ConocoPhillips
76 Broadway
Sacramento, California 95818

February 17, 2006

Mr. Barney Chan
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Re: **Report Transmittal**
Well Abandonment Report
76 Service Station #6419
6401 Dublin Boulevard,
Dublin, CA

Dear Mr. Chan:

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 contact

Shelby S. Lathrop (Contractor)
ConocoPhillips
Risk Management & Remediation
76 Broadway
Sacramento, CA 95818
Phone: 916-558-7609
Fax: 916-558-7639

Sincerely,

Thomas Kosel
Risk Management & Remediation

Attachment

TRC

Customer-Focused Solutions

February 17, 2006 TRC Project No. 42017005

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

RE: WELL ABANDONMENT REPORT
76 SERVICE STATION NO. 6419 (5748)
6401 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

Dear Mr. Chan,

On behalf of ConocoPhillips Company (ConocoPhillips), TRC submits this Well Abandonment Report for the destruction of four (4) monitoring wells at the 76 Service Station No. 6419 (5748) located at 6401 Dublin Boulevard (Site) in Dublin, California (Figure 1).

Monitoring wells MW-2, MW-4, MW-6, and MW-7 were abandoned on January 12, 2006. These wells were abandoned at the request of the City of Dublin in anticipation of street widening on both Dougherty Road and Dublin Boulevard. Figure 2 shows the locations of the former wells. Prior to the abandonment of these wells, well destruction permits were obtained from the Zone 7 Water Resources Management. Copies of the permits are included in Appendix A. Initial boring logs and well completion details are included in Appendix B.

The four wells were abandoned by backfilling the well casing with neat cement grout and applying 25 pounds of pressure for 5 minutes, in accordance with California Well Standards 74-81 and 74-90. The well boxes were backfilled with neat cement grout to within 0.5 feet below grade, and capped with concrete or dirt, depending on the surrounding surface. Well destruction details are summarized in Table 1.

Waste materials are currently stored onsite and will be transported to an approved waste disposal facility.

1590 Solano Way, Suite A • Concord, California 94520
Telephone 925-688-1200 • Fax 925-688-0388

Should you have any questions regarding this report, please contact either of the undersigned at (925) 688-1200.

Sincerely,
TRC

Rachelle Dunn
Staff Geologist

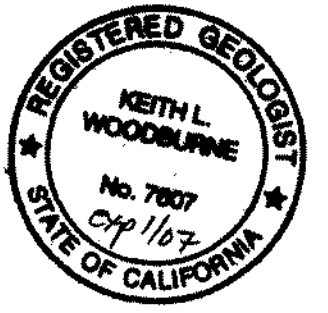
Keith Woodburne, P.G.
Senior Project Geologist

Attachments:

Table 1 - Well Destruction Details

Figure 1 - Vicinity Map
Figure 2 - Site Plan

Appendix A - Well Destruction Permits
Appendix B - Boring Logs and Well Completion Details



cc: Shelby Lathrop, ConocoPhillips (electronic upload only)

TABLE

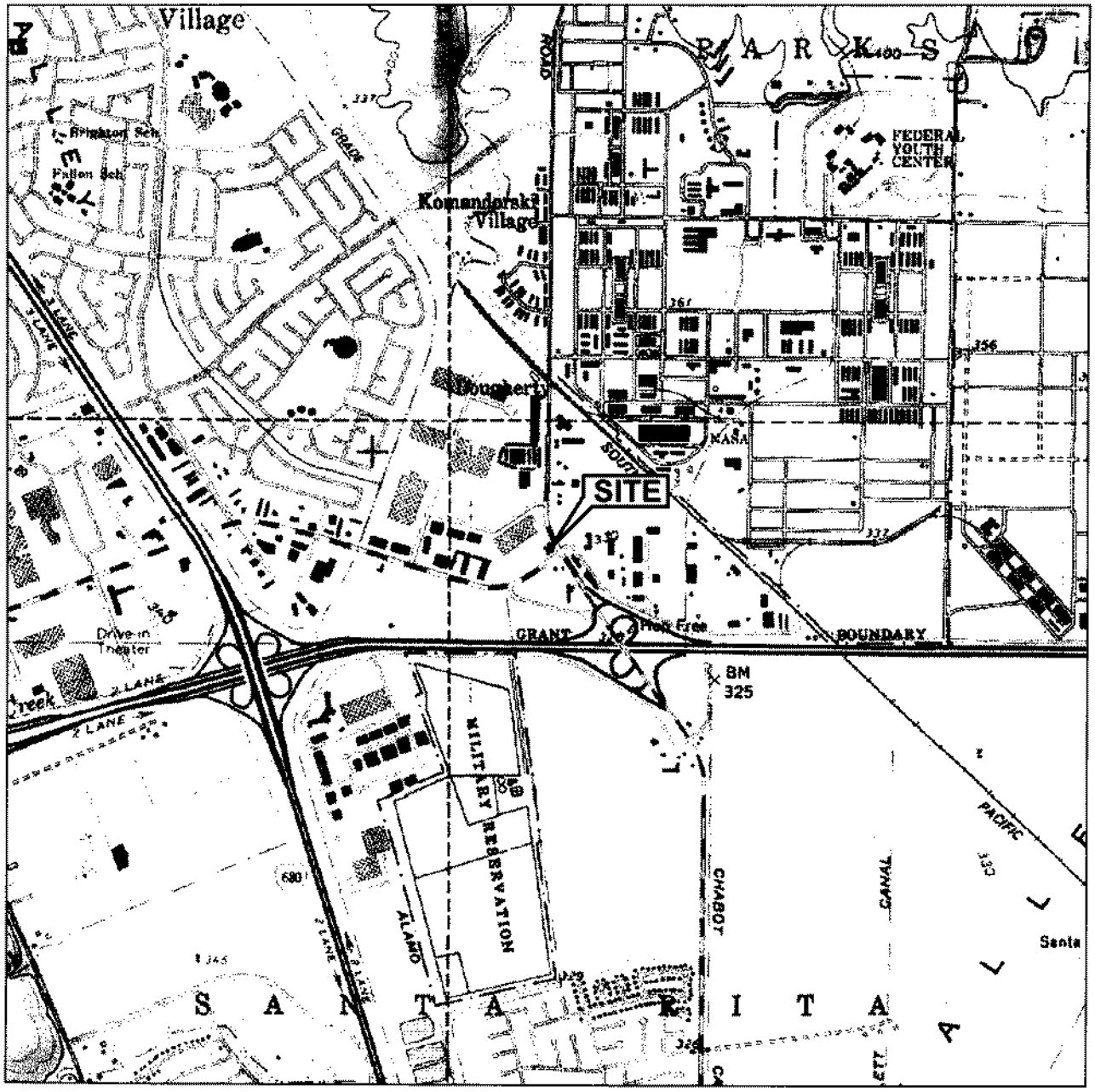
Table 1

Well Destruction Details

76 Service Station No. 6419 (5748)
6401 Dublin Boulevard
Dublin, California

Well ID	Type of Well	Construction Details			Destruction Details	
		Casing Diameter (inches)	Depth (feet)	Boring Diameter (inches)	Depth (feet)	Backfill Method
MW-2	Monitoring	2	20	8	20	Neat cement grout to 0.5 feet below grade; concrete cap
MW-4	Monitoring	2	19	8	19	Neat cement grout to 0.5 feet below grade; dirt cap
MW-6	Monitoring	2	19	8	19	Neat cement grout to 0.5 feet below grade; dirt cap
MW-7	Monitoring	2	19	8	19	Neat cement grout to 0.5 feet below grade; dirt cap

FIGURES



1 MILE 3/4 1/2 1/4 0 1 MILE

SCALE 1 : 24,000

N

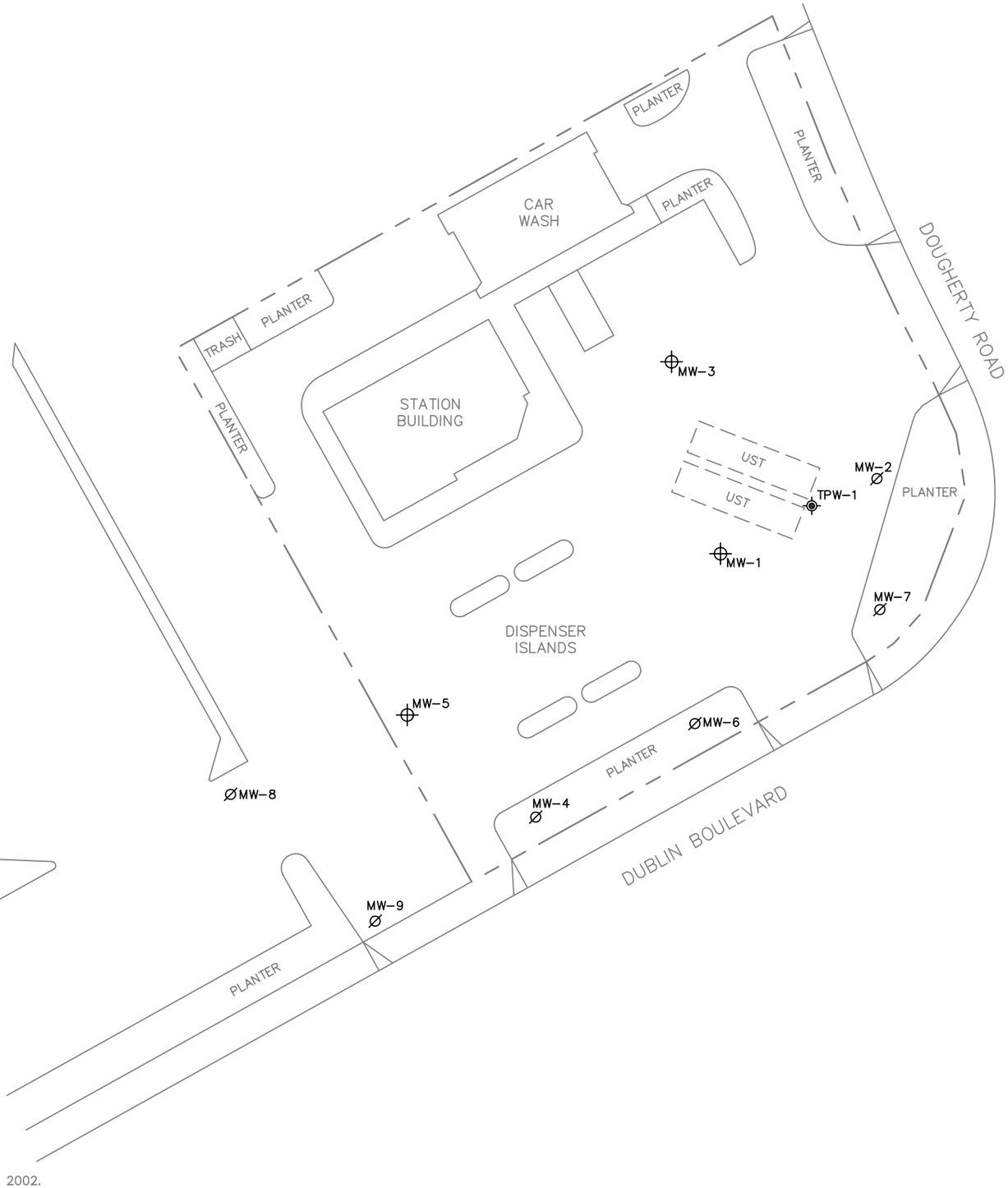
SOURCE:

United States Geological Survey
7.5 Minute Topographic Maps:
Dublin Quadrangle
California

VICINITY MAP

76 Service Station #6419 (5748)
6401 Dublin Boulevard
Dublin, California

TRC | FIGURE 1



LEGEND

———	Approximate property line
MW–7 ⊕	Groundwater monitoring well
TPW–1 ⊕	UST pit backfill well
MW–9 ∅	Abandoned well

N

APPROXIMATE SCALE (FEET)

0 30 60

SOURCE: Site plan by Gettler–Ryan, March 2002.

SITE PLAN

76 Service Station #6419 (5748)
6401 Dublin Boulevard
Dublin, California

TRC

FIGURE 2

APPENDIX A
WELL DESTRUCTION PERMITS

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

LOCATION OF PROJECT 6401 Dublin Blvd
Dublin, CA 94568

California Coordinates Source _____ Accuracy± _____ ft.
CCN _____ ft. CCE _____ ft.
APN 941-205-103

CLIENT
Name ConocoPhillips
Address 76 Broadway Phone _____
City Sacramento, CA Zip 94818

APPLICANT
Name TRC
Fax (925) 688-0388
Address 1590 Standard Way, Ste A Phone (925) 688-1200
City Concord, CA Zip 94520

TYPE OF PROJECT:

Well Construction	☐	Geotechnical Investigation	☐
Well Destruction	☒	Contamination Investigation	☐
Cathodic Protection	☐	Other _____	☐

PROPOSED WELL USE:

Domestic	☐	Irrigation	☐
Municipal	☐	Remediation	☐
Industrial	☐	Groundwater Monitoring	☒
Dewatering	☐	Other _____	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Hollow Stem Auger	☒
Cable Tool	☐	Direct Push	☐	Other _____	☐

DRILLING COMPANY Woodward Drilling
DRILLER'S LICENSE NO. 710079

WELL SPECIFICATIONS:
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 20 ft.
Surface Seal Depth 25 ft. Number 4

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

ESTIMATED STARTING DATE January 11, 2006
ESTIMATED COMPLETION DATE January 12, 2006

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

APPLICANT'S SIGNATURE Rachelle Dunn Date 12/28/05
Rachelle Dunn

ATTACH SITE PLAN OR SKETCH

FOR OFFICE USE

PERMIT NUMBER 26004
WELL NUMBER 3S/1E-6E3, 6E5, 6E7 & 6E8
APN 941-0205-010-03

PERMIT CONDITIONS

Circled Permit Requirements Apply

(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.

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.

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.

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 completion of permitted work the well installation report **including all soil and water laboratory analysis results**.

Approved Wyman Hong Date 1/10/06
Wyman Hong

P:\WRE\WYMAN\drilling permit.wpd

Revised: April 27, 2005

January 10, 2006

Zone 7
Water Resources Engineering
Groundwater Protection Ordinance

ConocoPhillips
6401 Dublin Boulevard
Dublin
Wells 3S/1E-6E3(MW-2), 3S/1E-6E5(MW-4), 3S/1E-6E7(MW-6) and 3S/1E-6E8(MW-7)
Permi 26004

Destruction Requirements:

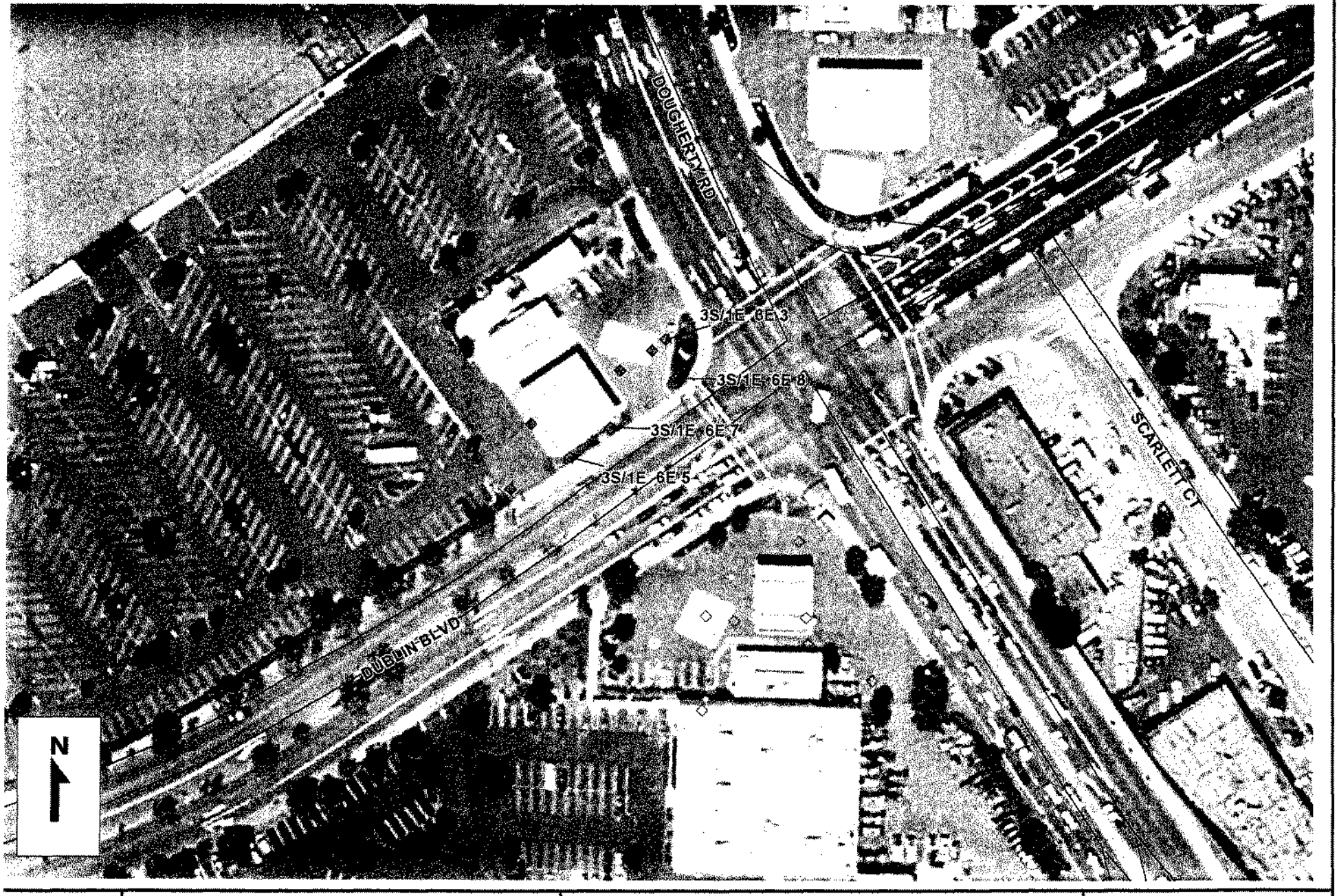
1. Clean out all bridged or poorly compacted materials to the bottom of the well.

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).



ZONE 7 WATER AGENCY **100 NORTH CANYONS PARKWAY** **LIVERMORE, CA 94551**	**WELL LOCATION MAP**	**SCALE: 1"= 100 ft** **DATE: 1/10/06** **6401 Dublin Blvd** H:\FLOOD\REFERALLS\REFERALLS.WOR

APPENDIX B
BORING LOGS AND WELL COMPLETION DETAILS

BORING LOG

Project No. KEI-P93-0401	**Boring Diameter** 8.5" **Casing Diameter** 2"	**Logged By** TGG D.L. LEO 1653
Project Name Unocal S/S #6419 6401 Dublin Blvd., Dublin	**Well Cover Elevation** N/A	**Date Drilled** 2/25/94
Boring No. MW2	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
		0		A.C. Pavement over sand and gravel base.
			CL	Silty clay, stiff, moist, black grading to olive brown (fill).
			GC	Clayey gravel with sand, gravel to 2 3/4 inches in diameter, dense, moist, dark olive gray, disturbed, pocketed (fill).
			CH	Silty clay, stiff, moist, black.
			SM	Poorly graded sand, predominantly medium grained, loose, moist,
3/5/7		5	ML	dark olive gray.
				Silt, trace clay grading to 10-15% clay, stiff, moist, dark olive gray.
			CH	Silty clay, stiff, moist, black, high plasticity.
3/5/10		10	CL	Silty clay, estimated at 35-45% silt, stiff, moist, olive brown and very dark grayish brown, mottled, with root holes, locally grades to very clayey silt.
			MH	Clayey silt, stiff, moist, olive brown and brown, mottled.
3/6/7			ML	Silt, estimated at 20-30% clay, and 5-10% sand, stiff, moist, olive brown and brown, mottled.
3/6/9		15	CL	Silty clay, estimated at 30-40% silt, stiff, moist, olive and olive brown, mottled, with caliche nodules to 3/4 inch in diameter.
				Silty clay, as above, except olive brown.
4/6/9	▽		MH	Clayey silt, estimated at 35-45% clay, stiff, moist, olive to olive brown, trace organic matter.
			ML	Silt, estimated at 15-30% clay, stiff, very moist, olive, with trace caliche.
3/4/6		20	CL	Silty clay, stiff, moist, olive and olive brown, mottled.
				TOTAL DEPTH: 20'

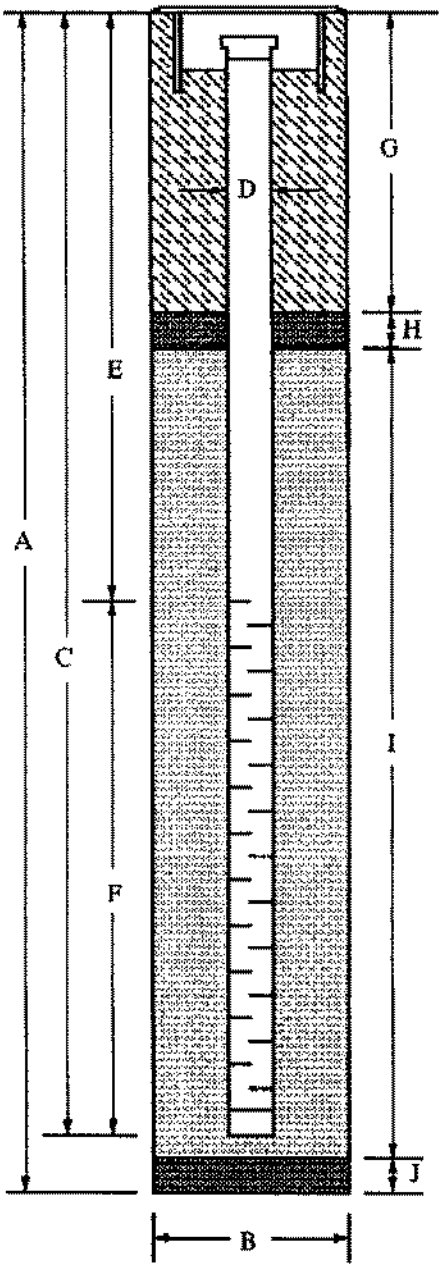
WELL CONSTRUCTION DIAGRAM

PROJECT NAME: Unocal S/S #6419, 6401 Dublin Blvd., Dublin **WELL NO.:** MW2

PROJECT NUMBER: KEI-P93-0401

WELL PERMIT NO.: ACFC & WCD #94071

Flush-mounted Well Cover



A. Total Depth : 20'

B. Boring Diameter: 8.5"

Drilling Method: Hollow Stem Auger

C. Casing Length: 20'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"

ID = 2.067"

E. Depth to Perforations: 4'

F. Perforated Length: 16'

Perforation Type: Machined Slot

Perforation Size: 0.010"

G. Surface Seal: 1.5'

Seal Material: Neat Cement

H. Seal: 1.5'

Seal Material: Bentonite

I. Filter Pack: 17'

Pack Material: RMC Lonestar Sand

Size: #2/12

J. Bottom Seal: None

Seal Material: N/A

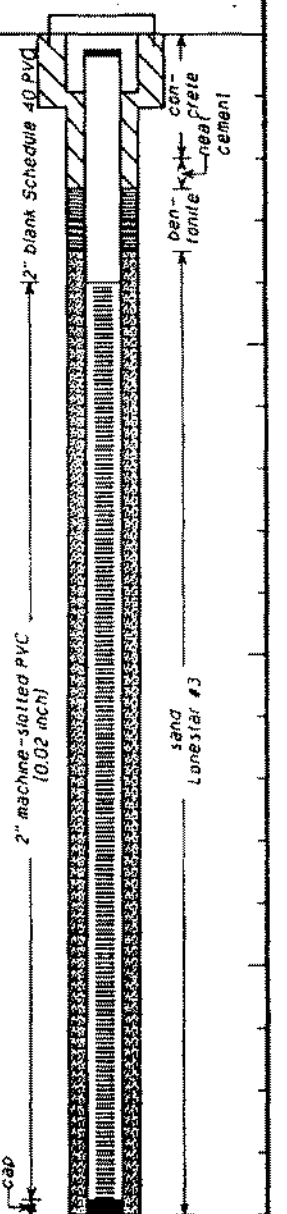
Gettler-Ryan Inc.

Log of Boring MW-4

PROJECT: *Tosco (Unocal) Station No. 6419*	LOCATION: *6401 Dublin Blvd., Dublin, CA*
PROJECT NO.: *140101.02*	CASING ELEVATION: *330.36 ft. MSL*
DATE STARTED: *05/10/99*	WL (ft. bgs): *12* DATE: *05/10/99* TIME: *9:05 AM*
DATE FINISHED: *05/10/99*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *8" Geoprobe Macrocore*	TOTAL DEPTH: *19 Feet*
DRILLING COMPANY: *Gregg Drilling*	GEOLOGIST: *Clyde Galantine*

DEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						CL	CLAY (CL) – dark gray (10YR 4/1), damp, stiff, 75% clay, 20% silt, 5% fine to coarse sand, asphalt: FILL.
						GC	CLAYEY GRAVEL (GC) – dark grayish brown (10YR 4/?), damp, medium dense, 60% rounded fine gravel, 30% clay, 5% silt, 5% fine sand, plastic, asphalt fragments: FILL.
5						CL	CLAY (CL) – very dark gray (2.5Y N3/) to dark grayish brown (2.5Y 4/2), saturated, stiff, 65% clay, 20% silt, 10% fine to coarse sand, 5% fine gravel, plastic: FILL.
	0		MW-4-8				
10	2						Becomes 90% clay, 10% silt, trace fine sand at 10 feet.
							▽ Pea gravel with brick fragment stuff material from 12 to 12.5 feet.
						CL	CLAY (CL) – olive brown (2.5Y 4/3), saturated, very stiff, 80% clay, 20% silt, trace fine sand, plastic: native material.
15	0						
							Color change to light olive brown (2.5Y 4/3) at 17 feet, becomes 90% clay, 10% silt, trace fine sand, plastic.
	3						
20							

WELL DIAGRAM



JOB NUMBER: *140101.02*

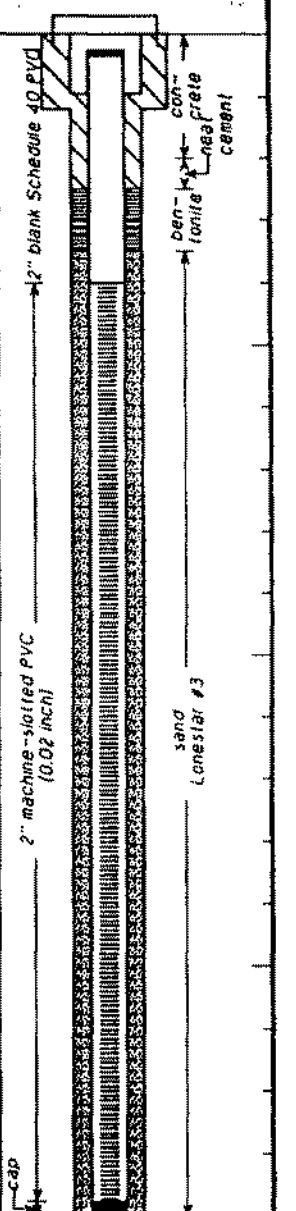
Gettler–Ryan Inc.

Log of Boring MW-6

PROJECT: *Tosco (Unocal) Station No. 6419*	LOCATION: *6401 Dublin Blvd., Dublin, CA*
PROJECT NO.: *140101.02*	CASING ELEVATION: *330.49 ft. MSL*
DATE STARTED: *05/10/99*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *05/10/99*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *8" Geoprobe Macrocore*	TOTAL DEPTH: *19 Feet*
DRILLING COMPANY: *Gregg Drilling*	GEOLOGIST: *Clyde Galantine*

DEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						CL	GRAVELLY CLAY (CL) – very dark grayish brown (10YR 3/2), damp, stiff, 65% clay, 30% fine gravel, 5% fine to coarse sand: FILL.
						GC	CLAY WITH GRAVEL (GC) – grayish brown (2.5Y 5/2), damp, dense, 70% fine gravel, 25% clay, 5% fine to coarse sand: FILL.
						CL	CLAY (CL) – very dark gray (5Y 3/1), damp, stiff, 60% clay, 35% silt, 5% fine sand: FILL.
5						SC	CLAYEY SAND (SC) – very dark gray (2.5Y N3/), damp, medium dense, 60% fine to medium sand, 40% clay: FILL.
						ML	
	2		MW-6-6.5				SILT (ML) – black (2.5 N2/), damp, stiff, 65% silt, 20% clay, 15% fine to medium sand, non plastic, organic appearance.
						CL	CLAY (CL) – black (2.5 N2/), damp, stiff, 85% clay, 15% silt, trace sand, organic appearance.
							Gravel layer from 9 to 9.2 feet.
10							
	0		MW-6-12				Color change to dark grayish brown (2.5Y 4/2) at 12 feet, becomes damp, stiff, 75% clay, 25% silt, trace gravel, rootlets, plastic.
							Fine sand layer from 13.8 to 13.9 feet.
15	2						
							Color change to grayish brown (2.5Y 5/2) at 16 feet, becomes 85% clay, 15% silt, white concretions, slight MnO staining, plastic.
							Fine gravel layer from 17.5 to 17.8 feet.
	2						
20							

WELL DIAGRAM



JOB NUMBER: *140101.02*

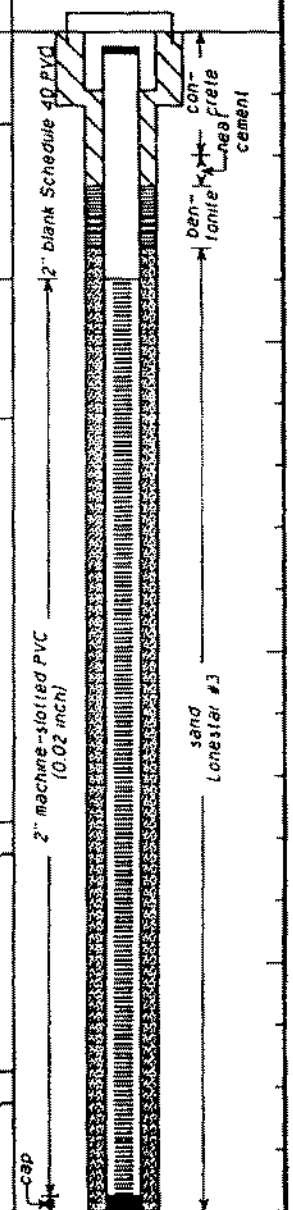
Gettler-Ryan Inc.

Log of Boring MW-7

PROJECT: *Tosco (Unocal) Station No. 6419*	LOCATION: *6401 Dublin Blvd., Dublin, CA*
PROJECT NO.: *140101.02*	CASING ELEVATION: *330.43 ft. MSL*
DATE STARTED: *05/10/99*	WL (ft. bgs): *5.75* DATE: *05/10/99* TIME: *5:00 PM*
DATE FINISHED: *05/10/99*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *8" Geoprobe Macrocore*	TOTAL DEPTH: *19 Feet*
DRILLING COMPANY: *Gregg Drilling*	GEOLOGIST: *Clyde Galantine*

DEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						CL	GRAVELLY CLAY (CL) – grayish brown (2.5Y 5/2), damp, stiff, 80% clay, 15% fine gravel, 5% fine to coarse sand: FILL.
						GC	CLAYEY GRAVEL (GC) – grayish brown (2.5Y 5/2), damp, dense, 65% fine gravel, 30% clay, 5% fine to coarse sand: FILL.
5						SC	CLAYEY SAND (SC) – very dark gray (2.5Y N3/), saturated, medium stiff, 85% fine to medium sand, 30% clay, 5% silt: FILL.
	8		MW-7-8			CL	CLAY (CL) – very dark gray (10YR 3/1), damp, stiff, 90% clay, 10% silt, trace fine sand, very plastic.
10	0						Fine to medium sand layers from 9.25 to 9.5 feet and from 9.75 to 9.9 feet.
							Color change to very dark grayish brown (2.5Y 3/2) at 10.5 feet, becomes wet, 80% clay, 20% silt, trace gravel, plastic.
	0					SW SM	SAND WITH SILT (SW-SM) – dark grayish green (2.5Y 4/2), saturated, loose, 90% fine sand, 10% silt.
						CL	CLAY (CL) – olive brown (2.5Y 4/3), damp, stiff, 80% clay, 30% silt, 10% fine sand.
15	0						Becomes 80% clay, 20% silt, trace gravel or concretions, plastic at 14.5 feet.
						SW SM	SAND WITH SILT (SW-SM) – dark grayish green (2.5Y 4/2), saturated, loose, 90% fine sand, 10% silt.
	0					CL	CLAY (CL) – light olive brown (2.5Y 5/3), damp, stiff, 70% clay, 25% silt, 5% fine sand, caliche, plastic.
20							

WELL DIAGRAM



JOB NUMBER: *140101.02*