

Figure S1, electronic archive: Conceptual model of the Elan Bank micro-continent formation based on plume refocusing hypothesis. It shows that the initial break-up to the east of the Elan Bank is abandoned in favour of the Krishna-Godavari rift zone due to arrival of the Kerguelen plume. Ridge jump and spreading targeted the zone between India and Elan Bank, transferring the Elan Bank to the Antarctic Plate. The old spreading center became inactive and the Elan Bank became released as micro-continent.

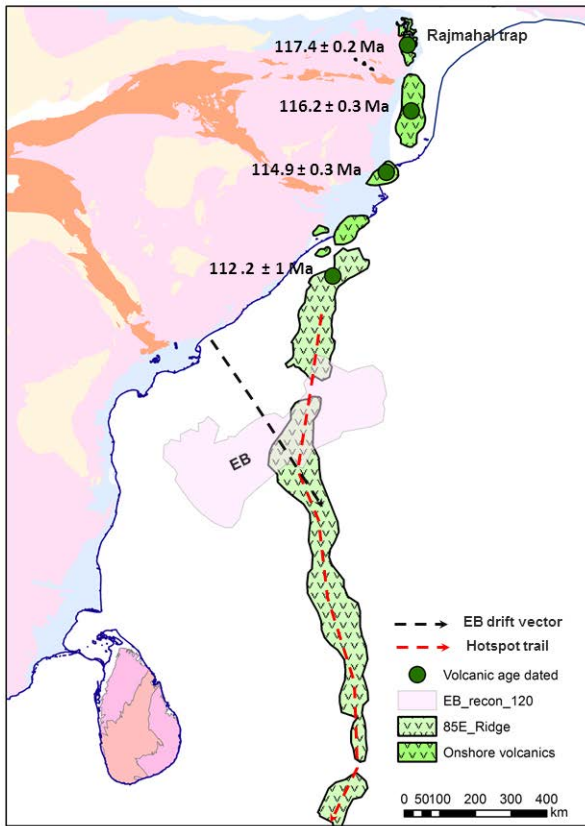


Figure S2, Electronic archive: The Elan Bank reconstruction at Aptian (120 Ma). The Elan Bank trail and hotspot trail are intersecting at a high angle. Note that location of Elan Bank and Rajmahal trap is almost 1200 km apart. Hot-spot track created in the Bay of Bengal as a result of the plate migration over the Kerguelen plume. The age constraints obtained from radiometric dating (Coffin et al., 2002) are plotted on top of the track. Note that there is no definite age control in the deep offshore region. The main age constraints are only those from onshore outcrops and a single well. The Reconstruction is modified after Reeves 2008, Reliance internal report); sea floor spreading data (Muller et al., 2008); Elan Bank structure (modified after Borissova, et al., 2003).

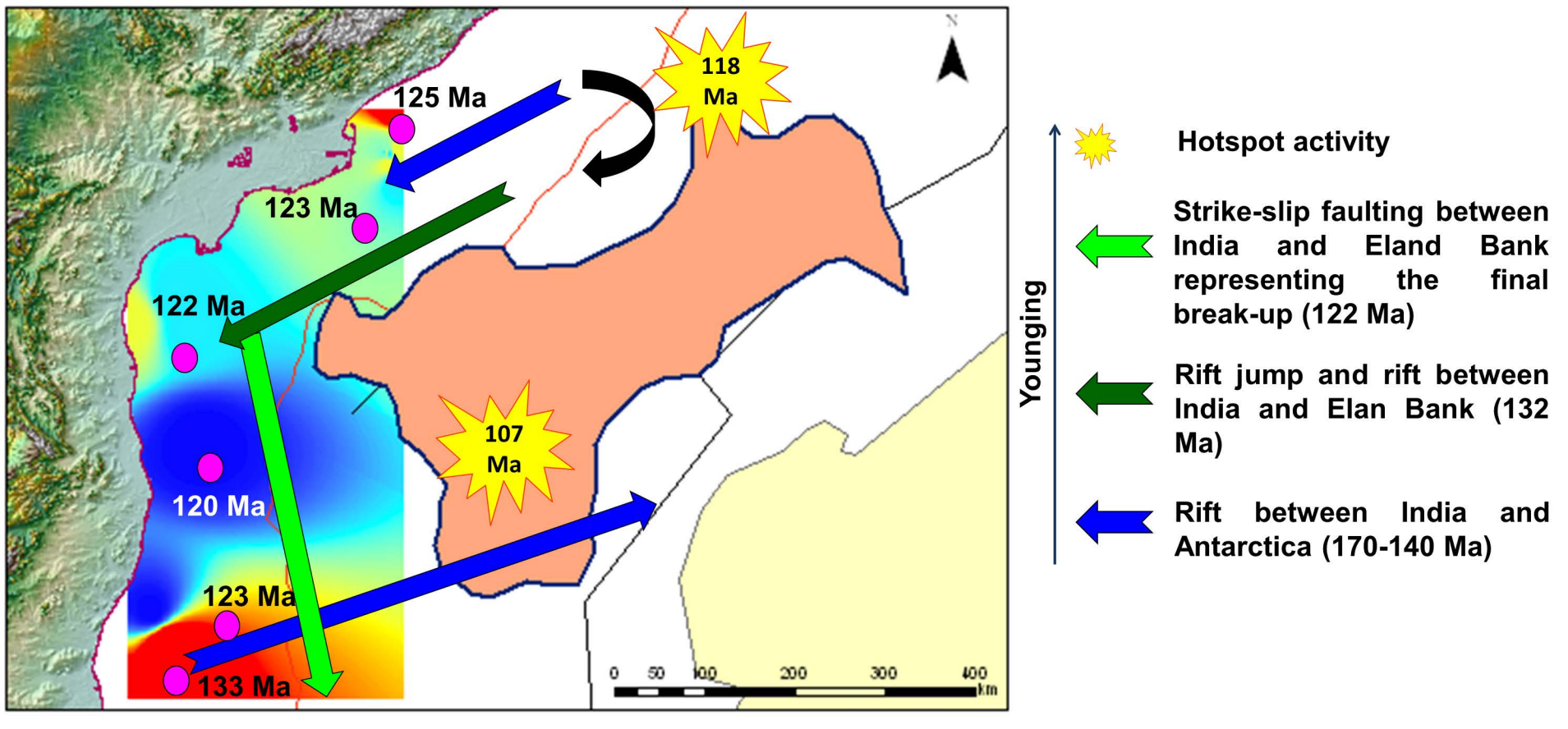


Fig S3, Electronic archive: Competing rift zone model for the Elan Bank micro-continent formation. The Elan Bank was separated as a result of a competition between Krishna-Godavari and Cauvery rift zones to host the continental break-up. Associated ridge jump can be explained as controlled by the spreading asymmetry, which caused an irregular ridge propagation. The active spreading center has been shifted to a location between India and Elan Bank, thus transferring the Elan Bank to Antarctic Plate as a result of both the break-up localization and asymmetric ridge propagation. Old spreading center between Elan Bank and Antarctica became inactive and Elan Bank became a microcontinent.