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Lowood Drinking Water Quality July 2012-June 2013

Aesthetic water quality

Aesthetic test description	Units	No of tests	Minimum	Maximum	Average	Aesthetic guideline	Health limit	Scheme compliant with ADWG 2011
Aluminium	mg/L	60	0.005	0.12	0.03	0.2	ns	Yes
Chloride	mg/L	30	39	150	83.9	250	ns	Yes
Iron	mg/L	60	0.0032	0.34	0.03	0.3	ns	Yes
pH	pH Unit	252	6.4	8.6	7.55	6.5-8.5	ns	Yes
Total Hardness	mg/L	30	100	260	161	200	ns	Yes
Turbidity	NTU	150	<LOR	4.7	0.32	5	ns	Yes
Zinc	mg/L	30	0.0016	0.082	0.01	3	ns	Yes

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Health-related water quality

Health related test description	Units	No of tests	Minimum	Maximum	Average	Aesthetic guideline	Health limit	Scheme compliant with ADWG 2011
Barium	mg/L	30	0.022	0.04	0.03	ns	2	Yes
Cadmium	mg/L	30	<LOR	<LOR	<LOR	ns	0.002	Yes
Chlorine (Total)	mg/L	726	<LOR	3.2	0.79	ns	5	Yes
Chromium	mg/L	30	<LOR	0.005	<LOR	ns	0.05	Yes
Copper	mg/L	30	<LOR	0.09	0.01	1	2	Yes
Dichloroacetic Acid	ug/L	12	11	33	23.5	ns	100	Yes
Escherichia coli	CFU/100mL	726	n/a	n/a	n/a	ns	<1	Yes
Fluoride (as F)	mg/L	150	0.64	0.94	0.78	ns	1.5	Yes
Lead	mg/L	30	<LOR	0.005	0.001	ns	0.01	Yes
Manganese	mg/L	60	0.0015	0.15	0.01	0.1	0.5	Yes
Monochloroacetic Acid	ug/L	12	<LOR	<LOR	<LOR	ns	150	Yes
Nickel	mg/L	30	<LOR	0.005	<LOR	ns	0.02	Yes
Nitrate (as N)	mg/L	27	<LOR	0.65	0.33	ns	50	Yes
Nitrite (as N)	mg/L	27	<LOR	<LOR	<LOR	ns	3	Yes
Trichloroacetic Acid	ug/L	12	<LOR	26	15.7	ns	100	Yes
Trihalomethanes (Total)	ug/L	18	90	220	133	ns	250	Yes

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Other water quality

Test description	Units	No of tests	Minimum	Maximum	Average	Aesthetic guideline	Health limit	Scheme compliant with ADWG 2011
2-Methylisoborneol	ng/L	12	<LOR	6.3	3.1	ns	ns	n/a
Alkalinity	mg/L	30	48	130	87	ns	ns	n/a
Ammonia (Total, as N)	mg/L	30	<LOR	0.03	0.01	ns	ns	n/a
Bromide	mg/L	24	<LOR	2	0.20	ns	ns	n/a
Bromochloroacetic Acid	ug/L	12	<LOR	23	12.0	ns	ns	n/a
Bromodichloromethane	ug/L	15	28	66	43.2	ns	ns	n/a
Bromoform	ug/L	15	2.7	21	6.80	ns	ns	n/a
Calcium	mg/L	27	21	47	33.6	ns	ns	n/a
Chlorate	mg/L	12	<LOR	0.44	0.11	ns	ns	n/a
Chlorine (Combined)	mg/L	728	<LOR	1.4	0.31	ns	ns	n/a
Chlorine (Free)	mg/L	726	<LOR	2.6	0.50	ns	ns	n/a
Chlorodibromomethane	ug/L	15	22	67	35.0	ns	ns	n/a
Chloroform	ug/L	15	14	110	49	ns	ns	n/a
Colour (True)	PCU	150	0.25	2.5	0.40	ns	ns	n/a

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Conductivity	uS/cm	252	380	830	534	ns	ns	n/a
Dibromoacetic Acid	ug/L	12	<LOR	19	<LOR	ns	ns	n/a
Geosmin	ng/L	12	<LOR	7	3.6	ns	ns	n/a
Haloacetic Acids (Total)	ug/L	12	<LOR	84	<LOR	ns	ns	n/a
Magnesium	mg/L	27	9.2	36	18.2	ns	ns	n/a
Monobromoacetic Acid	ug/L	12	<LOR	<LOR	<LOR	ns	ns	n/a
Nitrite and Nitrate(as N)	mg/L	27	0.067	0.65	0.30	ns	ns	n/a
Potasium	mg/L	24	2.6	3.6	3.01	ns	ns	n/a
Silica	mg/L	24	12	20	14.8	ns	ns	n/a
Sodium	mg/L	24	23	81	45.7	ns	ns	n/a
Sulfate (as SO4)	mg/L	24	19	100	49.0	ns	ns	n/a
Temperature	deg C	667	5	34	23	ns	ns	n/a
Total Dissolved Salts	mg/L	150	240	570	336	ns	ns	n/a
Total Organic Carbon	mg/L	24	2.6	3.5	2.90	ns	ns	n/a

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Definitions

n/a	not applicable
ns	not set

ADWG = Australian Drinking Water Guidelines 2011.
The ADWG 2011 have been developed by the National Health and Medical Research Council (NHMRC) in collaboration with the Natural Resource Management Ministerial Council (NRMMC). The ADWG incorporates the Framework for the Management of Drinking Water Quality and provides the Australian community and the water supply industry with guidance on what constitutes good quality drinking water.

To access the ADWG go to:
http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/eh52_aust_drinking_water_guidelines_update_120710_0.pdf

Bacteriological quality

Bacteriological quality is assessed by monitoring the water for the organism Escherichia coli as an indicator of contamination. A drinking water scheme is considered bacteriologically safe to drink if no E. coli are found in 98 % of samples analysed.

Chemical parameters

QUU reports yearly on a number of water quality parameters.
The performance for chemical parameters with a health value is assessed as recommended by the ADWG. Performance is deemed as satisfactory if the 95th percentile value is less than the ADWG health guideline value.

Performance for parameters with an aesthetic guideline value is assessed as recommended by the ADWG. Water is considered good quality if the mean value of an aesthetical parameter is measured at less than the recommended maximum criteria described in ADWG.