Drinking Water Quality Report for Oakham Supply Zone ZST0101

Areas covered by Report:	Oakham
Report Period:	01 January 2019 to 31 December 2019
Upstream Zone:	Severn Trent Water Rutland & Uppingham WSZ (ZLC06)
Population:	1635
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 Oakham 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 2019.
There was 1 customer contact concerning "Water Quality Reports" and 1 customer contact concerning "Taste & Odour" during the period of this report. The investigation 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**	4	0	0	0.0	**0**
Sulphite-reducing Clostridia (Confirmed)	**No. 100/ml**	3	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**	3	0.096	0.165	0.1337	**0.5**
Boron	**mg/l B**	5	0.10	0.11	0.106	**1**
Bromate	**ug/l BrO3**	4	0.3	2.2	1.13	**10**
Chloride	**mg/l**	3	74.7	76.3	75.37	**250**
Colour	**mg/l Pt/Co**	3	1	1.4	1.20	**20**
Cyanide (Total)	**ug/l CN**	6	0.7	1.7	0.90	**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	3	652	723	692.3	2500
Fluoride (Total)	mg/l F	5	0.28	0.33	0.300	1.5
Free Residual Chlorine	mg/l	11	0.03	0.61	0.22	No Specific PCV
Hydrogen ion	pH value	3	7.23	7.52	7.353	6.5-9.5
Nitrate (Total)	mg/l NO3	3	18.3	25.2	22.27	50
Nitrite - Consumer's Taps	mg/l NO3	3	0.002	0.002	0.0020	0.5
Nitrite/Nitrate formula	No Units	3	0.37	0.5	0.447	1
Sodium	mg/l Na	5	48.7	52.1	49.88	200
Sulphate	mg/l SO4	3	122	126	124.00	250
Total Residual Chlorine	mg/l	11	0.23	0.95	0.521	No Specific PVC
Turbidity (CT)	FTU	3	0.17	0.21	0.190	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	5	0.00022	0.00022	0.000220	0.01
Benzo[b]Fluoranthene (Total)	ug/l	5	0.00052	0.00052	0.000520	The sum of PAHs must be <0.1 ug/l
Benzo[ghi]Perylene (Total)	ug/l	5	0.0004	0.0004	0.000400	The sum of PAHs must be <0.1 ug/l
Benzo[k]Fluoranthene (Total)	ug/l	5	0.00047	0.00047	0.000470	The sum of PAHs must be <0.1 ug/l
Bromodichloromethane (Total)	ug/l	4	2.45	3.44	3.005	60
ChloroDibromomethane (Total)	ug/l	4	6.52	8.05	7.328	100
Indeno[1 2 3-cd]Pyrene (Total)	ug/l	5	0.00048	0.0048	0.001560	The sum of PAHs must be <0.1 ug/l
Polycyclic Aromatic Hydrocarbons (Total by Calculation)	ug/l	5	0.001	0.007	0.003	0.1
Tetrachloroethene (Total)	ug/l	4	0.05	0.39	0.170	10
Tetrachloromethane (Total)	ug/l	4	0.02	0.14	0.060	3
Total Organic Carbon	mg/l C	3	3.3	3.4	3.37	NO ABNORMAL CHANGE
Total Trichloroethene & Tetrachloroethene (Total by Calculation)	ug/l	4	0	0	0.0	100

Hydrocarbons / Organics continued

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Tribromomethane-Bromoform (Total)	ug/l	4	3.73	5.06	4.450	100
Trichloroethene (Total)	ug/l	4	0.05	0.34	0.148	10
Trichloromethane-Chloroform (Total)	ug/l	4	0.74	1.72	1.185	300
Trihalomethanes (Total by Calculation)	ug/l	4	14.95	17.28	15.965	100

Metals

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Aluminium (Total)	ug/l Al	5	3.21	7.22	6.418	200
Antimony	ug/l Sb	5	0.33	0.37	0.350	5
Arsenic (Total)	ug/l As	5	0.33	0.37	0.354	10
Cadmium (Total)	ug/l Cd	5	0.005	0.013	0.0114	5
Chromium (Total)	ug/l Cr	5	0.1	0.53	0.334	50
Copper (Total)	mg/l Cu	5	0.0017	0.0589	0.01666	2
Iron (Total)	ug/l Fe	5	25.3	39.2	31.660	200
Lead (10)	ug/l Pb	5	0.03	0.5	0.176	10
Manganese (Total)	ug/l Mn	5	0.22	1.59	0.548	50
Mercury (Total)	ug/l Hg	5	0.03	0.03	0.030	1
Nickel (Total)	ug/l Ni	5	2.24	3.73	2.650	20
Selenium (Total)	ug/l Se	5	0.13	0.17	0.156	10

Organoleptic Parameters

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Odour (Quantitative)	Dilution Number	3	0	0	0.0	0
Taste(Quantitative)	Dilution Number	3	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