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Natural spatial variability of depositional conditions, biogeochemical processes and element fluxes in sediments of the eastern Clarion-Clipperton Zone, Pacific Ocean

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Abstract

The manganese nodule belt within the Clarion and Clipperton Fracture Zones (CCZ) in the abyssal NE Pacific Ocean is characterized by numerous seamounts, low organic matter (OM) depositional fluxes and meter-scale oxygen penetration depths (OPD) into the sediment. The region hosts contract areas for the exploration of polymetallic nodules and Areas of Particular Environmental Interest (APEI) as protected areas. In order to assess the impact of potential mining on these deep-sea sediments and ecosystems, a thorough determination of the natural

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