GETTLER-RYAN INC.

TRANSMITTAL

ENVIRONMENTAL PROTECTION
98 JUL 29 PM 4:39

Need new install apt

TO: Ms. Eva Chu
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, California 94502

DATE: July 27, 1998
G-R #: 180022

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Tosco(Unocal) SS #7176
7850 Amador Valley Blvd.
Dublin, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	July 15, 1998	Groundwater Monitoring and Sampling Report Second Quarter 1998 - April 23, 1998

COMMENTS:

At the request of Tosco Marketing Company, we are providing you a copy of the above referenced report. The site is monitored and sampled on a quarterly basis. If you have questions please contact the Tosco Project Manager, Ms. Tina R. Berry at (925) 277-2321.

Enclosure

cc: Mr. Keith Romstad, ERI, 74 Digital Drive, Suite 6, Novato, CA 94949

agency/7176trb.qmt

GETTLER-RYAN INC.

July 15, 1998
G-R Job #180022

Ms. Tina R. Berry
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

RE: Second Quarter 1998 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

Dear Ms. Berry:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On April 23, 1998, field personnel developed two new wells (MW-4 and MW-5), and monitored and sampled five wells (U-1, U-2, U-3, MW-4, and MW-5) at the above referenced site.

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Table 1 and Dissolved Oxygen Concentrations are summarized in Table 2. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

Deanna L. Harding
Project Coordinator

Ricky L. Fears
Registered Geologist, R.G. No. 6728

Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Dissolved Oxygen Concentrations
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

7176.qml

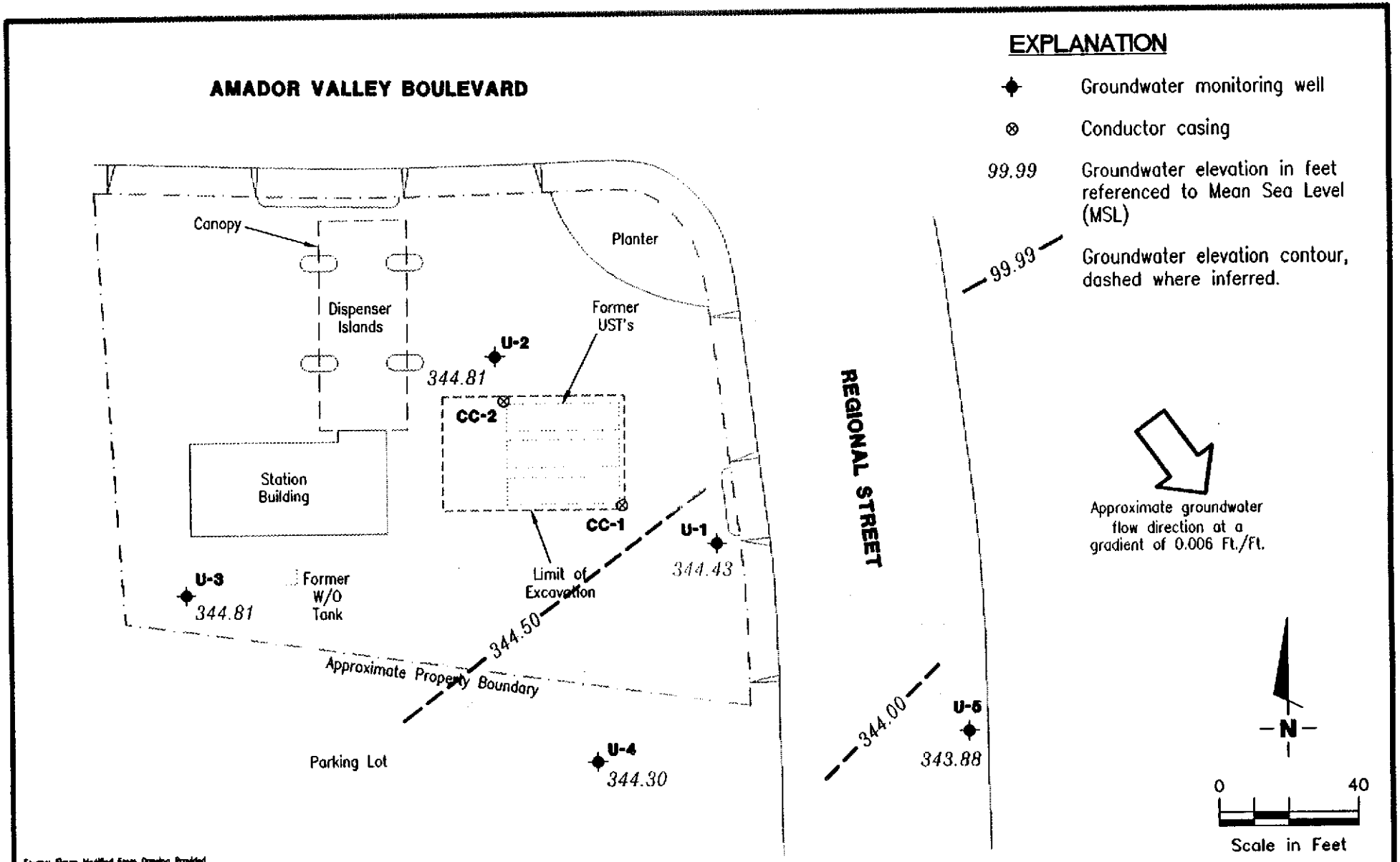


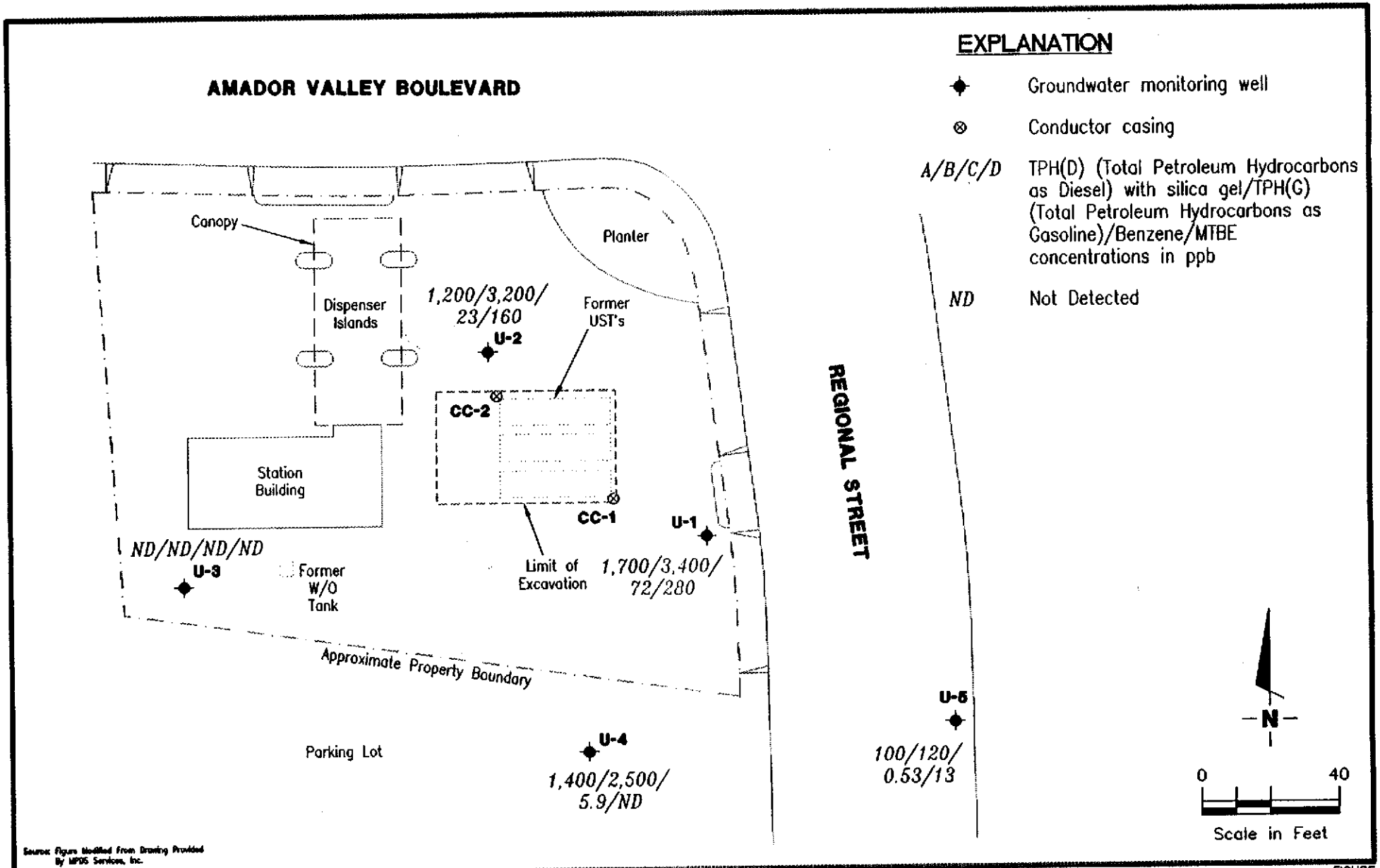
FIGURE 1

Gettler - Ryan Inc.

6747 Sierra Ct., Suite J
Dublin, CA 94568
(925) 551-7555

POTENTIOMETRIC MAP
Tosco (Unocal) Service Station No. 7176
7850 Amador Valley Boulevard
Dublin, California

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180022		April 23, 1998	



Source: Figure Modified From Drawing Provided By MPDS Services, Inc.

FIGURE 2

Gettler - Ryan Inc.

6747 Sierra Ct., Suite J
Dublin, CA 94568
(925) 551-7555

CONCENTRATION MAP
Tosco (Unocal) Service Station No. 7176
7850 Amador Valley Boulevard
Dublin, California

JOB NUMBER 180022

REVIEWED BY

DATE April 23, 1998

REVISED DATE

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

Well ID/ TOC*		Date	DTW (ft.)	GWE (msl)	TPH(D)♦	TPH(G)	B	T	E	X	MTBE
					<--------		ppb				-------->
U-1		07/08/95			9,400[3]	39,000	1,500	19	1,600	5,200	--
		10/12/95			4,200[5]	33,000	1,400	ND	1,400	3,100	--[7]
		01/11/96[1]			8,200[5]	8,300	690	11	680	1,500	--[8]
		04/11/96[2]			630[5]	3,200	110	ND	180	290	790
		07/10/96			2,200[5]	2,600	81	4.4	210	230	510
355.62		10/30/96	15.85	339.77	560[5]	2,200	67	19	140	150	360
		01/27/97	12.20	343.42	2,300[5]	4,600	98	ND	360	290	150
		04/08/97	13.46	342.16	1,300[5]	2,800	50	ND	220	140	ND
		07/17/97	15.30	340.32	460[6]	2,300	30	4.5	140	94	190
		10/17/97	16.33	339.29	510[6]	1,500	31	6.7	110	88	220
		01/19/98	14.34	341.28	[10]1,900/1,300[10]	3,100	46	3.4	310	200	170
355.59	NP	04/23/98	11.16	344.43	--/1,700[11]	3,400	72	3.8	470	350	280
U-2		07/08/95			4,700[3]	17,000	430	ND	2,200	590	--
		10/12/95			3,600[5]	24,000	310	60	1,900	190	--[7]
		01/11/96[1]			8,600[5]	10,000	210	55	1,400	240	--[8]
		04/11/96[2]			1,900[5]	7,700	130	27	1,100	110	340
		07/10/96			2,300[5]	5,600	59	15	610	42	250
356.59		10/30/96	16.82	339.77	1,800[5]	7,700	67	35	1,000	54	260
		01/27/97	12.91	343.68	660[5]	1,600	14	ND	130	7.0	100
		04/08/97	14.07	342.52	2,000[5]	4,300	35	ND	400	16	ND
		07/17/97	15.96	340.63	1,300[6]	6,200	17	22	410	ND	130
		10/17/97	17.03	339.56	1,400[6]	7,100	71	26	520	50	ND
		01/19/98	15.10	341.49	[10]2,100/1,500[10]	5,300	46	11	350	16	110
356.55	NP	04/23/98	11.74	344.81	--/1,200[11]	3,200	23	11	210	38	160
U-3		07/08/95			710[3]	1,100[4]	0.57	2.1	1.7	2.4	--
		10/12/95			470[6]	560	ND	0.87	0.7	1.1	--
		01/11/96[1]			260[6]	230	0.62	0.91	0.97	1.9	--
		04/11/96			ND	68[9]	ND	ND	ND	ND	ND
		07/10/96			ND	ND	ND	ND	ND	ND	ND
358.13		10/30/96	18.24	339.89	ND	70	ND	ND	ND	ND	ND

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7176

7850 Amador Valley Boulevard

Dublin, California

Well ID/ TOC*		Date	DTW (ft.)	GWE (msl)	TPH(D)♦	TPH(G)	B	T	E	X	MTBE
					<			ppb			>
U-3		01/27/97	14.41	343.72	ND	ND	ND	ND	ND	ND	ND
(cont)		04/08/97	15.73	342.40	ND	ND	ND	ND	ND	ND	ND
		07/17/97	17.54	340.59	ND	ND	ND	ND	ND	ND	ND
		10/17/97	18.64	339.49	63[6]	ND	ND	ND	ND	ND	ND
		01/19/98	16.67	341.46	[10]68/ND	ND	ND	ND	ND	ND	ND
358.09	NP	04/23/98	13.28	344.81	--/ND	ND	ND	ND	ND	ND	ND
MW-4											
356.41		04/23/98	12.11	344.30	--/1,400[11]	2,500	5.9	6.4	16	31	ND[12]
MW-5											
355.03		04/23/98	11.15	343.88	--/100[11]	120	0.53	0.90	1.0	3.8	13
Trip Blank											
TB-LB		01/19/98	--	--	--	ND	ND	ND	ND	ND	ND
		04/23/98	--	--	--	ND	ND	ND	ND	ND	ND

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to January 19, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing elevation
DTW = Depth to Water
(ft.) = Feet
GWE = Groundwater Elevation
msl = Relative to mean sea level
TPH(D) = Total Petroleum Hydrocarbons as Diesel
TPH(G) = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl tertiary butyl ether
ppb = Parts per billion
ND = Not Detected
-- = Not Measured/Not Analyzed
NP = No purge
PNA = Polynuclear Aromatic Hydrocarbons

* TOC elevations were surveyed relative to msl, per the Benchmark AM-STW1977 located at the easterly return at the most easterly corner of intersection at Amador Valley Boulevard and Starward Street (Elevation = 344.17 feet msl).

♦ Analytical results reported as follows: TPH(D)/TPH(D) with silica gel cleanup.

1 PNA compound naphthalene was detected in well U-1 at a concentration of 320 ppb, and at a concentration of 310 ppb in well U-2. All other PNA compounds were ND in both wells.

2 PNA compounds were ND.

3 Laboratory report indicates unidentified hydrocarbons C9-C26.

4 Laboratory report indicates gas and unidentified hydrocarbons > C12.

5 Laboratory report indicates that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.

6 Laboratory report indicates that the hydrocarbons detected did not appear to be diesel.

7 Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.

8 Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.

9 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.

10 Laboratory report indicates unidentified hydrocarbons C9-C24.

11 Laboratory report indicates diesel and unidentified hydrocarbons < C14.

12 Detection limit raised. Refer to analytical results.

Depth to water and groundwater elevation history will be updated in future reports.

Table 2

Dissolved Oxygen Concentrations

Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

Well ID	Date	Before Purging (mg/L)	After Purging (mg/L)
U-1	01/11/96	–	3.41
	04/11/96	3.77	3.78
	07/10/96[1]	1.22	–
	10/30/96[1]	1.41	–
	01/27/97[1]	1.34	–
	04/08/97[1]	2.09	–
	07/17/97[1]	2.00	–
	10/17/97[1]	1.86	–
	01/19/98[1]	2.91	–
	04/23/98[1]	0.59	–
U-2	01/11/96	–	3.99
	04/11/96	3.32	3.41
	07/10/96[1]	1.01	–
	10/30/96[1]	1.42	–
	01/27/97[1]	1.29	–
	04/08/97[1]	1.69	–
	07/17/97[1]	2.08	–
	10/17/97[1]	1.80	–
	01/19/98[1]	2.95	–
	04/23/98[1]	0.55	–
U-3	01/11/96	–	5.05
	04/11/96	5.16	4.96
	07/10/96[1]	3.44	–
	10/30/96[1]	2.18	–
	01/27/97[1]	2.61	–
	04/08/97[1]	3.73	–
	07/17/97[1]	2.65	–
	10/17/97[1]	2.44	–
	01/19/98[1]	6.51	–
	04/23/98[1]	4.72	–
CC1	10/02/95	2.83	–

EXPLANATIONS:

– = Not Measured
mg/L = Milligrams per liter

[1] The wells were not purged on this date.

Note: Measurements were taken using a LaMotte DO4000 dissolved oxygen meter.

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Tosco Marketing Company, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Facility # TOSCO-UNOCAL #7176 Job#: 180022

Address: 7850 AMADOR VALLEY BLVD. Date: 4/23/98

City: DUBLIN, CA Sampler: HAIG KEVORK

Well ID U-1 Well Condition: GOOD

Well Diameter 2 in. Hydrocarbon Thickness: Ø in. Amount Bailed (product/water): _____ (gal.)

Total Depth 27.95 ft.

Depth to Water 11.16 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other: _____

Sampling Equipment: Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other: _____

Starting Time: _____ Weather Conditions: CLOUDY

Sampling Time: 14:15 Water Color: _____ Odor: _____

Purging Flow Rate: N/A gpm. Sediment Description: _____

Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
					0.59		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
U-1	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE
	1 AMBER				TPH-D w/SILICA GEL

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # TOSCO-UNOCAL #7176 Job#: 180022

Address: 7850 AMADOR VALLEY BLVD, Date: 4/23/98

City: DUBLIN Sampler: HAIG KEVORK

Well ID U-2 Well Condition: GOOD

Well Diameter 2 in. Hydrocarbon Thickness: Ø in. Amount Bailed (product/water): _____ (gal.)

Total Depth 26.51 ft.

Depth to Water 11.74 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- Stack
- Suction
- Grundfos
- Other: _____

Sampling Equipment:
- Disposable Bailer
- Bailer
- Pressure Bailer
- Grab Sample
- Other: _____

Starting Time: _____ Weather Conditions: CLOUDY

Sampling Time: 14:00 Water Color: _____ Odor: _____

Purging Flow Rate: N/A gpm. Sediment Description: _____

Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
					0.55		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
U-2	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE
	1 AMBER				TPH-D W/SILICA GEL

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Facility # TOSCO-UNOCAL # 4146 Job#: 180022

Address: 7850 AMADOR VALLEY BLVD. Date: 4/23/98

City: DUBLIN Sampler: HAIG KEVORK

Well ID U-3 Well Condition: GOOD (ONE BOLT AND FLANGE IS MISSING)

Well Diameter 2 in. Hydrocarbon Thickness: Ø in. Amount Bailed (product/water): _____ (gal.)

Total Depth 28.58 ft.

Depth to Water 13.28 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- Stack
- Suction
- Grundfos
- Other: _____

Sampling Equipment:
- Disposable Bailer
- Bailer
- Pressure Bailer
- Grab Sample
- Other: _____

Starting Time: _____

Sampling Time: 13:45

Purging Flow Rate: N/A gpm.

Did well de-water? _____

Weather Conditions: CLOUDY

Water Color: _____ Odor: _____

Sediment Description: _____

If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
					4.72		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
U-3	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE
	1 AMBER				TPH-D w/SILICA GEL

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # TOSCO-UNOCAL # 4176 Job#: 180022

Address: 7850 AMADOR VALLEY BLVD. Date: 4/23/98

City: DUBLIN Sampler: HAIG KEVORK

Well ID MW-4 Well Condition: NEW (ERI)

Well Diameter 2 in. Hydrocarbon Thickness: Ø in. Amount Bailed (product/water): _____ (gal.)

Total Depth 25.50 ft.

Depth to Water 12.11 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

13.39 x VF 0.17 = 2.28 x 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; [Suction]; Grundfos; Other: _____

Sampling Equipment: [Disposable Bailer]; Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: _____ Weather Conditions: CLOUDY

Sampling Time: 15:08 Water Color: _____ Odor: _____

Purging Flow Rate: 3 gpm. Sediment Description: _____

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
14:26	0	7.30	1420	20.9			
14:27	2	7.16	1290	20.3			
14:29	5	7.13	1260	20.5			
14:31	8	7.11	1240	20.4			
14:34	12	7.09	1220	20.7			
14:36	16	7.07	1210	20.9			
14:42	22	7.06	1190	20.8			
14:45	26	7.04	1180	21.0			
14:48	30	7.05	1190	21.1			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE
	1 AMBER				TPH-D W/ SILICA GEL

COMMENTS: THIS WELL WAS DEVELOPED

TOTAL PURGED 30 gallons (WELL WAS DEVELOPED).

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Facility #: Tosco / Unocal #7176 | Job#: 180022.85
Address: 7850 Amador Valley Blvd | Date: 4.23-9E
City: Dublin CA | Sampler: F. Cline

Well ID: MW-5 | Well Condition: Okay new lock
Well Diameter: 2" in. | Hydrocarbon Thickness: — in. | Amount Bailed (product/water): — (gal.)
Total Depth: 25.00 ft.
Depth to Water: 11.15 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

13.85 X VF 0.17 = 2.3 x 10 (case volume) = Estimated Purge Volume: 23 (gal.)

Purge Equipment: ~~Disposable Bailer~~ ~~Bailer~~ ~~Stack~~ Suction Grundfos Other: —

Sampling Equipment: ~~Disposable Bailer~~ Bailer Pressure Bailer Grab Sample Other: —

Starting Time: 14:10 | Weather Conditions: cloudy
Sampling Time: 14:50 | Water Color: Brown - clear | Odor: None
Purging Flow Rate: 1.2 gpm. | Sediment Description: Silty ⇒ None.
Did well de-water? N/C | If yes; Time: — | Volume: — (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L) (color/clarity)	ORP (mV)	Alkalinity (ppm)
1410	0	6.86	1998	20.0	clear/clear		Surge
1425	10	6.80	1898	20.2	Brown/Muddy		
1436	16	6.82	1872	20.3	Brown/Cloudy		
1435	22	6.79	1864	20.4	Brown/cloudy		
1440	28	6.77	1851	20.0	Brown/Cloudy		
1445	34	6.79	1860	20.0	Cloudy clearing		
1450	40	6.78	1859	20.1	clearing clearing		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	3x 40ml VOA	Y	HCL	SEQ	Gasoline BTEX
					~~BTEX~~
MW-5	1x liter	Y	None	SEQ	Diesel

COMMENTS: New well in Street Developed using Surge & Purge. Then sampled.

Chain of Custody Record

TOSCO

Tosco Marketing Company
2300 Clow Canyon Pl., Ste. 400
San Ramon, California 94583

Facility Number: UNOCAL SS# 7176
Facility Address: 7850 Amador Valley Blvd. Dublin, CA
Consultant Project Number: 180022.85
Consultant Name: Gettler-Ryan Inc. (G-R Inc.)
Address: 6747 Sierra Court, Suite J, Dublin, CA 94568
Project Contact (Name): Deanna L. Harding
(Phone): 510-551-7555 (Fax Number): 510-551-7888

Contact (Name): MS. TINA BERRY
(Phone): (925) 277-2321
Laboratory Name: Sequoia Analytical
Laboratory Release Number:
Samples Collected by (Name): HAIG KEVORK & FRANK CLINE
Collection Date: 4/23/1998
Signature:

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	TPH Gas + BTEX w/MTBE (8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)						Remarks
								Analyses To Be Performed														DO NOT BILL TB-LB ANALYSIS
TB-LB		1	W	G		HCl	YES	✓							8041737						
U-1		4	W		14:15			✓	✓						8041738						W/SILICA GEL
U-2		4	W		14:00			✓	✓						8041739						W/SILICA GEL
U-3		4	W		13:45			✓	✓						8041740						W/SILICA GEL
MW-4		4	W		15:08			✓	✓						8041741						W/SILICA GEL
MW-5		4	W		14:50			✓	✓						8041742						W/SILICA GEL

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	G-R Inc.				
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time 4/24/98 1230

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler-Ryan
6747 Sierra Court, Suite J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Unocal SS# 7176, Dublin
Sample Matrix: Water
Analysis Method: EPA 3510/8015 Mod.
First Sample #: 804-1738

Sampled: Apr 23, 1998
Received: Apr 24, 1998
Reported: May 5, 1998

QC Batch Number: SP042798 8015EXA * | SP042798 8015EXA * | SP042798 8015EXA * | SP042798 8015EXA * | SP042798 8015EXA *

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS W/ SILICA GEL CLEAN-UP

Analyte	Reporting Limit µg/L	Sample I.D. 804-1738 U-1	Sample I.D. 804-1739 U-2	Sample I.D. 804-1740 U-3	Sample I.D. 804-1741 MW-4	Sample I.D. 804-1742 MW-5
Extractable Hydrocarbons	50	1,700	1,200	N.D.	1,400	100
Chromatogram Pattern:		Diesel & Unidentified Hydrocarbons <C14	Diesel & Unidentified Hydrocarbons <C14	--	Diesel & Unidentified Hydrocarbons <C14	Diesel & Unidentified Hydrocarbons <C14

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0
Date Extracted:	4/27/98	4/27/98	4/27/98	4/27/98	4/27/98
Date Analyzed:	4/30/98	4/30/98	4/30/98	4/30/98	4/30/98
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Mike Gregory
Project Manager

Please Note:
* Quality control for this extraction batch fell below lower limits. All results should be considered estimated.

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler-Ryan
6747 Sierra Court, Suite J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Unocal SS# 7176, Dublin
Sample Matrix: Water
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 804-1737

Sampled: Apr 23, 1998
Received: Apr 24, 1998
Reported: May 5, 1998

QC Batch Number:	GC042898	GC042898	GC042898	GC042898	GC042898	GC042898
	802002A	802002A	802002A	802002A	802002A	802002A

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 804-1737 TB-LB	Sample I.D. 804-1738 U-1	Sample I.D. 804-1739 U-2	Sample I.D. 804-1740 U-3	Sample I.D. 804-1741 MW-4	Sample I.D. 804-1742 MW-5
Purgeable Hydrocarbons	50	N.D.	3,400	3,200	N.D.	2,500	120
Benzene	0.50	N.D.	72	23	N.D.	5.9	0.53
Toluene	0.50	N.D.	3.8	11	N.D.	6.4	0.90
Ethyl Benzene	0.50	N.D.	470	210	N.D.	16	1.0
Total Xylenes	0.50	N.D.	350	38	N.D.	31	3.8
MTBE	2.5	N.D.	280	160	N.D.	N.D.	13
Chromatogram Pattern:		--	Gasoline	Gasoline	--	Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	5.0	10	1.0	10	1.0
Date Analyzed:	4/28/98	4/28/98	4/28/98	4/28/98	4/28/98	4/28/98
Instrument Identification:	HP-2	HP-2	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	96	146 *	152 *	94	115	108

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Please Note:
* Surrogate recoveries above control limit due to peak coelution.

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler-Ryan
6747 Sierra Court, Suite J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Unocal SS# 7176, Dublin
Matrix: Liquid

QC Sample Group: 8041737-742

Reported: May 5, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
QC Batch#:	GC042898	GC042898	GC042898	GC042898	SP042798
Analy. Method:	802002A EPA 8020	802002A EPA 8020	802002A EPA 8020	802002A EPA 8020	8015EXA EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3510
Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater	K. Grubb
MS/MSD #:	8041740	8041740	8041740	8041740	BLK042798A
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/28/98	4/28/98	4/28/98	4/28/98	4/27/98
Analyzed Date:	4/28/98	4/28/98	4/28/98	4/28/98	4/28/98
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
Result:	19	19	18	59	270
MS % Recovery:	95	95	90	98	54
Dup. Result:	18	17	18	54	230
MSD % Recov.:	90	85	90	90	46
RPD:	5.4	11	0.0	8.8	16
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	2LCS042898	2LCS042898	2LCS042898	2LCS042898	LCS042798A
Prepared Date:	4/28/98	4/28/98	4/28/98	4/28/98	4/27/98
Analyzed Date:	4/28/98	4/28/98	4/28/98	4/28/98	4/28/98
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
LCS Result:	19	20	19	61	210
LCS % Recov.:	95	100	95	102	42
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130	60-140

SEQUOIA ANALYTICAL, #1271

Mike Gregory
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference