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November 3, 1995  
Project No. RC0027.011

Ms. Caroline Ehrlich  
United Parcel Service, Inc  
8400 Pardee Drive  
Oakland, California 94621

**SUBJECT:** Results of Groundwater Monitoring, October 16, 1995, United Parcel Service, Inc. Facility, 8400 Pardee Drive, Oakland, California.

Dear Ms. Ehrlich

This letter report presents the results of the groundwater monitoring and sampling performed on October 16, 1995, at 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 November 9, 1994, and modified at the request of UPS in a Geraghty & Miller letter dated November 21, 1994.

### **GROUNDWATER SAMPLING PROCEDURES**

Groundwater samples were collected from Monitoring Wells MW-1, MW-2, MW-3, and MW-7 on October 16, 1995 (Figure 2). Prior to sampling, depth to water was measured, and each well was checked for the presence of liquid-phase hydrocarbons (LPH). 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 well 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 Analytical, Walnut Creek, California, along with appropriate



chain-of-custody documentation. All groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by USEPA Method 8015, modified, total petroleum hydrocarbons as diesel (TPH-D) by USEPA Method 8015, modified, and benzene, toluene, ethylbenzene, and total xylenes (BTEX) by USEPA Method 8020. In addition, the sample collected from Monitor Well MW-7 was also analyzed for total oil and grease (USEPA Method 5520F). Copies of the chain-of-custody document 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 8015, modified ) and BTEX (USEPA Method 8020).

## **RESULTS**

Depth-to-water measurements and groundwater elevations for Monitor Wells MW-1 through MW-5 and MW-7 are presented in Table 2. Monitor Well MW-6 was covered and no depth-to-water measurement was taken. Based on the groundwater elevations, the direction of shallow groundwater flow in the vicinity of the southern fueling facilities remains generally toward the south-southwest (Figure 2).

The results of groundwater analyses for the October 16, 1995 sampling event are summarized in Table 3. TPH-D was detected at concentrations ranging from 1,400 micrograms per liter ( $\mu\text{g/L}$ ) to 15,000  $\mu\text{g/L}$  (MW-2 and MW-1, respectively) in the southeastern portion of the site and at 700  $\mu\text{g/L}$  (MW-7) in the northeastern portion of the site. TPH-G was detected at concentrations ranging from 130  $\mu\text{g/L}$  to 930  $\mu\text{g/L}$  (MW-2 and MW-3, respectively) in the southeastern portion of the site and was not detected in the samples collected from the northeastern portion of the site. Benzene was detected at 2.8  $\mu\text{g/L}$  in Monitor Well MW-1 and at 0.73  $\mu\text{g/L}$  in Monitor Well MW-2. Toluene, ethylbenzene, xylenes, and total oil and grease were not detected in any of the samples collected.



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.



Edward H. Crump  
Engineer/Project Manager



Jeffrey W. Hawkins, R.G.  
Senior Geologist



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 (October 1995)
	Attachment 1	Copies of Certified Laboratory Analytical Results and Chain-of-Custody Documentation

cc: Mr. Barney Chan  
Alameda County Health Department, Hazardous Materials Division  
1131 Harbor Bay Parkway  
Alameda, California 94501

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**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	1-Feb-95	33.40	40.0	6.43	1,523	60.6	1.84	14.33	4
MW-2	1-Feb-95	28.00	13.0 (c)	5.50	OR	62.4	4.00	14.40	4
MW-3	1-Feb-95	33.12	35.0	6.33	OR	61.8	2.43	14.61	4
MW-4	1-Feb-95	31.88	NM	NM	NM	NM	2.58	14.65	4
MW-5	1-Feb-95	27.44	NM	NM	NM	NM	3.87	14.42	4
MW-6	1-Feb-95	73.40	NM	NM	NM	NM	NM	NM	6
MW-7	1-Feb-95	4.80	6.0 (c)	7.10	OR	62.8	6.35	16.56	2

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

NM Not Measured  
 SC Specific Conductance  
 OR Out of Range  
 μS/cm microSiemens per centimeter



**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	
	1-Feb-95	1.84		14.33	
	2-Aug-95	3.10		14.33	
	16-Oct-95	3.75		14.20	
MW-2	28-Aug-90	4.98	7.15	2.17	15.35
	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	
	1-Feb-95	4.00		14.40	
	2-Aug-95	4.71		14.40	
	16-Oct-95	5.02		14.31	
MW-3	28-Aug-90	3.88	7.42	3.54	14.60
	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	



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 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)
	11-Oct-93	3.84		3.58	14.45
	4-Jan-94	3.40		4.02	14.33
	10-May-94	2.25		5.17	NM
	1-Feb-95	2.43		4.99	14.61
	2-Aug-95	3.20		4.22	14.61
	16-Oct-95	3.72		3.70	14.53
MW-4	28-Aug-90	3.15	5.71	2.56	14.66
	20-Sep-90	3.19		2.52	NM
	19-Jun-91	2.73		2.98	NM
	23-Jul-91	3.07		2.64	NM
	26-Aug-91	4.32		1.39	NM
	18-Nov-91	4.03		1.68	NM
	3-Feb-92	3.86		1.85	NM
	29-Jun-92	2.94		2.77	NM
	23-Jun-93	2.49		3.22	14.54
	11-Oct-93	4.08		1.63	14.45
	4-Jan-94	3.49		2.22	14.37
	10-May-94	2.73		2.98	NM
	1-Feb-95	2.58		3.13	14.65
	2-Aug-95	4.24		1.47	NM
	16-Oct-95	4.42		1.29	NM
MW-5	28-Aug-90	7.46	4.93	-2.53	14.77
	20-Sep-90	3.99		0.94	NM
	19-Jun-91	3.63		1.30	NM
	23-Jul-91	4.37		0.56	NM
	26-Aug-91	4.19		0.74	NM
	18-Nov-91	4.25		0.68	NM
	3-Feb-92	3.53		1.40	NM
	29-Jun-92	3.48		1.45	NM
	23-Jun-93	3.40		1.53	14.29
	11-Oct-93	3.66		1.27	14.40
	4-Jan-94	3.72		1.21	14.19
	10-May-94	4.44		0.49	NM
	1-Feb-95	3.87		1.06	14.42
	2-Aug-95	2.92		2.01	NM
	16-Oct-95	4.13		0.80	NM
MW-6	28-Aug-90	7.76	6.27	-1.49	18.10
	20-Sep-90	7.18		-0.91	NM
	19-Jun-91	7.71		-1.44	NM

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**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)
	23-Jul-91	7.90		-1.63	NM
	26-Aug-91	7.71		-1.44	NM
	18-Nov-91	6.99		-0.72	NM
	3-Feb-92	7.19		-0.92	NM
	29-Jun-92	7.92		-1.65	NM
	23-Jun-93	7.53		-1.26	19.11
	11-Oct-93	7.60		-1.33	19.20
	4-Jan-94	7.27		-1.00	19.10
	10-May-94	7.43		-1.16	NM
	1-Feb-95	NM		NM	NM
	2-Aug-95	NM		NM	NM
	16-Oct-95	NM		NM	NM
MW-7	4-Jan-94	7.75	(b)	(b)	16.16
	10-May-94	7.44			NM
	1-Feb-95	6.35			16.56
	2-Aug-95	6.70			16.60
	16-Oct-95	7.53			16.40
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
	1-Feb-95	NM			NM
	2-Aug-95	NM		NM	NM
	16-Oct-95	NM		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 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)	Total Oil & Grease (mg/L)
MW-1	28-Aug-90	NA	21,000	3.0	1.4	4.0	2.4	NA
	19-Jun-91	NA	7,100	1.7	0.7	0.5	0.9	NA
	23-Jul-91	220	8,700	1.6	1.1	0.5	1.5	NA
	26-Aug-91	NA	2,800	180	120	31	160	NA
	18-Nov-91	NA	6,600	1.1	0.4	0.5	ND(<0.3)	NA
	3-Feb-92	NA	2,200	0.9	ND(<0.3)	0.8	0.7	NA
	29-Jun-92	NA	2,100	0.8	0.4	0.4	0.9	NA
	23-Jun-93	NA	3,200	0.66	ND(<0.5)	0.5	ND(<0.5)	NA
	11-Oct-93	NA	9,600	1.3	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	4-Jan-94	NA	12,000	2.1	0.65	1.3	2.1	NA
	10-May-94	NA	6,400	(e) 0.54	0.53	ND(<0.5)	1.1	NA
	1-Feb-95	510	10,000	(f) ND(<1.0)	ND(<1.0)	1.0	ND(<1.0)	NA
	2-Aug-95	510	8,700	ND(<0.50)	ND(<0.50)	ND(<0.50)	ND(<0.50)	NA
	16-Oct-95	830	15,000	2.8	ND(<0.50)	ND(<0.50)	ND(<0.50)	NA
	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)	NA
23-Jul-91		ND(<50)	660	0.7	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
26-Aug-91		NA	ND(<50)	0.7	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
18-Nov-91		NA	3,200	0.8	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
3-Feb-92		NA	400	0.7	ND(<0.3)	ND(<0.3)	0.5	NA
29-Jun-92		NA	250	0.6	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
23-Jun-93		NA	11,000	0.55	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
11-Oct-93		NA	1,400	1.2	ND(<0.5)	ND(<0.5)	1.3	NA
4-Jan-94		NA	3,700	0.72	ND(<0.5)	ND(<0.5)	1.1	NA
10-May-94		NA	2,300	(e) 0.74	ND(<0.5)	ND(<0.5)	0.7	NA
1-Feb-95		ND(<100)	2,100	(d) 2.1	ND(<1.0)	ND(<1.0)	ND(<1.0)	NA
2-Aug-95		210	3,600	ND(<0.50)	ND(<0.50)	ND(<0.50)	ND(<0.50)	NA
16-Oct-95		130	1,400	0.73	ND(<0.50)	ND(<0.50)	ND(<0.50)	NA
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	NA
	23-Jul-91	330	6,800	0.3	ND(<0.3)	1.5	0.5	NA
	26-Aug-91	NA	ND(<50)	13	13	5.8	26	NA
	18-Nov-91	NA	2,500	0.6	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	3-Feb-92	NA	1,100	0.4	ND(<0.3)	1.3	0.6	NA
	29-Jun-92	NA	3,200	ND(<0.3)	ND(<0.3)	1.3	0.3	NA
	23-Jun-93	NA	8,100	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	11-Oct-93	NA	7,100	1.0	ND(<0.5)	1.5	2.4	NA
	4-Jan-94	NA	7,400	ND(<0.5)	ND(<0.5)	1.6	ND(<0.5)	NA
	10-May-94	NA	5,700	(e) ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	1-Feb-95	810	10,000	(f) ND(<1.0)	ND(<1.0)	2.7	4.1	NA
	2-Aug-95	1,200	6,500	ND(<0.50)	ND(<0.50)	ND(<0.50)	ND(<0.50)	NA
	16-Oct-95	930	9,800	ND(<0.50)	ND(<0.50)	ND(<0.50)	ND(<0.50)	NA
	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)	NA
23-Jul-91		ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
26-Aug-91		ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
18-Nov-91		ND(<50)	60	0.3	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
3-Feb-92		ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
29-Jun-92		ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
23-Jun-93		ND(<50)	59	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
11-Oct-93		ND(<50)	90	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
4-Jan-94		ND(<50)	110	(d) ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
10-May-94		ND(<50)	100	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA





**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)	Total Oil & Grease (mg/L)
	1-Feb-95	NS	NS	NS	NS	NS	NS	NA
	2-Aug-95	NS	NS	NS	NS	NS	NS	NA
	16-Oct-95	NS	NS	NS	NS	NS	NS	NA
MW-5	28-Aug-90	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	19-Jun-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	23-Jul-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	26-Aug-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	18-Nov-91	ND(<50)	100	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	3-Feb-92	53	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	0.5	NA
	29-Jun-92	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	23-Jun-93	ND(<50)	61	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	11-Oct-93	ND(<50)	96	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	4-Jan-94	ND(<50)	100	(d) ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	10-May-94	ND(<50)	190	ND(<0.5)	0.74	1.2	1.7	NA
	1-Feb-95	NS	NS	NS	NS	NS	NS	NA
	2-Aug-95	NS	NS	NS	NS	NS	NS	NA
	16-Oct-95	NS	NS	NS	NS	NS	NS	NA
MW-6	7-Sep-90	ND(<50)	ND(<100)	ND(<0.3)	0.5	ND(<0.3)	1.0	NA
	19-Jun-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	23-Jul-91	ND(<50)	110	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	26-Aug-91	NA	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)	NA
	3-Feb-92	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	29-Jun-92	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	23-Jun-93	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	11-Oct-93	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	4-Jan-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	10-May-94	ND(<50)	ND(<50)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	1-Feb-95	NS	NS	NS	NS	NS	NS	NA
	2-Aug-95	NS	NS	NS	NS	NS	NS	NA
	16-Oct-95	NS	NS	NS	NS	NS	NS	NA
MW-7	4-Jan-94	ND(<50)	250	(d) ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	10-May-94	ND(<50)	250	(e) ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	1-Feb-95	ND(<50)	420	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<5.0)
	2-Aug-95	ND(<50)	360	ND(<0.50)	ND(<0.50)	ND(<0.50)	ND(<0.50)	ND(<1.0)
	16-Oct-95	ND(<50)	700	ND(<0.50)	ND(<0.50)	ND(<0.50)	ND(<0.50)	ND(<1.0)
OW-1	23-Jun-93	NA	3,400,000	ND(<0.5)	ND(<0.5)	ND(<0.5)	31.0	NS
	4-Jan-94	NS	NS	NS	NS	NS	NS	NS
	10-May-94	NS	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)	NA
	18-Nov-91	ND(<50)	NA	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	3-Feb-92	ND(<50)	NA	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	29-Jun-92	ND(<50)	NA	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)	NA
	23-Jun-93	ND(<50)	NA	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	11-Oct-93	ND(<50)	NA	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	4-Jan-94	ND(<50)	NA	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	10-May-94	ND(<50)	NA	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	1-Feb-95	ND(<50)	NA	ND(<0.5)	ND(<0.5)	ND(<0.5)	ND(<0.5)	NA
	2-Aug-95	ND(<50)	NA	ND(<0.50)	ND(<0.50)	ND(<0.50)	ND(<0.50)	NA
	16-Oct-95	ND(<50)	NA	ND(<0.50)	ND(<0.50)	ND(<0.50)	ND(<0.50)	NA

Notes appear on the following page.

Project No. RC0027.011

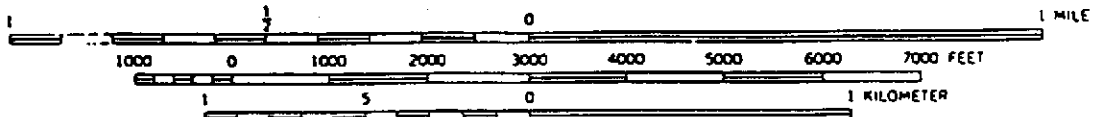


**Table 3: Groundwater Analytical Results**  
 United Parcel Service, Inc.  
 8400 Pardee Drive, Oakland, California.

Well	Date	TPH	TPH	Benzene (c)	Toluene (c)	Ethyl- benzene (c)	Total Xylenes (c)	Total Oil & Grease (mg/L)
		Gasoline (a) (µg/L)	Diesel (b) (µg/L)					
(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.							
(f)	Reported by the laboratory as a nondiesel mixture.							
ND	Not Detected							
NA	Not Analyzed							
NS	Not Sampled							
µg/L	micrograms per liter							
mg/L	Miligrams per lter							

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.  
 February 1, 1995 analysis by Sequoia Analytical, Inc., Redwood City, California.  
 August 2, 1995 analysis by Sequoia Analytical, Inc., Walnut Creek, California.  
 October 16, 1995 analysis by Sequoia Analytical, Inc., Walnut Creek, California.





CONTOUR INTERVAL 20 FEET  
 DOTTED LINES REPRESENT 3-FOOT CONTOURS

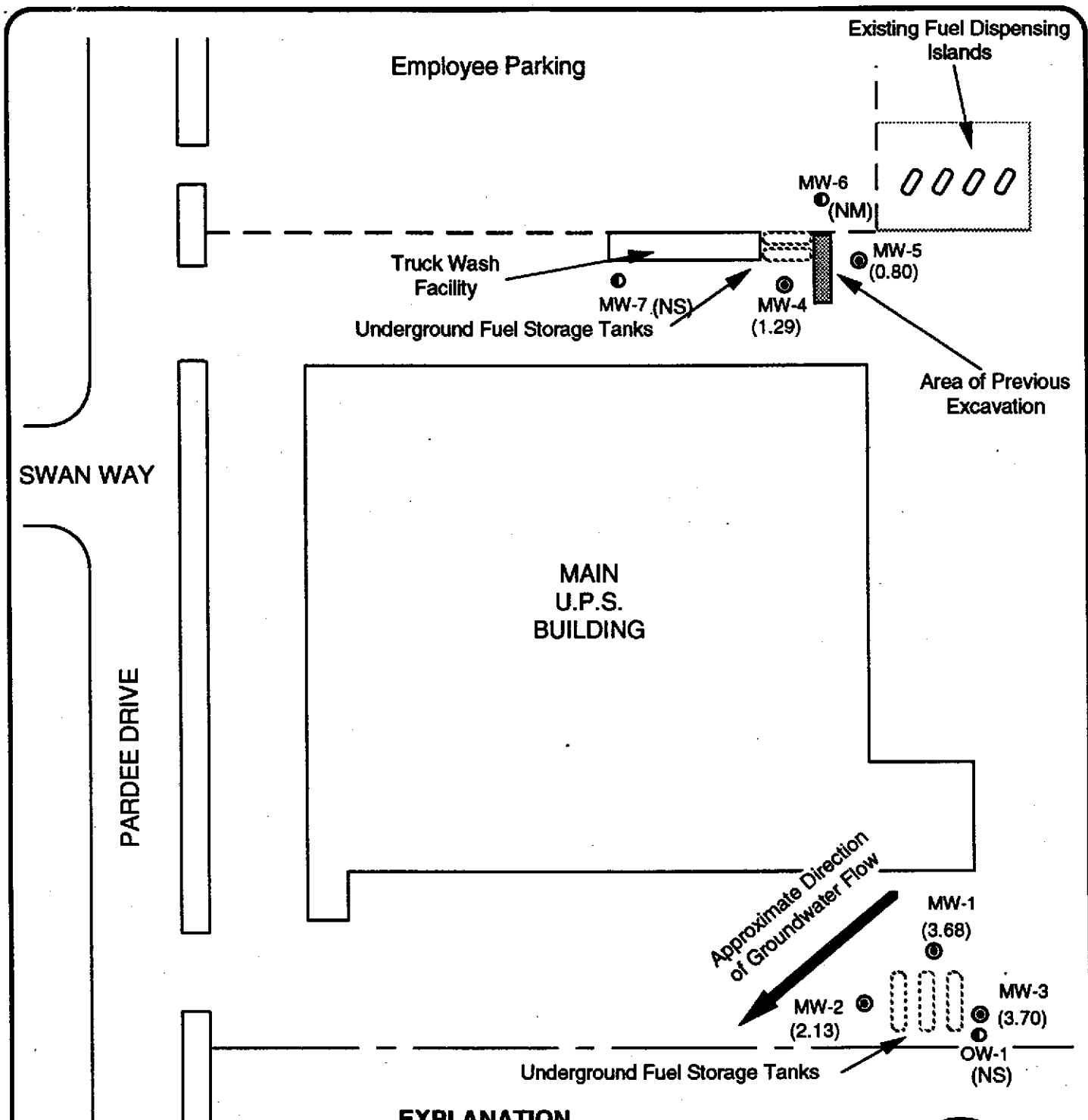


QUADRANGLE LOCATION



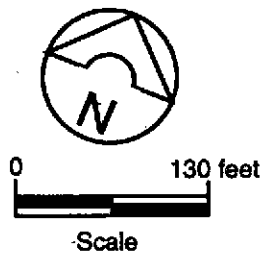
**SITE LOCATION MAP**  
 United Parcel Service  
 Package Distribution Facility  
 Oakland, California

**FIGURE**  
 1



**EXPLANATION**

- Approximate locations of monitoring wells installed by Geraghty & Miller
- Approximate location of monitoring well installed by others
- (3.68) Groundwater elevation in feet (10/16/95)
- NM Not measured; well inaccessible
- NS Not surveyed



Project No. RC0027.000

**GROUNDWATER ELEVATION MAP**  
October 1995  
UNITED PARCEL SERVICE, INC.  
8400 Pardee Drive  
Oakland, California

**FIGURE**  
**2**

**ATTACHMENT 1**

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



Geraghty & Miller, Inc.  
1050 Marina Way South  
Richmond, CA 94804  
Attention: Ted Crump

Client Project ID: #RC0027.011  
Sample Matrix: Water  
Analysis Method: EPA 5030/8015 Mod./8020  
First Sample #: 510-1312

Sampled: Oct 16, 1995  
Received: Oct 17, 1995  
Reported: Oct 30, 1995

QC Batch Number: GC102495 GC102495 GC102495 GC102495 GC102495

802005A 802005A 802009B 802009B 802009B

**TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION**

Analyte	Reporting Limit µg/L	Sample I.D. 510-1312 MW-3	Sample I.D. 510-1313 MW-1	Sample I.D. 510-1314 MW-7	Sample I.D. 510-1315 MW-2	Sample I.D. 510-1316 TB
Purgeable Hydrocarbons	50	930	830	N.D.	130	N.D.
Benzene	0.50	N.D.	2.8	N.D.	0.73	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.	N.D.

Chromatogram Pattern: Unidentified Hydrocarbons >C9    Unidentified Hydrocarbons >C9    --    Unidentified Hydrocarbons >C8    --

**Quality Control Data**

Report Limit Multiplication Factor:	4.0	4.0	1.0	1.0	1.0
Date Analyzed:	10/24/95	10/24/95	10/24/95	10/24/95	10/24/95
Instrument Identification:	HP-5	HP-5	HP-9	HP-9	HP-9
Surrogate Recovery, %: (QC Limits = 70-130%)	81	81	86	82	88

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

*Kevin Van Slambrook*  
Kevin Van Slambrook  
Project Manager







**Sequoia  
Analytical**

680 Chesapeake Drive  
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FAX (916) 921-0100

Geraghty & Miller, Inc.  
1050 Marina Way South  
Richmond, CA 94804  
Attention: Ted Crump

Client Project ID: #RC0027.011  
Matrix Descript: Water  
Analysis Method: SM 5520 B&F (Gravimetric)  
First Sample #: 510-1314

Sampled: Oct 16, 1995  
Received: Oct 17, 1995  
Extracted: Oct 18, 1995  
Analyzed: Oct 19, 1995  
Reported: Oct 30, 1995

**TOTAL RECOVERABLE PETROLEUM OIL**

Sample Number	Sample Description	Oil & Grease mg/L (ppm)	Detection Limit Multiplication Factor
510-1314	MW-7	N.D.	1.0

**Detection Limits:**

**5.0**

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook  
Project Manager







Geraghty & Miller, Inc.  
1050 Marina Way South  
Richmond, CA 94804  
Attention: Ted Crump

Client Project ID: #RC0027.011  
Matrix: Liquid

QC Sample Group: 5101312-316

Reported: Oct 30, 1995

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel	Oil & Grease
QC Batch#:	GC102495 802005A	GC102495 802005A	GC102495 802005A	GC102495 802005A	SP102095 8015EXA	SP101995 5520MDA
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015	SM 5520
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3510	SM 5520
Analyst:	M. Creusere	M. Creusere	M. Creusere	M. Creusere	J.Dinsay	D. Newcomb
MS/MSD #:	5100992	5100992	5100992	5100992	BLK102095	BLK101695
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/24/95	10/24/95	10/24/95	10/24/95	10/20/95	10/16/95
Analyzed Date:	10/24/95	10/24/95	10/24/95	10/24/95	10/20/95	10/19/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3A	Manual
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L	5000 mg/L
Result:	19	18	18	55	300	4700
MS % Recovery:	95	90	90	92	99	93
Dup. Result:	19	18	18	55	310	4600
MSD % Recov.:	95	90	90	92	103	92
RPD:	0.0	0.0	0.0	0.0	4.3	1.0
RPD Limit:	0-20	0-20	0-20	0-20	0-20	0-30

LCS #:	3LCS102495	3LCS102495	3LCS102495	3LCS102495	LCS102095	BLK101695
Prepared Date:	10/24/95	10/24/95	10/24/95	10/24/95	10/20/95	10/16/95
Analyzed Date:	10/24/95	10/24/95	10/24/95	10/24/95	10/20/95	10/19/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3A	Manual
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L	5000 mg/L
LCS Result:	17	18	20	60	280	4700
LCS % Recov.:	85	92	98	99	94	93

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120	38-122	60-140
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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.

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

SEQUOIA ANALYTICAL, #1271

*Kevin Van Slambrook*  
Kevin Van Slambrook  
Project Manager





Geraghty & Miller, Inc.  
1050 Marina Way South  
Richmond, CA 94804  
Attention: Ted Crump

Client Project ID: #RC0027.011  
Matrix: Liquid

QC Sample Group: 5101312-316

Reported: Oct 30, 1995

**QUALITY CONTROL DATA REPORT**

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC102495 802009B	GC102495 802009B	GC102495 802009B	GC102495 802009B
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	M. Creusere	M. Creusere	M. Creusere	M. Creusere
MS/MSD #:	5101492	5101492	5101492	5101492
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/24/95	10/24/95	10/24/95	10/24/95
Analyzed Date:	10/24/95	10/24/95	10/24/95	10/24/95
Instrument I.D.#:	HP-9	HP-9	HP-9	HP-9
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Result:	20	20	20	66
MS % Recovery:	100	100	100	110
Dup. Result:	20	20	20	65
MSD % Recov.:	100	100	100	108
RPD:	0.0	0.0	0.0	1.5
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	4LCSC102495	4LCSC102495	4LCSC102495	4LCSC102495
Prepared Date:	10/24/95	10/24/95	10/24/95	10/24/95
Analyzed Date:	10/24/95	10/24/95	10/24/95	10/24/95
Instrument I.D.#:	HP-9	HP-9	HP-9	HP-9
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
LCS Result:	18	19	19	60
LCS % Recov.:	91	93	93	100

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120
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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.

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook  
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