Drinking Water Quality Report for Berryfields Supply Zone ZTW0301

Areas covered by Report:	Berryfields, Aylesbury
Report Period:	01 January 2018 to 31 December 2018
Upstream Zone:	Thames Water Aylesbury North WSZ (Z0156)
Population:	5704
Notices:	n/a

Commentary on Water Quality

The water supplied to the Berryfields Zone originates from a ground water source that is chlorinated. 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 3 customer contacts concerning "taste or odour", 3 customer contacts relating to a "water quality enquiry" and 1 customer contact relating to "other concern" 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**	24	0	0	0	**0**
E.coli (faecal coliforms Confirmed)	**No. 100/ml**	24	0	0	0	**0**
Enterococci (Confirmed)	**No. 100/ml**	12	0	0	0	**0**
Sulphite-reducing Clostridia (Confirmed)	**No. 100/ml**	13	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**	13	0.004	0.004	0.004	**0.5**
Boron	**mg/l B**	12	0.02	0.03	0.03	**1**
Bromate	**ug/l BrO3**	12	0.1	0.1	0.10	**10**
Chloride	**mg/l**	13	23.1	27.4	24.69	**250**
Colour	**mg/l Pt/Co**	13	1	1.2	1.02	**20**
Cyanide (Total)	**ug/l CN**	12	0.7	0.9	0.716666667	**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	13	532	570	546.8	2500
Fluoride (Total)	mg/l F	12	0.11	0.13	0.122	1.5
Free Residual Chlorine	mg/l	24	0.19	0.59	0.359	No Specific PCV
Hydrogen ion	pH value	13	7.24	7.5	7.381	6.5-9.5
Nitrate (Total)	mg/l NO3	12	22.3	26.1	24.73	50
Nitrite - Consumer's Taps	mg/l NO3	12	0.002	0.002	0.0020	0.5
Nitrite/Nitrate formula	No Units	12	0.45	0.52	0.494	1
Sodium	mg/l Na	12	11.7	15	12.83333333	200
Sulphate	mg/l SO4	13	17.6	22.4	19.33	250
Total Residual Chlorine	mg/l	24	0.25	0.66	0.449	No Specific PVC
Turbidity (CT)	FTU	13	0.07	0.22	0.120	4

Hydrocarbons / Organics

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
1 1 1-Trichloroethane (Total)	ug/l	9	0.04	0.18	0.068	0.1
1 2-Dichloroethane (Total)	ug/l	9	0.07	0.1	0.073	3
Benzene (Total)	ug/l	9	0.02	0.07	0.026	1
Benzo[a]Pyrene (Total)	ug/l	8	0.00022	0.00023	0.000221	0.01
Benzo[b]Fluoranthene (Total)	ug/l	8	0.00052	0.0008	0.000555	The sum of PAHs must be <0.1 ug/l
Benzo[ghi]Perylene (Total)	ug/l	8	0.0004	0.0004	0.000400	The sum of PAHs must be <0.1 ug/l
Benzo[k]Fluoranthene (Total)	ug/l	8	0.00047	0.00047	0.000470	The sum of PAHs must be <0.1 ug/l
Bromodichloromethane (Total)	ug/l	9	2.52	3.9	3.419	60
ChloroDibromomethane (Total)	ug/l	9	4.72	6.46	5.870	100
Indeno[1 2 3-cd]Pyrene (Total)	ug/l	8	0.00048	0.00051	0.00048	The sum of PAHs must be <0.1 ug/l
Polycyclic Aromatic Hydrocarbons (Total by Calculation)	ug/l	8	0.009	0.08	0.0486	0.1
Tetrachloroethene (Total)	ug/l	9	0.05	0.39	0.093	10
Tetrachloromethane (Total)	ug/l	9	0.02	0.14	0.037	3
Total Organic Carbon	mg/l C	13	0.7	1	0.783	NO ABNORMAL CHANGE
Total Trichloroethene & Tetrachloroethene (Total by Calculation)	ug/l	9	0	0.25	0.03125	100

Hydrocarbons / Organics continued

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Tribromomethane-Bromoform (Total)	ug/l	9	2.26	4.15	3.081	100
Trichloroethene (Total)	ug/l	9	0.05	0.34	0.104	10
Trichloromethane-Chloroform (Total)	ug/l	9	0.31	1.88	1.332	300
Trihalomethanes (Total by Calculation)	ug/l	9	11.12	15.12	13.702	100

Metals

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Aluminium (Total)	ug/l Al	12	3.21	7.22	6.551666667	200
Antimony	ug/l Sb	12	0.04	0.25	0.1048	5
Arsenic (Total)	ug/l As	12	0.24	0.58	0.324166667	10
Cadmium (Total)	ug/l Cd	12	0.006	0.013	0.011333333	5
Chromium (Total)	ug/l Cr	12	0.22	0.63	0.38	50
Copper (Total)	mg/l Cu	12	0.0088	0.559	0.070508333	2
Iron (Total)	ug/l Fe	12	0.7	1.73	0.95	200
Lead (10)	ug/l Pb	12	0.03	0.43	0.144166667	10
Manganese (Total)	ug/l Mn	12	0.14	0.22	0.21	50
Mercury (Total)	ug/l Hg	12	0.02	0.05	0.031	1
Nickel (Total)	ug/l Ni	12	0.99	3.36	1.53	20
Selenium (Total)	ug/l Se	12	0.41	1.28	0.721666667	10

Organoleptic Parameters

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Odour (Quantitative)	Dilution Number	13	0	0	0	0
Taste(Quantitative)	Dilution Number	13	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