Supplementary figure 1. Comparison of the $log\_{10}(/)$ values for the Hyeong and Capuano (2001) dataset calculated by Hyeong and Capuano (2001) (using SOLMINEQ88-Pitzer) and by this study (using PHREEQC-Pitzer). For clarity and, to demonstrate no temperature dependence, we present calculated $log\_{10}(/)$ values with reference to both the sample ID and temperature.

Supplementary figure 2. Measured temperatures and sample depths from Tesmer and others (2007). The representative geothermal gradient for Germany is derived from Agemar and others (2012) and a ±10 °C/km uncertainty is shaded grey for reference.