Drinking Water Quality Report for Bidwell Supply Zone ZAF0301

Areas covered by Report:	Houghton Regis, Dunstable
Report Period:	01 January 2019 to 31 December 2019
Upstream Zone:	Affinity Water Luton West/Houghton Regis WSZ (Z028)
Population:	48
Notices:	n/a

Commentary on Water Quality

The water supplied to the Martello Lakes 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 2019.
IWNL received 0 customer contact during the period of this report.

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**	1	0	0	0.0	**0**
E.coli (faecal coliforms Confirmed)	**No. 100/ml**	1	0	0	0.0	**0**
Enterococci (Confirmed)	**No. 100/ml**	1	0	0	0.0	**0**
Sulphite-reducing Clostridia (Confirmed)	**No. 100/ml**	1	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**	1	0.004	0.004	0.0040	**0.5**
Boron	**mg/l B**	1	0.07	0.07	0.067	**1**
Bromate	**ug/l BrO3**	1	0.1	0.1	0.10	**10**
Chloride	**mg/l**	1	31.9	31.9	31.90	**250**
Colour	**mg/l Pt/Co**	1	1	1	1.00	**20**
Cyanide (Total)	**ug/l CN**	1	5.5	5.5	5.50	**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	1	622	622	622.0	2500
Fluoride (Total)	mg/l F	1	0.11	0.11	0.110	1.5
Free Residual Chlorine	mg/l	1	0.05	0.05	0.05	No Specific PCV
Hydrogen ion	pH value	1	7.76	7.76	7.760	6.5-9.5
Nitrate (Total)	mg/l NO3	1	36.8	36.8	36.80	50
Nitrite - Consumer's Taps	mg/l NO3	1	0.002	0.002	0.0020	0.5
Nitrite/Nitrate formula	No Units	1	0.74	0.74	0.740	1
Sodium	mg/l Na	1	14.5	14.5	14.50	200
Sulphate	mg/l SO4	1	37.4	37.4	37.40	250
Total Residual Chlorine	mg/l	1	0.1	0.1	0.100	No Specific PVC
Turbidity (CT)	FTU	1	0.17	0.17	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	1	0.1	0.1	0.100	0.1
1 2-Dichloroethane (Total)	ug/l	1	0.13	0.13	0.130	3
Benzene (Total)	ug/l	1	0.03	0.03	0.030	1
Benzo[a]Pyrene (Total)	ug/l	1	0.00022	0.00022	0.000220	0.01
Benzo[b]Fluoranthene (Total)	ug/l	1	0.00052	0.00052	0.000520	The sum of PAHs must be <0.1 ug/l
Benzo[ghi]Perylene (Total)	ug/l	1	0.0004	0.0004	0.000400	The sum of PAHs must be <0.1 ug/l
Benzo[k]Fluoranthene (Total)	ug/l	1	0.00047	0.00047	0.000470	The sum of PAHs must be <0.1 ug/l
Bromodichloromethane (Total)	ug/l	1	0.83	0.83	0.830	60
ChloroDibromomethane (Total)	ug/l	1	3.49	3.49	3.490	100
Indeno[1 2 3-cd]Pyrene (Total)	ug/l	1	0.00048	0.00048	0.000480	The sum of PAHs must be <0.1 ug/l
Polycyclic Aromatic Hydrocarbons (Total by Calculation)	ug/l	1	0.001	0.001	0.001	0.1
Tetrachloroethene (Total)	ug/l	1	0.13	0.13	0.130	10
Tetrachloromethane (Total)	ug/l	1	0.04	0.04	0.040	3
Total Organic Carbon	mg/l C	1	0.7	0.7	0.70	NO ABNORMAL CHANGE
Total Trichloroethene & Tetrachloroethene (Total by Calculation)	ug/l	1	0.38	0.38	0.4	100

Hydrocarbons / Organics continued

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Tribromomethane-Bromoform (Total)	ug/l	1	7.23	7.23	7.230	100
Trichloroethene (Total)	ug/l	1	0.25	0.25	0.250	10
Trichloromethane-Chloroform (Total)	ug/l	1	0.17	0.17	0.170	300
Trihalomethanes (Total by Calculation)	ug/l	1	11.72	11.72	11.720	100

Metals

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Aluminium (Total)	ug/l Al	1	7.22	7.22	7.220	200
Antimony	ug/l Sb	1	0.05	0.05	0.050	5
Arsenic (Total)	ug/l As	1	0.2	0.2	0.200	10
Cadmium (Total)	ug/l Cd	1	0.053	0.053	0.0530	5
Chromium (Total)	ug/l Cr	1	1.3	1.3	1.300	50
Copper (Total)	mg/l Cu	1	0.751	0.751	0.75100	2
Iron (Total)	ug/l Fe	1	0.7	0.7	0.700	200
Lead (10)	ug/l Pb	1	1.8	1.8	1.800	10
Manganese (Total)	ug/l Mn	1	0.22	0.22	0.220	50
Mercury (Total)	ug/l Hg	1	0.03	0.03	0.030	1
Nickel (Total)	ug/l Ni	1	4.58	4.58	4.580	20
Selenium (Total)	ug/l Se	1	0.5	0.5	0.5	10

Organoleptic Parameters

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Odour (Quantitative)	Dilution Number	1	0	0	0.0	0
Taste(Quantitative)	Dilution Number	1	0	0	0.0	0

Radioactivity Parameters

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Gross Alpha	Bq/l	1	0.02	0.02	0.020	0.1
Gross Beta	Bq/l	1	0.049	0.049	0.049	1
Tritium	Bq/l	1	5.6	5.6	5.600	100
Radon	Bq/l	1	0.5	0.5	0.5	100

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