

Unocal Corporation
Diversified Businesses
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583
Telephone (510) 867-0760
Facsimile (510) 277-2309



October 6, 1995

Northern Region
Corporate Environmental
Remediation and Technology

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

Unocal Service Station #5043
449 Hegenberger Road
Oakland, CA

Dear Mr. Chan:

I am in receipt of your September 22, 1995 letter requesting information on environmental remediation activities at this site over the past several months. Alameda County has requested a report for the soil sampling of excavations conducted during the recent Reformat project. This data is presented in a Kaprealian Engineering, Inc. report dated June 2, 1995 and submitted to your office on August 1, 1995. Specifically, pages 5 through 8 of the report detail the sampling of the excavation, Figure 1 shows the location of the sampling in the excavation and Tables 1 and 2 are analytical results of the sampling.

During the life of this project, Unocal also purged nearly 129,900 gallons of water from the tank pit. This water was taken from the site and transported to Unocal's Rodeo Refinery for treatment in the wastewater facility. RUST Industries of Benicia provided the tanker trucks for the transportation of the water. Attached to this letter is a listing of the dates and volumes of water that were transported to the Unocal Refinery from this site. Transporter tickets for this work are on file in our office.

At present, there are four remaining monitor wells on site. Two of these wells have been either damaged or paved over, but it is anticipated these wells can be repaired and put back into service in the near future. The other wells, destroyed in the Reformat of the station, will have to be replaced and possibly two additional offsite wells installed if needed. The earliest the wells could be installed, developed and sampled would be in early 1996.

If you have any questions or comments, please call me at 510-277-2384.

Sincerely yours,

David B. De Witt
Sr. Environmental Geologist

cc: Rick Sisk
Josie Alvarez, Marketing Real Estate
Robert Kezerian, KEI

55 OCT 10 PM 3:23

NOV 10 1995
ENVIRONMENTAL

GROUNDWATER DISPOSAL RECORD
UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

<u>DATE</u>	<u>VOLUME</u>
3-13-95	9,400
3-27-95	20,000
3-28-95	10,000
3-31-95	10,000
4-11-95	15,000
4-13-95	5,000
4-28-95	5,000
5-2-95	10,000
5-4-95	15,000
5-5-95	5,000
5-8-95	2,500
5-9-95	3,000
5-16-95	10,000
5-23-95	<u>10,000</u>
TOTAL	129,900

All water was transported by RUST Industries of Benecia to the Unocal Refinery at Rodeo, California. All transportation tickets are on file at Unocal CERT's office in San Ramon, CA.

MONITORING
PURGING
DISPOSING
SAMPLING

MPDS

SERVICES, INCORPORATED

October 6, 1995

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

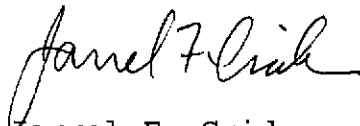
RE: Unocal Service Station #5043
449 Hegenberger Road
Oakland, California

Per the request of the Unocal Corporation Project Manager, Mr. David B. DeWitt, enclosed please find our report (MPDS-UN5043-07) dated September 6, 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) 277-2384.

Sincerely,

MPDS Services, Inc.



Jarrel F. Crider

/jfc

Enclosure

cc: Mr. David B. DeWitt

55 OCT 10 PM 3:23
ENVIRONMENTAL
PROTECTION

MPDS-UN5043-07
September 6, 1995

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

Attention: Mr. David B. De Witt

RE: Quarterly Data Report
Unocal Service Station #5043
449 Hegenberger Road
Oakland, California

Dear Mr. De Witt:

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 elevations during the most recent quarter are shown on the attached Figure 1.

Ground water samples were collected on August 17, 1995. Prior to sampling, the wells were purged of between 6 and 7.5 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. 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 Table 2. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline, TPH as diesel, and benzene detected in the ground water samples collected this quarter are shown on the attached Figure 2. 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 the Alameda County Health Care Services Agency.


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 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
Location Map
Figures 1 & 2
Laboratory Analyses
Chain of Custody documentation

cc: Mr. Robert H. Kezerian, Kaprealian Engineering, Inc.

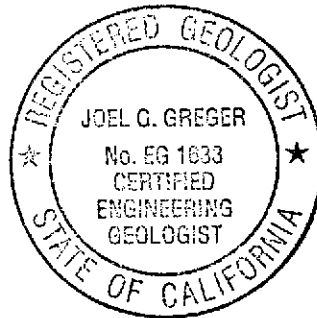


TABLE 1

SUMMARY OF MONITORING DATA

<u>Well #</u>	<u>Ground Water Elevation (feet)</u>	<u>Depth to Water (feet)◆</u>	<u>Total Well Depth (feet)◆</u>	<u>Product Thick- ness (feet)</u>	<u>Sheen</u>	<u>Water Purged (gallons)</u>	<u>Product Purged (ounces)</u>
---------------	--	---	---	---	--------------	---------------------------------------	--

(Monitored and Sampled on August 17, 1995)

MW3	WELL WAS INACCESSIBLE (FILLED WITH DIRT)						
MW6	WELL WAS INACCESSIBLE (PAVED OVER)						
MW9	6.80	1.49	12.01	0	No	7.5	0
MW10	4.57	4.05	12.79	0	No	6	0

(Monitored and Sampled on May 18, 1995)

MW1	WELL DESTROYED IN MARCH 1995						
MW2	WELL DESTROYED IN MARCH 1995						
MW3	2.86	4.56	14.03	0	No	7	0
MW6	WELL WAS INACCESSIBLE						
MW9	4.82	3.47	13.02	0	No	7	0
MW10	3.70	4.92	13.23	0	No	6	0

(Monitored and Sampled on February 21, 1995)

MW1*	5.87▲	1.53	12.65	0.02	N/A	25	<1
MW2	6.93	1.65	14.34	0	No	29	0
MW3	5.61	1.81	14.03	0	No	8.5	0
MW4	WELL DESTROYED IN JANUARY 1995						
MW5	WELL DESTROYED IN JANUARY 1995						
MW6	5.67	3.20	13.75	0	No	7.5	0
MW9	6.31	1.98	13.02	0	No	8	0
MW10	3.93	4.69	13.24	0	No	6	0

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

<u>Well #</u>	<u>Ground Water Elevation (feet)</u>	<u>Depth to Water (feet)◆</u>	<u>Total Well Depth (feet)◆</u>	<u>Product Thickness (feet)</u>	<u>Sheen</u>	<u>Water Purged (gallons)</u>	<u>Product Purged (ounces)</u>
---------------	--------------------------------------	-------------------------------	---------------------------------	---------------------------------	--------------	-------------------------------	--------------------------------

(Monitored and Sampled on November 14, 1994)

MW1*	4.50▲	2.97	12.71	0.12	N/A	9(5.0)	<1
MW2	6.45	2.13	14.36	0	No	8.5(4.5)	0
MW3	4.24	3.18	14.04	0	No	8	0
MW4	4.36	4.05	13.00	0	No	7	0
MW5	3.32	5.63	13.58	0	No	6	0
MW6	3.25	5.62	13.76	0	No	6	0

<u>Well #</u>	<u>Well Casing Elevation (feet)**</u>
MW1	7.38
MW2	8.58
MW3	7.42
MW4	8.41
MW5	8.95
MW6	8.87
MW9	8.29
MW10	8.62

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

- ◆ The depth to water level and total well depth measurements were taken from the top of the well casings.
 - * Monitored only.
 - ** The elevations of the top of the well casings are relative to Mean Sea Level (MSL), per the City of Oakland Benchmark #3880 (elevation = 20.37 feet MSL).
 - ▲ The ground water elevation was corrected for the presence of free product (correction factor = 0.77).
 - (x) Amount of water purged after sampling.
 - Sheen determination was not performed.
- N/A = Not applicable.

TABLE 2

**SUMMARY OF LABORATORY ANALYSES
 WATER**

Date	Well #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
5/18/95	MW1	WELL DESTROYED IN MARCH 1995					
2/21/95	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
11/14/94	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
8/15/94	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
5/19/94	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
2/07/94	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
11/03/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
8/04/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
5/04/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
2/04/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
11/30/92	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
8/31/92	MW1	8,900♦	64,000	13,000	12,000	2,500	22,000
5/20/92	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
2/18/92	MW1	13,000	150,000	17,000	26,000	5,200	26,000
5/18/95	MW2	WELL DESTROYED IN MARCH 1995					
2/21/95	MW2	2,000♦♦	44,000	2,200	3,200	1,300	1,500
11/14/94	MW2	10,000♦	43,000	2,200	6,500	1,800	14,000
8/15/94	MW2	2,800♦♦	35,000	2,400	850	1,700	15,000
5/19/94	MW2	3,000♦♦	42,000	2,500	1,300	2,300	13,000
2/07/94	MW2	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
11/03/93	MW2	2,600♦♦	72,000	3,700	16,000	3,700	20,000
8/04/93	MW2	1,800♦♦	45,000	2,100	6,600	1,400	12,000
5/04/93	MW2	7,100♦	63,000	3,200	17,000	470	17,000
2/04/93	MW2	6,100♦	18,000	1,600	3,000	ND	6,900
11/30/92	MW2	5,700♦	29,000	2,000	3,400	1,200	6,900
8/31/92	MW2	1,600♦	9,000	1,800	640	140	2,000
5/20/92	MW2	4,300♦	24,000	2,200	7,600	630	11,000
2/18/92	MW2	4,300	29,000	1,000	5,300	260	7,900
8/17/95	MW3	WELL WAS INACCESSIBLE (FILLED WITH DIRT)					
5/18/95	MW3	150♦	1,300*	42	ND	ND	ND
2/21/95	MW3	850♦♦	3,800	350	ND	130	22
11/14/94	MW3	150♦♦	1,600**	ND	ND	ND	ND
8/15/94	MW3	110♦♦	130	1.1	0.54	ND	0.97
5/19/94	MW3	480♦♦	1,800	83	ND	6.2	9.1
2/07/94	MW3	620♦♦	2,700	110	ND	17	ND
11/03/93	MW3	160	640**	ND	ND	ND	ND
8/04/93	MW3	100	210**	ND	ND	ND	ND
5/04/93	MW3	250♦♦	1,800*	95	ND	ND	ND
2/04/93	MW3	550♦♦	3,300	320	ND	96	6.1
11/30/92	MW3	94	790**	ND	ND	ND	ND

TABLE 2 (Continued)

**SUMMARY OF LABORATORY ANALYSES
 WATER**

Date	Well #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
8/31/92	MW3	92♦♦	210**	1.0	ND	ND	ND
5/20/92	MW3	WELL WAS INACCESSIBLE					
2/18/92	MW3	ND	230	4.8	22	1.8	33
2/21/95	MW4	WELL DESTROYED IN JANUARY 1995					
11/14/94	MW4	ND	130**	ND	ND	ND	ND
8/15/94	MW4	72♦♦	59**	ND	0.60	ND	ND
5/19/94	MW4	90♦♦	140**	ND	ND	ND	ND
2/07/94	MW4	ND	56**	ND	ND	ND	ND
11/03/93	MW4	68	130**	ND	ND	ND	ND
8/04/93	MW4	81	250**	ND	3.5	ND	4.1
5/04/93	MW4	ND	110*	0.95	ND	ND	ND
2/04/93	MW4	ND	ND	ND	ND	ND	ND
11/30/92	MW4	61	420**	ND	ND	ND	ND
8/31/92	MW4	90♦♦	240**	ND	ND	ND	0.54
2/21/95	MW5	WELL DESTROYED IN JANUARY 1995					
11/14/94	MW5	290♦	250	40	ND	ND	5.0
8/15/94	MW5	860♦♦	1,600	110	ND	340	72
5/19/94	MW5	600♦♦	260	44	ND	32	4.1
2/07/94	MW5	830♦♦	2,000	87	ND	370	110
11/03/93	MW5	2,100♦♦	13,000	350	ND	3,500	530
8/04/93	MW5▲	970♦♦	1,500	130	1.0	460	11
5/04/93	MW5▲	4,600♦	7,400	41	ND	1,000	35
2/04/93	MW5▲	5,500♦♦	5,700	38	ND	620	170
11/30/92	MW5▲	470♦♦	930	70	290	0.79	14
8/31/92	MW5	690♦	78	0.89	ND	ND	13
8/17/95	MW6	WELL WAS INACCESSIBLE (PAVED OVER)					
5/18/95	MW6	WELL WAS INACCESSIBLE					
2/21/95	MW6	730♦♦	2,000	250	4.6	25	30
11/14/94	MW6	800♦♦	730	50	ND	ND	39
8/15/94	MW6	790♦♦	1,300	130	6.7	54	57
5/19/94	MW6	1,400♦♦	3,600	300	1.7	210	41
2/07/94	MW6	970♦♦	4,900	650	ND	250	35
11/03/93	MW6	390♦♦	1,400	320	ND	200	7.7
8/04/93	MW6	1,100♦♦	3,400	390	ND	440	190
5/04/93	MW6	1,800♦	4,900	360	18	450	430
2/04/93	MW6	890♦♦	3,600	340	ND	290	550
11/30/92	MW6	1,400♦	9,200	550	ND	740	1,600
8/31/92	MW6	750♦♦	ND	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
 WATER

<u>Date</u>	<u>Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
8/17/95	MW9	ND	ND	ND	ND	ND	ND
5/18/95	MW9	ND	52	ND	1.1	ND	1.9
2/21/95	MW9	71◆◆	70**	ND	ND	ND	ND
8/17/95	MW10	ND	67	25	ND	2.4	ND
5/18/95	MW10	75◆	810	520	ND	18	23
2/21/95	MW10	270◆◆	1,500	250	26	9.1	160

◆ 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 diesel and non-diesel mixture.

* 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.

▲ Total Oil & Grease was non-detectable.

ND = Non-detectable.

Results are in micrograms per liter ($\mu\text{g/L}$), unless otherwise indicated.

Note: Laboratory analyses data prior to February 7, 1994, were provided by Kaprealian Engineering, Inc.

TABLE 2

**SUMMARY OF LABORATORY ANALYSES
 WATER**

Date	Well #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	
8/17/95	MW3	WELL WAS INACCESSIBLE (FILLED WITH DIRT)						
	MW6	WELL WAS INACCESSIBLE (PAVED OVER)						
	MW9	ND	ND	ND	ND	ND	ND	
	MW10	ND	67	25	ND	2.4	ND	
5/18/95	MW1	WELL DESTROYED IN MARCH 1995						
	MW2	WELL DESTROYED IN MARCH 1995						
	MW3	150♦	1,300*	42	ND	ND	ND	
	MW6	WELL WAS INACCESSIBLE						
	MW9	ND	52	ND	1.1	ND	1.9	
	MW10	75♦	810	520	ND	18	23	
2/21/95	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	MW2	2,000♦♦	44,000	2,200	3,200	1,300	1,500	
	MW3	850♦♦	3,800	350	ND	130	22	
	MW4	WELL DESTROYED IN JANUARY 1995						
	MW5	WELL DESTROYED IN JANUARY 1995						
	MW6	730♦♦	2,000	250	4.6	25	30	
	MW9	71♦♦	70**	ND	ND	ND	ND	
	MW10	270♦♦	1,500	250	26	9.1	160	
	11/14/94	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
		MW2	10,000♦	43,000	2,200	6,500	1,800	14,000
MW3		150♦♦	1,600**	ND	ND	ND	ND	
MW4		ND	130**	ND	ND	ND	ND	
MW5		290♦	250	40	ND	ND	5.0	
MW6		800♦♦	730	50	ND	ND	39	
8/15/94	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						
	MW2	2,800♦♦	35,000	2,400	850	1,700	15,000	
	MW3	110♦♦	130	1.1	0.54	ND	0.97	
	MW4	72♦♦	59**	ND	0.60	ND	ND	
	MW5	860♦♦	1,600	110	ND	340	72	
	MW6	790♦♦	1,300	130	6.7	54	57	

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
5/19/94	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	3,000♦♦	42,000	2,500	1,300	2,300	13,000
	MW3	480♦♦	1,800	83	ND	6.2	9.1
	MW4	90♦♦	140**	ND	ND	ND	ND
	MW5	600♦♦	260	44	ND	32	4.1
	MW6	1,400♦♦	3,600	300	1.7	210	41
2/07/94	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW3	620♦♦	2,700	110	ND	17	ND
	MW4	ND	56**	ND	ND	ND	ND
	MW5	830♦♦	2,000	87	ND	370	110
	MW6	970♦♦	4,900	650	ND	250	35
11/03/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	2,600♦♦	72,000	3,700	16,000	3,700	20,000
	MW3	160	640**	ND	ND	ND	ND
	MW4	68	130**	ND	ND	ND	ND
	MW5	2,100♦♦	13,000	350	ND	3,500	530
	MW6	390♦♦	1,400	320	ND	200	7.7
8/04/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	1,800♦♦	45,000	2,100	6,600	1,400	12,000
	MW3	100	210**	ND	ND	ND	ND
	MW4	81	250**	ND	3.5	ND	4.1
	MW5▲	970♦♦	1,500	130	1.0	460	11
	MW6	1,100♦♦	3,400	390	ND	440	190
5/04/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	7,100♦	63,000	3,200	17,000	470	17,000
	MW3	250♦♦	1,800*	95	ND	ND	ND
	MW4	ND	110*	0.95	ND	ND	ND
	MW5▲	4,600♦	7,400	41	ND	1,000	35
	MW6	1,800♦	4,900	360	18	450	430
2/04/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	6,100♦	18,000	1,600	3,000	ND	6,900
	MW3	550♦♦	3,300	320	ND	96	6.1
	MW4	ND	ND	ND	ND	ND	ND
	MW5▲	5,500♦♦	5,700	38	ND	620	170
	MW6	890♦♦	3,600	340	ND	290	550

TABLE 2 (Continued)

**SUMMARY OF LABORATORY ANALYSES
 WATER**

Date	Well #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
11/30/92	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	5,700♦	29,000	2,000	3,400	1,200	6,900
	MW3	94	790**	ND	ND	ND	ND
	MW4	61	420**	ND	ND	ND	ND
	MW5▲	470♦♦	930	70	290	0.79	14
	MW6	1,400♦	9,200	550	ND	740	1,600
8/31/92	MW1	8,900♦	64,000	13,000	12,000	2,500	22,000
	MW2	1,600♦	9,000	1,800	640	140	2,000
	MW3	92♦♦	210**	1.0	ND	ND	ND
	MW4	90♦♦	240**	ND	ND	ND	0.54
	MW5	690♦	78	0.89	ND	ND	13
	MW6	750♦♦	ND	ND	ND	ND	ND
5/20/92	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	4,300♦	24,000	2,200	7,600	630	11,000
	MW3	WELL WAS INACCESSIBLE					
2/18/92	MW1	13,000	150,000	17,000	26,000	5,200	26,000
	MW2	4,300	29,000	1,000	5,300	260	7,900
	MW3	ND	230	4.8	22	1.8	33

♦ 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 diesel and non-diesel mixture.

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

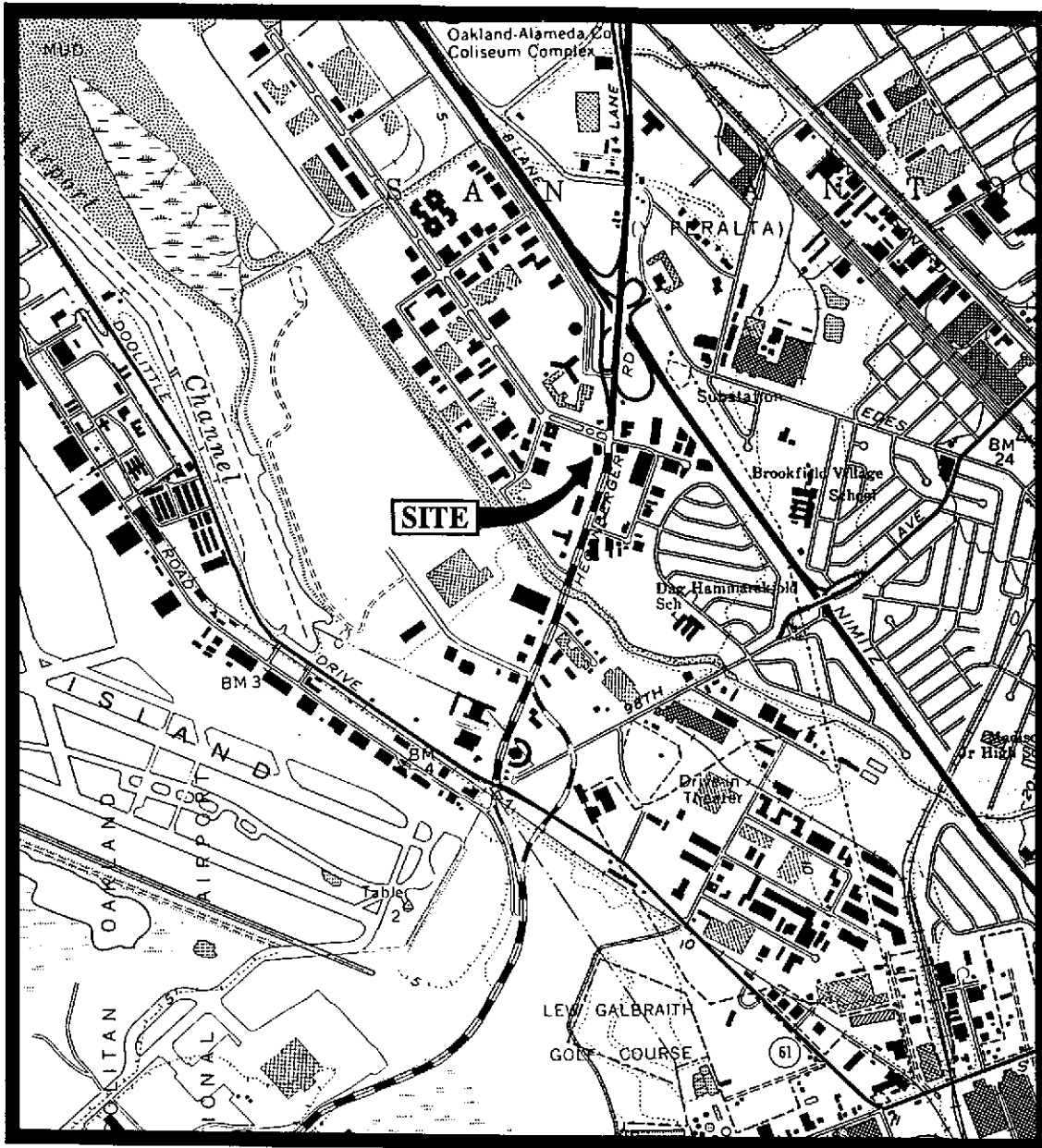
** Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.

▲ Total Oil & Grease was non-detectable.

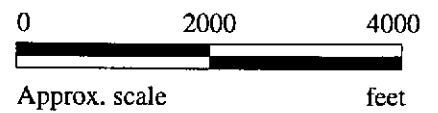
ND = Non-detectable.

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

Note: Laboratory analyses data prior to February 7, 1994, were provided by Kaprealian Engineering, Inc.



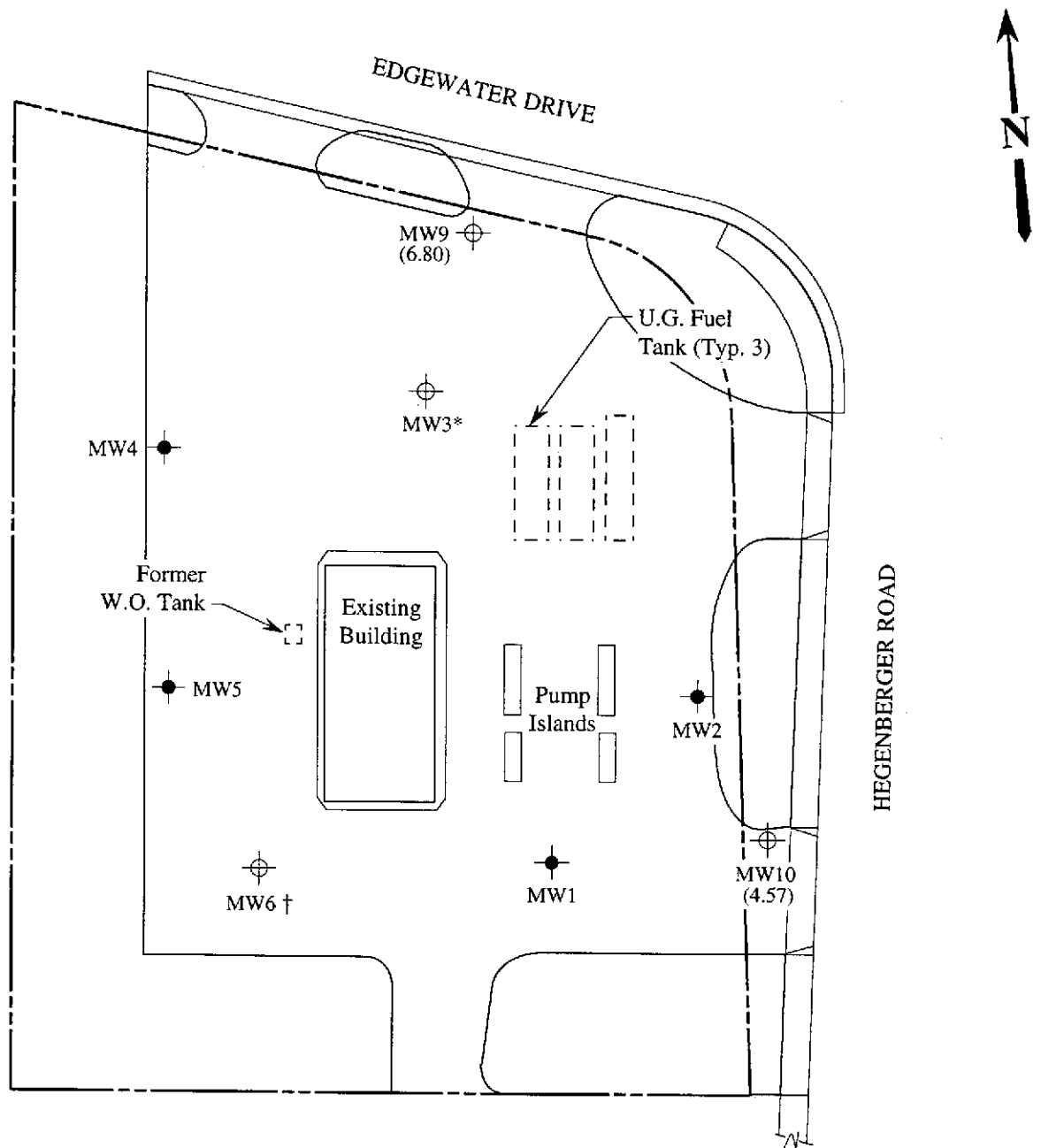
Base modified from 7.5 minute U.S.G.S. San Leandro Quadrangle
(photorevised 1980)



MPDS
SERVICES, INCORPORATED

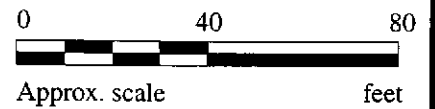
UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

**LOCATION
MAP**



LEGEND

- ⊕ Monitoring well (existing)
- Monitoring well (destroyed)
- () Ground water elevation in feet above Mean Sea Level
- * Well was inaccessible; filled with dirt
- † Well was inaccessible; paved over

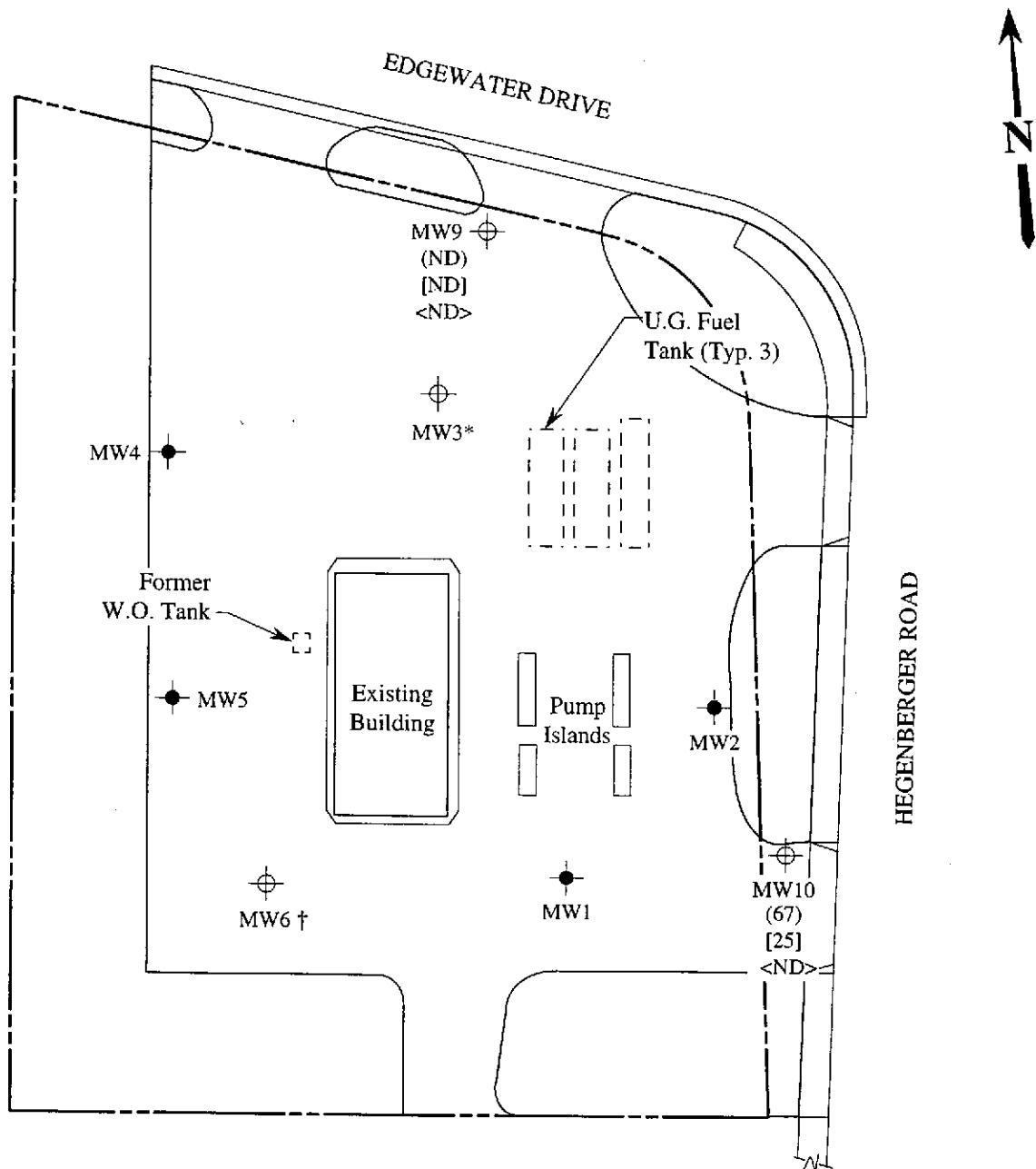


GROUND WATER ELEVATION MAP FOR THE AUGUST 17, 1995 MONITORING EVENT

MPDS SERVICES, INCORPORATED

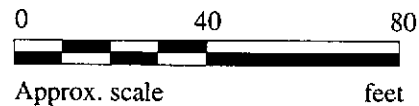
**UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA**

**FIGURE
1**



LEGEND

- ⊕ Monitoring well (existing)
- Monitoring well (destroyed)
- () Concentrations of TPH as gasoline in $\mu\text{g/L}$
- [] Concentrations of benzene in $\mu\text{g/L}$
- < > Concentrations of TPH as diesel in $\mu\text{g/L}$
- ND Non-detectable
- * Well was inaccessible; filled with dirt
- † Well was inaccessible; paved over



PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON AUGUST 17, 1995



**UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA**

**FIGURE
2**



MPDS Services 2401 Stanwell Dr., Ste. 300 Concord, CA 94520 Attention: Sarkis Karkarian	Client Project ID: Unocal #5043, 449 Hegenberger, Oakland Matrix Descript: Water Analysis Method: EPA 5030/8015 Mod./8020 First Sample #: 508-1014	Sampled: Aug 17, 1995 Received: Aug 17, 1995 Reported: Aug 31, 1995
--	---	---

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
508-1014	MW-9	ND	ND	ND	ND	ND
508-1015	MW-10	67	25	ND	2.4	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 #5043, 449 Hegenberger, Oakland	Sampled: Aug 17, 1995
2401 Stanwell Dr., Ste. 300	Matrix Descript: Water	Received: Aug 17, 1995
Concord, CA 94520	Analysis Method: EPA 5030/8015 Mod./8020	Reported: Aug 31, 1995
Attention: Sarkis Karkarian	First Sample #: 508-1014	

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
508-1014	MW-9	--	1.0	8/28/95	HP-2	114
508-1015	MW-10	Gasoline	1.0	8/28/95	HP-2	108

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

5081014.MPD <2>





MPDS Services 2401 Stanwell Dr., Ste. 300 Concord, CA 94520 Attention: Sarkis Karkarian	Client Project ID: Unocal #5043, 449 Hegenberger, Oakland Sample Matrix: Water Analysis Method: EPA 3510/8015 Mod. First Sample #: 508-1014	Sampled: Aug 17, 1995 Received: Aug 17, 1995 Reported: Aug 31, 1995
--	--	---

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 508-1014 MW-9	Sample I.D. 508-1015 MW-10
Extractable Hydrocarbons	50	N.D.	N.D.
Chromatogram Pattern:		--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Extracted:	8/24/95	8/24/95
Date Analyzed:	8/25/95	8/25/95
Instrument Identification:	HP-3A	HP-3A

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

Signature on File

Alan B. Kemp
Project Manager





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

Client Project ID: Unocal #5043, 449 Hegenberger, Oakland
Matrix: Liquid

QC Sample Group: 5081014-15

Reported: Aug 31, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill	J. Dinsay

MS/MSD	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Batch#:	5081523	5081523	5081523	5081523	-
Date Prepared:	8/28/95	8/28/95	8/28/95	8/28/95	-
Date Analyzed:	8/28/95	8/28/95	8/28/95	8/28/95	-
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	-
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	-
Matrix Spike % Recovery:	110	110	115	117	-
Matrix Spike Duplicate % Recovery:	110	110	115	117	-
Relative % Difference:	0.0	0.0	0.0	0.0	-

LCS Batch#:	1LCS082895	1LCS082895	1LCS082895	1LCS082895	LCS082495
Date Prepared:	8/28/95	8/28/95	8/28/95	8/28/95	8/24/95
Date Analyzed:	8/28/95	8/28/95	8/28/95	8/28/95	8/25/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	GCHP-3A
LCS % Recovery:	108	110	116	117	43

% Recovery Control Limits:	71-133	72-128	72-130	71-120	38-122
----------------------------	--------	--------	--------	--------	--------

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, #1271

Signature on File

Alan B. Kemp
Project Manager



CHAIN OF CUSTODY

9508275

SAMPLER			UNOCAL					ANALYSES REQUESTED							TURN AROUND TIME:	
NICHOLAS PERROW			S/S # <u>5043</u> CITY: <u>OAKLAND</u>					TPH-GAS BTEX	TPH- DIESEL	TOG	8010					REGULAR REMARKS
			ADDRESS: <u>449 HEGENBERGER</u>													
WITNESSING AGENCY			WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION									
SAMPLE ID NO.	DATE	TIME														
MW-9	8/17/95	9:00A	✓	✓		2 VJAS 1 ANOVA	WELL	✓	—					5081014	A-6 ↓	
MW-10	"	9:45AM	✓	✓		"	"	✓	✓					5081015		
RELINQUISHED BY:		DATE/TIME	RECEIVED BY:		DATE/TIME	THE FOLLOWING <u>MUST BE</u> COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:										
(SIGNATURE)			(SIGNATURE)			1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? <u>yes</u>										
(SIGNATURE)		8/17/95 10:35	(SIGNATURE)		8/17/95 1035	2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? <u>yes</u>										
(SIGNATURE)			(SIGNATURE)			3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? <u>No</u>										
(SIGNATURE)			(SIGNATURE)			4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? <u>yes</u>										
(SIGNATURE)			(SIGNATURE)			SIGNATURE:			TITLE:			DATE:				

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 HN03. All other containers are unpreserved.