January 31, 1997

PHASE II SUBSURFACE INVESTIGATION REPORT

1353 E. 14th Street
Oakland, California

JAN 1997

Project No. 1488

Prepared For

Mr. Norman Foss
Foss Lampshade Studios, Inc.
1340 E. 12th Street
Oakland, CA 94606

Prepared by

All Environmental, Inc.
3364 Mt. Diablo Blvd.
Lafayette, CA 94549
(510) 283-6000

AEI

ALL ENVIRONMENTAL, INC.
Environmental Engineering & Construction

February 7, 1997
Project No. 1488

Mr. Norman Foss
Foss Lampshade Studios, Inc.
1340 E. 12th Street
Oakland, CA 94606

Subject: **1353 E. 14th Street, Oakland, California**

Dear Mr. Foss:

The following letter report describes the activities and results of the subsurface investigation conducted by All Environmental, Inc. (AEI) at the above referenced property. This investigation was completed in response to the Alameda County Health Care Services Agency (ACHCSA) request to investigate the above referenced property as a potential source of solvent contamination.

I Property Description

The subject property currently supports the operation of Style Center Cleaners, a dry cleaning facility. The property has reportedly contained a dry cleaning facility for the last 50 years. A closed-loop dry cleaning machine was installed approximately 5 years ago by the current tenant. The floor of the building is wooden with a two foot crawl space separating the floor from the ground. A concrete pad foundation supports the current dry cleaning machine.

A small driveway runs the length of the dry cleaning building on the south (Figure 1: Site Location Map).

On August 26, 1996, Ms. Madhulla Logan of the ACHCSA requested a soil and groundwater investigation be performed on the property to determine if the on-site dry cleaning facility was a source of solvent contamination which was found in the groundwater at an adjacent site. Solvents were present in groundwater samples collected from a well at concentrations ranging from 14 ppb to 44 ppb. The well, referred to as MW-2, was installed at the neighboring property to investigate petroleum hydrocarbon contamination at the site.

On November 7, 1996, AEI submitted a workplan for a Phase II Soil and Groundwater Investigation to determine whether or not the dry cleaning facility was the source of the solvent contamination in the groundwater. The workplan was verbally approved by Ms. Logan on December 12, 1996. A permit was obtained from the Zone 7 Water District prior to the drilling activities. The following letter report details the methods and findings of the investigation.

II Investigative Efforts

All Environmental, Inc. (AEI) performed a subsurface investigation at the property on December 13, 1996. The investigation included the advancement of five soil borings (BH-1, BH-2, BH-3, BH-4 and BH-5) using a Geoprobe drilling rig. All five soil borings were advanced to a depth of 8 feet below ground surface. The borings were placed in a 15 foot wide alley located south (downgradient) of the dry cleaning machine as shown in Figure 2. We were not able to locate borings in the upgradient location due to the presence of adjacent buildings. Dark yellowish brown silty clay was encountered in the near surface sediments during the boring advancement as described in detail in the borings logs (Attachment A).

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Manhattan Beach, CA 90266
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Fax: (310) 798-2841

Soil samples were collected at 5 foot intervals in two foot long, 7/8 inch acrylic liners. A six inch section of the sample was selected and sealed with teflon tape and plastic caps.

Groundwater was encountered at 8 feet bgs during the advancement of the borings. Grab groundwater samples were collected from borings BH-1, BH-3, BH-4 and BH-5. Groundwater was not collected from BH-2 due to the close proximity of the BH-1 water sample. The groundwater samples were collected using a clean stainless steel bailer. Water was poured from the bailer into 40 ml VOA vials and capped so that no head space or visible air bubbles were within the sample containers.

The soil and groundwater samples were labeled and placed on ice in an ice chest for transportation to McCampbell Analytical Inc. under chain of custody protocol for analysis. All soil and groundwater samples were analyzed for Purgeable Halocarbons (EPA method 8010/601).

The borings were backfilled with cement slurry as per Alameda County Health Care Services requirements.

III Findings

On December 13, 1996, the soil and groundwater samples were transported to McCampbell Analytical, Inc. for analysis. The soil samples collected from the groundwater interface at each boring, and groundwater samples from BH-1, BH-3, BH-4 and BH-5 were analyzed on December 16, 1996. Analytical results and chain of custody documents are included as Attachment B.

Concentrations of tetracholorethene (PCE) were detected within all analyzed soil samples at concentrations ranging from 8.7 ug/kg to 150 ug/kg. All other volatile halocarbons were not detected above the method detection limit. Soil sample analytical data is summarized in Table 1, below.

Table 1 - Soil Sample Analyses, December 13, 1996*

Sample Identification (Depth)	PCE ug/kg	TCE ug/kg	Chloroform ug/kg
BH-1, L3 (8')	87	ND<5.0	640
BH-2, L3, (8')	45	0.034	0.039
BH-3, L3 (8')	150	<0.005	<0.005
BH-4, L3 (8')	8.7	0.064	0.24
BH-5, L3 (8')	20	0.45	9.6

PCE = Tetrachlorethene
TCE = Trichloroethene
ug/kg = micrograms per kilogram (ppb)
* Analysis for all unlisted volatile halocarbons were not present above the method detection limit.

PCE was detected in groundwater samples collected from BH-1, BH-3, BH-4 and BH-5 at concentrations ranging from 22 ppb to 1100 ppb. Analysis of the groundwater samples collected from BH-3 and BH-5 indicated the presence of 3.0 ppb and 0.85 ppb trichloroethene (TCE), respectively. Chloroform was detected at a concentration of 4.8 ppb in the groundwater sample collected from BH-3. All other volatile halocarbons were not detected above the method detection limit. Refer to Table 2 for a summary of the groundwater analytical data.

Table 2 - Groundwater Sample Analyses, December 16, 1996*

Sample Identification (Depth)	PCE ug/L	TCE ug/L	Chloroform ug/L
BH-1 W	1100	ND<25	ND<25
BH-3 W	22	3.0	4.8
BH-4 W	220	ND<5.0	ND<10.0
BH-5 W	24	0.85	ND<5.0

PCE = Tetrachlorethene
TCE = Trichloroethene
ug/L = micrograms per liter (ppb)
* Analysis for all unlisted volatile halocarbons were not present above the method detection limit.

IV Conclusions/Recommendations/Additional Investigations

Low to moderate concentrations of solvent are present in the soil beneath the site.

PCE concentrations within the groundwater increase in magnitude in the vicinity of the current dry cleaning machine. The highest concentration of PCE detected in the groundwater was obtained from boring BH-1, drilled nearest to the present dry cleaning machine. Concentrations of PCE decrease from 1100 ppb to 24 ppb, 220 ppb and 22 ppb approximately 10 feet east, south and west of BH-1. The PCE plume appears to extend off-site in the down gradient direction. Quarterly sampling data from the adjacent site indicated that MW-2, located approximately 30 feet east of the dry cleaning machine, contained solvent at concentrations ranging from 17 ppb to 44 ppb. Solvents were not detected in groundwater from an additional well (not shown on Figure 2), located approximately 40 feet south of the dry cleaning machine on the adjacent property.

Based upon data obtained during the subsurface investigation, the historic on-site dry cleaning operation is a probable source of the solvent contamination present in the groundwater. The current dry cleaning machine in use at the site is a modern closed loop system and is an unlikely source of the solvent contamination. It is possible that a solvent release occurred during the operation of the previous dry cleaning machine. The current machine should be checked in order to confirm that the current dry cleaning operation is not a contaminant source.

Because of difficulties with access, we were unable to obtain soil or groundwater sample upgradient (north) of the dry cleaning machine. It may be possible that additional sources of solvents are located in the commercial district upgradient of the project site.

V Report Limitation

This report presents a summary of work completed by All Environmental, Inc. (AEI). The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the required information, but it cannot be assumed that they are representative of areas not sampled. All conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work.

If you have any questions regarding our investigation, please do not hesitate to contact me at (510) 283-6000.

Sincerely,

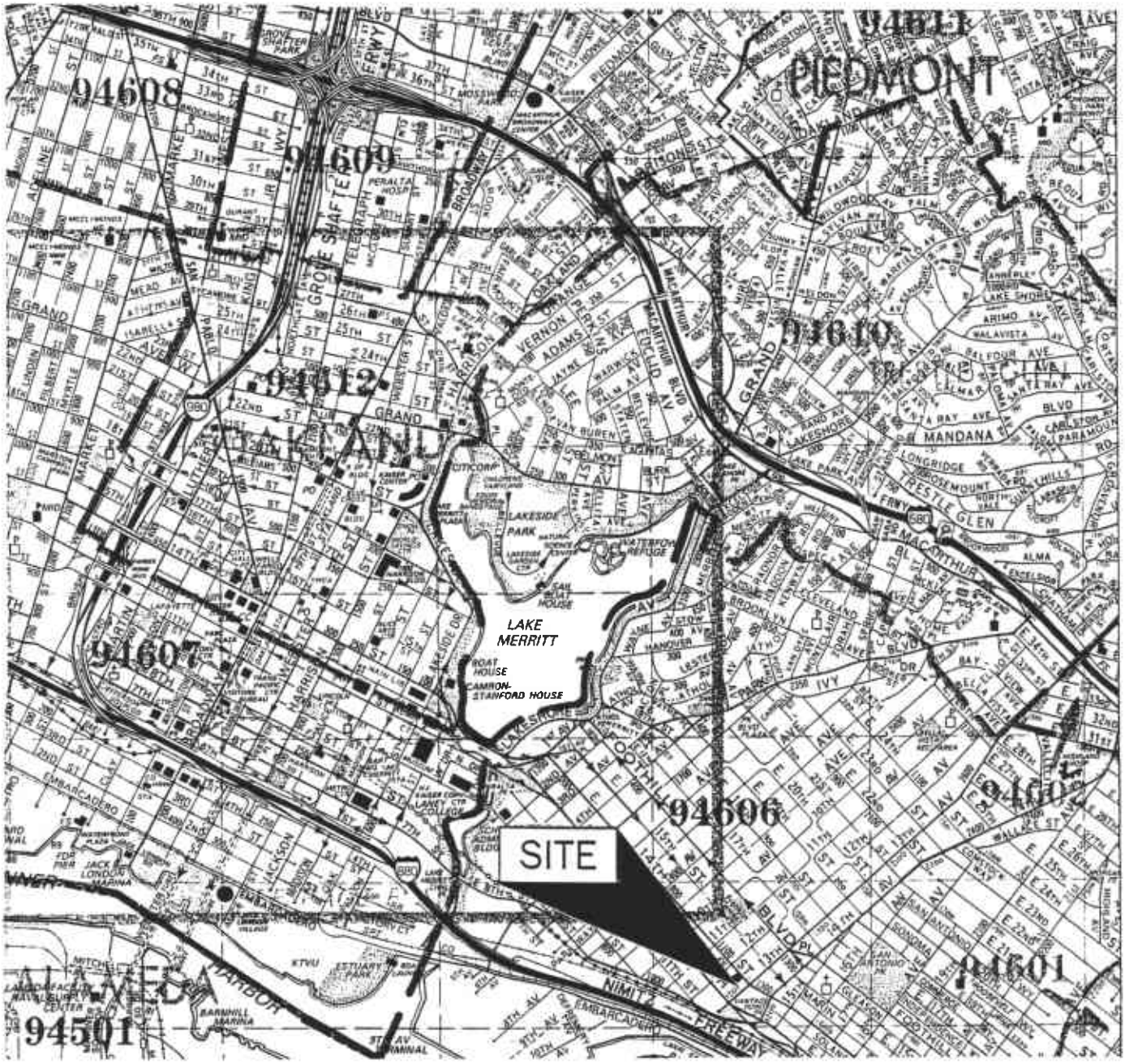
Jennifer Anderson
Project Manager

CERTIFIED ENGINEERING GEOLOGIST
MICHAEL C. CAREY
C.E.G. 1351
Exp: 10-21-98
STATE OF CALIFORNIA

Michael C. Carey
Engineering Geologist
CEG 1351

Attachment A
Attachment B

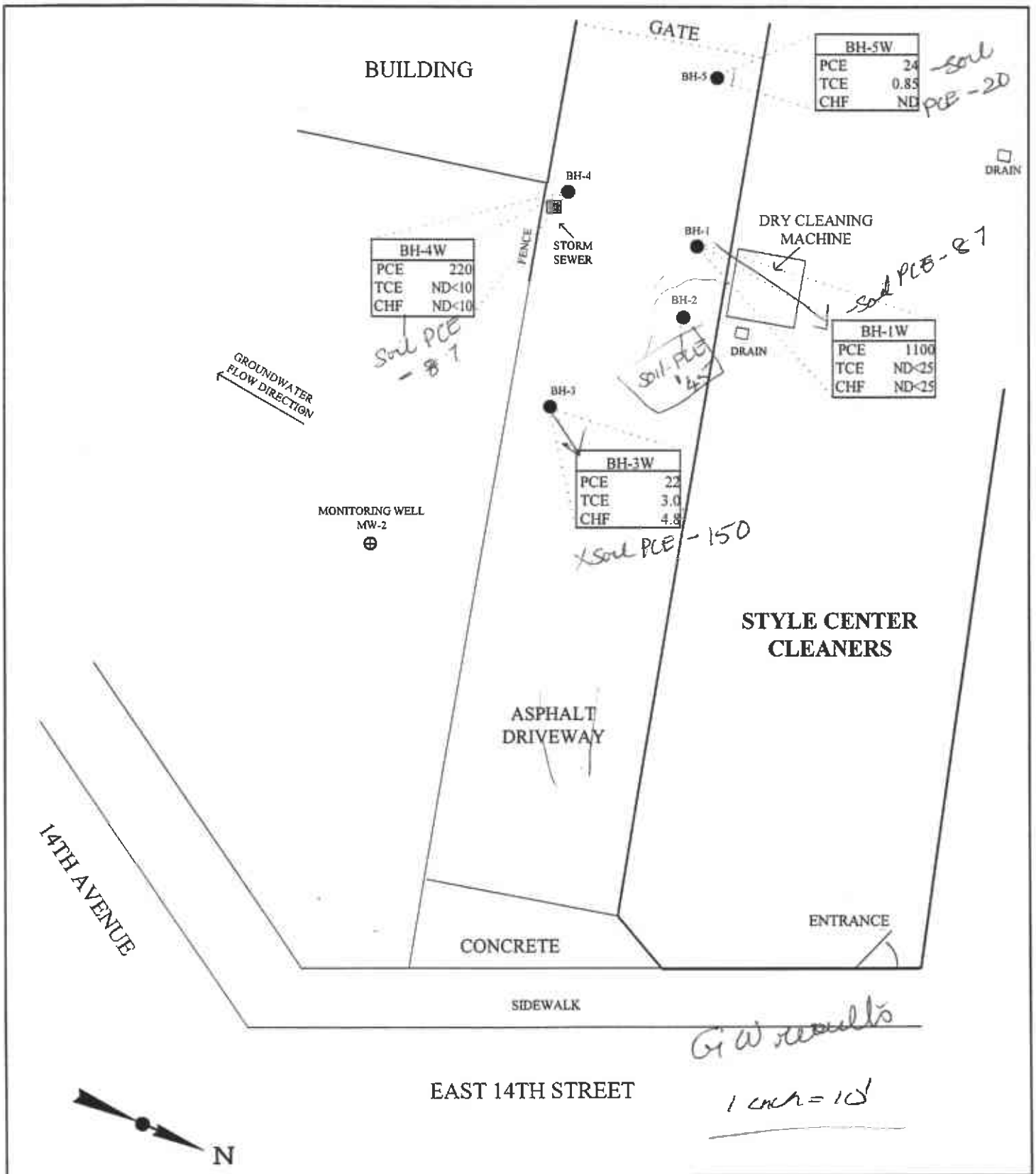
cc: Ms. Madhulla Logan



N

FROM:
THOMAS BROS. MAPS

ALL ENVIRONMENTAL, INC. 3364 MT. DIABLO BOULEVARD, LAFAYETTE		
SCALE: 1 IN = 1/4 MI	APPROVED BY:	DRAWN BY:
DATE: 6 NOVEMBER 97		REVISED:
SITE LOCATION MAP		
1353 E. 14TH STREET OAKLAND, CALIFORNIA		DRAWING NUMBER: FIGURE 1



KEY

● SOIL BORING LOCATIONS

PCE	TETRACHLOROETHANE
TCE	TETRACHLOROETHENE
CHF	CHLOROFORM

ALL RESULTS IN ug/L

ALL ENVIRONMENTAL, INC.

3364 MT. DIABLO BOULEVARD, LAFAYETTE

SCALE: 1"= 10'	APPROVED BY:	DRAWN BY: N. WALCHUK
DATE: 21 JANUARY 1997		REVISED BY: N. WALCHUK

SOIL BORING LOCATION MAP

1353 E. 14TH STREET
OAKLAND, CALIFORNIA

DRAWING NUMBER: FIGURE 2

PROJECT: FOSS - Project No. 1488	**LOG OF BOREHOLE:** BH-1
BORING LOC.: ADJACENT TO DRY CLEANING MACHINE	ELEVATION, TOC: --
DRILLING CONTRACTOR: GREGG DRILLING	START DATE: 12/13/96 / END DATE: 12/13/96
DRILLING METHOD: DIRECT PUSH	TOTAL DEPTH: 8.0'
DRILLING EQUIPMENT: RHINO DRILL RIG	DEPTH TO WATER: 8.0'
SAMPLING METHOD: 2" DRIVE SAMPLER	LOGGED BY: J.S. ANDERSON
HAMMER WEIGHT and FALL: N/A	RESPONSIBLE PROFESSIONAL: MC

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES: SAMPLE NO.	SAMPLES: INTERVAL	SAMPLES: BLOW COUNTS	COMMENTS
0	AB 4")	0.0 - 0.6; Asphalt, 3" Aggregate Base.				Continuous Core.
1						
2						
3	CL	0.6 - 8.0; Silty Clay; moderate yellowish brown 10 YR 5/4, med. stiff.	L-1			
4						
5		Same.	L-2			
6						
7						
8		Same.	L-3			▼
		Borehole terminated at 8.0 feet bgs.				
9						
10						
11						
12						
13						
14						

PROJECT: FOSS - Project No. 1488		**LOG OF BOREHOLE:** BH-2	
BORING LOC.: ADJACENT TO DRY CLEANING MACHINE		ELEVATION, TOC: --	
DRILLING CONTRACTOR: GREGG DRILLING		START DATE: 12/13/96	END DATE: 9/12/96
DRILLING METHOD: DIRECT PUSH		TOTAL DEPTH: 8.0'	
DRILLING EQUIPMENT: RHINO DRILL RIG		DEPTH TO WATER: 8.0'	
SAMPLING METHOD: 2" DRIVE SAMPLER		LOGGED BY: J.S. ANDERSON	
HAMMER WEIGHT and FALL: N/A		RESPONSIBLE PROFESSIONAL: MC	

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES: SAMPLE NO.	SAMPLES: INTERVAL	SAMPLES: BLOW COUNTS	COMMENTS
0	AB	0.0 - 0.6; Asphalt, 3" Aggregate Base.				Continuous Core.
1						
2						
3	CL	0.6 - 8.0; Silty Clay; moderate yellowish brown 10 YR 5/4, med. stiff.	L-1			
4						
5		Same.	L-2			
6						
7						
8		Same.	L-3			▼
9		Borehole terminated at 8.0 feet bgs.				
10						
11						
12						
13						
14						

PROJECT: FOSS - Project No. 1488	**LOG OF BOREHOLE:** BH-3
BORING LOC.: SOUTHEAST OF DRY CLEANING MACHINE	ELEVATION, TOC: --
DRILLING CONTRACTOR: GREGG DRILLING	START DATE: 12/13/96 END DATE: 12/13/96
DRILLING METHOD: DIRECT PUSH	TOTAL DEPTH: 8.0'
DRILLING EQUIPMENT: RHINO DRILL RIG	DEPTH TO WATER: 8.0'
SAMPLING METHOD: 2" DRIVE SAMPLER	LOGGED BY: J.S. ANDERSON
HAMMER WEIGHT and FALL: N/A	RESPONSIBLE PROFESSIONAL: MC

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES: SAMPLE NO.	SAMPLES: INTERVAL	SAMPLES: BLOW COUNTS	COMMENTS
0	AB	0.0 - 0.6; Asphalt, 3" Aggregate Base.				Continuous Core.
1						
2						
3	CL	0.6 - 8.0; Silty Clay; moderate yellowish brown 10 YR 5/4, med. stiff.	L-1			
4						
5		Same.	L-2			
6						
7						
8		Same.	L-3			▼
9		Borehole terminated at 8.0 feet bgs.				
10						
11						
12						
13						
14						

PROJECT: FOSS - Project No. 1488	**LOG OF BOREHOLE:** BH-4
BORING LOC.: SOUTH OF DRY CLEANING MACHINE	ELEVATION, TOC: --
DRILLING CONTRACTOR: GREGG DRILLING	START DATE: 12/13/96 / END DATE: 12/13/96
DRILLING METHOD: DIRECT PUSH	TOTAL DEPTH: 8.0'
DRILLING EQUIPMENT: RHINO DRILL RIG	DEPTH TO WATER: 8.0'
SAMPLING METHOD: 2" DRIVE SAMPLER	LOGGED BY: J.S. ANDERSON
HAMMER WEIGHT and FALL: N/A	RESPONSIBLE PROFESSIONAL: MC

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES: SAMPLE NO.	SAMPLES: INTERVAL	SAMPLES: BLOW COUNTS	COMMENTS
0	AB	0.0 - 0.6; Asphalt, 3" Aggregate Base.				Continuous Core.
1						
2						
3		0.6 - 8.0; Silty Clay; moderate yellowish brown 10 YR 5/4, med. stiff, gravel up to 1/8".	L-1			
4	CL					
5		Same.	L-2			
6						
7						
8		Same.	L-3			▼
9		Borehole terminated at 8.0 feet bgs.				
10						
11						
12						
13						
14						

PROJECT: FOSS - Project No. 1488	**LOG OF BOREHOLE:** BH-5
BORING LOC.: WEST OF DRY CLEANING MACHINE	ELEVATION, TOC: --
DRILLING CONTRACTOR: GREGG DRILLING	START DATE: 12/13/96 / END DATE: 9/12/96
DRILLING METHOD: DIRECT PUSH	TOTAL DEPTH: 8.0'
DRILLING EQUIPMENT: RHINO DRILL RIG	DEPTH TO WATER: 8.0'
SAMPLING METHOD: 2" DRIVE SAMPLER	LOGGED BY: J.S. ANDERSON
HAMMER WEIGHT and FALL: N/A	RESPONSIBLE PROFESSIONAL: MC

DEPTH (feet)	SOIL SYMBOLS	DESCRIPTION	SAMPLES: SAMPLE NO.	SAMPLES: INTERVAL	SAMPLES: BLOW COUNTS	COMMENTS
0	AB	0.0 - 0.6; Asphalt, 3" Aggregate Base.				Continuous Core.
1						
2						
3		0.6 - 8.0; Silty Clay; moderate yellowish brown 10 YR 5/4, med. stiff, gravel up to 1/2".	L-1			
4	CL					
5		Same.	L-2			
6						
7						
8		Same.	L-3			▼
		Borehole terminated at 8.0 feet bgs.				
9						
10						
11						
12						
13						
14						

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

All Environmental, Inc.	Client Project ID: # 1488; Foss	Date Sampled: 12/13/96
3364 Mt. Diablo Blvd.		Date Received: 12/13/96
Lafayette, CA 94549	Client Contact: Jennifer Anderson	Date Extracted: 12/16/96
	Client P.O:	Date Analyzed: 12/16/96

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	72080	72081	72082	72083
Client ID	BH3, L3-8	BH4, L3-8	BH5, L3-8	BH2, L3-8
Matrix	S	S	S	S
Compound	Concentration*			
Bromodichloromethane	ND	ND	ND	ND
Bromoform(b)	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Carbon Tetrachloride(c)	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether(d)	ND	ND	ND	ND
Chloroform (e)	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
cis 1,2-Dichloroethene	ND	ND	ND	ND
trans 1,2-Dichloroethene	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
cis 1,3-Dichloropropene	ND	ND	ND	ND
trans 1,3-Dichloropropene	ND	ND	ND	ND
Methylene Chloride(f)	ND< 15	ND< 15	ND< 15	ND< 15
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Tetrachloroethene	150	8.7	20	45
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND
Vinyl Chloride(g)	ND	ND	ND	ND
% Recovery Surrogate	94	91	94	95
Comments				

* water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg and all TCLP extracts in ug/L.

Reporting limit unless otherwise stated: water/TCLP extracts, ND< 0.5ug/L; soil and sludge, ND< 5ug/kg

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~ 5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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Tele: 510-798-1620 Fax: 510-798-1622

All Environmental, Inc. 3364 Mt. Diablo Blvd. Lafayette, CA 94549	Client Project ID: # 1488; Foss	Date Sampled: 12/13/96
		Date Received: 12/13/96
	Client Contact: Jennifer Anderson	Date Extracted: 12/16/96
	Client P.O:	Date Analyzed: 12/16/96

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	72084	72085	72086	72087
Client ID	BH1, L3-8	BH1W	BH3W	BH4W
Matrix	S	W	W	W
Compound	Concentration*			
Bromodichloromethane	ND	ND< 25	ND	ND< 10
Bromoform(b)	ND	ND< 25	ND	ND< 10
Bromomethane	ND	ND< 25	ND	ND< 10
Carbon Tetrachloride(c)	ND	ND< 25	ND	ND< 10
Chlorobenzene	ND	ND< 25	ND	ND< 10
Chloroethane	ND	ND< 25	ND	ND< 10
2-Chloroethyl Vinyl Ether(d)	ND	ND< 25	ND	ND< 10
Chloroform (e)	ND	ND< 25	4.8	ND< 10
Chloromethane	ND	ND< 25	ND	ND< 10
Dibromochloromethane	ND	ND< 25	ND	ND< 10
1,2-Dichlorobenzene	ND	ND< 25	ND	ND< 10
1,3-Dichlorobenzene	ND	ND< 25	ND	ND< 10
1,4-Dichlorobenzene	ND	ND< 25	ND	ND< 10
Dichlorodifluoromethane	ND	ND< 25	ND	ND< 10
1,1-Dichloroethane	ND	ND< 25	ND	ND< 10
1,2-Dichloroethane	ND	ND< 25	ND	ND< 10
1,1-Dichloroethene	ND	ND< 25	ND	ND< 10
cis 1,2-Dichloroethene	ND	ND< 25	ND	ND< 10
trans 1,2-Dichloroethene	ND	ND< 25	ND	ND< 10
1,2-Dichloropropane	ND	ND< 25	ND	ND< 10
cis 1,3-Dichloropropene	ND	ND< 25	ND	ND< 10
trans 1,3-Dichloropropene	ND	ND< 25	ND	ND< 10
Methylene Chloride(f)	ND< 15	ND< 25	ND	ND< 10
1,1,2,2-Tetrachloroethane	ND	ND< 25	ND	ND< 10
Tetrachloroethene	87	1100	22	220
1,1,1-Trichloroethane	ND	ND< 25	ND	ND< 10
1,1,2-Trichloroethane	ND	ND< 25	ND	ND< 10
Trichloroethene	ND	ND< 25	3.0	ND< 10
Trichlorofluoromethane	ND	ND< 25	ND	ND< 10
Vinyl Chloride(g)	ND	ND< 25	ND	ND< 10
% Recovery Surrogate	93	99	108	103
Comments			i	i

* water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg and all TCLP extracts in ug/L.

Reporting limit unless otherwise stated: water/TCLP extracts, ND< 0.5ug/L; soil and sludge, ND< 5ug/kg

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~ 5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

All Environmental, Inc.	Client Project ID: # 1488; Foss	Date Sampled: 12/13/96
3364 Mt. Diablo Blvd.		Date Received: 12/13/96
Lafayette, CA 94549	Client Contact: Jennifer Anderson	Date Extracted: 12/16/96
	Client P.O:	Date Analyzed: 12/16/96

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	72088			
Client ID	BH5W			
Matrix	W			
Compound	Concentration*			
Bromodichloromethane	ND			
Bromoform(b)	ND			
Bromomethane	ND			
Carbon Tetrachloride(c)	ND			
Chlorobenzene	ND			
Chloroethane	ND			
2-Chloroethyl Vinyl Ether(d)	ND			
Chloroform(e)	ND			
Chloromethane	ND			
Dibromochloromethane	ND			
1,2-Dichlorobenzene	ND			
1,3-Dichlorobenzene	ND			
1,4-Dichlorobenzene	ND			
Dichlorodifluoromethane	ND			
1,1-Dichloroethane	ND			
1,2-Dichloroethane	ND			
1,1-Dichloroethene	ND			
cis 1,2-Dichloroethene	ND			
trans 1,2-Dichloroethene	ND			
1,2-Dichloropropane	ND			
cis 1,3-Dichloropropene	ND			
trans 1,3-Dichloropropene	ND			
Methylene Chloride(f)	ND			
1,1,2,2-Tetrachloroethane	ND			
Tetrachloroethene	24			
1,1,1-Trichloroethane	ND			
1,1,2-Trichloroethane	ND			
Trichloroethene	0.85			
Trichlorofluoromethane	ND			
Vinyl Chloride(g)	ND			
% Recovery Surrogate	100			
Comments				

* water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg and all TCLP extracts in ug/L.

Reporting limit unless otherwise stated: water/TCLP extracts, ND< 0.5ug/L; soil and sludge, ND< 5ug/kg

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~ 5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR EPA 8010/8020/EDB

Date: 12/16/96 Matrix: Soil

Analyte	Concentration (ug/kg)				% Recovery		
	Sample (#68835)	MS	MSD	Amount Spiked	MS	MSD	RPD
1,1-DCE	0	104	94	100	104	94	10.1
Trichloroethene	0	92	86	100	92	86	6.9
EDB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	0	97	87	100	97	87	11.1
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobz (PID)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR EPA 8010/8020/EDB

Date: 12/16/96 Matrix: Water

Analyte	Concentration (ug/L) Sample (#72088)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
1,1-DCE	0.0	10.4	11.0	10.0	104	110	5.6
Trichloroethene	0.0	9.2	9.5	10.0	92	95	3.6
EDB	0.0	8.0	8.1	10.0	80	81	1.9
Chlorobenzene	0.0	9.7	9.9	10.0	97	99	2.2
Benzene	0.0	9.6	10.6	10.0	96	106	9.9
Toluene	0.0	8.9	9.8	10.0	89	98	9.6
Chlorobz (PID)	0.0	10.5	9.9	10.0	105	99	5.9

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

ALL ENVIRONMENTAL, INC.
3364 Mt. Diablo Boulevard
Lafayette, CA 94549
(510) 283-6000 FAX: (510) 283-6121

Chain of Custody

(5day)

DATE: 12/13/96 PAGE: 1 OF: 2

7189AALE112

AEI PROJECT MANAGER: Jennifer Anderson
PROJECT NAME: Foss
PROJECT NUMBER: 1488
SIGNATURE: J. Anderson
TOTAL # OF CONTAINERS: 23
RECD. GOOD COND./COLD: Y/Y

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	MATRIX	TPH-Gasoline (EPA 5030,8015)	TPH-Gasoline (EPA 5030,8015) w/ BTEX and MTBE (EPA 602,8020)	TPH-Diesel (EPA 3510/3550,8015)	PURGEABLE AROMATICS BTEX and MTBE (EPA 602,8020)	TOTAL OIL & GREASE (EPA 5520 E&F)	TOTAL LEAD (AA) (EPA 7420)	VOLATILE ORGANIC COMPOUNDS (EPA 8240)	LUFT Metals (EPA 7130,7190,7420,7520,7950)	STLC CAM 17 (EPA 1310/6010)	RCI REACTIVITY, CORROSIVITY, IGNITABILITY (Title 22, CCR 66261.21-24)	8010/601	NUMBER OF CONTAINERS
BH3, L1-3	12/13/96	905	SOIL												1
BH3, L2-5		910													1
BH3, L3-8		915												X	72080
BH4, L1-3		930													1
BH4, L2-5		935													1
BH4, L3-8		940												X	72081
BH5, L1-3		945													1
BH5, L2-5		947													1
BH5, L3-8		950												X	72082
BH2, L-1,3		1008													1
BH2, L-2,5		1005												X	72083
BH2, L-3,8		1007													1
BH1, L1,3		1105													1
BH1, L2-5		1107													1
BH1, L3-8		1110												X	72084

ANALYTICAL LAB:
ADDRESS:
PHONE: ( ) - FAX: ( ) -
INSTRUCTIONS/COMMENTS:

RELINQUISHED BY: 1	RECEIVED BY: 1	RELINQUISHED BY: 2	RE
Signature: J. Anderson	Signature: Heidi Ricca	Signature:	Signature:
Printed Name: Jennifer Anderson	Printed Name: H. Ricca	Printed Name:	Printed Name:
Company: AEI	Company: MAI	Company:	Company:
Time: 1755 Date: 12/13/96	Time: 18:00 Date: 12/13/96	Time: Date:	Time: Date:

ALL ENVIRONMENTAL, INC.
3364 Mt. Diablo Boulevard
Lafayette, CA 94549
(510) 283-6000 FAX: (510) 283-6121

Chain of Custody

(5 day)

DATE: 12/13/96 PAGE: 2 OF: 2

7789AALE12

AEI PROJECT MANAGER: Jennifer Anderson
PROJECT NAME: FOSS
PROJECT NUMBER: 1488
SIGNATURE: J. Anderson
TOTAL # OF CONTAINERS: 23
RECD. GOOD COND./COLD: YES

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	MATRIX	TPH-Gasoline (EPA 5030/8015)	TPH-Gasoline (EPA 5030/8015) w/ BTEX and MTBE (EPA 602/8020)	TPH-Diesel (EPA 3510/3550/8015)	PURGEABLE AROMATICS BTEX and MTBE (EPA 602/8020)	TOTAL OIL & GREASE (EPA 5520 E&F)	TOTAL LEAD (AA) (EPA 7420)	VOLATILE ORGANIC COMPOUNDS (EPA 8240)	LUFT Metals (EPA 7130/7190/7490/7520/7950)	STLC CAM 17 (EPA 1310/6010)	RCI REACTIVITY: CORROSIVITY: IGNITABILITY (Title 22, CCR 66261.21-4)	8010/601		NUMBER OF CONTAINERS
BH1W	12/13/96		WATER											X		2
BH3W														X		2
BH4W														X		2
BH5W														X		2

72085
72086
72087
72088

ANALYTICAL LAB:	RELINQUISHED BY: 1	RECEIVED BY: 1	RELINQUISHED BY: 2	RECEIVED BY: 2
ADDRESS:	Signature: J. Anderson	Signature: Heidi Rican	Signature:	Signature:
PHONE: ( ) - FAX: ( ) -	Printed Name: Jennifer Anderson	Printed Name: H. Ricca	Printed Name:	Printed Name:
INSTRUCTIONS/COMMENTS:	Company: AEI	Company: MAI	Company:	Company:
	Time: 1755 Date: 12/13/96	Time: 18 00 Date: 12/13/96	Time: Date:	Time: Date: