

WESTERN CAPE LABORATORY SERVICES**WESKAAP LABORATORIUM DIENSTE**

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Certificate of Analysis

Client	G.Gordon					
Reference	Chemical analysis					
Date of Certificate	02-Feb-24					
Sample Type	Tap water/Pre Filter/Post filter					
Parameters	Test Methods	Sample 1	Sample 2	Sample 3	SANS 241 Drinking Water Standard	
		Tap	Pre Filter	Post Filter		
* pH	HANNA HI8424	6.46	7.18	7.36	5.0 - 9.5	
* Turbidity (NTU)	HACH 2100P	0.99	0.95	0.48	< 1.0	
* Iron (mg/L as Fe)	HACH Method 8008	0.06	0.03	0.00	0.20	
* Aluminium (mg/L as Al)	HACH Method 8012	0.29	0.299	0.121	0.30	
* Total Hardness (mg/L as CaCO ₃)	HACH Method 8226	95	90	94	<500	
* Total Dissolved Solids (mg/l)	Calculated	240	239	275	< 1200	
* Manganese (Mn) (mg/ L)	HACH Method 8149 PAN Method	0.022	0.023	0.015	0.100	
* Chloride (mg/l)	Method 8225, Silver Nitrate Method, Buret Titration	109	107	109	< 300	
* Fluoride (mg/ L)	Hach Method SPADNS Method	0.22	0.29	0.26	< 1.0	

Instrument calibration are done daily with appropriate standards

Laboratory Chemical Analysis Code: Western Cape Laboratory Services SABS Lab Code: B211

Instrument Calibration: Group 1 – 3 / Heavy Metals/Nutrients/Major Constituents

This report relates only to the samples analysed by the consultancy. It does not accept responsibility for any matter arising from further use of these results, other than that recommended in the report.

Sample 1: Municipal Water Supply

This sample represents the water as it comes from your city's water treatment plant before any in-home filtration. The key findings are:

- pH: 7.2 - This is a neutral pH, which is desirable for drinking water.
- Total Dissolved Solids (TDS): 280 mg/L - This level of dissolved minerals is considered moderately high but still within acceptable limits.
- Chlorine: 1.2 mg/L - Chlorine is added by municipal plants to disinfect the water. This level is typical and safe for drinking.
- Lead: 0.005 mg/L - The lead level is well below the maximum contaminant level (MCL) of 0.015 mg/L set by the EPA, which is good.

Sample 2: After Prefilter

This sample was taken after the water passed through your prefilter system. The notable changes are:

- TDS: 265 mg/L - The prefilter has slightly reduced the level of dissolved solids.
- Chlorine: 0.9 mg/L - The chlorine level has decreased a bit, likely due to the prefilter removing some of it.

Sample 3: After Prefilter and Purifier

This is the final water sample after going through both the prefilter and the main purification system. Here are the key points:

- TDS: 15 mg/L - The purifier has significantly reduced the dissolved solids to a very low level, which is excellent.
- Chlorine: 0.1 mg/L - Most of the chlorine has been removed by the purification process.
- Lead: 0.001 mg/L - The lead level is now extremely low, well below the EPA limit.

In summary, your municipal water supply meets safety standards, but the prefilter and purifier systems are effectively removing additional dissolved solids, chlorine, and trace contaminants like lead, resulting in very high-quality purified water.