

35-14TH STREET
MARLBORO NORTH
SANDTON

ATTENTION: RAYDIAN POWER SOLUTIONS PTY LTD

5 FEBRUARY 2018

CONCISE WATER QUALITY EVALUATION
(TEST REPORT 48925)

WATER QUALITY RESULTS

A water sample was submitted to Aquatico Laboratories on **26 January 2018** for testing the quality for intended use as domestic water. The water quality test results are displayed on the attached Test Report. Water quality is compared to the SANS 241-1:2015 Drinking Water Standard (SABS, 2015).

The water quality of the sample called '**Water Tank Office**' can be described as neutral (pH 6.0 - 8.5), non-saline (TDS < 450 mg/l) and soft (total hardness < 50 CaCO₃) with no *E.coli* and no total coliforms detected.

Compliance with the 'SANS 241-1:2015 Drinking Water Standard (SABS, 2015)' guidelines is as follows:

Chronic health Risk: All compliant
Acute health Risk: All compliant
Operational (non-health): All compliant
Aesthetic (non-health): All compliant

In terms of the classification system of the 'Quality of Domestic water supplies' (WRC,1998) the quality is classified as follows :

Drinking: Class 0 - Ideal
Bathing: Class 0 - Ideal
Washing: Class 2 - Marginal due to Total Hardness, Ca
Food Preparation: Class 0 - Ideal
Aesthetic: Class 0 - Ideal

According to the Langelier Saturation Index, severe corrosion may be experienced.

Based on the assessment of variables analysed in comparison to 'SANS 241-1:2015 Drinking Water Standard (SABS, 2015)' and 'Quality of Domestic water supplies' (WRC, 1998), the tested water sample is **Fit for use** as potable water and domestic use.

Treatment for intended use: non-required
Variables requiring treatment: None

Please contact us for any further enquiries
Electronically generated report
Ian Belford

Test Report

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Client: Raydian Power Solutions Pty Ltd
Address: 35-14th Street, Marlboro North, Sandton, Johannesburg
Report no: 48925
Project: Raydian Power Solutions Pty Ltd

Date of certificate: 02 February 2018
Date accepted: 26 January 2018
Date completed: 02 February 2018
Revision: 0

Lab no:					4623	
Date sampled:					25-Jan-2018	
Sample type:					Water	
Locality description:					Water Tank Office	
Analyses			Unit	Method		
A	pH @ 25°C	pH	ALM 20	4.23	5 - 9.7	6.81
A	Electrical conductivity (EC) @ 25°C	mS/m	ALM 20	9.52	< 170	4.28
A	Total dissolved solids (TDS)	mg/l	ALM 26		< 1200	27
A	Total alkalinity	mg CaCO ₃ /l	ALM 01	10.41		13.9
A	Chloride (Cl)	mg/l	ALM 02	11.39	< 300	3.32
A	Sulphate (SO ₄)	mg/l	ALM 03	9.39	< 500	0.193
A	Nitrate (NO ₃) as N	mg/l	ALM 06	9.85	< 11	0.256
A	Ammonium (NH ₄) as N	mg/l	ALM 05	8.59	< 1.5	1.10
A	Fluoride (F)	mg/l	ALM 08	10.11	< 1.5	<0.263
A	Calcium (Ca)	mg/l	ALM 30	8.78		1.23
A	Magnesium (Mg)	mg/l	ALM 30	7.54		0.576
A	Sodium (Na)	mg/l	ALM 30	7.96	< 200	0.847
A	Potassium (K)	mg/l	ALM 30	12.05		5.88
A	Aluminium (Al)	mg/l	ALM 31	8.59	< 0.3	<0.002
A	Iron (Fe)	mg/l	ALM 31	7.97	< 0.3	<0.004
A	Manganese (Mn)	mg/l	ALM 31	8	< 0.1	<0.001
A	Chromium (Cr)	mg/l	ALM 31	7.61	< 0.05	<0.003
A	Copper (Cu)	mg/l	ALM 31	4.55	< 2	<0.002
A	Nickel (Ni)	mg/l	ALM 31	7.56	< 0.07	<0.002
A	Zinc (Zn)	mg/l	ALM 31	9.31	< 5	<0.002
A	Cadmium (Cd)	mg/l	ALM 31	7.89	< 0.003	<0.002
A	Lead (Pb)	mg/l	ALM 31	8.85	< 0.01	<0.004
A	E.coli	CFU/100ml	ALM 40	7.74	0	<1
A	Total coliform	CFU/100ml	ALM 40	7.76	< 10	<1
A	Total hardness	mg CaCO ₃ /l	ALM 26			5
A	Total organic carbon (TOC)	mg/l	ALM 63	6.46	< 10	1.54
A	Langelier Saturation Index	LSI	ALM 26			-3.79

A = Accredited N = Non accredited O = Outsourced S = Sub-contracted NR = Not requested RTF = Results to follow NATD = Not able to determine ATR = Alternative test report ; The results relates only to the test item tested.

Results reported against the limit of detection.

Results marked 'Not SANAS Accredited' in this report are not included in the SANAS Schedule of Accreditation for this laboratory.

Uncertainty of measurement available on request for all methods included in the SANAS Schedule of Accreditation.