

79 Kioreroa Road  
Private Bag 9023, Whangārei 0148  
09 4304 220  
wdclaboratory@wdc.govt.nz



Whangarei District  
**Laboratory**

## TECHNICAL NOTE 4 | ROUTINE DRINKING WATER PROFILE

*Important: The result reported applies only to the water quality at the time of sampling. Water quality will vary from day to day and is dependent on factors such as rainfall, land use in the catchment area and other seasonal influences. Regular monitoring of your water quality is recommended.*

### REPORT INTERPRETATION

When you request analyses from our Laboratory, results are emailed in a report based on the information given with the sample. This report has sections for:

**SAMPLE INFORMATION:** Details about the sample site, sample collection and the date and time of sample receipt.

**RESULTS:** Sample references, a secondary reference plus any information provided by you with the sample and the date/time of sample collection. The results are in the lower part of this table.

**TEST METHOD INFORMATION:** The test method used and whether the test is IANZ accredited or has been subcontracted.

**END OF REPORT:** Statements covering the potential reuse of the report information, the signature of the Key Technical Personnel (KTP), report date and accreditation logo.

### WHAT DO MY RESULTS MEAN?

The following table lists the parameter measured, units of measurement, New Zealand Drinking Water Standard maximum acceptable value (MAV), whether the parameter is of health or aesthetic significance, and a comment on the significance of the parameter measured.

Note: 'NA' in the MAV column means that parameter does not have a MAV specified in the New Zealand Drinking Water Standard.

The langelier saturation index parameter (corrosive index) should be between -0.5 and 0.5. A negative index indicates corrosive water, and positive figures indicate scale (calcium) forming waters. The more negative or positive, the more significant the effect.

This information is referenced from NZ Drinking Water Standards 2018.

### OUR AIM IS TO MAKE YOUR JOB EASIER

*If you have any further questions about this, please contact us.*

*Whangarei District Laboratory is IANZ Accredited and provides a wide range of testing services, please contact us to discuss and quote on your requirements.*

# TECHNICAL NOTE 4 |

## ROUTINE DRINKING WATER PROFILE

### REPORT INTERPRETATION

PARAMETER	UNITS	NZ DRINKING WATER STANDARD MAXIMUM ACCEPTED VALUE (MAV) AESTHETIC OR HEALTH	SIGNIFICANCE OF OR PROBLEM WITH HAVING THIS PARAMETER IN THE WATER
Langelier Saturation Index (Corrosive index)	NA	Between -0.5 and 0.5	Negative number – corrosive water
		Aesthetic	positive number – scale forming water
Approx Total Dissolved Salts	mg/L	1000	Taste may become unacceptable from 600-1200mg/L
		Aesthetic	
Chloride	mg/L	250	Taste, corrosion, can indicate salt water intrusion
		Aesthetic	
Electrical Conductivity	uS/cm	NA	Used to calculate TDS, ion balance check and other parameter estimation
Free Carbon Dioxide	mg/L	NA	From atmosphere and decaying vegetation, contributes to corrosion
		Aesthetic	
Nitrate Nitrogen	mg/L	11.4 as NO <sub>3</sub> -N	Can cause methaemoglobinemia in bottle fed infants - blue baby syndrome
		50 as NO <sub>3</sub>	
pH	NA	7.0 - 8.5	Low pH can contribute to corrosion, high pH can feel soapy, cause scale
		Aesthetic	
Sulphate	mg/L	250	Taste threshold
		Aesthetic	
Total Alkalinity	mg/L	NA	Alkalinity <25 can contribute to corrosive waters (blue staining)
		Aesthetic	
Total Boron	mg/L	1.4	From geothermal areas.
		Health	
Total Calcium	mg/L	NA	Major element, used to calculate hardness
		Aesthetic	
Total Copper	mg/L	1.0 Aesthetic	Can be product of corrosive water resulting in blue staining of laundry & sanitary ware
		2.0 Health	
Total Hardness	mg/L	200	High hardness causes scale deposits & scum formation. Low hardness (<100) can contribute to corrosion
		Aesthetic	
Total Iron	mg/L	0.2	Staining of laundry and sanitary ware – brown
		Aesthetic	
Total Manganese	mg/L	NA	Major element, used to calculate hardness
		0.04 Aesthetic	Staining of Laundry
		0.1 Aesthetic	Taste threshold
Total Manganese	mg/L	0.4 Health	Affects appearance, taste and odour
		NA	Major element, no health or aesthetic significance
Total Potassium	mg/L	NA	Major element, no health or aesthetic significance
		200	
Total Sodium	mg/L	200	Taste threshold
		Aesthetic	
Total Zinc	mg/L	3.0 (Aesthetic)	Taste threshold. May affect appearance from 3mg/L
Total Arsenic	mg/L	0.01 (Health)	For excess lifetime skin cancer risk of 6 x 10 <sup>-4</sup> PMAV
Total Lead	mg/L	0.01 (Health)	