

## **Data Summary Tables for Essex and Suffolk Water (ESK)**

These tables represent a summary of test results from water samples taken by the water company in 2005 and submitted to the Drinking Water Inspectorate.

These tables are published annually by the Inspectorate as part of the Chief Inspector's Report. They are available on the Inspectorate's website at [www.dwi.gov.uk](http://www.dwi.gov.uk)

Notes relating to the interpretation of the tables : -

Columns on the following tables that are headed "Maximum" and "Minimum" contain figures for the 1 percentile and 99 percentile sample results except where less than 100 samples were taken, when the figures are the actual maximum and minimum results.

The symbol < indicates that the result was less than the limit of detection of the analytical method used.

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Table ESK 1: Quality of water leaving service treatment works - European Standards

Number of treatment works = 25

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	Minimum	Maximum	No. of works with failures
Nitrite	0.1 mg NO <sub>2</sub> /l	3020	0	<0.0014	0.0093	0
<b>TOTAL</b>	-	<b>3020</b>	<b>0</b>	-	-	-

Table ESK 2: Quality of water leaving service treatment works - National Standards

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	Minimum	Maximum	No. of works with failures
Coliform Bacteria	0 number/100 ml	4157	1	0	0	1
Cryptosporidium	Oocyst concentration / 10 l	1450	0	<0.01	<0.01	0
<i>E. coli</i>	0 number/100 ml	4157	0	0	0	0
<b>TOTAL</b>	-	<b>9764</b>	<b>1</b>	-	-	-

Table ESK 3: Quality of water leaving service treatment works - Additional Monitoring Requirements

Indicator Parameter	Prescribed Concentration or Value	Total number of tests	Tests Exceeding Specification	Minimum	Maximum
Colony Counts After 3 Days At 22°C	No abnormal change	4157	0	0	96
Colony Counts After 48 Hours At 37°C	No abnormal change	4157	0	0	17
Residual Disinfectant - Total	No abnormal change	4163	0	0.42	1.19
Turbidity	1 NTU	4157	1	<0.07	0.244
<b>TOTAL</b>	-	<b>16634</b>	<b>1</b>	-	-

Table ESK 4: Quality of water leaving service reservoirs - National Standards

Number of service reservoirs = 108

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	Minimum	Maximum	No. of reservoirs failing standard
Coliform Bacteria	0 number/100 ml	5563	9	0	0	0*
<i>E. coli</i>	0 number/100 ml	5563	0	0	0	0
<b>TOTAL</b>	-	<b>11126</b>	<b>9</b>	-	-	-

\* R059 THUNDERSLEY RESERVOIR EAST breach(es) regulation 14 for an unjustified sampling shortfall

Table ESK 5: Quality of water leaving service reservoirs - Additional Monitoring Requirements

Indicator Parameter	Prescribed Concentration or Value	Total number of tests	Minimum	Maximum
Colony Counts After 3 Days At 22°C	No abnormal change	5563	0	>300
Colony Counts After 48 Hours At 37°C	No abnormal change	5563	0	31
Residual Disinfectant - Total	No abnormal change	5564	0.1	0.81
<b>TOTAL</b>	-	<b>16690</b>	-	-

Table ESK 6: Quality of water leaving bulk supply points - European Standards

Number of supply points = 5

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	Minimum	Maximum	Failures by supply point
1,2 Dichloroethane	3 µg/l	88	0	<0.085	<0.085	0
Benzene	1 µg/l	88	0	<0.042	<0.042	0
Boron	1 mg B/l	88	0	0.044	0.2	0
Cyanide	50 µg CN/l	88	0	<0.66	41	0
Mercury	1 µg Hg/l	88	0	<0.037	0.037	0
Pesticides (2,4,5-T)	0.1 µg/l	88	0	<0.004	<0.008	0
Pesticides (2,4,-Db)	0.1 µg/l	88	0	<0.003	<0.009	0
Pesticides (2,4-D)	0.1 µg/l	88	0	<0.005	0.035	0
Pesticides (Aldrin)	0.03 µg/l	88	0	<0.002	<0.005	0
Pesticides (Atrazine)	0.1 µg/l	88	0	<0.008	0.027	0
Pesticides (Bentazone)	0.1 µg/l	88	0	<0.002	0.013	0
Pesticides (Bromoxynil)	0.1 µg/l	88	0	<0.002	0.008	0
Pesticides (Carbetamide)	0.1 µg/l	88	0	<0.003	0.037	0
Pesticides (Chlorothalonil)	0.1 µg/l	88	0	<0.004	<0.009	0
Pesticides (Chlorthal)	0.1 µg/l	88	0	<0.004	<0.006	0
Pesticides (Chlortoluron)	0.1 µg/l	88	0	<0.005	0.013	0
Pesticides (Clopyralid)	0.1 µg/l	88	0	<0.007	0.023	0
Pesticides (Dicamba)	0.1 µg/l	88	0	<0.003	<0.007	0
Pesticides (Dichlorprop)	0.1 µg/l	88	0	<0.003	0.045	0
Pesticides (Dieldrin)	0.03 µg/l	88	0	<0.001	<0.006	0
Pesticides (Diuron)	0.1 µg/l	88	5	<0.002	0.16	1
Pesticides (Heptachlor)	0.03 µg/l	88	0	<0.002	0.006	0
Pesticides (Heptachlor epoxide)	0.03 µg/l	88	0	<0.002	<0.006	0
Pesticides (Ioxynil)	0.1 µg/l	88	0	<0.003	<0.009	0
Pesticides (Isoproturon)	0.1 µg/l	88	0	<0.003	0.071	0
Pesticides (Linuron)	0.1 µg/l	88	0	<0.003	0.015	0
Pesticides (MCPA)	0.1 µg/l	88	0	<0.004	0.01	0
Pesticides (MCPB)	0.1 µg/l	88	0	<0.004	<0.007	0
Pesticides (MCPP(Mecoprop))	0.1 µg/l	88	0	<0.006	0.089	0
Pesticides (Metamitron)	0.1 µg/l	88	0	<0.005	<0.008	0
Pesticides (Methabenzthiazuron)	0.1 µg/l	88	0	<0.003	<0.033	0
Pesticides (Monuron)	0.1 µg/l	88	0	<0.003	<0.005	0
Pesticides (Pendimethalin)	0.1 µg/l	88	0	<0.005	<0.005	0
Pesticides (Pirimicarb)	0.1 µg/l	88	0	<0.012	<0.027	0
Pesticides (Prometryn)	0.1 µg/l	88	0	<0.008	<0.016	0
Pesticides (Propazine)	0.1 µg/l	88	0	<0.007	<0.012	0

Pesticides (Simazine)	0.1 µg/l	88	0	<0.009	0.045	0
Pesticides (Tebuthiuron)	0.1 µg/l	88	0	<0.005	<0.009	0
Pesticides (Tecnazene)	0.1 µg/l	88	0	<0.006	<0.012	0
Pesticides (Terbuthylazine)	0.1 µg/l	88	0	<0.01	<0.017	0
Pesticides (Terbutryn)	0.1 µg/l	88	0	<0.007	<0.014	0
Pesticides (Trietazine)	0.1 µg/l	88	0	<0.008	<0.014	0
Pesticides (Trifluralin)	0.1 µg/l	88	0	<0.007	0.032	0
Pesticides - Total Substances	0.5 µg/l	88	0	0	0.194	0
<b>TOTAL</b>	-	<b>3872</b>	<b>5</b>	-	-	-

**Table ESK 7: Quality of water leaving bulk supply points - Additional Monitoring Requirements**

Indicator Parameter	Prescribed Concentration or Value	Total number of tests	Tests Exceeding Specification	Minimum	Maximum
Radioactivity - Gross Alpha	0.1 Bq/l	88	0	<0.04	<0.04
Radioactivity - Gross Beta	1 Bq/l	88	0	<0.07	0.56
Radioactivity - Tritium	100 Bq/l	88	0	<3.2	4.4
Total Organic Carbon (TOC)	No abnormal change	88	0	1.9	5.7
<b>TOTAL</b>	-	<b>352</b>	<b>0</b>	-	-

Table ESK 8: Quality of water at consumer's tap (zones) - European Standards

Number of zones = 51

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	Minimum	Maximum	No. of zones with failures
1,2 Dichloroethane	3 µg/l	145	0	<0.085	0.085	0
Antimony	5 µg Sb/l	373	0	<0.28	0.71	0
Arsenic	10 µg As/l	373	0	0.2722	3.3	0
Benzene	1 µg/l	145	0	<0.042	<0.042	0
Benzo (a) Pyrene	0.01 µg/l	373	0	<0.0006	0.0007	0
Boron	1 mg B/l	145	0	0.019	0.16	0
Bromate	10 µg BrO <sub>3</sub> /l	373	0	<0.58	2.2	0
Cadmium	5 µg Cd/l	373	0	<0.017	<0.34	0
Chromium	50 µg Cr/l	373	0	<0.28	1.826	0
Copper	2 mg Cu/l	373	0	0.001	0.428	0
Cyanide	50 µg CN/l	145	0	<0.66	26.16	0
<i>E. coli</i>	0 number/100 ml	4480	1	0	0	1
Enterococci	0 number/100 ml	373	0	0	0	0
Fluoride	1.5 mg F/l	373	0	0.1174	0.8	0
Lead	25 µg Pb/l	373	0	<0.17	9.63	0
Mercury	1 µg Hg/l	145	0	<0.037	0.05	0
Nickel	20 µg Ni/l	373	1	<0.16	9.63	1
Nitrate	50 mg NO <sub>3</sub> /l	1541	0	<0.73	41	0
Nitrite	0.5 mg NO <sub>2</sub> /l	1541	0	<0.0014	0.25	0
Nitrate/Nitrite Formula	≤ 1	1541	0	<0.02	<0.82	0
Polycyclic aromatic hydrocarbons (PAHs)	0.1 µg/l	373	0	0	0.002	0
Selenium	10 µg Se/l	373	0	<0.31	3.826	0
Tetrachloroethene/Trichloroethene	10 µg/l	373	0	0	0.331	0
Trihalomethanes (THMs)	100 µg/l	373	0	6.576	57.26	0
Pesticides (2,4,5-T)	0.1 µg/l	145	0	<0.004	<0.008	0
Pesticides (2,4,-Db)	0.1 µg/l	145	0	<0.003	<0.009	0
Pesticides (2,4-D)	0.1 µg/l	145	0	<0.005	<0.048	0
Pesticides (Aldrin)	0.03 µg/l	145	0	<0.002	<0.005	0
Pesticides (Atrazine)	0.1 µg/l	145	0	<0.008	<0.015	0
Pesticides (Bentazone)	0.1 µg/l	145	0	<0.002	0.028	0
Pesticides (Bromoxynil)	0.1 µg/l	145	0	<0.002	<0.008	0
Pesticides (Carbetamide)	0.1 µg/l	145	0	<0.003	<0.009	0
Pesticides (Chlorothalonil)	0.1 µg/l	145	0	<0.006	<0.009	0
Pesticides (Chlorthal)	0.1 µg/l	145	0	<0.004	<0.006	0
Pesticides (Chlortoluron)	0.1 µg/l	145	0	<0.005	0.01	0

Pesticides (Clopyralid)	0.1 µg/l	145	0	<0.007	0.015	0
Pesticides (Dicamba)	0.1 µg/l	145	0	<0.003	<0.009	0
Pesticides (Dichlorprop)	0.1 µg/l	145	0	<0.003	<0.011	0
Pesticides (Dieldrin)	0.03 µg/l	145	0	<0.001	<0.006	0
Pesticides (Diuron)	0.1 µg/l	145	2	<0.002	0.172	2
Pesticides (Heptachlor)	0.03 µg/l	145	0	<0.002	<0.006	0
Pesticides (Heptachlor epoxide)	0.03 µg/l	145	0	<0.002	<0.006	0
Pesticides (Ioxynil)	0.1 µg/l	145	0	<0.003	<0.009	0
Pesticides (Isoproturon)	0.1 µg/l	145	0	<0.003	0.028	0
Pesticides (Linuron)	0.1 µg/l	145	0	<0.003	<0.012	0
Pesticides (MCPA)	0.1 µg/l	145	0	<0.004	<0.018	0
Pesticides (MCPB)	0.1 µg/l	145	0	<0.004	<0.007	0
Pesticides (MCPP(Mecoprop))	0.1 µg/l	145	0	<0.006	0.062	0
Pesticides (Metamitron)	0.1 µg/l	145	0	<0.005	<0.008	0
Pesticides (Methabenzthiazuron)	0.1 µg/l	145	0	<0.003	<0.033	0
Pesticides (Monuron)	0.1 µg/l	145	0	<0.003	<0.005	0
Pesticides (Pendimethalin)	0.1 µg/l	145	0	<0.005	<0.005	0
Pesticides (Pirimicarb)	0.1 µg/l	145	0	<0.012	<0.036	0
Pesticides (Prometryn)	0.1 µg/l	145	0	<0.008	<0.016	0
Pesticides (Propazine)	0.1 µg/l	145	0	<0.007	<0.012	0
Pesticides (Simazine)	0.1 µg/l	145	0	<0.009	0.031	0
Pesticides (Tebuthiuron)	0.1 µg/l	145	0	<0.005	<0.009	0
Pesticides (Tecnazene)	0.1 µg/l	145	0	<0.006	<0.012	0
Pesticides (Terbuthylazine)	0.1 µg/l	145	0	<0.01	<0.017	0
Pesticides (Terbutryn)	0.1 µg/l	145	0	<0.007	<0.014	0
Pesticides (Trietazine)	0.1 µg/l	145	0	<0.008	<0.014	0
Pesticides (Trifluralin)	0.1 µg/l	145	0	<0.008	0.037	0
Pesticides - Total Substances	0.5 µg/l	149	0	0	0.19	0
<b>TOTAL</b>	-	<b>21082</b>	<b>4</b>	-	-	-

**Table ESK 9: Quality of water at consumer's tap (zones) - National Standards**

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	Minimum	Maximum	No. of zones with failures
Aluminium	200 µg Al/l	1577	0	<2.2	12.22	0
Colour	20 mg/l Pt/Co scale	1630	0	<1.2	4.4	0
Hydrogen ion (pH)	6.5 - 10 pH value	1630	0	7.08	8.09	0
Iron	200 µg Fe/l	1593	5	2.6	76.06	5
Manganese	50 µg Mn/l	1577	0	<0.27	5.988	0
Organoleptic Odour	Dilution No. 3 at 25°C	1630	2	0	0	2
Organoleptic Taste	Dilution No. 3 at 25°C	1630	1	0	0	1
Sodium	200 mg Na/l	373	0	13	81.26	0
Tetrachloromethane	3 µg/l	373	0	<0.11	<0.11	0
Turbidity	4 NTU	1630	0	<0.07	0.34	0
<b>TOTAL</b>	-	<b>13643</b>	<b>8</b>	-	-	-

**Table ESK 10: Quality of water at consumer's tap (zones) - Additional Monitoring Requirements**

Indicator Parameter	Prescribed Concentration or Value	Total number of tests	Tests Exceeding Specification	Minimum	Maximum
Ammonium	0.5 mg NH <sub>4</sub> /l	1630	0	<0.019	0.17
Chloride	250 mg Cl/l	373	0	29.74	132.6
<i>Clostridium perfringens</i>	0 number/100 ml	1577	1	0	0
Coliform Bacteria	0 number/100 ml	4480	18	0	0
Colony Counts After 3 Days At 22°C	No abnormal change	1630	0	0	229
Colony Counts After 48 Hours At 37°C	No abnormal change	1630	0	0	189
Conductivity	2500 µS/cm	1630	0	620	1100
Hydrogen ion (pH)	9.5 pH Value	1630	0	7.08	8.09
Radioactivity - Gross Alpha	0.1 Bq/l	145	0	<0.04	<0.04
Radioactivity - Gross Beta	1 Bq/l	145	0	<0.07	0.566
Radioactivity - Tritium	100 Bq/l	145	0	<3.2	<3.4
Residual Disinfectant - Total	No abnormal change	4487	0	0.12	0.83
Sulphate	250 mg SO <sub>4</sub> /l	373	0	41	220
Total Organic Carbon (TOC)	No abnormal change	145	0	1.022	5.67
<b>TOTAL</b>	-	<b>20020</b>	<b>19</b>	-	-