Ultramar

Ultramar Inc.
P.O. Box 466
525 W. Third Street
Hanford, CA 93232-0466
(209) 582-0241

91 FEB 15 AM 10:59

Telecopy: 209-584-6113 Credit & Wholesale
209-583-3330 Administrative
209-583-3302 Information Services
209-583-3358 Accounting

February 6, 1991

Ms. Pamela Evans
Hazardous Materials Program
Department of Environmental Health
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94612

SUBJECT: BEACON STATION NO. 721, 44 LEWELLING BLVD., SAN LORENZO, CALIFORNIA

Dear Ms. Evans:

Enclosed is a copy of the Quarterly Ground-Water Sampling Report Fourth Quarter 1990 for the above-referenced site prepared by Du Pont Environmental Remediation Services (Du Pont).

As we discussed in our recent telephone conversation, the well survey you requested in your letter to Ultramar Inc. dated January 17, 1991 has already been performed and information obtained during that survey is included in the Du Pont Problem Assessment Report dated November 22, 1989. I am enclosing a copy for your files.

Beginning the first quarter of 1991, environmental tasks at the site will be performed by Groundwater Technology, Inc. (GTI). A workplan for additional assessment to further define the extent of the hydrocarbon plume beneath the site is being prepared by GTI and will be forwarded to you as soon as it is completed. The consultant is presently evaluating various interim remediation methods to inhibit further migration of the plume.

Please call if you have any questions regarding the information included in this report.

Consultant sent workplan on 3-1-91 to Ultramar
JAF states he will review it 3-4→3-8 + copy
to us by 3-11-91. PE (3-4-91)

Sincerely,

ULTRAMAR INC.

Terrence A. Fox

Terrence A. Fox
Environmental Specialist II

Enclosure: Ground-Water Sampling Report Fourth Quarter 1990
Problem Assessment Report

cc w/encl: Mr. Steven Ritchie, San Francisco Bay Region, RWQCB

Ultramar

Ultramar Inc.
P.O. Box 466
525 W. Third Street
Hanford, CA 93232-0466
(209) 582-0241

90 DEC -6 AM 12:09

Telecopy: 209-584-6113 Credit & Wholesale
209-583-3330 Administrative
209-583-3302 Information Services
209-583-3358 Accounting

November 30, 1990

Mr. Steven Ritchie
San Francisco Bay Region
Regional Water Quality Control Board
1800 Harrison Street, Suite 700
Oakland, CA 94612

SUBJECT: QUARTERLY GROUND-WATER SAMPLING REPORT FOR BEACON STATION NO. 721, 44 LEWELLING BLVD., SAN LORENZO, CALIFORNIA

Dear Mr. Ritchie:

Enclosed is a copy of the third quarter Ground-Water Sampling Report for the above-referenced site prepared by Du Pont Environmental Remediation Services.

Please call if you have any questions regarding the information included in this report.

Sincerely,

ULTRAMAR INC.

Terrence A. Fox

Terrence A. Fox
Environmental Specialist II

Enclosure: Ground-Water Sampling Report, Third Quarter 1990

cc w/encl: Mr. Larry Seto
Department of Environmental Health
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94612

QUARTERLY GROUND-WATER SAMPLING REPORT
FOURTH QUARTER 1990
BEACON STATION 721
44 LEWELLING BOULEVARD
SAN LORENZO, CALIFORNIA

Jan. 25, 91

For

Ultramar Inc.
525 West Third Street
Hanford, California 93232

Prepared By

Du Pont Environmental Remediation Services
7068 Koll Center Parkway, Suite 401
Pleasanton, California 94566

January 25, 1991

Job No. 90-Q14-154

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DU PONT ENVIRONMENTAL REMEDIATION SERVICES
7068 Koll Center Parkway, Suite 401
Pleasanton, CA 94566
(415) 462-7772
Fax: (415) 462-7944

January 25, 1991
Job No. 90-Q14-154

Ultramar Inc.
525 West Third Street
Hanford, California 93232

ATTENTION: Mr. Terrence A. Fox
Environmental Specialist II

SUBJECT: Quarterly Ground-Water Sampling Report
Fourth Quarter 1990
Beacon Station 721
44 Lewelling Boulevard
San Lorenzo, California

Dear Mr. Fox:

INTRODUCTION

This report presents the results of the quarterly ground-water sampling which was conducted at Beacon Station 721, located at 44 Lewelling Boulevard, San Lorenzo, California (see the Location Map, Figure 1) on December 18, 1990. The purpose of this sampling program is to monitor and evaluate the extent of hydrocarbon contamination in the ground water at the subject property.

SUMMARY

A summary of data regarding ground-water levels for the fourth quarter 1990 is presented in Table A. With the exception of monitoring wells MW-1, MW-3, and MW-6, ground-water levels have risen approximately 0.08 foot in the monitoring wells. The ground-water gradient for this quarter is directed towards the southwest at a magnitude of approximately 0.008 foot per foot (see the Ground-Water Gradient Map, Figure 2). Chemical analytical results indicate concentrations of petroleum hydrocarbons continue to remain maximum in the area of MW-1 and MW-3 since last quarter (see Table B and Appendix A). Floating product, approximately 0.4 foot thick,has been observed at MW-1 and MW-3. Figure 3 presents interpretive isopleths of benzene concentrations within the ground water for the site. This site was scheduled for first quarter sampling during March 1991. However, based on Ultramar's letter dated January 21, 1991, DERS will no longer be conducting ground-water sampling. Therefore, this will be the last quarterly ground-water sampling from DERS.

DERS recommends that this quarterly report be submitted to the following agencies:

REGIONAL WATER QUALITY CONTROL BOARD
San Francisco Bay Region
1111 Jackson Street, Room 6040
Oakland, California 94607
ATTENTION: Mr. Steven Ritchie

ALAMEDA COUNTY HEALTH CARE SERVICES
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, California 94621
ATTENTION: Mr. Lawrence Seto

Have a safe day,

DU PONT ENVIRONMENTAL REMEDIATION SERVICES

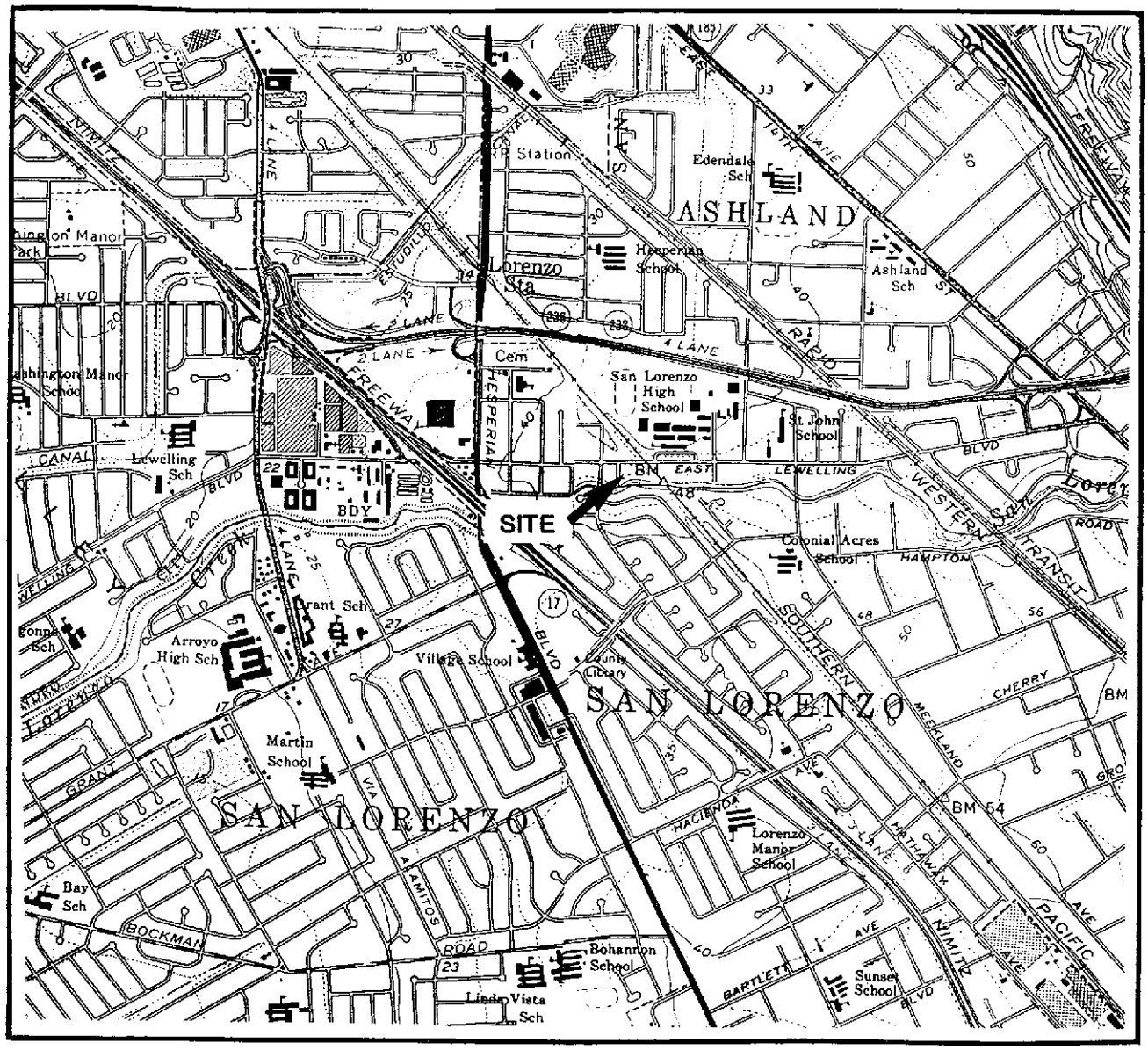
Robert L. Zeller
-FOR-

Marjorie Lane
Staff Geologist

David J. Blunt
Registered Geologist, RG 4516

Robert A. Katin, PE, REA
Project Manager

ML/DJB/RAK:ct



2000 0 2000 4000

scale feet

LOCATION MAP

Beacon Station 721
44 Lewelling Boulevard
San Lorenzo, California

BASE: A portion of the U.S.G.S. Hayward 7.5 minute quadrangle, dated 1959, photorevised 1980, scale 1:24,000.

Figure 1

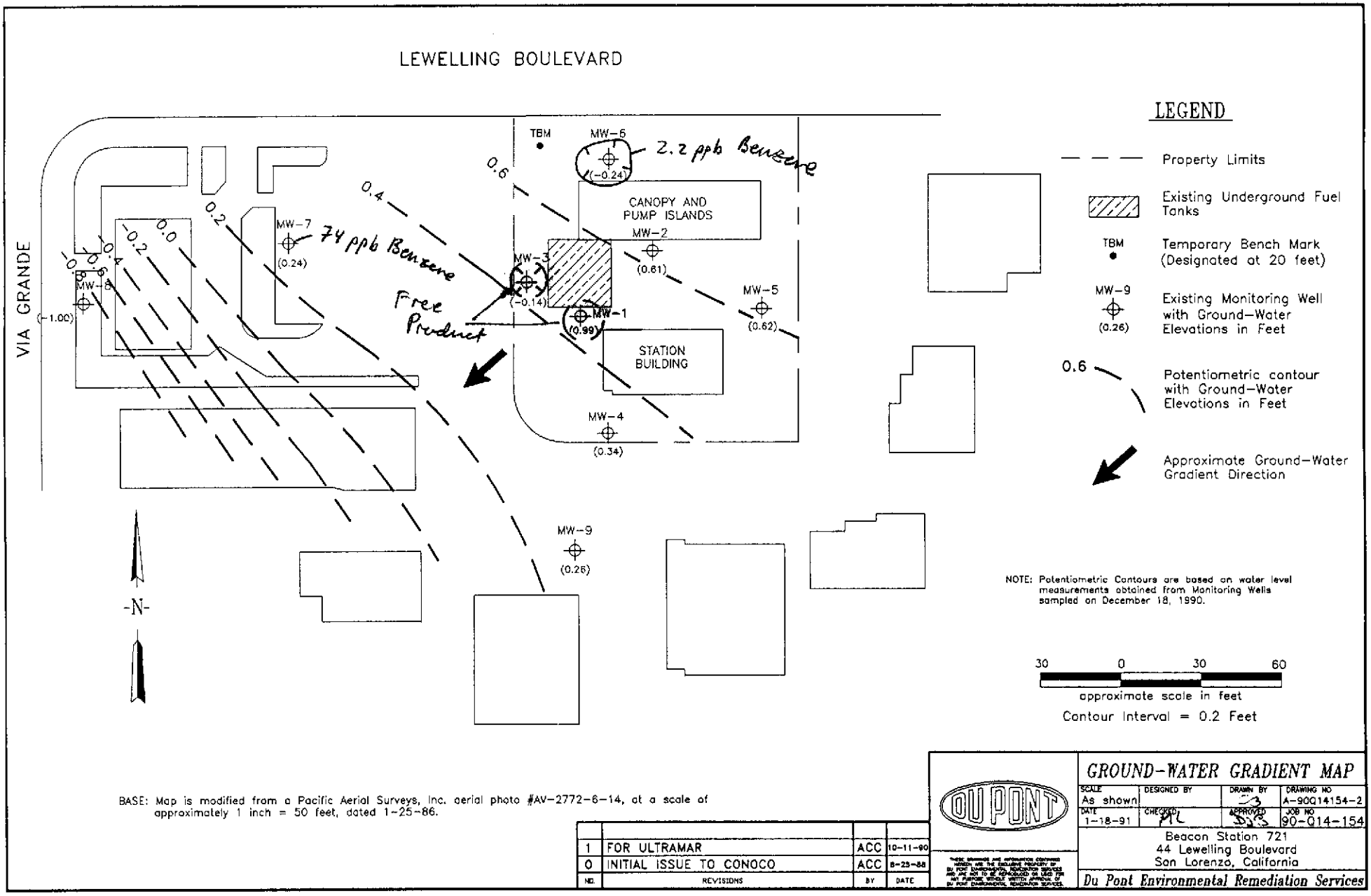

LEWELLING BOULEVARD
VIA GRANDE
TBM
MW-6
2.2 ppb Benzene
(-0.24)
CANOPY AND PUMP ISLANDS
MW-2
(0.61)
MW-7
74 ppb Benzene
(0.24)
MW-3
(-0.14)
Free Product
MW-1
(0.99)
MW-5
(0.62)
MW-8
(-1.00)
STATION BUILDING
MW-4
(0.34)
MW-9
(0.26)
-N-
0.6
0.4
0.2
0.0
-0.2
-0.4
-0.6
LEGEND
Property Limits
Existing Underground Fuel Tanks
TBM
Temporary Bench Mark (Designated at 20 feet)
MW-9
(0.26)
Existing Monitoring Well with Ground-Water Elevations in Feet
0.6
Potentiometric contour with Ground-Water Elevations in Feet
Approximate Ground-Water Gradient Direction
NOTE: Potentiometric Contours are based on water level measurements obtained from Monitoring Wells sampled on December 18, 1990.
30 0 30 60
approximate scale in feet
Contour Interval = 0.2 Feet
BASE: Map is modified from a Pacific Aerial Surveys, Inc. aerial photo #AV-2772-6-14, at a scale of approximately 1 inch = 50 feet, dated 1-25-86.
1 FOR ULTRAMAR ACC 10-11-90
0 INITIAL ISSUE TO CONOCO ACC 8-25-88
NO. REVISIONS BY DATE
DU PONT
GROUND-WATER GRADIENT MAP
SCALE As shown
DESIGNED BY
DRAWN BY
DRAWING NO A-90Q14154-2
DATE 1-18-91
CHECKED
APPROVED
JOB NO 90-Q14-154
Beacon Station 721
44 Lewelling Boulevard
San Lorenzo, California
Du Pont Environmental Remediation Services

Figure 2

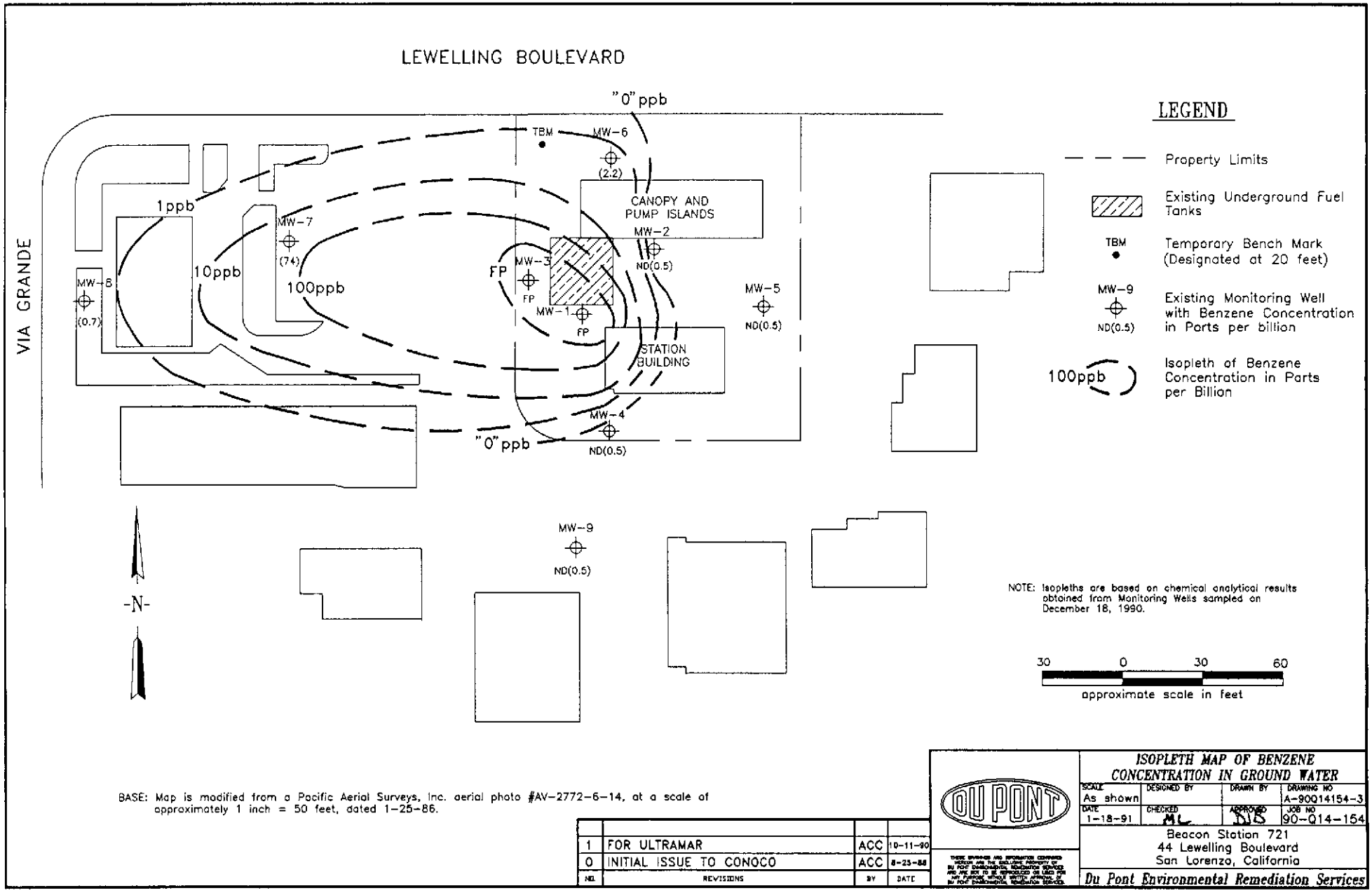

LEWELLING BOULEVARD
VIA GRANDE
"0" ppb
TBM
MW-6
(2.2)
CANOPY AND PUMP ISLANDS
MW-2
ND(0.5)
1ppb
MW-7
(74)
10ppb
100ppb
MW-8
(0.7)
FP
MW-3
FP
MW-1
FP
MW-5
ND(0.5)
STATION BUILDING
MW-4
ND(0.5)
"0" ppb
MW-9
ND(0.5)
-N-
LEGEND
Property Limits
Existing Underground Fuel Tanks
TBM
Temporary Bench Mark (Designated at 20 feet)
MW-9
ND(0.5)
Existing Monitoring Well with Benzene Concentration in Parts per billion
100ppb
Isopleth of Benzene Concentration in Parts per Billion
NOTE: Isopleths are based on chemical analytical results obtained from Monitoring Wells sampled on December 18, 1990.
30 0 30 60
approximate scale in feet
BASE: Map is modified from a Pacific Aerial Surveys, Inc. aerial photo #AV-2772-6-14, at a scale of approximately 1 inch = 50 feet, dated 1-25-86.
NO. REVISIONS BY DATE
1 FOR ULTRAMAR ACC 10-11-90
0 INITIAL ISSUE TO CONOCO ACC 6-25-88
DU PONT
ISOPLETH MAP OF BENZENE CONCENTRATION IN GROUND WATER
SCALE As shown
DESIGNED BY
DRAWN BY
DRAWING NO A-90Q14154-3
DATE 1-18-91
CHECKED ML
APPROVED DS
JOB NO 90-Q14-154
Beacon Station 721
44 Lewelling Boulevard
San Lorenzo, California
Du Pont Environmental Remediation Services

Figure 3

TABLE A

GROUND-WATER POTENTIOMETRIC ELEVATIONS

BEACON STATION 721
44 LEWELLING BOULEVARD
SAN LORENZO, CALIFORNIA

WELL ID	TOP OF CASING ELEVATION	DATE SAMPLED	DEPTH TO WATER	FP THICKNESS (FEET)	POTENTIOMETRIC SURFACE ELEVATION	ELEVATION CHANGE SINCE PREVIOUS MEASUREMENT
MW-1	21.54	10-MAR-88	17.12		4.42	---
		14-JUN-88	18.05		3.49	-0.93
		05-DEC-88	19.48		2.06	-1.43
		08-MAR-89	18.07		3.47	1.41
		22-JUN-89	18.60		2.94	-0.53
		27-SEP-89	19.98		1.56	-1.38
		29-DEC-89	20.45		1.09	-0.47
		29-MAR-90	19.31		2.23	1.14
		21-JUN-90	19.69		1.85	-0.38
		25-SEP-90*	21.88	0.9	0.38	-1.47
		18-DEC-90*	20.89	0.42	0.99	0.61
MW-2	20.91	10-MAR-88	16.43		4.48	---
		14-JUN-88	17.35		3.56	-0.92
		05-DEC-88	18.79		2.12	-1.44
		08-MAR-89	17.31		3.60	1.48
		22-JUN-89	17.92		2.99	-0.61
		27-SEP-89	19.27		1.64	-1.35
		29-DEC-89	19.75		1.16	-0.48
		29-MAR-90	18.62		2.29	1.13
		21-JUN-90	19.12		1.79	-0.50
		25-SEP-90	20.54		0.37	-1.42
		18-DEC-90	20.30		0.61	0.24
MW-3	20.96	10-MAR-88	16.68		4.28	---
		14-JUN-88	17.59		3.37	-0.91
		05-DEC-88	18.96		2.00	-1.37
		08-MAR-89	17.60		3.36	1.36
		22-JUN-89	18.11		2.85	-0.51
		27-SEP-89	19.47		1.49	-1.36
		29-DEC-89*	19.97	0.02	0.99	-0.50
		29-MAR-90*	17.60	0.04	3.36	2.37
		21-JUN-90	19.35		1.61	-1.75
		25-SEP-90*	20.72	0.04	0.27	-1.34
		18-DEC-90*	21.42	0.40	-0.14	-0.41
MW-4	22.52	05-DEC-88	20.47		2.05	2.05
		08-MAR-89	19.03		3.49	1.44
		22-JUN-89	19.57		2.95	-0.54
		27-SEP-89	20.98		1.54	-1.41
		29-DEC-89	21.43		1.09	-0.45
		29-MAR-90	20.29		2.23	1.14
		21-JUN-90	20.78		1.74	-0.49
		26-SEP-90	22.24		0.28	-1.46
		18-DEC-90	22.18		0.34	0.06

TABLE A (cont'd)

WELL ID	TOP OF CASING ELEVATION	DATE SAMPLED	DEPTH TO WATER	FP THICKNESS (FEET)	POTENTIOMETRIC SURFACE ELEVATION	ELEVATION CHANGE SINCE PREVIOUS MEASUREMENT
MW-5	21.66	05-DEC-88	19.48		2.18	—
		08-MAR-89	18.00		3.66	1.48
		22-JUN-89	18.60		3.06	-0.60
		27-SEP-89	20.00		1.66	-1.40
		29-DEC-89	20.43		1.23	-0.43
		29-MAR-90	19.24		2.42	1.19
		21-JUN-90	19.82		1.84	-0.58
		25-SEP-90	21.23		0.43	-1.41
		18-DEC-90	21.04		0.62	0.19
MW-6	20.37	05-DEC-88	17.99		2.38	---
		08-MAR-89	16.75		3.62	1.24
		22-JUN-89	17.30		3.07	-0.55
		27-SEP-89	18.64		1.73	-1.34
		29-DEC-89	19.16		1.21	-0.52
		29-MAR-90	18.04		2.33	1.12
		21-JUN-90	18.53		1.84	-0.49
		25-SEP-90	19.91		0.46	-1.38
		18-DEC-90	20.61		-0.24	-0.70
MW-7	19.40	05-DEC-88	17.61		1.79	---
		08-MAR-89	16.27		3.13	1.34
		22-JUN-89	16.72		2.68	-0.45
		27-SEP-89	17.99		1.41	-1.27
		29-DEC-89	18.54		0.86	-0.55
		29-MAR-90	17.43		1.97	1.11
		21-JUN-90	17.88		1.52	-0.45
		25-SEP-90	19.12		0.28	-1.24
		18-DEC-90	19.16		0.24	-0.04
MW-8	19.13	27-SEP-89	18.89		0.24	---
		29-DEC-89	19.45		-0.32	-0.56
		29-MAR-90	18.39		0.74	1.06
		21-JUN-90	18.80		0.33	-0.41
		25-SEP-90	20.10		-0.97	-1.30
		18-DEC-90	20.13		-1.00	-0.03
MW-9	22.82	27-SEP-89	21.38		1.44	---
		29-DEC-89	21.76		1.06	-0.38
		29-MAR-90	20.58		2.24	1.18
		21-JUN-90	21.11		1.71	-0.53
		25-SEP-90	22.60		0.22	-1.49
		18-DEC-90	22.56		0.26	0.04

NOTES:
1) All elevations surveyed to a temporary bench mark designated 20 feet.
2) Elevations and depths given in feet.
3) Data prior to December 1988 collected by Applied GeoSystems.
4) Monitoring wells MW-4, MW-5, MW-6, and MW-7 installed in December 1988.
5) Monitoring wells MW-8 and MW-9 installed on September 15, 1989.
6) * Ground-water elevations for these quarters were corrected for free-floating gasoline using the equation: GWE = WE -[DTW-(PT x 0.8)]

Where: GWE = Ground-water elevation
WE = Well elevation at top of casing
DTW = Depth to water from top of casing
PT = Product thickness
0.8 = conversion factor for the difference in specific gravities between water and gasoline (interpolated from Levorsen, GEOLOGY OF PETROLEUM, 1967, p. 193)

TABLE B

SUMMARY OF GROUND–WATER ANALYTICAL RESULTS

BEACON STATION 721
44 LEWELLING BOULEVARD
SAN LORENZO, CALIFORNIA

WELL ID	DATE SAMPLED	BENZENE (ug/L)	ETHYLBENZENE (ug/L)	TOLUENE (ug/L)	XYLENES (ug/L)	TPHg (ug/L)	COMMENTS
MW-1	*29-MAY-87*	490	930	150	3790	18050	
	14-JUL-87	560	950	120	3270	14750	
	17-AUG-87	630	320	40	1130	12860	
	01-SEP-87	558	562	84	1942	14269	
	10-DEC-87	200	273	138	777	14000	
	10-MAR-88	70	340	40	940	7300	
	14-JUN-88	290	330	ND(10)	790	34000	
	05-DEC-88	100	140	16	310	4000	
	08-MAR-89	670	580	20	1200	9100	*Odor, Sheen*
	22-JUN-89	1000	1200	20	2200	12000	*Odor, Sheen*
	27-SEP-89	960	260	9	360	6800	*Odor*
	29-DEC-90	210	1200	33	250	4800	
	29-MAR-90	1100	510	42	1800	14000	*Odor*
	21-JUN-90	1400	160	ND(30)	130	7900	
	25-SEP-90	NS	NS	NS	NS	NS	*0.9' Free-Product*
	18-DEC-90	NS	NS	NS	NS	NS	***0.4' Free-Product***
MW-2	*29-MAY-87*	113	46	14	58	4870	
	14-JUL-87	103	34	25	48	2207	
	17-AUG-87	37.6	8.2	10.9	11.1	756	
	01-SEP-87	75.3	16.4	14.2	27.6	1482.5	
	10-DEC-87	28	38.1	40.6	100.3	1800	
	10-MAR-88	9.2	7.3	3.1	2.6	1200	
	14-JUN-88	ND(0.9)	2.2	ND(1.0)	5.7	500	
	05-DEC-88	ND(0.3)	5.6	1.3	3.6	500	
	08-MAR-89	ND(1.0)	3.5	1.3	3.7	730	
	22-JUN-89	ND(0.4)	ND(0.5)	ND(0.4)	ND(0.8)	570	
	27-SEP-89	3.8	2.9	0.64	54	420	
	29-DEC-89	6.7	5.7	2.0	2.9	270	
	29-MAR-90	10	10	0.88	3.3	420	
	21-JUN-90	ND(1)	4	ND(1)	ND(4)	650	
	25-SEP-90	ND(0.5)	3.5	1.5	1.5	680	
	18-DEC-90	ND(0.5)	2.2	1.7	0.6	500	
MW-3	*29-MAY-87*	5400	1700	3900	5200	40300	
	14-JUL-87	6880	1580	7080	4770	30320	
	17-AUG-87	5930	1240	4180	3370	25620	
	01-SEP-87	8540	1020	6660	3740	38210	
	10-DEC-87	4240	890	2350	1860	25000	
	10-MAR-88	3210	940	950	950	13400	
	14-JUN-88	5900	450	7600	4600	54000	
	05-DEC-88	4200	1000	2400	3100	19000	*Odor*
	08-MAR-89	11000	2300	9400	9900	53000	*Odor, Sheen*
	22-JUN-89	16000	2100	5900	6600	60000	*Odor, Sheen*
	27-SEP-89	8100	1200	2800	4300	34000	*Odor*
	29-DEC-89	NS	NS	NS	NS	NS	*0.02' Free Product*
	29-MAR-90	NS	NS	NS	NS	NS	*0.04' Free Product*
	21-JUN-90	19000	22000	22000	120000	2100000	
	25-SEP-90	NS	NS	NS	NS	NS	*0.04' Free Product*
	18-DEC-90	NS	NS	NS	NS	NS	***0.42' Free Product***

TABLE B

(continued)

WELL ID	DATE SAMPLED	BENZENE (ug/L)	ETHYLBENZENE (ug/L)	TOLUENE (ug/L)	XYLENES (ug/L)	TPHg (ug/L)	COMMENTS
MW-4	05-DEC-88	ND(2.0)	2.3	ND(2.0)	6.5	4500	
	08-MAR-89	ND(9.0)	ND(10)	ND(8.0)	ND(10)	3900	
	22-JUN-89	ND(0.4)	ND(0.5)	ND(0.4)	ND(0.8)	1500	
	27-SEP-89	11	ND(1)	ND(1)	ND(4)	1200	
	29-DEC-89	ND(1)	2.3	2.1	ND(3)	920	
	29-MAR-90	ND(0.6)	8.0	ND(0.9)	ND(3)	870	
	21-JUN-90	ND(5)	ND(6)	ND(5)	ND(20)	1500	
	25-SEP-90	ND(0.5)	4.6	11	6.0	3100	
	18-DEC-90	ND(0.5)	15	4.4	6.3	3600	
MW-5	05-DEC-88	ND(0.2)	0.23	0.78	0.92	3.9	
	08-MAR-89	2.7	2.7	6.7	15	58	
	22-JUN-89	0.91	ND(0.1)	ND(0.1)	ND(0.3)	5.0	
	27-SEP-89	1.3	ND(0.1)	ND(0.1)	ND(0.4)	5.3	
	29-DEC-89	ND(0.5)	ND(0.5)	ND(0.5)	ND(2)	ND(5)	
	29-MAR-90	ND(1)	ND(0.5)	ND(0.5)	ND(2)	ND(5)	
	21-JUN-90	ND(0.7)	ND(0.7)	ND(0.6)	ND(2)	12	
	25-SEP-90	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(20)	
	18-DEC-90	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(50)	
MW-6	05-DEC-88	4.0	0.63	1.3	1.3	190	
	08-MAR-89	2.2	ND(0.5)	ND(0.4)	1.1	23	
	22-JUN-89	0.82	0.18	2.6	1.2	57	
	27-SEP-89	0.2	ND(0.1)	0.24	ND(0.4)	2.1	
	29-DEC-89	ND(0.5)	ND(0.5)	ND(0.5)	ND(2)	ND(5)	
	29-MAR-90	2.1	ND(0.5)	ND(0.5)	ND(2)	12	
	21-JUN-90	ND(0.7)	ND(0.7)	ND(0.6)	ND(2)	ND(5)	
	25-SEP-90	1.4	ND(0.5)	ND(0.5)	ND(0.5)	98	
	18-DEC-90	2.0	ND(0.5)	ND(0.5)	ND(0.5)	200	
MW-7	05-DEC-88	140	40	150	370	1500	
	08-MAR-89	730	180	72	370	2400	
	22-JUN-89	570	180	43	220	2000	
	27-SEP-89	420	140	5.9	28	1400	
	29-DEC-89	87	18	3.5	15	150	
	29-MAR-90	110	53	40	150	530	
	21-JUN-90	620	290	34	400	4100	
	25-SEP-90	49	30	2.4	42	750	
	18-DEC-90	74	25	4.5	69	510	
MW-8	27-SEP-89	ND(1)	16	ND(1)	ND(1)	4200	
	29-DEC-89	ND(1)	18	3.2	ND(3)	2800	
	29-MAR-90	ND(6)	19	ND(9)	ND(30)	2600	
	21-JUN-90	ND(2)	13	ND(2)	ND(6)	4600	
	25-SEP-90	2.3	16	22	26	4500	
	18-DEC-90	0.7	9.7	6.0	2.3	1100	
MW-9	27-SEP-89	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.4)	25	
	29-DEC-89	ND(0.5)	ND(0.5)	ND(0.5)	2.5	11	
	29-MAR-90	ND(0.5)	ND(0.5)	ND(0.5)	ND(2)	ND(5)	
	21-JUN-90	ND(0.5)	ND(0.6)	ND(0.5)	ND(2)	ND(5)	
	25-SEP-90	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(20)	
	18-DEC-90	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	100	

NOTES:
1) TPHg = Total Petroleum Hydrocarbons (as gasoline).
2) ND = Not Detected, detection limit shown in parentheses.
3) Odor refers to petroleum hydrocarbon odor.
4) All results are presented in parts per billion.
5) Samples prior to December 1988 taken by Applied GeoSystems.
6) NS = Not Sampled.

APPENDIX A

GROUND-WATER SAMPLING PROCEDURES, LABORATORY TEST RESULTS, AND CHAIN-OF-CUSTODY FORMS

GROUND-WATER MONITORING AND SAMPLING PROCEDURES

Prior to sampling, the depth to water was measured in all monitoring wells using an electronic immersion probe. All measurements were read to the nearest 0.01 foot. If free product was present, the depth to free product and the depth to water were measured using an interface probe and an observation sample was collected with a clear teflon bailer for confirmation. No analytical samples were collected from monitoring wells containing more than 0.25 inch of free product.

The monitoring wells were sampled on December 18, 1990. Prior to purging, each well was checked with a clear teflon bailer in order to observe the possible presence of floating hydrocarbons. Purging was accomplished using a stainless steel or teflon bailer. The bailer was thoroughly cleaned prior to each sampling using a trisodium phosphate (TSP) solution followed by a 10% methyl alcohol solution, and then rinsed twice with potable water. The wells were purged prior to sampling until pH, conductivity, and temperature values stabilized. Generally, this resulted in the removal of approximately 3 to 5 well volumes of ground water from each well during the purging process. The water obtained from purging was placed in labeled 55-gallon drums and stored on-site. The bailer rope was replaced after each sampling. Samples recovered from each well were decanted into two appropriately prepared and labeled 40-ml volatile organic analysis (VOA) bottles. One travel blank per site will be analyzed. Duplicate samples will only be analyzed by the laboratory when directed by Du Pont Environmental Remediation Services. The sample bottles were immediately placed in an ice chest and maintained at 4°C until delivery to a State of California licensed laboratory. Routine chain-of-custody procedures were employed.

APPLIED ANALYTICAL

Environmental Laboratories

42501 Albrae St., Suite 100
Fremont, CA 94538
Bus: (415) 623-0775
Fax: (415) 651-8647

ANALYSIS REPORT

1020lab.frm

Attention:	Mr. Jim Lehrman	Date Sampled:	12-18-90
	DuPont Environmental Remediation	Date Received:	12-19-90
	7068 Koll Center Parkway #401	BTEX Analyzed:	12-30-90
	Pleasanton, CA 94566	TPHg Analyzed:	12-30-90
Project:	AGS 19505-L, Station #721	TPHd Analyzed:	NR
	Lewelling	Matrix:	Water

	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg	TPHd
	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit:	0.5	0.5	0.5	0.5	50	100
SAMPLE Laboratory Identification						
MW-2 W1012327	ND	1.7	2.2	0.6	500	NR
MW-4 W1012328	ND	4.4	15	6.3	3600	NR
MW-5 W1012329	ND	ND	ND	ND	ND	NR
MW-6 W1012330	2.2	ND	ND	ND	200	NR
MW-7 W1012331	74	4.5	25	69	510	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

January 8, 1991
Date Reported

APPLIED ANALYTICAL LABORATORY IS CERTIFIED BY THE STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
(Certification No. 1211)

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ANALYSIS REPORT

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	DuPont Environmental Remediation	Date Received:	12-19-90
	7068 Koll Center Parkway #401	BTEX Analyzed:	12-30-90
	Pleasanton, CA 94566	TPHg Analyzed:	12-30-90
Project:	AGS 19505-L, Station #721	TPHd Analyzed:	NR
	Lewelling	Matrix:	Water

	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg	TPHd
	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit:	0.5	0.5	0.5	0.5	50	100
SAMPLE Laboratory Identification						
MW-8 W1012332	0.7	6.0	9.7	2.3	1100	NR
MW-9 W1012333	ND	ND	ND	ND	100	NR
MW-A W1012334	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.

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Laboratory Representative

January 8, 1991
Date Reported

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(Certification No. 1211)

Applied

Ultramar Inc.

CHAIN OF CUSTODY REPORT

BEACON

Beacon Station No.	Sampler (Print Name)			ANALYSES									Date	Form No. 1 of
721	Jim Lehrman												12/18/90	
Project No.	Sampler (Signature)												Normal TAT	
90-014-154													Preserved w/ HCl	
Project Location	Affiliation												Stored in notice @ 4°C	
San Lorenzo, Lewelling	DERS													
Sample No./Identification	Date	Time	Lab No.	BTEX	TPH (gasoline)	TPH (diesel)						No. of Containers	REMARKS	
MW-2	12/18/90	2:50		✓	✓							2		
MW-4	"	2:19		✓	✓							2		
MW-5	"	12:30		✓	✓							2		
MW-6	"	3:30		✓	✓							2		
MW-7	"	4:30		✓	✓							2		
MW-8	"	4:02		✓	✓							2		
MW-9	"	12:55		✓	✓							2		
MW-A	"	4:30		✓	✓							2		

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
(DERS)	12/18/90	5:30	DERS	12/18/90	5:30
DERS	12/19/90	9:58	Express-FT	12/19/90	9:58
Express-FT	12/19/90	10:40	ACALICO ANALYTICAL		

Report To:
DuPont Environmental Remediation Services
7063 Koll Center Parkway #401
Pleasanton CA 94566
Mr. Jim Lehrman

Bill to: ULTRAMAR INC.
525 West Third Street
Hanford, CA 93230
Attention: Mr. Glenn Dembroff

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

32-8003 1/90

Du Pont Environmental Remediation Services

GROUND-WATER MONITORING WELL FIELD SAMPLING DATA SHEET

SITE: Bea's 721 San Lorenzo JOB # 90-814-154 DATE: 18-Dec-90

	MW-1	MW-3
WELL #	MW-1	MW-3
CASING DIAMETER	2-inch	2-inch
FP DEPTH TO WATER	20.47'	21.02'
Water ~~TOTAL~~ DEPTH	20.89'	21.42'
WELL VOLUME		
PURGE METHOD		

GALLONS PURGED	pH	Conductivity	Temp.
0.42'	free product in MW-1		
0.40'	free product in MW-3		
Neither well sampled.			

	MW-2
WELL #	MW-2
CASING DIAMETER	2-inch
DEPTH TO WATER	20.30'
TOTAL DEPTH	37.9'
WELL VOLUME	2.1 gal
PURGE METHOD	bailer

GALLONS PURGED	pH	Conductivity	Temp.
1		0.97	64
2		1.04	65.7
4		0.95	66.0
6	6.5	1.02	66.4
8	6.6	1.02	65.5

	MW-4
WELL #	MW-4
CASING DIAMETER	2-inch
DEPTH TO WATER	22.18'
TOTAL DEPTH	24.2'
WELL VOLUME	0.3 gal
PURGE METHOD	bailer

GALLONS PURGED	pH	Conductivity	Temp.
1	6.8	0.84	63.0
1		0.81	64.3
2	6.8	0.77	64.5
	Bailed dry @		2½ gal.
@ 1:44 pm. Recharged to by 2:19 pm.			22.36

	MW-5
WELL #	MW-5
CASING DIAMETER	2-inch
DEPTH TO WATER	21.04'
TOTAL DEPTH	30.0'
WELL VOLUME	1.5 gal
PURGE METHOD	bailer

GALLONS PURGED	pH	Conductivity	Temp.
1		1.05	65.5
1		1.07	66.4
2	7.6	1.15	67.2
3		1.07	67.8
4		1.09	68.0
5		0.99	67.8
6		0.91	67.7
7	6.8	0.93	67.5
8	6.8	1.02	68.0

Sampled by: JL

Du Pont Environmental Remediation Services

GROUND-WATER MONITORING WELL
FIELD SAMPLING DATA SHEET

SITE: Beacon 721, San Lorenzo JOB # 90-Q14-154 DATE: 18-Dec-90

WELL # MW-6
CASING DIAMETER 2-inch
DEPTH TO WATER 20.61'
TOTAL DEPTH 28.3'
WELL VOLUME 1.3 gal
PURGE METHOD bailer

GALLONS PURGED	pH	Conductivity	Temp.
1		0.91	62.3
2		0.92	62.3
4	6.8	0.87	64.8
6	6.8	0.85	63.4

WELL # MW-7
CASING DIAMETER 2-inch
DEPTH TO WATER 19.16'
TOTAL DEPTH 24.0'
WELL VOLUME 4.8 gal
PURGE METHOD bailer

GALLONS PURGED	pH	Conductivity	Temp.
1		1.02	62.5
1		1.02	65.5
2		1.04	66.6
3	6.8	1.04	66.7
4	6.8	1.05	66.6

WELL # MW-8
CASING DIAMETER 2-inch
DEPTH TO WATER 20.13'
TOTAL DEPTH 22.9'
WELL VOLUME 0.5 gal
PURGE METHOD bailer

GALLONS PURGED	pH	Conductivity	Temp.
1	6.7	1.55	62.6
1	6.8	1.56	65.2

Bailed dry @ 1¼ gallon at 3:25. Recharged to 20.36 at 4:02.

WELL # MW-9
CASING DIAMETER 2-inch
DEPTH TO WATER 22.56'
TOTAL DEPTH 23.45'
WELL VOLUME 0.15 gal
PURGE METHOD bailer

GALLONS PURGED	pH	Conductivity	Temp.
1	[illegible]	[illegible]	[illegible]3

bailed dry @ ¼ gallon @ 12:19; recovered to 22.75 feet at 12:5[illegible].

Sampled by: JL