

# COMPANY PROFILE: YANKA LABORATORIES (Pty) Ltd.

Reg No.: 2012/113891/07



Yanka Laboratories, formerly Khanya Laboratories, is situated in the towns of Witbank (eMalahleni) and Middelburg in the province Mpumalanga, South Africa. The first laboratory was established in 1998. Current directors include Rita Botha (N.Dipl. Anal.Chem.) and Hennie Mouton (M.Sc. Chem.), with more than 36 and 26 years analytical laboratory experience respectively.

## Directors

### **Rita Botha (N. Dipl. [Chem.] 1981, TUT, formerly Technikon Pretoria)**

Rita has spent most of her adult life in laboratories. Since 1976, where she started with SABS laboratories, Rita had exposure to a multitude of laboratories and analytical techniques. Rita joined Yanka Laboratories in 2005.

### **Hennie Mouton (M. Sc. [Chem.] 1989, UFS, formerly Universiteit van die Oranje Vrystaat)**

Hennie started out as a chemistry lecturer in 1990, and subsequently found himself in analytical laboratories since 1993. Hennie joined Yanka Laboratories in 1999.

## Services



- **SANAS ISO 17025 Accredited Testing Laboratory**

- Yanka is an ISO 17025 SANAS accredited Testing Laboratory. Certificate available [directly from SANAS](#) or [from here](#).
- Note that this includes compliance with ISO 9001 - for the pertinent communiqué and explanatory letter refer [International Organisation for Standardization \(ISO\)](#) or [National Institute for Standards and Technology \(NIST\)](#) or [International Laboratory Accreditation Cooperation \(ILAC\)](#).

- **Environmental Analytical Services**

- **Water:** Yanka provides [surface- and groundwater environmental monitoring, and related analytical services](#) for companies and individuals all over Southern Africa. [ISO](#), [ASTM](#), and other standards based analysis techniques are applied along ISO 17025, ISO 9001, and ISO 14001 quality- and environmental principles.  
For your convenience, analyses can be grouped for Domestic-, Sewerage-, or General Water analysis as prescribed/recommended by South Africa's [Department of Water and Sanitation / Environmental Affairs](#) (DEA, DWAS, DWEA, previously DWAF) or a water license (IWUL).
- **Dust Outfall:** Yanka offers a **dust outfall monitoring program** as frequently required by South Africa's Department of Minerals and Energy (DME) of DEA.  
Yanka can also supply Dust Outfall samplers, directional and non-directional.

- **Pivot Reporting:** In addition to spreadsheet based reports, results can be provided in [Pivot Environmental Monitoring System](#) format for easy import into your database.
- **Environmental Reporting Services**

Reporting internally or to the authorities as required by the DEA or a Water License. Yanka has partnered with several leading hydrology companies providing this professional service.

Yanka is a Level 2 (empowering supplier) BEE company with 125% BEE procurement recognition level. [Certificate here.](#)  
**Your one-stop-shop for all your analytical needs.**

A Quality, Health and Safety, and Environmental management system is used in all laboratories.

**We strive to comply with**

ISO/IEC 17025: 2017  
**General requirements for the competence  
of testing and calibration laboratories**

ISO 9001: 2015  
**Quality Management Systems  
(compliance through ISO 17025)**

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# TEST METHODS AND STANDARDS

The table below lists standard tests done by Yanka. Specialized tests, or testing to different standards, can be undertaken at the client's request.

ANALYSIS	STANDARD METHOD / METHOD BASE	INSTRUMENTS / TECHNIQUES
<b>WATER (and aqueous solution) and DUST ANALYSES (analysis suites and prices available on request)</b>		
Borehole Water Level and Depth Determination #		Electronic Probe
Dust Fallout (pending)	ASTM D1739 / SANS 1137	Filtration and Gravimetric
Alkalinity	YE010Alk / * SM 2320 ** / ISO 9963	Titrimetric (Indicator/pH)
Acidity	YE011Ac / * SM 2310 **	Titrimetric (Indicator/pH)
Colour (Color)	YE070AK / HMSO Blue Book / * SM 2120B / * ISO 7887 (SANS)	Visual Comparison / Spectrophotometric
Conductivity	YE020Con / * SM 1057 / * ISO 7888 (SANS)	Conductimetric
Hardness	YE011H / Calculation	Calculation
pH	YE030pH / * SM 11 / * ISO 10523 / * SANS 5011	Electrometric
Solids - Dissolved #	YE080TDS / * SM 213 / * SANS 5213	Gravimetric (180 C)
Solids - Suspended	YE081TSS / * SM 1049 / * SANS 6049	Gravimetric (105 C)
Total Organic Carbon / DOC	YE090TOC / EN1484 / ISO 8245 / USEPA 9060	HT oxidation
Temperature #	Calibrated thermometer	Thermometer
Turbidity	YE082TB / * SM 197 / * ASTM D 1889 / * SANS 5197	Nephelometric
Biochemical Oxygen Demand #	YE055BOD / * SANS 738	Titration
Chemical Oxygen Demand	YE052COD / * SM 1048 / * ISO 9408/6048 (SANS)	Closed Reflux, Colorimetric
Oil, Soap and Grease #	YE083OG / * SM 1051 / * SANS 6051	Organic extraction and gravimetric
Oxygen Absorbed	YE050OA / * SM 220 / * SANS 5220	Permanganate Oxidation
Oxygen Dissolved #	YE051OD / * SM 1047 / * SANS 6047	Membrane Electrode
Standard Plate Count	YE100SPC / * SM 221 / * SANS 5221	Pour Plate
Total Coliforms	YE101TC / * SM 221 / * SANS 5221 / * ISO 4831/4832 (SANS) / * SANS 9308	Membrane Filtration
Faecal Coliforms	YE102FC / * SM 221 / * SANS 5221 / * ISO 4831/4832 (SANS) / * SANS9308	Membrane Filtration
Faecal Streptococci #	YE103FC / * SM 221 / * SANS 5221 / * ISO 4831/4832 (SANS) / * SANS9308	Membrane Filtration
Escherichia Coli (E.coli)	YE104FC / * SM 221 / * SANS 5221 / * ISO 4831/4832 (SANS) / * SANS9308	Membrane Filtration
Pretreatment #	HMSO Blue Book / * SM 1168 **	Acid Digestion
Aluminium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Antimony	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Arsenic	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Barium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Bismuth #	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Boron	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Cadmium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Calcium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Chromium - Total	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Cobalt	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Copper	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Iron	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Lanthanum	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Lead	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Lithium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Magnesium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Manganese	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Mercury #	YE060ICP / * SM 1059 / * ISO 6059 (SANS) / * ISO 15237 (SANS) / * ISO 16590 (SANS)	ICP Spectrometry
Molybdenum	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Nickel	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry

ANALYSIS	STANDARD METHOD / METHOD BASE	INSTRUMENTS / TECHNIQUES
<b>WATER (and aqueous solution) and DUST ANALYSES (analysis suites and prices available on request)</b>		
Potassium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Selenium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Silicon	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Silver #	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Sodium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Strontium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Thallium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Thorium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Tin	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Titanium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Uranium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Vanadium	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Zinc	YE060ICP / * ISO 11885 (SANS)	ICP Spectrometry
Ammonia	YE070AK / * ISO15923 / * ISO 11732 (SANS) / * SANS 5217	Spectrophotometric
Chlorine - Total #	YE041ChT / * SM 4500-CI G / * ISO 7393 (SANS) / * ISO 12672 / * SANS 52672	DPD Colorimetric
Chlorine - Residual #	YE042ChR / * SM 4500-CI G / * ISO 7393 (SANS)	DPD Colorimetric
Chloride	YE070AK / * ISO15923 / * ISO 15682 (SANS)	Spectrophotometric
Chloride #	* ISO 10304 / * SANS 374/9297 / * ASTM D 512	Argentometric
Chromium(VI)	YE070AK / * ISO15923 / * SANS 11083	Spectrophotometric
Cyanide #	YE070AK / * ISO15923 / * SANS 14403 / * SANS 6703	Spectrophotometric
Fluoride #	YE040F / * SM 205 / * ISO 10359 (SANS)	Ion-selective Electrode
Fluoride	YE070AK / * ISO15923 **	Spectrophotometric
Nitrate	YE070AK / * ISO15923 / * ISO 13395 (SANS) / * SANS 5210	Spectrophotometric
Nitrite	YE070AK / * ISO15923 / * ISO 13395 (SANS) / * SANS 5210	Spectrophotometric
Phosphate #	YE070AK / * ISO15923 / * ISO 6878 (SANS)	Spectrophotometric
Phosphate - Ortho	YE070AK / * ISO15923 / * ISO 6878 (SANS)	Spectrophotometric
Phosphate - Ortho #	* SM 1055 / * SANS 6055	Spectrophotometric
Phenol	YE070AK / * ISO15923 / * SANS 6439	Spectrophotometric
Sulphate	YE070AK / * ISO15923 / * ISO 6310 (SANS)	Spectrophotometric
Sulphate #	* SM 212 / * SM 1310 / * ISO 6310 (SANS)	Turbidimetric

\* Methods adapted to accommodate South African or local laboratory conditions

\*\* No equivalent SANS method. [South African National Standards (SANS) numbers mostly correspond with ISO or IEC numbers on adoption there-of].

SM = Standard Method for Examination of Water and Wastewater or (old) SABS Standard Method. The SABS methods were phased out and replaced by the SANS system, and are referenced for information only.

# Not Accredited yet

Reference Information: The International Classification of Standards (ICS) system lists standards for Water Quality as 13.060, and Coal Quality as 73.040.