# **Ultramar**

P1/2007

Ultramar Inc.

P.O. Box 466 525 W. Third Street Hanford, CA 93232-0466 (209) 582-0241 Telecopy: 209-584-6113 Credit & Wholesale 209-583-3330 Administrative

209-583-3330 Administrative 209-583-3302 Information Services 209-583-3358 Accounting

August 3, 1994

Mr. Scott Seery
Department of Environmental Health
Alameda County Health Care Agency
80 Swan Way, Room 200
Oakland, CA 94621

SUBJECT:

BEACON STATION NO. 720. 1088 MARINA BLVD., SAN LEANDRO,

**CALIFORNIA** 

Dear Mr. Seery:

Enclosed is a copy of the ground-water monitoring report for the second quarter for the above-referenced Ultramar facility. Also included is a copy of the Quarterly Status Report which describes the work completed this quarter and the work anticipated to be completed next quarter.

Please call if you have any questions.

Sincerely,

ULTRAMAR INC.

Terrence A. Fox

Senior Project Manager

Tereme A. Zx

Marketing Environmental Department

**Enclosure** 

cc:

Local Program Coordinator, San Francisco Bay Region, RWQCB



# Ultramar

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#### **ENVIRONMENTAL PROJECT QUARTERLY STATUS REPORT**

DATE REPORT SUBMITTED: August 3, 1994

QUARTER ENDING: June 30, 1994

SERVICE STATION NO.: 720

ADDRESS: 1088 Marina Blvd., San Leandro, CA

COUNTY: Alameda

ULTRAMAR CONTACT: Terrence A. Fox

TEL. NO: 209-583-5545

#### **BACKGROUND:**

In January 1987, three underground gasoline storage tanks and one waste oil tank were excavated and removed from two tank Samples collected from beneath the former tanks cavities. indicated that hydrocarbons were present in the soil. In March 1987, five monitoring wells (MW-1 through MW-5) were installed by Conoco. Hydrocarbons were detected in soil and ground-water samples collected from the wells with the highest concentrations being detected in the area of MW-4. In July 1987, four soil were drilled in the vicinity of MW-4 to further characterize the soil contamination in that area. TPH concentrations above 100 ppm were detected in each boring. The site has been on a monitoring program since June 1987.

In July 1990, the site was purchased by Ultramar Inc. from Conoco. The monitoring program has continued.

August 1991, perform shallow ground water study as In screening tool to locate wells.

In October 1991, installed three additional wells to further define the extent of the dissolved hydrocarbon plume.

In October 1993, performed a ground-water pump test, a vapor extraction test, and a air sparging test.

#### **SUMMARY OF THIS QUARTER'S ACTIVITIES:**

Performed quarterly monitoring on June 15, 1994. On May 2, submitted Problem Assessment Report/Remedial Action 1994. Plan.





Beacon Station 720 Quarterly Status Report Page 2

## **RESULT OF QUARTERLY MONITORING:**

Monitoring data indicates that the benzene concentration remained not detected in MW-6 and MW-7, and remained 1,600 ppb in MW-2. The benzene concentration decreased in MW-1 from 320 ppb to 310 ppb, in MW-3 from 22 ppb to 8.6 ppb, in MW-5 from 8,200 ppb to 7,900 ppb, and in MW-8 from 1,600 ppb to 980 ppb. Benzene concentrations increased in MW-4 from 17,000 ppb to 20,000 ppb.

#### PROPOSED ACTIVITY OR WORK FOR NEXT QUARTER:

ACTIVITY

**ESTIMATED COMPLETION DATE** 

Continue quarterly monitoring program.

Install additional wells

September 30, 1994

**FUGRO WEST, INC.** 



1050 Melody Lane, Suite 160 Roseville, California 95678 Tel: (916) 782-2110 FAX: (916) 786-7830

July 13, 1994

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

Subject:

Second 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 June 15, 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 southwest (Figure 2) at a gradient of <0.01 ft/ft. Groundwater levels have decreased an average of 0.62 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, MW-3, MW-5, and MW-8; increased in well MW-4; 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

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94-720-2.QMR



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.

Sheila X. Xichgeles

Sheila R. Richgels Report Coordinator

Owen M. Kittredge Registered Geologi

CRG No. 5853

Date

SRR/OMK/srr

Attachments

94-720-2.QMR

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FIGURE 1 SITE LOCATION MAP

FIGURE 2 POTENTIOMETRIC SURFACE MAP
(JUNE 15, 1994)

FIGURE 3 DISTRIBUTION MAP OF BENZENE
IN GROUNDWATER (JUNE 15, 1994)

TABLES: TABLE 1 WATER LEVEL DATA

TABLE 2 ..... ANALYTICAL RESULTS: GROUNDWATER

**ATTACHMENTS:** ULTRAMAR FIELD PROCEDURES

HISTORICAL DATA

LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

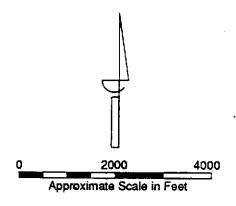
**DOULOS ENVIRONMENTAL FIELD DATA SHEETS** 





GENERAL NOTES:

BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC SAN LEANDRO, CA



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REVISED BY:
DATE
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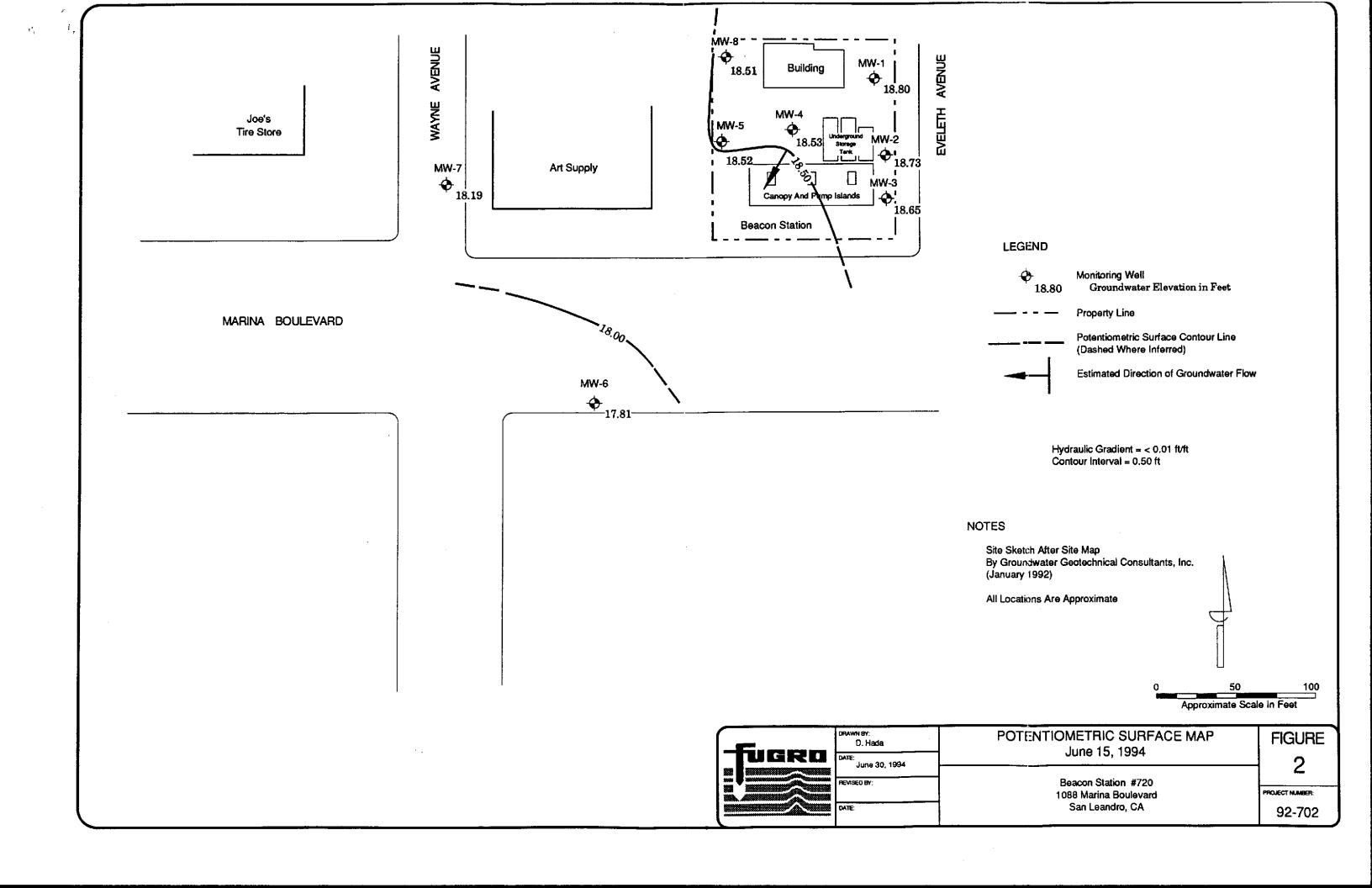
SITE LOCATION MAP

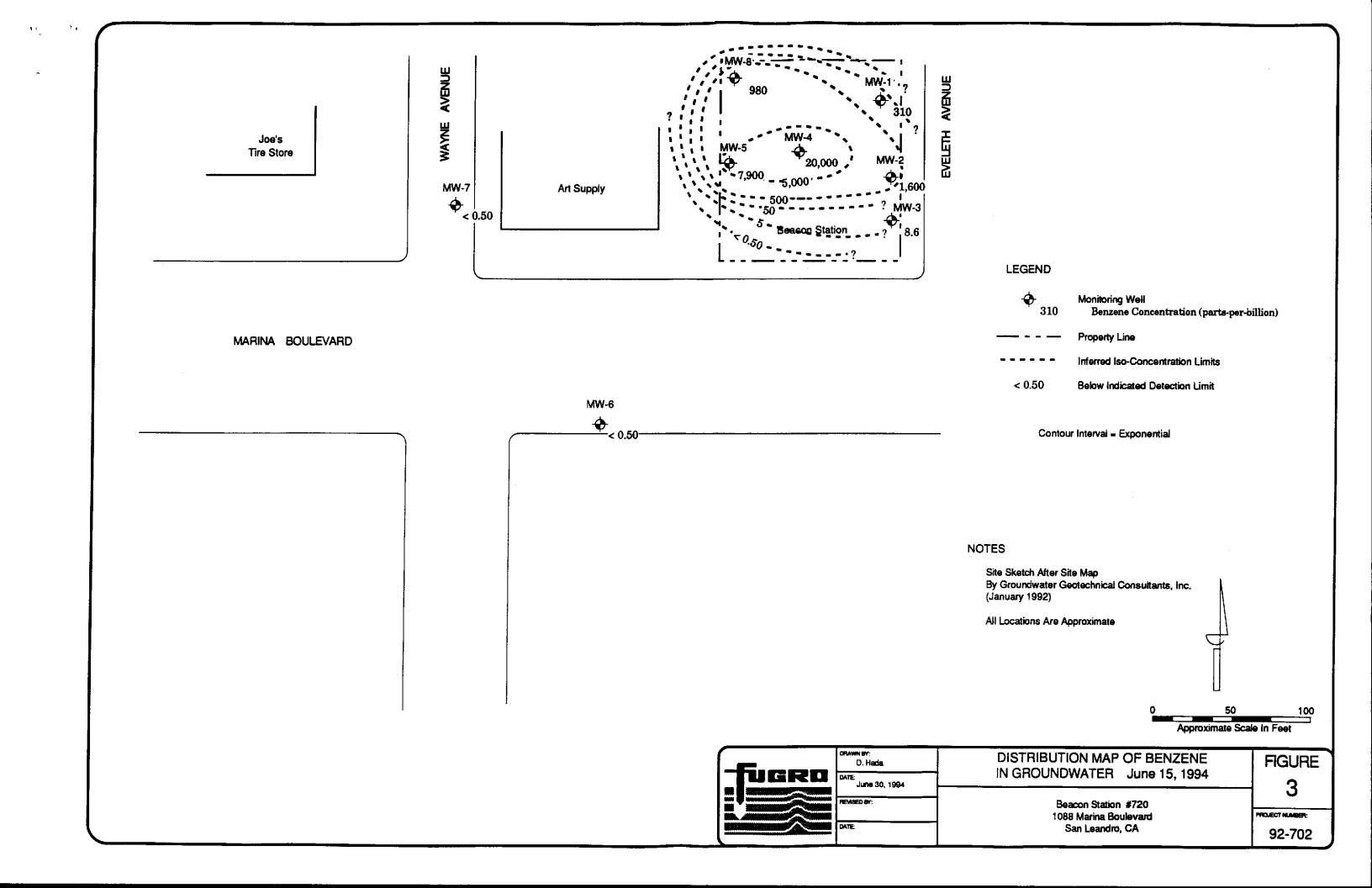
Beacon Station # 720 1088 Marina Boulevard San Leandro, CA **FIGURE** 

1

PROJECT NUMBER:

92-702





#### TABLE 1 WATER LEVEL DATA **BEACON STATION #720**

#### 1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA

(Measurements in feet)

Monitoring Date		Reference Elevation (top of casing) <sup>1</sup>	Depth to Groundwater <sup>t</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	•	
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		
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		
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		

 Measurement and reference elevation taken from notch/mark on top north side of well casing.
 Elevation referenced to mean sea level. NOTES:

Well Depth = Measurement from top of casing to bottom of well.

Not measured. ⇒ Weil paved over.

 Below indicated detection limit. = Reported as "nondetect" by previous consultant.

ND = Not sampled. NS

#### 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>t</sup>	Groundwater Elevation <sup>2</sup>	Well Depth	Comments
MW-5	7-5 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	
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		
ļ	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	<u> </u>
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		
i '	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	<del></del>	13.01	18.19	25.21	
MW-8	03/30/92	33.80	14.66	19.14		
	07/01/92		15.74	18.06		
<b> </b>	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	
<b>!</b>	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	

 Measurement and reference elevation taken from notch/mark on top north side of well casing.
 Elevation referenced to mean sea level. NOTES:

Well Depth = Measurement from top of casing to bottom of well.

 Not measured. = Well paved over.

= Below indicated detection limit.

NO = 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	Ethyl- benzene	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
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
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	<i>7</i> 8	41
	06/15/94	1,700	8.6	1.4	22	15
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

= NOTES: ≺ ND Below indicated detection limit.

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	Ethyl- benzene	Total Xylenes	
MW-5	MW-5 03/30/92		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	
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	
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	
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	

NOTES:

Below indicated detection limit.

Reported as "nondetect" by previous consultant.

ND 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)
Groundwater Monitoring Well MW-1:	Elevation	of Top of Casing = 29.89 feet
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	16.40	13.49
September 15, 1990	16.83	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
Groundwater Monitoring Well MW-1:	New Elevation	of Top of Casing = 33.10 feet
December 24, 1991	17.20	15.90
March 30, 1992	13.58	19.52
Groundwater Monitoring Well MW-2:	Elevation	of Top of Casing = 29.57 feet
June 23, 1987	14.51	15.06

TABLE 1
GROUNDWATER ELEVATIONS
Page 2 of 5

Date Sampled	Depth to Groundwater (Feet)	Groundwater Elevation (Feet)
July 06, 1987	14.63	14.94
August 06, 1987	14.95	14.62
November 04, 1987	15.45	14.12
February 02, 1988	13.74	15.83
May 02, 1988	14.63	14.94
November 21, 1988	12.99	16.58
February 14, 1989	15.66	13.91
May 02, 1989	14.56	15.01
August 10, 1989	16.22	13.35
November 08, 1989	16.19	13.38
February 20, 1990	15.34	14.23
May 18, 1990	16.20	13.37
September 15, 1990	16.42	13.05
November 26, 1990	16.83	12.74
February 07, 1991	16.13	13.44
May 14, 1991	14.62	14.95
August 16, 1991	16.00	13.57
Groundwater Monitoring Well MW-2:	New Elevation of	Top of Casing = 32.80 feet
December 24, 1991	16.90	15.90
March 30, 1992	13.32	19.48
Groundwater Monitoring Well MW-3:	Elevation of	Top of Casing = 29.13 feet
June 23, 1987	14.13	15.00
July 06, 1987	14.24	14.89
August 06, 1987	14.52	14.61
November 04, 19887	15.09	14.04
February 02, 1988	13.37	15.76

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		
Groundwater Monitoring Well MW-3:	New Elevation of Top of Casing = 32.30 feet			
December 24, 1991	16.40	15.90		
March 30, 1992	12.96	19.34		
Groundwater Monitoring Well MW-4:	Elevation of Top of Casing = 29.72 fe			
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, 1088	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

Date Sampled	Depth to Groundwater (Feet)	Groundwater Elevation (Feet)		
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		
Groundwater Monitoring Well MW-4:	New Elevation of Top of Casing = 32.90 fee			
December 24, 1991	17.10	15.80		
March 30, 1992	13.60	19.30		
Groundwater Monitoring Well MW-5:	Elevation of Top of Casing = 29.55 feet			
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		

## **GROUNDWATER ELEVATIONS** Page 5 of 5

Date Sampled	Depth to Groundwater (Feet)	Groundwater Elevation (Feet)
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
Groundwater Monitoring Well MW-5:	New Elevation of	Top of Casing = 32.70 feet
December 24, 1991	16.92	15.78
March 30, 1992	13.48	19.22
Groundwater Monitoring Well MW-6:	Elevation o	Top of Casing = 30.40 feet
December 24, 1991	14.12	16.28
March 30, 1992	12.62	17.78
Groundwater Monitoring Well MW-7:	Elevation o	Top of Casing = 31.20 feet
December 24, 1991	15.70	15.50
March 30, 1992	12.34	18.86
Groundwater Monitoring Well MW-8:	Elevation o	f Top of Casing = 33.80 feet
December 24, 1991	18.00	15.80
March 30, 1992	14.66	19.14
Notes: 1) All elevations surveyed to an a 2) Elevations and depths are given in fee 3) Groundwater Technology, Inc., made 4) Du Pont Environmental Services colle 5) Environmental Geotechnical Consultation	et measurements until February 198 cted samples from February 1989	through February 1991

- 4) 5)

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Page 1 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-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
<u> </u>	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		1	+-	••		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)	Ethyl- benzene (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	DN	58	2,400	Odor
	Feb. 20, 1990	1,200	810	77	460	3,700	
	May 18, 1990	980	ND	330	250	2,300	
<del>.</del>	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	7,200	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)	Ethyl- benzene (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	du.
	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
<u>.</u>	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
<del></del>	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)	Ethyl- benzene (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)



June 22, 1994 Sample Log 9651

Sheila Richgels Fugro West, Inc.- Roseville 1050 Melody Lane, Suite 160 Roseville, CA 95678 Pegetve L jun 2 8 1994

Subject: Analytical Results for 8 Water Samples

Identified as: Project # 94-720-01 (Beacon 720)

Received: 06/17/94

Dear Ms. Richgels:

Analysis of the sample(s) referenced above has been completed. This report is written to confirm results communicated on June 22, 1994 and describes procedures used to analyze the samples.

Sample(s) were received in 40-milliliter glass vials sealed with TFE 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.

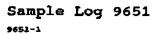
Sample(s) were analyzed using the following method(s):

"BTEX" (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:

Senior Chemist



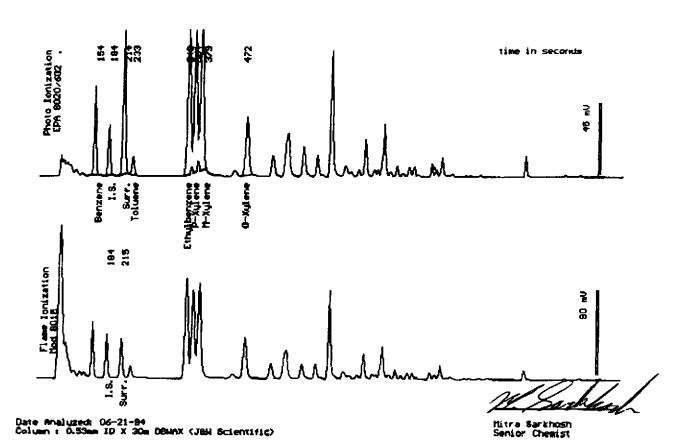


From : Project # 94-720-01 (Beacon 720)

Sampled: 06/15/94

Dilution: 1:10 QC Batch: 4091c

Parameter	(MRL) wg/L	Measured Value ug/L
Benzene	(5.0)	310
Toluene	(5.0)	80
Ethylbenzene	(5.0)	990
Total Xylenes	(5.0)	2300
TPH as Gasoline	(500)	8000
Surrogate Recovery	•	99 %





Sample Log 9651

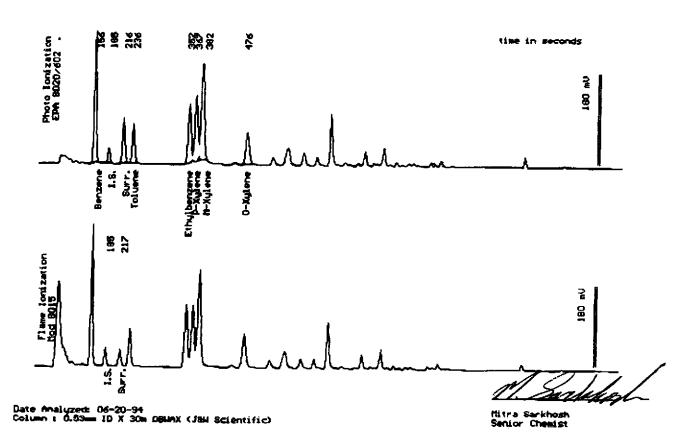
Sample: MW-2

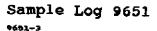
From : Project # 94-720-01 (Beacon 720)

Sampled: 06/15/94

Dilution: 1:10 QC Batch: 4090G

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene Toluene Ethylbenzene Total Xylenes TPH as Gasoline	(5.0) (5.0) (5.0) (5.0) (500)	1600 580 1200 4100 13000
Surrogate Recovery	•	99 %





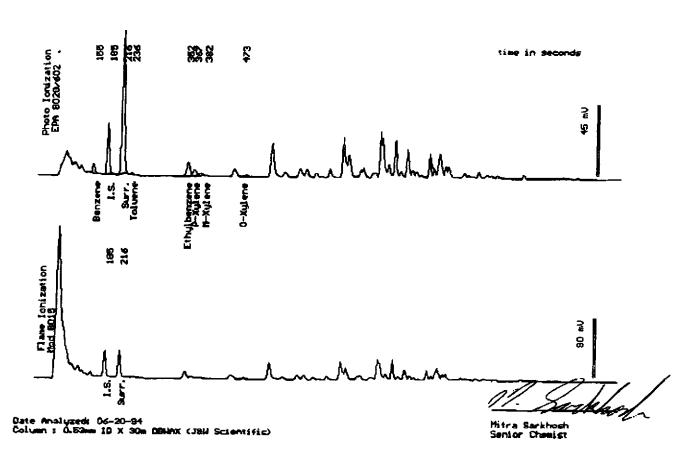


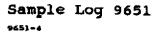
From : Project # 94-720-01 (Beacon 720)

Sampled: 06/15/94

Dilution: 1:3 QC Batch: 4090G

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene Toluene Ethylbenzene Total Xylenes TPH as Gasoline	(1.3) (1.3) (1.3) (1.3) (130)	8.6 1.4 22 15 1700
Surrogate Recovery	,	98 %





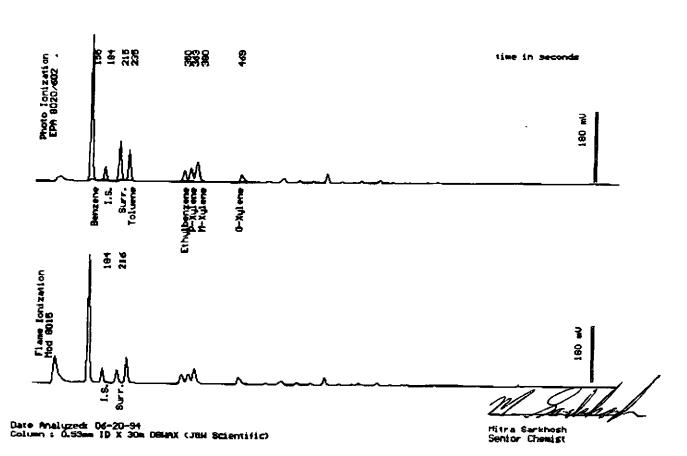


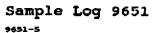
From : Project # 94-720-01 (Beacon 720)

Sampled: 06/15/94

Dilution: 1:100 QC Batch: 4090G

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(50)	20000
Toluene	(50)	4900
Ethylbenzene	(50)	2500
Total Xylenes	(50)	9100
TPH as Gasoline	(5000)	59000
Surrogate Recovery	,	99 %





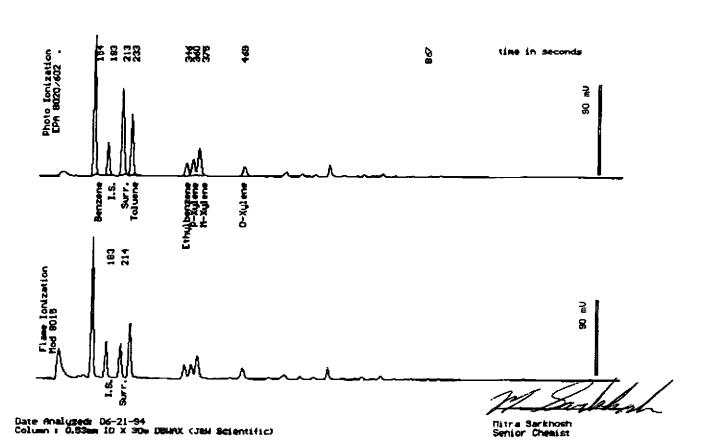


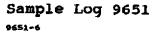
From : Project # 94-720-01 (Beacon 720)

Sampled: 06/15/94

Dilution: 1:100 QC Batch: 4091c

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(50)	7900
Toluene	(50)	4000
Ethylbenzene	(50)	1200
Total Xylenes	(50)	5200
TPH as Gasoline	(5000)	28000
Surrogate Recovery	•	94 %





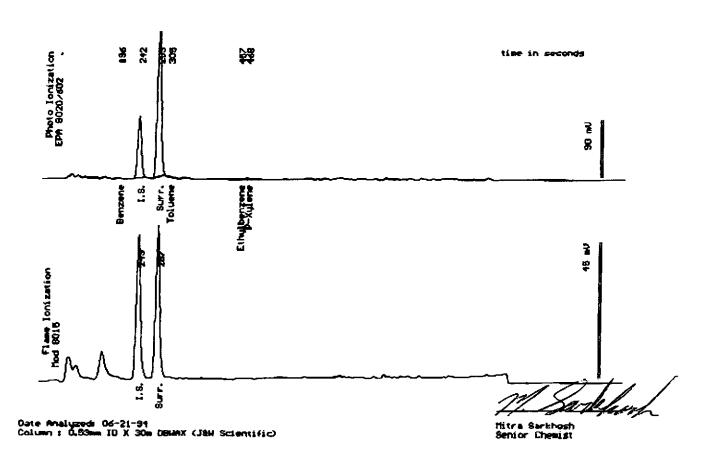


From : Project # 94-720-01 (Beacon 720)

Sampled : 06/15/94

Dilution: 1:1 QC Batch: 2087B

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.50)	<.50
Toluene	(.50)	<.50
Ethylbenzene	(.50)	<.50
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery	7	94 %





Sample Log 9651 9451-7

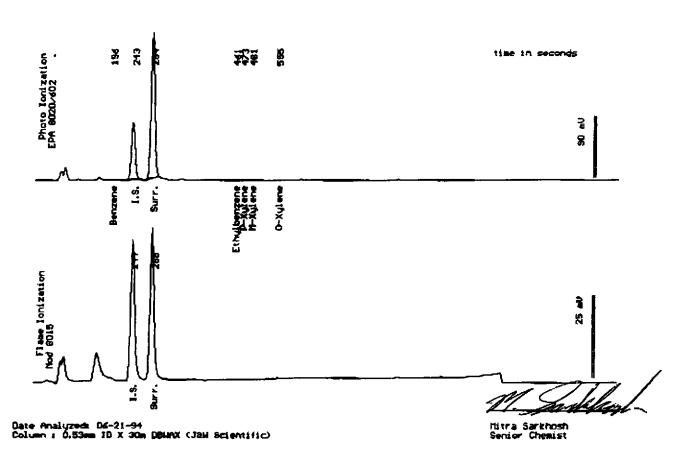
Sample: MW-7

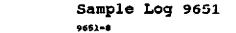
From : Project # 94-720-01 (Beacon 720)

Sampled: 06/15/94 Dilution: 1:1

Dilution: 1:1 QC Batch: 2087B

Parameter	(MRL) ug/L	Measured Value wg/L
Benzene	(.50)	<.50
Toluene	(.50)	<.50
<b>Ethylbenzene</b>	(.50)	<.50
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery	1	93 %





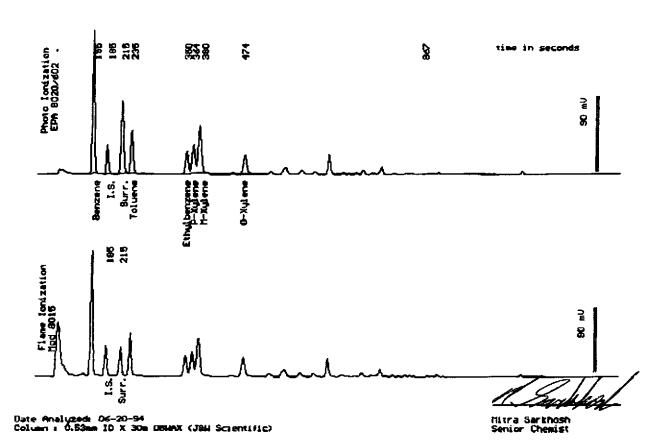


From : Project # 94-720-01 (Beacon 720)

Sampled: 06/15/94

Dilution: 1:10 QC Batch: 4090G

Parameter	(MRL) ug/L	Measured Value wg/L
Benzene	(5.0)	980
Toluene	(5.0)	380
Ethylbenzene	(5.0)	260
Total Xylenes	(5.0)	1200
TPH as Gasoline	(500)	4800
Surrogate Recovery	,	98 %





# **Ultramar Inc.**CHAIN OF CUSTODY REPORT

Beacon Station No.	on No. Sampler (Print Name)				l Da				Y Form No.	
790	Hal	Honsen		-	ANAL)	<u>'SES</u> T   T	<del>                                     </del>	2-11-7	Y   I ol	
Project No.	Sampler (Signa	ture)		1		1				
94 - 720 - 01 Project Location 1088 MAKINA BI	Mud	1 Jan	,a				Containers		<i>,</i>	
Project Location 1089 MACINA BE	Affiliation			Q Q	(e)		igi.	51	ay to	4
San Leandro CA.	Day	los En	15.	_× 86	(die		2		)	16
Sample No /Identification	Date	Time	Lab No.	BTEX TPH (gasoline)			혼	REI	MARKS	
+MW-1	6-15-94	2:10		XX			3			
MW-2		2:20								
-mw-3		1:37								
MW-4		2:50								
-MW-5		2:42								
MW-6		1:15								
-MW-7		12:50								
MW-8	/	1.50								
Relinquished by: (Signature/Affiliation)	Date	Time Recei	ved by/(\$ignate	rry/Alfil	ialiber	Z		5	Date	Time
Idal Manus Gardol &		1050	att tra	6/		Litt	7		Gork	11950
Relinquished by: (Signature/Affiliation)	Dafe	Time Recei	ved by (Signati	iye/Vill	iation)	<i></i>			Date	Time
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Relinquished by: (Signature/Affiliation)	Date	Time Sece	ived by: (Signati	re/Affil	liation)				Date	Time
		<del></del> 13,	Com	+ (	$O_{\mathcal{C}}$	$\bigcirc$			4/7/4	1203
Report To:	0	Bill to				_	_		<del></del>	······································
1 Fox she	ila.		525 West			7	_		****	
Report To: For She Report  WHITE: Return to Client Will Report	Call	182-	Hanford, C Attention:	M 332	<u> </u>	<u>   e</u>	~	ry	10	$\mathcal{C}$
WHITE: Return to Client with Report	YELLOW: Lab	oratory Copy	PINK: Orig	inator (	Copy			<del></del>	78-4	1003 1790

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

Project Address:

Beacon 720, 1088 Marin, Blod Date: 6-15-94

San Jeanho Cu Project No.: 94-720-01

Walgduren

Recorded by:

Well No	Time	Well Elev. TOC		Measured Total Depth	Gr. Water Elevation		Product Thickness	Comments
MW-1	202		14.30	27.69		NA		Dehobrader nocher
MW.2	7/ <u>1</u>		14.07	25.50				Pehobrader no sher
MW-3	127		1365	24.78			İ	noaken
H-WM	247		1437	18.54				rehaberado or shoe
MW-5	230		14.88	18.74				sahobrade no ohen
w M. 6	104		12.59	15.17				no odor no sker
mw-7	Ĭ		13.01	25,21			:	no odor no sheen
MW. 9	1		15.29	30.07		/		setalementer mostell
							·	
.1								
	<u> </u>							

Notes:

client: <u>21thana</u> Site: <u>Alaca 720</u>				\$	Sampling Date: 6-18-9U				
•	Site:_	Deaco 7	20		Project No.: 14-720-0)				
					ll Designation:	MW-1			
<u> </u>		1088 m	nha la		<u>-</u>				
Is the Is top Is wel Height Well c 12" BK	re stan of cas l cap s of wel over ty	raffic conding water ing cut leealed and casing ree: 8" UV 12" DWP tion of we	in well b vel? locked? iser (in i 12" CN	nches): " UV3	NO YES A	time:holdove TOC Below If no, see rem If no, see rem 8" BKher/l	v TOC larks larks		
			4" PVC b	aller	Z Ce	bmersible pump dicated bailer ntrifugal pump	•		
s				· · ·	Teflon baile				
	Well	Diameter:	2"	4"	6 <sup>H</sup> 8 <sup>II</sup>	<del></del>			
Initia Time:_ Depth	l Measu ユロム of well	ltiplier: rement :17,69 r:_/4,10	0.16 Rec Time: 1 Depth to	0.65 harge Mea	1.47 2 surement Calcula 以6月 Act	.61 gal/ft. ted purge: هـه ual purge: هـه	gul,		
Start	purge:_	104	Sam	pling time	e: <u>210</u>				
	Time	Temp.	E.C.	рн	Turbidity	Volume			
	205	75.1	941	7.41					
	206	741	341	7.10		2			
	206	73.7	888	8.84		3			
	207	73,2	697	6.75		1			
<u></u> 5	ample a	ppearance:	Clour	d2	Lock: dol	ahen			
2" L 4" L	ocking : ocking :	laced: (Ch Cap: Cap:	Loc	nat apply) k #3753:_ Dolphin:_	7/32	on of replaced Allenhead: 9/16 Bolt: head (DWP):			
Rema	rks: _								
Signat	ure:	Isal To	man						

C	lient:_	gettran	N.	s	_ Sampling Date: 6-15-94				
	Site:_	Beam?	22		Project No.:	14-720-01			
			_	vd We	ll Designation:	MW-2			
		1088 m	Ma Ca		•				
Is the Is top Is well the Height Well con 12" BK	up of the stand of cas lose wellower ty	raffic conding water ing cut leveled and casing representations.	trol devic in well b vel? locked? iser (in i 12 12" CN	es requir ox? nches): " UV3	NO YES AND YES AND YES NO YES TO THE MICO	bove TOC Below TOC If no, see remarks If no, see remarks  8" BK her 12" A A A Fair Poor			
-	g Equip	ment:with: Disp	2" dispo 2" PVC b 4" PVC b	aller	lerSul Dec Cer Teflon bailer	omersible pump dicated bailer ntrifugal pump			
		Diameter:	_	4"	6" 8"				
Initia Time: 2 Depth Depth	l Measu L/L of well to water	2021	Rec Time: \(\frac{1}{\ell}\) / \(\ell\) Depth to	harge Mea	Calculat 514 Actu	ed purge: 7 sel			
	Time	Temp.	E.C.	pH pH	Turbidity	Volume			
			<b>B.C.</b>	pn	ratificately	Volume			
4	215	73.0				1 2			
	0-16	71.V 72.9				1 3			
	217	73.2	829	6,62		V			
s	ample ap	ppearance:	clear		Lock:	olphin			
2" L 4" L	ocking (	laced: (Ch Cap: Cap:	Loc	at apply) ( #3753:_ Dolphin:_	7/32	of replaced item Allenhead: 9/16 Bolt:			
Rema	rks:	. <u></u>							
Signat	ure:	Mul	News		· · · · · · · · · · · · · · · · · · ·				

c	lient:_	Ultrans	٠	s	Sampling Date: 6-15-94					
	Site:_	Blacan 73	LO	<del></del>	Project	No.: 9	4-720-	01		
		1088ma	ring bly	<u>√l</u> We	ll Designat	tion:_/	4W-3			
		gan San	ning Bly							
Is the Is top Is well the Well continuous and Is well continuous and Is well continuous and Is well an	re stand of cas log cap so of well over ty	ding water ing cut le ealed and l casing r	locked? iser (in i	ox? nches):	ed? NO YI NO YI NO W 12" EMO 6" CNI_ xcellent	0	8" BK	hours Below TOG e remarks e remarks		
-	g Equip	-	4" PVC b	aller	ler	∠_Cent	rifugal	pump iler pump		
S					Teflon h			<u></u>		
	Well !	Diameter:	2"	4"	6"	8"				
Time:_ Depth Depth	of well to water		Time: 13: Depth to		3.94 Cal	<del></del>	d purge: 1 purge:	7,1 gal 2.13,1		
Start	purge:_	130	Sam	pling tim	e: <u>13 7</u>			_		
	Time	Temp.	<del> </del>	pН	Turbiđi	lty	Volume			
	131	23.7	1575	845		>	1			
	132	762	604	8.20			2			
	132	71.0	619	8.11		·	3			
	133	70.1	620	800		<b>'</b>	4			
							<i>i</i>			
S	ample ap	opearance:	chan	•	Lock:	dolor	hin			
2" L 4" L 6" L	ocking ( ocking ( ocking (	Cap:	neck all th Lock- Lock-	k #3753:		7/32 A 9	llenhead	l:		
Rema	rks:						<del></del>			
Signat	ure:	92al98	lanon							

Signature: You 9 Jana

Client: Withanon				Sa	ampling Date: 6	-15-9 LJ	
4	Site: Beau 720				Project No.:_	94-720-01	
		ose mo	erin Al				
		ban Fl	andr	Can	ll Designation:_		
Is the Is top Is well Height Well c	re stand of casi l cap se of well over typ	ling water ing cut level aled and incasing ribe: 8" UV	locked? iser (in i: 12 12" CN	ox? nches): " UV	NO YES AN NO YES I NO YES I	ime: he	w TOC marks marks
			2" dispos 2" PVC bo 4" PVC bo	ailer ailer	Ded	omersible pum dicated baile etrifugal pum	r
				: <b>:</b>	6" 8"_		
Initia Time:_ Depth Depth	l Measur 230 of well: to water	28.7U	Rec Time: 1 Depth to	harge Meas µ0 water: /	1.47 2.  Surement Calculat Actu	ed purge: //l	15d
Start	Time		Γ	1		77-7	
		Temp.	E.C.	рН	Turbidity	Volume	
	233	72.1	1042	6.42		1	
	234	74.7	812	6.9/		2	
	7-72	74.5	970	6.73		3	
	235	7413	976	6.67		4	
	ample ap	pearance:	clem	<u></u>	Lock: _doc	phia	وندخندادند
2" L 4" L	ocking (	laced: (Ch Cap: Cap: Cap:	_ Loc	nat apply) k #3753: Dolphin:		Allenhead: 9/16 Bolt:	
Rema	rks: _						
Signat	ure: _	gstalo	Maron				

Signature:

Signature: 12/1/aray

Client: Ultranan				Sa	ampling Date	6-15-	74	
•	Site:_	Alaca 72	7		Project 1	10.: 14-	720-01	
		1080 ma	ina sw	<u>&amp;</u>	ll Designati		- f	
		lost ma	who Co	<u> </u>				
Is the Is top Is well	ere stand of cas: l cap se	raffic conding water ing cut leveled and leveled and leveled are leveled by the l	in well be vel? locked?	ox?	NO YES NO YES NO YES	Above If no If no	:ho TOC Below o, see remo, see remo, see remo	w TOC narks narks
				_	ler	•		) : )
· s	ampled v	with: Disp	posal baile	er: <u>\</u>	Teflon ba	iler:		
	Well I	Diameter:	2"	4"	6"	8"		
Initia Time:_ Depth Depth	1 Measur 14) of well: to water		Recl Time: // Depth to	narge Meas	1.47 surement Calc		- '	al
	Time	Temp.	E.C.	Нд	Turbidit	y Vo	olume	
	145	12,11	1012	7.41		,	1	
	146	73.1	921	7.02			2	
	146	73.7	807	8-84		-	3	
	147	73.8	804	6.72			LJ .	
						<u>.                                    </u>		
s	ample ap	pearance:	clear		Lock:	olphn	-	<u>.</u>
2" L 4" L	ocking ( ocking (	Laced: (Ch Cap: Cap:	Locl	at apply)		/32 Alle 9/10	replaced enhead: Bolt: (DWP):	·
Rema	rks: _		<u></u>	<del> </del>				<del></del>
Signat	ure:	Wal N	ander					