

TABLES

**TABLE 1-1
SUMMARY OF WELL CONSTRUCTION DETAILS FOR JPL GROUNDWATER MONITORING WELLS**

Well Number	Well Type	Year Installed	Drilling Method	Depth to Bottom of Casing (feet)	Depth of Screened Interval (feet)	Elevation Top 4 inch Casing (feet) above mean sea level)	Elevation of Screened Interval (feet) above mean sea level)	Multi-Port Well Screen Number	Sand Pack (feet)	Screen Slot Size (inch)	Casing Material
MW-1	Shallow Standpipe	1989	Mud Rotary	120	70-110	1116.7	1006.70-1046.70	-	99	4"	PVC
MW-2	Shallow Standpipe	1989	Mud Rotary	177	127-167	1168.85	1001.85-1041.85	-			
MW-3	Deep Multi-Port	1990	Mud Rotary	700	170-180	1099.82	919.82-929.82	1	37	0.01	4" low-carbon steel
					250-260		839.82-849.82	2	47	0.01	4" low-carbon steel
					344-354		745.82-755.82	3	45	0.01	4" low-carbon steel
					555-565		534.82-544.82	4	39	0.01	4" low-carbon steel
					650-660		433.82-443.82	5	64	0.01	4" low-carbon steel
MW-4	Deep Multi-Port	1990	Mud Rotary	559	147-157	1082.72	925.72-935.72	1	48	0.01	4" low-carbon steel
					237-247		835.72-845.72	2	34	0.01	4" low-carbon steel
					318-328		754.72-764.72	3	42	0.01	4" low-carbon steel
					389-399		683.72-693.72	4	54	0.01	4" low-carbon steel
					509-519		563.72-573.72	5	52	0.01	4" low-carbon steel
MW-5	Shallow Standpipe	1990	Air Percussion	140	85-135	1071.6	936.60-986.60	-	71	0.01	4" low-carbon steel
MW-6	Shallow Standpipe	1990	Air Percussion	245	195-245	1188.52	943.52-993.52	-	62	0.01	4" low-carbon steel
MW-7	Shallow Standpipe	1990	Air Percussion	275	225-275	1212.88	937.88-987.88	-	63	0.01	4" low-carbon steel
MW-8	Shallow Standpipe	1992	Air Percussion	205	155-205	1139.53	934.53-984.53	-	75	0.01	4" low-carbon steel
MW-9	Shallow Standpipe	1992	Air Percussion	68	18-68	1106.02	1038.02-1088.02	-	56	0.01	4" PVC
MW-10	Shallow Standpipe	1992	Air Percussion	155	105-155	1087.71	932.71-982.71	-	67.5	0.01	4" PVC (0-85')
											4" stainless steel (85'-105')
MW-11	Deep Multi-Port	1992	Mud Rotary	680	140-150	1139.35	989.35-999.35	1	24	0.01	4" low-carbon steel
					250-260		879.35-889.35	2	22	0.01	4" low-carbon steel
					420-430		709.35-719.35	3	26	0.01	4" low-carbon steel
					515-525		614.35-624.35	4	26	0.01	4" low-carbon steel
					630-640		499.35-509.35	5	28	0.01	4" low-carbon steel
MW-12	Deep Multi-Port	1994	Mud Rotary	596	135-145	1102.14	957.14-967.14	1	22	0.01	4" low-carbon steel
					240-250		852.14-862.14	2	19	0.01	4" low-carbon steel
					315-325		777.14-787.14	3	21	0.01	4" low-carbon steel
					430-440		662.14-672.14	4	22	0.01	4" low-carbon steel
					546-556		546.14-556.14	5	21	0.01	4" low-carbon steel
MW-13	Shallow Standpipe	1994	Air Rotary	235	180-230	1183.47	953.47-1003.47	-	65	0.01	4" PVC

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Well Number	Well Type	Year Installed	Drilling Method	Depth to Bottom of Casing (feet)	Depth of Screened Interval (feet)	Elevation Top 4 inch Casing (feet above mean sea level)	Elevation of Screened Interval (feet above mean sea level)	Multi-Port Well Screen Number	Sand Pack (feet)	Screen Slot Size (inch)	Casing Material
MW-14	Deep Multi-Port	1994	Mud Rotary	588	205-215	1173.42	958.42-968.42	1	22	0.01	4" low-carbon steel
					275-285		888.42-898.42	2	26	0.01	4" low-carbon steel
					380-390		783.42-793.42	3	22	0.01	4" low-carbon steel
					453-463		710.42-720.42	4	27	0.01	4" low-carbon steel
					538-548		625.42-635.42	5	21	0.01	4" low-carbon steel
MW-15	Shallow Standpipe	1994	Air Percussion	74	19-69	1120.66	1051.66-1101.66	-	60	0.01	4" stainless steel
MW-16	Shallow Standpipe	1994	Air Percussion	285	230-280	1236.27	956.27-1006.27	-	62	0.01	4.5" PVC
MW-17	Deep Multi-Port	1995	Mud Rotary	774	246-256	1190.99	934.99-944.99	1	24	0.01	4" low-carbon steel
					366-376		814.99-824.99	2	24	0.01	4" low-carbon steel
					466-476		714.99-724.99	3	27	0.01	4" low-carbon steel
					578-588		602.99-612.99	4	25	0.01	4" low-carbon steel
					723-733		457.99-467.99	5	22	0.01	4" low-carbon steel
MW-18	Deep Multi-Port	1995	Mud Rotary	732	266-276	1225.34	949.34-959.34	1	22	0.01	4" low-carbon steel
					326-336		889.34-899.34	2	24	0.01	4" low-carbon steel
					421-431		794.34-804.34	3	20	0.01	4" low-carbon steel
					561-571		654.34-664.34	4	22	0.01	4" low-carbon steel
					681-691		534.34-544.34	5	23	0.01	4" low-carbon steel
MW-19	Deep Multi-Port	1995	Mud Rotary	543	240-250	1143.2	893.20-903.20	1	20	0.01	4" low-carbon steel
					310-320		823.20-833.20	2	20	0.01	4" low-carbon steel
					390-400		743.20-753.20	3	17	0.01	4" low-carbon steel
					442-452		691.20-701.20	4	20	0.01	4" low-carbon steel
					492-502		641.20-651.20	5	22	0.01	4" low-carbon steel
MW-20	Deep Multi-Port	1995	Mud Rotary	948	228-238	1164.89	926.89-936.89	1	24	0.01	4" low-carbon steel
					388-398		766.89-776.89	2	23	0.01	4" low-carbon steel
					558-568		596.89-606.89	3	19	0.01	4" low-carbon steel
					698-708		456.89-466.89	4	23	0.01	4" low-carbon steel
					898-908		256.89-266.89	5	27	0.01	4" low-carbon steel
MW-21	Deep Multi-Port	1995	Mud Rotary	416	86-96	1058.99	962.99-972.99	1	26	0.01	4" low-carbon steel
					156-166		892.99-902.99	2	25	0.01	4" low-carbon steel
					236-246		812.99-822.99	3	21	0.01	4" low-carbon steel
					306-316		742.99-752.99	4	22	0.01	4" low-carbon steel
					366-376		682.99-692.99	5	22	0.01	4" low-carbon steel

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MW-22	Deep Multi-Port	1997	Mud Rotary	634	239-249	1176.81	927.81-937.81	1	24	0.01	4" low-carbon steel
					324-334		842.81-852.81	2	21	0.01	4" low-carbon steel
					384-394		782.81-792.81	3	22	0.01	4" low-carbon steel
					464-474		702.81-712.81	4	23	0.01	4" low-carbon steel
					584-594		582.81-592.81	5	22	0.01	4" low-carbon steel
MW-23	Deep Multi-Port	1997	Mud Rotary	590	170-180	1108.34	928.34-938.34	1	23	0.01	4" low-carbon steel
					250-260		843.34-858.34	2	20.5	0.01	4" low-carbon steel
					315-325		783.34-793.34	3	18	0.01	4" low-carbon steel
					440-450		658.34-668.34	4	25	0.01	4" low-carbon steel
					540-550		558.34-568.34	5	22.5	0.01	4" low-carbon steel
MW-24	Deep Multi-Port	1997	Mud Rotary	725	275-285	1200.91	915.91-925.91	1	25	0.01	4" low-carbon steel
					370-380		820.91-830.91	2	50	0.01	4" low-carbon steel
					430-440		760.91-770.91	3	25	0.01	4" low-carbon steel
					550-560		640.91-650.91	4	19	0.01	4" low-carbon steel
					675-685		515.91-525.91	5	16	0.01	4" low-carbon steel

TABLE 3-1
SUMMARY OF ANALYSES PERFORMED ON GROUNDWATER SAMPLES
COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003

Sample Location	VOCs (524.2)	Total Cr (200.8)	Hexavalent Cr (7196)	Perchlorate (CADHS/ EPA 314)	Lead (200.8)	Arsenic (200.9)	NDMA (1625M)	1,4-Dioxane (8270)	Major Anions and Cations	Total Dissolved Solids (160.1)	pH (150.1)
MW-1	x	x	x	x	x	x			x	x	x
MW-3											
Screen 1	x	x	x	x	x	x			x	x	x
Screen 2	x	x	x	x	x	x			x	x	x
Screen 3	x	x	x	x	x	x			x	x	x
Screen 4	x	x	x	x	x	x			x	x	x
Screen 5	x	x	x	x	x	x			x	x	x
MW-4											
Screen 1	x	x	x	x	x	x	x	x	x	x	x
Screen 2	x	x	x	x	x	x		x	x	x	x
Screen 3	x	x	x	x	x	x		x	x	x	x
Screen 4	x	x	x	x	x	x		x	x	x	x
Screen 5								x			
MW-5	x	x	x	x	x	x		x	x	x	x
MW-6	x	x	x	x	x	x			x	x	x
MW-7	x	x	x	x	x	x			x	x	x
MW-8	x	x	x	x	x	x			x	x	x
MW-9	x	x	x	x	x	x			x	x	x
MW-10	x	x	x	x	x	x		x	x	x	x
MW-11											
Screen 1	x	x	x	x	x	x			x	x	x
Screen 2	x	x	x	x	x	x			x	x	x
Screen 3	x	x	x	x	x	x			x	x	x
Screen 4	x	x	x	x	x	x			x	x	x
Screen 5	x	x	x	x	x	x			x	x	x
MW-12											
Screen 1	x	x	x	x	x	x			x	x	x
Screen 2	x	x	x	x	x	x			x	x	x
Screen 3	x	x	x	x	x	x			x	x	x
Screen 4	x	x	x	x	x	x			x	x	x
Screen 5	x	x	x	x	x	x			x	x	x
MW-13	x	x	x	x	x	x	x	x	x	x	x
MW-14											
Screen 1	x	x	x	x	x	x			x	x	x
Screen 2	x	x	x	x	x	x			x	x	x
Screen 3	x	x	x	x	x	x			x	x	x
Screen 4	x	x	x	x	x	x			x	x	x
Screen 5	x	x	x	x	x	x			x	x	x
MW-15	x	x	x	x	x	x			x	x	x
MW-16	x	x	x	x	x	x	x	x	x	x	x
MW-17											
Screen 1	x	x	x	x	x	x			x	x	x
Screen 2	x	x	x	x	x	x			x	x	x
Screen 3	x	x	x	x	x	x			x	x	x
Screen 4	x	x	x	x	x	x	x	x	x	x	x
Screen 5	x	x	x	x	x	x			x	x	x

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APRIL - MAY 2003

Sample Location	VOCs (524.2)	Total Cr (200.8)	Hexavalent Cr (7196)	Perchlorate (CADHS/ EPA 314)	Lead (200.8)	Arsenic (200.9)	NDMA (1625M)	1,4-Dioxane (8270)	Major Anions and Cations	Total Dissolved Solids (160.1)	pH (150.1)
MW-18											
Screen 1	x	x	x	x	x	x			x	x	x
Screen 2	x	x	x	x	x	x			x	x	x
Screen 3	x	x	x	x	x	x			x	x	x
Screen 4	x	x	x	x	x	x			x	x	x
Screen 5	x	x	x	x	x	x			x	x	x
MW-19											
Screen 1	x	x	x	x	x	x			x	x	x
Screen 2	x	x	x	x	x	x			x	x	x
Screen 3	x	x	x	x	x	x			x	x	x
Screen 4	x	x	x	x	x	x			x	x	x
Screen 5	x	x	x	x	x	x			x	x	x
MW-20											
Screen 1	x	x	x	x	x	x			x	x	x
Screen 2	x	x	x	x	x	x			x	x	x
Screen 3	x	x	x	x	x	x			x	x	x
Screen 4	x	x	x	x	x	x			x	x	x
Screen 5	x	x	x	x	x	x			x	x	x
MW-21											
Screen 1	x	x	x	x	x	x			x	x	x
Screen 2	x	x	x	x	x	x			x	x	x
Screen 3	x	x	x	x	x	x			x	x	x
Screen 4	x	x	x	x	x	x			x	x	x
Screen 5	x	x	x	x	x	x			x	x	x
MW-22											
Screen 1	x	x	x	x	x	x			x	x	x
Screen 2	x	x	x	x	x	x			x	x	x
Screen 3	x	x	x	x	x	x			x	x	x
Screen 4	x	x	x	x	x	x			x	x	x
Screen 5	x	x	x	x	x	x			x	x	x
MW-23											
Screen 1	x	x	x	x	x	x			x	x	x
Screen 2	x	x	x	x	x	x			x	x	x
Screen 3	x	x	x	x	x	x			x	x	x
Screen 4	x	x	x	x	x	x			x	x	x
Screen 5	x	x	x	x	x	x			x	x	x
MW-24											
Screen 1	x	x	x	x	x	x	x	x	x	x	x
Screen 2	x	x	x	x	x	x			x	x	x
Screen 3	x	x	x	x	x	x			x	x	x
Screen 4	x	x	x	x	x	x			x	x	x
Screen 5	x	x	x	x	x	x			x	x	x

**TABLE 3-2
LOCATION OF JPL WELLS
AND WELL SCREENS IN AQUIFER LAYERS**

Well Number	AQUIFER LAYERS			
	Layer 1	Layer 2	Layer 3	Layer 4
MW-1	x			
MW-3				
Screen 1	x			
Screen 2		x		
Screen 3		x		
Screen 4			x	
Screen 5			x	
MW-4				
Screen 1	x			
Screen 2		x		
Screen 3		x		
Screen 4		x		
Screen 5			x	
MW-5	x			
MW-6	x			
MW-7	x			
MW-8	x			
MW-9	x			
MW-10	x			
MW-11				
Screen 1	x			
Screen 2		x		
Screen 3		x		
Screen 4		x		
Screen 5			x	
MW-12				
Screen 1	x			
Screen 2		x		
Screen 3		x		
Screen 4		x		
Screen 5			x	
MW-13	x			
MW-14				
Screen 1	x			
Screen 2		x		
Screen 3		x		
Screen 4			x	
Screen 5			x	
MW-15	x			
MW-16	x			
MW-17				
Screen 1	x			
Screen 2		x		
Screen 3		x		
Screen 4			x	
Screen 5			x	

**TABLE 3-2
LOCATION OF JPL WELLS
AND WELL SCREENS IN AQUIFER LAYERS**

Well Number	AQUIFER LAYERS			
	Layer 1	Layer 2	Layer 3	Layer 4
MW-18				
Screen 1	x			
Screen 2	x			
Screen 3		x		
Screen 4			x	
Screen 5			x	
MW-19				
Screen 1	x			
Screen 2		x		
Screen 3		x		
Screen 4			x	
Screen 5			x	
MW-20				
Screen 1	x			
Screen 2		x		
Screen 3			x	
Screen 4			x	
Screen 5				x
MW-21				
Screen 1	x			
Screen 2		x		
Screen 3		x		
Screen 4			x	
Screen 5			x	
MW-22				
Screen 1	x			
Screen 2		x		
Screen 3		x		
Screen 4			x	
Screen 5			x	
MW-23				
Screen 1	x			
Screen 2		x		
Screen 3		x		
Screen 4			x	
Screen 5			x	
MW-24				
Screen 1	x			
Screen 2		x		
Screen 3		x		
Screen 4			x	
Screen 5			x	

TABLE 3-3
SUMMARY OF VOLATILE ORGANIC COMPOUNDS AND PERCHLORATE DETECTED IN
GROUNDWATER SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003

(All concentrations reported in micrograms per liter)
 Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sample Number	Carbon Tetra-chloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds (including 1,4-Dioxane)
MW-1	MW-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 2.0J
MW-3 Screen 1	MW-3-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 4.0J
MW-3 Screen 2	MW-3-2	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.2	4-Methyl-2-Pentanone 3.0J
MW-3 Screen 2	DUPE-5-2Q03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5.8	4-Methyl-2-Pentanone 3.0J
MW-3 Screen 3	MW-3-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9	4.0 U	4-Methyl-2-Pentanone 3.0J
MW-3 Screen 4	MW-3-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 3.0J
MW-3 Screen 5	MW-3-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 4.0J Styrene 0.4J Ethylbenzene 0.7
MW-4 Screen 1	MW-4-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-4 Screen 2	MW-4-2	0.5 U	0.4 J	0.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	6.6	
MW-4 Screen 3	MW-4-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Chloromethane 1.8 Toluene 0.3J Ethylbenzene 1.9
MW-4 Screen 4	MW-4-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-4 Screen 4	DUPE-1-2Q03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-4 Screen 5	MW-4-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-5	MW-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-6	MW-6	0.5 U	0.5 U	3.0	0.9	0.5 U	0.7	0.5 U	0.5 J	2.3 J	4-Methyl-2-Pentanone 4.0J
MW-7	MW-7	73.7	8.1	9.9	0.5 U	0.5 U	4.2	3.6	10.0	5560.0	4-Methyl-2-Pentanone 6.0J Methylene Chloride 2.3
MW-8	MW-8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.2	4-Methyl-2-Pentanone 5.0J
MW-9	MW-9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-10	MW-10	0.2 J	11.2	1.3	0.8	0.5 U	0.5 U	0.5 U	1.1	17.5	4-Methyl-2-Pentanone 6.0J
MW-11 Screen 1	MW-11-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 6.0J
MW-11 Screen 2	MW-11-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 6.0J
MW-11 Screen 3	MW-11-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 6.0J
MW-11 Screen 4	MW-11-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 7.0J
MW-11 Screen 5	MW-11-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 7.0J
MW-12 Screen 1	MW-12-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 8.0J
MW-12 Screen 2	MW-12-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 J	4-Methyl-2-Pentanone 5.0J
MW-12 Screen 3	MW-12-3	2.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1	2.8 J	
MW-12 Screen 3	DUPE-6-2Q03	2.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2	3.4 J	4-Methyl-2-Pentanone 4.0J
MW-12 Screen 4	MW-12-4	1.5	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	3.6 J	

TABLE 3-3
SUMMARY OF VOLATILE ORGANIC COMPOUNDS AND PERCHLORATE DETECTED IN
GROUNDWATER SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003

(All concentrations reported in micrograms per liter)
 Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sample Number	Carbon Tetra-chloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds (including 1,4-Dioxane)
MW-12 Screen 5	MW-12-5	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	2.2 J	4-Methyl-2-Pentanone 7.0J
MW-13	MW-13	1.3	9.2	1.0	0.4 J	0.5 U	0.5 U	0.5 U	1.5	147.0	4-Methyl-2-Pentanone 5.0J
MW-14 Screen 1	MW-14-1	0.5 U	1.3	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	2.8 J	
MW-14 Screen 2	MW-14-2	0.5 U	3.7	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	3.3 J	
MW-14 Screen 3	MW-14-3	0.5 U	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	5.7	
MW-14 Screen 3	DUPE-2-2Q03	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	5.4	
MW-14 Screen 4	MW-14-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.4 J	
MW-14 Screen 5	MW-14-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-15	MW-15	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 4.0J Methylene Chloride 2.6
MW-16	MW-16	2.9	1.6	0.5 U	0.5 U	0.9	0.5 U	0.5 U	3.8	1810.0	4-Methyl-2-Pentanone 4.0J
MW-17 Screen 1	MW-17-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-17 Screen 2	MW-17-2	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.1	4-Methyl-2-Pentanone 5.0J
MW-17 Screen 3	MW-17-3	6.4	1.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.7	126.0	4-Methyl-2-Pentanone 3.0J
MW-17 Screen 4	MW-17-4	0.5 U	6.2	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	1.0	6.5	4-Methyl-2-Pentanone 4.0J
MW-17 Screen 5	MW-17-5	0.5 U	3.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	3.6 J	4-Methyl-2-Pentanone 3.0J
MW-18 Screen 1	MW-18-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 4.0J
MW-18 Screen 2	MW-18-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 4.0J
MW-18 Screen 3	MW-18-3	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2	1.3 J	4-Methyl-2-Pentanone 4.0J
MW-18 Screen 4	MW-18-4	2.4	1.0	2.1	0.5 U	0.5 U	0.5 U	0.5 U	0.9	23.9	4-Methyl-2-Pentanone 7.0J
MW-18 Screen 4	DUPE-7-2Q03	2.4	0.9	1.9	0.5 U	0.5 U	0.5 U	0.5 U	0.8	23.8	4-Methyl-2-Pentanone 6.0J
MW-18 Screen 5	MW-18-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-19 Screen 1	MW-19-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-19 Screen 2	MW-19-2	0.5 U	0.4 J	1.0	0.5 U	0.5 U	0.5 U	0.5 U	0.6	4.3	
MW-19 Screen 3	MW-19-3	0.5 U	0.5 U	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.6 J	
MW-19 Screen 4	MW-19-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	4.0 U	
MW-19 Screen 5	MW-19-5	0.5 U	0.5 U	2.8	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	4.0 U	
MW-20 Screen 1	MW-20-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-20 Screen 1	DUPE-3-2Q03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-20 Screen 2	MW-20-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5	4.0 U	4-Methyl-2-Pentanone 3.0J
MW-20 Screen 3	MW-20-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 4.0J
MW-20 Screen 4	MW-20-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	124.0	
MW-20 Screen 5	MW-20-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene 0.5J
MW-21 Screen 1	MW-21-1	0.5 U	0.7	0.5 J	0.6	0.5 U	0.5 U	0.5 U	0.8	3.6 J	

TABLE 3-3
SUMMARY OF VOLATILE ORGANIC COMPOUNDS AND PERCHLORATE DETECTED IN
GROUNDWATER SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003

(All concentrations reported in micrograms per liter)
 Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sample Number	Carbon Tetra-chloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds (including 1,4-Dioxane)
MW-21 Screen 2	MW-21-2	0.5 U	0.4 J	1.0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.9 J	
MW-21 Screen 3	MW-21-3	0.5 U	1.0	2.1	0.5 U	0.5 U	0.5 U	0.5 U	0.8	2.9 J	
MW-21 Screen 4	MW-21-4	0.5 U	0.5 U	5.2	0.5 U	0.5 U	0.5 U	0.5 U	1.9	2.1 J	cis-1,2-Dichloroethene 0.8
MW-21 Screen 5	MW-21-5	0.5 U	0.6	12.3	0.5 U	0.5 U	0.5 U	0.5 U	2.7	2.7 J	cis-1,2-Dichloroethene 1.7
MW-22 Screen 1	MW-22-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.2 J	4-Methyl-2-Pentanone 3.0J
MW-22 Screen 2	MW-22-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.6 J	4-Methyl-2-Pentanone 5.0J
MW-22 Screen 3	MW-22-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.8 J	4-Methyl-2-Pentanone 6.0J
MW-22 Screen 4	MW-22-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 9.0J
MW-22 Screen 5	MW-22-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-23 Screen 1	MW-23-1	0.5 U	1.0	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5	2.9 J	4-Methyl-2-Pentanone 4.0J
MW-23 Screen 2	MW-23-2	0.5 U	0.6	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5	3.8 J	4-Methyl-2-Pentanone 3.0J
MW-23 Screen 3	MW-23-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 3.0J
MW-23 Screen 4	MW-23-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-23 Screen 5	MW-23-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 3.0J
MW-24 Screen 1	MW-24-1	7.5	2.9	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	5.2	854.0	4-Methyl-2-Pentanone 4.0J
MW-24 Screen 2	MW-24-2	8.9	1.6	0.3 J	0.5 U	0.5 U	0.5	0.5 U	3.8	195.0	4-Methyl-2-Pentanone 4.0J
MW-24 Screen 2	DUPE-4-2Q03	4.1	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.3	199.0	4-Methyl-2-Pentanone 5.0J Methylene Chloride 2.5
MW-24 Screen 3	MW-24-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-24 Screen 4	MW-24-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-24 Screen 5	MW-24-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
California Maximum Contaminant Level (MCL)		0.5	5.0	5.0	5.0	0.5	6.0	1200.0	100.0	4.0*	
EPA Region IX Maximum Contaminant Level		5.0	5.0	5.0	NE	5.0	7.0	NE	100.0	NE	

Notes

- DUPE Field Duplicate
- J Indicates an estimated value.
- NE Not established
- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- * Interim Action Level - California Department of Health Services

TABLE 3-4
SUMMARY OF VOLATILE ORGANIC COMPOUNDS AND PERCHLORATE DETECTED
DURING THE LONG-TERM QUARTERLY GROUNDWATER SAMPLING PROGRAM
APRIL - MAY 2003

(All concentrations reported in micrograms per liter)
 Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sampling Event	Sample Number	Carbon Tetra-chloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds (including 1,4-Dioxane)
MW-1	April/May 2003	MW-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 2.0J
MW-3 Screen 1	April/May 2003	MW-3-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 4.0J
MW-3 Screen 2	Jan/Feb 2003	MW-3-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	
MW-3 Screen 2	April/May 2003	MW-3-2	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.2	4-Methyl-2-Pentanone 3.0J
MW-3 Screen 2	April/May 2003	DUPE-5-2Q03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5.8	4-Methyl-2-Pentanone 3.0J
MW-3 Screen 3	Jan/Feb 2003	MW-3-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.8	0.4 U	
MW-3 Screen 3	April/May 2003	MW-3-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9	4.0 U	4-Methyl-2-Pentanone 3.0J
MW-3 Screen 4	Jan/Feb 2003	MW-3-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	
MW-3 Screen 4	April/May 2003	MW-3-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 3.0J
MW-3 Screen 5	April/May 2003	MW-3-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 4.0J Styrene 0.4J Ethylbenzene 0.7
MW-4 Screen 1	Jan/Feb 2003	MW-4-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	
MW-4 Screen 1	April/May 2003	MW-4-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-4 Screen 2	Jan/Feb 2003	MW-4-2	0.5 U	1.2	0.7	0.5 J	0.5 U	0.5 U	0.5 U	0.5 J	0.4 U	
MW-4 Screen 2	April/May 2003	MW-4-2	0.5 U	0.4 J	0.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	6.6	
MW-4 Screen 3	Jan/Feb 2003	MW-4-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	Ethylbenzene 2.3 Toluene 0.4J
MW-4 Screen 3	April/May 2003	MW-4-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Chloromethane 1.8 Toluene 0.3J Ethylbenzene 1.9
MW-4 Screen 4	April/May 2003	MW-4-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-4 Screen 4	April/May 2003	DUPE-1-2Q03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-4 Screen 5	April/May 2003	MW-4-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-5	Jan/Feb 2003	MW-5	1.6	14.9	0.7	0.5 U	0.5 U	0.5 U	0.5 U	1.4	25.2	
MW-5	April/May 2003	MW-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-6	Jan/Feb 2003	MW-6	0.5 U	0.5 U	2.6	0.8	0.5 U	0.7	0.5 U	0.4 J	3.8 J	
MW-6	April/May 2003	MW-6	0.5 U	0.5 U	3.0	0.9	0.5 U	0.7	0.5 U	0.5 J	2.3 J	4-Methyl-2-Pentanone 4.0J
MW-7	Jan/Feb 2003	MW-7	102.0	4.4	11.8	0.5 U	0.5 U	6.1	4.2	12.9	5200.0	
MW-7	Jan/Feb 2003	DUPE-6-1Q03	122.0	4.8	13.5	0.5 U	0.5 U	6.4	4.2	12.3	6190.0	
MW-7	April/May 2003	MW-7	73.7	8.1	9.9	0.5 U	0.5 U	4.2	3.6	10.0	5560.0	4-Methyl-2-Pentanone 6.0J Methylene Chloride 2.3
MW-8	Jan/Feb 2003	MW-8	4.3	2.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1	45.0	
MW-8	April/May 2003	MW-8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.2	4-Methyl-2-Pentanone 5.0J
MW-9	April/May 2003	MW-9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-10	Jan/Feb 2003	MW-10	0.5 U	2.5	1.3	0.5 J	0.5 U	0.5 U	0.5 U	0.5	3.5 J	
MW-10	April/May 2003	MW-10	0.2 J	11.2	1.3	0.8	0.5 U	0.5 U	0.5 U	1.1	17.5	4-Methyl-2-Pentanone 6.0J
MW-11 Screen 1	Jan/Feb 2003	MW-11-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.4 J	
MW-11 Screen 1	April/May 2003	MW-11-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 6.0J

TABLE 3-4
SUMMARY OF VOLATILE ORGANIC COMPOUNDS AND PERCHLORATE DETECTED
DURING THE LONG-TERM QUARTERLY GROUNDWATER SAMPLING PROGRAM
APRIL - MAY 2003

(All concentrations reported in micrograms per liter)
 Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sampling Event	Sample Number	Carbon Tetra-chloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds (including 1,4-Dioxane)
MW-11 Screen 2	Jan/Feb 2003	MW-11-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.6 J	
MW-11 Screen 2	April/May 2003	MW-11-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 6.0J
MW-11 Screen 3	Jan/Feb 2003	MW-11-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.1 J	
MW-11 Screen 3	April/May 2003	MW-11-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 6.0J
MW-11 Screen 4	Jan/Feb 2003	MW-11-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.8	
MW-11 Screen 4	April/May 2003	MW-11-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 7.0J
MW-11 Screen 5	April/May 2003	MW-11-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 7.0J
MW-12 Screen 1	Jan/Feb 2003	MW-12-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.9 J	1,3-Dichloropropane 0.6
MW-12 Screen 1	April/May 2003	MW-12-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 8.0J
MW-12 Screen 2	Jan/Feb 2003	MW-12-2	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.2 J	1,3-Dichloropropane 0.5
MW-12 Screen 2	Jan/Feb 2003	DUPE-4-1Q03	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.6 J	1,3-Dichloropropane 0.6
MW-12 Screen 2	April/May 2003	MW-12-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 J	4-Methyl-2-Pentanone 5.0J
MW-12 Screen 3	Jan/Feb 2003	MW-12-3	4.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.2	1.8 J	
MW-12 Screen 3	April/May 2003	MW-12-3	2.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1	2.8 J	
MW-12 Screen 3	April/May 2003	DUPE-6-2Q03	2.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2	3.4 J	4-Methyl-2-Pentanone 4.0J
MW-12 Screen 4	Jan/Feb 2003	MW-12-4	2.3	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.8	1.9 J	
MW-12 Screen 4	April/May 2003	MW-12-4	1.5	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	3.6 J	
MW-12 Screen 5	Jan/Feb 2003	MW-12-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 J	
MW-12 Screen 5	April/May 2003	MW-12-5	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	2.2 J	4-Methyl-2-Pentanone 7.0J
MW-13	Jan/Feb 2003	MW-13	0.8	1.2	1.0	0.8	0.5 U	0.5 U	0.5 U	0.7	68.1	
MW-13	April/May 2003	MW-13	1.3	9.2	1.0	0.4 J	0.5 U	0.5 U	0.5 U	1.5	147.0	4-Methyl-2-Pentanone 5.0J
MW-14 Screen 1	Jan/Feb 2003	MW-14-1	0.5 U	0.5 U	0.9	0.5	0.5 U	0.5 U	0.5 U	0.4 J	1.9 J	Methylene Chloride 0.5J
MW-14 Screen 1	April/May 2003	MW-14-1	0.5 U	1.3	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	2.8 J	
MW-14 Screen 2	Jan/Feb 2003	MW-14-2	0.5 U	6.2	0.7	0.4 J	0.5 U	0.5 U	0.5 U	0.6	2.6 J	
MW-14 Screen 2	April/May 2003	MW-14-2	0.5 U	3.7	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	3.3 J	
MW-14 Screen 3	Jan/Feb 2003	MW-14-3	0.5 U	1.1	0.5	0.3 J	0.5 U	0.5 U	0.5 U	0.5 J	2.9 J	
MW-14 Screen 3	April/May 2003	MW-14-3	0.5 U	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	5.7	
MW-14 Screen 3	April/May 2003	DUPE-2-2Q03	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	5.4	
MW-14 Screen 4	Jan/Feb 2003	MW-14-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.8 J	
MW-14 Screen 4	Jan/Feb 2003	DUPE-3-1Q03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.2 J	
MW-14 Screen 4	April/May 2003	MW-14-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.4 J	
MW-14 Screen 5	Jan/Feb 2003	MW-14-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	
MW-14 Screen 5	April/May 2003	MW-14-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-15	April/May 2003	MW-15	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 4.0J Methylene Chloride 2.6
MW-16	Jan/Feb 2003	MW-16	1.4	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	97.2	
MW-16	April/May 2003	MW-16	2.9	1.6	0.5 U	0.5 U	0.9	0.5 U	0.5 U	3.8	1810.0	4-Methyl-2-Pentanone 4.0J

TABLE 3-4
SUMMARY OF VOLATILE ORGANIC COMPOUNDS AND PERCHLORATE DETECTED
DURING THE LONG-TERM QUARTERLY GROUNDWATER SAMPLING PROGRAM
APRIL - MAY 2003

(All concentrations reported in micrograms per liter)
 Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sampling Event	Sample Number	Carbon Tetra-chloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds (including 1,4-Dioxane)
MW-17 Screen 1	April/May 2003	MW-17-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-17 Screen 2	Jan/Feb 2003	MW-17-2	0.5 U	1.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	3.4 J	
MW-17 Screen 2	April/May 2003	MW-17-2	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.1	4-Methyl-2-Pentanone 5.0J
MW-17 Screen 3	Jan/Feb 2003	MW-17-3	13.1	3.9	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	3.1	0.4 U	1,1,2-Trichlorotrifluoroethane 0.5J
MW-17 Screen 3	April/May 2003	MW-17-3	6.4	1.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.7	126.0	4-Methyl-2-Pentanone 3.0J
MW-17 Screen 4	Jan/Feb 2003	MW-17-4	0.5 U	4.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	0.4 U	
MW-17 Screen 4	April/May 2003	MW-17-4	0.5 U	6.2	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	1.0	6.5	4-Methyl-2-Pentanone 4.0J
MW-17 Screen 5	April/May 2003	MW-17-5	0.5 U	3.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	3.6 J	4-Methyl-2-Pentanone 3.0J
MW-18 Screen 1	April/May 2003	MW-18-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 4.0J
MW-18 Screen 2	Jan/Feb 2003	MW-18-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	
MW-18 Screen 2	April/May 2003	MW-18-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 4.0J
MW-18 Screen 3	Jan/Feb 2003	MW-18-3	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	1.6	0.4 U	
MW-18 Screen 3	April/May 2003	MW-18-3	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2	1.3 J	4-Methyl-2-Pentanone 4.0J
MW-18 Screen 4	Jan/Feb 2003	MW-18-4	6.7	2.6	4.8	0.5 U	0.5 U	0.5 U	0.5 U	1.3	24.6	
MW-18 Screen 4	April/May 2003	MW-18-4	2.4	1.0	2.1	0.5 U	0.5 U	0.5 U	0.5 U	0.9	23.9	4-Methyl-2-Pentanone 7.0J
MW-18 Screen 4	April/May 2003	DUPE-7-2Q03	2.4	0.9	1.9	0.5 U	0.5 U	0.5 U	0.5 U	0.8	23.8	4-Methyl-2-Pentanone 6.0J
MW-18 Screen 5	Jan/Feb 2003	MW-18-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	
MW-18 Screen 5	April/May 2003	MW-18-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-19 Screen 1	Jan/Feb 2003	MW-19-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	
MW-19 Screen 1	April/May 2003	MW-19-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-19 Screen 2	Jan/Feb 2003	MW-19-2	0.5 U	1.1	2.0	0.4 J	0.5 U	0.5 U	0.5 U	0.7	0.4 U	
MW-19 Screen 2	April/May 2003	MW-19-2	0.5 U	0.4 J	1.0	0.5 U	0.5 U	0.5 U	0.5 U	0.6	4.3	
MW-19 Screen 3	Jan/Feb 2003	MW-19-3	0.5 U	0.5 J	1.5	0.5 U	0.5 U	0.5 U	0.5 U	0.6	0.4 U	
MW-19 Screen 3	April/May 2003	MW-19-3	0.5 U	0.5 U	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.6 J	
MW-19 Screen 4	Jan/Feb 2003	MW-19-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0	0.4 U	
MW-19 Screen 4	Jan/Feb 2003	DUPE-2-1Q03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.9	0.4 U	
MW-19 Screen 4	April/May 2003	MW-19-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	4.0 U	
MW-19 Screen 5	Jan/Feb 2003	MW-19-5	0.5 U	0.4 J	4.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	
MW-19 Screen 5	April/May 2003	MW-19-5	0.5 U	0.5 U	2.8	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	4.0 U	
MW-20 Screen 1	Jan/Feb 2003	MW-20-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	
MW-20 Screen 1	Jan/Feb 2003	DUPE-1-1Q03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.4 U	
MW-20 Screen 1	April/May 2003	MW-20-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-20 Screen 1	April/May 2003	DUPE-3-2Q03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	
MW-20 Screen 2	Jan/Feb 2003	MW-20-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.3	0.4 U	
MW-20 Screen 2	April/May 2003	MW-20-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5	4.0 U	4-Methyl-2-Pentanone 3.0J
MW-20 Screen 3	Jan/Feb 2003	MW-20-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	
MW-20 Screen 3	April/May 2003	MW-20-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 4.0J
MW-20 Screen 4	Jan/Feb 2003	MW-20-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	

TABLE 3-4
SUMMARY OF VOLATILE ORGANIC COMPOUNDS AND PERCHLORATE DETECTED
DURING THE LONG-TERM QUARTERLY GROUNDWATER SAMPLING PROGRAM
APRIL - MAY 2003

(All concentrations reported in micrograms per liter)
 Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sampling Event	Sample Number	Carbon Tetra-chloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds (including 1,4-Dioxane)
MW-20 Screen 4	April/May 2003	MW-20-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	124.0	
MW-20 Screen 5	Jan/Feb 2003	MW-20-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	2-Butanone 3.0J Styrene 0.6
MW-20 Screen 5	April/May 2003	MW-20-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	Styrene 0.5J
MW-21 Screen 1	Jan/Feb 2003	MW-21-1	0.5 U	3.6	0.7	0.5	0.5 U	0.5 U	0.5 U	1.0	3.1	
MW-21 Screen 1	April/May 2003	MW-21-1	0.5 U	0.7	0.5 J	0.6	0.5 U	0.5 U	0.5 U	0.8	3.6 J	
MW-21 Screen 2	Jan/Feb 2003	MW-21-2	0.5 U	0.5	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	
MW-21 Screen 2	April/May 2003	MW-21-2	0.5 U	0.4 J	1.0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.9 J	
MW-21 Screen 3	Jan/Feb 2003	MW-21-3	0.5 U	1.1	1.9	0.5 U	0.5 U	0.5 U	0.5 U	0.9	0.4 U	cis-1,2-Dichloroethane 0.3J
MW-21 Screen 3	April/May 2003	MW-21-3	0.5 U	1.0	2.1	0.5 U	0.5 U	0.5 U	0.5 U	0.8	2.9 J	
MW-21 Screen 4	Jan/Feb 2003	MW-21-4	0.5 U	0.3 J	5.2	0.5 U	0.5 U	0.5 U	0.5 U	1.7	0.4 U	cis-1,2-Dichloroethane 0.7
MW-21 Screen 4	April/May 2003	MW-21-4	0.5 U	0.5 U	5.2	0.5 U	0.5 U	0.5 U	0.5 U	1.9	2.1 J	cis-1,2-Dichloroethane 0.8
MW-21 Screen 5	Jan/Feb 2003	MW-21-5	0.5 U	0.7	9.6	0.5 U	0.5 U	0.5 U	0.5 U	2.5	0.4 U	cis-1,2-Dichloroethane 2.0
MW-21 Screen 5	April/May 2003	MW-21-5	0.5 U	0.6	12.3	0.5 U	0.5 U	0.5 U	0.5 U	2.7	2.7 J	cis-1,2-Dichloroethane 1.7
MW-22 Screen 1	Jan/Feb 2003	MW-22-1	0.5 U	0.3 J	2.0	0.5 J	0.5 U	0.5 U	0.5 U	0.4 J	0.4 U	
MW-22 Screen 1	April/May 2003	MW-22-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.2 J	4-Methyl-2-Pentanone 3.0J
MW-22 Screen 2	Jan/Feb 2003	MW-22-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	
MW-22 Screen 2	Jan/Feb 2003	DUPE-5-1Q03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0 J	
MW-22 Screen 2	April/May 2003	MW-22-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.6 J	4-Methyl-2-Pentanone 5.0J
MW-22 Screen 3	Jan/Feb 2003	MW-22-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
MW-22 Screen 3	April/May 2003	MW-22-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.8 J	4-Methyl-2-Pentanone 6.0J
MW-22 Screen 4	April/May 2003	MW-22-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 9.0J
MW-22 Screen 5	April/May 2003	MW-22-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-23 Screen 1	Jan/Feb 2003	MW-23-1	0.5 U	1.5	1.0	0.5 U	0.5 U	0.5 U	0.5 U	0.5 J	1.9 J	
MW-23 Screen 1	April/May 2003	MW-23-1	0.5 U	1.0	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5	2.9 J	4-Methyl-2-Pentanone 4.0J
MW-23 Screen 2	Jan/Feb 2003	MW-23-2	0.5 U	0.7	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5	2.4 J	
MW-23 Screen 2	April/May 2003	MW-23-2	0.5 U	0.6	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5	3.8 J	4-Methyl-2-Pentanone 3.0J
MW-23 Screen 3	Jan/Feb 2003	MW-23-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.2 J	
MW-23 Screen 3	April/May 2003	MW-23-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 3.0J
MW-23 Screen 4	April/May 2003	MW-23-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-23 Screen 5	April/May 2003	MW-23-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 3.0J
MW-24 Screen 1	Jan/Feb 2003	MW-24-1	4.7	1.7	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	2.4	257.0	
MW-24 Screen 1	April/May 2003	MW-24-1	7.5	2.9	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	5.2	854.0	4-Methyl-2-Pentanone 4.0J
MW-24 Screen 2	Jan/Feb 2003	MW-24-2	8.9	1.3	0.5 U	0.5 U	0.5 U	0.5 J	0.5 U	2.8	106.0	
MW-24 Screen 2	April/May 2003	MW-24-2	8.9	1.6	0.3 J	0.5 U	0.5 U	0.5	0.5 U	3.8	195.0	4-Methyl-2-Pentanone 4.0J
MW-24 Screen 2	April/May 2003	DUPE-4-2Q03	4.1	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.3	199.0	4-Methyl-2-Pentanone 5.0J Methylene Chloride 2.5
MW-24 Screen 3	Jan/Feb 2003	MW-24-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.6	
MW-24 Screen 3	April/May 2003	MW-24-3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J

TABLE 3-4
SUMMARY OF VOLATILE ORGANIC COMPOUNDS AND PERCHLORATE DETECTED
DURING THE LONG-TERM QUARTERLY GROUNDWATER SAMPLING PROGRAM
APRIL - MAY 2003

(All concentrations reported in micrograms per liter)
 Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sampling Event	Sample Number	Carbon Tetra-chloride	TCE	PCE	1,1-DCA	1,2-DCA	1,1-DCE	Freon 113	Chloroform	Perchlorate	Other Volatile Organic Compounds (including 1,4-Dioxane)
MW-24 Screen 4	April/May 2003	MW-24-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
MW-24 Screen 5	April/May 2003	MW-24-5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4.0 U	4-Methyl-2-Pentanone 5.0J
California Maximum Contaminant Level (MCL)			0.5	5.0	5.0	5.0	0.5	6.0	1200.0	100.0	4.0*	
EPA Region IX Maximum Contaminant Level			5.0	5.0	5.0	NE	5.0	7.0	NE	100.0	NE	

Notes

DUPE

Field Duplicate

J

Indicates an estimated value.

NE

Not established

U

Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

*

Interim Action Level - California Department of Health Services

TABLE 3-5
SUMMARY OF VOLATILE ORGANIC COMPOUNDS* AND PERCHLORATE REPORTED IN
MUNICIPAL PRODUCTION WELLS NEAR JPL DURING THE MOST RECENT SAMPLING EVENTS

(All Concentrations Are Reported in Micrograms per Liter)

Bolded and Shaded Values Exceed the State or Federal MCLs or the Action Levels.

Purveyor	Well Name	Perchlorate		Carbon Tetrachloride		Tetrachloroethene (PCE)		Trichloroethene (TCE)		1,1-Dichloroethane		Chloroform	
		Concentration	Date	Concentration	Date	Concentration	Date	Concentration	Date	Concentration	Date	Concentration	Date
Las Flores Water Company	Well # 2	5.80	3/3/2003	NS	3/3/2003	11.00	3/3/2003	NS	3/3/2003	NS	3/3/2003	NS	3/3/2003
	Well # 2	6.10	3/27/2003	--	3/27/2003	2.20	3/27/2003	--	3/27/2003	--	3/27/2003	0.60	3/27/2003
	Well # 2	4.80	3/31/2003	NS	3/31/2003	5.40	3/31/2003	NS	3/31/2003	NS	3/31/2003	NS	3/31/2003
	Well # 2	--	4/7/2003	NS	4/7/2003	7.80	4/7/2003	NS	4/7/2003	NS	4/7/2003	NS	4/7/2003
	Well # 2	5.70	4/14/2003	NS	4/14/2003	6.40	4/14/2003	NS	4/14/2003	NS	4/14/2003	NS	4/14/2003
	Well # 2	5.90	4/21/2003	NS	4/21/2003	4.10	4/21/2003	NS	4/21/2003	NS	4/21/2003	NS	4/21/2003
	Well # 2	6.00	4/28/2003	NS	4/28/2003	11.00	4/28/2003	NS	4/28/2003	NS	4/28/2003	NS	4/28/2003
	Well # 2	6.80	5/5/2003	NS	5/5/2003	9.10	5/5/2003	NS	5/5/2003	NS	5/5/2003	NS	5/5/2003
	Well # 2	5.70	5/12/2003	NS	5/12/2003	8.90	5/12/2003	NS	5/12/2003	NS	5/12/2003	NS	5/12/2003
	Well # 2	6.80	5/19/2003	NS	5/19/2003	11.00	5/19/2003	NS	5/19/2003	NS	5/19/2003	NS	5/19/2003
	Well # 2	6.10	5/27/2003	NS	5/27/2003	10.00	5/27/2003	NS	5/27/2003	NS	5/27/2003	NS	5/27/2003
	Well # 2	6.80	6/2/2003	--	6/2/2003	14.00	6/2/2003	--	6/2/2003	--	6/2/2003	--	6/2/2003
	Well # 2	6.50	6/9/2003	NS	6/9/2003	6.30	6/9/2003	NS	6/9/2003	NS	6/9/2003	NS	6/9/2003
	Well # 2	5.80	6/16/2003	NS	6/16/2003	11.00	6/16/2003	NS	6/16/2003	NS	6/16/2003	NS	6/16/2003
California MCL		18.00 ⁽¹⁾		0.50		5.00		5.00		5.00		100.00	
EPA Region IX MCL		NE		5.00		5.00		5.00		NE		100.00	

Notes

* 1,1-Dichloroethene and 1,2-Dichloroethane were also sampled at some water systems during 2003, however, no detectable concentrations were reported.

(1) Interim Action Level - California Department of Health Services

NE Not Established

NS Not Sampled on this date

Source California Department of Health Services Drinking Water Program, California Drinking Water Data, July 28, 2003

**TABLE 3-6
SUMMARY OF METALS ANALYSES OF GROUNDWATER
SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003**

(All concentrations reported in micrograms per liter)
Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sample Number	Arsenic (ug/L)	Lead (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (mg/L)	Field Turbidity (NTU)
MW-1	MW-1	5 U	0.15 J	2.35	0.01 U	2.02
MW-3 Screen 1	MW-3-1	5 U	1 U	2.05	0.01 U	20.40
MW-3 Screen 2	MW-3-2	5 U	1 U	1.61	0.01 U	1.35
MW-3 Screen 2	DUPE-5-2Q03	5 U	1 U	1.89	0.01 U	1.35
MW-3 Screen 3	MW-3-3	5 U	1 U	0.82 J	0.01 U	0.11
MW-3 Screen 4	MW-3-4	5 U	1 U	1.68	0.01 U	0.67
MW-3 Screen 5	MW-3-5	4.3 J	1 U	0.53 J	0.01 U	0.41
MW-4 Screen 1	MW-4-1	5 U	1 U	3.38 J	0.01 U	0.31
MW-4 Screen 2	MW-4-2	5 U	1 U	6.42 J	0.01 U	1.04
MW-4 Screen 3	MW-4-3	5 U	1 U	3.79 J	0.01 U	20.30
MW-4 Screen 4	MW-4-4	5 U	1 U	3.47 J	0.01 U	1.94
MW-4 Screen 4	DUPE-1-2Q03	5 U	1 U	2.76 J	0.01 U	1.94
MW-4 Screen 5	MW-4-5	5 U	1 U	2.99 J	0.01 U	4.86
MW-5	MW-5	5 U	1 U	3.12 J	0.01 U	2.64
MW-6	MW-6	5 U	1 U	7.12 J	0.01 U	8.17
MW-7	MW-7	5 U	1 U	4.86	0.01 U	1.20
MW-8	MW-8	2.0 J	1 U	1.43 J	0.01 U	0.04
MW-9	MW-9	2.1 J	0.48 J	4.27	0.01 U	8.99
MW-10	MW-10	5 U	0.15 J	8.13 J	0.01 U	0.18
MW-11 Screen 1	MW-11-1	5 U	1 U	1.32	0.01 U	0.36
MW-11 Screen 2	MW-11-2	5 U	1 U	0.79 J	0.01 U	1.81
MW-11 Screen 3	MW-11-3	5 U	1 U	1.51	0.01 U	23.50
MW-11 Screen 4	MW-11-4	5 U	1 U	0.25 J	0.01 U	0.08
MW-11 Screen 5	MW-11-5	5 U	1 U	1.06	0.01 U	1.74
MW-12 Screen 1	MW-12-1	5 U	1 U	9.69	0.01 U	7.52
MW-12 Screen 2	MW-12-2	5 U	1 U	2.90	0.01 U	1.16
MW-12 Screen 3	MW-12-3	5 U	1 U	1.27	0.01 U	0.46
MW-12 Screen 3	DUPE-6-2Q03	5 U	1 U	1.28	0.01 U	0.46
MW-12 Screen 4	MW-12-4	5 U	1 U	1.29	0.01 U	0.31
MW-12 Screen 5	MW-12-5	5 U	1 U	1.18	0.01 U	1.53
MW-13	MW-13	5 U	1 U	15.98 J	0.024	0.92
MW-14 Screen 1	MW-14-1	5 U	1 U	4.62 J	0.01 U	0.15
MW-14 Screen 2	MW-14-2	5 U	1 U	4.43 J	0.01 U	0.11
MW-14 Screen 3	MW-14-3	5 U	1 U	3.18 J	0.01 U	0.17
MW-14 Screen 3	DUPE-2-2Q03	5 U	1 U	2.55 J	0.01 U	0.17
MW-14 Screen 4	MW-14-4	5 U	1 U	3.78 J	0.01 U	0.14
MW-14 Screen 5	MW-14-5	5 U	1 U	2.10 J	0.01 U	0.35
MW-15	MW-15	2.1 J	0.15 J	3.87 J	0.01 U	4.61
MW-16	MW-16	5 U	1 U	4.49 J	0.01 U	0.11
MW-17 Screen 1	MW-17-1	5 U	1 U	2.87	0.01 U	0.28
MW-17 Screen 2	MW-17-2	5 U	0.14 J	2.03	0.01 U	1.02
MW-17 Screen 3	MW-17-3	5 U	0.16 J	2.98	0.01 U	8.98
MW-17 Screen 4	MW-17-4	2.2 J	0.23 J	2.21	0.01 U	3.57
MW-17 Screen 5	MW-17-5	3.2 J	0.59 J	1.61	0.01 U	331.00
MW-18 Screen 1	MW-18-1	5 UJ	1 U	0.44 UJ	0.01 U	0.18
MW-18 Screen 2	MW-18-2	5 UJ	1 U	0.95 UJ	0.01 U	0.54
MW-18 Screen 3	MW-18-3	5 UJ	1 U	5.37 J	0.01 U	0.22
MW-18 Screen 4	MW-18-4	5 UJ	0.14 J	1.98 J	0.01 U	0.44
MW-18 Screen 4	DUPE-7-2Q03	5 UJ	0.13 J	2.17 J	0.01 U	0.44
MW-18 Screen 5	MW-18-5	5 UJ	1 U	0.42 UJ	0.01 U	0.14
MW-19 Screen 1	MW-19-1	5 U	1 U	1.70 J	0.01 U	28.30
MW-19 Screen 2	MW-19-2	5 U	1 U	4.22 J	0.01 U	6.23
MW-19 Screen 3	MW-19-3	5 U	1 U	5.02 J	0.01 U	3.03
MW-19 Screen 4	MW-19-4	5 U	1 U	2.40 J	0.01 U	0.54
MW-19 Screen 5	MW-19-5	5 U	1 U	2.48 J	0.01 U	3.84
MW-20 Screen 1	MW-20-1	5 U	1 U	2.38 J	0.01 U	0.12
MW-20 Screen 1	DUPE-3-2Q03	5 U	1 U	2.12 J	0.01 U	0.12
MW-20 Screen 2	MW-20-2	5 U	1 U	2.10 J	0.01 U	0.06

**TABLE 3-6
SUMMARY OF METALS ANALYSES OF GROUNDWATER
SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003**

(All concentrations reported in micrograms per liter)
Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sample Number	Arsenic (ug/L)	Lead (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (mg/L)	Field Turbidity (NTU)
MW-20 Screen 3	MW-20-3	5 U	1 U	4.18 J	0.01 U	0.08
MW-20 Screen 4	MW-20-4	5 U	1 U	2.20 J	0.01 U	0.85
MW-20 Screen 5	MW-20-5	5 U	1 U	1.67 J	0.01 U	0.13
MW-21 Screen 1	MW-21-1	5 U	1 U	3.46 J	0.01 U	2.74
MW-21 Screen 2	MW-21-2	5 U	1 U	4.75 J	0.01 U	0.93
MW-21 Screen 3	MW-21-3	5 U	1 U	3.70 J	0.01 U	0.31
MW-21 Screen 4	MW-21-4	2.2 J	1 U	3.83 J	0.01 U	0.24
MW-21 Screen 5	MW-21-5	5 U	1 U	2.74 J	0.01 U	0.06
MW-22 Screen 1	MW-22-1	5 U	1 U	1.88 J	0.01 U	0.17
MW-22 Screen 2	MW-22-2	5 U	1 U	0.62 UJ	0.01 U	0.07
MW-22 Screen 3	MW-22-3	5 U	1 U	0.82 UJ	0.01 U	0.09
MW-22 Screen 4	MW-22-4	5 U	1 U	2.39 J	0.01 U	0.07
MW-22 Screen 5	MW-22-5	5 U	1 U	1 UJ	0.01 U	0.20
MW-23 Screen 1	MW-23-1	5 U	1 U	4.37	0.01 U	15.30
MW-23 Screen 2	MW-23-2	5 U	1 U	2.93	0.01 U	0.05
MW-23 Screen 3	MW-23-3	5 U	1 U	3.66	0.01 U	0.32
MW-23 Screen 4	MW-23-4	5 U	1 U	2.19	0.01 U	0.12
MW-23 Screen 5	MW-23-5	3.2 J	0.57 J	1.65	0.01 U	0.89
MW-24 Screen 1	MW-24-1	5 U	1 U	5.73	0.01 U	7.98
MW-24 Screen 2	MW-24-2	5 U	1 U	2.30	0.01 U	2.28
MW-24 Screen 2	DUPE-4-2Q03	5 U	1 U	2.00	0.01 U	2.28
MW-24 Screen 3	MW-24-3	4.4 J	1 U	2.21	0.01 U	0.87
MW-24 Screen 4	MW-24-4	5 U	1 U	0.33 J	0.01 U	2.81
MW-24 Screen 5	MW-24-5	2.7 J	1 U	4.11	0.01 U	0.30
California Maximum Contaminant Level (MCL)		50.0	15.0*	50.0	NE	NE
EPA Region IX Maximum Contaminant Level		50.0	15.0*	100.0	NE	NE

Notes

- DUPE Field Duplicate
- J Indicates an estimated value.
- NA Not Analyzed for this Metal during this Quarter
- NE Not established
- NTU Nepthalometric Turbidity Unit
- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- * Interim Action Level - California Department of Health Services

TABLE 3-7
SUMMARY OF METALS ANALYSES OF GROUNDWATER
SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003

Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sampling Event	Sample Number	Arsenic (ug/L)	Lead (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (mg/L)	Field Turbidity (NTU)
MW-1	April/May 2003	MW-1	5.0 U	0.2 J	2.4	0.01 U	2.02
MW-3 Screen 1	April/May 2003	MW-3-1	5.0 U	1.0 U	2.1	0.01 U	20.40
MW-3 Screen 2	Jan/Feb 2003	MW-3-2	NA	NA	2.4	0.01 U	1.54
MW-3 Screen 2	April/May 2003	MW-3-2	5.0 U	1.0 U	1.6	0.01 U	1.35
MW-3 Screen 2	April/May 2003	DUPE-5-2Q03	5.0 U	1.0 U	1.9	0.01 U	1.35
MW-3 Screen 3	Jan/Feb 2003	MW-3-3	NA	NA	2.0	0.01 U	1.52
MW-3 Screen 3	April/May 2003	MW-3-3	5.0 U	1.0 U	0.8 J	0.01 U	0.11
MW-3 Screen 4	Jan/Feb 2003	MW-3-4	NA	NA	2.3	0.01 U	0.94
MW-3 Screen 4	April/May 2003	MW-3-4	5.0 U	1.0 U	1.7	0.01 U	0.67
MW-3 Screen 5	April/May 2003	MW-3-5	4.3 J	1.0 U	0.5 J	0.01 U	0.41
MW-4 Screen 1	Jan/Feb 2003	MW-4-1	NA	NA	2.2	0.01 U	8.11
MW-4 Screen 1	April/May 2003	MW-4-1	5.0 U	1.0 U	3.4 J	0.01 U	0.31
MW-4 Screen 2	Jan/Feb 2003	MW-4-2	NA	NA	4.8	0.01 U	9.32
MW-4 Screen 2	April/May 2003	MW-4-2	5.0 U	1.0 U	6.4 J	0.01 U	1.04
MW-4 Screen 3	Jan/Feb 2003	MW-4-3	NA	NA	4.3	0.01 U	20.70
MW-4 Screen 3	April/May 2003	MW-4-3	5.0 U	1.0 U	3.8 J	0.01 U	20.30
MW-4 Screen 4	April/May 2003	MW-4-4	5.0 U	1.0 U	3.5 J	0.01 U	1.94
MW-4 Screen 4	April/May 2003	DUPE-1-2Q03	5.0 U	1.0 U	2.8 J	0.01 U	1.94
MW-4 Screen 5	April/May 2003	MW-4-5	5.0 U	1.0 U	3.0 J	0.01 U	4.86
MW-5	Jan/Feb 2003	MW-5	NA	NA	6.8	0.01 U	0.06
MW-5	April/May 2003	MW-5	5.0 U	1.0 U	3.1 J	0.01 U	2.64
MW-6	Jan/Feb 2003	MW-6	NA	NA	6.4	0.01 U	0.33
MW-6	April/May 2003	MW-6	5.0 U	1.0 U	7.1 J	0.01 U	8.17
MW-7	Jan/Feb 2003	MW-7	NA	NA	7.4	0.01 U	0.06
MW-7	Jan/Feb 2003	DUPE-6-1Q03	NA	NA	7.3	0.01 U	0.06
MW-7	April/May 2003	MW-7	5.0 U	1.0 U	4.9	0.01 U	1.20
MW-8	Jan/Feb 2003	MW-8	NA	NA	9.4	0.01 U	0.25
MW-8	April/May 2003	MW-8	2.0 J	1.0 U	1.4 J	0.01 U	0.04
MW-9	April/May 2003	MW-9	2.1 J	0.5 J	4.3	0.01 U	8.99
MW-10	Jan/Feb 2003	MW-10	NA	NA	11.0	0.01 U	0.05
MW-10	April/May 2003	MW-10	5.0 U	0.2 J	8.1 J	0.01 U	0.18
MW-11 Screen 1	Jan/Feb 2003	MW-11-1	NA	NA	2.6	0.01 U	0.10
MW-11 Screen 1	April/May 2003	MW-11-1	5.0 U	1.0 U	1.3	0.01 U	0.36
MW-11 Screen 2	Jan/Feb 2003	MW-11-2	NA	NA	2.3	0.01 U	4.58

TABLE 3-7
SUMMARY OF METALS ANALYSES OF GROUNDWATER
SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003

Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sampling Event	Sample Number	Arsenic (ug/L)	Lead (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (mg/L)	Field Turbidity (NTU)
MW-11 Screen 2	April/May 2003	MW-11-2	5.0 U	1.0 U	0.8 J	0.01 U	1.81
MW-11 Screen 3	Jan/Feb 2003	MW-11-3	NA	NA	2.3	0.01 U	20.00
MW-11 Screen 3	April/May 2003	MW-11-3	5.0 U	1.0 U	1.5	0.01 U	23.50
MW-11 Screen 4	Jan/Feb 2003	MW-11-4	NA	NA	NA	0.01 U	0.99
MW-11 Screen 4	April/May 2003	MW-11-4	5.0 U	1.0 U	0.3 J	0.01 U	0.08
MW-11 Screen 5	April/May 2003	MW-11-5	5.0 U	1.0 U	1.1	0.01 U	1.74
MW-12 Screen 1	Jan/Feb 2003	MW-12-1	NA	NA	6.0	0.01 U	5.32
MW-12 Screen 1	April/May 2003	MW-12-1	5.0 U	1.0 U	9.7	0.01 U	7.52
MW-12 Screen 2	Jan/Feb 2003	MW-12-2	NA	NA	3.8	0.01 U	1.46
MW-12 Screen 2	Jan/Feb 2003	DUPE-4-1Q03	NA	NA	4.0	0.01 U	1.46
MW-12 Screen 2	April/May 2003	MW-12-2	5.0 U	1.0 U	2.9	0.01 U	1.16
MW-12 Screen 3	Jan/Feb 2003	MW-12-3	NA	NA	2.5	0.01 U	3.46
MW-12 Screen 3	April/May 2003	MW-12-3	5.0 U	1.0 U	1.3	0.01 U	0.46
MW-12 Screen 3	April/May 2003	DUPE-6-2Q03	5.0 U	1.0 U	1.3	0.01 U	0.46
MW-12 Screen 4	Jan/Feb 2003	MW-12-4	NA	NA	NA	0.01 U	0.22
MW-12 Screen 4	April/May 2003	MW-12-4	5.0 U	1.0 U	1.3	0.01 U	0.31
MW-12 Screen 5	Jan/Feb 2003	MW-12-5	NA	NA	NA	0.01 U	7.08
MW-12 Screen 5	April/May 2003	MW-12-5	5.0 U	1.0 U	1.2	0.01 U	1.53
MW-13	Jan/Feb 2003	MW-13	NA	NA	90.0	0.055	0.18
MW-13	April/May 2003	MW-13	5.0 U	1.0 U	16.0 J	0.024	0.92
MW-14 Screen 1	Jan/Feb 2003	MW-14-1	NA	NA	3.5	0.01 U	7.24
MW-14 Screen 1	April/May 2003	MW-14-1	5.0 U	1.0 U	4.6 J	0.01 U	0.15
MW-14 Screen 2	Jan/Feb 2003	MW-14-2	NA	NA	3.7	0.01 U	0.09
MW-14 Screen 2	April/May 2003	MW-14-2	5.0 U	1.0 U	4.4 J	0.01 U	0.11
MW-14 Screen 3	Jan/Feb 2003	MW-14-3	NA	NA	3.6	0.01 U	0.34
MW-14 Screen 3	April/May 2003	MW-14-3	5.0 U	1.0 U	3.2 J	0.01 U	0.17
MW-14 Screen 3	April/May 2003	DUPE-2-2Q03	5.0 U	1.0 U	2.6 J	0.01 U	0.17
MW-14 Screen 4	Jan/Feb 2003	MW-14-4	NA	NA	NA	0.01 U	0.17
MW-14 Screen 4	Jan/Feb 2003	DUPE-3-1Q03	NA	NA	NA	0.01 U	0.17
MW-14 Screen 4	April/May 2003	MW-14-4	5.0 U	1.0 U	3.8 J	0.01 U	0.14
MW-14 Screen 5	Jan/Feb 2003	MW-14-5	NA	NA	NA	0.01 U	3.83
MW-14 Screen 5	April/May 2003	MW-14-5	5.0 U	1.0 U	2.1 J	0.01 U	0.35
MW-15	Jan/Feb 2003	MW-15	NA	NA	6.3	0.01 U	1.23
MW-15	April/May 2003	MW-15	2.1 J	0.2 J	3.9 J	0.01 U	4.61

TABLE 3-7
SUMMARY OF METALS ANALYSES OF GROUNDWATER
SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003

Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sampling Event	Sample Number	Arsenic (ug/L)	Lead (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (mg/L)	Field Turbidity (NTU)
MW-16	Jan/Feb 2003	MW-16	NA	NA	7.2	0.01 U	0.06
MW-16	April/May 2003	MW-16	5.0 U	1.0 U	4.5 J	0.01 U	0.11
MW-17 Screen 1	April/May 2003	MW-17-1	5.0 U	1.0 U	2.9	0.01 U	0.28
MW-17 Screen 2	Jan/Feb 2003	MW-17-2	NA	NA	2.1	0.01 U	4.82
MW-17 Screen 2	April/May 2003	MW-17-2	5.0 U	0.1 J	2.0	0.01 U	1.02
MW-17 Screen 3	Jan/Feb 2003	MW-17-3	NA	NA	3.8	0.01 U	7.56
MW-17 Screen 3	April/May 2003	MW-17-3	5.0 U	0.2 J	3.0	0.01 U	8.98
MW-17 Screen 4	Jan/Feb 2003	MW-17-4	NA	NA	2.5	0.01 U	2.30
MW-17 Screen 4	April/May 2003	MW-17-4	2.2 J	0.2 J	2.2	0.01 U	3.57
MW-17 Screen 5	April/May 2003	MW-17-5	3.2 J	0.6 J	1.6	0.01 U	331.00
MW-18 Screen 1	April/May 2003	MW-18-1	5.0 UJ	1.0 U	0.4 UJ	0.01 U	0.18
MW-18 Screen 2	Jan/Feb 2003	MW-18-2	NA	NA	3.6	0.01 U	1.30
MW-18 Screen 2	April/May 2003	MW-18-2	5.0 UJ	1.0 U	1.0 UJ	0.01 U	0.54
MW-18 Screen 3	Jan/Feb 2003	MW-18-3	NA	NA	7.8	0.01 U	0.12
MW-18 Screen 3	April/May 2003	MW-18-3	5.0 UJ	1.0 U	5.4 J	0.01 U	0.22
MW-18 Screen 4	Jan/Feb 2003	MW-18-4	NA	NA	4.1	0.01 U	1.19
MW-18 Screen 4	April/May 2003	MW-18-4	5.0 UJ	0.1 J	2.0 J	0.01 U	0.44
MW-18 Screen 4	April/May 2003	DUPE-7-2Q03	5.0 UJ	0.1 J	2.2 J	0.01 U	0.44
MW-18 Screen 5	Jan/Feb 2003	MW-18-5	NA	NA	NA	0.01 U	0.67
MW-18 Screen 5	April/May 2003	MW-18-5	5.0 UJ	1.0 U	0.4 UJ	0.01 U	0.14
MW-19 Screen 1	Jan/Feb 2003	MW-19-1	NA	NA	NA	0.01 U	74.20
MW-19 Screen 1	April/May 2003	MW-19-1	5.0 U	1.0 U	1.7 J	0.01 U	28.30
MW-19 Screen 2	Jan/Feb 2003	MW-19-2	NA	NA	NA	0.01 U	8.71
MW-19 Screen 2	April/May 2003	MW-19-2	5.0 U	1.0 U	4.2 J	0.01 U	6.23
MW-19 Screen 3	Jan/Feb 2003	MW-19-3	NA	NA	NA	0.01 U	7.07
MW-19 Screen 3	April/May 2003	MW-19-3	5.0 U	1.0 U	5.0 J	0.01 U	3.03
MW-19 Screen 4	Jan/Feb 2003	MW-19-4	NA	NA	NA	0.01 U	1.47
MW-19 Screen 4	Jan/Feb 2003	DUPE-2-1Q03	NA	NA	NA	0.01 U	1.47
MW-19 Screen 4	April/May 2003	MW-19-4	5.0 U	1.0 U	2.4 J	0.01 U	0.54
MW-19 Screen 5	Jan/Feb 2003	MW-19-5	NA	NA	NA	0.01 U	8.01
MW-19 Screen 5	April/May 2003	MW-19-5	5.0 U	1.0 U	2.5 J	0.01 U	3.84
MW-20 Screen 1	Jan/Feb 2003	MW-20-1	NA	NA	2.8	0.01 U	0.41
MW-20 Screen 1	Jan/Feb 2003	DUPE-1-1Q03	NA	NA	2.5	0.01 U	0.41
MW-20 Screen 1	April/May 2003	MW-20-1	5.0 U	1.0 U	2.4 J	0.01 U	0.12

TABLE 3-7
SUMMARY OF METALS ANALYSES OF GROUNDWATER
SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003

Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sampling Event	Sample Number	Arsenic (ug/L)	Lead (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (mg/L)	Field Turbidity (NTU)
MW-20 Screen 1	April/May 2003	DUPE-3-2Q03	5.0 U	1.0 U	2.1 J	0.01 U	0.12
MW-20 Screen 2	Jan/Feb 2003	MW-20-2	NA	NA	2.2	0.01 U	0.11
MW-20 Screen 2	April/May 2003	MW-20-2	5.0 U	1.0 U	2.1 J	0.01 U	0.06
MW-20 Screen 3	Jan/Feb 2003	MW-20-3	NA	NA	1.7 U	0.01 U	0.31
MW-20 Screen 3	April/May 2003	MW-20-3	5.0 U	1.0 U	4.2 J	0.01 U	0.08
MW-20 Screen 4	Jan/Feb 2003	MW-20-4	NA	NA	2.4	0.01 U	5.14
MW-20 Screen 4	April/May 2003	MW-20-4	5.0 U	1.0 U	2.2 J	0.01 U	0.85
MW-20 Screen 5	Jan/Feb 2003	MW-20-5	NA	NA	2.7	0.01 U	0.87
MW-20 Screen 5	April/May 2003	MW-20-5	5.0 U	1.0 U	1.7 J	0.01 U	0.13
MW-21 Screen 1	Jan/Feb 2003	MW-21-1	NA	NA	4.8	0.01 U	1.64
MW-21 Screen 1	April/May 2003	MW-21-1	5.0 U	1.0 U	3.5 J	0.01 U	2.74
MW-21 Screen 2	Jan/Feb 2003	MW-21-2	NA	NA	6.7	0.01 U	0.63
MW-21 Screen 2	April/May 2003	MW-21-2	5.0 U	1.0 U	4.8 J	0.01 U	0.93
MW-21 Screen 3	Jan/Feb 2003	MW-21-3	NA	NA	5.9	0.01 U	1.07
MW-21 Screen 3	April/May 2003	MW-21-3	5.0 U	1.0 U	3.7 J	0.01 U	0.31
MW-21 Screen 4	Jan/Feb 2003	MW-21-4	NA	NA	4.7	0.01 U	0.36
MW-21 Screen 4	April/May 2003	MW-21-4	2.2 J	1.0 U	3.8 J	0.01 U	0.24
MW-21 Screen 5	Jan/Feb 2003	MW-21-5	NA	NA	5.7	0.01 U	1.31
MW-21 Screen 5	April/May 2003	MW-21-5	5.0 U	1.0 U	2.7 J	0.01 U	0.06
MW-22 Screen 1	Jan/Feb 2003	MW-22-1	NA	NA	4.1	0.01 U	18.30
MW-22 Screen 1	April/May 2003	MW-22-1	5.0 U	1.0 U	1.9 J	0.01 U	0.17
MW-22 Screen 2	Jan/Feb 2003	MW-22-2	NA	NA	3.5	0.01 U	0.85
MW-22 Screen 2	Jan/Feb 2003	DUPE-5-1Q03	NA	NA	3.2	0.01 U	0.85
MW-22 Screen 2	April/May 2003	MW-22-2	5.0 U	1.0 U	0.6 UJ	0.01 U	0.07
MW-22 Screen 3	Jan/Feb 2003	MW-22-3	NA	NA	3.6	0.01 U	1.63
MW-22 Screen 3	April/May 2003	MW-22-3	5.0 U	1.0 U	0.8 UJ	0.01 U	0.09
MW-22 Screen 4	April/May 2003	MW-22-4	5.0 U	1.0 U	2.4 J	0.01 U	0.07
MW-22 Screen 5	April/May 2003	MW-22-5	5.0 U	1.0 U	1.0 UJ	0.01 U	0.20
MW-23 Screen 1	Jan/Feb 2003	MW-23-1	NA	NA	3.4	0.01 U	5.77
MW-23 Screen 1	April/May 2003	MW-23-1	5.0 U	1.0 U	4.4	0.01 U	15.30
MW-23 Screen 2	Jan/Feb 2003	MW-23-2	NA	NA	3.8	0.01 U	0.52
MW-23 Screen 2	April/May 2003	MW-23-2	5.0 U	1.0 U	2.9	0.01 U	0.05
MW-23 Screen 3	Jan/Feb 2003	MW-23-3	NA	NA	3.9	0.01 U	1.12
MW-23 Screen 3	April/May 2003	MW-23-3	5.0 U	1.0 U	3.7	0.01 U	0.32

TABLE 3-7
SUMMARY OF METALS ANALYSES OF GROUNDWATER
SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003

Shaded values exceed State or Federal MCLs or action levels.

Sample Location	Sampling Event	Sample Number	Arsenic (ug/L)	Lead (ug/L)	Total Chromium (ug/L)	Hexavalent Chromium (mg/L)	Field Turbidity (NTU)
MW-23 Screen 4	Jan/Feb 2003	MW-23-4	NA	NA	2.5	0.01 U	0.12
MW-23 Screen 4	April/May 2003	MW-23-4	5.0 U	1.0 U	2.2	0.01 U	0.12
MW-23 Screen 5	April/May 2003	MW-23-5	3.2 J	0.6 J	1.7	0.01 U	0.89
MW-24 Screen 1	Jan/Feb 2003	MW-24-1	NA	NA	4.9	0.01 U	3.78
MW-24 Screen 1	April/May 2003	MW-24-1	5.0 U	1.0 U	5.7	0.01 U	7.98
MW-24 Screen 2	Jan/Feb 2003	MW-24-2	NA	NA	2.4	0.01 U	1.68
MW-24 Screen 2	April/May 2003	MW-24-2	5.0 U	1.0 U	2.3	0.01 U	2.28
MW-24 Screen 2	April/May 2003	DUPE-4-2Q03	5.0 U	1.0 U	2.0	0.01 U	2.28
MW-24 Screen 3	Jan/Feb 2003	MW-24-3	NA	NA	2.5	0.01 U	4.99
MW-24 Screen 3	April/May 2003	MW-24-3	4.4 J	1.0 U	2.2	0.01 U	0.87
MW-24 Screen 4	Jan/Feb 2003	MW-24-4	NA	NA	1.5	0.01 U	0.22
MW-24 Screen 4	April/May 2003	MW-24-4	5.0 U	1.0 U	0.3 J	0.01 U	2.81
MW-24 Screen 5	April/May 2003	MW-24-5	2.7 J	1.0 U	4.1	0.01 U	0.30
California Maximum Contaminant Level (MCL)			50.0	15.0*	50.0	NE	NE
EPA Region IX Maximum Contaminant Level			50.0	15.0*	100.0	NE	NE

Notes

- DUPE Field Duplicate
- J Indicates an estimated value.
- MCL Maximum Contaminant Level
- mg/L Milligrams per liter
- ug/L Micrograms per liter
- NA Not analyzed for this metal during this quarter.
- NE Not established
- NTU Nephelometric Turbidity Unit
- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- * Interim Action Level - California Department of Health Services

TABLE 3-8
SUMMARY OF NDMA AND 1,4-DIOXANE
DETECTED IN GROUNDWATER SAMPLES
COLLECTED FROM JPL MONITORING WELLS
ARPIL - MAY 2003

(All Concentrations Are Reported in Micrograms per Liter)
 Bolded and Shaded Values Exceed the State or Federal Action Levels.

Well Name	NDMA ⁽¹⁾		1,4-Dioxane ⁽²⁾	
	Concentration	Sample Date	Concentration	Sample Date
MW-4-1	--	4/21/2003	--	4/21/2003
MW-4-2	NS	NS	1.0	5/22/2003
MW-4-2 (Dupe)	NS	NS	1.0	5/22/2003
MW-4-3	NS	NS	0.4 J	5/22/2003
MW-4-4	NS	NS	--	5/22/2003
MW-4-5	NS	NS	--	5/22/2003
MW-5	NS	NS	--	5/28/2003
MW-10	NS	NS	1.0	5/30/2003
MW-13	0.00076	5/27/2003	2.5	5/27/2003
MW-16	--	5/27/2003	6.3	5/27/2003
MW-17-4	--	4/28/2003	--	4/28/2003
MW-24-1	--	4/29/2003	3.6	4/29/2003
California MCL	NE		NE	
Action Level	0.01 ⁽³⁾		3.0 ⁽³⁾	
EPA Region IX MCL	NE		NE	

Notes

- Not Detected
- (1) Detection Limit for NDMA is 0.0002 micograms per liter
- (2) Detection Limit for 1,4-Dioxane is 1.0 microgram per liter
- (3) Interim Action Level - California Department of Health Services
- NE Not Established
- NS Not Sampled During This Sampling Event

TABLE 3-9
SUMMARY OF CONTAMINANTS DETECTED IN QUALITY CONTROL SAMPLES*
COLLECTED DURING THE APRIL - MAY 2003 SAMPLING EVENT

(All concentrations reported in ug/L)

Blank Type	Sample ID Number	Sampling Location(s)	4-Methyl-2-Pentanone (MIBK)	Total Chromium	Lead	m,p-Xylene	Naphthalene	Methylene Chloride
Equipment Blank	EB-6-4/28/03	MW-17	--	0.19J	--	--	--	--
Equipment Blank	EB-7-4/29/03	MW-24	4.00J	0.12J	--	--	--	--
Equipment Blank	EB-8-4/30/03	MW-23	4.00J	0.18J	0.26J	--	--	--
Equipment Blank	EB-9-5/1/03	MW-3	3.00J	--	0.23J	--	--	--
Equipment Blank	EB-10-5/6/03	MW-11	7.00J	2.13	--	--	--	--
Equipment Blank	EB-11-5/7/03	MW-12	7.00J	0.62J	--	--	--	--
Equipment Blank	EB-12-5/8/03	MW-22	5.00J	--	0.22J	--	--	--
Equipment Blank	EB-13-5/13/03	MW-18	4.00J	1.12J	0.24J	--	--	--
Trip Blank	TB-7-4/29/03	MW-24	--	--	--	--	--	1.80
Trip Blank	TB-10-5/6/03	MW-11	--	--	--	0.40J	1.40	--
Trip Blank	TB-12-5/8/03	MW-22	5.00J	--	--	--	--	--
Trip Blank	TB-13-5/13/03	MW-18	6.00J	--	--	--	--	--
Trip Blank	TB-14-5/27/03	MW-13, MW-16	5.00J	--	--	--	--	--
Trip Blank	TB-15-5/28/03	MW-5, MW-8	5.00J	--	--	--	--	--
Trip Blank	TB-16-5/29/03	MW-6, MW-7, MW-15	5.00J	--	--	--	--	3.60
Trip Blank	TB-17-5/30/03	MW-1, MW-9, MW-10	7.00J	--	--	--	--	3.46

Notes

- Not Detected
- J Estimated Value - Reported Between the Practical Quantitation Limit and the Method Detection Limit
- * No Contaminants Were Detected in Source Blank Sample Collected on April 21, 2003

TABLE 4-1
SUMMARY OF WATER-CHEMISTRY RESULTS FROM GROUNDWATER SAMPLES
COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY, 2003

(All Concentrations Are Reported in Milligrams per Liter)

Well/Screen Number	ANIONS					CATIONS					Measured Alkalinity	Measured pH (pH unit)
	Cl ⁻	CO ₃ ²⁻	HCO ₃ ⁻	NO ₃ -N	SO ₄ ²⁻	Na ⁺	Mg ²⁺	K ⁺	Ca ²⁺	Fe ²⁺		
MW-1	30.80	--	219.0	1.40	59.5	24.60	20.00	2.73	65.10	0.0720	219.0	7.36
MW-3												
Screen 1	19.4	--	202.0	1.60	49.9	23.60	22.60J	3.17J	57.60	1.160J	202.0	7.72
Screen 2	14.2	--	187.0	1.20	35.7	18.90	18.00J	2.42J	49.90	0.3260J	187.0	8.05
Screen 3	36.8	--	143.0	--	40.9	42.70	14.00J	3.05J	29.80	0.2880J	143.0	8.00
Screen 4	11.5	5.2	128.0	0.17	11.0	47.60	6.83J	2.00J	9.69	--	128.0	8.66
Screen 5	9.1	40.8	88.3	0.11	9.5	77.30	0.251J	1.19J	1.79	0.7890J	88.3	9.64
MW-4												
Screen 1	18.8	--	179.0	1.50	40.7	19.10	17.70	2.51J	54.20	--	179.0	7.28
Screen 2	95.4	--	224.0	10.00	124.0	32.50	39.30	2.99J	115.0	0.5920	224.0	7.05
Screen 3	27.4	--	197.0	0.24	2.3	32.70	16.10	2.32J	38.20	6.4100	197.0	7.58
Screen 4	22.7	--	147.0	1.70	10.2	37.00	11.80	1.92J	24.50	--	147.0	8.01
Screen 5	22.5	10.2	120.0	0.20	8.2	37.00	11.20	1.93J	16.40	1.2800	120.0	8.47
MW-5	9.0	--	146.0	2.30	22.1	16.50	13.80	2.74	45.30	0.3570	146.0	6.84
MW-6	118.0	--	284.0	10.70	165.0	35.10	51.20	2.69J	162.00	0.7850	284.0	6.63
MW-7	29.2	--	124.0	9.00	43.0	17.80	17.20	2.25J	54.20	0.1380	124.0	7.18
MW-8	14.1	--	153.0	1.40	36.4	18.00	16.50	2.45	52.30	--	153.0	7.00
MW-9	18.7	--	175.0	1.90	42.5	19.40	16.30	2.75	51.60	0.8320	175.0	7.00
MW-10	99.4	--	219.0	14.40	141.0	26.20	38.80	3.13	121.00	--	219.0	6.79
MW-11												
Screen 1	20.0	--	208.0	0.97	43.9	24.70	18.70	3.13J	56.20	--	208.0	7.85
Screen 2	15.4	2.6	171.0	0.15	33.6	21.20	15.90	2.77J	39.20	--	171.0	8.08
Screen 3	11.8	--	176.0	0.15	22.5	24.70	11.90	2.05J	38.60	2.3100	176.0	7.95
Screen 4	11.6	20.4	80.5	0.11	2.2	25.10	7.55	1.82J	9.05	--	80.5	8.77
Screen 5	12.2	5.2	114.0	0.11	9.7	46.80	1.61	1.17J	13.30	--	114.0	8.43
MW-12												
Screen 1	30.9	--	199.0	1.50	62.4	24.50	21.60	3.43J	60.10	0.5720	199.0	7.56
Screen 2	17.3	--	198.0	1.50	39.0	23.70	17.00	2.91J	56.40	--	198.0	7.56
Screen 3	15.7	--	180.0	0.53	29.8	23.60	14.60	2.76J	45.30	--	180.0	8.03
Screen 4	14.9	--	204.0	1.10	30.3	23.20	13.50	2.12J	56.90	--	204.0	7.88
Screen 5	15.6	--	181.0	1.10	22.0	35.10	11.10	2.08J	39.50	--	181.0	8.00
MW-13	52.8	--	115.0	9.40	80.7	24.50	18.80	2.38	58.40	0.0649	115.0	7.00

TABLE 4-1
SUMMARY OF WATER-CHEMISTRY RESULTS FROM GROUNDWATER SAMPLES
COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY, 2003

(All Concentrations Are Reported in Milligrams per Liter)

Well/Screen Number	ANIONS					CATIONS					Measured Alkalinity	Measured pH (pH unit)
	Cl ⁻	CO ₃ ²⁻	HCO ₃ ⁻	NO ₃ -N	SO ₄ ²⁻	Na ⁺	Mg ²⁺	K ⁺	Ca ²⁺	Fe ²⁺		
MW-14												
Screen 1	136.0	--	245.0	17.10	194.0	36.20	45.00	3.13	142.00	--	245.0	6.77
Screen 2	111.0	--	234.0	14.80	179.0	29.90	42.70	2.92	128.00	--	234.0	7.18
Screen 3	94.3	--	210.0	13.10	136.0	38.10	41.50	3.61	97.60	--	210.0	7.61
Screen 4	37.9	--	156.0	10.10	30.0	25.50	16.90	2.23	50.30	--	156.0	7.98
Screen 5	9.9	7.6	129.0	0.15	16.9	28.20	10.80	2.15	17.10	--	129.0	8.22
MW-15	22.1	--	194.0	1.40	47.9	24.50	18.40	2.8J	57.40	0.3890	194.0	7.00
MW-16	33.5	--	115.0	9.50	33.7	21.70	15.00	2.01	42.70	--	115.0	7.18
MW-17												
Screen 1	13.3	--	176.0	1.30	36.5	16.10	16.10	2.4J	50.70	0.0696	176.0	7.44
Screen 2	19.6	--	164.0	2.00	34.7	15.90	18.10	2.48J	41.90	0.3110	164.0	7.97
Screen 3	12.5	--	167.0	1.50	31.7	20.40	16.60	2.06J	37.60	0.8220	167.0	8.08
Screen 4	11.4	--	137.0	0.70	25.5	31.40	11.30	1.96J	21.90	0.6390	137.0	8.01
Screen 5	11.2	--	156.0	0.64	18.8	39.50	7.24	2.08J	25.10	1.2800	156.0	8.17
MW-18												
Screen 1	11.3	--	133.0	1.30	42.9	15.60	15.50	2.34	48.10	0.1380	133.0	7.14
Screen 2	11.2	--	120.0	0.86	30.9	19.40	17.50	2.46	53.20	0.1760	120.0	7.75
Screen 3	18.4	--	210.0	1.10	40.8	23.60	20.40	3.05	71.60	--	210.0	7.78
Screen 4	10.6	--	159.0	1.30	25.3	28.80	13.80	1.96	41.60	0.1690	159.0	7.94
Screen 5	9.8	--	132.0	0.13	4.8	52.80	4.66	1.83	8.96	0.2060	132.0	8.76
MW-19												
Screen 1	8.3	--	129.0	1.20	23.1	11.80	10.40	2.19	33.50	2.5000	129.0	7.68
Screen 2	100.0	--	210.0	12.50	142.0	28.50	37.90	2.82	112.00	3.1500	210.0	6.92
Screen 3	88.3	--	253.0	10.80	96.6	29.70	35.00	3.02	106.00	0.2360	253.0	7.52
Screen 4	18.6	--	148.0	2.30	33.3	20.80	17.50	2.06	34.00	--	148.0	8.15
Screen 5	67.2	--	155.0	1.20	69.2	30.10	27.70	2.77	44.80	0.6160	155.0	8.08
MW-20												
Screen 1	18.5	--	164.0	2.80	54.5	15.80	16.10	2.38	52.10	0.0563	164.0	7.64
Screen 2	7.6	--	153.0	0.98	28.9	13.00	13.10	1.78	39.40	0.0658	153.0	7.71
Screen 3	37.0	--	202.0	3.00	30.4	54.20	12.80	2.34	36.90	0.0302J	202.0	7.90
Screen 4	10.0	20.4	115.0	--	10.3	54.30	2.70	1.11	10.30	0.6730	115.0	8.79
Screen 5	8.9	38.4	114.0	0.12	5.4	64.40	1.02	1.58	4.84	0.0506	114.0	9.08

TABLE 4-1
SUMMARY OF WATER-CHEMISTRY RESULTS FROM GROUNDWATER SAMPLES
COLLECTED FROM JPL MONITORING WELLS

APRIL - MAY, 2003

(All Concentrations Are Reported in Milligrams per Liter)

Well/Screen Number	ANIONS					CATIONS					Measured Alkalinity	Measured pH (pH unit)
	Cl ⁻	CO ₃ ²⁻	HCO ₃ ⁻	NO ₃ -N	SO ₄ ²⁻	Na ⁺	Mg ²⁺	K ⁺	Ca ²⁺	Fe ²⁺		
MW-21												
Screen 1	110.0	--	181.0	13.20	181.0	30.80	40.30	2.18	128.00	--	181.0	6.88
Screen 2	127.0	--	319.0	5.30	144.0	67.30	41.80	3.37	122.00	--	319.0	7.28
Screen 3	102.0	--	286.0	8.80	122.0	39.80	40.30	3.13	123.00	--	286.0	7.44
Screen 4	52.7	--	220.0	7.10	65.2	26.20	23.90	2.13	77.20	--	220.0	7.23
Screen 5	68.5	--	98.4	6.80	103.0	32.50	30.80	2.57	83.60	--	98.4	7.71
MW-22												
Screen 1	107.0	--	271.0	9.10	138.0	30.70	39.10J	3.11J	108.00	0.1150	271.0	7.64
Screen 2	34.7	2.6	148.0	6.80	29.7	30.40	16.80J	2.36J	35.00	--	148.0	8.21
Screen 3	33.9	5.2	130.0	6.90	34.6	36.80	14.50J	2.36J	29.50	0.1300	130.0	8.18
Screen 4	11.8	2.6	114.0	4.10	7.6	26.90	8.45J	1.70J	29.40	--	114.0	8.07
Screen 5	8.1	76.6	49.9	0.11	22.0	70.20	0.625J	1.13J	4.58	--	49.9	9.23
MW-23												
Screen 1	11.8	--	243.0	13.80	183.0	35.90	50.30J	3.03J	147.00	0.4470J	243.0	7.00
Screen 2	96.5	--	215.0	12.50	124.0	36.70	39.90J	2.95J	106.00	--	215.0	7.70
Screen 3	20.0	--	146.0	7.20	14.4	27.00	13.80J	1.76J	40.70	0.6770J	146.0	7.88
Screen 4	17.7	5.2	125.0	6.50	8.5	30.50	12.50J	1.99J	27.40	--	125.0	8.28
Screen 5	14.5	92.0	95.8	0.14	2.2	97.70	0.45J	2.53J	5.27	--	95.8	9.55
MW-24												
Screen 1	37.9	--	164.0	6.20	42.2	20.60	20.40J	2.74J	60.30	--	164.0	7.90
Screen 2	33.8	10.2	124.0	1.80	19.3	43.30	12.70J	2.92J	19.90	0.2390J	124.0	8.40
Screen 3	19.1	35.8	114.0	0.36	15.8	43.90	12.90J	2.37J	16.50	--	114.0	8.89
Screen 4	14.0	23.0	102.0	0.14	7.1	43.30	8.46J	2.18J	7.47	--	102.0	9.01
Screen 5	10.3	--	166.0	1.30	19.2	38.90	9.05J	1.85J	29.30	--	166.0	8.04

Notes

-- Not Detected During the April/May 2003 Sampling Event

J Estimated Value - Reported Between the Practical Quantitation Limit and the Method Detection Limit

TABLE 4-2
GENERAL WATER TYPES OBSERVED DURING THE
APRIL - MAY 2003 SAMPLING EVENT

(Interpreted with Stiff Diagrams)

Well/Screen Number	Water Type	Well/Screen Number	Water Type	Well/Screen Number	Water Type
MW-1	Type 1	MW-14		MW-21	
MW-3		Screen 1	Type 3	Screen 1	Type 3
Screen 1	Type 1	Screen 2	Type 3	Screen 2	Type 3
Screen 2	Type 1	Screen 3	Type 3	Screen 3	Type 3
Screen 3	Type 2	Screen 4	Type 1	Screen 4	Type 1,3
Screen 4	Type 2	Screen 5	Type 2	Screen 5	Type 3
Screen 5	Type 2	MW-15	Type 1	MW-22	
MW-4		MW-16	Type 1	Screen 1	Type 3
Screen 1	Type 1	MW-17		Screen 2	Type 1
Screen 2	Type 3	Screen 1	Type 1	Screen 3	Type 2,1
Screen 3	Type 1,2	Screen 2	Type 1	Screen 4	Type 1,2
Screen 4	Type 2	Screen 3	Type 1	Screen 5	Type 2
Screen 5	Type 2	Screen 4	Type 2	MW-23	
MW-5	Type 1	Screen 5	Type 2	Screen 1	Type 3
MW-6	Type 3	MW-18		Screen 2	Type 3
MW-7	Type 1	Screen 1	Type 1	Screen 3	Type 1
MW-8	Type 1	Screen 2	Type 1	Screen 4	Type 1,2
MW-9	Type 1	Screen 3	Type 1	Screen 5	Type 2
MW-10	Type 3	Screen 4	Type 1	MW-24	
MW-11		Screen 5	Type 2	Screen 1	Type 1
Screen 1	Type 1	MW-19		Screen 2	Type 2
Screen 2	Type 1	Screen 1	Type 1	Screen 3	Type 2
Screen 3	Type 1	Screen 2	Type 3	Screen 4	Type 2
Screen 4	Type 2	Screen 3	Type 3	Screen 5	Type 2
Screen 5	Type 2	Screen 4	Type 1		
MW-12		Screen 5	Type 3	MW-20	
Screen 1	Type 1	MW-20		Screen 1	Type 1
Screen 2	Type 1	Screen 1	Type 1	Screen 2	Type 1
Screen 3	Type 1	Screen 2	Type 2	Screen 3	Type 2
Screen 4	Type 1	Screen 4	Type 2	Screen 4	Type 2
Screen 5	Type 1,2	Screen 5	Type 2		
MW-13	Type 3				

General Water Types

Type 1: Calcium-bicarbonate groundwater

Type 2: Sodium-bicarbonate groundwater

Type 3: Calcium-bicarbonate/chloride/sulfate groundwater

Notes

Water type denoted by more than one number (e.g., Type 1,3) represent blends of the listed basic types, with the more dominant type listed first.

TABLE 4-3
SUMMARY OF QUALITY CONTROL ANALYSES OF WATER-CHEMISTRY DATA
FROM GROUNDWATER SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003

Well Number	Total Anion (meq/L)	Total Cations (meq/L)	Total Ions (meq/L)	Charge Balance Error ⁽¹⁾ (%)	Measured TDS (mg/L)	Calculated TDS (mg/L)	Measured TDS/Calculated TDS ⁽²⁾ (unitless)
MW-1	5.7	6.0	11.8	2.7	367	423	0.9
MW-3							
Screen 1	4.9	5.9	10.8	8.8	350	381	0.9
Screen 2	4.2	4.9	9.1	7.0	278	328	0.8
Screen 3	4.2	4.6	8.8	4.1	249	311	0.8
Screen 4	2.8	3.2	6.0	5.8	200	222	0.9
Screen 5	3.3	3.5	6.8	3.8	259	229	1.1
MW-4							
Screen 1	4.3	5.1	9.4	7.8	244	334	0.7
Screen 2	9.1	10.5	19.6	7.0	587	644	0.9
Screen 3	4.1	4.9	9.0	9.9	226	323	0.7
Screen 4	3.3	3.9	7.2	8.0	191	257	0.7
Screen 5	3.1	3.5	6.6	5.2	133	229	0.6
MW-5	3.1	4.2	7.3	14.4	263	258	1.0
MW-6	11.6	13.9	25.5	9.1	812	830	1.0
MW-7	3.9	5.0	8.9	11.9	314	297	1.1
MW-8	3.7	4.8	8.5	13.2	277	294	0.9
MW-9	4.3	4.9	9.2	5.9	298	329	0.9
MW-10	9.6	10.5	20.0	4.4	705	663	1.1
MW-11							
Screen 1	4.9	5.5	10.4	5.7	323	376	0.9
Screen 2	4.0	4.3	8.3	3.0	215	302	0.7
Screen 3	3.7	4.1	7.8	5.5	222	290	0.8
Screen 4	2.4	2.2	4.6	3.7	120	158	0.8
Screen 5	2.6	2.9	5.5	5.3	156	204	0.8
MW-12							
Screen 1	5.5	6.0	11.4	4.5	368	404	0.9
Screen 2	4.6	5.3	9.9	7.6	316	356	0.9
Screen 3	4.0	4.6	8.6	6.3	248	312	0.8
Screen 4	4.4	5.0	9.4	6.4	277	346	0.8
Screen 5	3.9	4.5	8.4	6.9	252	308	0.8
MW-13	5.2	5.6	10.8	3.6	529	362	1.5

TABLE 4-3
SUMMARY OF QUALITY CONTROL ANALYSES OF WATER-CHEMISTRY DATA
FROM GROUNDWATER SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003

Well Number	Total Anion (meq/L)	Total Cations (meq/L)	Total Ions (meq/L)	Charge Balance Error ⁽¹⁾ (%)	Measured TDS (mg/L)	Calculated TDS (mg/L)	Measured TDS/Calculated TDS ⁽²⁾ (unitless)
MW-14							
Screen 1	12.2	12.4	24.6	1.1	731	819	0.9
Screen 2	10.9	11.3	22.2	1.5	740	742	1.0
Screen 3	9.1	10.0	19.2	4.7	613	634	1.0
Screen 4	4.4	5.1	9.5	7.0	300	329	0.9
Screen 5	3.0	3.0	6.0	0.5	174	222	0.8
MW-15	4.8	5.5	10.3	6.8	329	369	0.9
MW-16	3.7	4.4	8.0	8.3	347	273	1.3
MW-17							
Screen 1	4.0	4.6	8.7	6.6	253	313	0.8
Screen 2	4.0	4.3	8.3	4.2	250	299	0.8
Screen 3	3.8	4.2	8.0	5.6	247	290	0.9
Screen 4	3.1	3.5	6.6	5.3	198	242	0.8
Screen 5	3.3	3.7	7.0	5.6	219	262	0.8
MW-18							
Screen 1	3.4	4.4	7.8	12.9	263	270	1.0
Screen 2	2.9	5.0	7.9	25.9	277	256	1.1
Screen 3	4.8	6.4	11.2	13.7	325	389	0.8
Screen 4	3.5	4.5	8.0	13.4	229	283	0.8
Screen 5	2.5	3.2	5.7	11.3	188	215	0.9
MW-19							
Screen 1	2.8	3.2	6.0	5.8	162	222	0.7
Screen 2	9.4	10.1	19.6	3.6	720	649	1.1
Screen 3	8.8	9.6	18.4	4.0	582	623	0.9
Screen 4	3.7	4.1	7.8	5.3	197	277	0.7
Screen 5	5.9	5.9	11.8	0.2	352	399	0.9
MW-20							
Screen 1	4.4	4.7	9.1	3.1	311	326	1.0
Screen 2	3.3	3.7	7.0	4.7	235	258	0.9
Screen 3	5.0	5.3	10.3	2.7	233	379	0.6
Screen 4	3.1	3.1	6.2	1.5	201	225	0.9
Screen 5	3.5	3.2	6.7	5.2	347	239	1.5

TABLE 4-3
SUMMARY OF QUALITY CONTROL ANALYSES OF WATER-CHEMISTRY DATA
FROM GROUNDWATER SAMPLES COLLECTED FROM JPL MONITORING WELLS
APRIL - MAY 2003

Well Number	Total Anion (meq/L)	Total Cations (meq/L)	Total Ions (meq/L)	Charge Balance Error ⁽¹⁾ (%)	Measured TDS (mg/L)	Calculated TDS (mg/L)	Measured TDS/Calculated TDS ⁽²⁾ (unitless)
MW-21							
Screen 1	10.1	11.1	21.2	5.1	637	687	0.9
Screen 2	11.9	12.6	24.5	2.7	755	830	0.9
Screen 3	10.3	11.3	21.5	4.7	651	725	0.9
Screen 4	6.6	7.0	13.6	3.2	413	474	0.9
Screen 5	5.8	8.2	14.0	17.2	503	426	1.2
MW-22							
Screen 1	10.5	10.0	20.5	2.2	646	706	0.9
Screen 2	4.2	4.5	8.7	3.2	287	306	0.9
Screen 3	4.1	4.3	8.4	2.7	287	294	1.0
Screen 4	2.5	3.4	5.9	14.6	213	207	1.0
Screen 5	4.1	3.4	7.4	9.4	208	233	0.9
MW-23							
Screen 1	8.3	13.1	21.5	22.3	765	688	1.1
Screen 2	9.0	10.3	19.3	6.4	606	634	1.0
Screen 3	3.4	4.4	7.8	13.4	284	272	1.0
Screen 4	3.0	3.8	6.8	11.5	220	235	0.9
Screen 5	5.1	4.6	9.7	4.9	263	311	0.8
MW-24							
Screen 1	4.7	5.7	10.4	8.9	365	355	1.0
Screen 2	3.8	4.0	7.8	3.2	257	268	1.0
Screen 3	3.9	3.9	7.8	1.0	216	261	0.8
Screen 4	3.0	3.0	6.0	0.5	175	208	0.8
Screen 5	3.4	3.9	7.4	6.9	227	276	0.8

Notes

(1) Ideal error range between 0 and 5 percent. Values between 5 and 10 percent also considered acceptable for intended use.

(2) Ideal values range between 0.8 and 1.2.

meq/L Milliequivalents per liter

mg/L Milligrams per liter

TABLE 6-1
GROUNDWATER MONITORING WELL WATER LEVEL MEASUREMENTS
APRIL 16, 2003

Well Number	Screen Number	Date Measured	Depth to Water (Ft.)	Reference Elevation (Ft. + MSL)	Water Level Elevation (Ft. + MSL)
MW-1	Shallow	4/16/03	41.72	1,116.69	1,074.97
MW-3	1 (top)	4/16/03	88.10	1,100.34	1,012.24
	2	4/16/03	87.83	1,100.34	1,012.51
	3	4/16/03	88.04	1,100.34	1,012.30
	4	4/16/03	88.76	1,100.34	1,011.58
	5	4/16/03	90.71	1,100.34	1,009.63
MW-4	1 (top)	4/16/03	62.23	1,082.84	1,020.61
	2	4/16/03	69.02	1,082.84	1,013.82
	3	4/16/03	69.68	1,082.84	1,013.16
	4	4/16/03	70.59	1,082.84	1,012.25
	5	4/16/03	70.66	1,082.84	1,012.18
MW-5	Shallow	4/16/03	52.33	1,071.62	1,019.29
MW-6	Shallow	4/16/03	170.53	1,188.54	1,018.01
MW-7	Shallow	4/16/03	194.68	1,212.90	1,018.22
MW-8	Shallow	4/16/03	119.43	1,139.55	1,020.12
MW-9	Shallow	4/16/03	17.78	1,106.06	1,088.28
MW-10	Shallow	4/16/03	70.39	1,087.73	1,017.34
MW-11	1 (top)	4/16/03	103.33	1,139.30	1,035.97
	2	4/16/03	119.73	1,139.30	1,019.57
	3	4/16/03	124.04	1,139.30	1,015.26
	4	4/16/03	121.12	1,139.30	1,018.18
	5	4/16/03	134.83	1,139.30	1,004.47
MW-12	1 (top)	4/16/03	76.82	1,102.14	1,025.32
	2	4/16/03	86.75	1,102.14	1,015.39
	3	4/16/03	87.70	1,102.14	1,014.44
	4	4/16/03	88.80	1,102.14	1,013.34
	5	4/16/03	89.04	1,102.14	1,013.10
MW-13	Shallow	4/16/03	165.6	1,183.49	1,017.89
MW-14	1 (top)	4/16/03	154.98	1,173.47	1,018.49
	2	4/16/03	153.87	1,173.47	1,019.60
	3	4/16/03	153.40	1,173.47	1,020.07
	4	4/16/03	153.35	1,173.47	1,020.12
	5	4/16/03	153.36	1,173.47	1,020.11
MW-15		4/16/03	27.71	1,120.68	1,092.97
MW-16		4/16/03	218.75	1,236.29	1,017.54
MW-17	1 (top)	4/16/03	186.90	1,191.21	1,004.31
	2	4/16/03	184.93	1,191.21	1,006.28
	3	4/16/03	189.57	1,191.21	1,001.64
	4	4/16/03	187.36	1,191.21	1,003.85
	5	4/16/03	188.53	1,191.21	1,002.68

TABLE 6-1
GROUNDWATER MONITORING WELL WATER LEVEL MEASUREMENTS
APRIL 16, 2003

Well Number	Screen Number	Date Measured	Depth to Water (Ft.)	Reference Elevation (Ft. + MSL)	Water Level Elevation (Ft. + MSL)
MW-18	1 (top)	Not Sounded	Well Paved Over	1,225.41	
	2	Not Sounded	Well Paved Over	1,225.41	
	3	Not Sounded	Well Paved Over	1,225.41	
	4	Not Sounded	Well Paved Over	1,225.41	
	5	Not Sounded	Well Paved Over	1,225.41	
MW-19	1 (top)	4/16/03	138.19	1,142.94	1,004.75
	2	4/16/03	138.81	1,142.94	1,004.13
	3	4/16/03	137.97	1,142.94	1,004.97
	4	4/16/03	138.08	1,142.94	1,004.86
	5	4/16/03	138.15	1,142.94	1,004.79
MW-20	1 (top)	4/16/03	180.48	1,165.05	984.57
	2	4/16/03	177.80	1,165.05	987.25
	3	4/16/03	175.47	1,165.05	989.58
	4	4/16/03	174.70	1,165.05	990.35
	5	4/16/03	175.66	1,165.05	989.39
MW-21	1 (top)	4/16/03	42.36	1,059.10	1,016.74
	2	4/16/03	41.41	1,059.10	1,017.69
	3	4/16/03	41.22	1,059.10	1,017.88
	4	4/16/03	42.25	1,059.10	1,016.85
	5	4/16/03	42.37	1,059.10	1,016.73
MW-22	1 (top)	4/16/03	159.56	1,176.98	1,017.42
	2	4/16/03	158.43	1,176.98	1,018.55
	3	4/16/03	158.42	1,176.98	1,018.56
	4	4/16/03	160.48	1,176.98	1,016.50
	5	4/16/03	162.34	1,176.98	1,014.64
MW-23	1 (top)	4/16/03	91.33	1,108.84	1,017.51
	2	4/16/03	92.36	1,108.84	1,016.48
	3	4/16/03	92.51	1,108.84	1,016.33
	4	4/16/03	94.74	1,108.84	1,014.10
	5	4/16/03	95.17	1,108.84	1,013.67
MW-24	1 (top)	4/16/03	182.31	1,200.94	1,018.63
	2	4/16/03	184.86	1,200.94	1,016.08
	3	4/16/03	185.58	1,200.94	1,015.36
	4	4/16/03	188.01	1,200.94	1,012.93
	5	4/16/03	190.19	1,200.94	1,010.75

Notes

Ft. Feet
MSL Mean Sea Level

TABLE 6-2
GROUNDWATER MONITORING WELL WATER LEVEL MEASUREMENTS
JUNE 2-3, 2003

Well Number	Screen Number	Date Measured	Depth to Water (Ft.)	Reference Elevation (Ft. + MSL)	Water Level Elevation (Ft. + MSL)
MW-1	Shallow	6/2/03	21.12	1,116.69	1,095.57
	1 (top)	6/3/03	82.57	1,100.34	1,017.77
	2	6/3/03	87.69	1,100.34	1,012.65
MW-3	3	6/3/03	88.31	1,100.34	1,012.03
	4	6/3/03	96.65	1,100.34	1,003.69
	5	6/3/03	96.44	1,100.34	1,003.90
	1 (top)	6/3/03	74.66	1,082.84	1,008.18
	2	6/3/03	68.43	1,082.84	1,014.41
MW-4	3	6/3/03	69.64	1,082.84	1,013.20
	4	6/3/03	71.16	1,082.84	1,011.68
	5	6/3/03	71.37	1,082.84	1,011.47
MW-5	Shallow	6/2/03	47.4	1,071.62	1,024.22
MW-6	Shallow	6/2/03	168.85	1,188.54	1,019.69
MW-7	Shallow	6/2/03	187.8	1,212.90	1,025.10
MW-8	Shallow	6/2/03	112.84	1,139.55	1,026.71
MW-9	Shallow	6/2/03	17.01	1,106.06	1,089.05
MW-10	Shallow	6/2/03	65.95	1,087.73	1,021.78
	1 (top)	6/3/03	111.33	1,139.30	1,027.97
	2	6/3/03	117.13	1,139.30	1,022.17
MW-11	3	6/3/03	123.58	1,139.30	1,015.72
	4	6/3/03	120.46	1,139.30	1,018.84
	5	6/3/03	137.65	1,139.30	1,001.65
	1 (top)	6/3/03	74.10	1,102.14	1,028.04
	2	6/3/03	85.53	1,102.14	1,016.61
MW-12	3	6/3/03	87.28	1,102.14	1,014.86
	4	6/3/03	89.42	1,102.14	1,012.72
	5	6/3/03	96.57	1,102.14	1,005.57
MW-13	Shallow	6/2/03	159.47	1,183.49	1,024.02
	1 (top)	6/3/03	154.17	1,173.47	1,019.30
	2	6/3/03	154.58	1,173.47	1,018.89
MW-14	3	6/3/03	155.13	1,173.47	1,018.34
	4	6/3/03	167.33	1,173.47	1,006.14
	5	6/3/03	155.74	1,173.47	1,017.73
MW-15	Shallow	6/2/03	27.59	1,120.68	1,093.09
MW-16	Shallow	6/2/03	212.02	1,236.29	1,024.27
	1 (top)	6/3/03	186.69	1,191.21	1,004.52
	2	6/3/03	184.72	1,191.21	1,006.49
MW-17	3	6/3/03	189.36	1,191.21	1,001.85
	4	6/3/03	187.15	1,191.21	1,004.06
	5	6/3/03	188.32	1,191.21	1,002.89

TABLE 6-2
GROUNDWATER MONITORING WELL WATER LEVEL MEASUREMENTS
JUNE 2-3, 2003

Well Number	Screen Number	Date Measured	Depth to Water (Ft.)	Reference Elevation (Ft. + MSL)	Water Level Elevation (Ft. + MSL)
MW-18	1 (top)	Not Sounded	Well Paved Over	1,225.41	NM
	2	Not Sounded	Well Paved Over	1,225.41	NM
	3	Not Sounded	Well Paved Over	1,225.41	NM
	4	Not Sounded	Well Paved Over	1,225.41	NM
	5	Not Sounded	Well Paved Over	1,225.41	NM
MW-19	1 (top)	6/3/03	137.24	1,142.94	1,005.70
	2	6/3/03	139.96	1,142.94	1,002.98
	3	6/3/03	139.63	1,142.94	1,003.31
	4	6/3/03	141.20	1,142.94	1,001.74
	5	6/3/03	141.28	1,142.94	1,001.66
MW-20	1 (top)	6/3/03	181.62	1,165.05	983.43
	2	6/3/03	181.27	1,165.05	983.78
	3	6/3/03	192.50	1,165.05	972.55
	4	6/3/03	182.93	1,165.05	982.12
	5	6/3/03	175.33	1,165.05	989.72
MW-21	1 (top)	6/3/03	42.18	1,059.10	1,016.92
	2	6/3/03	41.87	1,059.10	1,017.23
	3	6/3/03	69.31	1,059.10	989.79
	4	6/3/03	43.69	1,059.10	1,015.41
	5	6/3/03	43.81	1,059.10	1,015.29
MW-22	1 (top)	6/3/03	155.70	1,176.98	1,021.28
	2	6/3/03	158.23	1,176.98	1,018.75
	3	6/3/03	156.75	1,176.98	1,020.23
	4	6/3/03	161.46	1,176.98	1,015.52
	5	6/3/03	163.46	1,176.98	1,013.52
MW-23	1 (top)	6/3/03	87.72	1,108.84	1,021.12
	2	6/3/03	91.66	1,108.84	1,017.18
	3	6/3/03	92.39	1,108.84	1,016.45
	4	6/3/03	95.94	1,108.84	1,012.90
	5	6/3/03	96.19	1,108.84	1,012.65
MW-24	1 (top)	6/3/03	176.97	1,200.94	1,023.97
	2	6/3/03	183.23	1,200.94	1,017.71
	3	6/3/03	185.08	1,200.94	1,015.86
	4	6/3/03	188.88	1,200.94	1,012.06
	5	6/3/03	191.73	1,200.94	1,009.21

Notes

Ft. Feet
MSL Mean Sea Level