached public notification letter that Alameda County sent out on July 10, 2013 that it has now been more than sixty days since this letter was sent. I was wondering if Alameda County has received any response to this notification that would keep us from moving forward with the well destruction at this location? If not, I would like to proceed with the permitting process so that we can get the wells at this location destroyed in a timely manner. Let me know if this is acceptable to you.

Regards,

Dennis S. Dettloff, P.G. | Senior Project Manager | Antea Group

Direct + 916 503 1261 | USA Toll Free 800 477 7411

Dennis.Dettloff@anteagroup.com | www.anteagroup.com

Member of Inogen® | www.inogenet.com



This e-mail is personal. For our full disclaimer, please visit <http://www.anteagroup.com/confidentiality>.

*Well Destruction Report
Unocal Station No. 6419
Dublin, California
Antea Group Project No. I42705748*



Attachment B

Well Destruction Permits



ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 6401 Dublin Blvd.
Dublin, CA 94568

PERMIT NUMBER 2013131
WELL NUMBER 3S/1E-6E2, 6E4 & 6E6 (MW-1R, MW-3 & MW-5)
APN 941-2831-001-02

Coordinates Source Google Earth ft. Accuracy v ft.
LAT: 37°42'17" N ft. LONG: 121°54'37" W ft.
APN 941-2831-001-02

PERMIT CONDITIONS (Circled Permit Requirements Apply)

CLIENT
Name Antea Group
Address 11050 White Rock Rd, Suite 110 Phone 916-503-1277
City Rancho Cordova, CA Zip 95670

- A. GENERAL**
 1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to your 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 (DWR Form 188), signed by the driller.**
 3. Permit is void if project not begun within 90 days of approval date.
 4. **Notify Zone 7 at least 24 hours before the start of work.**

APPLICANT
Name Ed Weyrens
Email ed.weyrens@antea-group.com Fax 916-638-8385
Address 11050 White Rock Rd, Suite 110 Phone 916-503-1277
City Rancho Cordova, CA Zip 95670

- B. WATER SUPPLY WELLS**
 1. Minimum surface seal diameter is four inches greater than the well casing diameter.
 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. Grout placed by tremie.
 4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
 5. A sample port is required on the discharge pipe near the wellhead.

TYPE OF PROJECT:
Well Construction _____ Geotechnical Investigation _____
Well Destruction Contamination Investigation _____
Cathodic Protection _____ Other _____

- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**
 1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
 3. Grout placed by tremie.

PROPOSED WELL USE:
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 _____

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

DRILLING COMPANY Cascade Drilling
DRILLER'S LICENSE NO. 939110

- F. WELL DESTRUCTION.** See attached.

WELL SPECIFICATIONS:
Drill Hole Diameter 8+10 in. Maximum _____
Casing Diameter 2+4 in. Depth 20 ft.
Surface Seal Depth 3+4 ft. Number 3

- G. SPECIAL CONDITIONS.** Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results.**

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

ESTIMATED STARTING DATE 10/29/13
ESTIMATED COMPLETION DATE 10/30/13

Approved Wyman Hong Date 10/28/13
Wyman Hong

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

APPLICANT'S SIGNATURE [Signature] Date 10-8-13

ATTACH SITE PLAN OR SKETCH

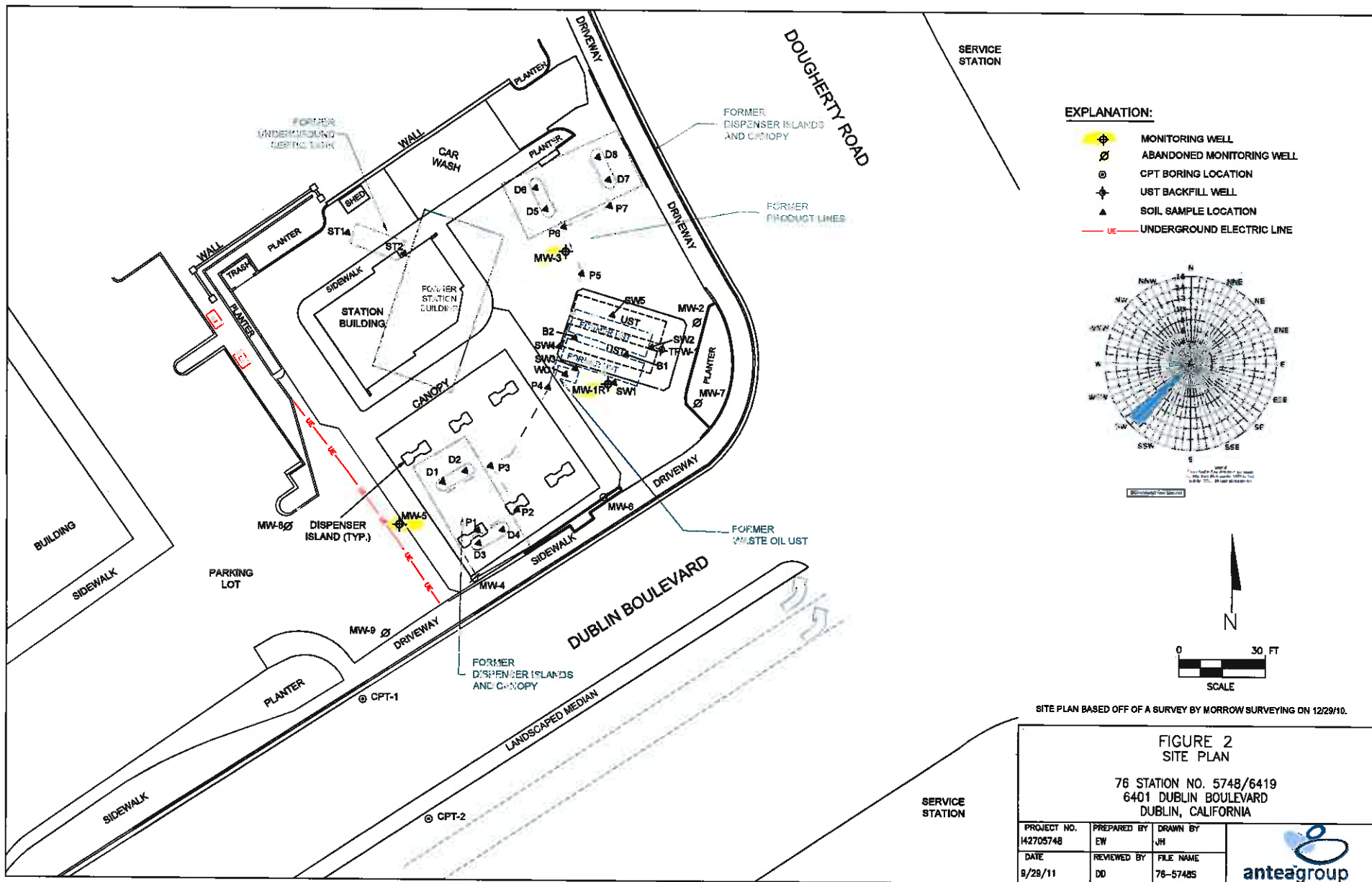
October 28, 2013

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

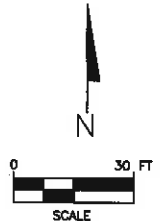
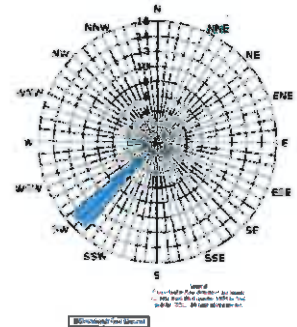
Unocal 76 Station
6401 Dublin Boulevard
Dublin
Wells 3S/1E-6E2 (MW-1R), 3S/1E-6E4 (MW-3) & 3S/1E-6E6 (MW-5)
Permit 2013131

Destruction Requirements:

1. Remove from the well any pump, appurtenances, debris, or other materials.
2. Sound the well as deeply as practicable and record for your report.
3. Fill casing with neat cement or cement grout sealing material to two feet below the finished grade and pressurize to 25 psi and maintain for 5 minutes, forcing the sealing material through the existing perforations and into the surrounding formation.
4. Release the pressure and refill the empty portion of the casing with grouting material allowing it to spill over the top of the casing to form a cap.
5. Cut and remove any casing(s) to two feet below the finished grade or original ground, whichever is the lower elevation (optional).
6. After seal has set, backfill the remaining hole with compacted material.



- EXPLANATION:**
- MONITORING WELL
 - ABANDONED MONITORING WELL
 - CPT BORING LOCATION
 - UST BACKFILL WELL
 - SOIL SAMPLE LOCATION
 - UNDERGROUND ELECTRIC LINE



SITE PLAN BASED OFF OF A SURVEY BY MORROW SURVEYING ON 12/29/10.

FIGURE 2
SITE PLAN

76 STATION NO. 5748/6419
6401 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

PROJECT NO. 142705748	PREPARED BY EW	DRAWN BY JH	
DATE 8/28/11	REVIEWED BY DD	FILE NAME 76-5748S	

*Well Destruction Report
Unocal Station No. 6419
Dublin, California
Antea Group Project No. I42705748*



Attachment C

DWR Well Completion Reports

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