



FUGRO WEST, INC.

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November 3, 1994

Mr. Terrence Fox  
Environmental Specialist  
Ultramar Inc.  
525 West Third Street  
Hanford, California 93232-0466

Subject: **Third Quarter 1994 Groundwater Monitoring Report  
Beacon Station #720**  
1088 Marina Boulevard, San Leandro, California

Dear Mr. Fox:

This report documents the results of quarterly groundwater monitoring conducted on September 14, 1994 at the subject site (Figure 1). The monitoring, conducted by Doulos Environmental, included measurements of depth to groundwater, subjective analysis for free product, groundwater purging and collection of groundwater samples. All field activities pertaining to events in this report were conducted according to the Ultramar Field Procedures included in the Attachments.

### GROUNDWATER ELEVATIONS

Prior to purging, Doulos Environmental personnel collected depth to groundwater measurements. Groundwater level data from March 1992 to date are summarized in Table 1. Historic groundwater levels are presented as an Attachment. On the basis of the current measurements, groundwater flows to the west (Figure 2) at a gradient of  $<0.01$  ft/ft. Groundwater levels have decreased an average of 0.81 feet compared to the last monitoring event.



## GROUNDWATER SAMPLING AND ANALYSES

Groundwater samples were collected from eight wells. All samples were analyzed for concentrations of:

- TPH, as gasoline, by modified EPA Method 8015.
- BTEX by EPA Method 602.

Analytical results from March 1992 to date are summarized in Table 2. Historic analytical data are presented as an Attachment. Figure 3 is a distribution map of benzene in groundwater based on the current data. The laboratory report and chain-of-custody form for the current sampling event are attached. Benzene concentrations remain nondetectable in wells MW-6 and MW-7. Concentrations decreased in wells MW-1 and MW-3; and increased in wells MW-4, MW-5, and MW-8; and remained at 1,600 ppb in well MW-2 compared to prior sampling.

A copy of this quarterly monitoring report should be forwarded to the following party:

Mr. Rafat Shahid  
Division of Hazardous Materials  
Alameda County Health Care Services  
80 Swan Way, Room 200  
Oakland, California 94621



The interpretations and/or conclusions that may be contained within this report represent our professional opinions. These opinions are based on currently available information. Other than this, no warranty is implied or intended. This report has been prepared solely for the use of Ultramar Inc. Any reliance on this report by third parties shall be at such parties' sole risk. This report was prepared under the review and supervision of the professional geologist, registered with the State of California, whose signature appears below.

If you have any questions or comments, please contact us at (916) 782-2110.

Sincerely,

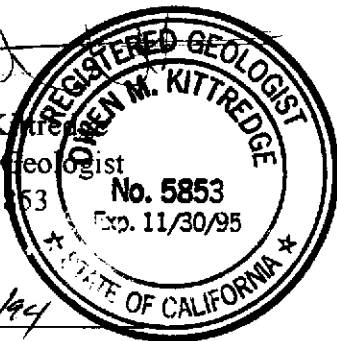
**FUGRO WEST, INC.**

A handwritten signature in cursive script, appearing to read "Sheila R. Richgels".

Sheila R. Richgels  
Report Coordinator

A handwritten signature in cursive script, appearing to read "Owen M. Kittredge".

Owen M. Kittredge  
Registered Geologist  
CRG No. 5853



11/4/94  
Date

SRR/OMK/srr

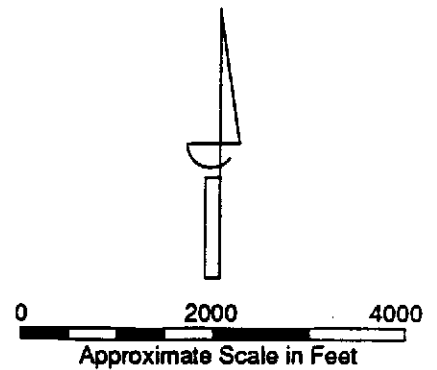
Attachments





**GENERAL NOTES:**

BASE MAP FROM USGS  
7.5 MINUTE TOPOGRAPHIC  
SAN LEANDRO, CA



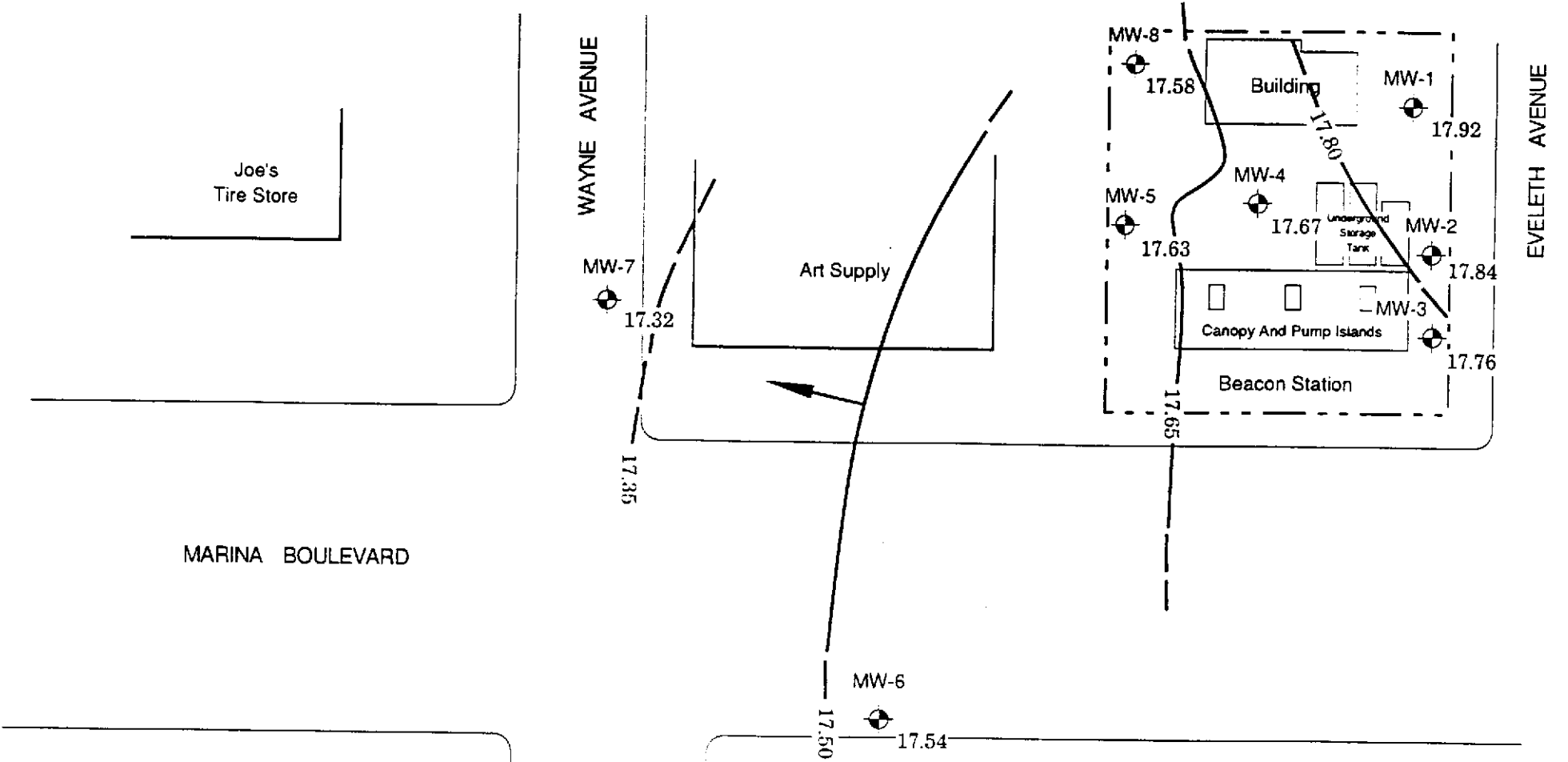
DRAWN BY:	
DATE:	
REVISED BY:	
DATE:	

**SITE LOCATION MAP**






Beacon Station # 720  
1088 Marina Boulevard  
San Leandro, CA

**FIGURE**  
**1**

PROJECT NUMBER:  
**92-702**



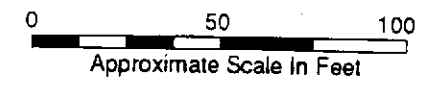
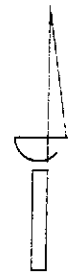
**LEGEND**

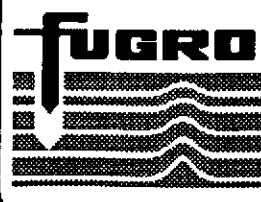
-  Monitoring Well
-  17.92 Groundwater Elevation in Feet
-  Property Line
-  Potentiometric Surface Contour Line (Dashed Where Inferred)
-  Estimated Direction of Groundwater Flow

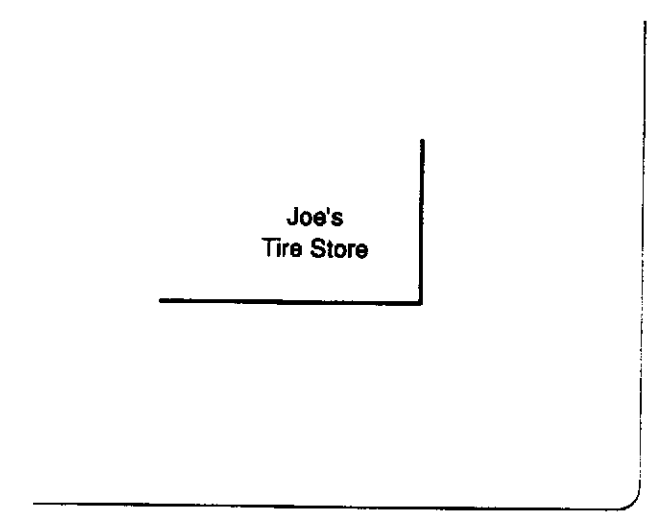
Hydraulic Gradient = < 0.01 ft/ft  
 Contour Interval = 0.15 ft

**NOTES**

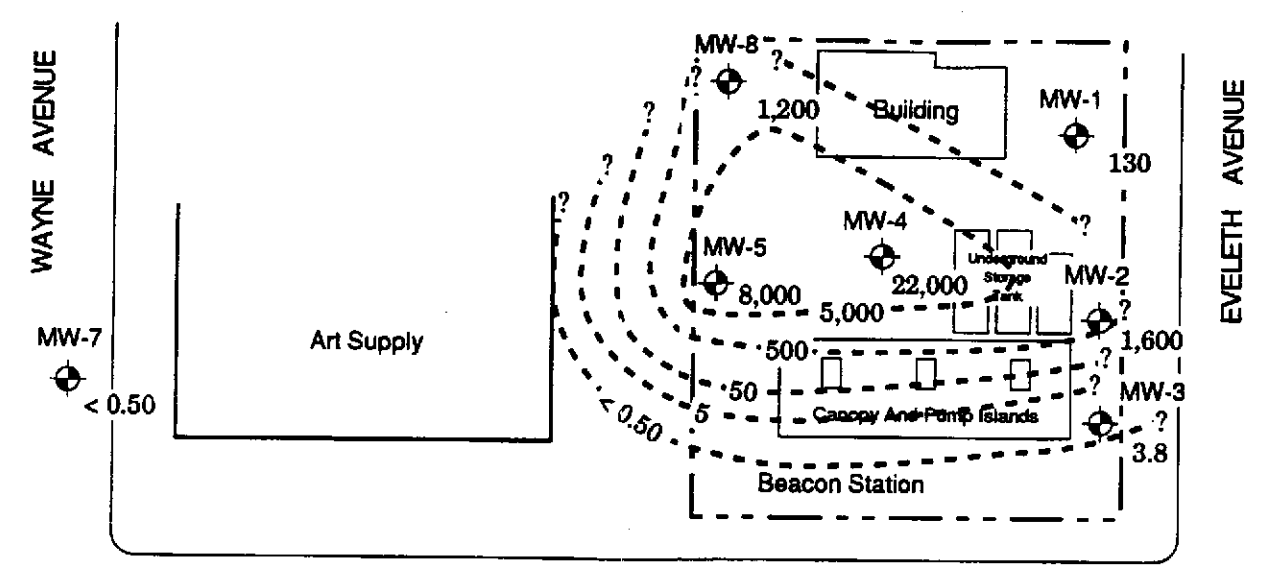
Site Sketch After Site Map  
 By Groundwater Geotechnical Consultants, Inc.  
 (January 1992)  
 All Locations Are Approximate



	DRAWN BY: C. Hada	<b>POTENTIOMETRIC SURFACE MAP</b> September 14, 1994	<b>FIGURE</b> 2
	DATE: October 18, 1994		
	REVISED BY:	Beacon Station #720 1088 Marina Boulevard San Leandro, CA	PROJECT NUMBER: 9447-4001
	DATE:		







MARINA BOULEVARD



MW-7  
< 0.50

MW-6  
< 0.50

LEGEND

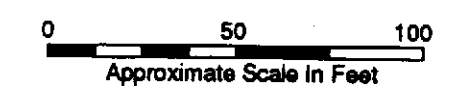
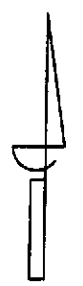
-  130 Monitoring Well Benzene Concentration (parts-per-billion)
-  Property Line
-  Inferred Iso-Concentration Limits
-  < 0.50 Below Indicated Detection Limit


Contour Interval = Exponential

NOTES

Site Sketch After Site Map  
By Groundwater Geotechnical Consultants, Inc.  
(January 1992)

All Locations Are Approximate



	DRAWN BY: D. Hada	<b>DISTRIBUTION MAP OF BENZENE IN GROUNDWATER</b> September 14, 1994	<b>FIGURE 3</b>
	DATE: October 18, 1994		
REVISED BY:	Beacon Station #720 1088 Marina Boulevard San Leandro, CA	PROJECT NUMBER: 9447-4001	
DATE:			

**TABLE 1  
WATER LEVEL DATA  
BEACON STATION #720  
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA  
(Measurements in feet)**

Monitoring Well	Date	Reference Elevation (top of casing) <sup>1</sup>	Depth to Groundwater <sup>1</sup>	Groundwater Elevation <sup>2</sup>	Well Depth	Comments
MW-1	03/30/92	33.10	13.58	19.52	---	
	07/01/92		14.80	18.30	---	
	09/30/92		16.12	16.98	---	
	11/19/92		16.34	16.76	27.76	
	02/03/93		12.61	20.49	27.72	
	05/25/93		13.12	19.98	27.70	
	09/22/93		14.18	18.92	27.73	
	12/21/93		14.36	18.74	27.70	
	03/18/94		13.64	19.46	27.67	
	06/15/94		14.30	18.80	27.69	
09/14/94	15.18	17.92	27.66			
MW-2	03/30/92	32.80	13.32	19.48	---	
	07/01/92		14.42	18.38	---	
	09/30/92		15.78	17.02	---	
	11/19/92		15.99	16.81	24.56	
	02/03/93		12.31	20.49	25.37	
	05/25/93		12.97	19.83	25.31	
	09/22/93		14.32	18.48	25.34	
	12/21/93		14.52	18.28	25.31	
	03/18/94		13.45	19.35	25.49	
	06/15/94		14.07	18.73	25.50	
09/14/94	14.96	17.84	25.50			
MW-3	03/30/92	32.30	12.96	19.34	---	
	07/01/92		14.00	18.30	---	
	09/30/92		15.36	16.94	---	
	11/19/92		15.57	16.73	24.45	
	02/03/93		11.96	20.34	24.54	
	05/25/93		14.12	18.18	24.50	
	09/22/93		13.88	18.42	24.50	
	12/21/93		14.12	18.18	24.50	
	03/18/94		13.04	19.26	24.57	
	06/15/94		13.65	18.65	24.78	
09/14/94	14.54	17.76	24.59			
MW-4	03/30/92	32.90	13.60	19.30	---	
	07/01/92		15.72	17.18	---	
	09/30/92		16.04	16.86	---	
	11/19/92		16.21	16.69	26.92	
	02/03/93		12.70	20.20	27.00	
	05/25/93		12.97	19.93	26.88	
	09/22/93		14.51	18.39	26.90	
	12/21/93		14.75	18.15	26.90	
	03/18/94		13.68	19.22	27.24	
	06/15/94		14.37	18.53	28.54	
09/14/94	15.23	17.67	27.25			

NOTES: 1 = Measurement and reference elevation taken from notch/mark on top north side of well casing.  
2 = Elevation referenced to mean sea level.  
Well Depth = Measurement from top of casing to bottom of well.  
--- = Not measured.  
' = Well paved over.  
< = Below indicated detection limit.  
ND = Reported as "nondetected" by previous consultant.  
NS = Not sampled.



**TABLE 1**  
**WATER LEVEL DATA**  
**BEACON STATION #720**  
**1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA**  
**(Measurements in feet)**

Monitoring Well	Date	Reference Elevation (top of casing) <sup>1</sup>	Depth to Groundwater <sup>1</sup>	Groundwater Elevation <sup>2</sup>	Well Depth	Comments
MW-5	03/30/92	32.70	13.48	19.22	---	
	07/01/92		14.58	18.12	---	
	09/30/92		15.82	16.88	---	
	11/19/92		16.00	16.70	27.56	
	02/03/93		12.40	20.30	27.61	
	05/25/93		13.01	19.69	27.61	
	09/22/93		14.37	18.33	27.64	
	12/21/93		14.58	18.12	27.01	
	03/18/94		13.53	19.17	28.70	
	06/15/94		14.18	18.52	28.74	
	09/14/94		15.07	17.63	28.70	
MW-6	03/30/92	30.40	12.62	17.78	---	
	07/01/92		12.70	17.70	---	
	09/30/92		13.40	17.00	---	
	11/19/92		13.59	16.81	15.10	
	02/03/93		12.43	17.97	15.01	
	05/25/93		---	---	---	*
	10/11/93		12.82	17.58	15.10	
	12/21/93		13.06	17.34	15.10	
	03/18/94		12.16	18.24	15.16	
	06/15/94		12.59	17.81	15.17	
	09/14/94		12.86	17.54	14.97	
MW-7	03/30/92	31.20	12.34	18.86	---	
	07/01/92		15.54	15.66	---	
	09/30/92		14.64	16.56	---	
	11/19/92		14.80	16.40	25.10	
	02/03/93		11.36	19.84	25.02	
	05/25/93		---	---	---	*
	09/22/93		13.18	18.02	25.01	
	12/21/93		13.42	17.78	25.02	
	03/18/94		12.36	18.84	25.13	
	06/15/94		13.01	18.19	25.21	
	09/14/94		13.88	17.32	25.13	
MW-8	03/30/92	33.80	14.66	19.14	---	
	07/01/92		15.74	18.06	---	
	09/30/92		17.00	16.80	---	
	11/19/92		17.01	16.79	29.75	
	02/03/93		13.83	19.97	29.88	
	05/25/93		13.01	20.79	29.86	
	09/22/93		15.81	17.99	24.52	
	12/21/93		16.05	17.75	29.86	
	03/18/94		14.62	19.18	29.87	
	06/15/94		15.29	18.51	30.07	
	09/14/94		16.22	17.58	29.87	

- NOTES: 1 = Measurement and reference elevation taken from notch/mark on top north side of well casing.  
2 = Elevation referenced to mean sea level.  
Well Depth = Measurement from top of casing to bottom of well.  
- = Not measured.  
\* = Well paved over.  
< = Below indicated detection limit.  
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**TABLE 2**  
**ANALYTICAL RESULTS: GROUNDWATER**  
**BEACON STATION #720**  
**1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA**  
**(All results in parts-per-billion)**

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics			
		Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-1	03/30/92	27,000	630	550	540	1,900
	07/01/92	55,000	840	1,000	830	3,600
	09/30/92	6,400	150	95	120	470
	11/19/92	1,300	90	11	50	87
	02/03/93	53,000	750	560	950	5,700
	05/25/93	9,400	200	86	470	1,500
	09/22/93	41,000	1,000	510	850	1,100
	12/21/93	41,000	1,000	490	2,700	13,000
	03/18/94	9,500	320	160	830	2,900
	06/15/94	8,000	310	80	990	2,300
09/14/94	3,600	130	31	390	630	
MW-2	03/30/92	52,000	2,300	1,700	940	3,300
	07/01/92	130,000	3,500	2,900	1,900	7,900
	09/30/92	24,000	890	350	500	1,700
	11/19/92	32,000	1,900	1,700	870	3,400
	02/03/93	64,000	1,900	2,200	860	4,100
	05/25/93	34,000	3,300	1,500	1,300	5,900
	09/22/93	8,000	640	150	270	2,000
	12/21/93	18,000	1,500	410	1,300	5,000
	03/18/94	14,000	1,600	790	1,100	3,700
	06/15/94	13,000	1,600	580	1,200	4,100
09/14/94	20,000	1,600	560	1,800	6,400	
MW-3	03/30/92	21,000	560	50	630	980
	07/01/92	13,000	150	20	22	300
	09/30/92	4,500	53	2.6	84	96
	11/19/92	4,700	73	6.2	140	120
	02/03/93	23,000	220	40	430	740
	05/25/93	9,900	120	26	370	520
	09/22/93	10,000	370	71	320	640
	12/21/93	7,800	130	8.5	430	380
	03/18/94	3,100	22	1.3	78	41
	06/15/94	1,700	8.6	1.4	22	15
09/14/94	1,400	3.8	<1.3	13	18	
MW-4	03/30/92	76,000	8,000	4,400	730	2,500
	07/01/92	95,000	6,900	2,200	70	880
	09/30/92	58,000	7,100	1,500	650	2,700
	11/19/92	33,000	5,500	840	400	1,400
	02/03/93	130,000	8,200	6,700	940	4,400
	05/25/93	63,000	16,000	6,600	1,700	8,100
	09/22/93	23,000	6,900	940	150	3,000
	12/21/93	28,000	6,900	1,900	1,100	5,500
	03/18/94	58,000	17,000	6,300	2,500	10,000
	06/15/94	59,000	20,000	4,900	2,500	9,100
09/14/94	73,000	22,000	6,800	2,700	10,000	

NOTES: < = Below indicated detection limit.  
 ND = Reported as "nondetect" by previous consultant.  
 NS = Not sampled.

**TABLE 2**  
**ANALYTICAL RESULTS: GROUNDWATER**  
**BEACON STATION #720**  
**1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA**  
**(All results in parts-per-billion)**

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics			
		Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-5	03/30/92	29,000	2,600	980	390	1,100
	07/01/92	52,000	2,400	1,000	5,200	2,000
	09/30/92	32,000	1,800	780	370	1,700
	11/19/92	7,800	1,000	280	120	370
	02/03/93	74,000	3,500	3,000	780	3,200
	05/25/93	57,000	7,900	4,700	1,900	7,800
	09/22/93	52,000	7,600	2,400	1,200	8,800
	12/21/93	23,000	3,600	1,200	970	3,600
	03/18/94	47,000	8,200	5,000	1,400	6,100
	06/15/94	28,000	7,900	4,000	1,200	5,200
09/14/94	32,000	8,000	5,100	1,400	5,600	
MW-6	03/30/92	73	2.1	1.1	ND	0.6
	07/01/92	ND	ND	ND	ND	ND
	09/30/92	ND	0.73	ND	ND	0.58
	11/19/92	96	1.5	<0.5	<0.5	0.9
	02/03/93	73	0.6	<0.5	<0.5	<0.5
	05/25/93	NS	NS	NS	NS	NS
	10/11/93	<50	<0.5	<0.5	<0.5	<0.5
	12/21/93	<50	<0.5	<0.5	<0.5	<0.5
	03/18/94	<50	<0.5	<0.5	<0.5	<0.5
	06/15/94	<50	<0.5	<0.5	<0.5	<0.5
09/14/94	<50	<0.5	<0.5	<0.5	<0.5	
MW-7	03/30/92	ND	ND	ND	ND	ND
	07/01/92	ND	ND	ND	ND	ND
	09/30/92	ND	ND	ND	ND	ND
	11/19/92	<50	<0.5	<0.5	<0.5	<0.5
	02/03/93	<50	<0.5	<0.5	<0.5	<0.5
	05/25/93	NS	NS	NS	NS	NS
	09/22/93	<50	0.51	0.82	<0.5	0.81
	12/21/93	<50	<0.5	<0.5	<0.5	<0.5
	03/18/94	<50	<0.5	<0.5	<0.5	<0.5
	06/15/94	<50	<0.5	<0.5	<0.5	<0.5
09/14/94	<50	<0.5	<0.5	<0.5	<0.5	
MW-8	03/30/92	3,000	1,700	880	970	1,900
	07/01/92	72,000	1,800	550	520	2,200
	09/30/92	12,000	680	140	140	560
	11/19/92	9,600	530	310	130	560
	02/03/93	44,000	1,500	1,300	490	2,300
	05/25/93	7,400	580	160	170	480
	09/22/93	2,400	490	45	37	140
	12/21/93	1,400	240	7.5	<2.5	82
	03/18/94	8,600	1,600	680	470	1,900
	06/15/94	4,800	980	380	260	1,200
09/14/94	6,600	1,200	280	330	1,100	

NOTES: < = Below indicated detection limit.  
 ND = Reported as "nondetect" by previous consultant.  
 NS = Not sampled.

## ULTRAMAR FIELD PROCEDURES

The following section describes procedures used by Ultramar field personnel in the performance of ground water sampling.

### Ground Water Level and Total Depth Determination

A water level indicator is lowered down the well and a measurement of the depth to water from an established reference point on the casing is taken. The indicator probe is used to sound the bottom of the well and a measurement of the total depth of the well is taken. Both the water level and total depth measurements are taken to the nearest 0.01-foot.

### Visual Analysis of Ground Water

Prior to purging and sampling ground water monitoring wells, a water sample is collected from each well for subjective analysis. The visual analysis involves gently lowering a clean, disposable, polyethylene bailer to approximately one-half the bailer length past the water table interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating product or the appearance of a petroleum product sheen. If measurable free product is noted in the bailer, a water/product interface probe is used to determine the thickness of the free product to the nearest 0.01-foot. The thickness of free product is determined by subtracting the depth to product from the depth to water.

### Monitoring Well Purging and Sampling

Monitoring wells are purged by removing approximately four casing volumes of water from the well using a clean disposable bailer or electrical submersible purge pump. Purge volumes are calculated prior to purging. During purging the temperature, pH, and electric conductivity are monitored. The well is sufficiently purged when: the four casing volumes have been removed; the temperature, pH, and conductivity have stabilized to within 10% of the initial readings; and the ground water being removed is relatively free of suspended solids. After purging, ground water levels are allowed to stabilize to within 80% of the initial water level reading. A water sample is then collected from each well with a clean, disposable polyethylene bailer. If the well is bailed dry prior to removing the minimum volume of water, the ground water is allowed to recharge. If the well has recharged to within 80% of the initial reading within two hours, the well will continue to be purged until the minimum volume of water has been removed. If the well has not recharged to at least 80% of the initial reading within two hours, the well is considered to contain formational water and a ground water sample is collected. Ground water removed from the well is stored in 55-gallon drums at the site and labeled pending disposal.

In wells where free product is detected, the wells will be bailed to remove the free product. An estimate of the volume of product and water will be recorded. If the free product thickness is reduced to the point where a measurable thickness is no longer present in the well, a ground water sample will be collected. If free product persists throughout bailing, a final free product thickness measurement will be taken and a ground water sample will not be collected.

Samples are stored in 40-milliliter vials so that air passage through the sample is minimized (to prevent volatilizing the sample). The vial is tilted and filled slowly until an upward convex meniscus forms over the mouth of the vial. The Teflon side of the septum (in cap) is then placed against the meniscus, and the cap is screwed on tightly. The sample is then inverted and the bottle is tapped lightly to check for air bubbles. If an air bubble is present in the vial, the cap is removed and more sample is transferred from the bailer. The vial is then resealed and rechecked for air bubbles. The sample is then appropriately labeled and stored on ice from the time of collection through the time of delivery to the laboratory. A Chain-of-Custody form is completed to ensure sample integrity. Ground water samples are transported to a state-certified laboratory and analyzed within the EPA-specified holding times for the requested analyses.

**TABLE 1**  
**GROUNDWATER ELEVATIONS**  
 Page 1 of 5

Date Sampled	Depth to Groundwater (Feet)	Groundwater Elevation (Feet)
<b>Groundwater Monitoring Well MW-1:</b>		<b>Elevation of Top of Casing = 29.89 feet</b>
June 23, 1987	14.79	15.10
July 06, 1987	14.93	14.96
August 06, 1987	14.22	15.67
November 04, 1987	15.74	14.15
February 02, 1988	13.99	15.90
May 02, 1988	14.99	14.90
November 21, 1988	13.03	16.86
February 14, 1989	15.86	14.03
May 02, 1989	14.77	15.12
August 10, 1989	16.35	13.54
November 08, 1989	16.46	13.43
February 20, 1990	15.58	14.31
May 18, 1990	3.40	13.49
September 15, 1990	.83	13.06
November 26, 1990	17.16	12.73
February 07, 1991	16.43	13.46
May 14, 1991	14.93	14.96
August 16, 1991	16.35	13.54
<b>Groundwater Monitoring Well MW-1:</b>		<b>New Elevation of Top of Casing = 33.10 feet</b>
December 24, 1991	17.20	15.90
March 30, 1992	13.58	19.52
<b>Groundwater Monitoring Well MW-2:</b>		<b>Elevation of Top of Casing = 29.57 feet</b>
June 23, 1987	14.51	15.06



TABLE 1

## GROUNDWATER ELEVATIONS

Page 3 of 5

Date Sampled	Depth to Groundwater (Feet)	Groundwater Elevation (Feet)
May 02, 1988	14.22	14.91
November 21, 1988	13.01	16.12
February 14, 1989	15.22	13.91
May 02, 1989	14.16	14.97
August 10, 1989	15.61	13.52
November 08, 1989	15.75	13.38
February 20, 1990	14.95	14.18
May 18, 1990	15.79	13.34
September 15, 1990	16.07	13.06
November 26, 1990	16.36	12.77
February 07, 1991	15.74	13.39
May 14, 1991	14.19	14.94
August 16, 1991	15.55	13.58
<b>Groundwater Monitoring Well MW-3:</b>		<b>New Elevation of Top of Casing = 32.30 feet</b>
December 24, 1991	16.40	15.90
March 30, 1992	12.96	19.34
<b>Groundwater Monitoring Well MW-4:</b>		<b>Elevation of Top of Casing = 29.72 feet</b>
June 23, 1987	14.77	14.95
July 06, 1987	14.91	14.81
August 06, 1987	15.19	14.53
November 04, 1987	15.72	14.00
February 02, 1988	14.03	15.69
May 02, 1988	14.89	14.83
November 21, 1988	12.88	16.84
February 14, 1989	15.83	13.89
May 02, 1989	14.75	14.97

**TABLE 1**  
**GROUNDWATER ELEVATIONS**  
Page 4 of 5

<b>Date Sampled</b>	<b>Depth to Groundwater (Feet)</b>	<b>Groundwater Elevation (Feet)</b>
August 10, 1989	16.30	13.42
November 08, 1989	16.29	13.43
February 20, 1990	15.62	14.10
May 18, 1990	16.34	13.38
September 15, 1990	16.79	12.93
November 26, 1990	17.08	12.64
February 07, 1991	16.37	13.35
May 14, 1991	14.87	14.85
August 16, 1991	16.25	13.47
<b>Groundwater Monitoring Well MW-4:</b>		<b>New Elevation of Top of Casing = 32.90 feet</b>
December 24, 1991	17.10	15.80
March 30, 1992	13.60	19.30
<b>Groundwater Monitoring Well MW-5:</b>		<b>Elevation of Top of Casing = 29.55 feet</b>
June 23, 1987	14.63	14.92
July 06, 1987	14.79	14.76
August 06, 1987	15.07	14.48
November 04, 1987	15.61	13.94
February 02, 1988	13.84	15.71
May 02, 1988	14.77	14.78
November 21, 1988	12.84	16.71
February 14, 1989	15.72	13.83
May 02, 1989	14.68	14.87
August 10, 1989	16.03	13.52
November 08, 1989	16.33	13.22
February 20, 1990	15.44	14.11



**TABLE 1**  
**GROUNDWATER ELEVATIONS**  
 Page 5 of 5

<b>Date Sampled</b>	<b>Depth to Groundwater (Feet)</b>	<b>Groundwater Elevation (Feet)</b>
May 18, 1990	16.22	13.33
September 15, 1990	16.65	12.90
November 26, 1990	16.95	12.60
February 07, 1991	16.20	13.35
May 14, 1991	14.72	14.38
August 16, 1991	16.10	13.45
<b>Groundwater Monitoring Well MW-5:</b>		<b>New Elevation of Top of Casing = 32.70 feet</b>
December 24, 1991	16.92	15.78
March 30, 1992	13.48	19.22
<b>Groundwater Monitoring Well MW-6:</b>		<b>Elevation of Top of Casing = 30.40 feet</b>
December 24, 1991	14.12	16.28
March 30, 1992	12.62	17.78
<b>Groundwater Monitoring Well MW-7:</b>		<b>Elevation of Top of Casing = 31.20 feet</b>
December 24, 1991	15.70	15.50
March 30, 1992	12.34	18.86
<b>Groundwater Monitoring Well MW-8:</b>		<b>Elevation of Top of Casing = 33.80 feet</b>
December 24, 1991	18.00	15.80
March 30, 1992	14.66	19.14
<b>Notes:</b>		
1)	All elevations surveyed to an arbitrary datum	
2)	Elevations and depths are given in feet	
3)	Groundwater Technology, Inc., made measurements until February 1989	
4)	Du Pont Environmental Services collected samples from February 1989 through February 1991	
5)	Environmental Geotechnical Consultants, Inc., made measurements beginning in May 1991	

TABLE 2

## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Page 1 of 5

Well No.	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH-G (µg/L)	Comments
MW-1	Apr. 16, 1987	2,313	3,770	664.1	3,331	17,276	
	June 23, 1987	1,887	2,141	466.7	1,652	26,027	
	July 06, 1987	778.2	943.7	133.2	422.1	3,938	
	Aug. 06, 1987	1,270	1,576	288.7	873.7	6,079	
	Nov. 04, 1987	1,700	4,000	720	2,200	15,000	
	Feb. 02, 1988	1,500	1,700	230	740	14,000	
	May 02, 1988	3,500	700	4,900	2,700	33,000	
	Nov. 21, 1988	2,200	560	2,800	2,200	15,000	
	Feb. 14, 1989	1,700	1,700	340	1,500	12,000	Odor
	May 02, 1989	1,500	2,400	510	2,400	18,000	Odor, Slight Sheen
	Aug. 10, 1989	1,400	1,500	360	1,600	10,000	Odor
	Nov. 08, 1989	920	470	190	360	7,200	Odor
	Feb. 20, 1990	810	540	270	800	3,300	
	May 18, 1990	1,900	500	560	1,600	5,600	
	Sep. 15, 1990	320	110	150	520	5,200	Odor
	Nov. 26, 1990	370	59	150	370	3,000	Odor
	Feb. 07, 1991	750	570	480	1,800	14,000	
	May 14, 1991	1,000	1,400	600	2,500	41,000	
	Aug. 16, 1991	310	210	150	480	4,000	Odor
	Dec. 24, 1991	530	95	310	680	11,000	Moderate Odor
	Mar. 30, 1992	630	550	540	1,900	27,000	Odor
MW-2	Apr. 16, 1987	3,131	4,239	1,067	4,608	17,920	
	June 23, 1987	2,188	2,622	1,047	4,699	49,354	
	July 06, 1987	1,575	1,729	457	1,702	8,676	
	Aug. 06, 1987	2,623	3,722	702	2,882	14,376	
	Nov. 04, 1987	2,200	4,100	900	3,500	19,000	

TABLE 2

## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Page 2 of 5

Well No.	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	TPH-G (µg/L)	Comments
MW-2	Feb. 02, 1988	6,200	6,500	1,000	4,000	54,000	
	May 02, 1988	6,800	1,300	7,100	5,400	53,000	
	Nov. 21, 1988	--	--	--	--	--	Free product
	Feb. 14, 1989	6,900	4,300	1,100	5,200	48,000	Film of free product
	May 02, 1989	6,100	8,800	2,100	16,000	111,000	Odor, sheen
	Aug. 10, 1989	4,200	2,900	1,000	5,800	39,000	Odor, sheen
	Nov. 08, 1989	3,700	1,500	740	2,200	45,000	Odor, heavy sheen
	Feb. 20, 1990	5,000	8,200	1,600	11,000	60,000	
	May 18, 1990	6,200	1,900	1,300	610	19,000	
	Sep. 15, 1990	1,400	820	660	3,000	27,000	Odor, sheen
	Nov. 26, 1990	1,100	880	700	3,800	28,000	Odor, sheen
	Feb. 07, 1991	2,100	1,900	1,300	6,200	63,000	Odor, sheen
	May 14, 1991	2,200	2,700	1,100	5,900	100,000	Moderate odor Slight sheen
	Aug. 16, 1991	1800	950	990	3900	32,000	Slight odor, sheen
	Dec. 24, 1991	1,100	550	750	2,700	30,000	Odor, sheen
	Mar. 30, 1992	2,300	1,700	940	3,300	52,000	Odor, sheen
MW-3	Apr. 16, 1987	1,371	2,438	472.3	2,617	9,967	
	June 23, 1987	646.2	822.9	320.9	1,280	16,824	
	July 06, 1987	340.3	384.2	116.5	420.2	3,395	
	Aug. 06, 1987	441.9	436.3	118.2	417.3	3,107	
	Nov. 04, 1987	320	280	74	250	2,600	
	Feb. 02, 1988	2,200	2,300	500	2,300	44,000	
	May 02, 1988	1,600	450	840	1,700	14,000	
	Nov. 21, 1988	1,200	220	560	810	8,100	
	Feb. 14, 1989	1,500	220	220	500	5,500	Odor

TABLE 2

## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Page 3 of 5

Well No.	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH-G (µg/L)	Comments
	Aug. 10, 1989	750	10	190	210	2,700	Odor
	Nov. 08, 1989	370	90	ND	58	2,400	Odor
	Feb. 20, 1990	1,200	810	77	460	3,700	
	May 18, 1990	980	ND	330	250	2,300	
	Sep. 15, 1990	240	36	150	230	4,700	Odor
	Nov. 26, 1990	170	8.4	86	120	1,400	Odor
	Feb. 07, 1991	220	20	120	230	2,900	
	May 14, 1991	370	39	220	820	15,000	
	Aug. 16, 1991	480	50	360	680	7,260	Slight Odor
	Dec. 24, 1991	150	20	100	140	4,900	Slight Odor
	Mar. 30, 1992	560	50	630	980	21,000	Odor
MW-4	Apr. 16, 1987	5,896	3,797	893.9	4,106	19,309	
	June 23, 1987	4,030	1,842	850.0	3,254	31,429	
	July 06, 1987	2,710	1,247	308.2	1,312	8,117	
	Aug. 06, 1987	3,992	1,589	447.9	1,611	10,464	
	Nov. 04, 1987	9,500	17,000	2,800	11,000	55,000	
	Feb. 02, 1988	11,000	7,400	1,400	6,200	47,000	
	May 02, 1988	9,200	1,300	6,100	6,400	58,000	
	Nov. 21, 1988	5,700	1,600	3,100	7,600	48,000	
	Feb. 14, 1989	8,700	2,500	900	3,800	29,000	Odor & sheen
	May 02, 1989	4,800	5,600	1,800	8,800	69,000	Odor, slight sheen
	Aug. 10, 1989	15,000	6,600	1,800	12,000	67,000	Odor, slight sheen
	Nov. 08, 1989	11,000	3,200	1,100	4,400	71,000	Odor, slight sheen
	Feb. 20, 1990	8,100	4,500	930	3,500	19,000	
	May 18, 1990	45,000	12,000	5,000	27,000	100,000	
	Sep. 15, 1990	4,200	1,200	740	3,000	38,000	

TABLE 2

## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Page 4 of 5

Well No.	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH-G (µg/L)	Comments
MW-4	Nov. 26, 1990	2,800	650	810	2,600	19,000	Odor
	Feb. 07, 1991	4,600	1,100	1,600	4,600	41,000	Odor, sheen
	May 14, 1991	7,300	830	3,900	3,600	100,000	Slight odor, sheen
	Aug. 16, 1991	8,000	2,500	1,100	4,000	45,000	Strong odor, sheen
	Dec. 24, 1991	6,000	1,200	1,100	3,700	79,000	Odor, sheen
	Mar. 30, 1992	8,000	4,400	730	2,500	76,000	Odor, sheen
MW-5	Apr. 16 1987	2,267	921.2	3,277	4,536	17,733	
	June 23, 1987	2,239	516.8	953.9	1,587	19,555	
	July 06, 1987	1,335	313.7	799.2	923.9	5,631	
	Aug. 06, 1987	1,890	881.2	576.8	93.4	6,450	
	Nov. 04, 1987	1,300	500	270	640	4,600	
	Feb. 02, 1988	3,100	1,500	550	1,400	24,000	
	May 02, 1988	4,400	490	1,200	1,500	17,000	
	Nov. 21, 1988	5,600	590	870	2,200	19,000	
	Feb. 14, 1989	4,300	810	410	1,300	13,000	Odor
	May 02, 1989	2,900	1,500	690	3,200	24,000	Odor, slight sheen
	Aug. 10, 1989	6,700	2,300	860	4,700	36,000	Odor, slight sheen
	Nov. 08, 1989	5,300	860	460	600	30,000	Odor
	Feb. 20, 1990	1,700	220	120	370	3,400	
	May 18, 1990	18,000	2,000	1,500	5,600	24,000	
	Sep. 15, 1990	2,600	2,200	1,000	4,900	42,000	Odor, sheen
	Nov. 26, 1990	1,900	280	260	800	8,500	Odor, sheen

TABLE 2

## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Page 5 of 5

Well No.	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH-G (µg/L)	Comments
	Feb. 07, 1991	1,500	1,200	610	2,700	24,000	Odor
	May 14, 1991	3,800	4,400	1,400	6,400	120,000	Odor, sheen
	Aug. 16, 1991	4,200	1,900	760	2,900	29,000	Moderate odor, sheen
	Dec. 24, 1991	3,900	1,500	880	3,200	63,000	Odor, sheen
	Mar. 30, 1992	2,600	980	390	1,100	29,000	Odor, sheen
MW-6	Dec. 24, 1991	ND	ND	ND	ND	79	
	Mar. 30, 1992	2.1	1.1	ND	0.6	73	
MW-7	Dec. 24, 1991	ND	ND	ND	ND	ND	
	Mar. 30, 1992	ND	ND	ND	ND	ND	
MW-8	Dec. 24, 1991	1,700	2,400	1,200	6,100	81,000	Odor, sheen
	Mar. 30, 1992	1,700	880	970	1,900	3,000	Odor, sheen

- Notes:**
- 1) TPH-G = Total Petroleum Hydrocarbons as gasoline
  - 2) Odor refers to petroleum hydrocarbon odor
  - 3) All results are presented in parts per billion
  - 4) Groundwater Technology, Inc., collected samples prior to February 1989
  - 5) Du Pont Environmental Services collected samples from February 1989 through February 1991
  - 6) Environmental Geotechnical Consultants, Inc. collected samples beginning in May 1991
  - 7) ND = Non Detect
  - 8) See analytical results for detection limits (Appendix B)

September 27, 1994  
Sample Log 10232

Sample Log 10232  
10232-3

Sheila Richards  
Fugro West, Inc. - Roseville  
1050 Melody Lane, Suite 100  
Roseville, CA 95678

RECEIVED  
SEP 29 1994

Sample: NW-1

From : Project # 94-720-01 (Beacon 720)  
Sampled : 09/14/94  
Dilution : 1:10  
Matrix : Water  
QC Batch : 2104L

Subject: Analytical Results for 6 Water Samples  
Identified as: Project # 94-720-01 (Beacon 720)  
Received: 09/16/94

Dear Ms. Richards:

Analysis of the sample(s) referenced above has been completed. This report is written to confirm results communicated on September 27, 1994 and describes procedures used to analyze the samples.

Sample(s) were received in 40-milliliter glass vials sealed with TPE lined septae and plastic screw-caps. Each sample was transported and received under documented chain of custody and stored at 4 degrees C until analysis was performed.

Sample(s) were analyzed using the following method(s):

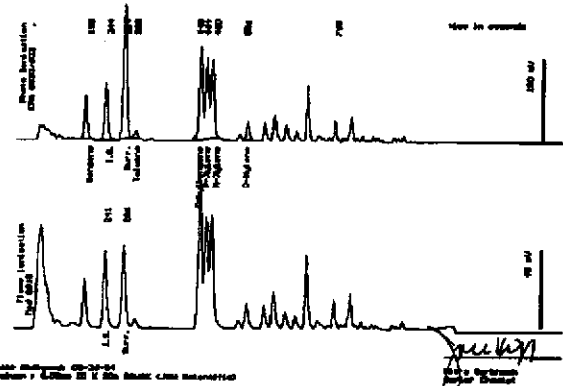
- "DTXK" (EPA Method 602/Purge-and-Trap)
- "TPH as Gasoline" (Modified EPA Method 8015/Purge-and-Trap)

Please refer to the following table(s) for summarized analytical results and contact us at 916-753-9500 if you have questions regarding procedures or results. The chain-of-custody document is enclosed.

Approved by:

*Joel Kiff*  
Joel Kiff  
Senior Chemist

Parameter	(MRL) $\mu\text{g/L}$	Measured Value $\mu\text{g/L}$
Benzene	(5.0)	130
Toluene	(5.0)	31
Ethylbenzene	(5.0)	390
Total Xylenes	(5.0)	630
TPH as Gasoline	(500)	3600
Surrogate Recovery		98 %



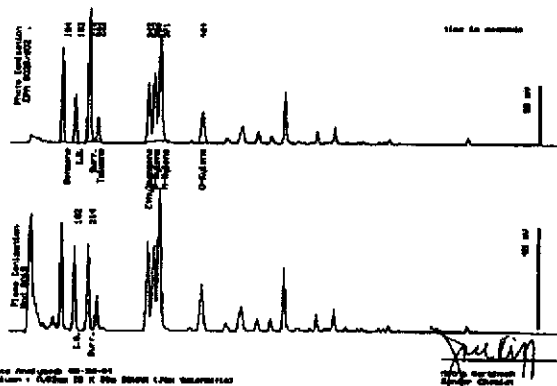
Sample Log 10232  
10232-3

Sample Log 10232  
10232-3

Sample: NW-2

From : Project # 94-720-01 (Beacon 720)  
Sampled : 09/14/94  
Dilution : 1:50  
Matrix : Water  
QC Batch : 21030

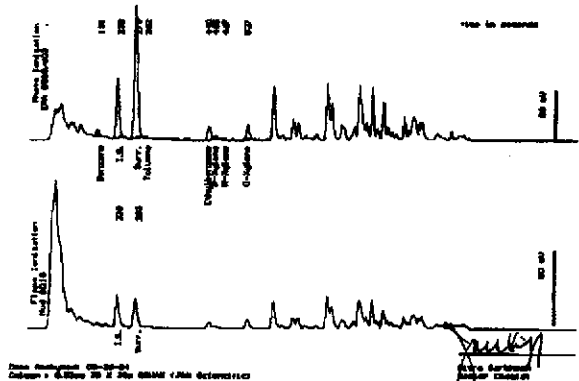
Parameter	(MRL) $\mu\text{g/L}$	Measured Value $\mu\text{g/L}$
Benzene	(25)	1600
Toluene	(25)	560
Ethylbenzene	(25)	1800
Total Xylenes	(25)	6400
TPH as Gasoline	(2500)	20000
Surrogate Recovery		102 %



Sample: NW-3

From : Project # 94-720-01 (Beacon 720)  
Sampled : 09/14/94  
Dilution : 1:5  
Matrix : Water  
QC Batch : 2104L

Parameter	(MRL) $\mu\text{g/L}$	Measured Value $\mu\text{g/L}$
Benzene	(1.3)	3.8
Toluene	(1.3)	<1.3
Ethylbenzene	(1.3)	13
Total Xylenes	(1.3)	18
TPH as Gasoline	(130)	1400
Surrogate Recovery		99 %

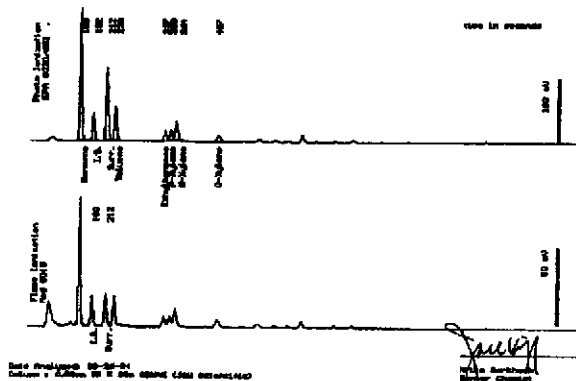


Sample: MW-4

From : Project # 94-720-01 (Beacon 720)  
 Sampled : 09/14/94  
 Dilution : 1:250  
 Matrix : Water

QC Batch : 41030

Parameter	(MRL) $\mu\text{g/L}$	Measured Value $\mu\text{g/L}$
Benzene	(130)	22000
Toluene	(130)	6800
Ethylbenzene	(130)	2700
Total Xylenes	(130)	10000
TPH as Gasoline	(15000)	73000
Surrogate Recovery		102 %

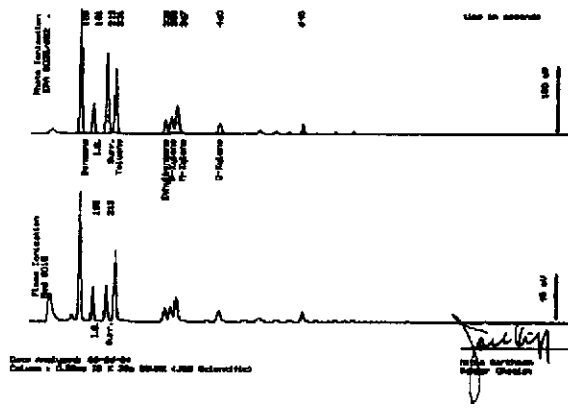


Sample: MW-5

From : Project # 94-720-01 (Beacon 720)  
 Sampled : 09/14/94  
 Dilution : 1:100  
 Matrix : Water

QC Batch : 4103L

Parameter	(MRL) $\mu\text{g/L}$	Measured Value $\mu\text{g/L}$
Benzene	(50)	8000
Toluene	(50)	3100
Ethylbenzene	(50)	1400
Total Xylenes	(50)	5600
TPH as Gasoline	(5000)	32000
Surrogate Recovery		102 %

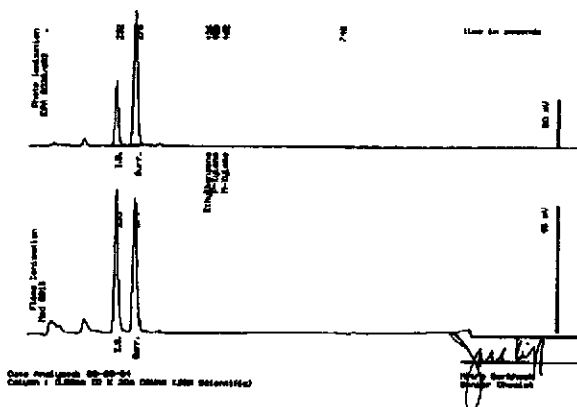


Sample: MW-6

From : Project # 94-720-01 (Beacon 720)  
 Sampled : 09/14/94  
 Dilution : 1:1  
 Matrix : Water

QC Batch : 2104K

Parameter	(MRL) $\mu\text{g/L}$	Measured Value $\mu\text{g/L}$
Benzene	(.50)	<.50
Toluene	(.50)	<.50
Ethylbenzene	(.50)	<.50
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		102 %

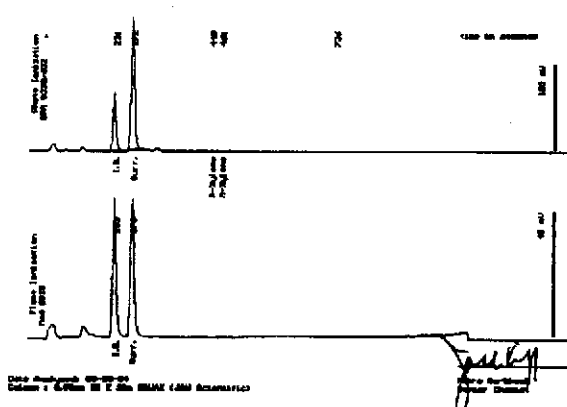


Sample: MW-7

From : Project # 94-720-01 (Beacon 720)  
 Sampled : 09/14/94  
 Dilution : 1:1  
 Matrix : Water

QC Batch : 2104K

Parameter	(MRL) $\mu\text{g/L}$	Measured Value $\mu\text{g/L}$
Benzene	(.50)	<.50
Toluene	(.50)	<.50
Ethylbenzene	(.50)	<.50
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		102 %







**DOULOS ENVIRONMENTAL COMPANY  
GROUNDWATER/LIQUID LEVEL DATA  
(measurements in feet)**

Project Address: Beacon 720, 1088 Marina Blvd Date: 9-14-94

San Leandro Project No.: 94-720-01

Recorded by: Hal Hansen

Well No	Time	Well Elev. TOC	Depth to Gr. Water	Measured Total Depth	Gr. Water Elevation	Depth to Product	Product Thickness	Comments
MW-1	1256		15.18	27.66				Petroleum odor no sheen
MW-2	1259		14.96	25.50				Petroleum odor no sheen
MW-3	1250		14.54	24.59				slight odor no sheen
MW-4	108		15.23	27.25				Petroleum odor no sheen
MW-5	104		15.07	28.70				Petroleum odor no sheen
MW-6	134		12.86	14.97				no odor no sheen
MW-7	117		13.88	25.13				no odor no sheen
MW-8	1253		16.22	29.87				Petroleum odor no sheen

Notes:

Client: Ultramar

Sampling Date: 9-14-94

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-1

San Leandro, CA 94577

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 1  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ 12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other 12" crusty  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposal bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Time: 456  
Recharge Measurement Time: 344  
 Depth of well: 27.66 Depth to water: 15.80 Calculated purge: 9 gal  
 Depth to water: 15.18 Actual purge: 8.1

Start purge: 336 Sampling time: 345

Time	Temp.	E.C.	pH	Turbidity	Volume
337	81.0	925	7.28	—	1
338	74.2	910	7.17	—	2
339	72.8	763	7.13	—	3
340	72.6	753	8.96	—	4

Sample appearance: clear Lock: dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: Hal Blansh

Client: Ultramar

Sampling Date: 9-14-94

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-2

San Leandro, CA 94577

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 2  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ 12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other 12" crusty  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposal bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 1259 Time: 1511 Calculated purge: 6.7 gal  
 Depth of well: 25.60 Depth to water: 15.17 Actual purge: 6.7 "  
 Depth to water: 14.96

Start purge: 351 Sampling time: 1400

Time	Temp.	E.C.	pH	Turbidity	Volume
352	74.0	912	6.47	_____	1
353	73.2	904	6.51	_____	2
354	73.0	910	6.60	_____	3
356	73.4	914	6.61	_____	4

Sample appearance: clear Lock: dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: Hal Hanser

Client: Ultramar

Sampling Date: 9-14-94

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-3

San Leandro, CA 94577

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 3  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ 12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other 12" crusty  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposal bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement Recharge Measurement  
 Time: 1250 Time: 254 Calculated purge: 6.4 gal  
 Depth of well: 14.59 Depth to water: 14.67 Actual purge: 6.4 "  
 Depth to water: 14.54

Start purge: 248 Sampling time: 255

Time	Temp.	E.C.	pH	Turbidity	Volume
258	77.4	892	8.92	_____	1
251	77.6	884	8.80	_____	2
251	77.9	881	8.81	_____	3
252	78.7	879	8.79	_____	4

Sample appearance: clear Lock: dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: Hal Hansen

Client: Ultramar

Sampling Date: 9-14-94

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-4

San Leandro, CA 94577

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 1/2  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ 12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other 12 CNI old  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposal bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement Recharge Measurement

Time: 108 Time: 424 Calculated purge: 7.7 gal  
 Depth of well: 27.25 Depth to water: 15.37 Actual purge: 7.7 "  
 Depth to water: 15.23

Start purge: 425 Sampling time: 425

Time	Temp.	E.C.	pH	Turbidity	Volume
426	78.6	1274	6.40	—	1
427	75.2	1273	6.37	—	2
428	76.2	1267	6.30	—	3
429	73.3	1227	6.28	—	4

Sample appearance: clear Lock: dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: Hal Hansen

Client: Ultramar

Sampling Date: 9-14-94

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-5

San Leandro, CA 94577

Is setup of traffic control devices required?  NO  YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO  YES Above TOC Below TOC  
 Is top of casing cut level?  NO  YES If no, see remarks  
 Is well cap sealed and locked?  NO  YES If no, see remarks  
 Height of well casing riser (in inches): 2  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ 12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other 12" crusty  
 General condition of wellhead assembly: Excellent  Good  Fair  Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposal bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 104 Time: 1552 Calculated purge: 8.7 gal  
 Depth of well: 28.70 Depth to water: 1552 Actual purge: 8.7  
 Depth to water: 1507

Start purge: 409 Sampling time: 87

Time	Temp.	E.C.	pH	Turbidity	Volume
410	75.4	1054	6.25	—	1
411	76.4	1121	6.44	—	2
411	73.6	1131	6.50	—	3
412	73.7	1096	6.50	—	4

Sample appearance: cloudy Lock: dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: Hal Hansen

Client: Ultramar

Sampling Date: 9-14-94

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-6

San Leandro, CA 94577

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 6  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK  12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other \_\_\_\_\_  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposal bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement Time: 134 Recharge Measurement Time: 224 Calculated purge: 1.4 gal  
 Depth of well: 14.97 Depth to water: 13.04 Actual purge: 1.4  
 Depth to water: 12.86

Start purge: 136 Sampling time: 225

Time	Temp.	E.C.	pH	Turbidity	Volume
138	76.4	763	7.57	—	1
140	76.1	753	8.24	—	2
143	73.4	761	8.54	—	3
147	73.5	768	8.65	—	4

Sample appearance: clear Lock: dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: Hal Hansen



Client: Ultramar

Sampling Date: 9-14-94

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-7

San Leandro, CA 94577

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 4  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK  12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other \_\_\_\_\_  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposal bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 117 Time: 124 Calculated purge: 7.2 gal  
 Depth of well: 25.13 Depth to water: 14.27 Actual purge: 7.2  
 Depth to water: 13.88

Start purge: 118 Sampling time: 125

Time	Temp.	E.C.	pH	Turbidity	Volume
119	76.0	998	7.20	—	1
120	75.6	941	7.18	—	2
120	73.9	965	7.16	—	3
121	74.2	999	7.14	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: Hal Hansen

Client: Ultramar

Sampling Date: 9-14-94

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-8

San Leandro, CA 94577

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 0  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ 12" DWP  12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other \_\_\_\_\_  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposal bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 1253 Time: 323 Calculated purge: 8.7 gal  
 Depth of well: 29.87 Depth to water: 16.41 Actual purge: 6.7 "  
 Depth to water: 16.22

Start purge: 312 Sampling time: 325

Time	Temp.	E.C.	pH	Turbidity	Volume
313	80.4	1063	8.00	—	1
314	77.5	1088	7.85	—	2
315	76.0	1064	7.75	—	3
316	74.6	1050	7.71	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: Hal Hansen