



SANS 241-1:2015 Drinking water Quality

South African National Standard (SANS) 241 specifies the quality of acceptable drinking water, defined in terms of microbiological, physical, aesthetic and chemical determinands. SANS 241 guidelines limits are often used as screening levels for determining the quality of surface and groundwater in mining and industrial environmental monitoring programs.

Exova Jones Environmental offers a SANS 241-1 Suite, which includes the physical, aesthetic and chemical analytes. We do not offer the microbiological determinands.

Due to short holding times for microbiological analysis (usually 24 hours), we recommend analysis is undertaken by a laboratory as close to site as possible. Exova Jones Environmental in Somerset West plan to partner with a local laboratory for microbiological services. The short holding times for microbiological analyses should always be considered.

Analysis currently offered by Exova Jones Environmental are from Table 2 of SANS 241-1:2015 as follows:

Physical and aesthetic determinands

- Colour
- pH and conductivity
- Total dissolved solids
- Turbidity

Chemical determinands - macro determinands

- Ammonia, nitrate, and nitrite (all as N), sulphate, fluoride and chloride
- Sodium and zinc
- Free chlorine
- Monochloramine

Chemical determinands – micro-determinands

- Sb, As, Cd, Cr, Cu, Fe, Pb, Mn, Hg, Ni, Se, U, Al, Ba, B
- Cyanide (recoverable)

Chemical determinands – organic determinands

- Total organic carbon
- Trihalomethanes - chloroform, bromoform, dibromochloromethane, bromodichloromethane by GC-MS
- Total Microcystin (currently subcontracted)
- Phenols

Exova Jones Environmental require the following sample containers for the above suite:

2 x 40ml vials; 1 x HNO₃ preserved 50 ml bottle (filtered); 1 x H₂SO₄ preserved 50 ml bottle; 1 x NaOH preserved 50ml bottle; 1 x 250 ml plastic (unpreserved), 1 x TOC vial.