**Explanatory notes for appendix files**

**Light microscope measurement data:**

Data is presented for each grain that was measured under LM, with a size recorded for each of the different measured properties of the grain (please refer to figure 2).

Measurements are in µm, area is in µm2

EX/PA is the ratio between the (4) equatorial axis measurement and the (2) polar axis measurement.

**Laser diffraction granulometry data:**

Data is presented as the particle size distribution for every sample that was measured. Each sample was measured 3 times, and an average for these measurements was calculated. All sizes are in µm.

D [3, 2] - Surface weighted mean

This refers to the Sauter mean diameter, or surface weighted mean, which estimates the mean size of the particle distribution.

d (0.1), d (0.5), d (0.9)

This refers to the D10, D50 and D90 standard percentiles calculated from the particle size distribution, and explained in more detail in the material and methods section of the paper.

Result Between User Sizes (Sizes in um)

This data shows the particle size distribution for each sample. Each particle is measured and placed into a size class (e.g. size classes: 0.02, 0.02244, 0.025179, 0.028251 etc.). The value in each size class is the volume percentage of the particles within the entire sample that fell within the size range of the size class.