

Appendix 3.

Worked Examples of the Disinfection Index Calculation

Bunnessan - Water leaving the Works

1 2004

<u>Date</u>	<u>mg/l Total Chlorine</u>	<u>Variation round the Mean(mg/l Chlorine)</u>	<u>Variation Round the Mean as a Percentage of the Mean</u>
13/01/2004	0.55	-0.04	-6.779661017
20/01/2004	0.59	0	0
27/01/2004	0.61	0.02	3.389830508
03/02/2004	0.59	0	0
10/02/2004	0.59	0	0
17/02/2004	0.55	-0.04	-6.779661017
24/02/2004	0.57	-0.02	-3.389830508
02/03/2004	0.61	0.02	3.389830508
09/03/2004	0.57	-0.02	-3.389830508
16/03/2004	0.59	0	0
23/03/2004	0.57	-0.02	-3.389830508
30/03/2004	0.51	-0.08	-13.55932203
07/04/2004	0.61	0.02	3.389830508
14/04/2004	0.57	-0.02	-3.389830508
21/04/2004	0.59	0	0
28/04/2004	0.61	0.02	3.389830508
05/05/2004	0.53	-0.06	-10.16949153
12/05/2004	0.57	-0.02	-3.389830508
19/05/2004	0.59	0	0
02/06/2004	0.59	0	0
02/06/2004	0.59	0	0

09/06/2004	0.51	-0.08	-13.55932203
23/06/2004	0.55	-0.04	-6.779661017
23/06/2004	0.55	-0.04	-6.779661017
01/07/2004	0.57	-0.02	-3.389830508
07/07/2004	0.61	0.02	3.389830508
14/07/2004	0.55	-0.04	-6.779661017
21/07/2004	0.55	-0.04	-6.779661017
29/07/2004	0.63	0.04	6.779661017
04/08/2004	0.57	-0.02	-3.389830508
11/08/2004	0.82	0.23	38.98305085
18/08/2004	0.55	-0.04	-6.779661017
25/08/2004	0.59	0	0
01/09/2004	0.55	-0.04	-6.779661017
08/09/2004	0.59	0	0
15/09/2004	0.59	0	0
22/09/2004	0.61	0.02	3.389830508
29/09/2004	0.59	0	0
06/10/2004	0.61	0.02	3.389830508
13/10/2004	0.57	-0.02	-3.389830508
20/10/2004	0.63	0.04	6.779661017
26/10/2004	0.53	-0.06	-10.16949153
02/11/2004	0.61	0.02	3.389830508
09/11/2004	0.61	0.02	3.389830508
16/11/2004	0.65	0.06	10.16949153
23/11/2004	0.63	0.04	6.779661017
30/11/2004	0.53	-0.06	-10.16949153
14/12/2004	0.53	-0.06	-10.16949153
21/12/2004	0.61	0.02	3.389830508
30/12/2004	0.65	0.06	10.16949153
Mean	0.5858		

0		
0		
0		
0		
0		
0		
-3.389830508	<u>Difference from Target Values</u>	
-3.389830508		
-3.389830508		
-3.389830508	50 minus 82 =	-32
-3.389830508	90 minus 98 =	-8
-3.389830508	95 minus 100 =	-5
-3.389830508		
-3.389830508		
-6.779661017	<u>Sum = Disinfection Index =</u>	<u>-45</u>
-6.779661017		
-6.779661017		
-6.779661017		
-6.779661017		
-6.779661017		
-6.779661017		
-6.779661017		
-6.779661017		
-10.16949153		
-10.16949153		
-10.16949153		
-10.16949153		
-13.55932203		
-13.55932203		