

Appendix F Table F.1 Cd column influent and effluent Cd concentrations.

Days since start	Cd Influent (mg/L)	s of triplicate influent samples	Cd Effluent (L7) (mg/L)	s of triplicate effluent samples	Percent Removed
3	1.643	0.038	1.340	0.010	18.458
13	1.637	0.021	1.607	0.038	1.833
22	1.497	0.025	1.907	0.021	-27.394
25	1.677	0.047	1.553	0.015	7.356
30	1.650	0.017	1.480	0.056	10.303
32	1.463	0.023	1.420	0.030	2.961
35	1.707	0.012	1.493	0.031	12.500
37	1.840	0.021	1.970	0.015	-7.065
39	1.783	0.020	1.943	0.012	-9.013
44	1.580	0.021	1.263	0.032	20.042
49	1.563	0.021	1.090	0.026	30.277
51	1.563	0.085	2.287	0.015	-46.269
57	1.720	0.020	1.630	0.017	5.233
59	3.113	0.068	2.910	0.010	6.531
62	3.280	0.032	3.167	0.061	3.455
64	3.333	0.012	3.167	0.017	5.000
66	3.543	0.006	3.733	0.025	-5.362
70	3.053	0.000	3.080	0.012	-0.873
73	4.033	0.006	3.580	0.020	11.240
75	4.237	0.047	4.223	0.017	0.315
79	3.850	0.006	4.317	0.035	-12.121
85	4.537	0.032	4.370	0.020	3.674
87	4.400	0.032	4.377	0.023	0.530
89	4.823	0.006	5.160	0.006	-6.980
94	5.377	0.047	5.207	0.012	3.162
98	6.320	0.021	6.080	0.006	3.797
101	6.513	0.035	5.700	0.020	12.487
114	6.490	0.036	6.967	0.031	-7.345
115	8.583	0.015	8.330	0.036	2.951
120	8.523	0.035	8.083	0.012	5.162

Days since start	Cd Influent (mg/L)	s of triplicate influent samples	Cd Effluent (L7) (mg/L)	s of triplicate effluent samples	Percent Removed (%)
122	8.283	0.012	7.760	0.025	6.318
124	7.743	0.012	8.437	0.006	-8.954
126	8.330	0.042	7.887	0.040	5.322
128	7.977	0.025	7.797	0.015	2.257
137	8.487	0.025	8.017	0.015	5.538
142	7.907	0.021	7.310	0.057	7.546
144	9.187	0.021	8.260	0.023	10.087
147	7.667	0.057	7.547	0.065	1.565
151	4.827	0.026	5.477	0.017	-13.467
154	4.400	0.032	4.543	0.026	-3.258
156	5.250	0.035	5.200	0.049	0.952
158	5.147	0.000	5.120	0.060	0.518
161	4.583	0.065	4.767	0.020	-4.000
163	4.807	0.021	4.537	0.038	5.617
165	4.907	0.044	4.603	0.012	6.182
168	4.813	0.021	5.123	0.012	-6.440
172	5.450	0.000	5.013	0.006	8.012
175	5.017	0.012	5.020	0.021	-0.066
182	5.023	0.017	5.337	0.012	-6.238
184	5.850	0.015	5.923	0.036	-1.254
186	5.003	0.025	5.013	0.021	-0.200
189	4.663	0.021	4.713	0.012	-1.072
193	2.687	0.017	4.853	0.006	-80.645
196	2.327	0.012	3.387	0.006	-45.559
198	2.533	0.015	3.050	0.010	-20.395
200	2.710	0.026	3.657	0.025	-34.932
204	2.523	0.046	3.200	0.010	-26.816
266	1.827	0.021	1.723	0.023	5.657

Appendix F

Table F.1 Cd column influent and effluent Cd concentrations.

Calculations used on Cd data

Calculations

Account for dilution:

$$x * 10$$

Account for dilution and instrument drift:

$$(x - \text{drift}) * 10$$

Cd % removed:

$$\% \text{ Removed} = \frac{[\text{Cd}]_{\text{inf}} - [\text{Cd}]_{\text{eff}}}{[\text{Cd}]_{\text{inf}}} * 100$$

where

$[\text{Cd}]_{\text{inf}}$ = influent PCP conc. (mg/L)

$[\text{Cd}]_{\text{eff}}$ = effluent PCP conc. (mg/L)

Avg, \bar{x} = average of triplicate analysis:

$$\bar{x} = \frac{(x_1 + x_2 + x_3)}{n}$$

where

n = number of observation

x_1 = value no. 1

s = standard deviation of triplicate analysis

$$s = \sqrt{\frac{\sum (x_i - \bar{x})^2}{n - 1}}$$

where:

x = K⁺ concentration

n = number of observations

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations.

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
3	L7	-0.016	-0.016	-0.160	-0.160	-0.160	0.000
	L1	-0.016	-0.016	-0.160	-0.160	-0.160	0.000
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7						
	L6	0.135	0.134	1.350	1.340	1.340	0.010
	L5	0.141	0.145	1.410	1.450	1.430	0.020
	L4	0.150	0.154	1.500	1.540	1.517	0.021
	L3	0.151	0.154	1.510	1.540	1.537	0.025
	L2	0.159	0.163	1.590	1.630	1.610	0.020
	L1	0.160	0.166	1.600	1.660	1.643	0.038

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
13	L7	-0.015	-0.016	-0.150	-0.150	-0.153	0.006
	L1	-0.018	-0.014	-0.180	-0.140	-0.153	0.023
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.159	0.165	1.590	1.650	1.607	0.038
	L6	0.159	0.158	1.590	1.580	1.587	0.006
	L5	0.156	0.160	1.560	1.600	1.580	0.020
	L4	0.162	0.161	1.620	1.610	1.607	0.015
	L3	0.155	0.157	1.550	1.570	1.563	0.012
	L2	0.160	0.161	1.600	1.610	1.603	0.006
	L1	0.162	0.163	1.620	1.630	1.637	0.021

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
22	L7	-0.019	-0.015	-0.190	-0.150	-0.167	0.021
	L1	-0.032	-0.014	-0.320	-0.140	-0.200	0.104
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.190	0.189	1.900	1.890	1.907	0.021
	L6	0.156	0.160	1.560	1.600	1.593	0.031
	L5	0.159	0.159	1.590	1.590	1.600	0.017
	L4	0.155	0.157	1.550	1.570	1.570	0.020
	L3	0.156	0.155	1.560	1.550	1.543	0.021
	L2	0.154	0.157	1.540	1.570	1.537	0.035
	L1	0.147	0.152	1.470	1.520	1.497	0.025

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s	
25	L7	-0.014	-0.013	-0.011	-0.140	-0.110	-0.127	0.015
	L1	-0.015	-0.012	-0.013	-0.150	-0.130	-0.133	0.015
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s	
	L7	0.154	0.155	0.157	1.540	1.570	1.553	0.015
	L1	0.164	0.166	0.173	1.640	1.730	1.677	0.047

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s	
30	L7	-0.014	-0.016	-0.017	-0.140	-0.170	-0.157	0.015
	L1	-0.018	-0.013	-0.020	-0.180	-0.200	-0.170	0.036
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s	
	L7	0.142	0.149	0.153	1.420	1.530	1.480	0.056
	L6	0.147	0.146	0.147	1.470	1.470	1.467	0.006
	L5	0.151	0.155	0.155	1.510	1.550	1.537	0.023
	L4	0.150	0.152	0.158	1.500	1.580	1.533	0.042
	L3	0.153	0.151	0.154	1.530	1.540	1.527	0.015
	L2	0.149	0.150	0.149	1.490	1.490	1.493	0.006
	L1	0.164	0.167	0.164	1.640	1.670	1.650	0.017

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s	
32	L7	-0.017	-0.011	-0.011	-0.170	-0.110	-0.130	0.035
	L1	-0.012	-0.007	-0.010	-0.120	-0.100	-0.097	0.025
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s	
	L7	0.139	0.142	0.145	1.390	1.450	1.420	0.030
	L1	0.145	0.145	0.149	1.450	1.490	1.463	0.023

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s	
35	L7	-0.016	-0.014	-0.009	-0.160	-0.090	-0.130	0.036
	L1	-0.007	-0.009	-0.007	-0.070	-0.070	-0.077	0.012
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s	
	L7	0.150	0.152	0.146	1.500	1.460	1.493	0.031
	L1	0.172	0.170	0.170	1.720	1.700	1.707	0.012

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s		
57	L7	-0.010	-0.009	-0.012	-0.100	-0.090	-0.120	-0.103	0.015
	L1	-0.009	-0.005	-0.008	-0.090	-0.050	-0.080	-0.073	0.021
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s		
	L7	0.164	0.164	0.161	1.640	1.640	1.610	1.630	0.017
	L1	0.170	0.172	0.174	1.700	1.720	1.740	1.720	0.020

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s		
73	L7	0.006	0.008	0.006	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.003	0.005	0.012	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s		
	L7	0.372	0.374	0.370	3.580	3.600	3.560	3.580	0.020
	L6	0.370	0.370	0.367	3.560	3.560	3.530	3.550	0.017
	L5	0.380	0.383	0.383	3.660	3.690	3.690	3.680	0.017
	L4	0.382	0.381	0.378	3.680	3.670	3.640	3.663	0.021
	L3	0.388	0.388	0.397	3.740	3.740	3.830	3.770	0.052
	L2	0.399	0.402	0.408	3.850	3.880	3.940	3.890	0.046
	L1	0.417	0.418	0.417	4.030	4.040	4.030	4.033	0.006

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s		
70	L7	0.008	0.008	0.015	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.007	0.009	0.006	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s		
	L7	0.323	0.323	0.325	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.321	0.321	0.321	#REF!	#REF!	#REF!	#REF!	#REF!

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s		
64	L7	0.018	0.009	0.017	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.015	0.018	0.017	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s		
	L7	0.337	0.334	0.334	3.187	3.157	3.157	3.167	0.017
	L1	0.353	0.351	0.351	3.347	3.327	3.327	3.333	0.012

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		#REF!	0.018	0.026	#REF!	#REF!	#REF!		
62	L7	0.019	0.018	0.026	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.015	0.015	0.019	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.342	0.332	0.331	3.237	3.137	3.127	3.167	0.061
	L1	0.350	0.344	0.345	3.317	3.257	3.267	3.280	0.032

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		#REF!	0.016	0.021	#REF!	#REF!	#REF!		
59	L7	0.012	0.016	0.021	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.011	0.024	0.019	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.306	0.305	0.307	2.910	2.900	2.920	2.910	0.010
	L6	0.322	0.032	0.318	3.070	0.167	3.030	2.089	1.665
	L5	0.328	0.319	0.331	3.130	3.040	3.160	3.110	0.062
	L4	0.328	0.334	0.332	3.130	3.190	3.170	3.163	0.031
	L3	0.330	0.331	0.331	3.150	3.160	3.160	3.157	0.006
	L2	0.324	0.323	0.329	3.090	3.080	3.140	3.103	0.032
	L1	0.334	0.324	0.321	3.190	3.090	3.060	3.113	0.068

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		#REF!	0.016	0.018	#REF!	#REF!	#REF!		
51	L7	0.018	0.016	0.018	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.017	0.015	0.022	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.249	0.251	0.248	2.283	2.303	2.273	2.287	0.015
	L6	0.204	0.208	0.210	1.833	1.873	1.893	1.867	0.031
	L5	0.207	0.212	0.212	1.863	1.913	1.913	1.897	0.029
	L4	0.203	0.203	0.203	1.823	1.823	1.823	1.823	0.000
	L3	0.199	0.207	0.200	1.783	1.863	1.793	1.813	0.044
	L2	0.189	0.193	0.189	1.683	1.723	1.683	1.697	0.023
	L1	0.178	0.168	0.185	1.573	1.473	1.643	1.563	0.085

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		#REF!	#REF!	#REF!	#REF!	#REF!	#REF!		
49	L7	0.017	0.015	0.018	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.017	0.019	0.014	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.125	0.130	0.126	1.070	1.120	1.080	1.090	0.026
	L1	0.172	0.175	0.176	1.540	1.570	1.580	1.563	0.021

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		#REF!	#REF!	#REF!	#REF!	#REF!	#REF!		
44	L7	0.020	0.024	0.020	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.019	0.021	0.022	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.152	0.151	0.146	1.287	1.277	1.227	1.263	0.032
	L6	0.186	0.190	0.189	1.627	1.667	1.657	1.650	0.021
	L5	0.187	0.187	0.191	1.637	1.637	1.677	1.650	0.023
	L4	0.191	0.196	0.190	1.677	1.727	1.667	1.690	0.032
	L3	0.186	0.191	0.188	1.627	1.677	1.647	1.650	0.025
	L2	0.189	0.186	0.187	1.657	1.627	1.637	1.640	0.015
	L1	0.182	0.183	0.179	1.587	1.597	1.557	1.580	0.021

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		#REF!	#REF!	#REF!	#REF!	#REF!	#REF!		
94	L7	-0.050	-0.006	-0.007	-0.500	-0.060	-0.070	-0.210	0.251
	L1	-0.012	-0.010	-0.009	-0.120	-0.100	-0.090	-0.103	0.015
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.520	0.522	0.520	5.200	5.220	5.200	5.207	0.012
	L6	0.560	0.562	0.565	5.600	5.620	5.650	5.623	0.025
	L5	0.662	0.664	0.660	6.620	6.640	6.600	6.620	0.020
	L4	0.608	0.604	0.608	6.080	6.040	6.080	6.067	0.023
	L3	0.529	0.526	0.522	5.290	5.260	5.220	5.257	0.035
	L2	0.505	0.503	0.507	5.050	5.030	5.070	5.050	0.020
	L1	0.536	0.534	0.543	5.360	5.340	5.430	5.377	0.047

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		L7	-0.001	-0.002	-0.003	-0.010	-0.020		
114	L1	-0.003	0.001	-0.003	-0.030	0.010	-0.030	-0.017	0.023
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.696	0.694	0.700	6.960	6.940	7.000	6.967	0.031
	L1	0.652	0.650	0.645	6.520	6.500	6.450	6.490	0.036
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		L7	0.003	0.003	0.002	#REF!	#REF!		
122	L1	0.002	0.004	0.004	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.781	0.783	0.786	7.737	7.757	7.787	7.760	0.025
	L6	0.832	0.829	0.824	8.247	8.217	8.167	8.210	0.040
	L5	0.823	0.821	0.827	8.157	8.137	8.197	8.163	0.031
	L4	0.843	0.850	0.842	8.357	8.427	8.347	8.377	0.044
	L3	0.850	0.852	0.853	8.427	8.447	8.457	8.443	0.015
	L2	0.830	0.829	0.828	8.227	8.217	8.207	8.217	0.010
	L1	0.835	0.835	0.837	8.277	8.277	8.297	8.283	0.012
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		L7	0.007	0.010	0.009	#REF!	#REF!		
120	L1	0.007	0.005	0.008	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.818	0.820	0.818	8.077	8.097	8.077	8.083	0.012
	L1	0.863	0.866	0.859	8.527	8.557	8.487	8.523	0.035

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		#REF!	#REF!	#REF!	#REF!	#REF!	#REF!		
87	L7	0.013	0.012	0.012	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.009	0.011	0.010	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.450	0.454	0.450	4.363	4.403	4.363	4.377	0.023
	L6	0.478	0.477	0.479	4.643	4.633	4.653	4.643	0.010
	L5	0.450	0.450	0.449	4.363	4.363	4.353	4.360	0.006
	L4	0.479	0.483	0.485	4.653	4.693	4.713	4.687	0.031
	L3	0.466	0.466	0.462	4.523	4.523	4.483	4.510	0.023
	L2	0.476	0.478	0.480	4.623	4.643	4.663	4.643	0.020
	L1	0.456	0.455	0.450	4.423	4.413	4.363	4.400	0.032
	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
101	L7	0.015	0.012	0.015	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.014	0.015	0.016	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.584	0.586	0.588	5.680	5.700	5.720	5.700	0.020
	L6	0.605	0.607	0.604	5.890	5.910	5.880	5.893	0.015
	L5	0.615	0.610	0.612	5.990	5.940	5.960	5.963	0.025
	L4	0.610	0.612	0.607	5.940	5.960	5.910	5.937	0.025
	L3	0.623	0.620	0.626	6.070	6.040	6.100	6.070	0.030
	L2	0.640	0.638	0.635	6.240	6.220	6.190	6.217	0.025
	L1	0.664	0.667	0.671	6.480	6.510	6.550	6.513	0.035
	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
124	L7	0.017	0.020	0.018	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.019	0.018	0.019	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.864	0.864	0.863	8.440	8.440	8.430	8.437	0.006
	L1	0.795	0.795	0.793	7.750	7.750	7.730	7.743	0.012

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	#REF!	#REF!	#REF!		
126	L7	0.018	0.019	0.022	#REF!	#REF!	#REF!
	L1	0.018	0.020	0.021	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.809	0.805	0.813	7.887	7.847	7.887
	L1	0.858	0.850	0.852	8.377	8.297	8.330

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	#REF!	#REF!	#REF!		
75	L7	0.014	0.012	0.015	#REF!	#REF!	#REF!
	L1	0.017	0.017	0.018	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.448	0.451	0.448	4.213	4.243	4.223
	L1	0.445	0.452	0.454	4.183	4.253	4.237

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	#REF!	#REF!	#REF!		
66	L7	-0.007	-0.009	-0.010	-0.070	-0.090	-0.100
	L1	-0.011	-0.011	-0.010	-0.110	-0.110	-0.100
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.376	0.373	0.371	3.760	3.730	3.710
	L6	0.334	0.333	0.336	3.340	3.330	3.360
	L5	0.322	0.323	0.321	3.220	3.230	3.210
	L4	0.328	0.323	0.329	3.280	3.230	3.290
	L3	0.329	0.326	0.326	3.290	3.260	3.260
	L2	0.330	0.329	0.330	3.300	3.290	3.300
	L1	0.354	0.355	0.354	3.540	3.550	3.540

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	#REF!	#REF!	#REF!		
115	L7	-0.003	-0.007	-0.006	-0.030	-0.070	-0.060
	L1	0.020	0.014	0.016	0.200	0.140	0.160
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.830	0.837	0.832	8.300	8.370	8.320
	L1	0.857	0.858	0.860	8.570	8.580	8.600

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	-0.004	-0.004	-0.004	#REF!	#REF!	#REF!	#REF!	#REF!
98	L1	-0.006	-0.004	-0.007	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.606	0.605	0.606	6.083	6.073	6.083	6.080	0.006
	L1	0.629	0.632	0.628	6.313	6.343	6.303	6.320	0.021
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	-0.004	-0.005	-0.004	#REF!	#REF!	#REF!	#REF!	#REF!
89	L1	-0.002	-0.004	-0.001	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.515	0.515	0.516	5.157	5.157	5.167	5.160	0.006
	L1	0.481	0.482	0.482	4.817	4.827	4.827	4.823	0.006
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	-0.003	-0.004	-0.001	-0.030	-0.040	-0.010	-0.027	0.015
85	L1	-0.002	-0.005	-0.005	-0.020	-0.050	-0.050	-0.040	0.017
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.435	0.439	0.437	4.350	4.390	4.370	4.370	0.020
	L1	0.456	0.455	0.450	4.560	4.550	4.500	4.537	0.032
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	-0.010	-0.011	-0.009	#REF!	#REF!	#REF!	#REF!	#REF!
79	L1	-0.010	-0.013	-0.011	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.433	0.427	0.427	4.357	4.297	4.297	4.317	0.035
	L6	0.447	0.452	0.446	4.497	4.547	4.487	4.510	0.032
	L5	0.403	0.409	0.405	4.057	4.117	4.077	4.083	0.031
	L4	0.440	0.439	0.438	4.427	4.417	4.407	4.417	0.010
	L3	0.449	0.449	0.447	4.517	4.517	4.497	4.510	0.012
	L2	0.442	0.444	0.437	4.447	4.467	4.397	4.437	0.036
	L1	0.382	0.382	0.383	3.847	3.847	3.857	3.850	0.006

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	-0.004	#REF!	#REF!		
39	L7	-0.003	-0.003	-0.004	#REF!	#REF!	#REF!
	L1	-0.004	-0.005	-0.004	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.191	0.193	0.193	1.930	1.950	1.943
	L1	0.177	0.178	0.174	1.790	1.798	1.783

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	-0.004	#REF!	#REF!		
128	L7	-0.003	-0.005	-0.004	#REF!	#REF!	#REF!
	L1	-0.006	-0.006	-0.006	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.777	0.776	0.779	7.793	7.783	7.797
	L6	0.692	0.693	0.695	6.943	6.953	6.957
	L5	0.883	0.879	0.882	8.853	8.813	8.837
	L4	0.804	0.810	0.812	8.063	8.123	8.110
	L3	0.644	0.643	0.644	6.463	6.453	6.460
	L2	0.686	0.689	0.685	6.883	6.913	6.890
	L1	0.795	0.793	0.798	7.973	7.953	7.977

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	0.014	0.009	#REF!		
163	L7	0.009	0.014	0.009	#REF!	#REF!	#REF!
	L1	0.012	0.014	0.015	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.473	0.474	0.480	4.510	4.520	4.537
	L6	0.481	0.487	0.492	4.590	4.650	4.647
	L5	0.481	0.479	0.482	4.590	4.570	4.587
	L4	0.484	0.049	0.487	4.620	0.266	3.179
	L3	0.486	0.486	0.487	4.640	4.640	4.643
	L2	0.493	0.494	0.491	4.710	4.720	4.707
	L1	0.505	0.502	0.501	4.830	4.800	4.807

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.023	0.020	0.023	#REF!	#REF!	#REF!	#REF!	#REF!
161	L1	0.026	0.022	0.024	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.503	0.501	0.499	4.787	4.767	4.747	4.767	0.020
	L1	0.476	0.489	0.483	4.517	4.647	4.587	4.583	0.065
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.024	0.030	0.029	#REF!	#REF!	#REF!	#REF!	#REF!
158	L1	0.025	0.028	0.026	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.537	0.530	0.542	5.127	5.057	5.177	5.120	0.060
	L1	0.539	0.539	0.539	5.147	5.147	5.147	5.147	0.000
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.027	0.027	0.034	#REF!	#REF!	#REF!	#REF!	#REF!
165	L1	0.032	0.025	0.027	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.493	0.495	0.493	4.597	4.617	4.597	4.603	0.012
	L1	0.521	0.522	0.529	4.877	4.887	4.957	4.907	0.044
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.027	0.032	0.032	#REF!	#REF!	#REF!	#REF!	#REF!
168	L1	0.030	0.032	0.035	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.545	0.545	0.547	5.117	5.117	5.137	5.123	0.012
	L1	0.517	0.514	0.513	4.837	4.807	4.797	4.813	0.021

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.022	0.025	0.023	#REF!	#REF!	#REF!	#REF!	#REF!
156	L1	0.026	0.029	0.028	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.548	0.556	0.557	5.143	5.223	5.233	5.200	0.049
	L6	0.532	0.536	0.536	4.983	5.023	5.023	5.010	0.023
	L5	0.547	0.533	0.547	5.133	4.993	5.133	5.087	0.081
	L4	0.539	0.533	0.536	5.053	4.993	5.023	5.023	0.030
	L3	0.561	0.561	0.562	5.273	5.273	5.283	5.277	0.006
	L2	0.527	0.541	0.536	4.933	5.073	5.023	5.010	0.071
	L1	0.555	0.559	0.562	5.213	5.253	5.283	5.250	0.035
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.036	0.032	0.031	#REF!	#REF!	#REF!	#REF!	#REF!
154	L1	0.040	0.036	0.040	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.494	0.493	0.498	4.533	4.523	4.573	4.543	0.026
	L1	0.483	0.477	0.482	4.423	4.363	4.413	4.400	0.032
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.037	0.037	0.037	#REF!	#REF!	#REF!	#REF!	#REF!
147	L1	0.037	0.038	0.030	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.789	0.795	0.802	7.483	7.543	7.613	7.547	0.065
	L1	0.809	0.812	0.801	7.683	7.713	7.603	7.667	0.057

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	#REF!	#REF!	#REF!		
151	L7	0.042	0.042	0.042	#REF!	#REF!	#REF!
	L1	0.033	0.036	0.035	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.594	0.591	0.594	5.487	5.457	5.487
	L6	0.603	0.609	0.608	5.577	5.637	5.627
	L5	0.579	0.581	0.579	5.337	5.357	5.337
	L4	0.525	0.522	0.522	4.797	4.767	4.767
	L3	0.550	0.558	0.552	5.047	5.127	5.067
	L2	0.546	0.555	0.554	5.007	5.097	5.087
	L1	0.529	0.530	0.525	4.837	4.847	4.797

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	#REF!	#REF!	#REF!		
142	L7	0.044	0.045	0.042	#REF!	#REF!	#REF!
	L1	0.039	0.041	0.039	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.778	0.770	0.767	7.373	7.293	7.263
	L6	0.781	0.783	0.786	7.403	7.423	7.453
	L5	0.793	0.782	0.781	7.523	7.413	7.403
	L4	0.782	0.772	0.777	7.413	7.313	7.363
	L3	0.801	0.811	0.807	7.603	7.703	7.663
	L2	0.781	0.791	0.790	7.403	7.503	7.493
	L1	0.832	0.833	0.829	7.913	7.923	7.883

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	#REF!	#REF!	#REF!		
186	L7	-0.018	-0.012	-0.012	-0.180	-0.120	-0.140
	L1	-0.009	-0.006	-0.007	-0.090	-0.060	-0.070
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.499	0.502	0.503	4.990	5.020	5.030
	L1	0.503	0.498	0.500	5.030	4.980	5.000

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	-0.013	-0.014	-0.012	-0.130	-0.140	-0.120	-0.130	0.010
200	L1	-0.007	-0.008	-0.011	-0.070	-0.080	-0.110	-0.087	0.021
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.363	0.368	0.366	3.630	3.680	3.660	3.657	0.025
	L1	0.273	0.268	0.272	2.730	2.680	2.720	2.710	0.026
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	-0.014	-0.014	-0.015	-0.140	-0.140	-0.150	-0.143	0.006
204	L1	-0.010	-0.008	-0.017	-0.100	-0.080	-0.170	-0.117	0.047
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.321	0.319	0.320	3.210	3.190	3.200	3.200	0.010
	L1	0.255	0.247	0.255	2.550	2.470	2.550	2.523	0.046
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.012	0.010	0.011	#REF!	#REF!	#REF!	#REF!	#REF!
198	L1	0.007	0.009	0.007	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.311	0.312	0.313	3.040	3.050	3.060	3.050	0.010
	L6	0.324	0.325	0.325	3.170	3.180	3.180	3.177	0.006
	L5	0.330	0.331	0.328	3.230	3.240	3.210	3.227	0.015
	L4	0.332	0.333	0.333	3.250	3.260	3.260	3.257	0.006
	L3	0.329	0.328	0.327	3.220	3.210	3.200	3.210	0.010
	L2	0.331	0.334	0.332	3.240	3.270	3.250	3.253	0.015
	L1	0.260	0.259	0.262	2.530	2.520	2.550	2.533	0.015

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		#REF!	#REF!	#REF!	#REF!	#REF!	#REF!		
184	L7	0.010	0.010	0.010	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.011	0.010	0.009	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.595	0.600	0.602	5.883	5.933	5.953	5.923	0.036
	L6	0.575	0.576	0.574	5.683	5.693	5.673	5.683	0.010
	L5	0.597	0.598	0.598	5.903	5.913	5.913	5.910	0.006
	L4	0.552	0.553	0.554	5.453	5.463	5.473	5.463	0.010
	L3	0.577	0.583	0.577	5.703	5.763	5.703	5.723	0.035
	L2	0.570	0.571	0.565	5.633	5.643	5.583	5.620	0.032
	L1	0.592	0.593	0.590	5.853	5.863	5.833	5.850	0.015

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		#REF!	#REF!	#REF!	#REF!	#REF!	#REF!		
193	L7	0.008	0.008	0.008	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.009	0.009	0.009	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.494	0.493	0.494	4.857	4.847	4.857	4.853	0.006
	L6	0.429	0.429	0.429	4.207	4.207	4.207	4.207	0.000
	L5	0.428	0.430	0.430	4.197	4.217	4.217	4.210	0.012
	L4	0.424	0.426	0.423	4.157	4.177	4.147	4.160	0.015
	L3	0.398	0.395	0.399	3.897	3.867	3.907	3.890	0.021
	L2	0.393	0.396	0.393	3.847	3.877	3.847	3.857	0.017
	L1	0.276	0.276	0.279	2.677	2.677	2.707	2.687	0.017

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
		#REF!	#REF!	#REF!	#REF!	#REF!	#REF!		
172	L7	0.011	0.013	0.012	#REF!	#REF!	#REF!	#REF!	#REF!
	L1	0.010	0.010	0.010	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.512	0.513	0.512	5.010	5.020	5.010	5.013	0.006
	L6	0.520	0.518	0.520	5.090	5.070	5.090	5.083	0.012
	L5	0.528	0.528	0.532	5.170	5.170	5.210	5.183	0.023
	L4	0.532	0.531	0.533	5.210	5.200	5.220	5.210	0.010
	L3	0.542	0.542	0.542	5.310	5.310	5.310	5.310	0.000
	L2	0.539	0.539	0.537	5.280	5.280	5.260	5.273	0.012
	L1	0.556	0.556	0.556	5.450	5.450	5.450	5.450	0.000

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.012	0.013	0.013	#REF!	#REF!	#REF!	#REF!	#REF!
37	L1	0.014	0.013	0.015	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.209	0.208	0.211	1.967	1.957	1.987	1.970	0.015
	L6	0.187	0.189	0.189	1.747	1.767	1.767	1.760	0.012
	L5	0.200	0.201	0.200	1.877	1.887	1.877	1.880	0.006
	L4	0.208	0.208	0.209	1.957	1.957	1.967	1.960	0.006
	L3							#DIV/0!	#DIV/0!
	L2	0.189	0.189	0.187	1.767	1.767	1.747	1.760	0.012
	L1	0.197	0.198	0.194	1.847	1.857	1.817	1.840	0.021
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.013	0.013	0.013	#REF!	#REF!	#REF!	#REF!	#REF!
196	L1	0.012	0.014	0.014	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.350	0.351	0.351	3.380	3.390	3.390	3.387	0.006
	L1	0.244	0.246	0.244	2.320	2.340	2.320	2.327	0.012
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.015	0.016	0.016	#REF!	#REF!	#REF!	#REF!	#REF!
189	L1	0.016	0.017	0.016	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.482	0.484	0.484	4.700	4.720	4.720	4.713	0.012
	L1	0.480	0.476	0.479	4.680	4.640	4.670	4.663	0.021
Time (days)	Control	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.015	0.016	0.016	#REF!	#REF!	#REF!	#REF!	#REF!
182	L1	0.016	0.016	0.015	#REF!	#REF!	#REF!	#REF!	#REF!
	Cadmium	Triplate Analysis			Account for 1:10 Dilution			Avg	s
	L7	0.546	0.548	0.548	5.323	5.343	5.343	5.337	0.012
	L1	0.517	0.514	0.517	5.033	5.003	5.033	5.023	0.017

Appendix F Table F.1a. Cd column influent and effluent Cd concentrations. (continued)

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	#REF!	#REF!	#REF!		
175	L7	0.019	0.018	0.018	0.018	#REF!	#REF!
	L1	0.017	0.017	0.019	0.019	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.514	0.518	0.515	0.515	5.003	5.020
	L1	0.516	0.514	0.516	0.516	5.023	5.017

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	#REF!	#REF!	#REF!		
144	L7	0.017	0.018	0.017	0.017	#REF!	#REF!
	L1	0.014	0.017	0.017	0.017	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.839	0.843	0.843	0.843	8.233	8.260
	L1	0.935	0.936	0.932	0.932	9.193	9.187

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	#REF!	#REF!	#REF!		
137	L7	0.018	0.016	0.015	0.015	#REF!	#REF!
	L1	0.017	0.016	0.016	0.016	#REF!	#REF!
	Cadmium	Triplate Analysis		Account for 1:10 Dilution		Avg	s
	L7	0.819	0.816	0.817	0.817	8.033	8.017
	L1	0.862	0.864	0.867	0.867	8.463	8.487

Time (days)	Control	Triplate Analysis		Account for 1:10 Dilution		Avg	s
		#REF!	#REF!	#REF!	#REF!		
266	L7	0.171	0.175	0.171	0.171	1.710	1.723
	L6	0.224	0.228	0.232	0.232	2.240	2.280
	L5	0.287	0.282	0.292	0.292	2.870	2.870
	L4	0.310	0.311	0.311	0.311	3.100	3.107
	L3	0.223	0.215	0.221	0.221	2.230	2.197
	L2	0.212	0.214	0.216	0.216	2.120	2.140
	L1	0.181	0.182	0.185	0.185	1.810	1.827