

May 14, 1993
Project No. RC01905

154

Mr. Barney Chan
Division of Hazardous Materials
Department of Environmental Health
Alameda County Health Care Services Agency
80 Swan Way
Oakland, CA 94621

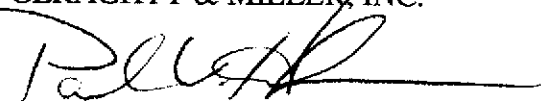
SUBJECT: Results of Quarterly Ground-Water Monitoring, April 1993
Former Penske Truck Leasing Facility
725 Julie Ann Way, Oakland, California.

Dear Mr. Chan:

The above referenced report is being forwarded to you at the request of Penske Truck Leasing Co. The report details the results of the quarterly ground-water monitoring well sampling for April 1993 at the former Penske Truck Leasing Facility at 725 Julie Ann Way, Oakland. The quarterly sampling has been completed in response to the requirements for ground-water sampling contained in the Alameda County Health Care Services, Department of Environmental Health letter to Penske dated October 24, 1989.

If you have any questions, please do not hesitate to call.

Sincerely,
GERAGHTY & MILLER, INC.



Paul V. Hehn
Staff Geologist/Project Manager

Attachment: Results of Quarterly Ground-Water Monitoring, April 1993

cc: Mr. Marc Althen
Penske Truck Leasing Co.

May 10, 1993
Project No. RC01905

Mr. Marc E. Althen
Director, Environmental Services
Penske Truck Leasing Co.
Route 10, Green Hills
P.O. Box 563
Reading, PA 19603

SUBJECT: Results of Quarterly Ground-Water Monitoring, April 1993
Former Penske Truck Leasing Facility
725 Julie Ann Way, Oakland, California.

Dear Mr. Althen:

This report presents the results of the quarterly ground-water monitoring performed on April 8, 1993, at the former Penske Truck Leasing Co. (Penske) facility referenced above (Figure 1). The scope of work for this project was presented to Penske in a Geraghty & Miller, Inc. (Geraghty & Miller) letter dated July 2, 1992. The monitoring program consists of collecting quarterly depth-to-water measurements and water samples from the three monitor wells located at the project site for the period from July 1992 to April 1993.

FIELD PROCEDURES

The quarterly ground-water monitoring was performed on April 8, 1993. Ground-water samples were collected from Monitor Wells MW-1 through MW-5. The monitor-well locations are shown in Figure 2.

Prior to sampling, depth-to-water and total-well-depth measurements were obtained from each well. Additionally, the wells were checked for the presence of liquid-phase hydrocarbons. Liquid-phase hydrocarbons were not observed in any of the wells during this monitoring event. Each well sampled on April 8, 1993, was purged of approximately three to four casing volumes of water using a 1-inch diaphragm pump. All equipment that entered the well was washed in a solution of nonphosphate cleaner and water and then triple rinsed in deionized water prior to sampling each well. Purged water was monitored for pH, temperature, and specific conductance.

A summary of the field data is presented in Table 1. Following purging, ground-water samples were collected using a disposable polyethylene bailer, with a new bailer used for each well. The purged water was stored in 55-gallon drums and retained onsite for subsequent disposal by Penske.

A trip blank, consisting of a sample vial containing laboratory-grade water, accompanied the sample vials from the laboratory to the site and back to the laboratory, and was also submitted for analysis. The purpose of the trip blank is to assess whether any of the compounds analyzed for may have been imparted to the samples by air in the vicinity of the sample bottles during shipping, by the sample container, by the preservative, or by other exogenous sources.

Ground-water samples were put into the appropriate USEPA-approved containers, placed on ice, and transported to Superior Precision Analytical, Inc., in Martinez, California, along with appropriate chain-of-custody documentation. The water samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline (USEPA Method 8015, modified), for TPH as diesel (USEPA Method 8015, modified), and for benzene, toluene, ethylbenzene, and total xylenes (BTEX) (USEPA Method 8020).

RESULTS

SHALLOW GROUND-WATER FLOW

A summary of the depth-to-water data is presented in Table 1. Depth to water ranged from 5.43 feet (Monitor Well MW-5) to 6.98 feet (Monitor Well MW-3) below the ground surface. A contour map based on the ground-water elevation data collected April 8, 1993, is presented in Figure 2. The maximum difference in the elevation of the ground-water surface between Wells MW-2 and MW-4 is 0.28 feet, producing a hydraulic gradient (slope of the ground-water surface) of approximately 0.0029 foot/foot in a westerly direction.

GROUND-WATER ANALYTICAL RESULTS

A summary of the ground-water analytical results is presented in Table 2. Copies of the certified laboratory reports and chain-of-custody documentation are included in Attachment 1. TPH as gasoline was detected in the ground-water samples collected from Monitor Wells MW-1 (180 micrograms per liter [$\mu\text{g/L}$]), MW-2 (150 $\mu\text{g/L}$), and MW-4 (74 $\mu\text{g/L}$). TPH as diesel was detected in the ground-water samples collected from Monitor Wells MW-1 (7,800 $\mu\text{g/L}$), MW-2

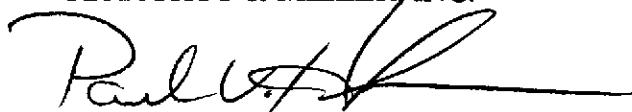
(74 µg/L), MW-4 (220 µg/L), and MW-5 (480 µg/L). Benzene was detected in the ground-water samples collected from Monitor Wells MW-1 (0.5 µg/L), MW-2 (1.0 µg/L), and MW-4 (19.0 µg/L). All other BTEX constituent results are presented in Table 2. TPH as gasoline and BTEX were not detected in the trip blank.

FIELD PARAMETERS

As in all previous quarterly sampling events at this facility, the specific conductance measurements for the ground water purged during the sampling continue to be very high at this facility (Table 1). The measurements for all wells measured during this quarter were all greater than the detection limit of 2,000 microsiemens per centimeter (µS/cm) for the instrument used for measurement during this quarter. — Should run TDS!

Geraghty & Miller appreciates the opportunity to be of service to Penske. If you have any questions regarding this report, please do not hesitate to call us.

Sincerely,
GERAGHTY & MILLER, INC.



Paul V. Hehn
Staff Geologist/Project Manager



Gary W. Keyes, P.E.
Principal Engineer/Associate
Richmond, California Office Manager

Attachments: References

Table 1	Summary of Field Sampling, Depth-to-Water, and Casing Elevation Data
Table 2	Summary of Ground-Water Analytical Results – Monthly and Quarterly Sampling
Figure 1	Site Location Map
Figure 2	Shallow Ground-Water Contours
Attachment 1	Copies of Certified Laboratory Reports and Chain-of-Custody Documentation

REFERENCES

Geraghty & Miller, Inc. November 15, 1990. Results of Initial Soil and Ground-Water Assessment Activities, Former Penske Truck Leasing Co. Facility, 725 Julie Ann Way, Oakland, California.

———. February 7, 1991. Scope of Work and Project Budget Estimate for Ground-Water Monitoring Activities for the Period February 1991 through February 1992, Former Penske Truck Leasing Co. Facility, 725 Julie Ann Way, Oakland, California.

———. July 2, 1992. Scope of Work and Project Budget Estimate for Ground-Water Monitoring Activities for the Period July 1992 through April 1993, Former Penske Truck Leasing Co. Facility, 725 Julie Ann Way, Oakland, California.

Table 1: Summary of Field Sampling, Depth-to-Water, and Casing Elevation Data
Former Penske Truck Leasing Facility,
725 Julie Ann Way, Oakland, California.

Well	Date	Depth to	Top of Casing	Top of Water	Measured Depth	Calculated	Actual Purge	Field Measurements			Casing Diameter (inches)
		Water (a) (feet)	Elevation (feet)	Elevation (feet)	of Well (a) (feet)	Purge Volume (b) (gallons)	Volume (gallons)	pH	Temp. (°F)	SC (µS/cm)	
MW-1	2-Oct-90	9.76	5.42	-4.34	37.28	58.56	47	6.71	87.5	5,280	4
	28-Feb-91	8.54	5.42	-3.12	33.58	65.00	70	6.30	66.0	9,700	
	25-Mar-91	7.35	5.42	-1.93	33.50	71.00	75	6.50	64.0	7,200	
	1-May-91	7.91	5.42	-2.49	33.70	67.00	51	6.20	65.0	3,500	
	5-Aug-91	8.63	5.42	-3.21	NM	51.00	68	NM	63.6	7,690	
	23-Oct-91	9.00	5.42	-3.58	33.77	67.00	67	9.40	64.2	7,470	
	6-Jan-92	8.52	5.42	-3.10	33.87	65.00	69	9.40	63.2	6,640	
	20-Jul-92	7.94	5.42	-2.52	33.95	65.02	66	7.20	65.7	6,410	
	23-Oct-92	8.62	5.42	-3.20	33.57	64.80	60	7.50	69.8	1,930	
	4-Feb-93	6.55	5.43 (c)	-1.12	33.84	70.96	71	8.02	65.0	9,520	
8-Apr-93	6.37	5.43	-0.94	33.80	71.32	65	6.60	66.7	>2,000		
MW-2	2-Oct-90	10.38	6.21	-4.17	32.97	48.07	47	6.92	86.4	5,460	4
	28-Feb-91	9.19	6.21	-2.98	29.39	53.00	55	6.60	64.0	9,000	
	25-Mar-91	7.95	6.21	-1.74	29.39	57.00	70	6.60	63.0	6,400	
	1-May-91	8.58	6.21	-2.37	29.60	55.00	50	6.20	64.0	3,000	
	5-Aug-91	9.33	6.21	-3.12	NM	40.00	54	NM	65.1	5,680	
	23-Oct-91	9.57	6.21	-3.36	29.35	52.00	53	7.60	65.4	7,970	
	6-Jan-92	9.08	6.21	-2.87	29.50	53.00	53	9.18	62.8	6,990	
	20-Jul-92	8.60	6.21	-2.39	29.45	54.21	55	6.50	65.2	6,690	
	23-Oct-92	9.33	6.21	-3.12	29.18	51.60	55	7.20	69.8	1,900	
	4-Feb-93	7.17	6.20 (c)	-0.97	29.37	57.72	55	8.25	64.0	10,310	
8-Apr-93	6.95	6.20	-0.75	29.32	58.16	60	6.90	66.7	>2,000		

Table 1: Summary of Field Sampling, Depth-to-Water, and Casing Elevation Data
 Former Penske Truck Leasing Facility,
 725 Julie Ann Way, Oakland, California.

Well	Date	Depth to Water (a) (feet)	Top of Casing Elevation (feet)	Top of Water Elevation (feet)	Measured Depth of Well (a) (feet)	Calculated Purge Volume (b) (gallons)	Actual Purge Volume (gallons)	Field Measurements			Casing Diameter (inches)
								pH	Temp. (°F)	SC (µS/cm)	
MW-3	2-Oct-90	10.38	6.10	-4.28	37.08	56.82	54	6.89	88.4	639	4
	28-Feb-91	9.45	6.10	-3.35	31.61	58.00	60	6.10	66.0	1,020	
	25-Mar-91	7.98	6.10	-1.88	31.60	70.00	75	6.40	65.0	8,200	
	1-May-91	8.58	6.10	-2.48	33.70	65.00	50	6.40	67.0	4,100	
	5-Aug-91	9.26	6.10	-3.16	NM	50.00	67	NM	64.1	6,190	
	23-Oct-91	9.60	6.10	-3.50	33.48	66.00	66	7.30	67.3	8,430	
	6-Jan-92	9.08	6.10	-2.98	33.66	64.00	64	9.98	61.7	7,010	
	20-Jul-92	8.59	6.10	-2.49	33.76	65.44	66	6.80	66.0	7,540	
	23-Oct-92	9.30	6.10	-3.20	33.47	63.40	65	7.50	71.6	1,800	
	4-Feb-93	7.19	6.10 (c)	-1.09	33.65	68.79	65	8.29	64.0	10,290	
8-Apr-93	6.98	6.10	-0.88	33.55	69.08	72	6.90	68.2	>2,000		
MW-4	4-Feb-93	6.68	5.18 (c)	-1.50	32.70	64.38	60 (d)	NM	63.5	NM	4
	8-Apr-93	6.21	5.18	-1.03	33.04	69.76	70	6.80	69.1	>2,000	
MW-5	4-Feb-93	8.94	4.71 (c)	-4.23	31.40	61.65	40 (d)	8.43	63.2	16,870	4
	8-Apr-93	5.43	4.71	-0.72	31.36	67.42	68	7.20	68.0	>2,000	

- (a) Measured from top of PVC casing.
 (b) Based on four casing volumes.
 (c) All well elevations resurveyed to site benchmark on February 10, 1993.
 (d) Well went dry during purging.

SC Specific Conductance
 (µS/cm) Microsiemens per centimeter
 NM Not measured

All elevations are measured relative to a site benchmark (elevation 6.62') based on the City of Oakland datum which is 3 feet higher than mean sea level.

Table 2: Summary of Ground-Water Analytical Results - Monthly and Quarterly Sampling
Former Penske Truck Leasing Facility,
725 Julie Ann Way, Oakland, California.

Well	Date	TPH	TPH	Benzene (b)	Toluene (b)	Ethyl- benzene (b)	Xylenes (b)
		Gasoline (a)	Diesel (a)				
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-1	2-Oct-90	170	2,900	20	18	1.9	5.7
	28-Feb-91	260	550	43	1	7	1
	25-Mar-91	73	160	10	ND(<0.3)	0.5	ND(<0.3)
	1-May-91	ND(<50)	(c)	2.2	ND(<0.3)	ND(<0.3)	ND(<0.3)
	5-Aug-91	310	330	22	5.5	9.5	23
	23-Oct-91	440	1,800	23	21	6.2	35
	6-Jan-92	430	1,600	56	8.4	18	22
	20-Jul-92	ND(<50)	25,000	0.4	0.8	1	2.1
	23-Oct-92	280	6,500	9.3	13	8.2	15
	4-Feb-93	68 (e)	320	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
8-Apr-93	180	7,800	0.5	2.1	0.8	13.0	
MW-2	2-Oct-90	ND(<50)	80	0.4	ND(<0.3)	ND(<0.3)	0.5
	28-Feb-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	25-Mar-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	1-May-91	ND(<50)	(c)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	5-Aug-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Oct-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	6-Jan-92	11,000	1200 (d)	ND(<0.3)	83	82	940
	20-Jul-92	73	120	1.7	3.3	1.1	9.6
	23-Oct-92	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	0.5
	4-Feb-93	ND(<50)	330 (d)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
8-Apr-93	150	74 (g)	1.0	2.1	1.0	13.0	
MW-3	2-Oct-90	ND(<50)	90	28	3.1	0.6	1.5
	28-Feb-91	ND(<50)	ND(<50)	6	ND(<0.3)	ND(<0.3)	ND(<0.3)
	25-Mar-91	ND(<50)	ND(<50)	0.6	ND(<0.3)	ND(<0.3)	ND(<0.3)
	1-May-91	ND(<50)	(c)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	5-Aug-91	ND(<50)	ND(<50)	1.7	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Oct-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	6-Jan-92	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	20-Jul-92	66	ND(<50)	1.1	2.2	0.7	6.4
	23-Oct-92	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	4-Feb-93	270	ND(<100)(f)	9.8	4.6	4.5	8.7
8-Apr-93	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.9)	
MW-4	4-Feb-93	58 (e)	450	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	8-Apr-93	74	220	19.0	0.4	ND(<0.3)	ND(<0.9)
MW-5	4-Feb-93	ND(<50)	240	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	8-Apr-93	ND(<50)	480	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.9)

(a) Analyzed by USEPA Method 8015, modified.

(b) Analyzed by USEPA Method 8020.

(c) No results - sample for TPH as diesel not collected.

(d) Diesel range concentration reported. A nonstandard diesel pattern was observed in the chromatogram.

(e) Does not match typical gasoline pattern. Pattern of peaks observed in the chromatograms are indicative of hydrocarbons heavier than gasoline.

(f) Detection limit increased due to insufficient sample amount.

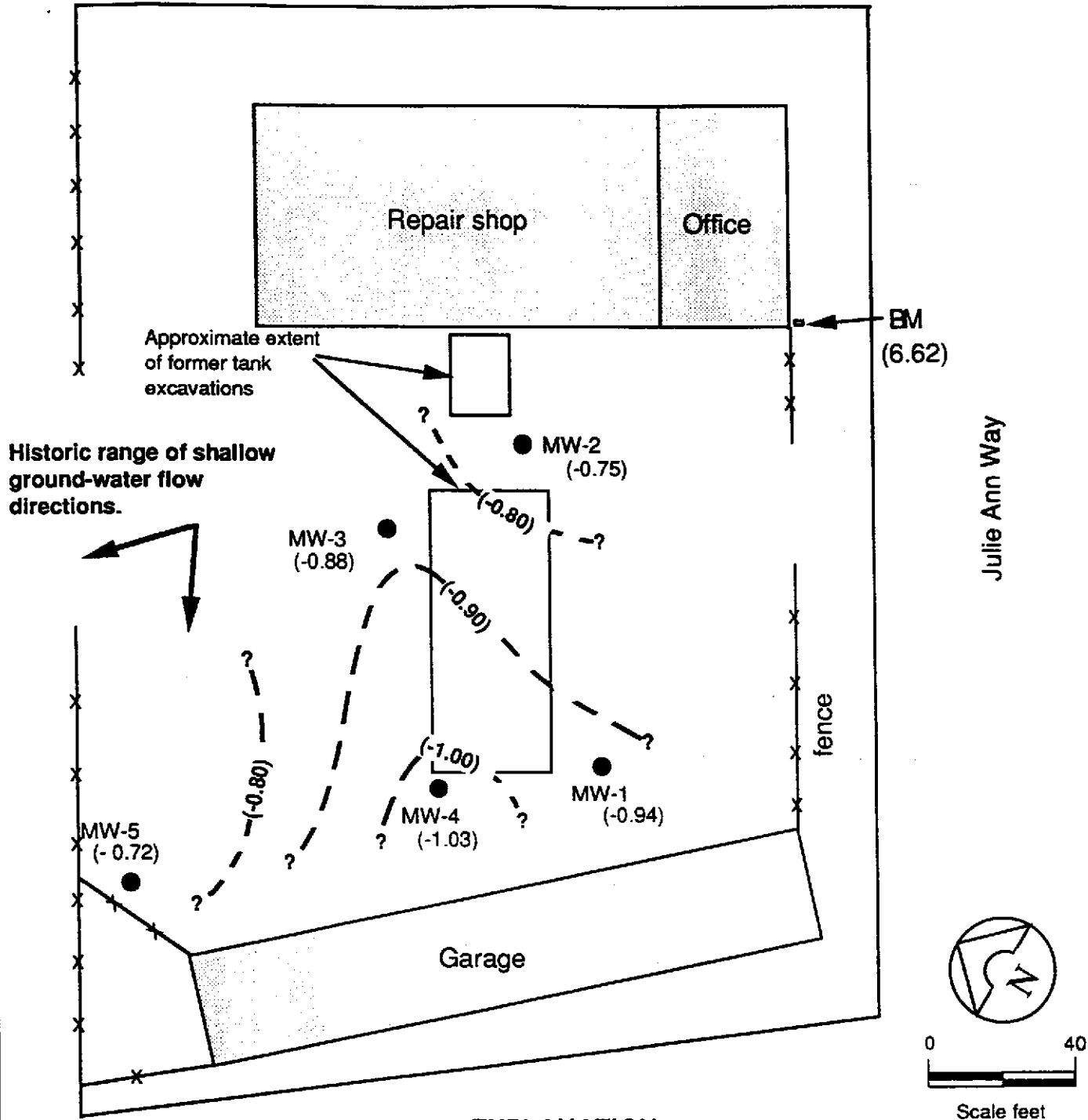
(g) Diesel range concentration reported. The chromatogram shows only a single peak in the diesel range.

() Reported detection limit

ND Not detected

µg/L Micrograms/liter

Analysis by Superior Analytical Laboratories, Inc., San Francisco and Martinez, California.



EXPLANATION

- MW-1 = Approximate location of ground-water monitor wells.
- = BM = Survey Benchmark (based on City of Oakland datum, which is 3 feet lower than Mean Sea Level).

- (-1.03) = Ground-Water elevation (feet) relative to benchmark, measured April 8, 1993.
- ? - (-0.90) = Ground-water elevation contour (feet); dashed where inferred (contour interval equals 0.1 feet).



Proj. No. RC01905

SHALLOW GROUND-WATER CONTOURS
 Former Penske Truck Leasing Co. Facility
 725 Julie Ann Way
 Oakland, California

FIGURE
2

ATTACHMENT 1

**COPIES OF CERTIFIED ANALYTICAL REPORTS
AND CHAIN-OF-CUSTODY DOCUMENTATION**



Geraghty & Miller
Attn: M.M BESSETTE

Project RC01905
Reported 04/15/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
88305- 1	MW-1	04/08/93	04/12/93 Water
88305- 2	MW-2	04/08/93	04/12/93 Water
88305- 3	MW-3	04/08/93	04/13/93 Water
88305- 4	MW-4	04/08/93	04/12/93 Water
88305- 5	MW-5	04/08/93	04/12/93 Water
88305- 6	TRIP-BLANK	04/08/93	04/12/93 Water

RESULTS OF ANALYSIS

Laboratory Number: 88305- 1 88305- 2 88305- 3 88305- 4 88305- 5

Gasoline:	180	150	ND<50	74	ND<50
Benzene:	0.5	1.0	ND<0.3	19	ND<0.3
Toluene:	2.1	2.1	ND<0.3	0.4	ND<0.3
Ethyl Benzene:	0.8	1.0	ND<0.3	ND<0.3	ND<0.3
Xylenes:	13	13	ND<0.9	ND<0.9	ND<0.9
Diesel:	7800	74 *	ND<50	220	480
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number: 88305- 6

Gasoline:	ND<50
Benzene:	ND<0.3
Toluene:	ND<0.3
Ethyl Benzene:	ND<0.3
Xylenes:	ND<0.9
Diesel:	ND<50
Concentration:	ug/L

* Diesel range concentration reported. The chromatogram shows only a single peak in the diesel range.



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: 88305

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
ug/L = parts per billion (ppb)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.3ug/L

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	100/91	9%	70-130
Benzene:	94/82	14%	70-130
Toluene:	96/90	6%	70-130
Ethyl Benzene:	100/94	6%	70-130
Xylenes:	102/96	6%	70-130
Diesel:	104/106	2%	75-125

Richard Srna, Ph.D.

Richard Srna for
Laboratory Director

