

Ultramar

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

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209-583-3330 Administrative
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209-583-3358 Accounting

May 20, 1992

Mr. Scott Seary
Department of Environmental Health
Hazardous Materials Program
80 Swan Way Rm 200
Oakland CA 94621

SUBJECT: BEACON SERVICE STATION NO. 574, 22315 REDWOOD ROAD, CASTRO VALLEY, CA

Dear Mr. Seary:

Enclosed for your review and files is a copy of our consultant's FOURTH QUARTER MONITORING LETTER REPORT, NOVEMBER 1991, for the above-referenced Ultramar facility.

Please do not hesitate to call if you have any questions regarding this information.

Sincerely,

ULTRAMAR INC.

Randall K. Stephenson

Randall K. Stephenson
Environmental Specialist II
Marketing Environmental

RKS/jj

Enclosure: Aegis report dated May 4, 1992

cc w/enc.: Mr. Rich Hiett
CRWQCB - San Francisco Bay Region
2101 Webster St Ste 500
Oakland CA 94612



A Member of the Ultramar Group of Companies

BEACON
#1 Quality and Service

8/7/92
SOS

92111503 11/11/92

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ENVIRONMENTAL PROJECT QUARTERLY STATUS REPORT

DATE REPORT SUBMITTED: May 19, 1992
QUARTER ENDING: December 31, 1991

SERVICE STATION NO.: Former 574
ADDRESS: 22315 Redwood Road, Castro Valley, CA
COUNTY: Alameda

ULTRAMAR CONTACT: Randall K. Stephenson **TEL. NO:** 209-583-3324

BACKGROUND:

On May 5, 1987, five underground storage tanks (two gasoline, two diesel, and one waste oil) were excavated and removed from the site. Soil samples were collected from beneath the tank sites and analyzed for selected hydrocarbons. Based on preliminary analytical data related to the soil samples, it was determined that elevated levels of gasoline and diesel hydrocarbons were present in the bottom of the fuel tank area. Soil was excavated from the fuel tank area. Analysis of confirmation samples collected from the fuel tank area indicates that the additional excavation was successful in removing the soil containing the elevated levels of hydrocarbons as detected in the original samples.

During March, 1991, three on-site ground-water monitoring wells were installed. Laboratory analyses of soil samples obtained from the borings drilled for the wells and water samples collected from the wells determined the presence of gasoline range hydrocarbons in the soil near the soil/ground-water interface and the in ground water. The analysis also determined that the up-gradient well (MW-3) contains gasoline range hydrocarbons indicating an off-site source.

*not confirmed - possibly
con for tank*

Quarterly monitoring of the wells began during the fourth quarter of 1991.

SUMMARY OF THIS QUARTER'S ACTIVITIES:

Ground-water sampling of all the wells was conducted by Aegis Environmental, Inc., on November 22, 1991.



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BEACON
#1 Quality and Service

Beacon Station No. 574
Castro Valley, CA
Quarterly Monitoring Report
Fourth Qtr. 1991

RESULT OF QUARTERLY MONITORING:

Ground-water elevations measured in the wells have decreased approximately 1.7 to 2.3 feet since the fourth quarter 1991 sampling event. Analytical results indicate that dissolved concentrations of hydrocarbon constituents remain elevated.

PROPOSED ACTIVITY OR WORK FOR NEXT QUARTER:

The first quarter 1992 sampling event was conducted in March, 1991. A separate report will be prepared for that event.



revised
8/7/92
SES

AEGIS ENVIRONMENTAL, INC.

1050 Melody Lane, Suite 160, Roseville, CA 95678



916 • 782-2110 / 916 • 969-2110 / FAX 916 • 786-7830

May 4, 1992

Mr. Randall Stephenson
Environmental Specialist II
525 West Third Street
Hanford, California 93232-0466

Subject: **Fourth Quarter Monitoring Letter Report, November 1991**
Beacon Station #574
22315 Redwood Road, Castro Valley, California

Dear Mr. Stephenson:

INTRODUCTION

Aegis Environmental, Inc. (Aegis), has been authorized by Ultramar Inc. (Ultramar), to conduct groundwater monitoring at the former Beacon service station site, #574, located at 22315 Redwood Road, Castro Valley, Alameda County, California (site). This letter report documents the fourth quarter groundwater monitoring conducted by Aegis on November 22, 1991, at this site (Figure 1). This letter report is based, in part, on information obtained by Aegis from Ultramar, and is subject to modification as newly acquired information may warrant.

SITE DESCRIPTION

The site currently has a strip shopping center occupied by a 7-Eleven store, Lee's Donuts, Redwood Cleaners, Pizza Express, and Rob's Video. There are no longer underground storage tanks at the site. Details of the site's facilities, including monitoring wells, are shown on Figure 2.

91-212A,QMR

GEOLOGISTS • ENGINEERS • GROUNDWATER SCIENTISTS

GROUNDWATER MONITORING

Groundwater Measurements

On November 22, 1991, Aegis personnel collected measurements of the depth to groundwater in monitoring wells MW-1, MW-2, and MW-3. Depth to water ranged from 22.54 to 24.09 feet below grade. On the basis of the November 22, 1991, measurements, groundwater is estimated to flow to the southwest (Figure 3) at an average gradient of approximately 0.01 ft/ft.

Current and previous groundwater levels are summarized in Table 1. All groundwater elevation measurements were made from the referenced wellhead elevations, measured to the nearest 0.01 foot, and conducted according to the Aegis standard operating procedures (SOP) included in Attachment 1.

Groundwater Sampling and Analyses

On November 22, 1991, Aegis personnel collected groundwater samples from monitoring wells MW-1, MW-2, and MW-3. The samples were collected according to the Aegis SOP included as Attachment 1, and delivered under chain-of-custody to WEST Analytical of Davis, California, a state-certified analytical laboratory. The samples were analyzed for concentrations of: a) total (volatile) petroleum hydrocarbons (TPH), as gasoline by modified EPA Method 8015/purge-and-trap; and b) benzene, toluene, ethylbenzene, and total xylenes by EPA Method 602; and TPH, as diesel and motor oil, by modified EPA Method 8015/extraction. The analytical results are summarized in Table 2. The analytical reports and chain-of-custody form are included in Attachment 2.

RECOMMENDATION

It is recommended that copies of this letter report be forwarded to the following agencies:

Mr. Scott O. Seery
Alameda County Health Agency
Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Room 350
Oakland, California 94621

Mr. Rich Hiett
San Francisco Bay Region
Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612

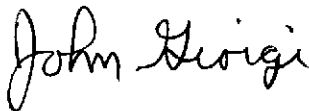
REMARKS/SIGNATURES

The interpretations and/or conclusions contained in this letter report represent our professional opinions. These opinions are based on currently available information and were developed in accordance with currently accepted geologic, hydrogeologic, and engineering practices at this time and for this specific site. Other than this, no warranty is implied or intended.

This letter report has been prepared solely for the use of Ultramar Inc. Any reliance on this letter report by third parties shall be at such parties' sole risk. The work described herein was performed under the direct supervision of the professional geologist, registered with the State of California, whose signature appears below.

Sincerely,

AEGIS ENVIRONMENTAL, INC.



John Giorgi
Staff Geologist

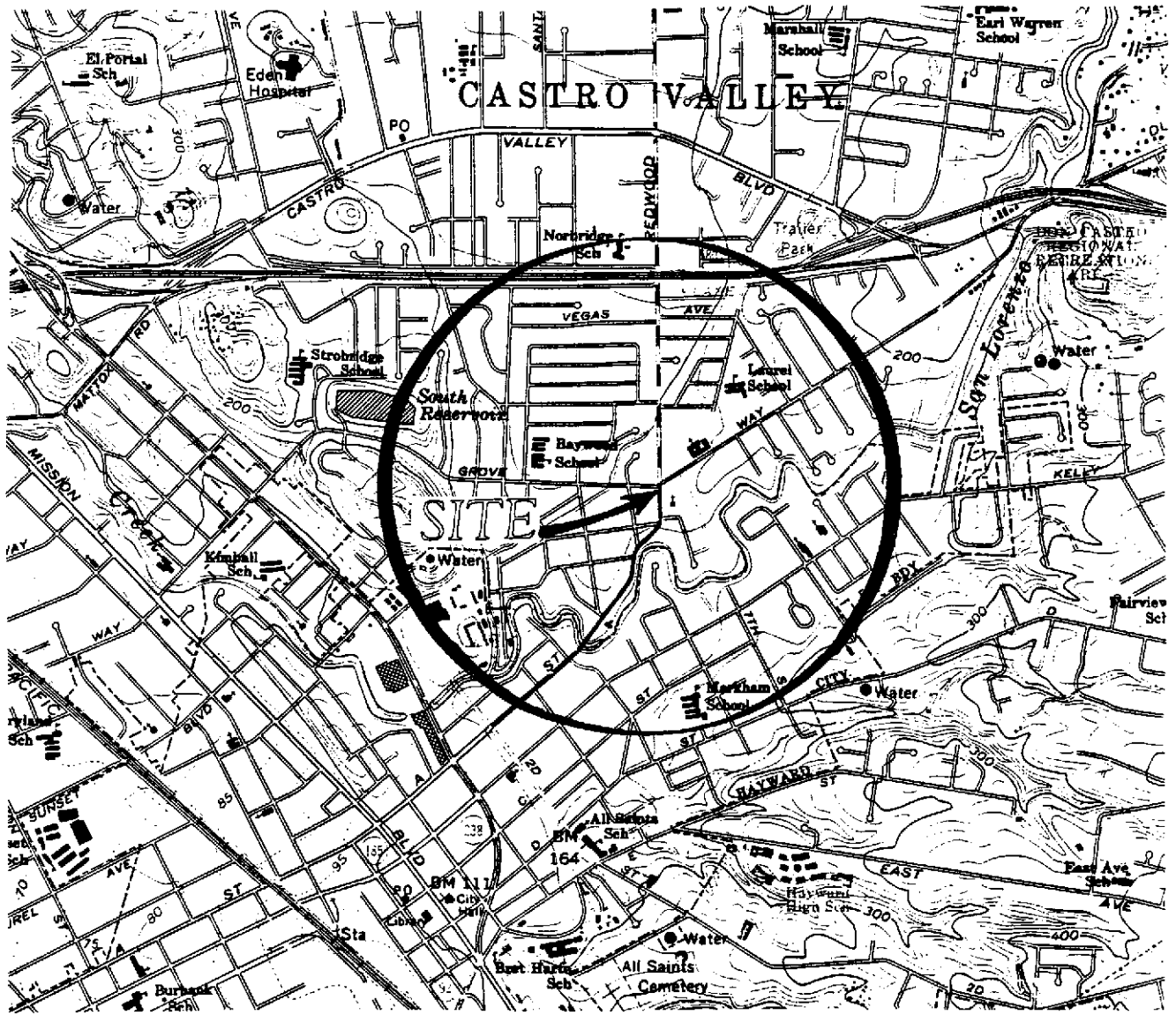


Pat Wright
Registered Geologist
CRG No. 529

5-4-92
Date

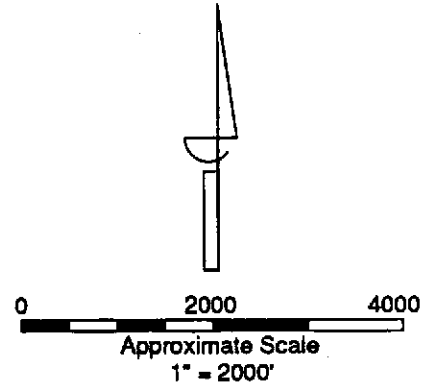
JG/PW/law






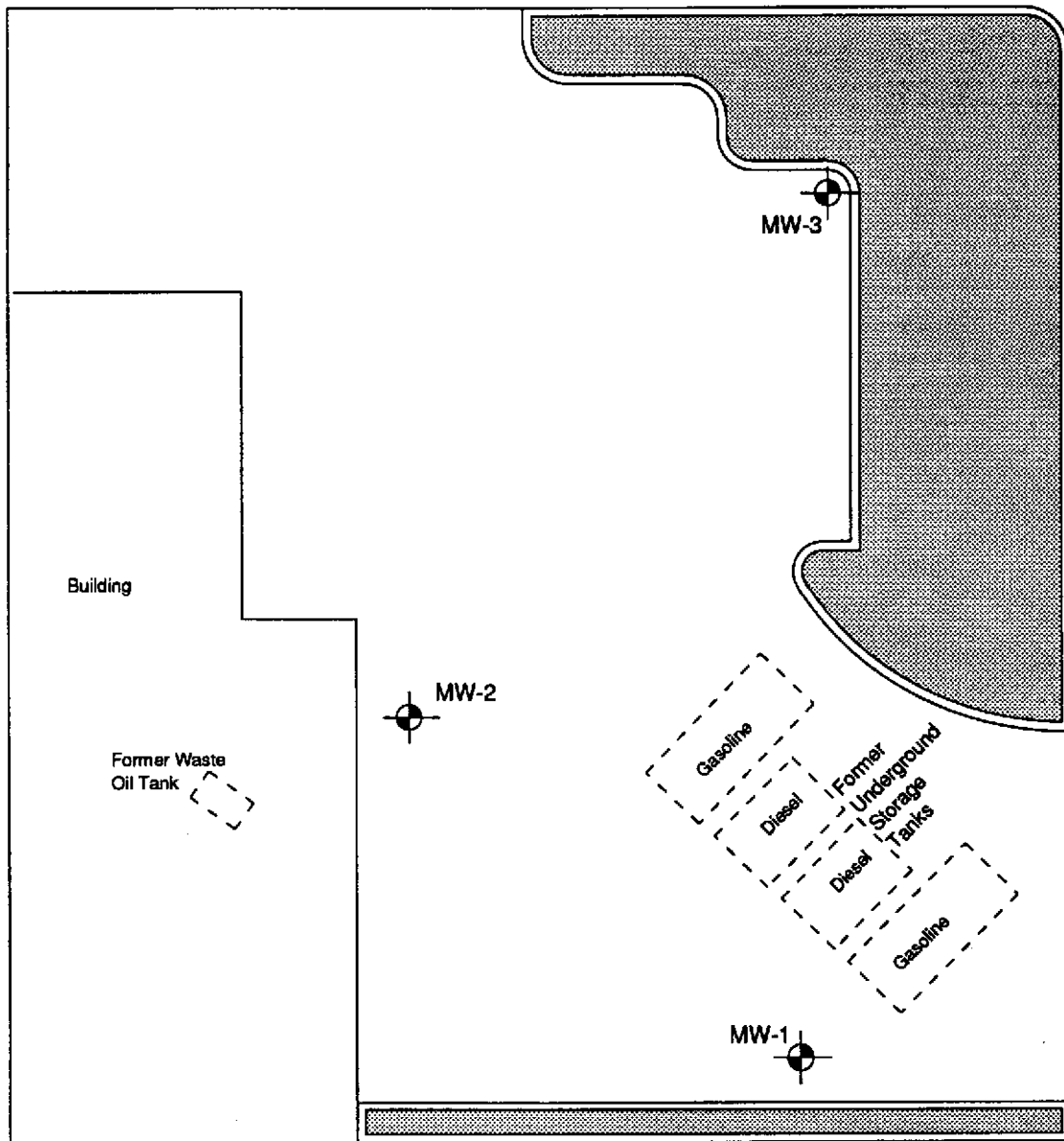
GENERAL NOTES:

BASE MAP FROM USGS
7.5 MINUTE TOPOGRAPHIC
HAYWARD, CALIF.



 AEGIS ENVIRONMENTAL, INC.		SITE LOCATION MAP		FIGURE 1	
DRAWN BY: Ed Berand	DATE: April 13, 1992	Former Beacon Station # 574 22315 Redwood Road Castro Valley, CA		PROJECT NUMBER: 10-91212	
REVISED BY:	DATE:				
REVIEWED BY: <i>John Giorgi</i>	DATE: April 15, 1992				

GROVE WAY



REDWOOD ROAD

0 20 40
Approximate Scale
1" = 20'

LEGEND

Monitoring Well

NOTES

Site Sketch After
Water Table Contour Map
By Delta Environmental

All locations Are Approximate



AEGIS ENVIRONMENTAL, INC.

SITE MAP

FIGURE

2

DRAWN BY: Ed Bernard	DATE: April 8, 1992
REVISED BY:	DATE:
REVIEWED BY: <i>John Giorgi</i>	DATE: April 15, 1992

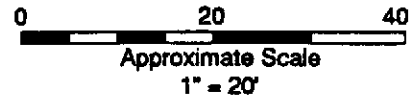
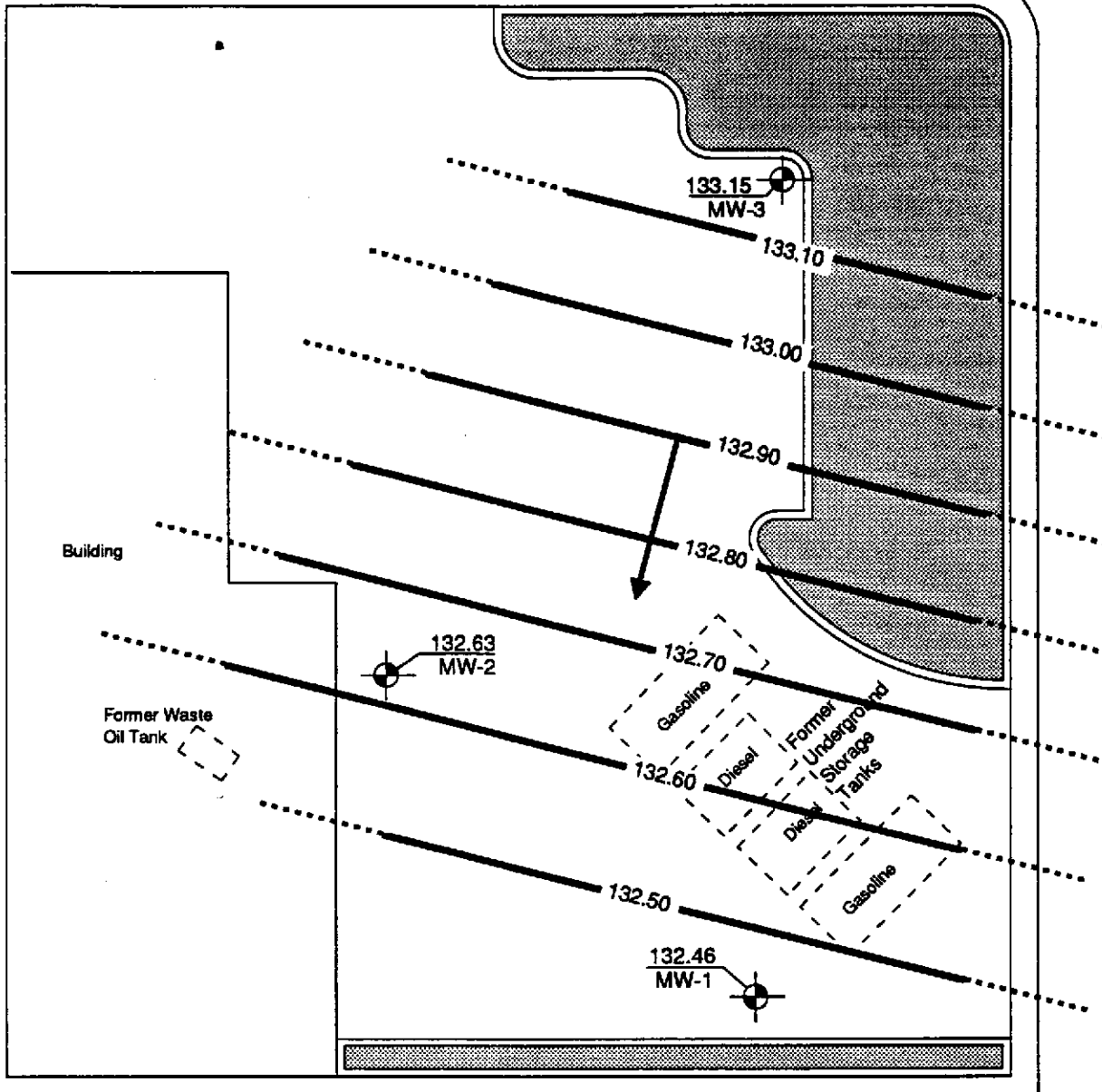
Former Beacon Station # 574
22315 Redwood Road
Castro Valley, CA

PROJECT NUMBER:



10-91212

GROVE WAY

REDWOOD ROAD



LEGEND

-  Monitoring Well
- 134.12 Groundwater Elevation
- - - - - Potentiometric Surface Contour (Dashed Where Inferred)
-  Estimated Direction Of Groundwater Flow

NOTES

Site Sketch After
Water Table Contour Map
By Delta Environmental

All locations Are Approximate

Approximate Hydraulic Gradient = 0.01 ft. / ft.
Contour Interval = 0.1 ft.


 AEGIS ENVIRONMENTAL, INC.		POTENTIOMETRIC SURFACE MAP November 22, 1991		FIGURE 3
DRAWN BY: Ed Bernard	DATE: April 8, 1992	Former Beacon Station # 574 22315 Redwood Road Castro Valley, CA		
REVISOR BY: <i>John Giorgi</i>	DATE: April 15, 1992			

TABLE 1

WATER LEVEL DATA

**BEACON STATION #574
22315 REDWOOD ROAD, CASTRO VALLEY, CALIFORNIA
(Measurements in feet)**

Monitoring Well	Date	Reference Elevation (top-of-casing) ¹	Depth to Groundwater ¹	Groundwater Elevation ²
MW-1	03/26/91	156.55	22.43	134.12
	04/01/91		22.37	134.18
	11/22/91		24.09	132.46
MW-2	03/26/91	155.17	20.91	134.26
	04/01/91		20.82	134.35
	11/22/91		22.54	132.63
MW-3	03/26/91	157.13	21.62	135.51
	04/01/91		21.55	135.58
	11/22/91		23.98	133.15

- NOTES:
- 1 = Measurement and reference elevation taken from notch/mark on top north side of well casing.
 - 2 = Elevation referenced to mean sea level and obtained from previous consultant.
 - NA = Not available.
 - NM = Not measured.
 - Well Depth = Measurement from top of casing to bottom of well.

TABLE 2

ANALYTICAL RESULTS: GROUNDWATER

BEACON STATION #574
 22315 REDWOOD ROAD, CASTRO VALLEY, CALIFORNIA
 (All results in parts per billion)

Sample ID	Date Collected	Total Petroleum Hydrocarbons			Aromatic Volatile Organics			
		Gasoline	Diesel	Motor Oil	Benzene	Toluene	Ethyl-benzene	Total Xylenes
MW-1	04/01/91	4,100	<100	---	300	570	76	460
	11/22/91	5,300	<50	<50	4.9	1,600	370	2,300
MW-2	04/01/91	10,000	<100	---	650	640	150	960
	11/22/91	11,000	<50	<50	51	1,900	770	3,200
MW-3	04/01/91	3,100	<100	---	41	91	37	420
	11/22/91	470	<50	<50	10	6.3	11	36

NOTES: < = Below detection limits per "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" (August 10, 1990) Practical Quantitation Reporting Limits. (PQL for BTEX = 0.5 ppb, TPH, as gasoline and diesel = 50 ppb.)
 --- = Not analyzed.

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 methods 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 period 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: 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 point, the probe cord (or halyard) is marked and an 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 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 mechanisms. The probe tip is then lowered into the well and submerged in the groundwater. An oscillating (beeping) tone indicates that 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.

RECEIVED

DEC 05 1991



December 2, 1991
Sample Log 3569

Asst. JEL

John Giorgi
Aegis Environmental Consultants, Inc.
1050 Melody Lane, Suite 160
Roseville, CA 95678

Subject: Analytical Results for 3 Water Sample(s)
Identified as: Project # 91-212 (Beacon # 574)
Received: 11/25/91

Dear Mr. Giorgi:

Analysis of the sample(s) referenced above has been completed. This report is written to confirm results communicated on November 27, 1991 and describes procedures used to analyze the samples.

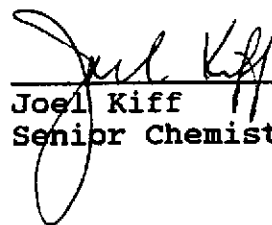
Water samples were received in 40-mL glass bottles sealed with TFE septae, and in 1-L glass bottles sealed with TFE-lined caps. Each sample was received under documented chain of custody and stored at 4 degrees C until analysis was performed.

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

- "BTEX" (EPA Method 602/Purge-and-Trap)
- "TPH as Gasoline" (Modified EPA Method 8015/Purge-and-Trap)
- "TPH as Diesel, Motor Oil, Jet/Kerosene" (Mod. 8015/Extraction)

Please refer to the following table(s) for summarized analytical results and contact us at 916-757-4650 if you have questions regarding procedures or results. The chain-of-custody document is enclosed.

Approved by:


Joel Kiff
Senior Chemist



December 2, 1991
Sample Log 3569

Sample: 91-212-MW-1

From : Project # 91-212 (Beacon # 574)
Received : 11/25/91
Matrix : Water

--all concentrations are units of ug/L--

Parameter / (Reporting Limit)	Measured Value
Benzene (.5)	4.9
Toluene (.5)	1600
Ethylbenzene (.5)	370
Total Xylenes (.5)	2300
TPH as Gasoline (50)	5300
Extractable TPH (50)	Diesel : <50 Motor Oil : <50



December 2, 1991
Sample Log 3569

Sample: 91-212-MW-2

From : Project # 91-212 (Beacon # 574)
Received : 11/25/91
Matrix : Water

--all concentrations are units of ug/L--

Parameter / (Reporting Limit)	Measured Value
Benzene (.5)	51
Toluene (.5)	1900
Ethylbenzene (.5)	770
Total Xylenes (.5)	3200
TPH as Gasoline (50)	11000
Extractable TPH (50)	Diesel : <50 Motor Oil : <50



December 2, 1991
Sample Log 3569

Sample: 91-212-MW-3

From : Project # 91-212 (Beacon # 574)
Received : 11/25/91
Matrix : Water

--all concentrations are units of ug/L--

Parameter / (Reporting Limit)	Measured Value
Benzene (.5)	10
Toluene (.5)	6.3
Ethylbenzene (.5)	11
Total Xylenes (.5)	36
TPH as Gasoline (50)	470
Extractable TPH (50)	Diesel : <50 Motor Oil : <50



Ultram Inc.
CHAIN OF CUSTODY REPORT

BEACON

Beacon Station No. 574		Sampler (Print Name) John Giorgi			ANALYSES				Date 11-22-91	Form No. 1 of 1
Project No. 91-212		Sampler (Signature) <i>John Giorgi</i>			BTEX	TPH (gasoline)	TPH (diesel)	No. of Containers	REMARKS 1 week TAT (results by Fri if possible).	
Project Location 22315 Redwood Rd Castro Valley		Affiliation								
Sample No./Identification	Date	Time	Lab No.							
91-212-MW-1	11-22-91	13:18		XXX				4	2 VOA's & 2-1 liter bottles	
91-212-MW-2	↓	13:36		XXX				4	sm. amt. heads p in 1L bots	
91-212-MW-3	↓	11:20		XXX				4		
Relinquished by: (Signature/Affiliation) <i>John Giorgi / Aegis Environmental</i>		Date 11/25/91	Time 07:37	Received by: (Signature/Affiliation) <i>Donald J. Kirsch / WEST</i>				Date 11/25/91	Time 07:37	
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: Randy Stephenson & John Giorgi of Aegis Environmental FAX results (916) 786-7830				Bill to: ULTRAMAR INC. 525 West Third Street Hanford, CA 93230 Attention: <u>Randy Stephenson</u>						

WHITE: Return to Client with Report

YELLOW: Laboratory Copy

PINK: Originator Copy