



January 22, 1999

Mr. Warren Dodson
Dodson Ltd.
1323 South Flower Street
Los Angeles, California 90015

Regarding: **Quarterly Groundwater Sampling Report**
Former Vogue Tyres Facility
240 West MacArthur Boulevard
Oakland, California

Dear Mr. Dodson:

Advanced Environmental Concepts, Inc. (AEC) is pleased to present this report of groundwater sampling performed at the former Vogue Tyres facility, 240 West MacArthur Boulevard, Oakland, California (**Attachment A, Figure 1**).

Background

The Gulf Service Station originally operated three 10,000 gallon gasoline underground storage tanks (USTs), and one 350 gallon waste oil UST. Historical records indicate that the service station existed since at least 1950. The current location of the Shell Service Station, located adjacent to, and south of the subject site was a fueling station since at least 1952. The three gasoline USTs were located at the northern portion of the property, (underneath the current building), and the waste oil UST was west of the service bays. The two pump islands were west of the northern portion of the existing building. The 350 gallon waste oil UST was removed in October 1996 by All Environmental, Inc (AEI).

On October 3, 1996, AEI removed the previously identified 350 gallon waste oil UST located west of the service bays. Visual staining of waste oil range hydrocarbons was identified on the floor and sidewalls of the excavation. Confirmation soil samples collected from the excavation indicated that soil beneath the former UST emplacement were impacted with minor concentrations of petroleum hydrocarbons. At the request of ACHCS, AEI expanded the size of the excavation, then collected additional confirmation soil samples which indicated the successful removal of the contamination. Groundwater was not encountered during this excavation phase, however, due to the estimated proximity of the contamination to groundwater, a subsurface investigation was required by the County.

On January 8, 1997, AEI conducted a subsurface investigation consisting of six borings using a Geoprobe. Borings BH-1, BH-2, BH-4, and BH-6 were advanced to 20 feet below grade level (BGL), and BH-3 and BH-5 were probed to 16 feet BGL. Soil samples were collected at intervals of 5 feet, and "grab" groundwater samples were collected from inside the borings. Groundwater was identified at approximately 16 feet BGL.

The soil samples were analyzed in accordance with California Department of Health Services (CA DHS) method for total petroleum hydrocarbons as gasoline and diesel (TPH-g,d) and EPA Method 8020 for volatile aromatics (BTXE), and methyl tertiary butyl ether (MTBE). The soil samples were also analyzed for total lead, oil and grease, and poly nuclear aromatics (PNAs). Results of the laboratory analyses are summarized below. Units are in milligrams per kilograms (mg/kg) which are equivalent to parts per million (ppm). Results of these analyses are listed in **Table 1**.

TABLE 1
Analytical Results of Soil Samples
January 10, 1997

Sample ID	TPH-d	TPH-g	Benzene	Toluene	Xylenes	Ethylbenzene
BH-1-15'	ND	ND	ND	ND	ND	ND
BH-2-15'	ND	NDN	ND	ND	ND	ND
BH-3-15'	ND	ND	ND	ND	ND	ND
BH-4-15'	370	1100	ND	ND	14	4.4
BH-5-15'	1.9	2.1	0.009	0.006	0.016	ND
BH-6-15'	140	190	0.25	0.5	3.6	0.84
Detection Limits		1.0	0.005	0.005	0.005	0.005

ND: Non-detected at indicated level of detection.

Total lead concentrations ranged from 4.6 mg/kg to 23 mg/kg which is below the recommended action level of 50 mg/kg. MTBE was non-detect for all samples analyzed, oil and grease was only run on BH-2 and BH-3 and was less than 50 mg/kg, and the PNAs exhibited trace concentrations ranging between 1.1 and 41 mg/kg.

The groundwater samples were analyzed in accordance with California Department of Health Services (CA DHS) method for total petroleum hydrocarbons as gasoline and diesel (TPH-g,d) and EPA Method 8020 for volatile aromatics (BTXE), and methyl tertiary butyl ether (MTBE). Groundwater samples were also analyzed for total lead, oil and grease, and poly nuclear aromatics (PNAs). Results of the laboratory analyses are summarized below. Units are in micrograms per Liter (ug/L) which are equivalent to parts per billion (ppb). Results of these analyses are listed in Table 2.

TABLE 2
Analytical Results of Groundwater Samples
January 10, 1997

Sample ID	TPH-d	TPH-g	Benzene	Toluene	Xylenes	Ethylbenzene
BH1W	490	330	2.0	0.72	1.3	ND
BH2W	320	ND	ND	ND	ND	ND
BH4W	NA	6600	58	13	2740	110
BH6W	450	13,000	870	65	570	130
Detection Limits		1.0	0.005	0.005	0.005	0.005

ND: Non-detected at indicated level of detection.

NA: Not analyzed

Soluble lead concentrations were below detection limits, MTBE ranged from below detection limits to 320 ug/L in BH6W, oil and grease was only run on BH2W and was less than 5 mg/L, and the PNAs exhibited non detectable concentrations.

On August 7, 1997, AEC supervised three Geoprobe soil borings (BH-7, BH-8, and BH-9), and four groundwater monitoring wells (MW-1, MW-2, MW-3, and MW-4) were drilled proximal to the western dispenser islands, and south, west, and north of the former UST emplacement. The investigative groundwater wells and Geoprobe borings were positioned to assess the vertical and lateral migration of hydrocarbons in the subsurface and to evaluate groundwater quality.

Soil analyses were performed by Associated Laboratories, Inc. to determine the presence and concentrations of hydrocarbons at the subject site by EPA methods 8015M and 8020. Analytical results for soil samples are presented in Table 3. Units are in milligrams per kilogram (mg/kg) which are equivalent to parts per million (ppm).

TABLE 3
Analytical Results - Soil Boring
August 7, 1997
(ppm)

Sample ID	TPH-d	TPH-g	Benzene	Toluene	Xylenes	Ethylbenzene
BH-7-12'	ND	ND	ND	ND	ND	ND
BH-7-16'	ND	ND	ND	ND	ND	ND
BH-8-8'	ND	ND	ND	ND	ND	ND
BH-8-12'	ND	168	0.02	ND	5.1	0.45
BH-8-16'	ND	21	0.027	0.07	0.75	ND
BH-9-8'	ND	ND	ND	0.032	0.28	0.029
BH-9-12'	ND	NDN	ND	0.012	ND	ND
BH-9-16'	ND	ND	ND	ND	ND	ND
MW-1-10'	ND	ND	ND	ND	ND	ND
MW-1-17'	ND	ND	ND	0.031	ND	ND
MW-2-10'	ND	ND	ND	ND	ND	ND
MW-2-17'	ND	16	0.035	0.037	0.15	0.018
MW-3-10'	ND	ND	ND	ND	NDN	ND
MW-3-15'	ND	ND	0.027	ND	ND	ND
MW-4-10'	ND	ND	ND	ND	ND	ND
MW-4-17'	ND	ND	ND	ND	ND	ND
Detection Limits		5.00	0.0050	0.0050	0.0050	0.0050

ND: Non Detected at indicated limit of detection

Water analyses were performed by Associated Laboratories, Inc. to determine the presence and concentrations of hydrocarbons at the subject site by EPA methods and 8015M and 8020. Analytical results for soil samples are presented in Table 4. Units are in micrograms per Liter (ug/L) which are equivalent to parts per billion (ppb).

TABLE 4
Analytical Results - Monitoring Wells
August 8, 1997
(ppb)

Sample ID	TPH-d	TPH-g	Benzene	Toluene	Xylenes	Ethylbenzene
MW-1	ND	1,140	110	16	112	15
MW-2	ND	5,530	108	36	144	33
MW-3	ND	8,500	450	30	106	53
MW-4	ND	ND	ND	ND	ND	ND
Detection Limits		5.00	0.0050	0.0050	0.0050	0.0050

ND: Non Detected at indicated limit of detection

TABLE 5
Biological Factors
August 8, 1997
(ppb)

Sample ID	2580 B	300.0 (Nitrate)	300.0 Sulfate	310.1	3500 FED	360.1
MW-1	311	7.1	92	238	0.10	8.2
Mw-2	331	0	43	398	0.50	6.3
MW-3	330	0	56	368	ND	7.9
MW-4	307	19.5	87	140	ND	7.8
Detection Limits		5	5	5.0	0.10	

2580B: Redox Potential @ Temp
300.0: Nitrate As NO₃ by Ion Chromatograph
310.1: Alkalinity
3500FED: Ferrous Iron
360.1: Dissolved Oxygen, Membrane Electrode

On January 19, 1999 AEC performed the fifth quarter of groundwater sampling.

Groundwater Sampling

The groundwater samples were collected in accordance with the following protocol.

- 1) Depth to ground water was measured in each of the wells;
- 2) A bailer was used to collect a water sample from the potentiometric surface to visually determine whether free hydrocarbons or a sheen can be identified;
- 3) Initial readings of pH, Temperature, and Conductivity were obtained (**Attachment B**);
- 4) A minimum of three (3) casing volumes of water (approximately 10-gallons) was purged from each well. Readings of pH, Temperature, and Conductivity were measured at 3-gallon intervals;
- 5) Once stabilization to 90% of original aquifer parameters was achieved, the groundwater samples were collected. The sampling equipment was washed in an Alconox solution and double-rinsed with clean deionized water;
- 6) The water samples were collected in a clean, stainless steel bailer, then transferred to 40-ml. glass VOA vials with Teflon septa. Care was exercised to ensure that no air bubbles were present in the vials;
- 7) The VOA vials were labeled, sealed with tape, wrapped in a protective covering, and placed in an ice chest chilled with frozen Blue Ice with two (2) bailer blanks for transport to the laboratory. Chain-of-custody protocol was followed to ensure sample integrity and traceability;
- 8) The samples were analyzed by Baseline Analysis, Inc. a California-certified laboratory in Huntington Beach, California, for total petroleum hydrocarbons as gasoline (TPH-g), volatile aromatics (BTXE), and MTBE by EPA methods 8015-modified and 8020, respectively. The laboratory reports and chain-of-custody documentation are presented in **Attachment C**.

The following table summarizes the analytical results for AEC's groundwater sampling program. Units are in micrograms per liter ($\mu\text{g/L}$) which are equivalent to parts per billion (ppb).

TABLE 6
Analytical Results - Monitoring Wells
(ppb)

Sample ID	Date	TPH-g	Benzene	Toluene	Xylenes	Ethylbenzne	MTBE
MW-1	08/8/97	1,140	110	16	112	15	NA
	12/3/97	ND	ND	ND	31	ND	NA
	03/16/98	370	8.9	ND	2.2	ND	18
	07/9/98	6,400	1,300	23	58	3.7	97
	10/19/98	2,500	360	44	150	1.3	ND
	01/19/99	2,700	1,200	28	78	140	130

Sample ID	Date	TPH-g	Benzene	Toluene	Xylenes	Ethylbenzne	MTBE
MW-2	08/08/97	5,350	108	36	144	33	NA
	12/3/97	1,600	73	ND	ND	ND	NA
	3/16/98	3,400	830	100	240	210	870
	07/09/98	3,100	25	2.2	0.9	ND	1,900
	10/19/98	4,300	ND	1.2	1	ND	4,200
	01/19/99	2,900	160	8.9	7.4	6.9	2,100
MW-3	08/08/97	8,500	450	30	106	53	NA
	12/03/97	5,200	180	6	9.3	5	NA
	03/16/98	1,000	6.0	ND	ND	ND	810
	07/09/98	6,400	490	57	78	23	220
	10/19/98	2,100	ND	ND	ND	ND	ND
	01/19/99	4,400	450	65	42	26	1,300
MW-4	08/08/97	ND	ND	ND	ND	ND	NA
	12/03/97	ND	ND	ND	ND	ND	NA
	03/16/98	ND	ND	ND	ND	ND	ND
	07/09/98	ND	ND	ND	ND	ND	ND
	10/19/98	ND	ND	ND	ND	ND	ND
	01/19/99	ND	ND	ND	ND	ND	ND
Detection Limits		500	0.5	0.5	0.5	0.5	0.5

ND: Not detected at the indicated level of detection
 TPH-g: Total Petroleum Hydrocarbons as gasoline

The samples were also analyzed for MTBE. Monitoring well MW-4 continued to exhibit non-detectable concentrations for TPH-gasoline, BTXE, and MTBE, however, the monitoring wells MW-1, MW-2, and MW-3 still exhibit elevated concentrations of petroleum range hydrocarbons.

The current state maximum contaminant levels (MCLs) for drinking water set by the California Department of Health Services, Title 22 are as follows:

Benzene..... 1 µg/L
 Toluene..... 2000 µg/L
 Ethylbenzene..... 680 µg/L
 Total Xylenes..... 1750 µg/L

Conclusions

The groundwater sampling results continue to indicate relative stability concerning TPH-gasoline, volatile aromatics and MTBE concentrations in the water samples collected from the monitoring wells in comparison with the last four sampling events. The current flow direction is north 73 degrees west with a hydraulic gradient of 0.43'/100'. Flow direction and gradient have been very consistent for all sampling rounds. The monitoring wells yielded adequate water volume and could not be bailed dry. Recharge was adequate in all four wells.

Recommendations

Advanced Environmental Concepts, Inc. recommends continued sampling of the groundwater wells for this site for one additional quarter. If it is determined that the contaminants are stable AEC will continue to recommend well abandonment and request closure.

Recommendations

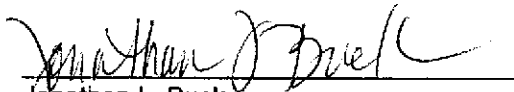
Advanced Environmental Concepts, Inc. recommends continued sampling of the groundwater wells for this site for one additional quarter. If it is determined that the contaminants are stable AEC will continue to recommend well abandonment and request closure.

Closing

Advanced Environmental Concepts, Inc. appreciates the opportunity of providing our professional services to Mr. Warren Dodson. Should there be any questions or additional information required, please do not hesitate to contact our office at your convenience.

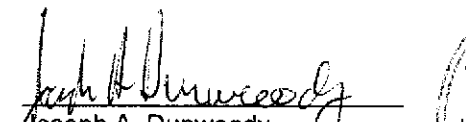
Respectfully yours,

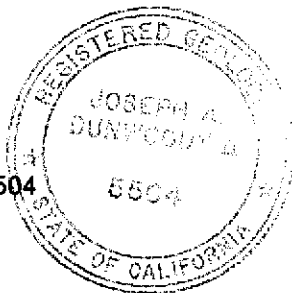
Advanced Environmental Concepts, Inc.


Jonathan L. Buck
Project Hydrogeologist

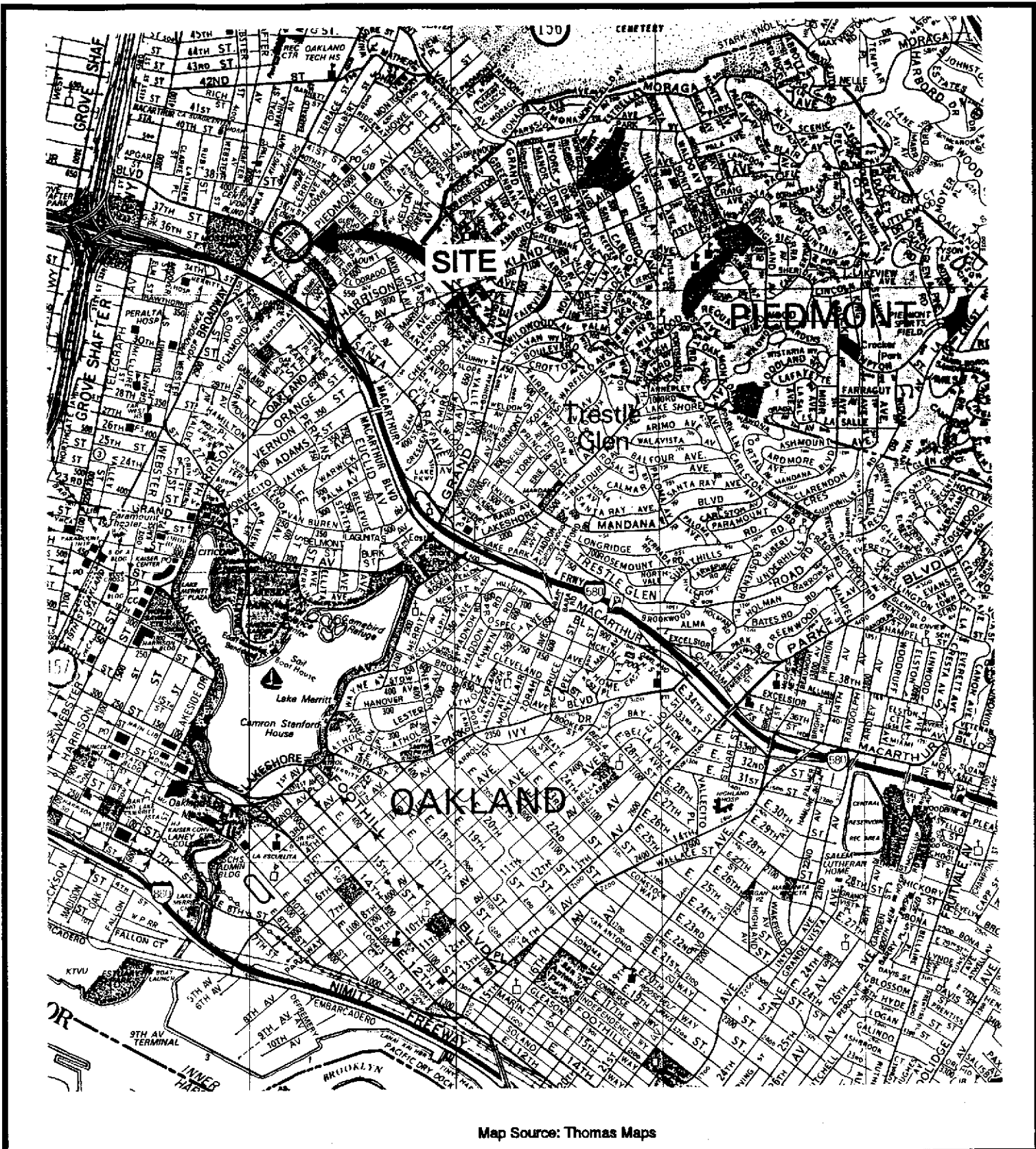


All environmental site work with which **Advanced Environmental Concepts, Inc.** was involved, was performed under my supervision to ensure proper sampling protocol and environmental assessment. This report has been technically reviewed by the undersigned.


Joseph A. Dunwoody
California Registered Geologist #5504



Doc30GG



Map Source: Thomas Maps

AEC
 ADVANCED ENVIRONMENTAL CONCEPTS INC.
 ADVANCED ENVIRONMENTAL CONCEPTS
 P.O. BOX 40672 BAKERSFIELD, CA 93384

- SITE AREA -
 Prestige Products Corporation
 240 West MacArthur Blvd.
 County of Alameda - Oakland, California

FIGURE
 1

HOWE STREET

SIDEWALK

W. MACARTHUR BLVD.

ENTRANCE

SIDEWALK

ENTRANCE

MW-1

MW-2

10,000 Gallon UST

10,000 Gallon UST

BH-7

FORMER GULF SERVICE STATION UNDERGROUND STORAGE TANKS

10,000 Gallon UST

BH-5

BH-6

CURRENT SUBJECT PROPERTY BUILDING

MW-3

BH-4

BH-8

FORMER GULF SERVICE STATION PUMP ISLANDS

BH-9

FORMER GULF SERVICE STATION BUILDING

FORMER GULF SERVICE STATION CANOPY

BH-3

APPROXIMATE LOCATION OF FORMER SUMP

BH-2

FORMER 350 GALLON WAIST OIL LUST REMOVED 10/3/98

Groundwater Flow Direction

BH-1

MW-4

SHELL SERVICE STATION
230 WEST MACARTHUR BLVD.

MW-4
(EXISTING)

AEC MONITORING WELL LOCATIONS

AEC SOIL BORING LOCATION

AEI SOIL BORING LOCATIONS DRILLED 1/10/97



ADVANCED ENVIRONMENTAL CONCEPTS
P.O. BOX 40672 BAKERSFIELD, CA 93384

January 1999 Hydraulic Gradient
VOGUE TYRES
Prestige Products Corporation
240 West MacArthur Blvd.
County of Alameda - Oakland, California

FIGURE

2

Groundwater Parameters

Site Name: Vogue Tyres AEC P.O. #: _____
 Location: 240 West MacArthur Project #: _____
Oakland, CA Date: January 19, 1999

TIME	GALLONS PURGED	CONDUCTIVITY	TEMPERATURE	pH
MONITORING WELL # 1				
	3 gallons	2,360	69.2	6.96
	6 gallons	2,320	68.8	7.00
MONITORING WELL # 2				
	3 gallons	1,880	69.0	7.12
	6 gallons	1,860	69.4	7.16
MONITORING WELL # 3				
	3 gallons	1,560	68.8	7.42
	6 gallons	1,620	69.2	7.46

3 Casing Volumes

4" Screen = (.66 gal/ft) (_____ ft) = _____ 2" Screen = (.17 gal/ft) (_____ ft) = _____

MW # 1 Depth to Groundwater = 15.21' Corrected Depth: 15.21' Survey: 4.39'
 MW # 2 Depth to Groundwater = 14.61' Corrected Depth: 15.31' Survey: 5.09'
 MW # 3 Depth to Groundwater = 13.74' Corrected Depth: 15.29' Survey: 5.94'

Groundwater Parameters

Site Name: Vogue Tyres AEC P.O. #: _____
 Location: 240 West MacArthur Project #: _____
Oakland, CA Date: January 19, 1999

TIME	GALLONS PURGED	CONDUCTIVITY	TEMPERATURE	pH
MONITORING WELL # <u>4</u>				
	3 gallons	1,940	69.2	7.72
	6 gallons	1,960	69.6	7.68
MONITORING WELL # _____				
MONITORING WELL # _____				

3 Casing Volumes

4" Screen = (.66 gal/ft) (_____ ft) = _____ 2" Screen = (.17 gal/ft) (_____ ft) = _____

MW # 4 Depth to Groundwater = 13.56' Corrected Depth: 14.89' Survey: 5.72'

MW # _____ Depth to Groundwater = _____ Corrected Depth: _____ Survey: _____

MW # _____ Depth to Groundwater = _____ Corrected Depth: _____ Survey: _____



Baseline On-Site Analysis

P. O. Box 2243
Huntington Beach, California 92647

phone: (888) 753-7553
FAX: (714) 897-4235

Laboratory Report

Client: AEC, Inc.
Client Address: 4400 Ashe Road #206
Bakersfield, California

Report Date: 1/31/99
Lab Project Number: 99023
Client Project Number: —

Project Name: Vogue Tyres
Project Address: 240 West MacArthur Boulevard
Oakland, California 90015
Contact: John Buck

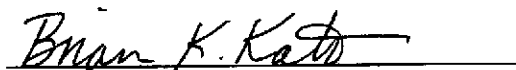
Date Sampled: 1/19/99
Date Received: 1/19/99
Date Analyzed: 1/24/99
Sample Matrix: Water

Analyses Requested:

1. EPA M8015/LUFT - TPH as Gasoline
2. EPA 8020A - Volatile Aromatics with MTBE

On January 13, *Baseline* received four water samples collected from the site shown above. A Chain-of-Custody Record is attached.

Baseline analyzed all of the samples for Total Petroleum Hydrocarbons as gasoline (M8015/LUFT) and Volatile Aromatics with MTBE (EPA 8020A). In this report, *Baseline* presents the results of these analyses and a QA/QC summary.



Approved

Brian Kato, Laboratory Manager



Baseline On-Site Analysis

P. O. Box 2243
Huntington Beach, California 92647

phone: (888) 753-7553
FAX: (714) 897-4235

Laboratory Report

Client: AEC, Inc.
Client Address: 4400 Ashe Road #206
Bakersfield, California

Report Date: 1/31/99
Lab Project Number: 99023
Client Project Number: —

Project Name: Vogue Tyres
Project Address: 240 West MacArthur Boulevard
Oakland, California 90015

Date Sampled: 1/19/99
Date Received: 1/19/99
Date Analyzed: 1/24/99
Sample Matrix: Water

Contact: John Buck

<u>Sample ID</u>	<u>TPH-Gasoline</u> (mg/L)	<u>MTBE</u> (µg/L)	<u>Benzene</u> (µg/L)	<u>Toluene</u> (µg/L)	<u>Ethylbenzene</u> (µg/L)	<u>Total Xylenes</u> (µg/L)
MW-1	2.7	130	1200	28	140	78
MW-2	2.9	2100	160	8.9	6.9	7.4
MW-3	4.4	1300	450	65	26	42
MW-4	ND<0.050	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Method Blank	ND<0.050	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5

ND: Not Detected at the indicated Practical Quantification Limit (Reporting Limit)



Baseline On-Site Analysis

P. O. Box 2243
Huntington Beach, California 92647

phone: (888) 753-7553
FAX: (714) 897-4235

Laboratory Report

Client: AEC, Inc.
Client Address: 4400 Ashe Road #206
Bakersfield, California

Report Date: 1/31/99
Lab Project Number: 99023
Client Project Number: ---

Project Name: Vogue Tyres
Project Address: 240 West MacArthur Boulevard
Oakland, California 90015

Date Sampled: 1/19/99
Date Received: 1/19/99
Date Analyzed: 1/24/99
Sample Matrix: Water


Contact: John Buck

Quality Control Summary

<u>Analytes</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD (%)</u>	<u>QC Sample</u>
TPH as Gasoline (M8015/LUFT)	95	88	7	MW4
<i>Volatile Aromatics (EPA 8020A)</i>				
Toluene	94	90	4	MW4
Total Xylenes	95	90	5	MW4
<i>Acceptable QC Limits:</i>	<i>(65-130)</i>	<i>(65-130)</i>	<i>(0-30)</i>	

MS: Matrix Spike; MSD: Matrix Spike Duplicate; RPD: Relative Percent Difference

CHAIN-OF-CUSTODY RECORD

Client: AEC		Date: 1/13/99				Analysis Requested		LAB Project # 99023				
Project Name: Vogue Towers		Client Project #:						Page 1 of 1				
Project Address: 340 W. MacArthur Blvd		Turn Around Requested: <input type="checkbox"/> 24-Hour-Rush <input type="checkbox"/> 48-Hour-Rush <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Mobile Lab		Laboratory Sample Number		Sample Matrix: Soil(S) Sludge(SL), Aqueous(A) TPH G MTBE BTEX		Number of Containers		Lab Use Only. Sample Condition as received: Chilled <u>Yes</u> / No Sealed <u>Yes</u> / No		
Oakland, CA 90615										Container / Comments		
Sampler's Signature: <i>The Dunwoody</i>												
Sample	Sample Location	Date	Time	Laboratory Sample Number	Sample Matrix: Soil(S) Sludge(SL), Aqueous(A)	Analysis Requested	Analysis Requested	Analysis Requested	Analysis Requested	Analysis Requested	Analysis Requested	
MW-1		1/13/99		A		1	1	1			2	SAMPLES LABELED "DOODSON"
MW-2		1/13/99		A		1	1	1			2	
MW-3		1/13/99		A		1	1	1			2	
MW-4		1/13/99		A		1	1	1			2	
1 Relinquished by: (Signature) <i>Joe Dunwoody</i>		Date: 1/18/99		2 Received by: (Signature) <i>Baselma</i>		Date: 1/18/99				Total Number of Containers		8
Company: AEC		Time: 11:15		Company: Baselma		Time: 11:15						
3 Relinquished by: (Signature)		Date:		4 Received by Laboratory: (Signature)		Date:						 *ADVANCED ENVIRONMENTAL CONCEPTS INC.*
Company:		Time:		Company:		Time:						