WATER SUPPLY ZONE Barsham

Essex & Suffolk Water: Period from 01-JAN-2019 to 31-DEC-2019

Parameter		U/A & Freq.	No. of samples planned per annum	No. of samples taken in year	PCV Relaxed	No. Of samples contravening PCV	% of samples contravening PCV	Concentration or value (all samples) Min.	Mean	Max.
E.coli	/100ml	S	132	132	>0	0	0.000	0.000	0.000	0.000
residual disinfectant - total	mg/l	S	132	132		0	0.000	0.070	0.294	0.530
total coliforms	/100ml	S	132	132	>0	1	0.758	0.000	1.523	201.000
colony counts after 3 days at 22C	/ml	S	52	52		0	0.000	0.000	6.462	202.000
colour	mg/l Pt/Co scale	S	52	52	20	0	0.000	< 0.930	< 1.487	3.000
electrical conductivity	uS/cm 20C	S	52	52	2500	0	0.000	880.000	920.577	970.000
hydrogen ion (pH)	pH units	S	52	52	9.5	0	0.000	7.180	7.358	7.760
odour (quantitative)	DN	S	52	52	>0	2	3.846	0.000	> 0.192	> 9.000
taste (quantitative)	DN	S	52	52	>0	0	0.000	0.000	0.000	0.000
turbidity	NTU	S	52	52	4	0	0.000	0.045	0.090	0.190
ammonium	mg/l NH4	S	52	52	0.5	0	0.000	< 0.007	< 0.110	0.190
chloride	mg/l	S	8	8	250	0	0.000	73.000	80.125	85.000
sulphate	mg/l SO4	S	8	8	250	0	0.000	132.484	155.746	182.595
total organic carbon	mg/l C	S	8	8		0	0.000	2.100	2.600	3.000
aluminium	ug/l Al	S	52	52	200	0	0.000	< 6.600	< 11.656	22.719
antimony	ug/l Sb	S	8	8	5	0	0.000	< 0.080	< 0.115	0.174
arsenic	ug/l As	S	8	8	10	0	0.000	0.152	0.218	0.266
benzene	ug/l	S	8	8	1	0	0.000	< 0.013	< 0.021	< 0.041
benzo(a)pyrene	ug/l	S	8	8	0.01	0	0.000	< 0.001	< 0.001	< 0.002
boron	mg/l B	S	8	8	1	0	0.000	0.042	0.046	0.053
bromate	ug BrO3/l	S	8	8	10	0	0.000	< 0.100	< 0.448	< 0.990
cadmium	ug/l Cd	S	8	8	5	0	0.000	< 0.009	< 0.011	< 0.018
chromium	ug/l Cr	S	8	8	50	0	0.000	< 0.083	< 0.854	1.870
copper	mg/l Cu	S	8	8	2	0	0.000	0.004	0.143	0.621
cyanide (total)	ug/l CN	S	8	8	50	0	0.000	< 1.700	< 8.326	25.984
1,2-dichloroethane	ug/l	S	8	8	3	0	0.000	< 0.024	< 0.038	< 0.079
enterococci (confirmed)	/100ml	S	8	8	>0	0	0.000	0.000	0.000	0.000
fluoride	mg/l F	S	8	8	1.5	0	0.000	0.240	0.286	0.320
iron	ug/l Fe	S	52	52	200	0	0.000	< 1.200	< 4.599	16.076
manganese	ug/l Mn	S	52	52	50	0	0.000	< 0.180	< 0.742	11.486
mercury	ug/l Hg	S	8	8	1	0	0.000	< 0.011	< 0.018	0.041
nickel	ug/l Ni	S	8	8	20	0	0.000	0.958	1.298	2.095
nitrate	mg/l NO3	S	52	52	50	0	0.000	2.100	8.602	29.000
nitrite	mg/l NO2	S	52	52	0.5	0	0.000	< 0.003	< 0.096	0.330
pesticides total (calculated)	ug/l	S	8	8	0.5	0	0.000	0.018	0.041	0.064
total PAH	ug/l	S	8	8	0.1	0	0.000	0.000	0.000	0.001
selenium	ug/l Se	S	8	8	10	0	0.000	< 0.420	< 0.523	< 0.830
sodium	mg/l Na	S	8	8	200	0	0.000	39.064	44.046	47.461
tetrachloromethane	ug/l	S	8	8	3	0	0.000	< 0.025	< 0.039	< 0.081
total THM	ug/l	S	8	8	100	0	0.000	17.800	27.388	34.300
dieldrin	ug/l	S	8	8	0.03	0	0.000	< 0.003	< 0.003	< 0.003
atrazine	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.004	< 0.008
ethenes (total by calculation)	ug/l	S	8	8	10	0	0.000	0.000	0.000	0.000
clostridium perfringens	/100ml	S	52	52	>0	0	0.000	0.000	0.000	0.000
nitrite/nitrate formula		S	52	52	1.00	0	0.000	< 0.053	< 0.204	0.637
carbetamide	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.004	< 0.008
chlortoluron	ug/l	S	8	8	0.1	0	0.000	0.002	0.003	0.004
diuron	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.006

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isoproturon	ug/l	S	8	8	0.1	0	0.000	0.002	0.004	0.006
linuron	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.002	< 0.003
metamitron	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.004	< 0.007
2,4-DB	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.006	< 0.012
2,4,5-T	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.002	< 0.004
2,4-D	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.002	< 0.004
bentazone	ug/l	S	8	8	0.1	0	0.000	0.006	0.009	0.012
clopyralid	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.010	0.021
dicamba	ug/l	S	8	8	0.1	0	0.000	< 0.012	< 0.013	< 0.017
dichlorprop	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.002	< 0.004
MCPA	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.001	< 0.002
MCPB	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.007	< 0.014
MCPP	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.004	0.005
propyzamide	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.007
chlorthalonil	ug/l	S	8	8	0.1	0	0.000	< 0.010	< 0.010	< 0.010
heptachlor	ug/l	S	8	8	0.03	0	0.000	< 0.005	< 0.005	< 0.005
oxamyl	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.005	< 0.014
aldrin	ug/l	S	8	8	0.03	0	0.000	< 0.002	< 0.002	< 0.002
heptachlor epoxides	ug/l	S	8	8	0.03	0	0.000	0.000	0.000	0.000
AMPA	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.006	< 0.022
hexachlorobenzene	ug/l	S	8	8	0.1	0	0.000	< 0.006	< 0.006	< 0.006
flufenacet	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.002	< 0.005
lenacil	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.006
fluroxypyr	ug/l	S	8	8	0.1	0	0.000	< 0.005	< 0.009	< 0.018
triclopyr	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.006	< 0.012
metazachlor	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.005	< 0.010
pendimethalin	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.004	< 0.008
pentachlorophenol	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.006
picloram	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.004	< 0.007
quinmerac	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.005	< 0.010
lead (total - 10)	ug/l Pb	S	8	8	10	0	0.000	< 0.033	< 0.689	2.073
chloridazon	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.005
fenpropidin	ug/l	S	8	8	0.1	0	0.000	< 0.004	< 0.006	< 0.012
fenpropimorph	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.004	< 0.009
terbutryn	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.007
ethofumesate	ug/l	S	8	8	0.1	0	0.000	< 0.002	< 0.003	< 0.007
tebuconazole	ug/l	S	8	8	0.1	0	0.000	< 0.001	< 0.002	< 0.004
diflufenican	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.004	< 0.009
chlormequat	ug/l	S	8	8	0.1	0	0.000	< 0.006	< 0.011	< 0.020
asulam	ug/l	S	8	8	0.1	0	0.000	< 0.005	< 0.009	< 0.017
metaldehyde	ug/l	U S	8	8	0.1	0	0.000	0.010	0.015	0.026
glyphosate	ug/l	S	8	8	0.1	0	0.000	< 0.003	< 0.005	< 0.012

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Commentary on Water Quality:

Population of zone = 55473

PCV Exceedances:

Sample failed 28-OCT-2019 (SFZ501) total coliforms = 201. Sample 1978097 taken on 28/10/19 result of 201 coliforms/100ml. Samples taken from adjacent properties and a downstream property satisfactory. Resamples from original property swabs positive for coliforms identified as the same type as original failure. Tap strip & disinfect carried out but incomplete. Tap suspected as source of regrowth, customer advised to replace this.

Sample failed 09-JAN-2019 (SFZ501) odour (quantitative) = 1. Sample number 1806847 taken 09/01/2019. Failed Quantitative Odour 1DN described as 'musty/brackish'. All resamples and associated samples satisfactory. No contact from the customer regarding unusual odour. Most likely cause is poor turnover of water due to infrequent use at the property and location towards the end of the network.

Sample failed 29-MAY-2019 (SFZ501) odour (quantitative) = >9. Sample 1883874 taken on 29/05/2019. Failed Quantitative Odour standard with a DN of >9 and description 'Pencils'. Nearby property samples and boundary sample satisfactory. Resamples satisfactory with the exception of a faint qualitative pencils/woody odour detected. This exceedance is likely due to black alkathene pipe making up the supply pipe, the communication pipe at the property was replaced.

Action taken to comply with Section 19(1)(B) Undertaking:

metaldehyde - Currently under investigation.

Notes:
PCV = Prescribed Concentration or Value
U = Undertaking
S = Standard Sampling Frequency
R = Reduced Sampling Frequency
A = Authorised Supply Point