

**RESULTS OF QUARTERLY  
GROUNDWATER MONITORING  
NOVEMBER 1994  
FORMER PENSKE TRUCK  
LEASING CO. FACILITY  
725 JULIE ANN WAY  
OAKLAND, CALIFORNIA**

December 1994

Prepared by

Geraghty & Miller, Inc.  
1050 Marina Way South  
Richmond, CA 94804  
(510) 233-3200

December 22, 1994  
Project No. RC0019.005

Mr. Richard G. Saut  
Environmental Project Manager  
Penske Truck Leasing Co.  
Route 10, Green Hills  
P.O. Box 563  
Reading, PA 19603

**SUBJECT: Results of Quarterly Groundwater Monitoring, November 1994  
Former Penske Truck Leasing Facility  
725 Julie Ann Way, Oakland, California.**

Dear Mr. Saut:

This report presents the results of the quarterly groundwater monitoring performed on November 22 and 23, 1994, 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 eight monitor wells located at the project site. Three of these groundwater monitor wells were installed during July 1994 as part of a program of additional site assessment activities and implementation of a non-attainment area remedial approach approved by the Alameda County Health Care Services Agency (ACHCSA) and the California Regional Water Quality Control Board — San Francisco Bay Region (RWQCB).

### **FIELD PROCEDURES**

The quarterly groundwater monitoring was performed on November 22 and 23, 1994. Groundwater samples were collected from Monitor Wells MW-1 through MW-8. 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 was purged of approximately three to four casing volumes of water using a



January 16, 1994  
Project No. RC0019.005

Mr. Barney Chan  
Division of Hazardous Materials  
Department of Environmental Health  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Room 250  
Alameda, CA 94502

SUBJECT: Results of Quarterly Groundwater Monitoring, November 1994  
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 groundwater monitoring well sampling for November 1994 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 groundwater 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  
Project Geologist/Project Manager

Attachment: Results of Quarterly Groundwater Monitoring, November 1994

cc: Mr. Richard G, Saut  
Penske Truck Leasing Co.





Via Facsimile (510) 233-3204

January 13, 1995

Mr. Paul Hehn  
Geraghty & Miller, Inc.  
1050 Marina Way South  
Richmond, CA 94804

Re: Distribution of Report  
Quarterly Groundwater Monitoring Report (Nov. 1994)  
Former Penske Truck Leasing Facility  
725 Julie Ann Way  
Oakland, CA

Dear Paul:

I have received and approve the above referenced report for release. Please distribute copies of the report to the appropriate regulatory agencies as needed.

If you have questions, please call my office at (610) 775-6010.

Sincerely,

*Richard G. Saut*

Richard G. Saut  
Manager, Environmental Projects

RGS:jls  
cc: M. Althen  
0011395.rgs

1-inch diaphragm pump. All equipment that entered the well was washed in a solution of nonphosphate detergent 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, groundwater 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.

Groundwater 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), for benzene, toluene, ethylbenzene, and total xylenes (BTEX) (USEPA Method 8020), and for total dissolved solids (USEPA Method 160.1).

## RESULTS

### SHALLOW GROUNDWATER FLOW

A summary of the depth-to-water data is presented in Table 1. Depth to water ranged from 5.61 feet (Monitor Well MW-7) to 6.76 feet (Monitor Well MW-3) below the ground surface. A contour map based on the groundwater elevation data collected November 22 and 23, 1994, is presented in Figure 2. The historic shallow groundwater flow is toward the west; however, there are local variations in flow directions at the facility, as indicated by the groundwater contours from the data collected on November 22 and 23, 1994.

The difference in the elevation of the groundwater surface between Wells MW-2 and MW-4 is 0.35 feet, producing a hydraulic gradient (slope of the groundwater surface) of approximately 0.0037 foot/foot in a west-northwesterly direction.



## GROUNDWATER ANALYTICAL RESULTS

A summary of the groundwater 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 groundwater sample collected from Monitor Well MW-4 (100 micrograms per liter [ $\mu\text{g/L}$ ]). TPH as diesel was detected in the groundwater samples collected from Monitor Wells MW-1 (1,700  $\mu\text{g/L}$ ), MW-2 (51  $\mu\text{g/L}$ ), MW-4 (1,800  $\mu\text{g/L}$ ), MW-5 (160  $\mu\text{g/L}$ ), MW-7 (150  $\mu\text{g/L}$ ), and MW-8 (570  $\mu\text{g/L}$ ). Benzene was detected in the groundwater samples collected from Monitor Wells MW-4 (9.9  $\mu\text{g/L}$ ), MW-7 (2.4  $\mu\text{g/L}$ ), and MW-8 (1.5  $\mu\text{g/L}$ ). All other BTEX constituent results are presented in Table 2. TPH as gasoline and BTEX were not detected in the trip blank. Additional analysis of total dissolved solids in the groundwater samples detected concentrations ranging from 1,800 milligrams per liter (mg/L) from Monitor Well MW-6 to 6,300 mg/L from Monitor Well MW-8 (Table 2).

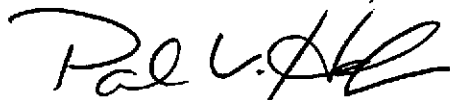
## FIELD PARAMETERS

As in all previous quarterly sampling events at this facility, the specific conductance measurements for the groundwater purged during the sampling continue to be high (Table 1). The high specific conductance measurements were verified by correspondingly high concentrations of total dissolved solids detected in the groundwater samples (Table 2).

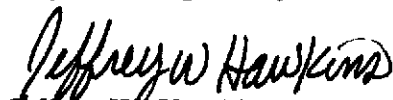


Geraghty & Miller appreciates the opportunity to be of service to Penske. If you have any questions regarding this report, please do not hesitate to call us.

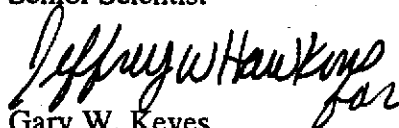
Sincerely,  
GERAGHTY & MILLER, INC.



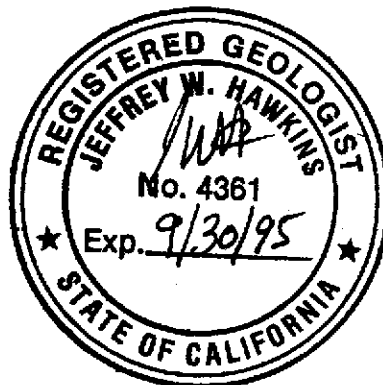
Paul V. Hehn  
Project Geologist/Project Manager



Jeffrey W. Hawkins, R.G.  
Senior Scientist



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



Attachments: References

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|--------------|--|
| Table 1      | Summary of Field Sampling, Depth-to-Water, and Casing Elevation Data       |
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| Figure 2     | Shallow Groundwater Contours   |
| Figure 2     | Benzene Concentrations   |
| 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	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	
	6-Aug-93	7.39	5.43	-1.96	33.88	68.67	69	7.22	68.1	5,890	
	28-Oct-93	7.85	5.43	-2.42	33.80	67.48	68	7.00	68.3	5,910	
	1-Feb-94	7.25	5.43	-1.82	33.99	69.52	70	7.63	63.2	7,610	
	12-Sep-94	6.75	5.43	-1.32	33.95	70.72	70	6.90	75.8	7,950	
23-Nov-94	6.13	5.43	-0.70	33.93	72.28	73	6.10	66.2	>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	
	6-Aug-93	8.05	6.20	-1.85	29.33	55.33	66.5	7.26	66.4	6,250	
	28-Oct-93	8.50	6.20	-2.30	29.43	54.40	55	7.08	71.2	6,780	
	1-Feb-94	7.87	6.20	-1.67	29.54	56.32	57	8.35	62.4	8,250	
	12-Sep-94	7.42	6.20	-1.22	29.45	57.24	66	(e)	69.9	8,130	
22-Nov-94	6.75	6.20	-0.55	29.50	59.15	60	6.8	67.6	>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	
	6-Aug-93	8.01	6.10	-1.91	33.55	66.40	56 (d)	7.43	67.3	6,490	
	28-Oct-93	8.45	6.10	-2.35	33.60	65.40	66	7.02	72.0	6,590	
	1-Feb-94	8.03	6.10	-1.93	33.74	66.84	67	8.32	63.3	8,400	
	12-Sep-94	7.39	6.10	-1.29	33.70	68.40	70	7.73	68.7	8,030	
22-Nov-94	6.76	6.10	-0.66	33.75	70.17	70	6.60	65.8	>2,000		
MW-4	4-Feb-93	6.68	5.18 (c)	-1.50	32.70	64.38	60 (d)	NM	63.5	14,100	4
	8-Apr-93	6.21	5.18	-1.03	33.04	69.76	70	6.80	69.1	>2,000	
	6-Aug-93	7.20	5.18	-2.02	32.92	66.87	60 (d)	7.44	68.9	13,900	
	28-Oct-93	7.64	5.18	-2.46	32.98	65.88	66	6.79	72.1	11,940	
	1-Feb-94	7.26	5.18	-2.08	33.31	67.72	68	8.65	63.6	18,110	
	12-Sep-94	6.55	5.18	-1.37	33.41	69.84	60 (d)	6.03	77.5	16,710	
	23-Nov-94	6.08	5.18	-0.90	33.35	70.90	55 (d)	5.60	66.7	>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	
	6-Aug-93	6.19	4.71	-1.48	31.30	65.29	68	7.47	63.6	5,180	
	28-Oct-93	6.86	4.71	-2.15	31.43	62.72	48 (d)	7.12	70.6	4,980	
	1-Feb-94	6.48	4.71	-1.77	31.43	64.84	49 (d)	(e)	63.1	6,120	
	12-Sep-94	5.89	4.71	-1.18	31.43	66.40	39 (d)	(e)	69.4	5,020	
	22-Nov-94	5.66	4.71	-0.95	31.44	67.02	58 (d)	6.80	68.4	>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-6	12-Sep-94	6.56	5.37	-1.19	24.85	47.55	41 (d)	(e)	71.2	12,970	4
	22-Nov-94	6.04	5.37	-0.67	24.88	48.98	50	6.70	66.4	>2,000	
MW-7	12-Sep-94	6.16	5.38	-0.78	28.51	58.08	60	6.65	73.5	7,920	4
	23-Nov-94	5.61	5.38	-0.23	28.46	59.40	60	6.00	64.6	>2,000	
MW-8	12-Sep-94	6.46	5.44	-1.02	25.15	48.56	55	(e)	(e)	11,400	4
	23-Nov-94	6.01	5.44	-0.57	25.66	78.60	75	5.60	61.5	>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.
- (e) No reading - instrument malfunction.

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 Groundwater 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)	Total Dissolved Solids (c)
		Gasoline (a)	Diesel (a)					
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)	(d)	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 (f)	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	--
	6-Aug-93	740	17,000	75	100	25	130	3,500
	28-Oct-93	140	7,600	4.7	1.9	3.2	5.4	3,500
	1-Feb-94	430	10,000	8.2	1.1	3.5	4.8	3,800
	12-Sep-94	230	22,000	0.7	1.7	2.0	3.7	4,000
23-Nov-94	ND(<50)	1,700	ND(<0.5)	ND(<0.5)	ND(<0.5)	0.6	3,600	
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)	(d)	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 (e)	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 (e)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	--
	8-Apr-93	150	74 (h)	1	2.1	1	13.0	--
	6-Aug-93	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.9)	990
	28-Oct-93	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.9)	1,500
	1-Feb-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	2,000
	12-Sep-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	2,100
22-Nov-94	ND(<50)	51 (h)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	2,400	



**Table 2: Summary of Groundwater 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)	Total Dissolved Solids (c)
		Gasoline (a)	Diesel (a)					
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)
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)	(d)	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)(g)	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)	--
	6-Aug-93	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.9)	3,400
	28-Oct-93	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.9)	2,700
	1-Feb-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	3,400
	12-Sep-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	3,500
22-Nov-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	3,400	
MW-4	4-Feb-93	58 (f)	450	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	--
	8-Apr-93	74	220	19	0.4	ND(<0.3)	ND(<0.9)	--
	6-Aug-93	95	ND(<50)	68	0.9	1.1	ND(<0.9)	5,800
	28-Oct-93	160	600	46	0.7	1.6	1.2	5,200
	1-Feb-94	320	160	290	0.6	6.7	3.2	6,200
	12-Sep-94	390	95	120	3.9	14.0	14.0	6,000
	23-Nov-94	100	1,800	9.9	0.7	1.6	3.8	5,600
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)	--
	6-Aug-93	ND(<50)	120	0.8	ND(<0.3)	ND(<0.3)	ND(<0.9)	2,800
	28-Oct-93	ND(<50)	370	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.9)	2,400
	1-Feb-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	2,500
	12-Sep-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	2,600
	22-Nov-94	ND(<50)	160	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	2,600



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

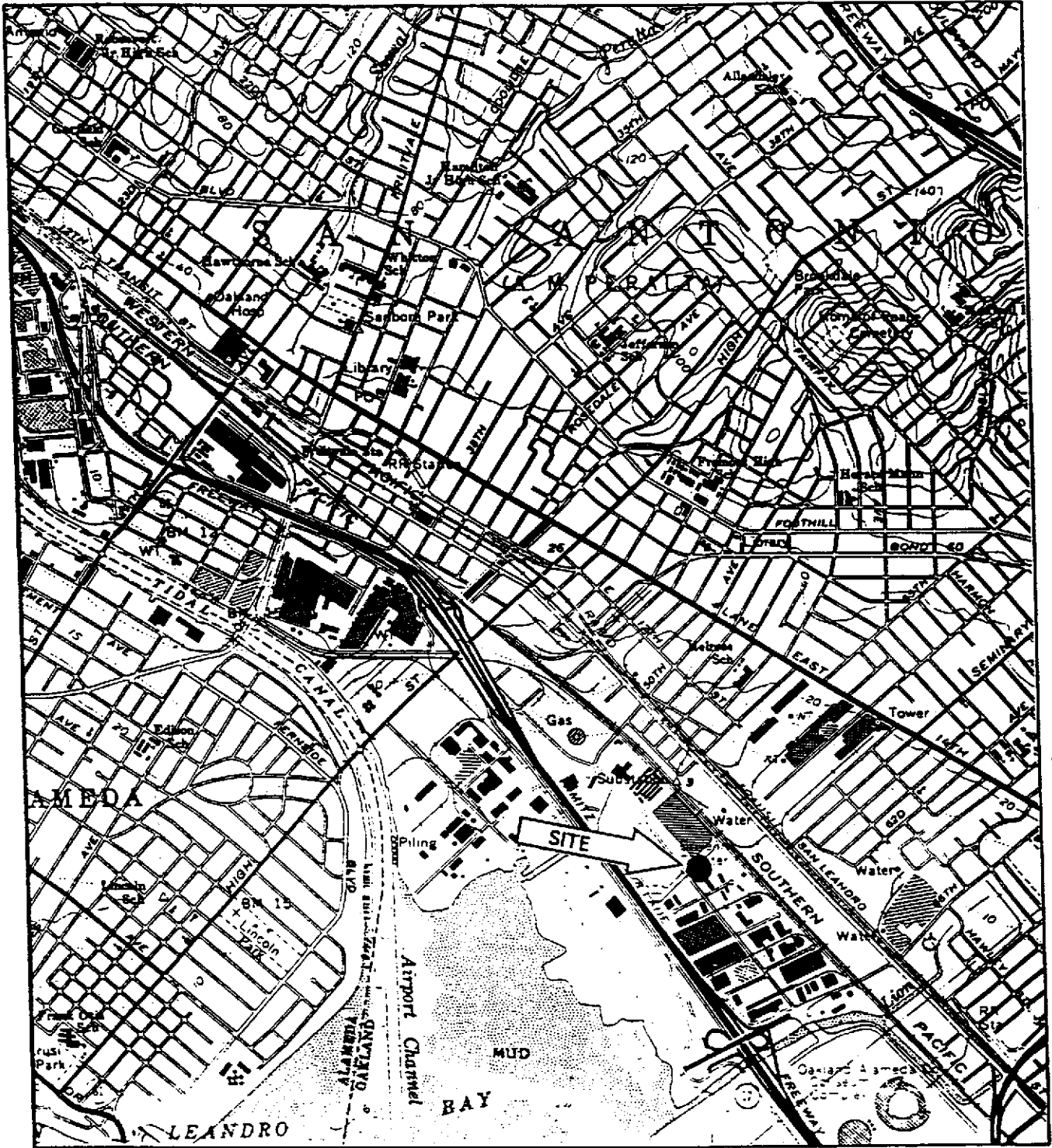
Well	Date	TPH Gasoline (a) (µg/L)	TPH Diesel (a) (µg/L)	Benzene (b) (µg/L)	Toluene (b) (µg/L)	Ethyl- benzene (b) (µg/L)	Xylenes (b) (µg/L)	Total Dissolved Solids (c) (mg/L)
MW-6	12-Sep-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	560
	22-Nov-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	1.5	1,800
MW-7	12-Sep-94	160	620	2.7	1.3	ND(<0.5)	2.1	1,100
	23-Nov-94	ND(<50)	150	2.4	ND(<0.5)	ND(<0.5)	ND(<0.5)	3,600
MW-8	12-Sep-94	170	850	2.7	0.5	ND(<0.5)	2.0	5,500
	23-Nov-94	ND(<50)	570	1.5	ND(<0.5)	ND(<0.5)	ND(<0.5)	6,300

- (a) Analyzed by USEPA Method 8015, modified.
- (b) Analyzed by USEPA Method 8020.
- (c) Analyzed by USEPA Method 160.1.
- (d) No results - sample for TPH as diesel not collected.
- (e) Diesel range concentration reported. A nonstandard diesel pattern was observed in the chromatogram.
- (f) Does not match typical gasoline pattern. Pattern of peaks observed in the chromatograms is indicative of hydrocarbons heavier than gasoline.
- (g) Detection limit increased due to insufficient sample amount.
- (h) Diesel range concentration reported. The chromatogram shows only a single peak in the diesel range.

( ) Reported detection limit  
 -- Not analyzed  
 ND Not detected  
 µg/L Micrograms per liter  
 mg/L Milligrams per liter

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





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



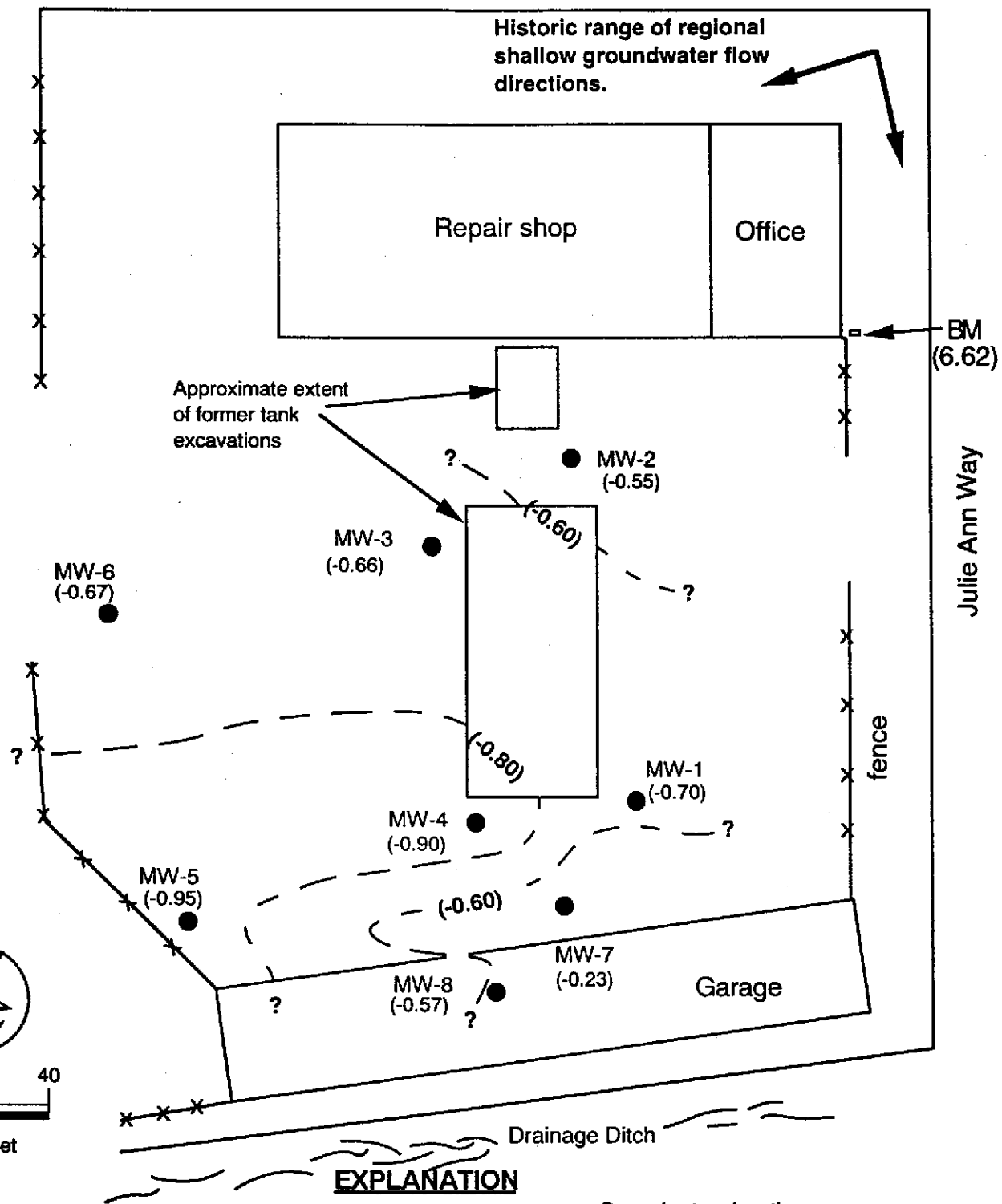
Proj. No. RC0019.000

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

FIGURE

1

Historic range of regional shallow groundwater flow directions.



**EXPLANATION**

- MW-1 ● = Approximate location of existing groundwater monitor wells.
- BM = Survey Bench Mark (based on City of Oakland datum which is 3 feet lower than Mean Sea Level).
- (-0.55) = Groundwater elevation (feet) relative to benchmark, measured November 22 and 23, 1994.
- ? - (-0.60) = Groundwater elevation contour (feet); dashed where inferred (contour interval equals 0.2 feet).

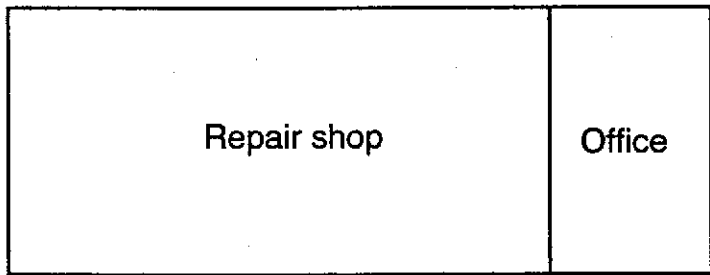
**GERAGHTY & MILLER, INC.**  
*Environmental Services*  
 Project No. RC0019.005

**SHALLOW GROUNDWATER CONTOURS**  
 Former Penske Truck Leasing Co.  
 725 Julie Ann Way  
 Oakland, California

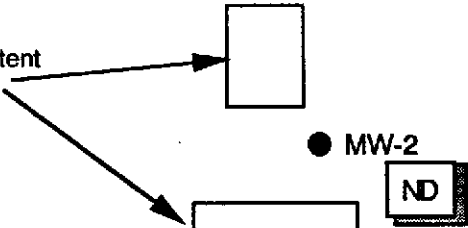
FIGURE  
**2**



Historic range of regional shallow groundwater flow directions.



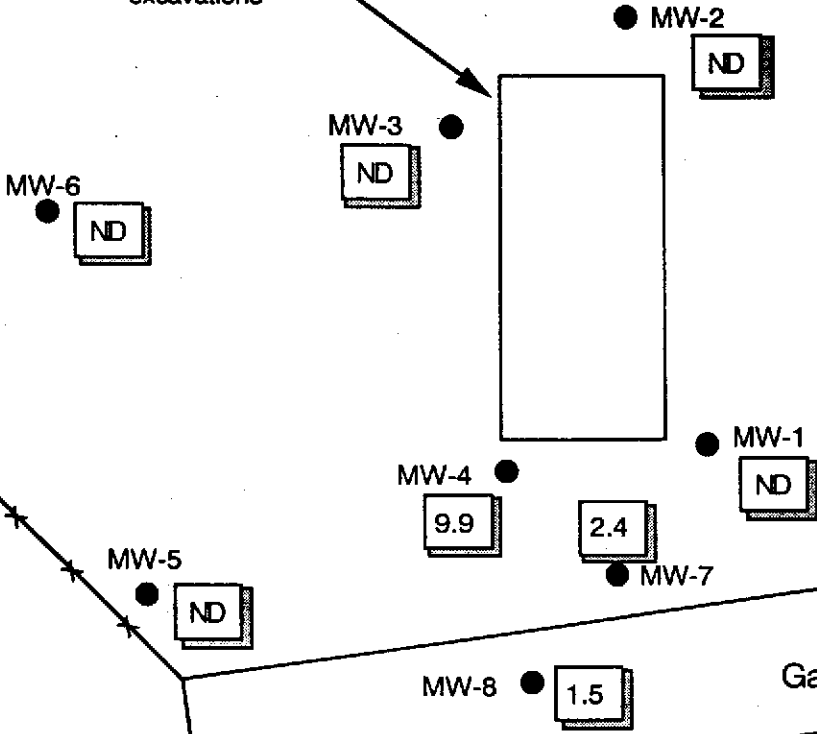
Approximate extent of former tank excavations



BM (6.62)

Julie Ann Way

fence



**EXPLANATION**

MW-1 ● = Approximate location of existing groundwater monitor wells.

2.4 = Benzene concentrations (in  $\mu\text{g/L}$ ) from groundwater samples collected November 22 and 23, 1994.

BM = Survey Bench Mark (based on City of Oakland datum which is 3 feet lower than Mean Sea Level).



Project No. RC0019.005

**BENZENE CONCENTRATIONS**  
Former Penske Truck Leasing Co.  
725 Julie Ann Way  
Oakland, California

FIGURE

**3**

**ATTACHMENT 1**

**COPIES OF CERTIFIED ANALYTICAL REPORTS**

**AND CHAIN-OF-CUSTODY DOCUMENTATION**



# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

GERAGHTY & MILLER  
1050 MARINA WAY SOUTH  
RICHMOND, CA 94804

Date: December 1, 1994

Attn: PAUL HEHN

Laboratory Number : 50074

Project Number/Name : RC0019.005

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This report has been reviewed and  
approved for release.

---

*Cecilia Joaquin* 12/1/94  
Senior Chemist  
Account Manager

---

Certified Laboratories

825 Arnold Dr., Suite 114  
Martinez, California 94553  
(415) 229-1512 / fax (510) 229-1526

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

309 S. Cloverdale St., Suite B-24  
Seattle, Washington 98108  
(206) 763-2992 / fax (206) 763-8429



# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

G. RAGHTY & MILLER  
Attn: PAUL HEHN

Project RCO019.005  
Reported on December 1, 1994

Gasoline Range Petroleum Hydrocarbons and BTXE  
by EPA SW-846 5030/8015M/8020  
Gasoline Range quantitated as all compounds from C6-C10

### Chronology

Laboratory Number 50074

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
MW-5	11/22/94	11/23/94	11/28/94	11/28/94	AK281.18	01
MW-3	11/22/94	11/23/94	11/28/94	11/28/94	AK281.18	02
MW-2	11/22/94	11/23/94	11/28/94	11/28/94	AK281.18	03
MW-6	11/22/94	11/23/94	11/28/94	11/28/94	AK281.18	04
MW-4	11/23/94	11/23/94	12/01/94	12/01/94	AK281.18	05
MW-8	11/23/94	11/23/94	11/28/94	11/28/94	AK281.18	06
MW-7	11/23/94	11/23/94	11/29/94	11/29/94	AK281.18	07
MW-1	11/23/94	11/23/94	11/30/94	11/30/94	AK281.18	08
TB	11/22/94	11/23/94	11/30/94	11/30/94	AK281.18	09

### QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
AK281.18-01	Method Blank	MB	Water	11/28/94	11/28/94
AK281.18-02	MW-1	MS 50056-01	Water	11/28/94	11/28/94
AK281.18-03	MW-1	MSD 50056-01	Water	11/28/94	11/28/94
AK281.18-04	Laboratory Spike	LS	Water	11/28/94	11/28/94



# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

GERAGHTY & MILLER  
Attn: PAUL HEHN

Project RC0019.005  
Reported on December 1, 1994

Gasoline Range Petroleum Hydrocarbons and BTXE  
by EPA SW-846 5030/8015M/8020  
Gasoline Range quantitated as all compounds from C6-C10

LAB ID	Sample ID	Matrix	Moisture
50074-01	MW-5	Water	-
50074-02	MW-3	Water	-
50074-03	MW-2	Water	-
50074-04	MW-6	Water	-

## RESULTS OF ANALYSIS

Compound	50074-01		50074-02		50074-03		50074-04		
	Conc.	RL	Conc.	RL	Conc.	RL	Conc.	RL	
	ug/L		ug/L		ug/L		ug/L		
Gasoline_Range	ND	50	ND	50	ND	50	ND	50	
Benzene	ND	0.5	ND	0.5	ND	0.5	ND	0.5	
Toluene	ND	0.5	ND	0.5	ND	0.5	ND	0.5	
Ethyl Benzene	ND	0.5	ND	0.5	ND	0.5	ND	0.5	
Total Xylenes	ND	0.5	ND	0.5	ND	0.5	1.5	0.5	
>> Surrogate Recoveries (%) <<									
Trifluorotoluene (SS)	113		112		116		105		



# Superior Precision Analytical, Inc.

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GERAGHTY & MILLER  
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Project RC0019.005  
Reported on December 1, 1994

Gasoline Range Petroleum Hydrocarbons and BTXE  
by EPA SW-846 5030/8015M/8020  
Gasoline Range quantitated as all compounds from C6-C10

LAB ID	Sample ID	Matrix	Moisture
50074-05	MW-4	Water	-
50074-06	MW-8	Water	-
50074-07	MW-7	Water	-
50074-08	MW-1	Water	-

### RESULTS OF ANALYSIS

Compound	50074-05		50074-06		50074-07		50074-08	
	Conc.	RL	Conc.	RL	Conc.	RL	Conc.	RL
	ug/L		ug/L		ug/L		ug/L	
Gasoline_Range	100	50	ND	50	ND	50	ND	50
Benzene	9.9	0.5	1.5	0.5	2.4	0.5	ND	0.5
Toluene	0.7	0.5	ND	0.5	ND	0.5	ND	0.5
Ethyl Benzene	1.6	0.5	ND	0.5	ND	0.5	ND	0.5
Total Xylenes	3.8	0.5	ND	0.5	ND	0.5	0.6	0.5
>> Surrogate Recoveries (%) <<								
Trifluorotoluene (SS)	106		111		115		101	



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Project RC0019.005  
Reported on December 1, 1994

Gasoline Range Petroleum Hydrocarbons and BTXE  
by EPA SW-846 5030/8015M/8020  
Gasoline Range quantitated as all compounds from C6-C10

LAB ID	Sample ID	Matrix	Moisture
50074-09	TB	Water	-

## RESULTS OF ANALYSIS

Compound	50074-09 Conc. RL ug/L
----------	------------------------------

Gasoline Range	ND	50
Benzene	ND	0.5
Toluene	ND	0.5
Ethyl Benzene	ND	0.5
Total Xylenes	ND	0.5

>> Surrogate Recoveries (%) <<  
Trifluorotoluene (SS) 138



# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

Gasoline Range Petroleum Hydrocarbons and BTXE  
by EPA SW-846 5030/8015M/8020  
Gasoline Range quantitated as all compounds from C6-C10

## Quality Assurance and Control Data

Laboratory Number: 50074  
Method Blank(s)

AK281.18-01  
Conc. RL  
ug/L

---

Gasoline_Range	ND	50
Benzene	ND	0.5
Toluene	ND	0.5
Ethyl Benzene	ND	0.5
Total Xylenes	ND	0.5

>> Surrogate Recoveries (%) <<  
Trifluorotoluene (SS) 119





# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

Gasoline Range Petroleum Hydrocarbons and BTXE  
by EPA SW-846 5030/8015M/8020  
Gasoline Range quantitated as all compounds from C6-C10

## Quality Assurance and Control Data

Laboratory Number: 50074

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
----------	--------------	-----------	------------	------------	----------	-------

### For Water Matrix (ug/L)

AK281.18 04 / - Laboratory Control Spikes

Gasoline Range		450	451	100	65-135	
Benzene		20	19.6	98	65-135	
Toluene		20	19.8	99	65-135	
Ethyl Benzene		20	18.2	91	65-135	
Total Xylenes		60	57.5	96	65-135	

### >> Surrogate Recoveries (%) <<

Trifluorotoluene (SS)				113	50-150	
-----------------------	--	--	--	-----	--------	--

### For Water Matrix (ug/L)

AK281.18 02 / 03 - Sample Spiked: 50056 - 01

Gasoline Range	ND	450	436/433	97/96	65-135	1
Benzene	ND	20	18.5/19.1	93/96	65-135	3
Toluene	ND	20	18.8/19.6	94/98	65-135	4
Ethyl Benzene	ND	20	17.5/18.0	88/90	65-135	2
Total Xylenes	ND	60	54.9/57.2	92/95	65-135	3

### >> Surrogate Recoveries (%) <<

Trifluorotoluene (SS)				111/111	50-150	
-----------------------	--	--	--	---------	--------	--

### Definitions:

ND = Not Detected

L = Reporting Limit

NA = Not Analysed

RPD = Relative Percent Difference

ug/L = parts per billion (ppb)

mg/L = parts per million (ppm)

ug/kg = parts per billion (ppb)

mg/kg = parts per million (ppm)



# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

GERAGHTY & MILLER  
Attn: PAUL HEHN

Project RC0019.005  
Reported on December 1, 1994

Total Petroleum Hydrocarbons as Diesel  
by EPA SW-846 Method 8015M  
Diesel Range quantitated as all compounds from C10-C25

### Chronology

Laboratory Number 50074

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
MW-5	11/22/94	11/23/94	11/29/94	11/29/94	AK282.29	01
MW-3	11/22/94	11/23/94	11/29/94	11/29/94	AK282.29	02
MW-2	11/22/94	11/23/94	11/29/94	11/29/94	AK282.29	03
MW-6	11/22/94	11/23/94	11/29/94	11/29/94	AK282.29	04
MW-4	11/23/94	11/23/94	11/29/94	11/29/94	AK282.29	05
MW-8	11/23/94	11/23/94	11/29/94	11/29/94	AK282.29	06
MW-7	11/23/94	11/23/94	11/29/94	11/29/94	AK282.29	07
MW-1	11/23/94	11/23/94	11/29/94	11/29/94	AK282.29	08

### QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
AK282.29-01	Method Blank	MB	Water	11/28/94	11/28/94
AK282.29-02	Laboratory Spike	LS	Water	11/28/94	11/28/94
AK282.29-03	Laboratory Spike Duplicate	LSD	Water	11/28/94	11/28/94

### Certified Laboratories

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

1555 Burke St., Unit I  
San Francisco, California 94124  
(415) 647-2081 / fax (415) 821-7123

309 S. Cloverdale St., Suite B-24  
Seattle, Washington 98108  
(206) 763-2992 / fax (206) 763-8429



# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

GERAGHTY & MILLER  
Attn: PAUL HEHN

Project RC0019.005  
Reported on December 1, 1994

Total Petroleum Hydrocarbons as Diesel  
by EPA SW-846 Method 8015M  
Diesel Range quantitated as all compounds from C10-C25

LAB ID	Sample ID	Matrix	Moisture
50074-01	MW-5	Water	-
50074-02	MW-3	Water	-
50074-03	MW-2	Water	-
50074-04	MW-6	Water	-

### RESULTS OF ANALYSIS

Compound	50074-01		50074-02		50074-03		50074-04	
	Conc.	RL	Conc.	RL	Conc.	RL	Conc.	RL
	ug/L		ug/L		ug/L		ug/L	
Diesel	160	50	ND	50	51**	50	ND	50

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Attn: PAUL HEHN

Project RC0019.005  
Reported on December 1, 1994

Total Petroleum Hydrocarbons as Diesel  
by EPA SW-846 Method 8015M  
Diesel Range quantitated as all compounds from C10-C25

LAB ID	Sample ID	Matrix	Moisture
50074-05	MW-4	Water	-
50074-06	MW-8	Water	-
50074-07	MW-7	Water	-
50074-08	MW-1	Water	-

### RESULTS OF ANALYSIS

Compound	50074-05		50074-06		50074-07		50074-08	
	Conc.	RL	Conc.	RL	Conc.	RL	Conc.	RL
	ug/L		ug/L		ug/L		ug/L	
Diesel	1800	50	570	50	150	50	1700	50

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# Superior Precision Analytical, Inc.

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Total Petroleum Hydrocarbons as Diesel  
by EPA SW-846 Method 8015M  
Diesel Range quantitated as all compounds from C10-C25

## Quality Assurance and Control Data

Laboratory Number: 50074  
Method Blank(s)

AK282.29-01  
Conc. RL

---

Diesel ND 50

> Surrogate Recoveries (%) <<  
Tetracosane ND



# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

Total Petroleum Hydrocarbons as Diesel  
by EPA SW-846 Method 8015M  
Diesel Range quantitated as all compounds from C10-C25

### Quality Assurance and Control Data

Laboratory Number: 50074

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
----------	--------------	-----------	------------	------------	----------	-------

For Water Matrix (ug/L)  
AK282.29 02 / 03 - Laboratory Control Spikes

Diesel		5000	4643/4717	93/94	50-150	1
--------	--	------	-----------	-------	--------	---

- Hydrocarbons were found in the range of diesel, but do not resemble a diesel fingerprint - single peak in diesel range.

#### Definitions:

ND = Not Detected  
 RL = Reporting Limit  
 NA = Not Analysed  
 RPD = Relative Percent Difference  
 ug/L = parts per billion (ppb)  
 mg/L = parts per million (ppm)

ug/kg = parts per billion (ppb)  
 mg/kg = parts per million (ppm)

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309 S. Cloverdale St., Suite B-24  
 Seattle, Washington 98108  
 (206) 763-2992 / fax (206) 763-8429



# Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

## CERTIFICATE OF ANALYSIS

Laboratory No.: 50074  
Client: GERAGHTY & MILLER  
Client Job No.: RC0019.005

Date Received: November 23, 1994  
Date Reported: November 30, 1994

### Total Dissolved Solids by Method 160.1

Sample ID	Date Sampled	Date Analyzed	Analyte	Conc.	RL	Unit
01 MW-5	11/22/94	11/29/94	Total Dissolved Solids	2600	10	mg/L
02 MW-3	11/22/94	11/29/94	Total Dissolved Solids	3400	10	mg/L
03 MW-2	11/22/94	11/29/94	Total Dissolved Solids	2400	10	mg/L
04 MW-6	11/22/94	11/29/94	Total Dissolved Solids	1800	10	mg/L
05 MW-4	11/23/94	11/29/94	Total Dissolved Solids	5600	10	mg/L
06 MW-8	11/23/94	11/29/94	Total Dissolved Solids	6300	10	mg/L
07 MW-7	11/23/94	11/29/94	Total Dissolved Solids	3600	10	mg/L
08 MW-1	11/23/94	11/29/94	Total Dissolved Solids	3600	10	mg/L
QC Method Blank	Water	11/29/94	Total Dissolved Solids	ND	10	mg/L

mg/L - parts per million (ppm)

ND = Not Detected

NA = Not Applicable

RL = Reporting Limit

Certified Laboratories

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Martinez, California 94553  
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