Drinking Water Quality Report for Greenwich Millenium Supply Zone ZTW0401

Areas covered by Report:	Greenwich, London
Report Period:	01 January 2018 to 31 December 2018
Upstream Zone:	Thames Water Charlton WSZ (Z0088)
Population:	1005
Notices:	Undertaking IWN3466 in relation to Total Pesticides and Metaldehyde in the bulk supply provided. This scheme is progressing according to the action plan.

Commentary on Water Quality

The water supplied to the Greenwich Millenium Zone originates from a surface water source that is chloraminated. The analysis results indicate the quality of the water supplied to this zone is very good with no contraventions recorded or detected during 2018.
There were 4 customer contacts concerning "illness", 1 customer contact concerning "taste or odour" and 1 customer contact relating to a "water quality enquiry" during the period of this report. The investigations by IWNL concluded that the water supplied was compliant with regulations.

Hardness Rating: The water supplied to this zone is classified as hard as it contains naturally elevated concentrations of calcium and magnesium.

	Soft	Moderately Soft	Slightly Hard	Moderately Hard	Hard	Very Hard
CaCO3 mg/l	0-50	50-100	100-150	150-200	200-300	300+

Microbiological Indicators

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Coliform Bacteria (Indicator)	**No. 100/ml**	12	0	0	0	**0**
E.coli (faecal coliforms Confirmed)	**No. 100/ml**	12	0	0	0	**0**
Enterococci (Confirmed)	**No. 100/ml**	4	0	0	0	**0**
Sulphite-reducing Clostridia (Confirmed)	**No. 100/ml**	4	0	0	0	**0**

Physio-Chemical Parameters

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Ammonium (Total)	**mg/l NH4**	4	0.049	0.119	0.079	**0.5**
Boron	**mg/l B**	4	0.05	0.06	0.05	**1**
Bromate	**ug/l BrO3**	4	0.1	0.1	0.10	**10**
Chloride	**mg/l**	4	46.6	60.9	53.28	**250**
Colour	**mg/l Pt/Co**	4	1.6	2.4	2.05	**20**
Cyanide (Total)	**ug/l CN**	4	0.7	1.2	0.825	**50**

Physio-Chemical Parameters continued

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Electrical Conductivity	uS/cm @ 20 C	4	590	638	604.5	2500
Fluoride (Total)	mg/l F	4	0.14	0.17	0.153	1.5
Free Residual Chlorine	mg/l	12	0.03	0.46	0.190	No Specific PCV
Hydrogen ion	pH value	4	7.61	7.85	7.708	6.5-9.5
Nitrate (Total)	mg/l NO3	4	28.2	34.9	31.85	50
Nitrite - Consumer's Taps	mg/l NO3	4	0.055	0.112	0.0838	0.5
Nitrite/Nitrate formula	No Units	4	0.58	0.73	0.665	1
Sodium	mg/l Na	4	29.7	39.4	34.55	200
Sulphate	mg/l SO4	4	50.8	54	52.95	250
Total Residual Chlorine	mg/l	12	0.09	0.57	0.304	No Specific PVC
Turbidity (CT)	FTU	4	0.11	0.17	0.138	4

Hydrocarbons / Organics

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
1 1 1-Trichloroethane (Total)	ug/l	5	0.04	0.04	0.040	0.1
1 2-Dichloroethane (Total)	ug/l	6	0.07	0.07	0.070	3
Benzene (Total)	ug/l	5	0.02	0.02	0.020	1
Benzo[a]Pyrene (Total)	ug/l	4	0.00022	0.00022	0.000220	0.01
Benzo[b]Fluoranthene (Total)	ug/l	4	0.00052	0.00052	0.000520	The sum of PAHs must be <0.1 ug/l
Benzo[ghi]Perylene (Total)	ug/l	4	0.0004	0.0004	0.000400	The sum of PAHs must be <0.1 ug/l
Benzo[k]Fluoranthene (Total)	ug/l	4	0.00047	0.00047	0.000470	The sum of PAHs must be <0.1 ug/l
Bromodichloromethane (Total)	ug/l	6	6.06	11.64	8.658	60
ChloroDibromomethane (Total)	ug/l	6	4.92	8.68	6.687	100
Indeno[1 2 3-cd]Pyrene (Total)	ug/l	4	0.00048	0.00048	0.00048	The sum of PAHs must be <0.1 ug/l
Polycyclic Aromatic Hydrocarbons (Total by Calculation)	ug/l	4	0.002	0.01	0.0050	0.1
Tetrachloroethene (Total)	ug/l	5	0.05	0.05	0.050	10
Tetrachloromethane (Total)	ug/l	5	0.02	0.02	0.020	3
Total Organic Carbon	mg/l C	4	1.9	3.3	2.675	NO ABNORMAL CHANGE
Total Trichloroethene & Tetrachloroethene (Total by Calculation)	ug/l	6	0	0.08	0.013333333	100

Hydrocarbons / Organics continued

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Tribromomethane-Bromoform (Total)	ug/l	6	0.64	2.34	1.482	100
Trichloroethene (Total)	ug/l	5	0.05	0.05	0.050	10
Trichloromethane-Chloroform (Total)	ug/l	6	4.63	12.89	7.595	300
Trihalomethanes (Total by Calculation)	ug/l	6	17.05	33.8	24.423	100

Metals

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Aluminium (Total)	ug/l Al	4	7.22	8.02	7.42	200
Antimony	ug/l Sb	4	0.05	0.34	0.2225	5
Arsenic (Total)	ug/l As	4	0.09	1.04	0.6575	10
Cadmium (Total)	ug/l Cd	4	0.013	0.035	0.0185	5
Chromium (Total)	ug/l Cr	4	0.25	0.31	0.2875	50
Copper (Total)	mg/l Cu	4	0.0067	0.254	0.090075	2
Iron (Total)	ug/l Fe	4	0.7	3.42	2.29	200
Lead (10)	ug/l Pb	4	0.12	0.18	0.1525	10
Manganese (Total)	ug/l Mn	4	0.21	0.32	0.24	50
Mercury (Total)	ug/l Hg	4	0.02	0.05	0.033	1
Nickel (Total)	ug/l Ni	4	2.2	2.56	2.38	20
Selenium (Total)	ug/l Se	4	0.16	1.11	0.5525	10

Organoleptic Parameters

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Odour (Quantitative)	Dilution Number	4	0	0	0	0
Taste(Quantitative)	Dilution Number	4	0	0	0	0

Notes
1. For some parameters, monitoring occurs at the supplying Water Treatment Works rather than the Water Supply Zone.

Glossary of Terms

Term	Definition
PCV	Prescribed Concentration or Value
mg/l	Milligrammes per Litre or parts per million
µg/l	Microgrammes per Litre or parts per billion
Pt/Co	Platinum/Cobalt
µS/cm	Micro Siemens per Centimetre
Bq/l	Becquerel per Litre
NTU	Nephelometric Turbidity Units