

THAMES WATER UTILITIES
WATER QUALITY REPORT - 2014 DATA

| Water Supply Zone: SLW 9 RICHMOND | | | Zone No.: 101 | | | | | |
|--|--------------|-----------|---|---------|----------|-----------------------|---------------|-------------------------------|
| | | | Population: 56606 | | | | | |
| Time Period: 01/01/2014 to 31/12/2014 | | | Concentration or Value (all samples) | | | No. of Samples | | |
| Date extracted: 10/04/2015 | | | | | | | | |
| Parameter | Units | PCV | Min. | Mean | Max. | Total | Contra-vening | % of samples contravening PCV |
| Coliform bacteria | no./100ml | 0 | 0 | 0.008 | 1 | 132 | 1 | 0.8 |
| <i>E. coli</i> | no./100ml | 0 | 0 | 0 | 0 | 132 | 0 | 0 |
| <i>Enterococci</i> | no./100ml | 0 | 0 | 0 | 0 | 8 | 0 | 0 |
| <i>Clostridium perfringens</i> | no./100ml | 0 | 0 | 0 | 0 | 417 | 0 | 0 |
| Colony count 22°C | cfu/ml | - | 0 | 2.981 | 60 | 52 | 0 | 0 |
| Colony count 37°C | cfu/ml | - | 0 | 8 | >300.000 | 52 | 0 | 0 |
| Residual Disinfectant | mg/l | - | 0.29 | 0.58 | 0.79 | 132 | 0 | 0 |
| Colour (Pt/Co scale) | mg/lPt/Co | 20 | 0.8 | 1.563 | 4.1 | 52 | 0 | 0 |
| Hydrogen Ion | pH | 6.50-9.50 | 7.5 | 7.685 | 7.9 | 52 | 0 | 0 |
| Turbidity | FTU | 4 | <0.060 | 0.074 | 0.14 | 52 | 0 | 0 |
| Conductivity at 20°C | uS/cm | 2500 | 506 | 558.327 | 610 | 52 | 0 | 0 |
| Ammonium as NH4 | mg/l | 0.5 | 0.08 | 0.138 | 0.2 | 52 | 0 | 0 |
| Chloride as Cl | mg/l | 250 | 33.17 | 39.263 | 44.79 | 8 | 0 | 0 |
| Sodium as Na | mg/l | 200 | 22 | 27.138 | 31.7 | 8 | 0 | 0 |
| Sulphate as SO4 | mg/l | 250 | 42 | 44.038 | 49.5 | 8 | 0 | 0 |
| Nitrate as NO3 | mg/l | 50 | 20 | 24.083 | 28.1 | 52 | 0 | 0 |
| Nitrite as NO2 | mg/l | 0.5 | <0.010 | 0.015 | 0.12 | 52 | 0 | 0 |
| Nitrate/Nitrite calculation | mg/l | 1 | 0.4 | 0.485 | 0.56 | 52 | 0 | 0 |
| Total Organic Carbon as C | mg/l | - | 1.5 | 2.297 | 3.7 | 36 | 0 | 0 |
| Total Hardness as CaCO3 | mg/l | N/A | 229 | 253 | 277 | 2 | 0 | 0 |
| Odour (quantatative) | dilution no. | 0 | 0 | 0 | 0 | 28 | 0 | 0 |
| Taste (quantatative) | dilution no. | 0 | 0 | 0 | 0 | 28 | 0 | 0 |
| Iron as Fe | ug/l | 200 | <2.000 | 3.227 | 8.9 | 52 | 0 | 0 |
| Manganese as Mn | ug/l | 50 | <0.200 | <0.765 | <0.800 | 52 | 0 | 0 |
| Aluminium as Al | ug/l | 200 | <1.400 | 5.746 | 8.2 | 52 | 0 | 0 |
| Antimony as Sb | ug/l | 5 | <0.700 | <0.788 | <0.800 | 8 | 0 | 0 |
| Arsenic as As | ug/l | 10 | 0.9 | 1.038 | 1.3 | 8 | 0 | 0 |
| Cadmium as Cd | ug/l | 5 | <0.100 | <0.100 | <0.100 | 8 | 0 | 0 |
| Chromium as Cr | ug/l | 50 | <0.900 | <0.938 | <1.200 | 8 | 0 | 0 |
| Copper as Cu | mg/l | 2 | 0.004 | 0.015 | 0.056 | 8 | 0 | 0 |
| Lead as Pb | ug/l | 10 | <0.200 | 1.225 | 3.9 | 8 | 0 | 0 |
| Mercury as Hg | ug/l | 1 | <0.040 | <0.088 | <0.120 | 36 | 0 | 0 |
| Nickel as Ni | ug/l | 20 | <1.300 | <1.388 | <1.600 | 8 | 0 | 0 |
| Fluoride as F | mg/l | 1.5 | 0.113 | 0.136 | 0.154 | 8 | 0 | 0 |
| Selenium as Se | ug/l | 10 | 0.8 | 0.8 | 0.8 | 8 | 0 | 0 |
| Boron as B | mg/l | 1 | 0.045 | 0.052 | 0.054 | 8 | 0 | 0 |
| Bromate as BrO3 | ug/l | 10 | 0.7 | 0.833 | 1.8 | 36 | 0 | 0 |
| Cyanide as CN | ug/l | 50 | <0.700 | 0.711 | 1 | 36 | 0 | 0 |
| PAHs (Sum of 4 substances) | ug/l | 0.1 | 0 | 0 | 0 | 8 | 0 | 0 |
| Benzo (a) pyrene | ug/l | 0.01 | <0.001 | <0.001 | <0.001 | 8 | 0 | 0 |
| Trihalomethanes | ug/l | 100 | 8.1 | 16.388 | 23.1 | 8 | 0 | 0 |
| Tetra- & Trichloroethene calc | ug/l | 10 | 0 | 0 | 0 | 8 | 0 | 0 |
| Tetrachloromethane | ug/l | 3 | <0.200 | <0.200 | <0.200 | 8 | 0 | 0 |
| 1,2 dichloroethane | ug/l | 3 | <0.200 | <0.263 | <0.300 | 8 | 0 | 0 |

NOTE: PCV = Prescribed Concentration or Value

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|---|-------|-----|---|--------|--------|--------------------------|---------------|-------------------------------|
| Time Period: 01/01/2014 to 31/12/2014 Date extracted: 10/04/2015 | | | Concentration or Value (all samples) | | | No. of Samples | | |
| Parameter | Units | PCV | Min. | Mean | Max. | Total | Contra-vening | % of samples contravening PCV |
| Benzene | ug/l | 1 | <0.100 | <0.100 | <0.100 | 8 | 0 | 0 |
| Atrazine | ug/l | 0.1 | <0.005 | <0.005 | <0.005 | 36 | 0 | 0 |
| Bentazone | ug/l | 0.1 | <0.005 | <0.005 | <0.005 | 36 | 0 | 0 |
| Bromoxynil | ug/l | 0.1 | <0.002 | <0.005 | <0.005 | 36 | 0 | 0 |
| Carbetamide | ug/l | 0.1 | <0.003 | 0.003 | 0.006 | 36 | 0 | 0 |
| Chlortoluron | ug/l | 0.1 | <0.003 | <0.003 | <0.003 | 36 | 0 | 0 |
| Clopyralid | ug/l | 0.1 | <0.009 | <0.010 | <0.010 | 36 | 0 | 0 |
| 2,4-D | ug/l | 0.1 | <0.003 | <0.004 | <0.004 | 36 | 0 | 0 |
| Dicamba | ug/l | 0.1 | <0.007 | <0.007 | <0.007 | 36 | 0 | 0 |
| Dichlorprop | ug/l | 0.1 | <0.002 | <0.004 | <0.004 | 36 | 0 | 0 |
| Diuron | ug/l | 0.1 | <0.003 | <0.003 | <0.003 | 36 | 0 | 0 |
| Fluroxypyr | ug/l | 0.1 | <0.003 | <0.006 | <0.006 | 36 | 0 | 0 |
| Isoproturon | ug/l | 0.1 | <0.004 | <0.004 | <0.004 | 36 | 0 | 0 |
| Ioxynil | ug/l | 0.1 | <0.002 | <0.005 | <0.005 | 36 | 0 | 0 |
| Linuron | ug/l | 0.1 | <0.004 | <0.004 | <0.004 | 36 | 0 | 0 |
| Mecoprop | ug/l | 0.1 | <0.003 | <0.007 | <0.008 | 36 | 0 | 0 |
| MCPA | ug/l | 0.1 | <0.002 | <0.006 | <0.006 | 36 | 0 | 0 |
| MCPB | ug/l | 0.1 | <0.004 | <0.005 | <0.008 | 36 | 0 | 0 |
| Pentachlorophenol | ug/l | 0.1 | <0.002 | <0.004 | <0.004 | 36 | 0 | 0 |
| Propazine | ug/l | 0.1 | <0.002 | <0.002 | <0.002 | 36 | 0 | 0 |
| Prometryn | ug/l | 0.1 | <0.002 | <0.002 | <0.002 | 36 | 0 | 0 |
| Propyzamide | ug/l | 0.1 | <0.004 | 0.009 | 0.033 | 36 | 0 | 0 |
| Simazine | ug/l | 0.1 | <0.005 | <0.005 | <0.005 | 36 | 0 | 0 |
| 2,4,5-T | ug/l | 0.1 | <0.003 | <0.005 | <0.005 | 36 | 0 | 0 |
| Terbutryn | ug/l | 0.1 | <0.003 | <0.003 | <0.003 | 36 | 0 | 0 |
| 2,4-DB | ug/l | 0.1 | <0.004 | <0.005 | <0.005 | 36 | 0 | 0 |
| Fenoprop | ug/l | 0.1 | <0.003 | <0.004 | <0.004 | 36 | 0 | 0 |
| Monuron | ug/l | 0.1 | <0.003 | <0.003 | <0.003 | 36 | 0 | 0 |
| Picloram | ug/l | 0.1 | <0.005 | <0.008 | <0.008 | 36 | 0 | 0 |
| Triclopyr | ug/l | 0.1 | <0.003 | <0.005 | <0.005 | 36 | 0 | 0 |
| Tebuthiuron | ug/l | 0.1 | <0.002 | <0.002 | <0.002 | 36 | 0 | 0 |
| Ametryne | ug/l | 0.1 | <0.002 | <0.002 | <0.002 | 36 | 0 | 0 |
| Carbendazim | ug/l | 0.1 | <0.002 | <0.002 | <0.002 | 36 | 0 | 0 |
| Metaldehyde | ug/l | 0.1 | 0.02 | 0.036 | 0.07 | 36 | 0 | 0 |
| Metazachlor | ug/l | 0.1 | <0.002 | 0.002 | 0.003 | 36 | 0 | 0 |
| Quinmerac | ug/l | 0.1 | <0.004 | 0.005 | 0.009 | 36 | 0 | 0 |
| Total Pesticides | ug/l | 0.5 | 0 | 0.044 | 0.099 | 38 | 0 | 0 |

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| | | | | |
|--|-------|----------|--------------------|-------|
| Water Supply Zone: | SLW 9 | RICHMOND | Zone No.: | 101 |
| | | | Population: | 56606 |
| Time Period: 01/01/2014 to 31/12/2014 | | | | |
| Date extracted: 10/04/2015 | | | | |

Commentary on Water Quality:

Very good water quality, however one infringement to report for coliforms. Our investigations showed the infringement for coliforms was transitory and not indicative of the quality of water supplied to this zone.

NOTES:

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