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

October 12, 1993

Mr. Donald D. Dalke
San Francisco Bay Region
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

SUBJECT: BEACON STATION NO. 720, 1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA

Dear Mr. Dalke:

Enclosed is a copy of the report on quarterly ground-water monitoring for the second quarter 1993 for the above-referenced Ultramar facility. Also included is a copy of the Quarterly Status Report which describes the work completed in this quarter and the anticipated to be completed in the next quarter.

Please call if you have any questions.

Sincerely,

ULTRAMAR INC.

Terrence A. Fox

Terrence A. Fox
Senior Project Manager
Marketing Environmental Department

Enclosure: Ground-Water Sampling Report
Quarterly Status Report

cc w/encl: Mr. Rafat Shahid, Alameda County Health Care Services

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

ENVIRONMENTAL PROJECT QUARTERLY STATUS REPORT

DATE REPORT SUBMITTED: October 12, 1993
QUARTER ENDING: June 30, 1993

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 cavities. Samples collected from beneath the former tanks 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.

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

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

SUMMARY OF THIS QUARTER'S ACTIVITIES:

Performed quarterly monitoring on May 25, 1993.

RESULT OF QUARTERLY MONITORING:

Monitoring data indicates that the benzene concentration decreased in MW-1 from 750 ppb to 200 ppb, in MW-3 from 220 ppb to 120 ppb, and in MW-8 from 1,500 ppb to 580 ppb. The benzene concentration increased in MW-2 from 1,900 ppb to 3,300 ppb, in MW-4 from 8,200 ppb to 16,000 ppb, and in MW-5 from 3,500 ppb to 7,900 ppb. MW-6 and MW-7, located in the public right-of-way, were not sampled this quarter because the City asphalted over the wells and they were not accessible.

PROPOSED ACTIVITY OR WORK FOR NEXT QUARTER:

ACTIVITY	ESTIMATED COMPLETION DATE
Continue quarterly monitoring program	

AEGIS ENVIRONMENTAL, INC.
1050 Melody Lane, Suite 160, Roseville, California 95678
(916) 782 2110 Fax (916) 786 7830

September 23, 1993

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

Subject: **Second Quarter 1993 Groundwater Monitoring Report**
Beacon Station #720
1088 Marina Boulevard, San Leandro, California

Dear Mr. Fox:

Aegis Environmental, Inc. (Aegis), is pleased to provide Ultramar Inc. this report documenting the results of quarterly groundwater monitoring, conducted on May 25, 1993 at the subject site (Figure 1). The monitoring included depth-to-water measurements, subjective analysis of free product, and collection of groundwater samples.

GROUNDWATER ELEVATIONS

Prior to purging the wells, Aegis personnel collected depth-to-water measurements. Groundwater level data from March 1992 to date are summarized in Table 1. Previous groundwater level data are included in Attachment 3. All depth-to-groundwater measurements were conducted according to the Aegis standard operating procedures (SOP) included in Attachment 1. On the basis of the current measurements, groundwater flows to the south (Figure 2) at a gradient of 0.07 ft/ft. This direction is substantially different then the prior events. The reason for this anomaly is unknown at this time. Groundwater levels have decreased an average of 0.84-feet compared to the last monitoring event.

same direction as last event!

GROUNDWATER SAMPLING AND ANALYSES

Aegis personnel collected groundwater samples from six of the eight wells. Wells MW-6 and MW-7 have been paved over and were inaccessible. The samples were collected and handled according to the Aegis SOP included in Attachment 1. All samples were analyzed for concentrations of:

- Total petroleum hydrocarbons, as gasoline, by EPA Method 8015;
- Benzene, toluene, ethylbenzene, and total xylenes by EPA Method 602;
- pH by EPA Method 150.1

Analytical results from March 1992 to date are summarized in Table 2. Previous analytical results are included in Attachment 4. 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 event are included as Attachment 2. Benzene concentrations have decreased in wells MW-1, MW-3, and MW-8 and have increased in wells MW-2, MW-4, and MW-5 compared to last monitoring event. Results of pH testing, included in the laboratory report in Attachment 2, indicate pH ranges from 6.6 - 6.9.

Aegis recommends a copy of this quarterly monitoring report be forwarded to the following agency:

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

This report has been prepared for the sole use of Ultramar Inc. Any reliance on this report by third parties shall be at such parties' own risk. The work described herein was performed 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 call us at (916) 782-2110.

Sincerely,

AEGIS ENVIRONMENTAL, INC.

Owen M. Kittredge
Project Geologist

Paul Graff
Senior Geologist
CRG No. 5600

REGISTERED GEOLOGIST
PAUL GRAFF
No. 5600
Exp. 6/30/95
STATE OF CALIFORNIA

9/24/93
Date

OMK/PKG/sdh

Attachments

NOTES

1. BASE MAP TAKEN FROM USGS SAN LEANDRO, CALIFORNIA 7.5 MINUTE TOPOGRAPHIC QUADRANGLE. (1980)

DATE	11/21/91
JOB NO.	E189-02
DWG NO.	E189-02/1
DESIGNED	J. SUTU
CHKD	J. PHILLIPS
APPD	J. HICKS

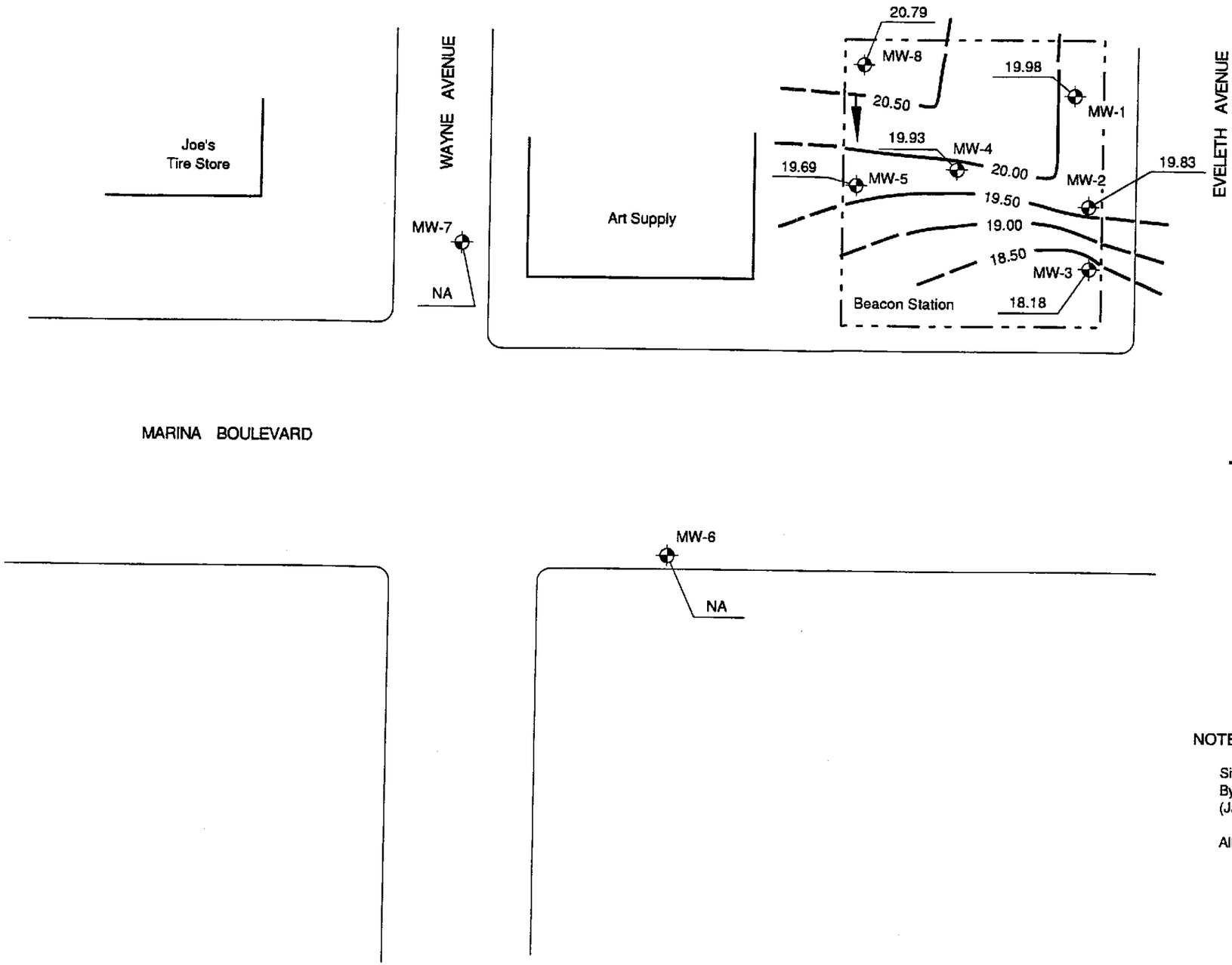
PROJECT SITE LOCATION MAP

1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA

ULTRAMAR, INC.

FIGURE NO. 1

REV NO.



LEGEND

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

Hydraulic Gradient = 0.02 ft/ft
Contour Interval = 0.5 ft

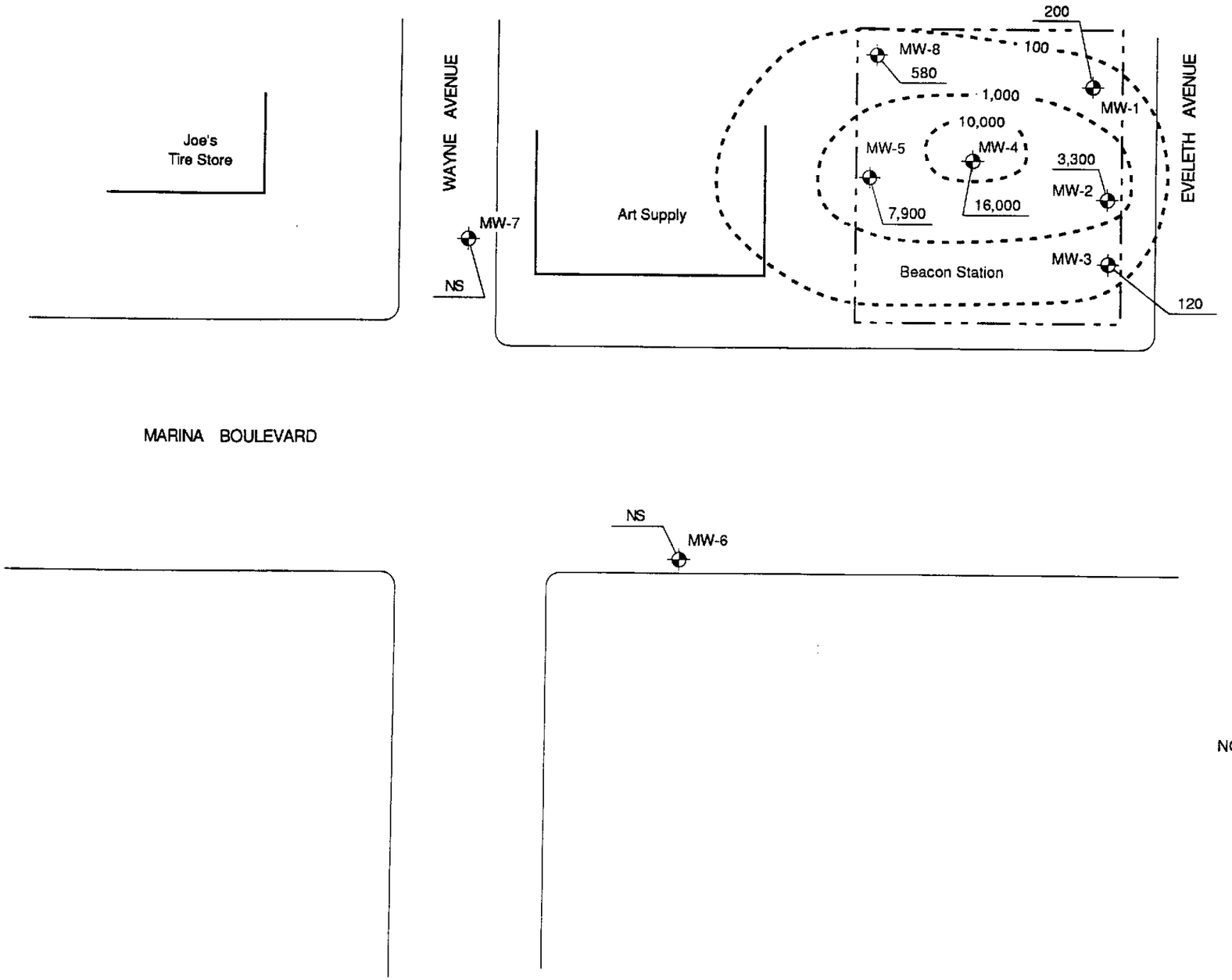
NOTES

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

All Locations Are Approximate

0 50 100
Approximate Scale
1" = 50'

AEGIS ENVIRONMENTAL, INC.		POTENTIOMETRIC SURFACE MAP May 25, 1993	FIGURE 2
DRAWN BY: D. Hada	DATE: June 30, 1993	Beacon Station #720 1088 Marina Boulevard San Leandro, CA	PROJECT NUMBER: 92-702
REVISED BY:	DATE:		
REVIEWED BY:	DATE:		



LEGEND

- Monitoring Well
- Property Line
- 200 — Benzene Concentration (parts-per-billion)
- Inferred Iso-Concentration Limits
- NS — Not Sampled

Contour Interval = Exponential

NOTES

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

All Locations Are Approximate

0 50 100
Approximate Scale
1" = 50'

AEGIS ENVIRONMENTAL, INC.		DISTRIBUTION MAP OF BENZENE IN GROUNDWATER May 25, 1993	FIGURE 3
DRAWN BY: D. Hada	DATE: June 30. 1993	Beacon Station #720 1088 Marina Boulevard San Leandro, CA	PROJECT NUMBER: 92-702
REVISED BY:	DATE:		
REVIEWED BY:	DATE:		

TABLE 1

WATER LEVEL DATA

BEACON STATION #720
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing)[1]	Depth to Groundwater[1]	Groundwater Elevation[2]	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	
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	
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	
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	
MW-5	03/30/92	32.70	13.48	19.22	---	
	07/01/92		14.58	18.12	---	
	09/30/92		15.82	16.88	---	
	11/19/92		16.00	16.70	27.56	
	02/03/93		12.40	20.30	27.61	
	05/25/93		13.01	19.69	27.61	

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

TABLE 1

WATER LEVEL DATA

BEACON STATION #720
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing)[1]	Depth to Groundwater[1]	Groundwater Elevation[2]	Well Depth	Comments
MW-6	03/30/92	30.40	12.62	17.78	---	
	07/01/92		12.70	17.70	---	
	09/30/92		13.40	17.00	---	
	11/19/92		13.59	16.81	15.10	
	02/03/93		12.43	17.97	15.01	
	05/25/93		---	---	---	*
MW-7	03/30/92	31.20	12.34	18.86	---	
	07/01/92		15.54	15.66	---	
	09/30/92		14.64	16.56	---	
	11/19/92		14.80	16.40	25.10	
	02/03/93		11.36	19.84	25.02	
	05/25/93		---	---	---	*
MW-8	03/30/92	33.80	14.66	19.14	---	
	07/01/92		15.74	18.06	---	
	09/30/92		17.00	16.80	---	
	11/19/92		17.01	16.79	29.75	
	02/03/93		13.83	19.97	29.88	
	05/25/93		13.01	20.79	29.86	

NOTES:
[1] = Measurement and reference elevation taken from notch/mark on top north side of well casing.
[2] = Elevation referenced to mean sea level.
Well Depth = Measurement from top of casing to bottom of well.
--- = Not measured.
* = Well paved over.
< = Below indicated detection limit.
ND = Reported as "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
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
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
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
MW-5	03/30/92	29,000	2,600	980	390	1,100
	07/01/92	52,000	2,400	1,000	5,200	2,000
	09/30/92	32,000	1,800	780	370	1,700
	11/19/92	7,800	1,000	280	120	370
	02/03/93	74,000	3,500	3,000	780	3,200
	05/25/93	57,000	7,900	4,700	1,900	7,800

NOTES: ND = Reported as "nondetect" be 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-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
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
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

NOTES ND = Reported as "nondetect" by previous consultant.
NS = Not sampled

ATTACHMENT 1

STANDARD OPERATING PROCEDURES

AEGIS ENVIRONMENTAL, INC.
STANDARD OPERATING PROCEDURES
RE: SAMPLE IDENTIFICATION AND CHAIN-OF-CUSTODY PROCEDURES
SOP-4

Sample identification and chain-of-custody procedures ensure sample integrity, and document sample possession from the time of collection to its ultimate disposal. Each sample container submitted for analysis is labeled to identify the job number, date, time of sample collection, a sample number unique to the sample, any in-field measurements made, sampling methodology, name(s) of on-site personnel and any other pertinent field observations also recorded on the field excavation or boring log.

Chain-of-custody forms are used to record possession of the sample from time of collection to its arrival at the laboratory. During shipment, the person with custody of the samples will relinquish them to the next person by signing the chain-of-custody form(s) and noting the date and time. The sample-control officer at the laboratory will verify sample integrity, correct preservation, confirm collection in the proper container(s), and ensure adequate volume for analysis.

If these conditions are met, the samples will be assigned unique laboratory log numbers for identification throughout analysis and reporting. The log numbers will be recorded on the chain-of-custody forms and in the legally-required log book maintained in the laboratory. The sample description, date received, client's name, and any other relevant information will also be recorded.

AEGIS ENVIRONMENTAL, INC.
STANDARD OPERATING PROCEDURES
RE: LABORATORY ANALYTICAL QUALITY ASSURANCE AND CONTROL
SOP-5

In addition to routine instrument calibration, replicates, spikes, blanks, spiked blanks, and certified reference materials are routinely analyzed at method-specific frequencies to monitor precision and bias. Additional components of the laboratory Quality Assurance/Quality Control program include:

1. Participation in state and federal laboratory accreditation/certification programs;

2. Participation in both U.S. EPA Performance Evaluation studies (WS and WP studies) and inter-laboratory performance evaluation programs;

3. Standard operating procedures describing routine and periodic instrument maintenance;

4. "Out-of-Control"/Corrective Action documentation procedures; and,

5. Multi-level review of raw data and client reports.

AEGIS ENVIRONMENTAL, INC.
STANDARD OPERATING PROCEDURE
RE: GROUNDWATER PURGING AND SAMPLING
SOP-7

Prior to water sampling, each well is purged by evacuating a minimum of three wetted well-casing volumes of groundwater. When required, purging will continue until either the discharge water temperature, conductivity, or pH stabilize, a maximum of ten well-bore volumes of groundwater have been recovered, or the well is bailed dry. When practical, the groundwater sample should be collected when the water level in the well recovers to at least 80 percent of its static level.

The sampling equipment consists of either a "Teflon" bailer, PVC bailer, or stainless steel bladder pump with a "Teflon" bladder. If the sampling system is dedicated to the well, then the bailer is usually "Teflon," but the bladder pump is PVC with a polypropylene bladder. In general and depending on the intended laboratory analysis, 40-milliliter glass, volatile organic analysis (VOA) vials, with "Teflon" septa, are used as sample containers.

The groundwater sample is decanted into each VOA vial in such a manner that there is no meniscus at the top of the vial. A cap is quickly secured to the top of the vial. The vial is then inverted and gently tapped to see if air bubbles are present. If none are present, the vial is labeled and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. Label information should include a unique sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

For quality control purposes, a duplicate water sample is collected from each well. This sample is put on hold at the laboratory. When required, a trip blank is prepared at the laboratory and placed in the transport cooler. It is labeled similar to the well samples, remains in the cooler during transport, and is analyzed by the laboratory along with the groundwater samples. In addition, a field blank may be prepared in the field when sampling equipment is not dedicated. The field blank is prepared after a pump or bailer has been either steam cleaned or properly washed, prior to use in the next well, and is analyzed along with the other samples. The field blank analysis demonstrates the effectiveness of the in-field cleaning procedures to prevent cross-contamination.

To minimize the potential for cross-contamination between wells, all well development and water sampling equipment not dedicated to a well is either steam cleaned or properly washed between use. As a second precautionary measure, wells are sampled in order of least to highest concentrations as established by available previous analytical data.

In the event the water samples cannot be submitted to the analytical laboratory on the same day they are collected (e.g., due to weekends or holidays), the samples are temporarily stored until the first opportunity for submittal either on ice in a cooler, such as when in the field, or in a refrigerator at Aegis' office.

AEGIS ENVIRONMENTAL, INC.
STANDARD OPERATING PROCEDURE
RE: MEASURING LIQUID LEVELS USING WATER LEVEL OR INTERFACE PROBE
SOP-12

Field equipment used for liquid-level gauging typically includes the measuring probe (water-level or interface), light filter(s), and product bailer(s). The field kit also includes cleaning supplies (buckets, TSP, spray bottles, and deionized water) to be used in cleaning the equipment between wells.

Prior to measurement, the probe tip is lowered into the well until it touches bottom. Using the previously established top-of-casing or top-of-box (i.e., wellhead vault) point, the probe cord (or halyard) is marked and a measuring tape (graduated in hundredths of a foot) is used to determine the distance between the probe end and the marking on the cord. This measurement is then recorded on the liquid-level data sheet as the "depth to water" (DTW).

When necessary in using the interface probe to measure liquid levels, the probe is first electrically grounded to either the metal stove pipe or another metal object nearby. When no ground is available, reproducible measurements can be obtained by clipping the ground lead to the handle of the interface probe case. After grounding the probe, the top of the well casing is fitted with a light filter to insure that sunlight does not interfere with the operation of the probe's optical mechanism.

The probe tip is then lowered into the well and submerged in the groundwater. An oscillating (beeping) tone indicates the probe is in water. The probe is slowly raised until either the oscillating tone ceases or becomes a steady tone. In either case, this is the depth-to-water indicator and the DTW measurement is made accordingly. The steady tone indicates floating hydrocarbons. In this case, the probe is slowly raised until the steady tone ceases. This is the depth-to-product (DTP) indicator and the DTP measurement is made accordingly.

The process of lowering and raising the probe must be repeated several times to ensure accurate measurements. The DTW and DTP measurements are recorded on the liquid-level data sheet. When floating product is indicated by the probe's response, a product bailer is lowered partially through the product-water interface to confirm the product on the water surface, and as further indication of product thickness, particularly in cases where the product layer is quite thin. This measurement is recorded on the data sheet as "product thickness."

In order to avoid cross-contamination of wells during the liquid-level measurement process, wells are measured in the order of "clean" to "dirty" (where such information is available). In addition, all measurement equipment is cleaned with TSP solution and thoroughly rinsed with deionized water before use, between measurements in respective wells, and at the completion of the day's use.

ATTACHMENT 2

LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORMS

ONSITE
ENVIRONMENTAL
LABORATORIES, INC.
[redacted]

Analytical Laboratory Report

EPA Methods 8015 Modified / 8020

RECEIVED
JUN 03 1993
Ans'd. CF/SRR

Date Sampled: 5/25/93
Date Received: 5/25/93
Date Analyzed: 5/26/93
Date Reported: 6/1/93
Report #: 305090.rpt

Proj Mngr: Sheila Richgels
Client: Aegis Environmental
Project: Ultramar Station # 720, San Leandro, Project # 92-702
Matrix: Water
COC #: NA

Lab ID No.	Field ID No.	Dilution Factor	Benzene	Toluene	Ethyl benzene	Xylenes - Total	TPHg	TPHd
S5950593	MW-1	20	200	86	470	1500	9400	NR
S5960593	MW-2	50	3300	1500	1300	5900	34000	NR
S5970593	MW-3	10	120	26	370	520	9900	NR
S5980593	MW-4	50	16000	6600	1700	8100	63000	NR
S5990593	MW-5	50	7900	4700	1900	7800	57000	NR
S6000593	MW-8	10	580	160	170	480	7400	NR

Detection Limits (DL)	0.5 ug/L	0.5 ug/L	0.5 ug/L	0.5 ug/L	50 ug/L	50 ug/L

NOTES:
NR - Analysis not requested.
COC - Chain of custody
ND - Analytes not detected at, or above the stated detection limit.
TPHg - Total petroleum hydrocarbons as gasoline.
TPHd - Total petroleum hydrocarbons as diesel #2.
mg/kg - Milligrams per kilogram (PPM).
ug/l- Microgram per Litre (PPB).
DL - Detection limit.
DL Factor - Detection Limit Factor
SDL - Specific Detection Limit - Multiply DL by the DL Factor to obtain the detection limit for a specific Field ID No.

PROCEDURES:
BTEX - This analysis was performed in using with EPA Method 8020, and EPA Method 5030 .
TPHg - This analysis was performed in using with EPA Method 8015 Mod., and EPA Method 5030.
TPHd - This analysis was performed in using with EPA Method 8015 Mod. and CA State Certified Method.

CERTIFICATION:
California Department of Health Services ELAP Certificate # 1774
Onsite Environmental Laboratories, 856 South Lime Street, Anaheim, CA 92805 (714) 533-3322

Laboratory Representative
For Frank Jaime

5/31/93
Date

Printed on recycled paper.

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

San Luis Obispo, CA • Benicia, CA • Camarillo, CA • San Jose, CA
Anaheim, CA • Tempe, AZ • Valparaiso, IN • Westbrook, ME • Indianapolis, IN

NorCal Division (San Jose Laboratory) San Jose, CA 95131
2059 Junction Ave. (408) 955-9077

Lab Number : JJ0671
Project : 92-702, Station 720

CLIENT: Peter C. Balas
Onsite Environmental Laboratories
5500 Boscel Common
Fremont, CA 94538

REPORT OF ANALYTICAL RESULTS

SAMPLE ID	SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED	DATE RECEIVED
JJ0671-1	MW-1	Monitoring Water	Craig Jones	05/25/93	05/25/93
JJ0671-2	MW-2	Monitoring Water	Craig Jones	05/25/93	05/25/93
JJ0671-3	MW-3	Monitoring Water	Craig Jones	05/25/93	05/25/93
JJ0671-4	MW-4	Monitoring Water	Craig Jones	05/25/93	05/25/93

CONSTITUENT	UNITS	*PQL	JJ0671-1	JJ0671-2	JJ0671-3	JJ0671-4
pH	Units	0.1	6.8	6.7	6.7	6.7
Method:			EPA 150.1	EPA 150.1	EPA 150.1	EPA 150.1
Analyzed by:			CL	CL	CL	CL
Analyzed on:			05/25/93	05/25/93	05/25/93	05/25/93

San Jose Lab Certifications: CAELAP #1204
*RESULTS of 'ND' not detected at or above the listed PQL times Dilution Factor.

05/26/93

NG/sab/cml
PH93052501

COAST - TO - COAST ANALYTICAL SERVICES

Air, Water & Hazardous Waste Sampling, Analysis & Consultation
Certified Hazardous Waste, Chemistry, Bacteriology & Bioassay Laboratories

San Luis Obispo, CA • Benicia, CA • Camarillo, CA • San Jose, CA
Anaheim, CA • Tempe, AZ • Valparaiso, IN • Westbrook, ME • Indianapolis, IN

NorCal Division (San Jose Laboratory) San Jose, CA 95131
2059 Junction Ave. (408) 955-9077

Lab Number : JJ0671
Project : 92-702, Station 720

CLIENT: Peter C. Balas
Onsite Environmental Laboratories
5500 Boscel Common
Fremont, CA 94538

REPORT OF ANALYTICAL RESULTS

SAMPLE ID	SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
JJ0671-5	MW-8	Monitoring Water	Craig Jones	05/25/93	05/25/93
JJ0671-6	MW-5	Monitoring Water	Craig Jones	05/25/93	05/25/93

CONSTITUENT	UNITS	*PQL	JJ0671-5	JJ0671-6
pH	Units	0.1	6.9	6.6
Method:			EPA 150.1	EPA 150.1
Analyzed by:			CL	CL
Analyzed on:			05/25/93	05/25/93

San Jose Lab Certifications: CAELAP #1204
*RESULTS of 'ND' not detected at or above the listed PQL times Dilution Factor.

05/26/93

NG/sab/cml
PH93052501

Respectfully submitted,
COAST-TO-COAST ANALYTICAL SERVICES, INC.

Nick J. Gaone

Nick Gaone
Inorganics Manager

[redacted]

Ultramar Inc.
CHAIN OF CUSTODY REPORT

ON-SITE
1-800-446-0894

BEACON

TOTAL P.02

Beacon Station No. 720	Sampler (Print Name) Craig Jones	ANALYSES					Date	Form No. 1 of 1
Project No. 92-702	Sampler (Signature) C. Jones						PLEASE USE TRI-REGIONAL DETECTION LIMITS	
Project Location 1088 MARINA BLVD. SAN LEANDRO, CA.	Affiliation AEGIS ENVIRONMENTAL							

Sample No./Identification	Date	Time	Lab No.	BTEX	TPH (gasoline)	TPH (diesel)	pH	No. of Containers	REMARKS
MW - 1	5/25-93			X	X		X		
MW - 2	5-25-93								
MW - 3	5-25-93								
MW - 4	5-25-93								
MW - 5	5-25-93								
MW - 6	5-25-93								No Sampl
MW - 7	5-25-93								No Sampl
MW - 8	5-25-93								

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
C. Jones	5-25-93	1321	Aegis Onsite Env Lab	5/25/93	13:21
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Report To: SHEILA RICHGELS (916) 782-2110
1050 MELODY LN. #160 FAX 786-7830
ROSEVILLE, CA. 95678

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-[illegible]

ATTACHMENT 3

HISTORICAL WATER LEVEL DATA

TABLE 1

GROUNDWATER ELEVATIONS

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

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

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 feet**	
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

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 feet**
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

TABLE 1

GROUNDWATER ELEVATIONS

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 of 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 of 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 of 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 arbitrary datum
2) Elevations and depths are given in feet
3) Groundwater Technology, Inc., made measurements until February 1989
4) Du Pont Environmental Services collected samples from February 1989 through February 1991
5) Environmental Geotechnical Consultants, Inc., made measurements beginning in May 1991

ATTACHMENT 4

HISTORICAL ANALYTICAL DATA

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

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	2,900	2,200	15,000	
	Feb. 14, 1989	1,700	1,700	340	1,500	12,000	Odor
	May 02, 1989	1,500	2,400	510	2,400	18,000	Odor, Slight Sheen
	Aug. 10, 1989	1,400	1,500	360	1,600	10,000	Odor
	Nov. 08, 1989	920	470	190	360	7,200	Odor
	Feb. 20, 1990	810	540	270	800	3,300	
	May 18, 1990	1,900	500	560	1,600	5,600	
	Sep. 15, 1990	320	110	150	520	5,200	Odor
	Nov. 26, 1990	370	59	150	370	3,000	Odor
	Feb. 07, 1991	750	570	480	1,800	14,000	
	May 14, 1991	1,000	1,400	600	2,500	41,000	
	Aug. 16, 1991	310	210	150	480	4,000	Odor
	Dec. 24, 1991	530	95	310	680	11,000	Moderate Odor
	Mar. 30, 1992	630	550	540	1,900	27,000	Odor
MW-2	Apr. 16, 1987	3,131	4,239	1,067	4,608	17,920	
	June 23, 1987	2,188	2,622	1,047	4,699	49,354	
	July 06, 1987	1,575	1,729	457	1,702	8,676	
	Aug. 06, 1987	2,623	3,722	702	2,882	14,376	
	Nov. 04, 1987	2,200	4,100	900	3,500	19,000	

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

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	7,300	7,100	5,400	53,000	
	Nov. 21, 1988	--	--	--	--	--	Free product
	Feb. 14, 1989	6,900	4,300	1,100	5,200	48,000	Film of free product
	May 02, 1989	6,100	3,800	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	3,200	1,600	11,000	60,000	
	May 18, 1990	6,200	1,900	1,300	610	19,000	
	Sep. 15, 1990	1,400	920	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

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	ND	58	2,400	Odor
	Feb. 20, 1990	1,200	810	77	460	3,700	
	May 18, 1990	980	ND	330	250	2,300	
	Sep. 15, 1990	240	36	150	230	4,700	Odor
	Nov. 26, 1990	170	8.4	86	120	1,400	Odor
	Feb. 07, 1991	220	20	120	230	2,900	
	May 14, 1991	370	39	220	820	15,000	
	Aug. 16, 1991	480	50	360	680	7,200	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

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	1,400	730	2,500	76,000	Odor, sheen
MW-5	Apr. 16 1987	2,267	921.2	3,277	4,536	17,733	
	June 23, 1987	2,239	516.8	953.9	1,587	19,555	
	July 06, 1987	1,335	313.7	799.2	923.9	5,631	
	Aug. 06, 1987	1,890	381.2	576.8	93.4	6,450	
	Nov. 04, 1987	1,300	500	270	640	4,600	
	Feb. 02, 1988	3,100	1,500	550	1,400	24,000	
	May 02, 1988	4,400	490	1,200	1,500	17,000	
	Nov. 21, 1988	5,600	590	870	2,200	19,000	
	Feb. 14, 1989	4,300	810	410	1,300	13,000	Odor
	May 02, 1989	2,900	1,500	690	3,200	24,000	Odor, slight sheen
	Aug. 10, 1989	6,700	2,300	860	4,700	36,000	Odor, slight sheen
	Nov. 08, 1989	5,300	860	460	600	30,000	Odor
	Feb. 20, 1990	1,700	220	120	370	3,400	
	May 18, 1990	18,000	2,000	1,500	5,600	24,000	
	Sep. 15, 1990	2,600	2,200	1,000	4,900	42,000	Odor, sheen
	Nov. 26, 1990	1,900	280	260	800	8,500	Odor, sheen

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

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	980	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)

ATTACHMENT 5

FIELD DATA SHEETS

AEGIS ENVIRONMENTAL, INC.
GROUNDWATER/LIQUID LEVEL DATA
(measurements in feet)

Project Address: Beacon - 1088 Marina Bl, San Leandro - 720 Date: 5-25-93
Recorded by: C.JONES Project No.: 92-702

Well No.	Time	Well Elev. TOC	Measured Total Depth	Depth to Gr. Water	Depth to Product	Product Thickness	Comments (TOC/TOB) (product skimmer in well)
MW-1	6:52	33.10	27.70	13.12	N/A	N/A	
MW-2	7:12	32.80	25.31	12.97			
MW-3	6:45	32.30	24.50	14.12			
MW-4	7:23	32.90	26.88	12.97			
MW-5	7:18	32.70	27.61	13.01			
MW-6		30.40	—	—			WELL PAVED OVER
MW-7		31.20	—	—			WELL PAVED OVER
MW-8	7:04	33.80	29.86	13.01			

Notes:

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: BEACON #720
Site: 1088 MARINA BLVD. SAN LEANDRO, CA.

Project No: 92-702
Well Designation: MW-1

Purging Equipment:

	2" Disposable bailer		
X	2" PVC bailer		Submersible pump
	4" PVC bailer		Dedicated bailer

Sampled with disposal bailer or other: X
Well recharged to 80% recovery.

Well Diameter:	2" X	3"	4"	6"	8"	
Purge Vol. Multiplier:	0.163	0.367	0.653	1.47	2.61	gal/ft.

Depth of well: 27.70 652 Am
Depth to water: 13.12

Calculated purge: 10.0 gal
Actual purge: 10 gal

Meter Calibration
Date
Time

	Temp.	E.C.	pH	Turbidity
Initial reading				
Adjusted reading				

Start purge: 857 Am
Sampling time: 915 Am
Sampling Date: 5-26-93

Time	Temp.	E.C.	pH	Turbidity	Volume
906 Am	65.6	.65	5.39		4
907 Am	66.8	.63	5.51		3
910 Am	65.8	.67	5.30		3

Sample appearance: Cloudy
QC samples collected at this well:
Lock: Dolphin

Equipment replaced: (Check all that apply)

2" Locking Cap		Lock #2357	
4" Locking Cap		Lock #3753	

Remarks: Non Sealable lid / gasket, Riser good
No water

Signature: C. Jones
Review:

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: BEACON #720
Site: 1088 MARINA BLVD. SAN LEANDRO, CA.

Project No: 92-702
Well Designation: MW-2

Purging Equipment:

_____ 2" Disposable bailer
X 2" PVC bailer
_____ 4" PVC bailer
_____ Submersible pump
_____ Dedicated bailer

Sampled with disposal bailer or other: X
Well recharged to 80% recovery. ✓

Well Diameter: 2" X 3" ___ 4" ___ 6" ___ 8" ___
Purge Vol. Multiplier: 0.163 0.367 0.653 1.47 2.61 gal/ft.

Depth of well: 25.31 712 Am
Depth to water: 12.97

Calculated purge: 12.0
Actual purge: 12

Meter Calibration
Date _____
Time ~~9:12 Am~~

	Temp.	E.C.	pH	Turbidity
Initial reading				
Adjusted reading				

Start purge: 942 Am
Sampling time: 1012 Am 1012 Am
Sampling Date: 5-25-93

Time	Temp.	E.C.	pH	Turbidity	Volume
950 Am	69.0	.82	5.46		4
955 Am	68.5	.81	5.34		4
1002 Am	66.7	.84	5.26		4

Sample appearance: Cloudy
QC samples collected at this well: _____
Lock: Dolphin

Equipment replaced: (Check all that apply)
2" Locking Cap _____ Lock #2357 _____
4" Locking Cap _____ Lock #3753 _____

Remarks: Non sealable lid / Riser, gasket lock good

Signature C. Jones Review _____

AEGIS ENVIRONMENTAL, INC. | SAMPLING INFORMATION SHEET

Client: BEACON #720
Site: 1088 MARINA BLVD. SAN LEANDRO, CA.

Project No: 92-702
Well Designation: MW-3

Purging Equipment:
_____ 2" Disposable bailer
X 2" PVC bailer
_____ 4" PVC bailer
_____ Submersible pump
_____ Dedicated bailer

Sampled with disposal bailer or other: _____
Well recharged to 80% recovery.

Well Diameter:	2" X	3" ___	4" ___	6" ___	8" ___	
Purge Vol. Multiplier:	0.163	0.367	0.653	1.47	2.61	gal/ft.

Depth of well: 24.50 645 Am
Depth to water: 14.12

Calculated purge: 7.0
Actual purge: 7.0

Meter Calibration
Date _____
Time _____

	Temp.	E.C.	pH	Turbidity
Initial reading				
Adjusted reading				

Start purge: 828 Am Sampling time: 849 Am Sampling Date: 5-25-93

Time	Temp.	E.C.	pH	Turbidity	Volume
832 Am	66.1	.72	5.92		3
837 Am	65.8	.65	5.44		2
842 Am	66.3	.64	5.01		2

Sample appearance: cloudy
QC samples collected at this well: _____
Lock: Dolphin

Equipment replaced: (Check all that apply)
2" Locking Cap _____ Lock #2357 _____
4" Locking Cap _____ Lock #3753

Remarks: Riser flush w/ mud / Water in Box gasket good / Non Sealable Lid

Signature C. Jones Review _____

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: BEACON #720
Site: 1088 MARINA BLVD. SAN LEANDRO, CA.

Project No: 92-702
Well Designation: MW-4

Purging Equipment:
- ____ 2" Disposable bailer
- X 2" PVC bailer
- ____ 4" PVC bailer
- ____ Submersible pump
- ____ Dedicated bailer

Sampled with disposal bailer or other: ____
Well recharged to 80% recovery.

Well Diameter:	2" X	3" ___	4" ___	6" ___	8" ___	
Purge Vol. Multiplier:	0.163	0.367	0.653	1.47	2.61	gal/ft.

Depth of well: 26.88 723 Am
Depth to water: 12.97

Calculated purge: 9.0
Actual purge: 9.0

Meter Calibration
Date ____
Time ~~10:45~~ A

	Temp.	E.C.	pH	Turbidity
Initial reading				
Adjusted reading				

Start purge: 1048 Am
Sampling time: 1108A
Sampling Date: 5-25-92

Time	Temp.	E.C.	pH	Turbidity	Volume
1051 A	74.3	1.11	5.58		3
1056 A	72.2	1.06	5.50		3
1100 A	71.6	1.03	5.44		3

Sample appearance: Cloudy
QC samples collected at this well: ____
Lock: Dolphin

Equipment replaced: (Check all that apply)
- 2" Locking Cap ____ Lock #2357 ____
- 4" Locking Cap ____ Lock #3753

Remarks: Water in Box, Riser flush with ground gasket lock good

Signature C. Jones
Review

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: BEACON #720 Project No: 92-702
Site: 1088 MARINA BLVD. Well Designation: MW-5
SAN LEANDRO, CA.

Purging Equipment:
- ____ 2" Disposable bailer
- X 2" PVC bailer
- ____ 4" PVC bailer
- ____ Submersible pump
- ____ Dedicated bailer

Sampled with disposal bailer or other: X
Well recharged to 80% recovery.

	2"	3"	4"	6"	8"	
Well Diameter:	X	___	___	___	___	
Purge Vol. Multiplier:	0.163	0.367	0.653	1.47	2.61	gal/ft.

Depth of well: 27.61 7.18 Am Calculated purge: 10.0 gal
Depth to water: 13.01 Actual purge: 10.0 gal

Meter Calibration
Date ____
Time ____

	Temp.	E.C.	pH	Turbidity
Initial reading				
Adjusted reading				

Start purge: 1030 Sampling time: 1039A Sampling Date: 5-25-90

Time	Temp.	E.C.	pH	Turbidity	Volume
1029	67.9	.91	5.50		4
1027	68.0	.91	5.41		3
1025	67.7	.87	5.45		3

Sample appearance: Cloudy
QC samples collected at this well: ____ Lock: Dolphin

Equipment replaced: (Check all that apply)
- 2" Locking Cap ____ Lock #2357 ____
- 4" Locking Cap ____ Lock #3753 ____

Remarks: Water in box / Non Sealable lid

Signature C. Jones Review

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: BEACON #720
Site: 1088 MARINA BLVD. SAN LEANDRO, CA.

Project No: 92-702
Well Designation: MW-6

Purging Equipment:
_____ 2" Disposable bailer
_____ 2" PVC bailer
_____ 4" PVC bailer
_____ Submersible pump
_____ Dedicated bailer

Sampled with disposal bailer or other: _____
Well recharged to 80% recovery.

Well Diameter:	2"	3"	4"	6"	8"	
Purge Vol. Multiplier:	0.163	0.367	0.653	1.47	2.61	gal/ft.

Depth of well: _____ Calculated purge: _____
Depth to water: _____ Actual purge: _____

Meter Calibration
Date _____
Time _____

	Temp.	E.C.	pH	Turbidity
Initial reading				
Adjusted reading				

Start purge: _____ Sampling time: _____ Sampling Date: _____

Time	Temp.	E.C.	pH	Turbidity	Volume
This well has been paved over					
unable to locate - No visible					

Sample appearance: _____
QC samples collected at this well: _____ Lock: _____

Equipment replaced: (Check all that apply)
2" Locking Cap _____ Lock #2357 _____
4" Locking Cap _____ Lock #3753 _____

Remarks: unable to locate, well appears to be paved over.

Signature C. Jones Review _____

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: BEACON #720
Site: 1088 MARINA BLVD. SAN LEANDRO, CA.

Project No: 92-702
Well Designation: MW-7

Purging Equipment:
____ 2" Disposable bailer
____ 2" PVC bailer
____ 4" PVC bailer
____ Submersible pump
____ Dedicated bailer

Sampled with disposal bailer or other: ____
Well recharged to 80% recovery.

Well Diameter:	2" X	3" __	4" __	6" __	8" __	
Purge Vol. Multiplier:	0.163	0.367	0.653	1.47	2.61	gal/ft.

Depth of well: ____
Depth to water: N/A
Calculated purge: N/A
Actual purge: N/A

Meter Calibration
Date 5-25-93
Time 630 Am

	Temp.	E.C.	pH	Turbidity
Initial reading	60.0	.01	7.0	—
Adjusted reading				

Start purge: ____ Sampling time: ____ Sampling Date: ____

Time	Temp.	E.C.	pH	Turbidity	Volume
This	well	has	been	paved	over
un-able	to	open			

Sample appearance: ←→
QC samples collected at this well: ____ Lock: —

Equipment replaced: (Check all that apply)
2" Locking Cap ____ Lock #2357 ____
4" Locking Cap ____ Lock #3753 ____

Remarks: Well MW-7 has been paved over I was un-able to Sample, or gauge

Signature C. Jones Review

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: BEACON #720
Site: 1088 MARINA BLVD. SAN LEANDRO, CA.

Project No: 92-702
Well Designation: MW-8

Purging Equipment:

___	2" Disposable bailer		
X	2" PVC bailer	___	Submersible pump
___	4" PVC bailer	___	Dedicated bailer

Sampled with disposal bailer or other: X
Well recharged to 80% recovery.

Well Diameter:	2" X	3" ___	4" ___	6" ___	8" ___	
Purge Vol. Multiplier:	0.163	0.367	0.653	1.47	2.61	gal/ft.

Depth of well: 29.86 704 Am
Depth to water: 13.01

Calculated purge: 11.0 gal
Actual purge: 11.0

Meter Calibration
Date ___
Time ~~___~~

	Temp.	E.C.	pH	Turbidity
Initial reading				
Adjusted reading				

Start purge: 919 Am
Sampling time: 939 Am
Sampling Date: 5-25-95

Time	Temp.	E.C.	pH	Turbidity	Volume
925 Am	65.9	.76	5.40		
929 Am	67.5	.71	5.38		
936 Am	67.7	.68	5.32		

Sample appearance: cloudy
QC samples collected at this well: ___
Lock: Dolphin

Equipment replaced: (Check all that apply)

2" Locking Cap	___	Lock #2357	___
4" Locking Cap	___	Lock #3753	___

Remarks: Non Seatable lid / Water in box / Riser, gasket good.

Signature C. Jones
Review