# Queensland Urban Utilities
# Kooralbyn Drinking Water Quality July 2010-June 2011

## Aesthetic water quality

| Aesthetic test description | No of tests | Units | Minimum | Maximum | Average | Aesthetic guideline | Health limit | Scheme compliant with ADWG 2004 |
|---|---|---|---|---|---|---|---|---|
| Aluminium | 85 | mg/L | <0.01 | 0.11 | 0.024 | 0.2 | | Yes |
| Ammonia (Total, as N) | 8 | mg/L | <0.02 | <0.02 | <0.02 | 0.5 | | Yes |
| Chloride | 22 | mg/L | 35 | 78 | 57 | 250 | | Yes |
| Colour (True) | 87 | PCU | <5 | <5 | <5 | 15 | | Yes |
| Hardness (Total) | 22 | mg/L | 54 | 121 | 99 | 200 | | Yes |
| Iron | 85 | mg/L | <0.01 | 0.390 | 0.019 | 0.3 | | Yes |
| pH | 14 | pH unit | 7.8 | 8.2 | 8.0 | 8.5 | | Yes |
| pH (Field) | 75 | pH unit | 7.5 | 8.6 | 8.1 | 8.5 | | Yes |
| Total Dissolved Solids | 22 | mg/L | 128 | 274 | 209 | 500 | | Yes |
| Turbidity | 87 | NTU | 0.10 | 3.60 | 0.37 | 5 | | Yes |
| Zinc | 20 | mg/L | <0.01 | 0.040 | 0.015 | 3 | | Yes |

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## Health-related water quality

| Health related test description | No of tests | Units | Minimum | Maximum | Average | Aesthetic guideline | Health limit | Scheme compliant with ADWG 2004 |
|---|---|---|---|---|---|---|---|---|
| Barium | 20 | mg/L | 0.013 | 0.048 | 0.024 | | 0.7 | Yes |
| Cadmium | 20 | mg/L | <0.01 | <0.01 | <0.01 | | 0.002 | Yes |
| Chlorine (Free) | 89 | mg/L | <0.10 | 3.20 | 1.08 | | 5 | Yes |
| Chromium | 20 | mg/L | <0.010 | <0.010 | <0.010 | | 0.05 | Yes |
| Copper | 20 | mg/L | <0.01 | <0.01 | <0.01 | | 2 | Yes |
| *E.coli* | 89 | MPN/100 mL | <1 | 2 | <1 | | <1 | Yes |
| Fluoride (as F) | 87 | mg/L | 0.18 | 1.18 | 0.71 | | 1.5 | Yes |
| Lead | 20 | mg/L | <0.01 | <0.01 | <0.01 | | 0.01 | Yes |
| Manganese | 85 | mg/L | <0.01 | 0.062 | <0.01 | | 0.5 | Yes |
| Nickel | 20 | mg/L | <0.01 | <0.01 | <0.01 | | 0.02 | Yes |
| Nitrate (as N) | 22 | mg/L | <0.1 | 0.10 | 0.10 | | 50 | Yes |
| Nitrite (as N) | 14 | mg/L | <0.10 | 0.350 | <0.10 | | 3 | Yes |
| Trihalomethanes (Total) | 22 | µg/L | 65 | 268 | 151 | | 250 | No* |

*Due to a poor water body quality at the regular Water Treatment Plant uptake point, an alternative source water was in use at the time of testing. This alternative waterbody contained a large amount of algae, which increases the concentration of dissolved organic carbon in the water. Dissolved organic carbon reacting with chlorine will create trihalomethanes (THM). Due to the short duration of exposure, no adverse health effects are likely. Levels of THM returned to normal when the treatment plant returned to uptake from the regular source water, following improvement in quality.

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**Other water quality**

| Test description | No of tests | Units | Minimum | Maximum | Average | Aesthetic guideline | Health limit | Scheme compliant with ADWG 2004 |
|---|---|---|---|---|---|---|---|---|
| Alkalinity (as CaCO3) | 22 | mg/L | 46 | 105 | 84 | | | No criterion |
| Chlorine (Combined) | 83 | mg/L | <0.10 | 1.60 | 0.31 | | | No criterion |
| Chlorine (Total) | 87 | mg/L | <0.10 | 3.50 | 1.44 | | | No criterion |
| Colour (Apparent) | 87 | PCU | <5 | 11.0 | <5 | | | No criterion |
| Conductivity | 89 | µS/cm | 198 | 501 | 385 | | | No criterion |
| Dissolved Oxygen | 14 | mg/L | 5.5 | 10.1 | 8.6 | | | No criterion |
| Temperature | 85 | ºC | 15.9 | 30.3 | 21.8 | | | No criterion |

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**Notes**

- The drinking water quality data is representative of drinking water quality for each scheme for July 2010 to June 2011.
- The drinking water quality monitoring program is designed according to the ADWG 2004 and complies with statutory requirements.
- Health-related water quality complies with the ADWG 2004 that the annual 95th percentile value is less than the recommended ADWG 2004 value.
- Aesthetic water quality complies with the ADWG 2004 in that the annual 50th percentile value is less than the recommended ADWG 2004 value.
- E.coli complies with the ADWG 2004 at least 98% of scheduled samples contain no E.coli.

**Definitions**

| | |
|---|---|
| ng/L | Nanograms per litre (equivalent to parts per trillion) |
| mg/L | Mircograms per litre (equivalent to parts per billion) |
| mg/L | Milligrams per litre (equivalent to parts per million) |
| cfu | Colony forming units |
| MPN | Most probable number |
| mS/cm | Microsiemens per centimetre |
| PCU | Platinum cobalt colour units |
| NTU | Nephelometric turbidity units |
| ADWG 2004 | Australian Drinking Water Guidelines 2004 endorsed by the National Health & Medical Research Council |