Ultramar

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

August 6, 1992

Mr. Hugh Murphy
Hazardous Material Inspector
Hayward Fire Department
22300 Foothill Boulevard
Hayward, California 94541

SUBJECT: FORMER BEACON STATION NO. 546, 29705 MISSION BOULEVARD, HAYWARD, CALIFORNIA

Dear Mr. Murphy:

Enclosed is a copy of the quarterly ground-water monitoring report for the second quarter 1992 for the above-referenced Ultramar facility. Also included is a copy of the Quarter Status Report which describes the work completed this quarter and the work anticipated to be completed next quarter.

Please call if you have any question regarding this project.

Sincerely,

ULTRAMAR INC.

Terrence A. Fox

Terrence A. Fox
Senior Project Manager
Marketing Environmental Department

Enclosures

cc/encls: Mr. Vijay B. Patel, San Francisco Region, RWQCB

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ENVIRONMENTAL PROJECT QUARTERLY STATUS REPORT

DATE REPORT SUBMITTED: August 6, 1992
QUARTER ENDING: June 30, 1992

SERVICE STATION NO.: 546
ADDRESS: 29705 Mission Boulevard, Hayward, CA
COUNTY: Alameda

ULTRAMAR CONTACT: Terrence A. Fox **TEL. NO:** 209-583-5545

BACKGROUND:

In March 1987, five borings were drilled around the underground storage tanks. Hydrocarbons were detected in the soil and ground water beneath the site. In April 1988, three underground fuel storage tanks and one waste oil tank were removed. Hydrocarbons were detected beneath the fuel storage tanks. In June and July 1988, three monitoring wells (MW-1 through MW-3) were installed. Results indicated that petroleum hydrocarbons were present in the ground water beneath the site. In June 1989 and February 1990, a total of five additional wells (MW-4 through MW-8) were installed. Varying concentrations have been detected in all the wells through time.

SUMMARY OF THIS QUARTER'S ACTIVITIES:

Performed quarterly monitoring on July 7, 1992.

RESULT OF QUARTERLY MONITORING:

Monitoring data indicates that benzene concentrations decreased in every well and was only detected in MW-8. The benzene concentration decreased in MW-1 from 710 ppb to not detected, in MW-2 from 21 ppb to not detected, in MW-3 from 1.8 ppb to not detected, in MW-7 from 21 ppb to not detected, and in MW-8 from 1,900 ppb to 560 ppb.

PROPOSED ACTIVITY OR WORK FOR NEXT QUARTER:

ACTIVITY	ESTIMATED COMPLETION DATE
Continue quarterly ground-water sampling	

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SUBJECT: FORMER BEACON STATION NO. 546, 29705 MISSION BOULEVARD, HAYWARD, CALIFORNIA

Dear Mr. Murphy:

This report presents the results of quarterly ground-water monitoring at the above-referenced Ultramar facility. The site location is shown in Figure 1. The monitoring program included depth-to-water measurements, subjective evaluation for the presence of hydrocarbons, and ground-water sampling in five (5) groundwater monitoring wells (MW-1 through MW-3 and MW-7 and MW-8) associated with the site (Figure 2). Wells MW-4 through MW-6, located on the Holiday Bowl property, were not sampled because Ultramar Inc. (Ultramar) was not granted access to the adjacent property. After purging each of the wells, samples were collected and analyzed for total petroleum hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethylbenzene, and xylenes (BTEX). These activities were performed on July 7, 1992, following the attached field protocols (Appendix).

RESULTS

Current ground-water elevation data are presented in Table 1 and historic data are included in the Appendix. Current ground-water elevation data indicates that the ground-water surface has fallen an average of 1.21 feet since the last quarterly event. Ground-water flow direction and gradient were evaluated from the ground-water elevation data. The inferred ground-water flow direction is toward the southwest with a gradient of approximately 0.005 (Figure 2) which are consistent with the previous flow direction and gradient.

Subjective analyses of water in the wells indicated that no wells exhibited signs of free floating hydrocarbons. Field notes from this latest monitoring event are included in the appendix to this report.

Current analytical results are presented in Table 2 and indicate that dissolved hydrocarbon concentrations decreased in every well sampled. Cumulative analytical results are presented in the Appendix. Copies of the Chain-of-Custody and laboratory reports from this latest monitoring are also presented in the appendix to this report.

These current data indicates that the dissolved benzene concentrations have decreased in MW-1 from 710 ppb to not detected, in MW-2 from 21 ppb to not detected, in MW-3 from 1.8 ppb to not detected, in MW-7 from 21 ppb to not detected, and in MW-8 from 1,900 ppb to 560 ppb.

Additional copies of this report have been prepared and sent to the following agencies:

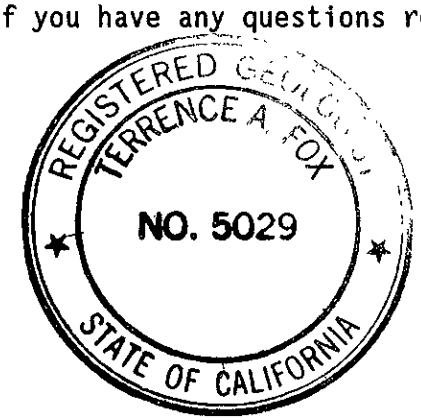
Mr. Scott Hugenberger
San Francisco Bay Region, RWQCB
2101 Webster Street, Suite 500
Oakland, California 94612

Please do not hesitate to call if you have any questions regarding this report at (209) 583-5545.

Sincerely,

ULTRAMAR INC.

Terrence A. Fox, R.G. #5029
Senior Project Manager
Marketing Environmental Department



Attachments:
- TABLE 1: Ground-Water Elevation Data
- TABLE 2: Analytical Results of Ground-Water Samples
- FIGURE 1: Site Vicinity Map
- FIGURE 2: Ground-Water Elevation Contour Map
- FIGURE 3: Benzene Concentration Map

Appendix:
- Field Procedure
- Field Notes
- Table of Cumulative Ground-Water Elevations
- Table of Cumulative Ground-Water Analytical Results
- Chain-of-Custody Documents
- Laboratory Analysis Reports

TABLE 1
GROUND-WATER ELEVATION DATA

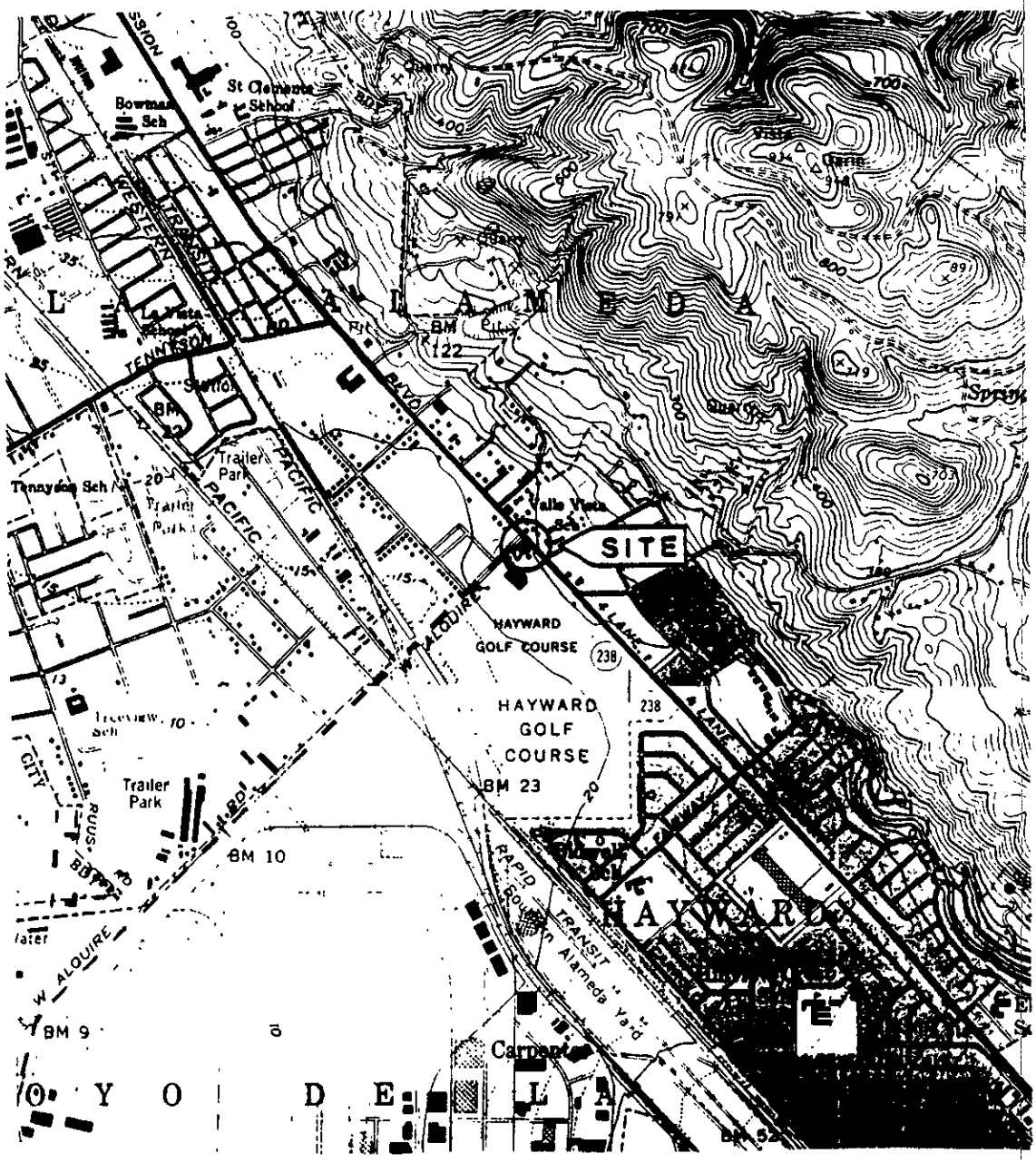
Well No.	Relative Casing Elevation	DTW	CWE	CHANGE FROM LAST QUARTER
APRIL 15, 1992				
MW-1	37.46	22.10	15.36	+ 1.67
MW-2	35.95	20.88	15.07	+ 1.53
MW-3	40.28	24.59	15.69	+ 1.70
MW-4	34.94	NA	---	---
MW-5	36.37	NA	---	---
MW-6	37.43	NA	---	---
MW-7	30.50	16.00	14.50	+ 1.60
MW-8	28.48	14.30	14.18	+ 1.57
JULY 7, 1992				
MW-1	37.46	23.40	14.06	- 1.30
MW-2	35.95	21.95	14.00	- 1.07
MW-3	40.28	25.90	14.38	- 1.31
MW-4	34.94	NA	---	---
MW-5	36.37	NA	---	---
MW-6	37.43	NA	---	---
MW-7	30.50	17.10	13.40	- 1.10
MW-8	28.48	15.60	12.88	- 1.30

Elevation of top of casing measured in feet relative to arbitrary datum (100 ft); Depth-to-water measured in feet below top of casting
DTW = Depth-to-water
CWE = Calculated water elevations
NM = Not Accessible

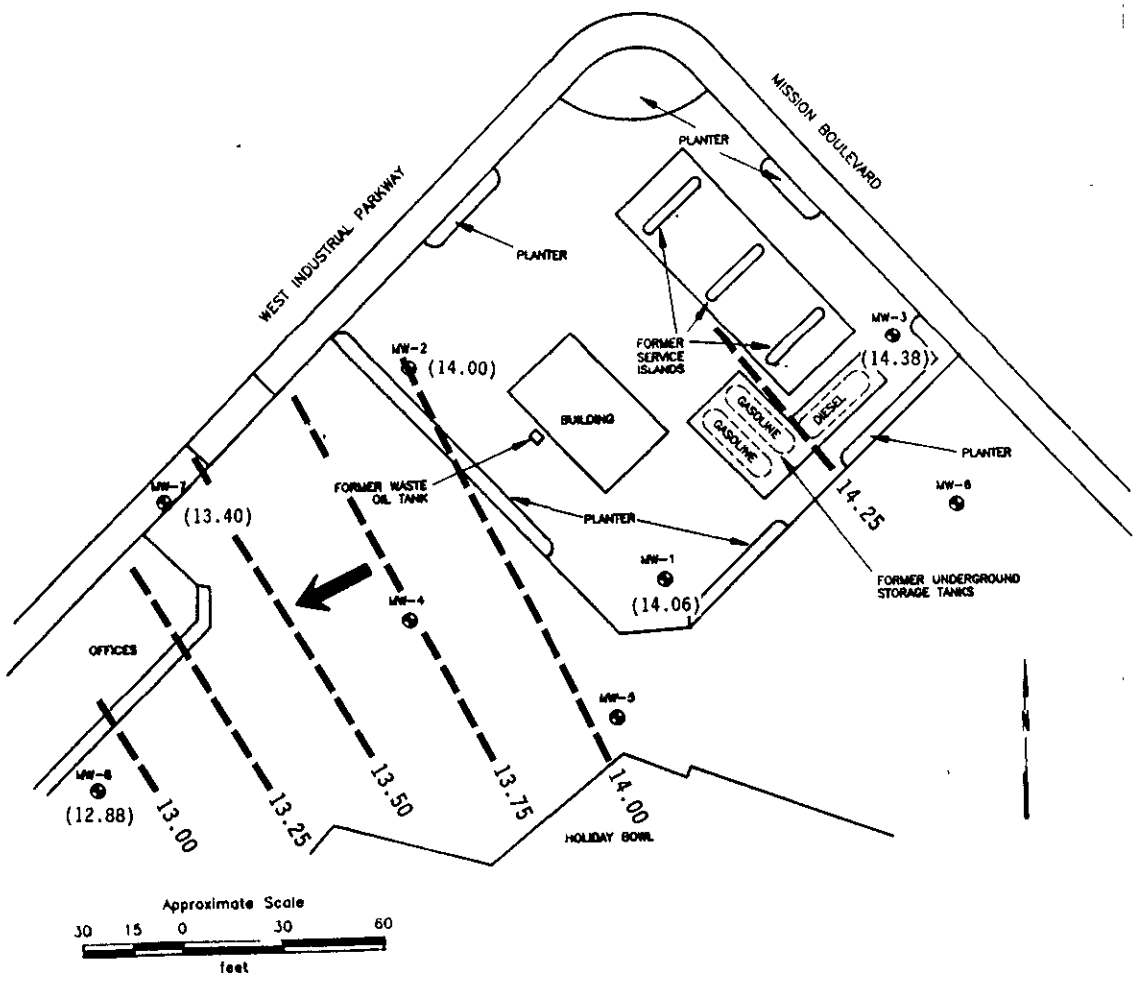
TABLE 2
ANALYTICAL RESULTS ON GROUND WATER SAMPLES

Well No.	Date	B	T	E	X	TPH-g
WELL MW-1						
	4/15/92	710	11	150	440	8900
	7/7/92	<0.5	<0.5	<0.5	<0.5	<50
WELL MW-2						
	4/15/92	21	<0.5	56	26	1200
	7/7/92	<0.5	<0.5	<0.5	<0.5	<50
WELL MW-3						
	4/15/92	1.8	< 0.5	< 0.5	< 0.5	69
	7/7/92	<0.5	<0.5	<0.5	<0.5	<50
WELL MW-4						
	4/15/92	NA				
	7/7/92	NA				
WELL MW-5						
	4/15/92	NA				
	7/7/92	NA				
WELL MW-6						
	4/15/92	NA				
	7/7/92	NA				
WELL MW-7						
	4/15/92	21	1.2	2.0	1.2	1600
	7/7/92	<0.5	<0.5	<0.5	<0.5	320
WELL MW-8						
	4/15/92	1900	34	1200	1800	40000
	7/7/92	560	14	32	630	19000

All results shown in parts per billion (ppb)
TPHg = Total petroleum hydrocarbons as gasoline
B,T,E,X = Benzene, Tuluene, Ethylbenzene, and Total Xylenes
< = Less than detection limit shown
NA = Not Analyzed



SITE VICINITY MAP Former Beacon Station No. 546 29705 Mission Boulevard Hayward, California	8/5/92 Figure 1



LEGEND

MW-8 — Monitoring Well

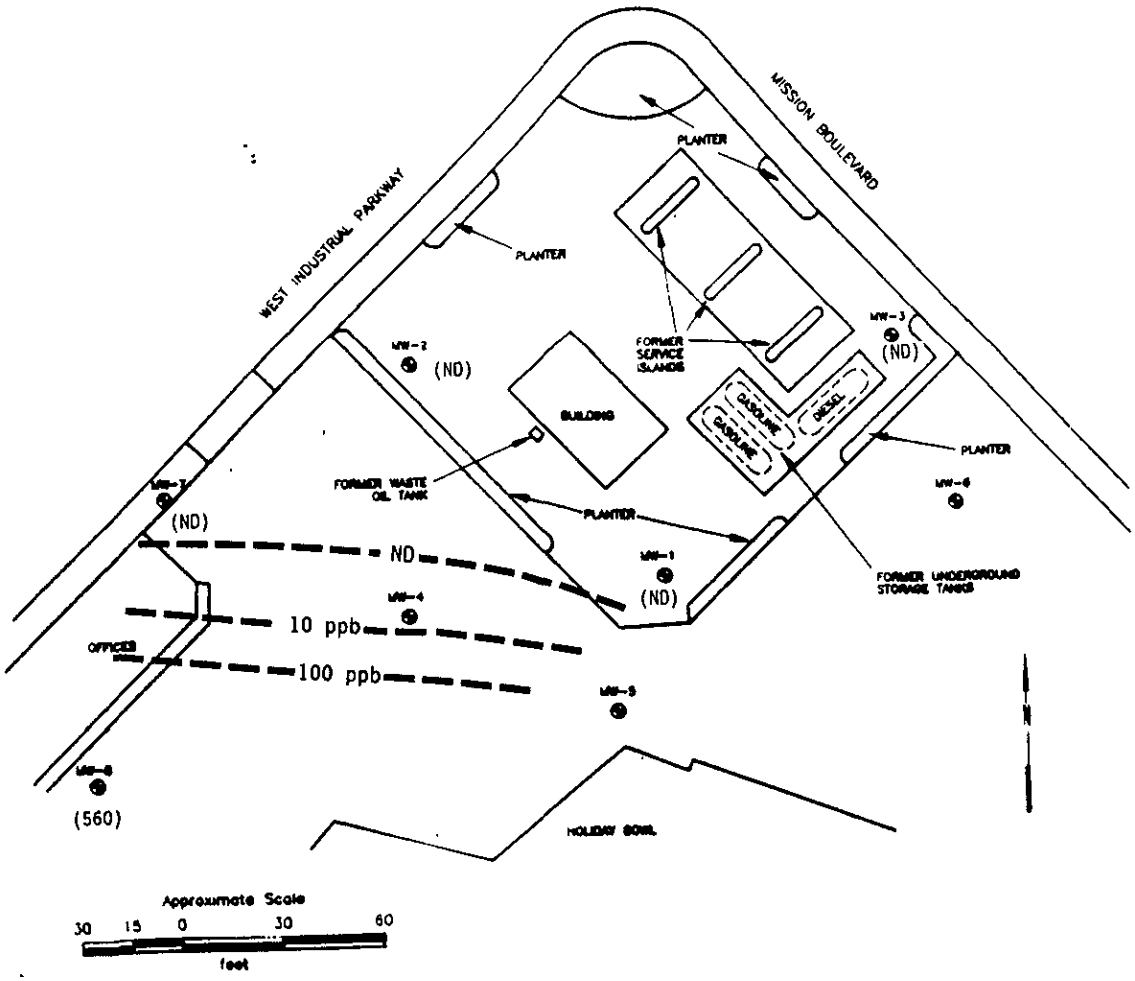
14.25 — Ground-Water Elevation Contour

Contour Interval 0.25 Feet

Elevations in Feet Above Mean Sea Level

Inferred Direction of Ground-Water Flow

GROUND-WATER ELEVATION CONTOUR MAP Former Beacon Station No. 546 29705 Mission Boulevard Hayward, California	8/5/92 Figure 2



LEGEND

MW-4 — Monitoring Well

100 ppb — Benzene Concentration Contour

Concentrations in Parts Per Billion (ppb)

BENZENE CONCENTRATION MAP Former Beacon Station No. 546 29705 Mission Boulevard Hayward, California	8/5/92 Figure 3

APPENDIX

FIELD PROCEDURE

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

Ground Water and Free Product Depth Determination

A water/petroleum product interface probe is used to determine free product and water depth in each well to the nearest 0.01-foot. The thickness of free product is determined by subtracting the depth to product from the depth to water. If a free product layer is not detected by the interface probe, the tip of the probe is subjectively analyzed for a product sheen.

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.

Monitoring Well Purging, and Sampling

Monitoring wells are purged by bailing a minimum of three 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 labelled 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 persist 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.

GROUND-WATER SAMPLING

Project No. #546
Date 7-7-92

SUBJECTIVE ANALYSIS

Well No.	Initial Depth-to-Water	Time	Total Depth	Product Thickness	Sheen	Emulsion	Noticeable Product Odor
M.W 8	15.60	7:55 AM	40	No	NO	NO	NO
7	17.10	8:00	33	No	NO	NO	NO
2	21.95	8:05	38.55	No	No	No	No
3	26.90	8:10	37.35	No	No	No	No
1	23.40	8:15	3755	no	No	No	No

WELL VOLUME CALCULATIONS

Well No.	Diameter Borehole	Lenth of Water Column (ft.)	Volumn/Ft. *	One Casing Volume	4 Casing Volume
8	4"	24.4	.66	14.94	59.76
7		15.9		10.49	41.97
2		16.6		10.95	43.82
3		10.45		~~6.89~~	~~41.80~~ 27.58
1		14.15		9.33	37.35

WELL PURGING

Well No.	Volume Purged	Time / Depth		Time / Depth		Time / Depth		Time / Depth	
8	60 gallons								
7	42 "								
2	44								
3	28								
1	38								

CUMULATIVE TABLE OF GROUND-WATER ELEVATIONS

Well No.	Date	Relative Casing Elevation	DTW	CWE
MW-1	7/7/88	37.46	24.45	13.01
	2/24/89		24.42	13.04
	7/7/89		24.25	13.21
	8/9/89		24.58	12.88
	10/16/89		25.06	12.40
	3/5/90		23.71	13.75
	6/28/90		23.77	13.69
MW-2	7/7/88	35.95	23.07	12.88
	2/24/89		23.00	12.95
	7/7/89		22.87	13.08
	8/9/89		23.19	12.76
	10/16/89		23.65	12.30
	3/5/90		22.28	13.67
	6/28/90		22.41	13.54
MW-3	7/7/88	40.28	26.98	13.30
	2/24/89		26.97	13.31
	7/7/89		26.81	13.47
	8/9/89		27.10	13.18
	10/16/89		27.60	12.68
	3/5/90		26.25	14.03
	6/28/90		26.29	13.99

Elevation of top of casing measured in feet relative to arbitrary datum (100 ft); Depth-to-water measured in feet below top of casting
DTW = Depth-to-water
CWE = Calculated water elevations
NM = Not Accessible

CUMULATIVE TABLE OF GROUND-WATER ELEVATIONS

Well No.	Date	Relative Casing Elevation	DTW	CWE
MW-4	6/30/89	34.94	21.97	12.97
	7/3/89		22.04	12.90
	8/9/89		22.21	12.73
	10/16/89		22.75	12.19
	3/5/90		21.45	13.49
	6/28/90		21.67	13.27
MW-5	6/30/89	36.37	23.33	13.04
	7/3/89		23.35	13.02
	8/9/89		23.66	12.71
	10/16/89		24.15	12.22
	3/5/90		22.74	13.63
	6/28/90		22.87	13.50
MW-6	6/30/89	37.43	23.45	13.98
	7/3/89		23.95	13.48
	8/9/89		24.29	13.14
	10/16/89		24.82	12.61
	3/5/90		23.45	13.98
	6/28/90		23.52	13.91

Elevation of top of casing measured in feet relative to arbitrary datum (100 ft); Depth-to-water measured in feet below top of casting
DTW = Depth-to-water
CWE = Calculated water elevations
NM = Not Accessible

CUMULATIVE TABLE OF GROUND-WATER ELEVATIONS

Well No.	Date	Relative Casing Elevation	DTW	CWE
MW-7	3/5/90	30.50	17.29	13.21
	6/28/90		17.60	12.90
MW-8	3/5/90	28.48	15.57	12.91
	6/28/90		15.87	12.61

Elevation of top of casing measured in feet relative to arbitrary datum (100 ft); Depth-to-water measured in feet below top of casting
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TABLE OF CUMULATIVE GROUND-WATER ANALYTICAL RESULTS

Date	Sample Number	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes
Well MW-1							
7/88	W-25-MW1	17.4	5.4	4.07	2.99	0.33	3.59
2/89	W-25-MW1	20.8	NA	2.45	1.43	0.19	0.89
8/89	W-25-MW1	1.50	NA	0.300	0.280	0.100	0.600
10/89	W-25-MW1	0.079	NA	<0.0005	<0.0005	<0.0005	<0.0005
3/90	W-26-MW1	3.1	<0.050	0.8	0.19	0.0006	0.38
6/90	W-24-MW1	1.7	NA	0.160	0.064	0.069	~~0.280~~ 0.260
Well MW-2							
7/88	W-23-MW2	7.16	NA	1.266	2.117	0.230	1.563
2/89	W-24-MW2	4.13	NA	0.231	0.102	0.030	0.113
8/89	W-24-MW2	0.950	NA	0.110	0.065	0.067	0.270
10/89	W-24-MW2	0.930	NA	0.240	0.220	0.034	0.074
3/90	W-23-MW2	0.260	<0.050	0.0043	0.0025	<0.0005	0.044
6/90	W-22-MW2	0.900	NA	0.110	0.0048	0.072	0.068
Well MW-3							
7/88	W-27-MW3	2.81	NA	0.094	0.006	0.028	0.029
2/89	W-27-MW3	0.09	NA	0.0026	<0.0005	0.0005	0.0006
8/89	W-26-MW3	0.025	NA	0.0059	0.0057	0.0037	0.0164
10/89	W-26-MW3	<0.050	NA	<0.0005	<0.0005	<0.0005	<0.0005
3/90	W-26-MW3	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0005
6/90	W-27-MW3	<0.050	NA	<0.0005	<0.0005	<0.0005	<0.0005
Well MW-4							
7/89	W-22-MW4	0.550	NA	0.144	0.191	0.032	0.1106
8/89	W-23-MW4	2.50	NA	0.280	0.460	0.140	0.980
10/89	W-23-MW4	8.001	NA	1.600	0.780	0.120	0.550
3/90	W-21-MW4	1.3	<0.050	0.280	0.071	0.0006	0.19
6/90	W-23-MW4	4.6	NA	0.600	0.410	0.110	0.460

See Page 2 of 2 for explanation.

TABLE OF CUMULATIVE GROUND-WATER ANALYTICAL RESULTS

Date	Sample Number	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes
Well MW-5							
7/89	W-24-MW5	5.2	NA	0.970	1.100	0.520	1.250
8/89	W-24-MW5	2.3	NA	0.350	0.430	0.360	1.220
10/89	W-24-MW5	8.8	NA	2.00	0.370	0.230	0.430
3/90	W-23-MW5	27	<0.050	5.4	0.98	1.3	3.4
6/90	W-23-MW5	12	NA	2.9	0.240	0.630	0.930
Well MW-6							
7/89	W-24-MW6	0.350	NA	0.0835	0.587	0.269	0.0799
8/89	W-24-MW6	0.0055	NA	0.00187	0.00196	0.00168	0.00196
10/89	W-24-MW6	<0.050	NA	<0.0005	<0.0005	<0.0005	<0.0005
3/90	W-23-MW6	<0.5	<0.050	0.0013	0.0014	0.0012	0.0017
6/90	W-24-MW6	<0.50	NA	<0.0005	<0.0005	<0.0005	<0.0005
Well MW-7							
3/90	W-17-MW7	0.27	<0.050	0.022	<0.0005	<0.0005	0.0014
6/90	W-18-MW7	0.960	NA	0.023	<0.0005	0.090	<0.005
Well MW-8							
3/90	W-16-MW8	1.2	<0.050	0.8	0.19	0.0006	0.380
6/90	W-17-MW8	20	NA	2.5	0.340	0.900	2.600

Results are in parts per million (ppm).
< = Below the method limit of detection.
NA = Not analyzed.
TPHg = Total petroleum hydrocarbons as gasoline.
TPHd = Total petroleum hydrocarbons as diesel.
Sample designation = W-16-MW-8
- W-16-MW-8 — Well number
- W-16-MW-8 — Sample depth in feet
- W-16-MW-8 — Sample Matrix (Water)

RECEIVED

JUL 2 0 1992

Ultramar Inc.

CHAIN OF CUSTODY REPORT

BEACON

95251

Beacon Station No.	Sampler (Print Name)	ANALYSES									Date	Form No.
#546	Jake Styd										7-7-92	1 of 1
Project No.	Sampler (Signature)											
	Jake Styd											
Project Location 29705 Hayward Cal	Affiliation Ultramar Inc										10 days.	

Sample No./Identification	Date	Time	Lab No.	BTEX	TPH (gasoline)	TPH (diesel)					No. of Containers	REMARKS
M.W. 8	7-7-92	10 45 AM	W1207117	✓	✓						2	
M.W. 7		11 00 AM	118	✓	✓						2	
M.W 3		11:05 AM	119	✓	✓						2	
M.W 2		11 05 AM	120	✓	✓						2	
M.W 1		11 20 AM	121	✓	✓						2	

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Jake Styd Ultramar	7-7-92	12:00			
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
				7-7-92	12:00

Report To:

Terry Fox

Bill to: ULTRAMAR INC.
525 West Third Street
Hanford, CA 93230
Attention: Terry Fox

WHITE: Return to Client with Report YELLOW: Laboratory Copy PINK: Originator Copy

32 8003 1/90

ANALYSIS REPORT

1020lab.frm

Attention: Mr. Terry Fox
Ultramar Inc.
525 West Third St.
Hanford, CA 95320
Project: AGS 19505-L
Station #546, Hayward

Date Sampled: 07-07-92
Date Received: 07-07-92
BTEX Analyzed: 07-13-92
TPHg Analyzed: 07-13-92
TPHd Analyzed: NR
Matrix: Water

	Benzene ppb	Toluene ppb	Ethyl-benzene ppb	Total Xylenes ppb	TPHg ppb	TPHd ppb
Detection Limit:	0.5	0.5	0.5	0.5	50	50
SAMPLE Laboratory Identification						
MW-8 W1207117	560	14	32	630	19000	NR
MW-7 W1207118	ND	ND	ND	ND	320	NR
MW-3 W1207119	ND	ND	ND	ND	ND	NR
MW-2 W1207120	ND	ND	ND	ND	ND	NR
MW-1 W1207121	ND	ND	ND	ND	ND	NR

ppb = parts per billion = µg/L = micrograms per liter.
ND = Not detected. Compound(s) may be present at concentrations below the detection limit.
NR = Analysis not requested.

ANALYTICAL PROCEDURES

BTEX-- Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020/602, which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID) and a flame-ionization detector (FID) in series.

TPHg--Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030, followed by analysis using modified EPA Method 8015, which utilizes a GC equipped with an FID.

TPHd--Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3550 for soils and EPA Method 3510 for water, followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

Laboratory Representative

July 16, 1992
Date Reported