

**PARADISO MECHANICAL, INC.**  
 GENERAL & PETROLEUM CONTRACTORS  
 2600 Williams Street, P.O. Box 1836  
 San Leandro, CA 94577  
 (510) 614-8390 FAX (510) 614-8396  
 Contractors License #677909

LETTER OF TRANSMITTAL  
 11:02:36 PM 3/25/98

TO:

ALAMEDA COUNTY DEPT OF ENVIR HEALTH  
1131 HARBOR BAY PKWY, 2<sup>ND</sup> FLOOR  
ALAMEDA, CA 94502

DATE 3/25/98	JOB # 1095
ATTN: SUSAN HUGO	
RE: BERKELEY FARMS	
4575 SAN PABLO AVENUE	
EMERYVILLE, CA	

WE ARE SENDING YOU  Attached  Under Separate Cover via US MAIL the following items:

- Shop drawings       Prints       Plans       Sample       Specifications  
 Copy of Letter       Change Order       \_\_\_\_\_

COPIES	DATE	NO.	DESCRIPTION
1			INSTALLATION OF MONITORING WELLS REPORT

THESE ARE TRANSMITTED as checked below:

- For approval       Approved as submitted       Resubmit \_\_\_\_\_ copies for approval  
 For your use       Approved as noted       Submit \_\_\_\_\_ copies for distribution  
 As requested       Returned for corrections       Return \_\_\_\_\_ corrected prints  
 For review and comment  \_\_\_\_\_  
 FOR BIDS DUE \_\_\_\_\_, 19\_\_\_\_       PRINTS RETURNED AFTER LOAN TO US

REMARKS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

COPY TO \_\_\_\_\_ SIGNED: Shari Thompson

**geo - logic**

*geotechnical and environmental consulting services*

1140 - 5th Avenue, Crockett, CA 94525

(510) 787-6867 - Fax (510) 787-1457

GL-97-110.R3  
Paradiso Job No. 1095  
March 7, 1998

Paradiso Mechanical, Inc.  
P. O. Box 1836  
2600 Williams Street  
San Leandro, California

Attention : Mr. Rick Montesano

RE: Installation of Monitoring Wells  
Berkeley Farms Truck Repair Shop and Yard  
4575 San Pablo Avenue  
Emeryville, California 94608

Dear Mr. Montesano:

This report presents the results of the recent installation and sampling of three monitoring wells at the subject site. The purpose of the well installation was to determine the ground water flow direction, and to further investigate the degree and extent of impacted soil and ground water at the site. The scope of the work performed by GEO-LOGIC consisted of the following:

Coordination with regulatory agencies

Geologic logging of three borings for the installation of three monitoring wells

Soil sampling

Well development and ground water monitoring and sampling

Delivery of soil and ground water samples (including properly executed Chain of Custody documentation) to a California-certified analytical laboratory for laboratory analyses

Data analysis, interpretation, and report preparation

#### SITE DESCRIPTION AND BACKGROUND

The subject site is located at the northwestern corner of San Pablo Avenue and 47th Street in Emeryville, California, and formerly contained a service station facility. The site currently operates as a truck repair shop and yard for Berkeley Farms. A Site Plan (Figure 1) is attached to this report.

GEO-LOGIC's previous work at the site was performed during the period November 1997 through January 1998, when a former waste oil tank pit was overexcavated and groundwater purging was conducted. This work, including the associated soil and water sample analytical results, are summarized in GEO-LOGIC's report (GL-97-110.R1) dated February 10, 1998.

#### RECENT FIELD ACTIVITIES

On February 20, 1998, three two-inch diameter monitoring wells (designated as MW1 through MW3 on the attached Figure 1) were installed at the site. The wells were each drilled, constructed, and completed in accordance with the guidelines of the Regional Water Quality Control Board (RWQCB) and the California Well Standards (per Bulletin 74-90). The subsurface materials penetrated and details of the construction of the wells are described on the attached Boring Logs.

The three wells were each drilled and completed to a total depth of 17 feet below grade. Ground water was encountered at depths ranging from 4.0 to 5.5 feet below grade during drilling. Soil samples were collected for laboratory analysis and for lithologic logging purposes at a maximum spacing of 5 foot intervals, at significant changes in lithology, at obvious areas of contamination, and at or within the soil/ground water interface, beginning at a depth of approximately 4 feet below grade and continuing until ground water was encountered. Other soil sampling conducted below the water table was for lithologic logging purposes only. The undisturbed soil samples were collected by driving a California-modified split-spoon sampler (lined with brass liners) ahead of the drilling augers. The two-inch diameter brass liners holding the samples were sealed with Teflon-lined plastic caps, labeled, and placed in individually sealed plastic bags, which were then stored in a cooler, on ice, until delivery to a state-certified laboratory.

Each well casing was installed with a watertight cap and padlock. A round, watertight, flush-mounted well cover was cemented in place over each well casing. The surface of each well cover and the top of each well casing was surveyed by Kier and Wright of Pleasanton, California, to Mean Sea Level (MSL) and to a vertical accuracy of 0.01 foot.

The new wells were developed on February 24, 1998. Prior to development, the wells were checked for the depth to the water table (by the use of an electronic sounder) and the presence of free product (by the use of an interface probe or paste tape). No free product was noted in any of the wells. After recording the monitoring data, the wells were each purged of between 21 and 25 gallons of water, until the evacuated water was clear and free of visible suspended sediment. Monitoring and well development data are summarized in Table 1.

The three wells (MW1 through MW3) were sampled on February 27, 1998. Prior to sampling, the wells were checked for depth to water, and the presence of free product and sheen. No free product or sheen was noted in any of the wells. After recording the monitoring data, the wells were each purged of approximately eight gallons of water. Once a minimum of approximately three to four casing volumes had been removed from each well and the groundwater level was observed to have stabilized, water samples were then collected by the use of a clean Teflon bailer. The samples were decanted into clean VOA vials and/or one-liter amber bottles, as appropriate, which were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory.

#### ANALYTICAL RESULTS

Water and selected soil samples from the borings of MW1 through MW3 were analyzed at Calcoast Analytical, Inc., in Emeryville, California. All samples analyzed were accompanied by properly executed Chain of Custody documentation. The samples were analyzed for TPH as gasoline by EPA method 5030/modified 8015, benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 8020, and methyl tertiary butyl ether (MTBE). In addition, the soil and water samples collected from MW1 and MW2 were analyzed for TPH as diesel, and the soil and water samples collected from MW2 (located downgradient of a former waste oil tank) were analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH).

The concentrations of TPH as gasoline, benzene, and TPH as diesel detected in the ground water samples collected on February 27, 1998, are shown on the attached Figure 2. The results of the soil analyses are summarized in Table 3, and the results of the water analyses are summarized in Table 2. Copies of the laboratory analyses and the Chain of Custody documentation are attached to this report.

#### HYDROLOGY AND GEOLOGY

On February 27, 1998, the measured depth to ground water in the monitoring wells ranged from 3.80 to 5.17 feet below the tops of the well casing. The ground water flow direction appeared to be to the west, as shown on the attached Figure 1. The hydraulic gradient at the site on February 27, 1998, was approximately 0.024.

#### DISCUSSION AND RECOMMENDATIONS

Based on the analytical results of the ground water samples collected and evaluated to date, GEO-LOGIC recommends the implementation of a monitoring and sampling program. The wells should be monitored and sampled on a quarterly basis. The proposed program should be conducted for a period of 12 months. The results of the monitoring program will be documented and evaluated after each monitoring and sampling event. Recommendations for altering or terminating the program will be made as warranted.

#### DISTRIBUTION

A copy of this report should be sent to Ms. Susan Hugo of the ACHCSA.

#### LIMITATIONS

Soil deposits and rock formations may vary in thickness, lithology, saturation, strength and other properties across any site. In addition, environmental changes, either naturally-occurring or artificially-induced, may cause changes in the extent and concentration of any contaminants. Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this study are based on the data obtained from the field and laboratory analyses obtained from a state certified laboratory. We have analyzed this data using what we believe to be currently applicable engineering techniques and principles in the Northern California region. We make no warranty, either expressed or implied, regarding the above, including laboratory analyses, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

GEO-LOGIC  
GL-97-110.R3  
March 7, 1998  
Page 5

Should you have any questions regarding this report, please feel free to call me at (510) 787-6867.

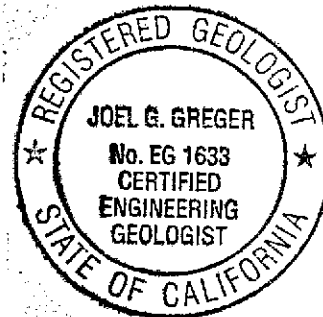
Sincerely,

GEO-LOGIC, Inc.



Joel G. Greger, C.E.G.  
Senior Engineering Geologist

License No. EG 1633  
Exp. Date 8/31/98



Attachments: Tables 1 to 3  
Figures 1 & 2  
Boring Logs  
Laboratory Analyses and  
Chain of Custody documentation

GEO-LOGIC  
 GL-97-110.R3  
 March 7, 1998

TABLE 1

SUMMARY OF GROUND WATER MONITORING AND PURGING DATA

<u>Well #</u>	<u>Ground Water Elevation (feet)</u>	<u>Depth to Water (feet)†</u>	<u>Total Well Depth (feet)†</u>	<u>Product Thickness (feet)</u>	<u>Sheen</u>	<u>Water Purged (gallons)</u>
(Monitored and Sampled on <u>February 27, 1998</u> )						
MW1	37.51	4.50	16.61	0	No	8
MW2	35.61	5.17	16.58	0	No	8
MW3	37.28	3.80	16.63	0	No	8

(Monitored and Developed on February 24, 1998)

MW1	37.57	4.44	16.59	0	No	24
MW2	35.69	5.09	16.58	0	No	21
MW3	37.38	3.70	16.62	0	No	25

<u>Well #</u>	<u>Top of Casing Elevation* (feet)</u>
MW1	42.01
MW2	40.78
MW3	41.08

- † Depth to water and total well depth measurements are taken from the top of the well casings.
- \* The elevation of the tops of the well casings have been surveyed relative to City of Oakland Benchmark No. 241.

GEO-LOGIC  
GL-97-110.R3  
March 7, 1998

TABLE 2  
SUMMARY OF LABORATORY ANALYSES  
WATER

<u>Date</u>	<u>Sample Number</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
2/27/98	MW1	81,000	27,000	2,200	910	1,700	2,700
	MW2	14,000	<5.0	<0.5	120	460	730
	MW3	--	<5.0	<0.5	<0.5	<0.5	<0.5
Detection Limit		5.0	5.0	0.5	0.5	0.5	0.5

<u>Date</u>	<u>Sample Number</u>	<u>TRPH</u>	<u>MTBE</u>
2/27/98	MW1	--	<0.5
	MW2	20,000	<0.5
	MW3	--	<0.5
Detection Limit		500	0.5

-- analyses not performed

Results are in micrograms per liter ( $\mu\text{g/L}$ ), unless otherwise indicated.



GEO-LOGIC  
 GL-97-110.R3  
 March 7, 1998

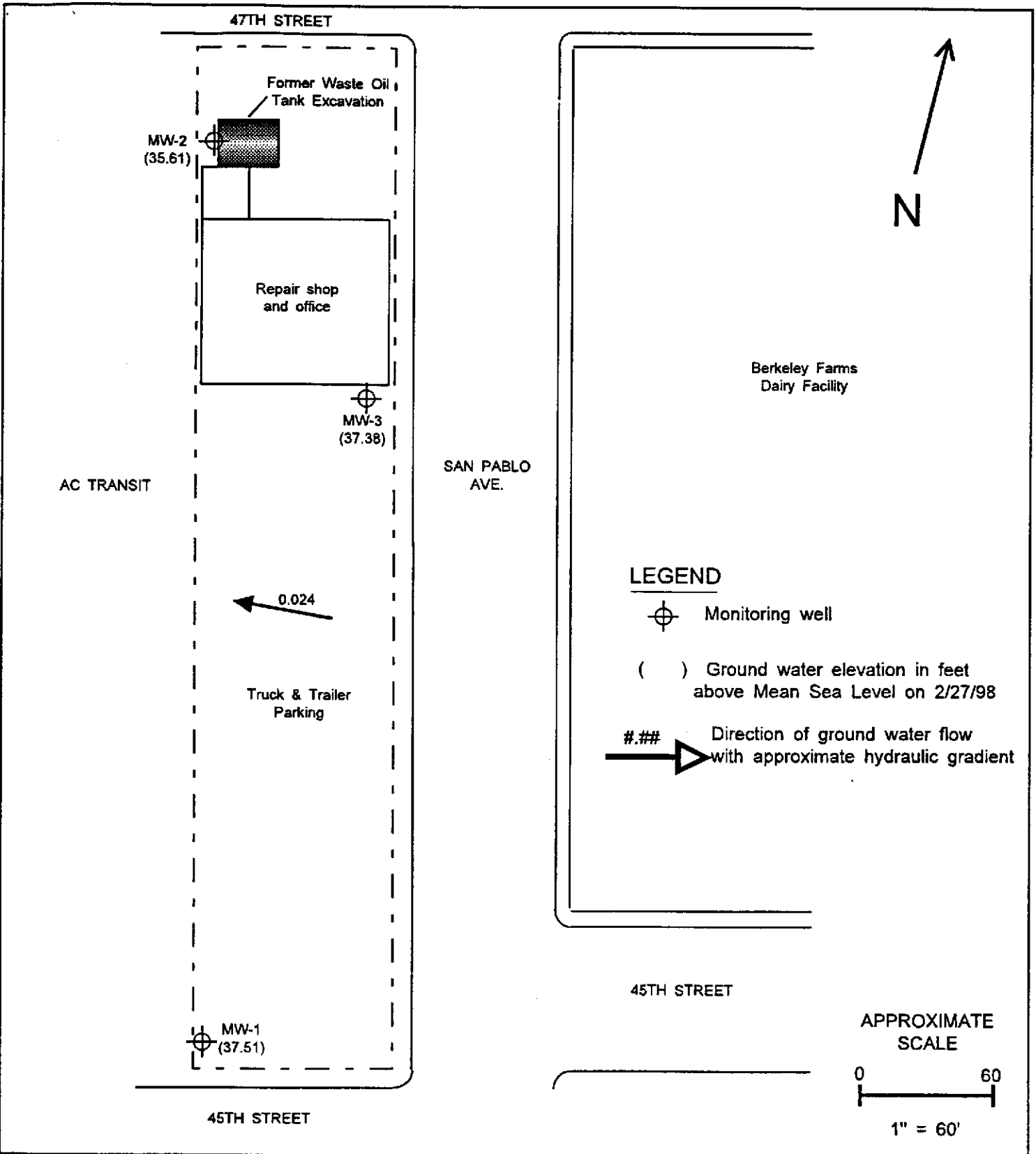
TABLE 3  
 SUMMARY OF LABORATORY ANALYSES  
 SOIL

<u>Date</u>	<u>Sample No./Depth</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
2/20/98	MW1 (4.5')	<0.1	160	<0.005	<0.005	<0.005	6.3
	MW1 (7.5')	<0.1	2,800	8.0	9.0	37	220
	MW2 (4.5')	<0.1	--	--	--	--	--
	MW2 (7.5')	<0.1	--	--	--	--	--
	MW3 (6.0')	--	20	<0.005	<0.005	<0.005	<0.005
	MW3 (8.0')	--	11	<0.005	<0.005	<0.005	<0.005
Detection Limit		0.1	0.1	0.005	0.005	0.005	0.005

<u>Date</u>	<u>Sample No./Depth</u>	<u>TRPH</u>	<u>MTBE</u>
2/20/98	MW1 (4.5')	--	<0.005
	MW1 (7.5')	--	<0.005
	MW2 (4.5')	26	--
	MW2 (7.5')	17	--
	MW3 (6.0')	--	<0.005
	MW3 (8.0')	--	<0.005
Detection Limit		5.0	0.005

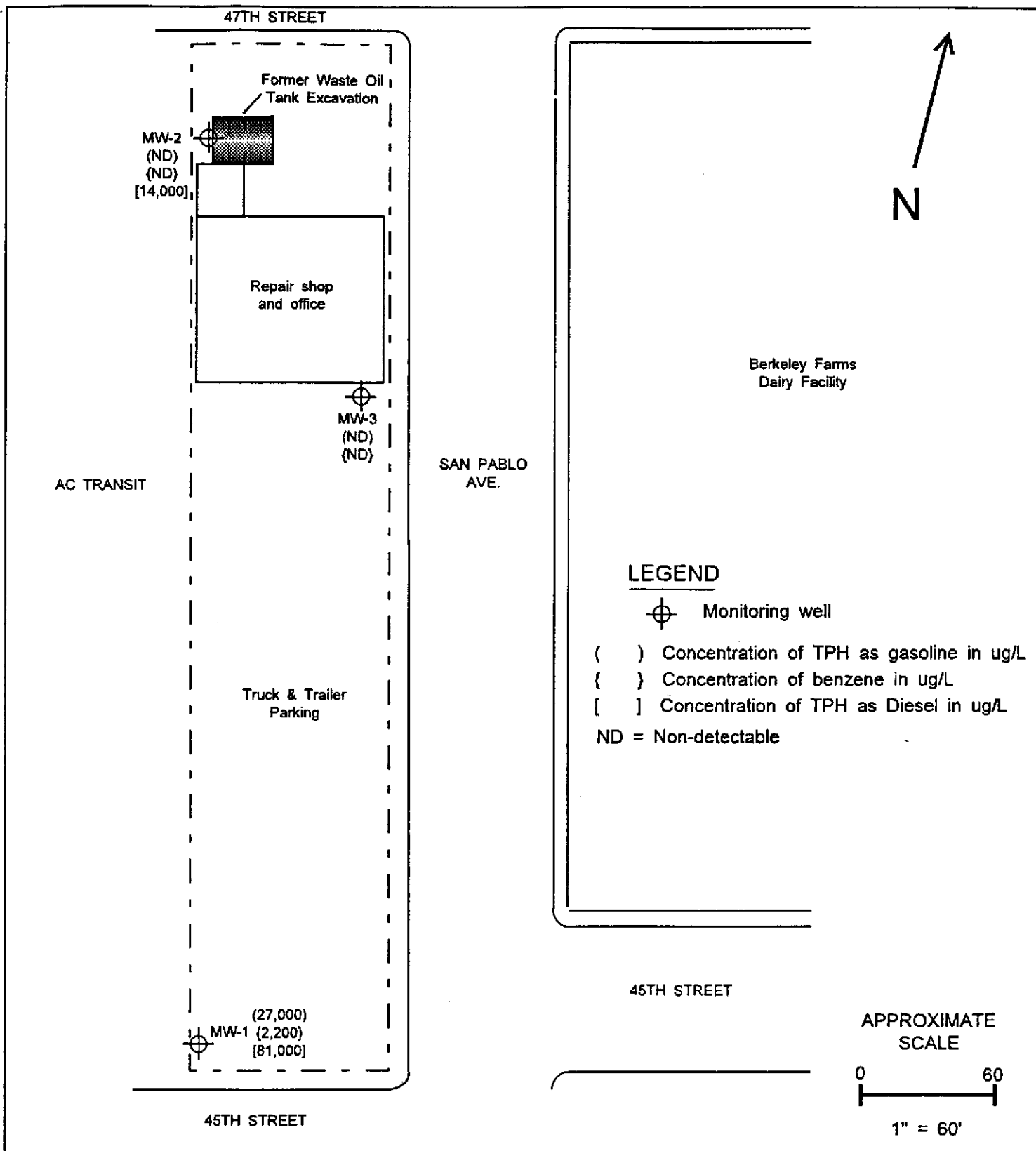
-- analyses not performed.

Results are in milligrams per kilogram (mg/kg), unless otherwise indicated.



Berkeley Farms Truck Repair Shop & Yard 4575 San Pablo Avenue Emeryville, California	Figure No: <b>1</b>	Date: March 7, 1998
		Drawn By: JG/GEO-LOGIC

# Potentiometric Surface Map



Berkeley Farms Truck Repair Shop & Yard  
 4575 San Pablo Avenue  
 Emeryville, California

Figure No:  
**2**


Date: March 7, 1998

Drawn By: JG/GEO-LOGIC

# Petroleum Hydrocarbons in Groundwater

## BORING LOG

Project No. GL-97-110.R3	Boring and casing diameter: 8", 2"	Logged By: Joel Greger
Project: Berkeley Farms Truck Shop & Yard	Well Cover Elevation: 42.35	Date drilled: 2/20/98
Boring No. MW-1	Drilling Method: Hollow Stem Auger	Drilling Company: Woodward Drilling


Penetration Blows/6" PID	G.W. level	Sample Depth (ft)	Stratigraphy (USCS)	Description
		0		8" of concrete pavement over 4" of sand and gravel base.
7/10/11 PID-0		5	ML	@ 4': brownish green clayey silt, very stiff, wet, no odor.
5/6/11 PID-0	PID-0	7	ML-CL	@ 7': Green clayey silt/silty clay, stiff, saturated, slight odor of hydrocarbons
		10		
		15		
		20		Total Depth: 17 feet Screen: 0.010 slot from 7-17 feet Sandpack: #2/12 sand from 5-17 feet Seal: Bentonite 4-5 feet, neat cement grout 0-4 feet.
		25		
		30		

Berkeley Farms Truck Shop & Yard 4575 San Pablo Avenue Emeryville, California	<b>MW1</b>	Date: February 21, 1998
		Drawn By: JG/Geo-Logic

### Boring Log and Well Completion Details

## BORING LOG

Project No. GL-97-110.R3	Boring & casing diameter: 8", 2"	Logged By: Joel Greger
Project: Berkeley Farms Truck Shop & Yard	Well Cover Elevation: 41.11	Date drilled: 2/20/98
Boring No. MW-2	Drilling Method: Hollow Stem Auger	Drilling Company: Woodward Drilling

Penetration Blows/6" PID	G.W. level	Sample Depth (ft)	Stratigraphy (USCS)	Description
		0		8" of concrete pavement over 4" of sand and gravel base.
7/8/10 PID-0		5		
57/10/14 PID-0		7	ML	@ 7': Gravelly silt with sand, brown, estimated at 30% gravel and 15% v. fine- to coarse-grained sand, saturated, very stiff, no odor (fill?).
		10		@ 12': (From cuttings) Clayey silt with sand, estimated at 15% coarse-grained sand, trace gravel, brown, stiff, no odor.
		15		
		20		Total Depth: 17 feet Screen: 0.010 slot from 5-17 feet Sandpack: #2/12 sand from 4-17 feet Seal: Bentonite 3-4 feet, neat cement grout 0-3 feet.
		25		
		30		

Berkeley Farms Truck Shop & Yard 4575 San Pablo Avenue Emeryville, California	MW2	Date: February 21, 1998 Drawn By: JG/Geo-Logic
---	-----	---

### Boring Log and Well Completion Details

## BORING LOG

Project No. GL-97-110.R3	Boring & casing diameter 8", 2"	Logged By: Joel Greger
Project: Berkeley Farms Truck Shop & Yard	Well Cover Elevation: 41.38	Date drilled: 2/20/98
Boring No. MW-3	Drilling Method: Hollow Stem Auger	Drilling Company: Woodward Drilling

Penetration Blows/6" PID	G.W. level	Sample Depth (ft)	Stratigraphy (USCS)	Description
	▽	0		8" of concrete pavement over 4" of sand and gravel base.
3/7/8		5	CL	@ 1': Brown silty clay, stiff, saturated (perched water). @ 4': very stiff, no recovery due to suction, installed sand catcher. @ 5.5': Greenish-brown silty clay, stiff, saturated no odor. @ 7': Green silty clay, stiff, saturated, black organic material and shell fragments, no odor.
3/3/5 PID-0		10		
3/4/6 PID-0		15		
		20		Total Depth: 17 feet Screen: 0.010 slot from 10-17 feet Sandpack: #2/12 sand from 5-17 feet Seal: Bentonite 4-5 feet, neat cement grout 0-4 feet.
		25		
		30		

Berkeley Farms Truck Shop & Yard 4575 San Pablo Avenue Emeryville, California	<h3 style="margin: 0;">MW3</h3>	Date: February 21, 1998 <hr/> Drawn By: JG/Geo-Logic
---	---------------------------------	---

### Boring Log and Well Completion Details

# CALCOAST ANALYTICAL

## Materials Chemistry

Certified by  
*California Department of Health Services*  
*City of Los Angeles, Dept. of Building & Safety*

March 2, 1998

Geo-Logic  
1140 - 5<sup>th</sup> Avenue  
Crockett, CA 94525

Attn: Mr. Joel Gregor

Ref: Lab File No. 0227-2A/98

### 1. SAMPLE(S):

Six (6) VOA containers and one (1) liter bottle of water from Berkeley Farms, 4575 San Pablo.

- A. MW1; two (2) VOAs.
- B. MW2; two (2) VOAs and one (1) bottle.
- C. MW3; two (2) VOAs.

Collected: February 27, 1998  
Received: February 27, 1998

### 2. ANALYSIS PERFORMED:

- A. Total Petroleum Hydrocarbons - gasoline (TPH-g) on all samples, by gas Chromatography (GC).
- B. Total Petroleum Hydrocarbons - diesel (TPH-d), on Samples A and B, by GC.
- C. Benzene, Toluene, Ethylbenzene and Xylenes (BTEX), on all samples, by G.C.
- D. Methyl-tert-butyl ether (MTBE), on all samples, by GC.
- E. Total Recoverable Petroleum Hydrocarbons (TRPH), on Sample B, by Infrared Spectroscopy (IR).

---

COATINGS • BUILDING MATERIALS • HAZARDOUS WASTE  
SPECTROSCOPY • CHROMATOGRAPHY • MICROSCOPY

---

TELEPHONE (510) 652-2979  
FAX (510) 652-3085

P.O. BOX 8702 • EMERYVILLE, CA 94662  
4072 WATTS STREET • EMERYVILLE, CA 94608

3. METHODS / PROCEDURES USED FOR ANALYSIS:

- A. EPA Method 8015; SW-846
- B. EPA Method 8015; SW-846.
- C. EPA Method 8020; SW-846.
- D. EPA Method 8020; SW-846.
- E. EPA Method 418.1; EPA-600/4-79-020.

4. RESULTS:

A. TPH-gasoline

Sample	TPH-gasoline ( $\mu\text{g/l}$ )
A. MW1	27,000
B. MW2	< 5.0 (ND)
C. MW3	< 5.0 (ND)

Method Blank / Detection Limit = < 5.0 $\mu\text{g/l}$  (none detected)  
 Mean Spike Recovery = 102%

B. TPH-diesel

Sample	TPH-diesel ( $\mu\text{g/l}$ )
A. MW1	81,000
B. MW2	14,000

Method Blank / Detection Limit = < 5.0 $\mu\text{g/l}$  (none detected)  
 Mean Spike Recovery = 109%

C. BTEX

Sample	Concentration ( $\mu\text{g/l}$ )			
	Benzene	Toluene	Ethylbenzene	Xylene
A. MW1	2,200	910	1,700	2,700
B. MW2	< 0.5 (ND)	120	460	730
C. MW3	< 0.5 (ND)	< 0.5 (ND)	< 0.5 (ND)	< 0.5 (ND)
Method Blank / Detection Limit	< 0.5 (ND)	< 0.5 (ND)	< 0.5 (ND)	< 0.5 (ND)
Mean Spike Recovery	105%	106%	90%	109%



4. RESULTS:

D. MTBE

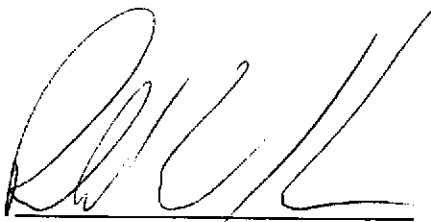
Sample	MTBE ( $\mu\text{g/l}$ )
A. MW1	< 0.5 (ND)
B. MW2	< 0.5 (ND)
C. MW3	< 0.5 (ND)

Method Blank / Detection Limit = < 0.5  $\mu\text{g/l}$  (none detected)  
Mean Spike Recovery = 92%

E. TRPH

Sample B, MW2, contained 20,000  $\mu\text{g/l}$  Total Recoverable Petroleum Hydrocarbons.

Method Blank / Detection Limit = < 500  $\mu\text{g/l}$  (none detected)  
Mean Spike Recovery = 113%



Ronald W. Shrewsbury  
Analytical Chemist

RWS:as

ALL SAMPLES SUBMITTED FOR TESTING WILL BE HELD 30 DAYS FROM REPORT DATE AT WHICH TIME THEY WILL BE RETURNED TO CLIENT OR DESTROYED. CLIENT WILL BE RESPONSIBLE FOR ALL SHIPPING, HANDLING, AND DISPOSAL CHARGES. SAMPLES WILL BE STORED UPON WRITTEN INSTRUCTIONS AND FEE ARRANGEMENTS.

This report was made at the request of and for the use only of the purchaser of said report.  
Any use of or dissemination of information contained herein or reference to Calcoast Labs, Inc. without prior written consent of Calcoast Labs, Inc. is strictly prohibited.

# Calcoast Analytical, Inc.

Date 2/27/98 Chain of Custody Page 1 of 1

MTBE

Project Information							Analysis Report																			NUMBER OF CONTAINERS
Sample ID	Type	Date	Time	Matrix	Preserve.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/ BTEX (EPA 602, 8020)	TPH - Diesel, TEPH (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524-2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)					
MW3		2/17/98		water	-	X	X																			2
MW2		↓		↓	-	X	X									X										3
MW3		↓		↓	-	X	X																			2

Project Information						Sample Receipt			Relinquished By:			1. Relinquished By:			2. Relinquished By:			3.				
Project Name <i>Berkeley Farms 4575 San Pablo</i>						Total No. of Containers			(Signature) <i>Joel G. Gregor</i>			(Signature)			(Signature)							
Project No.						Head Space			(Printed Name) <i>Joel G. Gregor</i>			(Printed Name)			(Printed Name)							
PO #						Rec'd Good Condition/Cold			(Date) <i>2/27/98</i>			(Date)			(Date)							
TAT		Standard		5-Day		24		48		72		Other		(Time)			(Time)			(Time)		
Special Instructions / Comments:									Received By: (Signature) <i>[Signature]</i>			1. Received By: (Signature)			2. Received By: (Signature)			3.				
									(Printed Name) <i>Ronald Shrewsbury</i>			(Printed Name)			(Date)			(Printed Name)				
									(Date) <i>2/27/98</i>			(Date)			(Date)			(Date)				

# CALCOAST ANALYTICAL

## Materials Chemistry

Certified by  
California Department of Health Services  
City of Los Angeles, Dept. of Building & Safety

February 24, 1998

Geo-Logic  
1140 5<sup>th</sup> Avenue  
Crockett, CA 94525

Attn: Mr. Joel Greger

Ref: Lab File #0220-1A/F-98

### 1. SAMPLE(S):

Six (6) soil cores;

Project: Berkeley Farms  
Project No.: 1095  
Samples: A. MW1 (4.5')  
B. MW1 (7.5')  
C. MW2 (4.5')  
D. MW2 (7.5')  
E. MW3 (6')  
F. MW3 (8')

*Collected: February 20, 1998 / Received: February 20, 1998*

### 2. ANALYSIS REQUIRED:

- A. Total Petroleum Hydrocarbons - gasoline (TPH-g), on Samples A, B, E and F, by Gas Chromatography (GC).
- B. Total Petroleum Hydrocarbons - diesel (TPH-d), Samples A, B, C and D, by GC.
- C. Benzene, Toluene, Ethylbenzene and Xylene (BTEX), on Samples A, B, E and F, by GC.
- D. Methyl-tert-butyl ether (MTBE), on Samples A, B, E and F, by GC.
- E. Total Recoverable Petroleum Hydrocarbons (TRPH), on Samples C and D, by Infrared Spectroscopy (IR).

---

COATINGS • BUILDING MATERIALS • HAZARDOUS WASTE  
SPECTROSCOPY • CHROMATOGRAPHY • MICROSCOPY

---

TELEPHONE (510) 652-2979  
FAX (510) 652-3085

P.O. BOX 8702 • EMERYVILLE, CA 94662  
4072 WATTS STREET • EMERYVILLE, CA 94608

3. **METHODS OF ANALYSIS:**

- A. EPA Method 8015; SW-846
- B. EPA Method 8015; SW-846
- C. EPA Method 8020; SW-846
- D. EPA Method 8020; SW-846
- E. EPA Method 418.1; EPA-600/4-79-020

4. **RESULTS:**

A. TPH - gasoline

SAMPLE	TPH - GASOLINE (mg/kg)
A. MW1 (4.5')	160
B. MW1 (7.5')	2,800
E. MW3 (6.0')	20
F. MW3 (8.0')	11

Method Blank/Detection Limit = < 0.1 mg/kg (none detected)  
 Mean Spike Recovery = 111%

B. TPH - diesel

SAMPLE	TPH - DIESEL (mg/kg)
A. MW1 (4.5')	< 0.1 (ND)
B. MW1 (7.5')	< 0.1 (ND)
C. MW2 (4.5')	< 0.1 (ND)
D. MW2 (7.5')	< 0.1 (ND)

Method Blank/Detection Limit = < 0.1 mg/kg (none detected)  
 Mean Spike Recovery = 24%

C. BTEX

SAMPLE	CONCENTRATION (mg/kg)			
	BENZENE	TOLUENE	ETHYLBENZENE	XYLENE
A. MW1 (4.5')	< 0.005 (ND)	< 0.005 (ND)	< 0.005 (ND)	6.3
B. MW1 (7.5')	8.0	9.0	37	220
E. MW3 (6.0')	< 0.005 (ND)	< 0.005 (ND)	< 0.005 (ND)	< 0.005 (ND)
F. MW3 (8.0')	< 0.005 (ND)	< 0.005 (ND)	< 0.005 (ND)	< 0.005 (ND)
Method Blank / Detection Limit	< 0.005 (ND)	< 0.005 (ND)	< 0.005 (ND)	< 0.005 (ND)
Mean Spike Recovery	108%	112%	105%	111%

4. RESULTS, Continued:

D. MTBE

SAMPLE	MTBE
A. MW1 (4.5')	< 0.005 (ND)
B. MW1 (7.5')	< 0.005 (ND)
E. MW3 (6.0')	< 0.005 (ND)
F. MW3 (8.0')	< 0.005 (ND)

Method Blank/Detection Limit = < 0.005mg/kg (none detected)  
Mean Spike Recovery = 106%

E. TRPH

SAMPLE	TRPH (mg/kg)
C. MW2 (4.5')	26
D. MW2 (7.5')	17

Method Blank/Detection Limit = < 5.0mg/kg (none detected)  
Mean Spike Recovery = 112%



Ronald W. Shrewsbury  
Analytical Chemist

RWS:mc

ALL SAMPLES SUBMITTED FOR TESTING WILL BE HELD 30 DAYS FROM REPORT DATE AT WHICH TIME THEY WILL BE RETURNED TO CLIENT OR DESTROYED. CLIENT WILL BE RESPONSIBLE FOR ALL SHIPPING, HANDLING, AND DISPOSAL CHARGES. SAMPLES WILL BE STORED UPON WRITTEN INSTRUCTIONS AND FEE ARRANGEMENTS.

This report was made at the request of and for the use only of the purchaser of said report. Any use of or dissemination of information contained herein or reference to Calcoast Labs, Inc. without prior written consent of Calcoast Labs, is strictly prohibited.

Report in ppm

# Calcoast Analytical, Inc.

Chain of Custody  
Date 2/20/98 Page 1 of 1

Proj. Mgr.: <u>Joel Greger</u>		<b>Analysis Report</b>														NUMBER OF CONTAINERS							
Company: <u>660-606R (In Paradise)</u>		TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/ BTEX (EPA 602, 8020)	TPH - Diesel, TEPH (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASENEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)		TOTAL LEAD	EXTRACTION (TCLP, STLC)					
Address: <u>P.O. B. 1836</u> <u>Santa Barbara CA</u>																							
Samples (signature) <u>Joel Greger</u>		(Phone No.) <u>(510) 7876867</u>		(Fax No.) <u>(510) 7871457</u>																			
Sample ID	Type	Date	Time	Matrix	Preserve.																		
<u>MW1 (4.5')</u>		<u>2/20/98</u>		<u>Soil</u>			X	X															
<u>MW1 (7.5')</u>		↓		↓			X	X															
<u>MW2 (4.5')</u>		↓		↓								X											
<u>MW2 (7.5')</u>		↓		↓								X											
<u>MW3 (6')</u>		↓		↓			X																
<u>MW3 (8')</u>		↓		↓			X																
<b>Project Information</b>				<b>Sample Receipt</b>				Relinquished By:				1. Relinquished By:				2. Relinquished By:				3.			
Project Name: <u>Berkley Farms</u>				Total No. of Containers				(Signature)				(Signature)				(Signature)							
Project No. <u>1095</u>				Head Space				(Printed Name)				(Printed Name)				(Printed Name)							
PO #				Rec'd Good Condition/Cold				<u>Joel Greger</u> (Printed Name) <u>2/20/98</u> (Date)				(Printed Name)				(Printed Name)							
TAT				Conforms To Record				(Date)				(Date)				(Date)							
Standard 5-Day				24 48 72 Other				(Time)				(Time)				(Time)							
Special Instructions / Comments:				Received By:				1. Received By:				2. Received By:				3.							
<u>MTBE on BTEX samples</u>				(Signature)				(Signature)				(Signature)				(Signature)							
<u>return soil samples</u>				<u>Ronald Shrewsbury</u> (Printed Name) <u>2/20/98</u> (Date)				(Printed Name)				(Printed Name)				(Printed Name)							
				<u>2:00 PM</u> (Time)				(Date)				(Date)				(Date)							