

TEST	TYPICAL RANGE	NZDWS 2005 MAXIMUM ACCEPTABLE VALUE (MAV)	COMMENT
pH	5.5 - 7.5	7.0 - 8.5 (Guideline Value)	Groundwater that is low in pH can attack copper piping leading to high levels of dissolved copper.
Conductivity	N/A	<1500us/cm	Important for ion balance check and other parameter estimation. Used to calculate TDS.
TDS	10-500mg/L	<1000 mg/L	Bores close to the ocean can have elevated levels. Water from limestone aquifers can also be high in TDS.
Alkalinity	N/A	N/A	Important for interpretation and other parameter estimation.
Calcium	N/A	N/A	Major ion, used to calculate hardness.
Magnesium	N/A	N/A	Major ion, used to calculate hardness.
Hardness	0.1 - 2 mg/L	<200 mg/L	High hardness may cause scale deposition and scum formation. Water with low hardness (<100) may be more corrosive.
Sodium	N/A	<200 mg/L	Major ion, indicative of salt water intrusion, can cause taste problems.
Potassium	N/A	N/A	Major ion.
Nitrate	N/A	<11.3 mg/L	Important nutrient indicative of fertiliser application and other anthropogenic inputs, health concern (can cause methaemoglobinaemia in bottle fed infants)
Chloride	N/A	<250 mg/L	Major ion, indicative of salt-water intrusion, can cause taste and corrosion problems.
Sulphate	N/A	<250 mg/L	Major ion, can cause taste problems.
Boron	N/A	<1.4 mg/L	Has been detected in some bores from Geothermal sources.
Iron	0.1 - 2 mg/L	<0.2 mg/L	High iron is not a health issue, but can lead to staining of laundry and sanitary ware.
Manganese	<0.05 mg/L	<0.04 mg/L <0.10 mg/L <0.4 mg/L	Staining of laundry Taste Threshold Health MAV
Copper	N/A	<2 mg/L	Can be leached from copper piping by acidic/corrosive water.
Zinc	N/A	<1.5 mg/L	Can be present due to galvanised metal piping.
EColi	Not usually detected	<1 in 100mL of sample	Generally not an issue for groundwater but can be detected in shallow bores.
Arsenic	N/A	0.01 mg/L	Arsenic may be naturally present at high levels in groundwater and is highly toxic in its inorganic form.
Lead	N/A	0.01 mg/L	Lead is a toxic metal whose widespread historical use (e.g. roof flashing, lead based paint and petrol additive) has caused extensive environmental contamination and health problems.
Turbidity	N/A	2.5 NTU (Guideline Value)	Elevated turbidity can affect the efficiency of domestic water treatment processes.