

# Rogers Environmental Services

#3682

March 7, 1997

**REF: 1004-1Q.97**

Mr. Barney Chan  
Environmental Health  
Alameda County  
1131 Harbor Bay Pkwy  
Alameda, CA 94502-6577

**SUBJECT: REPORT OF QUARTERLY MONITORING AT 1234 40TH AVE.,  
OAKLAND, CA**

Dear Barney:

I have enclosed a copy of the Quarterly Monitoring report prepared for the Motor Partners site, 1234 40th Ave., Oakland, California. The groundwater sampling results are presented for the first quarterly monitoring period in 1997.

The results of the sampling indicate that hydrocarbon contamination is present in groundwater samples from each of the wells, though highest levels were reported from MW-1. Concentrations of hydrocarbons in the samples are consistent with the previous monitoring period.

If you have any questions or comments regarding the report, please give me a call.

Sincerely,



Gary Rogers, Ph.D.

cc Bill Owens

# **QUARTERLY MONITORING REPORT**

1st Quarter, 1997

## **PROJECT SITE:**

**MOTOR PARTNERS**  
1234 40TH AVE., OAKLAND, CALIFORNIA  
StID #3682

## **PREPARED FOR:**

Mr. Bill Owens  
2221 Olympic Blvd.  
Walnut Creek, CA 94595  
510-935-3840

## **SUBMITTED TO:**

Mr. Barney Chan  
Environmental Health  
Alameda County  
1131 Harbor Bay Pkwy  
Alameda, CA 94502-6577

## **PREPARED BY:**

Gary Rogers, Ph.D.  
2657 Bailey Ct.  
Fremont, CA 94536  
(510) 791-7157

**PROJECT NO. 1004.95**

March 7, 1997

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## INTRODUCTION

### PROJECT DESCRIPTION

This report discusses the results of quarterly sampling for the first quarter in 1997 at the Motor Partners site, 1234 40th Ave., Oakland, California.

### SITE LOCATION AND DESCRIPTION

The project site is known as Motor Partners, 1234 40th Avenue, Oakland, California (Figure 1), located in a commercial/light industrial area. The elevation of the site is approximately 25 feet above mean sea level.

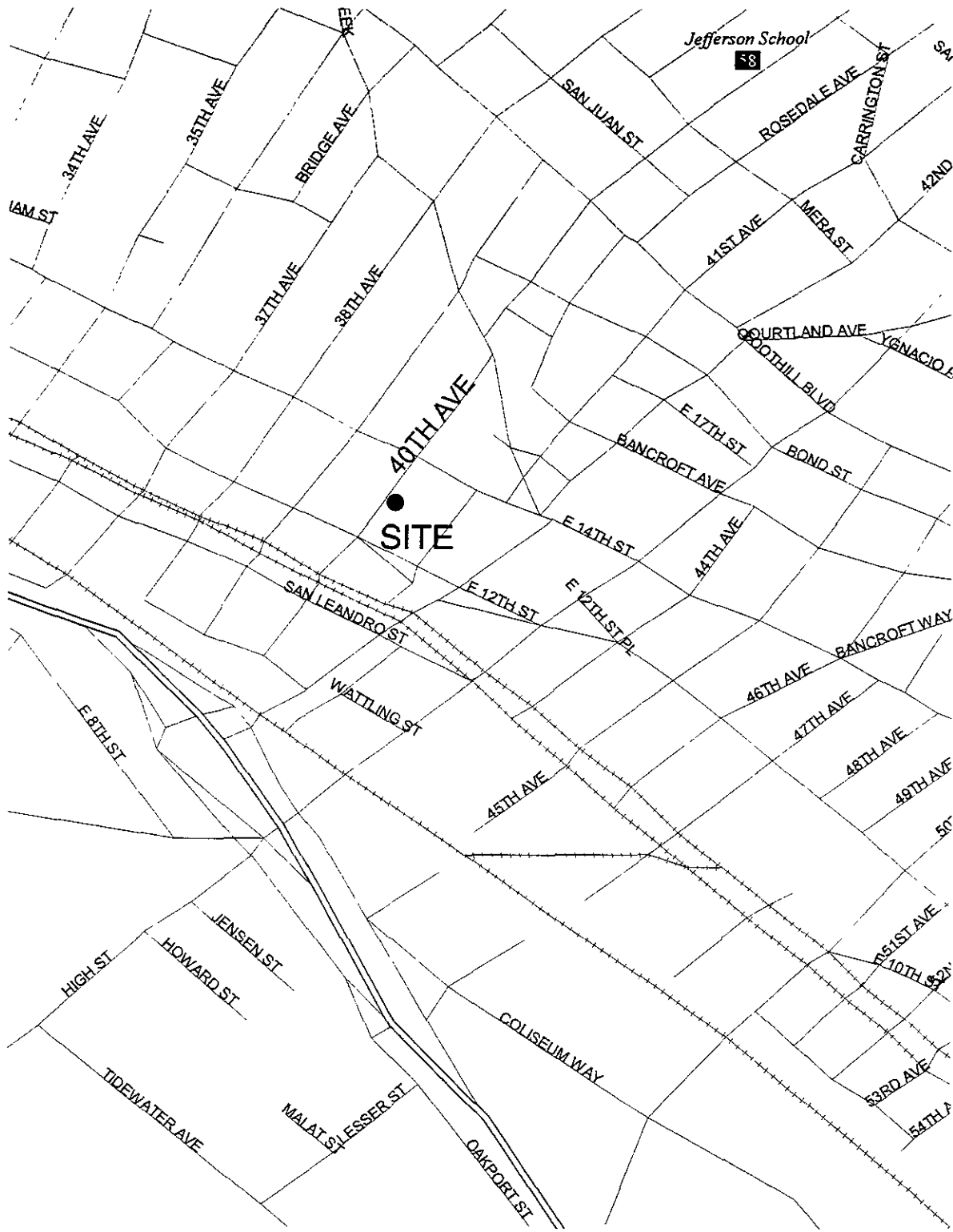
Motor Partners is located at 1234 40th Avenue near Nimitz Highway (880) in the Fruitvale District of Oakland, California (Figure 1). The BART rail tracks are about 500 feet west of the site and San Leandro Bay is less than one mile to the southwest.

Motor Partners utilized the site for auto repair shops. Two underground storage tanks were maintained outside the 1234 40th Avenue building. A 1,000-gallon underground gasoline tank and a 500-gallon underground waste oil tank were located below the sidewalk (Figure 2). No reliable records exist to determine if inventory was lost.

### Previous Subsurface Investigations

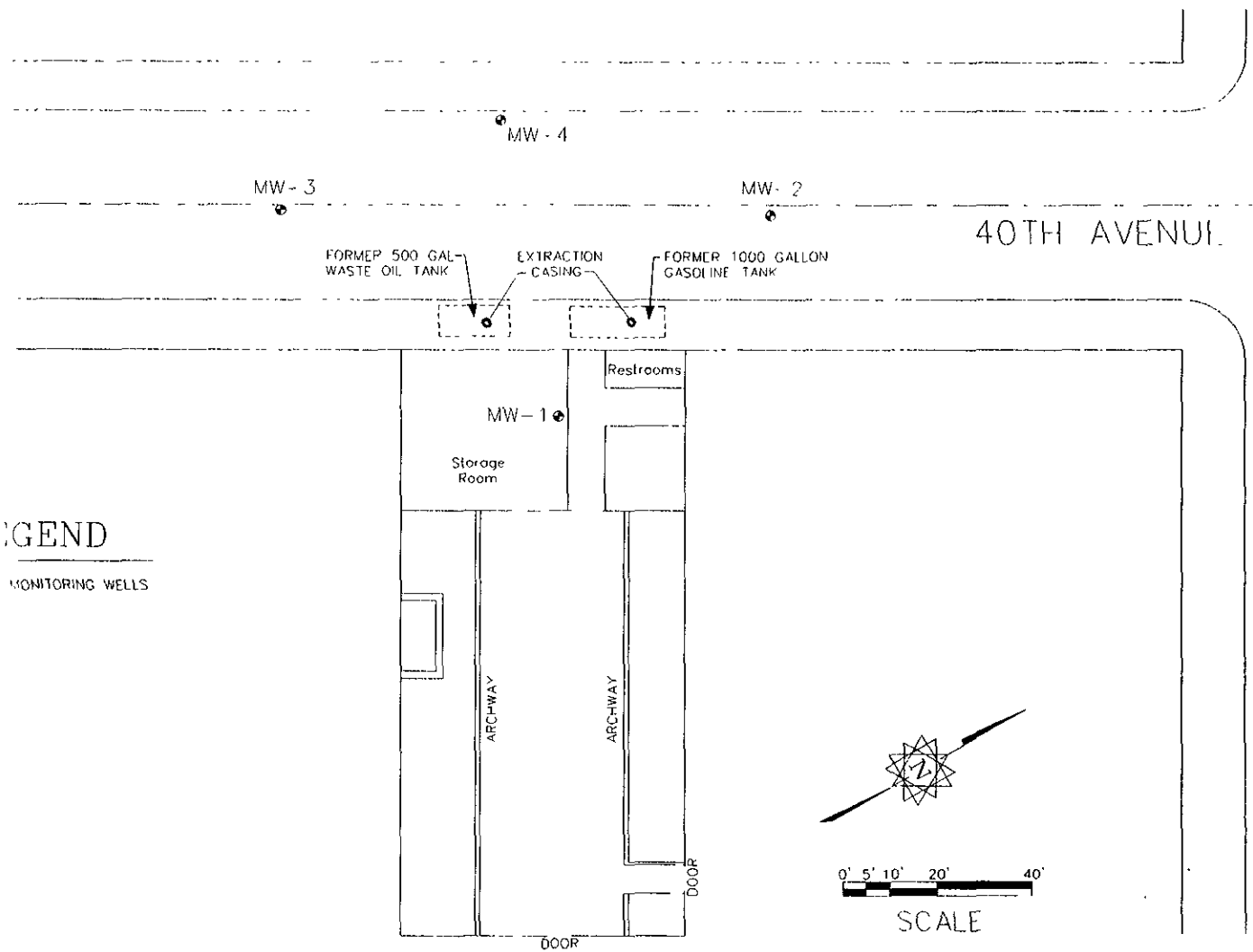
On Oct. 12, 1990, Semco, Inc. of Modesto, California removed both the 1,000-gallon gasoline tank and the 500-gallon waste oil tank. The concentration of total petroleum hydrocarbons in the gasoline range (TPH-G) below the 1,000-gallon tank was 1,600 mg/Kg. The TPH-G and TPH-D concentrations below the 500-gallon tank were 570 mg/Kg and 650 mg/Kg, respectively. There was no record of groundwater in the excavations. The excavations were backfilled to grade with original spoils.

In January, 1994, SEMCO re-excavated the area to remove contaminated soil, and dispose of the contaminated backfill. During the course of over excavation, it was noted that contamination extended beneath the building and into the street. Utilities prevented further excavation. The over excavation was halted and samples taken from the sidewalls of each excavation. An extraction well casing was installed in each excavation. Clean imported soil was used to backfill the two areas and the sidewalk was resurfaced with Christy boxes housing the two extraction casings.



GARY ROGERS, PH.D. ENVIRONMENTAL CONSULTANT 2657 BAILEY CT FREMONT, CA 94536 (510) 741-757	DESCRIPTION <p style="text-align: center;">Site Location</p>		HOUSE  
	PROJECT LOCATION <p style="text-align: center;">Motor Partners          1234 40th Ave Oakland CA</p>		
DRAWN BY  	DRAWN DATE  	PROJECT NUMBER  	FILE NAME  
		PROJECT NUMBER  	PROJECT NUMBER  

1004-197 DWG  
 3/7/97  
 G.L.R.



**LEGEND**

● - MONITORING WELLS

3

1004-197 DWG  
 3/7/97  
 G.L.R.

CAROL ROBERTS PH.D.  
 ENVIRONMENTAL CONSULTANT  
 2357 DAILEY ST.  
 BERKELEY, CA 94705  
 (510) 861-7167

DRAWN BY GLR	PROJECT NUMBER 1004
DRAWING DATE 3/7/97	FILE NAME 1004-197 DWG
REVISION BY	PROJECT MANAGER GLR
REVISION BY	CHECKED BY

DESCRIPTION  
 Site Layout

PROJECT LOCATION  
 Motor Partners  
 1234 40th Ave., Oakland

FIGURE  
 2

E. 14TH ST.

40TH AVENUE

Sampling conducted on January 11, 1994 indicated levels of TPH-gasoline for the former waste oil tank area between 100 and 700 ppm. Levels of TPH-gasoline for the former gasoline tank area ranged from 150 to 1,200 ppm.

GROWTH Environmental completed soil borings at the property between May and June of 1994. Eleven borings were drilled and three monitoring wells were installed. Both soil and groundwater samples were collected from the borings. Soil and groundwater contamination was found in nearly every boring. Levels of TPH-D up to 2,700 ppm were observed on the west side of the building. A sample from inside the building had a TPH-D level of 520 ppm.

Groundwater samples had highest concentrations near the former tank excavations. The highest level of TPH-G was 64,000 ppb. BTEX compounds were found in groundwater samples from all the borings.

The monitoring wells were sampled on June 17, 1994 and December 7, 1994. Contamination was reported in all three wells. Levels of TPH-G were up to 17,000 ppb and Benzene levels were up to 1,200 ppb in MW-1.

A quarterly monitoring sampling event was completed on November 29, 1995. All of the wells showed increased TPH-G and BTEX levels when compared to the previous sampling event. TPH-G levels were up to 67,000 ppb in MW-1. The groundwater gradient was calculated to be in a southwesterly direction.

Additional geoprobe borings were completed along 40th Avenue between November, 1995 and February, 1996 to determine the extent of contamination.

On February 1, 1996, Bay Area Exploration drilled a soil boring across the street from the former underground storage tank excavations at the Motor Partners site (location shown in Figure 3 ). A two-inch groundwater monitoring well (MW-4) was installed in the boring. The monitoring well was installed according to State of California Water Resource Control Board standards to a depth of 25 feet below grade surface (bgs) and screened from 5 to 25 feet bgs.



## **GEOLOGY AND HYDROGEOLOGY**

### **Regional Geology.**

The site is located on the East Bay Plain about 1.0 mile west of the Oakland Hills, about 1.0 mile east of the San Francisco Bay, and about 0.5 miles north of San Leandro Bay. The property is bounded on the northeast by 14th Street.

The site rests on Quaternary Deposits of various physical and compositional properties. The predominant formation is the Temescal Formation consisting of contemporaneous alluvial units of different origin, lithology, and physical properties. The material ranges from irregularly bedded clay, silt, sand and gravel to lenses of clay, silt, sand, and gravel with Claremont Chert.

The Hayward Fault is approximately 1.5 miles East of the site and is an active historic Fault. The Hayward Fault is the only active fault in the Oakland East Quadrangle.

### **Regional Hydrogeology.**

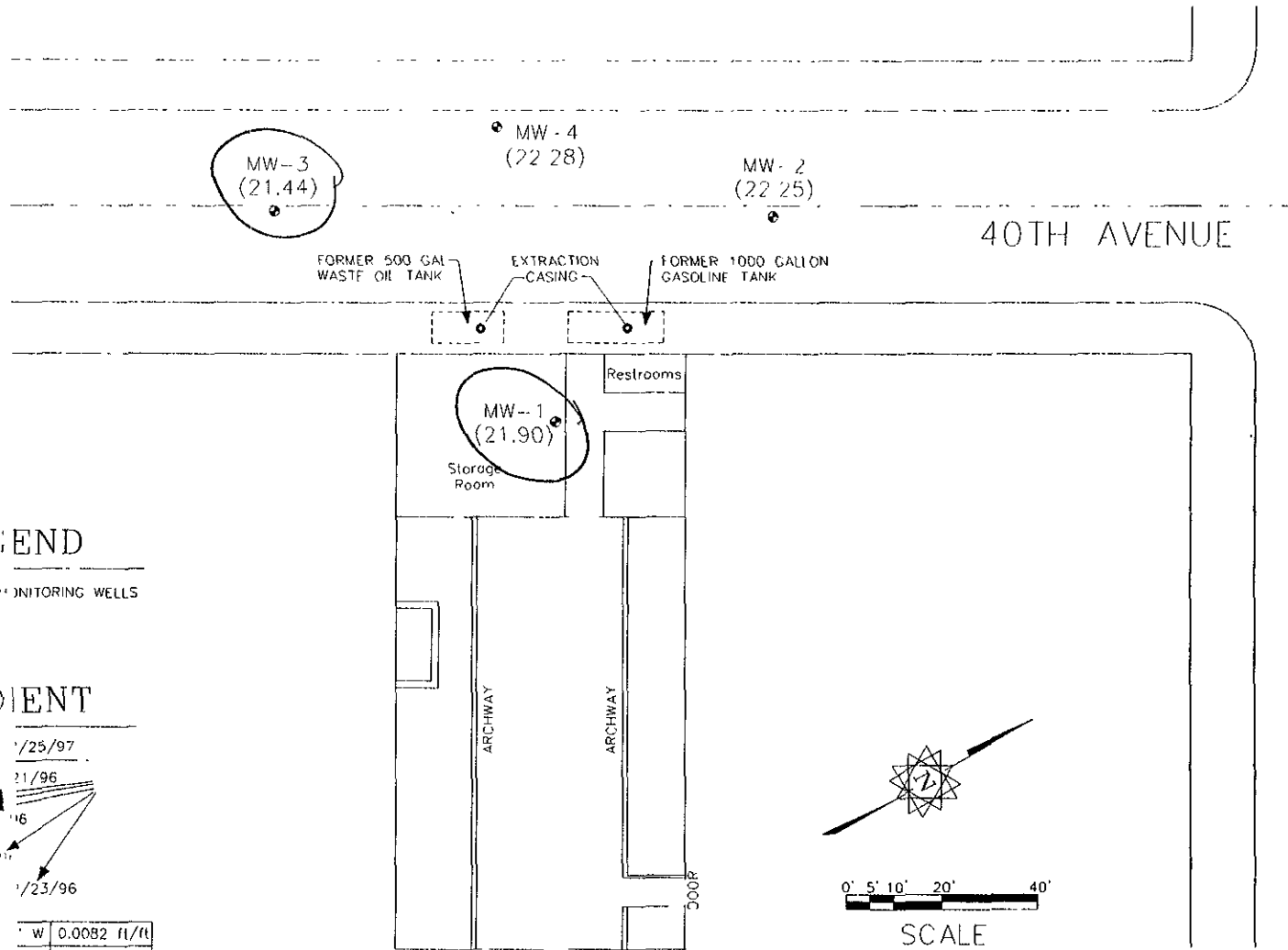
The site is located within the East Bay Plain which makes up the ground water reservoir in the area. The water bearing capacity varies within the area due to the juxtaposed positions of the various types of soils and strata encountered underneath the East Bay Plain.

In General the water bearing capacities of the Younger Alluvium range from moderately permeable to low permeable soils. Below the Younger Alluvium at a depth of approximately 70 feet lies the Older Alluvium, which yields large to small quantities of well water.

**Site Geology.** The site soils were characterized using the United Soil Classification System (USCS). During on-site subsurface drilling, CEC (GROWTH) encountered up to two feet of baserock (fill) followed by a 4 to 5 foot layer of dark sandy clay (CL). Below the dark clay to a depth between 7 and 15 feet, a grey sandy gravel was found. Below the sandy gravel the soil varied between a clayey sand to a sandy silty clay (SC). The gravels are poorly sorted, angular to rounded clasts ranging in size from 0.2 cm to 3.0 cm.

**Site Hydrogeology.** The depth of first water ranged from 8 to 10 feet below the ground surface (bgs) in the borings. Groundwater was encountered within the grey clayey sandy gravel layers.

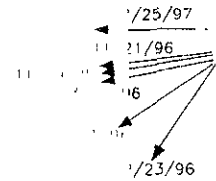
Motor Partners 1234 40th Ave Oakland CA  
 Groundwater Monitoring Report



**LEGEND**

● MONITORING WELLS

**GRADIENT**



W	0.0082	ft/ft
E	0.0033	ft/ft
E	0.0064	ft/ft
W	0.0077	ft/ft
W	0.0062	ft/ft
W	0.0076	ft/ft

E. 14TH ST.

Map 1 of 11  
 1234 40th Ave  
 Oakland CA 94612

GARY JOSEPH, P.E. ENVIRONMENTAL CONSULTANT 2657 RAY BL. C FRENCH CREEK, CA 94536 (510) 791-2157	DRAWN BY GLR	PROJECT NUMBER 1004	DESCRIPTION Groundwater Gradient	FIGURE 3	
	DRAWING DATE 3/7/97	FILE NAME 1004-197 DWG			
	REVISION BY	PROJECT MANAGER GLR	PROJECT/LOCATION Motor Partners 1234 40th Ave., Oakland		
	REVISION BY	CHECKED BY			

**Table 1**  
**Monitoring Well Construction Data for Motor Partners Site**  
**1234 40th Ave., Oakland, California**

	MW-1	MW-2	MW-3	MW-4
Date Drilled	6/15/94	6/14/94	6/14/94	2/1/96
Total Depth	22.5 ft.	22.0 ft.	23.0 ft.	23.0 ft.
Bore Diameter	10 inches	10 inches	10 inches	10 inches
Casing Diameter	2 inch	2 inch	2 inch	2 inch
Well Seal Type	Bentonite Pellets	Bentonite Pellets	Bentonite Pellets	Bentonite Pellets
Well Seal Interval	5.0 - 6.0 bgs	5.0 - 6.0 bgs	5.0 - 6.0 bgs	3.0 - 4.0 bgs
Filter Pack Material	2/14 Lonestar Sand	2/14 Lonestar Sand	2/14 Lonestar Sand	2/14 Lonestar Sand
Filter Pack Interval	6.0 - 17.0 bgs	9.0 - 20.0 bgs	6.5 - 20.0 bgs	4.0 - 25.0 bgs
Screen Slot Size	0.020 in.	0.020 in.	0.020 in.	0.010 in.
Screened Interval	7.0 - 17.0 bgs	10.0 - 20.0 bgs	7.0 - 20.0 bgs	5.0 - 25.0 bgs
Well Elevation <sup>1</sup>	28.43 ft.	28.03 ft.	27.41 ft.	27.34 ft.

<sup>1</sup>TOC -Top of Casing Elevations for MW-1, MW-2, and MW-3 were surveyed on 11/17/95 to a City of Oakland benchmark at the northwest corner of the block using an elevation of 29.07 feet above mean sea level. The Top of Casing Elevation for MW-4 was surveyed on 2/14/96 to the TOC Elevations for MW-2 and MW-3.

## GROUNDWATER MONITORING

### GROUNDWATER ELEVATION MEASUREMENTS

The static water level was measured in all four monitoring wells (MW-1, MW-2, MW-3, and MW-4) on February 25, 1997 and the depths were recorded to the nearest 0.01 foot using an electronic water level sounder. All of the results were recorded on Quarterly Monitoring Data Sheets presented in Appendix B.

### MONITORING WELL SAMPLING

The monitoring wells were purged by withdrawing a minimum of three casing volumes from each well using a 2" submersible pump. The purging continued until the turbidity was less than 100 NTU and the temperature, electric conductivity, and pH were relatively stable. Samples were collected when the water levels recovered to at least 80% of the original static level.

A groundwater sample was collected with a disposable Teflon bailer and placed in two 40-ml VOA's and one one-liter amber bottle. The samples were labeled and stored on ice until delivered under a chain of custody to the state certified laboratory. Samples from all four wells (MW-1, MW-2, MW-3, and MW-4) were analyzed for total petroleum hydrocarbons as diesel (TPH-D), using EPA methods modified 8015; as gasoline (TPH-G) using EPA methods 8015/5030; and benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA methods 8020.

## ANALYTICAL RESULTS

### GROUNDWATER HYDRAULIC CONDITIONS

**Groundwater Elevation.** The groundwater elevation data for the monitoring wells is presented in Table 2. Based on groundwater level measurements collected on February 25, 1997, the depth to groundwater in the wells ranged from 5.8 to 6.5 feet below the top of the casing. The groundwater elevations for the wells were as follows; MW-1 was 21.90 feet above mean sea level (msl), MW-2 was 22.25 feet above msl, MW-3 was 21.44 feet above msl, and MW-4 was 22.28 feet above msl.

**Groundwater Flow Direction and Gradient.** Groundwater flow direction was calculated using three wells (MW-1, MW-2, and MW-3). Groundwater flow direction trended to the southwest (S 30°W) at a gradient of 0.0076 ft/ft. The flow direction and gradient are shown in Figure 3.

### LABORATORY DATA

A summary of the analytical results for the monitoring well sampling is presented in Table 3. Copies of all the analytical data sheets from ChromaLab, Inc. are presented in Appendix A.

**Table 2**  
**Groundwater Elevation Results at Motor Partners Site**  
**1234 40th Ave., Oakland, California**

	DATE	MW-1	MW-2	MW-3	MW-4	GRADIENT
<b>TOC</b>		28.43 ft	28.03 ft	27.41 ft.	27.34	
<b>SWL</b>	11/29/95	10.13	9.31	9.53		S 21° W
<b>GSE</b>		18.3	18.72	17.88		0.0082 ft/ft
<b>SWL</b>	2/23/96	4.59	3.77	3.56	3.17	S 26° E
<b>GSE</b>		23.84	24.26	23.85	24.17	0.0033 ft/ft
<b>SWL</b>	5/21/96	6.04	5.24	5.29	4.68	S 5° E
<b>GSE</b>		22.39	22.79	22.12	22.66	0.0064 ft/ft
<b>SWL</b>	8/22/96	8.46	7.66	7.88	7.10	S 19° W
<b>GSE</b>		19.97	20.37	19.53	20.24	0.0077 ft/ft
<b>SWL</b>	11/21/96	8.44	7.73	7.76	7.31	S 23° W
<b>GSE</b>		19.99	20.30	19.65	20.03	0.0062 ft/ft
<b>SWL</b>	2/25/97	6.53	5.78	5.97	5.06	S 30° W
<b>GSE</b>		21.90	22.25	21.44	22.28	0.0076 ft/ft

TOC - Top of Casing Elevations for MW-1, MW-2, and MW-3 were surveyed on 11/17/95 to City of Oakland benchmark at northwest corner of block, using an elevation of 29.07 feet above mean sea level. The Top of Casing Elevation for MW-4 was surveyed on 2/14/96 to MW-2 and MW-3.

SWL - Static Water Level (ft)

GSE - Groundwater Surface Elevation (feet relative to mean sea level)

**Table 3**  
**Quarterly Groundwater Sampling Results at Motor Partners**  
**1234 40th Ave., Oakland, California**

Sample I.D. Number	Date Collected	TPH-D ( $\mu\text{g/L}$ )	TPH-G ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl Benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )
MW-1	6/17/94	2,400	17,000	1,200	220	1,000	2,600
	11/29/95	53,000	67,000	860	180	1,300	3,100
	2/23/96	25,000	16,000	360	ND	370	740
	5/21/96	650	11,000	290	37	600	1,300
	8/22/96	ND	13,000	270	51	540	1,400
	11/21/96	5,500	15,000	810	79	680	1,700
	2/25/97	3,900	15,000	430	36	760	1,200
MW-2	6/17/94	370	990	ND	1.3	2.3	4.4
	12/07/94	ND	170	2.1	0.70	0.60	1.7
	11/29/95	200	400	ND	ND	ND	3
	2/23/96	ND	500	ND	ND	ND	ND
	5/21/96	ND	62	ND	ND	ND	1
	8/22/96	ND	120	0.58	0.62	ND	0.62
	11/21/96	89	89	0.60	0.78	ND	ND
	2/25/97	ND	250	1.2	1.0	ND	ND
California Drinking Water MCL		None Listed	None Listed	1.0	1,000	680	1,750
Reporting Limit		50	50	0.5	0.5	0.5	1.0

Notes: All results in  $\mu\text{g/l}$  (ppb)  
 ND = Not Detected  
 NA = Not Analyzed

**Table 3 Continued**  
**Quarterly Groundwater Sampling Results at Motor Partners**  
**1234 40th Ave., Oakland, California**

Sample I.D. Number	Date Collected	TPH-D ( $\mu\text{g/L}$ )	TPH-G ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl Benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )
MW-3	6/17/95	2,200	9,500	330	40	100	74
	12/07/94	1,700	7,500	380	42	130	72
	11/29/95	14,000	9,000	300	49	300	16
	2/23/96	14,000	13,000	270	83	260	67
	5/21/96	350	6,600	220	48	160	66
	8/22/96	ND	4,800	120	34	44	44
	11/21/96	3,300	8,700	220	51	150	68
	2/25/97	ND	8,200	260	57	200	72
MW-4	2/23/96	3,000	6,000	58	36	6	28
	5/21/96	78	1,200	18	2.5	6.2	12
	8/22/96	ND	400	8.6	3.4	1.8	2.6
	11/21/96	87	170	3.6	1.1	1.7	2.3
	2/25/97	ND	120	5.4	0.64	0.93	0.80
California Drinking Water MCL		None Listed	None Listed	1.0	1,000	680	1,750
Reporting Limit		50	50	0.5	0.5	0.5	1.0

Notes: All results in  $\mu\text{g/l}$  (ppb)  
 ND = Not Detected  
 NA = Not Analyzed



## SUMMARY AND RECOMMENDATIONS

The four monitoring wells at the Motor Partners site were sampled for the first quarter, 1997. The results of the sampling indicate that hydrocarbon contamination is present in groundwater samples from each of the wells, though highest levels were reported from MW-1. Concentrations of hydrocarbons in the samples are consistent with the previous monitoring period.

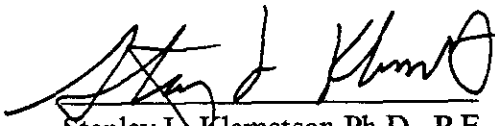
TPH-Gasoline and Benzene contamination exists on the property. The highest concentrations reported from the four wells were from the groundwater sample collected at MW-1 (inside the building). Groundwater flow direction for this sampling period was shown to be in a southwesterly direction.

Phase II investigation activities are on-going at the site. It is recommended that quarterly groundwater sampling be continued.

## LIMITATIONS

This report has been prepared in accordance with generally accepted environmental, geological and engineering practices. No warranty, either expressed or implied is made as to the professional advice presented herein. The analysis, conclusions, and recommendations contained in this report are based upon site conditions as they existed at the time of the investigation and they are subject to change.

The conclusions presented in this report are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this report. The scope of services performed in execution of this investigation may not be appropriate to satisfy the needs of other users and any use or reuse of this document or its findings, conclusions or recommendations presented herein is at the sole risk of the said user.



Stanley L. Klemetson Ph.D., P.E.  
P.E No. 40087



## **APPENDIX A**

### **Analytical Results**



# CHROMALAB, INC.

Environmental Services (SDB)

March 5, 1997

Submission #: 9702310

ROGERS ENVIRONMENTAL SERVICES

Atten: Gary Rogers

Project: MOTOR PARTNERS

Project#: 1004.95

Received: February 26, 1997

re: One sample for Gasoline BTEX analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-2

Spl#: 119070


Matrix: WATER

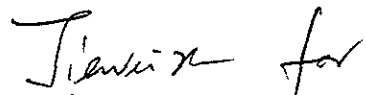
Sampled: February 25, 1997

Run#: 5569

Analyzed: March 3, 1997

<u>ANALYTE</u>	<u>RESULT</u> (ug/L)	<u>REPORTING</u> <u>LIMIT</u> (ug/L)	<u>BLANK</u> <u>RESULT</u> (ug/L)	<u>BLANK</u> <u>SPIKE</u> (%)	<u>DILUTION</u> <u>FACTOR</u>
GASOLINE	250	50	N.D.	101	1
BENZENE	1.2	0.50	N.D.	100	1
TOLUENE	1.0	0.50	N.D.	97	1
ETHYL BENZENE	N.D.	0.50	N.D.	99	1
XYLENES	N.D.	0.50	N.D.	95	1

  
Kayvan Kimyai  
Chemist

  
Marianne Alexander  
Gas/BTEX Supervisor

# CHROMALAB, INC.

Environmental Services (SDB)

March 5, 1997

Submission #: 9702310

ROGERS ENVIRONMENTAL SERVICES

Atten: Gary Rogers

Project: MOTOR PARTNERS  
Received: February 26, 1997

Project#: 1004.95

re: One sample for Gasoline BTEX analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

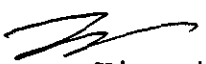
Client Sample ID: MW-1


Spl#: 119073  
Sampled: February 25, 1997

Matrix: WATER  
Run#: 5569

Analyzed: March 4, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	15000	1000	N.D.	101	20
BENZENE	430	10	N.D.	100	20
TOLUENE	36	10	N.D.	97	20
ETHYL BENZENE	760	10	N.D.	99	20
XYLENES	1200	10	N.D.	95	20

  
Kayvan Kimyai  
Chemist

  
Marianne Alexander  
Gas/BTEX Supervisor

# CHROMALAB, INC.

Environmental Services (SDB)

March 5, 1997

Submission #: 9702310

ROGERS ENVIRONMENTAL SERVICES

Atten: Gary Rogers

Project: MOTOR PARTNERS  
Received: February 26, 1997

Project#: 1004.95

re: One sample for Gasoline BTEX analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-4

Spl#: 119072


Matrix: WATER

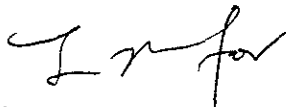
Sampled: February 25, 1997

Run#: 5569

Analyzed: March 4, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	120	50	N.D.	101	1
BENZENE	5.4	0.50	N.D.	100	1
TOLUENE	0.64	0.50	N.D.	97	1
ETHYL BENZENE	0.93	0.50	N.D.	99	1
XYLENES	0.80	0.50	N.D.	95	1

  
Kayvan Kimyai  
Chemist

  
Marianne Alexander  
Gas/BTEX Supervisor

# CHROMALAB, INC.

Environmental Services (SDB)

March 5, 1997

Submission #: 9702310

ROGERS ENVIRONMENTAL SERVICES

Atten: Gary Rogers

Project: MOTOR PARTNERS  
Received: February 26, 1997

Project#: 1004.95

re: One sample for Gasoline BTEX analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-3

Spl#: 119071

Matrix: WATER


Sampled: February 25, 1997

Run#: 5569

Analyzed: March 4, 1997

<u>ANALYTE</u>	<u>RESULT</u> <u>(ug/L)</u>	<u>REPORTING</u> <u>LIMIT</u> <u>(ug/L)</u>	<u>BLANK</u> <u>RESULT</u> <u>(ug/L)</u>	<u>BLANK</u> <u>SPIKE</u> <u>(%)</u>	<u>DILUTION</u> <u>FACTOR</u>
GASOLINE	8200	1000	N.D.	101	20
BENZENE	260	10	N.D.	100	20
TOLUENE	57	10	N.D.	97	20
ETHYL BENZENE	200	10	N.D.	99	20
XYLENES	72	10	N.D.	95	20

  
Kayvan Kimyai  
Chemist

  
Marianne Alexander  
Gas/BTEX Supervisor



# CHROMALAB, INC.

Environmental Services (SDB)

March 5, 1997

Submission #: 9702310

ROGERS ENVIRONMENTAL SERVICES

Atten: Gary Rogers

Project: MOTOR PARTNERS  
Received: February 26, 1997

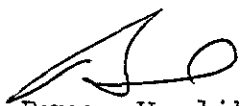
Project#: 1004.95

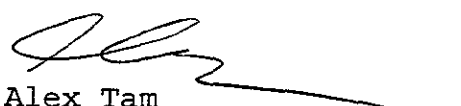
re: 4 samples for TPH - Diesel analysis.  
Method: EPA 8015M

Matrix: WATER  
Sampled: February 25, 1997 Run#: 5588  
Extracted: March 4, 1997  
Analyzed: March 5, 1997

Spl#	CLIENT SPL ID	DIESEL (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
119070	MW-2	N.D.	50	N.D.	65.5	1
119071	MW-3	N.D.	50	N.D.	65.5	1
119072	MW-4	N.D.	50	N.D.	65.5	1
119073	MW-1	3900	50	N.D.	65.5	1

Note: Hydrocarbon reported is in the early and late Diesel range and does not match our Diesel standard. Estimated concentration due to overlapping fuel patterns.

  
Bruce Havlik  
Chemist

  
Alex Tam  
Semivolatiles Supervisor

## **APPENDIX B**

### **Quarterly Monitoring Data Sheets**

### Quarterly Monitoring Data Sheet

Date: <u>2/25/97</u>	Well Diameter: <u>2 Inches</u> Well ID: <u>MW-1</u>
Project Location: <u>Motor Partners Site</u>	Well Type: <u>Monitoring Well</u>
<u>1234 40th Ave., Oakland</u>	Total Depth as Built: <u>19 ft</u>
Sampler: <u>G. Rogers</u>	Screened Interval: <u>7 ft to 17 ft</u>

#### Water Level Data

Time Depth Sounded: 11:52 AM  
 Measured Depth to Water: 6.53 ft.  
 Measured Total Depth: 18.2 ft.

#### Purge Calculation (Min 3 Casing Volumes)

gal/ft X ft = gal X 3 = gal  
0.163 X 11.7 = 1.9 X 3 = 5.7

#### Purge Data

Time	Flowrate (gpm)	Volume (gal)	Temp (°F)	EC (µs/cm)	pH	Turbidity (NTU)
11:59		0	65.4	965	8.03	241
12:02		2	65.3	985	7.73	72
12:05		4	65.7	984	7.58	24
12:08		6	65.6	985	7.48	13
12:12		8	65.4	978	7.44	6

#### Observations/Comments:

Inside Building

#### Laboratory Analysis:

Sample at 1:15 pm  
 Water depth - 6.55 ft.  
 Analyze for TPH-D, TPH-G and BTEX

#### Data for Volume Calculation:

1 cu ft = 7.48 gal = 62.4 lbs (approx)  
 2" well = 0.163 gal/linear ft  
 4" well = 0.653 gal/linear ft.

1 gal = 0.134 cu ft. = 8.34 lbs (approx)  
 3" well = 0.367 gal/linear ft  
 6" well = 1.469 gal/linear ft

**Quarterly Monitoring Data Sheet**

Date: <u>2/25/97</u> Project Location: <u>Motor Partners Site</u> <u>1234 40th Ave., Oakland</u> Sampler: <u>G. Rogers</u>	Well Diameter: <u>2 Inches</u> Well ID: <u>MW-2</u> Well Type: <u>Monitoring Well</u> Total Depth as Built: <u>22 ft</u> Screened Interval: <u>10 ft to 20 ft</u>
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<b>Water Level Data</b>	<b>Purge Calculation (Min 3 Casing Volumes)</b>
Time Depth Sounded: <u>9:46 AM</u> Measured Depth to Water: <u>5.78 ft.</u> Measured Total Depth: <u>19.6 ft.</u>	$\text{gal/ft} \times \text{ft} = \text{gal} \times 3 = \text{gal}$ $0.163 \times 13.8 = 2.3 \times 3 = 6.8$

**Purge Data**

Time	Flowrate (gpm)	Volume (gal)	Temp (°F)	EC (µs/cm)	pH	Turbidity (NTU)
9:55		0	64.2	1909	8.45	336
10:00		2	67.0	958	8.09	58
10:04		4	67.1	926	7.80	24
10:08		6	67.2	922	7.56	11
10:11		8	66.9	923	7.45	6
10:14		10	66.8	922	7.46	5

**Observations/Comments:**

Clear and Sunny

**Laboratory Analysis:**

Sample at 12:45 pm  
 Water depth - 5.78 ft.  
 Analyze for TPH-D, TPH-G and BTEX

**Data for Volume Calculation:**

1 cu. ft. = 7.48 gal = 62.4 lbs (approx)	1 gal = 0.134 cu. ft. = 8.34 lbs (approx)
2" well = 0.163 gal/linear ft.	3" well = 0.367 gal/linear ft
4" well = 0.653 gal/linear ft.	6" well = 1.469 gal/linear ft

### Quarterly Monitoring Data Sheet

Date: <u>2/25/97</u> Project Location: <u>Motor Partners Site</u> <u>1234 40th Ave., Oakland</u> Sampler: <u>G. Rogers</u>	Well Diameter: <u>2 Inches</u> Well ID: <u>MW-3</u> Well Type: <u>Monitoring Well</u> Total Depth as Built: <u>23 ft</u> Screened Interval: <u>7 ft to 20 ft</u>
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#### Water Level Data

Time Depth Sounded: 10:29 AM  
 Measured Depth to Water: 5.97 ft.  
 Measured Total Depth: 21.3 ft.

#### Purge Calculation (Min 3 Casing Volumes)

gal/ft X ft = gal X 3 = gal  
0.163 X 15.3 = 2.5 X 3 = 7.5

#### Purge Data

Time	Flowrate (gpm)	Volume (gal)	Temp (°F)	EC (µs/cm)	pH	Turbidity (NTU)
10:36		0	65.3	1094	7.81	323
10:40		2	65.2	1091	7.47	180
10:44		4	65.5	1087	7.36	81
10:48		6	65.3	1048	7.37	32
10:51		8	65.5	1079	7.36	13
10:54		10	65.5	1074	7.36	8

#### Observations/Comments:

Clear and Sunny

#### Laboratory Analysis:

Sample at 12:55 pm  
 Water depth - 6.01 ft.  
 Analyze for TPH-D, TPH-G and BTEX

#### Data for Volume Calculation:

1 cu. ft. = 7.48 gal = 62.4 lbs (approx)	1 gal = 0.134 cu. ft. = 8.34 lbs (approx)
2" well = 0.163 gal/linear ft	3" well = 0.367 gal/linear ft
4" well = 0.653 gal/linear ft	6" well = 1.469 gal/linear ft

### Quarterly Monitoring Data Sheet

Date: <u>2/25/97</u> Project Location: <u>Motor Partners Site</u> <u>1234 40th Ave., Oakland</u> Sampler: <u>G. Rogers</u>	Well Diameter: <u>2 Inches</u> Well ID: <u>MW-4</u> Well Type: <u>Monitoring Well</u> Total Depth as Built: <u>25 ft</u> Screened Interval: <u>5 ft to 25 ft</u>
<b>Water Level Data</b>	<b>Purge Calculation (Min 3 Casing Volumes)</b>
Time Depth Sounded: <u>11:22 AM</u> Measured Depth to Water: <u>5.06 ft.</u> Measured Total Depth: <u>24.6 ft.</u>	gal/ft X ft = gal X 3 = gal <u>0.163</u> X <u>19.5</u> = <u>3.2</u> X 3 = <u>9.6</u>

#### Purge Data

Time	Flowrate (gpm)	Volume (gal)	Temp (°F)	EC (µs/cm)	pH	Turbidity (NTU)
11:27		0	66.6	912	8.80	>1000
11:30		2	67.3	899	8.29	223
11:33		4	67.9	906	8.02	62
11:36		6	67.9	907	7.86	28
11:39		8	68.0	911	7.79	16
11:42		10	67.9	915	7.74	13

**Observations/Comments:**

Clear and Sunny

**Laboratory Analysis:**

Sample at 1:05 pm  
 Water depth - 5.24 ft.  
 Analyze for TPH-D, TPH-G and BTEX

**Data for Volume Calculation:**

1 cu. ft. = 7.48 gal = 62.4 lbs (approx)	1 gal = 0.134 cu. ft. = 8.34 lbs (approx)
2" well = 0.163 gal/linear ft.	3" well = 0.367 gal/linear ft.
4" well = 0.653 gal/linear ft.	6" well = 1.469 gal/linear ft.