

McCampbell Analytical, Inc.

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All Environmental, Inc.	Client Project ID: #8279; Quality Auto	Date Sampled: 05/13/04
2500 Camino Diablo, Ste. #200		Date Received: 05/13/04
Walnut Creek, CA 94597	Client Contact: Jeff Rosenberg	Date Extracted: 05/13/04
Wallet Oleon, Oli 94397	Client P.O.:	Date Analyzed: 05/14/04-05/15/04

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

	method: SW5030E				nethods: SW80211	and the state of t			order: 0	
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
002A	MW-I 10'	s	31,g,m	ND	ND	0.024	ND	0.021	1	93.2
003A	MW-1 15'	s	ND	ND	ND	ND	ND	ND	1	88.0
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Reporting Limit for DF =1; ND means not detected at or	W	NA	NA	NA	· NA	NA	NA	1	ug/L
above the reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/K.g

^{*} water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

DHS Certification No. 1644

_Angela Rydelius, Lab Manager

[#] 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 (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

PHASE II SUBSURFACE INVESTIGATION

1200 East 12th Street Oakland, California

Project No. 3406

Prepared For

Robert Baston

61 Skyway Lane Oakland, CA 94619

Prepared By

AEI Consultants

901 Moraga Road, Suite C Lafayette, CA 94549 (800) 801-3224



PROTECTION

Phone: (925) 283-6000

Fax: (925) 283-6121

99 OCT -6 PM 2: 55

October 1, 1999

Mr. Barney Chan Alameda County Health Care Service Agency 1131 Harbor Bay Parkway Alameda, CA 94502-6577

Subject:

Phase II Subsurface Investigation

1200 East 12th Street Oakland, California AEI Project No. 3406

StID# 3284

Dear Mr. Chan:

Enclosed is a copy of the Phase II Subsurface Investigation for the property referenced above. Also enclosed is the invoice for this project.

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

Sincerely,

Los Angeles

(310) 798-4255

Carrie E. Locke Project Manager October 1, 1999

Robert Baston61 Skyway Lane

Oakland, CA 94619

Subject: Pha

Phase II Subsurface Investigation

1200 East 12th Street Oakland, California Project No. 3406

Dear Mr. Baston:

The following letter report describes the activities and results of the subsurface investigation performed by AEI Consultants at the above referenced property (Figure 1: Site Location Map). This investigation was designed to determine whether groundwater and soil have been impacted by the storage of gasoline in two former underground storage tanks at the property. The investigation included the advancement of two shallow soil borings down gradient from the former underground storage tanks. Soil and groundwater samples were collected from the two borings.

I Background

The subject property is located on the northeastern corner of East 12th Street and 12th Avenue. The subject property is approximately 7,500 square feet in size and is developed with a 9,000 square foot two-story brick building. The building occupies the entire area of the property and is currently vacant. The subject property was occupied by a gas station and auto parts store from 1927 to the mid 1960s. The subject property was utilized as a tire and auto supply company, as well as a truck and forklift maintenance facility from the mid 1960s to the late 1980s.

In 1996, two 500-gallon gasoline underground storage tanks were removed from the sidewalk along 12th Avenue at the subject property. Soil samples collected from beneath the tanks indicated elevated levels of total petroleum hydrocarbons (TPH) as gasoline at the western end of Tank 2. Further overexcavation was performed in this area and two soil samples were collected. TPH as gasoline was detected up to 210 mg/kg. An interview with Mr. Barney Chan, an inspector at the Alameda County Health Care Services Agency (ACHCSA), indicated that the ACHCSA is requesting that additional investigations be performed to determine whether groundwater has been impacted from the storage of gasoline in the two former underground storage tanks.

SB,

II Investigative Efforts

AEI performed a subsurface investigation at the property on September 17, 1999. A total of 2 soil borings (SB-1 and SB-2) were advanced. SB-1 was placed in the southwestern end of the former tanks' location. SB-2 was advanced down gradient from the former tanks' location in the parking lane at the northeastern corner of East 12th Street and 12th Avenue. The locations of the soil borings are shown on Figure 2.

The near surface native soil encountered during the boring advancement generally consisted of silty clay. Gravel was encountered in SB-1 at 11.5 feet below ground surface (bgs), which was most likely used to backfill the excavation when the gasoline tanks were removed. Refer to Attachment A for detailed logs of the borings. Based data obtained from a nearby site, groundwater flow direction is estimated to be to the south/southwest.

Soil Sample Collection

The borings were advanced with a Geoprobe direct-push drilling rig to a depth of 16 feet bgs. Soil samples were collected at 5-foot intervals beginning at four feet bgs.

A strong hydrocarbon odor was noted during the advancement of SB-1 at approximately 11 feet bgs. At approximately 4 feet bgs a hydrocarbon odor was noted during the advancement of SB-2. Soil samples were collected in two-foot long 1"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 both soil borings. A screened interval of the direct push rods was inserted into the boring and exposed in the water bearing deposits. Water samples were collected by inserting a drop tube through the direct push rods. Groundwater samples were collected into 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 neat cement grout.

Laboratory Analysis

On September 18, 1999, the soil and groundwater 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 chosen from each boring by the on-site geologist for analysis along with the two groundwater samples. The soil and groundwater samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline (EPA method 5030/8015), benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl tertiary butyl ether (MTBE) (EPA method 5030/8020).

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

III Findings

TPH as gasoline was detected in both groundwater samples at 6,700 μ g/kg and at 3,900 μ g/kg. Benzene was detected up to 470 μ g/kg, ethylbenzene up to 160 μ g/kg, and xylenes up to 130 μ g/kg in the groundwater samples. MTBE was not detected in the groundwater or soil samples. No significant amounts of the analyzed constituents were found in the soil samples. Detailed results of the soil and groundwater sample analysis are summarized in Table 1 and 2.

IV Conclusions and Recommendations

Significant concentrations of TPH as gasoline were detected in the groundwater samples. Based on conversations with Mr. Barney Chan of the Alameda County Health Care Services Agency (ACHCSA), further investigations, including the installation of a groundwater monitoring well, may be required by the ACHCSA.

V Report Limitation

This report presents a summary of work completed by AEI Consultants. 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 (925) 283-6000.

Sincerely,

Carrie Locke

Project Manager

Joseph P. Derhake, PE, CAC

= i E Zal

Senior Author

Figures

Figure 1 Site Location Map

Figure 2 Site Plan

Tables

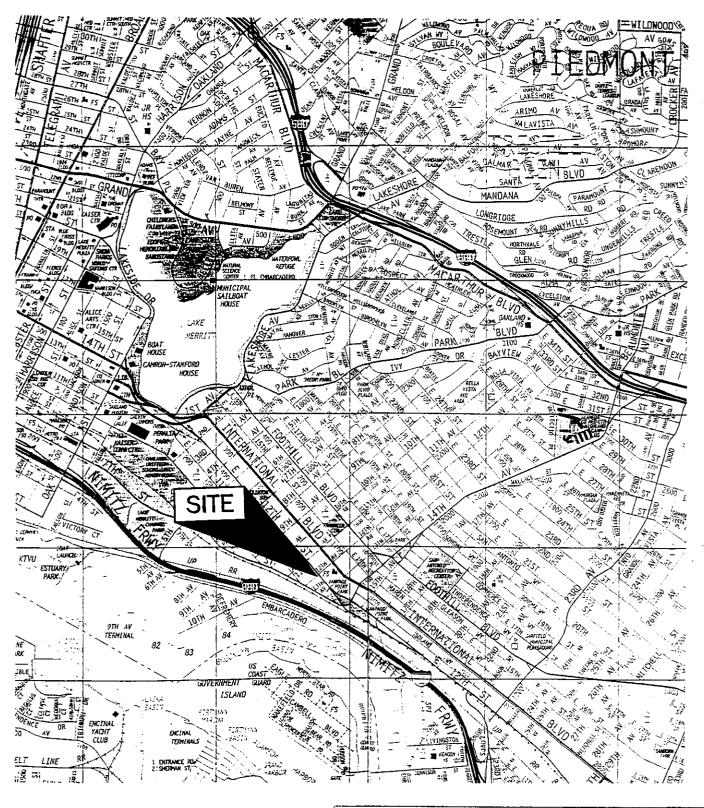
Table 1 Soil Sample Analytical Results

Table 2 Groundwater Sample Analytical Results

Attachment A: Soil Boring Logs

Attachment B: Sample Analytical Documentation

cc: Mr. Barney Chan, ACHCSA, 1131 Harbor Bay Parkway, Alameda, CA 94502-6577





ALL ENVIRONMENTAL, INC.

901 MORAGA ROAD, SUITE C, LAFAYETTE, CA

SITE LOCATION MAP

1200 EAST 12TH STREET OAKLAND, CALIFORNIA

FIGURE 1

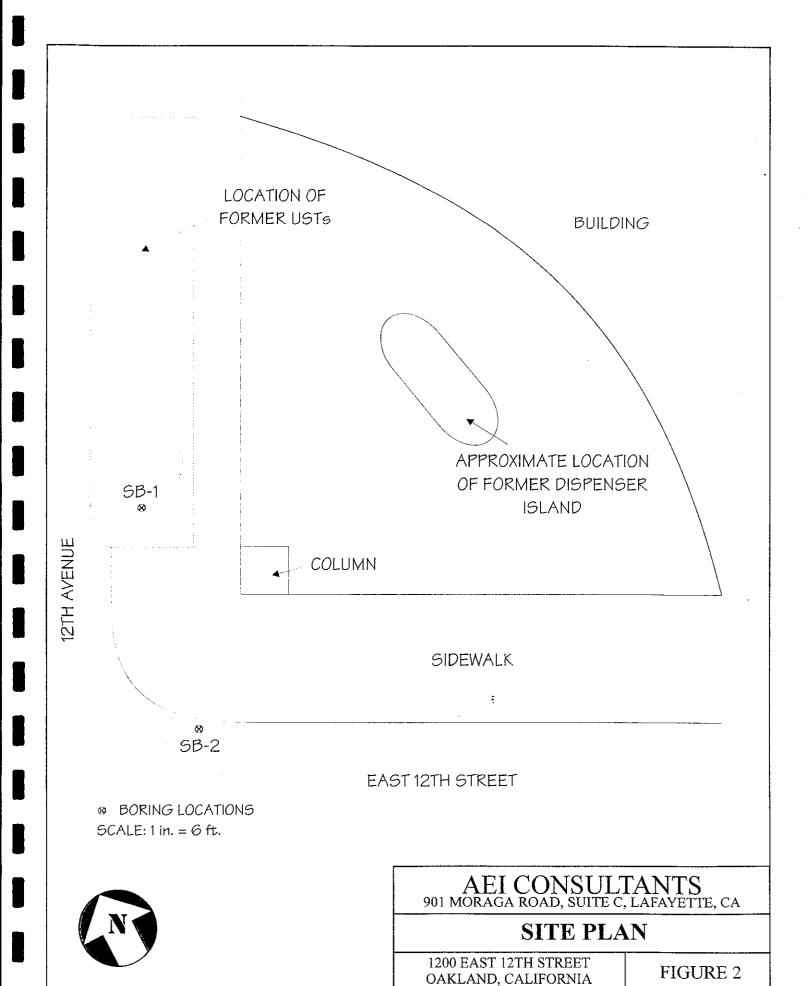


Table 1: Soil Sample Analytical Results

Sample/ID	TEPEL as gasoline mg/kg	MITBE: mg/kg:	Benzene mg/kg	Toluene mg/kg	Ethylbenzen mg/kg	Xylenes mg/kg.
SB-1 14'	ND	ND	ND	ND	ND	ND
SB-2 14'	2.2	ND	0.13	ND	0.07	0.021
MDL	1.0	0.05	0.005	0.005	0.005	0.005

Table 2: Groundwater Sample Analytical Results

SampleaD	DPH asigasoline µg/L.		Benzene:	Toluene μg/L	Ethylbenzen μg/L	Xylenes μg/L
SB-1 W	6,700	ND	26	6.1	22	130
SB-2 W	3,900	ND	470	9.5	160	57
MDL	50.0	5	0.5	0.5	0.5	0.5

MDL = Method Detection Limit

ND = Not dectected above Method Detection Limit

mg/kg = milligrams per kilogram

μg/kg = micrograms per kilogram

Project No: 3406

Project Name: Baston

Log of Borehole: SB-1

Client: Baston

Location: 1200 East 12th Street, Oakland

				: ;	Sampl	e Data			
4	Deptu	Soil Symbol	Subsurface Description	Sample Label	Туре	Blow Counts/	Recovery	Well Data	Remarks
1	0 0		Ground Surface CLAY Dark yellowish orange 10YR6/6 silty clay					and a second sec	Continuous sampling
3 4 5	1		Fine sand present changes to more brown	SB-1 4'	ss		100		· •
6 7 - 8 -	2		Clay Light olive gray silty clay; organics present	SB-1 8'	SS		100		
9 10 11	3								Hydrocarbon odor present
12			Gravel Poorly sorted gravel up 1/2"	SB-1 12'	SS		25		
13-	4		Clay Greenish gray clay with medium stiffness 5GY6/1; strong odor present	SB-1 14'	SS		100	Y	
15	1		Clay Wet silty clay with fine sand present	35-1 14	55		100		
16-	- 5		End of Borehole						
17 18) :							!	
19	:								
20-	6	:							

Drill Date 9/17/99

Drill Method: Direct Push

Total Depth: 16' Depth to Water: 14' Reviewed by: CL

Logged by: JP

AEI Consultants 901 Moraga Road, Suite C Lafayette, CA 94549 (800) 801-3224

Sheet: 1 of 1

Project No: 3406

Sheet: 1 of 1

Project Name: Baston

Log of Borehole: SB-2

Client: Baston

Location: 1200 East 12th Street, Oakland

				!	Samp	le Data			
Hrao C		Soil Symbol	Subsurface Description	Sample Label	Type	Blow Counts/	Recovery	Well Data	Remarks
O ft	m - 0	111111	Ground Surface CLAY	=			<u> </u>		
1 -	1		Grayish green silty clay; odor present				-		Hand auger
2				 					Continuous sampling
4	- 1			SB-2 4'	SS		25		Hydrocarbon odor present
5 6								77 7 80 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
7	2		Clay						
8 -	-		Grayish green clay	SB-2 8'	SS		100		
10	·- 3								
11			Clay						
12			Green silty clay	SB-2 12'	ss		100		
13-	4								
14 15			Clay Greenish gray silty sandy clay; very fine grained	SB-2 14'	SS		75	•	
16			very fine grained						
17	5		End of Borehole						
18									
19		;					: ! !		
20	6				! . !				

Drill Date 9/17/99

Drill Method: Direct Push

Total Depth: 16' Depth to Water: 14' Reviewed by: CL

Logged by: JP

AEI Consultants 901 Moraga Road, Suite C Lafayette, CA 94549 (800) 801-3224



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: #3406	Date Sampled: 09/17/99
901 Moraga Road, Suite C		Date Received: 09/18/99
Lafayette, CA 94549	Client Contact: Jennifer Pucci	Date Extracted: 09/20/99
	Client P.O:	Date Analyzed: 09/20-09/22/99

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)'	мтве	Велгепе	Toluene	Ethylben- zene	Xylenes	% Recovery
19542	SB-1,14'	S	ND	ND	ND	ND	ND	ND	Surrogate 94
19546	SB-2,14°	S	2.2,a	ND	0.13	ND	0.070	0.021	100
19547	SB-IW	W	6700,a,h,i	ND<50	26	6.1	22	130	104
19548	SB-2W	w	3900,a,i	ND<50	470	9.5	160	57	110
									·
									
									
Reporting	Limit unless								
otherwise	stated; ND etected above	W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
the repo	rting limit	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

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 clitomatographic peaks are significant; biologically altered gasoline?; c) 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; () liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644



Edward Hamilton, Lab Director

^{*} cluttered chromatogram; sample peak coelutes with surrogate peak

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	sampter signature	7 7	SAMI	PLING	<u> </u>		N	AAT:	RIX			HOI	5	Gas (602/8020 ÷	1.8.C.	ydrocar		(EPA 602 / 8020)	B's O	260		EPA 63			39.2/60		-			
	SAMPLE ID	LOCATION	Date	Time	# Containers	Type Containers	Water	Air	Sludge		HCI	HNO		FIEX & TPH as Gas (6)	Total Petroleum O		EPA 601 / 8010	BTEX ONLY (EP.	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by	CAM-17 Metais	CUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI				
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