ORO LOMA SANITARY DISTRICT
2600 Grant Avenue
SAN LORENZO, CALIFORNIA 94580

(415) 276-4700 FAX (415) 276-1528

LETTER OF TRANSMITTAL

DATE 5-26-94	JOB NO. 45-264-02
ATTENTION PAM EVANS	
RE: QUARTERLY GROUND-WATER MONITORING RESULTS	

Juliet - Yours? Pam

ALCO HAZMAT
MAY 27 PM 2: 08

TO ACHCSA
UNDERGROUND TANK SECTION
DEPT. OF ENVIRONMENTAL HEALTH
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621

WE ARE SENDING YOU ☐ Attached ☐ Under separate cover via ______ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☑ QUARTERLY REPORT

COPIES	DATE	NO.	DESCRIPTION
1	May 23, 94		REPORT.

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit ____ copies for approval

☑ For your use ☐ Approved as noted ☐ Submit ____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return ____ corrected prints

☐ For review and comment ☐ ______

☐ FOR BIDS DUE ______ 19 ____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS PLS. CALL ME AT (510) 276-4700, EXT. 131 IF YOU HAVE ANY QUESTIONS.

Thanks!

COPY TO ______

SIGNED: MIKE CORTEZ

If enclosures are not as noted, kindly notify us at once.

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

May 23, 1994

LF 2793.00-002

Mr. Michael Cortez, Director of Engineering
Oro Loma Sanitary District
2600 Grant Avenue
San Lorenzo, California 94580

Subject: Quarterly Ground-Water Monitoring Results, Oro Loma Sanitary District Treatment Plan
2600 Grant Avenue, San Lorenzo, California

Dear Mike:

Enclosed is the original of our report presenting the quarterly ground-water monitoring results for well MW-1 for the period from January 1 through March 31, 1994. A copy of the report is also enclosed for your files.

Please attach a cover letter to the original of the report and send it to the attention of Pam Evans, Alameda County Health Care Services Agency (ACHCSA) Underground Tank Section, Department of Environmental Health, 80 Swan Way, Room 200, Oakland, California 94621.

The March 29, 1994 report submitted to ACHCSA for the additional soil excavation conducted in the vicinity of the [redacted] recommended continuing ground-water monitoring for an additional year. Because two quarterly ground-water sampling events (December 1993 and March 1994) were conducted after the removal of the diesel-affected soils in September 1994, [redacted] (June and September 1994).

Four quarters of analytical data for MW-1 will be available for review by the sanitary district and ACHCSA, after soil removal, to evaluate whether additional ground-water monitoring is warranted. Considering the low levels of diesel detected in ground water, it is unlikely that the ACHCSA will require ground-water remediation.

Also enclosed is a work order for conducting the two additional ground-water sampling events for well MW-1 for the period from April through September 1994. Two copies of the work order, each with an Approval and Acceptance page, are

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1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500
Fax (510) 652-2246

enclosed. To authorize the work order, please sign both copies and return one executed original to me. We will initiate the work upon receipt of the signed document.

Please do not hesitate to call me or Kenton Gee if you have any questions or need additional information.

Sincerely,

Jo Ann T. Weber, R.G.
Senior Project Hydrogeologist

Enclosure

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

May 23, 1994

LF 2793.00-002

Mr. Michael Cortez, Director of Engineering
Oro Loma Sanitary District
2600 Grant Avenue
San Lorenzo, California 94580

Subject: Quarterly Ground-Water Monitoring Results, Oro Loma Sanitary District Treatment Plant
2600 Grant Avenue, San Lorenzo, California

Dear Mike:

This letter transmits the results of quarterly ground-water monitoring for the Oro Loma Sanitary District Treatment Plant in San Lorenzo, California ("the Site"), for the period from January 1 through March 31, 1994.

Quarterly ground-water monitoring is conducted at the Site in accordance with recommendations made by Levine•Fricke in our report "Soil and Ground-Water Quality Investigation in the Vicinity of Two Aboveground Diesel Fuel Storage Tanks at the Oro Loma Sanitary District Treatment Plant, 2600 Grant Avenue, San Lorenzo, California," which was submitted to Alameda County Health Care Services Agency (ACHCSA) on March 23, 1993.

A ground-water sample was collected from monitoring well MW-1 on March 15, 1994 (Figure 1). Before the sample was collected, the depth from the top of the well casing to ground water was measured to the nearest 0.01 foot using an electronic water level recorder; the measured depth to ground water on that date was 2.11 feet.

The well was purged with a centrifugal pump. During well purging, pH, specific conductance, and water temperature were monitored using portable field instruments and recorded on a water-quality sampling form (Appendix A). The well was purged until 3 well volumes were removed and/or the parameters stabilized to within 10 percent of the previous measurement. The hose for the centrifugal pump was steam cleaned before use in the well. Purged ground water was pumped into the treatment plant headworks.

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Other offices in Irvine, CA; Sacramento/Roseville, CA; Tallahassee, FL; Honolulu, HI

A primary ground-water sample and a duplicate sample were collected, using a clean Teflon bailer fitted with a new length of rope. For analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), ground water collected in the bailer was gently poured into precleaned, laboratory-supplied, 40-milliliter glass volatile organic analysis vials and checked for trapped air by inverting and tapping the vial. If an air bubble was observed, the sample was discarded and a new vial was filled with fresh ground water from the well. For analysis of total petroleum hydrocarbons as diesel (TPHd), a 1-liter amber glass bottle was filled with ground water from the bailer.

For quality assurance and quality control purposes, a field-prepared bailer blank and a laboratory-prepared trip blank were submitted to the laboratory with the primary ground-water sample. The samples were stored in an ice-chilled cooler and submitted under chain-of-custody protocol to American Environmental Network of Pleasant Hill, California, a state-certified analytical laboratory.

Modified EPA Method 8015 was used to analyze the primary sample for TPHd, and EPA Method 8020 was used to analyze the primary sample for BTEX. The trip blank was analyzed using modified EPA Method 8015 and EPA Method 8020, and the field bailer blank was analyzed using EPA Method 8020.

Analysis indicated the presence of 0.2 part per million TPHd in the primary sample and the duplicate sample; no BTEX compounds were detected above laboratory detection limits in the primary sample, duplicate, or blanks. The concentrations detected were slightly lower than those detected during previous sampling events at well MW-1 (see Table 1). A copy of the laboratory data report is attached (Appendix B).

Quarterly ground-water monitoring at the Site indicates that very low, steadily decreasing concentrations of TPHd have been detected in ground water collected from well MW-1 over the past four quarterly monitoring events. In addition, no BTEX compounds have been detected in ground water collected from well MW-1 over the same four quarterly monitoring events.

All hydrogeological information, conclusions, and recommendations in this letter report have been prepared under the supervision of and reviewed by a Levine·Fricke California Registered Geologist.

Sincerely,

Kenton Gee
Senior Staff
Hydrogeologist

Jo Ann T. Weber, R.G.
Senior Project
Hydrogeologist

Enclosures

TABLE 1
HISTORICAL GROUND-WATER QUALITY RESULTS IN
GROUND-WATER MONITORING WELLS
ORO LOMA SANITARY DISTRICT, SAN LORENZO, CALIFORINIA
(concentrations reported in parts per million)

Sample Number	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHd
MW-1	28-Jan-93	<0.0005	<0.0005	<0.0005	<0.0005	0.59
	29-Jul-93	<0.0005	<0.0005	<0.0005	<0.002	0.72
	01-Dec-93	<0.0005	<0.0005	<0.0005	<0.002	0.3
	duplicate	<0.0005	<0.0005	<0.0005	<0.002	0.3
	15-Mar-94	<0.0005	<0.0005	<0.0005	<0.002	0.2
	duplicate	<0.0005	<0.0005	<0.0005	<0.002	0.2
Field Blanks						
MW-1-FB	29-Jul-93	<0.0005	<0.0005	<0.0005	<0.002	NR
MW-1-FB	01-Dec-93	<0.0005	<0.0005	<0.0005	<0.002	NR
MW-1-FB	15-Mar-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05
Trip Blanks						
Trip Blank	29-Jul-93	<0.0005	<0.0005	<0.0005	<0.002	NR
Trip Blank	01-Dec-93	<0.0005	<0.0005	<0.0005	<0.002	NR
Trip Blank	15-Mar-94	<0.0005	<0.0005	<0.0005	<0.002	NR

Data entered by KAG/01 Apr 94 Data proofed by DWN QA/QC by DTW

NOTES:
NR analyses not requested
TPHd total petroleum hydrocarbons as diesel

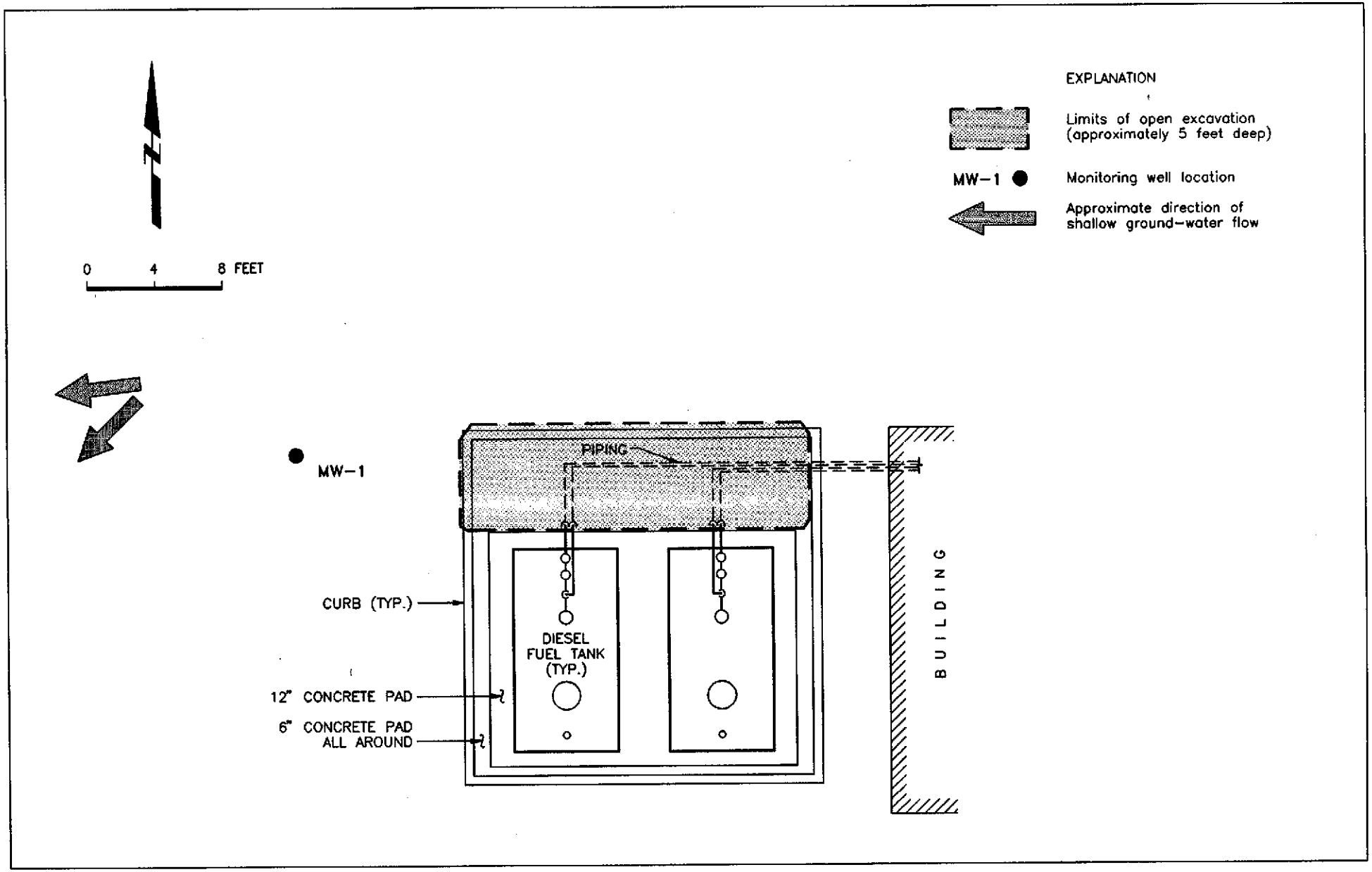

Figure 1 : LOCATION OF MONITORING WELL, ORO LOMA SANITARY DISTRICT

Project No. 2793

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

2793B005.JTW:EM 122993

APPENDIX A

WATER-QUALITY SAMPLING FORM

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name ORO LOMA SANITARY DISTRICT Project No. 2793.02

Date 3-15-94 Sample No. MW-1-FB, MW-1, MW-101

Samplers Name JGB

Sampling Location SAN LORENZO

Sampling Method CENT. PUMP / TEFLON BAILER

Analyses Requested TPH diesel, EPA 8020/BTEX

Number and Types of Sample Bottles used { 4 @ 1L amber w/HCl; 3 @ 40 VOA w/HCl }

Method of Shipment COURIER

GROUND WATER

Well No. MW-1

Well Diameter (in.) 4

Depth to Water, Static (ft) 2.11

Water in Well Box NO

Well Depth (ft) 13.95 + .3 = 14.25

Height of Water Column in Well 12.14

Water Volume in Well 7.891078

SURFACE WATER

Stream Width

Stream Depth

Stream Velocity

Rained recently ?

Other

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

14.25
2.11
12.14
.65
6070
72840
78910

12.14
3
2428

211
243
454

LOCATION MAP

calibrated pH kit

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (umhos/cm)	OTHER		REMARKS
1024								Start pump
1026		8	18.8	7.67	144300			TURBID/dewtrd/off
1034	3.70							start pump
1037		16	19.0	7.68	149000			TURBID/dewtrd/off
1050	2.57							start pump
1052		24	19.1	7.67	148100			TURBID/dewtrd/off
1100	4.40							MW-1-FB
1110								Sampled MW-1
1210								Sampled MW-101
800								Trip blank 3/9/94

Suggested Method for Purging Well

APPENDIX B

LABORATORY DATA REPORT

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

LEVINE-FRICKE
1900 POWELL ST. 12TH FL.
EMERYVILLE, CA 94608

ATTN: KENTON GEE
CLIENT PROJ. ID: 2793.02
CLIENT PROJ. NAME: ORO LOMA
C.O.C. NUMBER: 12841

REPORT DATE: 03/28/94

DATE(S) SAMPLED: 03/09/94-03/15/94

DATE RECEIVED: 03/16/94

AEN WORK ORDER: 9403152

PROJECT SUMMARY:

On March 16, 1994, this laboratory received 4 water sample(s).

Client requested samples be analyzed for organic parameters. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
General Manager

LEVINE-FRICKE

SAMPLE ID: MW-1-FB
AEN LAB NO: 9403152-01
AEN WORK ORDER: 9403152
CLIENT PROJ. ID: 2793.02

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/16/94
REPORT DATE: 03/28/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/22/94
Toluene	108-88-3	ND	0.5	ug/L	03/22/94
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/22/94
Xylenes, total	1330-20-7	ND	2	ug/L	03/22/94
#Extraction for Diesel/Oil	EPA 3510	-		Extrn Date	03/16/94
TPH as Diesel	GC-FID	ND	0.05	mg/L	03/18/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-1
AEN LAB NO: 9403152-02
AEN WORK ORDER: 9403152
CLIENT PROJ. ID: 2793.02

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/16/94
REPORT DATE: 03/28/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/18/94
Toluene	108-88-3	ND	0.5	ug/L	03/18/94
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/18/94
Xylenes, total	1330-20-7	ND	2	ug/L	03/18/94
#Extraction for Diesel/Oil	EPA 3510	-		Extrn Date	03/16/94
TPH as Diesel	GC-FID	0.2 *	0.05	mg/L	03/24/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-101
AEN LAB NO: 9403152-03
AEN WORK ORDER: 9403152
CLIENT PROJ. ID: 2793.02

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/16/94
REPORT DATE: 03/28/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/22/94
Toluene	108-88-3	ND	0.5	ug/L	03/22/94
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/22/94
Xylenes, total	1330-20-7	ND	2	ug/L	03/22/94
#Extraction for Diesel/Oil	EPA 3510	-		Extrn Date	03/16/94
TPH as Diesel	GC-FID	0.2 *	0.05	mg/L	03/24/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

LEVINE-FRICKE

SAMPLE ID: TRIP BLANK
AEN LAB NO: 9403152-04
AEN WORK ORDER: 9403152
CLIENT PROJ. ID: 2793.02

DATE SAMPLED: 03/09/94
DATE RECEIVED: 03/16/94
REPORT DATE: 03/28/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	03/22/94
Toluene	108-88-3	ND	0.5	ug/L	03/22/94
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/22/94
Xylenes, total	1330-20-7	ND	2	ug/L	03/22/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9403152

CLIENT PROJECT ID: 2793.02

Quality Control Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

The following abbreviations are found throughout the QC report:

ND = Not Detected at or above the reporting limit
RPD = Relative Percent Difference
< = Less Than

QUALITY CONTROL DATA

DATE EXTRACTED: 03/15/94
DATE ANALYZED: 03/17/94
CLIENT PROJ. ID: 2793.02

AEN JOB NO: 9403152
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: C

METHOD SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE WATER
METHOD: EPA 3510 GCFID

ANALYTE	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	2.10	83	5	63-109	10

METHOD BLANK RESULT

Lab Id.	Extractable Hydrocarbons as Diesel (mg/L)
031694-METHOD BLANK	ND
Reporting Limit	0.05

QUALITY CONTROL DATA

INSTRUMENT: F

CLIENT PROJ. ID: 2793.02

AEN JOB NO: 9403152
AEN LAB NO: 0318-BLANK
DATE ANALYZED: 03/18/94

BTEX AND HYDROCARBONS
METHOD: EPA 8020, 5030 GCFID
(WATER MATRIX)

	CAS #	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
Benzene	71-43-2	ND	0.5
Toluene	108-88-3	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Xylenes, Total	1330-20-7	ND	2
PURGEABLE HYDROCARBONS AS:			
Gasoline		ND mg/L	0.05 mg/L

QUALITY CONTROL DATA

INSTRUMENT: F

CLIENT PROJ. ID: 2793.02

AEN JOB NO: 9403152
AEN LAB NO: 0322-BLANK
DATE ANALYZED: 03/22/94

BTEX AND HYDROCARBONS
METHOD: EPA 8020, 5030 GCFID
(WATER MATRIX)

	CAS #	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
Benzene	71-43-2	ND	0.5
Toluene	108-88-3	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Xylenes, Total	1330-20-7	ND	2
PURGEABLE HYDROCARBONS AS:			
Gasoline		ND mg/L	0.05 mg/L

QUALITY CONTROL DATA

CLIENT PROJ. ID: 2793.02

AEN JOB NO: 9403152

INSTRUMENT: F

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8020, 5030 GCFID
(WATER MATRIX)

Date Analyzed	SAMPLE IDENTIFICATION Client Id.	Lab Id.	SURROGATE RECOVERY (PERCENT) Fluorobenzene
03/22/94	MW-1-FB	01	100
03/18/94	MW-1	02	98
03/22/94	MW-101	03	100
03/22/94	TRIP BLANK	04	101

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Fluorobenzene	(70-115)

QUALITY CONTROL DATA

DATE ANALYZED: 03/18/94

CLIENT PROJ. ID: 2793.02

AEN JOB NO: 9403152
SAMPLE SPIKED: LCS
INSTRUMENT: F

LABORATORY CONTROL SAMPLE
METHOD: EPA 8020, 5030 GCFID
(WATER MATRIX)

ANALYTE	Spike Added (ug/L)	Percent Recovery
Benzene	11.2	88
Toluene	39.6	96
Hydrocarbons as Gasoline	500	91

CURRENT QC LIMITS

Analyte	Percent Recovery
Benzene	(65-122)
Toluene	(67-124)
Gasoline	(60-125)

*** END OF REPORT ***

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9403152

Project No.: 2793.02	Field Logbook No.:	Date: 3/15/94	Serial No.: Nº 12841
Project Name: ORO LOMA	Project Location: SAN LORENZO		
Sampler (Signature): James Becker			Samplers: JGB

SAMPLES						ANALYSES							
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	8020/BTEX	TPH diesel		HOLD	RUSH	REMARKS
MW-1-FB	3/15	1100	01A-D	4	H_2O			X	X				
MW-1	↓	1110	02A-D	↓	↓			↓	↓				Normal TAT
MW-101	↓	1210	03A-D	↓	↓			↓	↓				
Tripblank	3/9	800	04AB	2	↓			↓					Results to
													Kenton Gee

RELINQUISHED BY: (Signature) James Becker	DATE 3/15/94	TIME 10:00	RECEIVED BY: (Signature) Ken Stellup	DATE 3/16/94	TIME 10:00
RELINQUISHED BY: (Signature) Ken Stellup	DATE 3/16/94	TIME 11:20	RECEIVED BY: (Signature) Gina Gillespie	DATE 3-16-94	TIME 1120
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:
LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500

Analytical Laboratory:
AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF