

## Drinking Water Quality Report for Throckley Supply Zone ZNW0101

<b>Areas covered by Report:</b>	Newcastle upon Tyne
<b>Report Period:</b>	01 January 2019 to 31 December 2019
<b>Upstream Zone:</b>	Northumbrian Water Hillhead WSZ (Z0021414)
<b>Population:</b>	58
<b>Notices:</b>	n/a

### Commentary on Water Quality

The water supplied to the Throckley Zone originates from a surface 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.

<b>Hardness Rating:</b>	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
CaCO <sub>3</sub> 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 NH <sub>4</sub>	1	0.004	0.004	0.0040	0.5
Boron	mg/l B	1	0.03	0.03	0.025	1
Bromate	ug/l BrO <sub>3</sub>	1	0.1	0.1	0.10	10
Chloride	mg/l	1	16.4	16.4	16.40	250
Colour	mg/l Pt/Co	1	1.8	1.8	1.80	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	369	369	369.0	2500
Fluoride (Total)	mg/l F	1	0.62	0.62	0.620	1.5
Free Residual Chlorine	mg/l	1	0.13	0.13	0.13	No Specific PCV
Hydrogen ion	pH value	1	7.19	7.19	7.190	6.5-9.5
Nitrate (Total)	mg/l NO3	1	6.74	6.74	6.74	50
Nitrite - Consumer's Taps	mg/l NO3	1	0.002	0.002	0.0020	0.5
Nitrite/Nitrate formula	No Units	1	0.13	0.13	0.130	1
Sodium	mg/l Na	1	21.9	21.9	21.90	200
Sulphate	mg/l SO4	1	86	86	86.00	250
Total Residual Chlorine	mg/l	1	0.26	0.26	0.260	No Specific PVC
Turbidity (CT)	FTU	1	0.18	0.18	0.180	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	11.81	11.81	11.810	60
ChloroDibromomethane (Total)	ug/l	1	2.85	2.85	2.850	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	0	0.000	0.1
Tetrachloroethene (Total)	ug/l	1	0.12	0.12	0.120	10
Tetrachloromethane (Total)	ug/l	1	0.04	0.04	0.040	3
Total Organic Carbon	mg/l C	1	2.8	2.8	2.80	NO ABNORMAL CHANGE
Total Trichloroethene & Tetrachloroethene (Total by Calculation)	ug/l	1	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	1	0.11	0.11	0.110	100
Trichloroethene (Total)	ug/l	1	0.1	0.1	0.100	10
Trichloromethane-Chloroform (Total)	ug/l	1	40.91	40.91	40.910	300
Trihalomethanes (Total by Calculation)	ug/l	1	55.68	55.68	55.680	100

**Metals**

Parameter	units of measurement	Number of Samples	Minimum	Maximum	Average	Prescribed Concentration or Value
Aluminium (Total)	ug/l Al	1	9.91	9.91	9.910	200
Antimony	ug/l Sb	1	0.12	0.12	0.120	5
Arsenic (Total)	ug/l As	1	0.28	0.28	0.280	10
Cadmium (Total)	ug/l Cd	1	0.017	0.017	0.0170	5
Chromium (Total)	ug/l Cr	1	0.13	0.13	0.130	50
Copper (Total)	mg/l Cu	1	0.002	0.002	0.00200	2
Iron (Total)	ug/l Fe	1	2.97	2.97	2.970	200
Lead (10)	ug/l Pb	1	0.04	0.04	0.040	10
Manganese (Total)	ug/l Mn	1	0.25	0.25	0.250	50
Mercury (Total)	ug/l Hg	1	0.03	0.03	0.030	1
Nickel (Total)	ug/l Ni	1	2.01	2.01	2.010	20
Selenium (Total)	ug/l Se	1	0.16	0.16	0.16	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	0.018	0.018	0.018	0.1
Gross Beta	Bq/l	1	0.081	0.081	0.081	1
Tritium	Bq/l	1	5.6	5.6	5.600	100

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**Notes**

1. For some parameters, monitoring occurs at the supplying Water Treatment Works rather than the Water Supply Zone.

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**Glossary of Terms**

<b>Term</b>	<b>Definition</b>
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

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