Simulated concentrations of PCE and PCE degradation by-products in finished water of Tarawa Terrace water treatment plant (WTP), January 1951-December 1994 [WTP closed March 1987]

Model Stress Period	Simulation Date	Single species simulation using MT3DMS model[1]	Multispecies simulation using TechFlowMP model[2]			
		PCE, in µg/L[3]	PCE, in µg/L[4]	1,2-tDCE, in µg/L[5]	TCE, in µg/L[6]	VC, in µg/L[7]
1	Jan-51	Not operating	Not operating	Not operating	Not operating	Not operating
2	Feb-51	Not operating	Not operating	Not operating	Not operating	Not operating
3	Mar-51	Not operating	Not operating	Not operating	Not operating	Not operating
4	Apr-51	Not operating	Not operating	Not operating	Not operating	Not operating
5	May-51	Not operating	Not operating	Not operating	Not operating	Not operating
6	Jun-51	Not operating	Not operating	Not operating	Not operating	Not operating
7	Jul-51	Not operating	Not operating	Not operating	Not operating	Not operating
8	Aug-51	Not operating	Not operating	Not operating	Not operating	Not operating
9	Sep-51	Not operating	Not operating	Not operating	Not operating	Not operating
10	Oct-51	Not operating	Not operating	Not operating	Not operating	Not operating
11	Nov-51	Not operating	Not operating	Not operating	Not operating	Not operating
12	Dec-51	Not operating	Not operating	Not operating	Not operating	Not operating
13	Jan-52	0.00	0.00	0.00	0.00	0.00
14	Feb-52	0.00	0.00	0.00	0.00	0.00
15	Mar-52	0.00	0.00	0.00	0.00	0.00
16	Apr-52	0.00	0.00	0.00	0.00	0.00
17	May-52	0.00	0.00	0.00	0.00	0.00
18	Jun-52	0.00	0.00	0.00	0.00	0.00
19	Jul-52	0.00	0.00	0.00	0.00	0.00
20	Aug-52	0.00	0.00	0.00	0.00	0.00
21	Sep-52	0.00	0.00	0.00	0.00	0.00
22	Oct-52	0.00	0.00	0.00	0.00	0.00
23	Nov-52	0.00	0.00	0.00	0.00	0.00
24	Dec-52	0.00	0.00	0.00	0.00	0.00
25	Jan-53	0.00	0.00	0.00	0.00	0.00
26	Feb-53	0.00	0.00	0.00	0.00	0.00
27	Mar-53	0.00	0.00	0.00	0.00	0.00
28	Apr-53	0.00	0.00	0.00	0.00	0.00
29	May-53	0.00	0.00	0.00	0.00	0.00
30	Jun-53	0.00	0.00	0.00	0.00	0.00
31	Jul-53	0.00	0.00	0.00	0.00	0.00
32	Aug-53	0.00	0.00	0.00	0.00	0.00
33	Sep-53	0.00	0.00	0.00	0.00	0.00
34	Oct-53	0.00	0.00	0.00	0.00	0.00
35	Nov-53	0.00	0.00	0.00	0.00	0.00
36	Dec-53	0.00	0.00	0.00	0.00	0.00
37	Jan-54	0.00	0.00	0.00	0.00	0.00
38	Feb-54	0.00	0.00	0.00	0.00	0.00
39	Mar-54	0.00	0.00	0.00	0.00	0.00
40	Apr-54	0.00	0.00	0.00	0.00	0.00
41	May-54	0.00	0.00	0.00	0.00	0.00
42	Jun-54	0.00	0.00	0.00	0.00	0.00
43	Jul-54	0.00	0.00	0.00	0.00	0.00
44	Aug-54	0.00	0.00	0.00	0.00	0.00
45	Sep-54	0.00	0.00	0.00	0.00	0.00
46	Oct-54	0.00	0.00	0.00	0.00	0.00
47	Nov-54	0.00	0.00	0.00	0.00	0.00
48	Dec-54	0.00	0.00	0.00	0.00	0.00

Simulated concentrations of PCE and PCE degradation by-products in finished water of Tarawa Terrace water treatment plant (WTP), January 1951-December 1994 [WTP closed March 1987]

Model Stress Period	Simulation Date	Single species simulation using MT3DMS model[1]	Multispecies simulation using TechFlowMP model[2]			
		PCE, in µg/L[3]	PCE, in µg/L[4]	1,2-tDCE, in µg/L[5]	TCE, in µg/L[6]	VC, in µg/L[7]
49	Jan-55	0.00	0.00	0.00	0.00	0.01
50	Feb-55	0.00	0.00	0.01	0.00	0.01
51	Mar-55	0.00	0.01	0.01	0.00	0.01
52	Apr-55	0.00	0.01	0.01	0.00	0.02
53	May-55	0.00	0.01	0.01	0.00	0.02
54	Jun-55	0.01	0.01	0.02	0.00	0.03
55	Jul-55	0.01	0.02	0.03	0.00	0.03
56	Aug-55	0.01	0.03	0.03	0.00	0.04
57	Sep-55	0.02	0.04	0.04	0.00	0.05
58	Oct-55	0.03	0.05	0.05	0.00	0.07
59	Nov-55	0.04	0.06	0.07	0.00	0.08
60	Dec-55	0.06	0.08	0.08	0.01	0.10
61	Jan-56	0.08	0.11	0.10	0.01	0.12
62	Feb-56	0.10	0.14	0.12	0.01	0.14
63	Mar-56	0.13	0.17	0.15	0.01	0.17
64	Apr-56	0.17	0.22	0.18	0.01	0.20
65	May-56	0.23	0.27	0.21	0.02	0.23
66	Jun-56	0.29	0.33	0.25	0.02	0.26
67	Jul-56	0.36	0.40	0.29	0.02	0.30
68	Aug-56	0.46	0.49	0.33	0.03	0.34
69	Sep-56	0.57	0.59	0.38	0.03	0.39
70	Oct-56	0.70	0.70	0.44	0.04	0.44
71	Nov-56	0.85	0.83	0.50	0.05	0.49
72	Dec-56	1.04	0.97	0.57	0.06	0.55
73	Jan-57	1.25	1.14	0.64	0.06	0.61
74	Feb-57	1.47	1.33	0.72	0.07	0.68
75	Mar-57	1.74	1.52	0.79	0.08	0.74
76	Apr-57	2.04	1.75	0.88	0.10	0.81
77	May-57	2.39	2.00	0.97	0.11	0.89
78	Jun-57	2.77	2.28	1.08	0.12	0.97
79	Jul-57	3.21	2.59	1.18	0.14	1.05
80	Aug-57	3.69	2.93	1.29	0.16	1.13
81	Sep-57	4.21	3.30	1.41	0.17	1.23
82	Oct-57	4.79	3.69	1.53	0.19	1.32
83	Nov-57	5.41	4.13	1.66	0.22	1.41
84	Dec-57	6.10	4.59	1.80	0.24	1.51
85	Jan-58	6.86	5.11	1.94	0.26	1.62
86	Feb-58	7.60	5.65	2.09	0.29	1.72
87	Mar-58	8.47	6.17	2.22	0.31	1.81
88	Apr-58	9.37	6.79	2.38	0.34	1.92
89	May-58	10.37	7.41	2.53	0.37	2.02
90	Jun-58	11.39	8.10	2.70	0.41	2.13
91	Jul-58	12.91	9.09	2.96	0.45	2.32
92	Aug-58	14.12	9.88	3.14	0.49	2.44
93	Sep-58	15.35	10.73	3.33	0.53	2.56
94	Oct-58	16.69	11.58	3.52	0.57	2.68
95	Nov-58	18.03	12.52	3.72	0.61	2.81
96	Dec-58	19.49	13.46	3.92	0.66	2.94

Simulated concentrations of PCE and PCE degradation by-products in finished water of Tarawa Terrace water treatment plant (WTP), January 1951-December 1994 [WTP closed March 1987]

Model Stress Period	Simulation Date	Single species simulation using MT3DMS model[1]	Multispecies simulation using TechFlowMP model[2]			
		PCE, in µg/L[3]	PCE, in µg/L[4]	1,2-tDCE, in µg/L[5]	TCE, in µg/L[6]	VC, in µg/L[7]
97	Jan-59	20.97	14.48	4.13	0.71	3.07
98	Feb-59	22.35	15.54	4.34	0.76	3.21
99	Mar-59	23.92	16.54	4.54	0.80	3.33
100	Apr-59	25.49	17.70	4.77	0.85	3.48
101	May-59	27.15	18.84	4.99	0.91	3.61
102	Jun-59	28.81	20.09	5.23	0.96	3.77
103	Jul-59	30.56	21.34	5.46	1.02	3.91
104	Aug-59	32.36	22.66	5.69	1.08	4.05
105	Sep-59	34.14	24.01	5.93	1.14	4.19
106	Oct-59	36.01	25.35	6.16	1.20	4.32
107	Nov-59	37.85	26.77	6.40	1.27	4.46
108	Dec-59	39.78	28.18	6.64	1.33	4.60
109	Jan-60	41.86	29.67	6.88	1.40	4.74
110	Feb-60	43.85	31.17	7.12	1.46	4.86
111	Mar-60	46.03	32.58	7.33	1.52	4.97
112	Apr-60	48.15	34.16	7.57	1.59	5.10
113	May-60	50.37	35.67	7.79	1.66	5.21
114	Jun-60	52.51	37.24	8.03	1.73	5.33
115	Jul-60	54.74	38.79	8.26	1.80	5.45
116	Aug-60	56.96	40.45	8.51	1.87	5.59
117	Sep-60	59.09	42.13	8.76	1.94	5.73
118	Oct-60	61.30	43.80	9.02	2.02	5.86
119	Nov-60	63.42	45.57	9.28	2.09	6.01
120	Dec-60	65.61	47.31	9.54	2.17	6.15
121	Jan-61	67.69	49.15	9.82	2.25	6.30
122	Feb-61	69.54	51.03	10.10	2.33	6.46
123	Mar-61	71.56	52.73	10.35	2.41	6.61
124	Apr-61	73.49	54.69	10.64	2.49	6.77
125	May-61	75.49	56.57	10.92	2.58	6.92
126	Jun-61	77.39	58.53	11.20	2.66	7.07
127	Jul-61	79.36	60.43	11.46	2.75	7.22
128	Aug-61	81.32	62.42	11.74	2.83	7.36
129	Sep-61	83.19	64.40	12.01	2.92	7.51
130	Oct-61	85.11	66.32	12.27	3.00	7.64
131	Nov-61	86.95	68.33	12.55	3.09	7.79
132	Dec-61	88.84	70.28	12.80	3.17	7.92
133	Jan-62	60.88	47.74	8.63	2.15	5.32
134	Feb-62	62.10	49.86	9.00	2.25	5.56
135	Mar-62	62.94	51.28	9.17	2.31	5.64
136	Apr-62	63.59	52.37	9.25	2.36	5.67
137	May-62	64.17	53.18	9.28	2.39	5.66
138	Jun-62	64.70	53.88	9.28	2.41	5.63
139	Jul-62	65.23	54.48	9.28	2.43	5.60
140	Aug-62	65.74	55.06	9.26	2.45	5.56
141	Sep-62	66.22	55.59	9.24	2.46	5.52
142	Oct-62	66.71	56.07	9.22	2.48	5.47
143	Nov-62	67.18	56.54	9.19	2.49	5.42
144	Dec-62	67.65	56.97	9.16	2.50	5.38

Simulated concentrations of PCE and PCE degradation by-products in finished water of Tarawa Terrace water treatment plant (WTP), January 1951-December 1994 [WTP closed March 1987]

Model Stress Period	Simulation Date	Single species simulation using MT3DMS model[1]	Multispecies simulation using TechFlowMP model[2]			
		PCE, in µg/L[3]	PCE, in µg/L[4]	1,2-tDCE, in µg/L[5]	TCE, in µg/L[6]	VC, in µg/L[7]
145	Jan-63	68.06	57.40	9.13	2.51	5.33
146	Feb-63	68.39	57.78	9.09	2.52	5.28
147	Mar-63	68.73	58.11	9.06	2.53	5.24
148	Apr-63	69.03	58.49	9.02	2.54	5.20
149	May-63	69.33	58.81	8.98	2.55	5.15
150	Jun-63	69.62	59.14	8.94	2.56	5.11
151	Jul-63	69.90	59.42	8.90	2.57	5.06
152	Aug-63	70.17	59.70	8.86	2.57	5.02
153	Sep-63	70.43	59.97	8.82	2.57	4.98
154	Oct-63	70.69	60.21	8.78	2.58	4.94
155	Nov-63	70.93	60.45	8.74	2.58	4.90
156	Dec-63	71.17	60.67	8.70	2.59	4.86
157	Jan-64	71.40	60.89	8.67	2.59	4.83
158	Feb-64	63.77	54.39	7.69	2.31	4.27
159	Mar-64	63.95	54.42	7.58	2.30	4.17
160	Apr-64	64.08	54.43	7.50	2.29	4.10
161	May-64	64.19	54.36	7.42	2.29	4.04
162	Jun-64	64.27	54.29	7.35	2.28	3.98
163	Jul-64	64.34	54.21	7.28	2.27	3.93
164	Aug-64	64.39	54.14	7.22	2.26	3.88
165	Sep-64	64.43	54.06	7.16	2.26	3.84
166	Oct-64	64.47	53.99	7.10	2.25	3.79
167	Nov-64	64.49	53.92	7.05	2.24	3.75
168	Dec-64	64.50	53.85	7.00	2.24	3.72
169	Jan-65	64.50	53.78	6.95	2.23	3.68
170	Feb-65	64.49	53.72	6.90	2.23	3.65
171	Mar-65	64.47	53.64	6.86	2.22	3.61
172	Apr-65	64.45	53.59	6.82	2.22	3.58
173	May-65	64.42	53.52	6.78	2.21	3.55
174	Jun-65	64.38	53.47	6.74	2.21	3.52
175	Jul-65	64.33	53.40	6.70	2.20	3.50
176	Aug-65	64.27	53.34	6.66	2.20	3.47
177	Sep-65	64.20	53.27	6.63	2.19	3.44
178	Oct-65	64.13	53.20	6.59	2.19	3.42
179	Nov-65	64.05	53.14	6.56	2.18	3.40
180	Dec-65	63.97	53.07	6.53	2.18	3.37
181	Jan-66	63.88	53.00	6.50	2.17	3.35
182	Feb-66	63.79	52.93	6.47	2.17	3.33
183	Mar-66	63.68	52.84	6.44	2.16	3.31
184	Apr-66	63.57	52.78	6.41	2.16	3.29
185	May-66	63.46	52.70	6.38	2.15	3.27
186	Jun-66	63.34	52.63	6.35	2.15	3.25
187	Jul-66	63.21	52.54	6.33	2.14	3.23
188	Aug-66	63.08	52.46	6.30	2.14	3.21
189	Sep-66	62.94	52.38	6.27	2.13	3.20
190	Oct-66	62.80	52.28	6.25	2.13	3.18
191	Nov-66	62.65	52.20	6.22	2.12	3.16
192	Dec-66	62.50	52.11	6.19	2.12	3.14

Simulated concentrations of PCE and PCE degradation by-products in finished water of Tarawa Terrace water treatment plant (WTP), January 1951-December 1994 [WTP closed March 1987]

Model Stress Period	Simulation Date	Single species simulation using MT3DMS model[1]	Multispecies simulation using TechFlowMP model[2]			
		PCE, in µg/L[3]	PCE, in µg/L[4]	1,2-tDCE, in µg/L[5]	TCE, in µg/L[6]	VC, in µg/L[7]
193	Jan-67	62.25	52.02	6.17	2.11	3.13
194	Feb-67	61.99	51.90	6.14	2.11	3.11
195	Mar-67	61.67	51.76	6.11	2.10	3.09
196	Apr-67	61.35	51.61	6.08	2.09	3.07
197	May-67	61.02	51.43	6.04	2.08	3.05
198	Jun-67	60.69	51.23	6.00	2.07	3.03
199	Jul-67	60.37	51.02	5.96	2.06	3.00
200	Aug-67	60.05	50.79	5.92	2.05	2.98
201	Sep-67	59.74	50.57	5.87	2.04	2.95
202	Oct-67	59.43	50.34	5.83	2.03	2.92
203	Nov-67	59.13	50.11	5.79	2.02	2.90
204	Dec-67	58.83	49.89	5.75	2.01	2.87
205	Jan-68	58.41	49.66	5.70	2.00	2.85
206	Feb-68	57.95	49.40	5.66	1.99	2.82
207	Mar-68	57.43	49.10	5.60	1.97	2.79
208	Apr-68	56.94	48.77	5.55	1.96	2.76
209	May-68	56.45	48.43	5.49	1.94	2.73
210	Jun-68	55.98	48.07	5.43	1.93	2.69
211	Jul-68	55.49	47.67	5.36	1.91	2.65
212	Aug-68	55.02	47.26	5.29	1.89	2.61
213	Sep-68	54.58	46.84	5.23	1.87	2.57
214	Oct-68	54.13	46.43	5.16	1.85	2.54
215	Nov-68	53.71	46.03	5.10	1.84	2.50
216	Dec-68	53.28	45.63	5.04	1.82	2.46
217	Jan-69	53.07	45.24	4.98	1.80	2.43
218	Feb-69	52.97	44.91	4.93	1.79	2.40
219	Mar-69	52.94	44.64	4.88	1.78	2.37
220	Apr-69	52.93	44.47	4.86	1.77	2.35
221	May-69	52.93	44.32	4.83	1.76	2.34
222	Jun-69	52.92	44.20	4.81	1.76	2.32
223	Jul-69	52.90	44.09	4.79	1.75	2.31
224	Aug-69	52.86	44.01	4.78	1.75	2.30
225	Sep-69	52.81	43.92	4.77	1.75	2.29
226	Oct-69	52.75	43.83	4.76	1.74	2.29
227	Nov-69	55.19	45.75	4.97	1.82	2.38
228	Dec-69	55.19	45.96	5.01	1.83	2.42
229	Jan-70	55.01	46.05	5.03	1.84	2.43
230	Feb-70	54.79	46.03	5.03	1.84	2.43
231	Mar-70	54.49	45.94	5.03	1.83	2.43
232	Apr-70	54.20	45.84	5.03	1.83	2.44
233	May-70	53.90	45.70	5.01	1.82	2.44
234	Jun-70	53.61	45.54	5.00	1.82	2.43
235	Jul-70	53.32	45.37	4.98	1.81	2.43
236	Aug-70	53.04	45.20	4.96	1.80	2.42
237	Sep-70	52.78	45.00	4.94	1.79	2.41
238	Oct-70	52.53	44.79	4.91	1.78	2.40
239	Nov-70	52.29	44.58	4.89	1.78	2.39
240	Dec-70	52.05	44.37	4.87	1.77	2.38

Simulated concentrations of PCE and PCE degradation by-products in finished water of Tarawa Terrace water treatment plant (WTP), January 1951-December 1994 [WTP closed March 1987]

Model Stress Period	Simulation Date	Single species simulation using MT3DMS model[1]	Multispecies simulation using TechFlowMP model[2]			
		PCE, in µg/L[3]	PCE, in µg/L[4]	1,2-tDCE, in µg/L[5]	TCE, in µg/L[6]	VC, in µg/L[7]
241	Jan-71	51.96	44.17	4.84	1.76	2.37
242	Feb-71	51.93	43.99	4.82	1.75	2.35
243	Mar-71	51.95	43.86	4.80	1.74	2.34
244	Apr-71	51.99	43.76	4.79	1.74	2.34
245	May-71	52.03	43.66	4.78	1.74	2.33
246	Jun-71	52.08	43.60	4.78	1.73	2.33
247	Jul-71	52.12	43.53	4.77	1.73	2.33
248	Aug-71	52.16	43.47	4.77	1.73	2.33
249	Sep-71	52.20	43.41	4.77	1.73	2.33
250	Oct-71	52.23	43.35	4.77	1.72	2.33
251	Nov-71	52.26	43.31	4.77	1.72	2.33
252	Dec-71	52.29	43.26	4.77	1.72	2.34
253	Jan-72	49.34	41.02	4.53	1.63	2.22
254	Feb-72	49.01	40.49	4.44	1.61	2.17
255	Mar-72	48.68	40.01	4.37	1.58	2.13
256	Apr-72	48.40	39.51	4.30	1.56	2.09
257	May-72	48.14	39.03	4.24	1.54	2.06
258	Jun-72	47.90	38.55	4.17	1.52	2.02
259	Jul-72	47.67	38.11	4.11	1.50	1.98
260	Aug-72	47.45	37.68	4.05	1.48	1.95
261	Sep-72	47.25	37.26	3.99	1.46	1.92
262	Oct-72	47.05	36.88	3.94	1.45	1.89
263	Nov-72	46.87	36.51	3.89	1.43	1.86
264	Dec-72	46.69	36.15	3.85	1.42	1.84
265	Jan-73	54.28	41.48	4.40	1.62	2.10
266	Feb-73	54.19	42.32	4.57	1.67	2.21
267	Mar-73	53.98	42.49	4.60	1.68	2.23
268	Apr-73	53.76	42.42	4.60	1.68	2.24
269	May-73	53.52	42.25	4.59	1.67	2.24
270	Jun-73	53.30	42.05	4.58	1.66	2.25
271	Jul-73	53.08	41.78	4.56	1.65	2.24
272	Aug-73	52.87	41.53	4.53	1.64	2.23
273	Sep-73	52.68	41.27	4.51	1.63	2.22
274	Oct-73	52.51	41.01	4.48	1.62	2.21
275	Nov-73	52.35	40.75	4.45	1.61	2.20
276	Dec-73	52.20	40.48	4.42	1.60	2.19
277	Jan-74	52.43	40.22	4.40	1.59	2.17
278	Feb-74	52.82	40.13	4.39	1.59	2.17
279	Mar-74	53.39	40.10	4.38	1.58	2.16
280	Apr-74	53.99	40.20	4.40	1.59	2.17
281	May-74	54.63	40.35	4.43	1.60	2.18
282	Jun-74	55.25	40.59	4.48	1.61	2.21
283	Jul-74	55.90	40.82	4.52	1.62	2.24
284	Aug-74	56.53	41.08	4.57	1.63	2.27
285	Sep-74	57.10	41.35	4.62	1.64	2.31
286	Oct-74	57.70	41.61	4.68	1.65	2.34
287	Nov-74	58.30	41.91	4.74	1.67	2.39
288	Dec-74	58.92	42.19	4.81	1.68	2.43

Simulated concentrations of PCE and PCE degradation by-products in finished water of Tarawa Terrace water treatment plant (WTP), January 1951-December 1994 [WTP closed March 1987]

Model Stress Period	Simulation Date	Single species simulation using MT3DMS model[1]	Multispecies simulation using TechFlowMP model[2]			
		PCE, in µg/L[3]	PCE, in µg/L[4]	1,2-tDCE, in µg/L[5]	TCE, in µg/L[6]	VC, in µg/L[7]
289	Jan-75	61.00	43.76	5.02	1.74	2.55
290	Feb-75	61.24	43.90	5.06	1.75	2.59
291	Mar-75	61.41	44.03	5.11	1.75	2.63
292	Apr-75	61.57	44.18	5.16	1.76	2.68
293	May-75	61.72	44.29	5.20	1.77	2.71
294	Jun-75	61.88	44.38	5.24	1.77	2.75
295	Jul-75	62.05	44.45	5.28	1.77	2.78
296	Aug-75	62.25	44.52	5.31	1.78	2.81
297	Sep-75	62.46	44.57	5.34	1.78	2.83
298	Oct-75	62.69	44.62	5.36	1.78	2.85
299	Nov-75	62.92	44.69	5.39	1.78	2.87
300	Dec-75	63.18	44.74	5.41	1.78	2.89
301	Jan-76	73.96	51.53	6.24	2.06	3.34
302	Feb-76	74.94	53.43	6.62	2.15	3.60
303	Mar-76	75.97	54.44	6.80	2.20	3.72
304	Apr-76	76.97	55.38	6.99	2.24	3.85
305	May-76	78.00	56.21	7.16	2.28	3.98
306	Jun-76	79.02	57.07	7.34	2.32	4.10
307	Jul-76	80.07	57.86	7.51	2.35	4.22
308	Aug-76	81.13	58.73	7.69	2.39	4.34
309	Sep-76	82.17	59.58	7.86	2.43	4.46
310	Oct-76	83.25	60.41	8.02	2.46	4.57
311	Nov-76	84.31	61.28	8.19	2.50	4.68
312	Dec-76	85.41	62.10	8.35	2.53	4.79
313	Jan-77	86.61	62.97	8.52	2.57	4.89
314	Feb-77	87.70	63.98	8.71	2.62	5.01
315	Mar-77	88.91	64.81	8.86	2.65	5.11
316	Apr-77	90.10	65.83	9.05	2.70	5.22
317	May-77	91.32	66.76	9.21	2.74	5.32
318	Jun-77	92.53	67.76	9.38	2.78	5.43
319	Jul-77	93.75	68.70	9.55	2.82	5.53
320	Aug-77	94.99	69.70	9.72	2.86	5.63
321	Sep-77	96.20	70.70	9.88	2.90	5.72
322	Oct-77	97.42	71.65	10.04	2.94	5.82
323	Nov-77	98.62	72.71	10.21	2.99	5.92
324	Dec-77	99.84	73.68	10.36	3.03	6.00
325	Jan-78	101.18	74.73	10.53	3.07	6.10
326	Feb-78	102.77	76.25	10.80	3.14	6.26
327	Mar-78	103.04	78.73	11.26	3.26	6.56
328	Apr-78	104.31	77.97	11.02	3.21	6.37
329	May-78	105.18	79.28	11.27	3.27	6.53
330	Jun-78	106.88	79.72	11.29	3.28	6.51
331	Jul-78	107.95	82.31	11.78	3.41	6.83
332	Aug-78	108.69	83.81	12.00	3.47	6.96
333	Sep-78	109.61	84.16	12.00	3.48	6.93
334	Oct-78	111.18	84.92	12.09	3.51	6.97
335	Nov-78	111.08	87.48	12.55	3.63	7.25
336	Dec-78	111.93	85.67	12.04	3.52	6.87

Simulated concentrations of PCE and PCE degradation by-products in finished water of Tarawa Terrace water treatment plant (WTP), January 1951-December 1994 [WTP closed March 1987]

Model Stress Period	Simulation Date	Single species simulation using MT3DMS model[1]	Multispecies simulation using TechFlowMP model[2]			
		PCE, in µg/L[3]	PCE, in µg/L[4]	1,2-tDCE, in µg/L[5]	TCE, in µg/L[6]	VC, in µg/L[7]
337	Jan-79	113.14	85.41	11.95	3.50	6.79
338	Feb-79	114.05	86.75	12.16	3.56	6.91
339	Mar-79	114.98	87.55	12.23	3.60	6.93
340	Apr-79	115.82	88.43	12.32	3.63	6.97
341	May-79	116.68	89.21	12.40	3.66	7.00
342	Jun-79	117.47	90.09	12.49	3.70	7.05
343	Jul-79	118.29	90.82	12.56	3.73	7.07
344	Aug-79	119.08	91.67	12.65	3.76	7.11
345	Sep-79	119.82	92.44	12.72	3.79	7.14
346	Oct-79	120.59	93.22	12.81	3.82	7.18
347	Nov-79	121.31	94.00	12.88	3.85	7.21
348	Dec-79	122.04	94.78	12.96	3.89	7.24
349	Jan-80	123.28	95.56	13.03	3.92	7.27
350	Feb-80	122.98	98.20	13.49	4.04	7.56
351	Mar-80	124.03	96.35	12.98	3.94	7.19
352	Apr-80	123.90	97.86	13.28	4.01	7.39
353	May-80	124.69	96.00	12.78	3.90	7.03
354	Jun-80	125.83	96.23	12.80	3.91	7.03
355	Jul-80	0.72	0.00	0.00	0.00	0.00
356	Aug-80	0.75	0.00	0.00	0.00	0.00
357	Sep-80	121.36	95.07	12.43	3.92	6.83
358	Oct-80	121.72	91.40	11.24	3.63	5.84
359	Nov-80	122.14	91.00	11.17	3.63	5.82
360	Dec-80	122.95	90.64	11.14	3.62	5.81
361	Jan-81	114.05	84.14	10.41	3.37	5.46
362	Feb-81	114.39	84.80	10.53	3.41	5.55
363	Mar-81	115.60	84.13	10.37	3.37	5.44
364	Apr-81	116.55	85.90	10.74	3.46	5.69
365	May-81	117.30	87.53	11.02	3.54	5.87
366	Jun-81	118.36	88.90	11.26	3.60	6.03
367	Jul-81	133.29	102.10	13.12	4.17	7.09
368	Aug-81	134.31	105.46	13.75	4.33	7.50
369	Sep-81	120.72	96.34	12.64	3.96	6.93
370	Oct-81	121.04	96.29	12.60	3.95	6.90
371	Nov-81	121.41	96.69	12.67	3.96	6.93
372	Dec-81	121.81	97.27	12.74	3.98	6.97
373	Jan-82	103.95	81.28	10.65	3.33	5.81
374	Feb-82	105.86	83.47	11.06	3.43	6.09
375	Mar-82	107.52	85.42	11.40	3.51	6.31
376	Apr-82	108.83	87.32	11.75	3.60	6.55
377	May-82	148.50	120.45	16.30	4.98	9.13
378	Jun-82	110.78	92.65	12.81	3.86	7.26
379	Jul-82	111.98	92.98	12.77	3.86	7.21
380	Aug-82	113.07	94.09	12.97	3.91	7.34
381	Sep-82	114.04	95.33	13.18	3.96	7.46
382	Oct-82	114.60	96.51	13.37	4.01	7.57
383	Nov-82	113.87	96.63	13.31	4.00	7.51
384	Dec-82	115.16	93.14	12.43	3.80	6.88

Simulated concentrations of PCE and PCE degradation by-products in finished water of Tarawa Terrace water treatment plant (WTP), January 1951-December 1994 [WTP closed March 1987]

Model Stress Period	Simulation Date	Single species simulation using MT3DMS model[1]	Multispecies simulation using TechFlowMP model[2]			
		PCE, in µg/L[3]	PCE, in µg/L[4]	1,2-tDCE, in µg/L[5]	TCE, in µg/L[6]	VC, in µg/L[7]
385	Jan-83	1.25	0.10	0.04	0.00	0.05
386	Feb-83	1.29	0.12	0.05	0.01	0.07
387	Mar-83	111.76	88.43	11.55	3.65	6.37
388	Apr-83	112.66	86.39	10.85	3.43	5.77
389	May-83	113.97	87.67	11.04	3.52	5.88
390	Jun-83	106.10	82.26	10.54	3.33	5.70
391	Jul-83	116.70	92.03	11.95	3.75	6.52
392	Aug-83	117.72	94.46	12.45	3.87	6.87
393	Sep-83	117.83	96.92	12.94	3.99	7.21
394	Oct-83	117.97	96.60	12.82	3.96	7.12
395	Nov-83	118.63	95.49	12.58	3.89	6.95
396	Dec-83	120.78	95.52	12.60	3.89	6.96
397	Jan-84	132.87	111.52	15.09	4.61	8.43
398	Feb-84	180.39	145.48	19.20	5.94	10.56
399	Mar-84	183.02	155.54	21.34	6.47	11.97
400	Apr-84	151.46	132.07	18.23	5.52	10.26
401	May-84	153.42	132.19	18.09	5.49	10.13
402	Jun-84	182.13	158.14	21.85	6.60	12.28
403	Jul-84	156.39	140.96	19.72	5.92	11.14
404	Aug-84	170.47	118.88	16.05	4.81	8.94
405	Sep-84	181.22	149.36	19.60	6.17	11.20
406	Oct-84	173.73	136.04	17.33	5.56	9.39
407	Nov-84	173.77	131.63	16.46	5.34	8.87
408	Dec-84	173.18	128.47	15.83	5.18	8.46
409	Jan-85	176.12	127.80	15.48	5.13	8.20
410	Feb-85	3.64	1.10	0.29	0.05	0.22
411	Mar-85	8.71	3.88	0.68	0.17	0.47
412	Apr-85	8.09	3.70	0.68	0.16	0.49
413	May-85	4.76	1.65	0.44	0.07	0.35
414	Jun-85	5.14	1.88	0.50	0.08	0.41
415	Jul-85	5.54	2.10	0.56	0.09	0.47
416	Aug-85	6.01	2.34	0.63	0.10	0.52
417	Sep-85	6.50	2.62	0.71	0.12	0.59
418	Oct-85	7.06	2.91	0.79	0.13	0.65
419	Nov-85	7.64	3.24	0.87	0.15	0.71
420	Dec-85	8.27	3.58	0.95	0.16	0.76
421	Jan-86	8.85	3.95	1.04	0.18	0.82
422	Feb-86	9.42	4.24	1.08	0.19	0.83
423	Mar-86	12.14	5.40	1.34	0.24	1.01
424	Apr-86	10.83	4.93	1.20	0.22	0.89
425	May-86	11.56	5.25	1.25	0.23	0.91
426	Jun-86	12.28	5.61	1.30	0.25	0.92
427	Jul-86	13.06	5.97	1.35	0.26	0.94
428	Aug-86	13.84	6.36	1.39	0.28	0.96
429	Sep-86	14.61	6.75	1.44	0.30	0.97
430	Oct-86	15.42	7.12	1.48	0.31	0.99
431	Nov-86	16.21	7.52	1.52	0.33	1.00
432	Dec-86	17.03	7.89	1.56	0.34	1.01

Simulated concentrations of PCE and PCE degradation by-products in finished water of Tarawa Terrace water treatment plant (WTP), January 1951-December 1994 [WTP closed March 1987]

Model Stress Period	Simulation Date	Single species simulation using MT3DMS model[1]	Multispecies simulation using TechFlowMP model[2]			
		PCE, in µg/L[3]	PCE, in µg/L[4]	1,2-tDCE, in µg/L[5]	TCE, in µg/L[6]	VC, in µg/L[7]
433	Jan-87	17.85	8.28	1.59	0.36	1.01
434	Feb-87	18.49	8.71	1.64	0.38	1.03
435	Mar-87	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
436	Apr-87	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
437	May-87	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
438	Jun-87	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
439	Jul-87	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
440	Aug-87	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
441	Sep-87	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
442	Oct-87	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
443	Nov-87	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
444	Dec-87	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
445	Jan-88	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
446	Feb-88	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
447	Mar-88	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
448	Apr-88	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
449	May-88	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
450	Jun-88	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
451	Jul-88	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
452	Aug-88	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
453	Sep-88	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
454	Oct-88	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
455	Nov-88	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
456	Dec-88	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
457	Jan-89	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
458	Feb-89	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
459	Mar-89	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
460	Apr-89	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
461	May-89	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
462	Jun-89	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
463	Jul-89	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
464	Aug-89	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
465	Sep-89	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
466	Oct-89	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
467	Nov-89	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
468	Dec-89	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
469	Jan-90	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
470	Feb-90	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
471	Mar-90	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
472	Apr-90	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
473	May-90	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
474	Jun-90	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
475	Jul-90	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
476	Aug-90	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
477	Sep-90	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
478	Oct-90	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
479	Nov-90	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
480	Dec-90	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed

Simulated concentrations of PCE and PCE degradation by-products in finished water of Tarawa Terrace water treatment plant (WTP), January 1951-December 1994 [WTP closed March 1987]

Model Stress Period	Simulation Date	Single species simulation using MT3DMS model[1]	Multispecies simulation using TechFlowMP model[2]			
		PCE, in µg/L[3]	PCE, in µg/L[4]	1,2-tDCE, in µg/L[5]	TCE, in µg/L[6]	VC, in µg/L[7]
481	Jan-91	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
482	Feb-91	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
483	Mar-91	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
484	Apr-91	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
485	May-91	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
486	Jun-91	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
487	Jul-91	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
488	Aug-91	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
489	Sep-91	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
490	Oct-91	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
491	Nov-91	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
492	Dec-91	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
493	Jan-92	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
494	Feb-92	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
495	Mar-92	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
496	Apr-92	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
497	May-92	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
498	Jun-92	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
499	Jul-92	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
500	Aug-92	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
501	Sep-92	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
502	Oct-92	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
503	Nov-92	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
504	Dec-92	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
505	Jan-93	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
506	Feb-93	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
507	Mar-93	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
508	Apr-93	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
509	May-93	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
510	Jun-93	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
511	Jul-93	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
512	Aug-93	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
513	Sep-93	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
514	Oct-93	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
515	Nov-93	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
516	Dec-93	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
517	Jan-94	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
518	Feb-94	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
519	Mar-94	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
520	Apr-94	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
521	May-94	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
522	Jun-94	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
523	Jul-94	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
524	Aug-94	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
525	Sep-94	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
526	Oct-94	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
527	Nov-94	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed
528	Dec-94	WTP closed	WTP closed	WTP closed	WTP closed	WTP closed

Simulated concentrations of PCE and PCE degradation by-products in finished water of Tarawa Terrace water treatment plant (WTP), January 1951-December 1994 [WTP closed March 1987]

Model Stress Period	Simulation Date	Single species simulation using MT3DMS model[1]	Multispecies simulation using TechFlowMP model[2]			
		PCE, in µg/L[3]	PCE, in µg/L[4]	1,2-tDCE, in µg/L[5]	TCE, in µg/L[6]	VC, in µg/L[7]
Footnotes						
1	**MT3DMS**: a three-dimensional mass transport, multispecies model developed by C. Zheng and P. Wang on behalf of the U.S. Army Engineer Research and Development Center in Vicksburg, Mississippi (http://hydro.geo.ua.edu/mt3d/)					
2	**TechFlowMP**: a three-dimensional multispecies, multiphase mass transport model developed by the Multimedia Environmental Simulations Laboratory at the Georgia Institute of Technology, Atlanta, Georgia (http://mesl.ce.gatech.edu)					
3	**PCE**: tetrachloroethylene; results from Chapter F report (Faye In press 2007)					
4	**PCE**: tetrachloroethylene; results from Chapter G report (Jang and Aral In press 2007)					
5	**1,2-tDCE**: trans-1,2-dichloroethylene; results from Chapter G report (Jang and Aral In press 2007)					
6	**TCE**: trichloroethylene; results from Chapter G report (Jang and Aral In press 2007)					
7	**VC**: vinyl chloride; results from Chapter G report (Jang and Aral In press 2007)					
References						
Chapter A	Maslia ML, Sautner JB, Suárez-Soto RJ, Aral MM, Grayman WM, Jang W, Wang J, Bove FJ, Ruckart PZ, Valenzuela C, Green JW Jr, and Krueger AL. Analyses of Groundwater Flow, Contaminant Fate and Transport, and Distribution of Drinking Water at Tarawa Terrace and Vicinity, U.S. Marine Corps Base Camp Lejeune, North Carolina: Historical Reconstruction and Present-Day Conditions--Chapter A: Summary of Findings. Atlanta, GA: Agency for Toxic Substances and Disease Registry; In press 2007.					
Chapter F	Faye RE. Analyses of Groundwater Flow, Contaminant Fate and Transport, and Distribution of Drinking Water at Tarawa Terrace and Vicinity, U.S. Marine Corps Base Camp Lejeune, North Carolina: Historical Reconstruction and Present-Day Conditions--Chapter F: Simulation of the Fate and Transport of Tetrachloroethylene (PCE). Atlanta, GA: Agency for Toxic Substances and Disease Registry; In press 2007.					
Chapter G	Jang W and Aral MM. Analyses of Groundwater Flow, Contaminant Fate and Transport, and Distribution of Drinking Water at Tarawa Terrace and Vicinity, U.S. Marine Corps Base Camp Lejeune, North Carolina: Historical Reconstruction and Present-Day Conditions--Chapter G: Simulation of Three-Dimensional Multispecies, Multiphase Mass Transport of Tetrachloroethylene (PCE) and Associated Degradation By-Products. Atlanta, GA: Agency for Toxic Substances and Disease Registry; In press 2007.					
Notes						
1	The maximum contaminant level (MCL) for tetrachloroethylene (PCE) is 5 micrograms per liter (µg/L), effective July 6, 1992 (40 CFR 141.60, 7-1-2002 edition)					
2	The MCL for trans-1,2-dichloroethylene (1,2-tDCE) is 100 micrograms per liter (µg/L), effective July 6, 1992 (40 CFR 141.60, 7-1-2002 edition)					
3	The MCL for trichloroethylene (TCE) is 5 micrograms per liter (µg/L), effective January 9, 1989 (40 CFR 141.60, 7-1-2002 edition)					
4	The MCL for vinyl chloride is 2 micrograms per liter (µg/L), effective January 9, 1989 (40 CFR 141.60, 7-1-2002 edition)					
Disclaimer	The documents, graphs, and water-modeling analysis results available at this Web site are provided as a service to the public for informational purposes. All data, analyses, and computer-simulation results have been reviewed for accuracy and completeness based on available information and current modeling assumptions. The results however, may not reflect the actual exposure of specific individuals to contaminants in the water system. In addition, more updated information, if and when obtained, may change interpretations presented herein.					