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July 18, 1994  
Project No. RC0027.010

Mr. Paul Ahlin  
United Parcel Service, Inc.  
8400 Pardee Drive  
Oakland, California 94621

SUBJECT: Results of Groundwater Monitoring, May 10, 1994,  
United Parcel Service, Inc. Facility,  
8400 Pardee Drive, Oakland, California.

Dear Mr. Ahlin:

This letter report presents the results of the monitoring and sampling performed on May 10, 1994, for the United Parcel Service, Inc. (UPS) facility referenced above (Figure 1). The scope of work for this project was contained in a previous Geraghty & Miller, Inc. (Geraghty & Miller) document to UPS dated April 18, 1994.

### GROUNDWATER SAMPLING PROCEDURES

Groundwater samples were collected from Monitoring Wells MW-1 through MW-7 on May 10, 1994 (Figure 2). Prior to sampling, depth to water was measured, and each well was checked for the presence of liquid-phase hydrocarbons. Liquid-phase hydrocarbons (LPH) were not observed in any of the monitor wells.

Prior to sampling, each well was purged using a 1-inch diaphragm pump with a new length of polyethylene tubing for each well. Approximately four casing volumes of groundwater were purged from each of the wells or the well was purged dry due to slow recovery. A summary of the field sampling parameters is presented in Table 1. The purged water was placed in 55-gallon drums and stored onsite for proper handling and disposal by UPS.

Following purging, groundwater samples were collected from the wells using a new disposable polyethylene bailer for each well. The groundwater samples were placed into the appropriate U.S. Environmental Protection Agency (USEPA) approved containers, placed on ice, and transported to Sequoia Laboratories, Inc. of Concord, California, along



with appropriate chain-of-custody documentation. All groundwater samples were analyzed for total petroleum hydrocarbons as diesel (TPH-D) by USEPA Method 3510/8015 modified and benzene, toluene, ethylbenzene, and total xylenes (BTEX) by USEPA Method 5030/8020. In addition, the samples collected from Monitor Wells MW-4 through MW-7 were additionally analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by USEPA Method 5030/8015 modified. Samples collected from MW-2 and MW-4 were analyzed for total dissolved solids (TDS) by USEPA Method 160.1. Copies of the chain-of-custody forms and laboratory reports are attached. A trip blank was also submitted to the laboratory for analysis for quality control purposes. The trip blank was analyzed for TPH-G (USEPA Method 5030/8015 modified) and BTEX (USEPA Method 5030/8020).

## RESULTS

Depth-to-water measurements and groundwater elevations for the wells are presented in Table 2. Based on the groundwater elevations, the direction of shallow groundwater flow in the vicinity of the southern fueling facilities is generally toward the south-southwest. In the vicinity of the northern fueling facilities, the direction of shallow groundwater flow is generally toward the north (Figure 2).

The results of groundwater analyses for the May 10, 1994, sampling event are summarized in Table 3. In the vicinity of the underground storage tanks beneath the southeastern portion of the site, TPH-D was detected at concentrations ranging from 2,300 micrograms per liter ( $\mu\text{g/L}$ ) (Well MW-2) to 6,400  $\mu\text{g/L}$  (Well MW-1). BTEX concentrations are summarized in Table 3. The result of the TDS analysis of the groundwater sample collected from MW-2 was 3,300 mg/L.

In the vicinity of the underground storage tanks beneath the northeastern portion of the site, TPH-D was detected in samples collected from Monitor Wells MW-4 (100  $\mu\text{g/L}$ ), MW-5 (71  $\mu\text{g/L}$ ), and MW-7 (250  $\mu\text{g/L}$ ). TPH-D was not detected in the sample collected from Well MW-6. TPH-G was detected in groundwater sample collected from Monitor Well MW-5 (190  $\mu\text{g/L}$ ). Concentrations of toluene (0.74  $\mu\text{g/L}$ ), ethylbenzene (1.2  $\mu\text{g/L}$ ), and total xylenes (1.7  $\mu\text{g/L}$ ) were detected in the sample collected from Monitor Well MW-5. TPH-G and BTEX were not detected in the samples collected from Monitor Wells MW-4, MW-6 and MW-7. TPH-G and BTEX were not detected in the trip blank. The result of the TDS analysis of the groundwater sample collected from MW-4 was 11,000 mg/L.



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

Sincerely,  
GERAGHTY & MILLER, INC.

*Michael M. Bessette*

Michael M. Bessette  
Geologist/Project Manager

*Jeffrey W. Hawkins*

Jeffrey W. Hawkins, R.G.  
Senior Geologist

*Jeffrey W. Hawkins for*

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

Attachments:	Table 1	Summary of Field Sampling Data
	Table 2	Depth-to-Water and Groundwater Elevations
	Table 3	Groundwater Analytical Results
	Figure 1	Site Location Map
	Figure 2	Groundwater Elevation Map (May 1994)
	Attachment 1	Copies of Certified Laboratory Analytical Results and Chain-of-Custody Documentation

cc: Mr. Barney Chan  
Alameda County Health Department, Hazardous Materials Division  
80 Swan Way, Room 200  
Oakland, California 94621



**Table 1: Summary of Field Sampling Data**  
 United Parcel Service, Inc.  
 8400 Pardee Drive, Oakland, California.

Well	Date	Calculated Purge Volume (a) (Gallons)	Actual Purge Volume (Gallons)	FIELD PARAMETERS			Depth to Water (b) (Feet)	Well Depth (b) (Feet)	Casing Diameter (inches)
				pH	SC (µS/cm)	Temperature (°F)			
MW-1	10-May-94	33.40	34.0	7.19	2,580	68.3	2.14	NM	4
MW-2	10-May-94	28.00	12.5 (c)	7.14	3,690	71.4	4.22	NM	4
MW-3	10-May-94	33.12	33.0	7.16	2,380	72.1	2.25	NM	4
MW-4	10-May-94	31.88	32.0	6.26	16,520	66.4	2.73	NM	4
MW-5	10-May-94	27.44	14.0 (c)	6.20	7,970	67.3	4.44	NM	4
MW-6	10-May-94	73.40	24.0 (c)	5.46	15,040	66.6	7.43	NM	6
MW-7	10-May-94	4.80	3.0	6.99	7,210	66.3	7.44	NM	2

- (a) Based on four casing volumes.  
 (b) Measured from top of PVC casing.  
 (c) Wells went dry prior to purging four casing volumes.

NM Not Measured  
 SC Specific Conductance  
 MSL Mean Sea Level

**Table 2: Depth-to-Water and Groundwater Elevations**  
 United Parcel Service, Inc.  
 8400 Pardee Drive, Oakland, California.

Well	Date	Depth to Water (a) (feet)	Top of Casing Elevation (feet MSL)	Top of Water Elevation (feet MSL)	Measured Depth of Well (a) (feet)
MW-1	28-Aug-90	3.80	7.43	3.63	14.05
	20-Sep-90	3.99		NM	
	19-Jun-91	3.47		NM	
	23-Jul-91	3.70		NM	
	26-Aug-91	3.92		NM	
	18-Nov-91	4.21		NM	
	3-Feb-92	3.99		NM	
	29-Jun-92	3.38		NM	
	23-Jun-93	2.72		14.20	
	11-Oct-93	3.87		14.27	
	4-Jan-94	3.34		14.10	
	10-May-94	2.14		NM	
	MW-2	28-Aug-90		4.98	7.15
20-Sep-90		4.94	NM		
19-Jun-91		4.66	NM		
23-Jul-91		4.81	NM		
26-Aug-91		4.89	NM		
18-Nov-91		4.93	NM		
3-Feb-92		4.44	NM		
29-Jun-92		4.80	NM		
23-Jun-93		4.38	14.35		
11-Oct-93		5.20	14.35		
4-Jan-94		4.56	14.15		
10-May-94		4.22	NM		
MW-3		28-Aug-90	3.88	7.42	
	20-Sep-90	3.99	NM		
	19-Jun-91	3.49	NM		
	23-Jul-91	3.71	NM		
	26-Aug-91	3.94	NM		
	18-Nov-91	4.23	NM		
	3-Feb-92	4.01	NM		
	29-Jun-92	3.40	NM		
	23-Jun-93	2.75	14.50		
	11-Oct-93	3.84	14.45		
	4-Jan-94	3.40	14.33		
	10-May-94	2.25	NM		



**Table 2: Depth-to-Water and Groundwater Elevations**  
 United Parcel Service, Inc.  
 8400 Pardee Drive, Oakland, California.

Well	Date	Depth to Water (a) (feet)	Top of Casing Elevation (feet MSL)	Top of Water Elevation (feet MSL)	Measured Depth of Well (a) (feet)
MW-4	28-Aug-90	3.15	5.71	2.56	14.66
	20-Sep-90	3.19		NM	
	19-Jun-91	2.73		NM	
	23-Jul-91	3.07		NM	
	26-Aug-91	4.32		NM	
	18-Nov-91	4.03		NM	
	3-Feb-92	3.86		NM	
	29-Jun-92	2.94		NM	
	23-Jun-93	2.49		14.54	
	11-Oct-93	4.08		14.45	
	4-Jan-94	3.49		14.37	
	10-May-94	2.73		NM	
	MW-5	28-Aug-90		7.46	4.93
20-Sep-90		3.99	NM		
19-Jun-91		3.63	NM		
23-Jul-91		4.37	NM		
26-Aug-91		4.19	NM		
18-Nov-91		4.25	NM		
3-Feb-92		3.53	NM		
29-Jun-92		3.48	NM		
23-Jun-93		3.40	14.29		
11-Oct-93		3.66	14.40		
4-Jan-94		3.72	14.19		
10-May-94		4.44	NM		
MW-6		28-Aug-90	7.76	6.27	
	20-Sep-90	7.18	NM		
	19-Jun-91	7.71	NM		
	23-Jul-91	7.90	NM		
	26-Aug-91	7.71	NM		
	18-Nov-91	6.99	NM		
	3-Feb-92	7.19	NM		
	29-Jun-92	7.92	NM		
	23-Jun-93	7.53	19.11		
	11-Oct-93	7.60	19.20		
	4-Jan-94	7.27	19.10		
	10-May-94	7.43	NM		



**Table 2: Depth-to-Water and Groundwater Elevations**  
 United Parcel Service, Inc.  
 8400 Pardee Drive, Oakland, California.

Well	Date	Depth to Water (a) (feet)	Top of Casing Elevation (feet MSL)	Top of Water Elevation (feet MSL)	Measured Depth of Well (a) (feet)
MW-7	4-Jan-94	7.75	(b)	(b)	16.16
	10-May-94	7.44			NM
OW-1	23-Jun-93	4.14	(b)	(b)	18.60
	11-Oct-93	NM			NM
	4-Jan-94	NM			NM
	10-May-94	NM			NM

(a) Measured from top of PVC casing.

(b) Well casing elevation unknown.

MSL Mean Sea Level

NM Not Measured



**Table 3: Groundwater Analytical Results**  
 United Parcel Service, Inc.  
 8400 Pardee Drive, Oakland, California.

Well	Date	TPH	TPH	Benzene (c) (µg/L)	Toluene (c) (µg/L)	Ethyl- benzene (c) (µg/L)	Total Xylenes (c) (µg/L)
		Gasoline (a) (µg/L)	Diesel (b) (µg/L)				
MW-1	28-Aug-90	NA	21,000	3.0	1.4	4.0	2.4
	19-Jun-91	NA	7,100	1.7	0.7	0.5	0.9
	23-Jul-91	220	8,700	1.6	1.1	0.5	1.5
	26-Aug-91	NA	2,800	180.0	120.0	31.0	160.0
	18-Nov-91	NA	6,600	1.1	0.4	0.5	ND(<0.3)
	3-Feb-92	NA	2,200	0.9	ND(<0.3)	0.8	0.7
	29-Jun-92	NA	2,100	0.8	0.4	0.4	0.9
	23-Jun-93	NA	3,200	0.66	ND(<0.5)	0.5	ND(<0.5)
	11-Oct-93	NA	9,600	1.3	ND(<0.5)	ND(<0.5)	ND(<0.5)
	4-Jan-94	NA	12,000	2.1	0.65	1.3	2.1
10-May-94	NA	6,400 (e)	0.54	0.53	ND(<0.5)	1.1	
MW-2	28-Aug-90	NA	3,500	0.6	0.4	0.6	0.7
	19-Jun-91	NA	ND(<50)	0.5	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Jul-91	ND(<50)	660	0.7	ND(<0.3)	ND(<0.3)	ND(<0.3)
	26-Aug-91	NA	ND(<50)	0.7	ND(<0.3)	ND(<0.3)	ND(<0.3)
	18-Nov-91	NA	3,200	0.8	ND(<0.3)	ND(<0.3)	ND(<0.3)
	3-Feb-92	NA	400	0.7	ND(<0.3)	ND(<0.3)	0.5
	29-Jun-92	NA	250	0.6	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Jun-93	NA	11,000	0.55	ND(<0.5)	ND(<0.5)	ND(<0.5)
	11-Oct-93	NA	1,400	1.2	ND(<0.5)	ND(<0.5)	1.3
	4-Jan-94	NA	3,700	0.72	ND(<0.5)	ND(<0.5)	1.1
10-May-94	NA	2,300 (e)	0.74	ND(<0.5)	ND(<0.5)	0.7	
MW-3	28-Aug-90	NA	18,000	0.5	0.8	4.3	2.3
	19-Jun-91	NA	1,300	0.4	0.4	1.7	1.4
	23-Jul-91	330	6,800	0.3	ND(<0.3)	1.5	0.5
	26-Aug-91	NA	ND(<50)	13.0	13.0	5.8	26.0
	18-Nov-91	NA	2,500	0.6	ND(<0.3)	ND(<0.3)	ND(<0.3)
	3-Feb-92	NA	1,100	0.4	ND(<0.3)	1.3	0.6
	29-Jun-92	NA	3,200	ND(<0.3)	ND(<0.3)	1.3	0.3
	23-Jun-93	NA	8,100	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	11-Oct-93	NA	7,100	1.0	ND(<0.5)	1.5	2.4
	4-Jan-94	NA	7,400	ND(<0.5)	ND(<0.5)	1.6	ND(<0.5)
10-May-94	NA	5,700 (e)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	
MW-4	28-Aug-90	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	19-Jun-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Jul-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	26-Aug-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	18-Nov-91	ND(<50)	60	0.3	ND(<0.3)	ND(<0.3)	ND(<0.3)
	3-Feb-92	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	29-Jun-92	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Jun-93	ND(<50)	59	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	11-Oct-93	ND(<50)	90	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	4-Jan-94	ND(<50)	110 (d)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
10-May-94	ND(<50)	100	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	





**Table 3: Groundwater Analytical Results**  
 United Parcel Service, Inc.  
 8400 Pardee Drive, Oakland, California.

Well	Date	TPH Gasoline (a) (µg/L)	TPH Diesel (b) (µg/L)	Benzene (c) (µg/L)	Toluene (c) (µg/L)	Ethyl- benzene (c) (µg/L)	Total Xylenes (c) (µg/L)
MW-5	28-Aug-90	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	19-Jun-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Jul-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	26-Aug-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	18-Nov-91	ND(<50)	100	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	3-Feb-92	53	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	0.5
	29-Jun-92	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Jun-93	ND(<50)	61	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	11-Oct-93	ND(<50)	96	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	4-Jan-94	ND(<50)	100 (d)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
10-May-94	ND(<50)	190	ND(<0.5)	0.74	1.2	1.7	
MW-6	7-Sep-90	ND(<50)	ND(<100)	ND(<0.3)	0.5	ND(<0.3)	1.0
	19-Jun-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Jul-91	ND(<50)	110	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	26-Aug-91	NA	NA	NA	NA	NA	NA
	18-Nov-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	3-Feb-92	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	29-Jun-92	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Jun-93	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	11-Oct-93	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	4-Jan-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
10-May-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	
MW-7	4-Jan-94	ND(<50)	250 (d)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	10-May-94	ND(<50)	250 (e)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
OW-1	23-Jun-93	NA	3,400,000	ND(<0.5)	ND(<0.5)	ND(<0.5)	31.0
	4-Jan-94	NS	NS	NS	NS	NS	NS
	10-May-94	NS	NS	NS	NS	NS	NS
Trip Blank	26-Aug-91	ND(<50)	NA	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	18-Nov-91	ND(<50)	NA	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	3-Feb-92	ND(<50)	NA	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	29-Jun-92	ND(<50)	NA	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Jun-93	ND(<50)	NA	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	11-Oct-93	ND(<50)	NA	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	4-Jan-94	ND(<50)	NA	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)
	10-May-94	ND(<50)	NA	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)

(a) Total Petroleum Hydrocarbons as Gasoline analyzed by USEPA Method 5030/8015 modified.

(b) Total Petroleum Hydrocarbons as Diesel analyzed by USEPA Method 3510/8015 modified.

(c) BTEX analyzed by USEPA Method 5030/8020.

(d) Reported by the laboratory as a diesel and nondiesel mixture.

(e) Reported by the laboratory as a diesel and unidentified hydrocarbons > C20.

ND Not Detected

NA Not Analyzed

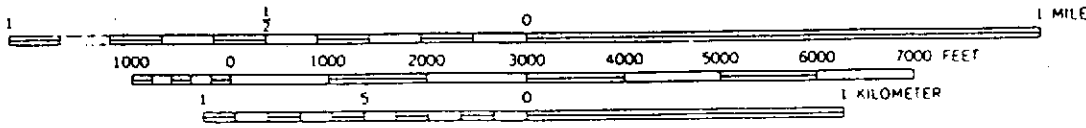
NS Not Sampled

µg/L micrograms per liter

August 26, 1991 through June 29, 1992 analyses by Superior Precision Analytical Laboratories, Inc., Martinez, California;  
 June 23, 1993 through May 10, 1994 analyses by Sequoia Analytical, Inc. Concord, California.

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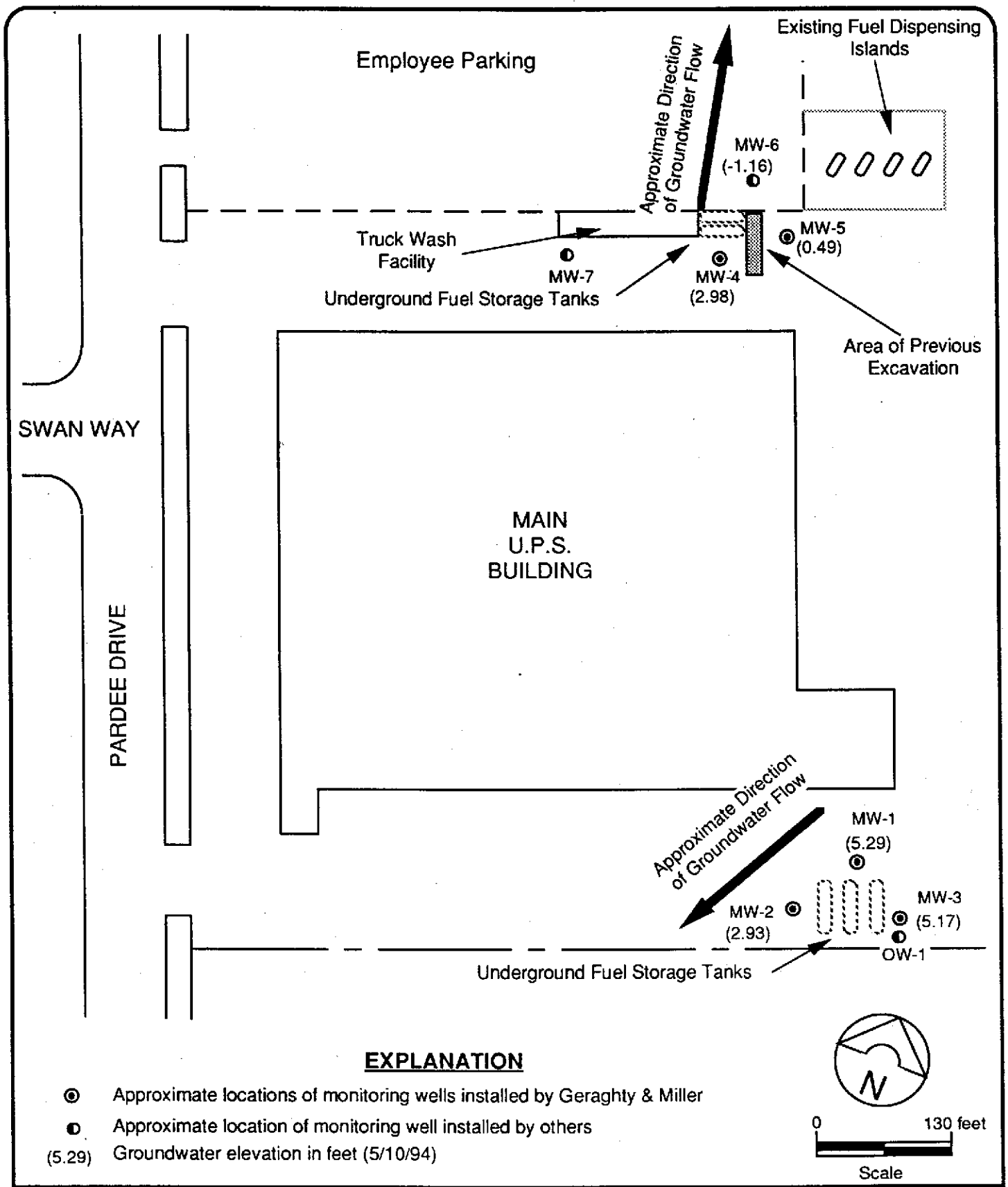


CONTOUR INTERVAL 20 FEET  
 DOTTED LINES REPRESENT 5-FOOT CONTOURS



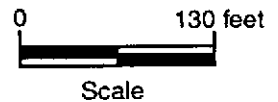
**SITE LOCATION MAP**  
 United Parcel Service  
 Package Distribution Facility  
 Oakland, California

**FIGURE**  
 1



**EXPLANATION**

- ⊙ Approximate locations of monitoring wells installed by Geraghty & Miller
- Approximate location of monitoring well installed by others
- (5.29) Groundwater elevation in feet (5/10/94)



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**GROUNDWATER ELEVATION MAP  
MAY 1994**

UNITED PARCEL SERVICE, INC.  
8400 Pardee Drive  
Oakland, California

FIGURE

**2**

**ATTACHMENT 1**

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



Geraghty & Miller, Inc.  
1050 Marina Way South  
Richmond, CA 94804  
Attention: M. Bessette

Client Project ID: RC0027.010, UPS/ Oakland  
Sample Matrix: Water  
Analysis Method: EPA 5030/8020  
First Sample #: 405-0588

Sampled: May 10, 1994  
Received: May 12, 1994  
Reported: May 26, 1994

**BTEX DISTINCTION**

Analyte	Reporting Limit µg/L	Sample I.D. 405-0588 MW-1	Sample I.D. 405-0589 MW-2	Sample I.D. 405-0590 MW-3
Benzene	0.5	0.54	0.74	N.D.
Toluene	0.5	0.53	N.D.	N.D.
Ethyl Benzene	0.5	N.D.	N.D.	N.D.
Total Xylenes	0.5	1.1	0.73	N.D.

**Quality Control Data**

Report Limit Multiplication Factor:	1.0	1.0	1.0
Date Analyzed:	5/24/94	5/24/94	5/24/94
Instrument Identification:	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	94	96	86

Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

  
Karen L. Enstrom  
Project Manager



Geraghty & Miller, Inc.  
1050 Marina Way South  
Richmond, CA 94804  
Attention: M. Bessette

Client Project ID: RC0027.010, UPS/ Oakland  
Sample Matrix: Water  
Analysis Method: EPA 5030/8015/8020  
First Sample #: 405-0591

Sampled: May 10, 1994  
Received: May 12, 1994  
Reported: May 26, 1994

**TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION**


Analyte	Reporting Limit µg/L	Sample I.D. 405-0591 MW-4	Sample I.D. 405-0592 MW-5	Sample I.D. 405-0593 MW-6	Sample I.D. 405-0594 MW-7	Sample I.D. 405-0595 Trip Blank
Purgeable Hydrocarbons	50	N.D.	190	N.D.	N.D.	N.D.
Benzene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.5	N.D.	0.74	N.D.	N.D.	N.D.
Ethyl Benzene	0.5	N.D.	1.2	N.D.	N.D.	N.D.
Total Xylenes	0.5	N.D.	1.7	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	Gasoline	--	--	--

**Quality Control Data**

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	5/23/94	5/23/94	5/23/94	5/23/94	5/23/94
Instrument Identification:	HP-4	HP-4	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	95	93	99	97	99

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

  
Karen L. Enstrom  
Project Manager



Geraghty & Miller, Inc.  
1050 Marina Way South  
Richmond, CA 94804  
Attention: M. Bessette

Client Project ID: RC0027.010, UPS/ Oakland  
Sample Matrix: Water  
Analysis Method: EPA 3510/3520/8015  
First Sample #: 405-0588

Sampled: May 10, 1994  
Received: May 12, 1994  
Reported: May 26, 1994

**TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS**

Analyte	Reporting Limit µg/L	Sample I.D. 405-0588 MW-1	Sample I.D. 405-0589 MW-2	Sample I.D. 405-0590 MW-3	Sample I.D. 405-0591 MW-4	Sample I.D. 405-0592 MW-5	Sample I.D. 405-0593 MW-6
Extractable Hydrocarbons	50	6,400	2,300	5,700	100	71	N.D.
Chromatogram Pattern:		Diesel and Unidentified Hydrocarbons >C20	Diesel and Unidentified Hydrocarbons >C20	Diesel and Unidentified Hydrocarbons >C20	Diesel	Diesel	--

**Quality Control Data**

Report Limit Multiplication Factor:	20	1.0	10	1.0	1.0	1.0
Date Extracted:	5/17/94	5/17/94	5/17/94	5/17/94	5/17/94	5/17/94
Date Analyzed:	5/20/94	5/19/94	5/20/94	5/19/94	5/19/94	5/19/94
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B

Extractable Hydrocarbons are quantitated against a fresh diesel standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Karen L. Enstrom  
Project Manager



Geraghty & Miller, Inc.  
1050 Marina Way South  
Richmond, CA 94804  
Attention: M. Bessette

Client Project ID: RC0027.010, UPS/ Oakland  
Sample Matrix: Water  
Analysis Method: EPA 3510/3520/8015  
First Sample #: 405-0594

Sampled: May 10, 1994  
Received: May 12, 1994  
Reported: May 26, 1994

### TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 405-0594 MW-7
Extractable Hydrocarbons	50	250

Chromatogram Pattern:

Diesel and  
Unidentified  
Hydrocarbons  
> C20

#### Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	5/17/94
Date Analyzed:	5/19/94
Instrument Identification:	HP-3B

Extractable Hydrocarbons are quantitated against a fresh diesel standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

  
Karen L. Enstrom  
Project Manager





Geraghty & Miller, Inc.  
1050 Marina Way South  
Richmond, CA 94804  
Attention: M. Bessette

Client Project ID: RC0027.010, UPS/ Oakland  
Sample Descript: Water  
Analysis for: Total Dissolved Solids  
First Sample #: 405-0589


Sampled: May 10, 1994  
Received: May 12, 1994  
Analyzed: May 17, 1994  
Reported: May 26, 1994

**LABORATORY ANALYSIS FOR: Total Dissolved Solids**

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
405-0589	MW-2	1.0	3,300 *
405-0591	MW-4	1.0	11,000 *

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

  
Karen L. Enstrom  
Project Manager





# Sequoia Analytical

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Geraghty & Miller, Inc.  
1050 Marina Way South  
Richmond, CA 94804  
Attention: M. Bessette

Client Project ID: RC0027.010, UPS/ Oakland  
Matrix: Liquid

QC Sample Group: 4050588-95

Reported: May 26, 1994

## QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel	Total Dissolved Solids
<b>Method:</b>	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015 Mod.	EPA 160.1
<b>Analyst:</b>	J. Fontecha	J. Fontecha	J. Fontecha	J. Fontecha	K. Wimer	M. Nguyen

<b>MS/MSD</b>						
<b>Batch#:</b>	4050607	4050607	4050607	4050607	BLK051794	4050642
<b>Date Prepared:</b>	5/23/94	5/23/94	5/23/94	5/23/94	5/17/94	5/17/94
<b>Date Analyzed:</b>	5/23/94	5/23/94	5/23/94	5/23/94	5/17/94	5/17/94
<b>Instrument I.D.#:</b>	HP-4	HP-4	HP-4	HP-4	HP-3B	Mettler AE-200
<b>Conc. Spiked:</b>	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L	1,000 mg/L
<b>Matrix Spike % Recovery:</b>	90	90	95	98	91	97
<b>Matrix Spike Duplicate % Recovery:</b>	90	95	95	95	86	96
<b>Relative % Difference:</b>	0.0	5.4	0.0	3.1	6.4	1.0

<b>LCS Batch#:</b>	2LCS052394	2LCS052394	2LCS052394	2LCS052394	BLK051794	160.1 MN05D-2
<b>Date Prepared:</b>	5/23/94	5/23/94	5/23/94	5/23/94	5/17/94	5/17/94
<b>Date Analyzed:</b>	5/23/94	5/23/94	5/23/94	5/23/94	5/17/94	5/17/94
<b>Instrument I.D.#:</b>	HP-4	HP-4	HP-4	HP-4	HP-3B	Mettler AE-200
<b>LCS % Recovery:</b>	98	98	98	99	91	95

<b>% Recovery Control Limits:</b>	71-133	72-128	72-130	71-120	28-122	70-130
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**Please Note:**

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL, #1271

  
Karen L. Enstrom  
Project Manager

Project Number RC0027.010  
 Project Location LPS / OAKLAND  
 Laboratory SEQUOIA ANALYTICAL  
 Sampler(s)/Affiliation G. CROWLEY / GEM

SAMPLE BOTTLE / CONTAINER DESCRIPTION

SAMPLE IDENTITY	Code	Date/Time Sampled	Lab ID	TPH Gas 8015	TPH-G/BTEX 8015/8020	TPH-Diesel 8015	TDS USEPA 160.1	BTEX 8020	TOTAL
MW-1	L	2:00	4050	588 AD	X		X		4
MW-2	L	1:45	4050	589 ME	X	X	X		5
MW-3		1:50		590 MD	X		X		4
MW-4		1:5		591 BEX	X	X			5
MW-5		1:00		592 ADX	X				4
MW-6		12:45		593 L X	X				4
MW-7		1:30		594 L X	X				4
Temp Blank						595 X			
Total No. of Bottles/Containers									31

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

Relinquished by: <u>M.M. Bessette</u>	Organization: <u>GERAGHTY &amp; MILLER, INC</u>	Date: <u>5/12/94</u>	Time: <u>2:38</u>	Seal Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Received by: <u>[Signature]</u>	Organization: <u>SEQUOIA ANALYTICAL</u>	Date: <u>5/12/94</u>	Time: <u>2:40</u>	
Relinquished by: <u>[Signature]</u>	Organization: <u>SEQUOIA</u>	Date: <u>5/12/94</u>	Time: <u>2:25</u>	Seal Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Received by: <u>Melissa Crowder</u>	Organization: <u>SAC</u>	Date: <u>5/12/94</u>	Time: <u>3:25 pm</u>	

Special Instructions/Remarks: SEND & FAX RESULTS TO M.M. BESSETTE - PM

Delivery Method:  In Person  Common Carrier  Lab Courier  Other