Texaco Refining
and Marketing Inc

10 Universal City Plaza
Universal City CA 91608

93 AUG 30 AM 11:55

August 27, 1993

Ms. Juliet Shin
Alameda County Department Of
Environmental Protection
80 Swan Way, Room 200
Oakland, CA 94621

SUBJECT: INSTALLATION REPORT SOIL/GROUNDWATER TREATMENT
Site: 1127 Lincoln Avenue
Alameda, California

Dear Ms. Shin:

Enclosed is a copy of the above report dated August 16, 1993. Please call me at 818 505 2476, if you have any questions.

Very truly yours,
Texaco Refining And Marketing Inc

Bob Robles
Environmental Protection Coordinator

RR:rr

pr—

Enclosure

cc: Mr.Leo Pagano
1127 Lincoln Avenue
Alameda, California

Mr. Richard Hiett
California Regional Water Quality Control Board
San Francisco Bay Region
2201 Webster Street, Suite 500
Oakland, California 94612

RESNA-San Jose
RRZielinski-Richmond

CEECON
CALIFORNIA ENVIRONMENTAL ENGINEERS & CONTRACTORS

Transmittal Sheet

Document	**INSTALLATION REPORT & AS-BUILT DRAWINGS FOR A SOIL AND GROUNDWATER REMEDIATION SYSTEM**
From	Michael Hodges Engineering Manager CEECON 1517 Palmetto Avenue, Suite 4 Pacifica, California 94044 TEL: (415) 738-1115 FAX: (415) 738-1117
Sent To	Mr. Robert Robles Environmental Project Coordinator Texaco Environmental Services 10 Universal City Plaza, 7th Floor Universal City, California 91608 TEL: (818) 505-2476 FAX: (818) 505-2129
Format (Final/Draft)	Final
TES Project No. CEECON Project No.	FRR267 115-106.06
Site	Former Texaco Station 1127 Lincoln Avenue Alameda, California.
Via	Facsimile \ Hardcopy to follow by U.S. Priority Mail
Date	August 16, 1993

Mr. Robles -

Attached is the INSTALLATION REPORT & AS-BUILT DRAWINGS FOR A SOIL AND GROUNDWATER REMEDIATION SYSTEM for 1127 Lincoln. A copy of this report will be included in the forthcoming SITE AND SYSTEM MANUAL for the recently installed system. We will coordinate with Valli at RESNA for the groundwater treatment system start-up & reporting. Please call me directly if there are any question, or comments.

- Michael Hodges

Installation Report & As-Built Drawings for a
Soil and Groundwater Remediation System at
Former Texaco Service Station
1127 Lincoln Avenue
Alameda, California.

At the request of Texaco Environmental Services (TES), California Environmental Engineers & Contractors (CEECON) has installed a soil and groundwater remediation system at the former Texaco Service Station at 1127 Lincoln Avenue in Alameda, California. The following is an installation summary. As-built drawings of construction at the site are included.

Prior to construction, an initial site safety meeting was held with all CEECON site personnel scheduled for work at the site. Tailgate site safety meetings were held with field personnel prior to each day's work at the site. Necessary building permits were secured from the City of Alameda before construction activities were initiated at the site. These permits are attached.

Before construction began, a temporary fence enclosing the eastern half of the site was installed by XKALIBER Fence Company. After the site was fenced and secured, proposed trenches were outlined in paint and the site was cleared for underground utilities through Underground Services Alert (USA). After the site utilities were cleared, saw-cuts were made in the asphalt and concrete by Cal West Concrete Cutters. Trenches (approximately three feet in depth and approximately two feet in width) for the vapor-extraction system (VES) piping were then excavated with a backhoe. The age and poor condition of the asphalt at the site, which ranged from less than one inch to four inches in thickness, caused caving-in of the trench walls, which required additional asphalt and backfill material. Excavated soil was stockpiled and covered with .006 visqueen on the western side of the site office.

The soil stockpiled was initially sampled on June 16, 1993, and the samples were submitted to Mobile Chem Labs of Martinez, California. These soil samples were analyzed for total petroleum hydrocarbons reported as gasoline (TPHg) using Environmental Protection Agency (EPA) Method 8015, and for the gasoline constituents benzene, toluene, ethyl benzene, and total xylene isomers (BTEX) using EPA Method 8020. In addition, soil stockpile samples were analyzed for Corrosivity, Reactivity, and Ignitability (CRI), total petroleum hydrocarbons reported as motor oil, volatile organic compounds (VOCs) using EPA Method 8240, semi-volatiles using EPA Method 8270, and CAM 17 metals by Soluble

CEECON • 1517 Palmetto Avenue Suite 4 Pacifica California 94044 TEL 415-738-1115 Fax 415-

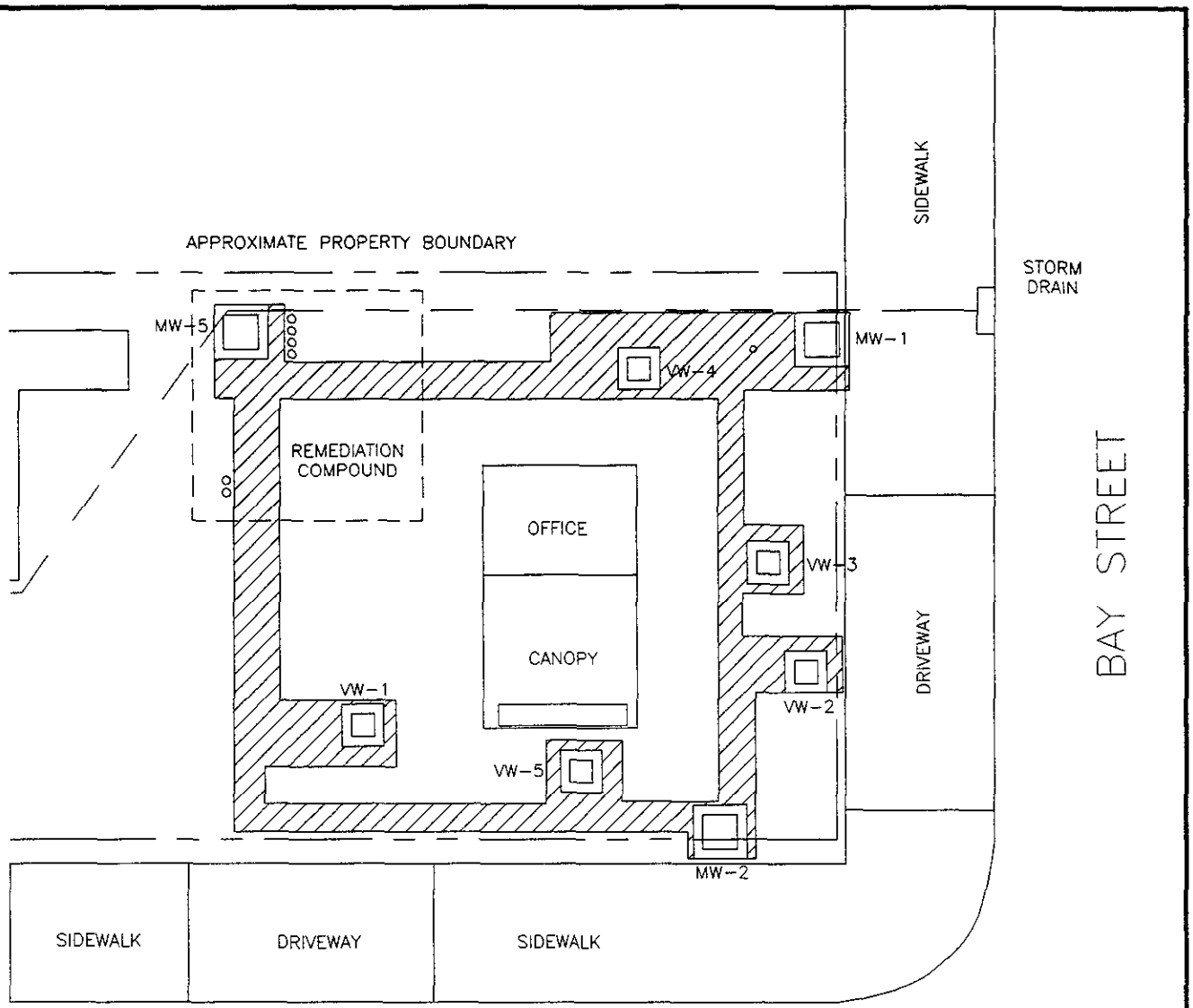
Threshold Limit Concentrations (STLC) method. Analytical results of soil stockpile samples indicated detectable concentrations of lead and thallium, and were not within the acceptable limits for disposal at the BFI Landfill in Livermore. Additional soil samples were collected from the soil stockpile to re-profile the soil for disposal at the Forward Landfill (Forward) in Stockton, California. Forward required analysis for CAM 10 metals (As, Ba, Cd, Cr, Co, Cu, Pb, Ni, Hg, Zn) by the Total Threshold Limit Concentration (TTLC) method. Laboratory analytical results indicated that the soil was within acceptance limits for Forward. The soil stockpile was consequently disposed at Forward on July 2, 1993. Copies of the Chain-of-Custody records, Results of Laboratory Analysis of Soil Samples, the Non-Hazardous Waste Manifest, and Acceptance Letter are attached.

After trenches were excavated, steel CEECON well vaults were installed at each wellhead. The vapor-extraction wells VW-1, VW-2, VW-3, VW-4, and VW-5 were covered with 2 foot by 2 foot-wide vaults, and the groundwater monitoring wells (MW-1, MW-2, and MW-5) were covered with 3-foot by 3-foot-wide vaults. The as-built trenching and location of well vaults are shown on drawing WT-1 (Wellhead and Trench Layout). Each well vault was secured at its base with 4-inches of concrete. Two 3-inch, schedule 40 polyvinyl chloride (PVC) pipes were then connected to each wellhead; one pipe was installed for vapor-extraction, and the second pipe was installed for double containment of extracted groundwater. The vapor-extraction line was manifolded to each vapor-extraction and groundwater-extraction wellhead, while the double containment line was manifolded separately to the groundwater-extraction wellheads. The vapor-extraction and double containment lines were trenched to and stubbed-up in the remediation compound. A sewer discharge line was installed from the remediation compound to the existing sewer line and a two-way sewer clean out was added. Locations of specific groundwater well pipes in the remediation compound and the location of the sewer clean-out are shown on WT-1. Electrical conduit, panel, and connections to existing facilities were then installed by a licensed electrical contractor.

After piping was connected in the trenches, controlled density fill (CDF) was poured into the trenches and around the subsurface piping to a level approximately 4 inches below-grade. Specification for the CDF is attached. Wellhead vault boxes were completed with concrete to grade surface. After the CDF had set, the trenches were finished to ground surface with asphalt. Permanent fencing was then installed around the remediation compound. Wellheads were connected to the below grade vapor-extraction system (VES) piping and 2-inch PVC true-union ball valves were installed between each wellhead and the VES piping. True union ball valves were installed without PVC glue on the wellhead side of the ball valve. After the wellheads were completed, the internal combustion (I.C.) engine was positioned in the remediation compound. The remediation compound size was increased from the originally proposed size of 15 feet by 15 feet to 20 feet by 20 feet because the Alameda Fire Department required the propane tank to be placed inside the compound. The VES connections were then completed to the I.C. engine. The initial Remediation Compound Layout is shown on Drawing RCL-1.

After the engine was installed, a 500-gallon propane tank supplied by Northern Energy Inc. was placed in the remediation compound. Debris and waste was collected, and hauled off-site. This site clean-up completed the construction activities at the site prior to the start-up of the VES.

Start-up and operation reports for the groundwater extraction and treatment system are scheduled to be prepared by RESNA Industries of San Jose, California. Results of laboratory analysis of influent and effluent water samples collected, as required by the East Bay Municipal Utilities District (EBMUD), will be included in these reports prepared by RESNA Industries.



LINCOLN AVENUE

EXPLANATION

MW-2 Monitoring wellhead cover with 10-inch concrete collar

VW-5 Vapor extraction wellhead cover with 10-inch concrete collar

Trench layout

N

0 15 30

SCALE IN FEET

CEECON

CALIFORNIA ENVIRONMENTAL ENGINEERS & CONTRACTORS

[illegible]

PLATE
T2.CL-1

IN PROGRESS

BUREAU OF ELECTRICITY
CITY OF ALAMEDA OFFICE
2000 Grand Street
Alameda, CA 94501 748-3996

PERMIT NO: EL93-197
Status: APPROVED

06/09/93 09:04

JOB ADDRESS : 1127 LINCOLN AVE
PERMIT TYPE : ELECTRICAL PERMIT
Parcel number : 072 -0376-012-00
OWNER : PAGANO LEO & MARIA TRS

1104 FOUNTAIN ST
ALAMEDA CA 94501

Applicant : X

Applied : 06/09/93
Approved : 06/09/93
Completed :
:
Class code :
Valuation: 1

HOURS OF CONSTRUCTION
MONDAY - FRIDAY 7 A.M. TO 7 P.M.
SATURDAY & SUNDAY 8 A.M. TO 5 P.M.

X

Project Title : INSTALL GROUNDWATER TREATMENT

Signature

Project Desc. : INSTALL GROUNDWATER TREATMENT SYSTEM

ARCHITECT : CEECON/CALIF. ENVIR. ENGINEERS Lic. # 589926 415 738-1115
1517 PALMETTO SUITE 4
PACIFICA, CA 94044

Fee description	Units	Fee/Unit	Ext fee	Date
SWITCHES, LTG FIX., & RECEPTACLES	0			
First 100 Amp Meter.....>	1	15.00	15.00	
Each Additional Meter.....>	1	2.00	2.00	
SERVICES, TEMPORARY	0			
MISCELLANEOUS	0			
SUB-TOTAL OF FEES>>>>>>>>>>>>>>>>>	0			
SUB-TOTAL OF FEES OR MINIMUM FEE>>	0		45.00	
BUSINESS LICENSE FEE	.00			
TOTAL OF ALL FEES>>>>>>>>>>>>>>>>>	.00		45.00	

*** Fees Required *** *** Fees Collected & Credits ***

Account No.	Receipt No.	Date	Payment
001-220-0000-2251	R9302280	06/09/93	45.00
TOTAL THIS DATE		*********	45.00

Fees:	45.00		
Adjustments:	.00	Total Credits:	.00
Total Fees:	45.00	Total Payments:	45.00
		Balance Due:	.00

CITY OF ALAMEDA
CENTRAL PERMITS OFFICE
.63 Santa Clara Ave. Room 204
Alameda, CA 94501

Permit No: P93-5525
Status: APPROVED

06/09/93 09:07

JOB ADDRESS : 1127 LINCOLN AVE
PERMIT TYPE : PLUMBING PERMIT
Parcel number : 072 -0376-012-00

Applied : 06/09/93
App/Issue : 06/09/93
FINAL :
EXPIRES :
Class code : 088
Valuation: 0

Owner : PAGANO LEO & MARIA TRS
1104 FOUNTAIN ST
ALAMEDA CA 94501

HOURS OF CONSTRUCTION
MONDAY - FRIDAY 7 A.M. TO 7 P.M.
SATURDAY & SUNDAY 8 A.M. TO 5 P.M.

Applicant : X

Mailed
Signature

X
Project Title : INSTALL GROUNDWATER TREATMENT
Project Desc. : INSTALL GROUNDWATER TREATMENT SYSTEM

ARCHITECT : CEECON/CALIF. ENVIR. ENGINEERS Lic. A 589926 415 738-1115
1517 PALMETTO SUITE 4
PACIFICA, CA 94044

Fee description	Units	Fee/Unit	Ext fee	Data
Sewer Extension/Replacement.....>	1	30.00	30.00	
MISCELLANEOUS	.00			
Total of Fixture Fees >>>>>>>>>>>>>	0		30.00	
Filing Fee.....>	0		11.00	Y
S.M.I.P Fee.....>	0		.50	Y
Assembly Bill 941.....(Enter 'Y')>	0		5.00	Y
Micro-fiche Fee.....>	5.50		5.50	

*** Fees Required *** *** Fees Collected & Credits ***

Account No.	Receipt No.	Date	Payment
001-300-4220-3360	R9302279	06/09/93	30.00
001-300-4240-3745	R9302279	06/09/93	11.00
001-220-0000-2239	R9302279	06/09/93	.50
001-300-4240-3305	R9302279	06/09/93	5.00
001-300-4240-3792	R9302279	06/09/93	5.50
TOTAL THIS DATE		*********	52.00

Fees: 52.00
Adjustments: .00
Total Fees: 52.00

Total Credits: .00
Total Payments: 52.00
Balance Due: .00

FOR INSPECTIONS CALL: BUILDING 748-4564 (8:30-10:00 A.M.)
PLUMBING & MECHANICAL 748-4563 (8:30-10:00 A.M.)
ELECTRICAL 748-3995 (8:00-10:00 A.M.)
OR 748-3996 (8:00-10:00 A.M.)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Western Environmental Science & Technology

1046 Olive Drive, Suite 3
Davis, CA 95616

916-753-9500
FAX #: 916-753-6091
LAB#: 916-757-4650

Project Manager: PATRICK CAMB

Phone #: (415) 738-1115

Company/Address: CHEVRON 1517 PALMETTO AVE #4 PACIFICA, CA 94044

FAX #: (415) 738-1117

Project Number: 115-106.116

P.O.#:

Project Name: TEXACO ALAMEDA

Project Location: 1127 UNION AVE. ALAMEDA

Sampler Signature:

Sample ID	Sampling DATE	Sampling TIME	Container VOA	Container SLEEVE	Container 1L GLASS	Container 1L PLASTIC	Method Preserved HCl	Method Preserved HNO3	Method Preserved ICE	Method Preserved NONE	Matrix WATER	Matrix SOIL
SP A	6/16/93	9:00										
SP B												
SP C												
SP D												

ANALYSIS REQUEST

Sample ID	BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel/Oil (8015)	Total Oil & Grease (5520 B/E,F)	Total Oil & Grease IR (5520 B/E,F,C)	96 - Hour Fish Bioassay	EPA 601/8010	EPA 602/8020	EPA 615/8150	EPA 608/8080 - Pesticides	EPA 608/8080-PCBs	EPA 624/8240	EPA 625/8270	ORGANIC LEAD	Reactivity, Corrosivity, Ignitibility	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2) STLC	Cd, Cr, Pb, Zn, Ni	W.E.T. (X)	TOTAL (#)
SP A		X		X														X			
SP B		X		X														X			
SP C		X		X														X			
SP D		X		X														X			

TAT

RUSH SERVICE (12 hr) or (24 hr)	
EXPEDITED SERVICE (48 hr) or (1 wk)	X
STANDARD SERVICE (2wk)	

	Date	Time	
Relinquished by:	6/17/93	9:45	Received by:
Relinquished by			Received by:
Relinquished by			Received by Laboratory: 6/17/93 9:45

Remarks: COMPOSITE 4 INTO 1 SAMPLE

WILL ADD WITH APPROPRIATE ANALYSIS IF NEEDED

Bill To: TEXACO ENVIRONMENTAL SERVICES

Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

Corrosivity, Ignitability, and Reactivity

Attention: Ms. Chris Lecce
Mobile Chem Labs, Inc.
3011 Alum Road, Suite T
Martinez, CA 94553

Date Sampled: Jun 18, 1993
Date Received: Jun 18, 1993
Date Requested: Jun 25, 1993
Date Analyzed: Jun 28, 1993

Project #: 115-106.06

Project Name:

Client ID: 063198

LAS ID: 93-06-272A

Matrix: Soil

Dilution:

Corrosivity:	Amount	Detection Limit
pH:	7.3	N.A.

Ignitability:		
Flashpoint (Pensky-Martens)	140 °F	N.A.

Reactivity:		
Sulfide, mg/kg	ND	10
Cyanide, mg/kg	ND	0.50
Reaction with Water	Negative	N.A.

ppm = parts per million = mg/kg
N.A. = Not Applicable
N.D. = Not Detected. Samples may be present at concentrations below the detection limit
N.R. = Not Requested.

R. L. James, Principal Chemist

6/28/93
Date Reported

MOBILE CHEM LABS INC.

5011 Blum Road, Suite 1 • Martinez, CA 94553
Phone (510 372-3700 • Fax (510) 372-6955

115-106.06\1428\012752

CEECON
1517 Palmetto Ave., #4
Pacifica, CA 94044
Attn: Michael Hodges
Project Manager

Date Sampled: 06-16-93
Date Received: 06-17-93
Date Analyzed: 06-18-93

Sample Number	Sample Description
063198	Project # 115-106.06 Texaco - Alameda 1127 Lincoln Ave. SP(A-D) SOIL

ANALYSIS

	Detection Limit	Sample Results
	ppm	ppm
Total Petroleum Hydrocarbons as Gasoline	1.0	<1.0
Benzene	0.005	<0.005
Toluene	0.005	<0.005
Xylenes	0.005	<0.005
Ethylbenzene	0.005	<0.005

Note: Analysis was performed using EPA methods 5030 and TPH LUFT with method 8020 used for BTX distinction.
(ppm) = (mg/kg)

MOBILE CHEM LABS

Ronald G. Evans
Lab Director

MOBILE CHEM LABS INC.

5011 Blum Road, Suite 1 • Martinez, CA 94553
Phone (510 372-3700 • Fax (510) 372-6955

115-106.06\1428\012752

CEECON
1517 Palmetto Ave., #4
Pacifica, CA 94044
Attn: Michael Hodges
Project Manager

Date Sampled: 06-16-93
Date Received: 06-17-93
Date Analyzed: 06-17-93

Sample Number	Sample Description	Detection Limit	SOIL Gravimetric Waste Oil as Petroleum Oil
		ppm	ppm
	Project # 115-106.06 Texaco - Alameda 1127 Lincoln Ave.		
063198	SP(A-D)	10	720

QA/QC: Duplicate Deviation on 063198 is 2.1%

Note: Analysis was performed using EPA extraction method 3550 with Trichlorotrifluoroethane as solvent, and gravimetric determination by standard methods 5520
(ppm) = (mg/kg)

MOBILE CHEM LABS

Ronald G. Evans
Lab Director

Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

CAM 17 (STLC) TTLC
EPA Method: WET

Attention:	Ms. Chris Lecce	Date Sampled:	Jun 16, 1993
	Mobile Chem Labs, Inc.	Date Received:	Jun 18, 1993
	5011 Blum Road, Suite 1	Date Requested:	Jun 25, 1993
	Martinez, CA 94553	Date Analyzed:	Jun 28, 1993
Project #:	115-106.06	Project Name:	
Client ID:	063198	LAB ID:	ST93-06-774A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Antimony (Sb)	ND	0.50	mg/L
Arsenic (As)	ND	0.050	mg/L
Barium (Ba)	3.5	0.10	mg/L
Beryllium (Be)	0.01	0.010	mg/L
Cadmium (Cd)	0.02	0.010	mg/L
Chromium (Cr)	0.33	0.010	mg/L
Cobalt (Co)	0.15	0.050	mg/L
Copper (Cu)	0.66	0.010	mg/L
Lead (Pb)	1.2	0.20	mg/L
Mercury (Hg)	ND	0.00050	mg/L
Molybdenum (Mo)	ND	0.050	mg/L
Nickel (Ni)	0.22	0.050	mg/L
Selenium (Se)	ND	0.010	mg/L
Silver (Ag)	ND	0.010	mg/L
Thallium (Tl)	0.85	0.10	mg/L
Vanadium (V)	0.56	0.050	mg/L
Zinc (Zn)	1.7	0.010	mg/L

ppm = parts per million = mg/L = milligram per Liter

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

R. L[illegible], Principal Chemist

6-28-93
Date Reported

3050 Fite Circle, Suite 112 • Sacramento, California 95827 • (916) 362-8947 • FAX (916) 362-0947

MOBILE CHEM LABS INC.

5011 Blum Road, Suite 1 • Martinez, CA 94553
Phone (510 372-3700 • Fax (510) 372-6955

115-106-06\1718\012760

Ceecon
1517 Palmetto Ave., #4
Pacifica, CA 94044
Attn: Michael Hodges
Project Manager

Date Sampled: 06-16-93
Date Received: 06-17-93
Date Analyzed: 06-29-93

Sample Number	Sample Description
063198	Texaco - Alameda Project No 115-106.06 1127 Lincoln Ave. SP A-D SOIL

EPA METHOD 8240
PURGEABLE ORGANICS

	Detection Limit µg/kg	Results µg/kg	Spike Recovery
Benzene	<5.0	ND	97%
Bromodichloromethane	<2.0	ND	
Bromoform	<2.0	ND	
Bromomethane	<5.0	ND	
Carbon Tetrachloride	<2.0	ND	
Chlorobenzene	<2.0	ND	97%
Chloroethane	<5.0	ND	
Chloroform	<5.0	ND	
Chloromethane	<5.0	ND	
Dibromochloromethane	<2.0	ND	
1,1-Dichloroethane	<5.0	ND	
1,2-Dichloroethane	<5.0	ND	
1,1-Dichloroethene	<5.0	ND	137%
Trans-1,2-Dichloroethene	<5.0	ND	
1,2-Dichloropropane	<5.0	ND	
Cis-1,3-Dichloropropene	<5.0	ND	
Trans-1,3-Dichloropropene	<5.0	ND	
Ethylbenzene	<5.0	ND	
Methylene Chloride	<5.0	ND	
1,1,2,2-Tetrachloroethane	<5.0	ND	
Tetrachloroethene	<5.0	ND	
Toluene	<5.0	ND	93%
1,1,1-Trichloroethane	<5.0	ND	
1,1,2-Trichloroethane	<5.0	ND	
Trichloroethene	<2.0	ND	114%

MOBILE CHEM LABS INC.

5011 Blum Road, Suite 1 • Martinez, CA 94553
Phone (510 372-3700 • Fax (510) 372-6955

115-106-06\1718\012760

Ceecon
1517 Palmetto Ave., #4
Pacifica, CA 94044
Attn: Michael Hodges
Project Manager

Date Sampled: 06-16-93
Date Received: 06-17-93
Date Analyzed: 06-29-93

Sample Number	Sample Description
063198	Texaco - Alameda Project No 115-106.06 1127-Lincoln Ave. SP A-D SOIL

EPA METHOD 8240
PURGEABLE ORGANICS

	Detection Limit µg/kg	Results µg/kg	Spike Recovery
Vinyl Chloride	<5.0	ND	
Total Xylenes	<10.0	ND	
Acetone	<10.0	ND	
2-Butanone	<20.0	ND	
Carbon Disulfide	<5.0	ND	
2-Hexanone	<5.0	ND	
4-Methyl-2-Pentanone	<5.0	ND	
Styrene	<5.0	ND	
Vinyl Acetate	<20.0	ND	
Cis-1,2-Dichloroethene	<5.0	ND	

Note: Analysis was performed using EPA methods 5030 and 8240

MOBILE CHEM LABS, INC.

Ronald G. Evans
Lab Director

Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8270 GCMS Analysis Report

Attention:	Ms. Chris Iecce	Date Sampled:	Jun. 16, 1993
	Mobile Chem Labs, Inc.	Date Received:	Jun. 18, 1993
	5011 Blum Road, Suite 1	Date Requested:	Jun. 25, 1993
	Martinez, CA 94553	Date Analyzed:	Jun 28, 1993

Project #:	115-106.06	Project Name:	
Client ID:	063198	LAB ID:	ST93-06-773A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
1,2 - Dichlorobenzene	ND	330	ug/kg
1,2,4 - Trichlorobenzene	ND	330	ug/kg
1,3 - Dichlorobenzene	ND	330	ug/kg
1,4 - Dichlorobenzene	ND	330	ug/kg
2 - Chloronaphthalene	ND	330	ug/kg
2 - Chlorophenol	ND	330	ug/kg
2 - Methylnaphthalene	ND	330	ug/kg
2 - Methylphenol	ND	330	ug/kg
2 - Nitrophenol	ND	330	ug/kg
2,4 - Dichlorophenol	ND	330	ug/kg
2,4 - Dimethylphenol	ND	330	ug/kg
2,4 - Dinitrophenol	ND	1600	ug/kg
2,4 - Dinitrotoluene	ND	330	ug/kg
2,4,5 - Trichlorophenol	ND	1600	ug/kg
2,4,6 - Trichlorophenol	ND	330	ug/kg
2,6 - Dinitrotoluene	ND	330	ug/kg
2 - Nitroaniline	ND	1600	ug/kg
3,3' - Dichlorobenzidine	ND	660	ug/kg
3 - Nitroaniline	ND	1600	ug/kg
4 - Bromophenyl - phenylether	ND	330	ug/kg
4 - Chloro - 3 - Methylphenol	ND	330	ug/kg
4 - Chloroaniline	ND	330	ug/kg
4 - Methylphenol	ND	330	ug/kg
4 - Nitroaniline	ND	1600	ug/kg
4 - Nitrophenol	ND	1600	ug/kg
4,6 - Dinitro - 2 - Methylphenol	ND	1600	ug/kg
4 - Chlorophenyl - phenylether	ND	330	ug/kg
Acenaphthene	ND	330	ug/kg
Acenaphthylene	ND	330	ug/kg

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm = parts per million = ug/g = micrograms per gram

ND = Not Detected. Compound(s) may be present at concentrations below the reporting limit.

Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8270 GCMS Analysis Report

Attention:	Ms. Chris Iecce	Date Sampled:	Jun. 16, 1993
	Mobile Chem Labs, Inc.	Date Received:	Jun. 18, 1993
	5011 Blum Road, Suite 1	Date Requested:	Jun. 25, 1993
	Martinez, CA 94553	Date Analyzed:	Jun 28, 1993

Project #:	115-106.06	Project Name:	
Client ID:	063198	LAB ID:	ST93-06-773A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Anthracene	ND	330	ug/kg
Benzo (a) Anthracene	ND	330	ug/kg
Benzo (a) Pyrene	ND	330	ug/kg
Benzo (b) Fluoranthene	ND	330	ug/kg
Benzo (g, h, i) Perylene	ND	330	ug/kg
Benzo (k) Fluoranthene	ND	330	ug/kg
Benzoic Acid	ND	1600	ug/kg
Benzyl Alcohol	ND	330	ug/kg
bis (- 2 - Chloroethoxy) Methane	ND	330	ug/kg
bis (- 2 - Chloroethyl) Ether	ND	330	ug/kg
bis (2 - chloroisopropyl) Ether	ND	330	ug/kg
bis (2 - Ethylhexyl) Phthalate	ND	330	ug/kg
Butylbenzylphthalate	ND	330	ug/kg
Chrysene	ND	330	ug/kg
Di - N - Butylphthalate	ND	330	ug/kg
Di - N - Octyl Phthalate	ND	330	ug/kg
Dibenz (a, h) Anthracene	ND	330	ug/kg
Dibenzofuran	ND	330	ug/kg
Diethylphthalate	ND	330	ug/kg
Dimethyl Phthalate	ND	330	ug/kg
Fluoranthene	ND	330	ug/kg
Fluorene	ND	330	ug/kg
Hexachlorobenzene	ND	330	ug/kg
Hexachlorobutadiene	ND	330	ug/kg
Hexachlorocyclopentadiene	ND	330	ug/kg
Hexachloroethane	ND	330	ug/kg
Indeno (1,2,3 - cd) Pyrene	ND	330	ug/kg
Isophorone	ND	330	ug/kg
N - Nitroso - Di - Propylamine	ND	330	ug/kg

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm = parts per million = ug/g = micrograms per gram

ND = Not Detected. Compound(s) may be present at concentrations below the reporting limit.

Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8270 GCMS Analysis Report

Attention:	Ms. Chris Iecce	Date Sampled:	Jun. 16, 1993
	Mobile Chem Labs, Inc.	Date Received:	Jun. 18, 1993
	5011 Blum Road, Suite 1	Date Requested:	Jun. 25, 1993
	Martinez, CA 94553	Date Analyzed:	Jun 28, 1993
Project #:	115-106.06	Project Name:	
Client ID:	063198	LAB ID:	ST93-06-773A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
N - Nitrosodiphenylamine	ND	330	ug/kg
Naphthalene	ND	330	ug/kg
Nitrobenzene	ND	330	ug/kg
Pentachlorophenol	ND	1600	ug/kg
Phenanthrene	ND	330	ug/kg
Phenol	ND	330	ug/kg
Pyrene	ND	330	ug/kg

Surrogate % Recovery 2 - Fluorophenol =	47%
Surrogate % Recovery Phenol - d6 =	43%
Surrogate % Recovery Nitrobenzene - d5 =	22%
Surrogate % Recovery 2 - Fluorobiphenyl =	34%
Surrogate % Recovery 2,4,6 - Tribromophenol =	78%
Surrogate % Recovery Terphenyl - d14 =	41%

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm = parts per million = ug/g = micrograms per gram

ND = Not Detected. Compound(s) may be present at concentrations below the reporting limit.

R. L. James, Principal Chemist

6-28-93
Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY

(Certification No. 1814)

MOBILE CHEM LABS INC.
5021 Blum Road, Suite 3 • Martinez, CA 94553
Phone (415) 372-3700 • Fax (415) 372-6955

2125

CHAIN OF CUSTODY

[illegible]: P.L. [illegible]: 6-16-93 [illegible]: 2448

[illegible]: CEE

[illegible]: #115-106.06

[illegible]	ANALYSIS	[illegible]	[illegible]	[illegible]
7031798	TTLC / ARSENIC, BARIUM, CHROMIUM, COBALT, COPPER, LEAD, NICKEL, MERCURY, ZINC, CADMIUM	C	1	S
		24-HOUR		
		RUSH		

[illegible]	DATE/TIME	[illegible]	DATE/TIME

[illegible]

[illegible]: please add these metals to this sample already in your possession.

Thank You
Brian Scheuler

Date Rec 6/18/93

Sparger Technology Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

Metals, CAM 10
EPA Method 6010/7471

Attention:	Mr. Brian Sherier Mobile Chem Lab, Inc. 5011 Blum Road, Suite 1 Martinez, CA 94553	Date Sampled:	Jun 16, 1993
		Date Received:	Jun 16, 1993
		Date Requested:	Jun 30, 1993
		Date Analyzed:	Jun 30, 1993
Project #:	115-106.06	Project Name:	
Client ID:	063196	LAB ID:	9733-09-2444
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Arsenic (As)	2.1	0.50	mg/Kg
Barium (Ba)	82	1.0	mg/Kg
Cadmium (Cd)	ND	0.25	mg/Kg
Chromium (Cr)	26	0.25	mg/Kg
Cobalt (Co)	5.0	1.0	mg/Kg
Copper (Cu)	16	0.25	mg/Kg
Lead (Pb)	22	2.5	mg/Kg
Mercury (Hg)	0.23	0.025	mg/Kg
Nickel (Ni)	19	1.0	mg/Kg
Zinc (Zn)	47	0.025	mg/Kg

ppm = parts per million = mg/Kg = milligram per kilogram

ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

R. L. James, Principal Chemist

6/30/93
Date

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY

Certification No. [illegible]

FORWARD INC.

NON-HAZARDOUS WASTE MANIFEST
WASTE TREATMENT AND DISPOSAL FACILITY

JOB ACCEPTANCE NO. 93 – 441

TO BE COMPLETED BY THE GENERATOR

GENERATOR: TEXACO ENVIRONMENTAL SERVICES

MAILING ADDRESS: 1127 LINCOLN AVENUE

CITY, STATE, ZIP: ALAMEDA, CA.

PHONE:

CONTACT PERSON: MICHEAL HODGES

SIGNATURE OF AUTHORIZED AGENT / TITLE: * Agent For Texaco | DATE: 7/2/93

REQUIRED PERSONAL PROTECTIVE EQUIPMENT
☐ GLOVES ☐ GOGGLES ☐ RESPIRATOR ☐ HARD HAT
☐ TY-VEK ☐ OTHER

SPECIAL HANDLING PROCEDURES:

WASTE TYPE

☐ TREATMENT SOIL
☐ DISPOSAL SOIL
☒ CONSTRUCTION SOIL
☐ SLUDGE
☐ NON-FRIABLE ASBESTOS
☐ WOOD
☐ ASH
☐ OTHER

GENERATING FACILITY
TEXACO
1127 LINCOLN AVENUE
ALAMEDA, CA.

RECEIVING FACILITY

FORWARD INC. LANDFILL
9999 SOUTH AUSTIN ROAD
MANTECA, CALIFORNIA 95336
(209) 982-4298 PHONE
(209) 982-1009 FAX

TRANSPORTER HAULER MUST COMPLETE

NAME: CABALLERO TRUCKING

ADDRESS: 2530 BERRYESSA ROAD, STE 527

CITY, STATE, ZIP: SAN JOSE, CA. 95132

PHONE: 408-729-0196

SIGNATURE OF AUTHORIZED AGENT OR DRIVER: * [signature] | DATE: 7-2-93

NOTES:

TRUCK NUMBER: 307

END DUMP ☐ BOTTOM DUMP ☐ TRANSFER ☒
ROLL-OFF(S) ☐ FLAT-BED ☐ VAN ☐ DRUMS ☐

FACILITY REQUIREMENTS

FORWARD INC. LANDFILL

Forward shall have no obligation to accept the waste if weather or other conditions impair the safe and effective disposal of the waste or if the waste impairs the safe and effective operation of the Landfill. Forward shall use reasonable efforts to promptly notify Disposer of its inability to accept the waste for any reason. If Forward's refusal to accept the waste is based on weather or other site conditions, Forward shall notify the Disposer when site conditions are expected to change such that Forward will be able to accept the waste.

REMARKS

FACILITY TICKET NUMBER

SIGNATURE OF AUTHORIZED AGENT: * | DATE

CUBIC YARDS

DISPOSAL METHOD: (TO BE COMPLETED BY FORWARD)

	DISPOSE	BIO	AERATE	STOCKPILE	OTHER
☐ SOIL					
☐ SLUDGE					
☐ NON-FRIABLE ASBESTOS					
☐ WOOD					
☐ ASH					
☐ OTHER					

SCHEDULING MUST BE MADE PRIOR TO 4:00 P.M. THE DAY PRIOR TO EXPECTED ARRIVAL • ANY UNSCHEDULED LOADS ARE SUBJECT TO REFUSAL UPON ARRIVAL. ONGOING DAILY DELIVERIES MUST BE SCHEDULED WITH THE LANDFILL THE DAY BEFORE.
TO SCHEDULE CALL (209) 982-4298

MANIFEST # 5684

SALES COPY

WALKER'S CONCRETE, INC.

CONTROLLED DENSITY FILL (CDF)

Controlled Density Fill (CDF) is a multi-purpose fill material consisting of aggregate, fly ash pozzolan, portland cement, mixing water, and possibly an admixture. It's not concrete and it's not soil. CDF is placed at a fluid consistency while requiring no tamping or compaction to achieve its high density and strength, and its load capacity is typically much higher than compacted soil. It's strong, yet can still be excavated by conventional means. The ease of placement, high density, and greater strength of CDF makes it superior to standard backfill. It can be used wherever soil backfill is used and in most cases where granular backfill is used.

FEATURES

- Easily placed in one lift by a ready-mixed concrete truck at a fluid consistency of 9" slump or more without segregation.
- Completely fills the void with no settlement and minimal shrinkage
- Achieves 95% compaction in a few hours with NO TAMPING or mechanical compaction
- Compressive strengths of 50-200 psi, which is stronger than soil, yet still excavateable.
- May be easily pumped into place, where the use of a pump is desired

BENEFITS

- GREATLY REDUCED LABOR and lower equipment cost
- GUARANTEED VOID FILLING by fluid displacement method
- NO DIFFERENTIAL COMPACTION
- Pavement or other materials can be placed over CDF the same day
- IMPROVED DURABILITY
- DECREASED MAINTENANCE COST
- LESS DOWN TIME on many applications

Typical Uses for Controlled Density Fill

--Foundation Subbase
--Retaining Wall Backfill
--Underground Tank Backfill
--Trench Backfilling
--Paving Subbase
--Pipe Bedding
--Culvert Backfilling
--Temporary Slabs
--Bridge Abutment Backfill
--Abandoned Sewer Line Fill
--Abandoned Manhole Fill
--Abandoned Tank Fill
--Backfill for Electrical Ducts
--Wherever else soil backfill is used

OAKLAND
2400 Peralta
Oakland, CA 94607
(415) 452-1663

HAYWARD
1844 W Winton Ave.
Hayward, CA 94545
(415) 782-3223

SAN JOSE
457 Queens Lane
San Jose, CA 95112
(408) 436-8100

Walker's Concrete, Inc.

CONCRETE MIX DESIGN

CONTRACTOR:
JOB:
USE: CONTROLLED DENSITY FILL

MIX NO.: 0401802

	ABS. VOL.	WET WEIGHT	MOISTURE	BATCH WEIGHT
CEMENT	.20	40		
FLY ASH	2.09	300		
WATER (40 gal.)	5.33	333		
3/8" ROCK	6.89	1150		
TOP SAND	10.33	720		
AIR ENTRAIN (Darex 8%)	2.16			
TOTAL	27.00	3543		

Compressive Strength:
Water/cement ratio:
Total Water Demand:
Slump:

Prepared by: Date:

This mix will produce concrete meeting or exceeding the design criteria when produced, sampled and tested in accordance with ASTM C-94 and project specifications. Mix will be adjusted as required per ACI 318-83 and UBC section 2504 to maintain the noted strength level.

1844 W WINTON AVE
HAYWARD, CA 94545-1207
(415) 782-2323

457 QUEEN LANE
SAN JOSE, CA 95112
(408) 436-[illegible]00

2400 PERALTA
OAKLAND, CA 94607
(415) 452-[illegible]