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

March 11, 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 fourth quarter 1992 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
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

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ENVIRONMENTAL PROJECT QUARTERLY STATUS REPORT

DATE REPORT SUBMITTED: March 11, 1993
QUARTER ENDING: December 31, 1992

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 November 19, 1992.

RESULT OF QUARTERLY MONITORING:

Monitoring data indicates that the benzene concentration decreased in MW-1 from 150 ppb to 90 ppb, in MW-4 from 7,100 ppb to 5,500 ppb, in MW-5 from 1,800 ppb to 1,000 ppb, and in MW-8 from 680 ppb to 530 ppb. The benzene concentration increased in MW-2 from 890 ppb to 1,900 ppb, in MW-3 from 53 ppb to 73 ppb, and in MW-6 from 0.73 ppb to 1.5 ppb. The benzene concentration remained not detected in MW-7.

PROPOSED ACTIVITY OR WORK FOR NEXT QUARTER:

ACTIVITY	ESTIMATED COMPLETION DATE
Continue quarterly monitoring program	

AEGIS ENVIRONMENTAL, INC.

1050 Melody Lane, Suite 160, Roseville, CA 95678 ✦ 916 • 782-2110 / 916 • 969-2110 / FAX 916 • 786-7830

March 3, 1993

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

Subject: **Fourth Quarter 1992 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 November 19, 1992, at the subject site (Figure 1). The monitoring included measurements of depth to water in and total depths of eight wells (MW-1 through MW-8) on and off the site (Figure 2). Groundwater samples were collected from all eight wells.

GROUNDWATER ELEVATIONS

Aegis personnel collected measurements of the depth to groundwater in all eight wells prior to purging and sampling on November 19, 1992. Current groundwater level data, and prior 1992 data only, are summarized in Table 1. Previous groundwater level data are included in Attachment 3. All measurements of depth to groundwater were made to the nearest 0.01 foot from the referenced wellhead (top-of-casing) elevations and conducted according to the Aegis standard operating procedures (SOP) included in Attachment 1. On the basis of the November 19, 1992, measurements, groundwater is estimated to flow generally to the west (Figure 2) at an average gradient of approximately 0.003 ft/ft. In general, groundwater levels have decreased at an average of 0.2-feet compared to the September 1992 event.

FIGURES:

FIGURE 1 . . . . . SITE LOCATION MAP

FIGURE 2 . . . . . POTENTIOMETRIC SURFACE MAP (NOVEMBER 19, 1992)

FIGURE 3 . . . . . DISTRIBUTION MAP OF BENZENE IN GROUNDWATER (NOVEMBER 19, 1992)

TABLES:

TABLE 1 . . . . . WATER LEVEL DATA

TABLE 2 . . . . . ANALYTICAL RESULTS: GROUNDWATER

ATTACHMENTS:

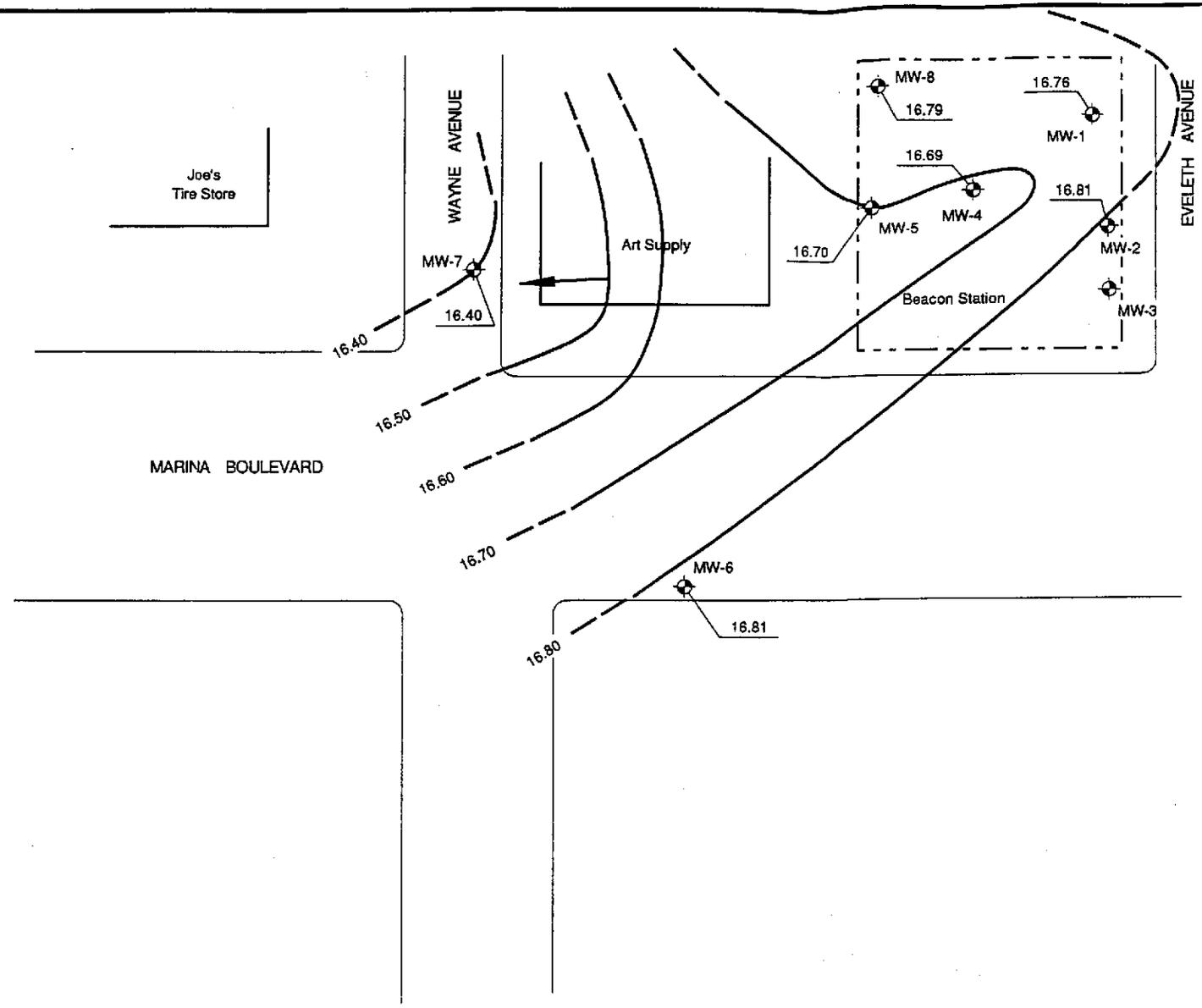
ATTACHMENT 1 . . . . . STANDARD OPERATING PROCEDURES

ATTACHMENT 2 . . . . . LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORM

ATTACHMENT 3 . . . . . HISTORICAL WATER LEVEL DATA

ATTACHMENT 4 . . . . . HISTORICAL ANALYTICAL DATA

ATTACHMENT 5 . . . . . FIELD DATA SHEETS



LEGEND

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

Hydraulic Gradient = 0.003 ft/ft
Contour Interval = 0.1 ft

NOTES

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

All Locations Are Approximate

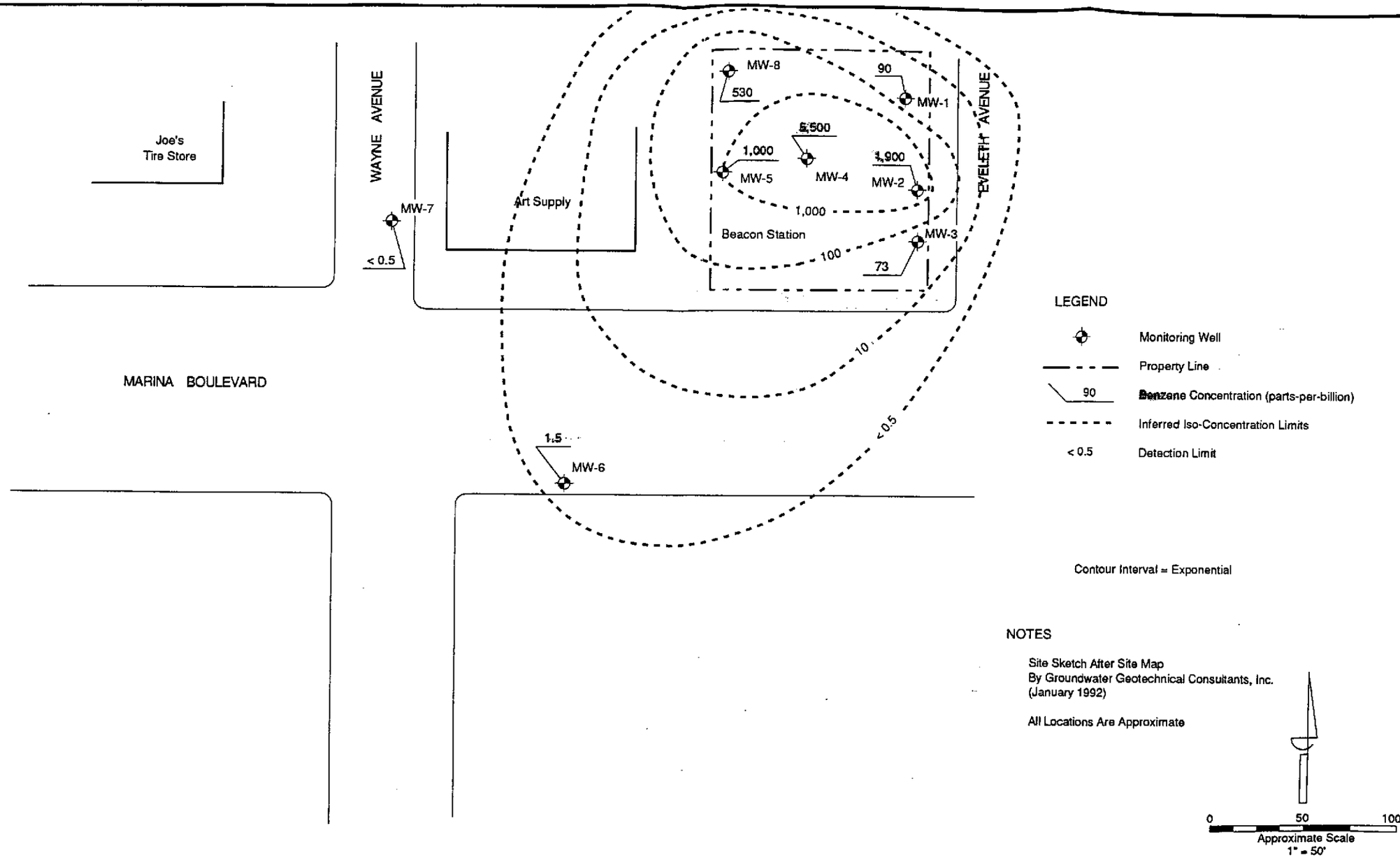
0 50 100
Approximate Scale
1" = 50'

AEGIS ENVIRONMENTAL, INC.

POTENTIOMETRIC SURFACE MAP
November 19, 1992

FIGURE 2

DRAWN BY: D. Hada	DATE: January 5, 1993	Beacon Station #720 1088 Marina Boulevard San Leandro, CA
REVISED BY:	DATE:	
REVIEWED BY: DIS	DATE: 1-26-93	PROJECT NUMBER: 92-702



AEGIS ENVIRONMENTAL, INC.		DISTRIBUTION MAP OF BENZENE IN GROUNDWATER November 19, 1992	FIGURE 3
DRAWN BY: D. Hada	DATE: January 4, 1993	Beacon Station #720 1088 Marina Boulevard San Leandro, CA	PROJECT NUMBER: 92-702
REVISED BY: TL	DATE: 3/3/93		
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	
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	
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	
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	
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	
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	
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	
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	

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.

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
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
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
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
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
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
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
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

NOTES: < = Below indicated detection limit.
ND = Reported as "nondetect" by previous consultant.

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 FORM

ANALYSIS REPORT

1020lab.frm

Attention:	Ms. Sheila Richgels	Date Sampled:	11-19-92
	Aegis Environmental	Date Received:	11-24-92
	1050 Melody Ln., Ste 160	BTEX Analyzed:	11-24-92
	Roseville, CA 95678	TPHg Analyzed:	11-24-92
Project:	19505-L, Project #92-702	TPHd Analyzed:	NR
	Station #720, San Leandro	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	50
SAMPLE Laboratory Identification						
MW-1 W1211389	90	11	50	87	1300	NR
MW-2 W1211390	1900	1700	870	3400	32000	NR
MW-3 W1211391	73	6.2	140	120	4700	NR
MW-4 W1211392	5500	840	400	1400	33000	NR
MW-5 W1211393	1000	280	120	370	7800	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.

JM Tague
Laboratory Representative

December 3, 1992
Date Reported

ANALYSIS REPORT

1020lab.frm

Attention:	Ms. Sheila Richgels	Date Sampled:	11-19-92
	Aegis Environmental	Date Received:	11-24-92
	1050 Melody Ln., Ste 160	BTEX Analyzed:	11-24-92
	Roseville, CA 95678	TPHg Analyzed:	11-24-92
Project:	19505-L, Project #92-702	TPHd Analyzed:	NR
	Station #720, San Leandro	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	50
SAMPLE Laboratory Identification						
MW-6 W1211394	1.5	ND	ND	0.9	96	NR
MW-7 W1211395	ND	ND	ND	ND	ND	NR
MW-8 W1211396	530	310	130	560	9600	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.

JM Tague
Laboratory Representative

December 3, 1992
Date Reported

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
Page 5 of 5

Date Sampled	Depth to Groundwater (Feet)	Groundwater Elevation (Feet)
May 18, 1990	16.22	13.33
September 15, 1990	16.65	12.90
November 26, 1990	16.95	12.60
February 07, 1991	16.20	13.35
May 14, 1991	14.72	14.38
August 16, 1991	16.10	13.45
Groundwater Monitoring Well MW-5:		**New Elevation of Top of Casing = 32.70 feet**
December 24, 1991	16.92	15.78
March 30, 1992	13.48	19.22
Groundwater Monitoring Well MW-6:		**Elevation 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	2,800	2,200	15,000	
	Feb. 14, 1989	1,700	1,700	340	1,500	12,000	Odor
	May 02, 1989	1,500	2,400	510	2,400	18,000	Odor, Slight Sheen
	Aug. 10, 1989	1,400	1,500	360	1,600	10,000	Odor
	Nov. 08, 1989	920	470	190	360	7,200	Odor
	Feb. 20, 1990	810	540	270	800	3,300	
	May 18, 1990	1,900	500	560	1,600	5,600	
	Sep. 15, 1990	320	110	150	520	5,200	Odor
	Nov. 26, 1990	370	59	150	370	3,000	Odor
	Feb. 07, 1991	750	570	480	1,800	14,000	
	May 14, 1991	1,000	1,400	600	2,500	41,000	
	Aug. 16, 1991	310	210	150	480	4,000	Odor
	Dec. 24, 1991	530	95	310	680	11,000	Moderate Odor
	Mar. 30, 1992	630	550	540	1,900	27,000	Odor
MW-2	Apr. 16, 1987	3,131	4,239	1,067	4,608	17,920	
	June 23, 1987	2,188	2,622	1,047	4,699	49,354	
	July 06, 1987	1,575	1,729	457	1,702	8,676	
	Aug. 06, 1987	2,623	3,722	702	2,882	14,376	
	Nov. 04, 1987	2,200	4,100	900	3,500	19,000	

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

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

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

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	4,400	730	2,500	76,000	Odor, sheen
MW-5	Apr. 16 1987	2,267	921.2	3,277	4,536	17,733	
	June 23, 1987	2,239	516.8	953.9	1,587	19,555	
	July 06, 1987	1,335	313.7	799.2	923.9	5,631	
	Aug. 06, 1987	1,890	881.2	576.8	93.4	6,450	
	Nov. 04, 1987	1,300	500	270	640	4,600	
	Feb. 02, 1988	3,100	1,500	550	1,400	24,000	
	May 02, 1988	4,400	490	1,200	1,500	17,000	
	Nov. 21, 1988	5,600	590	870	2,200	19,000	
	Feb. 14, 1989	4,300	810	410	1,300	13,000	Odor
	May 02, 1989	2,900	1,500	690	3,200	24,000	Odor, slight sheen
	Aug. 10, 1989	6,700	2,300	860	4,700	36,000	Odor, slight sheen
	Nov. 08, 1989	5,300	860	460	600	30,000	Odor
	Feb. 20, 1990	1,700	220	120	370	3,400	
	May 18, 1990	18,000	2,000	1,500	5,600	24,000	
	Sep. 15, 1990	2,600	2,200	1,000	4,900	42,000	Odor, sheen
	Nov. 26, 1990	1,900	280	260	800	8,500	Odor, sheen

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

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

Notes:

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

ATTACHMENT 5

FIELD DATA SHEETS

Reona - Fremont
510-451-1906

Ultramar Inc.
CHAIN OF CUSTODY REPORT

BEACON

5753

RECEIVED DEC 15 1992

Ans'd. 12/15/92

92-702

Beacon Station No.	Sampler (Print Name)	Date	Form No.
720	Mike Wesney	11-23-92	1 of 1

Project No.	Sampler (Signature)
92-702	Mike Wesney

Project Location	Affiliation
1088 Marina Blvd, San Leandro, CA	Aegis Environmental

ANALYSES

Pls use Tri-Regional Detection Limits

Sample No./Identification	Date	Time	Lab No.	BTEX	TPH (gasoline)	TPH (diesel)						No. of Containers	REMARKS
MW1	11-19-92	6:46	W211389	X	X							2	one vial Broken
MW2	↓	6:37	390	↓	↓							↓	one vial Broken
MW3	↓	6:12	391	↓	↓							↓	
MW4	↓	6:00	392	↓	↓							↓	
MW5	↓	5:38	393	↓	↓							↓	
MW6	↓	5:05	394	↓	↓							↓	
MW7	↓	5:[illegible]	395	↓	↓							↓	
MW8	↓	5:32	396	↓	↓							↓	

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Mike Wesney	11-23	12:20	[signature]	11/23	12:25
[signature]	11/23	3:25	[signature]	11/23	15:30
[signature]	11/23	1900	[signature]	[illegible]	[illegible]

Report To: **Sheila Richgels**
Aegis Environmental
1050 Melody Lane, Suite 160
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

32-6003 1/90

[illegible] on 11/24 at 8 [illegible]

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

Project Address: Beacon - 1088 Marina Bl, San Leandro - 720 **Date:** 11-19-92

Recorded by: Mike Wenney **Project No.:** 92-702

Well No.	Time	Measured Total Depth	Depth to Gr. Water	Depth to Product	Product Thickness	Comments (TOC/TOB) (product skimmer in well)
MW-1	4:39	27.76	16.34	N/A	N/A	
MW-2	4:45	24.56	15.99			
MW-3	4:36	24.45	15.57			
MW-4	4:52	26.92	16.21			
MW-5	4:49	27.56	16.00			
MW-6	4:23	15.10	13.59			
MW-7	4:31	25.01	14.80			
MW-8	4:42	29.75	17.01			

Notes:

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: Beacon

Site: 1088 [illegible] Blvd

Project No: 92-702

Well Designation: MW1

Purging Equipment: ____ 2" PVC bailer ____ 4" PVC bailer X 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: 27.76

Depth to water: 16.34

Calculated purge: 8gal

Actual purge: 8gal

Start purge: 6:03

Sampling time: 6:46

Sampling Date: 11-19-92

Time	Temp.	E.C.	pH	Turbidity	Volume
6:06	59.0	2.52	13.60		6
6:07	61.2	2.36	14.54		1
6:07	61.2	2.32	14.00		1

Sample appearance: Blackish

QC samples collected at this well: ____

Lock: 3753

Remarks: ____

Signature [signature]

Review [signature]

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: Beacon
Site: 1088 Marina Blvd

Project No: 92-702
Well Designation: MW2

Purging Equipment:
___ 2" PVC bailer
___ 4" PVC bailer
X 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: 29.56
Depth to water: 15.98

Calculated purge: 6gal
Actual purge: 6gal

Start purge: 5:52
Sampling time: 6:57
Sampling Date: 11-18-92

Time	Temp.	E.C.	pH	Turbidity	Volume
5:52	65.2	3.42	11.52		4
5:54	65.4	3.47	11.42		1
5:54	65.6	3.27	11.99		1

Sample appearance: Cloudy

QC samples collected at this well: ___

Lock: 3753

Remarks: ___

Signature [signature] Review [signature]

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: Beacon
Site: 1088 Marina Blvd

Project No: 92-702
Well Designation: MW3

Purging Equipment:

____ 2" PVC bailer
____ 4" PVC bailer
X 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: 24.45
Depth to water: 15.57

Calculated purge: 6gal
Actual purge: 6gal

Start purge: 5:45

Sampling time: 6:18

Sampling Date: 11-18-92

Time	Temp.	E.C.	pH	Turbidity	Volume
5:47	63.7	3.30	11.79		4
5:48	64.5	3.14	11.42		1
5:48	65.0	3.10	12.47		1

Sample appearance: Semi Cloudy

QC samples collected at this well: ____

Lock: 3753

Remarks: ____

Signature Mike Wesson

Review

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: Beacon
Site: 1095 Marina Blvd

Project No: 92-702
Well Designation: MW4

Purging Equipment:
_____ 2" PVC bailer
_____ 4" PVC bailer
__X__ 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: 26.92
Depth to water: 16.21

Calculated purge: 8 gal
Actual purge: 8 gal

Start purge: 5:35
Sampling time: 6:00
Sampling Date: 11-19-9

Time	Temp.	E.C.	pH	Turbidity	Volume
5:38	60.4	3.95	12.07		6
5:39	623	4.00	11.87		1
5:39	63.5	3.98	11.35		1

Sample appearance: Blackish

QC samples collected at this well: _____

Lock: 3753

Remarks: _____

Signature: Mike Wesray

Review: [signature]

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: Beacon
Site: 1088 Marina Blvd

Project No: 92.702
Well Designation: MW5

Purging Equipment:
_____ 2" PVC bailer
_____ 4" PVC bailer
__X__ 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: 27.56
Depth to water: 16.00

Calculated purge: 8gal
Actual purge: 8gal

Start purge: 5:24 Sampling time: 5:38 Sampling Date: 11-19-92

Time	Temp.	E.C.	pH	Turbidity	Volume
5:27	61.2	4.10	12.17		6
5:28	62.9	3.72	11.97		1
5:28	64.4	3.70	11.37		1

Sample appearance: Semi cloudy

QC samples collected at this well: _____

Lock: 3753

Remarks: _____

Signature Mike McInerney Review

AEGIS ENVIRONMENTAL INC.

SAMPLING INFORMATION SHEET

Client: Beacon
Site: 1088 Mecina Blvd

Project No: 92-702
Well Designation: MW6

Purging Equipment:
- 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: 15.10
Depth to water: 13.58

Calculated purge: 2 gal
Actual purge: 1/2 gal

Start purge: 4:24
Sampling time: 5:00
Sampling Date: 11-19-9[illegible]

Time	Temp.	E.C.	pH	Turbidity	Volume
4:25	Dry	1/2 gal			

Sample appearance: clear

QC samples collected at this well: ____

Lock: 3753

Remarks: Hand Bailed

Signature: Mike Mooney

Review: [signature]

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: Beacon
Site: 1088 Marina Blvd

Project No: 92-702
Well Designation: MW7

Purging Equipment:
___ 2" PVC bailer
___ 4" PVC bailer
X 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: 25.01
Depth to water: 14.80

Calculated purge: 79.1
Actual purge: 79.1

Start purge: 4:37 Sampling time: 5:05 Sampling Date: 11-19-92

Time	Temp.	E.C.	pH	Turbidity	Volume
4:40	66.7	3.62	13.30		5
4:41	61.7	4.08	13.63		1
4:41	63.9	4.16	12.74		1

Sample appearance: clear

QC samples collected at this well: ___

Lock: 3753

Remarks: ___

Signature Mike Worley Review

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: Beacon
Site: 7088 Moraga Blvd

Project No: 92-702
Well Designation: MW8

Purging Equipment:
___ 2" PVC bailer
___ 4" PVC bailer
X 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: 29.75
Depth to water: 17.01

Calculated purge: 9 gal
Actual purge: 9 gal

Start purge: 5:09 Sampling time: 5:32 Sampling Date: 11-19-92

Time	Temp.	E.C.	pH	Turbidity	Volume
5:12	62.3	3.57	12.22		7
5:13	62.9	3.62	14.60		1
5:17	63.9	3.39	14.70		1

Sample appearance: cloudy

QC samples collected at this well: ___

Lock: 3757

Remarks: ___

Signature: Mike Wong Review: [signature]