PACIFIC
ENVIRONMENTAL
GROUP, INC.

3/14/96

March 4, 1996
Project 310-058.5A

Ms. Susan Keach
Oro Loma Sanitary District
2600 Grant Avenue
San Lorenzo, California 94580

Re: Wastewater Discharge Permit 024 - February 1996 Sewer Report
Unocal Service Station 5760
376 Lewelling Boulevard at Usher Street
San Lorenzo, California

Dear Ms. Keach:

On behalf of Unocal Corporation, Pacific Environmental Group, Inc. is operating a groundwater extraction (GWE) and treatment system at the site referenced above. This letter transmits treatment system operational data for the period between January 22 and February 13, 1996 (Table 1). Operational parameters are summarized below.

Current System Status:	*Operational*
Reporting Period:	1/22/96 - 2/13/96
Period Temperature:	70.9 degrees Fahrenheit
Period pH reading:	6.83 units
Period Volume Discharged:	9,630 gallons
Average Flow Rate::	0.3 gallons per minute
Analytical Reports:	Attached

The treatment system was found down on January 17, 1996 and two pumps were pulled for inspection and repair, so no samples were taken in January. The pumps were re-installed on February 13, 1996, and the treatment system was restarted and sampled. Monthly analyses include chemical oxygen demand, pH, and total suspended solids, as well as total purgeable petroleum hydrocarbons (TPPH) and benzene, toluene, ethylben-

zene, and xylenes (BTEX compounds). The GWE system is currently operating in compliance with all discharge permit conditions.

If you have any questions regarding this project or require further information, please do not hesitate to call.

Sincerely,

Pacific Environmental Group, Inc.

Suzanne McClurkin-Nelson
Staff Scientist

Attachments: Table 1 - Treatment System Metered Volume
Table 2 - Groundwater Treatment System Analytical Data
Attachment A - Certified Analytical Report and Chain-of-Custody Documentation

cc: Ms. Tina Berry, Unocal Corporation
Mr. Richard Hiett, Regional Water Quality Control Board - S.F. Bay Region
Ms. Amy Leech, Alameda County Health Care Services

Table 1

Treatment System Metered Volume

Unocal Service Station 5760
376 Lewelling Boulevard at Usher Street
San Lorenzo, California

Date Sampled	Flow Meter Reading (gallons)	Flow Meter Net Volume (gallons)	Cumulative System Discharge To Date (gallons)	Average Total System Discharge (gpm)	Average Total System Discharge (gpd)
10/18/95 a	76	0	0	N/A	N/A
10/30/95	4,040	3,964	3,964	0.2	330
11/30/95	7,751	3,711	7,675	0.1	120
12/27/95	15,031	7,280	14,955	0.2	270
01/22/96	19,350	4,319	19,274	0.1	166
02/13/96	28,980	9,630	28,904	0.3	438

gpm = Gallons per minute
gpd = Gallons per day
N/A = Not applicable or not available
a. GWE continuous system operation began on October 18, 1995.

Table 2

Groundwater Treatment System Analytical Data

Unocal Service Station 5760
376 Lewelling Boulevard at Usher Street
San Lorenzo, California

Date Sampled	TPPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	Permit Compliance Parameters COD (mg/L)	TSS (mg/L)	pH (units)
Influent Samples								
10/30/95	33,000	480	1,400	900	7,100	N/A	N/A	N/A
11/30/95	15,000	190	310	210	3,700	N/A	N/A	N/A
12/27/95	1,100	16	23	<2.0	300	N/A	N/A	N/A
02/13/96 b	32,000	460	1,100	1,500	7,700	N/A	N/A	N/A
Effluent Samples								
10/04/95	<50	<0.50	<0.50	<0.50	<0.50	<20	<1.0	8.89 a
10/30/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	NS
11/30/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	NS
12/27/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	7.05 a
02/13/96 b	<50	<0.50	<0.50	<0.50	<0.50	<20	9.0	6.83 a

TPPH = Total purgeable petroleum hydrocarbons
µg/L = Micrograms per liter
mg/L = Milligrams per liter
N/A = Not applicable
NS = Not sampled
< = Denotes any potential concentrations fell below the shown detection limit for the analysis.
a. The pH reading was measured by field instruments, not by laboratory analysis.
b. GWE system was found down 1/17/96 and two pumps were pulled for repair and replaced 2/13/96.

ATTACHMENT A

CERTIFIED ANALYTICAL REPORT AND CHAIN-OF-CUSTODY DOCUMENTATION

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Client Proj. ID: 310-058.5A/5760,San Lorenzo

Lab Proj. ID: 9602A22

Attention: Steve Clark

Sampled: 02/13/96
Received: 02/14/96
Analyzed: see below

Reported: 02/26/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9602A22-02				
Sample Desc : LIQUID,EFFL				
Chemical Oxygen Demand	mg/L	02/20/96	20	N.D.
Total Suspended Solids	**mg/L**	**02/16/96**	**1.0**	**9.0**

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Claudia Hirotsu
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Pacific Environmental Group	Client Proj. ID: 310-058.5A/5760,San Lorenzo	Sampled: 02/13/96
2025 Gateway Place, Suite 440	Sample Descript: INFL	Received: 02/14/96
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/16/96
Attention: Steve Clark	Lab Number: 9602A22-01	Reported: 02/26/96

QC Batch Number: GC021696BTEX01A
Instrument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10000**	**32000**
Benzene	**100**	**460**
Toluene	**100**	**1100**
Ethyl Benzene	**100**	**1500**
Xylenes (Total)	**100**	**7700**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	100

Analytes reported as N.D. were not present above the stated limit of detection.

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Claudia Hirotsu
Project Manager

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Steve Clark

Client Proj. ID: 310-058.5A/5760,San Lorenzo
Sample Descript: EFFL
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9602A22-02

Sampled: 02/13/96
Received: 02/14/96

Analyzed: 02/21/96
Reported: 02/26/96

QC Batch Number: GC022196BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	82

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Project Manager

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110 Attention: Steve Clark	Client Proj. ID: 310-058.5A/5760,San Lorenzo Lab Proj. ID: 9602A22	Received: 02/14/96 Reported: 02/26/96

LABORATORY NARRATIVE

MTBE was not detected above 40 ppb in these samples.

SEQUOIA ANALYTICAL

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Project Manager

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Steve Clark

Client Project ID: 310-058.5A/5760, San Lorenzo
Matrix: LIQUID
Work Order #: 9602A22 01

Reported: Feb 27, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC021696BTEX01A	GC021696BTEX01A	GC021696BTEX01A	GC021696BTEX01A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	960261806	960261806	960261806	960261806
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/16/96	2/16/96	2/16/96	2/16/96
Analyzed Date:	2/16/96	2/16/96	2/16/96	2/16/96
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.7	9.5	9.9	29
MS % Recovery:	97	95	99	97
Dup. Result:	10	10	11	31
MSD % Recov.:	100	100	110	103
RPD:	3.0	5.1	11	6.7
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK021696	BLK021696	BLK021696	BLK021696
Prepared Date:	2/16/96	2/16/96	2/16/96	2/16/96
Analyzed Date:	2/16/96	2/16/96	2/16/96	2/16/96
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.4	9.4	9.4	29
LCS % Recov.:	94	94	94	97
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Claudia Hirotsu
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Steve Clark

Client Project ID: 310-058.5A/5760, San Lorenzo
Matrix: LIQUID
Work Order #: 9602A22 02

Reported: Feb 27, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC022196BTEX06A	GC022196BTEX06A	GC022196BTEX06A	GC022196BTEX06A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	M. Otte	M. Otte	M. Otte	M. Otte
MS/MSD #:	9602B0712	9602B0712	9602B0712	9602B0712
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/21/96	2/21/96	2/21/96	2/21/96
Analyzed Date:	2/21/96	2/21/96	2/21/96	2/21/96
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.7	9.9	9.9	30
MS % Recovery:	97	99	99	100
Dup. Result:	9.5	9.8	9.8	30
MSD % Recov.:	95	98	98	100
RPD:	2.1	1.0	1.0	0.0
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	BLK022196	BLK022196	BLK022196	BLK022196
Prepared Date:	2/21/96	2/21/96	2/21/96	2/21/96
Analyzed Date:	2/21/96	2/21/96	2/21/96	2/21/96
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	31
LCS % Recov.:	100	100	100	103
MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Claudia Hirotsu
Project Manager

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Steve Clark

Client Project ID: 310-058.5A/5760, San Lorenzo
Matrix: LIQUID
Work Order #: 9602A22 02

Reported: Feb 27, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Total Suspended Solids
QC Batch:	IN021696160200A
Analy. Method:	EPA 160.2
Prep Method:	N.A.

Analyst:	S. Chin
Duplicate Sample #:	960299401
Prepared Date:	2/16/96
Analyzed Date:	2/16/96
Instrument I.D.#:	MANUAL
Sample Concentration:	4.0
Dup. Sample Concentration:	3.5
RPD:	13
RPD Limit:	0-30

SEQUOIA ANALYTICAL

Claudia Hirotsu
Project Manager

** RPD = Relative % Difference

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Steve Clark

Client Project ID: 310-058.5A/5760, San Lorenzo
Matrix: LIQUID
Work Order #: 9602A22 02

Reported: Feb 27, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Chemical Oxygen Demand
QC Batch#:	IN022096410400A
Analy. Method:	EPA 410.4
Prep. Method:	N.A.

Analyst:	D. Lawrence
MS/MSD #:	9502A2202
Sample Conc.:	N.D.
Prepared Date:	2/20/96
Analyzed Date:	2/20/96
Instrument I.D.#:	MANUAL
Conc. Spiked:	100 mg/L
Result:	110
MS % Recovery:	110
Dup. Result:	99
MSD % Recov.:	99
RPD:	9.5
RPD Limit:	0-30

LCS #:	LCS022096
Prepared Date:	2/20/96
Analyzed Date:	2/20/96
Instrument I.D.#:	MANUAL
Conc. Spiked:	100 mg/L
LCS Result:	93
LCS % Recov.:	93

MS/MSD LCS Control Limits	70-130

SEQUOIA ANALYTICAL

Claudia Hirotsu
Project Manager

Please Note:
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UNOCAL 76

❑ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600
❑ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600
❑ East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
❑ 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Consultant Company: PACIFIC ENVIRONMENTAL GROUP
Address: 2025 GATEWAY PL STE 440
City: SAN JOSÉ State: CA Zip Code: 95110
Telephone: 408 441-7500 FAX #: 441-7539
Report To: STEVE CLARK Sampler: JOHN MADDOX

Project Name: 310-058JA
UNOCAL Project Manager: TINA BERRY
AFE #:
Site #, City, State: 5760 SAN LORENZO CA
QC Data: ☑ Level D (Standard) ❑ Level C ❑ Level B ❑ Level A

Turnaround Time: ☑ 10 Work Days ❑ 5 Work Days ❑ 3 Work Days ❑ 2 Work Days ❑ 1 Work Day ❑ 2-8 Hours

CODE: ❑ Misc. ❑ Detect. ❑ Eval. ☒ Remed. ❑ Demol. ❑ Closure

❑ Drinking Water
❑ Waste Water
☑ Other GW

Analyses Requested

9602A22

	Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH-G BTEX	SUSPENDED SOLIDS	CHEMICAL OXYGEN DEMAND							Comments
1.	INFL	2.13.96/1825	WATER	3	VOA	01 A-C	X									
2.	EFFL	/1820		3	VOA	02 ↓	X									
3.	↓	↓		1	PL/NP	D		X								
4.	↓	↓	↓	1	PL/H_2SO_4	E		X								
5.																
6.																
7.																
8.																
9.																
10.																

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
J. Maddox	2.14.96	0700	[signature]	2/14/96	700
[signature]	2/14/96	900	[signature]	2/14/96	9:00
[signature]	2/14/96		Received By Lab: [signature]	2.14.96	1237

Were Samples Received in Good Condition? ❑ Yes ❑ No Samples on Ice? ❑ Yes ❑ No Method of Shipment ____

Page 1 of 1

To be completed upon receipt of report:
1) Were the analyses requested on the Chain of Custody reported? ☑ Yes ❑ No If no, what analyses are still needed?
2) Was the report issued within the requested turnaround time? ☑ Yes ❑ No If no, what was the turnaround time?
Approved by: ______ Signature: [signature] Company: PACIFIC Date: 3/28/96

Pink - Client
Yellow - Laboratory
White - Laboratory

FEB 231