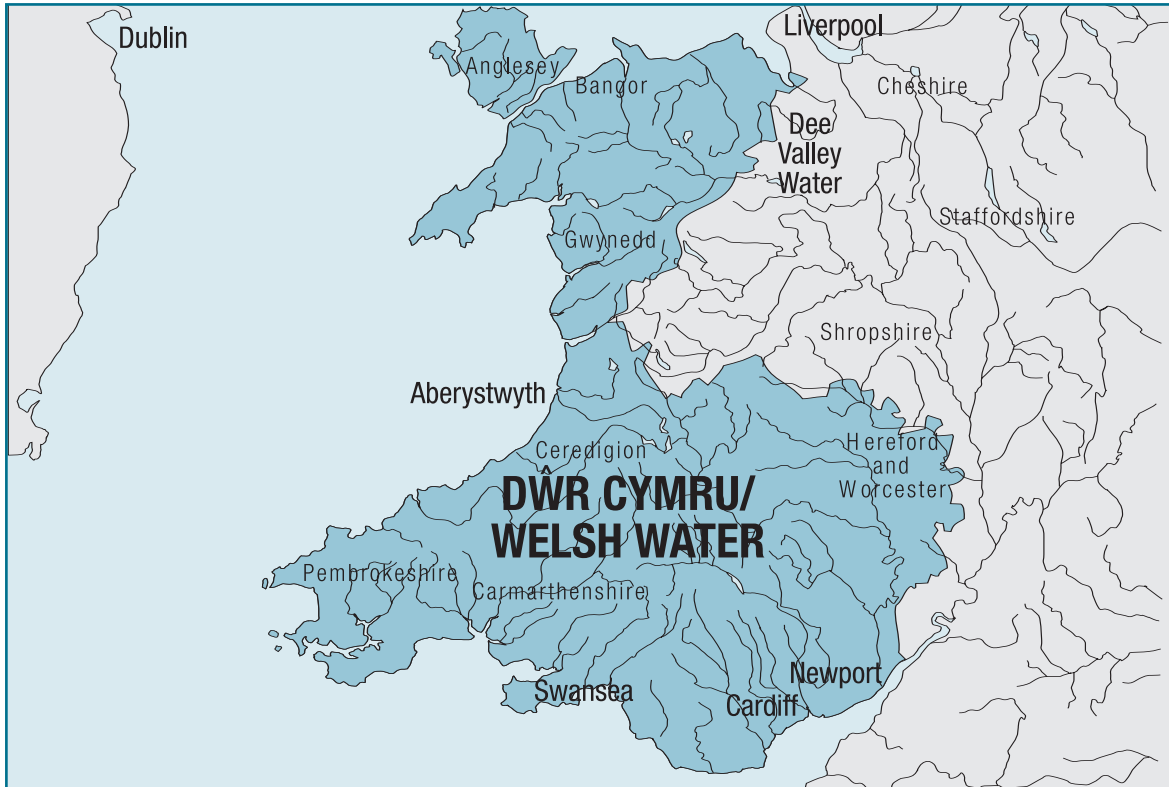


## Dŵr Cymru Welsh Water



Company performance:		Company Assets:	
Number of Tests Carried out:	292,973	No. of Treatment Works	92
Mean Zonal Compliance %:	99.96%	No. of Service Reservoirs	557
Consumer contacts per 1000 people supplied	1	No. of Water Supply Zones	92
Water quality incidents per 1,000 km mains	0.5	Length of mains pipe (Km)	22,202
Population served:		Water supplied:	
Population supplied	2,900,000	Water Supplied (Ml/day)	876
Unitary Authorities	22	From surface sources (Ml/day)	780
Local Health Boards	9	From ground sources (Ml/day)	35
		From mixed sources (Ml/day)	61
<b>Area of supply</b>		% from surface sources	89
Conwy, Anglesey, Blaenau Gwent, Bridgend, Gwynedd, Caerphilly, Cardiff, Cardiganshire, Carmarthenshire, Denbighshire, Flintshire, Merthyr Tydfil, Monmouthshire, Neath And Port Talbot, Newport, Pembrokeshire, Powys, Rhondda Cynon Taff, Swansea, Torfaen, Vale Of Glamorgan		% ground sources	4
		% mixed sources	7

\* For guidance on interpretation of data tables, please refer to "Drinking Water Quality Results by Company".

\*\* Figures in percentile columns are maximum and minimum figures where the number of samples taken is less than 100.

**Table DWR 1: Quality of water leaving treatment works – European Standards**  
**Number of treatment works = 92**

Parameter	Prescribed Concentration or Value	Total number of tests	Tests Failed	1%ile	99%ile	No. of works with failures
Nitrite (Works)	0.1 mg NO <sub>2</sub> /l	651	0	<0.0006	0.02	0
<b>TOTAL</b>	–	<b>651</b>	<b>0</b>	–	–	–

**Table DWR 2: Quality of water leaving treatment works – National Standards**

Parameter	Prescribed Concentration or Value	Total number of tests	Tests Failed	1%ile	99%ile	No. of works with failures
Coliform bacteria	0/100 ml	5700	4	0	0	3
<i>Cryptosporidium</i> oocysts	<1 oocysts per 10 litres	5828	0	<0.0015	0.30273	0
<i>Escherichia coli</i>	0/100 ml	6555	0	0	0	0
<b>TOTAL</b>	–	<b>18083</b>	<b>4</b>	–	–	–

**Table DWR 3: Quality of water leaving treatment works – Additional Monitoring Requirements**

Indicator Parameter	Prescribed Concentration or Value	Total number of tests	Tests exceeding Specification	1%ile	99%ile
Colony counts @ 22° C	Company specification	6556	–	0	31
Colony counts @ 37° C	Company specification	5679	–	0	13
Residual disinfectant (Free chlorine) mg/l	Company specification	6542	–	0.1	1
Residual disinfectant (Total chlorine) mg/l	Company specification	6538	–	0.2	1.5
Turbidity	1 NTU	8762	62	0.03	0.85
<b>TOTAL</b>	–	<b>34077</b>	<b>62</b>	–	–

**Table DWR 4: Quality of water leaving service reservoirs – National Standards**  
**Number of service reservoirs = 557**

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	No. of reservoirs with coliforms detected in more than 5% of samples	1%ile	99%ile	No. of reservoirs failing standard
Coliform bacteria	0/100 ml	22358	18	0	0	0	0
<i>Escherichia coli</i>	0/100 ml	23657	3	–	0	0	3
<b>TOTAL</b>	–	<b>46015</b>	<b>21</b>	<b>0</b>	–	–	–

**Table DWR 5: Quality of water leaving service reservoirs – Additional Monitoring Requirements**

Indicator Parameter	Prescribed Concentration or Value	Total number of tests	1%ile	99%ile
Colony counts @ 22° C	Company specification	23627	0	69
Colony counts @ 37° C	Company specification	20544	0	8
Residual disinfectant (Free chlorine) mg/l	Company specification	23560	<0.1	0.8
Residual disinfectant (Total chlorine) mg/l	Company specification	23538	0.1	1
<b>TOTAL</b>	–	<b>91269</b>	–	–

**Table DWR 6: Quality of water leaving bulk supply points – European Standards**  
**Number of supply points = 38**

Parameter	Prescribed Concentration or Value	Total number of tests	Tests Failed	1%ile	99%ile	Failures by supply point
1,2 Dichloroethane	3 µg/l	252	0	<0.12	<0.12	0
Benzene	1 µg/l	252	0	<0.15	<0.15	0
Boron	1 mg B/l	228	0	<0.01	0.038	0
Bromate	10 µg BrO <sub>3</sub> /l	52	0	<0.0008	0.0027	0
Cyanide	50 µg CN/l	224	0	<0.0004	0.0009	0
Fluoride	1.5 mg F/l	228	0	<0.04	0.11	0
Mercury	1 µg Hg/l	228	0	<0.015	0.1	0
Pesticides (2,4,-Db)	0.1 µg/l	159	0	<0.003	<0.003	0
Pesticides (2,4,5-T)	0.1 µg/l	178	0	<0.003	<0.003	0
Pesticides (2,4-D)	0.1 µg/l	161	0	<0.003	0.065	0
Pesticides (Aldrin)	0.03 µg/l	277	0	<0.002	<0.002	0
Pesticides (Alpha-HCH)	0.1 µg/l	281	0	<0.001	<0.001	0
Pesticides (Asulam)	0.1 µg/l	151	0	<0.005	0.01	0
Pesticides (Atrazine)	0.1 µg/l	230	0	<0.001	0.025	0
Pesticides (Benazolin)	0.1 µg/l	161	0	<0.002	<0.002	0
Pesticides (Beta-HCH)	0.1 µg/l	281	0	<0.002	<0.002	0
Pesticides (Bromoxynil)	0.1 µg/l	161	0	<0.001	0.004	0
Pesticides (Captan)	0.1 µg/l	225	0	<0.007	0.01	0
Pesticides (Carbendazim)	0.1 µg/l	88	0	<0.002	<0.004	0
Pesticides (Chlorfenvinphos)	0.1 µg/l	241	0	<0.009	<0.01	0
Pesticides (Chlorothalonil)	0.1 µg/l	234	0	<0.001	<0.001	0
Pesticides (Chlorpyrifos)	0.1 µg/l	209	0	<0.003	<0.003	0
Pesticides (Chlortoluron)	0.1 µg/l	88	0	<0.002	<0.002	0
Pesticides (Diazinon)	0.1 µg/l	237	0	<0.005	0.011	0
Pesticides (Dicamba)	0.1 µg/l	161	0	<0.001	<0.001	0

**Table DWR 6: Quality of water leaving bulk supply points – European Standards**  
**Number of supply points = 38 *Continued***

Parameter	Prescribed Concentration or Value	Total number of tests	Tests Failed	1%ile	99%ile	Failures by supply point
Pesticides (Dichlofluanid)	0.1 µg/l	207	0	<0.013	<0.013	0
Pesticides (Dichlorprop)	0.1 µg/l	161	0	<0.002	0.003	0
Pesticides (Dieldrin)	0.03 µg/l	281	0	<0.002	<0.002	0
Pesticides (Diuron)	0.1 µg/l	88	0	<0.003	0.021	0
Pesticides (Endosulfan A (alpha-Endosulfan))	0.1 µg/l	272	0	<0.001	<0.001	0
Pesticides (Endosulfan B (beta-Endosulfan))	0.1 µg/l	263	0	<0.004	<0.004	0
Pesticides (Endrin)	0.1 µg/l	280	0	<0.002	<0.002	0
Pesticides (Ethofumersate)	0.1 µg/l	152	0	<0.002	<0.002	0
Pesticides (Fenpropidin)	0.1 µg/l	225	0	<0.003	<0.003	0
Pesticides (Fenpropimorph)	0.1 µg/l	227	0	<0.006	0.01	0
Pesticides (Fluroxypyr)	0.1 µg/l	129	0	<0.005	0.01	0
Pesticides (Gamma-HCH (Lindane))	0.1 µg/l	275	0	<0.002	<0.002	0
Pesticides (Glyphosate)	0.1 µg/l	31	0	<0.008	0.01	0
Pesticides (Heptachlor epoxide)	0.03 µg/l	280	0	<0.002	<0.002	0
Pesticides (Heptachlor)	0.03 µg/l	280	0	<0.002	<0.002	0
Pesticides (Hexachlorobenzene)	0.1 µg/l	278	0	<0.001	<0.001	0
Pesticides (Ioxynil)	0.1 µg/l	157	0	<0.002	<0.002	0
Pesticides (Isoproturon)	0.1 µg/l	88	0	<0.004	0.016	0
Pesticides (Lambda-Cyhalothrin)	0.1 µg/l	74	0	<0.002	<0.002	0
Pesticides (Linuron)	0.1 µg/l	88	0	<0.003	<0.003	0
Pesticides (MCPA)	0.1 µg/l	161	0	<0.002	0.026	0
Pesticides (MCPB)	0.1 µg/l	161	0	<0.004	0.01	0
Pesticides (MCPB(Mecoprop))	0.1 µg/l	161	0	<0.001	0.02	0

**Table DWR 6: Quality of water leaving bulk supply points – European Standards**  
**Number of supply points = 38 *Continued***

Parameter	Prescribed Concentration or Value	Total number of tests	Tests Failed	1%ile	99%ile	Failures by supply point
Pesticides (Metamitron)	0.1 µg/l	88	0	<0.002	<0.002	0
Pesticides (Methabenz-thiazuron)	0.1 µg/l	88	0	<0.002	0.004	0
Pesticides (op-DDD (TDE))	0.1 µg/l	280	0	<0.002	<0.002	0
Pesticides (op-DDE)	0.1 µg/l	279	0	<0.002	<0.002	0
Pesticides (op-DDT)	0.1 µg/l	275	0	<0.002	<0.002	0
Pesticides (Parathion (Parathion ethyl))	0.1 µg/l	240	0	<0.005	<0.01	0
Pesticides (Pentachlorophenol)	0.1 µg/l	25	0	<0.004	<0.004	0
Pesticides (Permethrin)	0.1 µg/l	231	0	<0.003	<0.003	0
Pesticides (pp-DDD (TDE))	0.1 µg/l	280	0	<0.002	<0.002	0
Pesticides (pp-DDE)	0.1 µg/l	276	0	<0.002	<0.002	0
Pesticides (pp-DDT)	0.1 µg/l	278	0	<0.002	<0.002	0
Pesticides (Propachlor)	0.1 µg/l	230	0	<0.002	<0.002	0
Pesticides (Propazine)	0.1 µg/l	229	0	<0.001	<0.001	0
Pesticides (Propetamphos)	0.1 µg/l	345	0	<0.004	<0.004	0
Pesticides (Propyzamide)	0.1 µg/l	228	0	<0.002	<0.002	0
Pesticides (Simazine)	0.1 µg/l	230	0	<0.001	0.006	0
Pesticides (Terbutryn)	0.1 µg/l	223	0	<0.002	<0.002	0
Pesticides (Trietazine)	0.1 µg/l	222	0	<0.001	0.002	0
Pesticides (Trifluralin)	0.1 µg/l	229	0	<0.002	<0.002	0
Pesticides (Triphenyltin (fentin))	0.1 µg/l	1	0	<0.02	<0.02	0
Pesticides: Total	0.5 µg/l	203	0	0	0.07	0
Tetra/Trichloroethene	10 µg/l	27	0	<0.16	<0.16	0
<b>TOTAL</b>	–	<b>13813</b>	<b>0</b>	–	–	–

**Table DWR 7: Quality of water leaving bulk supply points – National Standards**

Parameter	Prescribed Concentration or Value	Total number of tests	Tests Failed	1%ile	99%ile	Failures by supply point
Tetrachloromethane	3 µg/l	205	0	<0.02	0.09	0
<b>TOTAL</b>	–	<b>205</b>	<b>0</b>	–	–	–

**Table DWR 8: Quality of water leaving bulk supply points – Additional Monitoring Requirements**

Parameter	Prescribed Concentration or Value	Total number of tests	Tests exceeding Specification	1%ile	99%ile
Chloride	250 mg Cl/l	227	0	7	74
<i>Clostridium perfringens</i> (including spores)	0/100 ml	1412	3	0	0
Conductivity	2500 µS/cm	1644	0	52	773
*Gross Alpha	0.1 Bq/l	186	–	–	–
*Gross Beta	1 Bq/l	186	–	–	–
Sulphate	250 mg SO <sub>4</sub> /l	226	0	<2	75
Total Organic Carbon (TOC)	Company specification	198	–	<0.18	9.46
Tritium (for radiation)	100 Bq/l	302	0	<1.6	<4.7
<b>TOTAL</b>	–	<b>4381</b>	<b>3</b>	–	–

\*Monitored for the calculation of Total Indicative Dose

**Table DWR 9: Quality of water at consumer's tap (zones) – European Standards**  
**Number of zones = 92**

Parameter	Prescribed Concentration or Value	Total number of tests	Tests Failed	1%ile	99%ile	No. of zones with failures
1,2 Dichloroethane	3 µg/l	331	0	<0.12	0.16	0
Antimony	5 µg Sb/l	588	0	<0.0002	0.0003	0
Arsenic	10 µg As/l	588	0	<0.0005	<0.5	0
Benzene	1 µg/l	331	0	<0.15	<0.15	0
Benzo(a)pyrene	0.01 µg/l	593	0	<0.001	<0.001	0
Boron	1 mg B/l	304	0	<0.01	0.03	0
Bromate	10 µg BrO <sub>3</sub> /l	534	0	<0.0008	0.0018	0
Cadmium	5 µg Cd/l	588	0	<0.0002	<0.0002	0
Chromium	50 µg Cr/l	588	0	<0.0003	1.00	0
Copper	2 mg Cu/l	589	0	<0.0012	0.132	0
Cyanide	50 µg CN/l	331	0	<0.0004	0.7	0
<i>Escherichia coli</i>	0/100 ml	6949	1	0	0	1
Enterococci	0/100 ml	588	0	0	0	0
Fluoride	1.5 mg F/l	332	0	<0.04	0.09	0
Lead	25 µg Pb/l	589	0	<0.001	4.52	0
Mercury	1 µg Hg/l	332	0	<0.015	0.1	0
Nickel	20 µg Ni/l	587	0	<0.0014	2	0
Nitrate	50 mg NO <sub>3</sub> /l	798	0	<0.06	6.10	0
Nitrite	0.5 mg NO <sub>2</sub> /l	724	0	<0.0006	0.2418	0
Pesticides (2,4,-Db)	0.1 µg/l	301	0	<0.003	<0.003	0
Pesticides (2,4,5-T)	0.1 µg/l	305	0	<0.003	<0.003	0
Pesticides (2,4-D)	0.1 µg/l	305	0	<0.003	0.016	0
Pesticides (Aldrin)	0.03 µg/l	395	0	<0.002	<0.002	0
Pesticides (Alpha-HCH)	0.1 µg/l	399	0	<0.001	<0.001	0
Pesticides (Asulam)	0.1 µg/l	317	0	<0.005	0.01	0
Pesticides (Atrazine)	0.1 µg/l	381	0	<0.001	0.037	0
Pesticides (Benazolin)	0.1 µg/l	305	0	<0.002	<0.002	0
Pesticides (Beta-HCH)	0.1 µg/l	399	0	<0.002	<0.002	0

**Table DWR 9: Quality of water at consumer's tap (zones) – European Standards**  
**Number of zones = 92 *Continued***

Parameter	Prescribed Concentration or Value	Total number of tests	Tests Failed	1%ile	99%ile	No. of zones with failures
Pesticides (Bromoxynil)	0.1 µg/l	305	0	<0.001	0.004	0
Pesticides (Captan)	0.1 µg/l	371	0	<0.007	<0.01	0
Pesticides (Carbendazim)	0.1 µg/l	238	0	<0.002	0.004	0
Pesticides (Chlorfenvinphos)	0.1 µg/l	353	0	<0.009	0.01	0
Pesticides (Chlorothalonil)	0.1 µg/l	397	0	<0.001	0.002	0
Pesticides (Chlorpyrifos)	0.1 µg/l	353	0	<0.003	<0.003	0
Pesticides (Chlortoluron)	0.1 µg/l	238	0	<0.002	0.007	0
Pesticides (Diazinon)	0.1 µg/l	343	0	<0.005	<0.011	0
Pesticides (Dicamba)	0.1 µg/l	305	0	<0.001	<0.001	0
Pesticides (Dichlofluanid)	0.1 µg/l	350	0	<0.013	<0.013	0
Pesticides (Dichlorprop)	0.1 µg/l	305	0	<0.002	0.003	0
Pesticides (Dieldrin)	0.03 µg/l	399	0	<0.002	<0.002	0
Pesticides (Diuron)	0.1 µg/l	238	0	<0.003	0.004	0
Pesticides (Endosulfan A (alpha-Endosulfan))	0.1 µg/l	374	0	<0.001	<0.001	0
Pesticides (Endosulfan B (beta-Endosulfan))	0.1 µg/l	366	0	<0.004	<0.004	0
Pesticides (Endrin)	0.1 µg/l	397	0	<0.002	<0.002	0
Pesticides (Ethofumersate)	0.1 µg/l	237	0	<0.002	0.004	0
Pesticides (Fenpropidin)	0.1 µg/l	367	0	<0.003	<0.003	0
Pesticides (Fenpropimorph)	0.1 µg/l	376	0	<0.006	0.01	0
Pesticides (Fluroxypyr)	0.1 µg/l	243	0	<0.005	<0.01	0
Pesticides (Gamma-HCH (Lindane))	0.1 µg/l	392	0	<0.002	<0.002	0
Pesticides (Glyphosate)	0.1 µg/l	134	0	<0.008	<0.01	0
Pesticides (Heptachlor epoxide)	0.03 µg/l	397	0	<0.002	<0.002	0
Pesticides (Heptachlor)	0.03 µg/l	397	0	<0.002	<0.002	0
Pesticides (Hexachlorobenzene)	0.1 µg/l	395	0	<0.001	<0.001	0
Pesticides (Ioxynil)	0.1 µg/l	303	0	<0.002	<0.002	0
Pesticides (Isoproturon)	0.1 µg/l	238	0	<0.004	0.008	0

**Table DWR 9: Quality of water at consumer's tap (zones) – European Standards**  
**Number of zones = 92 *Continued***

Parameter	Prescribed Concentration or Value	Total number of tests	Tests Failed	1%ile	99%ile	No. of zones with failures
Pesticides (Lambda-Cyhalothrin)	0.1 µg/l	138	0	<0.002	<0.002	0
Pesticides (Linuron)	0.1 µg/l	238	0	<0.003	<0.003	0
Pesticides (Mancozeb (a Dithiocarbamate Fungicide))	0.1 µg/l	37	0	<0.05	<0.05	0
Pesticides (MCPA)	0.1 µg/l	305	0	<0.002	0.047	0
Pesticides (MCPB)	0.1 µg/l	305	0	<0.006	0.01	0
Pesticides (MCPP(Mecoprop))	0.1 µg/l	305	1	<0.001	0.02	1
Pesticides (Metamitron)	0.1 µg/l	238	0	<0.002	<0.002	0
Pesticides (Methabenzthiazuron)	0.1 µg/l	238	0	<0.002	<0.002	0
Pesticides (op-DDD (TDE))	0.1 µg/l	397	0	<0.002	<0.002	0
Pesticides (op-DDE)	0.1 µg/l	394	0	<0.002	<0.002	0
Pesticides (op-DDT)	0.1 µg/l	382	0	<0.002	<0.002	0
Pesticides (Parathion (Parathion ethyl))	0.1 µg/l	346	0	<0.005	0.01	0
Pesticides (Pentachlorophenol)	0.1 µg/l	51	0	<0.004	<0.004	0
Pesticides (Permethrin)	0.1 µg/l	390	0	<0.003	<0.003	0
Pesticides (pp-DDD (TDE))	0.1 µg/l	397	0	<0.002	<0.002	0
Pesticides (pp-DDE)	0.1 µg/l	392	0	<0.002	<0.002	0
Pesticides (pp-DDT)	0.1 µg/l	383	0	<0.002	<0.002	0
Pesticides (Propachlor)	0.1 µg/l	378	0	<0.002	<0.002	0
Pesticides (Propazine)	0.1 µg/l	379	0	<0.001	<0.001	0
Pesticides (Propetamphos)	0.1 µg/l	608	0	<0.004	<0.004	0
Pesticides (Propyzamide)	0.1 µg/l	383	0	<0.002	0.006	0
Pesticides (Simazine)	0.1 µg/l	381	0	<0.001	0.01	0
Pesticides (Terbutryn)	0.1 µg/l	372	0	<0.002	<0.002	0
Pesticides (Trietazine)	0.1 µg/l	372	0	<0.001	<0.001	0
Pesticides (Trifluralin)	0.1 µg/l	382	0	<0.002	0.003	0
Pesticides (Triphenyltin (fentin))	0.1 µg/l	23	0	<0.02	<0.02	0

**Table DWR 9: Quality of water at consumer's tap (zones) – European Standards**  
**Number of zones = 92 *Continued***

Parameter	Prescribed Concentration or Value	Total number of tests	Tests Failed	1%ile	99%ile	No. of zones with failures
Pesticides: Total	0.5 µg/l	330	0	0	0.083	0
Polycyclic Aromatic Hydrocarbons	0.1 µg/l	588	0	0	0.055	0
Selenium	10 µg Se/l	587	0	<0.0004	<0.44	0
Tetra/Trichloroethene	10 µg/l	330	0	0	0	0
Trihalomethanes: Total	100 µg/l	588	1	2.94	87.69	1
<b>TOTAL</b>	–	<b>38819</b>	<b>3</b>	–	–	–

**Table DWR 10: Quality of water at consumer's tap (zones) – National Standards**

Parameter	Prescribed Concentration or Value	Total number of tests	Tests Failed	1%ile	99%ile	No. of zones with failures
Aluminium	200 µg Al/l	1439	0	<0.005	97.6	0
Colour	20 mg/l Pt/Co scale	1267	0	<0.4	5.9	0
Hydrogen ion	6.5-10 pH value	1454	0	7.2	9.1	0
Iron	200 µg Fe/l	2237	28	<0.007	229.62	20
Manganese	50 µg Mn/l	1519	4	<0.0015	25.8	4
Odour	3 at 25°C dilution number	1574	2	0	2	1
Sodium	200 mg Na/l	575	0	3.2	28.4	0
Taste	3 at 25°C dilution number	1360	1	0	1	1
Tetrachloromethane	3 µg/l	330	0	<0.02	0.05	0
Turbidity	4 NTU	1394	1	0.03	1.14	1
<b>TOTAL</b>	–	<b>13149</b>	<b>36</b>	–	–	–

**Table DWR 11: Quality of water at consumer's tap (zones) – Additional Monitoring Requirements**

Indicator Parameter	Prescribed Concentration or Value	Total number of tests	Tests Exceeding Specification	1%ile	99%ile
Ammonium	0.5 mg NH <sub>4</sub> /l	1297	1	<0.016	0.2
Chloride	250 mg Cl/l	305	0	6.4	48.1
<i>Clostridium perfringens</i> (including spores)	0/100 ml	1655	1	0	0
Coliform bacteria	0/100 ml	6953	30	0	0
Colony counts @ 22° C	Company specification	1875	–	0	109
Colony counts @ 37° C	Company specification	1869	–	0	72
Conductivity	2500 µS/cm	822	0	54	407
*Gross Alpha	0.1 Bq/l	625	–	–	–
*Gross Beta	1 Bq/l	625	–	–	–
Hydrogen ion	<9.5 pH value	1454	1	7.2	9.1
Residual Disinfectant (Free chlorine) mg/l	Company specification	6926	–	0.04	0.7
Residual Disinfectant (Total chlorine) mg/l	Company specification	6977	–	0.1	0.9
Sulphate	250 mg SO <sub>4</sub> /l	332	0	2	54.6
Total Organic Carbon (TOC)	Company specification	332	–	0.59	3.31
Tritium (for radiation)	100 Bq/l	464	0	<1.5	5.9
<b>TOTAL</b>	–	<b>32511</b>	<b>33</b>	–	–

\*Monitored for the calculation of Total Indicative Dose