



LEADERS IN ENVIRONMENTAL MONITORING



**ORGANISATION UNDOING TAX
ABUSE (OUTA)**

BATCH 59233

SOWETO

WATER QUALITY REPORT

16 November 2018

Compiled by Aquatico Scientific

10TH FLOOR
 OKEEFFE AND SWARTZ BUILDING
 318 OAK AVENUE

ATTENTION: ORGANISATION UNDOING TAX ABUSE

16 NOVEMBER 2018

CONCISE WATER QUALITY EVALUATION
(TEST REPORT 59233)

WATER QUALITY RESULTS

A water sample was submitted to Aquatico Laboratories on **30 October 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).

Table 1. Sampling Register

SAMPLING REGISTER : MONTHLY					
PROJECT NAME:		Organisation undoing Tax Abuse			
MONTH:		October 2018			
SAMPLER NAME:		Thabiso Phalane			
Organisation undoing Tax Abuse					
Locality	Coordinates		Sample Time	Status	Remarks
	Latitude	Longitude			
Potable Water					
Soweto Potable	S26.23872	E27.92022	2018-10-30 10:57	Yes	CLEAR

Locality	OUTA Sow eto
Locality Coordinates	S26.23872 E27.92022
Sample Date	2018-10-30 10:57
Sample By	Thabiso Phalane

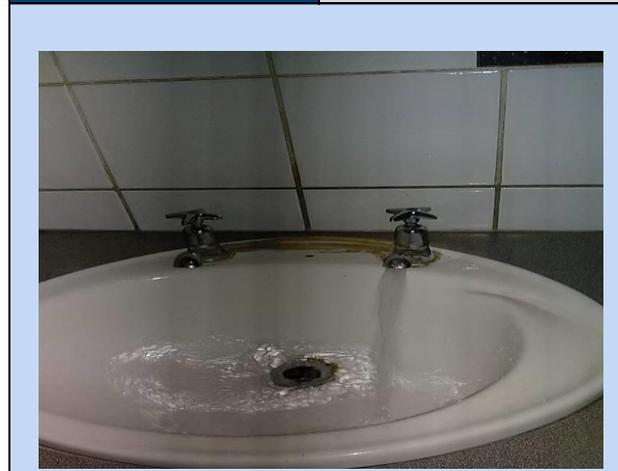


Figure 1: Photographic monitoring catalogue of the water sample taken in Soweto.



WATER QUALITY RESULTS

Table 2. Water quality results for Soweto.

DATA TABLE				
CLIENT NAME	Organisation Undoing Tax Abuse	DATE COMPILED	2018-11-16	
ASSESSMENT SET	SANS 241-1:2015 Drinking Water Standard (SABS, 2015)	COMPILED BY	Ian Belford	
*Value exceeds the assessment set				
VARIABLE	UNITS	ASSESSMENT SET	SAMPLE NAME : Soweto Potable Water	POSSIBLE HEALTH EFFECTS
pH @ 25°C	pH	Range 5.0 - 9.7	8.33	No health effects
Electrical conductivity (EC) @ 25°C	mS/m	170	20.9	No effects
Total Dissolved solids @ 180°C	mg/l	1200	128	
Chloride (Cl)	mg/l	300	10.7	No health effects
Sulphate (SO ₄)	mg/l	500	56.9	No effects
Nitrate (NO ₃) as N	mg/l	11	<0.459	
Nitrite (NO ₂) as N	mg/l	0.9	0.018	
Ammonium (NH ₄) as N	mg/l	1.5	1.83	
Ammonia (NH ₃) as N	mg/l	-	0.143	
Fluoride (F)	mg/l	1.5	<0.466	
Acid Soluble Sodium (Na)	mg/l	-	8.27	Negligible effects
Acid Soluble Aluminium (Al)	mg/l	0.3	<0.005	
Acid Soluble Iron (Fe)	mg/l	0.3	<0.009	
Acid Soluble Manganese (Mn)	mg/l	0.1	<0.001	
Acid Soluble Chromium (Cr)	mg/l	0.05	<0.007	
Acid Soluble Copper (Cu)	mg/l	2	0.030	No health effects
Acid Soluble Nickel (Ni)	mg/l	0.07	<0.005	
Acid Soluble Zinc (Zn)	mg/l	5	0.014	No effects
Acid Soluble Cadmium (Cd)	mg/l	0.003	<0.005	
E.coli	CFU/100ml	0	0	
Total coliform	CFU/100ml	10	0	
TotalViableCount	CFU/ml	1000	0	
Turbidity	NTU	1	0.345	Slight risk of potential health effects
Free chlorine (Cl ₂)	mg/l	5	<0.1	
Total organic carbon (TOC)	mg/l	10	4.76	
Temperature	°C	-	21.1	
Total oxidised nitrogen	mg/l	-	0.36	
Monochloramine	mg/l	3	2.28	

The water quality of the sample called '**Soweto Potable Water**' can be described as neutral (pH 6.0 - 8.5), non-saline (TDS < 450 mg/l) and moderately soft (total hardness 50 - 100 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):	NH ₄ -N 1.83 mg/l (> 1.50 mg/l)

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

Drinking:	Class 1 - Good
Bathing:	Class 0 - Ideal
Washing:	Class 0 - Ideal
Food Preparation:	Class 1 - Good
Aesthetic:	Class 1 - Good

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 **Conditionally Fit** for use as potable water and domestic use.

Treatment for intended use: ~~Optional~~, **Recommended**, ~~Essential~~
Variables requiring treatment: NH₄-N

Test Report

Page 1 of 1

Client: Organisation Undoing Tax Abuse
Address: 10th Floor, Okeeffe and Swartz Building, 318 Oak Avenue, Ferndale, Randburg
Report no: 59233
Project: OUTA

Date of certificate: 06 November 2018
Date accepted: 30 October 2018
Date completed: 06 November 2018
Revision: 0

Lab no:	65959		
Date sampled:	30-Oct-2018		
Sample type:	Water		
Locality description:	Soweto Potable Water		
	Analyses	Unit	Method
A	pH @ 25°C	pH	ALM 20 8.33
A	Electrical conductivity (EC) @ 25°C	mS/m	ALM 20 20.9
A	Total Dissolved solids @ 180°C	mg/l	ALM 24 128
A	Chloride (Cl)	mg/l	ALM 02 10.7
A	Sulphate (SO ₄)	mg/l	ALM 03 56.9
A	Nitrate (NO ₃) as N	mg/l	ALM 06 0.340
A	Nitrite (NO ₂) as N	mg/l	ALM 07 0.018
A	Ammonium (NH ₄) as N	mg/l	ALM 05 1.83
N	Ammonia (NH ₃) as N	mg/l	ALM 26 0.143
A	Fluoride (F)	mg/l	ALM 08 <0.263
A	Acid Soluble Sodium (Na)	mg/l	ALM 30 8.27
A	Acid Soluble Aluminium (Al)	mg/l	ALM 31 <0.002
A	Acid Soluble Iron (Fe)	mg/l	ALM 31 <0.004
A	Acid Soluble Manganese (Mn)	mg/l	ALM 31 <0.001
A	Acid Soluble Chromium (Cr)	mg/l	ALM 31 <0.003
A	Acid Soluble Copper (Cu)	mg/l	ALM 31 0.030
A	Acid Soluble Nickel (Ni)	mg/l	ALM 31 <0.002
A	Acid Soluble Zinc (Zn)	mg/l	ALM 31 0.014
A	Acid Soluble Cadmium (Cd)	mg/l	ALM 31 <0.002
A	E.coli	CFU/100ml	ALM 40 <1
A	Total coliform	CFU/100ml	ALM 40 <1
A	TotalViableCount	CFU/ml	ALM 43 <1
A	Turbidity	NTU	ALM 21 0.345
N	Free chlorine (Cl ₂)	mg/l	ALM 23 0.1
A	Total organic carbon (TOC)	mg/l	ALM 63 4.76
N	Temperature	°C	ALM 20 21.1
N	Total oxidised nitrogen	mg/l	ALM 26 0.36
N	Monochloramine	mg/l	ALM 67 2.28

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.