PACIFIC ENVIRONMENTAL GROUP INC.

Date: April 8, 1997
Project: 311-127.5A

To: City of San Leandro - WPCP
3000 Davis Street
San Leandro, California 94577-2236

FILE # 5367 SS ✓ BP ____
RPT ✓ QM ____ TRANSMITTAL ____
1 ____ 2 ____ 3 ____ 4 ____ 5 ____ 6 ____

We have enclosed:

Copies	Description
1	Corrected Monthly Discharge Report (2/19/97 - 3/13/97)
1	Table 1 - Treatment System Metered Volume
1	Table 2 - Groundwater Extraction System Analytical Data
1	Certified analytical report chain-of-custody documentation (3/6/97)
1	Field data sheets from 3/13/97 site visit
	(Re: 76 Station 5367, 500 Bancroft Avenue, San Leandro)

For your:
✓ Use
___ Approval
___ Review
___ Information

Comments: Attached is the corrected monthly discharge report for the site referenced above, along with tables providing operational and analytical data, and the certified analytical results and data sheets for samples taken 3/6/97. *Please note that the groundwater system was shut down March 13, 1997.* Unless otherwise instructed, we will discontinue monthly sewer reports. Please call if you have any questions.

Suzanne McClurkin-Nelson
Staff Scientist

CC: MS. TINA BERRY, 76 PRODUCTS COMPANY

3111275A\MSR0397

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

MONTHLY DISCHARGE REPORT
UNOCAL GROUNDWATER CLEAN-UP PROJECT

This letter and enclosed documents are to serve as Unocal's Groundwater Clean-up project monthly discharge report to the City of San Leandro for the reporting period of: 02/19/97 to 03/13/97 .

This report is in compliance with 40 CFR 403.12 and Part IV-A of our Discharge Permit No. SD-023. The information contained in this report is accurate and complete. For any questions or comments in this report, contact me at (408) 441-7500 .

Number of days discharged: 22 days

Total monthly discharge: 244,770 U. S. Gallons

Signature of Certifying Official: _____

Printed Name of Official: Andrew D. Lehane

Title: Project Engineer, Pacific Environmental Group, Inc.

Date: April 4, 1997

Attach a brief statement summarizing the months operations.

Site visits were made on March 6 and 13, 1997. The system was shut down on March 13, 1997 in response to a decision to deactivate the soil vapor extraction system for which the groundwater system acted as a dewatering mechanism. Until such time as the groundwater system is reactivated, we will discontinue monthly sewer reports, with your approval.

Table 1
Treatment System Metered Volume

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

Date Sampled		Volume Reading (gallons)		Net Volume (gallons)	Cumulative System Discharge To Date (gallons)	Average Total System Discharge (gpm)	Average Total System Discharge (gpd)
03/18/96		0		0	0	0.0	0
03/22/96		16,200		16,200	16,200	2.8	4,050
04/08/96		77,630		61,430	77,630	2.5	3,614
04/26/96		95,700		18,070	95,700	0.7	1,004
05/16/96	a	133,800		38,100	133,800	1.3	1,905
06/06/96		216,850		83,050	216,850	2.7	3,955
07/17/96		233,320		16,470	233,320	0.3	402
08/05/96		249,570		16,250	249,570	0.6	855
08/19/96		249,670		100	249,670	0.005	7
09/10/96		249,820		150	249,820	0.005	7
09/26/96		250,300		480	250,300	0.02	30
10/15/96		266,527		16,227	266,527	0.6	854
10/28/96		267,653		1,126	267,653	N/A	N/A
11/14/96	b	267,653		0	267,653	N/A	N/A
12/11/96	b	267,663		10	267,663	N/A	N/A
12/20/96		267,869		206	267,869	N/A	N/A
01/09/97		270,121	c	2,252	270,121	N/A	N/A
02/19/97		122,270	c	122,260	392,381	2.1	2,982
03/06/97		314,460		192,190	584,571	8.9	12,813
03/13/97	d	367,040		52,580	637,151	5.2	7,511

REPORTING PERIOD:	**02/19/97 - 03/13/97**
PERIOD VOLUME DISCHARGED:	**244,770**
PERIOD DAYS DISCHARGED:	**22**

gpm = Gallons per minute
gpd = Gallons per day

a. Project transferred to Pacific Environmental Group, Inc. from PSI.
b. Pumps are operating but not pumping any groundwater.
c. Totalizer replaced 1/9/97 (starting at 00010 gallons).
d. GWE and SVE systems deactivated on 3/13/97.

Table 2
Groundwater Extraction System Analytical Data
Total Petroleum Hydrocarbons
(TPPH and BTEX Compounds)

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

Date Sampled	TPPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)
Influent Samples					
05/16/96	17,000	98	92	1,300	3,900
06/06/96	5,500	35	17	200	780
07/17/96	1,700	14	<5.0	91	89
08/05/96	1,800	10	<5.0	160	410
09/10/96	9,700	29	<10	600	1,600
10/15/96	54,000	200	90	2,800	8,900
12/11/96	12,000	56	21	820	2,700
01/09/97	19,000	44	<20	1,200	2,700
02/06/97	19,000	61	10	1,200	2,700
03/06/97	36,000	91	1,300	1,600	7,800
Midpoint Samples					
05/16/96	<50	<0.50	<0.50	<0.50	<0.50
06/06/96	<50	<0.50	<0.50	<0.50	<0.50
07/17/96	<50	<0.50	<0.50	<0.50	<0.50
08/05/96	<50	<0.50	<0.50	<0.50	<0.50
09/10/96	<50	<0.50	<0.50	<0.50	0.60
10/15/96	<50	<0.50	<0.50	<0.50	0.60
11/14/96	<50	<0.50	<0.50	<0.50	<0.50
12/11/96	<50	<0.50	<0.50	<0.50	<0.50
01/09/97	<50	<0.50	<0.50	<0.50	<0.50
02/06/97	<50	<0.50	<0.50	<0.50	<0.50
03/06/97	<50	<0.50	<0.50	<0.50	<0.50
Effluent Samples					
05/16/96	<50	<0.50	<0.50	<0.50	<0.50
06/06/96	<50	<0.50	<0.50	<0.50	<0.50
07/17/96	<50	<0.50	<0.50	<0.50	<0.50
08/05/96	<50	<0.50	<0.50	<0.50	<0.50
09/10/96	<50	<0.50	<0.50	<0.50	<0.50
10/15/96	<50	<0.50	<0.50	<0.50	<0.50
11/14/96	<50	<0.50	<0.50	<0.50	<0.50
12/11/96	<50	<0.50	<0.50	<0.50	<0.50
01/09/97	<50	<0.50	<0.50	<0.50	<0.50
02/06/97	<50	<0.50	<0.50	<0.50	<0.50
03/06/97	<50	<0.50	<0.50	<0.50	<0.50

TPPH = Total purgeable petroleum hydrocarbons
µg/L = Micrograms per liter
a. Project transferred to Pacific Environmental Group, Inc. from PSI.

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 9406 (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: 311-127.5A/ 5367/ San Leandro
Sample Descript: INFL
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9703466-01

Sampled: 03/06/97
Received: 03/07/97

Analyzed: 03/13/97
Reported: 03/16/97

QC Batch Number: GC031397BTEX02A
Instrument ID: GCHP2

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	36000
Benzene	50	91
Toluene	50	1300
Ethyl Benzene	50	1600
Xylenes (Total)	50	7800
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	89

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

[redacted]0 Chesapeake Drive, Redwood City, CA 94063, [redacted]15) 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: 311-127.5A/ 5367/ San Leandro	Sampled: 03/06/97
2025 Gateway Place, Suite 440	Sample Descript: MID-2	Received: 03/07/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 03/12/97
Attention: Jessica Nelligan	Lab Number: 9703466-02	Reported: 03/16/97

QC Batch Number: GC031297BTEX21A
Instrument ID: GCHP21

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	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

[redacted]0 Chesapeake Drive, Redwood City, CA 94063, [redacted]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: 311-127.5A/ 5367/ San Leandro	Sampled: 03/06/97
2025 Gateway Place, Suite 440	Sample Descript: EFFL	Received: 03/07/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 03/12/97
Attention: Jessica Nelligan	Lab Number: 9703466-03	Reported: 03/16/97

QC Batch Number: GC031297BTEX21A
Instrument ID: GCHP21

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	96

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
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Pacific Environmental Group	Client Project ID:	311-127.5A / 5367 / San Leandro	
2025 Gateway Place, Suite 440	Matrix:	LIQUID	
San Jose, CA 95110			
Attention: Jessica Nelligan	Work Order #:	9703466 01-03	Reported: Apr 5, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC031297BTEX21A	GC031297BTEX21A	GC031297BTEX21A	GC031297BTEX21A
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 #:	970315301	970315301	970315301	970315301
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/12/97	3/12/97	3/12/97	3/12/97
Analyzed Date:	3/12/97	3/12/97	3/12/97	3/12/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.9	10	10	30
MS % Recovery:	99	100	100	100
Dup. Result:	10	11	11	35
MSD % Recov.:	100	110	110	117
RPD:	1.0	9.5	9.5	15
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK031297A	BLK031297A	BLK031297A	BLK031297A
Prepared Date:	3/12/97	3/12/97	3/12/97	3/12/97
Analyzed Date:	3/12/97	3/12/97	3/12/97	3/12/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.5	9.9	10	32
LCS % Recov.:	95	99	100	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

Sequoia Analytical

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2904 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
8319 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: 311-127.5A / 5367 / San Leandro
Matrix: LIQUID
Work Order #: 9703466 01-03
Reported: Apr 5, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC031397BTEX02A	GC031397BTEX02A	GC031397BTEX02A	GC031397BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	970336507	970336507	970336507	970336507
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/13/97	3/13/97	3/13/97	3/13/97
Analyzed Date:	3/13/97	3/13/97	3/13/97	3/13/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.5	9.4	9.5	30
MS % Recovery:	95	94	95	100
Dup. Result:	9.3	9.2	9.3	29
MSD % Recov.:	93	92	93	97
RPD:	2.1	2.2	2.1	3.4
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK031397A	BLK031397A	BLK031397A	BLK031397A
Prepared Date:	3/13/97	3/13/97	3/13/97	3/13/97
Analyzed Date:	3/13/97	3/13/97	3/13/97	3/13/97
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.0	9.1	9.3	29
LCS % Recov.:	90	91	93	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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Pacific Environmental Group	Client Proj. ID: 311-127.5A/ 5367/ San Leandro	Received: 03/07/97
2025 Gateway Place, Suite 440		
San Jose, CA 95110	Lab Proj. ID: 9703466	Reported: 03/16/97
Attention: Jessica Nelligan		

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 8 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) PH

WORKORDER: 9703466
DATE OF LOG-IN: 3/11/97

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: 3/7/97
12. Time Rec. at Lab: 1233
13. Temp Rec. at Lab: 7°C

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC.)
1	A-C	INFL	3 VOAs	Li	3/4	
2	↓	MID-2	↓	↓	↓	
3	↓	EFFL	↓	↓	↓	

Rush 3-7-97

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

Revision 9/10/96

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: 311-127.5A
Address: 2025 GATEWAY Pl. Suite 440	UNOCAL Project Manager: TINA Berry
City: SAN Jose State: CA Zip Code: 95110	AFE #: 876920042
Telephone: (408) 441-7500 FAX #: (408) 441 7539	Site #, City, State: 5367 San Leandro CA.
Report To: Jessica Nelligan Sampler: Don WATERMAN 64	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 97034466

	Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH's/BTEX	Comments
1.	INF1 ✓	3/6/97 11:45	H2O	~~0~~ 3	VOA	1	X	
2.	MW-2 ✓	↓ ↓	↓	↓	↓	2	↓	
3.	EFF1 ✓	↓ ↓	↓	↓	↓	3	↓	
4.								
5.								
6.								
7.								
8.								
9.								
10.								

Relinquished By: Don Waterman	Date: 3/6/97	Time: 15:15	Received By: Julie Warren	Date: 3/6/97	Time: 15:15
Relinquished By: Julie Warren	Date: 3/7/97	Time: 11:23	Received By: [signature]	Date: 3/7/97	Time: 11:23
Relinquished By: [signature]	Date: 3/7/97	Time:	Received By Lab: [signature]	Date: 3/7/97	Time: 1237

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 - Laborat

FIELD SERVICES REQUEST

SITE INFORMATION FORM

Identification

Project # 311-127.5A
Station ID 5367
Site Address: 500 Bancroft Ave
San Leandro
Lab: Sequoia
County3rd :
Project Manager: Andrew Lehane
Requester: Jessica Nelligan
Client: 76 Products
Client P.O.C: Tina Berry
Date of Request: March 11, 1997

Project Type

☒ Operation & Maintenance
☐ Sampling
☐ 1st time visit
☐ Quarterly
☐ 1st ☐ 2nd ☐ ☐ 4th
☐ Monthly
☐ Semi-Monthly
☐ Weekly
☒ One time event
☐ Other:
Ideal field date: March 13

Site Check Appropriate Category

☒ In Budget Visit
☐ Out of Budget Site Visit

Budget Hours: 2
Actual Hours: (3) 2
Mob de Mob: 1

Site Safety Concerns

STANDARD

Field Tasks General Description

1. Take final system readings.
2. Shut down GWE and SVE systems.
3. Secure area.

Comments, remarks from field staff

Took Final readings from systems. Sprayed WD-40 into blower before shutting off.
* Pulled plugs from MW-2 and MW-3 put in treatment compound.

Completed By: Don Wolfe Date: 3/13/97

Pacific Environmental Group, Inc.

Work Order # 5367

FIELD SERVICES / ROUTINE O&M REQUEST

Identification

Request Frequency:[Semi-Monthly]

Project #	311-127.5A
Station #	5367
Site Address:	500 Bancroft Ave @ Dowling San Leandro
County:	Alameda
Project Manager:	ADL
Requestor:	Jessica Nelligan
Client:	76 Products
Client P.O.C.:	Tina Berry
Revision Date:	January 30, 1997
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				
GWE(A, B, C, D)	monthly				
SVE(G, H, I) GWE(G,H)	quarterly †				
	semi-annually				

† = sampling to be performed

Definition of frequencies:

semi-monthly = once every other week on weeks 1 & 3, when pulse mode is ON
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 Watanpaugh Date: 3/13/97
Arrival time: 12:30 Departure time: 3:00
Sample this visit?: NO Engineer contacted? No

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

PART A: SYSTEM DATA

Pulsed Mode: Turn **ON / OFF** Monthly (at week 1)

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

HOUR METER (hrs)	10263	CONTENTS OF KNOCKOUT BARREL	Empty
ELECTRIC METER (kW-hrs)	25584		

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
% DILUTION VALVE OPEN	25%	closed
% RECIRCULATION VALVE OPEN	50%	closed
MANIFOLD AIR FLOW (before dilution) (Δ P. inches of water)	NA	0
TOTAL SYSTEM AIR FLOW (after dilution) (ΔP. inches of water)	.50	0
BLOWER VACUUM (inches of water)	65" H_2O	0

PART B: COMMENTS Turned System off

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

GWE system on upon arrival?

If no, specify reason.

GWE Totalizer Reading:

PART C: SYSTEM FID READINGS

READING (ppmv)	WC/WOC/DF before adjustments	WC/WOC/DF after adjustments
INFLUENT (before dilution)		
INFLUENT (after dilution)		
PRIMARY GAC EFFLUENT		
SYSTEM EFFLUENT		
BACKGROUND		
FIELD INSTRUMENT USED:		
LAST CALIBRATED:		

PART D: SAMPLING I

SAMPLE	ANALYSIS	COMPLETED
INFLUENT (semi-monthly)	TPH-g/BTEX	
MID (monthly)	TPH-g/BTEX	
EFFLUENT (semi-monthly)	TPH-g/BTEX	

PART E: SAMPLING II

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

PART F: WELL DATA

WELL	VALVE POSITION 0/6 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%	OFF				40"H_2O	40"H_2O	NA	
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	

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	2.5 hp. 110/220V.1Φ.60 Hz		
MW-3	electric	2.5 hp. 110/220V.1Φ.60 Hz		

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)	0367040	0367040
FILTER INLET PRESSURE (psig)	12	(ideal range < 30 psig) 0
CARBON #1 INLET PRESSURE (psig)	6 psi	0
CARBON #2 INLET PRESSURE (psig)	2 psi	(ideal range 12 psig) 0
DISCHARGE PRESSURE (psig)	0	(ideal range 0 psig) 0
TRANSFER PUMP FLOWRATE (gpm)	8 psi	(ideal range 10 gpm) 0
% RESTRICTION VALVE OPEN	100%	(ideal range 100 % open) closed

PART B: COMMENTS

Turned system off, Pulled pumps in MW-2 & MW-3 put pumps & pipe in treatment compound. Put 4" J-cap on wells to seal.

PART C: WELL DATA

WELL	DTW (TOB)	TOTALIZER (gallons)	FLOWRATE (gpm)	COMMENTS/ ADJUSTMENTS
MW-2	23.7'	0407220	OFF	Closed
MW-3	23.5'	0317930	OFF	Valve

PART D: SAMPLING & READINGS I

SAMPLE	ANALYSIS	COMPLETED
Influent	TPH-gasoline/BTEX compounds	
MID 2	TPH-gasoline/BTEX compounds	
Effluent	TPH-gasoline/BTEX compounds	

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			