Explanatory file

Manuscript title: Evidence of cryptic methane cycling and non-methanogenic methylamine consumption in the sulfate-reducing zone of sediment in the Santa Barbara Basin, California Author(s): Sebastian J. E. Krause, Jiarui Liu, David J. Yousavich, DeMarcus Robinson, David Hoyt, Qianhui Qin, Frank Wenzhoefer, Felix Janssen, David Valentine, and Tina Treude MS No.: egusphere-2023-909 MS Type: Research article

Handling Associate Editor: Middelburg J. B. M.

The purpose of this Explanatory file is to explain and justify the request to change the units of two biogeochemical parameters expressed in the figure and abstract text within our accepted manuscript. The first request is to change the units for methane concentrations in Figure 1 are in "nmol cm⁻³" and we would like to have this changed to " μ M". This change is necessary, as we report the methane concentrations within section 3.1 in μ M. This change does not change the reported methane concentrations nor does it change the narrative of our interpretations in the manuscript that has been already peer-reviewed and accepted. This is because values with "nmol cm⁻³" are equivalent to values with " μ M" (i.e., 1 nmol cm⁻³ is equal to 1 μ M). We would like to formally request that the units for methane concentrations in Figure 1 be changed from "nmol cm⁻³" to " μ M" to match what was reported in the results section.

The second request is to change the units for rate constants denoted in the abstract (Page 1, line 26). Here the variable defining rate constants is " K_I ". This is a typo that was not caught/changed prior to publication file upload. We would like to formally request to have " K_I " found in the abstract changed to "k". This request is necessary before publication because throughout the rest of the manuscript (see sections 2.5.4 and 3.4; Equation 4; Figure 1) we define and denote the rate constants as "k". The change in the abstract would only be technical correction and does not impact or change our interpretations of our data that has been already peer-reviewed and accepted.