

## ***Interactive comment on “Atmospheric trace metals measured at a regional background site (Welgegund) in South Africa” by Andrew D. Venter et al.***

### **Anonymous Referee #3**

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**General Comments** This is an easy to read and well written discussion paper on the analysis of trace metals in aerosol samples collected from a site in central South Africa. The extent and originality of the contribution to the understanding aerosol trace metal contributions are not new globally, but rather across the region, as is highlighted by the authors. The analytical methods employed are well established in literature. The figures/table are clear and evaluation of the generated results and their integration with the existing body of knowledge is sufficient. There is correct use of references and their presentation in a reference list.

**Scientific Questions** ..Pg 8 Line 24 to 27. This statement should be explored further in this study and supported by clear justification based on the understanding of long range

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transportation of pollution in the region. Is this statement supported by e.g., trajectory analysis of air masses to Welgegund? ..Pg 11 Line 14. Throughout the manuscript, the phrase 'standard limit' has been used. Please note that a STANDARD is the limit value. Therefore to avoid redundancy, use STANDARD without limit. ..Pg 11 Section 3.5. For the average concentrations, where are the standard deviations and how significant are they? How would these deviations affect the PCFA receptor modelling results, if at all they do?

**..Technical Corrections** ..Pg 2, Line 27 should be referenced IPCC, 2014. Consistency in the use of AND or & in references siting ..Pg 3, Line 28 should be referenced WHO, 2005 ..Pg 4 Lines 4, 5 and 6 and Pg 11 Line 11 “Government Gazette” should be defined based on author DEAT or DEA depending on the years. ..Pg 5 Line 11, Use full text on first mention e.g., Desulfurization (DeSOx) / Denitrification (DeNOx) equipment. ..Pg 5 Line 26, Expand ICP-MS on first mention. ..Pg 11 Line 23 Should this be  $2.5 \times 10^4$  or  $10E-4$ ? Please check Table 1 as well. ..For references, check for consistency in the use of DOI/doi throughout the discussion paper.

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