Drinking Water Quality Report for Greenwich Millennium Supply Zone ZTW0401

Areas covered by Report:	Greenwich, London
Report Period:	01 January 2019 to 31 December 2019
Upstream Zone:	Thames Water Charlton WSZ (Z0088)
Population:	1283
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 Millennium 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. IWNL had 1 compliance failure during 2019 for Nickel, which was attributed to water fittings.
There was 1 customer contact concerning "Taste" and 1 concerning a "Water Quality Report" 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**	11	0	0	0.0	**0**
E.coli (faecal coliforms Confirmed)	**No. 100/ml**	11	0	0	0.0	**0**
Enterococci (Confirmed)	**No. 100/ml**	3	0	0	0.0	**0**
Sulphite-reducing Clostridia (Confirmed)	**No. 100/ml**	4	0	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	0.038	0.101	0.0688	**0.5**
Boron	**mg/l B**	4	0.05	0.06	0.056	**1**
Bromate	**ug/l BrO3**	4	0.1	0.1	0.10	**10**
Chloride	**mg/l**	4	49.5	53.8	51.85	**250**
Colour	**mg/l Pt/Co**	4	1.6	2.4	1.98	**20**
Cyanide (Total)	**ug/l CN**	4	0.7	1.7	0.95	**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	553	648	600.5	2500
Fluoride (Total)	mg/l F	4	0.14	0.17	0.150	1.5
Free Residual Chlorine	mg/l	11	0.03	0.27	0.16	No Specific PCV
Hydrogen ion	pH value	4	7.42	7.74	7.510	6.5-9.5
Nitrate (Total)	mg/l NO3	3	30.6	38.2	33.23	50
Nitrite - Consumer's Taps	mg/l NO3	3	0.004	0.069	0.0460	0.5
Nitrite/Nitrate formula	No Units	3	0.62	0.79	0.680	1
Sodium	mg/l Na	4	30.6	33.1	31.85	200
Sulphate	mg/l SO4	4	49.2	71.4	61.28	250
Total Residual Chlorine	mg/l	11	0.09	0.91	0.375	No Specific PVC
Turbidity (CT)	FTU	4	0.14	0.24	0.170	4

Hydrocarbons / Organics

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
1 1 1-Trichloroethane (Total)	ug/l	4	0.04	0.18	0.105	0.1
1 2-Dichloroethane (Total)	ug/l	4	0.07	0.13	0.108	3
Benzene (Total)	ug/l	4	0.02	0.07	0.038	1
Benzo[a]Pyrene (Total)	ug/l	3	0.00022	0.00049	0.000397	0.01
Benzo[b]Fluoranthene (Total)	ug/l	3	0.00052	0.0007	0.000580	The sum of PAHs must be <0.1 ug/l
Benzo[ghi]Perylene (Total)	ug/l	3	0.0004	0.00087	0.000600	The sum of PAHs must be <0.1 ug/l
Benzo[k]Fluoranthene (Total)	ug/l	3	0.00047	0.00067	0.000537	The sum of PAHs must be <0.1 ug/l
Bromodichloromethane (Total)	ug/l	4	4.3	8.42	6.813	60
ChloroDibromomethane (Total)	ug/l	4	6.18	8	7.250	100
Indeno[1 2 3-cd]Pyrene (Total)	ug/l	3	0.00048	0.00079	0.000637	The sum of PAHs must be <0.1 ug/l
Polycyclic Aromatic Hydrocarbons (Total by Calculation)	ug/l	3	0.002	0.01	0.006	0.1
Tetrachloroethene (Total)	ug/l	4	0.05	0.72	0.253	10
Tetrachloromethane (Total)	ug/l	4	0.02	0.14	0.060	3
Total Organic Carbon	mg/l C	4	1.8	3.2	2.58	NO ABNORMAL CHANGE
Total Trichloroethene & Tetrachloroethene (Total by Calculation)	ug/l	4	0	0.72	0.180	100

Hydrocarbons / Organics continued

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Tribromomethane-Bromoform (Total)	ug/l	4	1.33	2.91	2.183	100
Trichloroethene (Total)	ug/l	4	0.05	0.34	0.148	10
Trichloromethane-Chloroform (Total)	ug/l	4	2.2	7.01	5.070	300
Trihalomethanes (Total by Calculation)	ug/l	4	15.16	25.44	21.313	100

Metals

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Aluminium (Total)	ug/l Al	4	7.22	7.22	7.220	200
Antimony	ug/l Sb	4	0.2	0.68	0.369	5
Arsenic (Total)	ug/l As	4	0.56	1.55	0.900	10
Cadmium (Total)	ug/l Cd	4	0.005	0.023	0.0135	5
Chromium (Total)	ug/l Cr	4	0.3	0.55	0.423	50
Copper (Total)	mg/l Cu	4	0.0106	0.403	0.18458	2
Iron (Total)	ug/l Fe	4	4.3	28.3	11.105	200
Lead (10)	ug/l Pb	4	0.16	1.12	0.420	10
Manganese (Total)	ug/l Mn	4	0.22	0.98	0.433	50
Mercury (Total)	ug/l Hg	4	0.03	0.03	0.030	1
Nickel (Total)	ug/l Ni	4	1.86	50.9	14.343	20
Selenium (Total)	ug/l Se	4	0.16	2.13	1.1275	10

Organoleptic Parameters

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Odour (Quantitative)	Dilution Number	5	0	0	0.0	0
Taste(Quantitative)	Dilution Number	5	0	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