



# Soil Screening Standards for Contaminated Land

In May 2013 the Department of Environmental Affairs published the *National Norms and Standards for the Remediation of Contaminated Land and Soil Quality in the Republic of South Africa*.

The norms and standards were published in support of the *National Environmental Management: Waste Act* (NEMWA) (Act 59 of 2008) which requires that contaminated land must be assessed in terms of the potential risk to human health and the environment. Soil Screening Values (SSVs) have been published for a range of metals, organics and anions. The SSVs for TPH fractions are for non-standard bands.

Exova Jones Environmental offers a SA Soil Quality suite, which incorporates the full suite of analytes listed in the SSVs, including the relevant TPH banding:

## Metals

- As, Cd, Co, Cu, Pb, Mn, Hg, Ni, V, Zn, Cr(VI) and Cr(III)

## Petroleum Organics

- Aliphatics** - in bands C7 to C9, C10 to C14 and C15 to C36 by GC-FID
- Mono-aromatic hydrocarbons (MAHs)** - benzene, toluene, ethylbenzene and xylenes (BTEX) by GC-MS
- Aromatics** – naphthalene, pyrene and benzo(a)pyrene by GC-MS
- MTBE** - by GC-MS

## Organics

- VOCs - carbon tetrachloride, chlorobenzene, chloroform, 1,2-dichlorobenzene, 1,2-dichloroethane, 1,2-dichloroethene, 1,2,3-trimethylbenzene, 1,2-dichloroethene, 1,3,5-trimethylbenzene, trichlorobenzenes (total), 1,1,2,2-tetrachloroethane, vinyl chloride by GC-MS
- SVOCs - nitrobenzene, 2 chlorophenol, 2,4,6-trichlorophenol by GC-MS;
- Total PCBs by GC-MS
- Total cyanide

## Anions

- Soluble chloride, fluoride, nitrate, nitrite and sulphate on a water extract

The whole suite or specific analytes can be requested.

Two 60g soil jars are required for the full, or partial suite, unless the sample is an unusual matrix and not a soil then we require an extra 200g in a zip-lock bag

Results can be reported against SSV values if requested when samples are submitted to the laboratory.