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Assessing the well logging data from the Lake Bosumtwi (Ghana)

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Insights into the climate variability of western Africa during the Pleistocene epoch have thus far been limited by the lack of well-dated, high-resolution terrestrial climate archives. The missing information on the climate evolution of western African hampers our understanding of the proposed pan-African evolution of our species. The ~294 m lacustrine sedimentary sequence raised from Lake Bosumtwi by the International Continental Drilling program in 2004, encompassing the last ~1.1 Ma, offers the best opportunity provide a climatic benchmark record in western Africa. However, the establishment of a chronology for this record has proven challenging. To try and improve our understanding of the climatic evolution during the last ~1.1 Ma in western Africa, we will use the high-resolution downhole logging data (natural gamma ray, GR) and magnetic susceptibility data from core logging from Site 5, which is situated in the centre of Lake Bosumtwi. To maximise the robustness of this record we will try to correlate data from downhole logs with core data. This approach has help improve interpretation of logging signals and environmental reconstructions for other long lake records, such as e.g. Lake Ohrid.