GERAGHTY
& MILLER, INC.
Environmental Services

Ground Water *Engineering* *Hydrocarbon* *Remediation* *Education*

November 25, 1992
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, October 1992
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 October 23, 1992, 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 October 23, 1992. Ground-water samples were collected from Monitor Wells MW-1 through MW-3. 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 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 San Francisco, 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 8.62 feet (Monitor Well MW-1) to 9.33 feet (Monitor Well MW-2) below the ground surface. A contour map based on the ground-water elevation data collected October 23, 1992, is presented in Figure 2. The maximum difference in the elevation of the ground-water surface between Wells MW-2 and MW-3 is 0.08 feet, producing a hydraulic gradient (slope of the ground-water surface) of approximately 0.002 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 Well MW-1 (280 micrograms per liter [µg/L]). TPH as diesel was detected in the ground-water samples collected from Monitor Well MW-1 (6,500 µg/L). Benzene was detected in the ground-water

sample collected from Monitor Well MW-1 (9.3 µg/L). All other BTEX constituent results are presented in Table 2. TPH as gasoline and BTEX were not detected in the trip blank.

RECOMMENDATION

Geraghty & Miller recommends that a copy of this monthly ground-water monitoring report be forwarded to the Alameda County Health Care Services Agency, Department of Environmental Health in Oakland, California.

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

Sincerely,
GERAGHTY & MILLER, INC.

Paul V. Hehn
Staff Geologist/Project Manager

Gary W. Keyes, P.E.
Principal Engineer/Associate

Attachments: References

Table 1: Summary of Field Sampling, Depth-to-Water, and Casing Elevation Data
Table 2: Summary of Ground-Water Analytical Results

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 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-1	2-Oct-90	9.76	5.42	-4.34	37.28	58.56	47	6.71	87.5	536	4
	28-Feb-91	8.54	5.42	-3.12	33.58	65.00	70	6.30	66.0	970	
	25-Mar-91	7.35	5.42	-1.93	33.50	71.00	75	6.50	64.0	720	
	1-May-91	7.91	5.42	-2.49	33.70	67.00	51	6.20	65.0	350	
	5-Aug-91	8.63	5.42	-3.21	NM	51.00	68	NM	63.6	769	
	23-Oct-91	9.00	5.42	-3.58	33.77	67.00	67	9.40	64.2	747	
	6-Jan-92	8.52	5.42	-3.10	33.87	65.00	69	9.40	63.2	664	
	20-Jul-92	7.94	5.42	-2.52	33.95	65.02	66	7.20	65.7	641	
	23-Oct-92	8.62	5.42	-3.20	33.57	64.80	60	7.50	69.8	1,930	
MW-2	2-Oct-90	10.38	6.21	-4.17	32.97	48.07	47	6.92	86.4	546	4
	28-Feb-91	9.19	6.21	-2.98	29.39	53.00	55	6.60	64.0	946	
	25-Mar-91	7.95	6.21	-1.74	29.39	57.00	70	6.60	63.0	640	
	1-May-91	8.58	6.21	-2.37	29.60	55.00	50	6.20	64.0	300	
	5-Aug-91	9.33	6.21	-3.12	NM	40.00	54	NM	65.1	568	
	23-Oct-91	9.57	6.21	-3.36	29.35	52.00	53	7.60	65.4	797	
	6-Jan-92	9.08	6.21	-2.87	29.50	53.00	53	9.18	62.8	699	
	20-Jul-92	8.60	6.21	-2.39	29.45	54.21	55	6.50	65.2	669	
	23-Oct-92	9.33	6.21	-3.12	29.18	51.60	55	7.20	69.8	1,900	
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	820	
	1-May-91	8.58	6.10	-2.48	33.70	65.00	50	6.40	67.0	410	
	5-Aug-91	9.26	6.10	-3.16	NM	50.00	67	NM	64.1	619	
	23-Oct-91	9.60	6.10	-3.50	33.48	66.00	66	7.30	67.3	843	
	6-Jan-92	9.08	6.10	-2.98	33.66	64.00	64	9.98	61.7	702	
	20-Jul-92	8.59	6.10	-2.49	33.76	65.44	66	6.80	66.0	754	
	23-Oct-92	9.30	6.10	-3.20	33.47	63.40	65	7.50	71.6	1,800	

(a) Measured from top of PVC casing.
(b) Based on four casing volumes.
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.

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

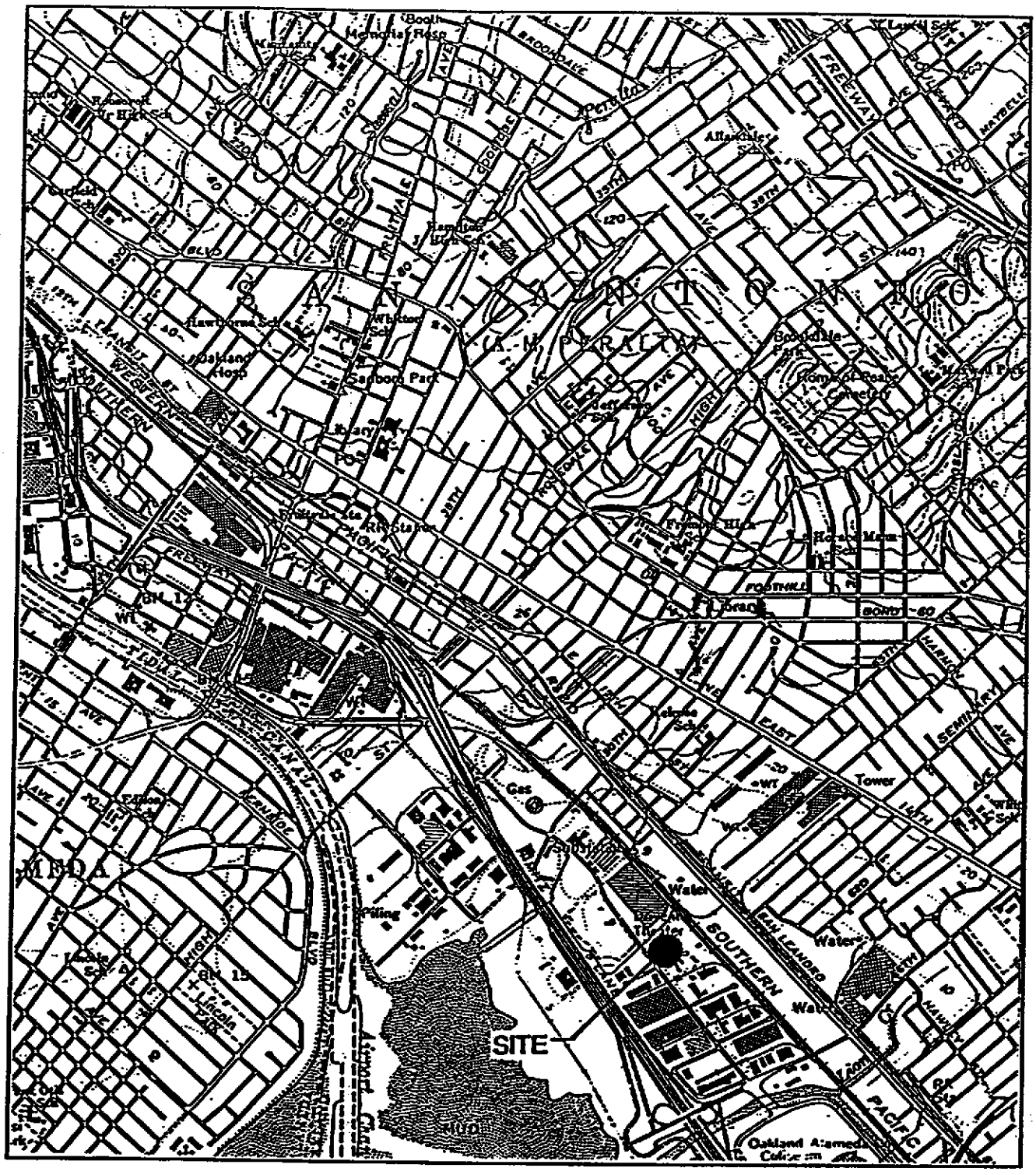
Well	Date	TPH Gasoline (a) (µg/L)	TPH Diesel (a) (µg/L)	Benzene (b) (µg/L)	Toluene (b) (µg/L)	Ethyl-benzene (b) (µg/L)	Xylenes (b) (µg/L)
MW-1	2-Oct-90	170	2,900	20	18	1.9	5.7
	28-Feb-91	260	550	43	1	7	1
	25-Mar-91	73	160	10	ND(<0.3)	0.5	ND(<0.3)
	1-May-91	ND(<50)	(c)	2.2	ND(<0.3)	ND(<0.3)	ND(<0.3)
	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
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
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)

(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.

( ) Reported detection limit
ND Not detected
µg/L Micrograms/liter

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

Project No. RC01905



Reference: USGS Oakland East, Ca. 7 1/2 Min. Quad
Scale: 1: 24,000

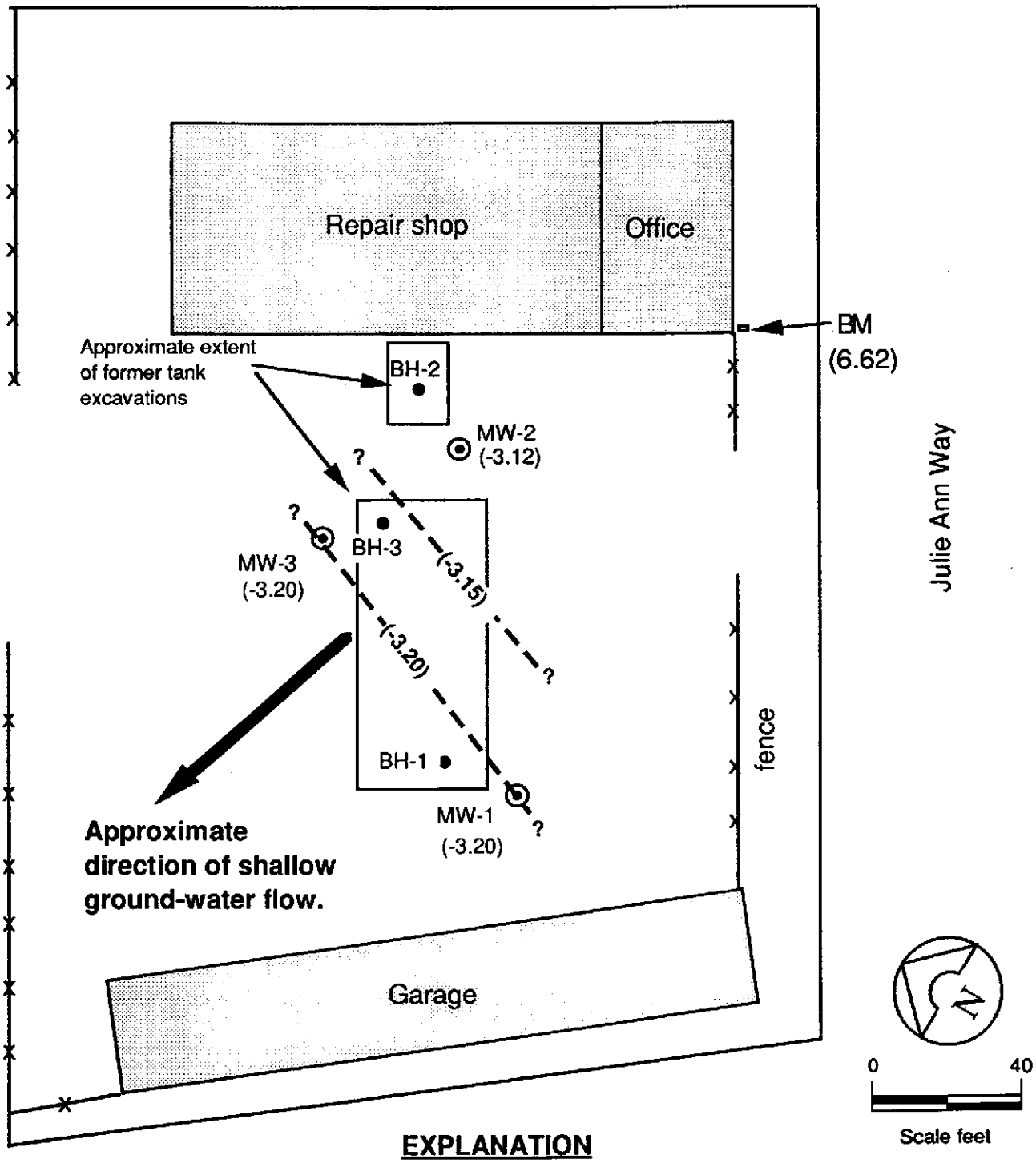
N

GERAGHTY & MILLER, INC.
Environmental Services

Proj. No. RC01905

SITE LOCATION MAP
Former Penske Truck Leasing Co. Facility
725 Julie Ann Way
Oakland, California

FIGURE
1



EXPLANATION

BH-1 ● = Approximate location of soil borings.

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).

(-3.20) = Ground-Water elevation (feet) relative to benchmark, measured October 23,1992.

? — (-3.20) — ? = Ground-water elevation contour (feet); dashed where inferred(contour interval equals 0.5 feet).

GERAGHTY & MILLER, INC.
Environmental Services

Project No. RC01905

Shallow Ground-Water Contours
October 23, 1992
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

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 55695
CLIENT: Geraghty & Miller Inc.
CLIENT JOB NO.: RC01905

DATE RECEIVED: 10/26/92
DATE REPORTED: 11/03/92

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
by Modified EPA SW-846 Method 5030 and 8015

LAB #	Sample Identification	Concentration (ug/L) Gasoline Range
1	MW-1	280
2	MW-2	ND<50
3	MW-3	ND<50
4	TRIPBLANK	ND<50

ug/L - parts per billion (ppb)

Method Detection Limit for Gasoline in Water: 50 ug/L

QAQC Summary:

Daily Standard run at 2mg/L: %Diff Gasoline = <15
MS/MSD Recovery = 91%: Duplicate RPD = 7%

Richard Srna, Ph.D.

Laboratory Manager

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

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

LABORATORY NO.: 55695
CLIENT: Geraghty & Miller Inc.
CLIENT JOB NO.: RC01905

DATE RECEIVED: 10/26/92
DATE REPORTED: 11/03/92

ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE & XYLENES by EPA SW-846 Methods 5030 and 8020

LAB #	Sample Identification	Concentration(ug/L) Benzene	Toluene	Ethyl Benzene	Xylenes
1	MW-1	9.3	13	8.2	15
2	MW-2	ND<0.3	ND<0.3	ND<0.3	0.5
3	MW-3	ND<0.3	ND<0.3	ND<0.3	ND<0.3
4	TRIPBLANK	ND<0.3	ND<0.3	ND<0.3	ND<0.3

ug/L - parts per billion (ppb)

Method Detection Limit in Water: 0.3 ug/L

QAQC Summary:

Daily Standard run at 20ug/L: %Diff 8020 = <15%
MS/MSD Average Recovery = 86%: Duplicate RPD = 8%

Richard Srna, Ph.D.

Laboratory Manager

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

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

LABORATORY NO.: 55695
CLIENT: Geraghty & Miller Inc.
CLIENT JOB NO.: RC01905

DATE RECEIVED: 10/26/92
DATE REPORTED: 11/03/92

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
by Modified EPA SW-846 Method 8015

LAB #	Sample Identification	Concentration (ug/L) Diesel Range
1	MW-1	6500
2	MW-2	ND<50
3	MW-3	ND<50

ug/L - parts per billion (ppb)

Minimum Detection Limit for Diesel in Water: 50ug/L

QAQC Summary:

Daily Standard run at 200mg/L: %DIFF Diesel = <15%
MS/MSD Average Recovery = 93%: Duplicate RPD = 2%

Richard Srna, Ph.D.

Laboratory Director

GERAGHTY & MILLER, INC.
Environmental Services

Laboratory Task Order No. _____

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number RC 01905

Project Location Penske / Oakland

Laboratory Superior

Sampler(s)/Affiliation Jeff Stivers

SAMPLE IDENTITY	Code	Date/Time Sampled	Lab ID	SAMPLE BOTTLE / CONTAINER DESCRIPTION: 1 L Amb TPH diesel	40 mL VOA TPH gas + BTEX							TOTAL
MW-1	L	10/23/92 1530		1								1
MW-1	L	10/23/92 1530			3							3
MW-2	L	10/23/92 1450		1								1
MW-2	L	10/23/92 1450			3							3
MW-3	L	10/23/92 1420		1								1
MW-3	L	10/23/92 1420			3							3
Trip Blank	L				1							1

Please Initial: RB
Samples Stored in Ice. ✓
Appropriate containers. ✓
Samples preserved. ✓
VOA's without headspace ✓
Comments: _____

Sample Code: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 13

Relinquished by:	Organization: G+M	Date 10/26/92	Time 1212	Seal Intact?	Yes No N/A
Received by:	Organization: EXP-FT	Date 10/26/92	Time 1100		
Relinquished by:	Organization: EXP-FT	Date 10/26/92	Time 1330	Seal Intact?	Yes No N/A
Received by:	Organization: Superior				

Special Instructions/Remarks: Mail Results to: Paul V. Hehn, Geraghty & Miller, Inc., 1050 Marina Way South Richmond, CA 94804

Delivery Method: ☐ In Person ☐ Common Carrier _____ SPECIFY ☒ Lab Courier ☐ Other _____ SPECIFY