



Consulting Analytical & Industrial Chemists
Specialists in Water & Waste Water Treatment
Telephone (021)448 6340/1
After Hours (083-3263887)
e-Mail Address :
info@alabbott.co.za



T0276

Doc.No. 7.8 # 1 Rev.4

No. 1, Vine Park
Vine Road
7925
P.O. Box 483
WOODSTOCK, CAPE
7915

Certificate of Analysis

WITZENBERG MUNICIPALITY : BID 08/2/12/30&32

Witzenberg Municipality Reticulation Waters

22 : Water Treatment Works. Final ex Tulbagh

DATE SAMPLED : 2021/12/01

DATE RECEIVED : 2021/12/02

DATE ANALYSIS

COMMENCED : 2021/12/02

OUR REF. : 2021/12/01/32698

REPORT NO. : 6714

| | Sample Number | 32698 | | |
|--------------------|--|---------|-------------------------------------|---------------------------------|
| Mthd ALA No. | Analyses | Results | SANS 241-1:2015 | % Uncertainty of Measurement |
| 19 | pH (at 25 °C) | 6.06 | ≥5 - ≤ 9.7 Operational | 1.5 |
| 9 | Conductivity (mS/m) (at 25 °C) | 9.0 | ≤170 Aesthetic | 4.5 |
| 27 | Turbidity (NTU) | 1.0 | ≤1 Operational : ≤5 Aesthetic | 11 |
| 97 | Colour (mg/l as Pt) | <4 | ≤15 Aesthetic | 22 |
| 99 | Nitrite Nitrogen (mg/l as N) | <0.20 | ≤0.9 Acute Health | 4 |
| 7 | Total Dissolved Solids (mg/l) | 58 | ≤1200 Aesthetic | - |
| 95 | Ammonia Nitrogen (mg/l as N) | <0.10 | ≤1.5 Aesthetic | 5.2 |
| 96 | Chloride (mg/l as Cl) | 19.6 | ≤300 Aesthetic | 10 |
| 98 | Fluoride (mg/l as F) | 0.64 | ≤1.5 Chronic Health | 4.4 |
| 100 | Nitrate & Nitrite Nitrogen (mg/l as N) | <0.20 | ≤12 Acute Health | 10.2 |
| 92a | Manganese (µg/l as Mn) | <20 | ≤100 Aesthetic ≤400 Chronic Health | 5.6 |
| 92a | Aluminium (µg/l as Al) | <40 | ≤300 Operational | 4.9 |
| 92a | Copper (µg/l as Cu) | <20 | ≤2000 Chronic Health | 5.3 |
| 66 | Free Chlorine (mg/l) | 1.7 | ≤5 Chronic Health | - |
| 66 | Total Chlorine (mg/l) | 1.7 | N/A | - |
| 84 | E.coli (count per 100 ml) | <1 | Not Detected | 4.9 |
| 85 | Total Coliform Bacteria (count per 100 ml) | <1 | ≤10 Operational | 4.2 |
| 88 | Heterotrophic Plate Count (count per ml) | <1 | ≤1000 Operational | 5.1 |
| 105 | Total Organic Carbon (mg/l as C) | 0.38 | ≤10 Chronic Health | 0.07 |
| N/A | Combined Trihalomethanes (µg/l) | 0.40 | ≤1.0 | - |
| 92a | Iron (µg/l as Fe) | 22 | ≤300 Aesthetic ≤2000 Chronic Health | 4.9 |
| | | | | |

Sampler : M.Van Rhyn (ALA)

This report relates only to the samples tested and is issued subject to the company's standard terms and conditions of business.



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| Mthd ALA No. | Analyses | Results | SANS 241-1:2015 | % Uncertainty of Measurement |
| N/A | Trihalomethane (Bromodichloromethane) (µg/l) | <10.0 | ≤60 Chronic Health | - |
| N/A | Trihalomethane (Bromoform) (µg/l) | <10.0 | ≤100 Chronic Health | - |
| N/A | Trihalomethane (Chloroform) (µg/l) | <10.0 | ≤300 Chronic Health | - |
| N/A | Trihalomethane (Dibromochloromethane) (µg/l) | <10.0 | ≤100 Chronic Health | - |
| N/A | Combined Nitrate plus Nitrite (mg/l as N) | 0.22 | ≤1.0 | - |
| Calc | Nitrate Nitrogen (mg/l as N) | <0.20 | ≤11 Acute Health | 3.4 |
| 76 | Odour | <1 | N/A | - |
| 105 | Dissolved Organic Carbon (mg/l as C) | 0.26 | N/A | - |
| 92a | Calcium (mg/l as Ca) | 1.2 | N/A | 5.6 |
| | | | | |

Notes:

- Test marked with an asterisk (*) on attached Appendix 1 (Doc. 7.8#3) are SANAS Accredited and are included in the SANAS Schedule of Accreditation for this laboratory.
- Schedule of Accreditation excludes sampling. Where applicable pH and Free & Total Chlorine Residual results are supplied by the sampling officer and will be indicated on the Certificate of Analysis. This is marked as "Field".
- Sampling plans are as requested by the customer. Sampling is done according to A.L. Abbott and Associates (Pty) Ltd sampling procedures which are available on request.
- Uncertainty of Measurement and Method Description will be provided upon request.
- Results are reported at the 95% Confidence Interval with a Coverage Factor K = 2.
- The laboratory does not normally issue any statement of conformity, unless by prior arrangement.
Decision Rule: Results reflecting on the Certificate of Analysis are actual results as obtained at the time of testing and do not include any uncertainty consideration.
- The quality and integrity of samples submitted has a direct correlation on the results reported. Results reflected on this report therefore relate only to the sample as received.
- In the absence of customer specified limits, SANS 241-1:2015 or General Limits will appear, as applicable.
- This report may not be reproduced, except in full, without the prior written approval of the laboratory.
- Opinions and interpretations are not included in the Certificate of Analysis.

Sampler : M.Van Rhyn (ALA)

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N. VAN BINSBERGEN (Pr.Sci.Nat.)
DIRECTOR
06 December 2021

TO: WITZENBERG MUNICIPALITY
P O Box 44
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Att: S. FARMER