

Certified Environmental Consulting Inc.



San Mateo Office *ALSO HAZMAT*
32 West 25th Avenue, Suite 102
San Mateo, CA 94403 *94 007 -4 31 01 04*
(415) 341-7630
(415) 341-7652 FAX

September 21, 1994

REF: 477-1532.RPT

3652

Mr. Barney M. Chan
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Rm 250
Alameda, CA 94502
(510) 576-6700
(510) 337-9335

**SUBJECT: Report of Phase I Site Investigation Work at Motor Partners,
1234 40th Avenue, Oakland, CA 94621**

Dear Mr. Chan:

Certified Environmental Consulting, Inc. (CEC) is pleased to submit the enclosed Report of the Phase I Site Investigation Work conducted at the Motor Partners site located at 1234 40th Avenue in Oakland.

The report includes: 1) work completed to evaluate the lateral and vertical extent of contamination in soil and groundwater, and 2) installation of three monitoring wells, along with initial sampling and reporting. Additional investigation is required before a corrective action plan (CAP) can be developed.

If you have questions, please give us a call.

Sincerely,

Handwritten signature of Gary Rogers in cursive script.

Gary Rogers, Ph.D.
District Manager

Handwritten signature of Stanley L. Klemetson in cursive script.

Stanley L. Klemetson, Ph.D., P.E.
Exec. Vice President

Enclosures

cc: Bill Owens, Motor Partners

REPORT OF PHASE I SITE INVESTIGATION

PROJECT SITE

**Motor Partners
1234 40th Avenue
Oakland, CA 94621**

PREPARED FOR

**Mr. Bill Owens
Motor Partners
2221 Olympic Blvd.
Walnut Creek, CA 94595
(510) 935-3840**

SUBMITTED TO

**Mr. Barney M. Chan
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Rm 250
Alameda, CA 94502
(510) 576-6700
(510) 337-9335**

PREPARED BY

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**CEC PROJECT NO.
477-1532**

September 21, 1994

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INTRODUCTION

Project Description

The current project included the following tasks; 1) soil borings were drilled to determine the lateral and vertical extent of soil and groundwater contamination, and, 2) installation of three 2-inch monitoring wells. The wells are to evaluate groundwater gradient and direction and extent of the groundwater plume.

Site Location and Description

The Motor Partners site 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 ft. west of the site and San Leandro Bay is less than one mile to the southwest.

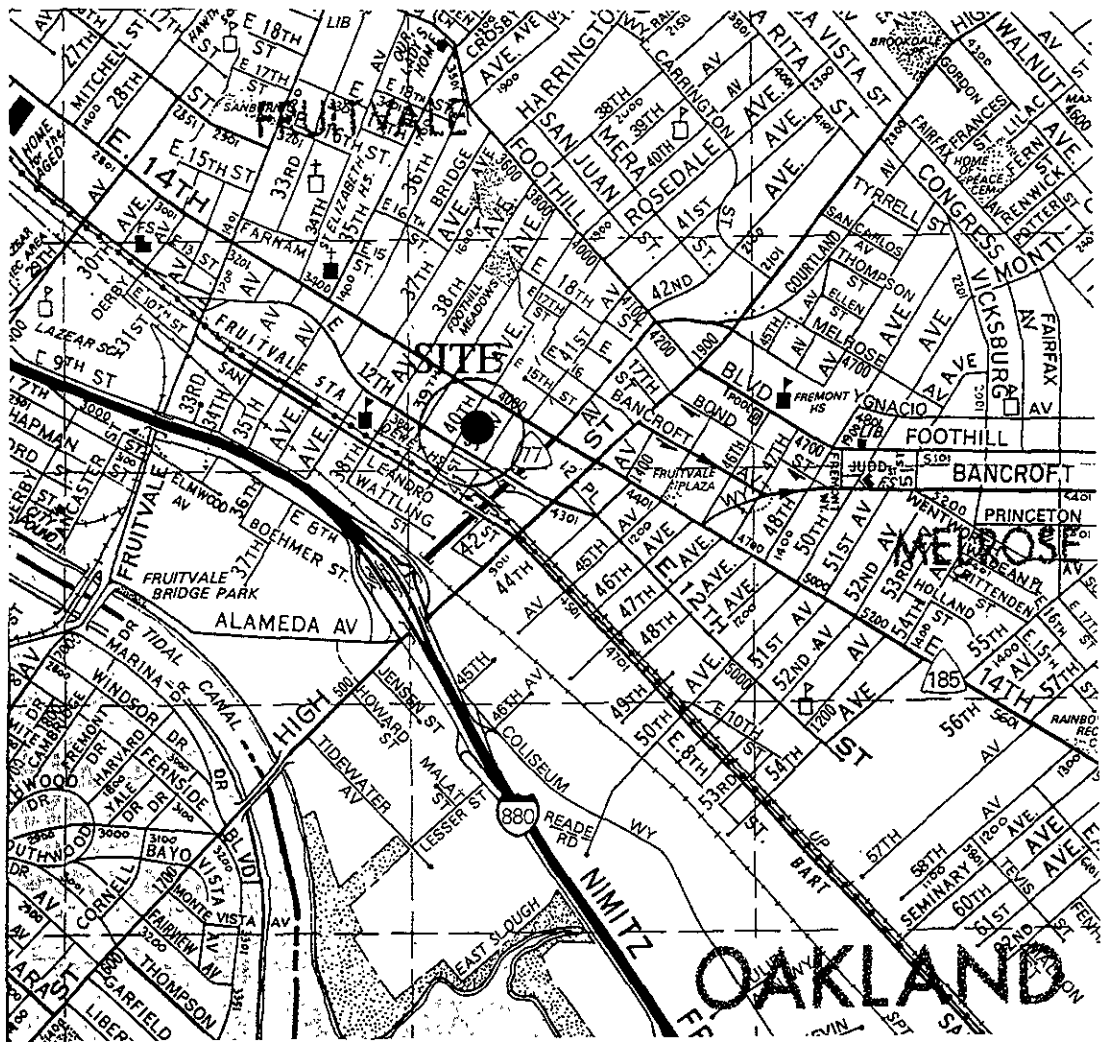
Site History and Use

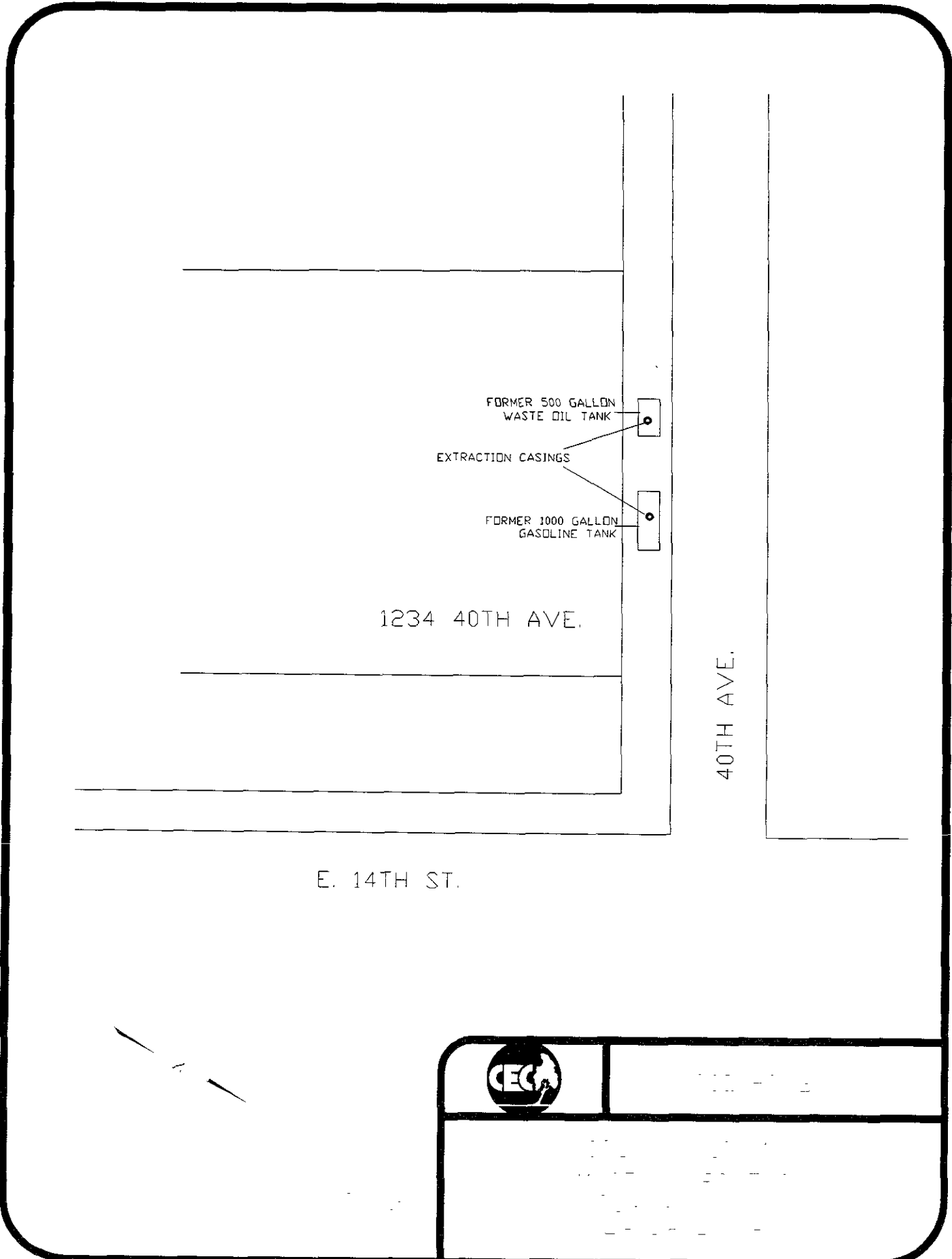
Motor Partners utilized the site in the past for auto repair shops. Much of the building is now vacant or being used for storage. Two underground storage tanks were maintained outside the 1234 40th Ave. building. A 1,000-gallon underground gasoline tank and a 500-gallon underground waste oil tank were located below the sidewalk (Figure 2).

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 1000-gallon tank was 1600 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 the petroleum impacted soil and backfill. Groundwater was encountered. During the course of overexcavation, it was noted that contamination extended beneath the building and into the street. Utilities prevented further excavation. The overexcavation was halted and samples taken from the sidewalls of each excavation. Extraction well casings (4" diameter, 13 foot length) were installed in the center of each excavation. Clean imported rock was used to backfill the two areas. The sidewalk was resurfaced with Christy boxes housing the two extraction casings. Levels of TPH-gasoline for the former waste oil tank area ranged from 100 to 700 ppm. Levels of TPH-gasoline for the former gasoline tank area ranged from 150 to 1200 ppm.





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 St.

The site rests on Quaternary Deposits of various composition and physical 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.

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 INVESTIGATION

On May 17, June 1, and June 2, 1994, Certified Environmental Consulting, Inc. supervised drilling at the investigation site. Eleven borings were drilled using a Giddings probe on a portable and a truck mounted rig with 4.25 inch I.D. continuous augers, and equipped with a 140 lb hammer. The borings ranged in depth from 12 to 15.5 feet below grade surface (bgs). Groundwater was first encountered at a dept between 10.5 to 13.5 feet bgs. The groundwater stabilized at an average depth of approximately 7.5 feet bgs. A total of 4 borings (B-5, B-6, and B-11) were drilled inside of the existing building. A total of 7 borings were drilled outside the building on 40th Avenue (B-1, B-2, B-3, B-4, B-7, B-9, and B-10). B-1 was drilled on the sidewalk adjacent to the building. Two continuous cores (B-8, outside, and B-9, inside) were drilled for the purpose of soil profile correlation.

SITE SOILS

The site surface consisted of approximately 4.5 to 6 inches of concrete inside the building and approximately 8 inches of concrete in the street areas. Approximately 6 inches of base rock or sand underlay the concrete layer beneath the building and approximately 8 inches of base rock beneath the concrete under the street. Underlying the baserock was a layer of dark brown silty clay (CL) with less than 2% gravel. The clay appeared to be fill material down to a depth of

3.0 to 3.5 feet bgs. At a depth of 3.5 feet, the soil changed to a medium brownish grey sandy silty clay (CL) with trace carbon nodules. At a depth of 6.75 feet, a gravelly clay was encountered. The soils at this depth (6.75 to 15 feet) graded into alternating layers of clayey sands (SC) to clayey gravel (GC). It was in these alternating layers that groundwater was encountered along with the strongest petroleum odors.

PRELIMINARY FINDINGS

A total of 11 soil borings were drilled to better define the lateral and vertical extent of contamination. One boring was drilled in the sidewalk area, four borings were drilled inside the building, and six borings were drilled in the street, outside of the building. Figure 3 shows the locations of the borings. Hydrocarbon odors and contamination were discovered in nearly all of the borings.

Boring B-1

A slight odor was detected in the soil at a depth of approximately 6.5 feet. At a depth of approximately 8.0 feet, a strong hydrocarbon odor was detected within the grey clay layer of soil. The hydrocarbon odor continued through the clayey sandy gravel layer where floating product was observed on the sampler. Groundwater was first encountered at a depth of 10.5 feet and later leveled off at 6.6 feet bgs. The boring was terminated at a depth of 12.0 feet. One soil sample and one groundwater sample were taken for laboratory analysis.

Boring B-2

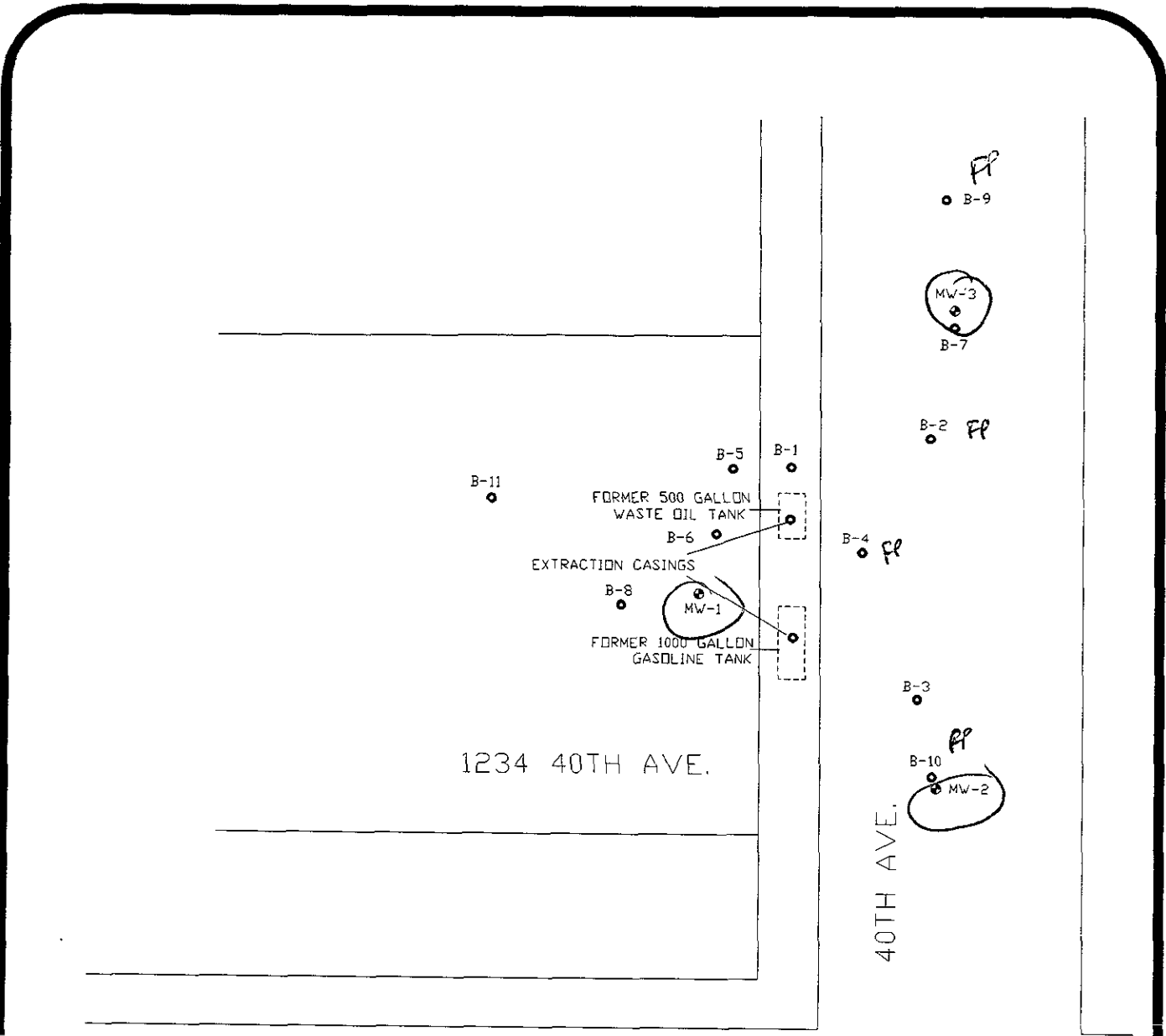
No TPH odor was detected in the soil to a depth of 2.5 feet. At 2.5 feet (bgs), a waste odor was noted to a depth of approximately 8.0 feet. At a depth of approximately 8.0 feet a strong gasoline odor was detected in the soil. Groundwater was first encountered at a depth of 13.0 feet and stabilized one hour later at 7.3 feet. Free product was noted in the boring.

Boring B-3

A waste oil odor was noted in the soil at a depth of approximately 3.5 feet and was detectable to the bottom of the boring. No gasoline odor was detected in the soil layers. Groundwater was noted at a depth of 6.3 feet below grade surface.

Boring B-4

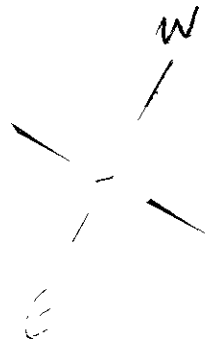
No TPH odors were detected in the upper 2.0 feet of soil. At a depth of 2.0 feet (bgs), a slight waste oil odor was noted in the soil. At a depth of 7.5 feet, a strong gasoline odor was noted in the soil. Free product stains were noted on the gravel grains. Groundwater was first encountered at a depth of approximately 13 feet and stabilized one hour later at 7.19 feet bgs. Free product was noted in the boring.



1234 40TH AVE.

40TH AVE.

E. 14TH ST.



	<p>_____</p>
<p>_____</p> <p>_____</p> <p>_____</p>	

Boring B-5

An oil odor was noted at a depth of 4.5 feet, followed by a strong gasoline odor at 8.5 feet (bgs). No hydrocarbon odor was detected below 14 feet. Groundwater was first encountered at a depth of 12.5 feet and later leveled at 7.16 feet bgs. One soil and groundwater sample were taken for laboratory analysis.

Boring B-6

A strong hydrocarbon odor was noted in the greenish gray sandy silty layer at a depth of 5.0 feet bgs. The odor became stronger at a depth of approximately 10 feet. Groundwater was first noted at a depth of 9.5 feet and leveled off at a depth of 5.2 feet bgs.

Boring B-7

No TPH odor was detected in the upper 14 inches of soil. At approximately 1.5 feet, a slight waste oil odor was detected in the soil. At 2.0 feet, the odor became very strong. A strong gasoline odor was noted at a depth of 8.0 feet bgs. The strong odor continued down to a depth of 12.5 feet. No gasoline odor was detected in the brown clayey sand below 12.5 feet. Groundwater was first encountered at a depth of approximately 10.5 feet and stabilized one hour later at 6.94 feet bgs.

Boring B-8 (Continuous Core Inside Building)

No TPH odors were detected in the upper 10.0 feet of soil. At a depth of 10.5 feet, a very slight waste oil odor was noted. The odor diminished at a depth of 12.5 feet. Groundwater was first encountered at a depth of 13.5 feet and stabilized one hour later at 9.90 feet. No free product was noted in the boring.

Boring B-9 (Continuous Core Outside Building)

No TPH odor was detected in the upper 7.5 feet of soil. At a depth of 7.5 feet (bgs), a slight waste oil odor was noted. The odor increased with depth. No gasoline odor was detected in the soil or groundwater. Groundwater was first encountered at a depth of 10 feet and stabilized an hour later at 7.20 feet bgs. Free product was noted in the boring.

Boring B-10

No TPH odor was detected in the upper 6.5 feet of soil. At a depth of 6.5 feet (bgs), a waste oil odor was noted to a depth of 12 feet. At 12 feet, a strong gasoline odor was detected. Groundwater was first encountered at a depth of 10 feet and stabilized an hour later at 7.20 feet bgs. Free product was noted in the boring.

Boring B-11

No TPH odor was detected in the upper 6.5 feet of soil. At a depth of 7.0 feet (bgs), a very strong diesel or motor oil odor was noted in the boring soil. The odor continued until a depth of 12.5 feet. No odor was detected in the clayey soil below 12.5 feet. Groundwater was first encountered at a depth of 14 feet and stabilized 35 minutes later at 7.92 feet bgs. Free product was noted in the boring.

SOIL SAMPLING

The soil samples were collected using a 2-inch modified California Split Spoon Sampler containing three, 6-inch long brass tubes. The sampler was driven into the ground 18 inches, using a 140 lb hammer with a 30-inch drop. The standard borings were sampled at 5-foot intervals. The continuous borings were performed using a 2-inch modified California Split Spoon Sampler followed by a 2.5-inch California sampler without brass liners, followed by a 2-inch Modified Split Spoon Sampler containing 6-inch long brass liners every 5 feet for the laboratory samples.

The sampler barrels were decontaminated before and after each use by using an Alconox solution wash and tap water. Each sample was covered at each end with teflon sheeting and PVC end caps. The samples were then placed in an ice chest with ice for transportation to the analytical laboratory. A total of 18 soil and 11 groundwater samples were collected from the borings.

The results of soil sampling from the borings are summarized in Table 1. All of the analytical results are presented in Appendix A.

GROUNDWATER SAMPLING

The groundwater samples were obtained from each boring approximately one hour after completing the boring. A disposable bailer was inserted down the boring to retrieve the water samples. Two VOA vials containing HCl as a preservative and a 1000-ml amber bottle were used to collect the groundwater samples from each boring.

The ground water samples were labeled and placed in an ice chest with ice for transportation to the analytical laboratory. The ground water samples were properly labeled and recorded on the chain of custody and delivered to Mc Campbell Analytical, Inc. The samples were analyzed for TPH-diesel, TPH-gasoline, Oil and Grease, and BTEX.

The results of groundwater sampling from the borings are summarized in Table 2. All of the analytical results are presented in Appendix A.

Table 1. Soil Sample Results for Motor Partners, 1234 40th Ave., Oakland, CA

Sample #	Date	TPH-D (mg/kg)	Motor Oil (mg/kg)	TPH-G (mg/kg)	Benzen e (mg/kg)	Toluene (mg/kg)	EB (mg/kg)	Xylene (mg/kg)
B-1-2 @ 9'	5/17/94	260	ND	850	0.55	0.63	0.42	3.6
B-2-2 @ 9.5'	6/1/94	1000	NA	1900	ND	5.0	36	29
B-3-1 @ 6'	5/17/94	ND	ND	910	ND	0.026	0.049	0.092
B-4-1 @ 3'	6/1/94	ND	NA	ND	ND	ND	ND	ND
B-4-2 @ 7.5'	6/1/94	44	NA	83	0.087	0.20	0.21	0.46
B-4-3 @ 11'	6/1/94	450	NA	1000	5.6	8.4	15	71
B-5-2 @ 12'	5/17/94	2700	9300	1100	15	3.7	13	24
B-6-1 @ 9.5'	5/17/94	140	ND	260	0.49	0.53	3.9	13
B-7-1 @ 6'	6/1/94	ND	NA	3.0	0.01	ND	ND	0.019
B-7-2 @ 10.5'	6/1/94	280	NA	1100	0.38	1.9	3.4	5.9
B-8-1 @ 6'	6/1/94	ND	NA	ND	ND	ND	ND	ND
B-8-2 @ 11'	6/1/94	ND	NA	ND	ND	ND	ND	ND
B-9-1 @ 6'	6/2/94	ND	NA	ND	ND	ND	ND	0.008
B-9-2 @ 11'	6/2/94	ND	NA	1.8	ND	ND	ND	0.01
B-10-1 @ 4'	6/2/94	ND	NA	ND	ND	ND	ND	ND
B-10-2 @ 9'	6/2/94	ND	NA	2.3	ND	ND	0.007	0.01
B-11-1 @ 4.5'	6/2/94	ND	NA	ND	ND	ND	ND	ND
B-11-2 @ 9.5'	6/2/94	520	NA	30	ND	ND	ND	0.073

NOTES:

ND = None Detected

NA = Not Analyzed

Table 2. Water Sample Results for Motor Partners, 1234 40th Ave., Oakland, CA

Sample #	Date	TPH-D (ug/kg)	Motor Oil (ug/kg)	TPH-G (ug/kg)	Benzene (ug/kg)	Toluene (ug/kg)	EB (ug/kg)	Xylene (ug/kg)
B-1-W-1	5/17/94	16,000	16,000	16,000	210	46	150	190
B-2-W	6/1/94	7000	NA	8100	220	34	220	60
B-3-W-4	5/17/94	620	ND	910	5.3	2.5	3.0	5.0
B-4-W	6/1/94	4900	NA	38,000	3200	1800	2000	7100
B-5-W-2	5/17/94	2100	7400	3700	370	25	180	160
B-6-W-3	5/17/94	8600	430	64,000	2900	5200	3800	13,000
B-7-W	6/1/94	4500	NA	12,000	380	36	520	170
B-8-W	6/1/94	470	NA	570	6.8	3.2	1.7	5.7
B-9-W	6/2/94	ND	NA	160	2.8	0.62	ND	0.61
B-10-W	6/2/94	1700	NA	6100	28	29	14	62
B-11-W	6/2/94	94	NA	750	6.8	3.2	1.7	5.7

NOTES:

ND = None Detected

NA = Not Analyzed



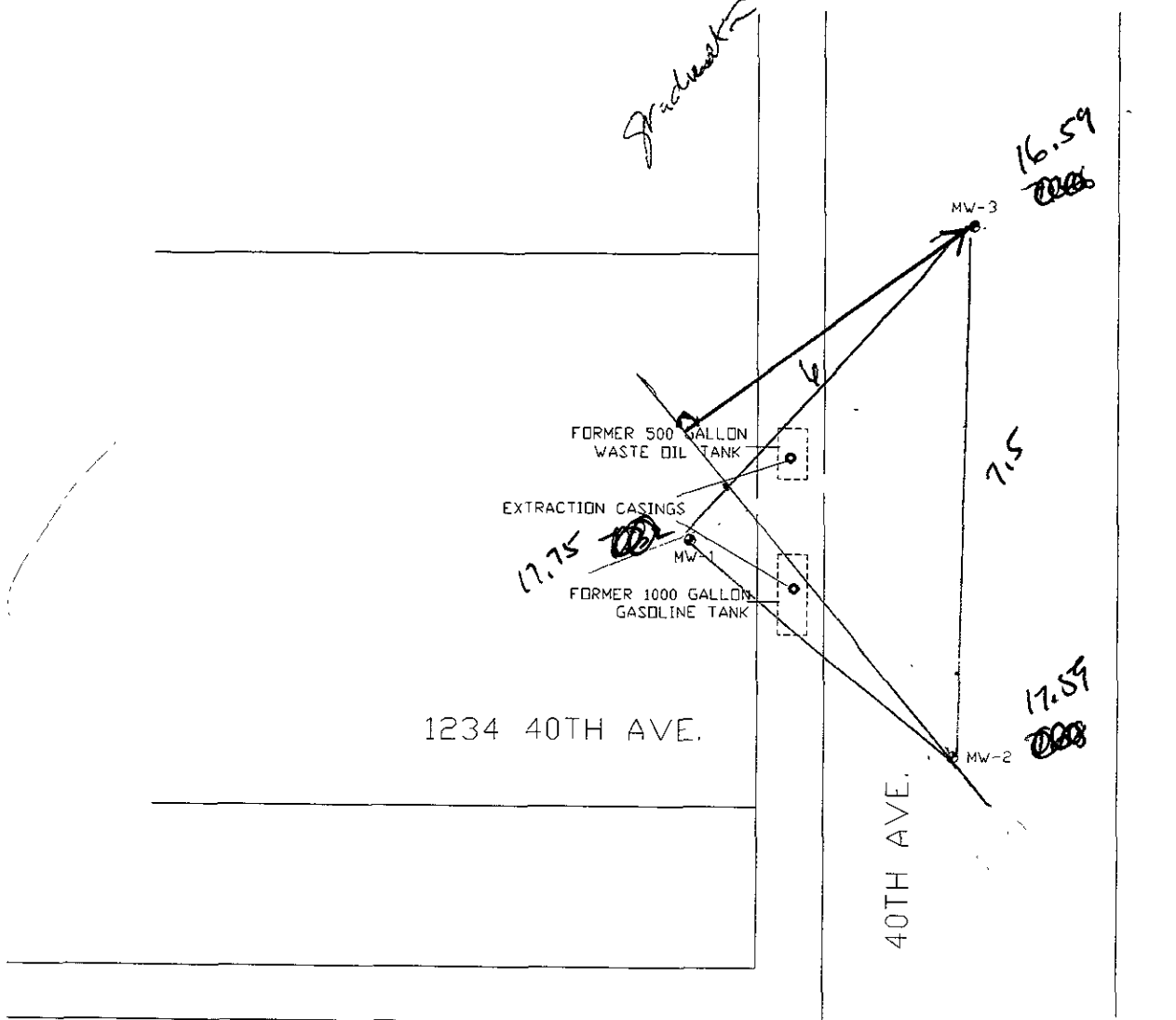
WELL INSTALLATION AND DEVELOPMENT

Three monitoring wells were installed on the site. Figure 4 shows the locations of the wells. After completion, the wells were developed and sampled for the 1st quarter. The groundwater monitoring wells are identified as MW-1, MW-2 and MW-3, Figure 4). They were installed and developed according to SWRCB standards. Each of the wells were surveyed for elevation. The field survey record is provided in Appendix D.

Specifications for the monitoring wells are as follows:

	MW-1	MW-2	MW-3
Total Depth	22.5 ft.	22.0 ft.	23.0 ft.
Bore Diameter	10 in.	10 in.	10 in.
Casing Diameter	2 in.	2 in.	2 in.
Well Seal Type	bentonite pellets	bentonite pellets	bentonite pellets
Well Seal Interval	5.0 - 6.0 ft. bgs	5.0 - 6.0 ft. bgs	5.0 - 6.0 ft. bgs
Filter Pack Material	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
Screen Slot Size	0.020 in.	0.020 in.	0.020 in.
Screened Interval	7.0 - 17.0 bgs	10.0 - 20.0 bgs	7.0 - 20.0 bgs

Gradient = NW



1234 40TH AVE.

40TH AVE.

E. 14TH ST.



QUARTERLY MONITORING

After the wells were completed and developed, initial water samples were collected and analyzed for TPH-Gas & Diesel, and BTEX. The results of this first quarterly sampling are summarized in Table 3. All of the analytical results are presented in Appendix A. The water samples from the three wells were contaminated with hydrocarbons in both the gasoline and diesel ranges.

**Table 3. Groundwater Results of 1st Quarterly Monitoring
Motor Partners, 1234 40th Ave., Oakland, CA**

Sample #	Date	TPH-D (ug/kg)	TPH-G (ug/kg)	Benzene (ug/kg)	Toluene (ug/kg)	EB (ug/kg)	Xylene (ug/kg)
MW-1	6/17/94	2400	17,000	1200	220	1000	2600
MW-2	6/17/94	370	990	ND	1.3	2.3	4.4
MW-3	6/17/94	2200	9500	330	40	100	74

SUMMARY AND RECOMMENDATIONS

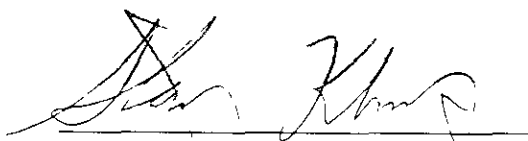
Between May 17th and June 2, 1994, eleven borings were drilled at the Motor Partners site, 1234 40th Ave, Oakland, California. In addition, three monitoring wells were installed on the property. The borings include one monitoring well inside the building and two wells located in the street. Hydrocarbon contamination was found both inside and outside the building.

Additional work is needed to further characterize the limits of the contaminant plume and better define the groundwater gradient.

This work completes the Phase I Preliminary Site Investigation. The Phase II Site Investigation will define the full extent of the contamination, groundwater pumping treatment, pneumatic pump test for Vapor Extraction, evaluation of remediation alternatives, and corrective action plan.

- Soil + GW concentration map
- GW gradient determination
- up to det. fuel cont. of soil & gw cont.



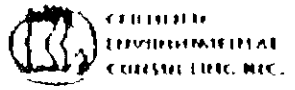

Stanley L. Klemetson, Ph.D., P.E.
Vice President
P.E. No. 40087

APPENDICES

APPENDIX A

Analytical Results of Soil and Ground Water Sampling

2402ACEC 6022



141 West Industrial Way, Bencla, CA, 94510-1016
 (707) 745-0171 (800) 442-0171 Fax: (707) 745-0163

Chain of Custody Record

Date: _____ Sheet: 1 of 1

Project Number: 477-1532
 Project Name: MOTOR PARTNERS
 Address: 1234 40TH AVE. OAKLAND
 Sample's Name: _____
 Sample's Signature: Rafael Guardo
Rafael Halladay

Parameters										
TPH as Gasoline 8015	TPH as Diesel 8015	TPH-G and B.T.E.X. 8015/8020	B.T.X. & E 8020	Oil and Grease 5520	Volatile Organics (8010)	CAAM Metals (17)	Pt. Pollutant Metals (13)	Base/New Acids (Organic)	Pesticides 8140/8141	Matrix (Soil/Water)
X	X	X	X	X	X	X	X	X	X	S R I S S I S W
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X	X	X	X	X	

Lab Name: _____
 Address: _____
 Phone Number: _____
 Turnaround Time:
 Rush 24 Hour 48 Hour 5-Day
 Request In: _____

Sample Number	Location	Date	Time
B-3-1 e 6-65		5-17-94	2:30 PM
B-3-W-4		5-17-94	2:40 PM
B-1-2 e 9-95		5-17-94	9:30 AM
B-1-W-1 e 11.5'		5-17-94	9:45 AM
B-6-1 e 9.5-10		5-17-94	1:02 PM
B-6-W-3 e 12'		5-17-94	1:15 PM
B-5-2 12-12.5		5-17-94	11:07 AM
B-5-W-2 e 15.0'		5-17-94	12:00 PM

Comments:
 35627
 35628
 35629
 35630
 35631
 35632
 35633
 35634

ICGTC GOOD CONDITION PRESERVE TIME APPROPRIATE CONTAINERS
 HEAT SPACE ABSENT WASTEWATER

Repackaged By	Date	Time	Received By	Date	Time
<u>Rafael Halladay</u>	5-18-94	1:10	<u>J. Smith</u>	5-18-94	1:15 P
<u>Rafael Halladay</u>	5-18-94	1:30 P	<u>Nadia Kucia</u>	5-18-94	1:30 PM
Dispatched By	Date	Time	Received in Lab By	Date	Time

Total Number of Containers This Sheet: _____
 Method of Shipment: _____
 Special Shipment / Handling or Storage Requirements: _____

Certified Environmental Consulting 536 Stone Road, Ste. J Benicia, CA 94510-1016	Client Project ID: # 477-1532; Motor Partners, Oakland	Date Sampled: 05/17/94
		Date Received: 05/18/94
	Client Contact: Rafael Gallardo	Date Extracted: 05/20/94
	Client P.O:	Date Analyzed: 05/20/94

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	35628			
Client ID	B-3-W-4			
Matrix	W			
Compound⁽¹⁾	Concentration*	Concentration*	Concentration*	Concentration*
Bromodichloromethane	ND			
Bromoform ⁽²⁾	ND			
Bromomethane	ND			
Carbon Tetrachloride ⁽³⁾	ND			
Chlorobenzene	10			
Chloroethane	ND			
2-Chloroethyl Vinyl Ether ⁽⁴⁾	ND			
Chloroform ⁽⁵⁾	ND			
Chloromethane	ND			
Dibromochloromethane	ND			
1,2-Dichlorobenzene	ND			
1,3-Dichlorobenzene	ND			
1,4-Dichlorobenzene	ND			
1,1-Dichloroethane	ND			
1,2-Dichloroethane	ND			
1,1-Dichloroethene	ND			
cis 1,2-Dichloroethene	ND			
trans 1,2-Dichloroethene	ND			
1,2-Dichloropropane	ND			
cis 1,3-Dichloropropene	ND			
trans 1,3-Dichloropropene	ND			
Methylene Chloride ⁽⁶⁾	ND			
1,1,2,2-Tetrachloroethane	ND			
Tetrachloroethene ⁽⁷⁾	ND			
1,1,1-Trichloroethane	ND			
1,1,2-Trichloroethane	ND			
Trichloroethene	ND			
Trichlorofluoromethane	ND			
Vinyl Chloride ⁽⁸⁾	ND			
% Recovery Surrogate	99			
Comments				

Detection limit unless otherwise stated. water, ND < 0.5ug/L; soil, ND < 10ug/kg
 * water samples are reported in ug/L, soil samples in ug/kg and all TCLP extracts in ug/L
 (1) IUPAC allows "ylene" or "ene"; ex ethylene or ethene; (2) tribromomethane; (3) tetrachloromethane; (4) (2-chloroethoxy) ethane; (5) trichloromethane; (6) dichloromethane; (7) perchlorethylene, PCE or perclor; (8) chloroethene; (9) unidentified peak(s) present

QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/18/94

Matrix: Soil

Analyte	Concentration (mg/kg)			Amount Spiked	% Recovery		
	Sample	MS	MSD		MS	MSD	RPD
TPH (gas)	0.000	1.945	1.862	2.03	96	92	4.4
Benzene	0.000	0.166	0.166	0.2	83	83	0.0
Toluene	0.000	0.176	0.174	0.2	88	87	1.1
Ethylbenzene	0.000	0.182	0.178	0.2	91	89	2.2
Xylenes	0.000	0.558	0.546	0.6	93	91	2.2
TPH (diesel)	0	341	332	300	114	111	2.9
TPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

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

QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/20/94

Matrix: Soil

Analyte	Concentration (mg/kg)			Amount Spiked	% Recovery		
	Sample	MS	MSD		MS	MSD	RPD
TPH (gas)	0.000	1.679	1.700	2.03	83	84	1.2
Benzene	0.000	0.164	0.170	0.2	82	85	3.6
Toluene	0.000	0.172	0.178	0.2	86	89	3.4
Ethylbenzene	0.000	0.178	0.184	0.2	89	92	3.3
Xylenes	0.000	0.548	0.566	0.6	91	94	3.2
TPH (diesel)	0	316	319	300	105	106	1.0
TRPH (oil & grease)	0.0	24.6	24.7	20.8	118	119	0.4

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/18/94

Matrix: Water

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.0	96.6	99.9	100	96.6	99.9	3.4
Benzene	0	9.5	9.3	10	95.0	93.0	2.1
Toluene	0	9.8	9.8	10	98.0	98.0	0.0
Ethyl Benzene	0	10	9.8	10	100.0	98.0	2.0
Xylenes	0	31.5	31.1	30	105.0	103.7	1.3
TPH (diesel)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/19/94

Matrix: Water

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		
	Sample	MS	MSD		MS	MSD	RPD
TPH (gas)	0.0	86.5	84.6	100	86.5	84.6	2.2
Benzene	0	9.4	9.7	10	94.0	97.0	3.1
Toluene	0	9.9	10.1	10	99.0	101.0	2.0
Ethyl Benzene	0	10.3	10.5	10	103.0	105.0	1.9
Xylenes	0	31.6	32.2	30	105.3	107.3	1.9
TPH (diesel)	0	175	168	150	117	112	4.6
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

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

QC REPORT FOR EPA 8010/8020/EDB

Date: 05/20/94

Matrix: Water

Analyte	Concentration (ug/L)				% Recovery		
	Sample	MS	MSD	Amount Spiked	MS	MSD	RPD
1,1-DCE	0.0	3.5	3.6	5.0	70	72	2.8
Trichloroethene	0.0	4.6	4.9	5.0	92	98	6.3
EDB	0.0	4.4	4.9	5.0	88	98	10.8
Chlorobenzene	0.0	5.2	5.4	5.0	104	108	3.8
Benzene	0.0	5.0	5.3	5.0	100	106	5.8
Toluene	0.0	5.0	5.3	5.0	100	106	5.8
Chlorobz (PID)	0.0	5.0	5.3	5.0	100	106	5.8

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$



ENVIRONMENTAL
ENGINEERING, INC.

536 Stone Road, Ste. J., Benicln, CA 94510-1916
 (415) 745-0171 (800) 228-0171 Fax (415) 745-0163

Chain of Custody Record

2453 ACEC 625

Date: 6-3-94 Sheet 2 of 2

Project Number: 477-1532
 Project Name: MOTOR PARTNERS
 Address: 1234 40th AVE. OAKLAND

Sampler's Name: _____
 Sampler's Signature: Rafael Gallardo
Rafael Gallardo

Lab Name: _____
 Address: _____
 Phone Number: _____
 Turnaround Time:
 Rush 24 Hour 48 Hour 5-Day
 Report to: _____

Sample Number	Location	Date	Time	Parameters								Matrix (Soil/Water)		
				TPH as Gasoline 8015	TPH as Diesel 8015	TPH-G and BTEX 9015/8020	BTEX & E 9020	Oil and Grease 9990 (H18.1)	Volatile Organics (8010)	CA.M. Metals (17)	P. Pollutant Metals (15)		Base/New/Actos (Organic)	Pesticides 9140/8141
B-8-W		6-1-94	2:20 PM	X	X	X								
B-9-1		6-2-94	10:00 AM											
B-9-2			10:15 AM											
B-9-W			12:05 PM											
B-10-1			11:00 AM											
B-10-2			11:15 AM											
B-10-W			12:20 PM											
B-11-1			1:30 PM											
B-11-2			1:50 PM											
B-11-W			2:35 PM						X					
FIELD BLANK				X										

Comments:
 35847
 35848
 35849
 35850
 35851

Requisitioned By	Date	Time	Received By	Date	Time
<u>Rafael Gallardo</u>	<u>6-3-94</u>	<u>2:45P</u>	<u>J.R. Hamilton</u>	<u>6-3-94</u>	<u>2:45P</u>
<u>J.R. Hamilton</u>	<u>6-3-94</u>	<u>3:05P</u>	<u>(Signature)</u>	<u>6-3-94</u>	<u>3:05P</u>
Dispatched By	Date	Time	Received in Lab By	Date	Time

10-11
 GOOD CONDITION
 CONTAINER THIS SHEET:
 Method of Shipment:
 Special Shipment / Handling or Storage Requirements:
 PRESERVATIVE APPROPRIATE
 CONTAINER

35852
 35853
 35854
 35855
 35856

35857

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553
Tel: 510-798-1620 Fax: 510-798-1622

Certified Environmental Consulting 536 Stone Road, Ste. J Benicia, CA 94510-1016	Client Project ID: # 477-1532: Motor Partners, Oakland	Date Sampled: 06/01-06/02/94
	Client Contact: Rafael Gallardo	Date Received: 06/03/94
	Client P.O:	Date Extracted: 06/03/94
		Date Analyzed: 06/03-06/07/94

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

EPA methods 5030, modified 2015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	Benzene	Toluene	Ethylben- zene	Xylenes	% Rec. Surrogate
35836	B-2-2	S	1900,b,d	ND< 2.0	5.0	36	29	116 [#]
35837	B-2-W	W	8100,b,c	220	34	220	60	103
35838	B-4-1	S	ND	ND	ND	ND	ND	100
35839	B-4-2	S	83,d,b	0.087	0.20	0.21	0.46	116 [#]
35840	B-4-3	S	1000,b,d	5.6	8.4	15	71	112 [#]
35841	B-4-W	W	38,000,a,h	3200	1800	2000	7100	113 [#]
35842	B-7-1	S	3.0,d	0.010	ND	ND	0.019	104
35843	B-7-2	S	1100,d	0.38	1.9	3.4	5.9	135 [#]
35844	B-7-W	W	12,000,a	380	36	520	170	121 [#]
35845	B-8-1	S	ND	ND	ND	ND	ND	111
35846	B-8-2	S	ND	ND	ND	ND	ND	111
35847	B-8-W	W	570,d,b	6.8	3.2	1.7	5.7	109
35848	B-9-1	S	ND,d	ND	ND	ND	0.008	106
35849	B-9-2	S	1.8,d	ND	ND	ND	0.010	100
Detection Limit unless other- wise stated; ND means Not Detected	W	50 ug/L	0.5	0.5	0.5	0.5		
	S	1.0 mg/kg	0.005	0.005	0.005	0.005		

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

[#] cluttered chromatogram; sample peak co-elutes 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 are significant; no recognizable pattern; 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.

McCAMPBELL ANALYTICAL INC.

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

Certified Environmental Consulting 536 Stone Road, Ste. J Benicia, CA 94510-1016	Client Project ID: # 477-1532; Motor Partners, Oakland	Date Sampled: 06/01-06/02/94
		Date Received: 06/03/94
	Client Contact: Rafael Gallardo	Date Extracted: 06/03/94
	Client P.O:	Date Analyzed: 06/03/94

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
35836	B-2-2	S	1000,d,g	154*
35837	B-2-W	W	7000,g,d,h	103
35838	B-4-1	S	ND	93
35839	B-4-2	S	44,d	98
35840	B-4-3	S	450,d,g	94
35841	B-4-W	W	4900,d,g,h	98
35842	B-7-1	S	ND	94
35843	B-7-2	S	280,d,g	114*
35844	B-7-W	W	4500,d,g,h	100
35845	B-8-1	S	ND	94
35846	B-8-2	S	ND	94
35847	B-8-W	W	470,d,g	105
35848	B-9-1	S	ND	94
35849	B-9-2	S	ND	95
Detection Limit unless other- wise stated; ND means Not Detected	W		50 ug/L	
	S		10 mg/kg	

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

* cluttered chromatogram; surrogate and sample peaks co-elute or surrogate peak is on elevated baseline

* 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) modified diesel?; light(CL) or heavy(CH) diesel compounds are 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.

McCAMPBELL ANALYTICAL INC.	110 2nd Avenue South, #D7, Pacheco, CA 94553 Tele: 510-798-1620 Fax: 510-798-1622
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Certified Environmental Consulting 536 Stone Road, Ste. J Benicia, CA 94510-1016	Client Project ID: Motor Partners; 1234 40th Ave. Oakland	Date Sampled: 06/17/94
	Client Contact: Rafael Gallardo	Date Received: 06/17/94
	Client P.O.:	Date Extracted: 06/18/94
		Date Analyzed: 06/18/94

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with BTEX*
 EPA methods 8030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
36075	MW-1	W	17,000,a	1200	220	1000	2600	110
36076	MW-2	W	990,d	ND	1.3	2.3	4.4	--
36077	MW-3	W	9500,a	330	40	100	74	117 [#]
Detection Limit unless otherwise stated; ND means Not Detected	W		50 ug/L	0.5	0.5	0.5	0.5	
	S		1.0 mg/kg	0.005	0.005	0.005	0.005	

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

* cluttered chromatogram; sample peak co-elutes 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 are significant, no recognizable pattern; 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 phase is present.



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

Certified Environmental Corp.
Attn: Gary Rogers

Project 477-1532
Reported 31-May-1994

ANALYSIS FOR SOLUBLE LEAD
by California Administrative Code Title 22 & SW-846 Method 6010

Chronology

Laboratory Number 91732

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
#1 (A-D)	05/10/94	05/26/94	05/26/94	05/30/94		1
#2 (A-D)	05/10/94	05/26/94	05/26/94	05/30/94		2



Superior Precision Analytical, Inc.

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Certified Environmental Corp.
Attn: Gary Rogers

Project 477-1532
Reported 31-May-1994

ANALYSIS FOR SOLUBLE LEAD

Laboratory Number	Sample Identification	Matrix
91732- 1	#1 (A-D) <i>spoils</i>	Soil
91732- 2	#2 (A-D)	Soil

RESULTS OF ANALYSIS

Laboratory Number: 91732- 1 91732- 2

Soluble Lead (Pb):	5.2	0.6
Concentration:	mg/L	mg/L



Superior Precision Analytical, Inc.

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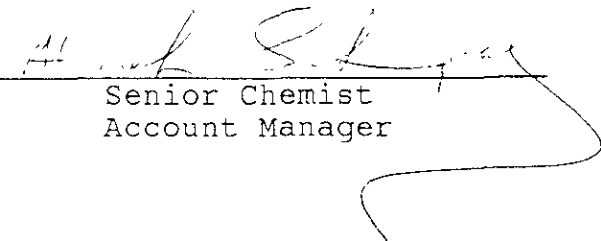
ANALYSIS FOR SOLUBLE LEAD Quality Assurance and Control Data - Extract

Laboratory Number 91732

Compound	Method Blank (mg/L)	RL (mg/L)	Spike Recovery (%)	Limits (%)	RPD (%)
Soluble Lead (Pb):	ND<0.5	0.5	96/98	75-125	2%

Definitions:

- ND = Not Detected
- RPD = Relative Percent Difference
- RL = Reporting Limit
- mg/L = Parts per million (ppm)
- QC File No. 91732


 Senior Chemist
 Account Manager



Superior Precision Analytical, Inc.

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Certified Environmental Corp.
Attn: Gary Rogers

Project 477-1532
Reported 18-May-1994

ANALYSIS FOR TOTAL LEAD
by EPA Method SW-846 6010

Chronology

Laboratory Number 91644

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
#1(A-D)	05/10/94	05/11/94	05/16/94	05/16/94		1
#2(A-D)	05/10/94	05/11/94	05/16/94	05/16/94		2
#3(A-B)	05/10/94	05/11/94	05/16/94	05/16/94		3



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Certified Environmental Corp.
Attn: Gary Rogers

Project 477-1532
Reported 18-May-1994

ANALYSIS FOR TOTAL LEAD

Laboratory Number	Sample Identification	Matrix
91644- 1	#1(A-D)	Soil
91644- 2	#2(A-D)	Soil
91644- 3	#3(A-B)	Soil

RESULTS OF ANALYSIS

Laboratory Number: 91644- 1 91644- 2 91644- 3

Lead	(Pb):	73	47	11
Concentration:		mg/Kg	mg/Kg	mg/Kg



Superior Precision Analytical, Inc.

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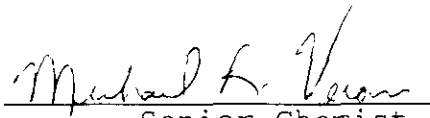
ANALYSIS FOR TOTAL LEAD Quality Assurance and Control Data - Soil

Laboratory Number 91644

Compound		Method Blank (mg/Kg)	RL (mg/Kg)	Spike Recovery (%)	Limits (%)	RPD (%)
Lead	(Pb):	ND<5	5	98/91	75-125	7%

Definitions:

- ND = Not Detected
- RPD = Relative Percent Difference
- RL = Reporting Limit
- mg/Kg = Parts per million (ppm)
- QC File No. 91644


 Senior Chemist
 Account Manager



Superior Precision Analytical, Inc.

1555 Burke, Unit 1 • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

Certified Environmental Corp.
Attn: Gary Rogers

Project 477-1532
Reported 05/17/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
91644- 1	#1 (A-D)	05/10/94	05/17/94 Soil
91644- 2	#2 (A-D)	05/10/94	05/17/94 Soil
91644- 3	#3 (A-B)	05/10/94	05/17/94 Soil

RESULTS OF ANALYSIS

Laboratory Number: 91644- 1 91644- 2 91644- 3

Gasoline:	ND<1	ND<1	ND<1
Benzene:	ND<.005	ND<.005	ND<.005
Toluene:	ND<.005	ND<.005	ND<.005
Ethyl Benzene:	ND<.005	ND<.005	ND<.005
Total Xylenes:	ND<.005	ND<.005	ND<.005
Concentration:	mg/kg	mg/kg	mg/kg



C E R T I F I C A T E O F A N A L Y S I S

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 91644

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
mg/kg = parts per million (ppm)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Soil: 50mg/kg

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Soil: 1mg/kg

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Soil: 0.005mg/kg

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	107/97	10%	70-130
Benzene:	89/87	2%	70-130
Toluene:	88/87	1%	70-130
Ethyl Benzene:	75/75	0%	70-130
Total Xylenes:	90/90	0%	70-130

Michael R. Ivers
Senior Chemist
Account Advocate

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. 1150

Date Received: 05/12/94
Date Analyzed: 05/17/94
Date Reported: 05/18/94
Job #: 75811

Attn: Mike Verona
Superior Precision Analytical
825 Arnold Drive, Suite 114
Martinez, CA 94553

Project: #477-1532
Matrix: Soil

**Corrosivity Criteria
Title 22, 66708**

<u>Lab I.D.</u>	<u>Client I.D.</u>	<u>pH</u>
75811-1	#1 A-D	6.9
75811-2	#2 A-D	7.0
75811-3	#3 A-D	7.6

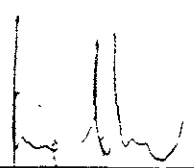
**Ignitability Criteria
Title 22, 66702**

<u>Lab I.D.</u>	<u>Client I.D.</u>	<u>Ignitablility</u>
75811-1	#1 A-D	Negative
75811-2	#2 A-D	Negative
75811-3	#3 A-D	Negative

**Reactivity Criteria
Title 22, 66705
mg/Kg**

<u>Lab I.D.</u>	<u>Client I.D.</u>	<u>Sulfide</u>	<u>Cyanide</u>	<u>MDL</u>
75811-1	#1 A-D	ND<1.0	ND<1.0	1.0
75811-2	#2 A-D	ND<1.0	ND<1.0	1.0
75811-3	#3 A-D	ND<1.0	ND<1.0	1.0

QA/QC: Spike Recovery for Cyanide: 99%



Jaime Chbw
Laboratory Director

OUTSTANDING QUALITY AND SERVICE
CALIFORNIA STATE CERTIFIED LABORATORY

JC/dwc

APPENDIX B

Boring Logs



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B-1**

SHEET 1 OF 1

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

CONTRACT NUMBER **477-1532**

COORDINATES

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
						Concrete from surface to 4" bgs			
						SILTY CLAY (CL) Dark Brown, moist, stiff, no odor			
5	B-1-1		6 12 15			SANDY CLAY (CL) Light brownish grey, stiff, moist			
						Discoloration to grey @ 6.5', slight oil odor	▼		
	B-1-2		6 7 19			Very Strong TPH odor @ 8.0'			
10	B-1-3		15 17 19			CLAYEY SANDY GRAVEL (GC) Wet, dense, 1/2" to 1/8" diameter sub-angular gravel Tip of bit wet @ 10.5', gasoline sheen (floating product?).	▽		
						TOTAL DEPTH OF BORING 12.0'			

DRILLING CONTRACTOR **Clear Heart**
 DRILLING METHOD **Solid Flight Auger**
 DRILLING EQUIPMENT **Giddings Probe**
 DRILLING STARTED **5/17/94** ENDED **5/17/94**

REMARKS **Boring in sidewalk near former waste oil tank location**



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B-2**

SHEET 1 OF 1

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

CONTRACT NUMBER **477-1532**

COORDINATES

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
						Concrete from surface to 8" bgs Basereck from 8" to 14" bgs			
						SILTY CLAY (CL) Brown, stiff, moist			
						SILTY CLAY (CL) Dark grey, stiff, moist Motor oil odor			
5	B-2-1		5 7 12			SANDY SILTY CLAY (CL) Medium Grey, stiff, moist Strong motor oil odor			
						SANDY SILTY CLAY (CL) Brown, stiff, moist			
10	B-2-2		5 7 13			CLAYEY SAND (SC) Grey, medium dense, moist to wet Strong gasoline odor			
						CLAYEY GRAVEL (GC) Mottled Grey-brown, very dense, saturated			
15			12 28 23			Free Product			
TOTAL DEPTH OF BORING 15.5'									

DRILLING CONTRACTOR **Clear Heart**
 DRILLING METHOD **Solid Flight Auger**
 DRILLING EQUIPMENT **Giddings Probe**
 DRILLING STARTED **6/1/94** ENDED **6/1/94**

REMARKS **Boring in center of street across from B-1**



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B-3** SHEET 1 OF 1

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

CONTRACT NUMBER **477-1532**

LOGGED BY **R. Gallardo**

COORDINATES

SURFACE ELEVATION

DATUM

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
						Concrete from surface to 7" bgs			
						CTB + Brown Base Rock			
						<u>SANDY CLAY (CL)</u> Grey			
						Waste Oil Odor @ 3.5'			
5	B-3-1		15 23			<u>CLAYEY SANDY GRAVEL (GC)</u> Greenish grey, clayey, moist to wet, dense 1/4" sub-angular gravel Waste Oil Odor @ 5.5'			
10	B-3-2		18 15 16			<u>GRAVELEY SANDY CLAY (CL)</u> Grey, brown			
						TOTAL DEPTH OF BORING 12.0'			

DRILLING CONTRACTOR **Clear Heart**
 DRILLING METHOD **Solid Flight Auger**
 DRILLING EQUIPMENT **Giddings Probe**
 DRILLING STARTED **5/17/94** ENDED **5/17/94**

REMARKS **Boring located in street (40th Ave)**



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B-4**

SHEET **1** OF **1**

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

COORDINATES

CONTRACT NUMBER **477-1532**

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
						Concrete from surface to 8" bgs Baserock from 8" to 14" bgs			
	B-4-1		8 14 16			SANDY SILTY CLAY (CL) Dark brown, stiff, moist Slight motor oil odor			
5									
	B-4-2		18 25 22			SANDY SILTY CLAY (CL) Brown, very stiff, moist Med. grey sandy silty clay	▼		
10									
	B-4-3		18 15 17			CLAYEY GRAVEL (GC) Mottled Greyish brown, med. dense, subangular grains 1/4", slight moisture @ tip of sampler at 8' Gasoline odor, fresh product on grains			
						SANDY CLAY (CL) Brown-grey, moist, coarse to fine grained sand Trace of gravel seams (wet) Strong gasoline odor	▼		
						CLAYEY SAND (SC) Grey, wet to saturated, dense to med. dense Free product	▼		
						TOTAL DEPTH OF BORING 14'			

DRILLING CONTRACTOR **Clear Heart**
 DRILLING METHOD **Solid Flight Auger**
 DRILLING EQUIPMENT **Giddings Probe**
 DRILLING STARTED **6/1/94** ENDED **6/1/94**

REMARKS **Boring located near east side of driveway, about 7' north of sidewalk**



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B-5**

SHEET **1** OF **1**

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

COORDINATES

CONTRACT NUMBER **477-1532**

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
							Concrete from surface to 3" bgs		
							SILTY CLAY (CL) Dark brown, moist, stiff		
5			10 11 13				SANDY CLAY (CL) Greenish grey, moist, stiff, oil smell trace gravel < 1/4"		
	B-5-1		8 10 15				Very Strong TPH-G Odor @ 8.5'		
	B-5-2		7 9 12				Semi-wet @ 12' w/trace of gravel		
	B-5-3		15 16 14				GRAVELEY SANDY CLAY (CL) Grey green moist to wet, stiff, stron odor		
	B-5-W-2		10 11 12				CLAYEY GRAVELLY SAND (SC) Dense, brown, wet to sat. no TPH odor, coarse to med. sand, fine gravel		
15							TOTAL DEPTH OF BORING 15.5'		

DRILLING CONTRACTOR

Clear Heart

REMARKS

Boring in building near former waste oil tank

DRILLING METHOD

Solid Flight Auger

location

DRILLING EQUIPMENT

Giddings Probe

DRILLING STARTED

5/17/94

ENDED

5/17/94



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B-6**

SHEET 1 OF 1

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

CONTRACT NUMBER **477-1532**

COORDINATES

LOGGED BY **R. Gallardo**

SURFACE ELEVATION

DATUM

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
						Concrete from surface to 4" bgs			
						SILTY CLAY (CL) Dark brown, moist, stiff No TPH odor			
5			7 12 19			SANDY SILTY CLAY (CL) Green brown grey, moist, stiff, w/ gravel white leaching TPH-G odor @ 5.0'	▽		
	B-6-1		10 12 15			CLAYEY GRAVELEY SAND (SC) Greenish grey, wet, dense, med. to coarse sand, fine gravel Strong TPH odor	▽		
10	B-6-W-3		7 11 17 14			Sandy Clay (CL) Seam 3" @ 11.0'			
TOTAL DEPTH OF BORING 12.0'									

DRILLING CONTRACTOR **Clear Heart**
 DRILLING METHOD **Solid Flight Auger**
 DRILLING EQUIPMENT **Giddings Probe**
 DRILLING STARTED **5/17/94** ENDED **5/17/94**

REMARKS **Boring in building between former tank locations**



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B-8**

SHEET 1 OF 1

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

COORDINATES

CONTRACT NUMBER **477-1532**

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
			9			Concrete from surface to 6" bgs			
			13			SANDY SILTY CLAY (CL) Dark brown, stiff, dry to moist Earthy odor			
			15						
			8			SANDY SILTY CLAY (CL) Brownish-grey, stiff, moist Trace gravel 1/4" angular grains No odor			
			10						
			14						
			5			GRAVELLY CLAY (CL) Grey-brown, stiff, moist No odor			
			9						
			15						
5	B-8-1		8			CLAYEY GRAVEL (GC) Brown-grey, dense to med. dense 1" angular to 1/8"			
			11						
			15						
			22			SANDY SILTY CLAY (CL) Brown w/ vertical grey streaks, stiff, moist			
			27						
			26			CLAYEY SAND (SC) Brown-grey, dense, moist to wet very coarse grained to med. grained Slight waste oil odor @ 10.5'			
			9						
			10			CLAYEY SANDY GRAVEL (GC) Brown-grey, dense, wet 1/4" to 1/2" rounded to 1/4" to 1/8" sub-rounded grains Trace angular fragments			
			14						
			15						
10	B-8-2		8			CLAYEY SAND (SC) Brown, dense, saturated Med. to coarse grained			
			15						
			15			CLAYEY GRAVELLY SAND (SC) Brown, dense, saturated			
			16						
			6						
			5						
			6						
15			16						
						TOTAL DEPTH OF BORING 15.5'			

DRILLING CONTRACTOR	Clear Heart	REMARKS	Boring in front of double doorway inside building
DRILLING METHOD	Solid Flight Auger		
DRILLING EQUIPMENT	Giddings Probe		
DRILLING STARTED	6/1/94	ENDED	6/1/94



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B-9**

SHEET 1 OF 1

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

COORDINATES

CONTRACT NUMBER **477-1532**

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
						Concrete from surface to 6" bgs			
						Baserock from 6" to 1.5' bgs			
			8			GRAVELLY SANDY CLAY (CL) Dark brown			
			14						
			20						
			4			Baserock			
			10			SANDY SILTY CLAY (SC) Med. grey-brown, stiff, moist Trace gravel Color Change to Brown @ 4.25' Increasing sand with depth Mottled w/ grey vertical streaks, some carbon nodules			
			12						
			17						
5	B-9-1		11						
			16						
			17						
			11			CLAYEY SAND (SC) Brown-grey, dense, moist Slight motor oil odor			
			15						
			15						
			18			CLAYEY SANDY GRAVEL (GC) Brown-grey, dense, moist From 8.0 to 8.3' clean grey, sandy gravel (GP), dense, wet			
10	B-9-2		11						
			15			SILT SAND (SP) Brown, med. dense, wet, Trace of gravel Motor oil odor			
			15						
			12			SANDY SILT (ML) Brown, stiff, moist to wet			
			15						
			12			SAND (SP) Light grey, med. dense, saturated			
			12						
			18			CLAYEY SANDY GRAVEL (GC) Brown From 12.5' to 13' Brown silty clay (CL) leopard texture			
TOTAL DEPTH OF BORING 15'									

DRILLING CONTRACTOR **Clear Heart**
 DRILLING METHOD **Solid Flight Auger**
 DRILLING EQUIPMENT **Giddings Probe**
 DRILLING STARTED **6/2/94** ENDED **6/2/94**

REMARKS **Boring in street about 80' west of roll up door**



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B-10**

SHEET 1 OF 1

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

CONTRACT NUMBER **477-1532**

COORDINATES

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
						Concrete from surface to 6" bgs Basereck from 6" to 14" bgs			
						<u>SILTY CLAY (CL)</u> Dark brown, stiff, moist			
						<u>SANDY SILTY CLAY (SC)</u> Med. grey Color Change to Light grey @ 4.5'			
5	B-10-1		9 14 16			<u>SANDY GRAVELLY CLAY (CL)</u> Grey-brown Waste oil odor Wet at bottom of contact	▼		
						<u>SANDY CLAY (CL)</u> Brown, stiff, moist, w/ gravel			
10	B-10-2		10 10 10			<u>CLAYEY SAND (SC)</u> Brown, dense to medium, moist Strong gasoline odor at 12'	▼		
						Free Product TOTAL DEPTH OF BORING 14'			

DRILLING CONTRACTOR **Clear Heart**
 DRILLING METHOD **Solid Flight Auger**
 DRILLING EQUIPMENT **Giddings Probe**
 DRILLING STARTED **6/2/94** ENDED **6/2/94**

REMARKS **Boring 36' east of east side of roll up door**



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **B-11**

SHEET 1 OF 1

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

COORDINATES

CONTRACT NUMBER **477-1532**

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
						Concrete from surface to 6" bgs Baserock from 6" to 2' bgs			
						SILTY CLAY (CL) Dark brown, stiff, moist			
5	B-11-1		7 11 16			SANDY SILTY CLAY (SC) Brown, stiff, moist			
						CLAYEY SANDY GRAVEL (GC) Greyish-brown, med. dense, moist to wet Diesel or motor oil odor at 7' very strong	▽		
10	B-11-2		16 18 18			SANDY SILTY CLAY (CL) Brown, stiff			
						CLAYEY SAND (SC) Brown, dense to med. dense, sat. to wet No odor	▽		
15						TOTAL DEPTH OF BORING 15'			

DRILLING CONTRACTOR **Clear Heart**
 DRILLING METHOD **Solid Flight Auger**
 DRILLING EQUIPMENT **Giddings Probe**
 DRILLING STARTED **6/2/94** ENDED **6/2/94**

REMARKS **Boring inside of building**



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **MW-1**

SHEET 1 OF 1

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

CONTRACT NUMBER **477-1532**

COORDINATES

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET		
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)						
						Concrete from surface to 4" bgs					
						SANDY SILTY CLAY (CL) Dark brown, stiff, moist					
						SANDY CLAY (CL) Brown, stiff, moist					
5						GRAVELLY CLAY (CL) Grey-brown, stiff, moist					
			30			CLAYEY GRAVEL (GC) Brown Grey, dense, moist Gasoline Odor					
			21				CLAYEY SANDY GRAVEL (GC) Grey, dense, moist to wet				
			22					Drilling like gravel			
			25						CLAYEY GRAVELY SAND (SC) Brown, dense, saturated		
10						SANDY SILTY CLAY (SC) Brown, stiff, moist leopard texture w/ black carbon nodules					
			6								
			11								
			10								
15											
			10								
			12								
			16								
20											

TOTAL DEPTH OF BORING 22.5'

DRILLING CONTRACTOR	Clear Heart	REMARKS	Monitoring Well #1
DRILLING METHOD	Solid Flight Auger		
DRILLING EQUIPMENT	Giddings Probe		
DRILLING STARTED	6/15/94	ENDED	6/15/94



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **MW-2**

SHEET 1 OF 1

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

CONTRACT NUMBER **477-1532**

COORDINATES

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
						Concrete from surface to 8" bgs			
						Baserock between 8" and 2'			
						SILTY CLAY (CL) Dark brown, moist			
5						SANDY CLAY (CL) Med. Grey, stiff, moist			
10						CLAYEY SANDY GRAVEL (GC) Brown, wet			
						Petroleum Odor @ 11'			
15									
20						SANDY SILTY CLAY (CL) Yellow-brown, moist leopard texture w/ carbon nodules			
			9						
			10						
			15						
			22						
TOTAL DEPTH OF BORING 22									

DRILLING CONTRACTOR **Clear Heart**
 DRILLING METHOD **Solid Flight Auger**
 DRILLING EQUIPMENT **Giddings Probe**
 DRILLING STARTED **6/14/94** ENDED **6/14/94**

REMARKS **Monitoring Well #2**



CERTIFIED ENVIRONMENTAL CONSULTING

536 STONE ROAD SUITE J BENICIA CA, 94510
(707) 745-0171 / (800) 228-0171 / (707) 745-0163 FAX

BORING NUMBER **MW-3**

SHEET 1 OF 1

PROJECT **Motor Partners**

LOCATION **1234 40th Ave., Oakland, CA**

CONTRACT NUMBER **477-1532**

COORDINATES

SURFACE ELEVATION

DATUM

LOGGED BY **R. Gallardo**

SAMPLE INFORMATION						STRATA	DESCRIPTION	WELL CONSTRUCTION DETAIL	ELEVATION FEET
DEPTH FEET	LAB SAMPLE	SAMPLE TYPE	BLOW COUNTS	Recovery %	HNu (ppm)				
						Concrete from surface to 8" bgs			
						Yellow brown baserock between 8" and 2'			
						SILTY CLAY (CL) Dark brown, moist			
5						SANDY SILTY CLAY (CL) Med. Grey, moist Motor Oil Odor			
						SILTY SANDY CLAY (CL) Brown, moist			
10						CLAYEY SANDY GRAVEL (GC) Med. Grey, wet to saturated Waste Oil Odor			
15			31 28 24			SILTY GRAVELY SAND (SP) Brown, saturated, sub-rounded 1/2" to 3/4" diameter gravel Med. coarse sand			
20			6 6 11 18			SILTY SANDY CLAY (CL) Brown, moist leopard texture coarse to fine, carbon nodules			
TOTAL DEPTH OF BORING 23'									

DRILLING CONTRACTOR **Clear Heart**
 DRILLING METHOD **Solid Flight Auger**
 DRILLING EQUIPMENT **Giddings Probe**
 DRILLING STARTED **6/14/94** ENDED **6/14/94**

REMARKS **Monitoring Well #3**

APPENDIX C
Drilling Permits



ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2600

FAX (510) 462-2914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 1234 40th Ave.
Oakland CA 94621

PERMIT NUMBER 94299

LOCATION NUMBER _____

CLIENT

Name Motor Partners
Address 2221 Olympic Blvd Voice 510-935-3840
Walnut Creek Zip 94595

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT

Name Gary Rogers
Certified Environmental Fax 415-941-7652
Address 3262 25th Ave #102 Voice 415-341-7630
San Mateo Zip 94403

A. GENERAL

1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

TYPE OF PROJECT

<input checked="" type="checkbox"/> Construction	<input type="checkbox"/> Geotechnical Investigation
<input type="checkbox"/> Cathodic Protection	<input type="checkbox"/> General
<input type="checkbox"/> Water Supply	<input type="checkbox"/> Contamination
<input checked="" type="checkbox"/> Monitoring	<input type="checkbox"/> Well Destruction

B. WATER WELLS, INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

PROPOSED WATER SUPPLY WELL USE

Domestic <input type="checkbox"/>	Industrial <input type="checkbox"/>	Other _____
Municipal <input type="checkbox"/>	Irrigation <input type="checkbox"/>	

- C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.
- D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.
- E. WELL DESTRUCTION. See attached.

DRILLING METHOD:

Mud Rotary Air Rotary Auger
 Cable Other _____

DRIILLER'S LICENSE NO.

WELL PROJECTS

Drill Hole Diameter	<u>4</u> in.	Maximum	
Casing Diameter	<u>2</u> in.	Depth	<u>25</u> ft.
Surface Seal Depth	<u>2-5</u> ft.	Number	<u>3</u>

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum	
Hole Diameter	_____ in.	Depth	_____ ft.

ESTIMATED STARTING DATE

May 18, 1994

ESTIMATED COMPLETION DATE

May 31, 1994

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

Approved _____

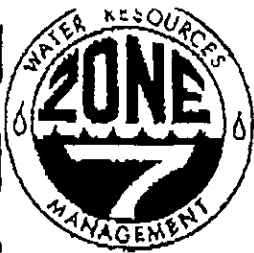
Wyman Hong
Wyman Hong

Date 17 May 94

APPLICANT'S

SIGNATURE

Gary Rogers



ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2600

FAX (510) 482-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 1234 40th Ave.
Oakland CA 94621

PERMIT NUMBER 94272
LOCATION NUMBER _____

CLIENT
Name Motor Partners
Address 2221 Olympic Blvd. Voice 510-935-3840
Walnut Creek, CA Zip 94595

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT
Name Gary Rogers
Verified Environmental Fax 415-341-7652
Address 32 West 25th Ave. Voice 415-341-7630
San Mateo CA Zip 94403

A. GENERAL

1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

TYPE OF PROJECT

Well Construction	_____	Geotechnical Investigation	_____
Cathodic Protection	_____	General	_____
Water Supply	_____	Contamination	_____
Monitoring	_____	Well Destruction	<u>X</u>

B. WATER WELLS, INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

PROPOSED WATER SUPPLY WELL USE

Domestic	_____	Industrial	_____	Other	_____
Municipal	_____	Irrigation	_____		

3. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

DRILLING METHOD:

Rotary	_____	Air Rotary	_____	Auger	<u>X</u>
Other	_____		_____		

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

DRILLER'S LICENSE NO. _____

E. WELL DESTRUCTION. See attached.

WELL PROJECTS

Drill Hole Diameter	_____ in.	Maximum	
Casing Diameter	_____ in.	Depth	_____ ft.
Surface Seal Depth	_____ ft.	Number	_____

GEOTECHNICAL PROJECTS

Number of Borings	<u>6</u>	Maximum	
Hole Diameter	<u>4</u> in.	Depth	<u>25</u> ft.

ESTIMATED STARTING DATE April 29, 1994
ESTIMATED COMPLETION DATE May 6, 1994

Approved Wayman Hong Date 3 May 94
Wayman Hong

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 72-68.

APPLICANT'S SIGNATURE Gary Rogers Date 4/21/94

APPENDIX D
Field Survey Record

