Interactive comment on “Comprehensive aerosol and gas data set from the Sydney Particle Study” by Melita Keywood et al.

Melita Keywood et al.
melita.keywood@csiro.au

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We would like to thank Referee 2 for their time taken to review this manuscript and for their comments which will result improvements to the manuscript. We have addressed the comments below. REFEREE 2 COMMENT The Comprehensive aerosol and gas data set from the Sydney Particle Study presents two sets of data collected in two seasons at the western Sydney location. The large number of variables and the easy accessibility of data will help various studies and the manuscript can be considered for publication. The text describes the data in detail, however, some improvements could help readers: In the text: L 70, table I should be described in more detail and in particular the content of the columns ‘resolution’ and ‘reported resolution’. OUR RESPONSE We have changed the paragraph describing Table 1 to “Table 1 provides a summary of the parameter measured and the instrument used to measure the parameter. The frequency at which the measurement of each parameter was made is also listed in the table ranging from continuous to one measurement every few minutes to the collection of a sample over several hours (integrated). The frequency at which the data are reported is also included in Table 1 as well as the units the measurements are reported in and whether the measurements were made during SPS-I, SPS-II or during both periods”. We have also changed the headings from resolution and reported resolution to frequency collected and frequency reported and have added a description of what these terms mean in the table heading (reproduced below). Table 1. Measurements made at Westmead during SPS-I and SPS-II along with the instrument or analytical technique employed, the measurement and reporting resolution, and the measurement units. Frequency of measurement is the frequency with which the data are collected. Frequency reported is the frequency at which the data are reported (may be an average of the frequency of measurement). REFEREE 2 COMMENT Table I: could be organized with the variables in line according to the text. OUR RESPONSE While we acknowledge the benefit of organising the variables in Table 1 in line with the flow of the text, we believe that the benefit of the current order to the reader is greater. In particular, the text order discusses continuous measurements followed by integrated measurements. Included in the integrated measurement text are descriptions of the analytical procedures used to analyse the samples collected. We feel this provides a logical flow in the text. If we were to reorganise the variables in Table 1 to reflect the flow of the text, we would see a number of similar variables split e.g. VOCs across the table. Instead, we feel that ordering the table around variables is more useful to the reader. For example the reader can easily determine all the methods that were used to measure VOCs at a glance rather than having to scroll across two pages of the table. Hence, we have chosen not to adopt this suggestion. REFEREE 2 COMMENT Figures: when possible, for a better comparison (see ÌnAg.1 for example), the same vertical scale should be used for both data sets. OUR RESPONSE We have amended the vertical scales on the plots of Figure 1 to make them consistent