PACIFIC
ENVIRONMENTAL
GROUP, INC.

Date: February 4, 1997
Project: 311-127.5A

To: Ms. Tina Berry
76 Products Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

We have enclosed:

Copies	Description
1	Remedial Action Performance Summary - October through December 1996 for 500 Bancroft Avenue at Dowling Boulevard, San Leandro.

For your:
___ Use
___ Approval
___ Review
X Information

Comments: The above mentioned report has been forwarded to the client correspondence listed below.

Andrew Lehane

cc: Mr. Scott Seery, Alameda County Health Care Services
Mr. Mike Bakaldin, San Leandro Fire Department

2025 Gateway Place, Suite 440, San Jose, California 95110 (408) 441-7500 FAX (408) 441-7539

PACIFIC
ENVIRONMENTAL
GROUP INC.

January 30, 1997
Project 310-127.5A

Ms. Tina Berry
76 Products Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

Re: ***Remedial Action Performance Summary - October through December 1996***
76 Products Company Service Station 5367
500 Bancroft Avenue at Dowling Boulevard
San Leandro, California

Dear Ms. Berry:

This letter presents a remedial action performance summary for the site referenced above. Attachment A presents the remedial performance summary, which includes hydrocarbon mass removal and key operating parameters. Certified analytical reports and chain-of-custody documentation are presented as Attachment B, and field data sheets are included as Attachment C. The status of recent remedial activities is presented below.

Remedial System Performance Evaluation

- During the current reporting period, the groundwater extraction (GWE) system ran intermittently due to system operational problems with the electric submersible pumps. During site visits throughout November and December, the pumps were found on but the totalizer had not advanced. On January 9, 1997, the pump controls were reset and the pumps restarted. Also, the totalizer was replaced with a new, precalibrated totalizer, in accordance with the discharge permit's requirement for annual flow meter calibration.
- During the current reporting period, the soil vapor extraction (SVE) system was approximately 98 percent operational. Influent vapor concentrations increased after the pumps were reset on September 18, 1996. Low concentrations during November and December coincide with pump operational problems.

- Pacific Environmental Group, Inc. (PACIFIC) recommends continued operation of the GWE and SVE systems throughout the first quarter 1997.

Should you have any questions regarding the contents of this remedial action performance summary, please do not hesitate to call our office.

Sincerely,

Pacific Environmental Group, Inc.

Jessica Nelligan
Staff Engineer

REGISTERED PROFESSIONAL ENGINEER
ANDREW D. LEHANE
55798
EXP. 12/31/00
CIVIL
STATE OF CALIFORNIA

Andrew D. Lehane
Project Engineer
RCE 55798

Attachments: Attachment A - Remedial Action Performance Summary
Attachment B - Certified Analytical Reports and Chain-of-Custody Documentation
Attachment C - Field Data Sheets

cc: Ms. Amy Leech, Alameda County Health Care Services

ATTACHMENT A

REMEDIAL ACTION PERFORMANCE SUMMARY

ATTACHMENT A

REMEDIAL ACTION PERFORMANCE SUMMARY: FOURTH QUARTER 1996

GROUNDWATER-BASED REMEDIAL SYSTEM

Site Name: 76 Products Company Service Station 5367
Site Address: 500 Bancroft Avenue at Dowling, San Leandro
Abatement Equipment: Two 1,000-lb. Carbon Vessels
Start-Up Date: March 1996

Permitting Agency: City of San Leandro
Permit No.: SD-023
Permit Expiration Date: 3/15/97
Estimated Shutdown Date: Unknown

REMEDIAL OBJECTIVES

- Mass Removal
- Regulatory Compliance

OPERATIONAL DATA

Treatment System Data

	October	November	December	
Operational Status	Operational	Intermittent	Down	Table 1 Page A-3
Groundwater Volume Treated (gals)	16,707	1,126	0	

Treatment System Analytical Data Summary

	Influent	Effluent	
EPA Method 8020 Analyses	Detected	ND	Table 2 Page A-4

TPH and Benzene Summary

	October	November	December		
Influent TPPH-gasoline (µg/L)	54,000	NS	12,000		Table 1 Page A-3
Influent Benzene (µg/L)	200	NS	56		Table 1 Page A-3
Effluent TPPH-gasoline (µg/L)	ND	ND	ND		Table 2 Page A-4
Effluent Benzene (µg/L)	ND	ND	ND		Table 2 Page A-4
Mass TPPH-gasoline Removed (lbs)	4.4	0.5	0.0	32.4	Table 1 Page A-3
Mass Benzene Removed (lbs)	0.02	0.00	0.00	0.18	Table 1 Page A-3

REMEDIAL ACTION PERFORMANCE EVALUATION

Mass Removal *Approximately 5 pounds of TPPH as Gasoline and 0.02 pound of benzene were removed during the current reporting period. The treatment system was down for most of November and December.*

Regulatory Compliance *The remedial system operated in compliance with all discharge requirements.*

ACTIONS/RECOMMENDATIONS

- *Continue operation of the GWE system throughout the first quarter 1997.*
- *Troubleshoot operational problems to optimize groundwater pump performance.*

NOTES:
NS = Not sampled
ND = Not detected above detection limit
N/A = Not available or not applicable
gals = Gallons
µg/L = Micrograms per liter
lbs = Pounds
† = System start-up March 1996 performed by PSI (prior consultant); analytical results for March and April not available.
Note: When appropriate, tabulated data is followed by associated graphical presentation.

ATTACHMENT A

REMEDIAL ACTION PERFORMANCE SUMMARY: FOURTH QUARTER 1996

SOIL-BASED REMEDIAL SYSTEM

Site Name: 76 Products Company Service Station 5367
Site Address: 500 Bancroft Avenue at Dowling, San Leandro
Abatement Equipment: Two 1,000-lb. Carbon Vessels
Start-Up Date: March 1996

Permitting Agency: BAAQMD
Permit Number: 25758
Permit Expiration Date: 2/13/97
Estimated Shutdown Date: Unknown

REMEDIAL OBJECTIVES

- Mass Removal
- Regulatory Compliance

OPERATIONAL DATA

Treatment System Data

	October	November	December	
Operational Status	Operational	Operational	Operational	Table 3 Page A-4
Average System Flow Rate (scfm)	84	185	64	

TPPH and Benzene Summary

	October		November		December			
Influent TPPH-gasoline (ppmv)	15	61	52	4.0	ND	ND		Table 3 Page A-4
Influent Benzene (ppmv)	0.072	0.25	0.22	ND	ND	ND		Table 3 Page A-4
Effluent TPPH-gasoline (ppmv)	ND	ND	ND	ND	ND	ND		Table 4 Page A-5
Effluent Benzene (ppmv)	ND	ND	ND	ND	ND	ND	Cumulative	Table 4 Page A-5
Mass TPH Removed (lbs)		29.7		67.0		1.1	179.2	Table 3 Page A-4
Mass Benzene Removed (lbs)		0.10		0.23		0.00	0.46	Table 3 Page A-4

REMEDIAL ACTION PERFORMANCE EVALUATION

Mass Removal *Approximately 98 pounds of TPPH as Gasoline and 0.3 pound of benzene were removed by the treatment system during the current reporting period. The SVE system was approximately 98 percent operational.*

Regulatory Compliance *The remedial system operated in compliance with all BAAQMD permit requirements.*

ACTIONS/RECOMMENDATIONS

- *Continue operation of the SVE system throughout the first quarter 1997.*
- *Optimization of groundwater pump performance is expected to positively influence SVE system mass removal.*

NOTES:

ND = Not detected above detection limits
N/A = Not available or not applicable
ppmv = Parts per million by volume
scfm = Standard cubic foot per minute
‡ = Average TPPH reading for March 1996 using field instruments (provided by prior consultant).
Note: When appropriate, tabulated data is followed by associated graphical presentation.

Table 3

Soil Vapor Extraction System Performance Data

76 Products Company Service Station 5367
500 Bancroft Avenue at Dowling
San Leandro, California

Sample ID	Date Sampled	Hourmeter Reading (hours)	Net Hours of Operation (hours)	Flow Rate (scfm)	TPPH as Gasoline: Influent Concentration (ppmv)	TPPH as Gasoline: Removal Rate (lbs/day)	TPPH as Gasoline: Removed to Date (lbs)	Benzene: Influent Concentration (ppmv)	Benzene: Removal Rate (lbs/day)	Benzene: Removed to Date (lbs)
INFL	03/18/96 a	N/A b	0 b	250	25 c	2.4	0.0	N/A c	N/A	N/A
INFL	03/19/96	N/A b	24 b	240	22 c	2.0	2.2	N/A c	N/A	N/A
INFL	03/20/96	N/A b	24 b	260	12 c	1.2	3.8	N/A c	N/A	N/A
INFL	03/21/96	N/A b	24 b	250	4 c	0.4	4.6	N/A c	N/A	N/A
INFL	03/22/96	N/A b	24 b	240	20 c	1.8	5.7	N/A c	N/A	N/A
INFL	04/08/96	N/A b	408 b	270	14 c	1.4	33.4	N/A c	N/A	N/A
INFL	04/26/96	N/A b	432 b	240	10 c	0.9	54.5	N/A c	N/A	N/A
INFL	05/30/96 d	N/A b	0	110	2.4	0.1	54.5	ND	0.00	0.00
INFL	06/06/96	N/A b	168	120	3.3	0.2	55.4	ND	0.00	0.01
INFL	06/26/96	N/A b	480	120	ND	0.1	58.0	ND	0.00	0.03
INFL	07/17/96	N/A b	504	120	ND	0.1	60.3	ND	0.00	0.05
INFL	07/26/96	N/A b	216	110	11	0.5	62.8	ND	0.00	0.06
INFL	08/05/96	6,372.5 e	240	119	ND	0.1	65.7	ND	0.00	0.07
INFL	08/19/96	6,414.1	42	115	2.6	0.1	65.9	ND	0.00	0.07
INFL	09/10/96	6,939.4	525	123	7.3	0.3	70.9	0.040	0.00	0.10
INFL	09/26/96	7,321.0	382	78	33	1.0	81.4	0.10	0.00	0.13
INFL	10/15/96 f	7,777.0	456	90	15	0.5	95.7	0.072	0.00	0.18
INFL	10/28/96	8,090.4	313	78	61	1.8	111.1	0.25	0.01	0.23
INFL	11/14/96	8,497.4	407	270	52	5.3	171.8	0.22	0.02	0.44
INFL	11/27/96	8,552.4	55	100	4.0 g	0.2	178.1	ND g	0.00	0.46
INFL	12/11/96	8,890.8	338	64	ND	0.0	179.2	ND	0.00	0.46
INFL	12/20/96	9,102.0	211	64	ND	0.0	179.2	ND	0.00	0.46
REPORTING PERIOD:	**09/26/96 - 12/20/96**									
TOTAL POUNDS REMOVED:							**179.2**			**0.46**
TOTAL GALLONS REMOVED:							**29.4**			**0.06**
PERIOD POUNDS REMOVED:						**97.7**			**0.33**	
PERIOD GALLONS REMOVED:						**16.0**			**0.05**	
TOTAL DAYS OF OPERATION:					**220 (b)**					
PERIOD DAYS OF OPERATION:					**74 (b)**					
PERIOD PERCENT OPERATIONAL:					**98%**					

TPPH = Total purgeable petroleum hydrocarbons
scfm = Standard cubic feet per minute
ppmv = Parts per million by volume
lbs = Pounds
N/A = Not available or not applicable
ND = Not detected above the detection limit

a. System startup on March 18, 1996.
b. No hourmeter installed on system; assumed continuous operation to estimate mass removal since system was on upon arrival.
c. TPPH concentrations taken using a flame-ionization detector; benzene concentrations not available.
d. Pacific Environmental Group, Inc. becomes consultant to site; all prior data provided by former consultant.
e. Hourmeter installed 8/5/96 (initial reading: 6372.5 hours); system was running upon arrival.
f. Assumed influent/effluent labels on samples were switched.
g. Samples collected 11/27/96 exceeded hold time due to holiday; re-sampled on 12/2/96.

Mass removed is an approximation calculated using averaged mass removal rates; removal rates are instantaneous.
Concentrations shown in ppmv are calculated from micrograms per liter (as reported by the laboratory).
See certified analytical reports for detection limits.

Table 4
Soil Vapor Extraction System Emission Data

76 Products Company Service Station 5367
500 Bancroft Avenue at Dowling
San Leandro, California

Sample I.D.	Date Sampled		Net Hours of Operation (hours)	Flow Rate (scfm)	TPPH as Gasoline: Effluent Concentration (ppmv)	TPPH as Gasoline: Destruction Efficiency (percent)	TPPH as Gasoline: Emission Rate (lbs/day)	Benzene: Effluent Concentration (ppmv)	Benzene: Emission Rate (lbs/day)
EFFL	03/18/96	a	0	250	ND	N/A	N/A	N/A	N/A
EFFL	03/19/96		24	240	ND	N/A	N/A	N/A	N/A
EFFL	03/20/96		24	260	ND	N/A	N/A	N/A	N/A
EFFL	03/21/96		24	250	ND	N/A	N/A	N/A	N/A
EFFL	03/22/96		24	240	ND	N/A	N/A	N/A	N/A
EFFL	04/08/96		408	270	ND	N/A	N/A	N/A	N/A
EFFL	04/26/96		432	240	ND	N/A	N/A	N/A	N/A
EFFL	05/30/96	b	0	110	ND	N/A	0.10	ND	0.001
EFFL	06/06/96		168	120	3.1	7.1	0.14	ND	0.001
EFFL	06/26/96		480	120	ND	N/A	0.11	ND	0.001
EFFL	07/17/96		504	120	ND	N/A	0.11	ND	0.001
EFFL	07/26/96		216	110	2.8	74.5	0.12	ND	0.001
EFFL	08/05/96		240	119	ND	N/A	0.11	ND	0.001
EFFL	08/19/96		42	115	ND	N/A	0.10	ND	0.001
EFFL	09/10/96		525	123	ND	N/A	0.11	ND	0.001
EFFL	09/26/96		382	78	ND	N/A	0.07	ND	0.001
EFFL	10/15/96	c	456	90	ND	N/A	0.08	ND	0.001
EFFL	10/28/96		313	78	ND	N/A	0.07	ND	0.001
EFFL	11/14/96		407	270	ND	N/A	0.24	ND	0.002
EFFL	11/27/96		55	100	ND	N/A	0.09	ND	0.001
EFFL	12/11/96		338	64	ND	N/A	0.06	ND	0.001
EFFL	12/20/96		211	64	ND	N/A	0.06	ND	0.001

TPPH = Total purgeable petroleum hydrocarbons
scfm = Standard cubic feet per minute
ppmv = Parts per million by volume, converted from micrograms per liter, as reported by the laboratory
lbs = Pounds
N/A = Not available or not applicable
ND = Not detected above the detection limit
a. System startup on March 18, 1996.
d. Pacific Environmental Group, Inc. becomes consultant to site; all prior data provided by former consultant.
c. Assumed influent/effluent labels on samples were switched.
Destruction efficiencies and emission rates for ND concentrations are calculated using the detection limit.
Concentrations shown in ppmv are calculated from micrograms per liter.
See certified analytical reports for detection limits.

Table 5

Soil Vapor Extraction System Analytical Data

Individual Wells

76 Products Company Service Station 5367
500 Bancroft Avenue at Dowling
San Leandro, California

Well I.D.	Date Sampled	TPPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)
MW1	05/30/96	36	ND	0.48	0.46	3.3
	06/26/96	67	ND	ND	0.26	1.7
	07/26/96	160	11	31	4.8	24
	08/19/96	28	ND	0.23	0.28	1.2
	09/26/96	1,100	6.4	11	18	19
	10/28/96	1,000	ND	30	3.5	96
	12/02/96	950	ND	40	5.9	120
	12/20/96	13	ND	ND	ND	0.45
MW2	05/30/96	180	0.25	3.8	4.5	25
	06/26/96	23	ND	0.30	0.52	3.5
	07/26/96	46	0.81	1.9	0.95	2.4
	08/19/96	110	0.17	ND	1.4	1.8
	09/26/96	230	0.70	1.6	2.2	1.4
	10/28/96	250	1.3	3.3	0.50	1.1
	12/02/96	11	ND	ND	ND	0.14
	12/20/96	ND	ND	ND	ND	ND
MW3	05/30/96	20	ND	0.25	0.48	3.0
	06/26/96	ND	ND	ND	ND	0.35
	07/26/96	27	0.62	1.2	0.61	2.3
	08/19/96	120	0.43	0.16	2.6	3.9
	09/26/96	46	0.36	0.45	0.24	0.37
	10/28/96	NA	NA	NA	NA	NA
	11/14/96	76	ND	ND	0.31	0.96
	12/02/96	15	ND	ND	ND	0.55
	12/20/96	ND	ND	ND	0.42	0.87

TPPH = Total pirgeable petroleum hydrocarbons
µg/L = Micrograms per liter
ND = Not detected above the detection limit
NA = Not analyzed (sample air bag leak); well re-sampled 11/14/96
See certified analytical reports for detection limits.

Figure 3
Soil Vapor Extraction System Mass Removal Trend

76 Products Company Service Station 5367
500 Bancroft Avenue at Dowling
San Leandro, California

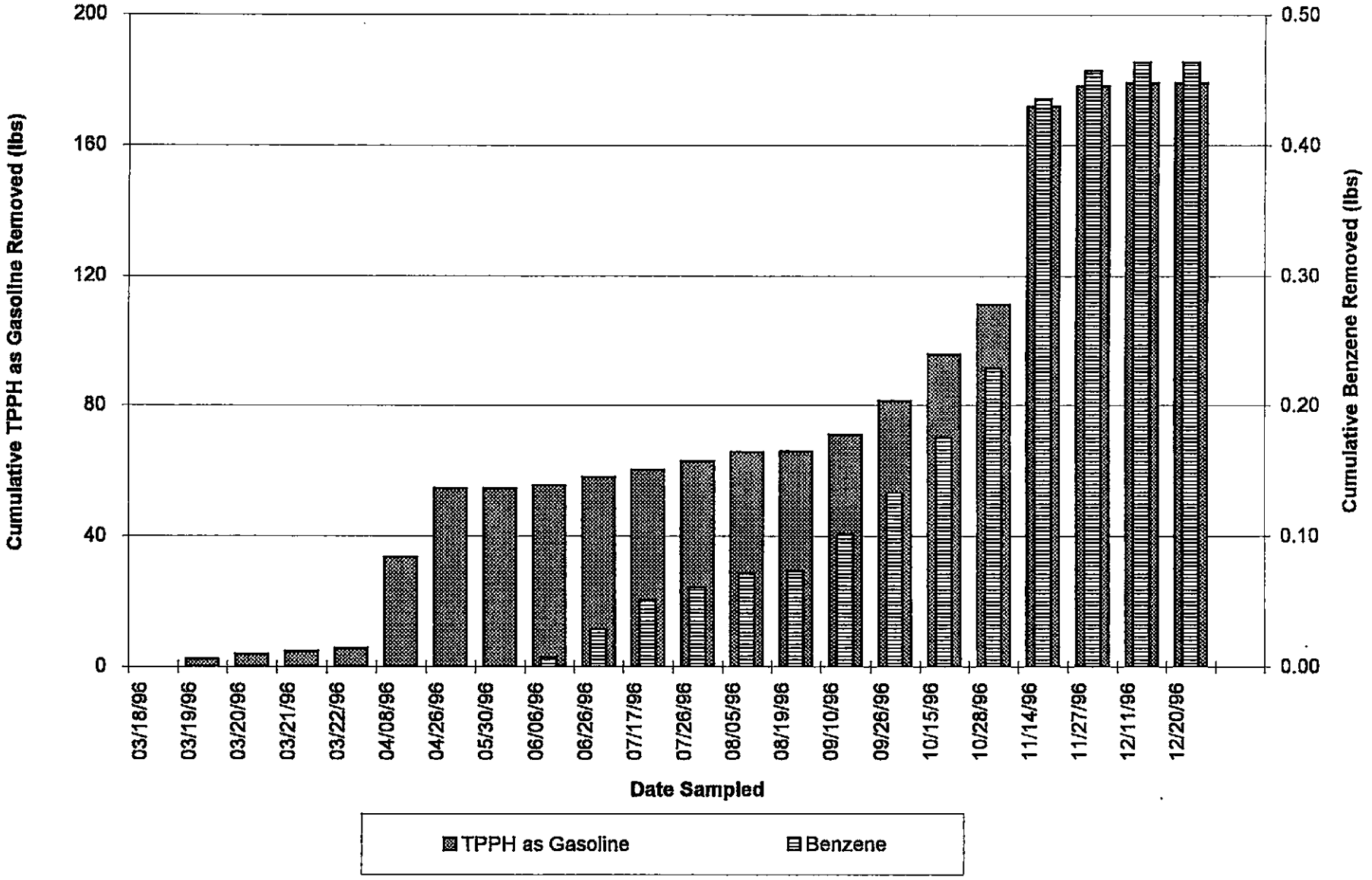
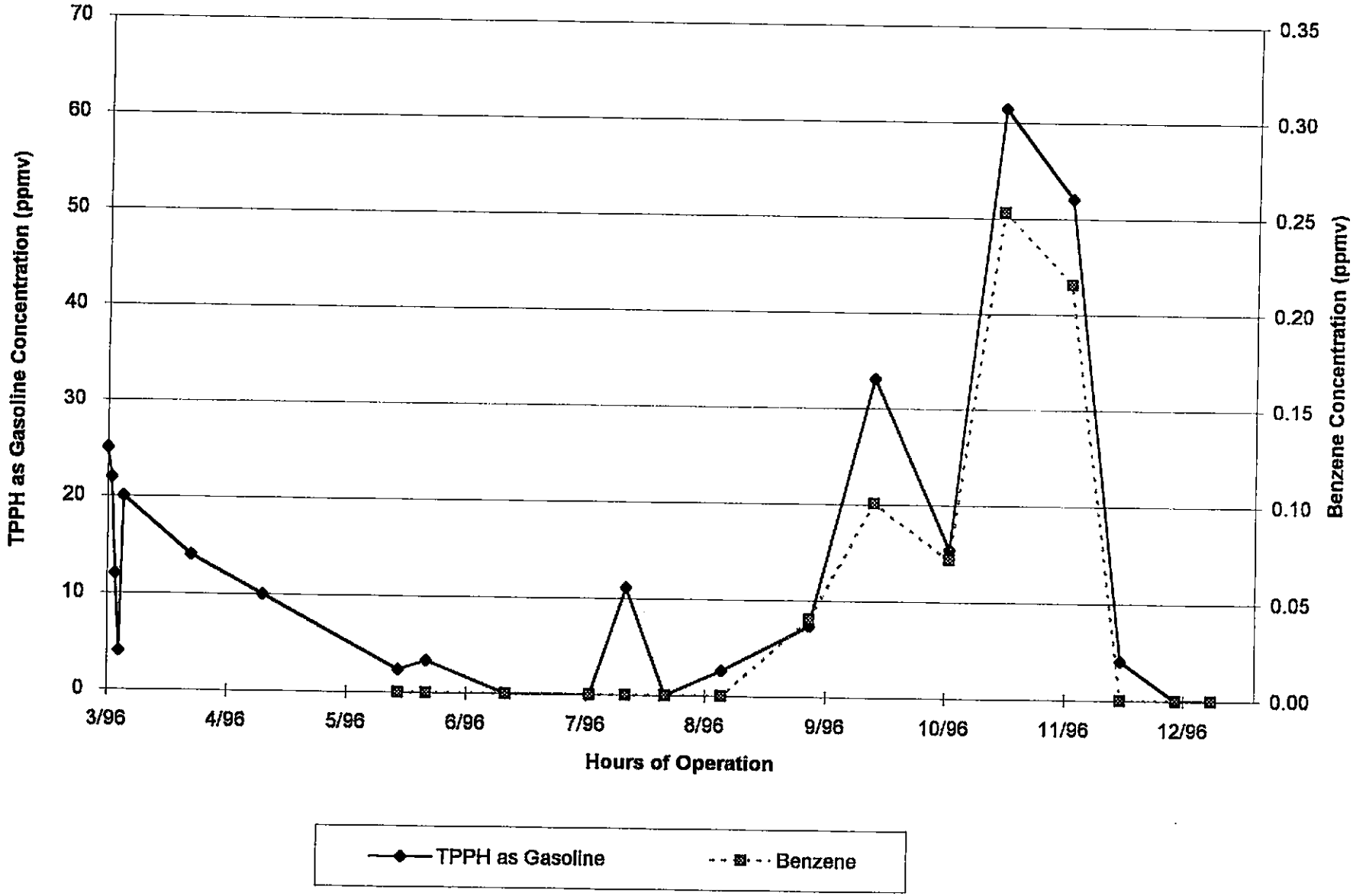


Figure 4
Soil Vapor Extraction System Hydrocarbon Concentrations

76 Products Company Service Station 5367
500 Bancroft Avenue at Dowling
San Leandro, California



ATTACHMENT B

CERTIFIED ANALYTICAL REPORTS 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

Attention: Andrew Lahane

Client Proj. ID: 310-127.5A/5367, San Leandro
Sample Descript: INFL
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9610A49-01

Sampled: 10/15/96
Received: 10/16/96

Analyzed: 10/21/96
Reported: 10/24/96

QC Batch Number: GC102196BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	54000
Benzene	50	200
Toluene	50	90
Ethyl Benzene	50	2800
Xylenes (Total)	50	8900
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	143 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

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	Client Proj. ID: 310-127.5A/5367, San Leandro	Sampled: 10/15/96
2025 Gateway Place, Suite 440	Sample Descript: MID	Received: 10/16/96
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/18/96
Attention: Andrew Lahane	Lab Number: 9610A49-02	Reported: 10/24/96

QC Batch Number: GC101896BTEX01A
Instrument ID: GCHP01

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.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	75

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

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	Client Proj. ID: 310-127.5A/5367, San Leandro	Sampled: 10/15/96
2025 Gateway Place, Suite 440	Sample Descript: EFFL	Received: 10/16/96
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 10/18/96
Attention: Andrew Lahane	Lab Number: 9610A49-03	Reported: 10/24/96

QC Batch Number: GC101896BTEX01A
Instrument ID: GCHP01

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.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	95

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

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	Client Project ID:	310-127-5A / 5367, San Leandro	
2025 Gateway Place, Suite 440	Matrix:	LIQUID	
San Jose, CA 95110			
Attention: Andrew Lahane	Work Order #:	9610A49 01	Reported: Oct 28, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC101896BTEX01A	GC101896BTEX01A	GC101896BTEX01A	GC101896BTEX01A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
MS/MSD #:	961081109	961081109	961081109	961081109
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/18/96	10/18/96	10/18/96	10/18/96
Analyzed Date:	10/18/96	10/18/96	10/18/96	10/18/96
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	9.9	30
MS % Recovery:	100	100	99	100
Dup. Result:	10	9.8	9.7	29
MSD % Recov.:	100	98	97	97
RPD:	0.0	2.0	2.0	3.4
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK101896	BLK101896	BLK101896	BLK101896
Prepared Date:	10/18/96	10/18/96	10/18/96	10/18/96
Analyzed Date:	10/18/96	10/18/96	10/18/96	10/18/96
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.1	8.8	8.7	26
LCS % Recov.:	91	88	87	87
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
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

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	Client Project ID:	310-127-5A / 5367, San Leandro	
2025 Gateway Place, Suite 440	Matrix:	LIQUID	
San Jose, CA 95110			
Attention: Andrew Lahane	Work Order #:	9610A49 01	Reported: Oct 28, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC102196BTEX18A	GC102196BTEX18A	GC102196BTEX18A	GC102196BTEX18A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
MS/MSD #:	961091602	961091602	961091602	961091602
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/21/96	10/21/96	10/21/96	10/21/96
Analyzed Date:	10/21/96	10/21/96	10/21/96	10/21/96
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	9.8	9.6	29
MS % Recovery:	103	98	96	96
Dup. Result:	10	9.5	9.4	29
MSD % Recov.:	100	95	94	96
RPD:	3.0	3.1	2.1	0.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK102196	BLK102196	BLK102196	BLK102196
Prepared Date:	10/21/96	10/21/96	10/21/96	10/21/96
Analyzed Date:	10/21/96	10/21/96	10/21/96	10/21/96
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	12	11	10	32
LCS % Recov.:	120	110	100	108
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
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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☐ 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: MC Env. Grp.
Address: 2025 Gateway Pl. #440
City: San Jose State: CA Zip Code: 95110
Telephone: 408 441 7500 FAX #: 408 441 7539
Report To: Haidre Johane Sampler: Mark Gilbert

Project Name: 310-127.5H
UNOCAL Project Manager: Tina Berry
AFE #:
Site #, City, State: 5367, San Leandro
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 Air

Analyses Requested

9610A49

	Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH Gas/BTEX								Comments
1.	INFL	10/15/96	H2O	3	Voa	01	X								
2.	MID	10/15/96	H2O	3	Voa	02	X								
3.	EFFL	10/15/96	H2O	3	Voa	03	X								
4.		/ /													
5.	INFL	10/15/96	Air	1	Bag		X								
6.	EFFL	10/15/96	Air	1	Bag		X								
7.		/ /													
8.															
9.															
10.															

Relinquished By: Mark Gilbert	Date: 10/16/96	Time: 7:46	Received By: R. Alarcon	Date: 10/16/96	Time: 0746
Relinquished By: R. Alarcon	Date: 10/16/96	Time: 1045	Received By: [illegible]	Date: 10-16-96	Time: 1045
Relinquished By: [illegible]	Date:	Time:	Received By Lab: [illegible]	Date: 10/16/96	Time: 1155

Were Samples Received in Good Condition? ☐ Yes ☐ No   Samples on Ice? ☐ Yes ☐ No   Method of Shipment________   Page __ of __

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? ________

Sequoia Analytical

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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: Andrew Lahane

Client Proj. ID: 310-127.5A/5367, San Lorenzo
Sample Descript: Infl
Matrix: AIR
Analysis Method: 8015Mod/8020
Lab Number: 9610974-01

Sampled: 10/15/96
Received: 10/16/96

Analyzed: 10/17/96
Reported: 10/21/96

QC Batch Number: GC101796BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	0.10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	103

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

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
Attention: Andrew Lahane

Client Project ID: 310-127.5A / 5367, San Lorenzo
Work Order #: 9610974 01, 02
Reported: Oct 22, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC101796BTEX17A	GC101796BTEX17A	GC101796BTEX17A	GC101796BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	Y. Arteaga	Y. Arteaga	Y. Arteaga	Y. Arteaga
MS/MSD #:	961057903	961057903	961057903	961057903
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/17/96	10/17/96	10/17/96	10/17/96
Analyzed Date:	10/17/96	10/17/96	10/17/96	10/17/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	10	9.6	29
MS % Recovery:	110	100	96	97
Dup. Result:	11	11	9.5	29
MSD % Recov.:	110	110	95	97
RPD:	0.0	9.5	1.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK101796	BLK101796	BLK101796	BLK101796
Prepared Date:	10/17/96	10/17/96	10/17/96	10/17/96
Analyzed Date:	10/17/96	10/17/96	10/17/96	10/17/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	10	9.2	28
LCS % Recov.:	110	100	92	93
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

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☐ 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: DOC. ENV. Grp.
Address: 3025 Gateway Pl. #440
City: San Jose State: Ca. Zip Code: 95110
Telephone: 408 441 7500 FAX #: 408 441 7539
Report To: Andrew Kahane Sampler: Mark Gibson

Project Name: 310-127.5H
UNOCAL Project Manager: Tina Berry
AFE #:
Site #, City, State: 5367, San Leandro
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 Air

Analyses Requested: Gas/BTEX

9610974

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Gas/BTEX									Comments
1. INFL	10/15/96	H2O	3	Voa		X									
2. MID	10/15/96	H2O	3	Voa		X									
3. EFFL	10/15/96	H2O	3	Voa		X									
4.															
5. INFL	10/15/96	Air	1	Bag	[illegible]	X									
6. EFFL	10/15/96	Air	1	Bag	[illegible]	X									
7.															
8.															
9.															
10.															

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Mark Gibson	10/16/96	7:46	D. Alarcon	10/16/96	0746
D. Alarcon	10/16/96	1015	[illegible]	10-16-96	1015
[illegible]			Received By Lab: [illegible]	10/16/96	11:54

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment_____ Page __ of __

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: _____ Company: _____ Date:

Pink - Client
Yellow - Laboratory
White - Laboratory

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-2600, 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	Client Proj. ID: 310-127.5A/5367	Sampled: 10/28/96
2025 Gateway Place, Suite 440	Sample Descript: Infl	Received: 10/29/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 10/30/96
Attention: PEG Engineer	Lab Number: 9610H64-01	Reported: 11/24/96

QC Batch Number: GC103096BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	20	260
Benzene	0.20	0.88
Toluene	0.20	10
Ethyl Benzene	0.20	1.9
Xylenes (Total)	0.20	27
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	76

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

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	Client Proj. ID: 310-127.5A/5367	Sampled: 10/28/96
2025 Gateway Place, Suite 440	Sample Descript: Effl	Received: 10/29/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 10/30/96
Attention: PEG Engineer	Lab Number: 9610H64-02	Reported: 11/24/96

QC Batch Number: GC103096BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	**0.10**	**0.39**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	80

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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

Pacific Environmental Group	Client Proj. ID: 310-127.5A/5367	Sampled: 10/28/96
2025 Gateway Place, Suite 440	Sample Descript: MW-1	Received: 10/29/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 10/30/96
Attention: PEG Engineer	Lab Number: 9610H64-03	Reported: 11/24/96

QC Batch Number: GC103096BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**100**	**1000**
Benzene	1.0	N.D.
Toluene	**1.0**	**30**
Ethyl Benzene	**1.0**	**3.5**
Xylenes (Total)	**1.0**	**96**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	269 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: 310-127.5A/5367	Sampled: 10/28/96
2025 Gateway Place, Suite 440	Sample Descript: MW-2	Received: 10/29/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 10/30/96
Attention: PEG Engineer	Lab Number: 9610H64-04	Reported: 11/24/96

QC Batch Number: GC103096BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**250**
Benzene	**0.50**	**1.3**
Toluene	**0.50**	**3.3**
Ethyl Benzene	**0.50**	**0.50**
Xylenes (Total)	**0.50**	**1.1**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	85

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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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: PEG Engineer

Client Proj. ID: 310-127.5A/5367

Lab Proj. ID: 9610H64

Received: 10/29/96

Reported: 11/24/96

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 9 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

High surrogate recovery for sample 03 has been confirmed.

The bag for sample 05 was completely flat when received by the laboratory.

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Andrew Lehane

Client Project ID: Unocal 310-127.5A / 5367
Matrix: Air
Work Order #: 9610H64 01-05

Reported: Nov 11, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC103096BTEX02A	GC103096BTEX02A	GC103096BTEX02A	GC103096BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	Y. Arteaga	Y. Arteaga	Y. Arteaga	Y. Arteaga
MS/MSD #:	9610D1401	9610D1401	9610D1401	9610D1401
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/30/96	10/30/96	10/30/96	10/30/96
Analyzed Date:	10/30/96	10/30/96	10/30/96	10/30/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	13	11	10	29
MS % Recovery:	130	110	100	97
Dup. Result:	12	11	10	29
MSD % Recov.:	120	110	100	97
RPD:	8.0	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK103096	BLK103096	BLK103096	BLK103096
Prepared Date:	10/30/96	10/30/96	10/30/96	10/30/96
Analyzed Date:	10/30/96	10/30/96	10/30/96	10/30/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	12	10	9.9	27
LCS % Recov.:	120	100	99	90
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

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Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Andrew Lehane

Client Project ID: Unocal 310-127.5A / 5367
Matrix: Air
Work Order #: 9610H64 01-05

Reported: Nov 11, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC103096BTEX03a	GC103096BTEX03a	GC103096BTEX03a	GC103096BTEX03a
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	G. Fish	G. Fish	G. Fish	G. Fish
MS/MSD #:	9610D1407	9610D1407	9610D1407	9610D1407
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/30/96	10/30/96	10/30/96	10/30/96
Analyzed Date:	10/30/96	10/30/96	10/30/96	10/30/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	12	9.7	9.6	29
MS % Recovery:	120	97	96	97
Dup. Result:	11	9.1	8.9	27
MSD % Recov.:	110	91	89	90
RPD:	8.7	6.4	7.6	7.1
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK103196	BLK103196	BLK103196	BLK103196
Prepared Date:	10/31/96	10/31/96	10/31/96	10/31/96
Analyzed Date:	10/31/96	10/31/96	10/31/96	10/31/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	9.4	9.2	27
LCS % Recov.:	110	94	92	90
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
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

UNOCAL 76

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☐ 18939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200
☐ 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: Pac. Env. Group, Inc	Project Name: 310-127.5A
Address: 2025 Gateway Pl. #440	UNOCAL Project Manager: Tina Berry
City: San Jose State: CA Zip Code: 95110	AFE #:
Telephone: (408) 441-7500 FAX #: (408) 441-7539	Site #, City, State: #5367, San Leandro
Report To: Andrew Lehane Sampler: Don Watenpaugh	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

☐ Drinking Water ☐ Waste Water ☑ Other Air

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

Analyses Requested: 9610 H64 CT 29 | 32 CT 29 | 32

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	GAS/BTEX	Comments
1. Inf 1	10/28/96 11:00	Air	1	BAG	1	X	
2. Eff 1	10/28/96 11:00	↓	↓	↓	2	X	
3. MW-1	↓	↓	↓	↓	3	X	
4. MW-2	↓	↓	↓	↓	4	X	
5. MW-3	↓	↓	↓	↓	5	X	
6.							
7.							
8.							
9.							
10.							

Relinquished By: Don Watenpaugh	Date: 10/28/96	Time: 14:00	Received By: D. Alarcon	Date: 10/28/96 Time: 1400
Relinquished By: D. Alarcon	Date: 10/29/96	Time: 1040	Received By: [illegible]	Date: 10/29/96 Time: 1040
Relinquished By: [illegible]	Date: 10/29/96	Time: 1124	Received By Lab: [illegible]	Date: 10/29/96 Time: 1124

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page __ of __

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? 11 days (air reported as liquid) corrected copy recd 11/25/96

Approved by: D. Alarcon Signature: D. Alarcon Company: PEG Date: 11/13/96

Pink - Client
Yellow - Laboratory
White - Laboratory

Sequoia Analytical

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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

Attention: Andrew Lehane

Client Proj. ID: 310-127.5A/ 5367 San Leandro
Sample Descript: MID 1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9611B55-01

Sampled: 11/14/96
Received: 11/15/96

Analyzed: 11/27/96
Reported: 12/17/96

QC Batch Number: GC112796BTEX01A
Instrument ID: GCHP01

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.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	81

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group	Client Proj. ID: 310-127.5A/ 5367 San Leandro	Sampled: 11/14/96
2025 Gateway Place, Suite 440	Sample Descript: EFFL	Received: 11/15/96
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 11/26/96
Attention: Andrew Lehane	Lab Number: 9611B55-02	Reported: 12/17/96

QC Batch Number: GC112696BTEX18A
Instrument ID: GCHP18

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.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	101

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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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: Andrew Lehane

Client Project ID: 310-127.5A / 5367, San Leandro
Matrix: LIQUID
Work Order #: 9611B55 01, 02

Reported: Dec 5, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC112696BTEX18A	GC112696BTEX18A	GC112696BTEX18A	GC112696BTEX18A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	9611B3904	9611B3904	9611B3904	9611B3904
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/26/96	11/26/96	11/26/96	11/26/96
Analyzed Date:	11/26/96	11/26/96	11/26/96	11/26/96
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	11	11	32
MS % Recovery:	110	110	110	107
Dup. Result:	11	11	11	31
MSD % Recov.:	110	110	110	103
RPD:	0.0	0.0	0.0	3.2
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK112696	BLK112696	BLK112696	BLK112696
Prepared Date:	11/26/96	11/26/96	11/26/96	11/26/96
Analyzed Date:	11/26/96	11/26/96	11/26/96	11/26/96
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	11	11	32
LCS % Recov.:	110	110	110	107
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
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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☐ 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) [illegible]

Consultant Company: PAC ENV. Group, Inc.	Project Name: 310-127.5A
Address: 2025 GATEWAY Pl. #440	UNOCAL Project Manager: Tina Berry
City: San Jose State: CA Zip Code: 95110	AFE #:
Telephone: (408) 441-7500 FAX #: (408)4417539	Site #, City, State: 5367 San Leandro, CA
Report To: Andrew Lehone Sampler: DMW	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

☐ Drinking Water ☒ Waste Water ☐ Other

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

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH-gasoline/BTEX	9611858	Comments
1. Mid 1	11/14/96 8:30	H_2O	3	VOA	1 A-C	X		
2. EFF 1	11/14/96 8:30	H_2O	3	VOA	2 }	X		
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

Relinquished By: Don Wadsworth	Date: 11/14/96	Time: 11:00	Received By: D. Alarcon	Date: 11/14/96	Time: 11:00
Relinquished By: D. Alarcon	Date: 11/15/96	Time: 1:05	Received By: Steve Te	Date: 11-15-96	Time: 1:05
Relinquished By: Steve Te	Date: 11-15-96	Time:	Received By Lab: L Cardenas	Date: 11/15/96	Time: 1757

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page __ of __

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: _____ Company: _____ Date: _____

Pink - Client
Yellow - Laboratory
White - Laboratory

Sequoia Analytical

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

Pacific Environmental Group	Client Proj. ID: 310-127.5A/5367, San Leandro	Sampled: 11/14/96
2025 Gateway Place, Suite 440	Sample Descript: Infl	Received: 11/15/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 11/15/96
Attention: Andrew Lehane	Lab Number: 9611910-01	Reported: 11/19/96

QC Batch Number: GC111596BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	20	**220**
Benzene	0.20	**0.75**
Toluene	0.20	**4.7**
Ethyl Benzene	0.20	**0.61**
Xylenes (Total)	0.20	**19**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	86

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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

Pacific Environmental Group	Client Proj. ID: 310-127.5A/5367, San Leandro	Sampled: 11/14/96
2025 Gateway Place, Suite 440	Sample Descript: MW 3	Received: 11/15/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 11/15/96
Attention: Andrew Lehane	Lab Number: 9611910-03	Reported: 11/19/96

QC Batch Number: GC111596BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10**	**76**
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	**0.10**	**0.31**
Xylenes (Total)	**0.10**	**0.96**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	172 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Andrew Lehane

Client Proj. ID: 310-127.5A/5367, San Leandro
Lab Proj. ID: 9611910

Received: 11/15/96
Reported: 11/19/96

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 4 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

Surrogate coelution confirmed for sample 03.

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

Sequoia Analytical

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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: Andrew Lehane

Client Project ID: 310-127.5A / 5367, San Leandro

Work Order #: 9611910 01

Reported: Nov 20, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC111596BTEX22A	GC111596BTEX22A	GC111596BTEX22A	GC111596BTEX22A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	961047103	961047103	961047103	961047103
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/15/96	11/15/96	11/15/96	11/15/96
Analyzed Date:	11/15/96	11/15/96	11/15/96	11/15/96
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.2	9.3	9.4	29
MS % Recovery:	92	93	94	97
Dup. Result:	7.8	7.7	7.6	24
MSD % Recov.:	78	77	76	80
RPD:	16	19	21	19
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK111596	BLK111596	BLK111596	BLK111596
Prepared Date:	11/15/96	11/15/96	11/15/96	11/15/96
Analyzed Date:	11/15/96	11/15/96	11/15/96	11/15/96
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.4	9.6	9.8	30
LCS % Recov.:	94	96	98	100
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
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: Andrew Lehane

Client Project ID: 310-127.5A / 5367, San Leandro
Work Order #: 9611910 02-03
Reported: Nov 20, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC111596BTEX17A	GC111596BTEX17A	GC111596BTEX17A	GC111596BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Heider	J. Heider	J. Heider	J. Heider
MS/MSD #:	961138810	961138810	961138810	961138810
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	11/15/96	11/15/96	11/15/96	11/15/96
Analyzed Date:	11/15/96	11/15/96	11/15/96	11/15/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	30
MS % Recovery:	100	100	100	100
Dup. Result:	8.3	8.2	8.2	24
MSD % Recov.:	83	82	82	80
RPD:	19	20	20	22
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK111596	BLK111596	BLK111596	BLK111596
Prepared Date:	11/15/96	11/15/96	11/15/96	11/15/96
Analyzed Date:	11/15/96	11/15/96	11/15/96	11/15/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.2	9.0	9.0	26
LCS % Recov.:	92	90	90	87

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

SEQUOIA ANALYTICAL

Tod Granicher
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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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: Pac. Env. Group, Inc	Project Name: 310-127.5A
Address: 2025 Gateway Pl. #440	UNOCAL Project Manager: Tina Berry
City: San Jose State: CA Zip Code: 95110	AFE #:
Telephone: (408)441-7500 FAX #: (408)441-7539	Site #, City, State: 5367 San Leandro, CA
Report To: Andrew Lehone Sampler: Omw	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 AIR

Analyses Requested

	Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH g/BTEX	8010	Comments
1.	INF1	11/14/96 9:15	AIR	1	BAG	1	X		
2.	EFF1	11/14/96 9:15	↓	↓	↓	2	X		
3.	MW3	11/14/96 8:45	↓	↓	↓	3	X		
4.									
5.									
6.									
7.									
8.									
9.									
10.									

Relinquished By: Dan Waterman	Date: 11/14/96	Time: 11:00	Received By: D. Alarcon
Relinquished By: D. Alarcon	Date: 11/15/96	Time: 1:05	Received By: Steve Te
Relinquished By: Steve Te	Date: 11-15-96	Time:	Received By Lab:

Received By: D. Alarcon	Date: 11/14/96	Time: 11:00	
Received By: Steve Te	Date: 11-15-96	Time: 1:05	
Received By Lab:	Date:	Time:	

Pink - Client

Yellow - Laboratory

White - Laboratory

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page __ of __

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: D. Alarcon Signature: D. Alarcon Company: PEG Date: 11/21/96

Sequoia Analytical

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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

Attention: Andrew Lehane

Client Proj. ID: Unocal 310-127.5A/5367
Sample Descript: INFL
Matrix: AIR
Analysis Method: 8015Mod/8020
Lab Number: 9612060-01

Sampled: 12/02/96
Received: 12/03/96

Analyzed: 12/05/96
Reported: 12/10/96

QC Batch Number: GC120596BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10**	**17**
Benzene	0.10	N.D.
Toluene	**0.10**	**0.43**
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	**0.10**	**1.0**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	109

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: Unocal 310-127.5A/5367	Sampled: 12/02/96
2025 Gateway Place, Suite 440	Sample Descript: EFFL	Received: 12/03/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 12/04/96
Attention: Andrew Lehane	Lab Number: 9612060-02	Reported: 12/10/96

QC Batch Number: GC120396BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	**0.10**	**0.31**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	98

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
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
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Andrew Lehane

Client Proj. ID: Unocal 310-127.5A/5367
Sample Descript: MW-1
Matrix: AIR
Analysis Method: 8015Mod/8020
Lab Number: 9612060-03

Sampled: 12/02/96
Received: 12/03/96

Analyzed: 12/04/96
Reported: 12/10/96

QC Batch Number: GC120396BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**950**
Benzene	5.0	N.D.
Toluene	**5.0**	**40**
Ethyl Benzene	**5.0**	**5.9**
Xylenes (Total)	**5.0**	**120**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	102

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group	Client Proj. ID: Unocal 310-127.5A/5367	Sampled: 12/02/96
2025 Gateway Place, Suite 440	Sample Descript: MW-2	Received: 12/03/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 12/04/96
Attention: Andrew Lehane	Lab Number: 9612060-04	Reported: 12/10/96

QC Batch Number: GC120396BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10**	**11**
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	**0.10**	**0.14**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	118

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
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: Unocal 310-127.5A/5367	Sampled: 12/02/96
2025 Gateway Place, Suite 440	Sample Descript: MW-3	Received: 12/03/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 12/04/96
Attention: Andrew Lehane	Lab Number: 9612060-05	Reported: 12/10/96

QC Batch Number: GC120396BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10**	**15**
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	**0.10**	**0.55**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	113

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110 Attention: Andrew Lehane	Client Proj. ID: Unocal 310-127.5A/5367 Lab Proj. ID: 9612060	Received: 12/03/96 Reported: 12/10/96

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 11 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPHGBA Note: High surrogate recovery was confirmed for the set.

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Andrew Lehane

Client Project ID: Unocal 310-127.5A / 5367

Work Order #: 9612060 01-05

Reported: Dec 10, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC120396BTEX17A	GC120396BTEX17A	GC120396BTEX17A	GC120396BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	Y. Arteaga	Y. Arteaga	Y. Arteaga	Y. Arteaga
MS/MSD #:	9611C6915	9611C6915	9611C6915	9611C6915
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/3/96	12/3/96	12/3/96	12/3/96
Analyzed Date:	12/3/96	12/3/96	12/3/96	12/3/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	10	10	31
MS % Recovery:	110	100	100	103
Dup. Result:	11	10	11	33
MSD % Recov.:	110	100	110	110
RPD:	0.0		9.5	6.3
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK120396	BLK120396	BLK120396	BLK120396
Prepared Date:	12/3/96	12/3/96	12/3/96	12/3/96
Analyzed Date:	12/3/96	12/3/96	12/3/96	12/3/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	10	11	32
LCS % Recov.:	110	100	110	107
MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

SEQUOIA ANALYTICAL

Tod Granicher
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

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Andrew Lehane

Client Project ID: Unocal 310-127.5A / 5367

Work Order #: 9612060 01-05

Reported: Dec 10, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC120596BTEX17A	GC120596BTEX17A	GC120596BTEX17A	GC120596BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	Y. Arteaga	Y. Arteaga	Y. Arteaga	Y. Arteaga
MS/MSD #:	9611D9803	9611D9803	9611D9803	9611D9803
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/5/96	12/5/96	12/5/96	12/5/96
Analyzed Date:	12/5/96	12/5/96	12/5/96	12/5/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.2	8.7	9.3	29
MS % Recovery:	92	87	93	97
Dup. Result:	9.9	9.5	9.7	29
MSD % Recov.:	99	95	97	97
RPD:	7.3	8.8	4.2	0.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK120596	BLK120596	BLK120596	BLK120596
Prepared Date:	12/5/96	12/5/96	12/5/96	12/5/96
Analyzed Date:	12/5/96	12/5/96	12/5/96	12/5/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.7	8.6	8.7	26
LCS % Recov.:	87	86	87	87
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
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.

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Andrew Lehane

Client Project ID: Unocal 310-127.5A / 5367

Work Order #: 9612060 01-05

Reported: Dec 10, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC120696BTEX17B	GC120696BTEX17B	GC120696BTEX17B	GC120696BTEX17B
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	Y. Arteaga	Y. Arteaga	Y. Arteaga	Y. Arteaga
MS/MSD #:	9611G6201	9611G6201	9611G6201	9611G6201
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/6/96	12/6/96	12/6/96	12/6/96
Analyzed Date:	12/6/96	12/6/96	12/6/96	12/6/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	10	11	31
MS % Recovery:	110	100	110	103
Dup. Result:	11	11	11	32
MSD % Recov.:	110	110	110	107
RPD:	0.0	9.5	0.0	3.2
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK120796	BLK120796	BLK120796	BLK120796
Prepared Date:	12/6/96	12/6/96	12/6/96	12/6/96
Analyzed Date:	12/6/96	12/6/96	12/6/96	12/6/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	30
LCS % Recov.:	100	100	100	100
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
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.

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UNOCAL 76

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☐ 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: Pac. ENV. Group, Inc.	Project Name: 310-127.5A
Address: 2025 GATEWAY Pl. #440	UNOCAL Project Manager: TINA Berry
City: San Jose State: CA Zip Code: 95110	AFE #:
Telephone: (408) 441-7500 FAX #: (408) 441-7539	Site #, City, State: 5367 San Leandro, CA
Report To: Andrew Lehane Sampler: DMW	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 AIR

Analyses Requested 9612060

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH-G/BTEX	Comments
1. INF1	12/2/96 13:30	AIR	1	BAG	1	X	
2. EFF1	↓ ↓	↓	↓	↓	2	↓	
3. MW-1					3		
4. MW-2					4		
5. MW-3					5		
6.							
7.							
8.							
9.							
10.							

Pink - Client

Yellow - Laboratory

White - Laboratory

Relinquished By: Don Watenpaugh	Date: 12/2/96	Time: 14:30	Received By: D. Alarcon	Date: 12/2/96	Time: 14:30
Relinquished By: D. Alarcon	Date: 12/3/96	Time: 11:36	Received By:	Date: 12/3/96	Time: 11:36
Relinquished By:	Date: 12/3/96	Time:	Received By Lab:	Date: 12/3/96	Time: 1307

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page __ of __

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: D. Alarcon Signature: D. Alarcon Company: PEG Date: 12/16/96

Sequoia Analytical

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Pacific Environmental Group	Client Proj. ID: Unocal 310-127.5A San Leandro	Sampled: 12/11/96
2025 Gateway Place, Suite 440	Sample Descript: Infl	Received: 12/13/96
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/18/96
Attention: Andrew Lehane	Lab Number: 9612989-01	Reported: 12/23/96

QC Batch Number: GC121896BTEX01A
Instrument ID: GCHP01

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	1000	12000
Benzene	10	56
Toluene	10	21
Ethyl Benzene	10	820
Xylenes (Total)	10	2700
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	87

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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

Pacific Environmental Group	Client Proj. ID: Unocal 310-127.5A San Leandro	Sampled: 12/11/96
2025 Gateway Place, Suite 440	Sample Descript: Effl	Received: 12/13/96
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/19/96
Attention: Andrew Lehane	Lab Number: 9612989-03	Reported: 12/23/96

QC Batch Number: GC121996BTEX22A
Instrument ID: GCHP22

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.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	105

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
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
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Andrew Lehane

Client Project ID: Unocal 310-127.5A / San Leandro
Matrix: LIQUID
Work Order #: 9612989 01

Reported: Dec 26, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC121896BTEX01A	GC121896BTEX01A	GC121896BTEX01A	GC121896BTEX01A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Geckler	R. Geckler	R. Geckler	R. Geckler
MS/MSD #:	961275105	961275105	961275105	961275105
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/17/96	12/17/96	12/17/96	12/17/96
Analyzed Date:	12/17/96	12/17/96	12/17/96	12/17/96
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.0	8.9	8.8	27
MS % Recovery:	90	89	88	90
Dup. Result:	8.6	8.7	8.6	27
MSD % Recov.:	86	87	86	90
RPD:	4.5	2.3	2.3	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK121896	BLK121896	BLK121896	BLK121896
Prepared Date:	12/17/96	12/17/96	12/17/96	12/17/96
Analyzed Date:	12/17/96	12/17/96	12/17/96	12/17/96
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.8	8.7	8.8	27
LCS % Recov.:	88	87	88	90

MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
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

Sequoia Analytical

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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: Andrew Lehane

Client Project ID: Unocal 310-127.5A / San Leandro
Matrix: LIQUID
Work Order #: 9612989 01-03

Reported: Dec 26, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC121996BTEX22A	GC121996BTEX22A	GC121996BTEX22A	GC121996BTEX22A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	961298001	961298001	961298001	961298001
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/19/96	12/19/96	12/19/96	12/19/96
Analyzed Date:	12/19/96	12/19/96	12/19/96	12/19/96
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	8.6	11	10	38
MS % Recovery:	86	110	100	93
Dup. Result:	8.9	11	10	29
MSD % Recov.:	89	110	100	97
RPD:	3.4	0.0	0.0	3.5
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK121996	BLK121996	BLK121996	BLK121996
Prepared Date:	12/19/96	12/19/96	12/19/96	12/19/96
Analyzed Date:	12/19/96	12/19/96	12/19/96	12/19/96
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.0	11	11	29
LCS % Recov.:	90	110	110	97
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
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

Sequoia Analytical

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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: Andrew Lehane	Client Proj. ID: Unocal 310-127.5A San Leandro Lab Proj. ID: 9612989	Received: 12/13/96 Reported: 12/23/96

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 6 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: PEG
REC. BY (PRINT) L Kim

WORKORDER: 9612989
DATE OF LOG-IN: 12-17-96

CIRCLE THE APPROPRIATE RESPONSE

1. Custody Seal(s) — Present / (Absent) Intact / Broken*
2. Custody Seal #: — Put in Remarks Section
3. Chain-of-Custody — (Present) / Absent*
4. Traffic Reports or Packing List: — Present (Absent)
5. Airbill: — Airbill / Sticker Present / (Absent)
6. Airbill #: ____
7. Sample Tags: — (Present) / Absent
   Sample Tags #s: — (Listed) / Not Listed on Chain-of-Custody
8. Sample Condition: — (Intact) / Broken* / Leaking*
9. Does information on custody reports, traffic reports and sample tags agree? — (Yes) / No*
10. Proper Preservatives used: — (Yes) / No*
11. Date Rec. at Lab: 12/13/96
12. Time Rec. at Lab: 1344
13. Temp Rec. at Lab: 14°C

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC.)
1	A-C	Inf 1	3 voa	liq	12/11	
2	↓	mid-1	↓	↓	↓	
3	↓	Eff 1	↓	↓	↓	

12/13 L Kim

*if Circled, contact Project Manager and attach record of resolution.

Revision 9/10/96

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☐ 18939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200
☐ 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: PAC. ENV. GROUP, INC.	Project Name: 310-127.5A
Address: 2025 GATEWAY PL #440	UNOCAL Project Manager: TINA BERRY
City: SAN JOSE State: CA Zip Code: 95110	AFE #:
Telephone: 408 4417500 FAX #: 408 4417539	Site #, City, State: 5367 SAN LEANDRO, CA
Report To: Andrew Lehman Sampler: Don WATENPAUGH	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

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH9 / BTEX	9612989	Comments
1. INF1	12/11/96 11:00	H_2O	3	VOA	1 A-C	X		
2. MID-1	↓ ↓	↓	↓	↓	2	X		
3. EFF1	↓ ↓	↓	↓	↓	3	X		
4.								
5.								
6.								
7.								
8.								
9.								
10.								

Relinquished By: Don Watenpaugh	Date: 12/11/96	Time: 15:20	Received By: Suzanne McClintock	Date: 12/11/96	Time: 1580
Relinquished By: Suzanne McClintock	Date: 12/13/96	Time: 10:40	Received By: [signature]	Date: 12/13/96	Time: 10:40
Relinquished By: [signature]	Date: 12/13/96	Time:	Received By Lab: [signature]	Date: 12/13/96	Time: 1344

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page __ of __

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: Company: Date:

Pink - Client
Yellow - Laboratory
White - Laboratory

Sequoia Analytical

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

Pacific Environmental Group	Client Proj. ID: 310-127.5A/5367, San Leandro	Sampled: 12/11/96
2025 Gateway Place, Suite 440	Sample Descript: INFL	Received: 12/13/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 12/13/96
Attention: Andrew Lehane	Lab Number: 9612795-01	Reported: 12/19/96

QC Batch Number: GC121396BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	**0.10**	**0.15**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	99

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: 310-127.5A/5367, San Leandro	Sampled: 12/11/96
2025 Gateway Place, Suite 440	Sample Descript: EFFL	Received: 12/13/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 12/13/96
Attention: Andrew Lehane	Lab Number: 9612795-02	Reported: 12/19/96

QC Batch Number: GC121396BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	0.10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	107

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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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: Andrew Lehane	Client Proj. ID: 310-127.5A/5367, San Leandro Lab Proj. ID: 9612795	Received: 12/13/96 Reported: 12/19/96

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 12 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Andrew Lehane

Client Project ID: 310-127.5A / 5367, San Leandro
Work Order #: 9612795 01
Reported: Dec 20, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC121396BTEX17A	GC121396BTEX17A	GC121396BTEX17A	GC121396BTEX17A
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 #:	961251804	961251804	961251804	961251804
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/13/96	12/13/96	12/13/96	12/13/96
Analyzed Date:	12/13/96	12/13/96	12/13/96	12/13/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.0	10	11	33
MS % Recovery:	90	100	110	110
Dup. Result:	8.6	10	11	33
MSD % Recov.:	86	100	110	110
RPD:	4.5	0.0	0.0	0.0
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK121396	BLK121396	BLK121396	BLK121396
Prepared Date:	12/13/96	12/13/96	12/13/96	12/13/96
Analyzed Date:	12/13/96	12/13/96	12/13/96	12/13/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.4	9.6	10	31
LCS % Recov.:	84	96	100	103
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
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

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: PEG
REC. BY (PRINT): PN
WORKORDER: 9612795
DATE OF LOG-IN: 12/13/96

CIRCLE THE APPROPRIATE RESPONSE

1. Custody Seal(s): Present / (Absent) Intact / Broken*
2. Custody Seal #: Put in Remarks Section
3. Chain-of-Custody: (Present) / Absent*
4. Traffic Reports or Packing List: Present / (Absent)
5. Airbill: Airbill / Sticker Present / (Absent)
6. Airbill #: —
7. Sample Tags: (Present) / Absent
   Sample Tags #s: (Listed) / Not Listed on Chain-of-Custody
8. Sample Condition: (Intact) / Broken* / Leaking*
9. Does information on custody reports, traffic reports and sample tags agree? (Yes) / No*
10. Proper Preservatives used: (Yes) / No*
11. Date Rec. at Lab: 12/13/96
12. Time Rec. at Lab: — 5 PM
13. Temp Rec. at Lab: 13.4°C

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC.)
1	A	INFL	Tedlar	A	12/11	
2	↓	EFFL	↓	↓	↓	

12/13/96 thurs

*if Circled, contact Project Manager and attach record of resolution.

Revision 9/10/96
RCPTLOG1.XLS

UNOCAL 76

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☐ East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
☐ 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Pink - Client

Consultant Company: Pac. Env. Group Inc	Project Name: 310-127.5A
Address: 2025 GATEWAY Pl #440	UNOCAL Project Manager: TINA Berry
City: San Jose State: CA Zip Code: 95110	AFE #:
Telephone: (408) 441 7500 FAX #: (408) 441-7589	Site #, City, State: 5367 San Leandro, CA
Report To: Andrew Lehane	Sampler: Don Watergard
	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 AIR

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH-G/BTEX	9612795	Comments
1. INF1	12/11/96 12:00	AIR	1	BAG	1	X		
2. EFF1	12/11/96 12:00	AIR	1		2	X		
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

Yellow - Laboratory

White - Laboratory

Relinquished By: Don Watergard	Date: 12/11/96	Time: 15:00	Received By: Stephanie Mueller-Hill Date: 12/11/96 Time: 15:00
Relinquished By: Stephanie Mueller-Hill	Date: 12/13/96	Time: 10:40	Received By: Date: 12/13/96 Time: 10:45
Relinquished By:	Date: 12/13/96	Time:	Received By Lab: Date: 12/13/96 Time: 1344

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page __ of __

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 turnarpund time? ☐ Yes ☒ No If no, what was the turnaround time? 7 days

Approved by: D. Alarcon Signature: D. Alarcon Company: PEG Date: 12/24/96

Sequoia Analytical

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

Pacific Environmental Group	Client Proj. ID: 310-127.5A/5367, San Leandro	Sampled: 12/20/96
2025 Gateway Place, Suite 440	Sample Descript: Infl	Received: 12/20/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 12/21/96
Attention: Jessica Nelligan	Lab Number: 9612C26-01	Reported: 12/31/96

QC Batch Number: GC122096BTEX17B
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	0.10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	88

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: 310-127.5A/5367, San Leandro	Sampled: 12/20/96
2025 Gateway Place, Suite 440	Sample Descript: Effl	Received: 12/20/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 12/21/96
Attention: Jessica Nelligan	Lab Number: 9612C26-02	Reported: 12/31/96

QC Batch Number: GC122096BTEX17B
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	0.10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	92

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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

Pacific Environmental Group	Client Proj. ID: 310-127.5A/5367, San Leandro	Sampled: 12/20/96
2025 Gateway Place, Suite 440	Sample Descript: MW-1	Received: 12/20/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 12/21/96
Attention: Jessica Nelligan	Lab Number: 9612C26-03	Reported: 12/31/96

QC Batch Number: GC122096BTEX17B
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10**	**13**
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	**0.10**	**0.45**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	94

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group	Client Proj. ID: 310-127.5A/5367, San Leandro	Sampled: 12/20/96
2025 Gateway Place, Suite 440	Sample Descript: MW-2	Received: 12/20/96
San Jose, CA 95110	Matrix: AIR	
	Analysis Method: 8015Mod/8020	Analyzed: 12/21/96
Attention: Jessica Nelligan	Lab Number: 9612C26-04	Reported: 12/31/96

QC Batch Number: GC122096BTEX17B
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	0.10	N.D.
Xylenes (Total)	0.10	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	93

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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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

Attention: Jessica Nelligan

Client Proj. ID: 310-127.5A/5367, San Leandro
Sample Descript: MW-3
Matrix: AIR
Analysis Method: 8015Mod/8020
Lab Number: 9612C26-05

Sampled: 12/20/96
Received: 12/20/96

Analyzed: 12/21/96
Reported: 12/31/96

QC Batch Number: GC122096BTEX17B
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10	N.D.
Benzene	0.10	N.D.
Toluene	0.10	N.D.
Ethyl Benzene	**0.10**	**0.42**
Xylenes (Total)	**0.10**	**0.87**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	88

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

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
Attention: Jessica Nelligan

Client Proj. ID: 310-127.5A/5367, San Leandro

Lab Proj. ID: 9612C26

Received: 12/20/96

Reported: 12/31/96

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 9 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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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: Jessica Nelligan

Client Project ID: 310-127.5A/5367, San Leandro
Matrix: Liquid
Work Order #: 9612C26 -01-05

Reported: Jan 3, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC122096BTEX17B	GC122096BTEX17B	GC122096BTEX17B	GC122096BTEX17B
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Heider	J. Heider	J. Heider	J. Heider
MS/MSD #:	961299203	961299203	961299203	961299203
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/20/96	12/20/96	12/20/96	12/20/96
Analyzed Date:	12/20/96	12/20/96	12/20/96	12/20/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	8.6	8.4	8.4	25
MS % Recovery:	86	84	84	83
Dup. Result:	9.1	8.8	8.8	26
MSD % Recov.:	91	88	88	87
RPD:	5.6	4.7	4.7	3.9
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK122096	BLK122096	BLK122096	BLK122096
Prepared Date:	12/20/96	12/20/96	12/20/96	12/20/96
Analyzed Date:	12/20/96	12/20/96	12/20/96	12/20/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	8.8	8.6	8.7	25
LCS % Recov.:	88	86	87	83
MS/MSD Control Limits	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Tod Granicher
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

UNOCAL 76

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☐ 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 ENV. Group, Inc	Project Name: 310-#127.54
Address: 2025 GATEWAY PI #440	UNOCAL Project Manager: TINA Berry
City: SAN Jose State: CA Zip Code: 95110	AFE #:
Telephone: (408) 441-7500 FAX #: (408) 441-7539	Site #, City, State: 5367 SAN Leandro
Report To: Jessica Nelligan Sampler: Don Waterpaugh	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

Analyses Requested — 9612C26

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH-5 / BTEX	Comments
1. INF1	12/20/96 8:00	AIR	1	BAG	1	X	
2. EFF1	"	"	"	"	2	X	
3. MW-1	"	"	"	"	3	X	
4. MW-2	"	"	"	"	4	X	
5. MW-3	"	"	"	"	5	X	
6.							
7.							
8.							
9.							
10.							

Relinquished By: Don Waterpaugh	Date: 12/20/96	Time: 11:20	Received By: D. Alarcón	Date: 12/20/96	Time: 11:20
Relinquished By: D. Alarcón	Date: 12/20/96	Time: 3:15	Received By: Steve Fan	Date: 12/20/96	Time: 3:15
Relinquished By: Steve	Date: 12/20/96	Time:	Received By Lab:	Date: 12/20/96	Time: 1711

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page __ of __

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: D. Alarcón Signature: D. Alarcón Company: PEG Date: 1/8/97

Pink - Client
Yellow - Laboratory
White - Laboratory

Work Order # 5547

FIELD SERVICES / ROUTINE O&M REQUEST

Identification

Request Frequency:[Semi-Monthly]

Project #	310-127.5A
Station #	5367
Site Address:	500 Bancroft Ave @ Dowling San Leandro
County:	Alameda
Project Manager:	ADL
Requestor:	Alexis M. Bahou
Client:	Unocal
Client P.O.C.:	Tina Berry
Revision Date:	08/12/96
Laboratory:	Sequoia

Site Remedial Technologies:

Groundwater Extration (GWE)		Soil Vapor Extraction (SVE)		Air Sparging (AS)		Bio-Augmentation (BIO)	
	X		X				

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

Data Sheet Section(s) / Part(s)	To be Completed	Budgeted Hrs	Actual Hrs	Mob-de Mob	Completed
SVE(A, B, C, D)	week 1 †				MC
SVE(A, B, C, D, E, F)	week 3		YES		
GWE(A, B, C, D)	monthly				
SVE(H, I)	quarterly †				MC
	semi-annually				

† = sampling to be performed

Definition of frequencies:

semi-monthly = once every other week on weeks 1 & 3
monthly = first week of the month (day 1 or 2 preferred)
quarterly = once every quarter in months 1, 4, 7 ,10 on week 1

Field Technician Response:

Completed by: MC
Arrival time: 9:45
Sample this visit?: YES

Date: 10/15/96
Departure time: 11:45
Engineer contacted? YES

Groundwater Extraction & Treatment System
Unocal Service Station 5367
500 Bancroft @ Dowling
San Leandro, CA
310-127.5A

System Description:

Groundwater Pumps

Well	Type	Size	Control	Set Depth (TOB)
MW-2	electric			
MW-3	electric			

Carbon Vessels: 2 Cetco 1,000 lbs vessels
Filter: Rosedale 8-30

Transfer Pump: 1.5 hp, 110/220V,1Φ,60 Hz
oil/water separator: N/A

PART A: SYSTEM DATA

System on upon arrival? YES (if no, specify reason in comments)

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
TOTALIZER (gallons)	0266527	
FILTER INLET PRESSURE (psig)	5	(ideal range < 30 psig)
CARBON #1 INLET PRESSURE (psig)	5	
CARBON #2 INLET PRESSURE (psig)	0	(ideal range 12 psig)
DISCHARGE PRESSURE (psig)	n/a	(ideal range 0 psig)
TRANSFER PUMP FLOWRATE (gpm)	n/a	(ideal range 10 gpm)
% RESTRICTION VALVE OPEN	n/a	(ideal range 100 % open)

PART B: COMMENTS

PART C: WELL DATA

WELL	DTW (TOB)	TOTALIZER (gallons)	FLOWRATE (gpm)	COMMENTS/ ADJUSTMENTS
MW-2	29.60	0264844	0	DTW CHANGES AS APPLIED UAC. IS GONE.
MW-3	~~29.6~~	0070432	.7	

PART D: SAMPLING & READINGS I

SAMPLE	ANALYSIS	COMPLETED
~~MID 1~~ INFL ?	TPH-gasoline/BTEX compounds	YES
MID 2	TPH-gasoline/BTEX compounds	YES
Effluent	TPH-gasoline/BTEX compounds	YES

PART G: SYSTEM MAINTENANCE I

NUMBER OF SPARE FILTERS ON SITE?	3	CHANGE FILTERS? (if necessary)	no
DRAIN COMPRESSOR	n/a		

PART ~~H~~ I: SYSTEM MAINTENANCE II

CLEAN TOTALIZERS	n/a	TEST ALARM SWITCHES	n/a
BACKFLUSH CARBON VESSELS		CALIBRATE LEL	
CHANGE COMPRESSOR OIL			

Soil Vapor Extraction & Treatment System
Unocal Service Station #5367
500 Bancroft Avenue @ Dowling
San Leandro, CA
310-127.5A

PART A: SYSTEM DATA

System on upon arrival? YES (if no, specify reason in comments)

HOUR METER (hrs)	07777	CONTENTS OF KNOCKOUT BARREL	0
ELECTRIC METER (kW-hrs)	13882		

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
% DILUTION VALVE OPEN	20	
% RECIRCULATION VALVE OPEN	75	
% HEAT EXCHANGER BYPASS VALVE OPEN	n/a	
MANIFOLD AIR FLOW (before dilution) (Δ P, inches of water)	< .05	
TOTAL SYSTEM AIR FLOW (after dilution) (ΔP, inches of water)	~~.59~~ .20	
BLOWER VACUUM (inches of water)	28.5	

PART B: COMMENTS

PART C: SYSTEM FID READINGS

READING (ppmv)	WC/WOC/DF before adjustments	WC/WOC/DF after adjustments
INFLUENT (before dilution)	~~27/0~~	27/200/0
INFLUENT (after dilution)	~~8/0~~	8/49/0
PRIMARY GAC EFFLUENT	~~8/0~~	8/8/0
SYSTEM EFFLUENT	~~8/8/0~~	8/8/0
FIELD INSTRUMENT USED:	FID #3	
LAST CALIBRATED:	10/96	

PART D: SAMPLING I

SAMPLE	ANALYSIS	COMPLETED
INFLUENT	TPH-g/BTEX	YES
EFFLUENT	TPH-g/BTEX	YES

PART E: SAMPLING II

WELLS (MW-1, MW-2, MW-3)	TPH-g/BTEX	n/a

PART F: WELL DATA

	VALVE POSITION		FID (ppmv)			VAC/PRESSURE ("H_2O)		FLOW	
WELL	INITIAL	FINAL	DILUTION FACTOR USED	WC	WOC	@ MANIFOLD	@ WELL	Δ P ("H_2O)	PIPE SIZE
MW-1	n/a								
MW-2									
MW-3									

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Consultant Company: DOC ENV. Grp.
Address: 3025 Gateway Pl. #440
City: San Jose State: Ca. Zip Code: 95110
Telephone: 408 441 7500 FAX #: 408 441 7539
Report To: Andrew Kahane Sampler: Mark Gibson

Project Name: 310-127.5H
UNOCAL Project Manager: Tina Berry
AFE #:
Site #, City, State: 5367, San Leandro
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 Air

Analyses Requested

	Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Gas/BTEX								Comments
1.	INFL	10/15/96	H_2O	3	Voa		X								
2.	MID	10/15/96	H_2O	3	Voa		X								
3.	EFFL	10/15/96	H_2O	3	Voa		X								
4.															
5.	INFL	10/15/96	Air	1	Bag		X								
6.	EFFL	10/15/96	Air	1	Bag		X								
7.															
8.															
9.															
10.															

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[signature]	10/16/96	7:46			
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date:	Time:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment______ Page __ of __

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? ______

Pink - Client
Yellow - Laboratory
White - Laboratory

FIELD SERVICES / O&M REQUEST

Work Order # 6374

SITE INFORMATION FORM

Identification

Project # 310-053.5A / 310-127.5A

Station # 5760 / 5367

Site Address:

5760 - 376 Lewelling Blvd, San Lorenzo

5367 - 500 Bancroft Ave, San Leandro

County:

Project Manager: JaeM

Requestor: JaeM

Client: Unocal

Project Type

- ☐ 1st Time Visit
- ☐ Quarterly
  - ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th
- ☐ Monthly
- ☐ Semi-Monthly
- ☐ Weekly
- ☐ One time event
- ☐ Other:

Client P.O.C.: Tina Berry

Date of Request 9/26/96

Ideal field date(s): 10/15/96

MARK GUBRUD

Check Appropriate Category

Budget Hrs.

Actual Hrs.

Mob de Mob

Field Tasks: For General Description

circle one:

Priority: 1. (emergency, must be done within 24 hrs); 2. (next visit); 3. (when available)

- Please Schedule O&M visits for Tues 10/15/96 in A.M.

Unocal will be performing site safety audits of our work - need to make sure of following:

- Tech has attached Handbook
- Carry 40hr OSHA CARD.
- Site Safety Plan is onsite
- Necessary PPE is being worn
- Permits (A.V/water) posted
- Prop 65 sign posted.
- Emergency phone # posted.
- Compound is clean
- Drums labeled

Andrew Lehane will follow up on the above prior to site visit on 10/15/96.

Comments, remarks, etc. from Field Staff (include problems encountered and out-of-scope work)

☑ Samples taken ☐ Samples not required ☐ Soil Vapor ☐ Groundwater

☐ Weekly ☐ Semi-Monthly ☐ Monthly ☐ Quarterly ☐ Semi-Annual

PACIFIC ENVIRONMENTAL GROUP, INC.

Completed by: JMG Date: 10/15/96

Checked by:

White Copy - Originator

Yellow Copy - O & M Tech

Pink Copy - File

FIELD SERVICES / O&M REQUEST Work Order # 6405

SITE INFORMATION FORM

Identification

Project # 310 1275A
Station # 5367
Site Address: 500 Bancroft Ave @ Dowling San Leandro
County: Alameda
Project Manager: ADL
Requestor: Jessica N
Client: Unocal

Project Type

- [ ] 1st Time Visit
- [ ] Quarterly
  - [ ] 1st [ ] 2nd [ ] 3rd [ ] 4th
- [ ] Monthly
- [ ] Semi-Monthly
- [ ] Weekly
- [x] One time event
- [ ] Other: ______

ARRIVED = 10:00 DEPART = 10:30

Client P.O.C.: Tina Berry
Date of Request 10/10/96
Ideal field date(s): 10/12

Check Appropriate Category

Budget Hrs. ______
Actual Hrs. (2)
Mob de Mob ______

Field Tasks: For General Description

circle one:
Priority: 1. (emergency, must be done within 24 hrs); 2. (next visit); 3. (when available)

Mark Gubrud

POST Attached: (1) Permits (3) Pup 65 & phone contact signs
(2) SSP

- LABEL DRUMS / CONTAINERS

AUDIT @ 11am 10/15/96

Comments, remarks, etc. from Field Staff (include problems encountered and out-of-scope work)

- Systems running upon arrival, posted permits/etc.,
- purchased storage container for air bags / bag filters
- need labels made for sample / flow ports (will install on 10/15
* well field sample port
" " " flow)

- [ ] Samples taken [x] Samples not required [ ] Soil Vapor [ ] Groundwater
- [ ] Weekly [ ] Semi-Monthly [ ] Monthly [ ] Quarterly [ ] Semi-Annual

PACIFIC ENVIRONMENTAL GROUP, INC.

Completed by: ______ Date: ______
Checked by: ______

White Copy - Originator Yellow Copy - O & M Tech Pink Copy - File

Work Order # 5547

FIELD SERVICES / ROUTINE O&M REQUEST

Identification

Request Frequency:[Semi-Monthly]

Project #	310-127.5A
Station #	5367
Site Address:	500 Bancroft Ave @ Dowling San Leandro
County:	Alameda
Project Manager:	ADL
Requestor:	Alexis M. Bahou
Client:	Unocal
Client P.O.C.:	Tina Berry
Revision Date:	08/12/96
Laboratory:	Sequoia

Site Remedial Technologies:

Groundwater Extration (GWE)		Soil Vapor Extraction (SVE)		Air Sparging (AS)		Bio-Augmentation (BIO)	
	X		X				

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

Data Sheet Section(s) / Part(s)	To be Completed	Budgeted Hrs	Actual Hrs	Mob-de Mob	Completed
SVE(A, B, C, D)	week 1 †				
SVE(A, B, C, D, E, F)	week 3		3.5	1.5	DMW
GWE(A, B, C, D)	monthly				
SVE(H, I)	quarterly †				
	semi-annually				

† = sampling to be performed

Definition of frequencies:

semi-monthly = once every other week on weeks 1 & 3
monthly = first week of the month (day 1 or 2 preferred)
quarterly = once every quarter in months 1, 4, 7 ,10 on week 1

Field Technician Response:

Completed by: Don Delamarter
Arrival time: 10:05
Sample this visit?: Yes

Date: 12/28/96
Departure time: 13:25
Engineer contacted? CALLED Trio Not available

Soil Vapor Extraction & Treatment System
Unocal Service Station #5367
500 Bancroft Avenue @ Dowling
San Leandro, CA
310-127.5A

PART A: SYSTEM DATA

System on upon arrival? Yes (if no, specify reason in comments)

HOUR METER (hrs)	08090.4	CONTENTS OF KNOCKOUT BARREL	Empty
ELECTRIC METER (kW-hrs)	15202		

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
% DILUTION VALVE OPEN	≈ 20%	
% RECIRCULATION VALVE OPEN	≈ 75%	
% HEAT EXCHANGER BYPASS VALVE OPEN	n/a	
MANIFOLD AIR FLOW (before dilution) (Δ P, inches of water)	< .05	
TOTAL SYSTEM AIR FLOW (after dilution) (ΔP, inches of water)	.15" H_2O	
BLOWER VACUUM (inches of water)	26" H_2O	

PART B: COMMENTS Infl Temp. 58°F
MW-2 Totalizer 0264854
~~MW-1 Totalizer~~ MW-3 Totalizer 0071766
Effl totalizer - 0267653
GWE system needs warning light bulbs

PART C: SYSTEM FID READINGS

READING (ppmv)	WC/WOC/DF before adjustments	WC/WOC/DF after adjustments
INFLUENT (before dilution)	16/80/0	
INFLUENT (after dilution)	6/14/0	
PRIMARY GAC EFFLUENT	6/6/0	
SYSTEM EFFLUENT	6/6/0	
FIELD INSTRUMENT USED: FID #2		
LAST CALIBRATED: 10/96		

Bkgrd – 3 ppm

PART D: SAMPLING I

SAMPLE	ANALYSIS	COMPLETED
INFLUENT	TPH-g/BTEX	yes
EFFLUENT	TPH-g/BTEX	yes

PART E: SAMPLING II

WELLS (MW-1, MW-2, MW-3)	TPH-g/BTEX	yes

PART F: WELL DATA

WELL	VALVE POSITION 0% open		FID (ppmv)			VAC/PRESSURE ("H_2O)		FLOW	
	INITIAL	FINAL	DILUTION FACTOR USED	WC	WOC	@ MANIFOLD	@ WELL	Δ P ("H_2O)	PIPE SIZE
* MW-1	100%	100%	0	40	600	N/A	26	N/A	2"
MW-2	100%	↓	0	10	50	↓	26	↓	↓
MW-3	100%	↓	0	9	30	↓	26	↓	↓

* Checked ppm WOC twice ≈ 600 ppm

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☐ 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: Pac. ENV. Group, Inc	Project Name: 310-127, SA
Address: 2025 GATEWAY Pl. #440	UNOCAL Project Manager: TINA Berry
City: SAN Jose State: CA Zip Code: 95110	AFE #:
Telephone: (408) 441-7500 FAX #: (408) 441-7539	Site #, City, State: #5367, SAN Leandro
Report To: Andrew Lehane Sampler: Don Waterman	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 Air

Analyses Requested: GAS/BTEX

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	GAS/BTEX	Comments
1. Inf1	10/28/96 11:00	Air	1	BAG		X	
2. Eff1	10/28/96 11:00	↓	↓	↓		X	
3. MW-1	↓ ↓	↓	↓	↓		X	
4. MW-2	↓ ↓	↓	↓	↓		X	
5. MW-3	↓ ↓	↓	↓	↓		X	
6.							
7.							
8.							
9.							
10.							

Relinquished By: Don Waterman	Date: 10/28/96	Time: 14:00	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date:	Time:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page __ of __

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: _____ Company: _____ Date: _____

Pink - Client

Yellow - Laboratory

White - Laboratory

11-14

Work Order # 5547

FIELD SERVICES / ROUTINE O&M REQUEST

Identification

Project #	310-127.5A
Station #	5367
Site Address:	500 Bancroft Ave @ Dowling San Leandro
County:	Alameda
Project Manager:	ADL
Requestor:	Alexis M. Bahou
Client:	Unocal
Client P.O.C.:	Tina Berry
Revision Date:	08/12/96
Laboratory:	Sequoia

Request Frequency: [Semi-Monthly] ☒

Site Remedial Technologies:

Groundwater Extration (GWE)		Soil Vapor Extraction (SVE)		Air Sparging (AS)		Bio-Augmentation (BIO)	
	X		X				

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

Data Sheet Section(s) / Part(s)	To be Completed	Budgeted Hrs	Actual Hrs	Mob-de Mob	Completed
SVE(A, B, C, D)	week 1 †	1.5	1.5	2	
SVE(A, B, C, D, E, F)	week 3				
GWE(A, B, C, D)	monthly		1.5		yes
SVE(H, I)	quarterly †			(4.5)	
	semi-annually				

† = sampling to be performed

4.5 hr

Definition of frequencies:

semi-monthly = once every other week on weeks 1 & 3
monthly = first week of the month (day 1 or 2 preferred)
quarterly = once every quarter in months 1, 4, 7 ,10 on week 1

Field Technician Response:

Completed by: Dmw
Arrival time: 8:00
Sample this visit?: yes

Date: 11/14/96
Departure time: 10:00
Engineer contacted? yes

Groundwater Extraction & Treatment System
Unocal Service Station 5367
500 Bancroft @ Dowling
San Leandro, CA
310-127.5A

System Description:

Groundwater Pumps

Well	Type	Size	Control	Set Depth (TOB)
MW-2	electric			
MW-3	electric			

Carbon Vessels: 2 Cetco 1,000 lbs vessels
Filter: Rosedale 8-30
Transfer Pump: 1.5 hp, 110/220V,1Φ,60 Hz
oil/water separator: N/A

PART A: SYSTEM DATA

System on upon arrival? No (if no, specify reason in comments)

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
TOTALIZER (gallons)	0267650	0267650
FILTER INLET PRESSURE (psig)	0	(ideal range < 30 psig) 0
CARBON #1 INLET PRESSURE (psig)	0	0
CARBON #2 INLET PRESSURE (psig)	0	(ideal range 12 psig) 0
DISCHARGE PRESSURE (psig)	0	(ideal range 0 psig) 0
TRANSFER PUMP FLOWRATE (gpm)	0	(ideal range 10 gpm) 0
% RESTRICTION VALVE OPEN	100	(ideal range 100 % open) 100

PART B: COMMENTS Pumps ON - Not pumping any water
panel needs 1 light Bulb 120PSBS 42SY1

PART C: WELL DATA

WELL	DTW (TOB)	TOTALIZER (gallons)	FLOWRATE (gpm)	COMMENTS/ ADJUSTMENTS
MW-2	30.45	0264850	NA	NO Adjustments
MW-3	30.35	0071760	NA	↓

PART D: SAMPLING & READINGS I

SAMPLE	ANALYSIS	COMPLETED
MID 1	TPH-gasoline/BTEX compounds	YES
MID 2	TPH-gasoline/BTEX compounds	NA
Effluent	TPH-gasoline/BTEX compounds	YES

PART G: SYSTEM MAINTENANCE I

NUMBER OF SPARE FILTERS ON SITE?		CHANGE FILTERS? (if necessary)	
DRAIN COMPRESSOR			

PART H: SYSTEM MAINTENANCE II

CLEAN TOTALIZERS		TEST ALARM SWITCHES	
BACKFLUSH CARBON VESSELS		CALIBRATE LEL	
CHANGE COMPRESSOR OIL			

Soil Vapor Extraction & Treatment System
Unocal Service Station #5367
500 Bancroft Avenue @ Dowling
San Leandro, CA
310-127.5A

PART A: SYSTEM DATA

System on upon arrival? yes (if no, specify reason in comments)

HOUR METER (hrs)	08497.4	CONTENTS OF KNOCKOUT BARREL	Empty
ELECTRIC METER (kW-hrs)	16895		

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
% DILUTION VALVE OPEN	≈ 20%	
% RECIRCULATION VALVE OPEN	≈ 50%	
% HEAT EXCHANGER BYPASS VALVE OPEN	NA	
MANIFOLD AIR FLOW (before dilution) (Δ P, inches of water)	.15" H_2O	
TOTAL SYSTEM AIR FLOW (after dilution) (ΔP, inches of water)	1.85" H_2O	
BLOWER VACUUM (inches of water)	25" H_2O	

PART B: COMMENTS Temp. 52°F

panel needs 2 light bulbs 120 PS 65 42 SYI

Swept leaves out of compound

PART C: SYSTEM FID READINGS

READING (ppmv)	WC/WOC/DF before adjustments	WC/WOC/DF after adjustments
INFLUENT (before dilution)	7/80/0	No Adjustments
INFLUENT (after dilution)	5/25/0	
PRIMARY GAC EFFLUENT	5/6/0	
SYSTEM EFFLUENT	5/6/0	
FIELD INSTRUMENT USED:	FID 2	
LAST CALIBRATED:	11-12-96	

3 Rgd 3.5 ppm

PART D: SAMPLING I

SAMPLE	ANALYSIS	COMPLETED
INFLUENT	TPH-g/BTEX	yes
EFFLUENT	TPH-g/BTEX	yes

PART E: SAMPLING II

WELLS (MW-1, MW-2, MW-3)	TPH-g/BTEX	MW-3

PART F: WELL DATA

WELL	VALVE POSITION		FID (ppmv)			VAC/PRESSURE ("H_2O)		FLOW	
	INITIAL	FINAL	DILUTION FACTOR USED	WC	WOC	@ MANIFOLD	@ WELL	Δ P ("H_2O)	PIPE SIZE
MW-1									
MW-2									
MW-3									

PART G: SVE INFLUENCE

SVE WELL	APPLIED VACUUM (inches of water)	MONITORING WELL	MEASURED VACUUM (inches of water)
MW-9		MW-10	
MW-8		MW-4	
MW-3		MW-2	
		MW-3	
		MW-7	

PART H: SYSTEM MAINTENANCE I
CHECK LIST

DRIVE BELTS		BLOWER OIL	
INLINE FILTER		LEAKS	
RATTLES		EXCESSIVE NOISE	
INDICATOR LIGHTS			

PART I: SYSTEM MAINTENANCE II

CHANGE BLOWER OIL		CHANGE DRIVE BELTS	
GREASE LINKAGE AND BEARINGS		TEST ALARM SWITCHES	

FIELD SERVICES / O&M REQUEST

Work Order # 6434

NOV 14 1996
PACIFIC ENVIRONMENTAL GROUP, INC.

SITE INFORMATION FORM

Identification

Project # 310-127.5A

Station # 5367

Site Address: 500 Bancroft Ave, San Leandro

County: Alameda

Project Manager: ADL

Requestor: Jessica x259

Client: UNOCAL

Project Type

- [ ] 1st Time Visit
- [ ] Quarterly — [ ] 1st [ ] 2nd [ ] 3rd [ ] 4th
- [ ] Monthly
- [ ] Semi-Monthly
- [ ] Weekly
- [x] One time event
- [ ] Other: ____

Client P.O.C.: ____

Date of Request: 11/6/96

Ideal field date(s): next visit

Check Appropriate Category

Budget Hrs. ____

Actual Hrs. 1

Mob de Mob ____

Field Tasks: For General Description

circle one:

Priority: 1. (emergency, must be done within 24 hrs); (2. (next visit);) 3. (when available)

- Resample MW3 air per Data Sheet Section SVE PARTE: (bag collapsed when reached lab)
- Light bulbs that need replacing HOW MANY? (3) Please verify 120 PS B5 42 Sylvania correct #
- Please check power supply on GWE 1Ø or 3Ø? We may order run/throw meter to tell when [illegible] are clearing.

Comments, remarks, etc. from Field Staff (include problems encountered and out-of-scope work)

Bulb 120 PS B5 42 SYL - need at least 3 a couple extra would be nice

Resampled mw3, I think power supply is single phase

- [x] Samples taken
- [ ] Samples not required
- [ ] Soil Vapor
- [ ] Groundwater
- [ ] Weekly
- [ ] Semi-Monthly
- [ ] Monthly
- [ ] Quarterly
- [ ] Semi-Annual

PACIIFIC ENVIRONMENTAL GROUP, INC.

Completed by: DMW Date: 11/14/96

Checked by: ____

White Copy - Originator | Yellow Copy - O & M Tech | Pink Copy - File

Work Order # 5547

FIELD SERVICES / ROUTINE O&M REQUEST

Identification

Request Frequency: [Semi-Monthly]

Project #	310-127.5A
Station #	5367
Site Address:	500 Bancroft Ave @ Dowling San Leandro
County:	Alameda
Project Manager:	ADL
Requestor:	Alexis M. Bahou
Client:	Unocal
Client P.O.C.:	Tina Berry
Revision Date:	08/12/96
Laboratory:	Sequoia

Site Remedial Technologies:

Groundwater Extration (GWE)		Soil Vapor Extraction (SVE)		Air Sparging (AS)		Bio-Augmentation (BIO)	
	X		X				

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

Data Sheet Section(s) / Part(s)	To be Completed	Budgeted Hrs	Actual Hrs	Mob-de Mob	Completed
SVE(A, B, C, D)	week 1 †				
SVE(A, B, C, D, E, F)	week 3		3		
GWE(A, B, C, D)	monthly				
SVE(H, I)	quarterly †				
	semi-annually				

† = sampling to be performed

Definition of frequencies:

semi-monthly = once every other week on weeks 1 & 3
monthly = first week of the month (day 1 or 2 preferred)
quarterly = once every quarter in months 1, 4, 7 ,10 on week 1

Field Technician Response:

Completed by: David
Arrival time: 7:00
Sample this visit?: yes

Date: 11/27/96
Departure time: 11:00
Engineer contacted?

Soil Vapor Extraction & Treatment System
Unocal Service Station #5367
500 Bancroft Avenue @ Dowling
San Leandro, CA
310-127.5A

PART A: SYSTEM DATA

System on upon arrival? No (if no. specify reason in comments)

HOUR METER (hrs)	8552.4	CONTENTS OF KNOCKOUT BARREL	Empty
ELECTRIC METER (kW-hrs)	17118		

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
% DILUTION VALVE OPEN	25%	
% RECIRCULATION VALVE OPEN	50%	
% HEAT EXCHANGER BYPASS VALVE OPEN	NA	
MANIFOLD AIR FLOW (before dilution) (Δ P, inches of water)	.10" H_2O	
TOTAL SYSTEM AIR FLOW (after dilution) after blower (ΔP, inches of water)	.25" H_2O	
BLOWER VACUUM (inches of water)	30" H_2O	

PART B: COMMENTS Infl Temp 59°F

System was not running / Restarted System
manifold Air flow before blower after dilution 20" H_2O

PART C: SYSTEM FID READINGS

READING (ppmv)	WC/WOC/DF before adjustments	WC/WOC/DF after adjustments
INFLUENT (before dilution)	60/170/10	
INFLUENT (after dilution)	11/30/0	
PRIMARY GAC EFFLUENT	12/12/0	
SYSTEM EFFLUENT	7/7/0	
FIELD INSTRUMENT USED:	~~H-40~~ FID #2	
LAST CALIBRATED:	11-96	

BKGD 3.5 ppm

PART D: SAMPLING I

SAMPLE	ANALYSIS	COMPLETED
INFLUENT	TPH-g/BTEX	ye
EFFLUENT	TPH-g/BTEX	ye

PART E: SAMPLING II

WELLS (MW-1, MW-2, MW-3)	TPH-g/BTEX	ye

PART F: WELL DATA

WELL	VALVE POSITION 0/0 open		FID (ppmv)			VAC/PRESSURE ("H_2O)		FLOW	
	INITIAL	FINAL	DILUTION FACTOR USED	WC	WOC	@ MANIFOLD	@ WELL	Δ P ("H_2O)	PIPE SIZE
MW-1	100%		10	70	300		28" H_2O		
MW-2	100%		10	45	100		28" H_2O		
MW-3	100%		10	40	110		28" H_2O		

UNOCAL 76

☒ 680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600
☐ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600
☐ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600
☐ 18939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200
☐ 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: Pac. ENV. Group, Inc	Project Name: 310-127.54
Address: 2025 GATEWAY Pl #440	UNOCAL Project Manager: TINA Berry
City: SAN Jose State: CA Zip Code: 95110	AFE #:
Telephone: (408) 441-7500 FAX #: (408) 441-7539	Site #, City, State: 5367 SAN Leandro, CA
Report To: Andrew Lehane Sampler: DMW	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 AIR

Analyses Requested

	Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH-g/BTEX									Comments
1.	INF1	12/2/96 13:30	AIR	1	BAG		X									
2.	EFF1	↓ ↓	↓	↓	↓		↓									
3.	MW-1															
4.	MW-2															
5.	MW-3															
6.																
7.																
8.																
9.																
10.																

Relinquished By: Don Watenpaugh	Date: 12/2/96	Time: 14:30	Received By:	Date: Time:
Relinquished By:	Date:	Time:	Received By:	Date: Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: Time:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page __ of __

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: _____ Date: _____

Pink - Client
Yellow - Laboratory
White - Laboratory

1-25

Work Order # 5547

FIELD SERVICES / ROUTINE O&M REQUEST

Identification

Request Frequency: [Semi-Monthly]

Project #	310-127.5A
Station #	5367
Site Address:	500 Bancroft Ave @ Dowling San Leandro
County:	Alameda
Project Manager:	ADL
Requestor:	Alexis M. Bahou
Client:	Unocal
Client P.O.C.:	Tina Berry
Revision Date:	08/12/96
Laboratory:	Sequoia

Site Remedial Technologies:

Groundwater Extration (GWE)		Soil Vapor Extraction (SVE)		Air Sparging (AS)		Bio-Augmentation (BIO)	
	X		X				

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

Data Sheet Section(s) / Part(s)	To be Completed	Budgeted Hrs	Actual Hrs	Mob-de Mob	Completed
SVE(A, B, C, D)	week 1 †		2	1.5	DMW
SVE(A, B, C, D, E, F)	week 3				
GWE(A, B, C, D)	monthly		1		DMW
SVE(H, I)	quarterly †			4.5	
	semi-annually				

† = sampling to be performed

Definition of frequencies:

semi-monthly = once every other week on weeks 1 & 3
monthly = first week of the month (day 1 or 2 preferred)
quarterly = once every quarter in months 1, 4, 7 ,10 on week 1

Field Technician Response:

Completed by: DMW
Arrival time: 10:30
Sample this visit?: yes

Date: 12/11/96
Departure time: 1:30
Engineer contacted? yes AL

Groundwater Extraction & Treatment System
Unocal Service Station 5367
500 Bancroft @ Dowling
San Leandro, CA
310-127.5A

System Description:

Groundwater Pumps

Well	Type	Size	Control	Set Depth (TOB)
MW-2	electric			
MW-3	electric			

Carbon Vessels: 2 Cetco 1,000 lbs vessels
Filter: Rosedale 8-30

Transfer Pump: 1.5 hp, 110/220V,1Φ.60 Hz
oil/water separator: N/A

PART A: SYSTEM DATA

System on upon arrival? yes (if no, specify reason in comments)

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
TOTALIZER (gallons)	026653	
FILTER INLET PRESSURE (psig)	4 psi	(ideal range < 30 psig)
CARBON #1 INLET PRESSURE (psig)	~~psi~~ 0 psi	
CARBON #2 INLET PRESSURE (psig)	~~psi~~ 0 psi	(ideal range 12 psig)
DISCHARGE PRESSURE (psig)	0	(ideal range 0 psig)
TRANSFER PUMP FLOWRATE (gpm)	NA	(ideal range 10 gpm)
% RESTRICTION VALVE OPEN	100 %	(ideal range 100 % open)

PART B: COMMENTS

Pumps on, but pumping very much water
Changed bag filter
No flow was observed when checking totalizers

PART C: WELL DATA

WELL	DTW (TOB)	TOTALIZER (gallons)	FLOWRATE (gpm)	COMMENTS/ ADJUSTMENTS
MW-2	29.25'	007766	0	NONE
MW-3	28.54	026485	0	↓

PART D: SAMPLING & READINGS I

SAMPLE	ANALYSIS	COMPLETED
~~MID-1~~ INF1	TPH-gasoline/BTEX compounds	yes
~~MID-2~~ MID1	TPH-gasoline/BTEX compounds	yes
Effluent	TPH-gasoline/BTEX compounds	yes

PART G: SYSTEM MAINTENANCE I

NUMBER OF SPARE FILTERS ON SITE?	8	CHANGE FILTERS? (if necessary)	No
DRAIN COMPRESSOR	NA		

PART H: SYSTEM MAINTENANCE II

CLEAN TOTALIZERS		TEST ALARM SWITCHES	
BACKFLUSH CARBON VESSELS		CALIBRATE LEL	
CHANGE ~~COMPRESSOR~~ OIL Blower	Check oil/ok		

Belts OK
greased Blower

Soil Vapor Extraction & Treatment System
Unocal Service Station #5367
500 Bancroft Avenue @ Dowling
San Leandro, CA
310-127.5A

PART A: SYSTEM DATA

System on upon arrival? Yes (if no, specify reason in comments)

HOUR METER (hrs)	08890.8	CONTENTS OF KNOCKOUT BARREL	50% full
ELECTRIC METER (kW-hrs)	18549		

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
% DILUTION VALVE OPEN	≈20%	
% RECIRCULATION VALVE OPEN	50%	
% HEAT EXCHANGER BYPASS VALVE OPEN	NA	
MANIFOLD AIR FLOW (before dilution) (Δ P, inches of water)	.05" H_2O	
TOTAL SYSTEM AIR FLOW (after dilution) (ΔP, inches of water)	.10" H_2O	
BLOWER VACUUM (inches of water)	40" H_2O	

PART B: COMMENTS after Dilut Manifold Vacuum 30" H_2O
Drained KO Barrel
Infl Temp 66°F
Checked blower belts, oil and greased blower

PART C: SYSTEM FID READINGS

READING (ppmv)	WC/WOC/DF before adjustments	WC/WOC/DF after adjustments
INFLUENT (before dilution)	4,517/0	
INFLUENT (after dilution)	4,515/0	
PRIMARY GAC EFFLUENT	413.5/0	
SYSTEM EFFLUENT	413.57 0	
FIELD INSTRUMENT USED: FID #2		
LAST CALIBRATED: Nov 96		

BACKGROUND 413.570

PART D: SAMPLING I

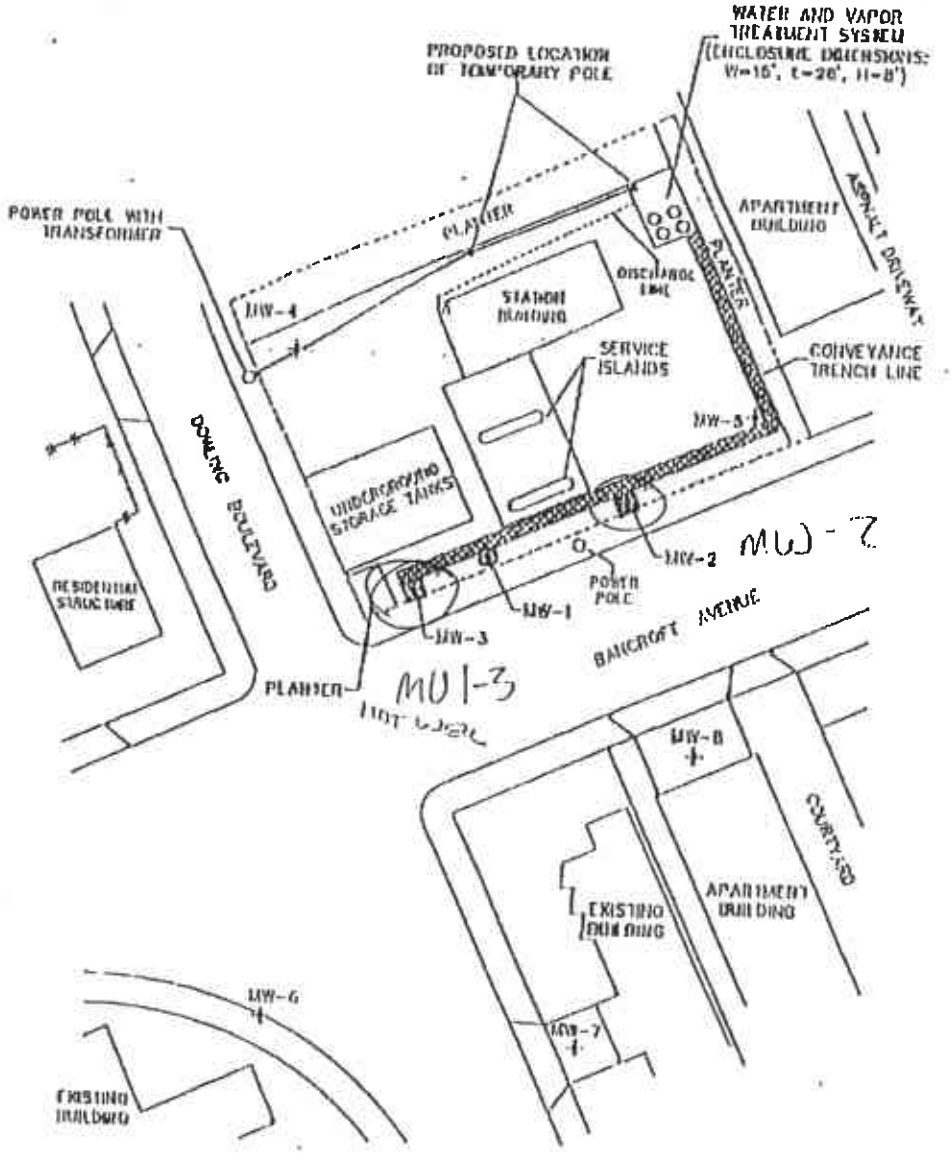
SAMPLE	ANALYSIS	COMPLETED
INFLUENT	TPH-g/BTEX	yes
EFFLUENT	TPH-g/BTEX	yes

PART E: SAMPLING II

WELLS (MW-1, MW-2, MW-3)	TPH-g/BTEX	

PART F: WELL DATA

	VALVE POSITION		FID (ppmv)			VAC/PRESSURE ("H_2O)		FLOW	
WELL	INITIAL	FINAL	DILUTION FACTOR USED	WC	WOC	@ MANIFOLD	@ WELL	Δ P ("H_2O)	PIPE SIZE
MW-1									
MW-2									
MW-3									



MU-2

MU-3

MU-7

ATTACHMENT
MAP PROVIDED BY APPLIED GEOSYSTEMS, 3/94

REV	REVISIONS	BY	DATE
A	MONITORING OF EXCAVATION (MW-8 ADD)		8/31/94
B	SEWER SEWER LINE		9/20/94

CONSTRUCTION DETAILS

AT TIMES OF EXCAVATION OPERATIONS, THE SURFACE CAP SHALL BE CUT WITH A PAVEMENT SAW PRIOR TO EXCAVATION.

WHEN EXCAVATING NEAR EXISTING UNDERGROUND SERVICE AND PIPING, ALL OPERATIONS SHALL BE DONE MANUALLY. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE EXISTING LINES.

TRENCHES OF APPROXIMATELY 12-INCHES BY WIDTH AND 8-FEET 8-INCHES BY DEPTH SHALL BE EXCAVATED TO INSTALL THE CONVEYANCE PIPE FROM WATER EXTRACTION WELLS TO THE DECONTAMINATION SYSTEM.

LEGEND

- MW-8 — MONITORING WELL LOCATION
- MW-1 — 12" CAST-IRON WELL BOX
- MW-3 — 3' X 3' MANWAY
- CONVEYANCE TRENCH LINE
- A — SEWER LINE CONNECTION TO CITY OF SAN LEANDRO WATER POLLUTION CONTROL PLANT
- ----- DISCHARGE LINE GOING TO SEWER LINE

NORTH

0 10 20 40

APPROXIMATE SCALE IN FEET

GeoResearch

SITE MAP/CLS AND TREATMENT LOCATION
UNOCAL SERVICE STATION #387
500 DAVENPORT AVENUE
SAN LEANDRO, CALIFORNIA
PROJECT NUMBER 6387.06.03

111

UNOCAL 76

❑ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600
❑ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600
❑ 16939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200
❑ 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: PAC. ENV. GROUP, INC.	Project Name: 310-127.5A
Address: 2025 GATEWAY PL #440	UNOCAL Project Manager: TINA BERRY
City: SAN JOSE State: CA Zip Code: 95110	AFE #:
Telephone: 408 441 7500 FAX #: 408 441 7539	Site #, City, State: 5367 SAN LEANDRO, CA
Report To: Andrew Lehman Sampler: Don WATTENBARGER	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

Analyses Requested: TPH-G / BTEX

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH-G / BTEX	Comments
1. INFL	12/11/96 11:00	H_2O	3	VOA		X	
2. MID-1	↓ ↓	↓	↓	↓		X	
3. EFF1	↓ ↓	↓	↓	↓		X	
4.							
5.							
6.							
7.							
8.							
9.							
10.							

Relinquished By: Don Wattenbarger	Date: 12/11/96	Time: 15:20	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date:	Time:

Were Samples Received in Good Condition? ❑ Yes ❑ No Samples on Ice? ❑ Yes ❑ No Method of Shipment _____ Page __ of __

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: _____ Company: _____ Date: _____

Pink - Client
Yellow - Laboratory
White - Laboratory

Soil Vapor Extraction & Treatment System
Unocal Service Station #5367
500 Bancroft Avenue @ Dowling
San Leandro, CA
310-127.5A

PART A: SYSTEM DATA

System on upon arrival? yes (if no. specify reason in comments)

HOUR METER (hrs)	09102	CONTENTS OF KNOCKOUT BARREL	Empty
ELECTRIC METER (kW-hrs)	19455		

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
% DILUTION VALVE OPEN	20%	
% RECIRCULATION VALVE OPEN	50%	
% HEAT EXCHANGER BYPASS VALVE OPEN	NA	
MANIFOLD AIR FLOW (before dilution) (ΔP, inches of water)	.05" H_2O	
TOTAL SYSTEM AIR FLOW (after dilution) (ΔP, inches of water)	.10" H_2O	
BLOWER VACUUM (inches of water)	42" ~~30~~" H_2O 30" H_2O After Dilution Value	

PART B: COMMENTS Infl. Temp 46°F

Vacuum - MW-2 @ 30" H_2O – DTW 27.86'

MW-1 @ 30" H_2O DTW 28.83'

MW-3 @ 30" H_2O DTW 28.45'

When not performing GWE activities, use this space to note GWE operating conditions.

GWE system on upon arrival? Power ON

If no. specify reason. (Not pumping)

MW-2 @ 0264854 MW-3 @ 0071766

GWE Totalizer Reading: 0267869

UNOCAL 76

☒ 680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600
☐ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600
☐ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600
☐ 18939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200
☐ 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 ENV. Group, Inc	Project Name: 310-#127.54
Address: 2025 GATEWAY Pl #440	UNOCAL Project Manager: TINA Berry
City: SAN Jose State: CA Zip Code: 95110	AFE #:
Telephone: (408) 441-7500 FAX #: (408) 441-7539	Site #, City, State: 5367 SAN Leandro
Report To: Jessica Nelligan Sampler: Don Watenpaugh	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

Analyses Requested: TPH-g / BTEX

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH-g / BTEX	Comments
1. INF1	12/20/96 8:00	AIR	1	BAG		X	
2. EFF1	↓ ↓	↓	↓	↓		X	
3. MW-1						X	
4. MW-2						X	
5. MW-3						X	
6.							
7.							
8.							
9.							
10.							

Relinquished By: Don Watenpaugh	Date: 12/20/96	Time: 11:20	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date:	Time:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page __ of __

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: Company: Date:

Pink - Client
Yellow - Laboratory
White - Laboratory

FIELD SERVICES / O&M REQUEST

Work Order # ~~63~~82 5

SITE INFORMATION FORM

Identification

Project # 310-127.5A

Station # 5367

Site Address: 500 Bancroft Ave @ Dowling San Leandro

County: Alameda

Project Manager: PDL

Requestor: Jessica

Client: Unocal

Project Type

- [ ] 1st Time Visit
- [ ] Quarterly
  - [ ] 1st [ ] 2nd [ ] 3rd [ ] 4th
- [ ] Monthly
- [ ] Semi-Monthly
- [ ] Weekly
- [x] One time event
- [ ] Other: ______

Client P.O.C.: Tina Berry

Date of Request 12/17/96

Ideal field date(s): 12/20/96

Check Appropriate Category

Budget Hrs. ______

Actual Hrs. ~~2~~ 1.5

Mob de Mob ______

Field Tasks: For General Description

circle one:

Priority: 1. (emergency, must be done within 24 hrs); 2. (next visit); 3. (when available)

- Calibration of flow meter
  - check on flow meter type style size etc.
  - May just replace meter rather than go thru calibration exercise (Due Jan 15, 1997)!
- → SVE
  - Sample mid air TPHg/BTEX (request 5 day Turnaround)
- MPDS Dissolved O_2 Sampling.
  - Locate all wells [illegible] make sure all can be accessed for 1/30/97 visit (What needs to be done?)
  - May have to make special trip up there to disconnect ~~[illegible]~~ wells from GWE/SVE systems
- Pump depths
  - if possible please check the depth of pumps.
  - ~~(can you at [illegible] say where top of pump is? Is it below water~~ level?)

Remember: 12/20/96 last day [illegible]

Comments, remarks, etc. from Field Staff (include problems encountered and out-of-scope work)

- [ ] Samples taken [ ] Samples not required [ ] Soil Vapor [ ] Groundwater
- [ ] Weekly [ ] Semi-Monthly [ ] Monthly [ ] Quarterly [ ] Semi-Annual

PACIFIC ENVIRONMENTAL GROUP, INC.

Completed by: Don Date: 12/20/96

Checked by: ______

White Copy - Originator Yellow Copy - O & M Tech Pink Copy - File

mpds SERVICES, INCORPORATED
2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5100, Fax: (510) 689-1918

CHAIN OF CUSTODY

SAMPLER: RAY MARANGOSIAN
WITNESSING AGENCY:
UNOCAL S/S # 5362 CITY: SAN LEANDRO
ADDRESS: 500 BANCROFT AVE

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-GAS BTEX	TPH-DIESEL	TOG	8010				REMARKS
MW1	6-26-95	14:10	X	X		2		X							5062189 AB
MW2	"	10:00	X	X		"		X							5062190
MW3	"	15:35	X	X		"		X							5062191
MW8	"	11:50	X	X		"		X							5062192
MW5	"	11:05	X	X		"		X							5062193

ANALYSES REQUESTED

TURN AROUND TIME: REGULAR

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
Ray Marangosian (SIGNATURE)	6-26-95 15:00	(SIGNATURE)	6/26/95 15:00
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	

THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:

1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? YES
2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? YES
3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? NO
4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? YES

SIGNATURE: [signature] TITLE: Analyst DATE: 6/26/95

Note: All water containers to be sampled for TPHG/BTEX, 8010 & 8240 are preserved with HCL. All water containers to be sampled for Lead or Metals are preserved with HNO3. All other containers are unpreserved.

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

MPDS Services	Client Project ID:	Unocal #5367, 500 Bancroft Ave., San Leandro	Sampled:	Jul 28, 1995
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received:	Jul 28, 1995
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Jul 31, 1995
Attention: Sarkis Karkarian	First Sample #:	507-1869		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Purgeable Hydrocarbons µg/L	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	Total Xylenes µg/L
507-1869	MW-10	ND	ND	ND	ND	ND
Detection Limits:		**50**	**0.50**	**0.50**	**0.50**	**0.50**

Total Purgeable Petroleum Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as ND were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

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MPDS Services	Client Project ID:	Unocal #5367, 500 Bancroft Ave., San Leandro	Sampled:	Jul 28, 1995
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received:	Jul 28, 1995
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Jul 31, 1995
Attention: Sarkis Karkarian	First Sample #:	507-1869		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Chromatogram Pattern	DL Mult. Factor	Date Analyzed	Instrument ID	Surrogate Recovery, % QC Limits: 70-130
507-1869	MW-10	--	1.0	7/28/95	HP-2	114

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

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

MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Sarkis Karkarian

Client Project ID: Unocal #5367, 500 Bancroft Ave., San Leandro
Matrix: Liquid
QC Sample Group: 507-1869
Reported: Jul 31, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M. Creusere	M. Creusere	M. Creusere	M. Creusere
MS/MSD Batch#:	5071869	5071869	5071869	5071869
Date Prepared:	7/28/95	7/28/95	7/28/95	7/28/95
Date Analyzed:	7/28/95	7/28/95	7/28/95	7/28/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	105	105	110	110
Matrix Spike Duplicate % Recovery:	105	105	110	110
Relative % Difference:	0.0	0.0	0.0	0.0
LCS Batch#:	1LCS072895	1LCS072895	1LCS072895	1LCS072895
Date Prepared:	7/28/95	7/28/95	7/28/95	7/28/95
Date Analyzed:	7/28/95	7/28/95	7/28/95	7/28/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	104	106	112	113
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
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.

mpds SERVICES, INCORPORATED
2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5100, Fax: (510) 689-1918

CHAIN OF CUSTODY

SAMPLER: NICHOLAS PERROW

WITNESSING AGENCY:

UNOCAL S/S # 5367 CITY: SAN LEANDRO

ADDRESS: 500 BANCROFT AVE

ANALYSES REQUESTED

TURN AROUND TIME: 24 HOUR

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-GAS BTEX	TPH-DIESEL	TOG	8010					REMARKS
MW-10	7/28/95	8:50AM	✓	✓		2 VOAS	WELL	✓						5071869		A-B

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
(SIGNATURE)	7/28/95 9:45AM	(SIGNATURE)	7/28/95 9:45
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	

THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:

1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? YES
2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? YES
3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? NO
4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? YES

SIGNATURE: TITLE: Analyst DATE: 7/28/95

Note: All water containers to be sampled for TPHG/BTEX, 8010 & 8240 are preserved with HCL. All water containers to be sampled for Lead or Metals are preserved with HNO3. All other containers are unpreserved.