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Tectonic environments and local geologic controls of potential hydrothermal fields along the Southern Mid-Atlantic Ridge (12-14°S)

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Abstract: Systematic hydrothermal exploration and multi-beam bathymetry mapping have been conducted along a 220-km-long section of the Southern Mid-Atlantic Ridge (SMAR) from 12°S (Bode Verde Fracture Zone) to 14°S (Cardno Fracture Zone), and previously reported deposits (Tao et al.,2011) are now being thoroughly investigated. Here, we present the characterization of three possible hydrothermal fields, a complete bathymetry data set of the ridge segment, gravity data, and the petrologic characteristics of