

Appendix A
EMP Monitoring Data Summary Tables

TABLE A-1
AVERAGE PROCESS PARAMETER AND SO₂ DATA: LOW-PARTICULATE TESTS

Test No.	Date	Unit Load, MWe	pH	JBR P, in. WC	Inlet SO ₂ ppmv @ 3% O ₂	Outlet SO ₂ ppmv @ 3% O ₂	SO ₂ Removal, Percent
Parametric Tests							
P1-1	21-Jan-93	100.7	4.5	8.2	2158	528	75.5
P1-2	22-Jan-93	100.3	4.5	12.1	2185	188	91.4
P1-3	23-Jan-93	100.3	4.5	16.1	2180	63	97.1
P1-4	25-Jan-93	75.4	4.5	8.2	2156	388	82.0
P1-5	26-Jan-93	75.3	4.5	12.3	2166	120	94.5
P1-6	27-Jan-93	75.3	4.5	16.2	2220	49	97.8
P1-7	29-Jan-93	49.7	4.5	8.2	2329	282	87.9
P1-8	30-Jan-93	49.2	4.5	12.2	2323	95	95.9
P1-9	31-Jan-93	49.8	4.5	16.1	2355	46	98.0
P1-10		49.7	5.0	8.2	2388	291	87.8
P1-11		50.4	5.0	12.2	2327	83	96.4
P1-12	05-Feb-93	50.4	5.0	16.2	2262	30	98.7
P1-13		50.7	4.0	8.2	2252	453	79.9
P1-14	09-Feb-93	50.0	4.0	12.2	2322	174	92.5
P1-15		50.2	4.0	16.2	2271	90	96.0
P1-16		75.2	4.0	8.2	2323	692	70.2
P1-17		75.2	4.0	12.2	2328	317	86.4
P1-18	15-Feb-93	75.0	4.0	16.2	2235	144	93.6
P1-19		75.1	5.0	8.2	2513	586	76.7
P1-19R		74.9	5.0	8.1	2293	529	76.9
P1-20		76.4	5.0	12.2	2560	198	92.3
P1-20R		74.6	5.0	12.1	2350	161	93.1
P1-21		21-Feb-93	75.0	5.0	16.2	2509	51
P1-21R	12-Mar-93	74.7	5.0	16.1	2105	36	98.3
P1-22		99.6	4.5	8.2	2399	757	68.4
P1-23		100.0	4.5	12.1	2449	322	86.9
P1-24	26-Feb-93	99.7	4.5	16.1	2446	123	95.0
P1-25		99.6	5.0	8.1	2263	716	68.4
P1-26		99.6	5.0	12.1	2216	230	89.6
P1-27	04-Mar-93	99.5	5.0	16.1	2205	68	96.9
P1-28	08-Mar-93	99.3	4.0	8.1	2282	726	68.2
P1-29		99.9	4.0	12.1	2231	383	82.8
P1-30		99.7	4.0	16.1	2206	175	92.1
P1-31	16-Mar-93	100.9	4.0	12.1	2131	348	83.7
P1-32	18-Mar-93	100.0	4.5	12.1	2129	320	85.0
P1-33	20-Mar-93	100.7	5.0	12.1	2098	210	90.0
P1-34	22-Mar-93	100.8	5.4	12.1	2151	158	92.7
P1-35	28-Mar-93	99.7	5.3	12.1	2097	276	86.8
P1-36	30-Mar-93	100.1	5.4	12.1	2121	251	88.2

TABLE A-1 (CONTINUED)

Test No.	Date	Unit Load, MWe	pH	JBR P, in. WC	Inlet SO ₂ ppmv @ 3% O ₂	Outlet SO ₂ ppmv @ 3% O ₂	SO ₂ Removal, Percent
Long-Term Tests—24-hour Averages							
L1-1	01-Apr-93	82.9	4.0	12.2	1972	390	80.3
	02-Apr-93	68.0	4.0	12.3	2175	262	87.9
	03-Apr-93	66.7	4.0	12.3	2177	228	89.5
	04-Apr-93	70.1	4.0	12.2	2142	316	85.3
	05-Apr-93	84.0	4.0	12.2	2051	471	76.9
	06-Apr-93	77.0	4.0	12.2	1939	374	80.8
	07-Apr-93	56.0	4.0	12.2	2032	206	89.8
	08-Apr-93	61.8	4.0	12.2	2061	244	88.2
L1-2	15-Apr-93	53.0	5.4	13.8	1613	45	95.0
	16-Apr-93	76.5	5.0	14.1	1970	58	97.0
	17-Apr-93	73.5	5.0	13.8	2028	101	95.1
	18-Apr-93	70.9	4.9	14.3	2038	98	95.2
	19-Apr-93	84.7	5.0	14.0	2061	144	93.0
	20-Apr-93	79.1	5.0	14.0	2078	141	93.2
	21-Apr-93	81.3	5.0	14.0	2081	143	93.1
	22-Apr-93	84.2	5.0	14.0	2080	136	93.5
	23-Apr-93	78.6	5.1	14.2	1978	98	95.1
	24-Apr-93	71.8	5.0	14.1	2005	96	95.2
	25-Apr-93	64.6	5.0	14.1	2063	92	95.6
	26-Apr-93	72.9	5.0	14.0	2157	147	93.2
	27-Apr-93	61.6	5.1	14.0	2102	93	95.6
	28-Apr-93	50.4	5.0	14.0	2069	78	96.2
L1-3	29-May-93	100.2	4.5	14.1	2041	111	94.6
	30-May-93	100.1	4.5	14.0	2005	109	94.6
	31-May-93	99.9	4.5	13.9	1941	107	94.5
	01-Jun-93	70.9	4.5	14.0	2033	86	95.8
	02-Jun-93	56.6	4.5	14.0	2055	73	96.4
	03-Jun-93	79.6	4.5	14.0	2035	112	94.5
	04-Jun-93	78.1	4.5	14.1	2086	116	94.4
	05-Jun-93	81.4	4.5	14.4	2094	122	94.2
	06-Jun-93	71.0	4.5	14.2	2076	94	95.4
	07-Jun-93	79.6	4.5	14.2	2104	93	95.6
	08-Jun-93	84.6	4.5	14.2	2078	95	95.4
	10-Jun-93	65.6	4.5	14.0	2051	42	97.9
	13-Jun-93	72.8	4.6	14.3	1928	52	97.3
	14-Jun-93	78.4	4.5	14.1	1994	70	96.5
	15-Jun-93	80.0	4.5	14.0	2109	93	95.6
16-Jun-93	91.3	4.5	14.1	2137	157	92.7	
17-Jun-93	81.5	4.5	14.1	2140	138	93.5	
18-Jun-93	81.6	4.5	14.1	2169	160	92.6	
19-Jun-93	78.2	4.5	14.1	2132	145	93.1	

TABLE A-1 (CONTINUED)

Test No.	Date	Unit Load, MWe	pH	JBR P, in. WC	Inlet SO ₂ ppmv @ 3% O ₂	Outlet SO ₂ ppmv @ 3% O ₂	SO ₂ Removal, Percent
L1-3 (Cont'd)	20-Jun-93	74.9	4.5	14.1	2232	153	93.1
	21-Jun-93	89.9	4.6	14.1	2281	140	93.9
	22-Jun-93	100.9	4.5	14.1	2120	181	91.6
	23-Jun-93	100.9	4.5	14.1	2175	201	90.8
	24-Jun-93	100.3	4.5	14.1	1988	224	88.7
	25-Jun-93	100.2	4.5	14.1	2128	239	88.8
	26-Jun-93	100.4	4.5	14.1	1917	175	90.6
	30-Jun-93	101.8	4.5	14.1	2227	276	87.6
	01-Jul-93	100.8	4.5	14.1	2200	209	90.5
	02-Jul-93	92.3	4.5	14.2	2206	211	90.4
	03-Jul-93	70.3	4.5	14.1	2206	153	93.0
	04-Jul-93	69.0	4.5	14.1	2264	162	92.9
	05-Jul-93	57.9	4.5	14.1	2279	133	94.2
	06-Jul-93	79.5	4.5	14.1	2295	187	91.9
	07-Jul-93	77.6	4.5	14.1	2308	199	91.4
	08-Jul-93	76.2	4.5	14.1	2323	185	92.0
	09-Jul-93	76.3	4.5	14.1	2356	171	92.8
	10-Jul-93	71.5	4.5	14.1	2254	153	93.2
	11-Jul-93	70.0	4.5	14.1	2216	147	93.4
	12-Jul-93	79.0	4.5	14.1	2290	170	92.6
	13-Jul-93	80.6	4.5	14.1	2263	161	92.9
	14-Jul-93	73.4	4.5	14.1	2214	166	92.5
	15-Jul-93	78.1	4.5	14.1	2078	173	91.7
	16-Jul-93	75.8	4.5	14.1	2152	165	92.4
	17-Jul-93	77.0	4.5	14.2	2207	166	92.4
	18-Jul-93	85.8	4.5	14.2	2276	203	91.0
	19-Jul-93	87.3	4.5	14.1	2180	116	94.7
	20-Jul-93	86.2	4.5	14.1	2227	162	92.8
	21-Jul-93	80.3	4.5	14.2	2260	159	92.9
	23-Jul-93	79.5	4.5	14.1	2228	125	94.4
	24-Jul-93	72.1	4.5	14.1	2144	116	94.6
25-Jul-93	78.6	4.5	14.1	2105	133	93.7	
26-Jul-93	74.3	4.5	14.1	2269	145	93.6	
28-Jul-93	96.1	4.5	14.1	2182	157	92.8	
29-Jul-93	84.4	4.5	14.1	2098	145	93.1	
30-Jul-93	79.9	4.5	14.1	2002	131	93.5	
31-Jul-93	76.9	4.5	14.1	2070	130	93.8	
01-Aug-93	58.2	4.5	14.1	2002	83	95.9	
02-Aug-93	61.0	4.5	14.1	1904	78	95.9	
03-Aug-93	55.8	4.5	14.1	2003	88	95.6	
04-Aug-93	56.9	4.5	14.1	2032	109	94.6	
05-Aug-93	53.1	4.5	14.1	2000	85	95.7	

TABLE A-1 (CONTINUED)

Test No.	Date	Unit Load, MWe	pH	JBR P, in. WC	Inlet SO ₂ ppmv @ 3% O ₂	Outlet SO ₂ ppmv @ 3% O ₂	SO ₂ Removal, Percent
L1-3 (Cont'd)	08-Aug-93	63.8	4.5	14.0	2098	86	95.9
	09-Aug-93	68.7	4.5	14.1	1980	83	95.8
	10-Aug-93	60.3	4.5	14.1	1889	58	96.9
	11-Aug-93	70.6	4.5	14.1	2085	90	95.7
	12-Aug-93	66.9	4.5	14.1	2064	82	96.0
	13-Aug-93	58.5	4.5	14.1	1978	70	96.5
	14-Aug-93	58.9	4.5	14.1	1932	70	96.4
	15-Aug-93	65.0	4.5	14.1	2025	81	96.0
	16-Aug-93	50.5	4.5	14.1	2071	64	96.9
	19-Aug-93	75.1	4.5	14.1	1953	133	93.2
	20-Aug-93	72.0	4.5	14.1	1992	137	93.2
	21-Aug-93	65.5	4.5	14.2	2041	129	93.7
	22-Aug-93	54.2	4.5	14.1	1966	78	96.0
	23-Aug-93	74.6	4.5	14.1	2028	115	94.4
	24-Aug-93	61.7	4.5	14.1	2070	93	95.5
	25-Aug-93	67.1	4.5	14.1	1910	104	94.6
	26-Aug-93	67.0	4.5	14.2	2083	108	94.8
	27-Aug-93	64.9	4.5	14.2	2059	100	95.1
	28-Aug-93	60.5	4.5	14.2	2076	103	95.0
	29-Aug-93	58.5	4.5	14.2	2058	103	95.0
	30-Aug-93	67.9	4.5	14.2	2028	132	93.5
	31-Aug-93	72.6	4.5	14.1	2009	138	93.2
	01-Sep-93	73.5	4.5	14.2	2048	137	93.4
	02-Sep-93	73.5	4.5	14.2	2104	141	93.3
03-Sep-93	62.3	4.5	14.2	2151	124	94.2	
04-Sep-93	53.0	4.5	14.2	2100	96	95.5	
07-Sep-93	50.3	4.5	14.2	2076	66	96.8	
08-Sep-93	52.2	4.5	14.1	2011	71	96.4	
High Removal Tests							
HR1-1		88	4.8	18.2	2260	51	97.8
HR1-2		75	4.8	18.2	2290	58	97.5
HR1-3		50	4.8	18.2	2220	50	97.8
HR1-4		91	4.8	18.2	2080	63	97.0
Alternate Limestone—"Clean" Parametric Tests							
PIB-1		101.3	4.4	10.2	2210	391	82.3
PIB-2		51.0	4.5	16.2	2170	61	97.2
PIB-3		52.3	4.5	10.2	2270	166	92.7
PIB-4		100.7	4.5	16.2	2190	165	92.5
PIB-5		49.8	5.0	16.1	2220	29	98.7
PIB-6		100.6	4.9	16.2	2200	40	98.1
PIB-7		48.7	5.0	10.2	2130	91	95.7
PIB-9		50.8	4.0	16.2	2350	114	94.7

TABLE A-1 (CONTINUED)

Test No.	Date	Unit Load, MWe	pH	JBR P, in. WC	Inlet SO ₂ ppmv @ 3% O ₂	Outlet SO ₂ ppmv @ 3% O ₂	SO ₂ Removal, Percent
P1B-10		101.6	4.0	10.2	2270	572	74.8
P1B-11		100.1	4.0	16.2	2110	156	92.6
P1B-12		49.7	4.0	10.2	2080	216	89.7
P1B-13		80.4	5.1	16.2	2270	63	97.2
Alternate Limestone—Load-Following							
AL1-1		55.5	4.8	14.2	2250	95	95.8
AL1-2		59.7	4.0	10.1	1810	180	90.5
Alternate Coal Parametric Tests							
AC1-1		49.5	4.0	10.2	3560	670	81.1
AC1-2		49.9	4.0	16.1	3700	250	93.3
AC1-3		75.0	4.0	16.1	3580	NA	NA
AC1-4		74.4	4.0	16.1	3390	380	88.7
AC1-5		46.2	4.5	16.1	3610	210	94.2
AC1-6		75.0	4.5	16.1	3510	250	92.9
AC1-7		75.0	4.5	10.1	3660	NA	NA
AC1-8		49.6	4.5	10.1	3700	690	81.4
AC1-9		50.9	5.0	16.2	3760	100	97.2
AC1-10		75.5	5.0	10.2	3820	810	79.0
AC1-11		74.7	5.0	16.2	3590	200	94.5
AC1-12		49.5	5.0	10.2	3490	470	86.4

NA = Not available due to CEM output range limitations.

TABLE A-2
AVERAGE PROCESS PARAMETERS AND SO₂ DATA: HIGH-PARTICULATE TESTS

Test No.	Date	Unit Load, MWe	pH	JBR ΔP, in. WC	Inlet SO ₂ , ppmv @ 3% O ₂	Outlet SO ₂ , ppmv @ 3% O ₂	ESP Efficiency, %	SO ₂ Removal, %
Parametric Tests								
P2-1	17 Mar 1994	50.3	4.5	10.2	2173	150	95	93.1
P2-2	18 Mar 1994	50.9	4.5	16.3	2168	28	95	98.7
P2-3	19 Mar 1994	100.0	4.5	10.3	2198	407	95	81.5
P2-4	20 Mar 1994	100.2	4.5	16.3	2134	93	95	95.7
P2-5	22 Mar 1994	100.5	4.0	16.2	2133	205	90	90.4
P2-6	24 Mar 1994	100.6	3.5	10.1	2081	682	0	67.3
P2-7	25 Mar 1994	98.8	3.5	15.9	2117	217	0	89.8
P2-8	26 Mar 1994	47.5	3.5	10.2	2084	219	0	89.5
P2-9	27 Mar 1994	50.3	3.5	16.2	2065	71	0	96.6
P2-10	Apr 1994	50.0	3.8	13.2	2254	110	0	95.1
P2-11	Apr 1994	74.9	3.8	13.2	2369	160	0	93.3
P2-12	Apr 1994	98.5	3.8	13.1	2348	328	0	86.0
P2-13	Apr 1994	52.4	4.1	10.2	2256	212	0	90.6
P2-14	Apr 1994	51.9	4.0	13.2	2187	97	0	95.6
P2-15	Apr 1994	49.8	4.0	16.1	2158	36	0	98.3
P2-16	May 1994	50.4	3.6	10.2	2277	424	0	81.4
P2-17	May 1994	50.3	3.5	13.2	2405	264	0	89.0
P2-18	May 1994	50.3	3.5	16.2	2438	165	0	93.2
P2-19	May 1994	75.6	3.6	10.2	2397	497	0	79.3
P2-20	May 1994	76.1	3.6	13.2	2351	245	0	89.6
P2-21	May 1994	75.7	3.6	16.2	2204	118	0	94.7
P2-22	May 1994	75.2	4.1	10.2	2209	549	0	75.2
P2-23	May 1994	75.4	4.0	13.2	2225	283	0	87.3
P2-24	May 1994	74.2	4.0	16.2	2429	364	0	85.0
P2-25	May 1994	100.6	3.7	10.2	2452	1171	0	52.3
P2-26	May 1994	101.5	3.7	13.2	2448	820	0	66.5
P2-27	May 1994	101.9	3.8	16.1	2352	503	0	78.6
P2-28	May 1994	100.6	4.0	10.2	2270	1019	0	55.1
P2-29	May 1994	99.8	4.0	13.1	2301	678	0	70.5
P2-30	May 1994	100.6	4.0	16.2	2316	389	0	83.2
P2-31	May 1994	100.0	3.5	10.2	2351	1196	0	49.1
P2-32	Apr 1994	100.9	3.5	13.1	2194	505	0	77.0
P2-33	Apr 1994	100.0	3.6	16.1	2169	259	0	88.0
P2-33R	May 1994	100.7	3.5	16.2	2326	571	0	75.4
Long-Term Tests								
L2-2	08-Jun-94	73.0	4.0	14.2	2184	122	90	94.4
	09-Jun-94	59.6	4.1	14.2	2200	101	90	95.4
	10-Jun-94	54.1	4.1	14.2	2221	80	90	96.4
	11-Jun-94	53.6	4.1	14.2	2229	78	90	96.5

TABLE A-2 (CONTINUED)

Test No.	Date	Unit Load, MWe	pH	JBR ΔP, in. WC	Inlet SO ₂ , ppmv @ 3% O ₂	Outlet SO ₂ , ppmv @ 3% O ₂	ESP Efficiency, %	SO ₂ Removal, %
L2-2 (Cont'd)	12-Jun-94	56.2	4.1	14.2	2228	87	90	96.1
	13-Jun-94	81.3	4.0	14.2	2216	197	90	91.1
	15-Jun-94	90.2	4.0	14.1	2185	238	90	89.1
	16-Jun-94	60.4	4.1	14.2	2203	117	90	94.7
	17-Jun-94	60.9	4.1	14.2	2135	109	90	94.9
	20-Jun-94	82.7	4.1	14.2	2023	160	90	92.1
	21-Jun-94	78.1	4.0	14.2	1978	158	90	92.0
	22-Jun-94	71.3	4.0	14.2	1982	143	90	92.8
	23-Jun-94	68.0	4.0	14.1	2002	136	90	93.2
	24-Jun-94	53.5	4.0	14.1	2076	98	90	95.3
	25-Jun-94	51.3	4.0	14.1	2066	99	90	95.2
	26-Jun-94	57.4	4.0	14.1	2165	134	90	93.8
	27-Jun-94	51.8	4.0	14.1	2136	105	90	95.1
	28-Jun-94	68.5	4.0	14.1	2164	182	90	91.6
	29-Jun-94	51.2	4.0	14.1	2175	115	90	94.7
	30-Jun-94	52.9	4.0	14.1	2182	111	90	94.9
	01-Jul-94	54.3	4.0	14.1	2205	112	90	94.9
	02-Jul-94	54.2	4.0	14.1	2207	113	90	94.9
	06-Jul-94	52.8	4.0	14.1	1852	52	90	97.2
	07-Jul-94	53.3	4.0	14.1	1972	69	90	96.5
	08-Jul-94	53.5	4.0	14.1	1998	86	90	95.7
	09-Jul-94	51.7	4.0	14.1	2194	108	90	95.1
	10-Jul-94	52.7	4.0	14.1	2077	102	90	95.1
	11-Jul-94	55.4	4.0	14.1	1935	99	90	94.9
	12-Jul-94	51.2	4.0	14.1	1915	86	90	95.5
	13-Jul-94	53.1	4.0	14.1	1968	81	90	95.9
	14-Jul-94	52.6	4.0	14.1	1970	77	90	96.1
	15-Jul-94	56.5	4.0	14.1	1968	83	90	95.8
	16-Jul-94	55.1	4.0	14.1	2111	91	90	95.7
17-Jul-94	53.8	4.0	14.1	2126	113	90	94.7	
18-Jul-94	66.7	4.0	14.1	2011	171	90	91.5	
19-Jul-94	68.4	4.0	14.1	2075	187	90	91.0	
20-Jul-94	75.7	4.0	14.1	2059	179	90	91.3	
21-Jul-94	64.1	4.0	14.1	1974	152	90	92.3	
22-Jul-94	53.1	4.0	14.1	1971	106	90	94.6	
23-Jul-94	69.9	4.0	14.1	1945	198	90	89.8	
24-Jul-94	58.4	4.0	14.1	1929	133	90	93.1	
25-Jul-94	59.6	4.0	14.1	1870	133	90	92.9	
26-Jul-94	53.8	4.0	14.1	1908	114	90	94.0	
27-Jul-94	53.5	4.0	14.1	1918	96	90	95.0	
28-Jul-94	50.6	4.0	14.1	1985	91	90	95.4	
29-Jul-94	49.0	4.0	14.1	2054	113	90	94.5	

TABLE A-2 (CONTINUED)

Test No.	Date	Unit Load, MWe	pH	JBR ΔP, in. WC	Inlet SO ₂ , ppmv @ 3% O ₂	Outlet SO ₂ , ppmv @ 3% O ₂	ESP Efficiency, %	SO ₂ Removal, %
L2-2 (Cont'd)	30-Jul-94	48.7	4.0	14.1	2065	132	90	93.6
	31-Jul-94	49.1	4.0	14.1	2041	169	90	91.7
	01-Aug-94	49.4	4.0	14.1	2045	172	90	91.6
	02-Aug-94	61.3	4.0	14.1	2106	297	90	85.9
	03-Aug-94	53.4	4.0	14.1	2084	208	90	90.0
	04-Aug-94	64.1	4.0	14.1	1968	307	90	84.4
	05-Aug-94	53.6	4.0	14.1	1962	182	90	90.7
	06-Aug-94	61.3	4.0	14.1	1901	262	90	86.2
	07-Aug-94	53.0	4.0	14.1	1977	200	90	89.9
	10-Aug-94	58.0	4.0	14.1	1833	165	90	91.0
	11-Aug-94	66.3	4.0	14.2	1873	229	90	87.8
	12-Aug-94	55.4	4.0	14.1	1908	139	90	92.7
	15-Aug-94	53.8	4.0	14.1	1853	169	90	90.9
	16-Aug-94	51.7	4.0	14.1	1870	157	90	91.6
L2-3	17-Aug-94	66.7	4.0	14.1	1886	240	90	87.3
	18-Aug-94	60.6	4.0	14.1	1870	174	90	90.7
	19-Aug-94	54.1	4.0	14.1	1897	150	90	92.1
	20-Aug-94	75.0	4.0	14.1	1781	258	90	85.5
	21-Aug-94	47.0	4.0	14.1	1761	114	90	93.5
	22-Aug-94	50.9	4.0	14.1	1764	129	90	92.7
	23-Aug-94	57.7	4.0	14.1	1972	229	90	88.4
	24-Aug-94	56.9	4.0	14.1	1926	191	90	90.1
	25-Aug-94	57.2	4.0	14.1	1990	207	90	89.6
	26-Aug-94	62.6	4.0	14.2	2083	283	90	86.4
High Removal Tests								
HR2-1	Sept 1994	100.7	4.0	20.1	909	17		98.1
HR2-2	Sept 1994	75.1	4.0	20.1	992	6		99.4
HR2-3	Sept 1994	52.7	4.0	20.1	977	17		98.3
HR2-4	Sept 1994	58.9	4.0	20.1	984	14		98.6
Alternate Coal Tests								
AC2-1	Oct 1994	101.1	4.0	14.1	2949	487		83.5
AC2-2	Oct 1994	75.2	4.0	14.1	3016	293		90.3
AC2-3	Oct 1994	51.1	4.0	14.1	2921	196		93.3
AC2-4	Oct 1994	100.2	4.0	10.1	2920	1124		61.5
AC2-5	Oct 1994	75.2	4.0	10.1	3035	677		77.7
AC2-5R	Oct 1994	75.1	4.0	10.1	3011	753		75.0
AC2-6	Oct 1994	50.9	4.0	10.1	3006	421		86.0
AC2-7	Oct 1994	100.5	4.0	18.1	2990	221		92.6
AC2-8	Oct 1994	75.9	4.0	18.1	3036	140		95.4
AC2-9	Oct 1994	49.9	4.0	18.1	3029	58		98.1
AC2-10	Oct 1994	78.0	4.0	14.1	2759	414		85.0

TABLE A-2 (CONTINUED)

Test No.	Date	Unit Load, MWe	pH	JBR ΔP, in. WC	Inlet SO ₂ , ppmv @ 3% O ₂	Outlet SO ₂ , ppmv @ 3% O ₂	ESP Efficiency, %	SO ₂ Removal, %
Alternate Limestone Tests								
AL2-1	Dec 1994	100.4	4.0	18.1	1008	22		97.8
AL2-1R	Dec 1994	100.8	4.0	18.1	979	20		98.0
AL2-2	Dec 1994	99.5	4.0	10.1	955	71		92.6
AL2-3	Dec 1994	50.9	4.0	18.1	1022	24		97.7
AL2-3R	Dec 1994	50.4	4.0	18.1	996	10		99.0
AL2-4	Dec 1994	50.7	4.0	10.1	905	36		96.0
AL2-5	Dec 1994	82.2	3.80	14.1	893	25		97.2
AL2-6	Dec 1994	50.0	3.75	14.1	919	27		97.1
AL2-7	Dec 1994	75.4	3.75	14.1	961	32		96.7
AL2-8	Dec 1994	100.1	3.75	14.1	920	29		96.9
AL2-9	Dec 1994	100.5	3.75	10.1	903	67		92.6
AL2-10	Dec 1994	75.3	3.75	10.1	877	45		94.9
AL2-11	Dec 1994	50.1	3.75	10.1	842	41		95.1
AL2-12	Dec 1994	50.0	3.75	18.1	919	22		97.6
AL2-13	Dec 1994	76.9	3.75	18.1	750	20		97.4
AL2-14	Dec 1994	100.4	3.75	18.1	875	19		97.8

TABLE A-3
 JBR INLET GAS PM LOADING AND
 MOISTURE: LOW-PARTICULATE PARAMETRIC TESTS

Test ID/ Date	Time	Load, MWe	Gas Flow, kacfm	H ₂ O, vol. %	PM Loading	
					gr/acf	lb/MMBtu
P1-1 21-Jan-93	1119-1237	100	452	6.0	0.0216	0.077
	1325-1410	100	465	7.6	0.0200	0.073
	1631-1744	100	460	6.4	0.0256	0.092
	Mean	100	459	6.7	0.0224	0.081
P1-2 22-Jan-93	0741-0851	100	452	8.9	0.0216	0.077
	0950-1103	100	454	7.4	0.0250	0.089
	1221-1332	100	465	8.6	0.0251	0.090
	Mean	100	457	8.3	0.0239	0.085
P1-3 23-Jan-93	0731-0845	100	466	6.0	0.0333	0.118
	1004-1124	100	469	7.8	0.0297	0.109
	1235-1350	100	464	7.6	0.0310	0.115
	Mean	100	466	7.1	0.0313	0.114
P1-4 25-Jan-93	0800-0918	75	364	7.2	0.0337	0.128
	1107-1217	75	362	7.0	0.0227	0.087
	1328-1443	75	372	8.0	0.0184	0.070
	Mean	75	366	7.4	0.0249	0.095
P1-5 26-Jan-93	0804-1052	75	452	6.5	0.0216	0.077
	1200-1316	75	386	7.2	0.0167	0.067
	1409-1520	75	374	6.9	0.0181	0.071
	Mean	75	404	6.9	0.0188	0.072
P1-6 27-Jan-93	0706-0820	75	376	6.7	0.0113	0.043
	0916-1026	75	368	6.0	0.0108	0.041
	1208-1319	75	367	7.4	0.0107	0.041
	Mean	75	370	6.7	0.0109	0.042
P1-7 29-Jan-93	0722-0832	50	264	6.9	0.0077	0.033
	0946-1054	50	267	6.9	0.0422	0.173
	1215-1324	50	287	6.6	0.0132	0.054
	Mean	50	273	6.8	0.0210	0.087
P1-8 30-Jan-93	0708-0819	50	262	7.2	0.0054	0.021
	0934-1043	50	259	7.9	0.0079	0.033
	1213-1328	50	264	7.8	0.0036	0.015
	Mean	50	262	7.6	0.0056	0.023
P1-9 31-Jan-93	0658-0808	50	266	5.5	0.0055	0.022
	0900-1009	50	261	6.4	0.0043	0.018
	1107-1217	50	260	6.4	0.0045	0.018
	Mean	50	262	6.1	0.0048	0.019

TABLE A-4
 JBR INLET GAS PM LOADING AND
 MOISTURE: HIGH-PARTICULATE PARAMETRIC TESTS

Test ID/ Date	Time	Load, MWe	Gas Flow, kacfm	H ₂ O, vol. %	PM Loading	
					gr/acf	lb/MMBtu
P2-1 17-Mar-94	0957-1113	50	269	7.9	0.0398	0.148
	1251-1406	50	254	8.1	0.0455	0.187
	1538-1653	50	263	7.2	0.0643	0.254
	Mean	50	262	7.7	0.0499	0.196
P2-2 18-Mar-94	0810-0927	50	250	6.4	0.0433	0.163
	1115-1226	50	253	7.4	0.0435	0.167
	1512-1625	50	251	6.6	0.0459	0.175
	Mean	50	251	6.8	0.0442	0.168
P2-3 19-Mar-94	0941-1049	100	401	7.6	0.1466	0.485
	1324-1457	100	401	6.6	0.1300	0.417
	1550-1706	100	407	7.0	0.1183	0.399
	Mean	100	403	7.1	0.1316	0.434
P2-4 20-Mar-94	0840-0949	100	391	7.4	0.1645	0.528
	1104-1216	100	394	7.2	0.1720	0.549
	1333-1504	100	393	7.8	0.1543	0.498
	Mean	100	393	7.5	0.1636	0.525
P2-5 22-Mar-94	1026-1136	100	403	8.2	0.3560	1.159
	1238-1356	100	398	6.4	0.1712	0.548
	1456-1605	100	401	5.8	0.2154	0.749
	Mean	100	401	6.8	0.2475	0.819
P2-6 24-Mar-94	0800-0910	100	399	5.5	1.5680	4.906
	1027-1134	100	400	8.0	1.7197	5.590
	1415-1522	100	396	7.7	2.0841	6.838
	Mean	100	398	7.1	1.7906	5.778
P2-7 25-Mar-94	0809-0933	100	414	7.7	1.8475	6.139
	1134-1242	100	413	6.9	1.4898	5.248
	1339-14047	100	412	7.1	1.3492	4.493
	Mean	100	413	7.2	1.5622	5.293
P2-8 26-Mar-94	0819-0935	50	241	6.4	1.2250	4.047
	1049-1157	50	242	6.0	1.4400	5.728
	1247-1353	50	236	7.7	1.3973	5.364
	Mean	50	240	6.7	1.3541	5.046
P2-9 27-Mar-94	0748-0856	50	241	5.9	1.2939	4.602
	0948-1155	50	244	7.8	1.6893	6.547
	1125-1232	50	243	6.2	0.9785	3.634
	Mean	50	243	6.6	1.3206	4.927

TABLE A-5
JBR INLET GAS SULFUR SPECIES AND MOISTURE: LOW-PARTICULATE TESTS

Test ID/ Date	Time	Load, MWe	Flue Gas Temp, °F	SO ₂ , ppmv @ 3% O ₂	SO ₃ , ppmv @ 3% O ₂	H ₂ O, vol. %
P1-1 21-Jan-93	1052-1105	100	254	2224	3.4	
	1128-1142	100	255	2251	4.4	
	1332-1345	100	257	2358	3.8	
	1408-1421	100	257	2311	3.3	
	Mean	100	256	2286	3.7	
	1435	100	260			7.4
P1-2 22-Jan-93	0825-0838	100	260	2275	4.1	
	0901-0914	100	261	2335	3.2	
	0934-0947	100	260	2257	3.2	
	1103-1116	100	261	2285	3.2	
	Mean	100	261	2288	3.4	
	1129	100	265			7.8
P1-3 23-Jan-93	0821-0834	100	256	2307	3.3	
	0858-0911	100	255	2288	3.2	
	0936-0949	100	258	2244	3.2	
	1106-1119	100	258	2227	3.5	
	Mean	100	257	2267	3.3	
	1134	100	260			6.7
P1-4 25-Jan-93	0916-0929	75	241	2241	2.3	
	0952-1005	75	242	2255	2.4	
	1025-1038	75	241	2285	2.6	
	1212-1225	75	244	2335	2.8	
	Mean	75	242	2279	2.5	
	1239	75	244			6.8
P1-5 26-Jan-93	1049-1102	75	243	2239	2.8	
	1122-1135	75	243	2162	2.9	
	1154-1207	75	244	2162	2.9	
	Mean	75	243	2188	2.9	
	1220	75	245			6.2
P1-6 27-Jan-93	0752-0805	75	237	2298	2.6	
	0829-0842	75	239	2318	2.6	
	0904-0916	75	238	2354	2.8	
	1054-1107	75	242	2286	3.0	
	Mean	75	239	2314	2.8	
	1120	75	244			6.5

TABLE A-5 (CONTINUED)

Test ID/ Date	Time	Load, MWe	Flue Gas Temp, °F	SO ₂ , ppmv @ 3% O ₂	SO ₃ , ppmv @ 3% O ₂	H ₂ O, vol. %
P1-7 29-Jan-93	0807-0819	50	235	2364	2.2	
	0839-0852	50	236	2352	1.5	
	0912-0925	50	237	2374	1.9	
	1047-1059	50	239	2414	2.0	
	Mean	50	237	2376	1.9	
	1113	50	240			6.1
P1-8 30-Jan-93	0756-0809	50	237	2458	2.1	
	0832-0844	50	237	2429	1.9	
	0906-0919	50	239	2421	2.0	
	1046-1054	50	242	2468	3.3	
	Mean	50	239	2444	2.3	
	1108	50	242			5.6
P1-9 31-Jan-93	0741-0753	50	239	2423	3.5	
	0823-0835	50	239	2411	3.8	
	1003-1015	50	241	2428	4.0	
	Mean	50	240	2421	3.8	
	1030	50				5.7

TABLE A-6
JBR INLET GAS SULFUR SPECIES AND MOISTURE: HIGH-PARTICULATE TESTS

Test ID/ Date	Time	Load, MWe	Flue Gas Temp, °F	SO ₂ , ppmv @ 3% O ₂	SO ₃ , ppmv @ 3% O ₂	H ₂ O, vol. %
P2-1 17-Mar-94	0948-1005	50	224	2153		
	1057-1111	50	225	2179	1.33	
	1149-1203	50	227	2169	1.74	
	1242-1256	50	228	2138	1.82	5.1
	Mean	50	226	2160	1.63	
P2-2 18-Mar-94	0919-0935	50	234	2286	1.76	
	1010-1030	50	230	2159	1.13	
	1112-1125	50	230	2278	1.45	
	1153-1206	50	230	2273	1.20	6.5
	Mean	50	231	2249	1.38	
P2-3 19-Mar-94	0852-0904	100	248	2356	1.98	
	0941-0955	100	256	2304	2.11	
	1047-1100	100	256	2340	1.98	
	1134-1147	100	257	2282	1.66	7.2
	Mean	100	254	2321	1.93	
P2-4 20-Mar-94	0905-0915	100	255	2311	1.53	
	0945-0958	100	256	2189	1.91	
	1035-1047	100	257	2243	1.78	
	1118-1130	100	258	2224	1.55	7.8
	Mean	100	257	2242	1.69	
P2-5 22-Mar-94	0827-0844	100	256	2223	1.29	
	0913-0930	100	256	2220	1.60	
	1016-1033	100	256	2208	1.58	
	1104-1121	100	256	2221	1.70	6.3
	Mean	100	256	2218	1.54	
P2-6 24-Mar-94	0843-0859	100	259	2194	1.18	
	0933-0949	100	260	2145	1.40	
	1034-1056	100	261	2177	1.56	
	1125-1143	100	261	2189	1.56	7.8
	Mean	100	260	2176	1.43	
P2-7 25-Mar-94	0839-0858	100	254	2192	0.67	
	0934-0951	100	255	2211	0.97	
	1028-1046	100	254	2153	0.78	
	1118-1137	100	254	2174	1.10	
	Mean	100	254	2182	0.88	
P2-8 26-Mar-94	0833-0850	50	241	2196	1.38	
	0917-0934	50	242	2205	1.46	
	1014-1031	50	243	2180	1.71	
	1057-1113	50	244	2089	1.62	5.4
	Mean	50	243	2168	1.54	
P2-9 27-Mar-94	0823-0839	50	252	2270	0.97	
	0905-0921	50	253	2214	1.14	
	0949-1006	50	253	2267	1.64	
	1053-1109	50	255	2162	1.74	
	Mean	50	253	2228	1.38	

TABLE A-7
 STACK GAS PM LOADING AND
 MOISTURE: LOW-PARTICULATE PARAMETRIC TESTS

Date	Time	Load, MWe	Gas Flow, kacfm	H ₂ O, vol. %	PM Loading	
					gr/acf	lb/MMBtu
21-Jan-93	1116-1233	100	377	12.0	0.0034	0.011
	1518-1639	100	383	11.1	0.0025	0.007
	1636-1758	100	383	12.2	0.0025	0.008
	Mean	100	381	11.8	0.0028	0.009
22-Jan-93	0737-0845	100	377	13.2	0.0034	0.011
	0952-1103	100	381	12.8	0.0038	0.012
	1219-1426	100	383	13.1	0.0031	0.009
	Mean	100	380	13.0	0.0034	0.011
23-Jan-93	0730-0838	100	388	12.0	0.0026	0.008
	1022-1128	100	382	12.0	0.0048	0.014
	1238-1343	100	379	12.0	0.0030	0.009
	Mean	100	383	12.0	0.0035	0.010
25-Jan-93	0829-0937	75	315	12.0	0.0031	0.010
	1110-1219	75	311	12.0	0.0030	0.010
	1331-1439	75	312	12.2	0.0036	0.011
	Mean	75	313	12.1	0.0032	0.010
26-Jan-93	0808-1108	75	377	11.0	0.0034	0.011
	1205-1312	75	308	10.6	0.0023	0.007
	1404-1511	75	299	11.2	0.0024	0.007
	Mean	75	328	10.9	0.0027	0.008
27-Jan-93	0704-0811	75	305	10.9	0.0013	0.005
	0917-1027	75	303	11.7	0.0018	0.006
	1132-1250	75	299	11.6	0.0018	0.006
	Mean	75	302	11.4	0.0016	0.006
29-Jan-93	0723-0831	50	226	9.0	0.0030	0.010
	0946-1114	50	221	11.8	0.0017	0.006
	1217-1330	50	224	9.6	0.0027	0.009
	Mean	50	224	10.1	0.0025	0.008
30-Jan-93	0709-0817	50	220	11.3	0.0022	0.007
	0942-1057	50	218	10.9	0.0024	0.008
	1222-1331	50	225	10.9	0.0011	0.004
	Mean	50	221	11.0	0.0019	0.006
31-Jan-93	0657-0805	50	229	10.9	0.0022	0.008
	0902-1011	50	231	10.2	0.0014	0.005
	1144-1252	50	234	10.9	0.0014	0.005
	Mean	50	231	10.7	0.0017	0.006

TABLE A-8
 STACK GAS PM LOADING AND
 MOISTURE: HIGH-PARTICULATE PARAMETRIC TESTS

Test ID/ Date	Time	Load, MWe	Gas Flow, kacfm	H ₂ O, vol. %	PM Loading	
					gr/acf	lb/MMBtu
P2-1 17-Mar-94	1007-1121	50	234	8.6	0.0034	0.013
	1256-1415	50	225	9.3	0.0037	0.013
	1542-1822	50	239	10.6	0.0028	0.012
	Mean	50	233	9.5	0.0033	0.013
P2-2 18-Mar-94	0815-0925	50	221	11.0	0.0046	0.017
	1115-1233	50	225	9.3	0.0024	0.008
	1513-1704	50	222	12.2	0.0023	0.008
	Mean	50	223	10.8	0.0031	0.011
P2-3 19-Mar-94	0921-1045	100	343	11.0	0.0066	0.019
	1215-1406	100	332	13.3	0.0076	0.021
	1400-1512	100	339	13.2	0.0043	0.012
	Mean	100	338	12.5	0.0062	0.017
P2-4 20-Mar-94	0830-0941	100	334	10.2	0.0033	0.009
	1125-1238	100	334	13.3	0.0040	0.011
	1310-1416	100	343	12.5	0.0033	0.009
	Mean	100	337	12.0	0.0035	0.010
P2-5 22-Mar-94	0818-0928	100	334	11.6	0.0059	0.017
	1112-1220	100	340	14.0	0.0055	0.015
	1257-1405	100	334	13.5	0.0044	0.012
	Mean	100	336	13.0	0.0053	0.015
P2-6 24-Mar-94	0809-0919	100	340	14.7	0.0168	0.048
	1030-1205	100	343	14.5	0.0171	0.049
	1240-1422	100	345	14.4	0.0178	0.051
	Mean	100	343	14.5	0.0172	0.049
P2-7 25-Mar-94	0807-0917	100	350	14.5	0.0121	0.036
	1022-1132	100	350	13.3	0.0142	0.042
	1202-1312	100	347	14.1	0.0163	0.048
	Mean	100	349	14.0	0.0142	0.042
P2-8 26-Mar-94	0828-0937	50	208	9.1	0.0154	0.050
	1046-1153	50	210	10.6	0.0170	0.058
	1225-1330	50	210	11.9	0.0177	0.061
	Mean	50	209	10.5	0.0167	0.056
P2-9 27-Mar-94	0758-0907	50	213	11.5	0.0140	0.046
	0956-1114	50	221	12.8	0.0166	0.057
	1144-1250	50	216	12.5	0.0126	0.043
	Mean	50	217	12.3	0.0144	0.048

TABLE A-9
 STACK GAS SULFUR SPECIES AND
 MOISTURE: LOW-PARTICULATE PARAMETRIC TESTS

Date	Time	Load, MWe	Flue Gas Temp, °F	SO ₂ , ppmv @ 3% O ₂	SO ₃ , ppmv @ 3% O ₂	H ₂ O, vol. %
21-Jan-93	1052-1107	100	122	537	2.8	
	1128-1142	100	121	517	2.7	
	1332-1347	100	120	508	2.7	
	1408-1413	100	121	588	2.7	
	Mean	100	121	538	2.7	
	1435	100	120			12.4
22-Jan-93	0825-0838	100	121	223	2.7	
	0901-0914	100	123	208	2.7	
	0934-0948	100	124	195	2.7	
	1103-1116	100	122	193	2.5	
	Mean	100	123	205	2.7	
	1132	100	122			13.5
23-Jan-93	0821-0840	100	120	91	2.2	
	0859-0919	100	120	67	2.3	
	0936-0954	100	120	67	2.3	
	1106-1123	100	119	60	2.4	
	Mean	100	120	71	2.3	
	1133	100	119			12.3
25-Jan-93	0917-0931	75	117	370	2.6	
	0953-1007	75	117	422	2.6	
	1025-1039	75	116	385	2.8	
	1212-1226	75	117	361	2.1	
	Mean	75	117	385	2.5	
	1103	75	117			10.8
26-Jan-93	1049-1103	75	116	122	3.4	
	1122-1136	75	116	140	3.4	
	1154-1208	75	115	121	3.4	
	Mean	75	116	128	3.4	
	1215	75	116			11
27-Jan-93	0752-0810	75	116	49	3.0	
	0829-0846	75	117	48	3.0	
	0904-0922	75	118	49	3.0	
	1054-1111	75	117	49	2.8	
	Mean	75	117	49	3.0	
	1115	75	117			11.8
29-Jan-93	0807-0821	50	115	303	1.7	
	0840-0854	50	115	312	1.7	
	0913-0926	50	114	314	1.7	
	1048-1100	50	115	314	1.5	
	Mean	50	115	311	1.7	
	1105	50	115			10.1
30-Jan-93	0756-0814	50	114	101	1.6	
	0832-0849	50	114	106	1.6	
	0906-0923	50	115	111	1.2	
	1047-1104	50	115	107	1.8	
	Mean	50	115	106	1.6	
	1108	50	115			9.5

TABLE A-9 (CONTINUED)

Date	Time	Load, MWe	Flue Gas Temp, °F	SO ₂ , ppmv @ 3% O ₂	SO ₃ , ppmv @ 3% O ₂	H ₂ O, vol. %
31-Jan-93	0742-0804	50	112	47	2.3	
	0824-0845	50	112	43	2.4	
	1004-1025	50	114	45	2.3	
	Mean	50	113	45	2.3	
	1030	50	114			10.5

TABLE A-10
 STACK GAS SULFUR SPECIES AND
 MOISTURE: HIGH-PARTICULATE PARAMETRIC TESTS

Date	Time	Load, MWe	Flue Gas Temp, °F	SO ₂ , ppmv @ 3% O ₂	SO ₃ , ppmv @ 3% O ₂	H ₂ O, vol. %
P2-1 17-Mar-94	0950-1003	50	112	231		
	1149-1110	50	111	250	2.10	
	1149-1210	50	111	220	2.94	
	1242-1255	50	111	221	3.13	9.8
	Mean	50	111	230	2.72	
P2-2 18-Mar-94	0825-0838	50	113	46		
	0901-0914	50	114	55	2.14	
	0934-0948	50	114	52	2.53	
	1103-1116	50	115	49	1.81	11.1
	Mean	50	114	50	2.16	
P2-3 19-Mar-94	0848-0901	100	117	427		
	0941-0955	100	118	432	2.71	
	1047-1100	100	119	441	2.51	
	1134-1147	100	119	439	3.66	12.0
	Mean	100	118	435	2.96	
P2-4 20-Mar-94	0904-0914	100	120	111	0.94	
	0944-0954	100	119	119	1.27	
	1033-1047	100	119	121	1.02	
	1116-1130	100	122	120	0.83	12.7
	Mean	100	120	118	1.02	
P2-5 22-Mar-94	0826-0842	100	119	117	3.39	
	0912-0928	100	120	131	0.80	
	1015-1031	100	119	122	0.71	
	1103-1118	100	119	136	0.39	12.4
	Mean	100	119	127	1.32	
P2-6 24-Mar-94	0841-0856	100	122	662	0.71	
	0931-0936	100	123	677	0.83	
	1038-1053	100	123	713	0.35	
	1124-1139	100	123	717	0.36	13.4
	Mean	100	123	692	0.56	
P2-7 25-Mar-94	0834-0854	100	121	215	0.59	
	0933-0947	100	123	253	<0.2	
	1027-1042	100	122	258	<0.2	
	1118-1134	100	122	261	<0.2	12.7
	Mean	100	122	247	<0.26	
P2-8 26-Mar-94	0832-0847	50	112	189	<0.2	
	0916-0931	50	113	225	<0.2	
	1013-1028	50	116	234	<0.2	
	1056-1111	50	114	256	<0.2	11.0
	Mean	50	114	226	<0.2	
P2-9 27-Mar-94	0822-0838	50	119	100	<0.2	
	0904-0921	50	120	98	0.36	
	0948-1005	50	120	97	0.67	
	1052-1108	50	119	361	0.60	11.9
	Mean	50	120	164	0.41	

TABLE A-11
MAKEUP WATER ANALYSES: LOW-PARTICULATE TEST PERIOD

Test ID	Date	pH	Liquid Phase, mg/L			
			Carbonate	Sulfite	Sulfate	Chloride
L1-3	06-Jun-93	6.75		0.8	46	42
L1-3	09-Aug-93	6.08	36	0.8	152	22
HR1-4	04-Oct-93				67	35
AL1-1	10-Jan-94	7.36			13	37
AC1-10	14-Feb-94				110	138

TABLE A-12
MAKEUP WATER ANALYSES: HIGH-PARTICULATE TEST PERIOD

Test ID	Date	pH	Liquid Phase, mg/L			
			Carbonate	Sulfite	Sulfate	Chloride
P2-15	25-Apr-94	5.95	0.0	0.0	114	238
L2-1	30-May-94	—	—	—	72	257
	01-Jun-94	—	—	—	72	257
L2-2	27-Jun-94	4.95	—	—	125	52
	07-Jul-94	—	73.8	0.0	116	113
	10-Aug-94	5.65	0.0	0.0	130	151
HR2-2	12-Sep-94	4.61	0.0	0.0	147	1685
AC2-10	24-Oct-94	—	—	—	84	13
AL2-3	06-Dec-94	—	—	0.0	84	53

TABLE A-13
 GYPSUM STACK RETURN ANALYSES: LOW-PARTICULATE TEST PERIOD

Test ID	Date	pH	Liquid Phase, mg/L		
			Carbonate	Sulfate	Chloride
Parametric Tests					
P1-2	22-Jan-93	6.5	12	1,593	7,179
P1-6	27-Jan-93	6.0	12	835	11,615
P1-9	01-Feb-93	5.7	12	800	12,382
P1-12	05-Feb-93	6.2	12	624	9,256
P1-14	09-Feb-93	6.5	12	737	8,370
P1-18	15-Feb-93	6.4	12	747	9,883
P1-21	21-Feb-93	6.3	12	649	8,945
P1-24	26-Feb-93	6.9	12	668	10,304
P1-27	04-Mar-93	6.6	96	780	11,912
P1-28	08-Mar-93	6.6	96	354	10,636
P1-21R	12-Mar-93	6.7	96	815	13,898
P1-31	16-Mar-93	6.7	96	778	13,118
P1-32	18-Mar-93	6.6	96	765	14,429
P1-33	20-Mar-93	6.4	96	761	15,777
P1-34	22-Mar-93	6.6	96	811	15,777
P1-35	28-Mar-93	6.5	96	726	15,989
P1-36	30-Mar-93	6.8	96	1,085	9,785
Long-Term Tests					
L1-1	05-Apr-93	6.62	96	755	10,650
L1-2	19-Apr-93	6.60	96	854	10,795
	25-Apr-93	6.70	96	775	12,320
L1-3	28-May-93	7.01	96	834	8,048
	01-Jun-93	6.35	96	863	11,266
	06-Jun-93	6.11	96	897	13,240
	14-Jun-93	6.54	96	823	12,766
	22-Jun-93	6.50		822	13,537
	28-Jun-93	6.73	96	845	14,440
	06-Jul-93	6.35	36	860	14,315
	12-Jul-93	6.23	36	866	16,523
	19-Jul-93	5.91	36	868	10,480
	26-Jul-93	7.05	36	888	10,149
		02-Aug-93	6.51	36	857
09-Aug-93		6.51	36	841	10,425
16-Aug-93		6.60	36	746	13,959
23-Aug-93		6.17	36	823	16,432
29-Aug-93		6.34	36	839	14,461
	07-Sep-93	5.08	36	826	18,243
High Removal Tests					
HR1-1	14-Sep-93	6.31	36	873	20,044
	19-Sep-93	6.13	31	878	12,752
	27-Sep-93	6.34	31	778	22,632
HR1-4	05-Oct-93	6.46	31	771	19,809
	11-Oct-93	5.53	31	1,195	27,306
	14-Oct-93	6.51	31	1,361	16,957
	18-Oct-93	6.26	31	727	15,562
	24-Oct-93	6.49	31	736	16,411

TABLE A-13 (CONTINUED)

Test ID	Date	pH	Liquid Phase, mg/L		
			Carbonate	Sulfate	Chloride
Alternate Limestone Tests					
P1A-11	01-Nov-93	5.48	31	708	16,582
P1B-1	02-Dec-93	6.77	31	789	17,281
P1B-5	05-Dec-93	6.81	31	793	21,922
P1B-9R	13-Dec-93	6.58	31	680	22,509
P1B-9R2	19-Dec-93	6.45	31	698	30,493
AL1-1	28-Dec-93	5.97	31	648	29,029
	03-Jan-94	6.88	95	494	22,915
	10-Jan-94	6.43	95	704	29,813
	17-Jan-94	6.47	95	723	24,065
Alternate Coal Tests					
AC1-1	25-Jan-94	6.61	95	753	24,995
	31-Jan-94	6.45	95	698	33,292
AC1-3	07-Feb-94	5.39	88	787	43,221
AC1-10	14-Feb-94	6.31	88	825	29,160

**TABLE A-14
GYPSUM STACK RETURN ANALYSES: HIGH-PARTICULATE TEST PERIOD**

Test ID	Date	pH	Liquid Phase, mg/L		
			Carbonate	Sulfate	Chloride
Parametric Tests					
P2-0	15-Mar-94	6.54	88	906	29,602
P2-2	18-Mar-94	6.51	88	890	20,417
P2-5	22-Mar-94	5.60	88	969	21,997
P2-6	25-Mar-94		88	965	16,288
P2-11	20-Apr-94	6.24	88	1,076	7,429
P2-15	25-Apr-94	5.97	88	1,118	10,210
P2-31	28-Apr-94	5.58	88	1,106	10,103
P2-19	02-May-94	5.35	80	1,150	11,983
P2-22	06-May-94	5.34	80	1,141	11,382
P2-17	11-May-94	5.42	80	1,159	10,610
P2-27	16-May-94	5.09	80	1,133	14,172
P2-30	20-May-94	5.47	74	1,079	11,899
P2-31	23-May-94	5.00	74	1,126	14,824
Long-Term Tests					
L2-1	01-Jun-94	5.50	74	1,125	12,384
	07-Jun-94	5.52	74	1,122	11,824
L2-2	15-Jun-94	5.87	74	1,086	15,200
	20-Jun-94	5.88	74	1,070	14,013
	27-Jun-94	5.91	74	1,017	19,156
	07-Jul-94	6.23	74	954	12,256
	11-Jul-94	6.19	74	1,073	15,280
	18-Jul-94	6.28	74	1,039	17,432
	25-Jul-94	5.95	74	1,073	17,388
	01-Aug-94	6.11	74	1,001	22,297
	10-Aug-94	5.51	74	1,069	22,401
L2-3	15-Aug-94	5.60	74	1,085	23,591
	22-Aug-94	5.60	74	986	22,166
	28-Aug-94	5.74	74	1,108	22,728
High Removal Tests					
HR2-2	08-Sep-94	6.30	74	1,154	10,285
	12-Sep-94	5.71	14	1,146	13,037
	19-Sep-94	5.96	14	1,089	13,139
Alternate Coal Tests					
AC2-2	05-Oct-94	6.03	14	1,083	15,002
AC2-5	13-Oct-94	5.92	14	1,028	18,208
AC2-8	17-Oct-94	5.25	14	1,157	19,771
AC2-10	24-Oct-94	5.50	14	1,125	25,240
Alternate Limestone Tests					
AL2-1	02-Dec-94	6.76	14	1,109	3,961
	04-Dec-94		14	1,134	4,701
AL2-3	06-Dec-94	6.02	14	1,189	5,538
AL2-4	12-Dec-94	6.2	14	1,119	6,104
AL2-5	15-Dec-94	5.92	14	1,163	8,352
AL2-6	19-Dec-94	6.13	14	1,141	9,461
AL2-14	27-Dec-94	6.08	14	1,094	9,653

TABLE A-15
 GYPSUM STACK RETURN LIQUID-PHASE
 TRACE METALS: LOW-PARTICULATE TEST PERIOD

Element	Units	14-Jun-93	12-Jul-93	09-Aug-93	14-Sep-93
Aluminum	mg/L	0.5	1.49	0.44	0.26
Antimony	mg/L	0.01	0.008 ^a	<0.006	<0.0139
Arsenic	mg/L	<0.008	<0.007	<0.002	<0.001
Barium	mg/L	1.09	0.07	0.91	1.25
Beryllium	mg/L	0.001 ^b	<0.004	0.003 ^b	<0.0026
Boron	mg/L	473	29	414	718
Cadmium	mg/L	0.14	0.01	0.14	0.25
Copper	mg/L	0.03	0.02	<0.06	0.03
Chromium	mg/L	0.03	0.005 ^b	0.03	0.04
Cobalt	mg/L	0.09	0.009 ^b	0.13	0.19
Iron	mg/L	0.39	<0.02	<0.09	<0.028
Lead	mg/L	<0.003	<0.003	<0.00008	<0.008
Manganese	mg/L	107	6.8	530	157
Mercury	mg/L			0.0007	0.0023
Molybdenum	mg/L	0.06	0.005 ^b	0.07	0.09
Nickel	mg/L	0.57	0.06	0.47	0.77
Potassium	mg/L	44	2.5	43.5	65.2
Selenium	mg/L	0.08	0.16	0.06	<0.002
Silicon	mg/L	13.8	1.7	14.4	15.1
Sodium	mg/L	90.1	5.3	92.3	139
Vanadium	mg/L	0.08	0.003 ^b	0.09	0.14

^a Value less than five times detection limit.

^b Value less than detection limit.

TABLE A-16
 GYPSUM STACK RETURN AQUEOUS PHASE TRACE METALS: HIGH-PARTICULATE TEST PERIOD

Element	25-Apr-94	07-Jun-94	27-Jul-94	10-Aug-94	17-Oct-94	06-Dec-94	07-Dec-94
Aluminum	6.86	12.1	1.29	5.74	8.67	6.25	5.71
Antimony	0.01	0.0084	0.00455	0.00544	0.0132	0.00507	0.00462
Arsenic	0.01	<0.00856	0.0062	<0.0107	0.0107	<0.0468	<0.0468
Barium	0.12	0.217	0.165	0.226	0.215	0.137	0.133
Beryllium	0.01	0.0132	0.00083	<0.00086	0.008	0.00336	0.0084
Boron	176	246	197	355	338	107	96.4
Cadmium	0.05	0.104	0.086	0.138	0.13	0.0489	0.0393
Chromium	0.01	0.0664	0.0763	0.0743	0.0602	0.0794	0.0816
Cobalt	0.06	0.112	0.0902	0.158	0.14	0.071	0.0237
Copper	0.02	0.0284	0.0324	0.0443	0.0271	0.0437	0.0379
Iron	<0.0045	<0.00452	<0.00452	1.09	<0.0045	<0.0045	<0.0045
Lead	0.01	<0.00205	0.0046	0.00546	<0.00205	0.0444	<0.0216
Manganese	16.6	22.3	728	25.6	29.2	10.3	10.2
Mercury	<0.00033	<0.000033	0.00051	0.00047	0.00009	—	—
Molybdenum	0.19	0.297	0.0486	0.181	0.144	0.0891	0.0396
Nickel	0.25	0.418	0.348	0.533	0.699	0.196	0.175
Potassium	22.0	45.6	42.7	60.4	65.2	23.6	22.9
Selenium	0.06	0.0982	0.15	0.0803	0.0637	<0.0891	<0.0891
Silicon	10.20	12.8	5.67	10.9	10.1	9.39	8.18
Sodium	4.73	0.0401	67.7	91.9	92.4	37	33.4
Vanadium	0.04	0.254	0.245	<0.0454	<0.045	<0.0227	<0.0227

Note: All concentrations are in units of mg/L.

TABLE A-17
LIMESTONE ANALYSES: LOW-PARTICULATE TEST PERIOD

Test ID	Date	Slurry Solids, wt. %	Solid Phase, wt. %			
			Calcium	Magnesium	Carbonate	Inerts
Parametric Tests						
P1-2	22-Jan-93	33.64	38.9	0.1	51.1	2.1
P1-6	27-Jan-93	33.94	38.1	0.1	57.0	1.9
P1-9	01-Feb-93	33.28	38.1	0.1	56.2	2.0
P1-12	05-Feb-93	33.61	38.2	0.0	58.2	1.9
P1-14	09-Feb-93	32.31	38.3	0.1	59.9	2.0
P1-18	15-Feb-93	31.93	38.9	0.1	58.9	2.0
P1-22	22-Feb-93	32.36	37.4	0.1	56.3	2.0
P1-24	26-Feb-93	32.24	34.9	0.0	58.4	3.3
P1-28	08-Mar-93	33.09	39.8	0.1	55.6	2.7
P1-21R	12-Mar-93	32.54	39.3	0.1	55.7	1.5
P1-31	16-Mar-93	27.07	38.8	0.1	59.2	2.4
P1-32	18-Mar-93	34.54	39.6	0.1	55.8	2.6
P1-33	20-Mar-93	37.13	37.0	0.1	58.0	2.3
P1-35	28-Mar-93	33.02	40.2	0.1	56.5	0.6
P1-36	30-Mar-93	30.40	39.8	0.1	57.5	0.6
Long-Term Tests						
L1-1	05-Apr-93	26.72	36.2	0.1	57.6	2.78
L1-2	19-Apr-93	30.49	38.0	0.1	58.4	2.54
	25-Apr-93	28.58	38.1	0.1	58.7	2.31
L1-3	28-May-93	27.39	37.2	0.1	58.2	1.98
	01-Jun-93	28.34	37.1	0.1	58.9	1.99
	06-Jun-93	28.99	38.9	0.1	59.5	2.43
	14-Jun-93	28.38	38.3	0.1	58.4	1.88
	22-Jun-93	28.27	38.1	0.1	59.9	2.16
	28-Jun-93	27.72	37.8	0.1	59.6	1.83
	06-Jul-93	28.30	38.2	0.1	59.2	2.31
	12-Jul-93	27.46	38.2	0.1	56.3	0.56
	19-Jul-93	25.55	38.6	0.1	58.9	1.49
	26-Jul-93	27.53	36.3	0.1	57.7	2.14
	02-Aug-93	27.66	37.8	0.1	57.5	2.43
	09-Aug-93	28.73	38.4	0.1	57.0	2.39
	16-Aug-93	25.13	38.0	0.1	56.9	2.24
	23-Aug-93	27.12	39.4	0.1	55.6	2.21
29-Aug-93	28.19	37.4	0.1	59.4	2.08	
05-Sep-93	24.40	38.4	0.1	57.8	2.14	
High Removal Tests						
HR1-1	14-Sep-93	27.33	37.5	0.1	57.8	2.18
	19-Sep-93	24.40	38.4	0.1	57.8	2.14
	27-Sep-93	22.15	38.0	0.1	58.8	2.22
HR1-4	05-Oct-93	33.84	38.3	0.1	55.9	2.36
	11-Oct-93	38.93	38.6	0.1	59.6	2.21
	14-Oct-93	34.26	36.8	0.1	59.6	2.16
	18-Oct-93	25.02	37.6	0.0	57.2	2.87
	24-Oct-93	29.16	37.8	0.4	58.6	1.16

TABLE A-17 (CONTINUED)

Test ID	Date	Slurry Solids, wt. %	Solid Phase, wt. %			
			Calcium	Magnesium	Carbonate	Inerts
Alternate Limestone Tests						
P1A-11	01-Nov-93	29.40	39.6	0.4	59.3	0.69
PIB-1	02-Dec-93	29.16	39.3	0.4	61.6	0.94
	10-Dec-93	28.12	39.4	0.4	61.6	0.72
	13-Dec-93	24.00	38.1	0.4	58.4	0.62
PIB-9R2	19-Dec-93	20.58	38.1	0.4	57.8	0.77
	28-Dec-93	30.82	39.1	0.4	57.5	0.72
AL1-1	03-Jan-94	32.00	38.9	0.4	58.0	0.88
	10-Jan-94	31.30	39.2	0.4	59.8	0.55
	17-Jan-94	33.69	38.7	0.2	58.4	0.76
Alternate Coal Tests						
AC1-1	25-Jan-94	26.85	37.0	0.6	59.1	1.21
	31-Jan-94	32.85	38.4	0.7	59.8	0.80
AC1-3	07-Feb-94	32.51	38.6	0.8	59.5	0.85
AC1-10	14-Feb-94	33.22	39.0	0.6	59.6	0.85

TABLE A-18
LIMESTONE ANALYSES: HIGH-PARTICULATE TEST PERIOD

Test ID	Date	Slurry Solids, wt. %	Solid Phase, wt. %			
			Calcium	Magnesium	Carbonate	Inerts
Parametric Tests						
P2-0	15-Mar-94	29.89	38.2	0.6	59.1	0.78
P2-2	18-Mar-94	29.86	39.0	0.7	62.3	0.79
P2-5	22-Mar-94	28.11	38.8	0.7	61.7	0.60
P2-6	25-Mar-94	30.04	39.1	0.7	59.4	1.07
P2-11	20-Apr-94	29.36	37.1	0.7	59.2	0.25
P2-15	25-Apr-94	30.36	39.3	0.7	61.3	0.01
P2-31	28-Apr-94	29.80	37.2	0.7	60.0	0.59
P2-19	02-May-94	27.46	37.1	0.7	60.0	0.63
P2-22	06-May-94	28.70	38.4	0.6	59.1	0.52
P2-17	11-May-94	29.62	39.0	0.5	59.2	0.61
P2-27	16-May-94	26.42	39.1	0.6	59.0	0.72
P2-30	20-May-94	27.58	36.2	0.5	60.1	0.98
P2-31	23-May-94	27.19	36.4	0.6	59.5	0.98
Long-Term Tests						
L2-1	01-Jun-94	28.33	35.4	0.5	59.2	0.85
	01-Jun-94		37.7	0.5	58.6	1.31
	07-Jun-94	29.21	35.4	0.5	59.0	0.90
	07-Jun-94		37.4	0.5	58.9	1.06
L2-2	15-Jun-94	28.39	35.3	0.4	58.9	0.86
	15-Jun-94		37.9	0.5	58.7	1.22
	20-Jun-94	27.50	36.4	0.5	59.4	0.89
	27-Jun-94	26.12	36.6	0.4	59.7	1.06
	07-Jul-94	31.64	37.9	0.4	59.9	1.27
	11-Jul-94	30.60	39.7	0.4	59.9	1.45
	18-Jul-94	28.47	38.8	0.1	60.4	0.55
	25-Jul-94	28.92	37.0	0.5	59.4	0.92
	01-Aug-94	25.97	37.6	0.5	58.9	1.22
	10-Aug-94	25.90	38.6	0.5	57.1	0.41
	15-Aug-94	22.95	38.0	0.5	60.0	0.39
L2-3	22-Aug-94	27.67	37.6	0.5	60.6	0.72
	28-Aug-94	27.74	37.6	0.5	62.0	0.80

TABLE A-18 (CONTINUED)

Test ID	Date	Slurry Solids, wt. %	Solid Phase, wt. %			
			Calcium	Magnesium	Carbonate	Inerts
High Removal Tests						
HR2-2	08-Sep-94	28.60	37.7	0.5	59.4	0.75
	12-Sep-94	28.49	37.7	0.6	59.3	0.44
	19-Sep-94	27.90	36.1	0.6	62.0	0.40
Alternate Coal Tests						
AC2-2	05-Oct-94	27.23	37.9	0.5	59.9	0.43
AC2-5	13-Oct-94	27.61	37.9	0.6	59.6	1.32
AC2-8	17-Oct-94	28.29	37.8	0.6	59.9	1.13
AC2-10	24-Oct-94	27.70	37.7	0.6	58.3	0.70
Alternate Limestone Tests						
AL2-1	02-Dec-94	32.24	36.1	0.5	57.1	3.51
AL2-3	06-Dec-94	33.23	36.4	0.5	58.1	3.81
AL2-4	12-Dec-94	29.66	36.3	0.5	58.1	3.65
AL2-5	15-Dec-94	32.68	36.5	0.5	56.4	4.49
AL2-6	19-Dec-94	33.40	36.6	0.5	57.5	3.91

TABLE A-19
JBR FROTH ZONE ANALYSES: LOW-PARTICULATE TEST PERIOD

Test ID	Date	pH	Liquid Phase, mg/L			Slurry Solids, wt. %	Solid Phase, wt. %			
			Carbonate	Sulfite	Sulfate		Chloride	Calcium	Carbonate	Sulfate
Parametric Tests										
P1-2	22-Jan-93	4.4	12	0.8	1,072	19,499	22.3			
P1-6	27-Jan-93	4.6	12	1.6	729	27,329	20.1			
P1-9	01-Feb-93	4.7	18	0.0	812	22,570	21.4			
P1-12	05-Feb-93	5.2	12	1.6	1,038	21,919	21.9			
P1-14	09-Feb-93	4.5	12	0.8	986	22,746	22.2			
P1-18	15-Feb-93	4.2	12	0.0	958	28,136	19.3			
P1-21	21-Feb-93	5.1	12	0.8	657	21,760	22.5	22.5	0.8	53.4
P1-24	26-Feb-93	4.6	12	1.6	733	28,801	22.8	22.2	1.3	54.3
P1-27	04-Mar-93	5.0	96	0.8	812	28,433	22.4	24.4	1.3	54.9
P1-28	08-Mar-93	4.0	96	0.8	725	29,568	21.0	22.8	0.0	58.7
P1-21R	12-Mar-93	5.1	96	0.8	838	32,794	21.1	23.6	1.1	55.8
P1-31	16-Mar-93	4.2	96	0.8	844	20,385	15.8	23.6	0.8	54.5
P1-32	18-Mar-93	4.5	96	0.8	809	34,283	20.4	24.1	1.1	55.3
P1-33	20-Mar-93	5.0	96	0.8	732	38,041	18.6	22.8	1.4	54.3
P1-34	22-Mar-93	5.6	96	1.6	876	29,213	19.0	26.3	18.0	54.3
P1-35	28-Mar-93	5.4	96	1.6	720	37,935	17.9	24.6	5.2	52.1
P1-36	30-Mar-93	5.7	96		860	24,853	23.4	26.8	13.8	42.9

TABLE A-19 (CONTINUED)

Test ID	Date	pH	Liquid Phase, mg/L			Chloride	Slurry Solids, wt. %	Solid Phase, wt. %		
			Carbonate	Sulfite	Sulfate			Calcium	Carbonate	Sulfate
Long-Term Tests										
L1-1	05-Apr-93	4.03	96	0.8	768	11,719	21.80	22.4	0.8	53.2
L1-2	19-Apr-93	5.18	96	0.8	794	25,119	21.71	23.4	1.2	54.9
	25-Apr-93	5.03	96	0.8	742	31,270	21.16	23.3	1.2	54.9
L1-3	28-May-93	4.39	96	0.8	905	23,780	21.17	23.5	0.6	53.8
	01-Jun-93	4.81	96	1.6	780	29,186	23.67	23.3	0.9	57.0
	06-Jun-93	4.58	96	0.8	858	29,661	21.86	23.8	1.4	55.3
	14-Jun-93	4.63	96	1.6	740	23,082	16.09	21.8	0.6	50.0
	22-Jun-93	4.34		4.8	792	32,316	23.06	22.8	1.2	56.1
	28-Jun-93	4.07	96	2.4	846	37,054	22.41	22.6		55.1
	06-Jul-93	4.17	114	0.8	793	36,707	25.39	23.0	0.7	53.9
	12-Jul-93	4.61	114	0.8	773	36,781	21.13	24.8	0.7	55.3
	26-Jul-93	4.78	114	1.6	852	36,234	20.63	22.4	0.2	51.0
	02-Aug-93	4.52	114	0.8	820	36,377	21.11	21.6	0.2	52.7
09-Aug-93	4.26	114	0.8	945	25,308	12.57	22.9	0.7	54.9	
16-Aug-93	4.70	114	1.6	894	25,016	18.74	23.9	0.8	57.8	
23-Aug-93	4.62	114	1.6	880	33,387	17.50	24.3	0.1	53.5	
29-Aug-93	4.62	114	1.6	768	33,970	21.83	22.9	0.3	55.2	
07-Sep-93	4.27	114	1.6	744	41,954	15.69	22.6	0.3	53.9	

TABLE A-19 (CONTINUED)

Test ID	Date	pH	Liquid Phase, mg/L			Slurry Solids, wt. %	Solid Phase, wt. %			
			Carbonate	Sulfite	Sulfate		Chloride	Calcium	Carbonate	Sulfate
High Removal Tests										
HR1-1	14-Sep-93	4.42	114	1.6	849	43,785	21.60	23.1	1.0	53.8
	19-Sep-93	4.72	93	1.6	795	33,758	21.16	23.8	0.5	54.6
HR1-4	27-Sep-93	4.75	93	0.8	678	53,109	18.20	23.0	0.4	55.5
	05-Oct-93	4.76	93	1.6	640	37,424	20.33	21.9	2.8	51.9
	11-Oct-93	4.84	93	11.2	624	68,070	19.12	25.0	7.4	50.6
	14-Oct-93	4.08	93	19.2	886	64,950	24.49	23.7	0.8	56.0
	18-Oct-93	4.10	93	22.4	633	53,557	25.88	23.1	1.1	53.9
	24-Oct-93	4.83	93	0.8	702	44,103	29.23	23.2	2.9	47.4
Alternate Limestone Tests										
PIA-11	01-Nov-93	4.59	93	0.8	721	44,403	16.98	22.2	0.1	53.2
PIB-1	02-Dec-93	4.38	93	1.6	801	39,270	23.39	23.8	2.4	54.8
PIB-5	05-Dec-93	4.62	93	32.0	1,705	47,226	19.52	24.0	2.9	54.2
PIB-9R	13-Dec-93	4.05	93	1.6	601	50,750	15.82	23.3	0.8	52.9
PIB-9R2	19-Dec-93	4.87	93	1.6	587	72,432	19.77	24.0	3.2	53.1
AL1-1	28-Dec-93	4.60	93	1.6	565	63,966	21.58	23.2	0.2	53.8
	03-Jan-94	4.40	173	0.8	592	65,319	23.77	23.9	0.7	56.9
	10-Jan-94	4.51	173	0.8	552	56,648	27.13	23.1	1.0	55.3
	17-Jan-94	4.58	173	1.6	705	52,045	20.86	24.0	1.1	54.0
Alternate Coal Tests										
AC1-1	25-Jan-94	4.06	173	2.4	703	34,504	17.44	22.4	1.1	55.0
	31-Jan-94	4.61	173	1.6	701	53,080	19.73	23.8	1.0	54.4
AC1-3	07-Feb-94	4.10	170	0.0	685	68,770	21.97	23.8	1.0	53.8
AC1-10	14-Feb-94	5.15	170	0.8	757	63,879	17.40	23.4	2.0	54.3

TABLE A-20
JBR FROTH ZONE ANALYSES: HIGH-PARTICULATE TEST PERIOD

Test ID	Date	pH	Liquid Phase, mg/L			Slurry Solids, wt. %	Solid Phase, wt. %			Inerts, wt. %	
			Carbonate	Sulfite	Sulfate		Chloride	Calcium	Carbonate		Sulfate
Parametric Tests											
P2-0	15-Mar-94	4.59	170	1.6	743	63,928	18.29	22.9	1.1	52.6	0.93
P2-2	18-Mar-94	4.43	170	1.6	937	45,151	16.30	23.8	4.5	49.7	1.55
P2-5	22-Mar-94	4.31	170	1.6	879	44,418	17.22	22.3	5.9	45.7	4.00
P2-6	25-Mar-94	3.52	—	1.6	1256	40,130	20.49	14.1	0.8	31.9	35.38
P2-11	20-Apr-94	3.64	170	0.0	1213	16,868	21.24	—	1.1	—	—
P2-15	25-Apr-94	3.94	170	0.0	1231	20,286	18.20	—	—	—	—
P2-31	28-Apr-94	3.80	170	0.8	1204	27,477	20.45	—	—	—	—
P2-19	02-May-94	3.72	179	0.8	1238	30,622	20.95	—	—	—	—
P2-22	06-May-94	3.96	179	0.0	1232	22,674	22.62	—	—	—	—
P2-17	11-May-94	3.21	179	0.0	1279	23,046	21.42	—	—	—	—
P2-27	16-May-94	3.46	179	7.2	1331	27,313	19.56	—	—	—	—
P2-30	20-May-94	3.88	142	1.6	1178	26,477	21.03	—	—	—	—
P2-31	23-May-94	3.40	142	2.4	1175	26,537	19.11	—	—	—	—
Long-Term Tests											
L2-1	01-Jun-94	4.48	142	0.0	1103	19,355	14.30	—	—	—	—
	07-Jun-94	4.44	142	0.0	1234	16,384	10.34	—	—	—	—
L2-2	15-Jun-94	4.19	142	0.8	1057	33,253	20.51	—	—	—	—
	20-Jun-94	4.23	142	1.6	1097	26,389	16.56	—	—	—	—
	27-Jun-94	4.07	142	0.8	967	40,902	18.77	—	—	—	—
	07-Jul-94	4.02	142	0.8	1074	32,801	19.38	—	—	—	—
	11-Jul-94	3.92	142	0.0	1030	37,460	19.57	—	—	—	—

TABLE A-20 (CONTINUED)

Test ID	Date	pH	Liquid Phase, mg/L				Slurry Solids, wt. %	Solid Phase, wt. %			Inerts, wt. %
			Carbonate	Sulfite	Sulfate	Chloride		Calcium	Carbonate	Sulfate	
L2-2 (Cont'd)	18-Jul-94	3.81	142	0.0	1030	39,135	22.17	---	---	---	
	25-Jul-94	4.07	142	0.8	978	43,988	21.07	---	---	---	
	01-Aug-94	4.01	142	0.8	966	43,570	15.99	---	---	---	
	10-Aug-94	4.10	142	5.6	1052	44,591	17.53	---	---	---	
	15-Aug-94	4.32	142	1.6	986	44,035	14.11	---	---	---	
L2-3	22-Aug-94	3.97	142	2.4	963	51,480	17.06	---	---	---	
	28-Aug-94	4.02	142	2.4	1029	48,353	16.63	---	---	---	
High Removal Tests											
HR2-2	08-Sep-94	3.78	142	0.0	1288	20,176	12.13	---	---	---	
	12-Sep-94	3.81	58	0.8	1131	38,893	16.20	---	---	---	
	19-Sep-94	3.98	58	0.0	1227	37,986	14.51	---	---	---	
Alternate Coal Tests											
AC2-2	05-Oct-94	4.08	58	0.8	1171	31,505	18.28	---	---	---	
AC2-5	13-Oct-94	4.30	58	0.8	1182	36,176	19.43	---	---	---	
AC2-8	17-Oct-94	4.07	58	0.8	1176	40,433	17.57	---	---	---	
AC2-10	24-Oct-94	3.98	58	0.8	1009	51,347	15.74	---	---	---	
Alternate Limestone Tests											
AL2-1	02-Dec-94	4.03	58	1.6	1408	13,040	12.64	---	---	---	
AL2-3	06-Dec-94	3.93	58	0.8	1356	14,608	12.72	---	---	---	
AL2-4	12-Dec-94	4.25	58	2.4	1378	16,437	16.25	---	---	---	
AL2-5	15-Dec-94	3.73	58	2.4	1377	18,562	12.72	---	---	---	
AL2-6	19-Dec-94	3.99	58	2.4	1402	17,494	10.47	---	---	---	
AL2-14	27-Dec-94	3.72	58	4.0	1360	21,136	12.57	---	---	---	

TABLE A-21
BR FROTH ZONE LIQUID-PHASE TRACE
METALS: LOW-PARTICULATE TEST PERIOD

Element	Units	14-Jun-93	12-Jul-93	09-Aug-93	14-Sep-93
Aluminum	mg/L	4.67	0.45	18.9	7.75
Antimony	mg/L	0.02	0.01 ^b	0.07	<0.0139
Arsenic	mg/L	<0.011	<0.008	<0.002	0.01
Barium	mg/L	2.09	0.18	2.12	3.08
Beryllium	mg/L	0.01	<0.004	0.01	<0.0016
Boron	mg/L	894	70	899	1510
Cadmium	mg/L	0.25	0.02	0.31	0.51
Copper	mg/L	0.23	0.03	0.32	0.31
Chromium	mg/L	0.04	<0.007	0.02	0.04
Cobalt	mg/L	0.18	0.02	0.27	0.4
Iron	mg/L	0.162 ^b	<0.02	<0.019	<0.0319
Lead	mg/L	<0.004	0.001 ^b	0	<0.008
Manganese	mg/L	193	16.4	212	332
Mercury	mg/L	—	—	0.003	0.0056
Molybdenum	mg/L	0.014 ^b	0.014 ^b	<0.014	0.07
Nickel	mg/L	0.98	0.08	1.1	1.6
Potassium	mg/L	78.1	5	94	150
Selenium	mg/L	0.12	0.09	0.16	0.09
Silicon	mg/L	24.6	3.1	35.2	29.1
Sodium	mg/L	153	11.9	194	297
Vanadium	mg/L	0.12	<0.007	0.08	0.17

^a Value less than five times detection limit.

^b Value less than detection limit.

TABLE A-22
JBR FROTH ZONE AQUEOUS-PHASE TRACE METALS: HIGH-PARTICULATE TEST PERIOD

Element	21-Mar-94	25-Apr-94	07-Jun-94	27-Jul-94	10-Aug-94	12-Sep-94	17-Oct-94	06-Dec-94	07-Dec-94
Aluminum	<0.0523	62.20	20.2	6.65	24.2	49.3	29.5	35.6	49.9
Antimony	0.01	0.01	0.00658	0.0173	0.0204	0.0296	0.0187	0.00613	0.00809
Arsenic	0.06	0.04	<0.00856	0.018	<0.0107	0.0396	0.00648	0.0071	0.0158
Barium	<0.001	0.29	0.302	0.353	0.395	0.552	0.466	0.278	0.459
Beryllium	<0.0005	0.03	0.00815	0.00972	0.0111	0.025	0.0319	0.034	0.0318
Boron	872.00	394.00	318	482	479	446	624	136	219
Cadmium	<0.004	0.12	0.126	0.175	0.164	0.153	0.221	0.0603	0.0947
Chromium	<0.005	0.02	0.0654	0.0736	0.0716	0.0538	0.0559	0.0822	0.0812
Cobalt	<0.004	0.14	0.128	0.186	0.203	0.219	0.243	0.118	0.158
Copper	<0.009	0.30	0.107	0.176	0.187	0.301	0.125	0.223	0.359
Iron	<0.004	<0.004	<0.00452	<0.00452	1.17	0.0373	<0.0045	0.0515	0.0807
Lead	0.02	0.01	0.00369	0.0332	0.0731	0.0459	0.016	0.00542	0.00494
Manganese	0.18	32.30	25.3	33.6	31.8	32.6	52.4	13	20.4
Mercury	<0.00033	0.01	0.00576	0.00098	0.00164	0.0004	0.00024	0.00017	0.00017
Molybdenum	<0.007	0.17	0.0654	0.145	0.046	0.0845	0.122	0.024	0.0375
Nickel	<0.014	0.62	0.571	0.751	0.693	0.721	1.24	0.354	0.422
Potassium	<0.822	60.70	57.5	87.2	82.8	89.3	120	33.2	52.6
Selenium	0.03	0.26	0.202	0.205	0.088	0.109	0.0938	0.0677	0.124
Silicon	<0.032	41.00	18	18.2	17.7	31.7	20.4	23.3	34.3
Sodium	<0.04	93.30	93.3	135	123	125	164	48.4	76.2
Vanadium	<0.004	0.05	0.25	0.243	<0.0454	<0.0454	<0.045	<0.0227	<0.0227

Note: All concentrations are in units of mg/L

TABLE A-23
JBR DRAW-OFF ANALYSES: LOW-PARTICULATE TEST PERIOD

Test ID	Date	pH	Slurry Solids, wt. %	Solid Phase, wt. %					
				Calcium	Magnesium	Sulfite	Sulfate	Carbonate	Inerts
Parametric Tests									
P1-2	22-Jan-93	4.5	22.6	24.7	0.00	0.00	56.8	1.1	1.66
P1-6	27-Jan-93	4.8	22.6	24.2	0.00	0.08	53.8	1.8	0.00
P1-9	01-Feb-93	4.9	19.0	23.2	0.00	0.00	56.3	0.7	1.20
P1-12	05-Feb-93	5.3	22.7	22.4	0.00	0.00	57.4	0.7	1.27
P1-14	09-Feb-93	4.9	22.5	24.5	0.00	0.00	58.0	0.8	0.94
P1-18	15-Feb-93	4.4	21.1	24.2	0.00	0.00	59.7	0.5	0.56
P1-21	21-Feb-93	5.2	22.6	22.5	0.00	0.00	53.6	1.1	0.67
P1-24	26-Feb-93	4.8	21.5	22.2	0.02	0.00	54.0	1.1	2.41
P1-27	04-Mar-93	5.2	22.0	23.2	0.15	0.08	56.8	1.4	1.98
P1-28	08-Mar-93	4.5	19.9	22.4	0.07	0.00	58.7	0.5	2.12
P1-21R	12-Mar-93	5.4	20.6	23.7	0.02	0.00	55.5	1.3	0.26
P1-31	16-Mar-93	4.9	15.5	23.6	0.00	0.00	54.6	0.5	1.76
P1-32	18-Mar-93	5.2	19.6	23.8	0.00	0.00	54.2	0.8	1.83
P1-33	20-Mar-93	5.2	19.1	23.1	0.02	0.08	55.8	2.7	1.63
P1-34	22-Mar-93	5.5	19.8	26.5	0.05	0.08	55.4	19.0	0.00
P1-35	28-Mar-93	5.3	20.6	24.8	0.02	0.08	50.0	4.7	0.45
P1-36	30-Mar-93	5.7	23.0	28.0	0.05	0.08	41.9	14.5	0.51
Long-Term Tests									
L1-1	05-Apr-93	4.98	20.02	22.2	0.02	0.16	55.8	0.5	1.63
L1-2	19-Apr-93	5.12	23.96	23.5	0.02	0.00	53.7	1.1	2.03
	25-Apr-93	5.27	18.25	22.3	0.02	0.00	53.8	1.3	1.63
L1-3	28-May-93	4.71	20.55	22.9	0.00	0.00	57.1	0.7	1.82
	01-Jun-93	4.74	22.64	24.4	0.00	0.00	59.1	1.0	1.71
	06-Jun-93	4.63	23.24	23.2	0.00	0.00	54.2	1.6	2.17
	14-Jun-93	5.02	14.24	21.7	0.00	0.00	53.7	0.5	0.86
	22-Jun-93	4.86	21.86	23.4	0.00	0.08	53.9	1.3	1.59
	28-Jun-93	4.82	20.77	23.0	0.00	0.00	56.0	0.6	1.86
	06-Jul-93	4.54	21.3	23.8	0.00	0.00	57.6	0.5	1.66
	12-Jul-93	4.81	21.98	22.8	0.00	0.08	55.6	0.3	0.38
	26-Jul-93	5.10	21.04	21.8	0.00	0.00	53.7	0.5	1.58
	02-Aug-93	5.17	21.51	22.1	0.02	0.00	56.2	0.3	0.80
	09-Aug-93	4.54	14.55	23.1	0.02	0.00	54.9	0.8	1.68
	16-Aug-93	5.08	18.31	23.2	0.02	0.00	55.6	0.9	1.49
	23-Aug-93	4.68	20.03	23.2	0.02	0.00	55.3	0.2	1.86
29-Aug-93	4.55	22.22	22.1	0.00	0.00	55.3	0.3	1.03	
07-Sep-93	3.83	17.45	21.9	0.02	0.00	54.6	0.3	2.10	
High Removal Tests									
HR1-1	14-Sep-93	4.81	19.76	22.9	0.02		54.9	1.1	3.27
	19-Sep-93	5.27	22.90	23.9	0.05	0.00	55.0	0.5	0.48
	27-Sep-93	4.28	19.13	23.7	0.02	0.00	54.2	0.4	1.63
HR1-4	05-Oct-93	5.05	20.71	21.6	0.02	0.00	51.0	2.9	2.40
	11-Oct-93	4.35	19.84	24.6	0.07	11.85	53.0	7.9	2.21
	14-Oct-93	4.32	25.01	24.6	0.02	4.88	57.4	0.9	2.03
	18-Oct-93	4.80	26.91	22.2	0.00	0.08	52.4	1.0	2.05
	24-Oct-93	5.10	27.85	20.2	0.12	0.00	43.6	1.9	15.54

TABLE A-23 (CONTINUED)

Test ID	Date	pH	Slurry Solids, wt. %	Solid Phase, wt. %					
				Calcium	Magnesium	Sulfite	Sulfate	Carbonate	Inerts
Alternate Limestone Tests									
PIA-11	01-Nov-93	4.67	21.04	22.0	0.07	0.00	52.7	0.1	0.94
PIB-1	02-Dec-93	5.06	22.10	23.6	0.12	0.08	55.8	2.1	0.94
PIB-5	05-Dec-93	4.70	21.92	22.2	0.10	0.16	48.9	3.8	0.82
PIB-9R	13-Dec-93	4.34	16.99	23.2	0.15	0.16	54.9	0.4	1.41
	19-Dec-93	5.18	24.46	24.7	0.17	0.08	53.2	3.8	1.06
	28-Dec-93	4.84	21.10	23.4	0.07	0.00	53.1	0.1	0.70
AL1-1	03-Jan-94	4.8	22.15	24.0	0.12	0.00	56.7	0.7	0.77
	10-Jan-94	4.65	21.36	22.9	0.15	0.00	55.1	0.7	0.76
	17-Jan-94	4.98	22.26	23.8	0.12	0.00	53.7	1.0	0.59
Alternate Coal Parametric Tests									
AC1-1	25-Jan-94	4.52	17.79	23.2	0.17	0.00	55.0	1.1	0.71
	31-Jan-94	5.17	19.22	24.2	0.12	0.00	53.6	1.1	0.52
AC1-3	07-Feb-94	4.28	23.77	24.4	0.44	0.00	55.2	1.0	0.51
AC1-10	14-Feb-94	5.14	21.74	23.6	0.22	0.00	54.1	2.0	0.43

TABLE A-24
JBR DRAW-OFF ANALYSES: HIGH-PARTICULATE TEST PERIOD

Test ID	Date	pH	Slurry Solids, wt. %	Solid Phase, wt. %					Inerts, wt. %
				Calcium	Magnesium	Sulfite	Sulfate	Carbonate	
Parametric Tests									
P2-0	15-Mar-94	4.81	20.93	23.0	0.2	0.0	52.9	1.1	0.95
P2-2	18-Mar-94	4.55	18.40	23.6	0.3	0.0	49.3	4.9	1.15
P2-5	21-Mar-94	4.65	26.65	25.1	0.4	0.0	41.4	12.7	1.07
	22-Mar-94	4.11	24.80	22.5	0.3	0.0	46.7	6.1	2.08
P2-6	25-Mar-94	3.32	20.32	13.3	0.1	0.0	30.7	0.7	38.99
P2-11	20-Apr-94	4.57	23.68	13.9	0.1	0.0	32.7	1.1	32.51
P2-15	25-Apr-94	4.04	19.19	14.1	0.1	0.0	32.5	0.4	37.42
P2-31	28-Apr-94	3.86	20.32	13.1	0.1	0.0	31.1	0.8	41.65
P2-19	02-May-94	4.28	21.01	14.0	0.1	0.0	33.6	1.0	35.28
P2-22	06-May-94	4.07	19.96	14.8	0.1	0.0	32.0	1.9	35.64
P2-17	11-May-94	3.71	23.04	16.0	0.1	0.0	36.1	0.2	33.06
P2-27	16-May-94	3.89	19.34	13.9	0.1	0.0	30.9	0.7	41.34
P2-30	20-May-94	4.37	19.46	12.3	0.1	0.1	29.3	1.3	37.87
P2-31	23-May-94	4.07	19.94	12.9	0.1	0.0	32.5	0.8	37.53
Long-Term Tests									
L2-1	01-Jun-94	4.88	24.20	20.7	0.1	0.0	49.5	1.4	5.51
	07-Jun-94	4.72	10.92	22.3	0.2	0.2	46.9	6.6	2.24
L2-2	15-Jun-94	4.55	20.12	20.0	0.1	0.0	49.4	0.6	6.61
	20-Jun-94	4.71	17.20	20.7	0.0	0.0	49.2	0.7	6.41
	27-Jun-94	4.61	17.11	20.8	0.0	0.0	50.2	0.2	4.91
	07-Jul-94	4.60	19.47	21.2	0.1	0.0	50.7	0.9	5.85
	11-Jul-94	4.56	20.79	21.9	0.2	0.0	50.7	0.7	6.63
	18-Jul-94	4.59	18.82	22.1	0.0	0.0	50.6	0.7	5.49
	25-Jul-94	4.45	19.81	21.2	0.1	0.0	49.7	0.7	7.87
	01-Aug-94	4.14	18.25	22.2	0.1	0.0	52.3	0.3	4.45
	10-Aug-94	4.34	16.60	21.9	0.2	0.0	50.7	0.5	6.82
	15-Aug-94	4.53	16.96	22.2	0.1	0.0	52.1	0.8	5.69
L2-3	22-Aug-94	4.38	18.23	21.6	0.2	0.0	51.7	0.9	6.41
	28-Aug-94	4.32	16.90	21.6	0.0	0.0	52.2	0.5	7.74
High Removal Test									
HR2-2	08-Sep-94	4.10	13.97	19.9	0.0	0.0	47.8	0.2	12.11
	12-Sep-94	4.21	21.33	19.4	0.0	0.0	46.3	0.6	18.03
	19-Sep-94	4.47	15.68	21.8	0.1	0.0	52.8	1.6	2.26
Alternate Coal Test									
AC2-2	05-Oct-94	4.77	20.92	21.8	0.1	0.0	50.7	1.6	7.76
AC2-5	13-Oct-94	4.62	22.57	22.4	0.2	0.0	50.8	1.7	7.95
AC2-8	17-Oct-94	4.45	21.39	24.0	0.2	0.0	55.2	1.9	5.43
AC2-10	24-Oct-94	3.98	17.73	22.1	0.2	0.0	51.4	1.9	3.94
Alternate Limestone Tests									
AL2-1	02-Dec-94	4.25	14.92	20.1	0.1	0.0	47.6	0.7	12.51
AL2-3	06-Dec-94	4.30	15.20	20.0	0.0	0.0	48.0	0.6	14.23
AL2-4	12-Dec-94	4.62	14.39	23.8	0.1	0.0	45.1	8.3	4.81
AL2-5	15-Dec-94	3.92	15.01	22.7	0.1	0.0	52.4	1.4	2.76
AL2-6	19-Dec-94	4.17	10.79	23.1	0.1	0.0	52.7	2.3	2.60
AL2-14	27-Dec-94	4.12	13.68	22.4	0.1	0.0	52.6	1.1	3.70

TABLE A-25
JBR DRAW-OFF SOLID-PHASE TRACE METALS: LOW-PARTICULATE TEST PERIOD

Element	25-Jun-93	14-Jun-93	28-Jun-93	12-Jul-93	26-Jul-93	09-Aug-93	23-Aug-93	14-Sep-93
Aluminum	848	676	709	621	307	661	909	979
Antimony	0.1	0.09	0.2	0.1	0.09	0.1	0.09	0.09
Arsenic	<0.31	<0.31	0.31	<0.31	<0.31	<0.31	<0.31	<0.30
Barium	1.64	1.84	1.95	1.62	1.37	1.78	3.5	4.05
Beryllium	0.12	0.12	0.18	0.12	0.13	<0.058	<0.056	<0.0535
Boron	105	30	139	99	116	108	93	186
Cadmium	<0.279	<0.27	<0.281	<0.273	<0.266	<0.284	<0.271	<0.261
Copper	2.59	2.42	1.66	1.52	1.19	4.47	4.95	4.41
Chromium	8.85	8.54	7.99	6.89	7.39	8.15	7.3	9.29
Cobalt	1.1	0.52	1.08	1.52	1.19	4.47	4.95	4.41
Iron	1460	1440	1320	1060	1080	1340	1590	1920
Lead	0.69	0.69	1.13	0.79	1.19	0.96	0.99	1.52
Manganese	32	15.4	31.9	24.2	28.6	37.3	31.1	517
Mercury	0.118	0.0875	0.102	0.0325	0.045	0.0575	0.0975	0.0975
Molybdenum	0.72	0.79	0.65	1.23	0.75	1.12	0.6	0.83
Nickel	1.71	1.25	1.82	1.5	1.07	2.13	1.2	2.52
Potassium	179	139	215	222	147	164	113	220
Selenium	2.25	<0.147	4.06	2.57	3.07	1.92	4.55	2.95
Silicon	683	459	399	355	374	442	594	374
Sodium	<25.1	24.1	45.5	36.8	44.2	34.8	31.4	57.6
Vanadium	<4.17	7.05	7.92	7.14	6.32	7.72	7.37	8.73

Note: Units are mg/kg.

TABLE A-26
JBR DRAW-OFF SOLID-PHASE TRACE METALS: HIGH-PARTICULATE TEST PERIOD

Element	25-Apr-94	07-Jun-94	27-Jul-94	10-Aug-94	22-Aug-94	17-Oct-94	02-Dec-94	06-Dec-94	07-Dec-94
Aluminum	5900.00	1150	1930	1610	2520	1610	2600	3370	2800
Antimony	0.82	0.572	0.523	0.52	0.602	0.631	0.568	1.04	0.687
Arsenic	13.00	3.75	6.56	9.6	22.7	6.29	26.2	29	25
Barium	224.00	153	144	124	222	149	85.6	106	88.1
Beryllium	1.20	0.272	0.234	0.0618	0.269	0.327	1.69	1.66	1.71
Boron	82.10	84.3	222	201	477	544	4.33	105	84.6
Cadmium	<0.36	<0.348	<0.298	<0.339	0.62	0.682	<1.57	<1.58	<1.59
Chromium	18.50	11.4	12.6	14.1	13	9.48	12.6	12.1	11.6
Cobalt	<2.59	0.655	0.944	2.23	3.06	1.24	2.41	3.08	<2.30
Copper	12.90	4.42	5.5	4.58	8.49	3950	10.3	15.3	12.8
Iron	9300.00	1480	2540	3640	3530	<1.63	3580	4060	3600
Lead	10.30	—	5.12	5.45	4.88	1.66	5.91	6.41	6.08
Manganese	33.30	45.9	23.5	17.2	59.4	66.8	9.15	22.1	17.3
Mercury	0.15	0.03	0.338	0.174	0.612	0.252	0.766	0.555	0.668
Molybdenum	14.80	7.12	6.25	7.85	8.24	6.4	7.14	7.01	2.92
Nickel	7.48	2.18	4.47	6.4	5.47	10.6	<4.79	10.2	12.9
Potassium	1350.00	361	473	445	826	535	545	638	635
Selenium	4.25	2.86	9.9	7.77	12.00	4.38	18.2	16.3	17
Silicon	499.00	756	345	369	1000	238	538	411	465
Sodium	359.00	113	148	130	265	186	79.9	135	115
Vanadium	44.40	29.6	31.7	17.4	17.7	11.2	18.4	26.1	20.2

Note: All concentrations are in units of mg/kg

TABLE A-27
 COAL PROXIMATE ANALYSES
 (AS BURNED): LOW-PARTICULATE TEST PERIOD

Date	H O, wt. %	Ash, wt. %	Volatiles, wt. %	Fixed C, wt. %	Sulfur, wt. %	HHV, Btu/lb
Parametric Tests						
15-Jan-93	12.86	11.12	33.0	43.0	2.38	10,834
16-Jan-93	13.06	10.98	33.4	42.6	2.37	10,922
17-Jan-93	13.90	10.60	33.2	42.3	2.32	10,858
18-Jan-93	13.14	10.74	33.1	43.0	2.42	10,972
19-Jan-93	12.98	10.69	33.3	43.1	2.39	10,981
20-Jan-93	12.79	10.71	33.5	43.0	2.45	10,987
21-Jan-93	14.70	10.54	33.0	41.8	2.42	10,726
22-Jan-93	13.67	10.89	33.3	42.0	2.44	10,777
23-Jan-93	13.39	10.91	33.3	42.4	2.39	10,859
24-Jan-93	15.13	10.82	32.6	41.4	2.34	10,690
25-Jan-93	13.88	10.64	26.4	42.2	2.31	10,869
26-Jan-93	13.56	10.89	32.8	42.7	2.29	10,859
27-Jan-93	13.07	9.38	33.8	43.7	2.48	11,225
28-Jan-93	13.09	9.34	33.9	43.6	2.48	11,098
29-Jan-93	12.84	9.14	34.2	43.8	2.55	11,299
30-Jan-93	12.49	9.13	34.3	44.0	2.50	11,308
31-Jan-93	13.05	9.76	34.9	42.3	2.63	11,093
01-Feb-93	6.66	11.36	33.4	48.6	1.53	12,340
02-Feb-93	12.03	10.61	34.1	43.2	2.57	10,955
03-Feb-93	12.23	10.29	34.3	43.2	2.54	11,045
04-Feb-93	11.93	10.24	34.5	43.2	2.56	11,216
05-Feb-93	12.15	9.81	34.4	43.6	2.50	11,297
06-Feb-93	11.67	9.76	34.7	43.9	2.48	11,331
07-Feb-93	12.52	10.79	34.4	42.3	2.57	11,015
08-Feb-93	13.27	10.91	33.9	41.9	2.57	10,919
09-Feb-93	13.50	9.26	33.7	43.5	2.40	11,159
10-Feb-93	14.27	9.37	33.1	43.3	2.44	11,039
11-Feb-93	14.18	9.49	33.2	43.2	2.43	11,045
12-Feb-93	15.00	9.22	33.3	42.5	2.45	10,932
13-Feb-93	14.35	9.65	33.6	42.5	2.46	10,950
14-Feb-93	13.44	9.93	33.7	42.9	2.41	11,053
15-Feb-93	13.46	10.37	33.7	42.5	2.32	11,009
16-Feb-93	14.20	9.68	34.1	42.0	2.66	10,941
17-Feb-93	13.62	9.84	34.4	42.2	2.69	11,007
18-Feb-93	13.77	9.86	33.6	42.8	2.65	10,990
20-Feb-93	13.63	9.96	33.6	42.8	2.65	11,004
21-Feb-93	15.37	9.91	32.9	41.8	2.56	10,764
22-Feb-93	15.16	9.86	33.8	41.2	2.64	10,804
23-Feb-93	12.63	9.11	34.6	43.7	2.48	11,324
25-Feb-93	12.92	9.35	34.6	43.2	2.52	11,197
26-Feb-93	13.32	9.39	34.3	43.0	2.56	11,163
27-Feb-93	12.81	9.54	34.6	43.1	2.55	11,249
28-Feb-93	12.70	9.52	34.6	43.2	2.59	11,225
01-Mar-93	13.05	9.89	34.3	42.8	2.60	11,102
02-Mar-93	13.92	10.64	33.3	42.1	2.40	10,884
03-Mar-93	12.82	8.89	34.5	43.8	2.38	11,368
04-Mar-93	11.40	9.76	33.7	45.2	2.14	11,494

TABLE A-27 (CONTINUED)

Date	H O, wt. %	Ash, wt. %	Volatiles, wt. %	Fixed C, wt. %	Sulfur, wt. %	HHV, Btu/lb
05-Mar-93	13.32	9.13	33.5	44.0	2.42	11,196
06-Mar-93	13.23	8.84	34.0	44.0	2.42	11,237
07-Mar-93	12.24	8.95	34.6	44.2	2.39	11,362
08-Mar-93	12.65	8.97	34.6	43.8	2.48	11,374
09-Mar-93	12.65	8.98	34.7	43.7	2.38	11,376
10-Mar-93	12.67	9.11	34.8	43.5	2.70	11,305
11-Mar-93	12.31	8.96	34.8	43.9	2.63	11,379
12-Mar-93	11.90	9.18	34.5	44.5	2.37	11,440
13-Mar-93	10.96	9.96	32.9	46.2	1.90	11,674
14-Mar-93	13.29	8.81	34.3	43.6	2.31	11,296
15-Mar-93	12.65	9.00	34.6	43.8	2.49	11,314
16-Mar-93	12.74	8.99	34.6	43.6	2.45	11,318
17-Mar-93	12.28	8.93	34.5	44.4	2.33	11,414
18-Mar-93	12.67	8.90	34.5	44.0	2.44	11,366
19-Mar-93	12.30	9.02	34.9	43.8	2.42	11,353
20-Mar-93	12.85	8.92	34.6	43.7	2.36	11,308
21-Mar-93	12.46	9.03	34.7	43.9	2.39	11,390
22-Mar-93	12.59	8.84	34.7	43.9	2.39	11,364
23-Mar-93	12.00	8.84	34.3	44.8	2.38	11,401
24-Mar-93	11.61	8.89	34.6	44.8	2.38	11,493
25-Mar-93	11.55	8.81	35.0	44.7	2.37	11,520
26-Mar-93	12.19	9.29	33.1	45.4	2.27	11,443
27-Mar-93	12.27	9.33	33.6	44.8	2.27	11,450
28-Mar-93	12.25	9.35	33.4	44.9	2.21	11,463
29-Mar-93	13.02	8.73	34.3	44.0	2.35	11,329
30-Mar-93	12.71	8.70	34.3	44.3	2.28	11,400
31-Mar-93	11.15	9.58	33.7	45.6	2.02	11,570
Long-Term Tests						
02-Apr-93	12.88	8.69	34.3	44.1	2.41	11,328
03-Apr-93	12.24	9.15	34.4	44.1	2.36	11,365
04-Apr-93	12.22	8.88	34.7	44.2	2.52	11,446
05-Apr-93	12.05	8.86	33.2	45.9	2.15	11,739
06-Apr-93	12.94	8.97	34.6	43.4	2.42	11,300
07-Apr-93	12.60	8.98	34.5	43.9	2.23	11,360
15-Apr-93	12.04	9.00	34.0	44.9	2.23	11,507
16-Apr-93	13.36	8.85	33.5	44.3	2.20	11,328
17-Apr-93	12.08	8.96	34.2	44.8	2.30	11,461
18-Apr-93	11.07	9.30	34.1	45.4	2.27	11,606
19-Apr-93	12.12	8.81	34.5	44.6	2.35	11,448
20-Apr-93	12.59	9.09	34.4	43.9	2.26	11,372
21-Apr-93	12.55	9.27	34.3	44.0	2.26	11,325
22-Apr-93	11.98	9.27	34.3	44.5	2.29	11,415
23-Apr-93	11.33	9.39	34.1	45.1	2.32	11,553
24-Apr-93	11.50	9.20	34.3	45.0	2.34	11,506
25-Apr-93	12.04	9.22	34.0	44.7	2.38	11,457
26-Apr-93	11.75	9.22	34.3	44.7	2.28	11,518
27-Apr-93	11.60	8.99	34.9	44.5	2.32	11,538
28-Apr-93	11.68	9.21	34.4	44.6	2.33	11,497
01-Jun-93	11.81	8.95	34.4	44.9	2.23	11,338
02-Jun-93	10.96	8.86	35.0	45.1	2.29	11,623
03-Jun-93	11.60	8.80	34.5	45.2	2.29	11,556

TABLE A-27 (CONTINUED)

Date	H ₂ O, wt. %	Ash, wt. %	Volatiles, wt. %	Fixed C, wt. %	Sulfur, wt. %	HHV, Btu/lb
04-Jun-93	11.86	8.75	34.7	44.7	2.32	11,491
05-Jun-93	11.27	8.84	35.2	44.7	2.36	11,507
06-Jun-93	10.79	9.03	35.1	45.1	2.35	11,545
07-Jun-93	10.59	9.13	35.3	45.0	2.34	11,572
08-Jun-93	9.77	9.24	35.3	45.7	2.34	11,725
09-Jun-93	12.85	9.50	31.5	46.8	1.84	12,481
10-Jun-93	9.85	9.24	35.2	45.7	2.37	11,696
12-Jun-93	10.22	8.91	34.2	46.6	2.23	11,864
13-Jun-93	11.16	9.02	34.5	45.4	2.24	11,621
14-Jun-93	11.15	9.10	34.1	45.7	2.23	11,601
15-Jun-93	11.34	9.05	34.3	45.3	2.38	11,544
16-Jun-93	10.96	8.93	35.2	45.0	2.38	11,583
17-Jun-93	9.33	9.30	34.5	46.9	2.22	11,896
18-Jun-93	10.50	9.47	34.5	45.6	2.35	11,640
19-Jun-93	12.39	9.43	34.2	44.0	2.54	11,215
20-Jun-93	11.49	10.09	33.8	44.7	2.41	11,309
21-Jun-93	11.89	9.24	34.4	44.5	2.43	11,330
22-Jun-93	11.68	9.62	33.7	45.0	2.43	11,340
23-Jun-93	11.11	9.38	34.8	44.6	2.41	11,464
24-Jun-93	12.76	9.33	33.9	44.0	2.49	11,200
26-Jun-93	11.75	10.26	33.4	44.6	2.36	11,186
27-Jun-93	11.50	10.92	33.5	44.2	2.38	11,196
28-Jun-93	12.58	10.95	33.2	43.3	2.28	11,024
29-Jun-93	13.12	9.80	33.4	43.6	2.41	11,094
30-Jun-93	13.66	9.27	33.4	43.6	2.45	11,103
01-Jul-93	12.90	9.39	33.7	44.0	2.45	11,144
02-Jul-93	12.59	9.50	33.3	44.6	2.45	11,209
03-Jul-93	13.07	9.66	33.2	44.1	2.43	11,174
04-Jul-93	11.85	9.76	33.8	44.6	2.45	11,296
05-Jul-93	12.24	9.70	33.7	44.3	2.44	11,230
06-Jul-93	11.30	9.76	33.9	45.1	2.41	11,355
07-Jul-93	10.07	9.78	33.9	46.3	2.36	11,705
08-Jul-93	11.62	9.90	34.4	44.1	2.54	11,205
09-Jul-93	12.85	9.80	33.9	43.5	2.56	11,149
10-Jul-93	10.38	9.60	33.6	46.4	2.19	11,740
11-Jul-93	11.91	9.85	33.9	44.3	2.44	11,339
12-Jul-93	11.75	10.04	33.8	44.5	2.46	11,319
13-Jul-93	12.93	9.33	33.7	44.1	2.39	11,215
14-Jul-93	12.98	9.18	33.3	44.6	2.31	11,266
15-Jul-93	13.54	8.99	33.4	44.1	2.36	11,176
16-Jul-93	11.66	9.27	33.2	45.8	2.15	11,544
17-Jul-93	13.50	9.06	33.7	43.7	2.41	11,143
18-Jul-93	13.80	8.92	33.4	43.9	2.36	11,106
19-Jul-93	13.47	8.82	33.6	44.1	2.33	11,195
20-Jul-93	11.94	8.88	34.2	45.0	2.51	11,403
21-Jul-93	12.39	8.99	34.0	44.7	2.44	11,339
23-Jul-93	11.32	9.15	34.1	45.4	2.42	11,505
24-Jul-93	11.31	9.14	34.5	45.1	2.40	11,480
25-Jul-93	10.86	9.11	34.2	45.8	2.30	11,613
26-Jul-93	11.34	9.58	34.3	44.8	2.58	11,428
28-Jul-93	9.78	9.87	34.2	46.2	2.19	11,680

TABLE A-27 (CONTINUED)

Date	H ₂ O, wt. %	Ash, wt. %	Volatiles, wt. %	Fixed C, wt. %	Sulfur, wt. %	HHV, Btu/lb
29-Jul-93	12.09	8.92	33.8	45.1	2.25	11,467
30-Jul-93	11.90	8.92	33.8	45.4	2.21	11,498
31-Jul-93	12.15	9.03	34.0	44.8	2.42	11,379
01-Aug-93	12.01	8.77	34.1	45.1	2.29	11,463
02-Aug-93	11.14	9.41	33.6	45.9	2.28	11,540
03-Aug-93	11.76	8.67	33.8	45.8	2.23	11,548
04-Aug-93	11.61	9.01	33.9	45.6	2.34	11,540
05-Aug-93	11.76	9.00	33.8	45.4	2.35	11,499
08-Aug-93	14.28	8.85	33.3	43.5	2.60	11,081
09-Aug-93	12.72	8.91	33.3	45.1	2.37	11,360
10-Aug-93	13.29	9.05	32.4	45.2	2.06	11,282
11-Aug-93	11.82	8.83	33.8	45.6	2.37	11,538
12-Aug-93	12.62	8.59	33.6	45.2	2.38	11,406
13-Aug-93	12.25	8.73	33.4	45.6	2.28	11,535
14-Aug-93	12.36	10.42	32.9	44.3	2.31	11,155
15-Aug-93	12.70	9.87	33.1	44.3	2.84	11,245
16-Aug-93	12.53	8.85	33.2	45.5	2.16	11,474
17-Aug-93	11.14	9.38	33.4	46.0	2.24	11,564
18-Aug-93	12.09	9.93	33.0	45.0	2.23	11,280
19-Aug-93	11.40	9.60	33.5	45.5	2.28	11,449
20-Aug-93	11.47	10.17	33.8	44.5	2.39	11,368
21-Aug-93	10.78	10.44	33.5	45.3	2.26	11,464
23-Aug-93	8.31	11.27	31.5	48.9	1.76	11,971
24-Aug-93	10.72	10.69	33.4	45.2	2.39	11,388
25-Aug-93	10.70	10.77	33.2	45.3	2.30	11,434
26-Aug-93	10.92	10.58	33.1	45.3	2.33	11,412
27-Aug-93	11.06	10.29	33.4	45.3	2.47	11,392
28-Aug-93	11.87	10.66	33.2	44.2	2.36	11,216
29-Aug-93	10.89	10.35	33.7	45.1	2.32	11,405
30-Aug-93	10.10	9.08	34.6	46.2	2.31	11,690
31-Aug-93	10.88	9.38	34.5	45.3	2.46	11,481
01-Sep-93	10.71	10.13	33.8	45.4	2.43	11,460
02-Sep-93	10.92	10.08	33.8	45.3	2.45	11,439
03-Sep-93	10.96	9.99	33.7	45.3	2.42	11,420
04-Sep-93	11.25	9.69	33.8	45.3	2.40	11,394
07-Sep-93	10.64	10.23	33.2	46.0	2.40	11,408
Auxiliary Test Block						
13-Sep-93	11.08	10.30	34.4	44.2	2.59	11,386
14-Sep-93	11.15	10.32	34.3	44.2	2.60	11,345
15-Sep-93	10.38	10.69	33.3	45.5	2.41	11,495
16-Sep-93	9.83	10.50	33.5	46.2	2.31	11,614
17-Sep-93	11.13	10.46	33.6	44.9	2.47	11,364
18-Sep-93	11.06	10.47	33.6	44.9	2.55	11,388
19-Sep-93	11.06	10.30	34.3	44.3	2.47	11,411
20-Sep-93	10.01	9.79	33.2	47.0	1.82	11,760
21-Sep-93	13.30	9.49	33.0	44.2	2.23	11,205
22-Sep-93	12.53	10.45	32.7	44.3	2.22	11,142
23-Sep-93	12.87	9.51	32.7	45.0	2.25	11,273
24-Sep-93	12.32	10.00	33.0	44.7	2.14	11,267
25-Sep-93	12.87	9.69	33.0	44.4	2.33	11,187
26-Sep-93	12.58	9.90	33.5	44.1	2.50	11,174

TABLE A-27 (CONTINUED)

Date	H O, wt. %	Ash, wt. %	Volatiles, wt. %	Fixed C, wt. %	Sulfur, wt. %	HHV, Btu/lb
27-Sep-93	11.95	9.93	33.4	44.7	2.43	11,314
28-Sep-93	10.53	10.49	34.0	45.0	2.45	11,469
29-Sep-93	12.45	9.39	33.9	44.3	2.52	11,305
04-Oct-93	11.06	9.43	34.2	45.4	2.47	11,494
05-Oct-93	11.10	9.51	34.1	45.3	2.47	11,461
06-Oct-93	12.61	9.63	33.7	44.0	2.52	11,216
07-Oct-93	12.35	9.48	33.9	44.3	2.53	11,267
08-Oct-93	12.46	9.31	33.5	44.6	2.34	11,282
09-Oct-93	11.71	9.23	34.2	44.9	2.37	11,420
10-Oct-93	12.29	8.93	33.9	44.8	2.48	11,409
11-Oct-93	12.89	9.00	33.9	44.3	2.56	11,232
12-Oct-93	11.57	9.59	34.1	44.7	2.41	11,414
13-Oct-93	11.68	9.83	33.7	44.8	2.38	11,403
14-Oct-93	10.64	9.75	34.3	45.3	2.47	11,470
15-Oct-93	11.08	9.60	34.3	45.0	2.42	11,477
16-Oct-93	11.96	9.34	34.2	44.5	2.40	11,322
17-Oct-93	11.51	9.57	34.2	44.7	2.41	11,348
18-Oct-93	11.25	9.47	34.3	44.9	2.43	11,421
19-Oct-93	11.53	9.61	34.3	44.6	2.50	11,393
23-Oct-93	12.71	9.61	33.3	44.3	2.39	11,188
24-Oct-93	12.33	9.04	33.8	44.9	2.30	11,335
25-Oct-93	12.80	8.79	33.7	44.6	2.29	11,377
26-Oct-93	12.90	8.68	33.8	44.6	2.35	11,321
27-Oct-93	12.40	8.76	33.9	44.9	2.26	11,381
28-Oct-93	12.47	8.73	33.9	44.9	2.31	11,375
29-Oct-93	11.85	8.96	33.5	45.7	2.19	11,416
30-Oct-93	14.16	8.47	32.4	44.9	2.15	11,166
31-Oct-93	13.86	8.62	32.9	44.6	2.29	11,157
01-Nov-93	12.71	8.94	33.3	45.0	2.22	11,312
02-Nov-93	13.29	8.79	33.2	44.7	2.29	11,302
03-Nov-93	13.00	8.93	33.3	44.7	2.29	11,285
04-Nov-93	13.56	8.71	33.2	44.5	2.21	11,291
28-Nov-93	13.48	8.76	33.6	44.2	2.26	11,188
29-Nov-93	12.91	9.34	33.4	44.4	2.24	11,280
01-Dec-93	12.95	9.48	34.0	43.5	2.56	11,239
02-Dec-93	13.00	9.66	33.9	43.4	2.60	11,216
03-Dec-93	12.90	9.71	34.0	43.5	2.56	11,172
04-Dec-93	12.41	9.63	34.0	44.0	2.47	11,307
05-Dec-93	13.65	9.53	33.4	43.3	2.38	11,160
06-Dec-93	11.90	9.77	34.4	44.1	2.51	11,352
07-Dec-93	12.23	9.86	34.1	43.9	2.46	11,337
08-Dec-93	12.63	9.92	33.8	43.7	2.43	11,237
09-Dec-93	12.01	9.78	34.1	44.0	2.50	11,367
10-Dec-93	13.67	9.32	33.4	43.6	2.29	11,203
11-Dec-93	13.43	9.48	33.5	43.6	2.31	11,206
12-Dec-93	12.67	9.75	33.5	44.0	2.41	11,279
13-Dec-93	12.43	9.90	33.5	44.1	2.45	11,233
14-Dec-93	12.09	9.13	34.1	44.7	2.47	11,435
15-Dec-93	13.29	9.27	33.6	44.0	2.60	11,217
16-Dec-93	12.50	9.35	34.1	44.0	2.54	11,225
17-Dec-93	12.44	9.30	34.1	44.1	2.53	11,368

TABLE A-27 (CONTINUED)

Date	H ₂ O, wt. %	Ash, wt. %	Volatiles, wt. %	Fixed C, wt. %	Sulfur, wt. %	HHV, Btu/lb
18-Dec-93	12.89	9.02	34.1	43.9	2.54	11,324
19-Dec-93	12.88	9.17	34.2	43.8	2.58	11,340
20-Dec-93	13.12	9.20	34.0	43.7	2.55	11,162
21-Dec-93	13.58	9.06	34.1	43.2	2.62	11,187
22-Dec-93	13.77	9.23	34.1	42.9	2.56	11,175
23-Dec-93	14.25	9.12	33.9	42.8	2.50	10,978
25-Dec-93	13.75	9.33	33.7	43.2	2.52	11,140
26-Dec-93	13.79	9.17	33.9	43.2	2.44	11,145
27-Dec-93	12.26	10.07	33.9	43.9	2.49	11,348
28-Dec-93	12.42	10.12	33.6	43.8	2.50	11,228
29-Dec-93	12.17	10.30	33.7	43.8	2.39	11,287
30-Dec-93	12.02	9.65	34.3	44.1	2.39	11,291
31-Dec-93	12.15	9.67	34.1	44.1	2.38	11,265
02-Jan-94	12.48	9.71	33.5	44.3	2.25	11,252
03-Jan-94	12.83	10.01	33.3	43.8	2.23	11,163
05-Jan-94	14.07	9.43	32.9	43.6	2.28	11,056
06-Jan-94	14.98	9.40	32.6	43.0	2.27	10,919
07-Jan-94	14.04	9.48	33.2	43.3	2.29	10,997
08-Jan-94	14.44	9.47	32.9	43.1	2.26	10,913
09-Jan-94	13.81	9.84	33.0	43.4	2.22	10,847
10-Jan-94	12.75	9.76	33.7	43.9	2.36	11,116
11-Jan-94	12.80	9.47	33.6	44.1	2.37	11,086
12-Jan-94	14.92	9.36	32.2	43.5	2.29	10,869
13-Jan-94	13.23	9.83	32.2	44.7	2.14	11,169
14-Jan-94	13.85	9.91	32.7	43.6	2.26	10,959
15-Jan-94	14.05	9.70	32.7	43.5	2.23	10,968
16-Jan-94	11.94	10.58	32.8	44.6	2.20	11,266
17-Jan-94	12.59	10.70	33.2	43.5	2.31	11,003
18-Jan-94	13.01	10.53	33.5	43.0	2.39	11,056
19-Jan-94	12.67	10.25	33.1	43.9	2.36	11,152
20-Jan-94	9.93	10.69	33.4	45.9	1.95	11,716
21-Jan-94	8.98	10.13	32.7	48.1	1.71	12,058
24-Jan-94	12.22	10.80	32.7	44.3	1.99	11,185
25-Jan-94	8.18	9.89	37.4	44.6	3.59	12,058
Alternate Coal Test Block						
26-Jan-94	7.87	9.99	38.6	43.6	4.49	12,122
27-Jan-94	7.56	10.07	38.8	43.5	4.38	12,141
28-Jan-94	10.85	9.65	37.7	41.7	4.23	11,745
29-Jan-94	9.54	9.74	38.4	42.2	4.22	11,913
30-Jan-94	9.20	9.79	38.6	42.4	4.17	11,941
01-Feb-94	8.14	10.04	38.7	43.2	4.20	12,049
02-Feb-94	8.06	10.08	38.1	43.9	4.20	12,052
03-Feb-94	7.94	9.96	38.4	43.7	4.40	12,045
04-Feb-94	7.70	9.90	38.2	44.2	4.36	12,071
05-Feb-94	10.80	9.77	36.7	42.7	4.19	11,670
06-Feb-94	9.55	9.74	37.4	43.2	4.28	11,843
07-Feb-94	9.01	9.74	37.4	43.6	4.32	11,950
08-Feb-94	9.16	9.86	38.6	42.3	4.28	11,862
09-Feb-94	8.73	9.94	37.7	43.7	4.28	11,953
10-Feb-94	9.28	9.58	37.7	43.4	4.31	11,820
11-Feb-94	10.83	9.43	37.1	42.6	4.21	11,746

TABLE A-27 (CONTINUED)

Date	H ₂ O, wt. %	Ash, wt. %	Volatiles, wt. %	Fixed C, wt. %	Sulfur, wt. %	HHV, Btu/lb
12-Feb-94	9.97	10.05	37.3	42.7	4.40	11,769
13-Feb-94	8.63	10.09	37.9	43.3	4.43	11,981
14-Feb-94	9.01	9.79	37.1	44.0	4.24	11,922
15-Feb-94	7.19	10.62	37.7	44.5	4.38	12,118

TABLE A-28
COAL PROXIMATE ANALYSES: HIGH-PARTICULATE TEST PERIOD

Date	H ₂ O, wt. %	Ash, wt. %	Volatiles, wt. %	Fixed C, wt. %	Sulfur, wt. %	HHV, Btu/lb
Parametric Tests						
15-Mar-94	12.11	9.28	34.9	43.7	2.44	11,361
16-Mar-94	12.10	9.53	34.6	43.8	2.53	11,309
17-Mar-94	11.60	9.75	34.8	43.8	2.52	11,311
18-Mar-94	11.65	9.41	34.9	44.1	2.47	11,409
19-Mar-94	12.00	9.27	34.7	44.1	2.45	11,329
20-Mar-94	11.87	9.23	34.8	44.2	2.37	11,394
21-Mar-94	12.01	9.25	34.8	44.0	2.41	11,387
22-Mar-94	11.79	9.43	34.8	43.9	2.41	11,368
23-Mar-94	11.73	9.52	34.6	44.1	2.33	11,388
12-Apr-94	12.85	8.93	33.7	44.5	2.49	11,307
13-Apr-94	14.59	9.06	32.8	43.6	2.37	11,004
14-Apr-94	8.76	9.94	37.0	44.3	4.20	11,905
18-Apr-94	12.33	9.39	33.7	44.6	2.42	11,260
19-Apr-94	12.31	9.21	33.8	44.7	2.57	11,249
20-Apr-94	12.72	9.24	34.1	43.9	2.67	11,222
21-Apr-94	12.02	9.38	34.0	44.5	2.59	11,291
22-Apr-94	12.21	9.42	33.7	44.7	2.54	11,294
23-Apr-94	11.97	9.63	33.9	44.5	2.50	11,306
24-Apr-94	11.75	9.65	33.5	45.0	2.54	11,367
25-Apr-94	11.61	9.52	33.9	44.9	2.45	11,418
26-Apr-94	11.83	9.65	33.2	45.3	2.41	11,341
27-Apr-94	12.87	9.29	33.5	44.4	2.42	11,228
28-Apr-94	12.61	9.28	33.4	44.7	2.45	11,312
29-Apr-94	12.38	9.37	33.6	44.6	2.40	11,319
30-Apr-94	12.20	9.32	33.9	44.6	2.42	11,267
01-May-94	12.32	9.17	34.8	43.7	2.79	11,282
02-May-94	11.65	9.43	34.5	44.4	2.67	11,334
03-May-94	13.09	9.18	34.0	43.7	2.47	11,201
04-May-94	13.86	9.28	33.2	43.8	2.43	11,091
05-May-94	14.08	9.17	33.0	43.8	2.37	11,101
06-May-94	12.81	9.40	33.7	44.1	2.45	11,211
07-May-94	11.73	9.99	33.8	44.5	2.44	11,285
08-May-94	14.38	9.56	33.1	43.0	2.32	10,996
09-May-94	14.11	9.34	32.9	43.7	2.44	10,990
10-May-94	13.01	9.26	33.8	43.9	2.73	11,174
11-May-94	13.09	9.13	33.9	43.9	2.73	11,119
12-May-94	11.93	9.30	34.0	44.7	2.80	11,267
13-May-94	12.13	9.44	34.6	43.8	2.74	11,229
14-May-94	11.97	9.32	34.7	44.0	2.75	11,292
15-May-94	13.47	9.20	33.9	43.4	2.65	11,131
16-May-94	12.74	9.26	33.3	44.7	2.55	11,313
17-May-94	12.33	9.11	33.6	45.0	2.49	11,381
18-May-94	11.73	9.38	34.2	44.8	2.52	11,376
20-May-94	10.93	9.51	34.7	44.9	2.58	11,491
21-May-94	11.31	9.37	34.4	44.9	2.56	11,407
22-May-94	11.11	9.40	34.1	45.3	2.49	11,457
23-May-94	11.19	9.56	34.8	44.4	2.56	11,428
24-May-94	10.91	9.60	34.4	45.2	2.63	11,439

TABLE A-28 (CONTINUED)

Date	H O, wt. %	Ash, wt. %	Volatiles, wt. %	Fixed C, wt. %	Sulfur, wt. %	HHV, Btu/lb
25-May-94	11.88	9.23	34.5	44.3	2.68	11,311
26-May-94	11.76	9.53	34.4	44.3	2.61	11,307
31-May-94	12.15	9.37	34.0	44.5	2.42	11,327
Long-Term Tests						
08-Jun-94	13.15	9.03	33.7	44.1	2.41	11,218
09-Jun-94	12.17	9.25	34.2	44.4	2.40	11,339
10-Jun-94	11.69	9.25	34.0	45.0	2.39	11,418
11-Jun-94	11.53	9.33	34.2	44.9	2.37	11,374
12-Jun-94	11.34	9.27	34.1	45.3	2.48	11,384
13-Jun-94	11.23	9.36	34.3	45.1	2.42	11,417
14-Jun-94	11.87	9.34	34.1	44.7	2.42	11,353
15-Jun-94	11.53	9.70	34.1	44.7	2.52	11,360
16-Jun-94	12.23	9.36	34.1	44.4	2.43	11,338
17-Jun-94	12.56	8.43	34.1	44.9	2.26	11,383
20-Jun-94	11.49	8.61	34.1	45.8	2.24	11,534
21-Jun-94	10.62	9.29	34.3	45.8	2.25	11,596
22-Jun-94	12.50	8.93	33.9	44.7	2.43	11,318
23-Jun-94	12.16	8.93	34.3	44.6	2.26	11,314
24-Jun-94	13.11	8.97	33.9	44.0	2.31	11,255
25-Jun-94	12.57	9.10	34.4	44.0	2.43	11,325
26-Jun-94	11.88	9.23	34.5	44.4	2.41	11,272
27-Jun-94	11.83	9.27	34.4	44.5	2.42	11,402
28-Jun-94	11.55	9.49	34.1	44.8	2.45	11,413
29-Jun-94	11.36	9.43	34.0	45.1	2.42	11,449
30-Jun-94	13.59	8.99	33.5	43.9	2.41	11,172
01-Jul-94	11.50	9.26	34.4	44.9	2.50	11,382
02-Jul-94	12.00	9.58	33.8	44.6	2.49	11,315
03-Jul-94	10.62	9.40	34.4	45.6	2.40	11,600
06-Jul-94	10.52	10.17	32.9	46.4	2.04	11,735
07-Jul-94	13.42	8.61	33.3	44.7	2.18	11,264
08-Jul-94	13.37	8.72	33.4	44.6	2.21	11,260
09-Jul-94	12.99	9.14	34.5	43.3	2.65	11,261
10-Jul-94	14.11	8.62	32.9	44.3	2.12	11,205
12-Jul-94	14.05	8.68	32.5	44.8	2.07	11,180
13-Jul-94	14.58	8.65	32.6	44.2	2.03	11,110
14-Jul-94	13.23	8.95	33.2	44.6	2.12	11,249
15-Jul-94	12.25	9.54	34.1	44.1	2.41	11,329
16-Jul-94	13.34	8.98	33.5	44.2	2.26	11,221
17-Jul-94	11.73	9.22	33.9	45.2	2.28	11,438
18-Jul-94	12.00	9.04	34.0	45.1	2.25	11,412
19-Jul-94	13.14	9.05	33.7	44.1	2.33	11,245
20-Jul-94	14.66	9.05	32.7	43.6	2.25	11,058
21-Jul-94	12.66	9.12	33.4	44.8	2.21	11,291
22-Jul-94	12.97	8.92	33.5	44.6	2.15	11,311
23-Jul-94	13.80	8.80	33.3	44.1	2.09	11,204
24-Jul-94	12.38	8.88	33.8	44.9	2.14	11,391
25-Jul-94	12.00	8.78	33.9	45.3	2.14	11,481
26-Jul-94	12.66	8.80	33.7	44.8	2.17	11,359
27-Jul-94	13.55	8.92	33.5	44.0	2.15	11,248
28-Jul-94	15.07	8.70	32.4	43.8	2.23	11,009
30-Jul-94	12.66	9.14	33.8	44.5	2.32	11,322

TABLE A-28 (CONTINUED)

Date	H ₂ O, wt. %	Ash, wt. %	Volatiles, wt. %	Fixed C, wt. %	Sulfur, wt. %	HHV, Btu/lb
31-Jul-94	13.29	9.17	33.3	44.2	2.35	11,155
01-Aug-94	12.82	9.15	33.4	44.6	2.37	11,335
02-Aug-94	12.29	9.31	33.9	44.6	2.37	11,463
03-Aug-94	12.19	9.40	34.1	44.3	2.46	11,357
04-Aug-94	13.52	9.31	33.1	44.0	2.23	11,209
05-Aug-94	12.13	8.81	33.6	45.5	2.23	11,383
06-Aug-94	11.68	9.07	33.6	45.7	2.19	11,435
07-Aug-94	11.47	8.94	33.6	45.9	2.23	11,467
09-Aug-94	10.31	9.15	33.9	46.6	2.19	11,696
10-Aug-94	10.77	9.17	34.0	46.0	2.19	11,634
11-Aug-94	10.98	9.02	34.1	45.9	2.14	11,549
12-Aug-94	11.62	8.94	33.9	45.5	2.20	11,510
13-Aug-94	11.96	9.02	33.6	45.3	2.17	11,450
14-Aug-94	11.61	8.97	34.1	45.3	2.22	11,473
15-Aug-94	11.99	9.12	33.5	45.3	2.21	11,403
16-Aug-94	13.30	8.97	33.0	44.7	2.18	11,235
17-Aug-94	13.07	9.60	—	—	2.12	11,207
18-Aug-94	12.12	9.87	—	—	2.14	11,311
19-Aug-94	12.32	11.14	32.5	44.0	2.16	11,100
20-Aug-94	10.06	11.99	33.1	44.8	2.11	11,375
21-Aug-94	9.93	12.30	32.9	44.9	2.12	11,450
22-Aug-94	10.12	11.13	33.6	45.1	2.12	11,560
23-Aug-94	11.15	11.75	33.6	43.5	2.34	11,308
24-Aug-94	9.95	11.91	33.5	44.7	2.25	11,479
25-Aug-94	10.75	11.96	33.7	43.6	2.39	11,288
26-Aug-94	10.66	12.56	33.2	43.5	2.25	11,152
27-Aug-94	8.89	11.60	34.4	46.0	2.04	11,727
28-Aug-94	9.41	12.00	34.2	45.3	2.20	11,491
High Removal Test Block						
08-Sep-94	11.57	12.28	33.7	42.4	2.43	11,037
09-Sep-94	6.50	10.41	32.1	51.1	1.17	12,570
10-Sep-94	6.38	9.46	32.9	51.3	1.22	12,769
11-Sep-94	5.77	9.89	33.1	51.3	1.14	12,763
12-Sep-94	4.75	9.43	32.8	53.1	1.43	13,178
13-Sep-94	4.69	9.70	33.1	52.6	1.39	13,048
14-Sep-94	4.55	9.61	33.2	52.7	1.35	13,084
15-Sep-94	5.07	9.28	33.6	52.0	1.24	12,915
16-Sep-94	6.54	10.11	32.6	50.7	1.14	12,607
17-Sep-94	9.28	9.44	31.9	49.4	1.15	12,309
18-Sep-94	7.31	10.23	31.9	50.5	1.39	12,575
19-Sep-94	6.53	10.96	32.3	50.2	1.16	12,425
20-Sep-94	6.62	10.22	33.0	50.2	1.30	12,580
21-Sep-94	6.19	10.36	32.4	51.1	1.31	12,665
22-Sep-94	5.94	9.89	32.5	51.7	1.28	12,802
Alternate Coal Test Block						
04-Oct-94	13.05	8.09	36.2	42.7	3.39	11,490
05-Oct-94	12.89	8.13	36.1	42.9	3.46	11,459
06-Oct-94	12.77	7.89	36.6	42.7	3.54	11,543
07-Oct-94	12.94	7.82	36.7	42.5	3.54	11,537
08-Oct-94	12.43	8.09	36.3	43.1	3.40	11,605
09-Oct-94	12.57	7.95	36.8	42.7	3.45	11,569

TABLE A-28 (CONTINUED)

Date	H O, wt. %	Ash, wt. %	Volatiles, wt. %	Fixed C, wt. %	Sulfur, wt. %	HHV, Btu/lb
12-Oct-94	14.90	7.50	36.1	41.5	3.36	11,271
13-Oct-94	13.93	7.59	36.3	42.2	3.38	11,410
14-Oct-94	14.92	7.35	36.3	41.4	3.46	11,294
15-Oct-94	14.09	7.53	36.2	42.3	3.47	11,389
16-Oct-94	12.94	7.57	36.9	42.6	3.54	11,524
17-Oct-94	12.71	7.45	37.2	42.7	3.44	11,606
18-Oct-94	12.43	7.65	36.9	43.1	3.39	11,627
19-Oct-94	12.60	7.80	36.6	43.0	3.52	11,508
20-Oct-94	12.34	7.95	36.3	43.4	3.32	11,592
21-Oct-94	12.99	7.63	36.9	42.5	3.47	11,551
22-Oct-94	13.85	7.86	36.4	41.9	3.41	11,374
23-Oct-94	14.15	8.16	35.7	41.5	3.23	11,260
24-Oct-94	12.94	7.58	36.8	42.7	3.38	11,545
Alternate Limestone Test Block						
01-Dec-94	8.41	9.56	32.7	49.3	1.18	12,380
02-Dec-94	7.69	9.45	33.2	49.6	1.16	12,445
03-Dec-94	7.54	9.61	33.1	49.7	1.14	12,483
04-Dec-94	9.02	9.24	33.3	48.5	1.13	12,289
05-Dec-94	9.49	9.62	32.4	48.5	1.18	12,172
06-Dec-94	8.02	9.78	33.0	49.2	1.18	12,408
07-Dec-94	7.90	9.55	33.1	49.5	1.18	12,431
08-Dec-94	7.08	9.80	33.1	50.0	1.18	12,534
09-Dec-94	7.59	9.65	33.4	49.3	1.13	12,478
10-Dec-94	8.35	9.49	32.9	49.2	1.13	12,391
11-Dec-94	8.76	9.26	32.6	49.4	1.09	12,254
12-Dec-94	7.89	9.76	32.7	49.7	1.19	12,436
13-Dec-94	8.60	9.49	32.7	49.2	1.27	12,249
14-Dec-94	8.45	9.42	32.0	50.2	1.02	12,435

Note: As received basis for all parameters

**TABLE A-29
COAL ULTIMATE ANALYSES: LOW-PARTICULATE TEST PERIOD**

Parameter	22-Jan-93	22-Jun-93	13-Oct-93	09-Jan-94	27-Jan-94	22-Feb-94
Carbon, wt. %	60.72	64.29	64.72	62.53	66.9	67.45
Hydrogen, wt. %	4.01	4.32	4.37	4.15	4.7	4.79
Nitrogen, wt. %	1.19	1.29	1.28	1.25	1.16	1.15
Sulfur, wt. %	2.45	2.53	2.4	2.26	4.28	4.41
Oxygen, wt. %	6.62	5.99	6.58	7.21	5.52	5.87
Moisture, wt. %	13.88	11.64	11.47	13.26	7.67	6.43
Ash, wt. %	11.12	9.94	9.18	9.34	9.76	9.9
Chlorine, ppmw	988	1173	NA	NA	737	961
Fluorine, ppmw	29	15	58	75	92	93

As received basis.

NA = Not analyzed.

**TABLE A-30
COAL ULTIMATE ANALYSES: HIGH-PARTICULATE TEST PERIOD**

Parameter	Units	14-Mar-94	01-Jun-94	07-Jul-94	15-Sep-94	06-Oct-94
Carbon	wt. %	63.51	64.74	63.79	73.04	63.84
Hydrogen	wt. %	4.31	4.39	4.27	4.71	4.50
Nitrogen	wt. %	1.28	1.31	1.27	1.36	1.33
Sulfur	wt. %	2.42	2.39	2.13	1.28	3.42
Oxygen	wt. %	6.72	6.28	6.38	4.53	6.21
Moisture	wt. %	12.67	11.20	13.61	5.21	12.71
Ash	wt. %	9.09	9.69	8.55	9.87	8.00
Chlorine	ppmw	1,521	1,117	897	573	376
Fluorine	ppmw	45	78	45	76	20

Note: All parameters are reported on "as received" basis.

TABLE A-31
 COAL TRACE ELEMENT ANALYSES: LOW-PARTICULATE TEST PERIOD

Element	Units	22-Jun-93	22-Feb-94
Aluminum	ppmw	14,500	11,600
Antimony	ppmw	<1.0	<1.0
Arsenic	ppmw	2	1.3
Barium	ppmw	47	43
Beryllium	ppmw	3	3
Calcium	ppmw	4,500	2,300
Cadmium	ppmw	1.2	<1.0
Copper	ppmw	15	8
Chromium	ppmw	23	18
Cobalt	ppmw	8	7
Iron	ppmw	8,900	20,500
Lead	ppmw	12	2
Magnesium	ppmw	700	500
Manganese	ppmw	40	27
Mercury	ppmw	0.03	0.14
Molybdenum	ppmw	4	2
Nickel	ppmw	19	12
Phosphorus	ppmw	300	200
Potassium	ppmw	2,400	1,300
Selenium	ppmw	<2.0	<2.0
Silicon	ppmw	27,300	23,600
Sodium	ppmw	800	500
Sulfur	ppmw	28,600	47,100
Titanium	ppmw	700	600
Vanadium	ppmw	38	24

TABLE A-32
COAL TRACE ELEMENT ANALYSES: HIGH-PARTICULATE TEST PERIOD

Element	Units	14-Mar-94	01-Jun-94	07-Jul-94	15-Sep-94	06-Oct-94
Aluminum	ppmw	12500	12500 a	12000 a	15800	13500 a
Antimony	ppmw	<1.0	<1.0 a	<1.0 a	1.1	1 a
Arsenic	ppmw	3.1	1.5	1.5	10.5	N/A
Barium	ppmw	43	N/A	N/A	162	N/A
Beryllium	ppmw	3.0	2.5 a	2.4 a	3.0	3.9 a
Boron	ppmw	N/A	N/A	N/A	N/A	N/A
Calcium	ppmw	3500	2600 a	2800 a	1300	520 a
Cadmium	ppmw	<1.0	<1.0 a	<1.0 a	<0.04	<1.0 a
Copper	ppmw	11.0	11.0 a	8.9 a	16.0	9.4 a
Chromium	ppmw	25	26 a	23 a	16	15 a
Cobalt	ppmw	9	9 a	9 a	11	8 a
Iron	ppmw	11700	11200 a	10000 a	8500	3900 a
Lead	ppmw	6.0	4.9 a	9.7 a	5.0	3.3 a
Magnesium	ppmw	700	630 a	620 a	700	670 a
Manganese	ppmw	29.0	28.5 a	27.4 a	17	30 a
Mercury	ppmw	0.04	0.06	0.06	0.08	0.13
Molybdenum	ppmw	1.0	4.4 a	4.4 a	N/A	N/A
Nickel	ppmw	18.0	16.3 a	18.8 a	13.0	14.5 a
Phosphorus	ppmw	100	N/A	N/A	200	N/A
Potassium	ppmw	2600	2800 a	1600 a	3100	1500 a
Selenium	ppmw	2.3	1.6	2.0	2.4	2.3
Silicon	ppmw	24000	29000 a	26000 a	28200	25000 a
Sodium	ppmw	800	810 a	780 a	700	450 a
Sulfur	ppmw	27700	26900	24600	13500	39200
Titanium	ppmw	700	720 a	710 a	900	830 a
Uranium	ppmw	N/A	N/A	N/A	N/A	N/A
Vanadium	ppmw	35.0	36.8 a	30.6 a	31.0	31.5 a

Note: All parameters are presented on a dry basis.

N/A = Not analyzed.

a = Calculated from "ignited basis" data.

Appendix B

Particle Size Distributions—JBR Inlet and Outlet Gas Streams

90% CONFIDENCE LIMITS

period 1 inlet scrubber inlet impellers

RHO = 2.35 G/CC MASS < 0.46 MICRONS INCLUDED IN FIT

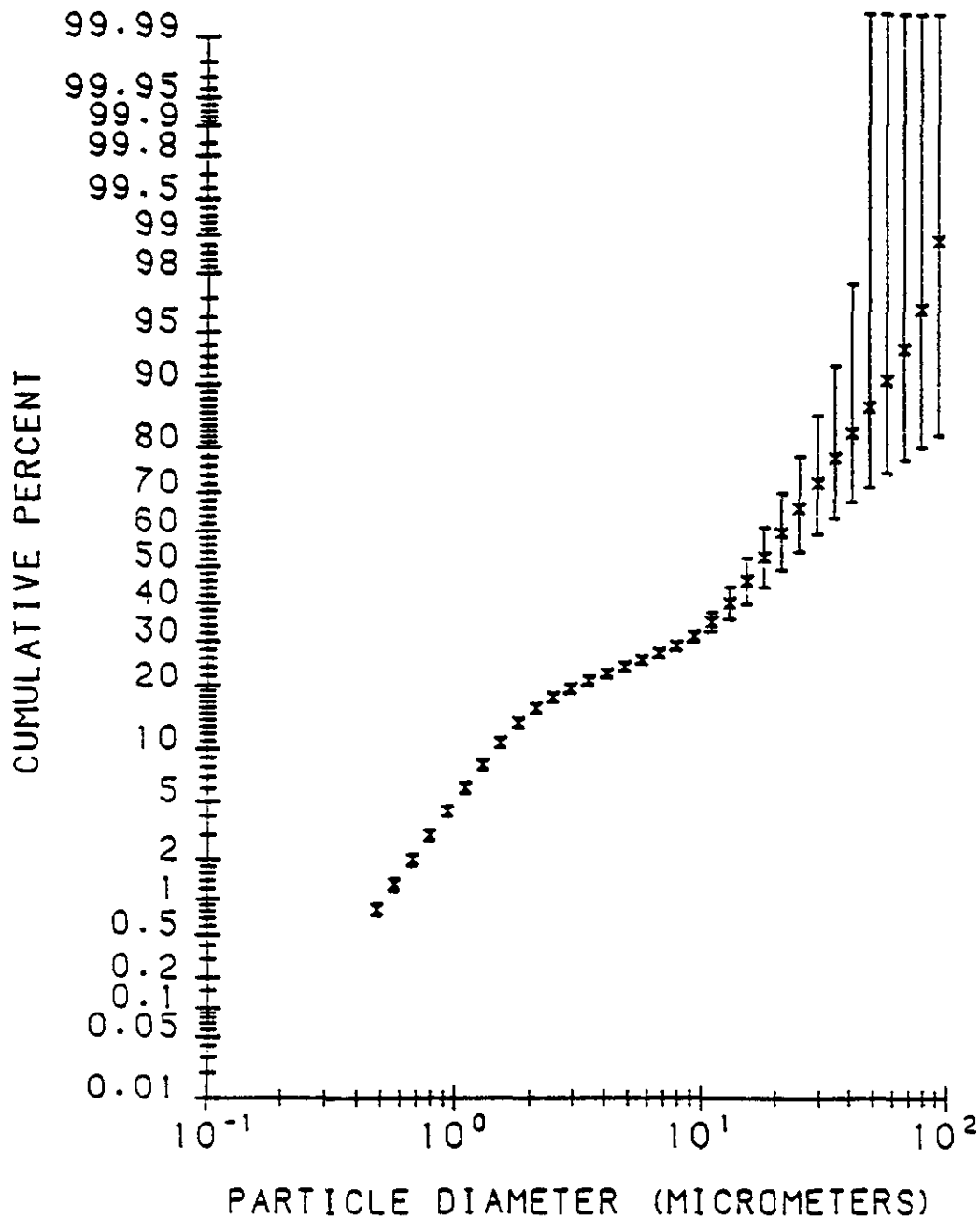


Figure B-1. Period 1 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, January 21, 1993

90% CONFIDENCE LIMITS

YATES CHIYODA SCRUBBER OUTLET IMPACTORS

RHO = 2.35 GM/CC MASS < 0.14 MICRONS INCLUDED IN FIT

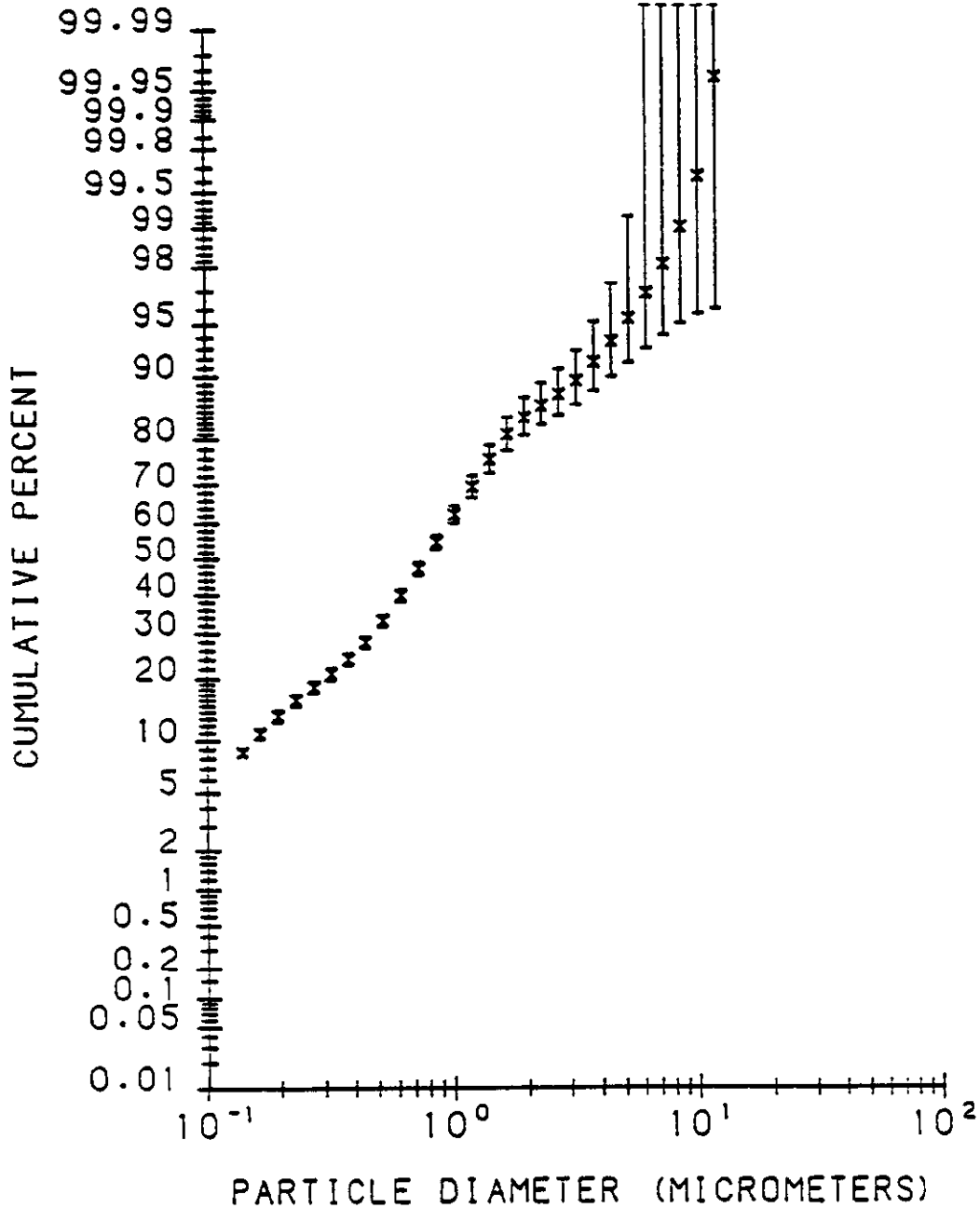


Figure B-2. Period 1 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, 8" ΔP, ESP Energized, January 21, 1993

90% CONFIDENCE LIMITS

Yokohama Chiyoda scrubber inlet impactors

RMG = 2.35 GM/CC MASS < 0.25 MICRONS INCLUDED IN FIT

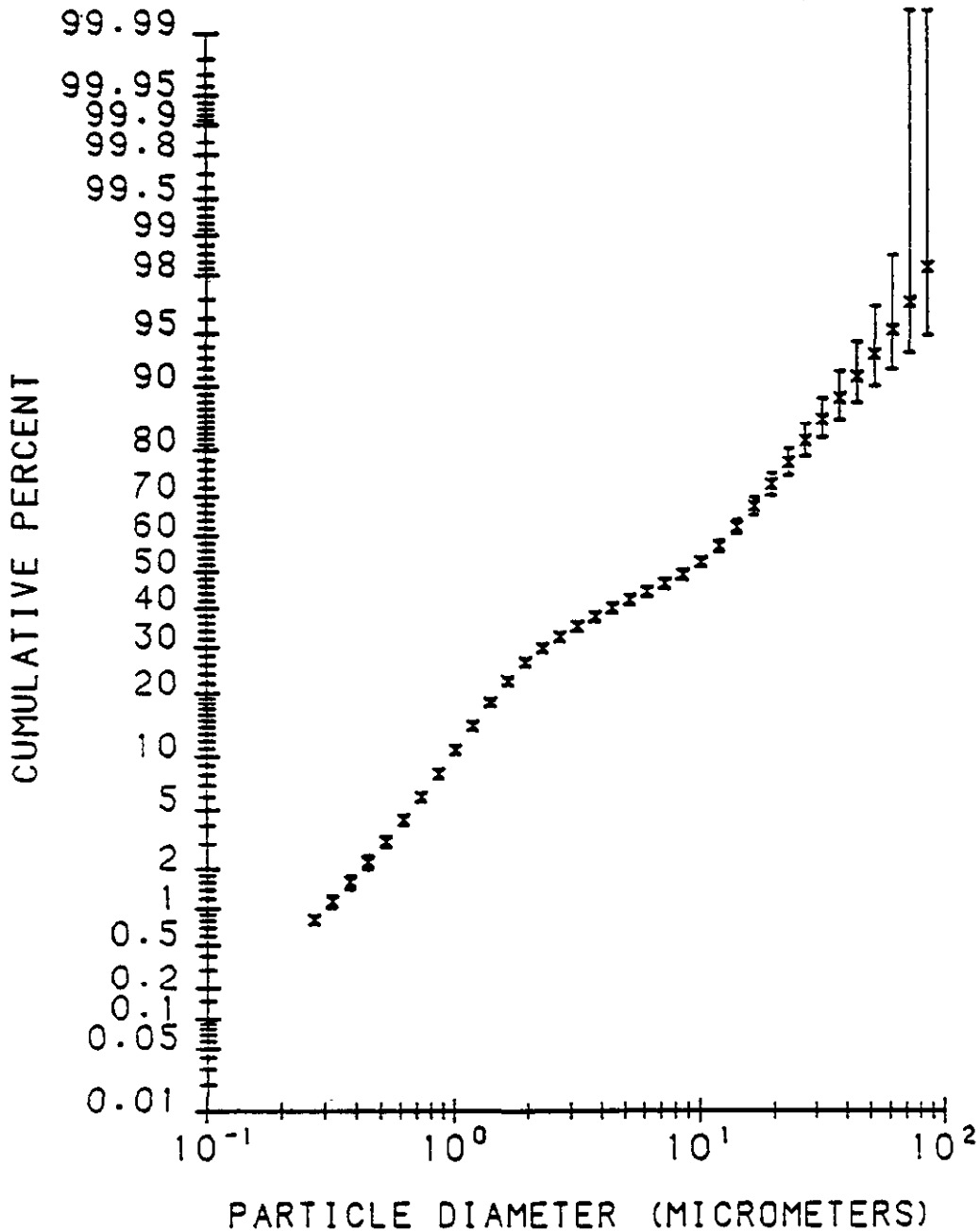


Figure B-3. Period 1 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, January 22, 1993

90% CONFIDENCE LIMITS

YATES CHIYODA SCRUBBER OUTLET IMPACTORS

RHO = 2.35 GM/CC MASS < 0.14 MICRONS INCLUDED IN FIT

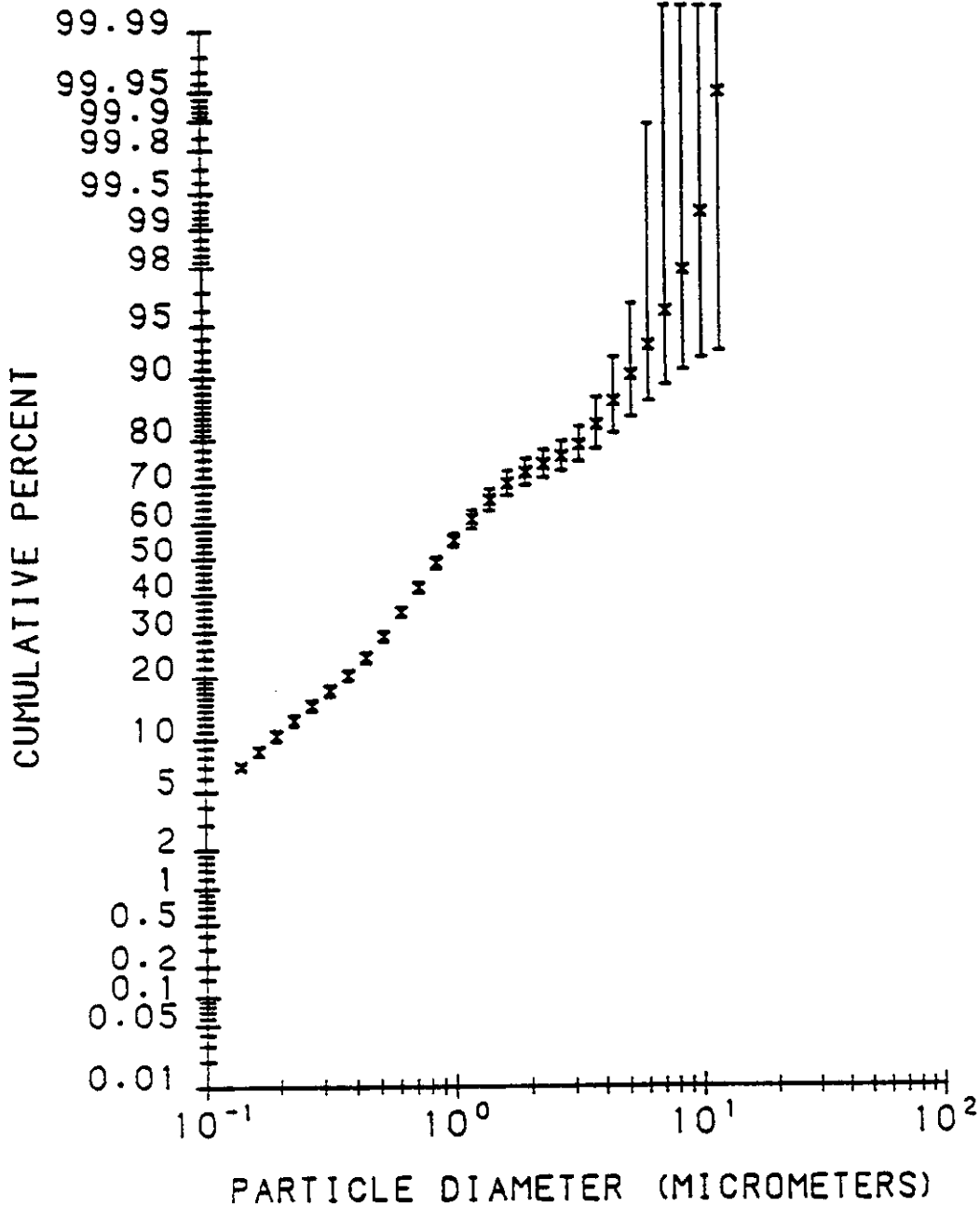


Figure B-4. Period 1 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, 12" ΔP, ESP Energized, January 22, 1993

90% CONFIDENCE LIMITS

Yates Chiyoda scrubber inlet impactors

$\rho_{PM} = 2.35 \text{ GR/CC}$ MASS < 0.26 MICRONS INCLUDED IN FIT

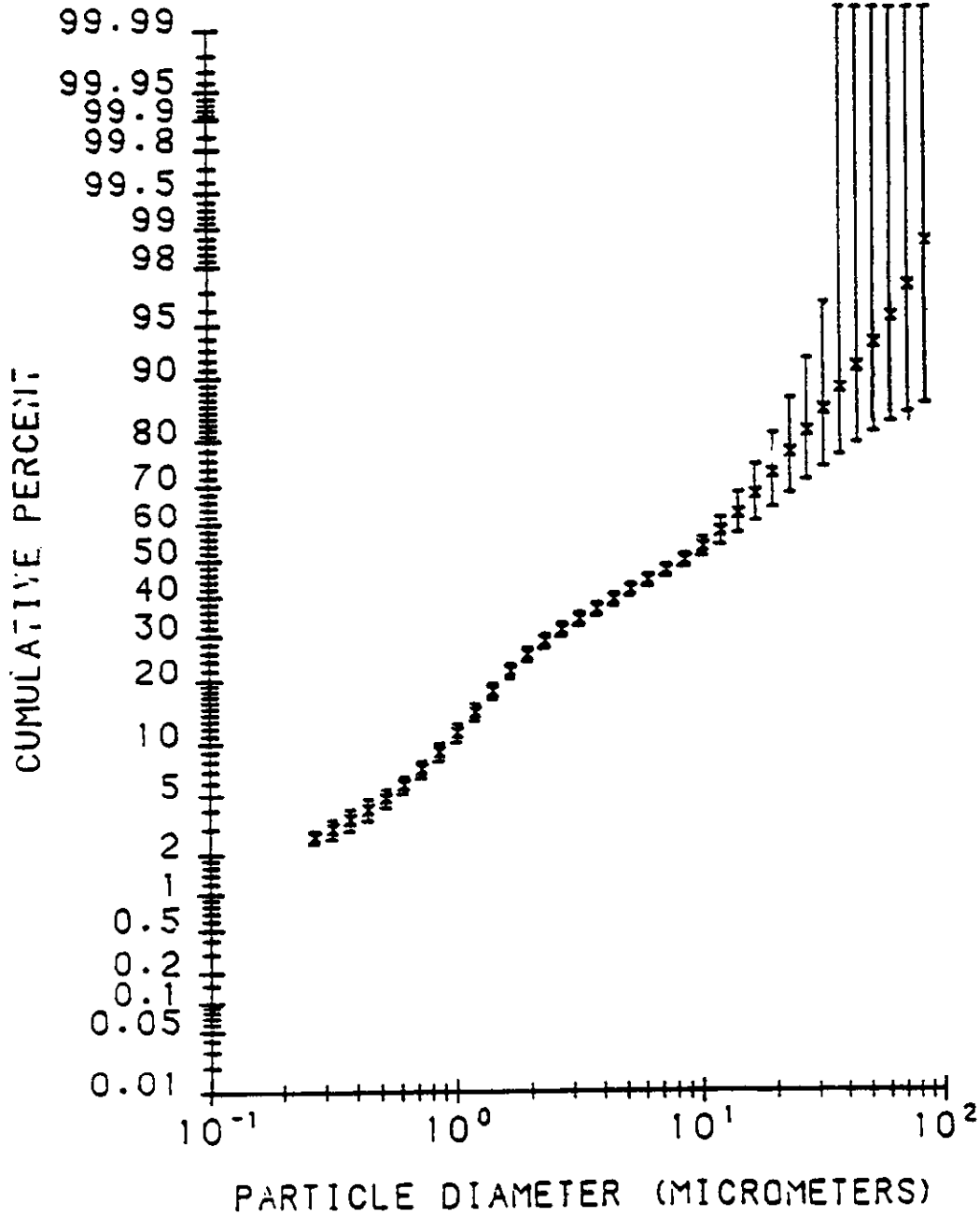


Figure B-5. Period 1 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, January 23, 1993

90% CONFIDENCE LIMITS

YATES CHIYODA SCRUBBER OUTLET IMPACTORS

RND = 2.35 GM/CC MASS < 0.14 MICRONS INCLUDED IN FIT

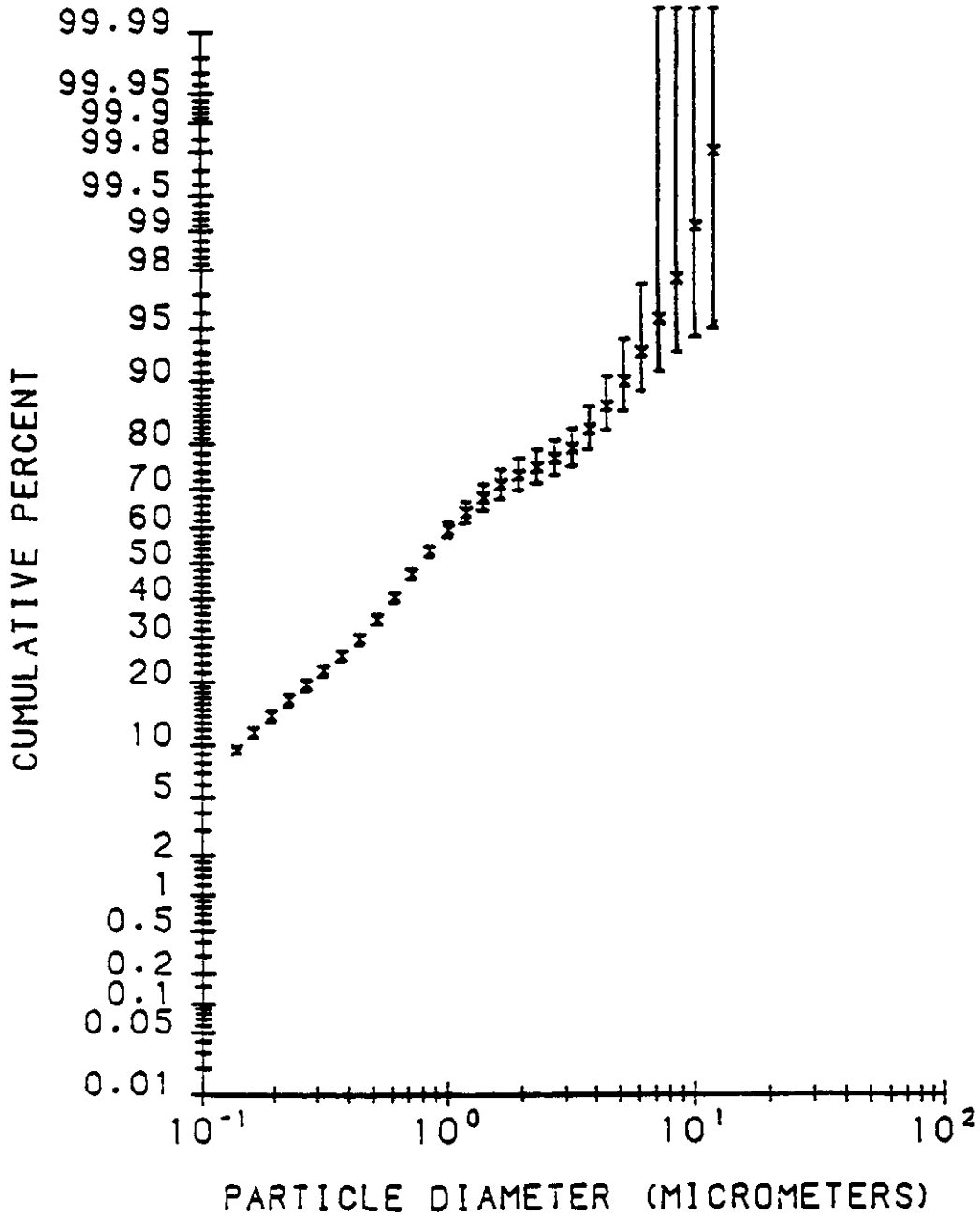


Figure B-6. Period 1 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, 16" ΔP, ESP Energized, January 23, 1993

90% CONFIDENCE LIMITS

Yates Chiyoda scrubber inlet impactors

RHO = 2.35 GM/CC MASS < 0.46 MICRONS INCLUDED IN FIT

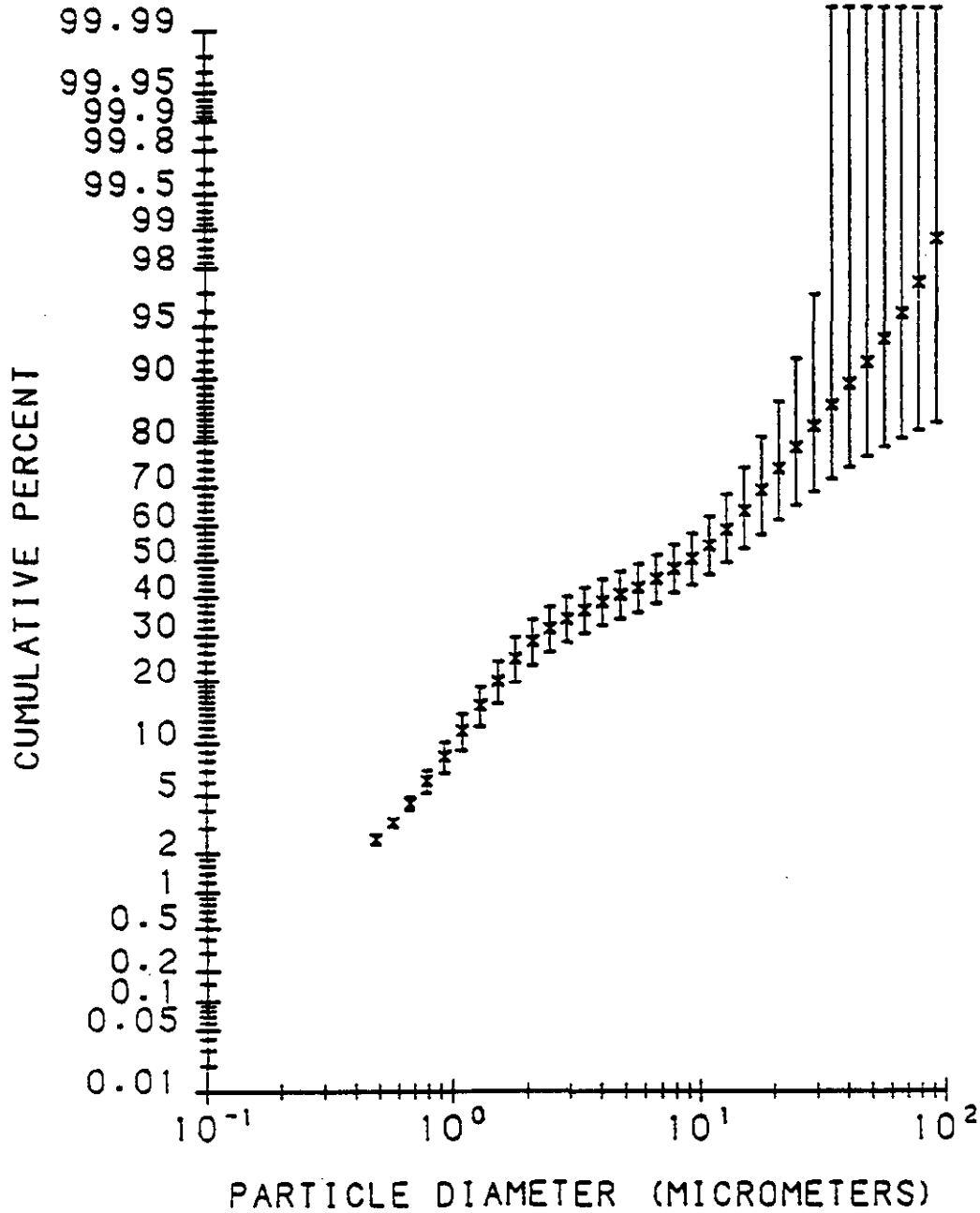


Figure B-7. Period 1 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 75 MW, January 25, 1993

90% CONFIDENCE LIMITS

YATES CHIYODA SCRUBBER OUTLET IMPACTORS

RHO = 2.35 GM/CC MASS < 0.13 MICRONS INCLUDED IN FIT

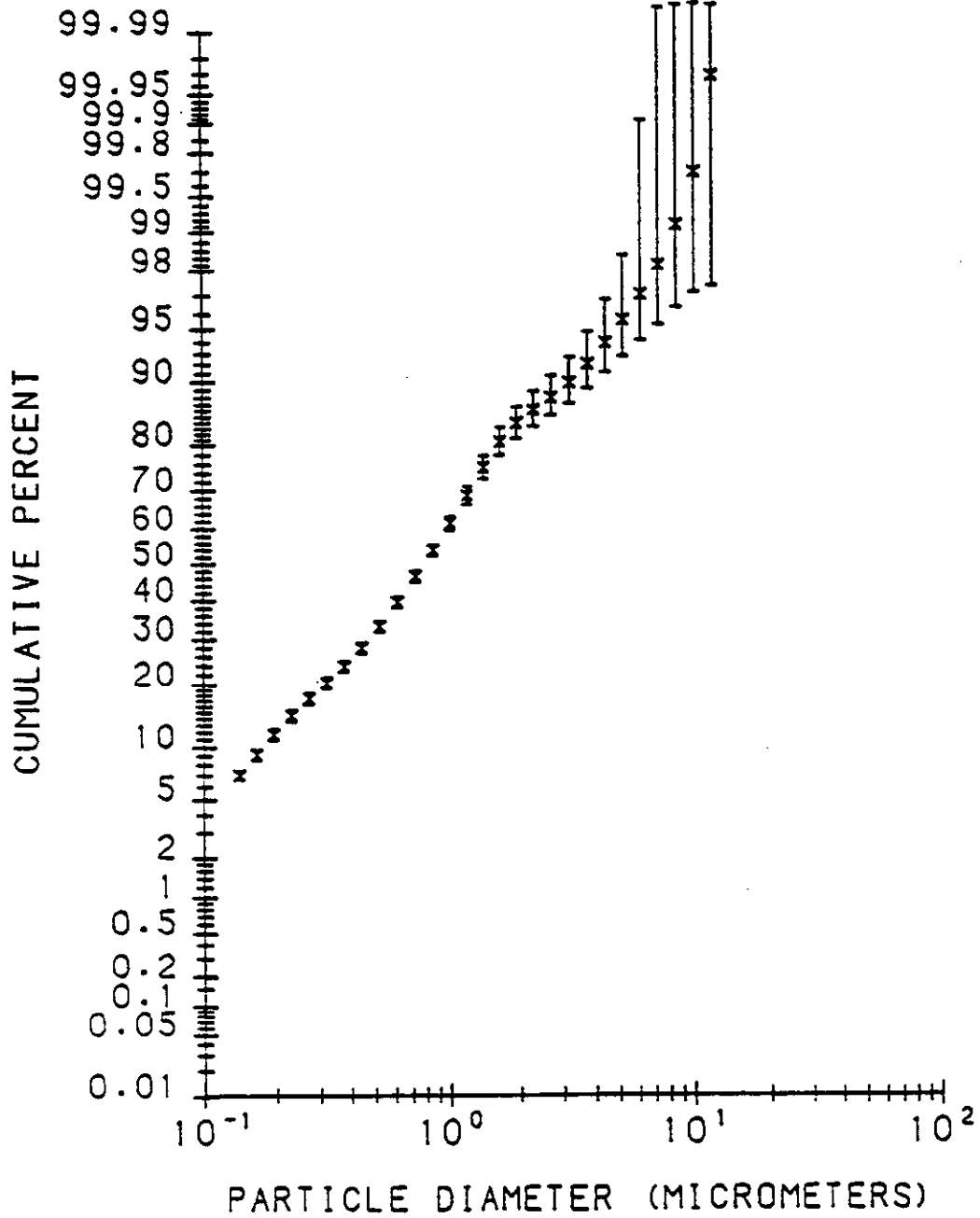


Figure B-8. Period 1 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 75 MW, 8" ΔP, ESP Energized, January 25, 1993

90% CONFIDENCE LIMITS

Yates Chiyoda scrubber inlet impactors

Flow = 2.35 GM/CC MASS < 0.46 MICRONS INCLUDED IN FIT

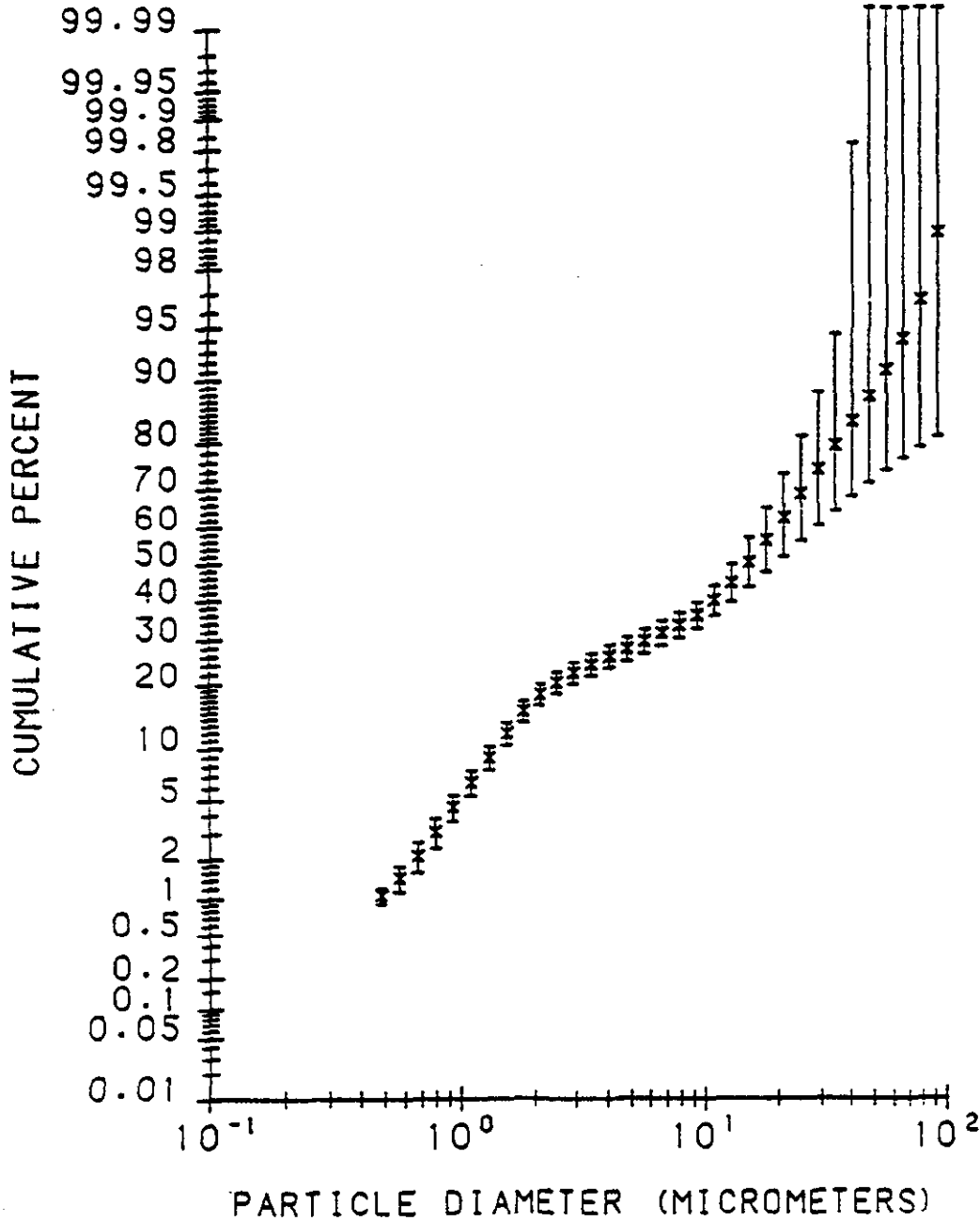


Figure B-9. Period 1 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 75 MW, January 26, 1993

90% CONFIDENCE LIMITS

YATES CHIYODA SCRUBBER OUTLET IMPACTORS

RHO = 2.35 GM/CC MASS < 0.16 MICRONS INCLUDED IN FIT

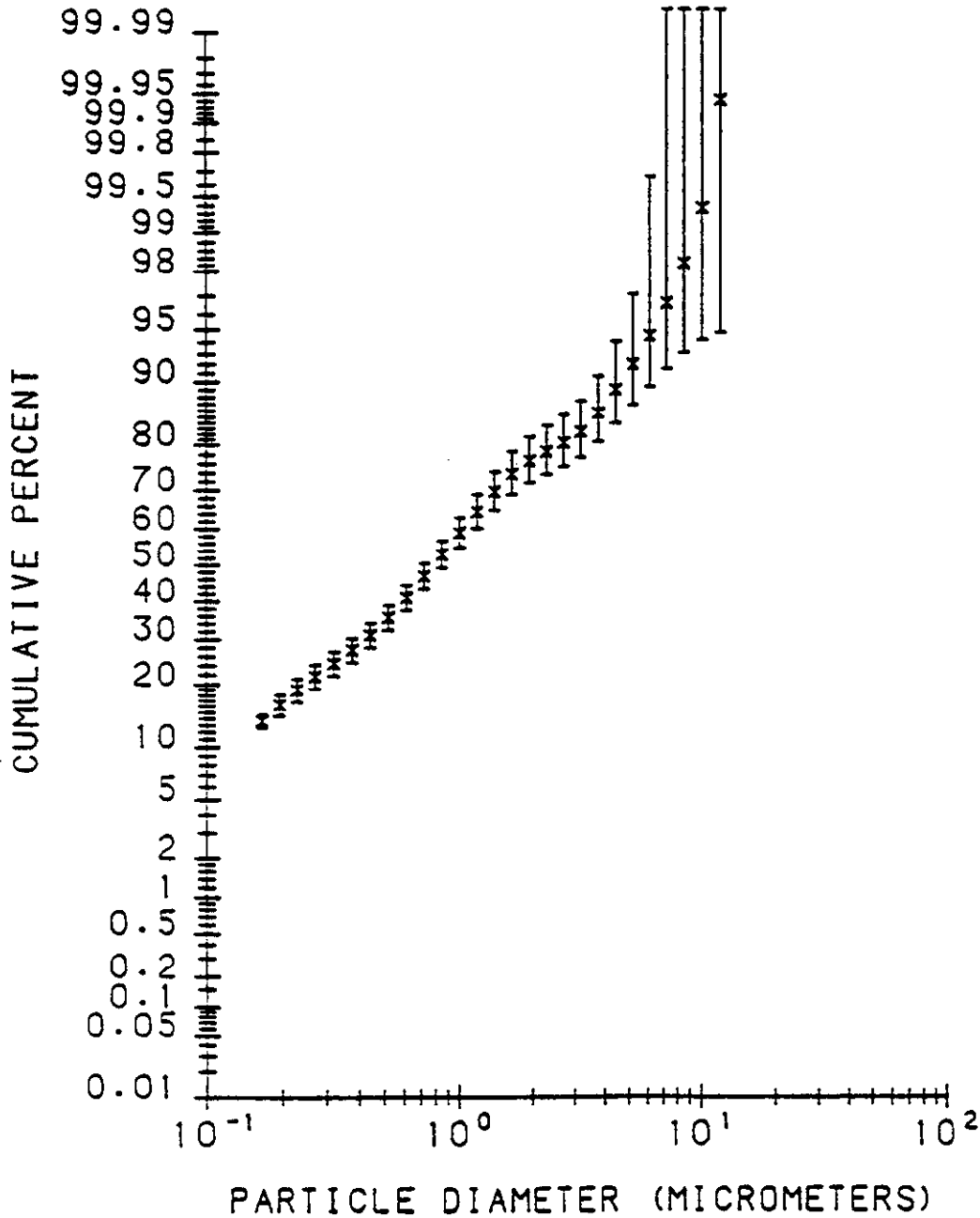


Figure B-10. Period 1 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 75 MW, 12" ΔP, ESP Energized, January 26, 1993

90% CONFIDENCE LIMITS

Yates Chiyoda scrubber inlet inspectors

RHO = 2.35 GM/CC MASS < 0.46 MICRONS INCLUDED IN FIT

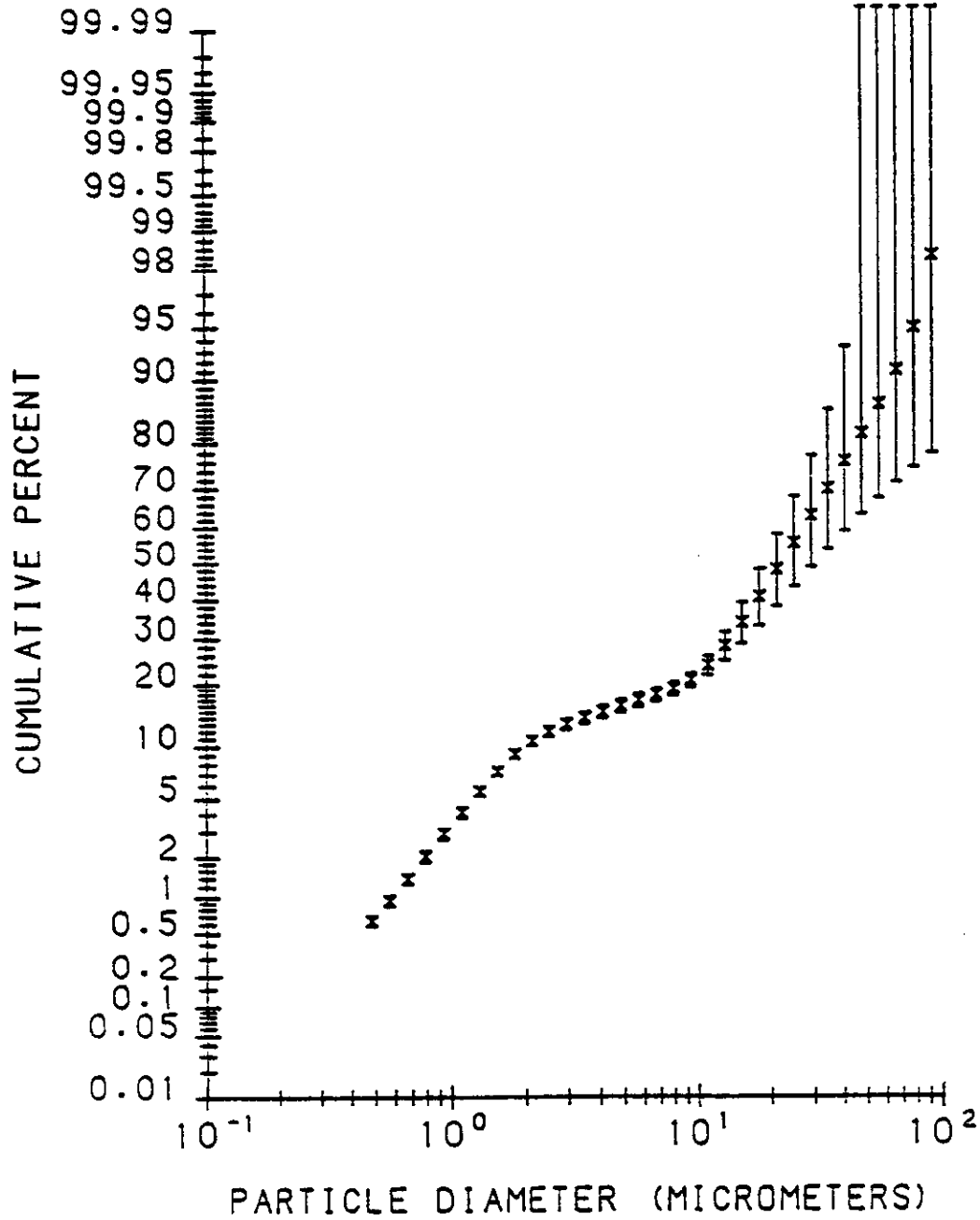


Figure B-11. Period 1 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 75 MW, January 27, 1993

90% CONFIDENCE LIMITS

YATES CHIYODA SCRUBBER OUTLET IMPACTORS

$\rho = 2.35 \text{ GM/CC}$ MASS < 0.14 MICRONS INCLUDED IN FIT

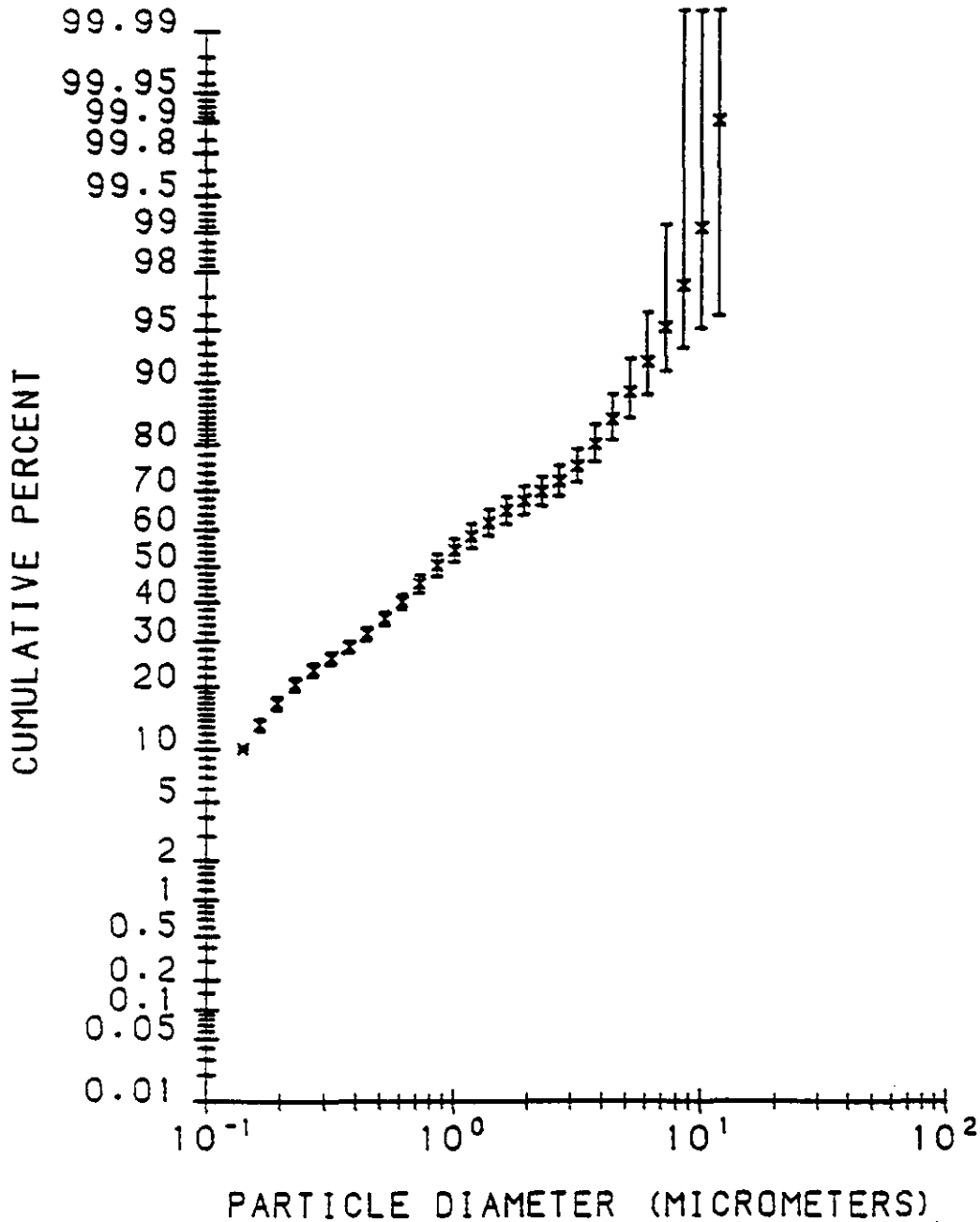


Figure B-12. Period 1 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 75 MW, 16" ΔP, ESP Energized, January 27, 1993

90% CONFIDENCE LIMITS

yates chiyoda scrubber inlet inspectors

RHO = 2.35 GM/CC MASS < 0.27 MICRONS INCLUDED IN FIT

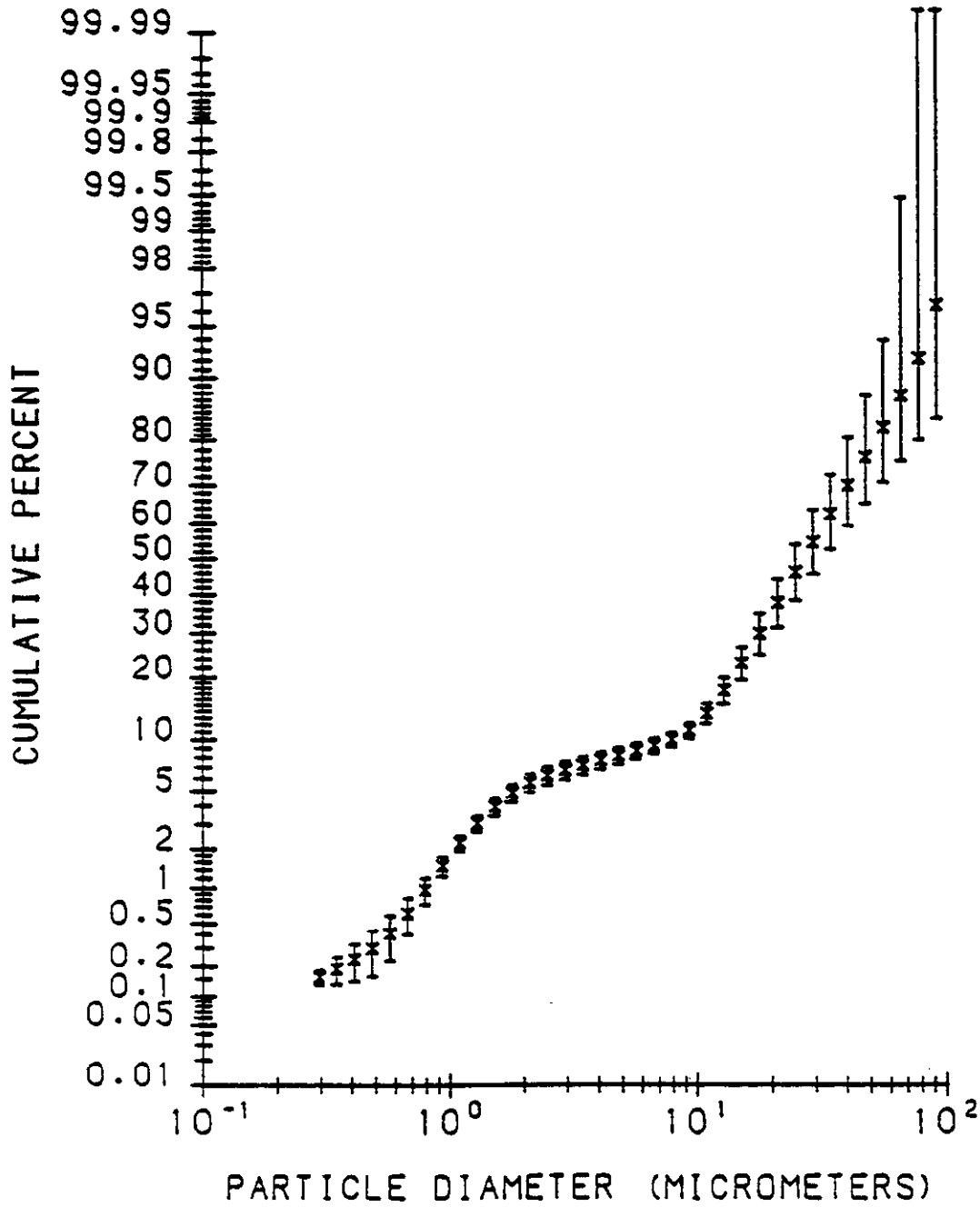


Figure B-13. Period 1 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 50 MW, January 29, 1993

90% CONFIDENCE LIMITS

YATES CHIYODA SCRUBBER OUTLET IMPACTORS

$\rho_{NO} = 2.35 \text{ GM/CC}$ MASS < 0.14 MICRONS INCLUDED IN FIT

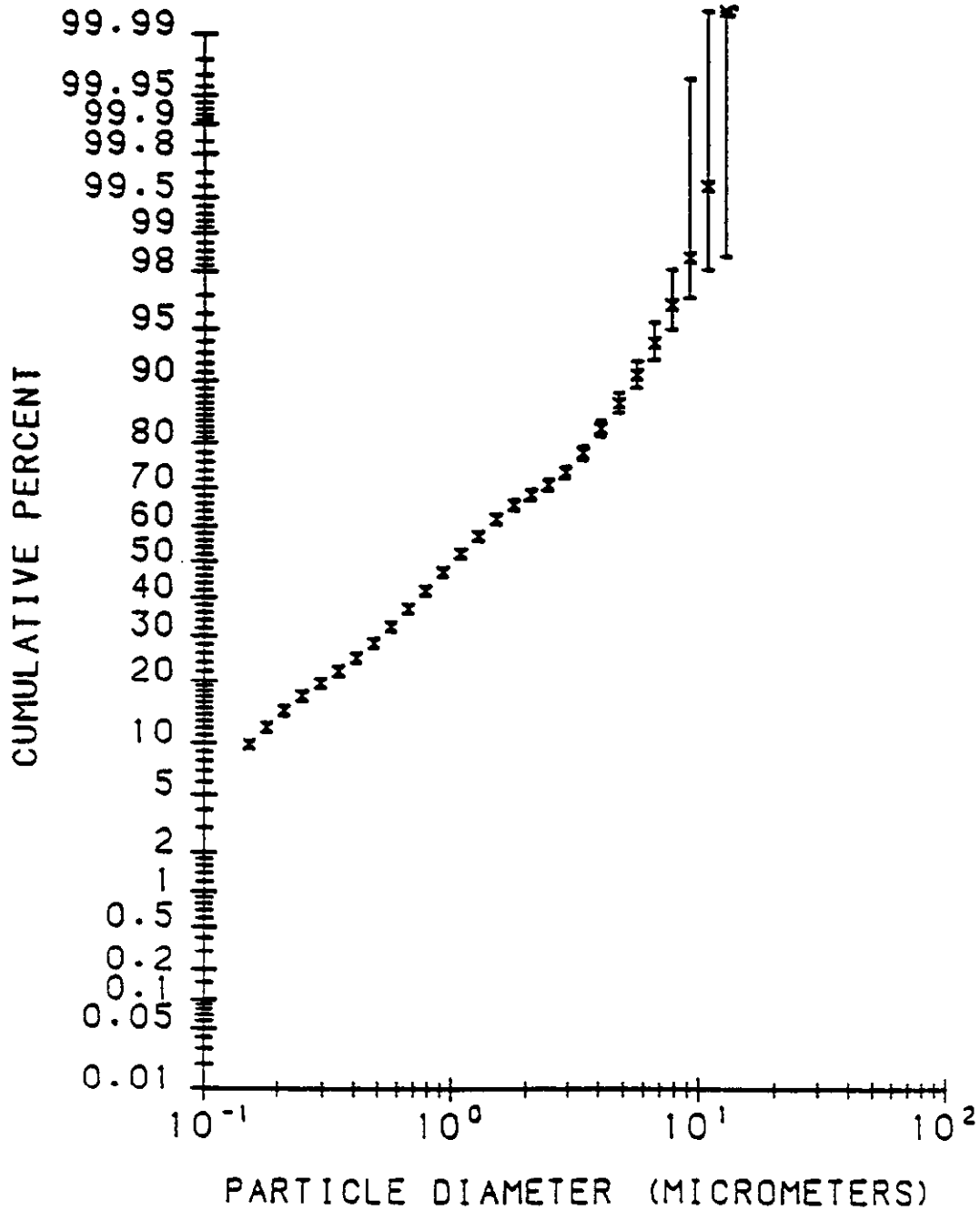


Figure B-14. Period 1 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 50 MW, 8" ΔP , ESP Energized, January 29, 1993

90% CONFIDENCE LIMITS

YATES CHIYODA SCRUBBER INLET IMPACTORS

RHO = 2.35 GM/CC MASS < 0.27 MICRONS INCLUDED IN FIT

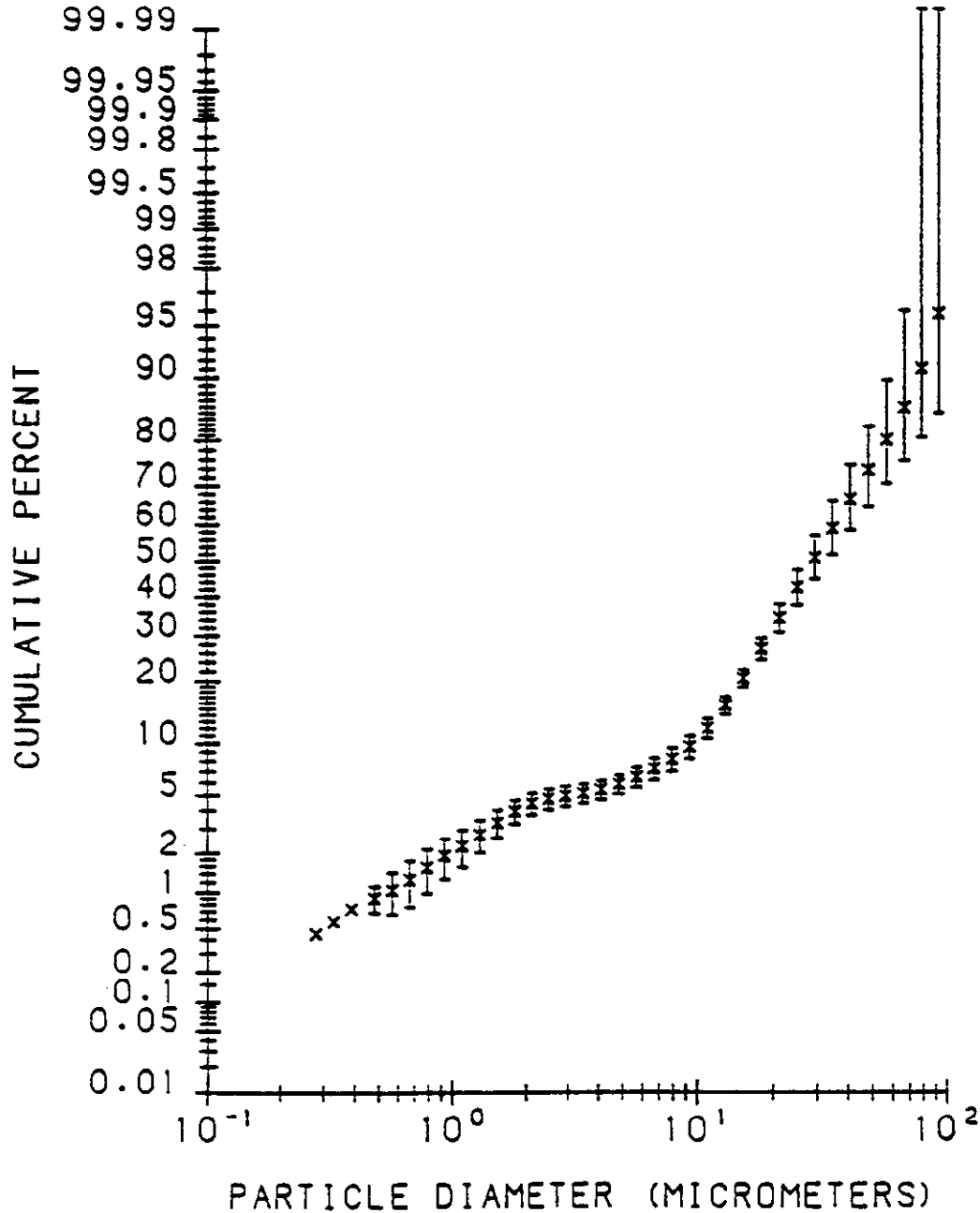


Figure B-15. Period 1 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 50 MW, January 30, 1993

90% CONFIDENCE LIMITS

YATES CHIYODA SCRUBBER OUTLET IMPACTORS

$\rho_{HD} = 2.35 \text{ GM/CC}$ MASS < 0.14 MICRONS INCLUDED IN FIT

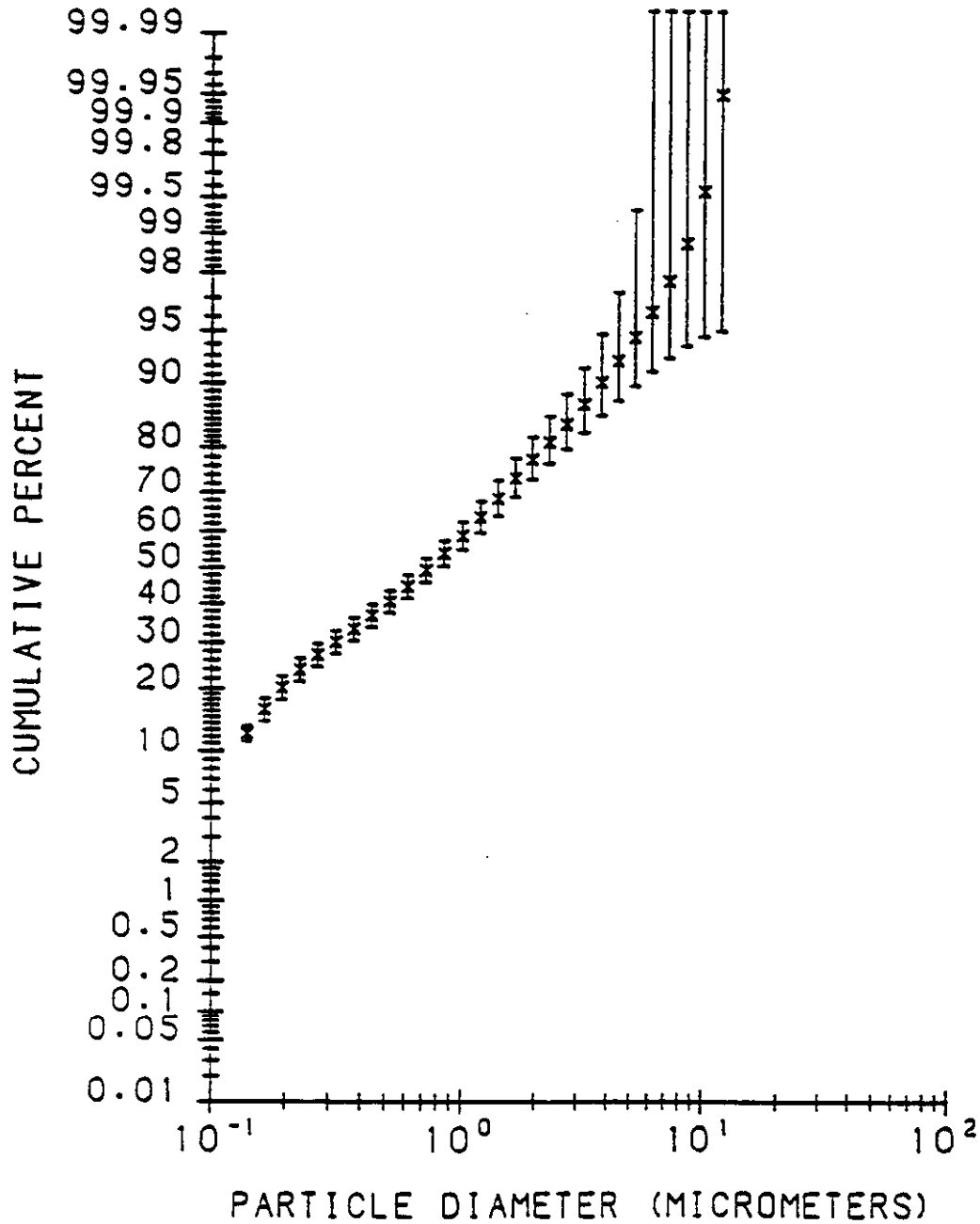


Figure B-16. Period 1 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 50 MW, 12" ΔP , ESP Energized, January 30, 1993

90% CONFIDENCE LIMITS

Yates Chiyoda scrubber inlet inspectors

RHO = 2.35 GM/CC MASS < 0.28 MICRONS INCLUDED IN FIT

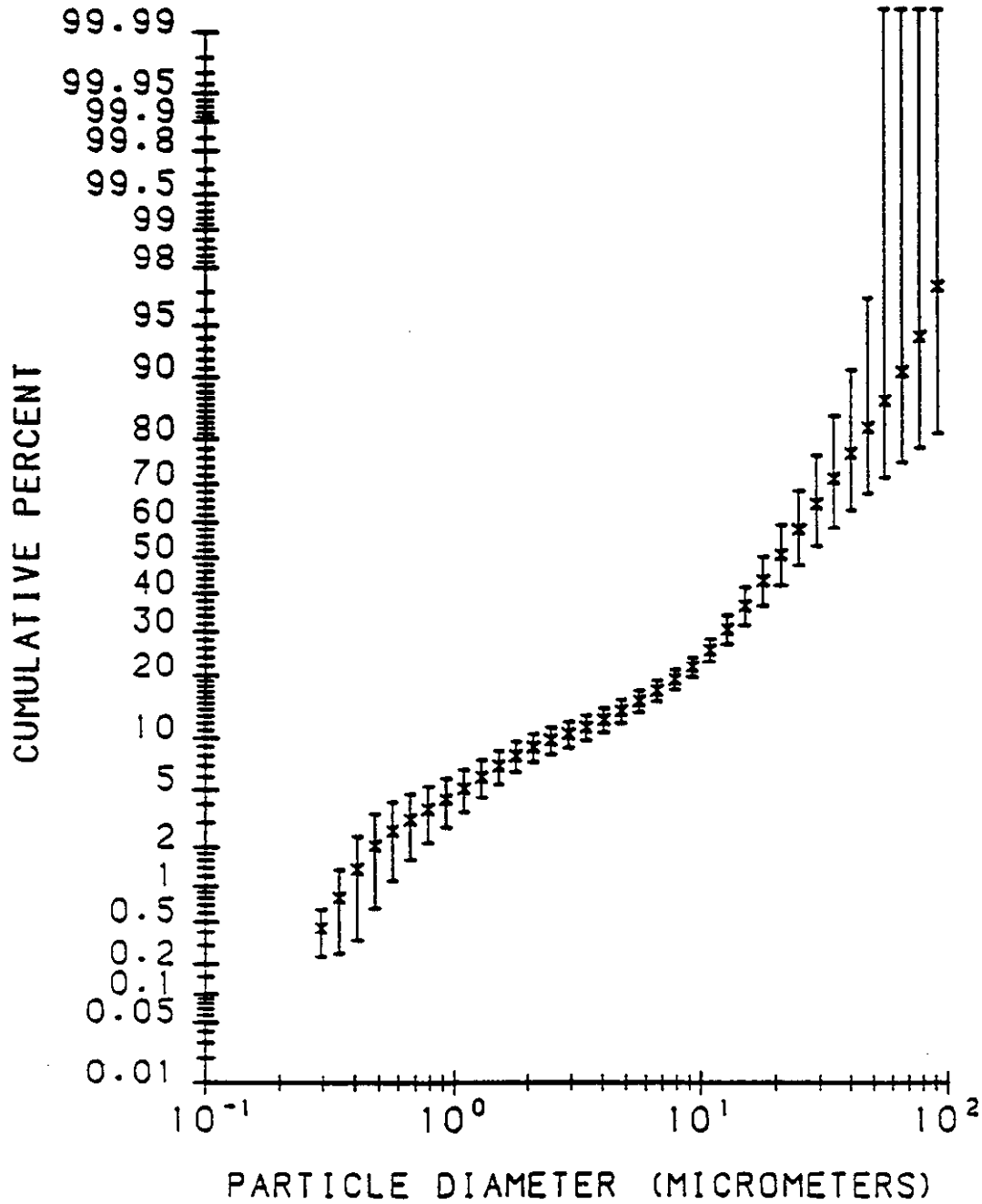


Figure B-17. Period 1 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 50 MW, January 31, 1993

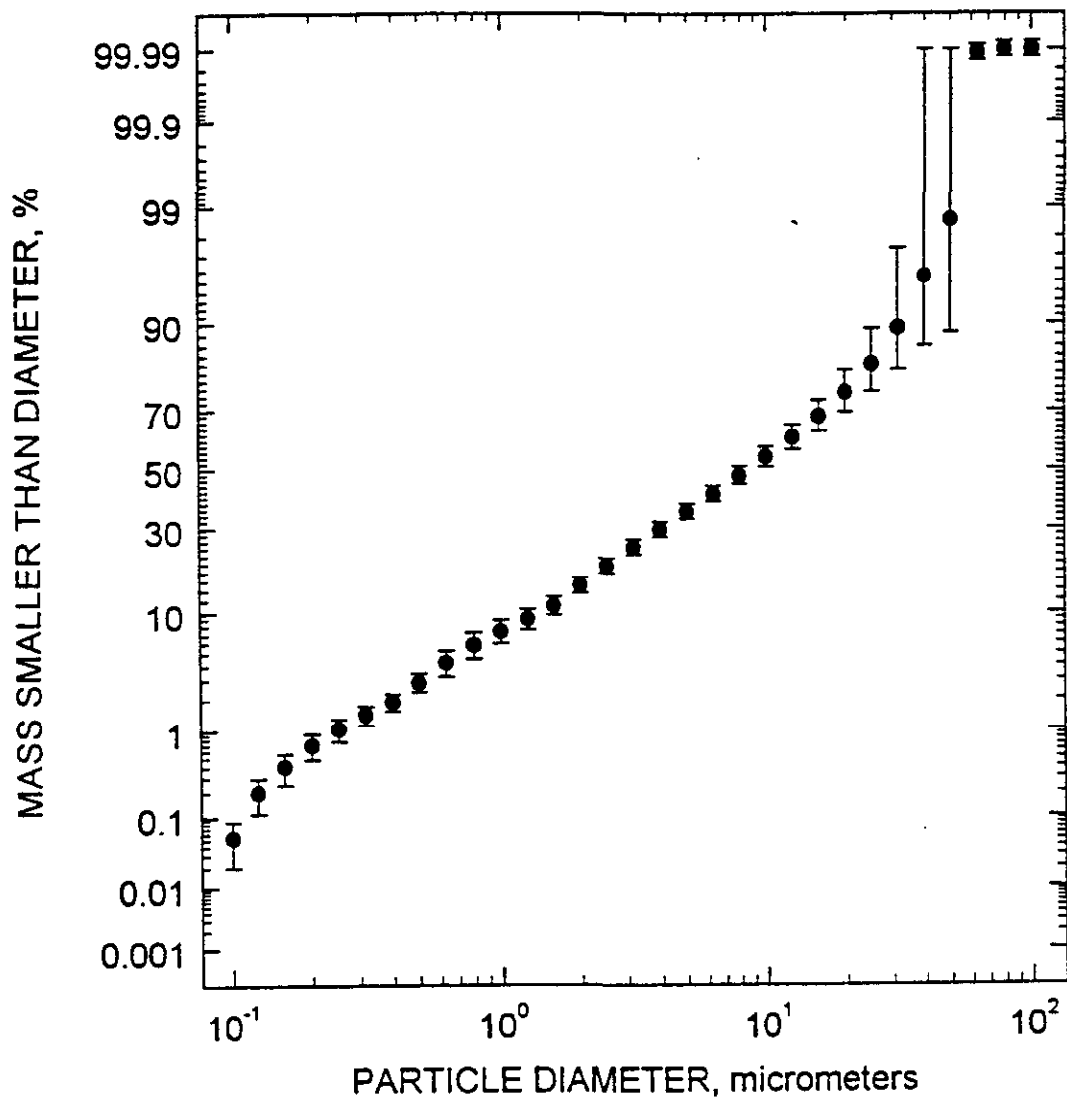


Figure B-18. Period 2 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 50 MW, ESP First Field On, March 17-18, 1994

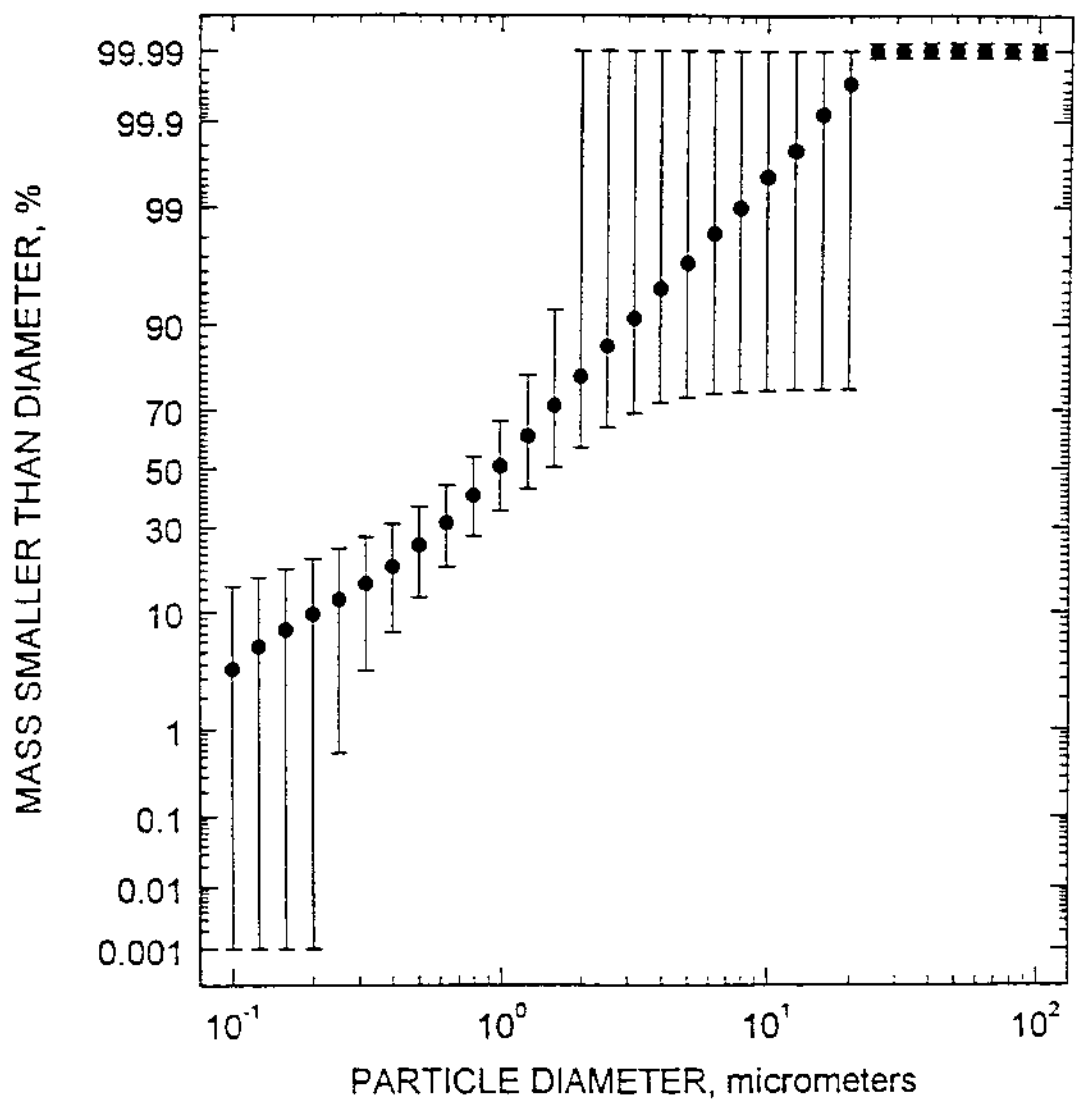


Figure B-19. Period 2 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 50 MW, 10" ΔP, ESP First Field On, March 17, 1994

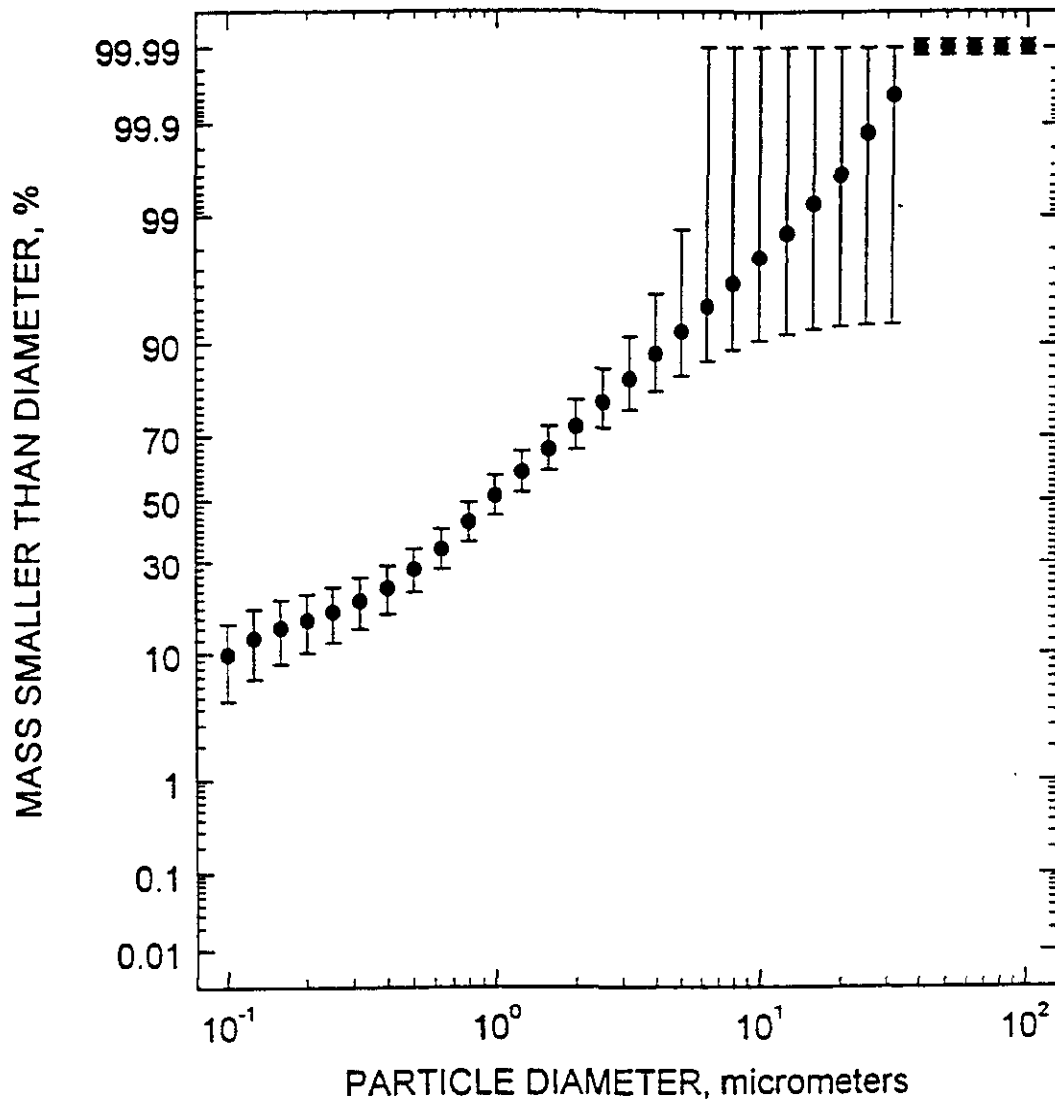


Figure B-20. Period 2 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 50 MW, 16" ΔP, ESP First Field On, March 18, 1994

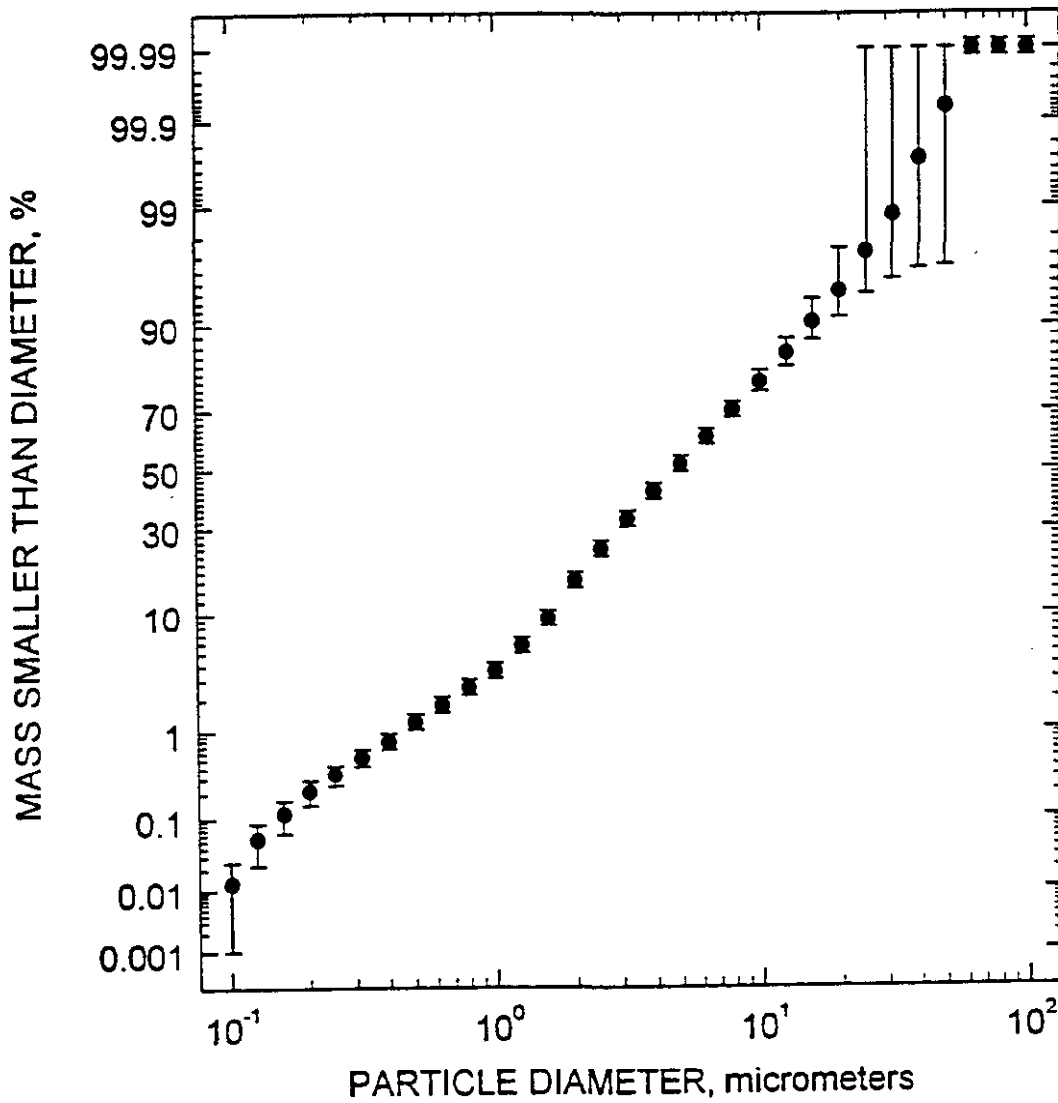


Figure B-21. Period 2 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, ESP First Field On, March 19-20, 1994

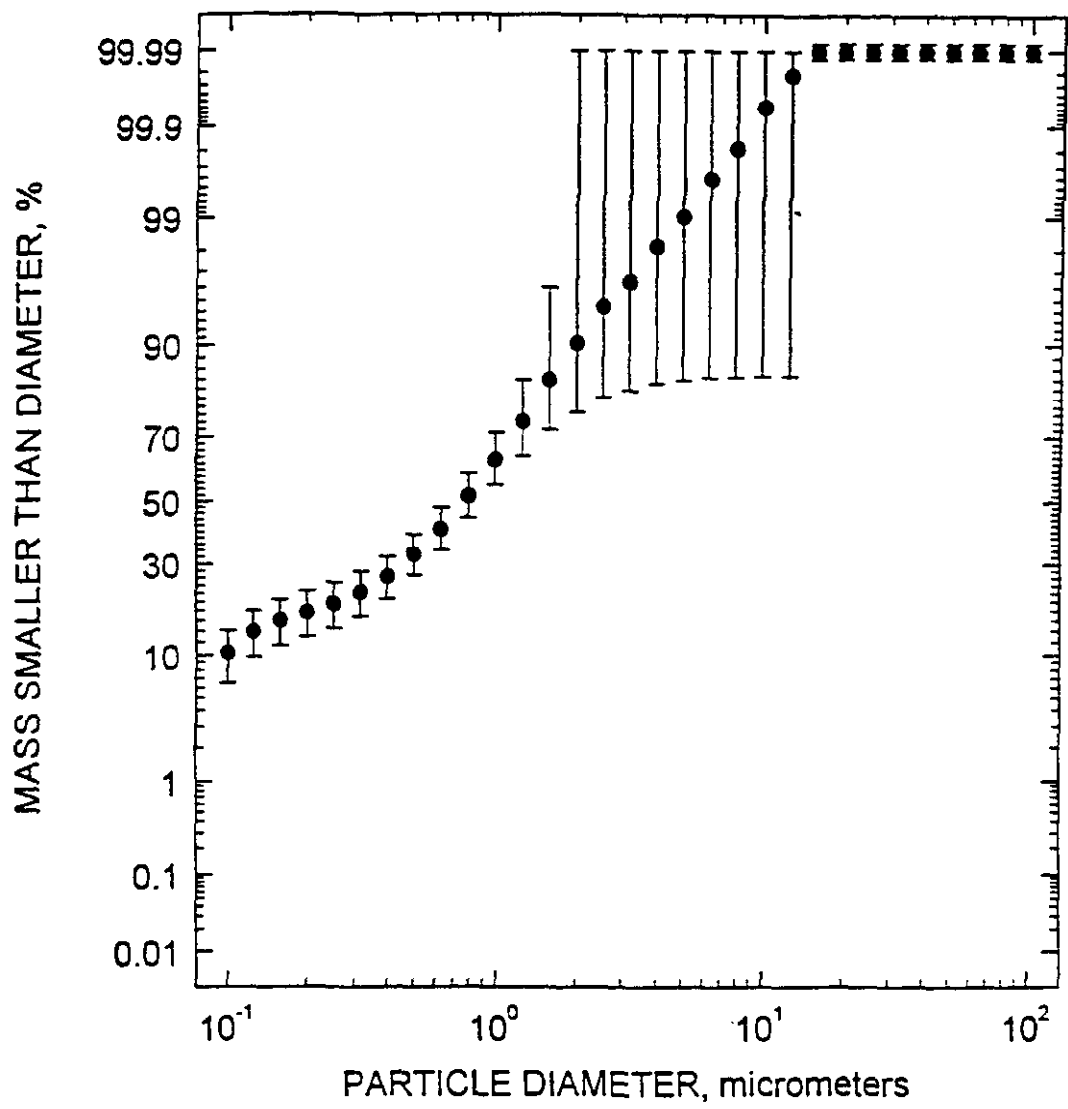


Figure B-22. Period 2 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, 10" ΔP, ESP First Field On, March 19, 1994

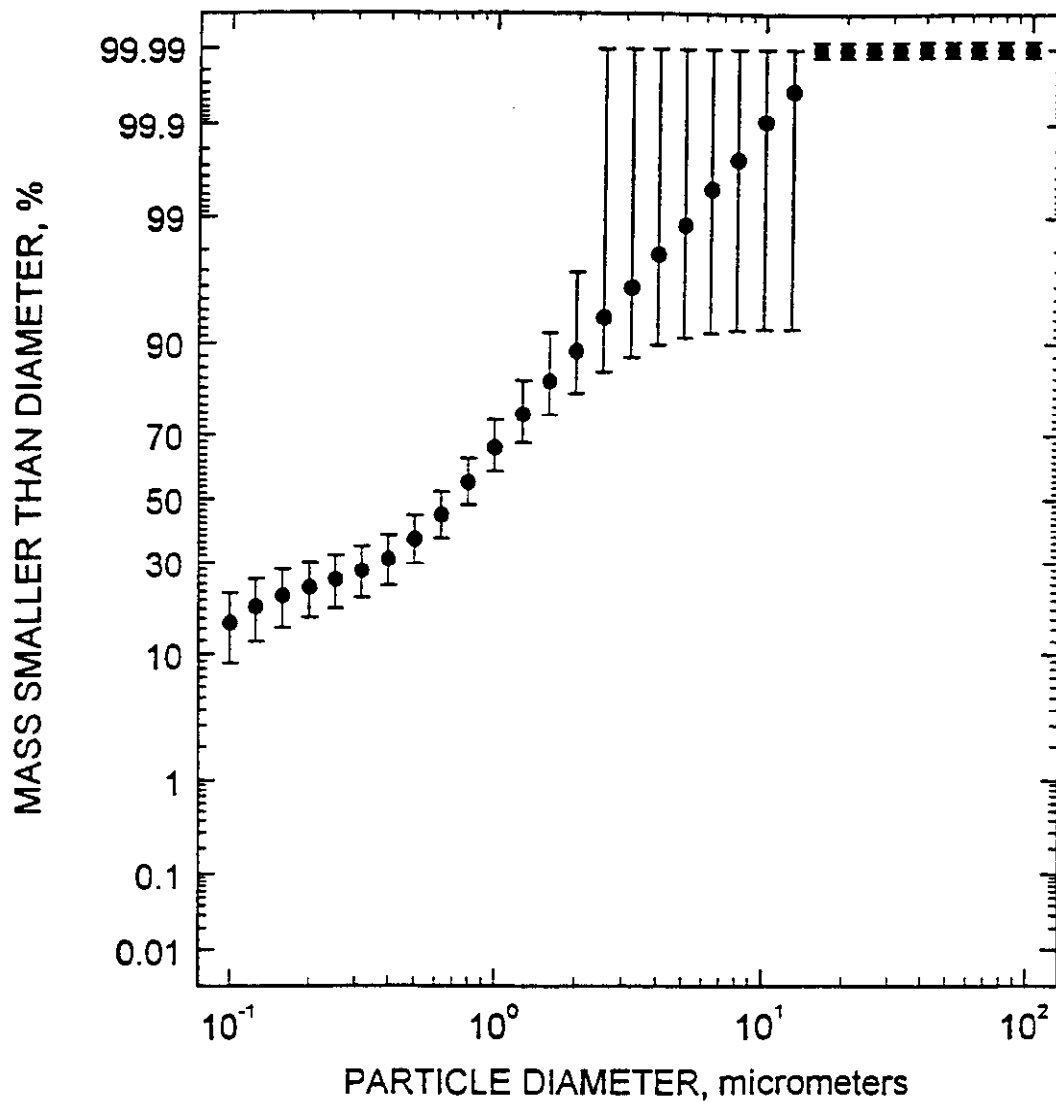


Figure B-23. Period 2 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, 16" ΔP, ESP First Field On, March 20, 1994

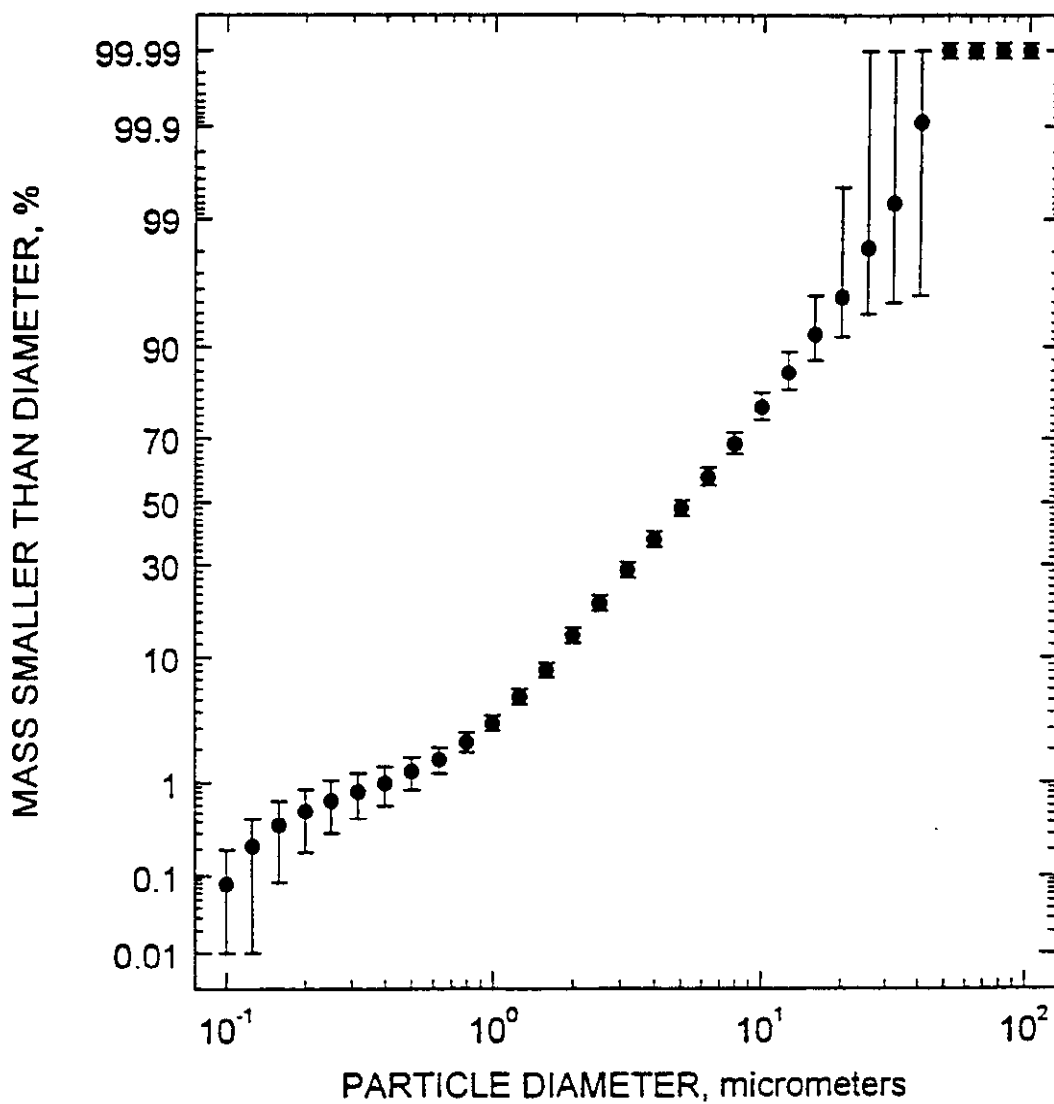


Figure B-24. Period 2 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, ESP First Field Detuned, March 22, 1994

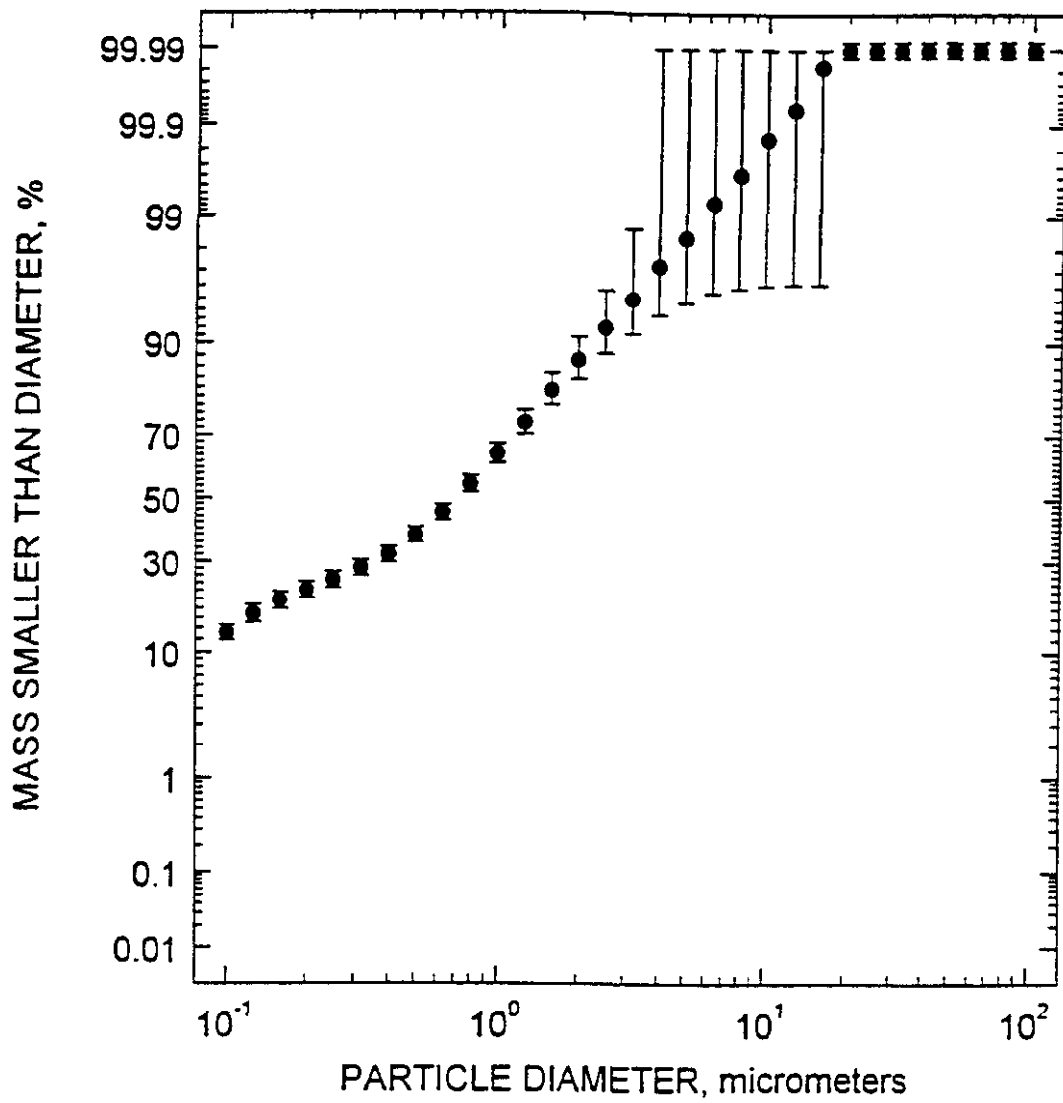


Figure B-25. Period 2 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, 16" ΔP, ESP First Field Detuned, March 22, 1994

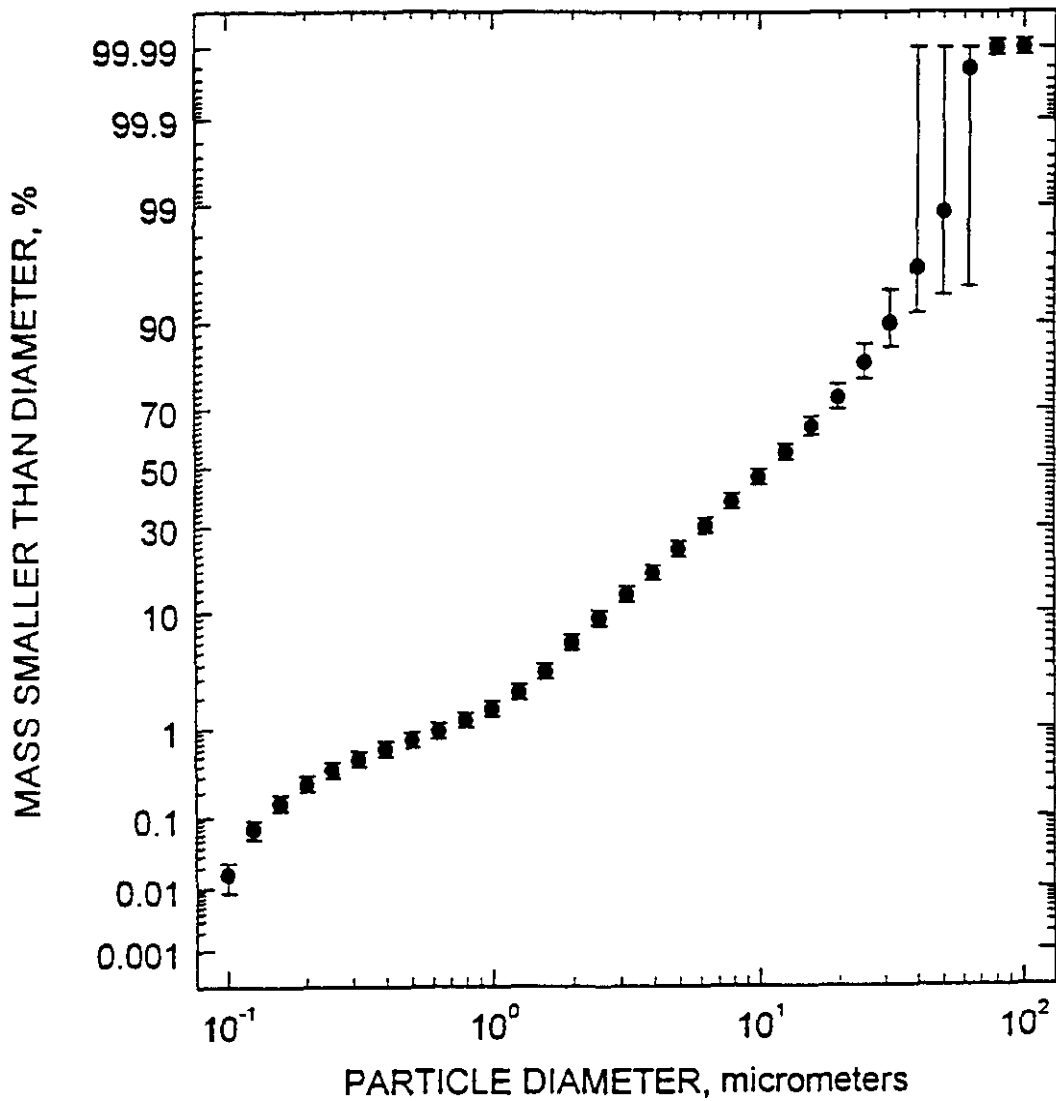


Figure B-26. Period 2 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, ESP First Field Off, March 24-25, 1994

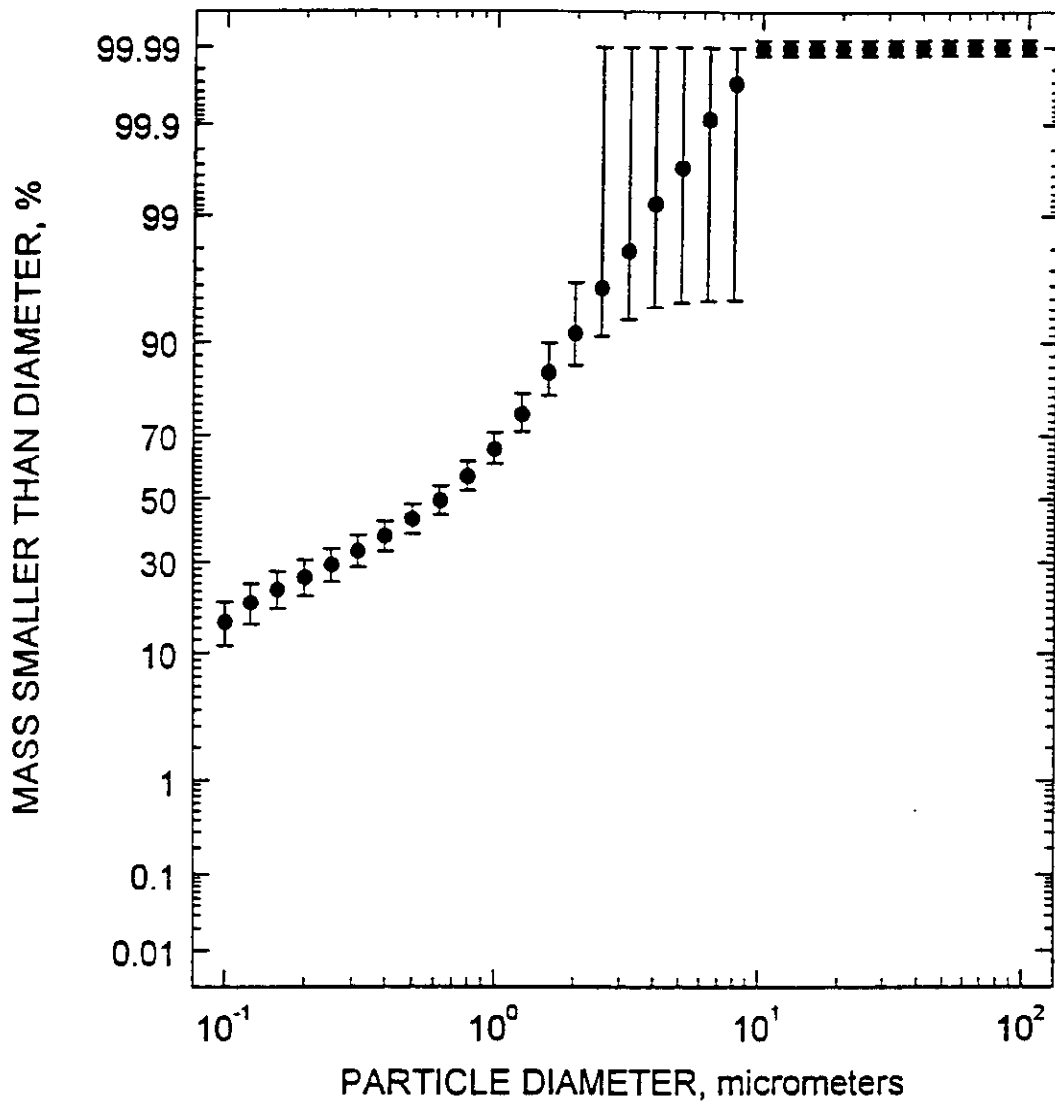


Figure B-27. Period 2 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, 16" ΔP, ESP First Field Off, March 24, 1994

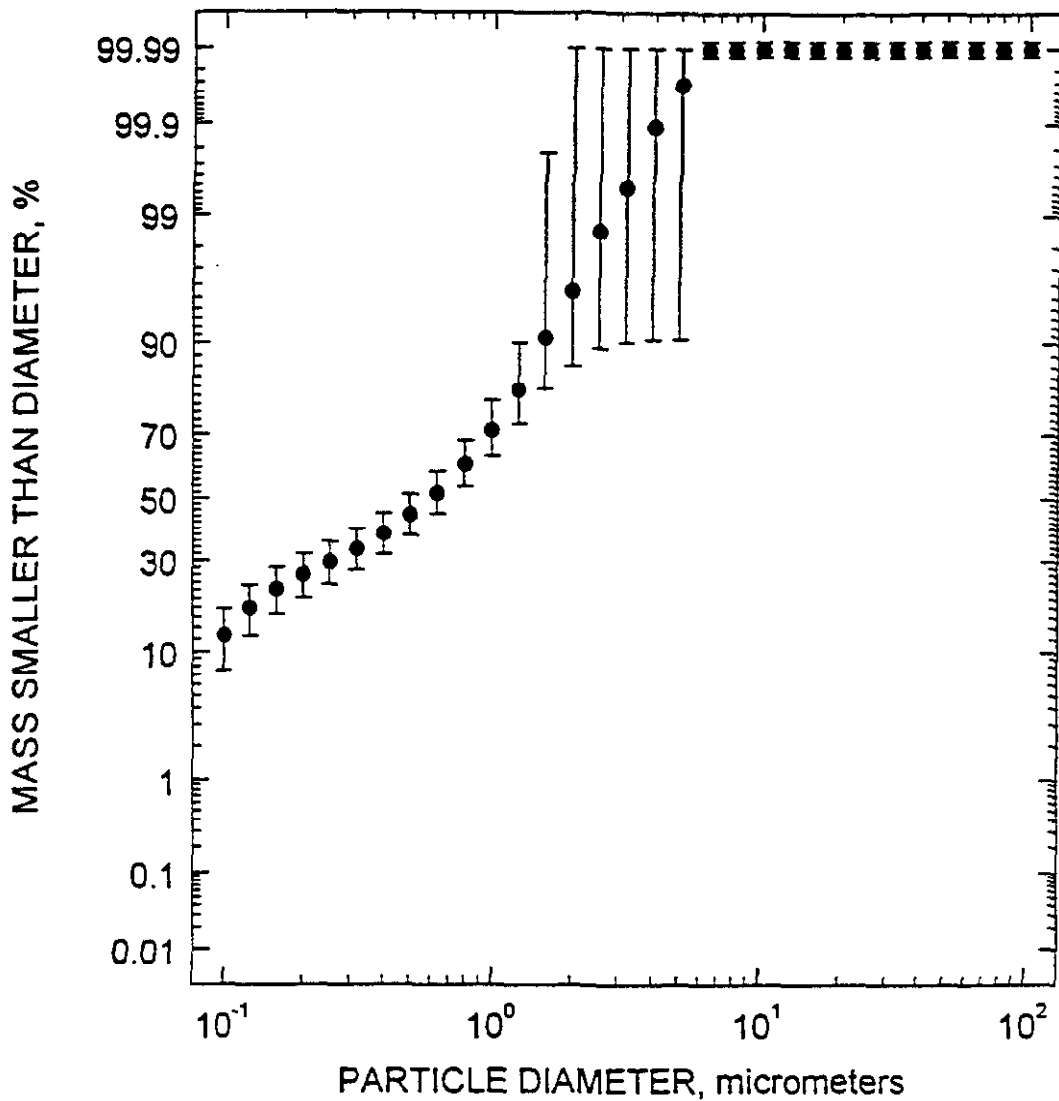


Figure B-28. Period 2 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 100 MW, 10" ΔP, ESP First Field Off, March 25, 1994

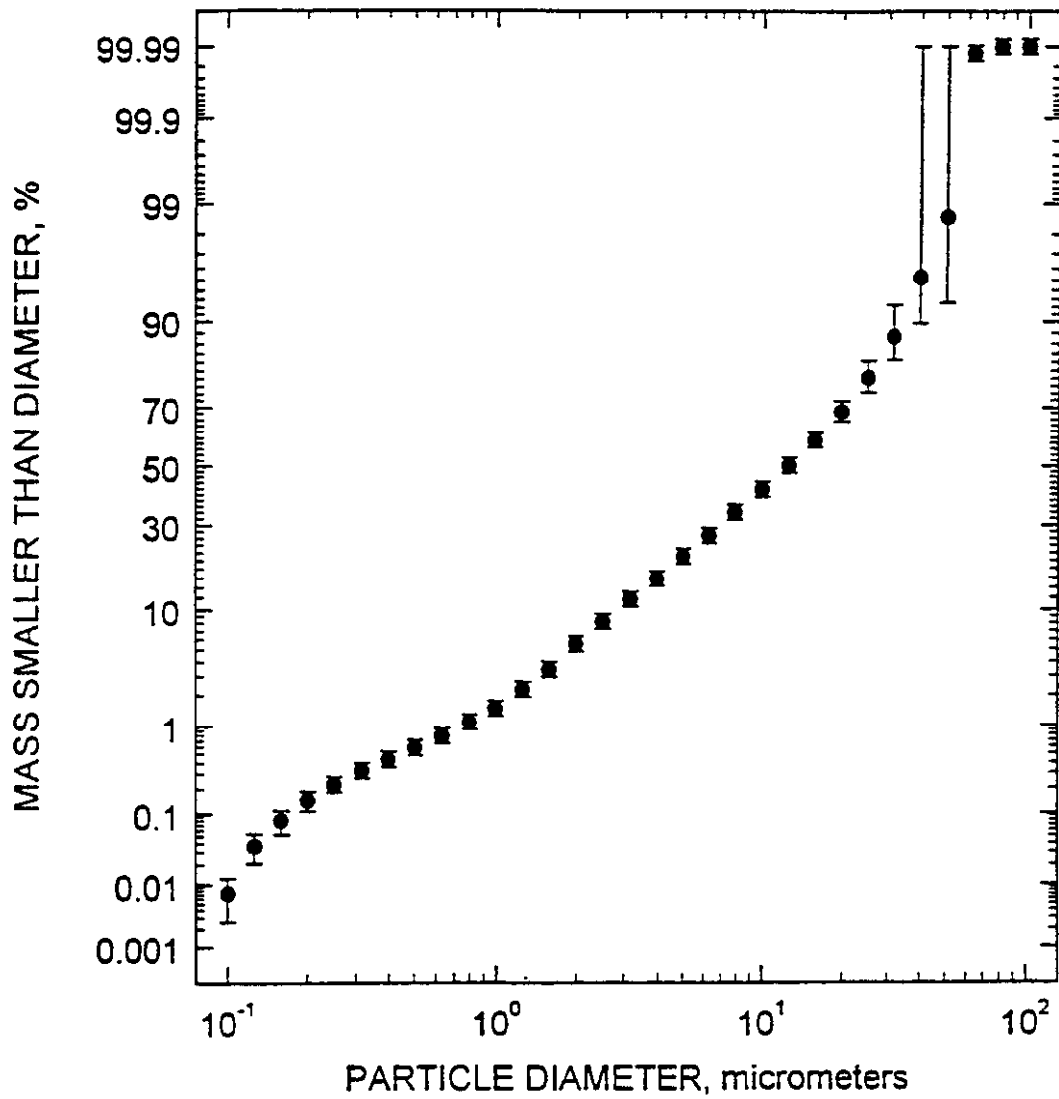


Figure B-29. Period 2 Inlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 50 MW, ESP First Field Off, March 26-27, 1994

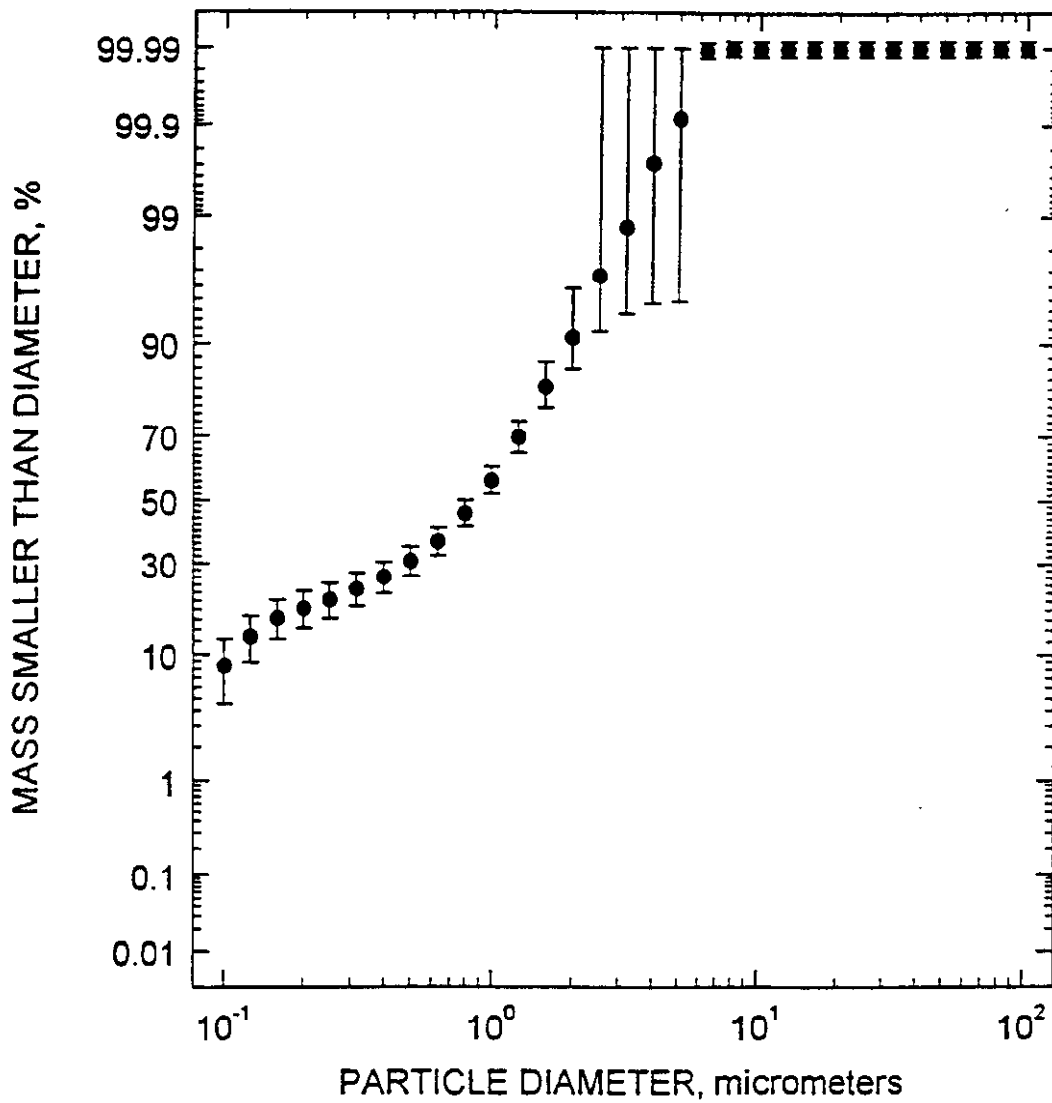


Figure B-30. Period 2 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 50 MW, 10" ΔP, ESP First Field Off, March 26, 1994

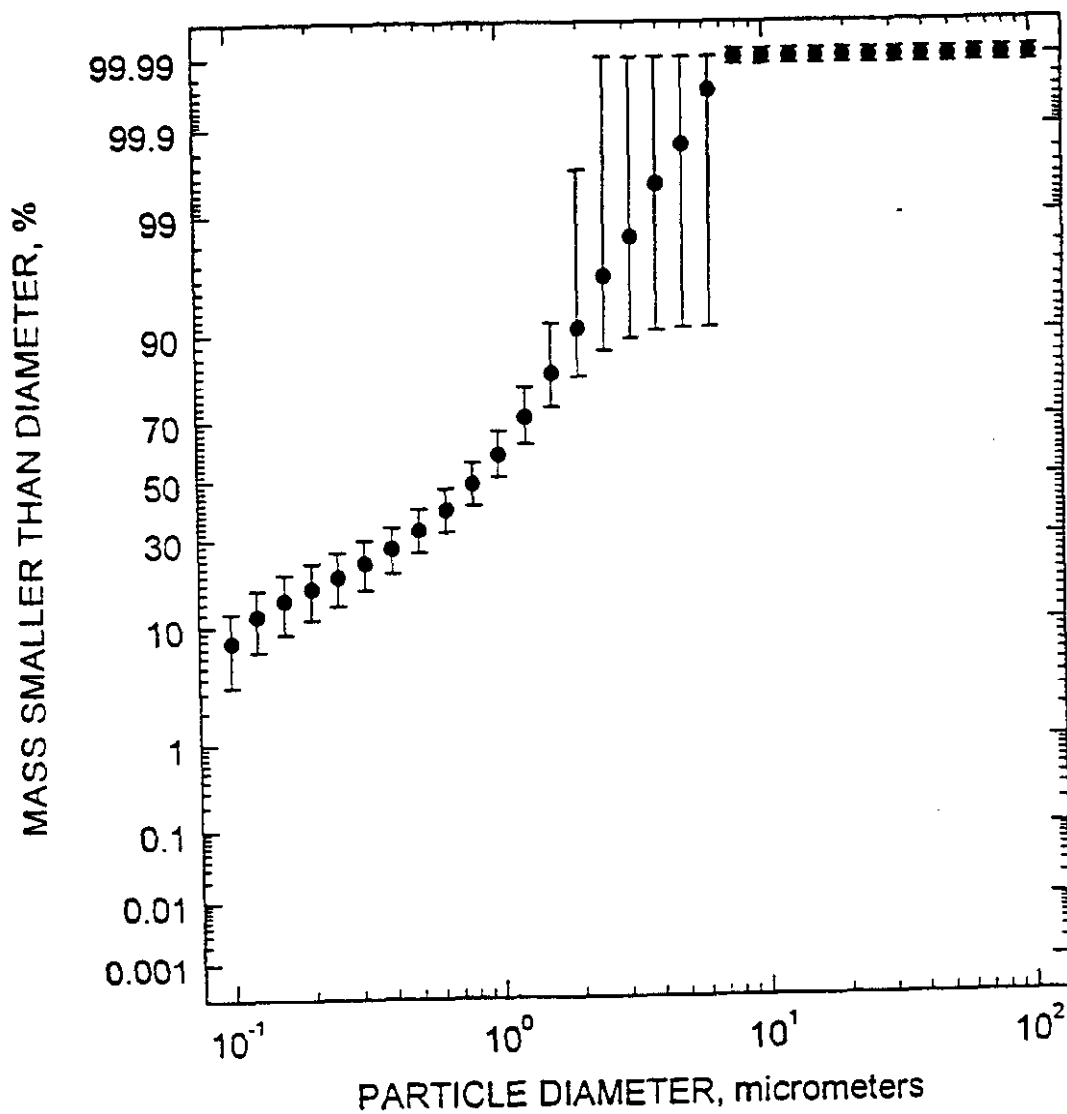


Figure B-31. Period 2 Outlet Cumulative Percent vs. Particle Diameter for Chiyoda Scrubber, 50 MW, 16" ΔP, ESP First Field Off, March 27, 1994

Appendix C
Groundwater Monitoring—Summary Data Tables

TABLE C-1
CW-1 RESULTS

Parameter	6 Sep 90	2 Nov 90	8-9 Jan 91	11 Mar 91	8 May 91	1-2 Jul 91
pH	5.86	6.27	5.6	6.70	6.05	5.94
Conductivity (μS/cm)	98	114	112	121	104	85
Temperature (°C)	17.8	18.1	14.7	15.5	21.8	19.0
Eh (mv)	242	236	206	184	226	536 ^a
Alkalinity (mg/L CaCO ₃)	15.6	22.3	25.8	27.1	25.0	16.4
Total Dissolved Solids (mg/L)	94	87	86	84	90	77
Bromide (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride (mg/L)	7.3	7.4	5.9	4.6	3.8	8.2
Total Organic Carbon (mg/L)	<1.0	<1.0	<1.0	<1.0	1.0 ^a	<1.0
Fluoride (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate/Nitrite (mg/L as N)	2.2	2.2	1.5	0.83	0.80	2.1
Sulfate (mg/L)	4.5	8.5	8.5	11	17	3.7
Radium 226 and 228 (pCi/L)	0.17; ND	NR	NR	0.18; ND	NR	NR
Gross Alpha (pCi/L)	1.9	NR	NR	0.85	NR	NR
Gross Beta (pCi/L)	ND	NR	NR	2.7	NR	NR
Gross Gamma (pCi/L)						
Ac-227	ND	NR	NR	NA	NR	NR
AC-228	ND	NR	NR	ND	NR	NR
Bi-212	ND	NR	NR	ND	NR	NR
Bi-214	76	NR	NR	ND	NR	NR
Co-60	ND	NR	NR	ND	NR	NR
Cs-134	ND	NR	NR	ND	NR	NR
CS-137	ND	NR	NR	ND	NR	NR
K-40	ND	NR	NR	ND	NR	NR
Pb-211	ND	NR	NR	ND	NR	NR
Pb-212	ND	NR	NR	ND	NR	NR
Pb-214	60	NR	NR	ND	NR	NR
Ra-223	ND	NR	NR	50	NR	NR
Ra-226	ND	NR	NR	ND	NR	NR
Rn-219	ND	NR	NR	ND	NR	NR
Th-227	ND	NR	NR	ND	NR	NR
Th-228	ND	NR	NR	ND	NR	NR
Th-231	ND	NR	NR	NA	NR	NR
Th-234	ND	NR	NR	ND	NR	NR
Tl-208	ND	NR	NR	ND	NR	NR
U-235	ND	NR	NR	ND	NR	NR
U-238	ND	NR	NR	NA	NR	NR
Silver (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Aluminum (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic (mg/L)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Boron (mg/L)	<0.60	<0.60	<0.050	<0.050	<0.050	<0.050
Barium (mg/L)	0.035 ^a	0.020 ^a	0.022 ^a	0.024 ^a	0.027 ^a	0.011 ^a
Beryllium (mg/L)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (mg/L)	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
Calcium (mg/L)	6.2	7.6	7.7	7.0	7.5	5.3
Cadmium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt (mg/L)	0.018 ^a	0.018 ^a	<0.010	<0.010	<0.010	<0.010
Copper (mg/L)	0.13 ^b	<0.020	<0.020	<0.020	<0.020	<0.020
Chromium (mg/L)	<0.010	0.0030 ^a	0.011 ^{ab}	<0.010	<0.010	<0.010

TABLE C-1 (CONTINUED)

Parameter	6 Sep 90	2 Nov 90	8-9 Jan 91	11 Mar 91	8 May 91	1-2 Jul 91
Mercury (mg/L)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Iron (mg/L)	<0.040	<0.040	0.044 ^{a,b}	<0.040	<0.040	<0.040
Potassium (mg/L)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Lithium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (mg/L)	3.4 ^a	4.9 ^a	4.8 ^a	4.6 ^a	5.1	3.5 ^a
Manganese (mg/L)	0.20	0.11	0.047 ^a	0.036 ^a	0.022 ^a	0.022 ^a
Molybdenum (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium (mg/L)	4.2 ^a	4.8 ^a	4.9 ^a	4.3 ^a	4.4 ^a	3.8 ^a
Nickel (mg/L)	0.041 ^a	0.022 ^a	<0.020	0.025 ^a	<0.020	<0.020
Phosphorus (mg/L)	<0.30	0.40 ^a	<0.30	<0.30	<0.30	<0.30
Lead (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	0.0032 ^a	0.0032 ^a
Sulfur (mg/L)	<5.0	<5.0	3.6 ^a	4.8 ^a	4.9 ^a	1.7 ^a
Antimony (mg/L)	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
Selenium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silicon (mg/L)	9.8	11	14	16	17	9.6
Tin (mg/L)	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60
Strontium (mg/L)	0.033	0.028	0.29	0.025	0.025	0.020
Tellurium (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Titanium (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Thallium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Vanadium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Tungsten (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Zinc (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

^a Less than five times the detection limit; results should be viewed accordingly.

^b Detected in the method blank.

ND = Not detected.

NR = Not required.

NA = Not applicable.

q = Questionable data.

TABLE C-2
CW-2 RESULTS

Parameter	6 Sep 90	2 Nov 90	8-9 Jan 91	11 Mar 91	8 May 91	1-2 Jul 91
pH	6.09	5.79	5.62	5.93	6.04	5.96
Conductivity (µS/cm)	81	70	72	63	63	66
Temperature (°C)	16.3	15.9	15.4	16.1	16.0	16.2
Eh (mv)	169	144	189	190	141	293
Alkalinity (mg/L CaCO ₃)	21.7	22.9	24.4	22.1	20.5	25.8
Total Dissolved Solids (mg/L)	81	51	59	52	48	64
Bromide (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride (mg/L)	3.5	2.8	3.1	3.4	2.8	2.5
Total Organic Carbon (mg/L)	<1.0	<1.0	<1.0	<1.0	2.0 ^a	<1.0
Fluoride (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate/Nitrite (mg/L as N)	0.26	0.39	0.53	0.42	0.34	0.36
Sulfate (mg/L)	7.6	5.0	2.8	<0.050	1.2	1.5
Radium 226 and 228 (pCi/L)	0.15; ND	NR	NR	0.14; ND	NR	NR
Gross Alpha (pCi/L)	2.5	NR	NR	ND	NR	NR
Gross Beta (pCi/L)	4.8	NR	NR	2.6	NR	NR
Gross Gamma (pCi/L)						
AC-227	ND	NR	NR	NA	NR	NR
AC-228	ND	NR	NR	ND	NR	NR
Bi-212	ND	NR	NR	ND	NR	NR
Bi-214	140	NR	NR	ND	NR	NR
Co-60	ND	NR	NR	ND	NR	NR
Cs-134	ND	NR	NR	ND	NR	NR
K-40	ND	NR	NR	ND	NR	NR
Pb-211	ND	NR	NR	ND	NR	NR
Pb-212	ND	NR	NR	ND	NR	NR
Pb-214	23	NR	NR	ND	NR	NR
Ra-223	ND	NR	NR	ND	NR	NR
Ra-226	ND	NR	NR	ND	NR	NR
Rn-219	ND	NR	NR	ND	NR	NR
Th-227	ND	NR	NR	ND	NR	NR
Th-228	ND	NR	NR	350	NR	NR
Th-231	ND	NR	NR	NA	NR	NR
Th-234	ND	NR	NR	ND	NR	NR
Tl-208	ND	NR	NR	ND	NR	NR
U-235	ND	NR	NR	ND	NR	NR
U-238	ND	NR	NR	NA	NR	NR
Silver (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Aluminum (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic (mg/L)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Boron (mg/L)	<0.60	<0.60	<0.050	<0.050	<0.050	<0.050
Barium (mg/L)	0.028 ^a	0.021 ^a	0.019 ^a	0.017 ^a	0.016 ^a	0.012 ^a
Beryllium (mg/L)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (mg/L)	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
Calcium (mg/L)	3.9 ^a	3.6 ^a	3.8 ^a	3.2 ^a	3.4 ^a	3.6 ^a
Cadmium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt (mg/L)	0.025 ^a	<0.010	<0.010	<0.010	<0.010	<0.010
Copper (mg/L)	0.12 ^b	<0.020	<0.020	<0.020	<0.020	<0.020
Chromium (mg/L)	<0.010	<0.0020	<0.010	<0.010	<0.010	<0.010
Mercury (mg/L)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

TABLE C-2 (CONTINUED)

Parameter	6 Sep 90	2 Nov 90	8-9 Jan 91	11 Mar 91	8 May 91	1-2 Jul 91
Iron (mg/L)	<0.040	0.041 ^a	<0.040	<0.040	<0.040	<0.040
Potassium (mg/L)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Lithium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (mg/L)	2.3 ^a	2.5 ^a	2.8 ^a	2.2 ^a	2.4 ^a	2.5 ^a
Manganese (mg/L)	0.20	0.068	0.023 ^a	0.064	0.025 ^a	0.014 ^a
Molybdenum (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium (mg/L)	5.9	5.2	4.3 ^a	4.1 ^a	4.2 ^a	4.1 ^a
Nickel (mg/L)	0.023 ^a	<0.020	<0.020	<0.020	<0.020	<0.020
Phosphorus (mg/L)	<0.30	0.49 ^a	<0.30	<0.30	<0.30	<0.30
Lead (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Sulfur (mg/L)	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
Antimony (mg/L)	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
Selenium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silicon (mg/L)	9.0	9.0	9.2	11	11	11
Tin (mg/L)	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60
Strontium (mg/L)	0.020	0.014 ^a	0.014 ^a	0.012 ^a	0.013 ^a	0.011 ^a
Tellurium (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Titanium (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Thallium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Vanadium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Tungsten (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Zinc (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

^aLess than five times the detection limit; results should be viewed accordingly.

^bDetected in the method blank.

ND = Not detected.

NR = Not required.

NA = Not applicable.

TABLE C-3
CW-3 RESULTS

Parameter	6 Sep 90	2 Nov 90	8-9 Jan 91	11 Mar 91	8 May 91	1-2 Jul 91
pH	5.64	5.6	5.04	5.5	4.97	5.65
Conductivity (µS/cm)	76	69	64	66	33	71
Temperature (°C)	16.2	16.0	15.2	15.9	16.1	16.8
Eh (mv)	210	147	212	250	180	242
Alkalinity (mg/L CaCO ₃)	23.5	19.3	15.2	16.9	12.2	17.5
Total Dissolved Solids (mg/L)	76	50	55	55	63	65
Bromide (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride (mg/L)	4.3	5.2	6.9	6.2	5.0	5.3
Total Organic Carbon (mg/L)	1.6 ^a	<1.0	<1.0	<1.0	1.0 ^a	<1.0
Fluoride (mg/L)	<0.10	<0.10	0.37 ^a	<0.10	<0.10	<0.10
Nitrate/Nitrite as N (mg/L)	0.15	0.11	0.81 ^a	0.082 ^a	0.10	0.11
Sulfate (mg/L)	6.4	5.5	6.3	5.9	5.8	6.3
Radium 226 and 228 (pCi/L)	0.17; ND	NR	NR	0.12; ND	NR	NR
Gross Alpha (pCi/L)	3.9	NR	NR	ND	NR	NR
Gross Beta (pCi/L)	3.5	NR	NR	2.1	NR	NR
Gross Gamma (pCi/L)						
AC-227	ND	NR	NR	NA	NR	NR
AC-228	ND	NR	NR	ND	NR	NR
Bi-212	ND	NR	NR	ND	NR	NR
Bi-214	32	NR	NR	ND	NR	NR
Co-60	ND	NR	NR	ND	NR	NR
Cs-134	ND	NR	NR	ND	NR	NR
Cs-137	ND	NR	NR	ND	NR	NR
K-40	ND	NR	NR	170	NR	NR
Pb-211	ND	NR	NR	ND	NR	NR
Pb-212	ND	NR	NR	ND	NR	NR
Pb-214	22	NR	NR	ND	NR	NR
Ra-223	ND	NR	NR	ND	NR	NR
Ra-226	ND	NR	NR	ND	NR	NR
Rn-219	ND	NR	NR	ND	NR	NR
Th-227	ND	NR	NR	ND	NR	NR
Th-228	ND	NR	NR	ND	NR	NR
Th-231	ND	NR	NR	NA	NR	NR
Th-234	ND	NR	NR	ND	NR	NR
Tl-208	ND	NR	NR	ND	NR	NR
U-235	ND	NR	NR	ND	NR	NR
U-238	ND	NR	NR	NA	NR	NR
Silver (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Aluminum (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic (mg/L)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Boron (mg/L)	<0.60	<0.60	<0.050	<0.050	<0.050	<0.050
Barium (mg/L)	0.028 ^a	0.026 ^a	0.018 ^a	0.015 ^a	0.012 ^a	<0.010
Beryllium (mg/L)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (mg/L)	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
Calcium (mg/L)	4.4 ^a	2.8 ^a	2.3 ^a	2.0 ^a	2.0 ^a	1.7 ^a
Cadmium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper (mg/L)	0.10 ^b	<0.020	<0.020	<0.020	<0.020	<0.020

TABLE C-3 (CONTINUED)

Parameter	6 Sep 90	2 Nov 90	8-9 Jan 91	11 Mar 91	8 May 91	1-2 Jul 91
Chromium (mg/L)	<0.010	0.0024 ^a	0.14 ^b	<0.010	<0.010	<0.010
Mercury (mg/L)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Iron (mg/L)	<0.040	<0.040	0.54 ^b	<0.040	<0.040	<0.040
Potassium (mg/L)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Lithium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (mg/L)	1.6 ^a	1.5 ^a	1.6 ^a	1.7 ^a	1.8 ^a	1.9 ^a
Manganese (mg/L)	0.13	0.057	0.32 ^a	<0.010	<0.010	<0.010
Molybdenum (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium (mg/L)	7.3	7.4	6.9	7.0	7.5	7.6
Nickel (mg/L)	0.023 ^a	0.034 ^a	0.086 ^a	<0.020	<0.020	<0.020
Phosphorus (mg/L)	<0.30	0.36 ^a	<0.30	<0.30	<0.30	<0.30
Lead (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0033 ^a
Sulfur (mg/L)	<5.0	<5.0	1.2 ^a	1.4 ^a	2.0 ^a	1.8 ^a
Antimony (mg/L)	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
Selenium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silicon (mg/L)	10	10	9.3	12	11	11
Tin (mg/L)	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60
Strontium (mg/L)	0.027	0.017	0.014 ^a	0.012 ^a	0.012 ^a	0.0097 ^a
Tellurium (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Titanium (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Thallium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Vanadium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Tungsten (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Zinc (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

^aLess than five times the detection limit; results should be viewed accordingly.

^bDetected in the method blank.

ND = Not detected.

NR = Not required.

NA = Not applicable.

TABLE C-4
CW-4 RESULTS

Parameter	6 Sep 90	2 Nov 90	8-9 Jan 91	11 Mar 91	8 May 91	1-2 Jul 91
pH	5.40	5.15	4.8	4.73	6.19	5.08
Conductivity (µS/cm)	40	35	30	34	32	35
Temperature (°C)	16.9	16.9	16.7	16.9	16.8	17.0
Eh (mv)	188	213	228	274	181	319
Alkalinity (mg/L CaCO ₃)	11.5	15.2	9.9	11.0	7.0	11.1
Total Dissolved Solids (mg/L)	50	35 ^a	31 ^a	34 ^a	39 ^a	41 ^a
Bromide (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride (mg/L)	3.0	2.8	3.2	3.4	3.1	3.1
Total Organic Carbon (mg/L)	1.3 ^a	1.1 ^a	<1.0	<1.0	<1.0	<1.0
Fluoride (mg/L)	0.040 ^a	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate/Nitrite as N (mg/L)	0.035 ^a	0.027 ^a	<0.020	0.020	0.05 ^a	0.043 ^{ab}
Sulfate (mg/L)	2.6	2.1	<0.050	<0.050	0.90	1.5
Radium 226 and 228 (pCi/L)	0.10; ND	NR	NR	0.09; ND	NR	NR
Gross Alpha (pCi/L)	ND	NR	NR	ND	NR	NR
Gross Beta (pCi/L)	ND	NR	NR	ND	NR	NR
Gross Gamma (pCi/L)						
Ac-227	ND	NR	NR	NA	NR	NR
Ac-228	ND	NR	NR	ND	NR	NR
Bi-212	ND	NR	NR	ND	NR	NR
Bi-214	140	NR	NR	ND	NR	NR
Co-60	ND	NR	NR	ND	NR	NR
Cs-134	ND	NR	NR	ND	NR	NR
Cs-137	ND	NR	NR	ND	NR	NR
K-40	ND	NR	NR	ND	NR	NR
Pb-211	ND	NR	NR	ND	NR	NR
Pb-212	190	NR	NR	ND	NR	NR
Pb-214	ND	NR	NR	29	NR	NR
Ra-223	ND	NR	NR	ND	NR	NR
Ra-226	ND	NR	NR	ND	NR	NR
Rn-219	ND	NR	NR	ND	NR	NR
Th-227	ND	NR	NR	ND	NR	NR
Th-228	ND	NR	NR	ND	NR	NR
Th-231	ND	NR	NR	NA	NR	NR
Tl-208	ND	NR	NR	ND	NR	NR
U-235	ND	NR	NR	ND	NR	NR
U-238	ND	NR	NR	NA	NR	NR
Silver (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Aluminum (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic (mg/L)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Boron (mg/L)	<0.60	<0.60	<0.050	<0.050	<0.050	<0.050
Barium (mg/L)	<0.010	<0.010	<0.010	0.010	0.010	<0.010
Beryllium (mg/L)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (mg/L)	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
Calcium (mg/L)	1.0 ^a	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium (mg/L)	<0.0050	<0.0050	<0.0050	0.0090 ^a	<0.0050	<0.0050
Cobalt (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper (mg/L)	0.094 ^{ab}	<0.020	<0.020	<0.020	<0.020	<0.020
Chromium (mg/L)	0.011 ^a	<0.0020	0.017 ^{ab}	<0.010	<0.010	<0.010
Mercury (mg/L)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

TABLE C-4 (CONTINUED)

Parameter	6 Sep 90	2 Nov 90	8-9 Jan 91	11 Mar 91	8 May 91	1-2 Jul 91
Iron (mg/L)	<0.040	<0.040	0.046 a,b	<0.040	0.089 ^a	<0.040
Potassium (mg/L)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Lithium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (mg/L)	1.0 ^a	<1.0	<1.0	<1.0	<1.0	<1.0
Manganese (mg/L)	0.056	0.033 ^a	0.026 ^a	0.012 ^a	<0.010	<0.010
Molybdenum (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium (mg/L)	4.4 ^a	4.5 ^a	4.3 ^a	4.1 ^a	4.6 ^a	4.3 ^a
Nickel (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Phosphorus (mg/L)	<0.30	0.37 ^a	<0.30	<0.30	<0.30	<0.30
Lead (mg/L)	0.0038 ^{a,b}	<0.0030	0.011 ^a	<0.0030	<0.0030	<0.0030
Sulfur (mg/L)	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0
Antimony (mg/L)	0.0078 ^a	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
Selenium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silicon (mg/L)	8.0	7.8	3.9 ^a	8.5	8.6	8.3
Tin (mg/L)	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60
Strontium (mg/L)	0.0077 ^a	0.0040 ^a	0.0040 ^a	0.0038 ^a	0.0043 ^a	0.0030 ^a
Tellurium (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Titanium (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Thallium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Vanadium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Tungsten (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Zinc (mg/L)	<0.020	<0.020	0.025 ^a	<0.020	<0.020	<0.020

^a Less than five times the detection limit; results should be viewed accordingly.

^b Detected in the method blank.

ND = Not detected.

NR = Not required.

NA = Not applicable.

TABLE C-5
CW-5 RESULTS

Parameter	6 Sep 90	2 Nov 90	8-9 Jan 91	11 Mar 91	8 May 91	1-2 Jul 91
pH	5.34	4.97	4.8	4.6	5.03	5.40
Conductivity ($\mu\text{S}/\text{cm}$)	62	62	66	72	54	70
Temperature ($^{\circ}\text{C}$)	17.5	18.0	16.1	14.6	14.6	16.5
Eh (mv)	188	147	418	439	248	311
Alkalinity (mg/L CaCO_3)	12.5	15.3	13.1	15.1	8.6	14.2
Total Dissolved Solids (mg/L)	61	52	60	51	58	64
Bromide (mg/L)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride (mg/L)	5.0	4.2	5.0	5.6	4.5	5.2
Total Organic Carbon (mg/L)	2.2 a	<1.0	<1.0	<1.0	<1.0	<1.0
Fluoride (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate/Nitrite as N (mg/L)	1.4	1.4	1.2	0.66	0.63	0.99 ^b
Sulfate (mg/L)	2.2	4.6	8	6.8	7.1	5.8
Radium 226 and 228 (pCi/L)	0.13; ND	NR	NR	0.09; ND	NR	NR
Gross Alpha (pCi/L)	ND	NR	NR	ND	NR	NR
Gross Beta (pCi/L)	ND	NR	NR	ND	NR	NR
Gross Gamma (pCi/L)						
Ac-227	ND	NR	NR	NA	NR	NR
Ac-228	ND	NR	NR	ND	NR	NR
Bi-212	ND	NR	NR	ND	NR	NR
Bi-214	130	NR	NR	ND	NR	NR
Co-60	ND	NR	NR	ND	NR	NR
Cs-134	ND	NR	NR	ND	NR	NR
Cs-137	ND	NR	NR	ND	NR	NR
K-40	ND	NR	NR	ND	NR	NR
Pb-211	ND	NR	NR	ND	NR	NR
Pb-212	ND	NR	NR	ND	NR	NR
Pb-214	ND	NR	NR	ND	NR	NR
Ra-223	ND	NR	NR	ND	NR	NR
Ra-226	350	NR	NR	ND	NR	NR
Rn-219	ND	NR	NR	ND	NR	NR
Th-227	ND	NR	NR	ND	NR	NR
Th-228	ND	NR	NR	ND	NR	NR
Th-231	ND	NR	NR	NA	NR	NR
Th-234	ND	NR	NR	ND	NR	NR
Tl-208	ND	NR	NR	ND	NR	NR
U-235	ND	NR	NR	ND	NR	NR
U-238	ND	NR	NR	NA	NR	NR
Silver (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Aluminum (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic (mg/L)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Boron (mg/L)	<0.60	<0.60	<0.050	<0.050	<0.050	<0.050
Barium (mg/L)	0.015 ^a	0.013 ^a	0.011 ^a	0.011 ^a	0.012 ^a	<0.010
Beryllium (mg/L)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (mg/L)	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
Calcium (mg/L)	1.3 ^a	<1.0	<1.0	1.3 ^a	1.6 ^a	1.2 ^a
Cadmium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cobalt (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Copper (mg/L)	0.077 ^{ab}	<0.020	<0.020	<0.020	<0.020	<0.020

TABLE C-5 (CONTINUED)

Parameter	6 Sep 90	2 Nov 90	8-9 Jan 91	11 Mar 91	8 May 91	1-2 Jul 91
Chromium (mg/L)	<0.010	0.0031 ^a	<0.010	<0.010	<0.010	<0.010
Mercury (mg/L)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Iron (mg/L)	<0.040	<0.040	<0.040	<0.040	0.10 ^a	<0.040
Potassium (mg/L)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Lithium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (mg/L)	2.5 ^a	2.5 ^a	3.1 ^a	3.8 ^a	3.9 ^a	3.7 ^a
Manganese (mg/L)	0.090	0.043 ^a	0.016 ^a	0.025 ^a	0.052	0.019 ^a
Molybdenum (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium (mg/L)	5.4	5.8	5.3	5.1	5.0	5.2
Nickel (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Phosphorus (mg/L)	<0.30	0.36 ^a	<0.30	<0.30	<0.30	<0.30
Lead (mg/L)	<0.0030	0.016 ^b	<0.0030	<0.0030	<0.0030	<0.0030
Sulfur (mg/L)	<5.0	<5.0	1.6 ^a	1.8 ^a	2.3 ^a	1.7 ^a
Antimony (mg/L)	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070
Selenium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silicon (mg/L)	9.9	9.1	4.7 a	9.7	9.2	10
Tin (mg/L)	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60
Strontium (mg/L)	0.010 ^a	0.0082 a	0.0096 ^a	0.011 ^a	0.014 ^a	0.0089 ^a
Tellurium (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Titanium (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Thallium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Vanadium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Tungsten (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Zinc (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

^a Less than five times the detection limit; results should be viewed accordingly.

^b Detected in the method blank.

ND = Not detected.

NR = Not required.

NA = Not applicable.

TABLE C-6
RESULTS FOR SEPTEMBER 3-4 AND
OCTOBER 14, 1992: PARAMETERS OTHER THAN VOCS

Parameter	GWA-1-7-1	GWC-1-7-1	GWC-2-7-1	GWC-3-7-1	GWC-4-7-1	GWC-5-7-1
pH	6.4	6.1	5.5	5.25	5.05	5.6
Conductivity ($\mu\text{S}/\text{cm}$)	116	78	66	32	72	61
Temperature ($^{\circ}\text{C}$)	18.5	16.5	17.0	17.1	17.8	17.5
Eh (mv)	168	256	321	304	383	232
Alkalinity (mg/L CaCO_3)	35.4	27.8	18.2	10.0	11.5	14.8
Total Dissolved Solids (mg/L)	99	64	79	28	61	91
Bromide (mg/L)	<0.030	<0.030	1.7	<0.030	<0.030	<0.030
Chloride (mg/L)	1.9	2.5	3.0	2.0	3.1	1.8
Total Organic Carbon (mg/L)	<1.0	<1.0	6.1	<1.0	<1.0	<1.0
Fluoride (mg/L)	0.091 ^a	0.053 ^a	0.19	0.033 ^a	0.027 ^a	0.037 ^a
Nitrate-Nitrite (mg/L as N)	0.51	0.63	0.14	0.027 ^a	2.4	0.076 ^a
Sulfate (mg/L)	17	3.2	6.5	1.7	5.3	8.8
Radium 226 and 228 (pCi/L)	0.92±0.27 -4.0±5.5	0.63±0.21 3.3±5.6	0.70±0.25 -4.1±6.0	0.57±0.20 -2.5±5.1	0.59±0.19 -1.7±5.2	0.71±0.25 -3.0±6.6
Gross Alpha (pCi/L)	0.89 ^a	<0.60	<0.51	<0.49	<0.50	<0.52
Gross Beta (pCi/L)	1.80 ^a	<1.74	<1.80	<1.80	<1.75	<1.75
Gross Gamma (pCi/L)						
Ac-227	NR	NR	NR	NR	NR	NR
Ac-228	<18.5	<21.6	<16.8	<19.3	<18.4	<18.8
Bi-212	<63.7	<57.0	<57.5	<76.8	<56.1	<61.8
Bi-214	<11.0	<9.77	<11.2	<10.8	<11.5	<10.7
Co-60	<3.09	<3.57	<2.86	<2.45	<4.95	<2.73
Cs-134	<2.58	<2.84	<3.25	<2.10	<2.26	<3.66
Cs-137	<3.23	<2.21	<4.18	<2.20	<3.84	<5.33
K-40	<112	<106	<105	<106	<107	130±170
Pb-211	NR	NR	NR	NR	NR	NR
Pb-212	<10.9	<10.9	<9.31	<9.77	<11.0	<9.49
Pb-214	<9.37	<11.7	<13.0	<13.1	<13.4	<10.9
Ra-223	<33.8	<31.8	<27.9	<30.0	<35.5	<33.4
Ra-226	<116	<123	<112	<119	<121	<112
Rn-219	<37.6	<42	<37.9	<35.9	<46.7	<43.5
Th-227	<46.4	<51.6	<46.2	<42.4	<18.4	<18.9
Th-228	<225	<173	<223	<230	<200	<205
Th-231	<36.2	<42.3	<37.2	<36.3	<54.6	<49.3
Th-234	<59.6	86±84	<75.6	<71.5	<75.7	<67.7
Tl-208	<6.05	<4.37	7.0±4.3	<5.54	13.0±8.1	<4.56
U-235	<7.43	<7.67	<7.50	<7.81	<6.78	<6.90
U-238	NR	NR	NR	NR	NR	NR
Silver (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Aluminum (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic (mg/L)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Boron (mg/L)	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Barium (mg/L)	0.025 ^a	0.012 ^a	0.010 ^a	<0.010	<0.010	<0.010
Beryllium (mg/L)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (mg/L)	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
Calcium (mg/L)	7.9	4.3 ^a	1.4 ^a	<1.0	<1.0	2.1
Cadmium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	0.0054 ^a	<0.0050
Cobalt (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010

TABLE C-6 (CONTINUED)

Parameter	GWA-1-7-1	GWC-1-7-1	GWC-2-7-1	GWC-3-7-1	GWC-4-7-1	GWC-5-7-1
Copper (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Chromium (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Mercury (mg/L)	0.00036 ^a	0.00036 ^a	0.00036 ^a	0.00034 ^a	0.00036 ^a	0.00036 ^a
Iron (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (mg/L)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Lithium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (mg/L)	5.6	3.2 ^a	1.9 ^a	<1.0	3.3 ^a	1.9
Manganese (mg/L)	<0.010	<0.010	<0.010	<0.010	0.014 ^a	0.12
Molybdenum (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium (mg/L)	4.1 ^a	4.0 ^a	7.5	4.1 ^a	4.8 ^a	6.0
Nickel (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Phosphorus (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Lead (mg/L)	0.0030 ^a	<0.0030	0.0031 ^a	0.0064 ^a	0.0065 ^a	0.012 ^a
Sulfur (mg/L)	8.7 ^a	<5.0	<5.0	<5.0	<5.0	<5.0
Antimony (mg/L)	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Selenium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silicon (mg/L)	15	11	11	8.3	8.6	12
Tin (mg/L)	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60
Strontium (mg/L)	0.023	0.014 ^a	0.011 ^a	0.0038 ^a	0.0081 ^a	0.013 ^a
Tellurium (mg/L)	<0.02	<0.20	<0.20	<0.20	<0.20	<0.20
Titanium (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Thallium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium (mg/L)	0.039 ^a	<0.031	0.014 ^a	<0.031	<0.031	<0.031
Vanadium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Tungsten (mg/L)	<0.010	<0.10	<0.10	<0.10	<0.10	<0.10
Zinc (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

^a Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

^b Detected in the method blank.

NR = Not reported.

Well No. GWA-1 was previously named CW-1.

Well No. GWC-1 was previously named CW-2.

Well No. GWC-2 was previously named CW-3.

Well No. GWC-3 was previously named CW-4.

Well No. GWC-4 was previously named CW-5.

Metal concentrations shown are total.

TABLE C-7
RESULTS FOR SEPTEMBER 3-4 AND OCTOBER 14, 1992: VOCS

Parameter	GWC-5-7-1 (µg/L)
Acetone	<100
Acrolein	<75
Acrylonitrile	<50
Benzene	<5.0
Bromodichloromethane	<5.0
Bromomethane	<10
Carbon disulfide	<5.0
Carbon tetrachloride	<5.0
Chlorobenzene	<5.0
Chloroethane	<10
2-Chloroethyl vinyl ether	<10
Chloroform	<5.0
Chloromethane	6.2 ^a
Dibromochloromethane	<5.0
Dibromomethane	<5.0
trans-1,4-Dichloro-2-butene	<10
Dichlorodifluoromethane	<20
1,1-Dichloroethane	<5.0
1,2-Dichloroethane	9.3 ^b
1,1-Dichloroethene	<5.0
trans-1,2-Dichloroethene	<5.0
1,2-Dichloropropane	<5.0
cis-1,3-Dichloropropene	<5.0
trans-1,3-Dichloropropene	<5.0
Ethyl benzene	<5.0
Ethyl methacrylate	<15
2-Hexanone	<50
Iodomethane	<5.0
Methyl ethyl ketone	<100
4-Methyl-2-pentanone(MIBK)	<50
Methylene chloride	<5.0
Styrene	<5.0
1,1,2,2-Tetrachloroethane	<50
Tetrachloroethene	<5.0
Toluene	<5.0
Tribromomethane(Bromoform)	<5.0
1,1,1-Trichloroethane	<5.0
1,1,2-Trichloroethane	<5.0
Trichloroethene	<5.0
Trichlorofluoromethane	<10
1,2,3-Trichloropropane	<5.0
Vinyl acetate	<5.0
Vinyl chloride	<10
Xylenes	<5.0

^aDetected at less than the detection limit.

^bLess than five times the detection limit; results should be viewed accordingly.

TABLE C-8
RESULTS OF GROUNDWATER MONITORING CONDUCTED
DECEMBER 29-30, 1992 (FOURTH QUARTER 1992)

Parameter	GWA-1-8-1	GWC-1-8-1	GWC-2-8-1	GWC-3-8-1	GWC-4-8-1	GWC-5-8-1
pH	5.7	4.5	4.6	3.8	3.9	4.4
Conductivity (µS/cm)	101	57	56	27	58	60
Temperature (°C)	15.9	16.0	17.0	17.1	17.3	17.1
Eh (mv)	165	237	251	275	301	276
Alkalinity (mg/L CaCO ₃)	22.7	23.3	17.3	8.9	8.0	13.5
Total Dissolved Solids (mg/L)	110	68	71	37 ^a	65	86
Bromide (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Chloride (mg/L)	2.1	2.6	3.4	2.3	3.4	2.6
Total Organic Carbon (mg/L)	2.2 ^a	3.1 ^a	4.6 ^a	9.3	2.0 ^a	2.9 ^a
Fluoride (mg/L)	0.089 ^a	0.057 ^a	0.030 ^a	0.040 ^a	0.028 ^a	0.031 ^a
Nitrate-Nitrite (mg/L as N)	0.17 ^b	0.53 ^b	0.15 ^b	0.022 ^a	2.5 ^b	0.090 ^b
Sulfate (mg/L)	26	3.3	7.6	2.6	5.5	10
Silver (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Aluminum (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic (mg/L)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Boron (mg/L)	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Barium (mg/L)	0.033 ^a	0.012 ^a	0.010 ^a	<0.010	<0.010	0.012 ^a
Beryllium (mg/L)	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
Bismuth (mg/L)	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
Calcium (mg/L)	8.1	4.0 ^a	1.6 ^a	<1.0	<1.0	2.7 ^a
Cadmium (mg/L)	<0.0015	<0.015	<0.0015	<0.0015	<0.0015	<0.0015
Cobalt (mg/L)	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029
Copper (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Chromium (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Mercury (mg/L)	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
Iron (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (mg/L)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Lithium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (mg/L)	6.0	3.0 ^a	2.1 ^a	<1.0	3.2 ^a	2.3 ^a
Manganese (mg/L)	<0.010	0.011 ^a	<0.010	<0.010	0.022 ^a	0.084
Molybdenum (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium (mg/L)	4.2 ^a	4.0 ^a	7.4	4.0 ^a	4.9 ^a	6.2
Nickel (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Phosphorus (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Lead (mg/L)	0.016	0.0035 ^a	0.0049 ^a	0.0058 ^a	0.0086 ^a	<0.0030
Sulfur (mg/L)	10 ^a	<5.0	<5.0	<5.0	<5.0	<5.0
Antimony (mg/L)	0.0095 ^a	<0.0060	<0.0060	0.0065 ^a	<0.0060	<0.0060
Selenium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silicon (mg/L)	17	12	13	9.3	9.5	14
Tin (mg/L)	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60
Strontium (mg/L)	0.024	0.013 ^a	0.012 ^a	0.0030 ^a	0.0093 ^a	0.016

TABLE C-8 (CONTINUED)

Parameter	GWA-1-8-1	GWC-1-8-1	GWC-2-8-1	GWC-3-8-1	GWC-4-8-1	GWC-5-8-1
Tellurium (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Titanium (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Thallium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium (mg/L)	<0.050	<0.50	<0.50	<0.50	<0.50	<0.050
Vanadium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Tungsten (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Zinc (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

^a Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

^b Detected in the method blank.

TABLE C-9
RESULTS OF GROUNDWATER MONITORING CONDUCTED
MARCH 30 AND APRIL 1, 1993 (FIRST QUARTER OF 1993)

Parameter	GWA-1-9-1	GWC-1-9-1	GWC-2-9-1	GWC-3-9-1	GWC-4-9-1	GWC-5-9-1
pH	6.82	5.83	5.29	5.23	5.04	6.13
Conductivity ($\mu\text{S}/\text{cm}$)	128	67	67	33	64	54
Temperature ($^{\circ}\text{C}$)	19.7	16.4	17.0	17.4	15.7	17.7
Eh (mv)	234	184	194	205	189	224
Alkalinity (mg/L CaCO_3)	28.0	22.5	12.5	7.0	6.0	12.5
Total Dissolved Solids (mg/L)	110	43 ^a	68	44 ^a	63	67
Bromide (mg/L)	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Chloride (mg/L)	2.1	2.6	4.0	2.7	3.6	2.7
Total Organic Carbon (mg/L)	3.1 ^a	<1.0	<1.0	<1.0	<1.0	<1.0
Fluoride (mg/L)	0.097 ^a	0.062 ^a	<0.050	<0.050	<0.050	<0.050
Nitrate-Nitrite (mg/L as N)	0.19	0.42	0.17	<0.030	2.5	0.062 ^a
Sulfate (mg/L)	30	2.2	7.9	1.6	5.0	7.4
Radium 226 and 228 (pCi/L)	0.31 \pm 0.33 2.16 \pm 0.62	0.13 \pm 0.34 1.03 \pm 0.58	0.25 \pm 0.33 1.57 \pm 0.59	-0.12 \pm 0.35 1.73 \pm 0.60	0.0 \pm 0.40 1.00 \pm 0.67	0.01 \pm 0.31 0.21 \pm 0.48
Gross Alpha (pCi/L)	11.6 \pm 3.9	40.2 \pm 6.4	0.0 \pm 1.6	15.2 \pm 4.2	21.4 \pm 5.0	19.1 \pm 4.8
Gross Beta (pCi/L)	232 \pm 7.5	436 \pm 11	-1.2 \pm 3.9	179.4 \pm 7.8	271.9 \pm 9.0	279.8 \pm 8.9
Gross Gamma (pCi/L)						
Ac-227	NR	NR	NR	NR	NR	NR
Ac-228	NR	NR	NR	NR	NR	NR
Bi-212	<78.8	<74.5	<69.3	<68.2	<84.5	<94.3
Bi-214	<14.2	<13.9	<13.6	<13.4	<14.3	<14.1
Co-60	<5.68	<5.30	<5.22	<4.93	<5.96	<5.52
Cs-134	<5.75	<3.52	<2.51	<5.36	<2.90	<3.06
Cs-137	<5.80	<4.10	<5.11	<4.65	<5.22	<2.49
K-40	<172	<173	<158	<172	<169	<172
Pb-211	NR	NR	NR	NR	NR	NR
Pb-212	<11.0	<11.7	<12.0	<11.6	<10.8	<10.6
Pb-214	<12.8	<13.8	<14.0	<15.6	<14.3	<14.2
Ra-223	<36.4	<43.3	<18.0	<45.1	<33.8	<36.1
Ra-226	<128	<128	<122	<131	<141	<132
Rn-219	<46.2	<48.9	<41.1	<52.1	<41.7	<41.7
Th-227	<28.8	<55.5	<56.8	<51.8	<55.2	<53.4
Th-228	<289	<264	<271	<230	<267	<244
Th-231	<45.4	<44.3	<38.7	<65.8	<43.5	<46.4
Th-234	<89.7	<92.3	<90.2	<90.8	<96.3	<90.3
Tl-208	<7.42	<7.17	<6.41	<7.35	<7.16	<6.55
U-235	<8.39	<8.02	<8.00	<8.51	<9.63	<8.46
U-238	NR	NR	NR	NR	NR	NR
Silver (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Aluminum (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic (mg/L)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Boron (mg/L)	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Barium (mg/L)	0.010 ^a	0.033 ^a	0.011 ^a	<0.010	<0.010	<0.010
Beryllium (mg/L)	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033	<0.0033
Bismuth (mg/L)	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
Calcium (mg/L)	4.1 ^a	8.8	1.7 ^a	<1.0	1.0 ^a	2.2 ^a
Cadmium (mg/L)	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Cobalt (mg/L)	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029

TABLE C-9 (CONTINUED)

Parameter	GWA-1-9-1	GWC-1-9-1	GWC-2-9-1	GWC-3-9-1	GWC-4-9-1	GWC-5-9-1
Copper (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Chromium (mg/L)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Mercury (mg/L)	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
Iron (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (mg/L)	<3.0	3.2 ^a	<3.0	<3.0	<3.0	<3.0
Lithium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Magnesium (mg/L)	2.9 ^a	6.2	2.1 ^a	<1.0	3.2 ^a	1.8 ^a
Manganese (mg/L)	<0.010	<0.010	0.012 ^a	<0.010	0.017 ^a	0.041 ^a
Molybdenum (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium (mg/L)	4.0 ^a	4.2 ^a	7.5	4.1 ^a	4.7 ^a	5.7
Nickel (mg/L)	<0.020	<0.020	0.052 ^a	<0.020	<0.020	<0.020
Phosphorus (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Lead (mg/L)	<0.0030	<0.0030	<0.0030	<0.0030	0.021	<0.0030
Sulfur (mg/L)	<5.0 ^a	11 ^a	<5.0	<5.0	<5.0 ^a	<5.0
Antimony (mg/L)	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Selenium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Silicon (mg/L)	11	16	12	9.0	8.7	13
Tin (mg/L)	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60
Strontium (mg/L)	0.013 ^a	0.025	0.012 ^a	0.0038 ^a	0.010 ^a	0.013 ^a
Tellurium (mg/L)	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Titanium (mg/L)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Thallium (mg/L)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Uranium (mg/L)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Vanadium (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Tungsten (mg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Zinc (mg/L)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

^a Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

^b Detected in the method blank.

NR = Not reported.

TABLE C-10
RESULTS OF GROUNDWATER MONITORING CONDUCTED
JUNE 21, 1993 (SECOND QUARTER 1993)

Parameter	GWA-1-10-1	GWC-1-10-1	GWC-2-10-1	GWC-3-10-1	GWC-4-10-1	GWC-5-10-1
pH	6.1	6.0	5.4	5.2	5.2	5.4
Conductivity (µS/cm)	100	57	56	27	52	41
Temperature (°C)	18.1	16.3	16.8	17.0	15.9	17.3
Eh (mv)	145	110	71	50	77	40
Alkalinity (mg/L CaCO ₃)	27.0	24.1	14.1	8.5	6.9	10.2
Total Dissolved Solids (mg/L)	116	74	77	52	55	56
Bromide (mg/L)	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028
Chloride (mg/L)	2.1	2.6	4.5	2.9	3.6	2.9
Total Organic Carbon (mg/L)	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45
Fluoride (mg/L)	0.073 ^a	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrate-Nitrite (mg/L as N)	0.57	0.41	0.15	0.039 ^a	2.2	0.041 ^a
Sulfate (mg/L)	20	<2.5	7.5	<2.5	5.9	6.7
Silver (mg/L)	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
Aluminum (mg/L)	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028
Arsenic (mg/L)	<0.00066	<0.00066	<0.00066	<0.00066	<0.00066	<0.00066
Boron (mg/L)	<0.025	<0.025	<0.025	<0.015	<0.015	<0.025
Barium (mg/L)	0.030	0.011	<0.010	<0.010	<0.010	<0.010
Beryllium (mg/L)	<0.0033	<0.00055	<0.00055	<0.00055	<0.00055	<0.00055
Bismuth (mg/L)	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Calcium (mg/L)	8.0	4.1	1.6	<1.0	<1.0	1.6
Cadmium (mg/L)	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
Cobalt (mg/L)	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034
Copper (mg/L)	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038
Chromium (mg/L)	<0.010	<0.0025	<0.010	<0.010	<0.0025	<0.0025
Mercury (mg/L)	<0.000048	<0.000048	<0.000048	<0.000048	<0.000048	<0.000048
Iron (mg/L)	<0.050	<0.050	<0.0060	<0.0060	<0.0060	<0.050
Potassium (mg/L)	<3.0	<3.0	<3.0	<3.0	<3.0	<0.0029
Lithium (mg/L)	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029
Magnesium (mg/L)	5.8	2.9	1.9	<1.0	2.7	1.5
Manganese (mg/L)	<0.010	<0.010	0.010	<0.010	0.013	0.021
Molybdenum (mg/L)	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046
Sodium (mg/L)	4.4	4.0	6.7	3.9	4.4	5.5
Nickel (mg/L)	<0.0099	<0.0099	0.053	<0.0099	<0.0099	<0.0099
Phosphorus (mg/L)	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Lead (mg/L)	0.0037 ^a	<0.0011	0.0078	0.0033 ^a	0.0049 ^a	0.0067
Sulfur (mg/L)	7.4	<5.0	<5.0	<5.0	<5.0	<5.0
Antimony (mg/L)	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Selenium (mg/L)	<0.00084	<0.00084	<0.0050	<0.00084	<0.00084	<0.00084
Silicon (mg/L)	18	12	11	8.7	8.3	12
Tin (mg/L)	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014
Strontium (mg/L)	0.025	0.013	0.011	<0.0030	0.0077	0.011

TABLE C-10 (CONTINUED)

Parameter	GWA-1-10-1	GWC-1-10-1	GWC-2-10-1	GWC-3-10-1	GWC-4-10-1	GWC-5-10-1
Tellurium (mg/L)	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Titanium (mg/L)	<0.050	<0.0010	<0.0010	<0.050	<0.0010	<0.0010
Thallium (mg/L)	<0.0020	<0.00087	<0.00087	<0.0020	<0.00087	<0.00087
Uranium (mg/L)	<0.083	<0.083	<0.083	<0.50	<0.083	<0.083
Vanadium (mg/L)	<0.020	<0.0024	<0.0024	<0.0024	<0.020	<0.0024
Tungsten (mg/L)	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Zinc (mg/L)	<0.020	<0.0015	<0.020	<0.0015	<0.020	<0.020

* Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

TABLE C-11
RESULTS OF GROUNDWATER MONITORING CONDUCTED
SEPTEMBER 23-24, 1993 (THIRD QUARTER 1993)

Parameter	GWA-1-11-1	GWC-1-11-1	GWC-2-11-1	GWC-3-11-1	GWC-4-11-1	GWC-5-11-1
pH	5.9	6.0	5.6	5.3	5.2	5.6
Conductivity ($\mu\text{S}/\text{cm}$)	110	61	49	27	54	40
Temperature ($^{\circ}\text{C}$)	19.2	17.1	17.6	17.5	18.0	17.5
Eh (mv)	210	161	171	194	205	198
Alkalinity (mg/L CaCO_3)	24.8	27.3	15.9	9.1	7.0	11.5
Total Dissolved Solids (mg/L)	99	70	60	21 ^a	44	50
Bromide (mg/L)	0.46	0.76	0.58	0.34	1.9	0.33
Chloride (mg/L)	1.9	2.5	3.5	2.8	3.8	2.5
Total Organic Carbon (mg/L)	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45
Fluoride (mg/L)	0.071 ^a	<0.05	<0.05	<0.05	<0.05	<0.024
Nitrate-Nitrite (mg/L as N)	0.19	0.51	0.30	0.048 ^a	1.8	0.038 ^a
Sulfate (mg/L)	28	2.6	7.7	<2.5	4.9	5.5
Radium 226 and 228 (pCi/L)	0.27 \pm 0.13 0.32 \pm 0.48	0.16 \pm 0.13 0.64 \pm 0.54	0.05 \pm 0.12 0.69 \pm 0.54	0.10 \pm 0.13 0.31 \pm 0.50	0.11 \pm 0.11 0.52 \pm 0.52	0.18 \pm 0.13 0.0 \pm 0.53
Gross Alpha (pCi/L)	0.88 \pm 0.92	-0.29 \pm 0.74	0.73 \pm 0.85	0.20 \pm 0.79	0.51 \pm 0.83	0.04 \pm 0.72
Gross Beta (pCi/L)	2.0 \pm 1.9	0.7 \pm 1.8	0.1 \pm 1.8	-0.1 \pm 1.8	0.3 \pm 1.9	0.2 \pm 1.8
Gross Gamma (pCi/L)						
Ac-227	NR	NR	NR	NR	NR	NR
Ac-228	NR	NR	NR	NR	NR	NR
Bi-212	<75.7	<79.5	<115	<138	<81.4	<103
Bi-214	<24.2	<19.6	<24.5	<21.5	<25.9	<23.5
Co-60	<8.15	<3.67	<6.46	<6.03	<7.01	<3.87
Cs-134	<8.03	<7.55	<5.95	<4.05	<8.27	<9.99
Cs-137	<7.53	<7.26	<11.1	<10.2	<9.43	<8.30
K-40	<240	<252	380 \pm 230	320 \pm 220	<239	<230
Pb-211	NR	NR	NR	NR	NR	NR
Pb-212	<17.0	<18.4	<21.0	<19.7	<18.8	<19.6
Pb-214	<21.0	<24.9	<23.4	<24.4	<26.4	<23.1
Ra-223	<50.5	<63.1	<72.0	<78.2	<71.9	<58.8
Ra-226	<241	<247	<255	<212	<235	<202
Rn-219	<66.5	<80.0	<80.9	<89.7	<81.1	<68.8
Th-227	<88.1	<81.8	<102	<91.6	<88.1	<41.9
Th-228	<418	<391	<389	<406	<388	<420
Th-231	<54.5	<99.1	<69.7	<78.1	<72.0	<67.0
Th-234	<124	<136	<150	<158	<138	<132
Tl-208	<10.2	<10.1	<62.3	<11.8	<11.9	<11.6
U-235	<63.7	<57.8	<68.2	<64.9	<62.0	<50.9
U-238	NR	NR	NR	NR	NR	NR
Silver (mg/L)	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
Aluminum (mg/L)	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028
Arsenic (mg/L)	<0.00098	<0.00098	<0.00098	<0.00098	<0.00098	<0.00098
Boron (mg/L)	<0.015	<0.025	<0.025	<0.025	<0.025	<0.015
Barium (mg/L)	0.034	0.011	0.011	<0.010	<0.010	<0.010
Beryllium (mg/L)	<0.00055	<0.00055	<0.00055	<0.0033	<0.0033	<0.00055
Bismuth (mg/L)	<0.80	<0.80	<0.80	<0.80	<0.80	<0.80
Calcium (mg/L)	8.3	4.1	1.9	<1.0	<1.0	1.4
Cadmium (mg/L)	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
Cobalt (mg/L)	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034

TABLE C-11 (CONTINUED)

Parameter	GWA-1-11-1	GWC-1-11-1	GWC-2-11-1	GWC-3-11-1	GWC-4-11-1	GWC-5-11-1
Copper (mg/L)	<0.020	<0.0038	<0.0038	<0.0038	<0.0038	<0.0038
Chromium (mg/L)	<0.010	<0.0025	<0.010	<0.0025	<0.0025	<0.010
Mercury (mg/L)	<0.00036	<0.00020 ^a	<0.00020	<0.00020	<0.00020	<0.000048
Iron (mg/L)	<0.050	0.074	<0.050	<0.050	<0.050	<0.050
Potassium (mg/L)	<3.0	<3.0	<0.37	<0.37	<0.37	<3.0
Lithium (mg/L)	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029
Magnesium (mg/L)	5.9	3.0	2.0	<1.0	2.9	1.4
Manganese (mg/L)	<0.010	<0.010	<0.010	<0.010	0.021	0.013
Molybdenum (mg/L)	<0.0046	<0.0046	<0.050	<0.0046	<0.0046	<0.0046
Sodium (mg/L)	4.3	3.8	6.8	3.8	4.4	5.2
Nickel (mg/L)	<0.0099	<0.0099	0.048	<0.0099	<0.0099	<0.0099
Phosphorus (mg/L)	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061
Lead (mg/L)	<0.0030	0.010	0.003 ^a	0.006	0.005	0.004 ^a
Sulfur (mg/L)	9.5	<5.0	<5.0	<0.025	<5.0	<5.0
Antimony (mg/L)	<0.0030	<0.0014	<0.0014	<0.0014	<0.0014	0.0034 ^a
Selenium (mg/L)	<0.00084	<0.00084	<0.00084	<0.00084	<0.00084	<0.00084
Silicon (mg/L)	17	12	13	9.2	9.3	12
Tin (mg/L)	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014
Strontium (mg/L)	0.025	0.013	0.013	0.0031	0.0089	0.011
Tellurium (mg/L)	<0.20 ^b	<0.20 ^b	0.48 ^b	<0.032 ^b	<0.032 ^b	<0.032 ^b
Titanium (mg/L)	<0.050	<0.0010	<0.0010	<0.0010	<0.0010	<0.050
Thallium (mg/L)	<0.00087	<0.00087	<0.00087	<0.00087	<0.00087	<0.00087
Uranium (mg/L)	<0.083	<0.083	<0.083	<0.083	<0.083	<0.50
Vanadium (mg/L)	<0.0024	<0.020	<0.0024	<0.0024	<0.0024	<0.020
Tungsten (mg/L)	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Zinc (mg/L)	<0.020	<0.020	<0.020	<0.0015	<0.0015	<0.0015

^a Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

^b Detected in the method blank.

NR = Not reported.

TABLE C-12
RESULTS OF GROUNDWATER MONITORING CONDUCTED
JANUARY 5, 1994 (FOURTH QUARTER 1993)

Parameter	GWA-1-12-1 ^a	GWC-1-12-1	GWC-2-12-1	GWC-3-12-1	GWC-4-12-1	GWC-5-12-1
pH		6.12	5.75	5.51	5.21	6.95
Conductivity (µS/cm)		74	53	22	63	39
Temperature (°C)		15.2	16.4	16.9	17.2	17.1
Eh (mv)		NR	NR	NR	NR	NR
Alkalinity (mg/L CaCO ₃)		29.9	15.7	9.3	9.2	10.8
Total Dissolved Solids (mg/L)		22	27	<8.7	20	29
Bromide (mg/L)		<0.0277	<0.0277	<0.0277	0.167	<0.0277
Chloride (mg/L)		3.45	3.80	2.79	6.72	2.55
Total Organic Carbon (mg/L)		<0.453	<0.453	<0.453	<0.453	<0.453
Fluoride (mg/L)		<0.050	<0.050	<0.050	<0.050	<0.050
Nitrate-Nitrite (mg/L as N)		0.69	0.414	0.0594	1.27	<0.030
Sulfate (mg/L)		3.26	5.78	<0.060	4.37	5.28
Silver (mg/L)		<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
Aluminum (mg/L)		<0.028	<0.028	<0.028	<0.028	<0.028
Arsenic (mg/L)		<0.000984	<0.000984	<0.000984	<0.000984	<0.000984
Boron (mg/L)		<0.015	<0.015	<0.015	<0.015	<0.015
Barium (mg/L)		0.013	0.010	<0.010	0.010	<0.010
Beryllium (mg/L)		<0.00055	<0.00055	<0.00055	<0.00055	<0.00055
Bismuth (mg/L)		0.103 ^b	0.142 ^b	0.0985 ^b	0.115 ^b	0.0973 ^b
Calcium (mg/L)		5.06	1.98	<1.0	1.3	1.3
Cadmium (mg/L)		<0.0050	<0.0017	<0.0017	<0.0017	<0.0017
Cobalt (mg/L)		<0.0034	<0.0034	<0.0034	<0.0034	<0.0034
Copper (mg/L)		<0.0038	<0.0038	<0.0038	<0.0038	<0.0038
Chromium (mg/L)		<0.010	0.011 ^c	<0.010	<0.010	<0.010
Mercury (mg/L)		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Iron (mg/L)		0.097	<0.050	<0.050	<0.050	<0.050
Potassium (mg/L)		<3.0	<3.0	<0.37	<3.0	<3.0
Lithium (mg/L)		<0.0029	<0.0029	<0.0029	<0.0029	<0.020
Magnesium (mg/L)		3.7	1.8	<1.0	3.7	1.3
Manganese (mg/L)		<0.010	<0.010	<0.010	0.041	<0.010
Molybdenum (mg/L)		<0.0046	<0.0046	<0.0046	<0.0046	<0.0046
Sodium (mg/L)		4.3	7.0	4.1	5.0	5.5
Nickel (mg/L)		<0.0099	0.037 ^c	<0.0099	<0.0099	<0.0099
Phosphorus (mg/L)		<0.061	<0.061	<0.061	<0.061	<0.061
Lead (mg/L)		<0.00080	<0.00080	<0.00080	<0.00080	<0.00080
Sulfur (mg/L)		<5.0	<5.0	<5.0	<5.0	<5.0
Antimony (mg/L)		0.0030 ^c	<0.00104	<0.00104	<0.00104	<0.00104
Selenium (mg/L)		<0.000843	<0.000843	<0.000843	<0.000843	<0.000843

TABLE C-12 (CONTINUED)

Parameter	GWA-1-12-1 ^a	GWC-1-12-1	GWC-2-12-1	GWC-3-12-1	GWC-4-12-1	GWC-5-12-1
Silicon (mg/L)		12.7	12.9	9.7	9.8	11.4
Tin (mg/L)		<0.014	<0.014	<0.014	<0.014	<0.014
Strontium (mg/L)		0.015	0.012	<0.0030	0.011	0.0096
Tellurium (mg/L)		<0.0317	<0.0317	<0.0317	<0.0317	<0.0317
Titanium (mg/L)		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium (mg/L)		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Uranium (mg/L)		<0.083	<0.083	<0.083	<0.083	<0.083
Vanadium (mg/L)		<0.020	<0.0024	<0.0024	<0.0024	<0.0024
Tungsten (mg/L)		<0.046	<0.046	<0.046	<0.046	<0.046
Zinc (mg/L)		<0.020	<0.020	<0.020	<0.0015	<0.020

^a Well was dry; no samples collected.

^b Detected in the method blank.

^c Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

NR = Not reported.

TABLE C-13
RESULTS OF GROUNDWATER MONITORING CONDUCTED
MARCH 22-23, 1994 (FIRST QUARTER 1994)

Parameter	GWA-1-13-1 ^a	GWC-1-13-1	GWC-2-13-1	GWC-3-13-1	GWC-4-13-1	GWC-5-13-1
pH		5.89	5.50	5.18	4.98	5.38
Conductivity (μS/cm)		61	57	28	72	43
Temperature (°C)		16.5	17.4	17.2	16	17.8
Eh (mv)		126	149	161	299	206
Alkalinity (mg/L CaCO ₃)		25	14	7.5	5.0	8.6
Total Dissolved Solids (mg/L)		66	76	42 ^c	64	53
Bromide (mg/L)		<0.0277	<0.0277	<0.0277	0.133 ^c	<0.0277
Chloride (mg/L)		2.43	3.70	2.77	11.3	2.34
Total Organic Carbon (mg/L)		<0.357	<0.357	<0.357	<0.357	<0.357
Fluoride (mg/L)		0.0557 ^b	0.0390 ^b	0.0372 ^b	0.0357 ^b	0.0320 ^b
Nitrate-Nitrite (mg/L as N)		0.414	0.443	0.0827	0.943	0.0433 ^c
Sulfate (mg/L)		1.75	5.97	1.38	4.64	6.56
Radium 226 and 228 (pCi/L)		-0.06 ± 0.13 1.14 ± 0.57	0.06 ± 0.13 0.77 ± 0.51	-0.03 ± 0.14 0.97 ± 0.52	-0.14 ± 0.16 0.79 ± 0.49	-0.09 ± 0.17 0.89 ± 0.51
Gross Alpha (pCi/L)		0.92 ± 0.42	1.44 ± 0.5	1.00 ± 0.40	1.16 ± 0.43	0.94 ± 0.41
Gross Beta (pCi/L)		2.05 ± 0.73	1.58 ± 0.73	1.53 ± 0.71	0.99 ± 0.69	0.75 ± 0.68
Gross Gamma (pCi/L)						
Ac-227		NR	NR	NR	NR	NR
Ac-228		NR	NR	NR	NR	NR
Bi-212		<109	<100	<136	<89.7	<93.7
Bi-214		157 ± 26	60 ± 19	43 ± 19	45 ± 21	37 ± 19
Co-60		<9.13	<8.8	<11.1	<6.76	<11.0
Cs-134		<23.9	<18.4	<17.7	<19.0	<18.0
Cs-137		<6.33	<7.75	<10.9	<6.73	<10.1
K-40		<148	<146	<132	<163	<146
Pb-211		NR	NR	NR	NR	NR
Pb-212		<28.1	<20.5	<21.3	<22.3	<22.1
Pb-214		200 ± 27	89 ± 25	41 ± 22	66 ± 24	46 ± 23
Ra-223		<62.2	<37.7	<53.7	<50.9	<47.5
Ra-226		<195	<120	<180	<83.3	<165
Rn-219		<77.9	<65.1	<73.9	<72.9	<63.3
Th-227		<45.5	<90.1	<95.3	<55.9	<91.3
Th-228		<423	<623	<637	<592	<522
Th-231		<186	<187	<367	<323	<323
Th-234		<159	<202	<211	<247	<180
Tl-208		<11.6	<9.50	<11.1	<10.8	<9.80
U-235		<46.6	<38.6	<39.8	<53.7	<53.8
U-238		NR	NR	NR	NR	NR
Silver (mg/L)		<0.00492	<0.00492	<0.00492	0.0171 ^c	<0.00492
Aluminum (mg/L)		<0.0284 ^b	<0.0284 ^b	<0.0284 ^b	<0.0284 ^b	<0.0284 ^b
Arsenic (mg/L)		<0.000647	<0.000647	<0.000647	<0.000647	<0.000647
Boron (mg/L)		<0.0151	<0.0151	<0.0151	0.023	<0.0151
Barium (mg/L)		0.0142 ^b	0.0119 ^b	0.00783 ^b	0.0286 ^b	0.0375 ^b
Beryllium (mg/L)		0.00268 ^c	0.00075 ^c	<0.000554	0.0165	0.00563
Bismuth (mg/L)		<0.132	<0.132	<0.132	<0.132	<0.132

TABLE C-13 (CONTINUED)

Parameter	GWA-1-13-1 ^a	GWC-1-13-1	GWC-2-13-1	GWC-3-13-1	GWC-4-13-1	GWC-5-13-1
Calcium (mg/L)		4.72	2.19	0.392 ^c	1.81	1.65
Cadmium (mg/L)		<0.00172	<0.00172	<0.00172	0.0159	0.00381 ^c
Cobalt (mg/L)		0.0041 ^c	<0.00340	<0.00340	0.0183	0.00693 ^c
Copper (mg/L)		<0.00381	<0.00381	<0.00381	<0.00381	<0.00381
Chromium (mg/L)		0.00466 ^c	0.00695 ^c	<0.00249	0.0187	0.00937 ^c
Mercury (mg/L)		<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Iron (mg/L)		0.0502 ^b	0.0282 ^b	0.0142 ^b	0.188 ^b	0.179 ^b
Potassium (mg/L)		0.708 ^c	<0.370	<0.370	0.569 ^c	0.402 ^c
Lithium (mg/L)		2,202	2,159	2,351	2,391	2,187
Magnesium (mg/L)		3.14	1.92	0.962	5.05	1.60
Manganese (mg/L)		0.00298	0.00980	0.00206	0.0760	0.0134
Molybdenum (mg/L)		<0.00463	<0.00463	<0.00463	0.0179 ^c	<0.00463
Sodium (mg/L)		4.12	7.15	4.35	5.33	5.74
Nickel (mg/L)		0.0119 ^c	0.0767	<0.00986	0.0319 ^c	0.0121 ^c
Phosphorus (mg/L)		<0.0610	<0.0610	<0.0610	<0.0610	<0.0610
Lead (mg/L)		<0.00106	<0.00106	<0.00106	<0.00106	<0.00106
Sulfur (mg/L)		0.682	1.59	0.227	1.02	2.39
Antimony (mg/L)		<0.00156	<0.00156	<0.00156	<0.00156	<0.00156
Selenium (mg/L)		0.00120 ^{b,c}	0.00151 ^{b,c}	0.000730 ^{b,c}	0.000830 ^{b,c}	<0.000592
Silicon (mg/L)		11.9	13.3	10.1	9.91	11.8
Tin (mg/L)		<0.0145	<0.0145	<0.0145	<0.0145	0.0213 ^c
Strontium (mg/L)		0.0117	0.0112	0.00513 ^c	0.0112	0.0121
Tellurium (mg/L)		<0.0317	<0.0317	<0.0317	<0.0317	<0.0317
Titanium (mg/L)		<0.00159	<0.00159	<0.00159	<0.00159	<0.00159
Thallium (mg/L)		<0.00103	<0.00103	<0.00103	<0.00103	<0.00103
Uranium (mg/L)		<0.199	<0.199	<0.199	<0.199	<0.199
Vanadium (mg/L)		0.00561 ^c	<0.00236	<0.00236	0.0168	0.00586 ^c
Tungsten (mg/L)		<0.0408	<0.0408	<0.0408	<0.0408	<0.0408
Zinc (mg/L)		0.00623 ^c	0.00669 ^c	0.00239 ^c	0.0169	0.00771

^a Well was dry; no samples collected.

^b Detected in the method blank.

^c Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

NR = Not reported.

TABLE C-14
RESULTS OF GROUNDWATER MONITORING
CONDUCTED JUNE 21-22, 1994 (SECOND QUARTER 1994)

Parameter	GWA-1-14-1 ^a	GWC-1-14-1	GWC-2-14-1	GWC-3-14-1	GWC-4-14-1	GWC-5-14-1
pH		5.91	5.72	5.43	5.20	5.42
Conductivity (µS/cm)		60	59	29	81	45
Temperature (°C)		17.1	18.0	17.9	16.6	17.7
Eh (mv)		375	404	350	488	398
Alkalinity (mg/L CaCO ₃)		30.1	16.2	8.5	10.3	10.8
Total Dissolved Solids (mg/L)		56	58	36 ^b	75	61
Bromide (mg/L)		<0.0226	<0.0226	<0.0226	0.193	<0.0226
Chloride (mg/L)		2.77	3.79	2.76	13.5	2.48
Total Organic Carbon (mg/L)		<0.357	<0.357	<0.357	0.386 ^c	<0.357
Fluoride (mg/L)		0.0515 ^b	NR	NR	NR	NR
Nitrate-Nitrite (mg/L as N)		0.287	0.450	0.0136	1.31	0.0492
Sulfate (mg/L)		1.77	5.95	1.52	4.50	7.65
Silver (mg/L)		<0.00519	<0.00519	<0.00519	<0.00519	<0.00519
Aluminum (mg/L)		<0.0523	<0.0523	<0.0523	<0.0523	<0.0523
Arsenic (mg/L)		<0.000647	<0.000647	<0.000647	<0.000647	<0.000647
Boron (mg/L)		0.214 ^b	0.190 ^b	0.158 ^b	0.121 ^b	0.116 ^b
Barium (mg/L)		0.0105 ^b	0.0105 ^b	0.0206 ^b	0.0105 ^b	0.0105 ^b
Beryllium (mg/L)		<0.000510	<0.000510	<0.000510	<0.000510	<0.000510
Bismuth (mg/L)		<0.0132	<0.0132	<0.0132	<0.0132	<0.0132
Calcium (mg/L)		4.65 ^b	2.05 ^b	0.321 ^b	1.62 ^b	1.38 ^b
Cadmium (mg/L)		<0.00386	<0.00513 ^c	<0.00386	<0.00386	<0.00386
Cobalt (mg/L)		<0.00407	<0.00407	<0.00407	<0.00407	<0.00407
Copper (mg/L)		<0.00916	<0.00916	<0.00916	<0.00916	<0.00916
Chromium (mg/L)		<0.00524	<0.00524	<0.00524	<0.00524	<0.00524
Mercury (mg/L)		0.000040 ^c	<0.000033	<0.000033	<0.000033	<0.000033
Iron (mg/L)		0.0136 ^c	0.00698 ^c	0.0103	0.0135 ^c	0.0153 ^c
Potassium (mg/L)		<0.822	<0.822	<0.822	<0.822	<0.822
Lithium (mg/L)		<0.00543	<0.00543	<0.00543	<0.00543	<0.00543
Magnesium (mg/L)		3.39	1.93	0.935	4.98	1.55
Manganese (mg/L)		<0.00155	0.00430 ^{b,c}	0.00348 ^{b,c}	0.0884 ^b	0.00170 ^{b,c}
Molybdenum (mg/L)		<0.00739	<0.00739	<0.00739	<0.00739	<0.00739
Sodium (mg/L)		4.16	7.09	4.14	4.87	5.77
Nickel (mg/L)		<0.0141	0.0384 ^c	<0.0141	<0.0141	<0.0141
Phosphorus (mg/L)		<0.0610	<0.0610	<0.0610	<0.0610	<0.0610
Lead (mg/L)		<0.00205	<0.00205	<0.00205	<0.00205	<0.00205
Sulfur (mg/L)		0.454 ^c	2.50	0.341 ^c	1.48	2.84
Antimony (mg/L)		0.00249 ^c	0.00210 ^c	<0.00146	<0.00146	<0.00146
Selenium (mg/L)		<0.000592	0.00090 ^c	<0.000592	<0.000592	0.00101 ^c

TABLE C-14 (CONTINUED)

Parameter	GWA-1-14-1 ^a	GWC-1-14-1	GWC-2-14-1	GWC-3-14-1	GWC-4-14-1	GWC-5-14-1
Silicon (mg/L)		11.9	13.0	9.16	9.18	11.3
Tin (mg/L)		<0.0145	<0.0145	<0.0145	<0.0145	<0.0145
Strontium (mg/L)		0.0168	0.0112	0.00467 ^c	0.0126	0.0112
Tellurium (mg/L)		0.0689 ^{b,c}	<0.0317 ^b	0.0708 ^{b,c}	0.0469 ^{b,c}	<0.0317
Titanium (mg/L)		<0.00159	<0.00159	<0.00159	<0.00159	<0.00159
Thallium (mg/L)		<0.00185	<0.00185	<0.00185	<0.00185	<0.00185
Uranium (mg/L)		<0.199	<0.199	<0.199	<0.199	<0.199
Vanadium (mg/L)		<0.00454	<0.00454	<0.00454	<0.00454	<0.00454
Tungsten (mg/L)		<0.0408	<0.0408	<0.0408	<0.0408	<0.0408
Zinc (mg/L)		0.00649 ^c	0.00964 ^c	0.0130 ^c	0.0131 ^c	<0.00402
TOX (µg/L)		018.1 ^c	<10.0	<10.0	<10.0	<10.0
VOCs (µg/L)						
Acetone		2.21 ^{b,c}	<2.09 ^b	2.19 ^{b,c}	2.23 ^{b,c}	<2.09 ^b
Acrolein		<1.78	<1.78	<1.78	<1.78	<1.78
Acrylonitrile		<0.286	<0.286	<0.286	<0.286	<0.286
Benzene		<0.0307	<0.0307	<0.0307	<0.0307	<0.0307
Bromodichloromethane		<0.0536	<0.0536	<0.0536	<0.0536	<0.0536
Bromoform		<0.108	<0.108	<0.108	<0.108	<0.108
Bromomethane		<0.0968	<0.0968	<0.0968	<0.0968	<0.0968
2-Butanone (MEK)		<0.890	<0.890	<0.890	<0.890	<0.890
Carbon disulfide		<0.161	<0.161	<0.161	<0.161	<0.161
Carbon tetrachloride		<0.117	<0.117	<0.117	<0.117	<0.117
Chlorobenzene		<0.112	<0.112	<0.112	<0.112	<0.112
Chloroethane		<0.0972	<0.0972	<0.0972	<0.0972	<0.0972
2-Chloroethyl vinyl ether		<0.124	<0.124	<0.124	<0.124	<0.124
Chloroform		<0.0363	<0.0363	<0.0363	<0.0363	<0.0363
Chloromethane		<0.155	<0.155	<0.155	<0.155	<0.155
Dibromochloromethane		<0.0283	<0.0283	<0.0283	<0.0283	<0.0283
Dibromomethane		<0.0598	<0.0598	<0.0598	<0.0598	<0.0598
trans-1,4-Dichloro-2-butene		<0.0672	<0.0672	<0.0672	<0.0672	<0.0672
Dichlorodifluoromethane		<0.107	<0.107	<0.107	<0.107	<0.107
1,1-Dichloroethane		<0.0886	<0.0886	<0.0886	<0.0886	<0.0886
1,2-Dichloroethane		<0.0791	<0.0791	<0.0791	<0.0791	<0.0791
1,1-Dichloroethene		<0.0806	<0.0806	<0.0806	<0.0806	<0.0806
trans-1,2-Dichloroethene		<0.131	<0.131	<0.131	<0.131	<0.131
1,2-Dichloropropane		<0.0742	<0.0742	<0.0742	<0.0742	<0.0742
cis-1,3-Dichloropropene		<0.0758	<0.0758	<0.0758	<0.0758	<0.0758
trans-1,3-Dichloropropene		<0.0829	<0.0829	<0.0829	<0.0829	<0.0829
Ethyl methacrylate		<0.127	<0.127	<0.127	<0.127	<0.127
Ethylbenzene		<0.110	<0.110	<0.110	<0.110	<0.110
2-Hexanone		<0.766	<0.766	<0.766	<0.766	<0.766

TABLE C-14 (CONTINUED)

Parameter	GWA-1-14-1 ^a	GWC-1-14-1	GWC-2-14-1	GWC-3-14-1	GWC-4-14-1	GWC-5-14-1
Iodomethane		<0.0350	<0.0350	<0.0350	<0.0350	<0.0350
4-Methyl-2-pentanone (MIBK)		<0.501	<0.501	<0.501	<0.501	<0.501
Methylene chloride		0.200 b,c	<0.151 b	0.260 b,c	0.280 b,c	0.390 b,c
Styrene		<0.113	<0.113	<0.113	<0.113	<0.113
1,1,2,2-Tetrachloroethane		<0.170	<0.170	<0.170	<0.170	<0.170
Tetrachloroethene		<0.209	<0.209	<0.209	<0.209	<0.209
Toluene		0.060 c	<0.0336	0.110 c	0.050 c	<0.0336
1,1,1-Trichloroethane		<0.0992	<0.0992	<0.0992	<0.0992	<0.0992
1,1,2-Trichloroethane		<0.0920	<0.0920	<0.0920	<0.0920	<0.0920
Trichloroethene		<0.0429	<0.0429	<0.0429	<0.0429	<0.0429
Trichlorofluoromethane		<0.0943	<0.0943	<0.0943	<0.0943	<0.0943
1,2,3-Trichloropropane		<0.233	<0.233	<0.233	<0.233	<0.233
Vinyl acetate		<0.127	<0.127	<0.127	<0.127	<0.127
Vinyl chloride		<0.0992	<0.0992	<0.0992	<0.0992	<0.0992

^a Well was dry; no samples collected.

^b Detected in the method blank.

^c Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

NR = Not reported.

TABLE C-15
RESULTS OF GROUNDWATER MONITORING CONDUCTED
AUGUST 31, 1994 (THIRD QUARTER 1994)

Parameter	GWA-1-15-1 *	GWC-1-15-1	GWC-2-15-1	GWC-3-15-1	GWC-4-15-1	GWC-5-15-1
pH		6.09	5.63	5.41	5.10	5.53
Conductivity ($\mu\text{S}/\text{cm}$)		68	60	30	108	43
Temperature ($^{\circ}\text{C}$)		18.0	18.4	19.0	18.1	18.4
Eh (mv)		365	350	305	440	372
Alkalinity (mg/L CaCO_3)		25	7	77 ^d	5	13
Total Dissolved Solids (mg/L)		64	60	39 ^e	93	61
Bromide (mg/L)		<0.0226	<0.0226	<0.0226	<0.0226	<0.0226
Chloride (mg/L)		2.71	3.92	2.91	20.8	2.67
Total Organic Carbon (mg/L)		<0.357	<0.357	<0.357	1.42 ^e	<0.357
Total Organic Halogens ($\mu\text{g}/\text{L}$)		<11.7	<11.7	<11.7	12.7 ^e	11.9 ^e
Fluoride (mg/L)		0.0596 ^b	0.0402 ^b	0.0424 ^b	0.0334 ^b	0.0284 ^b
Nitrate-Nitrite (mg/L as N)		0.459 ^b	0.810 ^b	0.366 ^b	1.80 ^b	0.167 ^b
Sulfate (mg/L)		1.64	6.73	<0.0471	4.83	6.68
Radium 226 and 228 (pCi/L)		0.12 \pm 0.048 -0.56 \pm 0.68	0.14 \pm 0.052 -0.83 \pm 0.72	0.10 \pm 0.046 -0.091 \pm 0.70	0.12 \pm 0.055 0.92 \pm 0.89	0.10 \pm 0.046 0.23 \pm 0.72
Gross Alpha (pCi/L)		0.64 \pm 0.51	-0.13 \pm 0.33	0.08 \pm 0.30	0.14 \pm 0.36	1.9 \pm 0.7
Gross Beta (pCi/L)		1.8 \pm 0.8	1.5 \pm 0.7	1.2 \pm 0.7	0.67 \pm 0.72	3.6 \pm 0.9
Gross Gamma (pCi/L)						
Ac-227		NR	NR	NR	NR	NR
Ac-228		NR	NR	NR	NR	NR
Bi-212		<110	<90	<92	<100	<110
Bi-214		57 \pm 32	52 \pm 28	50 \pm 34	77 \pm 32	<37
Co-60		<10	<12	<16	<13	<15
Cs-134		<14	<11	<15	<12	<16
Cs-137		<13	<12	<13	<14	<13
K-40		<170	<120	<220	<210	<210
Pb-211		NR	NR	NR	NR	NR
Pb-212		<20	<15	<19	<21	<19
Pb-214		86 \pm 27	57 \pm 23	33 \pm 27	68 \pm 30	<33
Ra-223		<62	<54	<61	<67	<64
Ra-226		<290	<230	<280	<270	<290
Rn-219		<81	<63	<87	<83	<77
Th-227		<78	<61	<74	<77	<78
Th-228		<560	<840	<940	<1100	<940
Th-231		<100	<160	<170	<200	<180
Th-234		<390	<400	<480	<460	<430
Tl-208		<35	<38	<35	<47	<44
U-235		<9.9	<13	<16	<16	<18
U-238		NR	NR	NR	NR	NR
Silver (mg/L)		<0.00519	<0.00519	<0.00519	<0.00519	<0.00519
Aluminum (mg/L)		<0.0523	<0.0523	<0.0523	<0.0523	<0.0523
Arsenic (mg/L)		<0.00214	<0.00214	<0.00214	<0.00214	<0.00214
Boron (mg/L)		<0.0176	<0.0176	<0.0176	0.0361 ^e	<0.0176
Barium (mg/L)		0.00909	0.00952	0.00693	0.0178	0.00693
Beryllium (mg/L)		<0.00051	<0.00051	<0.00051	<0.00051	<0.00051
Bismuth (mg/L)		<0.0132	<0.0132	<0.0132	<0.0132	<0.0132
Calcium (mg/L)		5.00 ^b	2.11 ^b	0.328 ^b	2.73 ^b	1.26 ^b
Cadmium (mg/L)		0.00533 ^c	<0.00386	<0.00386	<0.00386	<0.00386
Cobalt (mg/L)		<0.00407	<0.00407	<0.00407	<0.00407	<0.00407
Copper (mg/L)		<0.00916	<0.00916	<0.00916	<0.00916	<0.00916

TABLE C-15 (CONTINUED)

Parameter	GWA-1-15-1 ^a	GWC-1-15-1	GWC-2-15-1	GWC-3-15-1	GWC-4-15-1	GWC-5-15-1
Chromium (mg/L)		<0.00524	0.0102 ^c	0.00653 ^c	<0.00524	0.00562 ^c
Mercury (mg/L)		<0.000033	<0.000033	<0.000033	<0.000033	<0.000033
Iron (mg/L)		0.0203 ^c	0.0125 ^c	<0.00452	0.0126 ^c	0.0419
Potassium (mg/L)		<0.822	<0.822	<0.822	<0.822	<0.822
Lithium (mg/L)		<0.00543	<0.00543	<0.00543	<0.00543	<0.00543
Magnesium (mg/L)		3.70	2.03	1.00	7.32	1.46
Manganese (mg/L)		<0.00155	0.0102	0.00289 ^c	0.194	0.00436 ^c
Molybdenum (mg/L)		<0.00739	<0.00739	<0.00739	<0.00739	<0.00739
Sodium (mg/L)		4.32	7.17	4.17	5.80	5.38
Nickel (mg/L)		<0.0141	0.0455 ^c	<0.0141	<0.0141	<0.0141
Phosphorus (mg/L)		<0.0610	<0.0610	<0.0610	<0.0610	<0.0610
Lead (mg/L)		<0.00205	<0.00205	0.0140	<0.00205	<0.00205
Sulfur (mg/L)		0.344 ^c	2.18	<0.175	1.38	2.29
Antimony (mg/L)		<0.00146	<0.00146	<0.00146	<0.00146	<0.00146
Selenium (mg/L)		<0.000592	0.00242 ^c	<0.000592	0.000930 ^c	0.000650 ^c
Silicon (mg/L)		11.8	12.9	9.15	9.91	10.5
Tin (mg/L)		<0.0145	0.0146 ^c	<0.0145	<0.0145	0.0146 ^c
Strontium (mg/L)		0.0157	0.0124	0.00286 ^c	0.0210	0.0114
Tellurium (mg/L)		<0.0317	<0.0317	0.0405 ^c	<0.0317	<0.0317
Titanium (mg/L)		<0.00159	<0.00159	0.00164 ^c	0.00188 ^c	<0.00159
Thallium (mg/L)		<0.00185	<0.00185	<0.00185	<0.00185	<0.00185
Uranium (mg/L)		<0.199	<0.199	<0.199	<0.199	<0.199
Vanadium (mg/L)		<0.00454	<0.00454	<0.00454	<0.00454	<0.00454
Tungsten (mg/L)		<0.0408	<0.0408	<0.0408	<0.0408	<0.0408
Zinc (mg/L)		0.0111 ^c	0.0137 ^c	0.00569 ^c	0.0134 ^c	0.0138 ^c

^a Well was dry; no samples collected.

^b Detected in the method blank.

^c Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

^d Result is questionable; concentration of reagent used in titration is unclear.

NR = Not reported.

TABLE C-16
RESULTS OF GROUNDWATER MONITORING CONDUCTED
DECEMBER 20-21, 1994 (FOURTH QUARTER 1994)

Parameter	GWA-1-16-1 ^a	GWC-1-16-1	GWC-2-16-1	GWC-3-16-1	GWC-4-16-1	GWC-5-16-1
pH		6.09	5.34	5.06	4.92	5.57
Conductivity (µS/cm)		76	66	36	188	47
Temperature (°C)		15.8	16.6	17.4	18.0	16.9
Eh (mv)		305	267	309	280	53
Alkalinity (mg/L CaCO ₃)		21.9	6.9	4.8	3.8	11.2
Total Dissolved Solids (mg/L)		46	65	30	110	45
Bromide (mg/L)		<0.00226	<0.0226	<0.0226	0.118	<0.0226
Chloride (mg/L)		2.68	4.00	3.02	39.7	2.7
Total Organic Carbon (mg/L)		<0.357	<0.357	<0.357	<0.357	<0.357
Total Organic Halogens (µg/L)		<11.7	<11.7	<11.7	<11.7	<11.7
Fluoride (mg/L)		0.0476 ^b	0.0340 ^b	0.0340 ^b	0.0300 ^b	0.0232 ^{b,c}
Nitrate-Nitrite (mg/L as N)		0.322	1.19	0.246	1.90	0.049
Sulfate (mg/L)		1.19	5.78	1.01	4.34	5.75
Silver (mg/L)		<0.00519	<0.00519	<0.00519	<0.00519	<0.00519
Aluminum (mg/L)		<0.0523	<0.0523	<0.0523	<0.0523	<0.0523
Arsenic (mg/L)		<0.00214	<0.00214	<0.00214	<0.00214	<0.00214
Boron (mg/L)		0.0298 ^c	0.0297 ^c	<0.0176	0.0527 ^c	0.030 ^c
Barium (mg/L)		0.00944	0.00944	0.00742	0.0283	0.00742
Beryllium (mg/L)		<0.00051	<0.00051	<0.00051	<0.00051	<0.00051
Bismuth (mg/L)		<0.0275	<0.0275	0.0336 ^c	<0.0275	0.0369 ^{b,c}
Calcium (mg/L)		4.50 ^b	1.89 ^b	0.335 ^b	4.04 ^b	1.20 ^b
Cadmium (mg/L)		<0.00386	<0.00386	<0.00386	<0.00386	<0.00386 ^b
Cobalt (mg/L)		<0.00407	<0.00407	<0.00407	<0.00407	<0.00407
Copper (mg/L)		<0.00916	<0.00916	<0.00916	<0.00916	<0.00916
Chromium (mg/L)		<0.00524	0.00654 ^c	<0.00524	<0.00524	<0.00524
Mercury (mg/L)		0.000040 ^c	<0.000033	<0.000033	0.00016 ^c	<0.000033
Iron (mg/L)		0.033 ^b	0.0122 ^{b,c}	0.0203 ^{b,c}	0.0661 ^b	0.0246
Potassium (mg/L)		<0.822	<0.822	<0.822	<0.822	<0.822
Lithium (mg/L)		0.011 ^{b,c}	0.0118 ^{b,c}	0.0103 ^{b,c}	0.0118 ^{b,c}	0.0108 ^{b,c}
Magnesium (mg/L)		3.33	1.87	1.02	11.0	1.32
Manganese (mg/L)		<0.00155	0.00696 ^c	<0.00155	0.282	0.00697 ^c
Molybdenum (mg/L)		<0.00739	<0.00739	<0.00739	<0.00739	<0.00739
Sodium (mg/L)		4.10	6.96	4.34	7.86	5.43
Nickel (mg/L)		<0.0141	0.0393 ^c	<0.0141	<0.0141	<0.0141
Phosphorus (mg/L)		<0.109	<0.109	<0.109	<0.109	<0.109
Lead (mg/L)		<0.0022	<0.0022	<0.0022	<0.0022	<0.0022
Sulfur (mg/L)		<0.175	1.65	<0.175	1.22	1.73
Antimony (mg/L)		<0.00146	0.00235 ^c	<0.00146	<0.00146	0.0035 ^c

TABLE C-16 (CONTINUED)

Parameter	GWA-1-16-1 ^a	GWC-1-16-1	GWC-2-16-1	GWC-3-16-1	GWC-4-16-1	GWC-5-16-1
Selenium (mg/L)		<0.000592	0.0011 ^c	<0.000592	<0.000592	0.00070 ^c
Silicon (mg/L)		10.9	12.2	8.94	10.1	10.3 ^b
Tin (mg/L)		<0.0145	<0.0145	0.0162 ^c	0.0195 ^c	0.0162 ^c
Strontium (mg/L)		0.0146	0.0109	0.00202 ^c	0.0315	0.0097
Tellurium (mg/L)		<0.177	<0.177	<0.177	<0.177	<0.177 ^b
Titanium (mg/L)		<0.00159	<0.00159	<0.00159	<0.00159	<0.00159 ^b
Thallium (mg/L)		<0.000536	<0.000536	<0.000536	<0.000536	<0.000536
Uranium (mg/L)		<0.199	<0.199	<0.199	<0.199	<0.199
Vanadium (mg/L)		<0.00454	<0.00454	<0.00454	<0.00454	<0.00454
Tungsten (mg/L)		<0.0408	<0.0408	<0.0408	<0.0408	<0.0408
Zinc (mg/L)		0.0067 ^{b,c}	0.00662 ^{b,c}	<0.00402 ^b	0.00633 ^{b,c}	<0.00402

^a Well was dry; no samples collected.

^b Detected in the method blank.

^c Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

^d Result is questionable; concentration of reagent used in titration is unclear.

NR = Not reported.

TABLE C-17
RESULTS OF GROUNDWATER MONITORING CONDUCTED
MARCH 28-29, 1995 (FIRST QUARTER 1995)

Parameter	GWA-1-17-1 ^a	GWC-1-17-1	GWC-2-17-1	GWC-3-17-1	GWC-4-17-1	GWC-5-17-1
pH		6.05	5.53	5.10	5.10	5.52
Conductivity (μS/cm)		77	65	36	163	50
Temperature (°C)		16.8	17.8	17.7	17.0	17.9
Eh (mv)		200	195	180	210	235
Alkalinity (mg/L CaCO ₃)		29.1	13.3	8.6	9.0	9.5
Total Dissolved Solids (mg/L)		63	63	44	113	50
Bromide (mg/L)		1.13	3.18	1.31	6.80	0.322
Chloride (mg/L)		2.64	3.81	3.15	34.1	2.54
Total Organic Carbon (mg/L)		<0.137	<0.137	<0.137	<0.137	<0.137
Total Organic Halogens (g/L)		<11.7	<11.7	12.3 ^c	17.2 ^c	<11.7
Fluoride (mg/L)		0.0413 ^b	0.0273 ^b	0.0296 ^b	0.0231 ^b	0.0191 ^{b, c}
Nitrate-Nitrite (mg/L as N)		0.254	0.693	0.289	1.58	0.0725
Sulfate (mg/L)		1.23	4.98	0.0471	4.18	6.45
Radium 226 and 228 (pCi/L)		0.296 ± 1.21 0.003 ± 1.63	0.056 ± 0.738 0.210 ± 0.541	0.440 ± 0.731 0.550 ± 0.862	0.800 ± 0.339 -0.393 ± 1.52	-0.632 ± 0.944 0.696 ± 1.49
Gross Alpha (pCi/L)		0.87 ± 0.50	-0.27 ± 0.27	-0.12 ± 0.23	-0.06 ± 0.51	0.39 ± 0.35
Gross Beta (pCi/L)		1.11 ± 0.48	0.21 ± 0.42	0.64 ± 0.43	0.97 ± 0.49	0.24 ± 0.42
Gross Gamma (pCi/L)						
Ac-228		-0.620 ± 18.7	13.2 ± 9.03	-3.474 ± 21.8	-2.693 ± 10.9	6.30 ± 6.98
Bi-214		-2.915 ± 12.0	-16.151 ± 15.4	-15.165 ± 15.4	-8.412 ± 7.75	-8.606 ± 12.2
K-40		74.8 ± 72.6	40.4 ± 101	56.2 ± 93.1	22.2 ± 41.2	6.69 ± 72.8
Pb-214		-2.536 ± 9.98	-12.851 ± 14.3	-7.159 ± 11.0	-11.272 ± 6.63	-19.227 ± 10.9
Silver (mg/L)		<0.00519	<0.00519	<0.00519	<0.00519	<0.00519
Aluminum (mg/L)		0.0560 ^c	0.0538 ^c	0.0657 ^c	<0.0523	0.0532 ^c
Arsenic (mg/L)		<0.00102	<0.00102	<0.00102	<0.00102	<0.00102
Boron (mg/L)		<0.0176	<0.0176	<0.0176	0.0856 ^c	0.0234 ^c
Barium (mg/L)		0.0109 ^b	0.0116 ^b	0.00784 ^b	0.0273 ^b	0.00784 ^b
Beryllium (mg/L)		<0.000510	<0.000510	<0.000510	<0.000510	<0.000510
Bismuth (mg/L)		<0.00504	<0.00504	<0.00504	<0.00504	<0.00504
Calcium (mg/L)		5.30 ^b	2.23 ^b	0.441 ^b	3.21 ^b	1.51 ^b
Cadmium (mg/L)		<0.00386	<0.00386	<0.00386	<0.00386	<0.00386
Cobalt (mg/L)		<0.00407	<0.00407	<0.00407	<0.00407	<0.00407
Copper (mg/L)		<0.00916	<0.00916	<0.00916	<0.00916	<0.00916
Chromium (mg/L)		0.00582 ^c	0.0130 ^c	0.00715 ^c	<0.00524	<0.00524
Mercury (mg/L)		<0.000028	<0.000028	<0.000028	<0.000028	<0.000028
Iron (mg/L)		0.195 ^b	0.155 ^b	0.0925 ^b	0.0937 ^b	0.0767 ^b
Potassium (mg/L)		0.919 ^c	<0.822	<0.822	<0.822	<0.822
Lithium (mg/L)		<0.00543	<0.00543	<0.00543	<0.00543	<0.00543
Magnesium (mg/L)		3.65	1.88	1.10	10.2	1.59

TABLE C-17 (CONTINUED)

Parameter	GWA-1-17-1 ^a	GWC-1-17-1	GWC-2-17-1	GWC-3-17-1	GWC-4-17-1	GWC-5-17-1
Manganese (mg/L)		<0.00155	0.0132	0.00242 ^c	0.129	0.00360 ^c
Molybdenum (mg/L)		0.00755 ^{b, c}	<0.00739 ^b	<0.00739 ^b	<0.00739 ^b	<0.00739 ^b
Sodium (mg/L)		4.21	6.79	4.39	7.63	5.34
Nickel (mg/L)		0.0886	0.0467 ^c	<0.0141	<0.0141	0.0162 ^c
Phosphorus (mg/L)		<0.109	<0.109	<0.109	0.524 ^c	<0.109
Lead (mg/L)		<0.000966	<0.000966	<0.000966	<0.000966	<0.000966
Sulfur (mg/L)		0.357 ^c	1.79	<0.175	1.31	2.50
Antimony (mg/L)		0.00240 ^c	0.00494 ^c	0.00121 ^c	0.00116 ^c	<0.00104
Selenium (mg/L)		<0.00124	<0.00124	<0.00124	<0.00124	<0.00124
Silicon (mg/L)		10.9 ^b	12.2 ^b	8.97 ^b	9.36 ^b	10.3 ^b
Tin (mg/L)		<0.0145 ^b	<0.0145 ^b	<0.0145 ^b	<0.0145	0.0512 ^{b, c}
Strontium (mg/L)		0.0148	0.00922	0.00320 ^c	0.0261	0.00882
Tellurium (mg/L)		<0.00449	<0.00449	<0.00449	<0.00449	<0.00449
Titanium (mg/L)		0.00339 ^c	0.00165 ^c	0.00218 ^c	<0.00159	<0.00159
Thallium (mg/L)		<0.00119	<0.00119	<0.00119	<0.00119	<0.00119
Uranium (mg/L)		<0.199	<0.199	<0.199	<0.199	<0.199
Vanadium (mg/L)		<0.00454	<0.00454	<0.00454	<0.00454	<0.00454
Tungsten (mg/L)		<0.0408	<0.0408	<0.0408	<0.0408	<0.0408
Zinc (mg/L)		<0.00402	<0.00402	<0.00402	<0.00402	<0.00402

^a Well was dry; no samples collected.

^b Detected in the method blank.

^c Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

NR = Not reported.

TABLE C-18
RESULTS OF GROUNDWATER MONITORING CONDUCTED
JUNE 13-14, 1995 (SECOND QUARTER 1995)

Parameter	GWA-1-18-1	GWC-1-18-1	GWC-2-18-1	GWC-3-18-1	GWC-4-18-1	GWC-5-18-1
pH	6.31	5.70	5.39	5.10	4.98	5.60
Conductivity (µS/cm)	116	66	65	37	148	52
Temperature (°C)	19.2	16.7	17.6	17.8	21.0	17.4
Eh (mv)	176	212	139	105	213	96
Alkalinity (mg/L CaCO ₃)	28.6	31.0	14.5	8.5	4.6	8.5
Total Dissolved Solids (mg/L)	108	72	64	52	132	64
Bromide (mg/L)	<0.0226	<0.0226	<0.0226	<0.0226	<0.0226	<0.0226
Chloride (mg/L)	2.10	2.76	3.97	3.13	39.1	2.62
Total Organic Carbon (mg/L)	<0.137	0.759	<0.137	0.334 c	<0.137	0.137
Fluoride (mg/L)	0.0900 b	0.0461 b	0.0289 b	0.318 b	0.0268 b	0.0216 b
Nitrate-Nitrite (mg/L as N)	0.437	0.308	0.795	0.311	1.79	0.0543
Sulfate (mg/L)	18.3	1.10	4.33	0.968	3.91	6.64
Silver (mg/L)	<0.00519	<0.00519	<0.00519	<0.00519	<0.00519	<0.00519
Aluminum (mg/L)	<0.0523	0.106	<0.0523	<0.0523	<0.0523	0.0949 c
Arsenic (mg/L)	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201
Boron (mg/L)	0.0327 c	<0.0176	<0.0176	0.0392 c	0.214	<0.0176
Barium (mg/L)	0.0263 b	0.0094 b	0.0094 b	0.00725 b	0.0296 b	0.00698 b
Beryllium (mg/L)	0.00052 c	<0.00051	<0.00051	<0.00051	<0.00051	<0.00051
Bismuth (mg/L)	<0.00504	<0.00504	<0.00504	<0.00504	<0.00504	<0.00504
Calcium (mg/L)	6.98 b	5.12 b	2.08 b	0.314 b	3.89 b	1.31 b
Cadmium (mg/L)	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386
Cobalt (mg/L)	<0.00407	0.0083 c	<0.00407	<0.00407	<0.00407	<0.00407
Copper (mg/L)	<0.00916	<0.00916	<0.00916	<0.00916	<0.00916	<0.00916
Chromium (mg/L)	<0.00524	<0.00524	<0.00524	<0.00524	<0.00524	<0.00524
Mercury (mg/L)	<0.000028	<0.000028	<0.000028	<0.000028	<0.000028	<0.000028
Iron (mg/L)	0.0200 b,c	0.145 b	0.00697 b,c	0.00944 b,c	0.0398 b	0.127 b
Potassium (mg/L)	1.81 c	0.952 c	<0.822	<0.822	<0.822	<0.822
Lithium (mg/L)	<0.00543	<0.00543	<0.00543	<0.00543	<0.00543	<0.00543
Magnesium (mg/L)	5.47	3.83	1.92	1.08	12.5	1.73
Manganese (mg/L)	0.00403 b,c	0.00203 b,c	0.00813 b	0.0061 b,c	0.190 b	<0.00155 b
Molybdenum (mg/L)	<0.00739	<0.00739	<0.00739	<0.00739	0.00857 c	<0.00739
Sodium (mg/L)	4.29	4.15	6.85	4.47	8.61	5.54
Nickel (mg/L)	0.0165 c	<0.0141	0.0165 c	<0.0141	<0.0141	<0.0141
Phosphorus (mg/L)	0.222 c	<0.109	<0.109	<0.109	0.331 c	<0.109
Lead (mg/L)	<0.00069	<0.00069	0.00097 c	<0.00069	<0.00069	<0.00069
Sulfur (mg/L)	6.61	0.385 c	1.41	<0.175	1.28	2.69
Antimony (mg/L)	<0.00104	<0.00104	<0.00104	<0.00104	<0.00104	<0.00104
Selenium (mg/L)	<0.00186	<0.00186	<0.00186	<0.00186	<0.00186	0.00307 b,c

TABLE C-18 (CONTINUED)

Parameter	GWA-1-18-1	GWC-1-18-1	GWC-2-18-1	GWC-3-18-1	GWC-4-18-1	GWC-5-18-1
Silicon (mg/L)	16.6 b	11.8 b	13.4 b	8.90 b	10.0 b	11.1 b
Tin (mg/L)	0.0524 c	0.0524 c	0.0150 c	<0.0145	<0.0145	0.0449 b,c
Strontium (mg/L)	0.0209	0.0152	0.0114	0.0038 c	0.0352	0.0117
Tellurium (mg/L)	<0.00449	<0.00449	<0.00449	<0.00449	<0.00449	<0.00449
Titanium (mg/L)	0.00184 b,c	0.00165 b,c	<0.00159 b	<0.00159 b	<0.00159	0.00182 b,c
Thallium (mg/L)	<0.00116	<0.00116	<0.00116	<0.00116	<0.00116	<0.00116
Uranium (mg/L)	<0.199	<0.199	<0.199	<0.199	<0.199	<0.199
Vanadium (mg/L)	<0.00454	<0.00454	<0.00454	<0.00454	<0.00454	<0.00454
Tungsten (mg/L)	<0.0408	<0.0408	<0.0408	<0.0408	<0.0408	<0.0408
Zinc (mg/L)	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402
TOX (µg/L)	<11.7	15.5 c	<11.7	<11.7	24. 1c	<11.7
VOCs (µg/L)						
Acetone	5.57 c	4.24 c	<2.30	<2.30	<2.30	<2.30
Acrolein	<0.662	<0.662	<0.662	<0.662	<0.662	<0.662
Acrylonitrile	<0.132	<0.132	<0.132	<0.132	<0.132	<0.132
Benzene	<0.122	<0.122	<0.122	<0.122	<0.122	<0.122
Bromodichloromethane	<0.0462	<0.0462	<0.0462	<0.0462	<0.0462	<0.0462
Bromoform	<0.136	<0.136	<0.136	<0.136	<0.136	<0.136
Bromomethane	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
2-Butanone (MEK)	<1.29	<1.29	<1.29	<1.29	<1.29	<1.29
Carbon disulfide	<0.190	<0.190	<0.190	<0.190	<0.190	<0.190
Carbon tetrachloride	<0.131	<0.131	<0.131	<0.131	<0.131	<0.131
Chlorobenzene	<0.205	<0.205	<0.205	<0.205	<0.205	<0.205
Chloroethane	<0.0898	<0.0898	<0.0898	<0.0898	<0.0898	<0.0898
2-Chloroethyl vinyl ether	<0.131	<0.131	<0.131	<0.131	<0.131	<0.131
Chloroform	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985
Chloromethane	<0.0893	<0.0893	<0.0893	<0.0893	<0.0893	<0.0893
Dibromochloromethane	<0.0870	<0.0870	<0.0870	<0.0870	<0.0870	<0.0870
Dibromomethane	<0.107	0.217 b,c	0.209 b,c	0.225 b,c	0.252 b,c	0.222 b,c
trans-1,4-Dichloro-2-butene	<0.359	<0.359	<0.359	<0.359	<0.359	<0.359
Dichlorodifluoromethane	<0.131	<0.131	<0.131	<0.131	<0.131	<0.131
1,1-Dichloroethane	<0.0646	<0.0646	<0.0646	<0.0646	<0.0646	<0.0646
1,2-Dichloroethane	0.314	0.199	<0.0481	<0.0481	<0.0481	<0.0481
1,1-Dichloroethene	<0.212	<0.212	<0.212	<0.212	<0.212	<0.212
trans-1,2-Dichloroethene	<0.212	<0.212	<0.212	<0.212	<0.212	<0.212
1,2-Dichloropropane	<0.0440	<0.0440	<0.0440	<0.0440	<0.0440	<0.0440
cis-1,3-Dichloropropene	<0.116	<0.116	<0.116	<0.116	<0.116	<0.116
trans-1,3-Dichloropropene	<0.0724	<0.0724	<0.0724	<0.0724	<0.0724	<0.0724
Ethyl methacrylate	<0.121	<0.121	<0.121	<0.121	<0.121	<0.121
Ethylbenzene	<0.246	<0.246	<0.246	<0.246	<0.246	<0.246
2-Hexanone	<0.347	<0.347	<0.347	<0.347	<0.347	<0.347

TABLE C-18 (CONTINUED)

Parameter	GWA-1-18-1	GWC-1-18-1	GWC-2-18-1	GWC-3-18-1	GWC-4-18-1	GWC-5-18-1
Iodomethane	<0.0896	<0.0896	<0.0896	<0.0896	<0.0896	<0.0896
4-Methyl-2-pentanone (MIBK)	<0.316	<0.316	<0.316	<0.316	<0.316	<0.316
Methylene chloride	<0.423 ^b	<0.423 ^b	<0.423 ^b	<0.423 ^b	<0.423 ^b	<0.423 ^b
Styrene	<0.184	0.639 ^c	<0.184	<0.184	<0.184	<0.184
1,1,2,2-Tetrachloroethane	<0.0708	<0.0708	<0.0708	<0.0708	<0.0708	<0.0708
Tetrachloroethene	<0.420	<0.420	<0.420	<0.420	<0.420	<0.420
Toluene	<0.163	0.197 ^c	<0.163	<0.163	<0.163	<0.163
1,1,1-Trichloroethane	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120
1,1,2-Trichloroethane	<0.0678	<0.0678	<0.0678	<0.0678	<0.0678	<0.0678
Trichloroethene	<0.197	<0.197	<0.197	<0.197	<0.197	<0.197
Trichlorofluoromethane	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999
1,2,3-Trichloropropane	<0.0902	<0.0902	<0.0902	<0.0902	<0.0902	<0.0902
Vinyl acetate	<0.381	<0.381	<0.381	<0.381	<0.381	<0.381
Vinyl chloride	<0.0697	<0.0697	<0.0697	<0.0697	<0.0697	<0.0697
m & p-Xylene	<0.554	<0.554	<0.554	<0.554	<0.554	<0.554
o-Xylene	<0.207	<0.207	<0.207	<0.207	<0.207	<0.207

^a Well was dry; no samples collected.

^b Detected in the method blank.

^c Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

TABLE C-19
RESULTS OF GROUNDWATER MONITORING CONDUCTED
SEPTEMBER 11-12, 1995 (THIRD QUARTER 1995)

Parameter	GWA-1-19-1	GWC-1-19-1	GWC-2-19-1	GWC-3-19-1	GWC-4-19-1	GWC-5-19-1
pH	6.38	6.00	5.41	5.02	4.79	5.20
Conductivity (µS/cm)	165	79	67.5	45	180	60
Temperature (°C)	20.2	18.0	18.8	18.2	18.7	18.4
Eh (mv)	231	127	141	156	219	148
Alkalinity (mg/L CaCO ₃)	23	31	13.5	9.0	4.5	11.0
Total Dissolved Solids (mg/L)	114	58	54	37	123	64
Bromide (mg/L)	<0.0181	<0.0181	<0.0181	<0.0181	<0.0181	<0.0181
Chloride (mg/L)	2.27	2.77	3.83	3.64	37.5	2.70
Total Organic Carbon (mg/L)	<0.117	<0.117	0.571 c	<0.117	1.86	<0.117
Fluoride (mg/L)	0.0904 b	0.0582 b	0.0402 b	0.0370 b	0.0325 b	0.0304 b
Nitrate-Nitrite (mg/L as N)	0.0999	0.287	0.888	0.298	1.74	0.0298
Sulfate (mg/L)	24.4	1.06	3.90	0.595	3.03	6.80
Radium-226 and -228 (pCi/L)	NA	0.310 ± 1.33	0.120 ± 0.770	0.230 ± 0.890	0.190 ± 0.840	-0.530 ± 0.892
	NA	-0.490 ± 1.68	-0.680 ± 1.67	-0.230 ± 1.39	-0.430 ± 1.59	-0.980 ± 1.70
Gross Alpha (pCi/L)	NA	0.71 ± 0.25	<0.44	<0.37	<0.67	0.53 ± 0.20
Gross Beta (pCi/L)	NA	<1.4	<1.4	<1.3	<1.6	1.47 ± 0.49
Gross Gamma (pCi/L)						
Ac-228	NA	18.3 ± 8.35	14.7 ± 9.34	7.36 ± 7.36	16.1 ± 7.71	5.14 ± 9.33
Bi-214	NA	5.06 ± 13.2	-6.50 ± 17.0	12.2 ± 13.7	-1.93 ± 13.5	-3.19 ± 17.1
K-40	NA	10.9 ± 94.6	-90.4 ± 108	-128 ± 85.3	-67.3 ± 84.5	0.000 ± 108
Pb-214	NA	4.31 ± 12.1	-8.63 ± 14.8	26.8 ± 4.96	9.62 ± 4.23	-7.13 ± 14.8
Silver (mg/L)	<0.00519	<0.00519	<0.00519	<0.00519	<0.00519	<0.00519
Aluminum (mg/L)	<0.0523	<0.0523	<0.0523	0.0716 c	<0.0523	<0.0523
Arsenic (mg/L)	<0.00102	<0.00102 b	<0.00102 b	<0.00102 b	<0.00102 b	<0.00102 b
Boron (mg/L)	<0.0176	<0.0176	<0.0176	<0.0176	0.234	<0.0176
Barium (mg/L)	0.0289	0.0111	0.00888	0.00933	0.0262	0.00799
Beryllium (mg/L)	<0.00051	<0.00051	<0.00051	<0.00051	<0.00051	<0.00051
Bismuth (mg/L)	<0.00504	<0.00504	<0.00504	<0.00504	<0.00504	<0.00504
Calcium (mg/L)	8.47	5.12	2.16	0.389	3.03	1.48
Cadmium (mg/L)	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386	<0.00386
Cobalt (mg/L)	0.0101 b,c	0.0101 b,c	0.00757 b,c	0.00756 b,c	0.0126 b,c	0.0108 b,c
Copper (mg/L)	<0.00916	<0.00916	<0.00916	<0.00916	<0.00916	<0.00916
Chromium (mg/L)	0.0180 c	<0.00524	<0.00524	<0.00524	0.0113 c	0.0108 c
Mercury (mg/L)	<0.000028	<0.000028	<0.000028	<0.000028	<0.000028	<0.000028
Iron (mg/L)	<0.00452 b	0.0410 b	0.0336 b	0.0772 b	0.0217 b	0.0681 b
Potassium (mg/L)	1.65 c	<0.822	<0.822	<0.822	<0.822	<0.822
Lithium (mg/L)	<0.00543	<0.00543	<0.00543	<0.00543	<0.00543	<0.00543
Magnesium (mg/L)	6.30	3.80	1.88	1.21	10.0	1.78
Manganese (mg/L)	<0.00155	<0.00155	<0.00155	0.00296 b,c	0.124 b	0.00884 b
Molybdenum (mg/L)	<0.00739	<0.00739	<0.00739	<0.00739	<0.00739	<0.00739
Sodium (mg/L)	4.53	4.28	6.94	4.83	8.42	6.12
Nickel (mg/L)	<0.0141	<0.0141	0.0190 c	<0.0141	<0.0141	<0.0141
Phosphorus (mg/L)	<0.109	<0.109	<0.109	<0.109	0.462	<0.109
Lead (mg/L)	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120	<0.00120
Sulfur (mg/L)	8.57	<0.175	1.03	<0.175	0.826	2.48

TABLE C-19 (CONTINUED)

Parameter	GWA-1-19-1	GWC-1-19-1	GWC-2-19-1	GWC-3-19-1	GWC-4-19-1	GWC-5-19-1
Antimony (mg/L)	0.00167 ^{b,c}	0.00196 ^{b,c}	0.00183 ^{b,c}	0.00151 ^{b,c}	0.00194 ^{b,c}	0.00156 ^{b,c}
Selenium (mg/L)	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124	<0.00124
Silicon (mg/L)	17.6	12.3	13.5	9.94	10.4	11.5
Tin (mg/L)	<0.0145	<0.0145	<0.0145	<0.0145	<0.0145	<0.0145
Strontium (mg/L)	0.0242	0.0171	0.0128	0.00617	0.0290	0.0147
Tellurium (mg/L)	<0.00449	<0.00449	<0.00449	<0.00449	<0.00449	<0.00449
Titanium (mg/L)	<0.00159	0.00455 ^c	0.00264 ^c	0.00892	<0.00159	<0.00159
Thallium (mg/L)	<0.00119	<0.00119	<0.00119	<0.00119	<0.00119	<0.00119
Uranium (mg/L)	<0.199	<0.199	<0.199	<0.199	<0.199	<0.199
Vanadium (mg/L)	<0.00454	<0.00454	<0.00454	<0.00454	<0.00454	<0.00454
Tungsten (mg/L)	0.0524 ^c	<0.0408	<0.0408	<0.0408	<0.0408	<0.0408
Zinc (mg/L)	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402	<0.00402
TOX (µg/L)	42.3 ^c	14.6 ^c	12.2 ^c	17.9 ^c	25.0 ^c	20.6 ^c

^a Well was dry; no samples collected.

^b Detected in the method blank.

^c Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

NA = Not analyzed; insufficient sample was obtained.

TABLE C-20
RESULTS OF GROUNDWATER MONITORING CONDUCTED DECEMBER 12-13, 1995
(FOURTH QUARTER 1995)

Parameter	GWA-1-20-1	GWC-1-20-1	GWC-2-20-1	GWC-3-20-1A	GWC-4-20-1	GWC-5-20-1
pH	6.08	5.92	5.45	5.27	4.89	5.28
Conductivity (µS/cm)	118	82	67	39	196	53
Temperature (C)	16.4	16.7	17.6	17.5	18.6	17.4
Eh (mV)	176	211	223	222	325	235
Alkalinity (mg/L CaCO ₃)	NM	31.2	13.0	9.1	4.2	9.1
Total Dissolved Solids (mg/L)	93	49	53	36	107	45
Bromide (mg/L)	<0.0181	<0.0181	<0.0181	<0.0181	<0.0181	<0.0181
Chloride (mg/L)	1.94	2.45	3.91	3.52	40.5	2.93
Total Organic Carbon (mg/L)	NM	<0.117	<0.117	<0.117	<0.117	<0.117
Fluoride (mg/L)	0.0672 ^b	0.0412 ^b	0.0274 ^b	0.0307 ^b	0.0247 ^b	0.0196 ^{b,c}
Nitrate-Nitrite (mg/L as N)	NM	1.39	0.941	0.328	0.313	0.0648
Sulfate (mg/L)	30.8	<0.0491	3.68	0.233 ^c	3.21	7.20
Silver (mg/L)	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600	<0.00600
Aluminum (mg/L)	<0.0270	<0.0270	<0.0270	0.0348 ^c	0.0988 ^c	1.44
Arsenic (mg/L)	0.00102 ^c	0.00134 ^c	0.00128 ^c	0.00120 ^c	0.00200 ^c	0.00167 ^c
Boron (mg/L)	0.0334 ^c	0.0332 ^c	0.0463 ^c	0.0330 ^c	0.225	0.0338 ^c
Barium (mg/L)	0.0303	0.00973	0.00901	0.00973	0.0303	0.0274
Beryllium (mg/L)	<0.00180	<0.00180	<0.00180	<0.00180	<0.00180	<0.00180
Bismuth (mg/L)	<0.00504	<0.00504	<0.00504	<0.00504	<0.00504	<0.00504
Calcium (mg/L)	9.21	5.86	2.41	0.436	3.99	1.97
Cadmium	<0.00262	<0.00262	<0.00262	<0.00262	<0.00262	<0.00262
Cobalt (mg/L)	<0.00987	<0.00987	<0.00987	0.0103 ^c	<0.00987	<0.00987
Copper (mg/L)	<0.00302	<0.00302	0.00512 ^c	<0.00302	<0.00302	<0.00302
Chromium (mg/L)	0.0233 ^c	<0.00558	<0.00558	<0.00558	<0.00558	0.0106 ^c
Mercury (mg/L)	<0.000039	<0.000039	<0.000039	<0.000039	<0.000039	<0.000039
Iron (mg/L)	0.0556 ^c	0.0600 ^c	0.0372 ^c	0.0511 ^c	0.139	1.55
Potassium (mg/L)	1.93 ^c	<0.883	<0.883	<0.883	<0.883	1.23 ^c
Lithium (mg/L)	<0.00297	<0.00297	<0.00297	<0.00297	<0.00297	<0.00297
Magnesium (mg/L)	6.51	4.23	1.96	1.26	12.6	6.02
Manganese (mg/L)	<0.00365	<0.00365	<0.00365	<0.00365	<0.00365	<0.00365
Molybdenum (mg/L)	<0.0192	<0.0192	<0.0192	<0.0192	<0.0192	<0.0192
Sodium (mg/L)	3.50	4.44	7.11	5.14	8.00	5.82
Nickel (mg/L)	0.0286 ^c	<0.0218	0.0286 ^c	<0.0218	<0.0218	0.0286 ^c
Phosphorus (mg/L)	<0.141	<0.141	<0.141	<0.141	0.408 ^c	<0.141
Lead (mg/L)	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126
Sulfur (mg/L)	11.1	0.218 ^c	1.53	0.125	1.12	2.77
Antimony (mg/L)	0.00247 ^{b,c}	0.00128 ^{b,c}	0.00147 ^{b,c}	<0.000919 ^b	0.00124 ^{b,c}	<0.000919 ^b
Selenium (mg/L)	<0.000821	<0.000821	0.00166 ^c	0.000840 ^c	0.00120 ^c	0.00121 ^c

TABLE C-20 (CONTINUED)

Parameter	GWA-1-20-1	GWC-1-20-1	GWC-2-20-1	GWC-3-20-1 ^A	GWC-4-20-1	GWC-5-20-1
Silicon (mg/L)	13.2	10.0	12.9	5.18	11.4	16.2
Tin (mg/L)	<0.0350	<0.0350	<0.0350	<0.0350	<0.0350	<0.0350
Strontium (mg/L)	0.0242	0.0156	0.0115 ^c	0.00369 ^c	0.0332	0.0160
Tellurium (mg/L)	<0.00449	<0.00449	<0.00449	<0.00449	<0.00449	<0.00449
Titanium (mg/L)	0.00289 ^{b,c}	0.00711 ^{bc}	0.00219 ^{b,c}	0.00265 ^{b,c}	0.0115 ^b	0.0160 ^b
Thallium (mg/L)	<0.00232	<0.00232	<0.00232	<0.00232	<0.00232	<0.00232
Uranium (mg/L)	<0.0676	<0.0676	<0.0676	<0.0676	<0.0676	<0.0676
Vanadium (mg/L)	<0.00679	<0.00679	<0.00679	<0.00679	<0.00679	<0.00679
Tungsten (mg/L)	<0.0759	<0.0759	<0.0759	<0.0759	<0.0759	<0.0759
Zinc (mg/L)	0.0131 ^{b,c}	0.00664 ^{b,c}	<0.00362 ^b	0.0160 ^{b,c}	0.0130 ^{b,c}	0.0184 ^b
TOX (µg/L)	<11.7	<11.7	<11.7	<11.7	<11.7	<11.7

^a A duplicate sample (GWC-3-20-2) was collected from this well.

^b Detected in the method blank.

^c Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

NM = Not measured due to insufficient sample.

TABLE C-21
RESULTS OF GROUNDWATER MONITORING CONDUCTED
MARCH 18-19, 1996 (1ST QUARTER 1996)

Parameter	GWA-1-21-1	GWC-1-21-1	GWC-2-21-1	GWC-3-21-1 ^a	GWC-4-21-1	GWC-5-21-1
pH	NM	6.04	5.79	5.25	4.98	5.54
Conductivity (µS/cm)	NM	86	66	42	288	67
Temperature (°C)	NM	15.7	16.5	17.9	16.5	17.5
Eh (mV)	NM	153	167	177	189	196
Alkalinity (mg/L CaCO ₃)	NM	24.2	NM	7.4	5.6	4.7
Total Dissolved Solids (mg/L)	113	71.0	69.0	49.0	175	72.0
Bromide (mg/L)	<0.0181	<0.0181	<0.0181	<0.0181	0.616	<0.0181
Chloride (mg/L)	2.26	2.20	3.79	3.46	66.0	2.78
Total Organic Carbon (mg/L)	NM	<0.117 ^b	1.12 ^b	0.176 ^{b,c}	0.118 ^{b,c}	<0.117 ^b
Total Organic Halogens (g/L)	NM	<20.9	<20.9	<20.9	<20.9	<20.9
Fluoride (mg/L)	0.0767 ^b	0.0517 ^b	0.0339 ^b	0.0365 ^b	0.0368 ^b	0.0311 ^b
Nitrate-Nitrite (mg/L as N)	NM	0.226 ^b	0.922 ^b	0.259 ^b	16.7 ^b	0.126 ^b
Sulfate (mg/L)	32.7	1.06	4.11	<0.0491	4.18	13.3
Radium 226 (pCi/L)	NM	1.23 ± 0.409	1.00 ± 0.354	0.840 ± 0.409	-0.290 ± 0.701	-0.180 ± 0.690
Radium 228 (pCi/L)	NM	0.470 ± 0.572	0.680 ± 0.495	0.780 ± 0.526	0.240 ± 1.40	-0.320 ± 1.40
Gross Alpha (pCi/L)	NM	<0.63	<0.59	<0.46	<0.73	<0.53
Gross Beta (pCi/L)	NM	<1.4	<1.4	<1.3	<1.5	<1.4
Gamma Scan (pCi/L)						
Ac-228	NM	3.64 ± 25.2	2.13 ± 14.8	-6.56 ± 21.8	0.294 ± 24.4	-0.770 ± 20.5
Bi-214	NM	38.4 ± 15.9	16.0 ± 13.9	11.8 ± 12.9	14.4 ± 5.36	12.0 ± 12.6
Pb-214	NM	54.0 ± 7.37	12.9 ± 11.6	9.66 ± 10.1	13.0 ± 4.32	16.7 ± 10.2
K-40	NM	39.1 ± 100	-44.3 ± 80.6	-71.1 ± 85.1	-67.9 ± 99.1	21.0 ± 70.3
Silver (mg/L)	0.000700 ^c	<0.000501	<0.000501	<0.000501	<0.000501	<0.000501
Aluminum (mg/L)	0.0402 ^{b,c}	0.0574 ^{b,c}	0.0510 ^{b,c}	0.0228 ^{b,c}	0.160 ^b	0.105 ^b
Arsenic (mg/L)	<0.00392	<0.00392	<0.00392	<0.00392	<0.00392	<0.00392
Boron (mg/L)	<0.0479	<0.0479	<0.0479	<0.0479	0.608	<0.0479
Barium (mg/L)	0.0469 ^b	0.0134 ^b	0.0117 ^b	0.0102 ^b	0.0448 ^b	0.0495 ^b
Beryllium (mg/L)	0.00150 ^b	0.00026 ^{b,c}	0.00020 ^{b,c}	<0.000162 ^b	0.00379 ^b	0.00048 ^{b,c}
Bismuth (mg/L)	0.00320 ^c	<0.00271	<0.00271	<0.00271	<0.00271	<0.00271
Calcium (mg/L)	10.4	5.91	2.37	0.361	7.10	2.28
Cadmium (mg/L)	0.000200 ^c	<0.000156	<0.000156	<0.000156	<0.000156	<0.000156
Cobalt (mg/L)	0.00180 ^c	<0.000580	<0.000580	<0.000580	0.00585	<0.000580
Copper (mg/L)	0.00400 ^{b,c}	<0.00136 ^b	<0.00136 ^b	<0.00136 ^b	<0.00136 ^b	0.00226 ^{b,c}
Chromium (mg/L)	0.0186	0.000630 ^c	0.00274	0.00188	0.00155 ^c	0.00587
Mercury (mg/L)	<0.000039	<0.000039	<0.000039	<0.000039	<0.000039	<0.000039
Iron (mg/L)	0.0560 ^{b,c}	0.0510 ^{b,c}	0.0501 ^{b,c}	0.0150 ^{b,c}	0.158 ^b	0.261 ^b
Potassium (mg/L)	2.72	0.730	0.372	0.128	0.659	0.361
Lithium (mg/L)	NM	NM	NM	NM	NM	NM
Magnesium (mg/L)	6.87	4.11	1.92	1.11	19.1	2.65
Manganese (mg/L)	0.00650	0.00121 ^c	0.00181 ^c	0.00274	0.0371	0.00745
Molybdenum (mg/L)	0.00270 ^c	<0.000705	<0.000705	<0.000705	0.00358	<0.000705
Sodium (mg/L)	4.65	4.38	7.04	5.14	9.36	6.43
Nickel (mg/L)	0.0147 ^b	0.00110 ^{b,c}	0.0129 ^b	0.00292 ^{b,c}	0.0217 ^{b,c}	0.00873 ^b
Phosphorus (mg/L)	0.0215 ^c	0.0224 ^c	<0.00471	<0.00471	0.188	0.00854 ^c
Lead (mg/L)	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126

TABLE C-21 (CONTINUED)

Parameter	GWA-1-21-1	GWC-1-21-1	GWC-2-21-1	GWC-3-21-1 ^a	GWC-4-21-1	GWC-5-21-1
Sulfur (mg/L)	12.4	0.104	1.37	0.0569	1.42	4.96
Antimony (mg/L)	0.00398 ^c	<0.000919	<0.000919	<0.000919	<0.000919	<0.000919
Selenium (mg/L)	0.00148 ^{b,c}	<0.00821 ^b	0.00119 ^{b,c}	0.00104 ^{b,c}	<0.00821 ^b	<0.00821 ^b
Silicon (mg/L)	14.3	11.6	13.7	9.48	10.8	11.3
Tin (mg/L)	0.00230 ^c	<0.00111	<0.00111	<0.00111	0.00346 ^c	<0.00111
Strontium (mg/L)	0.0315 ^b	0.0183 ^b	0.0126 ^b	0.00387 ^b	0.0580 ^b	0.0197 ^b
Tellurium (mg/L)	0.00220 ^c	<0.00170	<0.00170	<0.00170	0.00300 ^c	<0.00170
Titanium (mg/L)	0.00230 ^b	0.00541 ^b	0.00432 ^b	0.000420 ^b	0.0140 ^b	0.00742 ^b
Thallium (mg/L)	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125
Uranium (mg/L)	<0.0132	<0.0132	<0.0132	<0.0132	0.0377 ^c	0.0956
Vanadium (mg/L)	0.00100 ^c	0.00100 ^c	<0.000681	<0.000681	<0.000681	<0.000681
Tungsten (mg/L)	0.00510 ^c	<0.00183	<0.00183	<0.00183	0.00570 ^c	<0.00183
Zinc (mg/L)	0.00189 ^b	<0.00309 ^b	<0.00309 ^b	<0.00309 ^b	0.00462 ^b	0.685 ^b

^a A duplicate sample (GWC-3-21-2) was collected from this well.

^b Detected in the method blank.

^c Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

NM = Not measured due to insufficient sample.

TABLE C-22
RESULTS OF GROUNDWATER MONITORING CONDUCTED
JUNE 20-21, 1996 (SECOND QUARTER 1996)

Parameter	GWA-1-22-1	GWC-1-22-1	GWC-2-22-1	GWC-3-22-1	GWC-4-22-1 ^a	GWC-5-22-1
pH	6.14	5.84	5.48	5.08	4.71	5.24
Conductivity (µS/cm)	116	83	59	41	412	64
Temperature (°C)	19.3	17.0	18.3	18.3	16.8	17.6
Eh (mV)	103	178	237	262	390	193
Alkalinity (mg/L CaCO ₃)	NM	35	15.0	9.2	6.9	10.6
Total Dissolved Solids (mg/L)	105	63	75	49	266	76
Bromide (mg/L)	<0.0493	<0.0493	<0.0493	<0.0493	1.08	<0.0493
Chloride (mg/L)	3.30	2.47	3.93	3.83	106	2.98
Total Organic Carbon (mg/L)	<0.117	<0.117	<0.117	<0.117	<0.117	<0.117
Fluoride (mg/L)	0.0789 ^b	0.0442 ^b	0.0376 ^b	0.0344 ^b	0.0305 ^b	0.0384 ^b
Nitrate-Nitrite (mg/L as N)	0.742	0.233	0.915	0.192	2.10	0.0870
Sulfate (mg/L)	12.0	<0.154	4.52	1.91	4.33	9.87
Silver (mg/L)	<0.000501	<0.000501	<0.000501	<0.000501	<0.000501	<0.000501
Aluminum (mg/L)	0.0155 ^{b,c}	0.0224 ^{b,c}	0.168 ^b	0.168 ^b	0.179 ^b	0.291 ^b
Arsenic (mg/L)	<0.00392	<0.00392	<0.00392	<0.00392	<0.00392	<0.00392
Boron (mg/L)	<0.0479	<0.0479	<0.0479	<0.0479	1.98	<0.0479
Barium (mg/L)	0.0156	0.00838	0.0134	0.0142	0.0634	0.0142
Beryllium (mg/L)	0.000490 ^{b,c}	0.000460 ^{b,c}	0.000480 ^{b,c}	0.000590 ^{b,c}	0.00135 ^b	0.000730 ^{b,c}
Bismuth (mg/L)	<0.0271	<0.0271	<0.0271	<0.0271	<0.0271	<0.0271
Calcium (mg/L)	8.03	5.62	2.46	0.433	10.5	1.96
Cadmium (mg/L)	<0.000156	<0.000156	<0.000156	<0.000156	<0.000156	<0.000156
Cobalt (mg/L)	<0.000580	<0.000580	<0.000580	<0.000580	0.00406	<0.000580
Copper (mg/L)	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136
Chromium (mg/L)	0.000440 ^c	0.000450 ^c	0.000408 ^c	0.00325	0.00275	0.00465
Mercury (mg/L)	<0.000039	<0.000039	<0.000039	<0.000039	0.000230	<0.000039
Iron (mg/L)	<0.0135	<0.0135	0.208	0.217	0.245	0.488
Potassium (mg/L)	1.40	0.611	0.429	0.273	0.523	0.284
Lithium (mg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Magnesium (mg/L)	5.16	3.68	1.98	1.32	30.2	2.36
Manganese (mg/L)	0.00151 ^c	0.00052 ^c	0.00529	0.00597	0.424	0.0113
Molybdenum (mg/L)	0.000840 ^c	<0.000705	<0.000705	<0.000705	<0.000705	0.000720 ^c
Sodium (mg/L)	4.34	3.88	6.60	4.89	9.95	5.82
Nickel (mg/L)	0.00184 ^c	<0.000721	0.0114	0.000920 ^c	0.00133 ^c	0.00621
Phosphorus (mg/L)	0.0127 ^{b,c}	0.0199 ^{b,c}	0.0132 ^{b,c}	0.0150 ^{b,c}	0.0370 ^b	0.0446 ^b
Lead (mg/L)	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126	<0.00126
Sulfur (mg/L)	4.63	0.0898	1.44	0.212	1.44	3.91
Antimony (mg/L)	<0.000919	<0.000919	<0.000919	<0.000919	<0.000919	<0.000919
Selenium (mg/L)	0.00309 ^c	<0.00258	0.00295 ^c	0.0421	0.00399 ^c	0.00356 ^c
Silicon (mg/L)	16.8	11.0	13.4	9.63	10.3	11.3
Tin (mg/L)	<0.00111	<0.00111	<0.00111	<0.00111	<0.00111	<0.00111
Strontium (mg/L)	0.0252 ^b	0.0173 ^b	0.0130 ^b	0.00465 ^b	0.0858 ^b	0.0175 ^b
Tellurium (mg/L)	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170
Titanium (mg/L)	0.000660 ^c	0.00149	0.0307	0.0295	0.0241	0.0461

TABLE C-22 (CONTINUED)

Parameter	GWA-1-22-1	GWC-1-22-1	GWC-2-22-1	GWC-3-22-1	GWC-4-22-1 ^a	GWC-5-22-1
Thallium (mg/L)	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125	<0.00125
Uranium (mg/L)	0.0867	<0.0132	<0.0132	<0.0132	<0.0132	<0.0132
Vanadium (mg/L)	0.000860 ^c	0.000930 ^c	0.00104 ^c	0.000900 ^c	<0.000681	0.00150 ^c
Tungsten (mg/L)	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183
Zinc (mg/L)	<0.00309 ^b	<0.00309 ^b	0.00789 ^{b,c}	<0.00309 ^b	<0.00309 ^b	<0.00309 ^b
TOX (µg/L)	<20.9	<20.9	<20.9	24.6 ^c	27.0 ^c	<20.9
VOCs (µg/L):						
Acetone	<1.26	<1.26	41.0	<0.274	<0.274	<0.274
Acrolein	<1.21	<1.21	<0.525	<0.525	<0.525	<0.525
Acrylonitrile	<0.435	<0.435	<0.254	<0.254	<0.254	<0.254
Benzene	<0.0470	<0.0470	0.882	<0.0633	<0.0633	<0.0633
Bromodichloromethane	<0.0698	<0.0698	<0.0629	<0.0629	<0.0629	<0.0629
Bromoform	<0.160	<0.160	<0.0854	<0.0854	<0.0854	<0.0854
Bromomethane	<0.190	<0.190	<0.101	<0.101	<0.101	<0.101
2-Butanone (MEK)	<0.289	<0.289	<0.819	<0.819	<0.819	<0.819
Carbon disulfide	<0.0786	<0.0786	<0.0780	<0.0780	<0.0780	<0.0780
Carbon tetrachloride	<0.113	<0.113	<0.0527	<0.0527	<0.0527	<0.0527
Chlorobenzene	<0.0688	<0.0688	<0.0665	<0.0665	<0.0665	<0.0665
Chloroethane	<0.114	<0.114	<0.0693	<0.0693	<0.0693	<0.0693
Chloroform	<0.122	<0.122	<0.0773	<0.0773	<0.0773	<0.0773
Chloromethane	<0.141	<0.141	<0.0454	<0.0454	<0.0454	<0.0454
3-Chloropropene	<0.0951	<0.0951	<0.0735	<0.0735	<0.0735	<0.0735
Dibromochloromethane	<0.166	<0.166	<0.0454	<0.0454	<0.0454	<0.0454
Dibromomethane	<0.169	<0.169	<0.0692	<0.0692	<0.0692	<0.0692
trans-1,4-Dichloro-2-butene	<0.512	<0.512	<0.155	<0.155	<0.155	<0.155
Dichlorodifluoromethane	<0.235	<0.235	<0.0853	<0.0853	<0.0853	<0.0853
1,1-Dichloroethane	<0.0864	<0.0864	<0.0559	<0.0559	<0.0559	<0.0559
1,2-Dichloroethane	<0.125	<0.125	<0.0865	<0.0865	<0.0865	<0.0865
1,1-Dichloroethene	<0.0767	<0.0767	<0.608	<0.608	<0.608	<0.608
cis-1,2-Dichloroethene	<0.0831	<0.0831	<0.0541	<0.0541	<0.0541	<0.0541
trans-1,2-Dichloroethene	<0.103	<0.103	<0.0567	<0.0567	<0.0567	<0.0567
1,2-Dichloropropane	<0.0853	<0.0853	<0.0566	<0.0566	<0.0566	<0.0566
cis-1,3-Dichloropropene	<0.0545	<0.0545	<0.0614	<0.0614	<0.0614	<0.0614
trans-1,3-Dichloropropene	<0.0732	<0.0732	<0.0657	<0.0657	<0.0657	<0.0657
Ethyl methacrylate	<0.0914	<0.0914	<0.0788	<0.0788	<0.0788	<0.0788
Ethylbenzene	<0.107	<0.107	0.393	<0.0655	<0.0655	<0.0655
2-Hexanone	<0.193	<0.193	<0.211	<0.211	<0.211	<0.211
Iodomethane	<0.0553	<0.0553	<0.0342	<0.0342	<0.0342	<0.0342
4-Methyl-2-pentanone (MIBK)	<0.172	<0.172	<0.146	<0.146	<0.146	<0.146
Methylene chloride	<0.159	<0.159	0.879 ^b	0.796 ^b	1.02 ^b	0.626 ^b
Styrene	<0.0981	<0.0981	<0.0596	0.0697 ^c	<0.0596	0.141 ^c
1,1,1,2-Tetrachloroethane	<0.141	<0.141	<0.0590	<0.0590	<0.0590	<0.0590
1,1,2,2-Tetrachloroethane	<0.227	<0.227	<0.0729	<0.0729	<0.0729	<0.0729
Tetrachloroethene	<0.0959	<0.0959	<0.118	<0.118	<0.118	<0.118
Toluene	<0.0619	<0.0619	2.58	<0.0537	<0.0537	<0.0537
1,1,1-Trichloroethane	<0.0927	<0.0927	<0.0388	<0.0388	<0.0388	<0.0388
1,1,2-Trichloroethane	<0.179	<0.179	<0.0714	<0.0714	<0.0714	<0.0714

TABLE C-22 (CONTINUED)

Parameter	GWA-1-22-1	GWC-1-22-1	GWC-2-22-1	GWC-3-22-1	GWC-4-22-1 ^a	GWC-5-22-1
Trichloroethene	<0.0931	<0.0931	<0.127	<0.127	<0.127	<0.127
Trichlorofluoromethane	<0.336	<0.336	<0.0681	<0.0681	<0.0681	<0.0681
1,2,3-Trichloropropane	<0.256	<0.256	<0.125	<0.125	<0.125	<0.125
Vinyl acetate	<0.0525	<0.0525	<0.0639	<0.0639	<0.0639	<0.0639
Vinyl chloride	<0.232	<0.232	<0.0307	<0.0307	<0.0307	<0.0307
m & p-Xylene	<0.131	<0.131	0.882 ^c	<0.184	<0.184	<0.184
o-Xylene	<0.789	<0.789	0.474	<0.0627	<0.0627	<0.0627

^a A duplicate sample (GWC-4-22-2) was collected from this well.

^b Detected in the method blank.

^c Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

TABLE 23
RESULTS OF GROUNDWATER MONITORING CONDUCTED
SEPTEMBER 13-14, 1996 (THIRD QUARTER 1996)

Parameter	GWA-1-23-1	GWC-1-23-1	GWC-2-23-1	GWC-3-23-1 ^a	GWC-4-23-1 ^a	GWC-5-23-1
pH	6.54	5.96	5.50	5.19	4.94	5.39
Conductivity (µS/cm)	58	75	62	38	330	64
Temperature (°C)	23	18	18	17	18	17
Eh (mV)	218	264	348	177	415	200
Alkalinity (mg/L CaCO ₃)	27.8	32.2	17.4	9.7	6.8	10.1
Total Dissolved Solids (mg/L)	88 ^b	81 ^b	82 ^b	56 ^b	229 ^b	66 ^b
Bromide (mg/L)	<0.0493	<0.0493	<0.0493	<0.0493	0.737	<0.0493
Chloride (mg/L)	3.65	2.57	4.04	4.31	95.5	3.00
Total Organic Carbon (mg/L)	<0.117	0.379 ^c	0.217 ^c	0.159 ^c	1.25	0.672
Fluoride (mg/L)	0.0800 ^b	0.0495 ^b	0.0349 ^b	0.0320 ^b	0.0352 ^b	0.0224 ^b
Nitrate-Nitrite (mg/L as N)	0.774	0.310	1.01	0.212	2.02	0.127
Sulfate (mg/L)	9.34	0.694	3.66	1.49	3.21	7.82
Radium 226 (pCi/L)	N/M	0.330 ± 0.481	<0.390	0.480 ± 0.542	<0.210	<0.190
Radium 228 (pCi/L)	N/M	<0.590	<0.850	<0.470	<0.460	<0.450
Gross Alpha (pCi/L)	N/M	<0.20	<0.33	<1.2	<0.58	<1.5
Gross Beta (pCi/L)	N/M	<0.78	<0.93	<4.0	<1.8	<4.9
Gamma Scan (pCi/L):						
Ac-228	N/M	-5.45 ± 10.6	0.00 ± 13.7	4.93 ± 11.8	-7.78 ± 14.6	1.21 ± 13.4
Bi-214	N/M	14.4 ± 7.83	10.1 ± 9.43	8.65 ± 7.56	11.1 ± 11.6	7.96 ± 9.06
Pb-214	N/M	12.0 ± 7.21	6.55 ± 7.28	9.47 ± 7.27	7.99 ± 7.85	15.3 ± 7.66
K-40	N/M	-21.0 ± 48.3	8.82 ± 59.0	-48.5 ± 45.2	3.24 ± 63.7	-7.66 ± 55.5
Silver (mg/L)	<0.000501	<0.000501	0.000920 ^c	<0.000501	0.000880 ^c	<0.000501
Aluminum (mg/L)	0.0348 ^{b,c}	0.0385 ^{b,c}	0.0429 ^{b,c}	0.0388 ^{b,c}	0.0708 ^b	0.0368 ^{b,c}
Arsenic (mg/L)	<0.000887	<0.000887	<0.000887	<0.000887	<0.000887	<0.000887
Boron (mg/L)	<0.0479	<0.0479	<0.0479	<0.0479	1.98	<0.0479
Barium (mg/L)	0.0143	0.00818	0.0102	0.0109	0.0626	0.00805
Beryllium (mg/L)	0.000670 ^{b,c}	0.000240 ^{b,c}	<0.000162	0.000330 ^{b,c}	0.00107 ^b	0.000300 ^{b,c}
Bismuth (mg/L)	<0.00271	<0.00271	<0.00271	<0.00271	<0.00271	0.00376 ^c
Calcium (mg/L)	7.46 ^b	5.85 ^b	2.70 ^b	0.505 ^b	10.6 ^b	1.90 ^b
Cadmium (mg/L)	0.000180 ^c	<0.000156	<0.000156	<0.000156	<0.000156	<0.000156
Cobalt (mg/L)	<0.000580	<0.000580	<0.000580	<0.000580	0.00381	<0.000580
Copper (mg/L)	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136	<0.00136
Chromium (mg/L)	0.00177 ^c	0.00109 ^c	0.00312	0.00158 ^c	0.00044 ^c	0.00143 ^c
Mercury (mg/L)	<0.000039	<0.000039	<0.000039	<0.000039	<0.000039	<0.000039
Iron (mg/L)	0.0157 ^c	<0.0135	<0.0135	<0.0135	<0.0135	<0.0135
Potassium (mg/L)	1.47 ^b	0.922 ^b	0.507 ^b	0.337 ^b	0.716 ^b	0.278 ^b
Lithium (mg/L)	NM	NM	NM	NM	NM	NM
Magnesium (mg/L)	4.80	3.80	1.96	1.41	29.0	2.06
Manganese (mg/L)	0.00164 ^c	0.000740 ^c	0.00281	0.00336	0.475	0.00364
Molybdenum (mg/L)	0.00104 ^c	<0.000705	<0.000705	<0.000705	<0.000705	<0.000705
Sodium (mg/L)	4.16	4.04	7.16	5.36	9.64	5.96
Nickel (mg/L)	0.00326 ^c	0.000810 ^c	0.0177	0.00342 ^c	0.00131 ^c	0.00476
Phosphorus (mg/L)	0.00743 ^c	0.0152 ^c	<0.00471	<0.00471	0.00854 ^c	<0.00471

TABLE C-23 (CONTINUED)

Parameter	GWA-1-23-1	GWC-1-23-1	GWC-2-23-1	GWC-3-23-1 ^a	GWC-4-23-1 ^a	GWC-5-23-1
Lead (mg/L)	<0.00126	<0.00126	<0.00126	<0.00126	0.00410 ^c	<0.00126
Sulfur (mg/L)	4.11	0.176	1.40	0.504	1.38	3.29
Antimony (mg/L)	0.00135 ^c	0.00273 ^c	<0.000919	0.00145 ^c	<0.000919	0.00405 ^c
Selenium (mg/L)	0.00174 ^c	0.00132 ^c	0.00169 ^c	0.00112 ^c	0.00183 ^c	0.00164 ^c
Silicon (mg/L)	16.2	11.8	13.8	10.1	11.1	11.1
Tin (mg/L)	0.00169 ^{b,c}	0.00151 ^{b,c}	0.00164 ^{b,c}	<0.00111	0.00213 ^{b,c}	<0.00111
Strontium (mg/L)	0.0214	0.0171	0.0133	0.00484	0.0809	0.0155
Tellurium (mg/L)	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170
Titanium (mg/L)	0.00037 ^c	0.00032 ^c	0.00061 ^c	<0.000200	0.00036 ^c	<0.000200
Thallium (mg/L)	<0.00168	<0.00168	<0.00168	<0.00168	<0.00168	<0.00168
Uranium (mg/L)	0.0958 ^b	0.0885 ^b	0.0664 ^b	0.101 ^b	0.105 ^b	0.0981 ^b
Vanadium (mg/L)	<0.000681	<0.000681	0.000770 ^c	<0.000681	<0.000681	<0.000681
Tungsten (mg/L)	0.00713 ^c	0.0107	0.00660 ^c	<0.00183	0.00334 ^c	0.00289 ^c
Zinc (mg/L)	<0.00309	0.00318 ^c	<0.00309	<0.00309	<0.00309	<0.00309
TOX (µg/L)	<20.9	<20.9	<20.9	<20.9	50.8 ^c	<20.9
VOCs (µg/L):						
Acetone	NM	NM	<1.26	<0.489	NM	NM
Acrolein	NM	NM	<1.21	<0.707	NM	NM
Acrylonitrile	NM	NM	<0.364	<0.712	NM	NM
Benzene	NM	NM	<0.0470	<0.0378	NM	NM
Bromodichloromethane	NM	NM	<0.0698	<0.0393	NM	NM
Bromoform	NM	NM	<0.0849	<0.174	NM	NM
Bromomethane	NM	NM	<0.190	<0.0632	NM	NM
2-Butanone (MEK)	NM	NM	<0.289	<0.260	NM	NM
Carbon disulfide	NM	NM	<0.0786	<0.0485	NM	NM
Carbon tetrachloride	NM	NM	<0.113	<0.0474	NM	NM
Chlorobenzene	NM	NM	<0.0688	<0.0258	NM	NM
Chloroethane	NM	NM	<0.114	<0.0741	NM	NM
Chloroform	NM	NM	<0.122	<0.0409	NM	NM
Chloromethane	NM	NM	<0.141	<0.0454	NM	NM
3-Chloropropene	NM	NM	<0.0951	<0.0340	NM	NM
Dibromochloromethane	NM	NM	<0.166	<0.141	NM	NM
Dibromomethane	NM	NM	<0.169	<0.0621	NM	NM
trans-1,4-Dichloro-2-butene	NM	NM	<0.181	<0.389	NM	NM
Dichlorodifluoromethane	NM	NM	<0.153	<0.0651	NM	NM
1,1-Dichloroethane	NM	NM	<0.0864	<0.0919	NM	NM
1,2-Dichloroethane	NM	NM	<0.125	<0.105	NM	NM
1,1-Dichloroethene	NM	NM	<0.0767	<0.0802	NM	NM
cis-1,2-Dichloroethene	NM	NM	<0.0831	<0.0770	NM	NM
trans-1,2-Dichloroethene	NM	NM	<0.103	<0.0641	NM	NM
1,2-Dichloropropane	NM	NM	<0.0853	<0.0541	NM	NM
cis-1,3-Dichloropropene	NM	NM	<0.0545	<0.0538	NM	NM
trans-1,3-Dichloropropene	NM	NM	<0.0732	<0.0667	NM	NM
Ethyl methacrylate	NM	NM	<0.0914	<0.121	NM	NM
Ethylbenzene	NM	NM	<0.107	<0.0649	NM	NM
2-Hexanone	NM	NM	<0.193	<0.208	NM	NM
Iodomethane	NM	NM	<0.0553	<0.0652	NM	NM

TABLE C-23 (CONTINUED)

Parameter	GWA-1-23-1	GWC-1-23-1	GWC-2-23-1	GWC-3-23-1 ^a	GWC-4-23-1 ^a	GWC-5-23-1
4-Methyl-2-pentanone (MIBK)	NM	NM	<0.172	<0.0809	NM	NM
Methylene chloride	NM	NM	<0.159	<0.177	NM	NM
Styrene	NM	NM	<0.0981	<0.0406	NM	NM
1,1,1,2-Tetrachloroethane	NM	NM	<0.141	<0.0612	NM	NM
1,1,2,2-Tetrachloroethane	NM	NM	<0.227	<0.0412	NM	NM
Tetrachloroethene	NM	NM	<0.167	<0.0487	NM	NM
Toluene	NM	NM	<0.0619	<0.0492	NM	NM
1,1,1-Trichloroethane	NM	NM	<0.0927	<0.0993	NM	NM
1,1,2-Trichloroethane	NM	NM	<0.179	<0.119	NM	NM
Trichloroethene	NM	NM	<0.0931	<0.0854	NM	NM
Trichlorofluoromethane	NM	NM	<0.336	<0.0640	NM	NM
1,2,3-Trichloropropane	NM	NM	<0.256	<0.101	NM	NM
Vinyl acetate	NM	NM	<0.0525	<0.0612	NM	NM
Vinyl chloride	NM	NM	<0.232	<0.0767	NM	NM
m & p-Xylene	NM	NM	<0.131	<0.0688	NM	NM
o-Xylene	NM	NM	<0.0789	<0.0490	NM	NM

^a Duplicate samples were collected for radionuclide analysis (GWC-3-2) and for the remaining parameters (GWC-4-2).

^b Detected in the method blank.

^c Less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

Appendix D

Control Charts for Groundwater Monitoring

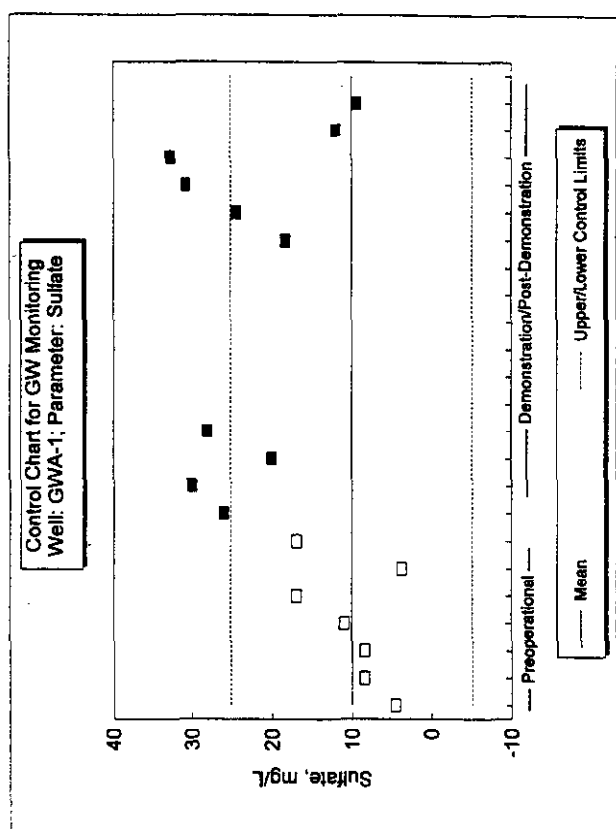
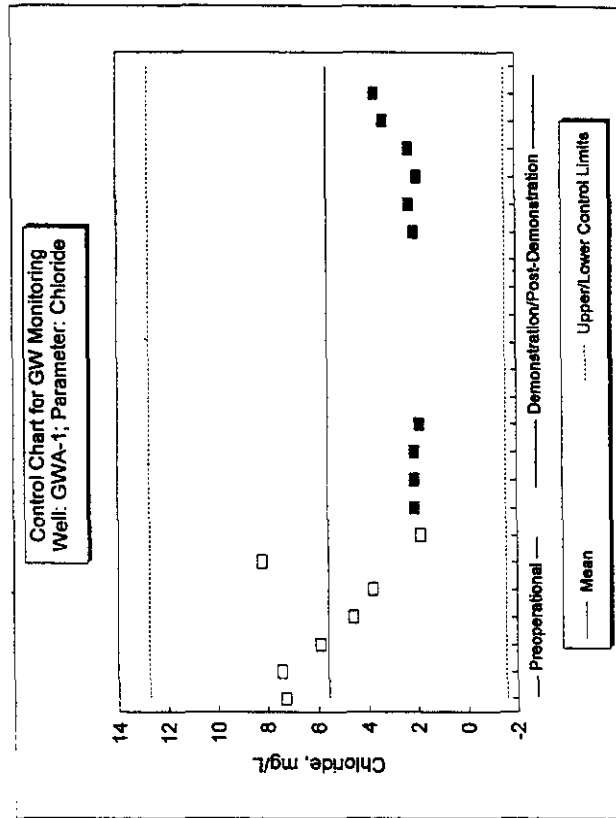
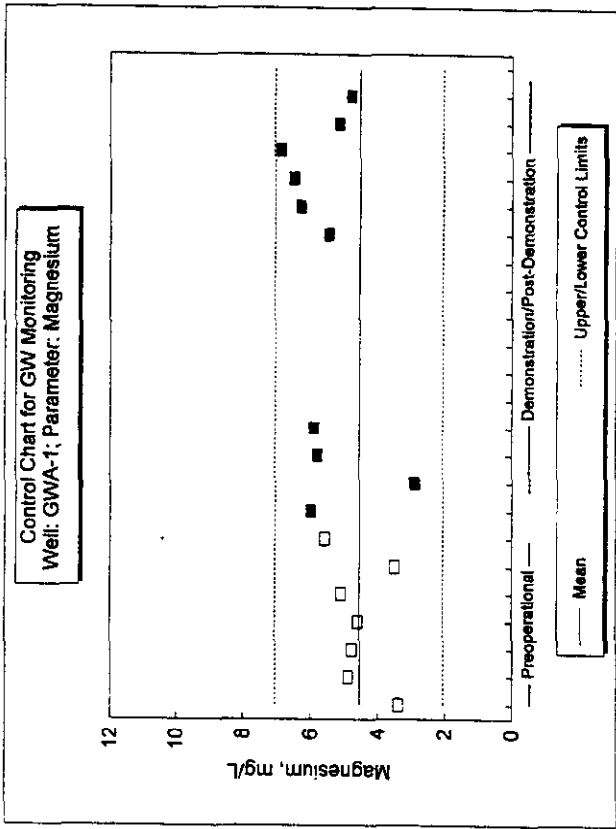
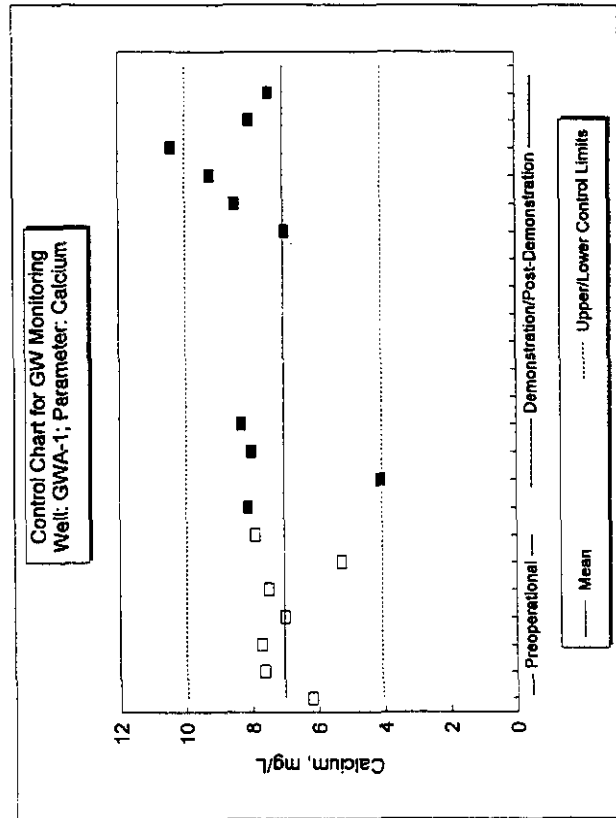


Figure D-1. Control Charts for Groundwater Monitoring: Well GWA-1 (Upgradient)

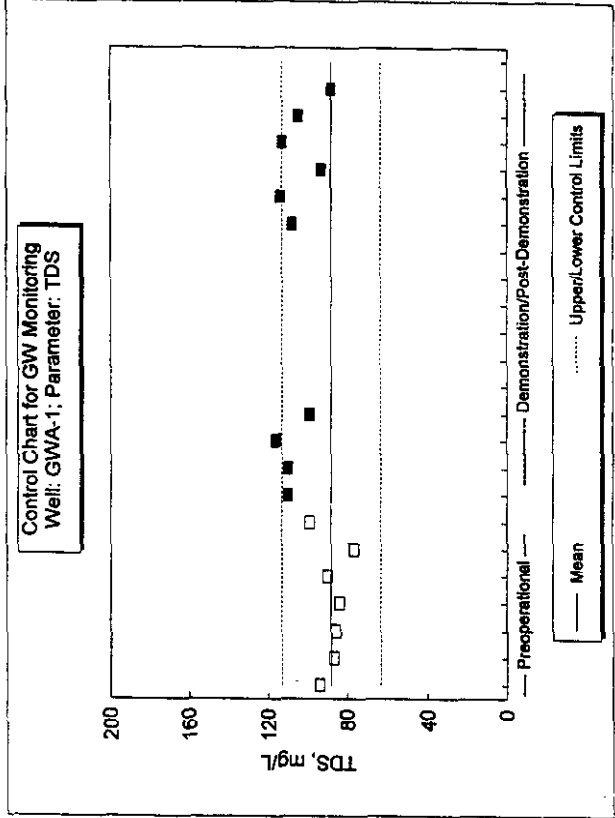
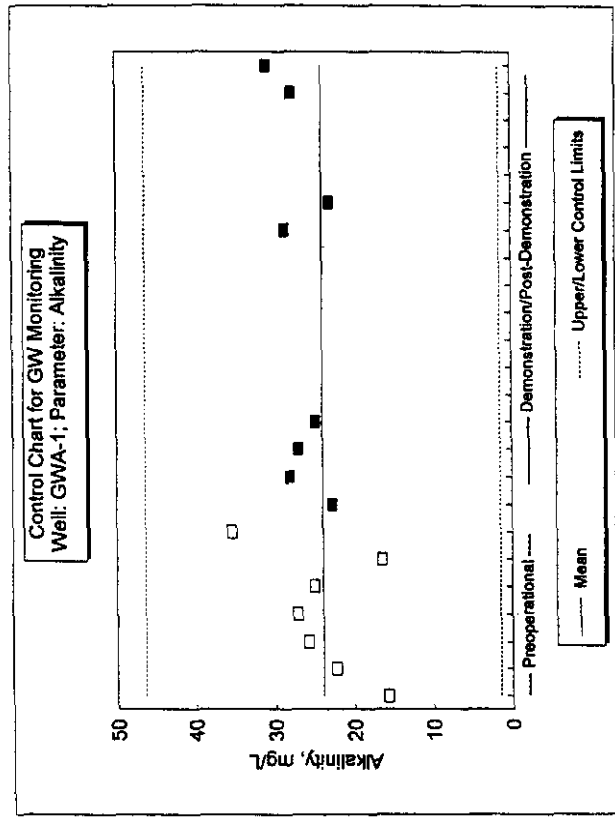
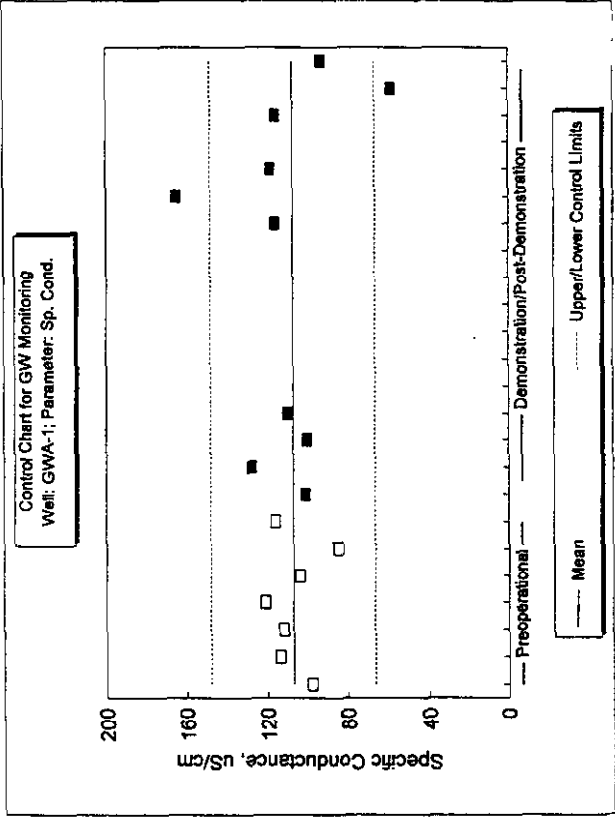
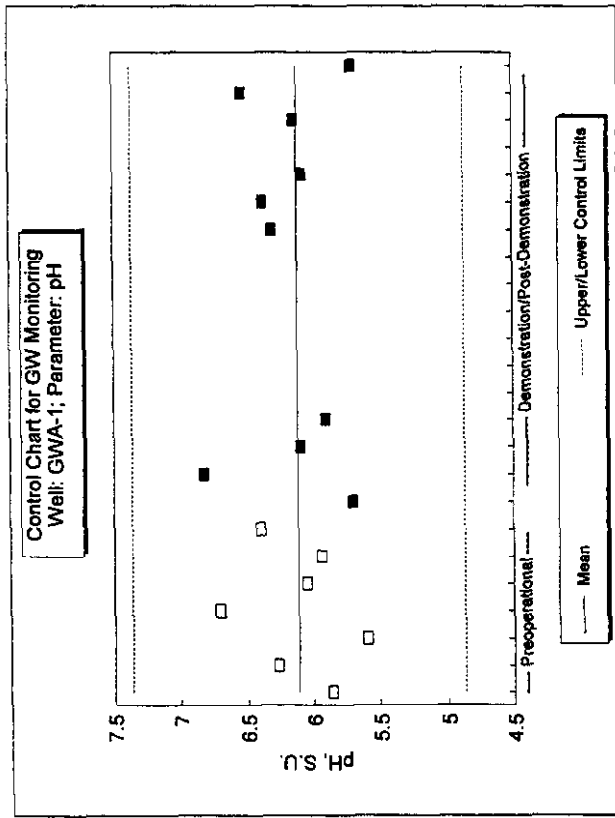
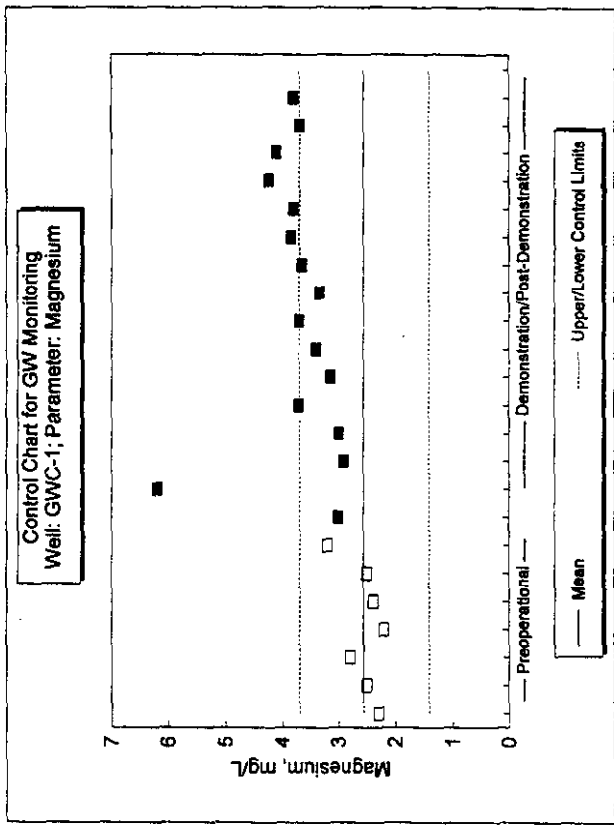
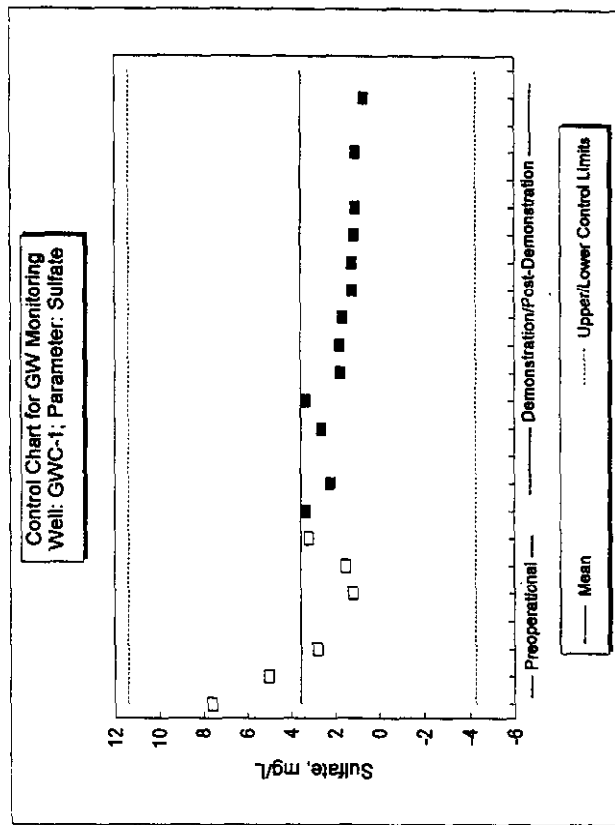


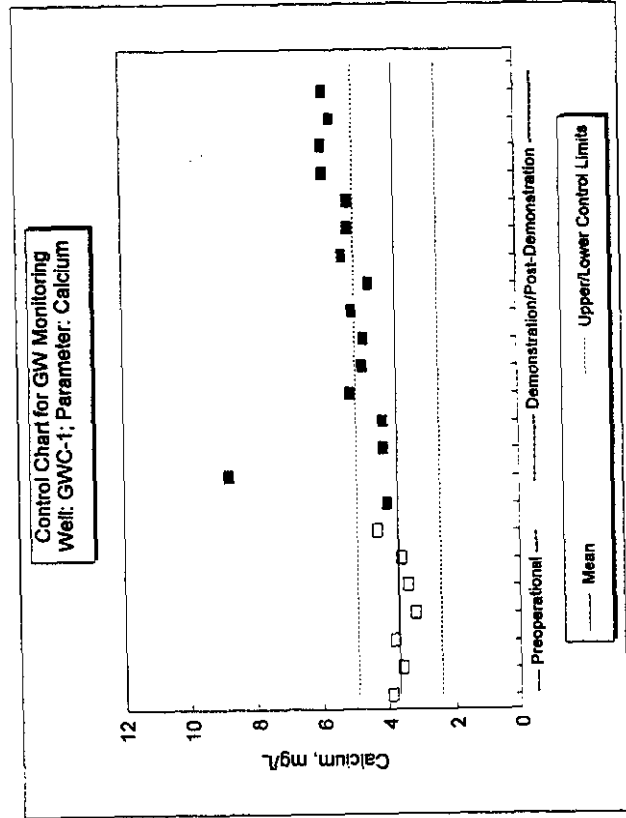
Figure D-1 (Continued)



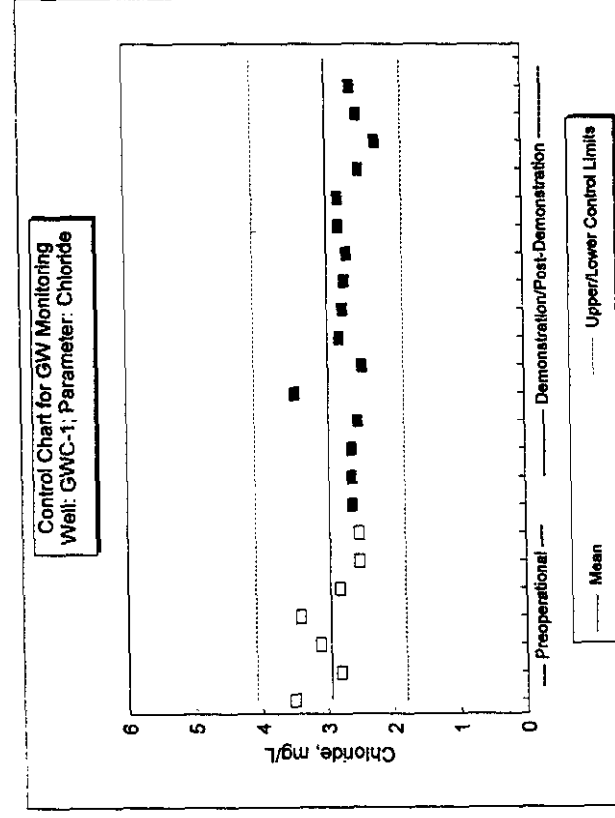
(b) Magnesium



(d) Sulfate

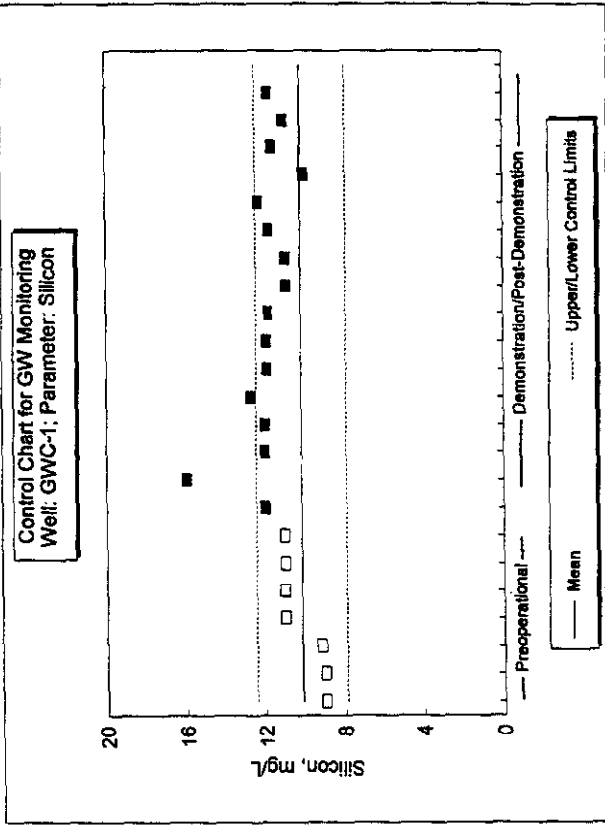


(a) Calcium

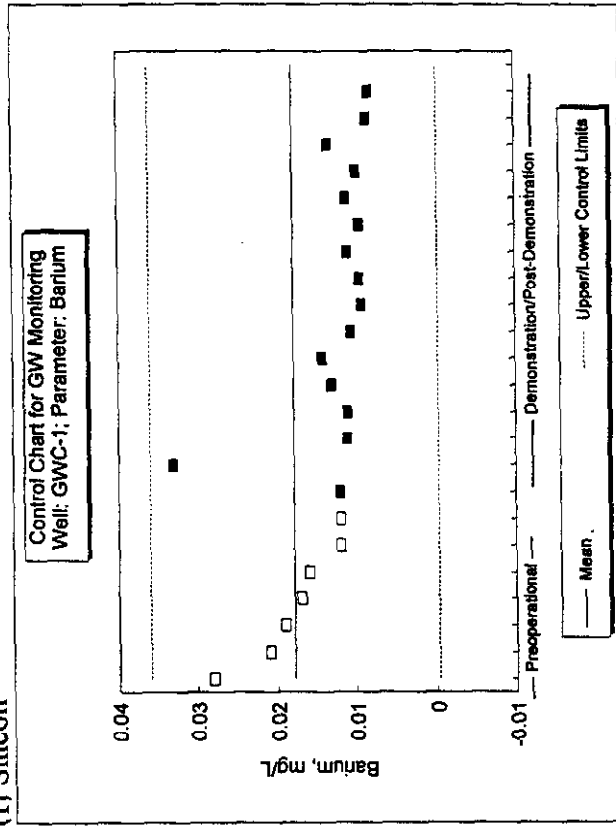


(c) Chloride

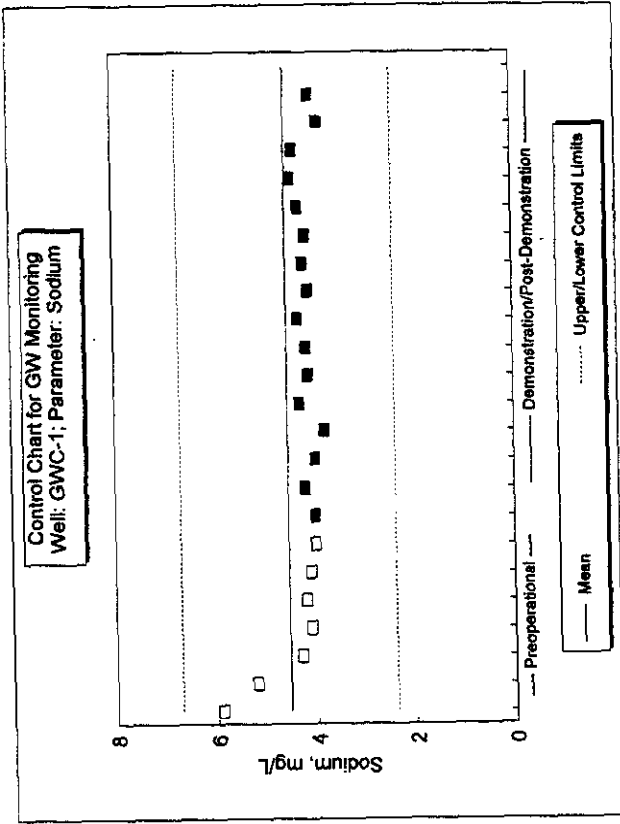
Figure D-2. Control Charts for Groundwater Monitoring: Well GWC-1 (Downgradient)



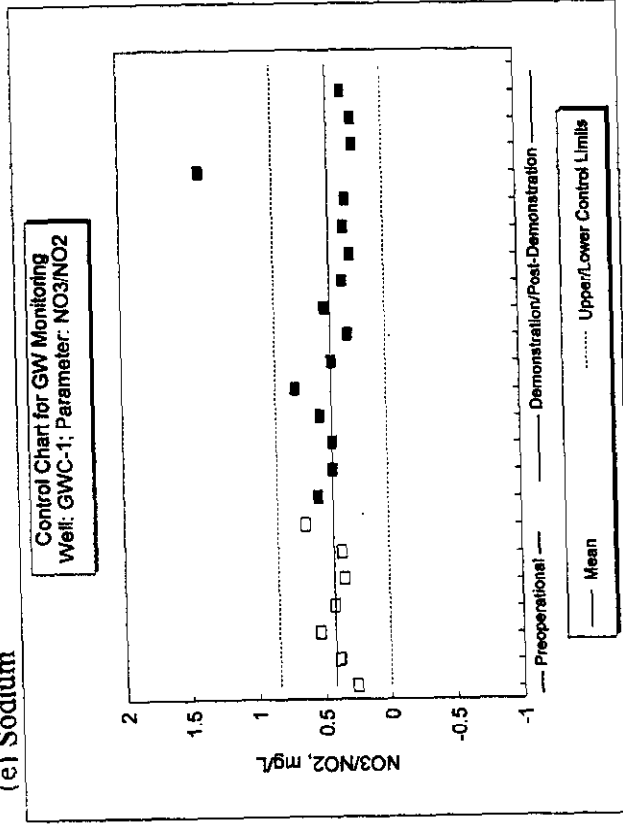
(f) Silicon



(h) Barium

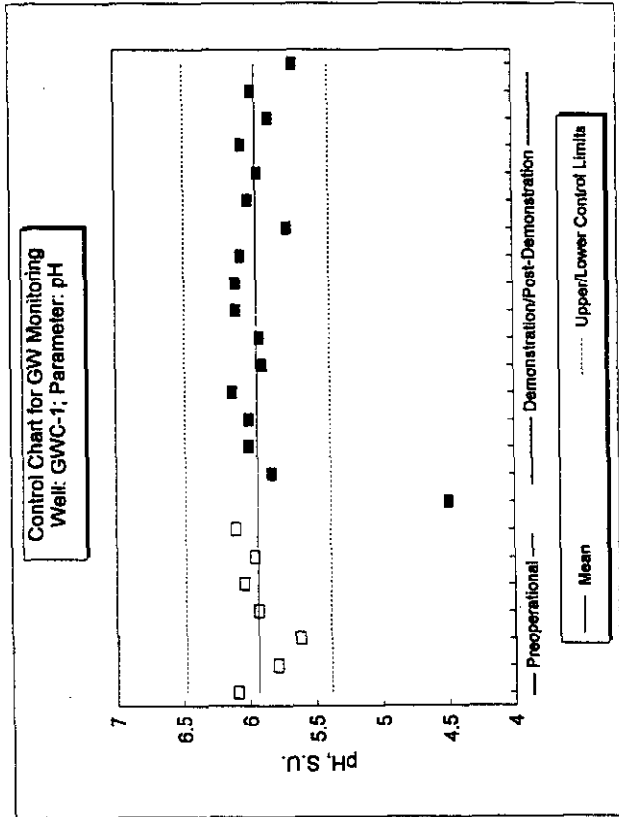


(e) Sodium

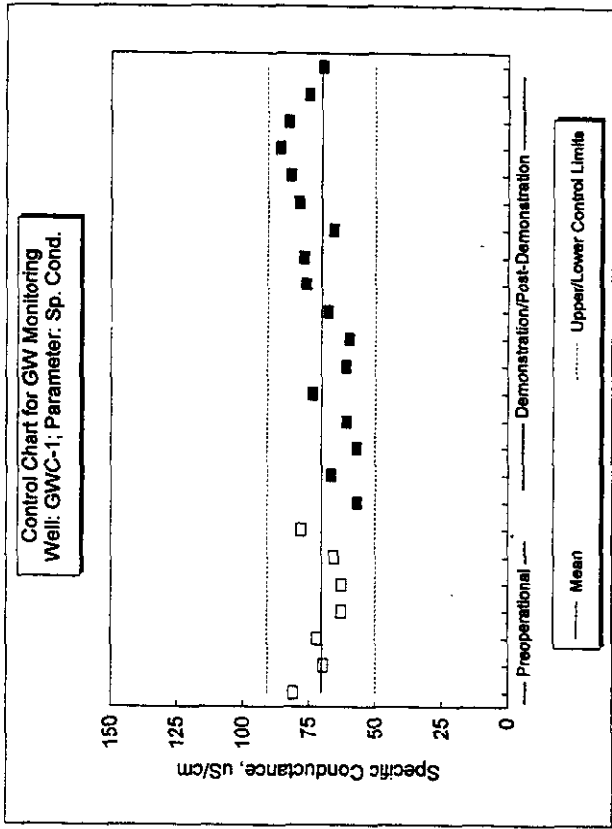


(g) Nitrate/Nitrite

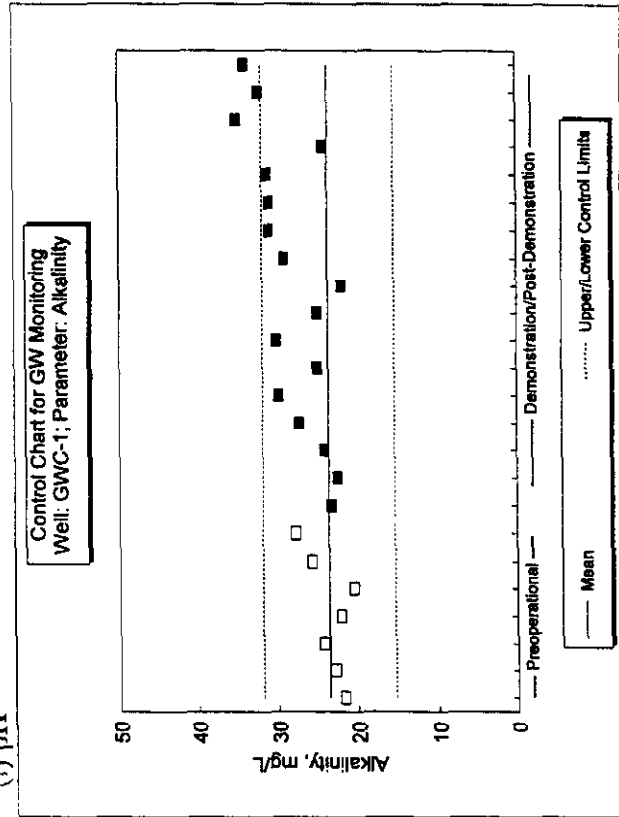
Figure D-2 (Continued)



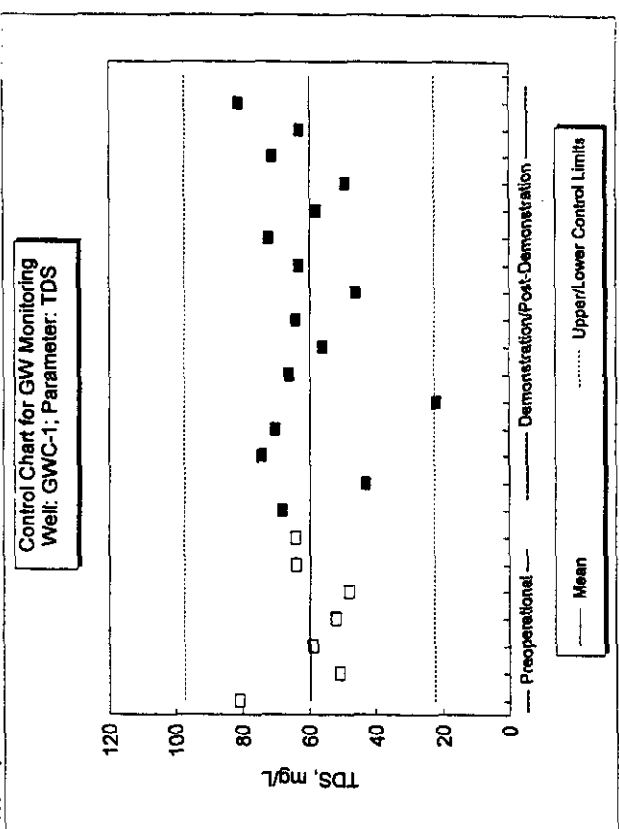
(j) pH



(i) Specific Conductivity

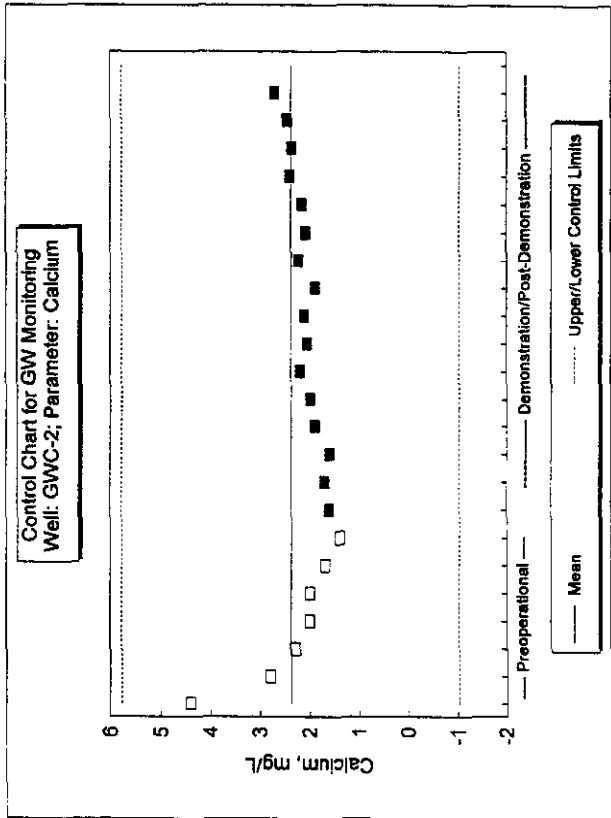


(k) Alkalinity

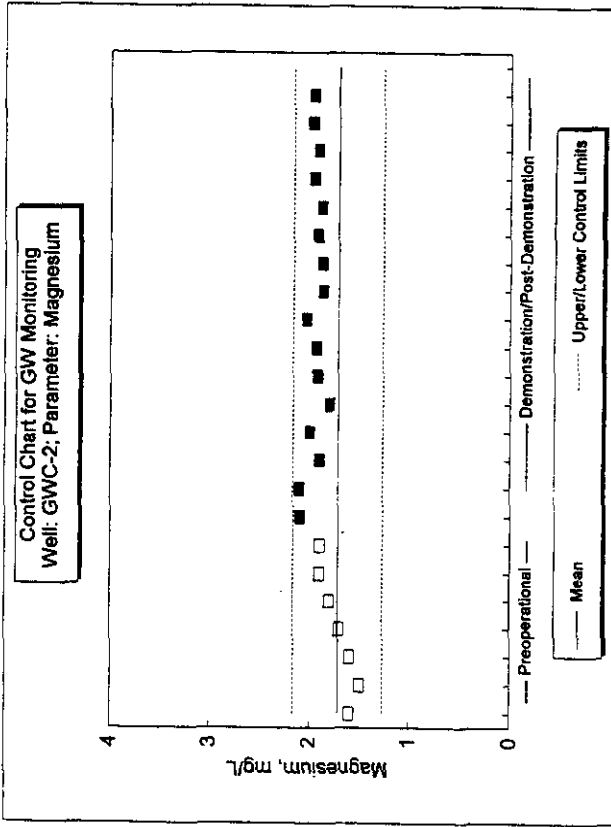


(l) Total Dissolved Solids

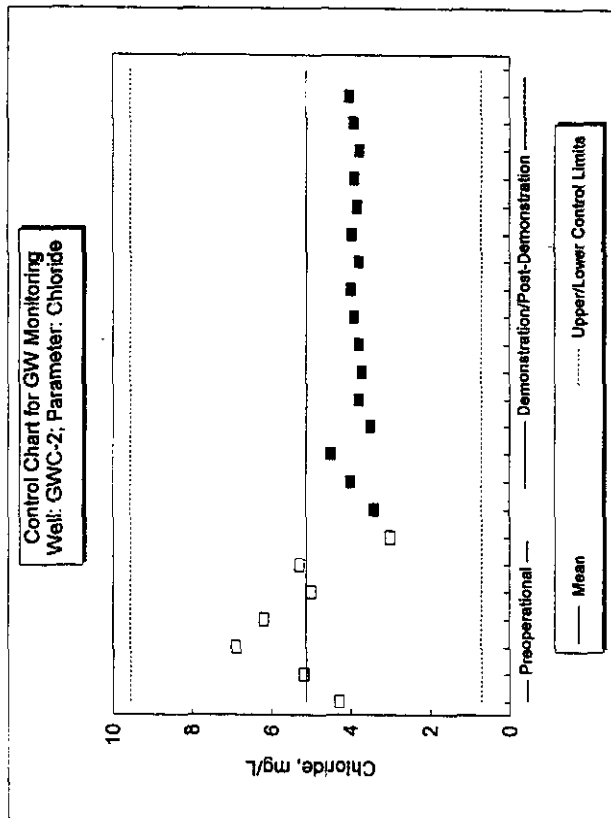
Figure D-2 (Continued)



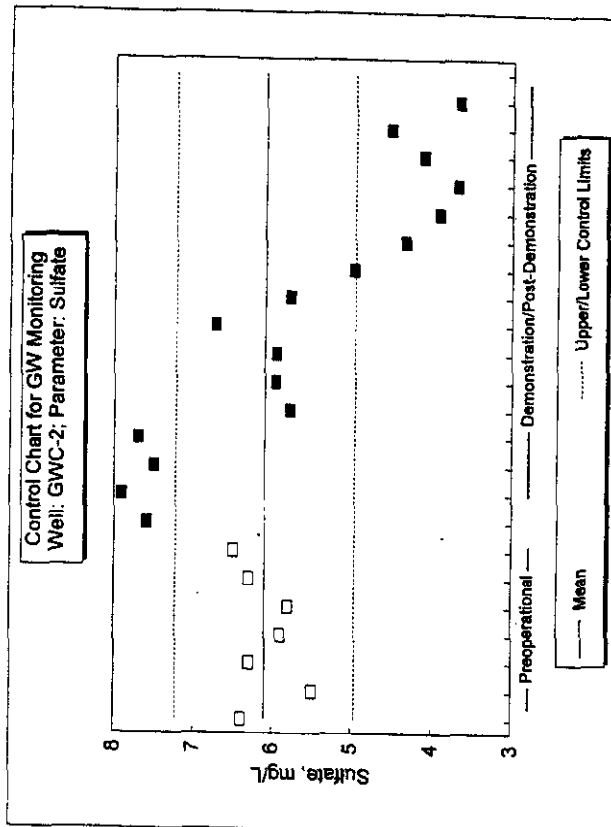
(a) Calcium



(b) Magnesium

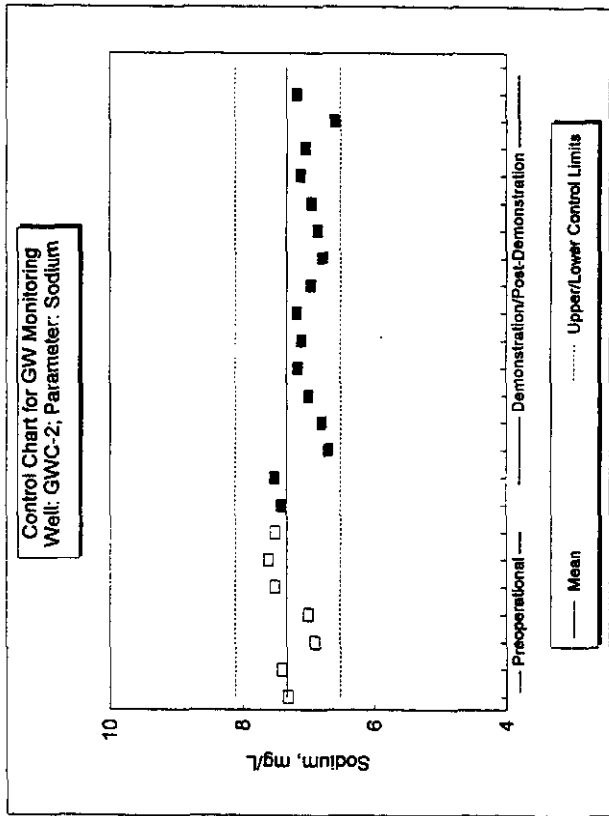


(c) Chloride

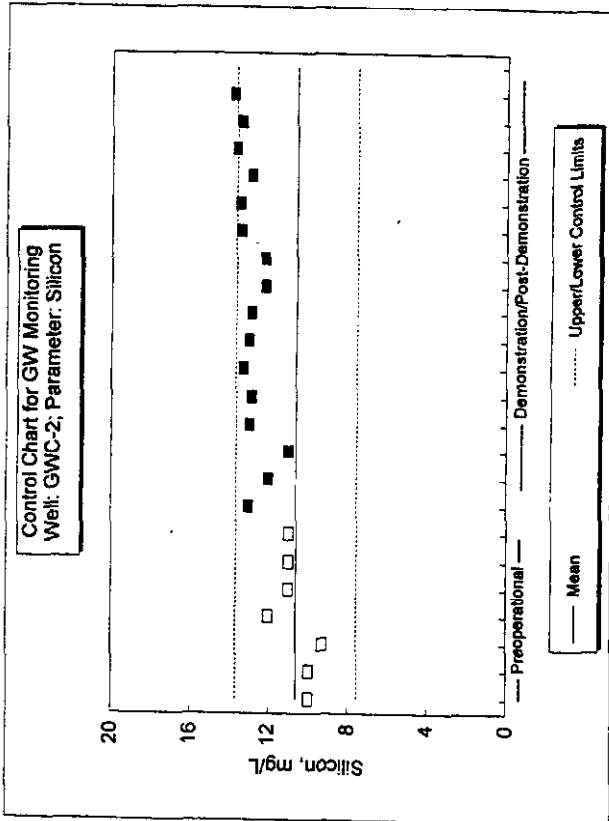


(d) Sulfate

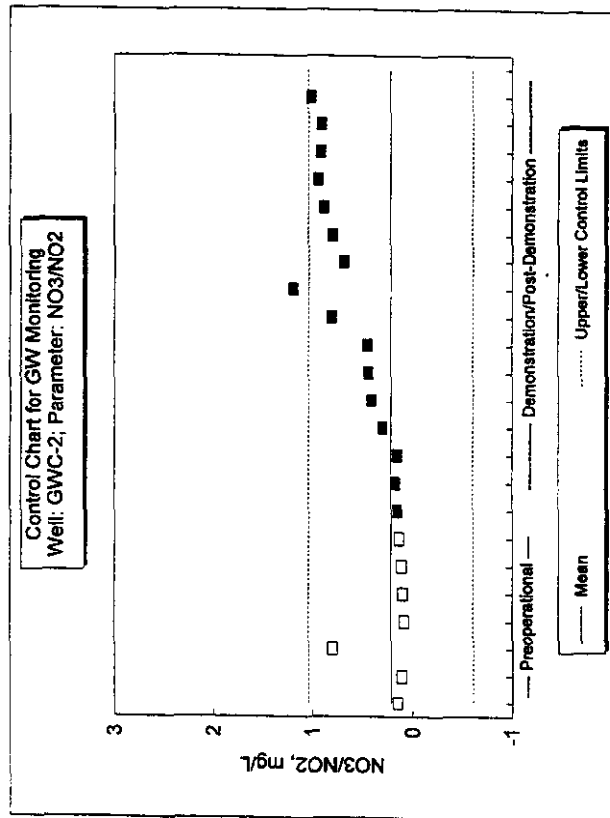
Figure D-3. Control Charts for Groundwater Monitoring: Well GWC-2 (Downgradient)



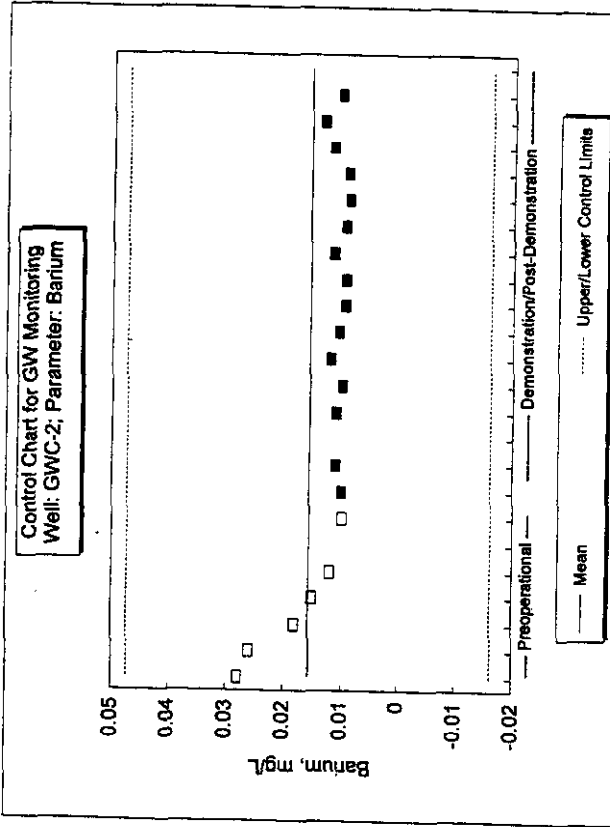
(e) Sodium



(f) Silicon

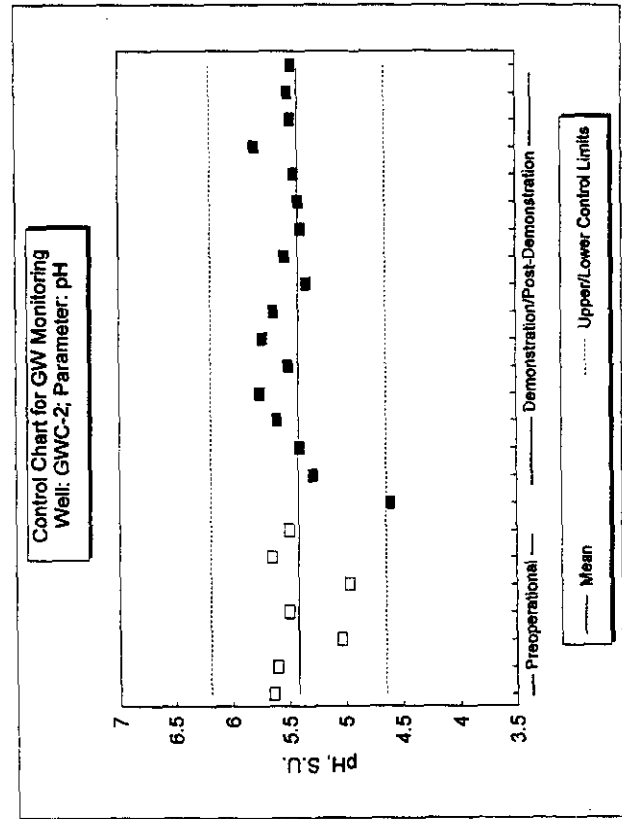


(g) Nitrate/Nitrite

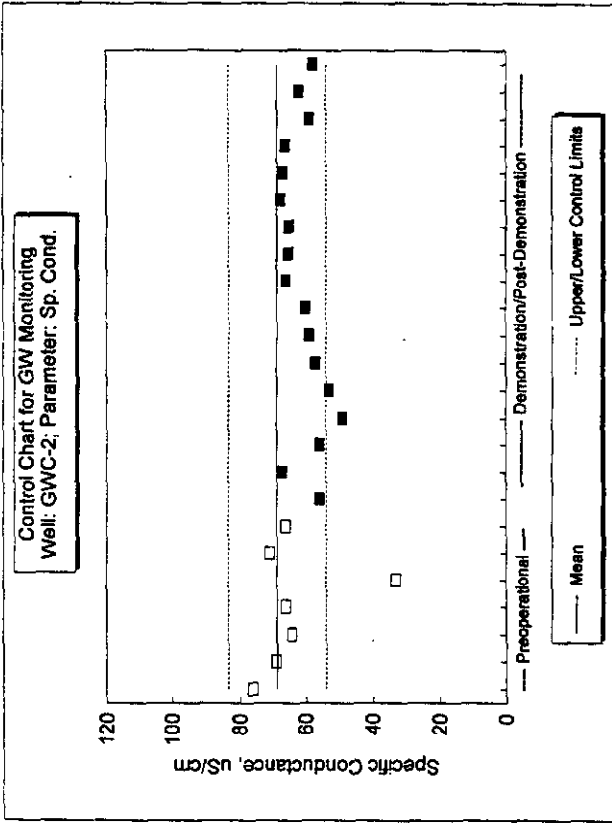


(h) Barium

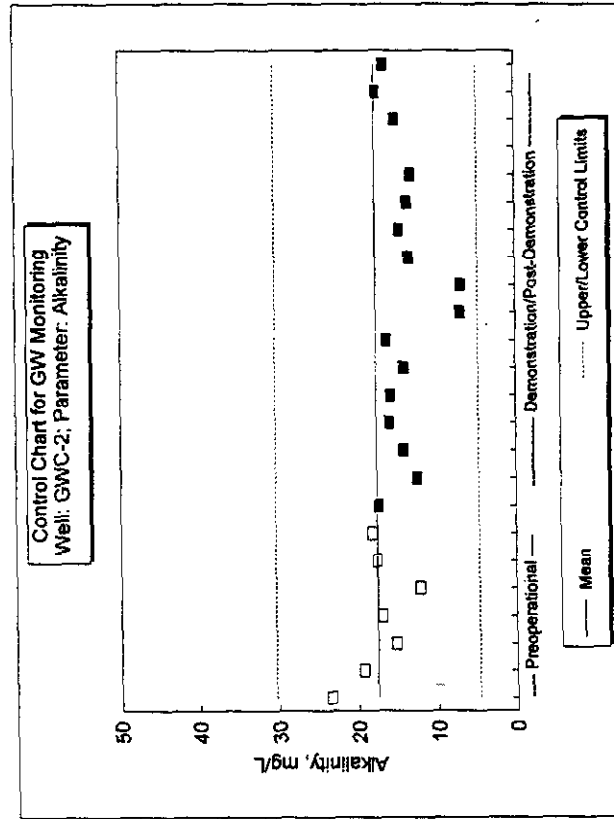
Figure D-3 (Continued)



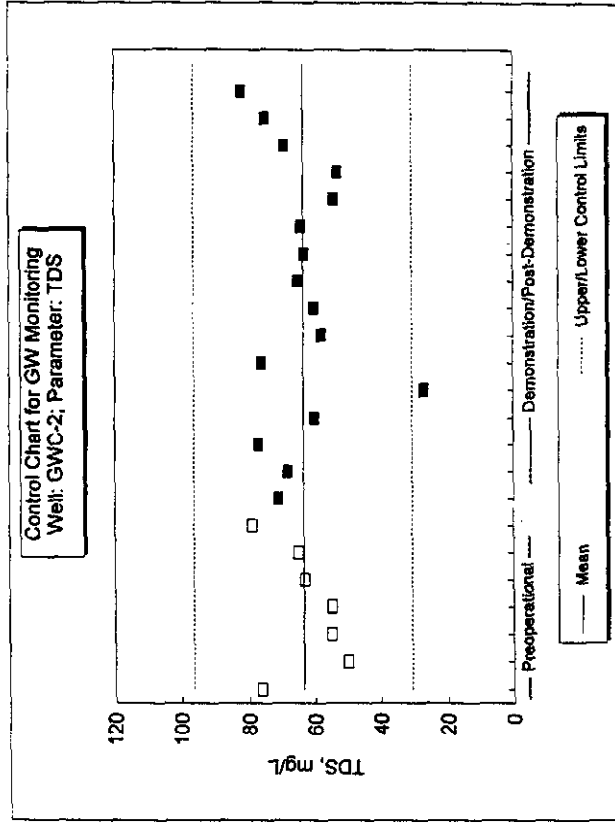
(i) pH



(j) Specific Conductivity

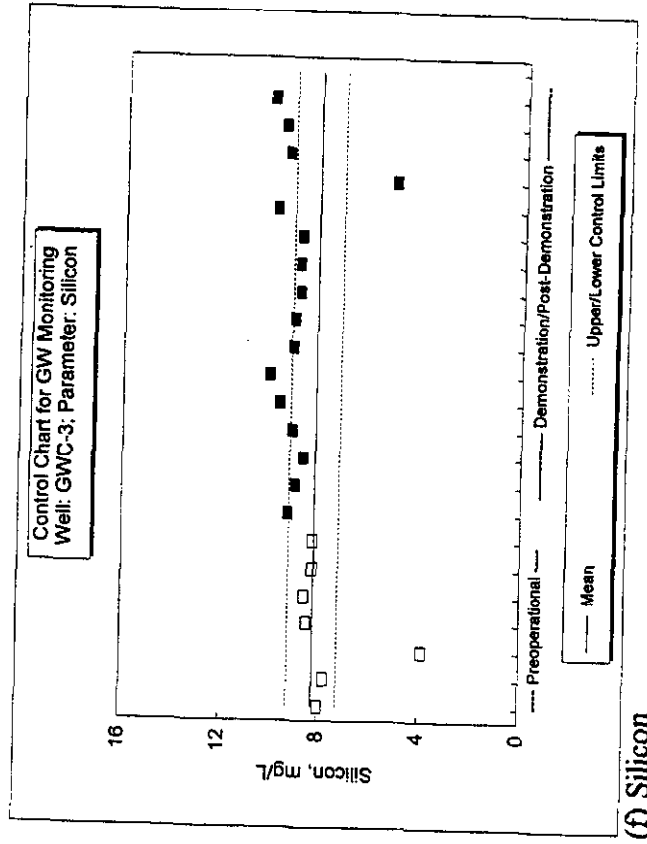
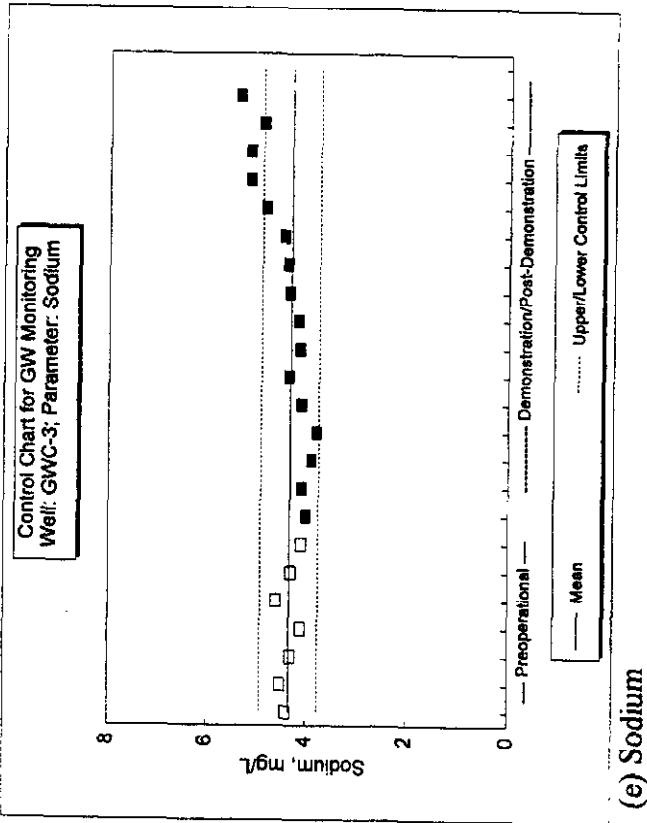


(k) Alkalinity

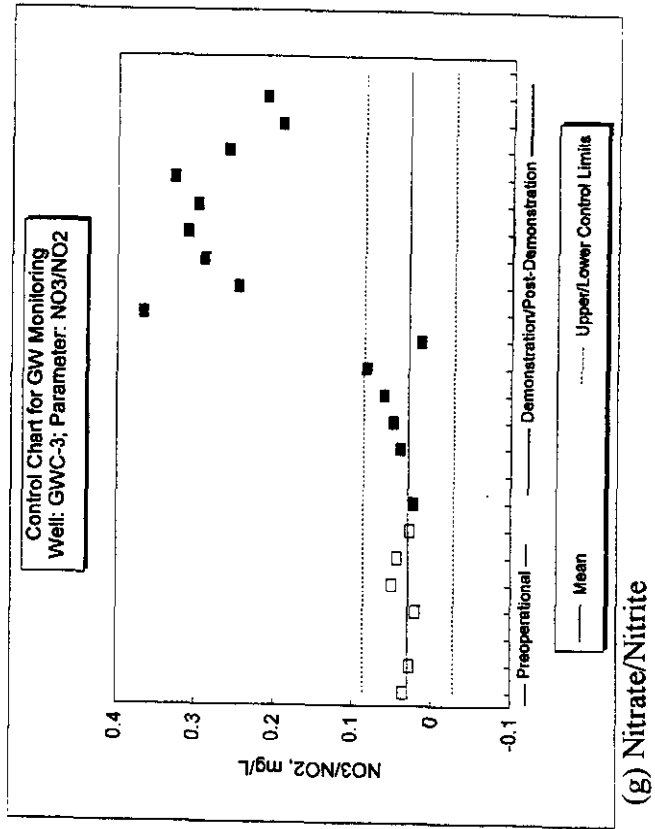


(l) Total Dissolved Solids

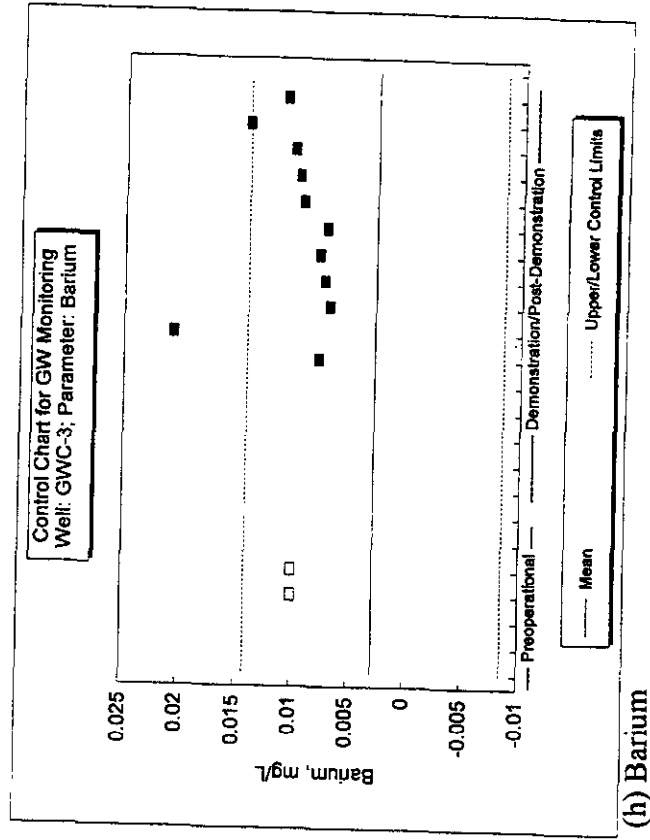
Figure D-3 (Continued)



(f) Silicon

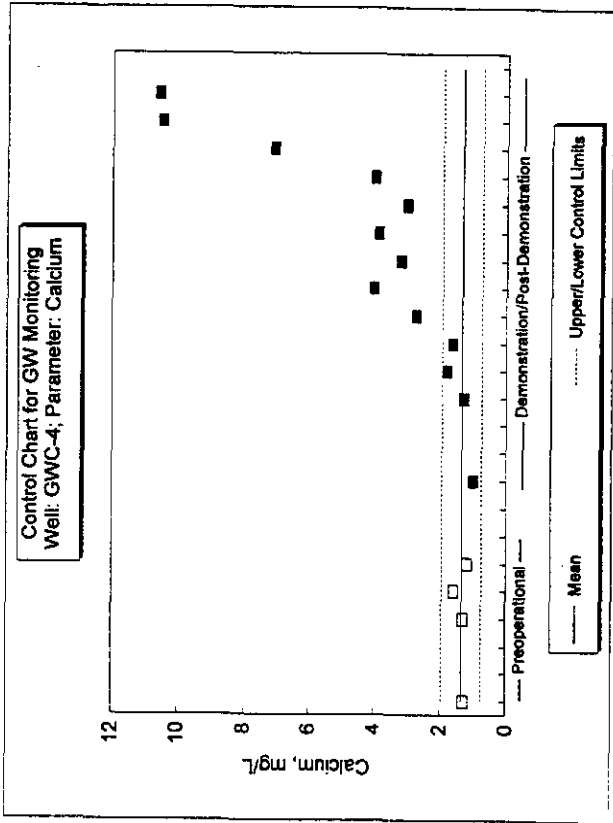


(g) Nitrate/Nitrite

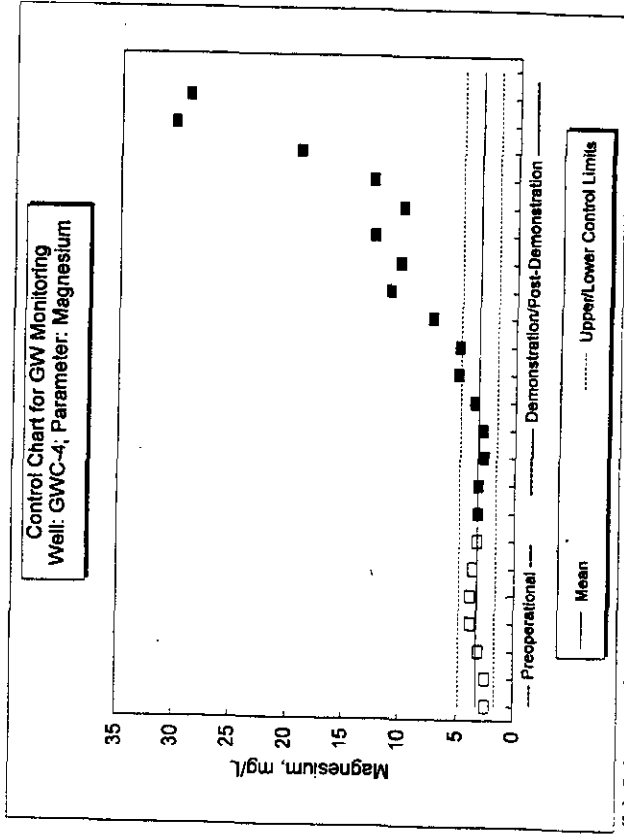


(h) Barium

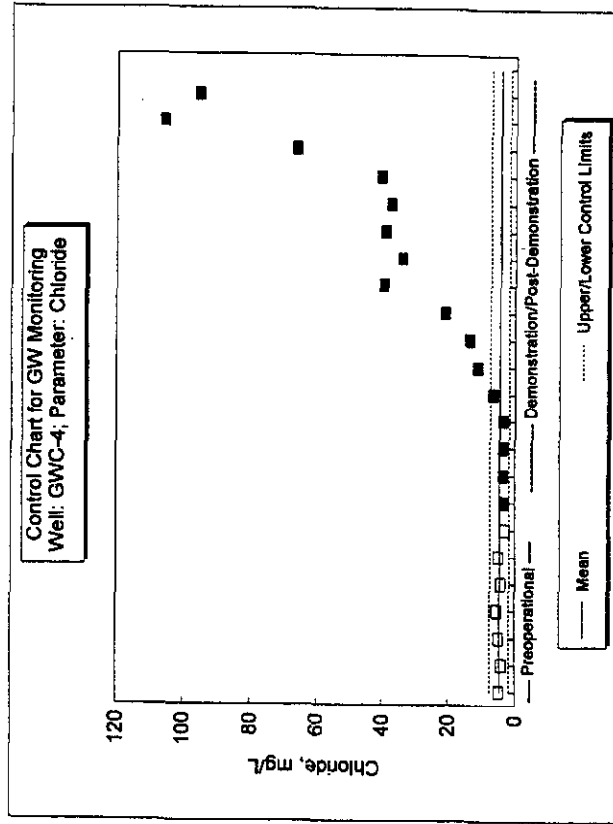
Figure D-4 (Continued)



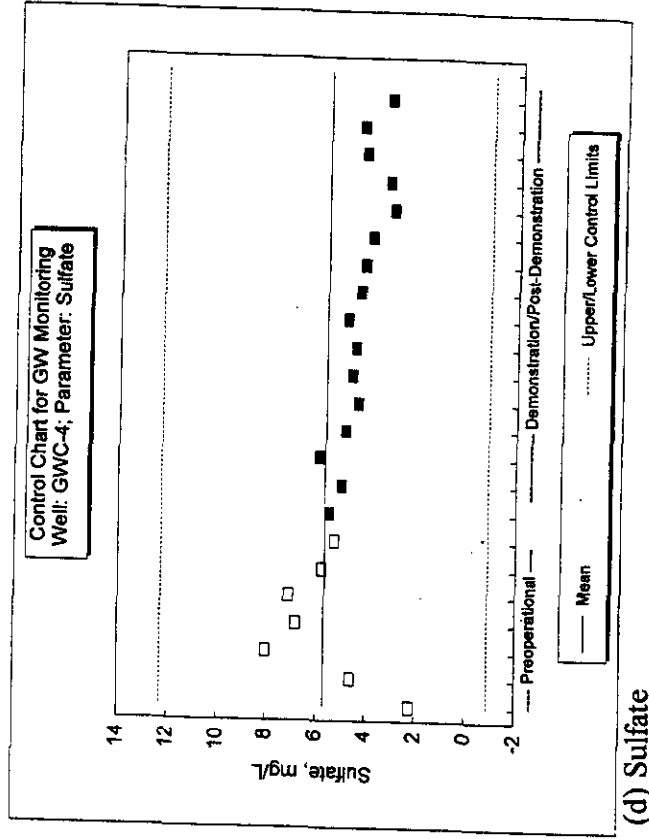
(a) Calcium



(b) Magnesium

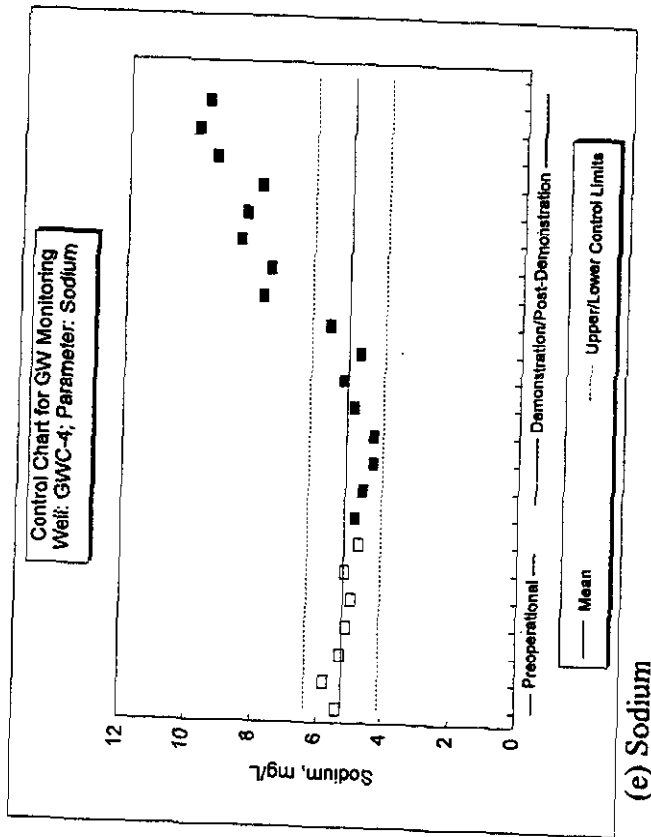


(c) Chloride

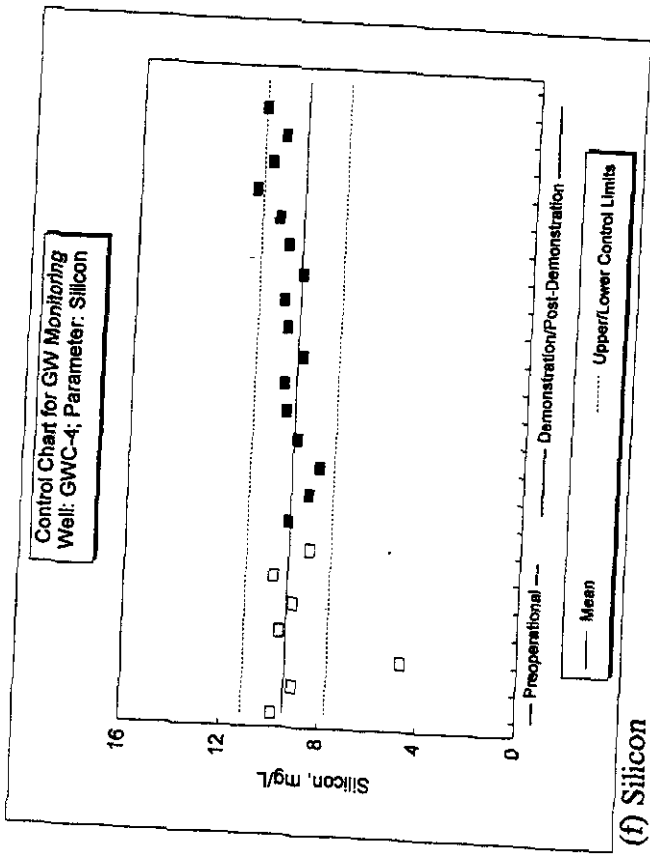


(d) Sulfate

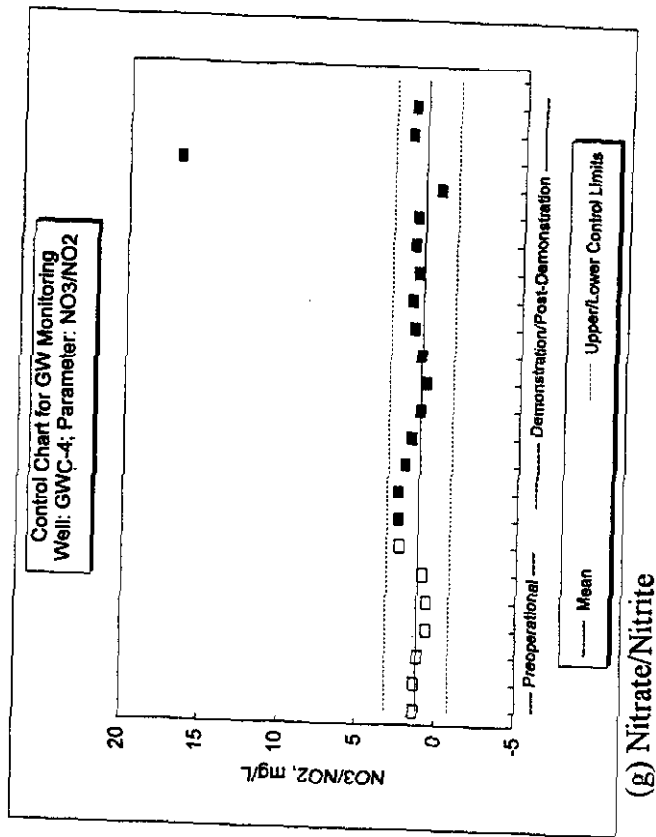
Figure D-5. Control Charts for Groundwater Monitoring: Well GWC-4 (Downgradient)



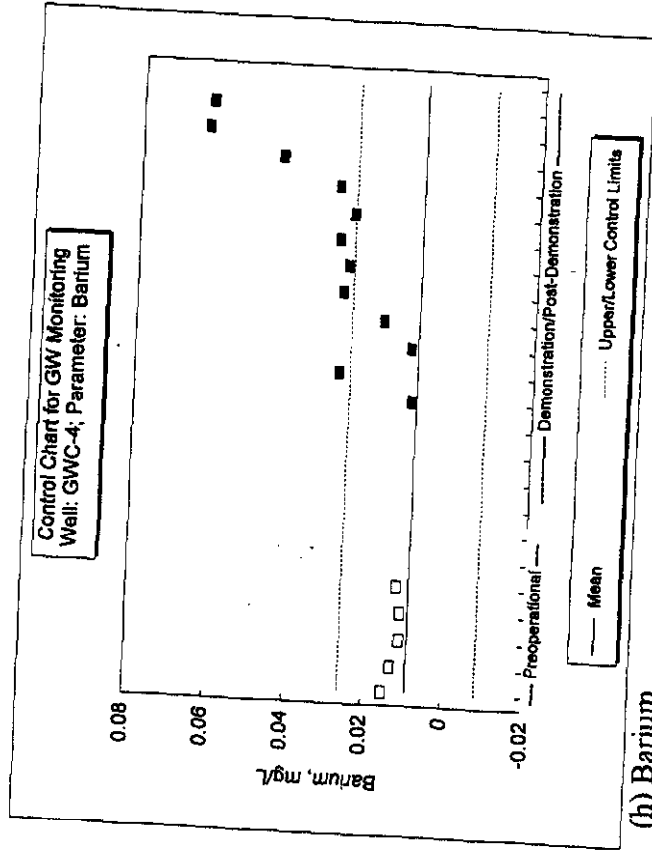
(e) Sodium



(f) Silicon

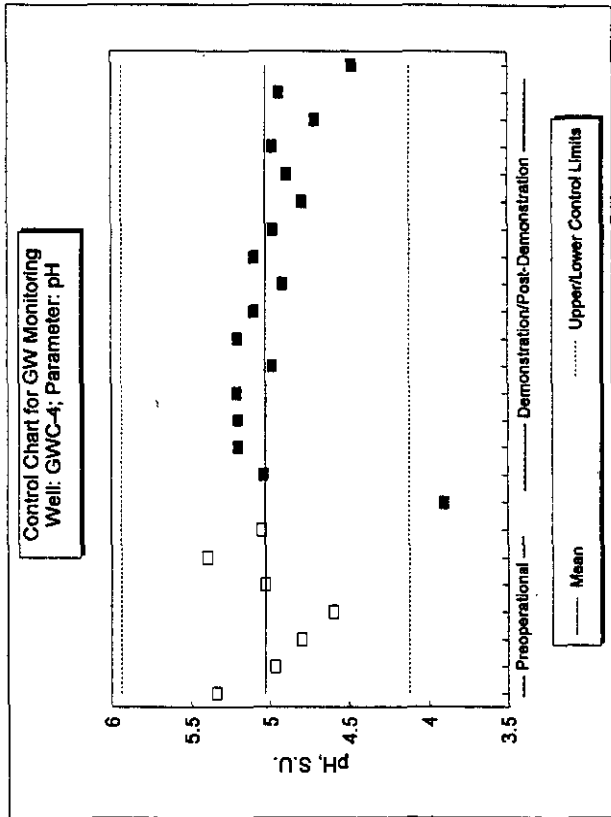


(g) Nitrate/Nitrite

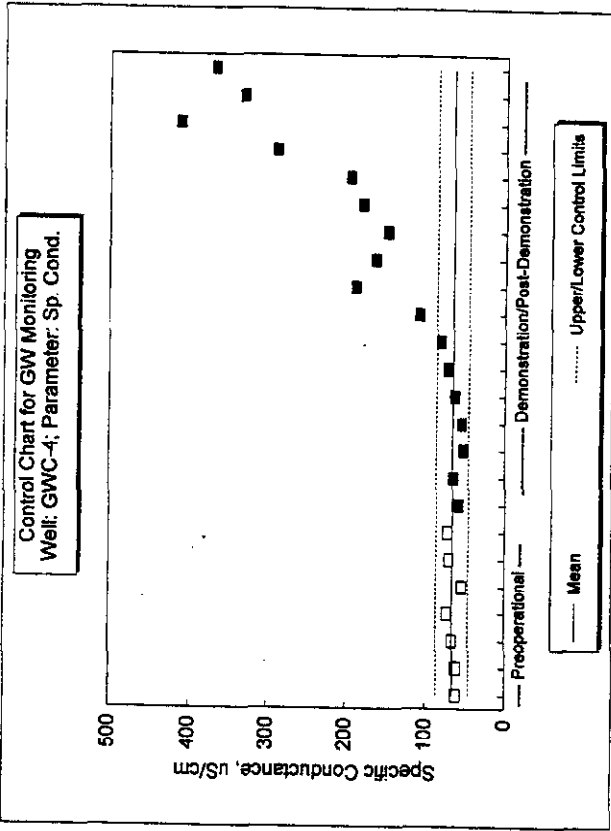


(h) Barium

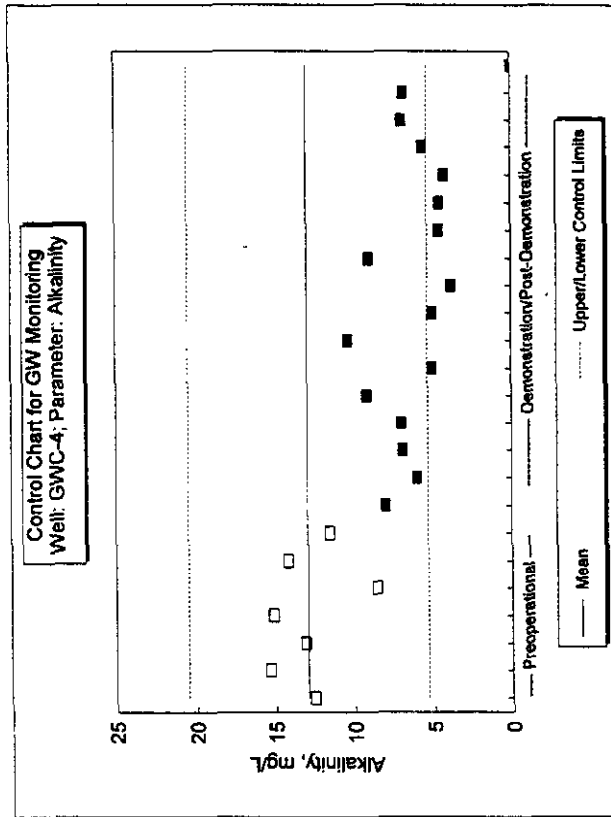
Figure D-5 (Continued)



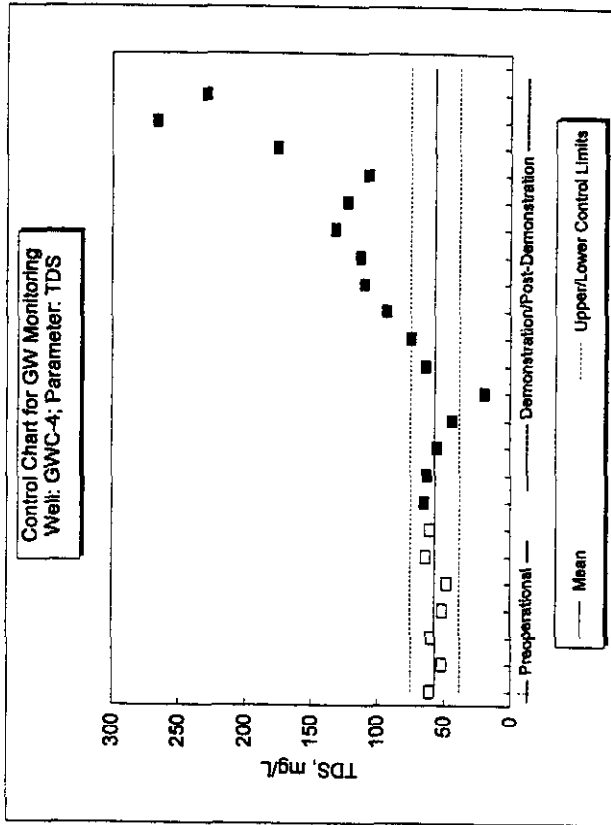
(i) pH



(j) Specific Conductivity



(k) Alkalinity



(l) Total Dissolved Solids

Figure D-5 (Continued)

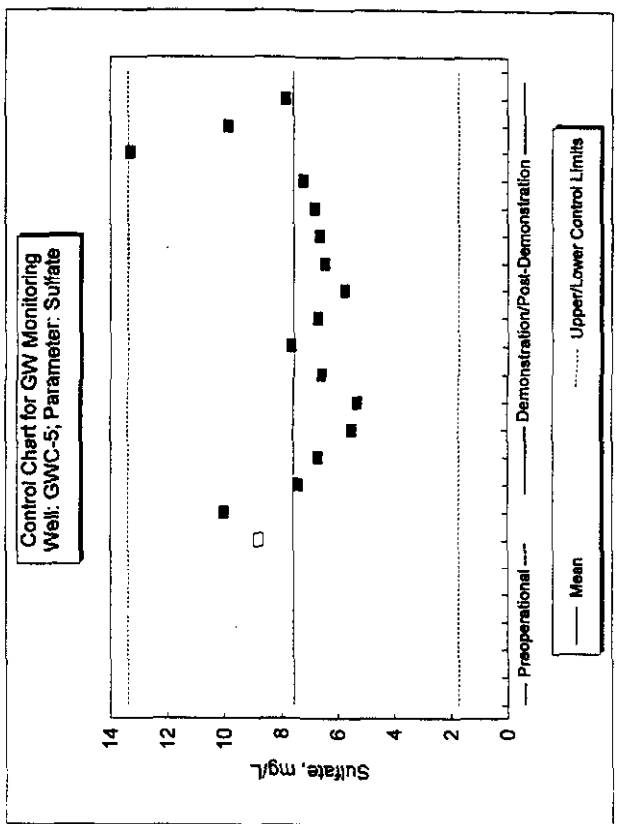
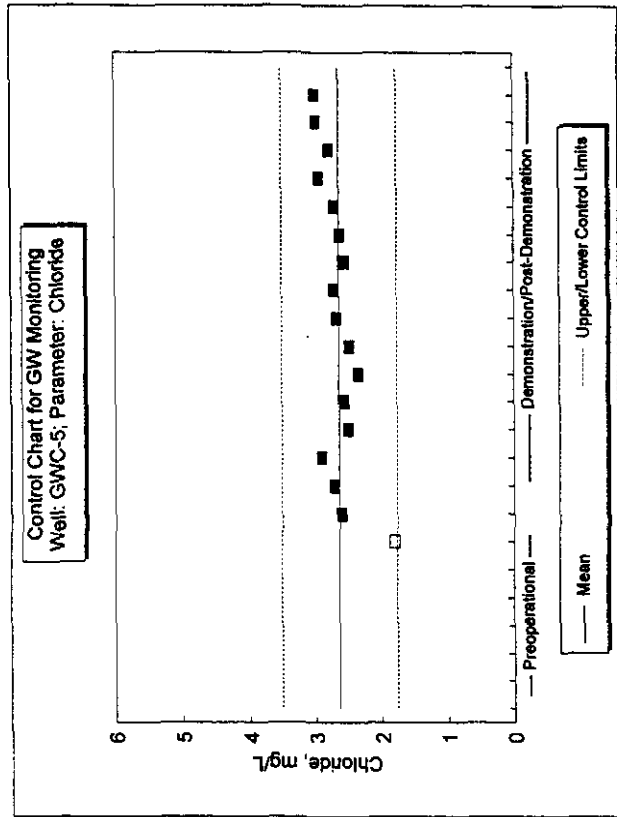
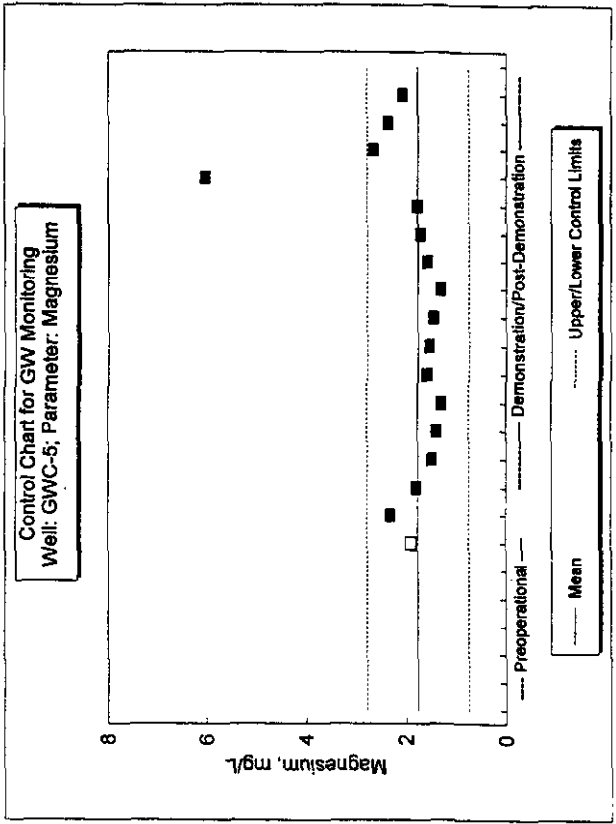
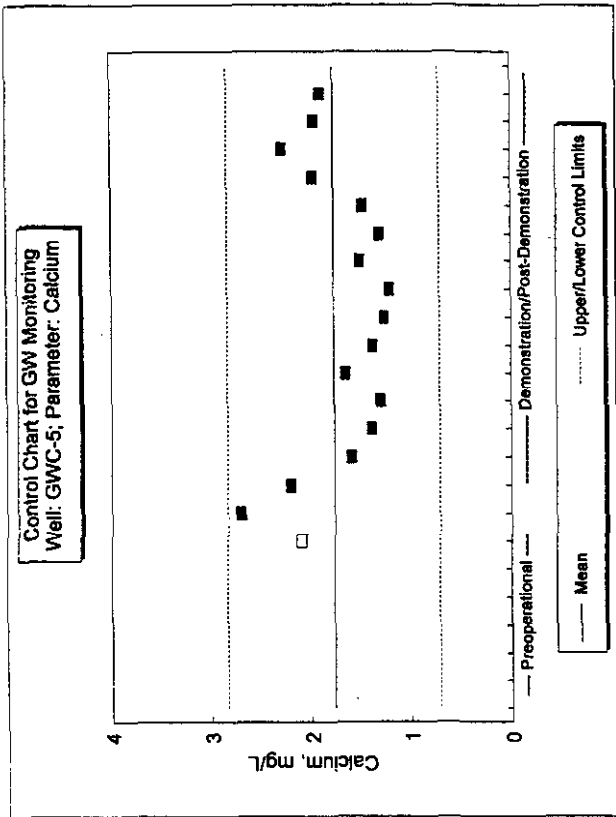


Figure D-6. Control Charts for Groundwater Monitoring: Well GWC-5 (Downgradient)

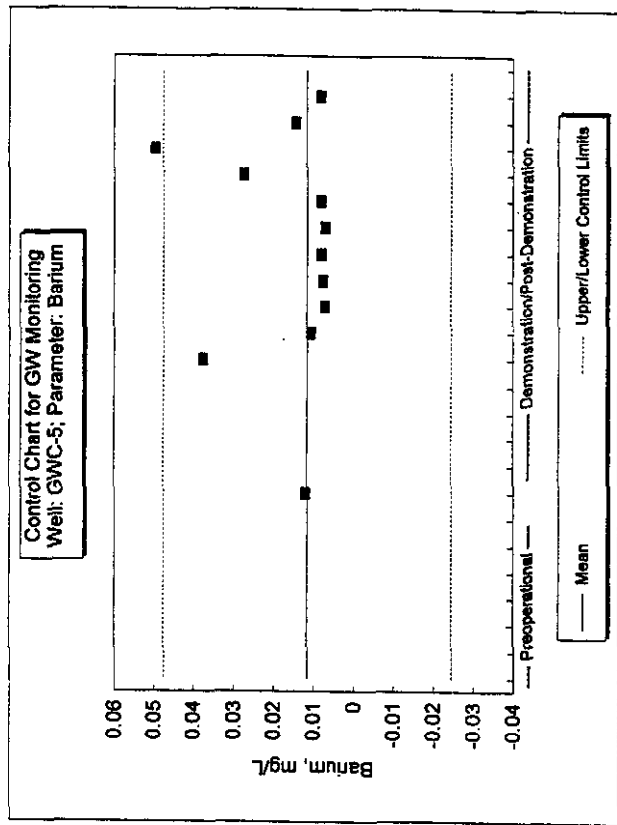
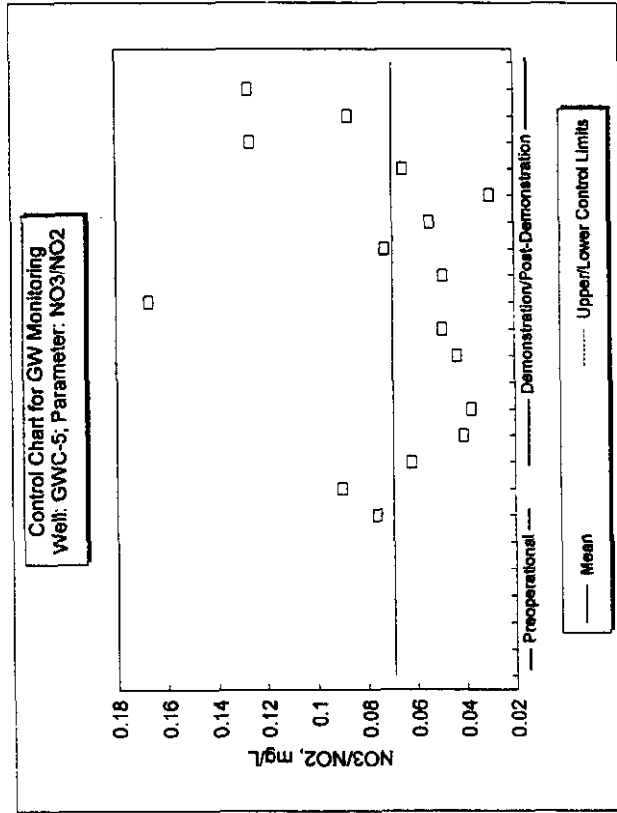
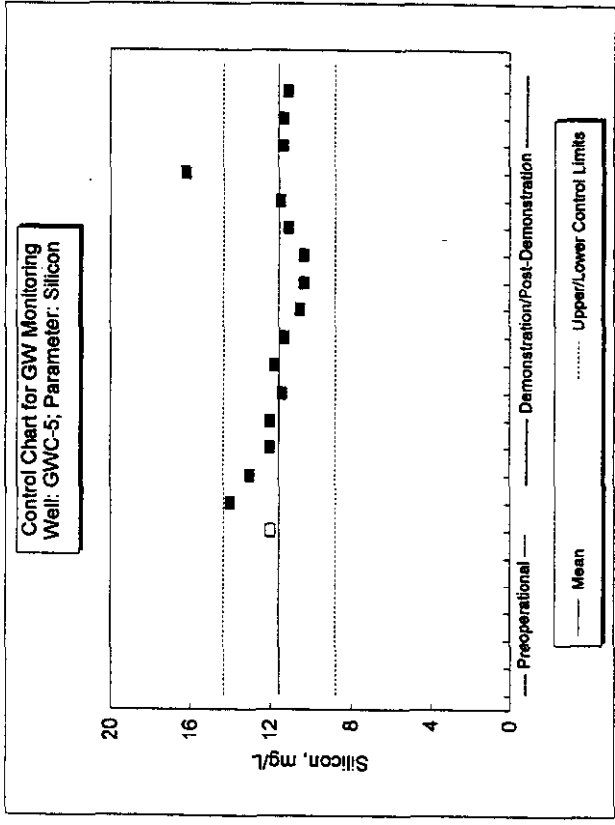
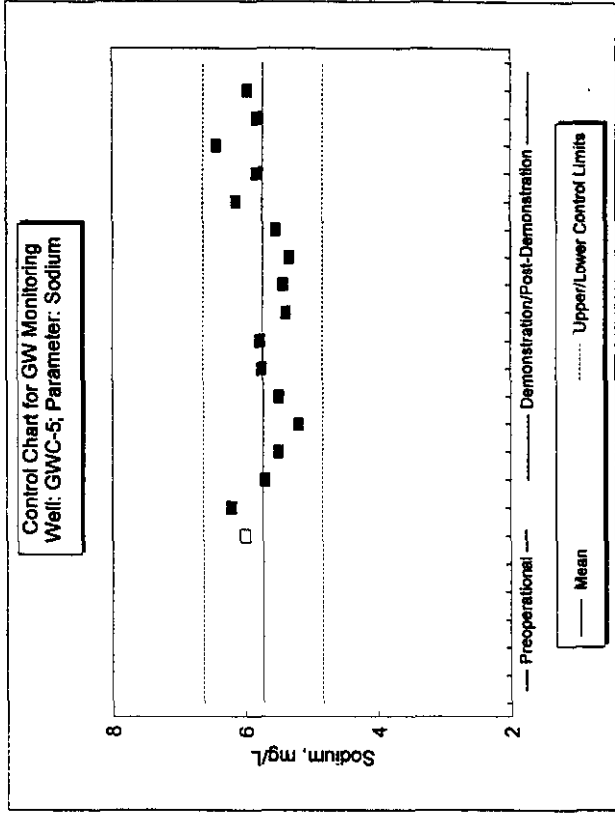
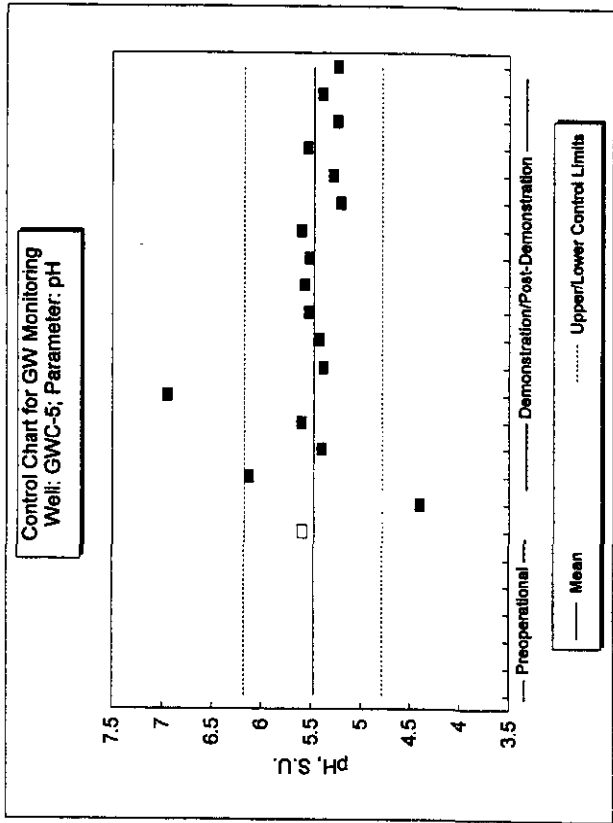
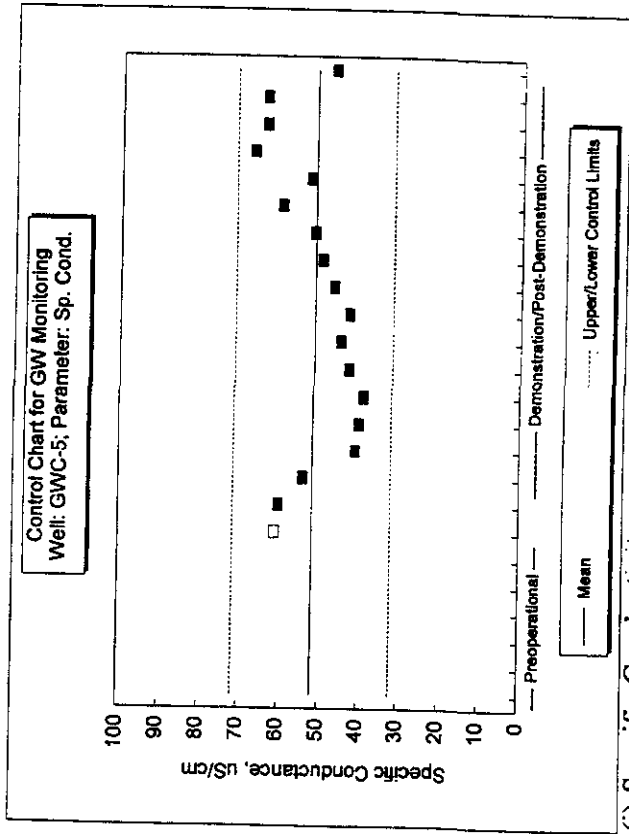


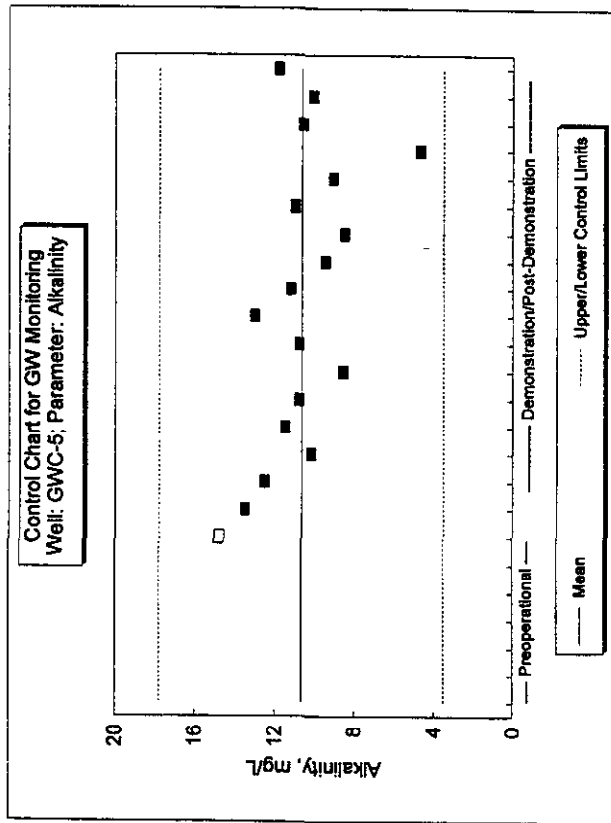
Figure D-6 (Continued)



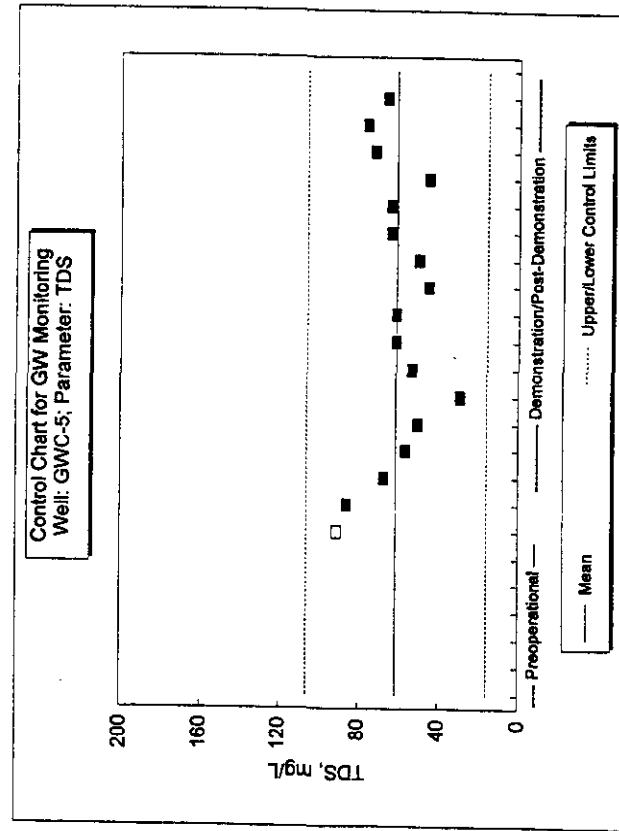
(i) pH



(j) Specific Conductivity



(k) Alkalinity



(l) Total Dissolved Solids

Figure D-6 (Continued)

Appendix E

Results of Duplicate Groundwater Analyses

TABLE E-1
RESULTS OF DUPLICATE GROUNDWATER ANALYSES

Parameter	Sample	Field Duplicate	% Diff. ^a	Duplicate Analysis of Field Dup.	% RPD ^b	Spec. Limit
1st Quarter 1993						
Total Organic Carbon	<1.0	3.0 ^d	NC			
Total Dissolved Solids	44 ^d	42 ^d	-4.5			
Chloride	2.7	2.7	0.0			
Sulfate	1.6	1.6	0.0			
Calcium	2.2 ^d	<1.0	NC			
Magnesium	1.8 ^d	<1.0	NC			
Manganese	0.041 ^d	<0.010	NC			
Silicon	13	8.8	-32.3			
Sodium	5.7	4.0 ^d	-29.8			
Strontium	0.013 ^d	0.0036 ^d	-72.3			
2nd Quarter 1993						
Total Dissolved Solids	52	50	-3.8	49	2.0	15
Chloride	2.91	2.96	1.7			
Nitrate-nitrite	0.0387 ^d	0.0309 ^d	-20.2	0.0336	8.4	20
Lead	0.0033 ^d	<0.0030	NC			
Silicon	8.73	9.10	4.2			
Sodium	3.88	4.03	3.9			
3rd Quarter 1993						
Total Dissolved Solids	21.0 ^d	30.0 ^d	42.9	31.0 ^c	3.3	15
Bromide	0.342	0.342	0.0	0.343	0.3	
Chloride	2.82	2.77	-1.8			
Nitrate-Nitrite (as N)	0.0475 ^d	0.0523 ^d	10.1	0.0556 ^c	6.1	20
Sodium	3.8	3.94	3.7			
Lead	0.006	0.005	-16.7			
Silicon	9.15	9.42	3.0			
Strontium	0.00307	0.00307	0.0			
4th Quarter 1993						
Chloride	2.79	3.15	12.9	2.78	12.5	20
Nitrate-Nitrite (as N)	0.059	0.056	-5.1	0.058	3.7	20
Bismuth	0.099 ^d	0.074 ^d	-25.3			
Sodium	4.1	4.0	-2.4			
Silicon	9.7	9.6	-1.0			
1st Quarter 1994						
Total Dissolved Solids	42.0 ^d	41.0 ^d	-2.4	41.0 ^d	0.0	15
Chloride	2.77	2.70	-2.5	2.71	0.37	20
Fluoride	0.0372 ^c	0.0345 ^c	-7.3			
Nitrate-Nitrite as N	0.0827	0.0835	1.0	0.0817	2.2	20
Sulfate	1.38	<0.0471	NC	<0.0471	NC	20
Radium 228	0.97 ± 0.52	0.96 ± 0.52	-1.0			
Gross Alpha	1.00 ± 0.40	0.98 ± 0.44	-2.0			
Gross Beta	1.53 ± 0.71	1.80 ± 0.72	17.6			
Bi-214	43 ± 19	34 ± 18	-21			

TABLE E-1 (CONTINUED)

Parameter	Sample	Field Duplicate	% Diff. ^a	Duplicate Analysis of Field Dup.	% RPD ^b	Spec. Limit
Pb-214	41 ± 22	41 ± 24	0			
Barium	0.00783 ^c	0.00747 ^c	-4.6			
Calcium	0.392 ^d	0.361 ^d	-7.9			
Iron	0.0142 ^c	0.00816 ^{c,d}	-42.5			
Magnesium	0.962	0.964	0.2			
Manganese	0.00206	0.00187	-9.2			
Sodium	4.35	4.43	1.8			
Sulfur	0.227	0.227	0.0			
Selenium	0.000730 ^{c,d}	0.000870 ^{c,d}	19.2	<0.000592 ^d		
Silicon	10.1	10.3	2.0			
Strontium	0.00513	0.00467 ^d	-9.0			
2nd Quarter 1994						
Total Dissolved Solids	36.0 ^d	33.0 ^d	-8.3	36.0	8.7	15
Chloride	2.76	2.77	0.4	2.77	0.0	20
Nitrate-Nitrite (as N)	0.136	0.129	-5.1	0.127	1.6	20
Sulfate	1.52	1.45	-4.6	1.48	2.0	20
Boron	0.158 ^c	0.149 ^c	-5.7			
Barium	0.0206 ^c	0.008 ^c	-61.2			
Calcium	0.321 ^c	0.325 ^c	1.2			
Iron	0.103	0.267	159			
Magnesium	0.935	0.944	1.0			
Sodium	4.14	4.13	-0.2			
Silicon	9.16	9.19	0.3			
Strontium	0.00467 ^d	0.0056	19.9			
Zinc	0.013 ^d	0.00816 ^d	-37.2			
3rd Quarter 1994						
Total Dissolved Solids	39.0	42.0	7.7	40.0	4.9	15
Chloride	2.91	2.82	-3.1	2.82	0.0	20
Fluoride	0.0424 ^c	0.0390 ^c	-8.0			
Nitrate-Nitrite as N	0.366 ^c	0.249 ^c	-32	0.256 ^c	2.6	20
Total Organic Halides	<11.7	15.1 ^d	NC	12.0 ^d	23	20
Aluminum	<0.0523	0.147 ^d	NC			
Barium	0.00693	0.0715	930			
Calcium	0.328 ^c	0.539 ^c	64			
Iron	<0.00452	0.227	NC			
Magnesium	1.00	1.07	7.0			
Manganese	0.00289 ^d	0.00300 ^d	3.8			
Sodium	4.17	4.61	11			
Lead	0.0140	<0.00205	NC			
Silicon	9.15	9.53	4.2			
Strontium	0.00286 ^d	0.00429 ^d	50			
Tellurium	0.0405 ^d	<0.0317	NC			
Titanium	0.00164 ^d	0.00166 ^d	1.2			
Zinc	0.00569 ^d	0.0166 ^d	190			

TABLE E-1 (CONTINUED)

Parameter	Sample	Field Duplicate	% Diff. ^a	Duplicate Analysis of Field Dup.	% RPD ^b	Spec. Limit
4th Quarter 1994						
Total Dissolved Solids	30	28	-6.7	31	10	15
Chloride	3.02	3.00	-0.7	2.89	3.7	20
Fluoride	0.0340 ^c	0.0325 ^c	-4.4			
Sulfate	1.01	<0.0471	NC	1.03	NC	20
Nitrate-Nitrite as N	0.246	0.232	-5.7	0.234	0.9	20
Barium	0.00742	0.00742	0.0			
Bismuth	0.0336 ^d	<0.0275	NC			
Calcium	0.335 ^c	0.338 ^c	0.9			
Mercury	<0.000033	0.00007 ^d	NC			
Iron	0.0203 ^{c,d}	0.0133 ^{c,d}	-34.5			
Lithium	0.0103 ^{c,d}	0.00948 ^{c,d}	-8.0			
Magnesium	1.02	0.999	-2.1			
Sodium	4.34	4.34	0.0			
Antimony	<0.00146	0.00182 ^d	NC			
Silicon	8.94	8.92	-0.2			
Tin	0.0162 ^d	<0.0145	NC			
Strontium	0.00202 ^d	0.00161 ^d	-20.3			
Zinc	<0.00402 ^c	0.00675 ^{c,d}	NC			
1st Quarter 1995						
Total Dissolved Solids	113	109	-3.5	104	4.7	15
Bromide	6.80	7.01	3.1	7.06	0.7	20
Chloride	34.1	34.6	1.5	32.9	5.0	20
Fluoride	0.0231 ^c	0.0225 ^c	-2.6	0.0224 ^c	0.4	20
Sulfate	4.18	4.25	1.7	4.19	1.4	20
Nitrate-Nitrite as N	1.58	1.58	0.0	1.55	1.9	20
Total Organic Halides	17.2 ^d	12.2 ^d	-29.1	19.6 ^d	46.5	20
Aluminum	<0.0523	0.0999 ^d	NC			
Boron	0.0856	0.0779	-9.0			
Barium	0.0273 ^c	0.0293 ^c	7.3			
Calcium	3.21 ^c	3.32 ^c	3.4			
Chromium	<0.00524	0.00589 ^d	NC			
Iron	0.0937 ^c	0.139 ^c	48.3			
Magnesium	10.2	10.5	2.9			
Manganese	0.129	0.134	3.9			
Molybdenum	<0.00739 ^c	0.0173 ^{c,d}	NC			
Sodium	7.63	7.84	2.8			
Phosphorus	0.524 ^d	0.671	28.1			
Sulfur	1.31	1.43	9.2			
Antimony	0.00116 ^d	0.00224 ^d	93			
Silicon	9.36 ^c	8.76 ^c	-6.4			
Strontium	0.0261	0.0265	1.5			
Titanium	<0.00159	0.0039 ^d	NC			

TABLE E-1 (CONTINUED)

Parameter	Sample	Field Duplicate	% Diff. ^a	Duplicate Analysis of Field Dup.	% RPD ^b	Spec. Limit
2nd Quarter 1995						
Total Dissolved Solids	156	127	-18.6	132	3.9	15
Chloride	39.1	38.5	-1.5	38.8	0.8	20
Fluoride	0.0268 ^c	0.0311 ^c	16.0	0.0258 ^c	18.6	20
Sulfate	3.91	3.91	0.0	3.87	1.0	20
Nitrate-Nitrite as N	1.79	1.80	0.6	1.78	1.1	20
Total Organic Halides	24.1 ^d	16.2 ^d	-32.8	18.8 ^d	14.9	20
Boron	0.214	0.208	-2.8			
Barium	0.0296 ^c	0.0293 ^c	-1.0			
Calcium	3.89 ^c	3.71 ^c	-4.6			
Iron	0.0398 ^c	0.0394 ^c	-1.0			
Magnesium	12.5	11.8	-5.6			
Manganese	0.190 ^c	0.192 ^c	1.1			
Molybdenum	0.00857 ^d	<0.00739	NC			
Sodium	8.61	8.61	0.0			
Phosphorus	0.331 ^d	0.684	106.6			
Sulfur	1.28	1.16	-9.4			
Silicon	10.0	10.1	1.0			
Tin	<0.0145	0.0224 ^d	NC			
Strontium	0.0352	0.0323	-8.2			
Dibromomethane	0.225 ^{c,d}	0.228 ^{b,c}	1.3			
3rd Quarter 1995						
Total Dissolved Solids	123	125	1.6			
Chloride	37.5	37.9	1.1	37.1	2.1	20
Fluoride	0.0325 ^c	0.0314 ^c	-3.4	0.0317 ^c	1.0	20
Sulfate	3.03	3.19	5.3	3.18	0.3	20
Nitrate-Nitrite as N	1.74	1.52	-12.6	1.48	2.7	20
Total Organic Halides	25 ^d	29.8 ^d	19.2			20
Boron	0.234	0.225	-3.8			
Barium	0.0262	0.0293	11.8			
Calcium	3.03	3.20	5.6			
Cobalt	0.0126 ^c	0.0227 ^c	80.2			
Chromium	0.0113 ^d	0.00834 ^d	-26.2			
Mercury	0.00016	0.000070 ^d	-56.3			
Iron	0.0217 ^c	0.0769 ^c	254.4			
Magnesium	10.0	10.5	5.0			
Manganese	0.124 ^c	0.127 ^c	2.4			
Sodium	8.42	8.65	2.7			
Phosphorus	0.462	0.461	-0.2			
Sulfur	0.826 ^d	0.620 ^d	-24.9			
Antimony	0.00194 ^{c,d}	0.00266 ^{c,d}	37.1			
Silicon	10.4	10.6	1.9			
Strontium	0.0290	0.0299	3.1			

TABLE E-1 (CONTINUED)

Parameter	Sample	Field Duplicate	% Diff. ^a	Duplicate Analysis of Field Dup.	% RPD ^b	Spec. Limit
4th Quarter 1995						
Total Dissolved Solids	36.0	42.0	17	34.0	21	15
Chloride	3.52	3.45	-2	3.50	1	20
Fluoride	0.0307 ^c	0.0302 ^c	-2	0.0281 ^c	7	20
Sulfate	0.233	<0.0491	NC	<0.0491	NC	20
Nitrate-Nitrite as N	0.328	0.406	24	0.414	2	20
Aluminum	0.0338 ^d	<0.0270	NC			
Arsenic	0.0012 ^d	<0.000887	NC			
Boron	0.0330 ^d	<0.0105	NC			
Barium	0.00973	0.00865 ^c	-11			
Calcium	0.436	0.390	-11			
Cobalt	0.0103 ^d	<0.00987	NC			
Iron	0.0511 ^d	0.238	366			
Magnesium	1.26	1.14	-10			
Sodium	5.14	5.03	-2			
Sulfur	0.125 ^d	<0.118	NC			
Selenium	0.000840 ^d	<0.000821	NC			
Silicon	5.18	0.242	-95			
Strontium	0.00369 ^d	0.00369 ^d	0			
Titanium	0.00265 ^{c,d}	0.00199 ^{c,d}	-25			
Zinc	0.0160 ^{c,d}	0.0106 ^{c,d}	-34			
1st Quarter 1996						
Total Dissolved Solids	49.0	44.0	-10	51.0	15	15
Chloride	3.46	3.49	1			
Fluoride	0.0365 ^c	0.0361 ^c	-1			
Sulfate	<0.0491	1.17	NC			
Total Organic Carbon	0.176 ^{c,d}	1.41 ^c	700			
Nitrate-Nitrite as N	0.259 ^c	0.291 ^c	12			
Aluminum	0.0228 ^{c,d}	0.0392 ^{c,d}	72			
Barium	0.0102 ^c	0.0122 ^c	20			
Calcium	0.361	0.378	5			
Chromium	0.00188	0.00268	43			
Iron	0.0150 ^{c,d}	0.0335 ^{c,d}	123			
Magnesium	1.11	1.18	6			
Manganese	0.00274	0.00303	11			
Nickel	0.00292 ^c	0.00321 ^c	10			
Potassium	0.128	0.136	6			
Sodium	5.14	5.30	3			
Sulfur	0.0569	0.0627	10			
Selenium	0.001040 ^{c,d}	0.00112 ^{c,d}	8			
Silicon	9.48	9.88	4			
Strontium	0.00387 ^c	0.00408 ^c	5			
Titanium	0.00042 ^{c,d}	0.00174 ^c	314			

TABLE E-1 (CONTINUED)

Parameter	Sample	Field Duplicate	% Diff. ^a	Duplicate Analysis of Field Dup.	% RPD ^b	Spec. Limit
2nd Quarter 1996						
Total Dissolved Solids	266	262	-1.5	274	4.5	15
Bromide	1.08	1.06	-1.9			
Chloride	106	99.5	-6.5			
Fluoride	0.0305 ^c	0.0379 ^c	19.5			
Sulfate	4.33	4.29	-0.9			
Nitrate-Nitrite as N	2.10	2.11	0.5			
Total Organic Halides	24.6 ^d	32.2 ^d	30.9	27.0 ^d	17.6	20
Aluminum	0.179 ^c	1.62 ^c	805			
Boron	1.98	2.37	19.7			
Barium	0.0634	0.11	73.5			
Beryllium	0.00135 ^c	0.00156 ^c	15.6			
Calcium	10.5	12.8	21.9			
Cadmium	<0.000156	0.00038 ^d	NC			
Cobalt	0.00406	0.00632	55.7			
Copper	<0.00136	0.00278 ^d	NC			
Chromium	0.00275	0.025	809			
Mercury	0.00023	0.00024	4.2			
Iron	0.245	2.23	810			
Potassium	0.523	1.33	154			
Magnesium	30.2	37.6	24.5			
Manganese	0.424	0.534	25.9			
Sodium	9.95	11.1	11.6			
Nickel	0.00133 ^d	0.00577	334			
Phosphorus	0.037 ^c	0.158 ^c	327			
Sulfur	1.44	1.59	10.4			
Selenium	0.00399 ^d	<0.00258	NC			
Silicon	10.3	14.7	42.7			
Strontium	0.0858 ^c	0.104 ^c	21.2			
Titanium	0.0241	0.306	1170			
Vanadium	<0.000681	0.00567	NC			
Zinc	<0.00309 ^c	0.00602 ^{c,d}	NC			
Acetone	<0.274	19.8	NC			
Benzene	<0.0633	0.174 ^d	NC			
Ethylbenzene	<0.0655	0.0724 ^d	NC			
Methylene chloride	1.02 ^c	1.17 ^c	14.7			
Toluene	<0.0537	0.55	NC			
m&p-Xylene	<0.184	0.196 ^d	NC			
3rd Quarter 1996						
Total Dissolved Solids	229 ^c	261 ^c	14.0	271 ^c	3.8	15
Bromide	0.737	0.808	9.6			
Chloride	95.5	107	12.0			
Fluoride	0.0352 ^c	0.035 ^c	-0.6			
Sulfate	3.21	3.25	1.2			
Total Organic Carbon	1.25	1.03	-17.6			

TABLE E-1 (CONTINUED)

Parameter	Sample	Field Duplicate	% Diff. ^a	Duplicate Analysis of Field Dup.	% RPD ^b	Spec. Limit
Nitrate-Nitrite as N	2.02	2.2	8.9			
Total Organic Halides	50.8 ^d	60.6 ^d	19.3	54 ^d	11.5	20
Silver	0.000880 ^d	<0.000501	NC			
Aluminum	0.0708 ^c	0.072	1.7			
Boron	1.98	2.03	2.5			
Barium	0.0626	0.0639	2.1			
Beryllium	0.00107 ^c	0.00115 ^c	7.5			
Calcium	10.6 ^c	11.0 ^c	3.8			
Cobalt	0.00381	0.00411	7.9			
Chromium	0.00044 ^d	0.00078 ^d	77.3			
Potassium	0.716 ^c	0.730 ^c	2.0			
Magnesium	29	30	3.4			
Manganese	0.475	0.486	2.3			
Sodium	9.64	9.85	2.2			
Nickel	0.00131 ^d	0.00173 ^d	32.1			
Phosphorus	0.00854 ^d	0.0070 ^d	-18.0			
Lead	0.0041 ^d	0.00248 ^d	-39.5			
Sulfur	1.38	1.40	1.4			
Antimony	<0.000919	0.00263 ^d	NC			
Selenium	0.00183 ^d	0.00181 ^d	-1.1			
Silicon	11.1	11.3	1.8			
Tin	0.00213 ^{c,d}	0.00145 ^{c,d}	-31.9			
Strontium	0.0809	0.0828	2.3			
Titanium	0.00036 ^d	0.00028 ^d	-22.2			
Uranium	0.105 ^c	0.128 ^c	21.9			
Tungsten	0.00334 ^d	<0.00183	NC			

^a % Difference = (Field Duplicate - Sample) x 100/sample.

^b RPD = Relative Percent Difference, defined as follows:

$$\text{RPD} = \frac{(\text{Larger Value} - \text{Smaller Value})}{(\text{Larger Value} + \text{Smaller Value})/2} \times 100\%$$

^c Detected in the method blank.

^d Measured concentration is less than five times the detection limit; results are expected to be less accurate as concentrations approach the detection limit.

NC = Not computed.