ALL ENVIRONMENTAL, INC.
Environmental Engineering & Construction

May 5, 1999

Eva Chew
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: **Phase II Subsurface Investigation**
5865 Broadway Terrace
Oakland, California
Project No. 3177

Dear Mr. Gilmore:

Enclosed is a copy of the Phase II Subsurface Investigation report for the work performed at the above referenced property.

Please contact me at (925) 283-6000 if you have any questions.

Sincerely,
ALL ENVIRONMENTAL, INC.

Peter McIntyre
Project Geologist

Corporate Headquarters:
901 Moraga Road, Suite C
Lafayette, CA 94549-4567
Phone : (925) 283-6000
Fax: (925) 283-6121

(800) 801-3224
www.all-environmental.com

Los Angeles Office:
2309 Pacific Coast Hwy, Suite 206
Hermosa Beach, CA 90254-2753
Phone: (310) 798-4255
Fax: (310) 798-2841

May 5, 1999

PHASE II
SUBSURFACE INVESTIGATION

5865 Broadway Terrace
Oakland, California

Project No. 3177

Prepared For

Mike Gilmore
123 Scenic Drive
Oakland, CA 94563

Prepared By

All Environmental, Inc.
901 Moraga Road, Suite C
Lafayette, CA 94549
(800) 801-3224

AEI

ALL ENVIRONMENTAL, INC.
Environmental Engineering & Construction

May 5, 1999

Mike Gilmore
123 Scenic Drive
Oakland, CA 94563

Subject: **Phase II Subsurface Investigation**
5865 Broadway Terrace
Oakland, California
Project No. 3177

Dear Mr. Gilmore:

The following letter report describes the activities and results of the subsurface investigation performed by All Environmental, Inc. (AEI) at the above referenced property (Figure 1: Site Location Map). The investigation included the advancement of five shallow borings in the vicinity of three former underground storage tanks and associated piping and dispenser systems. This investigation was designed to assess the extent of impacted soil identified during the tank removal activities and determine whether groundwater had been impacted by the identified hydrocarbon release.

I Background

The property is located in a residential area of the City of Oakland and currently supports the operation of C.A.R. Service, an automobile repair facility. In October 1998, one 7,500 gasoline underground storage tank (UST), one 3,000 gallon gasoline UST, and one 250 gallon waste oil UST along with the associated piping and dispensers were removed from the property. According to the owner of the property, Mr. Gilmore, no indication of any tank or piping failure was observed during the removal activities. According to Mr. Gilmore, impacted soil observed appeared to be associated with the fill pipe areas of the gasoline USTs and was a likely a result of spillage during tank filling activities. The excavation was backfilled with the stockpilled soil and imported fill. Please refer to Figure 2 for the former locations of the tanks and dispensers.

Soil samples were collected from 13 to 14 feet below ground surface (bgs) beneath the gasoline USTs. Analytical results of these samples indicated that soil was impacted with up to 3,800 mg/kg of total petroleum hydrocarbons (TPH) as gasoline, 2 mg/kg of benzene, and 11 mg/kg of MTBE. A soil sample analyzed from 7 feet bgs from beneath the waste oil tank was impacted with 2 mg/kg of TPH as gasoline. Groundwater was not encountered during the tank removal activities.

Based on the evidence that an unauthorized release of petroleum hydrocarbons had occurred, the Alameda County Health Care Services Agency (ACHCSA) requested further investigation to define the extent of impacted soil and determine whether groundwater beneath the site had been impacted. A workplan was prepared and submitted to the ACHCSA by Subsurface Consultants, Inc., (SCI) to investigate the release. This workplan was approved by Eva Chew of the ACHCSA.

II Investigative Efforts

All Environmental, Inc. (AEI) performed a subsurface investigation at the property on April 5, 1999. AEI performed the scope of work presented in the workplan prepared by SCI. The locations of the borings were chosen in the field under the guidance of Eva Chew. A total of five soil borings (AEI-1 through AEI-5) were advanced. Two of the borings, AEI-1 and AEI-2, were advanced in the locations of each of two former product dispensers. The three other borings were advanced around the backfilled excavation. The locations of the soil borings are shown on Figure 2.

The near surface native soil encountered during the drilling activities generally consisted of silty sand and clay. Refer to Attachment A for detailed logs of the borings. Based on local topography, groundwater flow direction is estimated to be to the west.

Soil Sample Collection

The borings were advanced with a truck-mounted Geoprobe drilling rig to a depth of 6 feet bgs in the locations of the dispensers and to between 12 and 16 feet in the other three locations. Refusal conditions were encountered at 15 feet and 12 feet bgs during the advancement of AEI-4 and AEI-5, respectively. Soil samples were collected from AEI-1 and AEI-2 at 3 and 5 feet bgs. In the other three borings, soil samples were collected at 5-foot intervals beginning at 5 feet bgs.

A strong hydrocarbon odor was observed during the advancement of AEI-4. The soil samples were screened in the field using a photo-ionizing detector (PID). The soil screening data is presented on the borings logs (Attachment A). Soil samples were collected in 4-foot long, 2-inch acrylic liners, from which a six inch sample was chosen. The soil samples were sealed with teflon tape and plastic caps and placed in a cooler with wet ice to await transportation to the laboratory.

Groundwater Sample Collection

Groundwater was encountered at 14 feet bgs during the advancement of boring AEI-3. Groundwater was not encountered in the other borings. A screened interval of the direct push rods was inserted into the boring and exposed below the water table. A groundwater sample was collected using a drop tube inserted through the push rods. Water was collected into 1-liter amber bottles and 40-mL VOA vials. The groundwater samples were capped so that there was

no head space or visible air bubbles within the vials, then placed in a cooler with wet ice to await transportation to the laboratory.

Following sample collection, each boring was backfilled with cement grout.

Laboratory Analysis

On April 5, 1999, the soil samples were transported to McCampbell Analytical Inc. (DOHS Certification Number 1644) under chain of custody protocol for analysis. Analytical results and chain of custody documents are included as Attachment B.

One soil sample was analyzed from each dispenser location. Two soil samples were analyzed from each of the other three borings. One groundwater sample collected from AEI-3 was analyzed. The soil samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl tertiary butyl ether (MTBE). One soil sample was also analyzed for Polynuclear Aromatic Hydrocarbons (PAHs) by EPA method 8270. The water sample was analyzed for TPH as gasoline and Volatile Organic Compounds by EPA method 8260. At the request of the ACHCSA, the soil sample with the highest level of MTBE detected during the initial analysis was also reanalyzed for fuel oxygenates only by EPA method 8260, as was the groundwater sample.

The remaining soil samples were placed on hold at the laboratory.

III Findings

TPH as gasoline and MTBE were detected in AEI-4 10' at 19 mg/kg and 930 µg/kg (.93 mg/kg), respectively. No significant levels of BTEX or TPH as diesel were detected in any of the soil samples analyzed.

MTBE and tert-Amyl Methyl Ether (TAME) were detected in the groundwater sample at 72 µg/L and 11 µg/L, respectively. TPH as gasoline, BTEX and VOCs were not detected in the water sample analyzed.

Results of the analytical testing are summarized in Table 1.

IV Conclusions and Recommendations

Soil samples analyzed during this investigation did not indicate extensive impacted soil associated with the former USTs. However, significant concentrations of petroleum hydrocarbons were detected in soil samples collected from beneath the former USTs during the tank removal activities. No concentrations of TPH as gasoline or BTEX were detected in the groundwater sample however MTBE was detected at 72 µg/L in the water sample. The soil stockpiled during the tank removal activities was returned to the excavation. Based on this

investigation, it appears that impacted soil is localized to beneath the former tank locations. AEI recommends that if new USTs are installed in the location of the former excavation, the newly excavated soil be analyzed prior to reuse or for treatment and disposal, if necessary.

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.

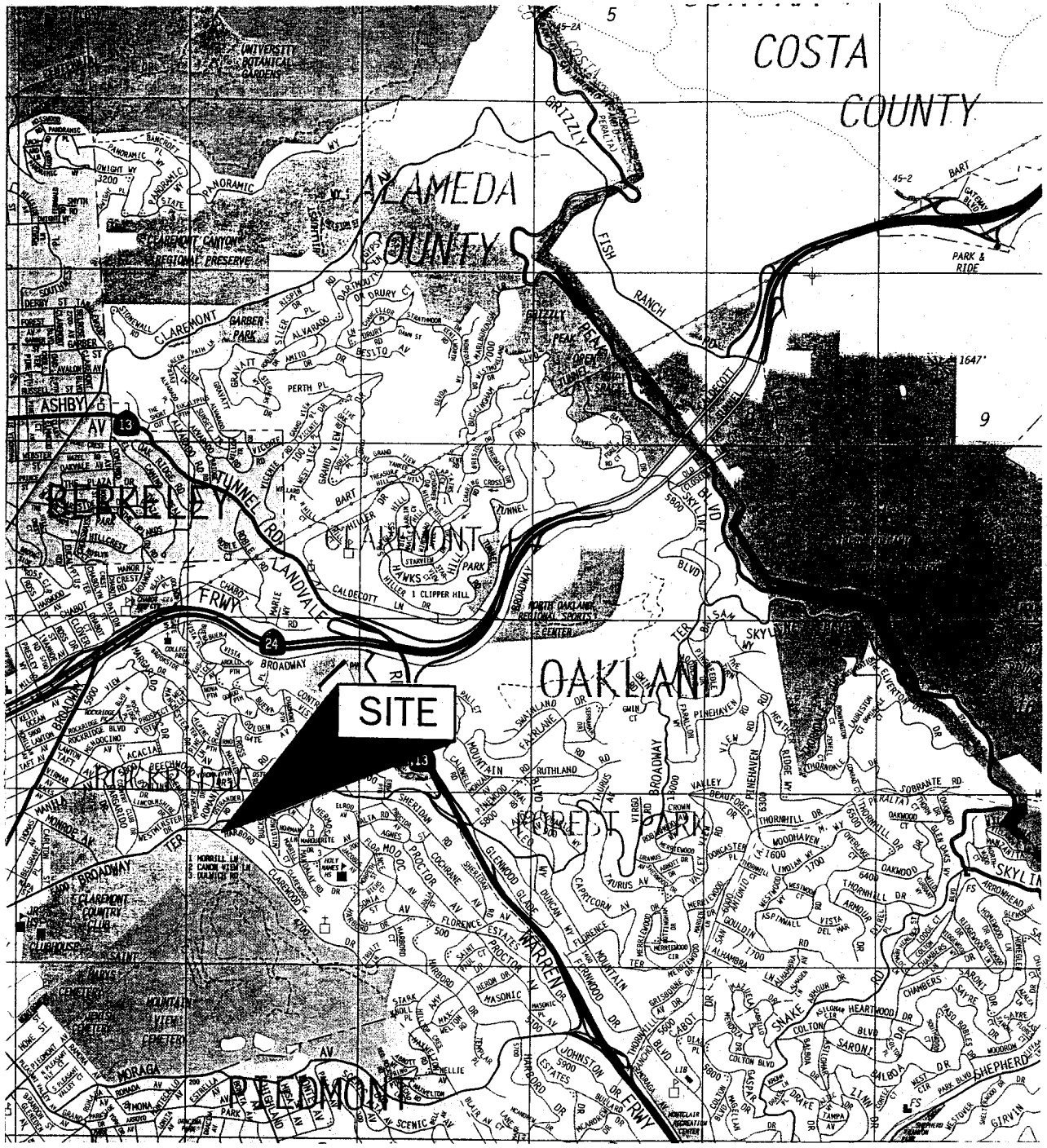
Sincerely,

Peter McIntyre
Project Geologist

Joseph P. Derhake, PE, CAC
Principal

Figures
Tables
Attachment A: Soil Boring Logs
Attachment B: Sample Analytical Documentation

cc. **Eva Chew, Alameda County Health Care Services Agency**
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502



SOURCE:
THOMAS GUIDE
1997 EDITION
SCALE: 1in = 2,400 ft.

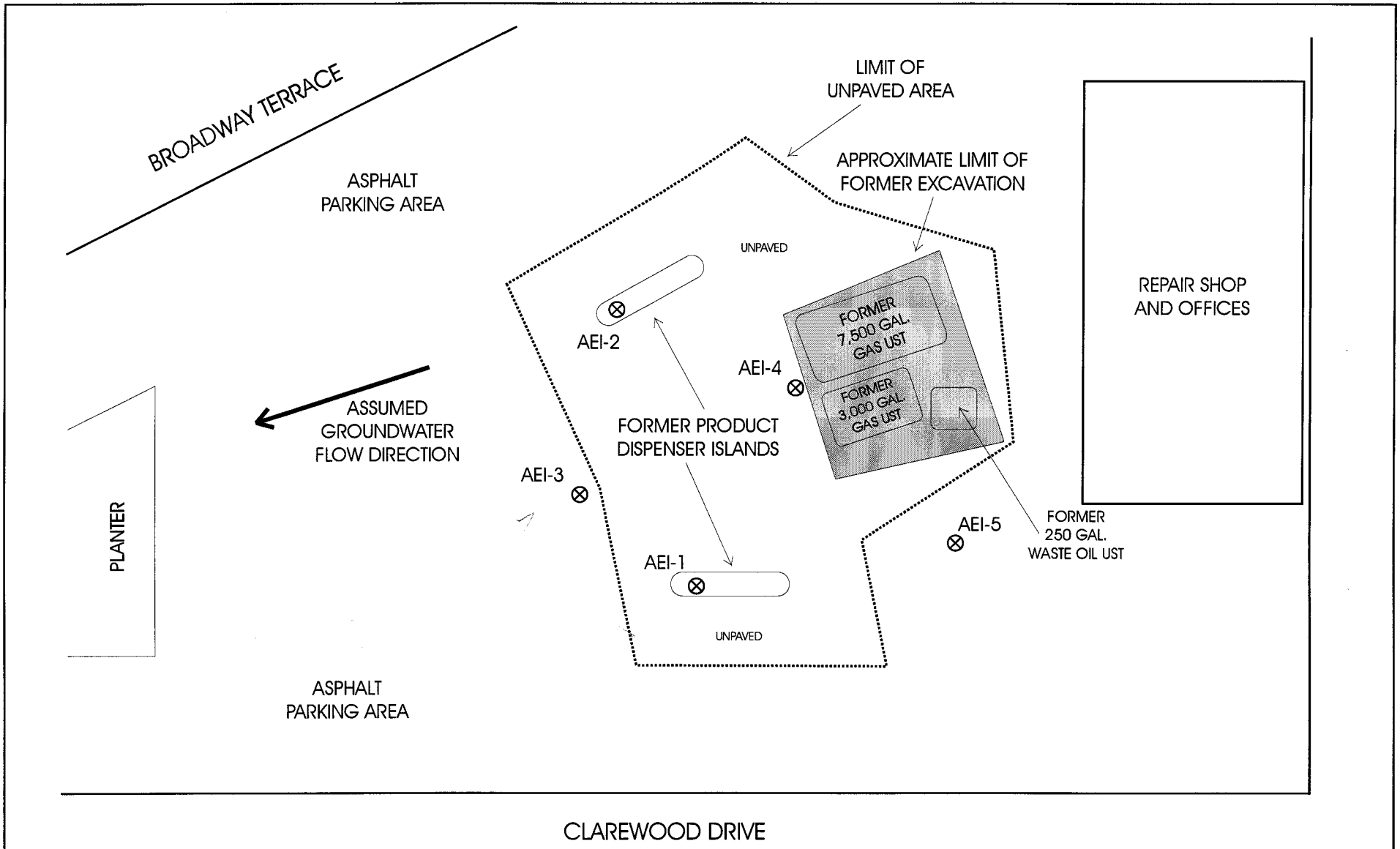
ALL ENVIRONMENTAL, INC.

901 MORAGA ROAD, SUITE C, LAFAYETTE, CA

SITE LOCATION MAP

5865 BROADWAY TERRACE
OAKLAND, CALIFORNIA

FIGURE 1



ALL ENVIRONMENTAL, INC.

901 MORAGA ROAD, SUITE C, LAFAYETTE, CA

SITE PLAN

5865 BROADWAY TERRACE
OAKLAND, CALIFORNIA

FIGURE 2

⊗ AEI-1 SOIL BORING LOCATIONS AND IDENTIFICATION

0 10 20

SCALE: 1in. = 16 ft.

N

Table 1:
Soil Sample Analytical Results
April 5, 1999

Sample ID	TPH as gasoline mg/kg	TPH as diesel mg/kg	Fuel Oxygenates by EPA 8260					Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes mg/kg	PAHs* mg/kg
			DIPE µg/kg	ETBE µg/kg	MTBE µg/kg	TAME µg/kg	t-Butanol µg/kg					
AEI-1 3'	<1.0	<1.0	-	-	<50	-	-	<0.005	<0.005	<0.005	<0.005	-
AEI-2 3'	<1.0	<1.0	-	-	<50	-	-	<0.005	<0.005	<0.005	<0.005	-
AEI-3 5'	<1.0	<1.0	-	-	<50	-	-	<0.005	<0.005	<0.005	<0.005	-
AEI-3 10'	<1.0	<1.0	-	-	<50	-	-	<0.005	<0.005	<0.005	<0.005	-
AEI-4 10'	**19**	**9.2**	<50	<50	**930**	<50	<250	**0.18**	**0.076**	**0.15**	**0.45**	<0.33
AEI-4 15'	<1.0	<1.0	-	-	**130**	-	-	<0.005	**0.011**	<0.005	**0.007**	-
AEI-5 5'	<1.0	**6.8**	-	-	<50	-	-	<0.005	<0.005	<0.005	<0.005	-
AEI-5 9'	<1.0	<1.0	-	-	<50	-	-	<0.005	<0.005	<0.005	<0.005	-
MDL	1.0	1.0	50	50	50	50	250	0.005	0.005	0.005	0.005	0.33

MDL = Method Detection Limit

ND = Not detected above the Method Detection Limit (unless otherwise noted)

ug/kg = micrograms per kilogram (ppb)

mg/kg = milligrams per kilogram (ppm)

- Not Analyzed

* - All Polynuclear Aromatic Hydrocarbons (PAH) by EPA method 8270 were not detected above the MDL

Table 2:
Groundwater Sample Analytical Results
April 5, 1999

Sample ID	TPH as gasoline µg/L	Fuel Oxygenates by EPA 8260					Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	VOCs* µg/L
		DIPE µg/L	ETBE µg/L	MTBE µg/L	TAME µg/L	t-Butanol µg/L					
AEI-3 W	<50	<1.0	<1.0	**72**	**11**	<5.0	<0.5	<0.5	<0.5	<0.5	<1.0
MDL	50	1.0	1.0	1.0	1.0	5.0	0.5	0.5	0.5	0.5	1.0

MDL = Method Detection Limit

ND = Not detected above the Method Detection Limit (unless otherwise noted)

µg/L = micrograms per liter (ppb)

mg/L = milligrams per liter (ppm)

* - All Volatile Organic Compounds (VOC) analyzed by EPA method 8260 were not detected above the MDL

ATTACHMENT A

SOIL BORING LOGS

Project No: 3177

Sheet: 1 of 1

Project Name: Broadway Terrace

Client: Mike Gilmore

Location: South Dispenser

Log of Borehole: AEI-1

Depth (ft / m)	Soil Symbol	Subsurface Description	Sample Data: Sample Label	Type	Blow Counts/	Recovery	Well Data	Remarks
0 / 0		Ground Surface						Discrete sampling
2		***SAND*** Fine sand with minor silt and gravel	AEI-1 3'	SS	NA	60		Slight product odor PID = 0.0 ppm
5		Clay increasing	AEI-1 5'	SS	NA	60		PID = 3 ppm
6 / 2		End of Borehole						
1								
3								
4								
7								
8								
9								
10 / 3								
11								
12								
13 / 4								
14								
15								
16 / 5								
17								
18								
19								
20 / 6								

Drill Date 4/5/99

Drill Method: Direct Push

Total Depth: 6

Depth to Water: NA

Reviewed by: JPD

Logged by: PJM

All Environmental, Inc.
901 Moraga Road, Suite C
Lafayette, CA 94549
(800) 801-3224

Project No: 3177

Sheet: 1 of 1

Project Name: Broadway Terrace

Client: Mike Gilmore

Location: North Dispenser

Log of Borehole: AEI-2

Depth (ft)	Depth (m)	Soil Symbol	Subsurface Description	Sample Data: Sample Label	Sample Data: Type	Sample Data: Blow Counts/	Sample Data: Recovery	Well Data	Remarks
0	0		Ground Surface						Discrete sampling
2									No product odor
3	1		***SAND*** Fine silty sand with minor silt and gravel up to 1 cm	AEI-2 3'	SS	NA	60		PID = 5 ppm
5			Minor clay	AEI-2 5'	SS	NA	90		PID = 0 ppm
6	2		End of Borehole						
10	3								
13	4								
16	5								
20	6								

Drill Date 4/5/99

Drill Method: Direct Push

Total Depth: 6

Depth to Water: NA

Reviewed by: JPD

Logged by: PJM

All Environmental, Inc.
901 Moraga Road, Suite C
Lafayette, CA 94549
(800) 801-3224

Project No: 3177

Sheet: 1 of 1

Project Name: Broadway Terrace

Client: Mike Gilmore

Location: West of excavation

Log of Borehole: AEI-3

Depth (ft)	Depth (m)	Soil Symbol	Subsurface Description	Sample Data: Sample Label	Sample Data: Type	Sample Data: Blow Counts/	Sample Data: Recovery	Well Data	Remarks
0	0		Ground Surface						
0–1	0		***PEA GRAVEL AND SAND FILL***						Continuous coring
1–5	0–1		***SAND*** Silty sand with minor clay and gravel up to 1 cm						PID = 8 ppm
5	1			AEI-3 5'	SS	NA	-		
5–13	1–4		***CLAY*** Clay with silt and sand and 10% gravels up to 3 cm, damp						PID = 6 ppm No product odor PID = 6 ppm
10	3			AEI-3 10'	SS	NA	-		Static Water Level at 10 feet bgs
13	4		Saturated	AEI-3 13'	SS	NA	-	▼	No product odor Initial Water Level
13–16	4–5		***SILT*** Silt with sand and clasts up to 1.5 cm, saturated						
16	5		End of Borehole						
17–20	5–6								

Drill Date 4/5/99

Drill Method: Direct Push

Total Depth: 16

Depth to Water: 13

Reviewed by: JPD

Logged by: PJM

All Environmental, Inc.
901 Moraga Road, Suite C
Lafayette, CA 94549
(800) 801-3224

Project No: 3177

Sheet: 1 of 1

Project Name: Broadway Terrace

Client: Mike Gilmore

Location: Near former USTs

Log of Borehole: AEI-4

Depth (ft / m)	Soil Symbol	Subsurface Description	Sample Data: Sample Label	Type	Blow Counts/	Recovery	Well Data	Remarks
0 / 0		Ground Surface						
0		***PEA GRAVEL AND SAND FILL***						Continuous coring
1								
2								
3 / 1		***SAND*** Sand with silt and angular clasts up to 2 cm						PID Malfunction
4								
5			AEI-4 5'	SS	NA	-		
6		***SAND and CLAY*** Interbedded sand and clay with angular clasts up to 2 cm						~~Strong Hydrocarbon Odor~~
7 / 2								
8								
9								~~Strong Hydrocarbon Odor~~
10 / 3			AEI-4 10'	SS	NA	-		
11		Sand decreasing						
12								
13 / 4								~~Strong~~ Hydrocarbon Odor
14		Angular clasts > 50%						No Groundwater Generated
15			AEI-4 15'	SS	NA	-		~~Refusal Encountered~~
		End of Borehole						
16 / 5								
17								
18								
19								
20 / 6								

Drill Date 4/5/99

Drill Method: Direct Push

Total Depth: 15

Depth to Water: NA

Reviewed by: JPD

Logged by: PJM

All Environmental, Inc.
901 Moraga Road, Suite C
Lafayette, CA 94549
(800) 801-3224

Project No: 3177

Sheet: 1 of 1

Project Name: Broadway Terrace

Client: Mike Gilmore

Location: South of Excavation

Log of Borehole: AEI-5

Depth (ft)	Depth (m)	Soil Symbol	Subsurface Description	Sample Data: Sample Label	Sample Data: Type	Sample Data: Blow Counts/	Sample Data: Recovery	Well Data	Remarks
0	0		Ground Surface						
1			***ASPHALT and FILL***						Continuous coring
2			***SAND*** Coarse sand with clay and coarse gravel up to 3 cm, loose						
3	1								PID Malfunction
4									
5				AEI-5 5'	SS	NA	-		
6									No Hydrocarbon Odor
7	2								
8									No Hydrocarbbon Odor
9			Sand decreasing	AEI-5 9'	SS	NA	-		
10	3		Clay increasing						
11			***CLAY*** Sandy clay with angular clasts, wet						Wet sample, no significant water generated
12			End of Borehole						Refusal Encountered
13	4								
14									
15									
16	5								
17									
18									
19									
20	6								

Drill Date 4/5/99

Drill Method: Direct Push

Total Depth: 11.5

Depth to Water: NA

Reviewed by: JPD

Logged by: PJM

All Environmental, Inc.
901 Moraga Road, Suite C
Lafayette, CA 94549
(800) 801-3224

ATTACHMENT B

SAMPLE ANALYTICAL DOCUMENTATION

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549	Client Project ID: #3177; Broadway	Date Sampled: 04/05/99
		Date Received: 04/05/99
	Client Contact: Peter McIntyre	Date Extracted: 04/05/99
	Client P.O:	Date Analyzed: 04/05/99

04/12/99

Dear Peter:

Enclosed are:

1). the results of **9** samples from your **#3177; Broadway** project,

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID: #3177; Broadway	Date Sampled: 04/05/99
901 Moraga Road, Suite C		Date Received: 04/05/99
Lafayette, CA 94549	Client Contact: Peter McIntyre	Date Extracted: 04/05-04/14/99
	Client P.O:	Date Analyzed: 04/06-04/14/99

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
08639	AEI-1 3'	S	ND	0.16	ND	ND	ND	ND	99
08641	AEI-2 3'	S	ND	ND	ND	ND	ND	ND	96
08643	AEI-3 5'	S	ND	ND	ND	ND	ND	ND	94
08644	AEI-3 10'	S	ND	ND	ND	ND	ND	ND	99
08647	AEI-4 10'	S	19,a	2.1	0.18	0.076	0.15	0.45	108
08648	AEI-4 15'	S	ND	0.13	ND	0.011	ND	0.007	102
08649	AEI-5 5'	S	ND	ND	ND	ND	ND	ND	96
08650	AEI-5 9'	S	ND	ND	ND	ND	ND	ND	94
08651	AEI-3 W	W	ND,i	80	ND	ND	ND	ND	107
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

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

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549	Client Project ID: #3177; Broadway	Date Sampled: 04/05/99
		Date Received: 04/05/99
	Client Contact: Peter McIntyre	Date Extracted: 04/05/99
	Client P.O:	Date Analyzed: 04/07-04/12/99

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
08639	AEI-1 3'	S	ND	94
08641	AEI-2 3'	S	ND	94
08643	AEI-3 5'	S	ND	100
08644	AEI-3 10'	S	ND	103
08647	AEI-4 10'	S	9.2,d,g	101
08648	AEI-4 15'	S	ND	98
08649	AEI-5 5'	S	6.8,g	103
08650	AEI-5 9'	S	ND	97
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) 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 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID: #3177; Broadway	Date Sampled: 04/05/99
901 Moraga Road, Suite C		Date Received: 04/05/99
Lafayette, CA 94549	Client Contact: Peter McIntyre	Date Extracted: 04/14-04/15/99
	Client P.O:	Date Analyzed: 04/14-04/15/99

Volatile Organics By GC/MS

EPA method 8260

Lab ID	08651
Client ID	AEI-3 W
Matrix	W

Compound	Concentration*	Compound	Concentration*
Acetone [b]	ND<20	trans-1,3-Dichloropropene	ND
Benzene	ND	Ethylene dibromide	ND
Bromobenzene	ND	Ethylbenzene	ND
Bromochloromethane	ND	Hexachlorobutadiene	ND
Bromodichloromethane	ND	Iodomethane	ND
Bromoform	ND	Isopropylbenzene	ND
Bromomethane	ND	p-Isopropyl toluene	ND
n-Butyl benzene	ND	Methyl butyl ketone [d]	ND
sec-Butyl benzene	ND	Methylene Chloride [e]	ND
tert-Butyl benzene	ND	Methyl ethyl ketone [f]	ND
Carbon Disulfide	ND	Methyl isobutyl ketone [g]	ND
Carbon Tetrachloride	ND	Methyl tert-Butyl Ether (MTBE)	---
Chlorobenzene	ND	Naphthalene	ND
Chloroethane	ND	n-Propyl benzene	ND
2-Chloroethyl Vinyl Ether [c]	ND	Styrene [f]	ND
Chloroform	ND	1,1,1,2-Tetrachloroethane	ND
Chloromethane	ND	1,1,2,2-Tetrachloroethane	ND
2-Chlorotoluene	ND	Tetrachloroethene	ND
4-Chlorotoluene	ND	Toluene [m]	ND
Dibromochloromethane	ND	1,2,3-Trichlorobenzene	ND
1,2-Dibromo-3-chloropropane	ND	1,2,4-Trichlorobenzene	ND
Dibromomethane	ND	1,1,1-Trichloroethane	ND
1,2-Dichlorobenzene	ND	1,1,2-Trichloroethane	ND
1,3-Dichlorobenzene	ND	Trichloroethene	ND
1,4-Dichlorobenzene	ND	Trichlorofluoromethane	ND
Dichlorodifluoromethane	ND	1,2,3-Trichloropropane	ND
1,1-Dichloroethane	ND	1,2,4-Trimethylbenzene	ND
1,2-Dichloroethane	ND	1,3,5-Trimethylbenzene	ND
1,1-Dichloroethene	ND	Vinyl Acetate [n]	ND
cis-1,2-Dichloroethene	ND	Vinyl Chloride [o]	ND
trans-1,2-Dichloroethene	ND	Xylenes, total [p]	ND
1,2-Dichloropropane	ND	**Comments:** i	
1,3-Dichloropropane	ND	**Surrogate Recoveries (%)**	
2,2-Dichloropropane	ND	Dibromofluoromethane	96
1,1-Dichloropropene	ND	Toluene-d8	106
cis-1,3-Dichloropropene	ND	4-Bromofluorobenzene	85

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

Reporting limits unless otherwise stated: water samples 1 ug/L; vapor samples 0.5 ug/L; solid and sludge samples 5 ug/kg; wipes 0.2ug/wipe

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

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549	Client Project ID: #3177; Broadway	Date Sampled: 04/05/99
		Date Received: 04/05/99
	Client Contact: Peter McIntyre	Date Extracted: 04/14/99
	Client P.O:	Date Analyzed: 04/14-04/15/99

Oxygenated Volatile Organics By GC/MS

EPA method 8260 modified

Lab ID	08647	08651			Reporting Limit	
Client ID	AEI-4 10'	AEI-3 W				
Matrix	S	W			S	W
Compound	Concentration*				ug/kg	ug/L
Di-isopropyl Ether (DIPE)	ND<50	ND			5.0	1.0
Ethyl tert-Butyl Ether (ETBE)	ND<50	ND			5.0	1.0
Methyl-tert Butyl Ether (MTBE)	930	72			5.0	1.0
tert-Amyl Methyl Ether (TAME)	ND<50	11			5.0	1.0
tert-Butanol	ND<250	ND			25	5.0
Surrogate Recoveries (%)						
Dibromofluoromethane	95	96				
Comments:		i				

* water samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L

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

(h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID: #3177; Broadway	Date Sampled: 04/05/99
901 Moraga Road, Suite C		Date Received: 04/05/99
Lafayette, CA 94549	Client Contact: Peter McIntyre	Date Extracted: 04/06/99
	Client P.O:	Date Analyzed: 04/12/99

Polynuclear Aromatic Hydrocarbons (PAH / PNA) by GC-MS

EPA methods 625 (modified 610) and 3510 or 8270 (modified 8100) and 3550

Lab ID	08644					Reporting Limit	
Client ID	AEI-3 10'					S	W, STLC TCLP
Matrix	S						
Compound	Concentration*					mg/kg	ug/L
Acenaphthene	ND					0.33	10
Acenaphthylne	ND					0.33	10
Anthracene	ND					0.33	10
Benzo(a)anthracene	ND					0.33	10
Benzo(b)fluoranthene	ND					0.33	10
Benzo(k)fluoranthene	ND					0.33	10
Benzo(g,h,i)perylene	ND					0.33	10
Benzo(a)pyrene	ND					0.33	10
Chrysene	ND					0.33	10
Dibenzo(a,h)anthracene	ND					0.33	10
Fluoranthene	ND					0.33	10
Fluorene	ND					0.33	10
Indeno(1,2,3-cd)pyrene	ND					0.33	10
Naphthalene	ND					0.33	10
Phenanthrene	ND					0.33	10
Pyrene	ND					0.33	10
% Recovery Surrogate 1	114						
% Recovery Surrogate 2	118						
Comments							

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L.

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

surrogate diluted out of range or surrogate coelutes with another peak

(h) a lighter than water immiscible sheen is present; (i) liquid sample that contains >~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 04/06/99 Matrix: SOIL

Analyte	Concentration (mg/kg) Sample (#01930)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	2.131	2.133	2.03	105	105	0.1
Benzene	0.000	0.180	0.188	0.2	90	94	4.3
Toluene	0.000	0.186	0.192	0.2	93	96	3.2
Ethylbenzene	0.000	0.188	0.196	0.2	94	98	4.2
Xylenes	0.000	0.564	0.588	0.6	94	98	4.2
TPH(diesel)	0	327	329	300	109	110	0.8
TRPH (oil and grease)	0.0	23.2	23.2	20.8	112	112	0.1

% 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: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 04/07/99-04/08/99 Matrix: SOIL

Analyte	Concentration (mg/kg) Sample (#01930)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	1.994	1.946	2.03	98	96	2.4
Benzene	0.000	0.186	0.186	0.2	93	93	0.0
Toluene	0.000	0.190	0.190	0.2	95	95	0.0
Ethylbenzene	0.000	0.188	0.188	0.2	94	94	0.0
Xylenes	0.000	0.552	0.552	0.6	92	92	0.0
TPH(diesel)	0	266	266	300	89	89	0.1
TRPH (oil and grease)	0.0	24.3	24.4	20.8	117	117	0.4

% 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: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR VOCs (EPA 8240/8260)

Date: 04/14/99-04/15/99 Matrix: WATER

Analyte	Concentration (ug/kg,u Sample (#08838)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
1,1-Dichloroethe	0	127	133	100	127	133	4.6
Trichloroethene	0	108	106	100	108	106	1.9
EDB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	0	94	98	100	94	98	4.2
Benzene	0	128	133	100	128	133	3.8
Toluene	0	110	118	100	110	118	7.0

% 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: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR VOCs (EPA 8240/8260)

Date: 04/14/99-04/15/99 Matrix: SOIL

Analyte	Concentration (ug/kg,u Sample (#01930)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
1,1-Dichloroethe	0	82	106	100	82	106	25.5
Trichloroethene	0	101	103	100	101	103	2.0
EDB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	0	97	101	100	97	101	4.0
Benzene	0	125	135	100	125	135	7.7
Toluene	0	115	115	100	115	115	0.0

% 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: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR SVOCs (EPA 8270/625/525)

Date: 04/12/99-04/13/99 Matrix: SOIL

Analyte	Concentration (ug/Kg,m Sample (#01932)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
Phenol	0	62	64	100	62	64	6.3
2-Chlorophenol	0	74	67	100	74	67	9.9
1, 4-Dichlorobenzene	0	82	100	100	82	100	19.8
N-nitroso-di-n-propyl	0	72	84	100	72	84	15.4
1, 2, 4-Trichlorobenz	0	92	110	100	92	110	17.8
4-Chloro-3-methylphen	0	78	78	100	78	78	0.0
4-Nitrophenol	0	88	89	100	88	89	1.1
Acenaphthene	0	79	93	100	79	93	16.3
2, 4- Dinitrotoluene	0	64	80	100	64	80	22.2
Pentachlorophenol	0	50	52	100	50	52	3.9
Pyrene	0	86	103	100	86	103	18.0

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

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

ALL ENVIRONMENTAL, INC.

Environmental Engineering & Construction

901 Moraga Road, Suite C
Lafayette, CA 94549
(925) 283-6000 Fax: (925) 283-6121

14600sale7.doc

CHAIN OF CUSTODY

PAGE 1 OF 1

TAT: RUSH / 24 hr / 48 hr / 5 day / other

AEI PROJECT MANAGER Peter McIntyre
PROJECT NAME Broadway
PROJECT NUMBER 3177
TOTAL # OF CONTAINERS ~~16~~ 17
RCVD. GOOD CONDITION/COLD [X] Y [ ] N

SAMPLE ID	DATE	TIME	MATRIX	TPH(g), BTEX, MTBE SOIL: EPA 5030/8015M, 8020 WATER: EPA 5030/8015m, 602	TPH(d) SOIL: EPA 5030/8015M WATER: EPA 5030/8015M	PRESERVATION	LAB #	SVOC-VOLATILE ORGANICS SOIL: EPA 8270/3550 WATER: EPA 625/3510	TOTAL LEAD (TTLC) SOIL: 6010 (ICP) WATER: 200.2 (AA)	LUFT 5 METALS SOIL: EPA 7130, 7190, 7420, 7520, 7950 WATER:	PNAs EPA 8270	5day 4/14 Fuel Oxys By 8260	5day 4/14 8260 + oxys	HOLD	# OF CONTAINERS
AEI-1 3'	4/5		Soil	X	X		08639								1
AEI-1 5'						H	08640							X	1
AEI-2 3'				X	X		08641								1
AEI-2 5'						H	08642							X	1
AEI-3 5'				X	X		08643								1
AEI-3 10'				X	X	H	08644								1
AEI-3 13'							08645							X	1
AEI-4 5'						H	08646								1
AEI-4 10'				X	X		08647	X		X					1
AEI-4 15'				X	X		08648							X	1
AEI-5 5'				X	X		08649							X	1
AEI-5 9'				X	X		08650					X			1
+5 AEI-3 W			Water	X			08651								1
													X	X	5

COMMENTS / INSTRUCTIONS

ANALYTICAL LABORATORY McCampbell
ADDRESS
PHONE ( ) FAX ( )

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
SIGNATURE	SIGNATURE	SIGNATURE	SIGNATURE
PRINTED NAME Peter McIntyre	PRINTED NAME H. TICCA	PRINTED NAME	PRINTED NAME
COMPANY AEI	COMPANY MAI	COMPANY	COMPANY
DATE 4/5 TIME 4pm	DATE 4/5/99 TIME 4:10	DATE TIME	DATE TIME