MONITORING
PURGING
DISPOSING
SAMPLING

MPDS SERVICES, INCORPORATED

December 15, 1995

Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, California 94502

RE: Unocal Service Station #6419
6401 Dublin Boulevard
Dublin, California

Per the request of the Unocal Corporation Project Manager, Mr. Edward C. Ralston, enclosed please find our report (MPDS-UN6419-05) dated September 19, 1995 for the above referenced site.

Should you have any questions regarding the reporting of data, please feel free to call our office at (510) 602-5120. Any other questions may be directed to the Project Manager at (510) 277-2311.

Sincerely,

MPDS Services, Inc.

Jarrel F. Crider

/jfc

Enclosure

cc: Mr. Edward C. Ralston

2401 Stanwell Drive, Suite 300, Concord, CA 94520
TEL: (510) 602-5120 FAX: (510) 689-1918

MONITORING
PURGING
DISPOSING
SAMPLING
MPDS SERVICES, INCORPORATED

MPDS-UN6419-05
September 19, 1995

Unocal Corporation
2000 Crow Canyon Place, Suite 400
P.O. Box 5155
San Ramon, California 94583

A freq:
MW 2,3-1x
MW-1 < 2x

Attention: Mr. Edward C. Ralston

RE: Quarterly Data Report
Unocal Service Station #6419
6401 Dublin Boulevard
Dublin, California

Dear Mr. Ralston:

This data report presents the results of the most recent quarter of monitoring and sampling of the monitoring wells at the referenced site by MPDS Services, Inc.

RECENT FIELD ACTIVITIES

The monitoring wells that were monitored and sampled during this quarter are indicated in Table 1. Prior to sampling, the wells were checked for depth to water and the presence of free product or sheen. The monitoring data and the ground water elevations are summarized in Table 1. The ground water flow directions during the most recent quarter are shown on the attached Figures 1 and 2.

Ground water samples were collected on August 25, 1995. Prior to sampling, the wells were each purged of between 7.5 and 8.5 gallons of water. Samples were then collected using a clean Teflon bailer. The samples were decanted into clean VOA vials and/or one-liter amber bottles, as appropriate, which were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory. Field blank, Trip blank and Equipment blank samples (denoted as ES1, ES2 and ES3 respectively) were also collected for quality assurance and control. MPDS Services, Inc. transported the purged ground water to the Unocal Refinery located in Rodeo, California, for treatment and discharge to San Pablo Bay under NPDES permit.

ANALYTICAL RESULTS

The ground water samples were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The analytical results of the ground water samples collected to date are summarized in Tables 2 and 3. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline and benzene detected in the ground water samples collected this quarter are shown on the

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TEL: (510) 602-5120 FAX: (510) 689-1918

attached Figure 3. Copies of the laboratory analytical results and the Chain of Custody documentation are attached to this report.

LIMITATIONS

Environmental changes, either naturally-occurring or artificially-induced, may cause changes in ground water levels and flow paths, thereby changing the extent and concentration of any contaminants.

DISTRIBUTION

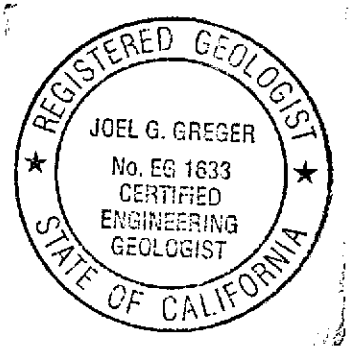
A copy of this report should be sent to Ms. Eva Chu of the Alameda County Health Care Services.

If you have any questions regarding this report, please do not hesitate to call Mr. Nubar Srabian at (510) 602-5120.

Sincerely,

MPDS Services, Inc.

Sarkis Karkarian
Sarkis A. Karkarian
Staff Engineer



Joel G. Greger, C.E.G.
Senior Engineering Geologist

License No. EG 1633
Exp. Date 8/31/96

/bp

Attachments: Tables 1, 2 & 3
Location Map
Figures 1, 2 & 3
Laboratory Analyses
Chain of Custody documentation

cc: Mr. Timothy R. Ross, Kaprealian Engineering, Inc.

TABLE 1

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)♦	Total Well Depth (feet)♦	Product Thickness (feet)	Sheen	Water Purged (gallons)
(Monitored and Sampled on August 25, 1995)						
MW1	322.54	7.91	19.35	0	No	8
MW2	322.95	7.45	19.82	0	No	8.5
MW3	322.91	8.20	19.03	0	No	7.5
(Monitored on June 15, 1995)						
MW1	323.70	6.75	★	0	--	0
MW2	323.79	6.61	★	0	--	0
MW3	323.76	7.35	★	0	--	0
(Monitored and Sampled on May 17, 1995)						
MW1	324.19	6.26	19.35	0	No	9
MW2	324.25	6.15	19.52	0	No	10
MW3	324.23	6.88	19.03	0	No	8.5
(Monitored and Sampled on February 15, 1995)						
MW1	324.16	6.29	19.36	0	No	9
MW2	324.24	6.16	19.83	0	No	10
MW3	324.18	6.93	19.04	0	No	8.5
(Monitored and Sampled on November 18, 1994)						
MW1	322.76	7.69	19.35	0	No	8
MW2	322.73	7.67	19.81	0	No	8.5
MW3	322.72	8.39	19.03	0	No	7.5

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Well Casing Elevation (feet)*
MW1	330.45
MW2	330.40
MW3	331.11

♦ The depth to water level and total well depth measurements were taken from the top of the well casings.

* The elevations of the top of the well casings have been surveyed relative to Mean Sea Level, per the benchmark on the northwest corner of Dougherty Road and Sierra Way (elevation = 331.728 feet MSL).

★ Total well depth was not measured.

-- Sheen determination was not performed.

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
8/25/95▲	MW1▲▲	--	490	9.1	ND	21	2.0
	MW2	--	ND	ND	ND	ND	ND
	MW3▲▲	--	ND	ND	ND	ND	ND
5/17/95▲	MW1	200♦♦	130	0.75	ND	1.5	ND
	MW2	--	ND	ND	ND	ND	ND
	MW3	--	99**	ND	ND	ND	ND
2/15/95▲	MW1	660♦	3,300	13	ND	180	5.2
	MW2	--	ND	ND	ND	ND	ND
	MW3	--	130**	ND	ND	ND	ND
11/18/94	MW1	910♦♦	5,100	33	ND	560	38
	MW2	--	ND	ND	ND	ND	ND
	MW3	--	130**	ND	ND	ND	ND
8/25/94	MW1	910♦♦	9,200*	48	ND	540	ND
	MW2	--	ND	ND	ND	ND	ND
	MW3	--	130**	ND	ND	ND	ND
3/14/94	MW1	810♦	1,800*	17	ND	ND	ND
	MW2	--	ND	ND	2.8	1.1	8.0
	MW3	--	150**	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.

♦♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be diesel.

* Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.

** Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.

▲ Dissolved oxygen was detected as follows:
On February 1995; 4.3 mg/L, 1.9 mg/L, and 2.6 mg/L in wells MW1, MW2, and MW3, respectively.

On May 1995; 1.2 mg/L and 1.13 mg/L in wells MW1 and MW3, respectively.
On Aug. 1995; 2.71 mg/L and 1.86 mg/L in wells MW1 and MW3, respecitvely.

▲▲ The laboratory has identified the presence of MTBE at a level above or equal to the Federal EPA taste and odor threshold of 40ppb in the ground water sample collected from this well.

ND = Non-detectable.

-- Indicates analysis was not performed.

Results are in micrograms per liter (µg/L), unless otherwise indicated.

Note: Laboratory analyses data prior to August 25, 1994, were provided by Kaprealian Engineering, Inc.

TABLE 3

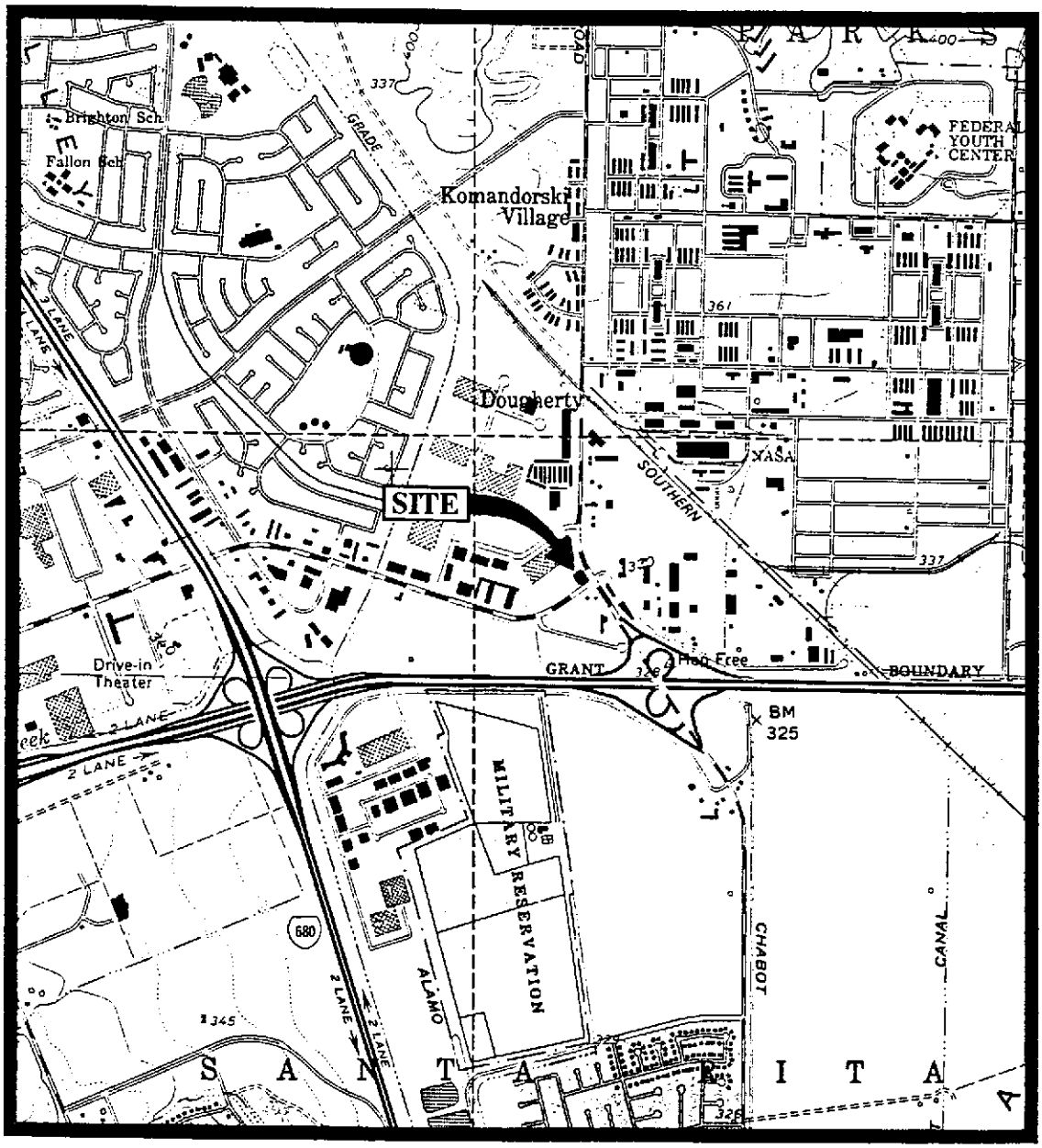
SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	Cadmium	Chromium	Lead	Nickel	Zinc
5/17/95	MW1	ND	ND	ND	0.021	ND
2/15/95	MW1	ND	ND	ND	ND	ND
11/18/94	MW1	ND	0.076	ND	0.067	ND
8/25/94	MW1	ND	ND	0.024	ND	ND
3/14/94	MW1	ND	0.012	ND	0.030	0.039

ND = Non-detectable.

Results are in milligrams per liter (mg/L), unless otherwise indicated.

Note: Laboratory analyses data prior to August 25, 1994, were provided by Kaprealian Engineering, Inc.

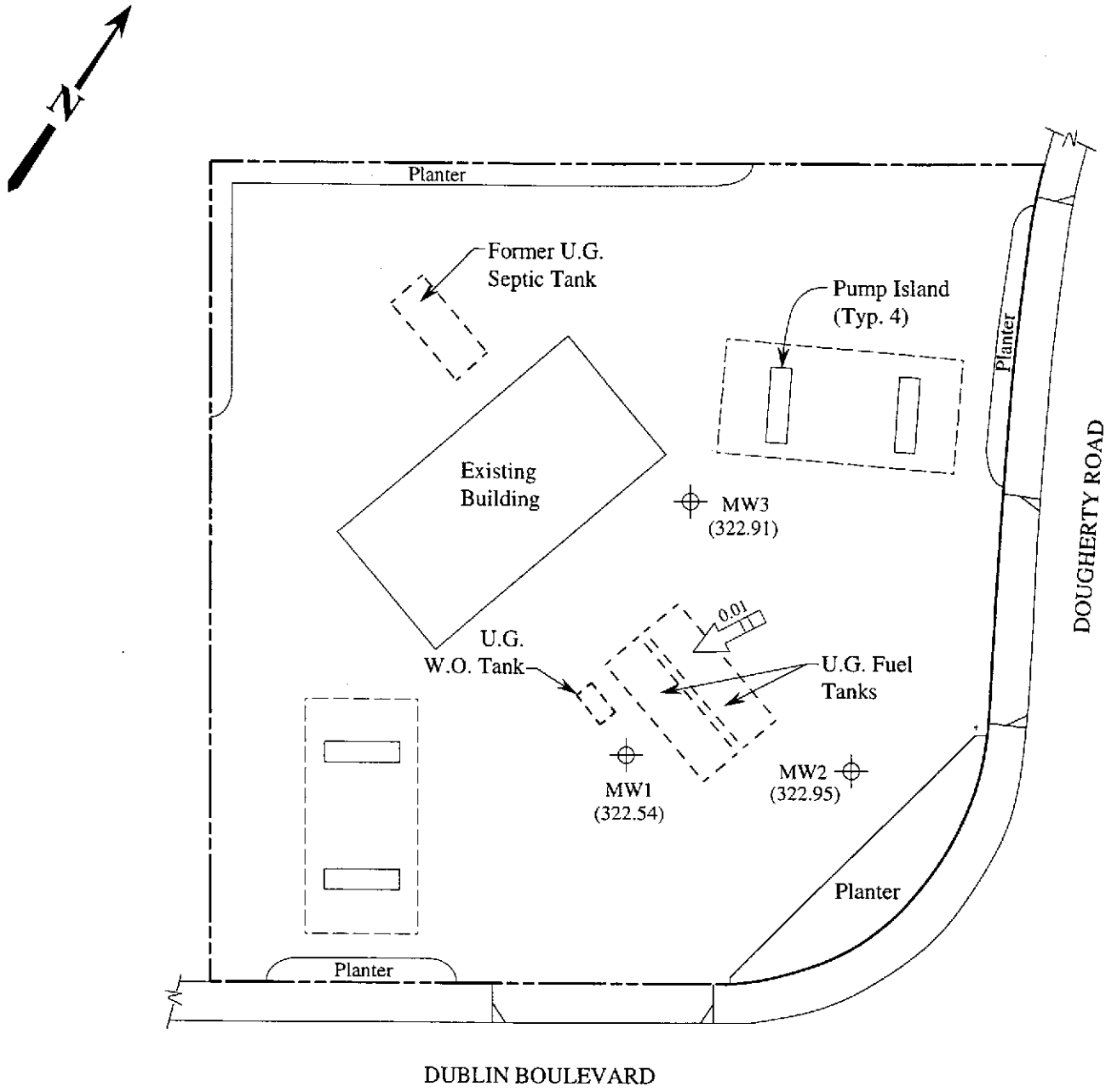


Base modified from 7.5 minute U.S.G.S. Dublin Quadrangle
(photorevised 1980)

0 2000 4000

Approx. scale feet

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION #6419** **6401 DUBLIN BOULEVARD** **DUBLIN, CALIFORNIA**	**LOCATION MAP**



LEGEND

- Monitoring well
- ( ) Ground water elevation in feet above Mean Sea Level
- #.## Direction of ground water flow with approximate hydraulic gradient

0 30 60

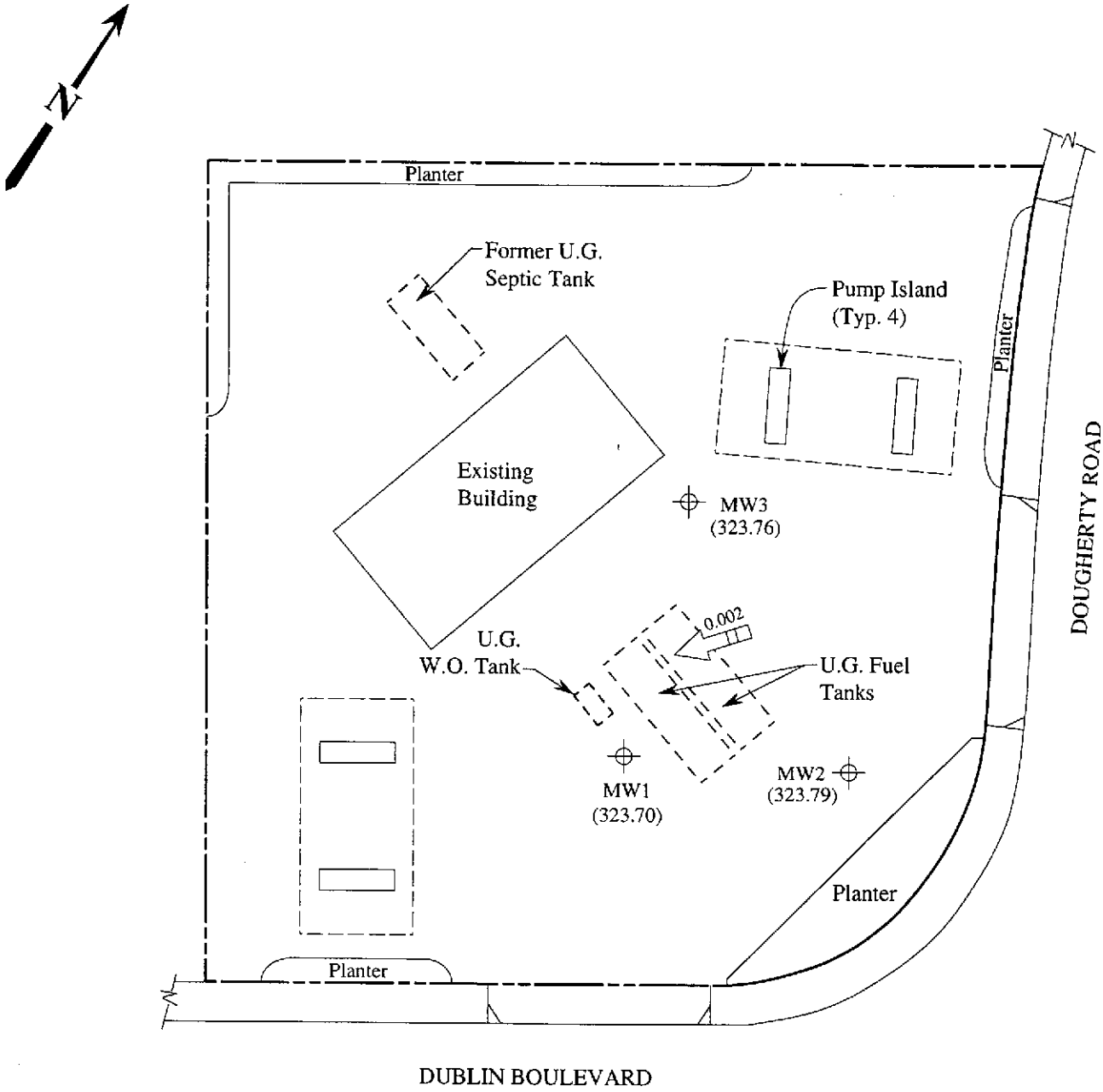
Approx. scale feet

GROUND WATER FLOW DIRECTION MAP FOR THE AUGUST 25, 1995 MONITORING EVENT

MPDS SERVICES, INCORPORATED

UNOCAL SERVICE STATION #6419
6401 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

FIGURE
1



LEGEND

- Monitoring well
- ( ) Ground water elevation in feet above Mean Sea Level
- #.## Direction of ground water flow with approximate hydraulic gradient

0 30 60

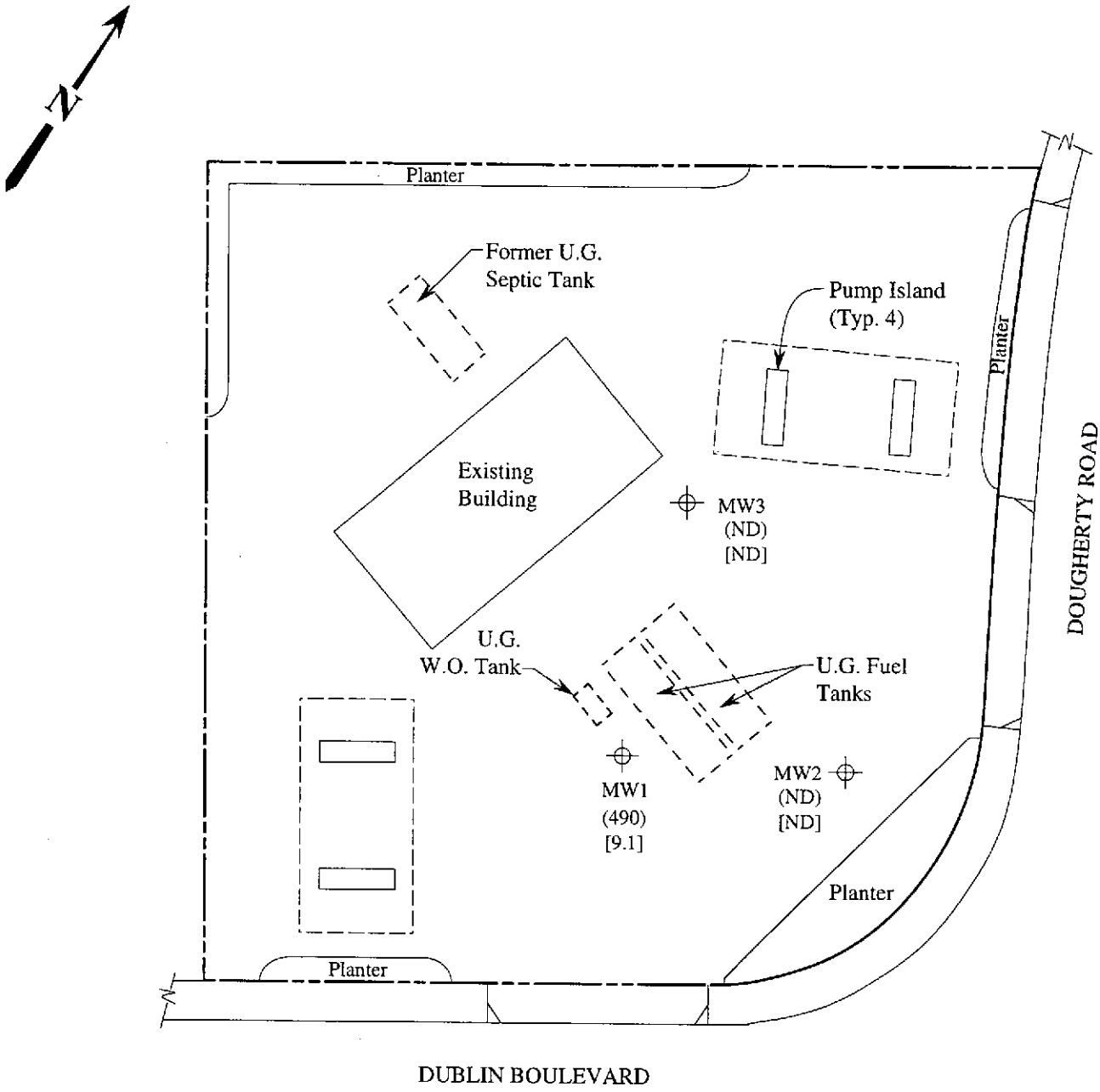
Approx. scale feet

GROUND WATER FLOW DIRECTION MAP FOR THE JUNE 15, 1995 MONITORING EVENT

mpds SERVICES, INCORPORATED

UNOCAL SERVICE STATION #6419
6401 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

FIGURE
2



LEGEND

- ⊕ Monitoring well
- ( ) Concentration of TPH as gasoline in µg/L
- [ ] Concentration of benzene in µg/L
- ND Non-detectable

0 30 60

Approx. scale feet

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON AUGUST 25, 1995

mpds SERVICES, INCORPORATED

UNOCAL SERVICE STATION #6419
6401 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

FIGURE
3

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 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

MPDS Services	Client Project ID:	Unocal #6419, 6401 Dublin Blvd., Dublin	Sampled: Aug 25, 1995
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received: Aug 25, 1995
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Sep 14, 1995
Attention: Sarkis Karkarian	First Sample #:	508-2050	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Purgeable Hydrocarbons µg/L	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	Total Xylenes µg/L
508-2050	MW-1	490	9.1	ND	21	2.0
508-2051	MW-2	ND	ND	ND	ND	ND
508-2052	MW-3	ND	ND	ND	ND	ND
508-2053	ES1	ND	ND	ND	ND	ND
508-2054	ES2	ND	ND	ND	ND	ND
508-2055	ES3	ND	ND	ND	ND	ND
Detection Limits:		**50**	**0.50**	**0.50**	**0.50**	**0.50**

Total Purgeable Petroleum Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as ND were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 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

MPDS Services	Client Project ID:	Unocal #6419, 6401 Dublin Blvd., Dublin	Sampled:	Aug 25, 1995
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received:	Aug 25, 1995
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Sep 14, 1995
Attention: Sarkis Karkarian	First Sample #:	508-2050		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Chromatogram Pattern	DL Mult. Factor	Date Analyzed	Instrument ID	Surrogate Recovery, % QC Limits: 70-130
508-2050	MW-1	Gasoline	1.0	9/6/95	HP-5	76
508-2051	MW-2	--	1.0	9/6/95	HP-5	98
508-2052	MW-3	--	1.0	9/6/95	HP-5	93
508-2053	ES1	--	1.0	9/6/95	HP-5	96
508-2054	ES2	--	1.0	9/6/95	HP-5	95
508-2055	ES3	--	1.0	9/6/95	HP-5	92

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 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

MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Sarkis Karkarian

Client Project ID: Unocal #6419, 6401 Dublin Blvd., Dublin
Matrix: Liquid
QC Sample Group: 5082050-55
Reported: Sep 14, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill
MS/MSD Batch#:	5082054	5082054	5082054	5082054
Date Prepared:	9/6/95	9/6/95	9/6/95	9/6/95
Date Analyzed:	9/6/95	9/6/95	9/6/95	9/6/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	95	90	90	93
Matrix Spike Duplicate % Recovery:	95	95	90	93
Relative % Difference:	0.0	5.4	0.0	0.0
LCS Batch#:	3LCS090695	3LCS090695	3LCS090695	3LCS090695
Date Prepared:	9/6/95	9/6/95	9/6/95	9/6/95
Date Analyzed:	9/6/95	9/6/95	9/6/95	9/6/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	104	110	117	115
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
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.

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services
2401 Stanwell Dr., Ste. 300
Concord CA 94520
Attention: Jarrel Crider

Date: 11/30/95

Sequoia Analytical has identified the presence of MTBE at a level above or equal to the Federal EPA taste and odor threshold of 40 ppb in the following site(s):

Client Project I.D. - **Unocal #6419, 6401 Dublin Blvd., Dublin** Sequoia Work Order # - **9508501**

Sample Number:	Sample Description:
5082050	MW-1
5082052	MW-3

SEQUOIA ANALYTICAL, #1271

Alan B. Kemp
Project Manager

9508501

mpds SERVICES, INCORPORATED
2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5100, Fax: (510) 689-1918

CHAIN OF CUSTODY

SAMPLER: STEVE BALIAN
WITNESSING AGENCY:

UNOCAL S/S # 6419 CITY: DUBLIN
ADDRESS: 6401 DUBLIN BLV.

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	ANALYSES REQUESTED: TPH-GAS BTEX	TPH-DIESEL	TOG	8010				REMARKS
MW-1	8-25-95	14:05	X	X		2	WELL	X						5082050	A-B
MW-2	"	13:00	X	X		2	"	X						5082051	
MW-3	"	13:15	X	X		2	"	X						5082052	
		"													

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
STEVE BALIAN (SIGNATURE)	16:00 8-25-95	(SIGNATURE)	16:00 8-25-95
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	

THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:

1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? yes
2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? yes
3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? No
4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? yes

SIGNATURE: TITLE: Analyst DATE: 8/25/95

Note: All water containers to be sampled for TPHG/BTEX, 8010 & 8240 are preserved with HCL. All water containers to be sampled for Lead or Metals are preserved with HNO3. All other containers are unpreserved.

9508501

mpds SERVICES, INCORPORATED
2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5100, Fax: (510) 689-1918

CHAIN OF CUSTODY

SAMPLER: STEVE BALIAN
WITNESSING AGENCY:

UNOCAL S/S # 6419 CITY: DUBLIN
ADDRESS: 6401 DUBLIN BLV.

ANALYSES REQUESTED

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-GAS BTEX	TPH-DIESEL	TOG	8010				REMARKS
ES1	8-25-95		X	X		1		X						5082053	
ES2	"		X	X		1		X						5082054	
ES3	"		X	X		1		X						5082055	
		"													

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
STEVE BALIAN (SIGNATURE)	16:00 8-25-95	(SIGNATURE)	16:00 8-25-95
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	

THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:

1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? yes
2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? yes
3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? No
4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? yes

SIGNATURE: [signature] TITLE: [illegible] DATE: 8/25/95

Note: All water containers to be sampled for TPHG/BTEX, 8010 & 8240 are preserved with HCL. All water containers to be sampled for Lead or Metals are preserved with HNO3. All other containers are unpreserved.