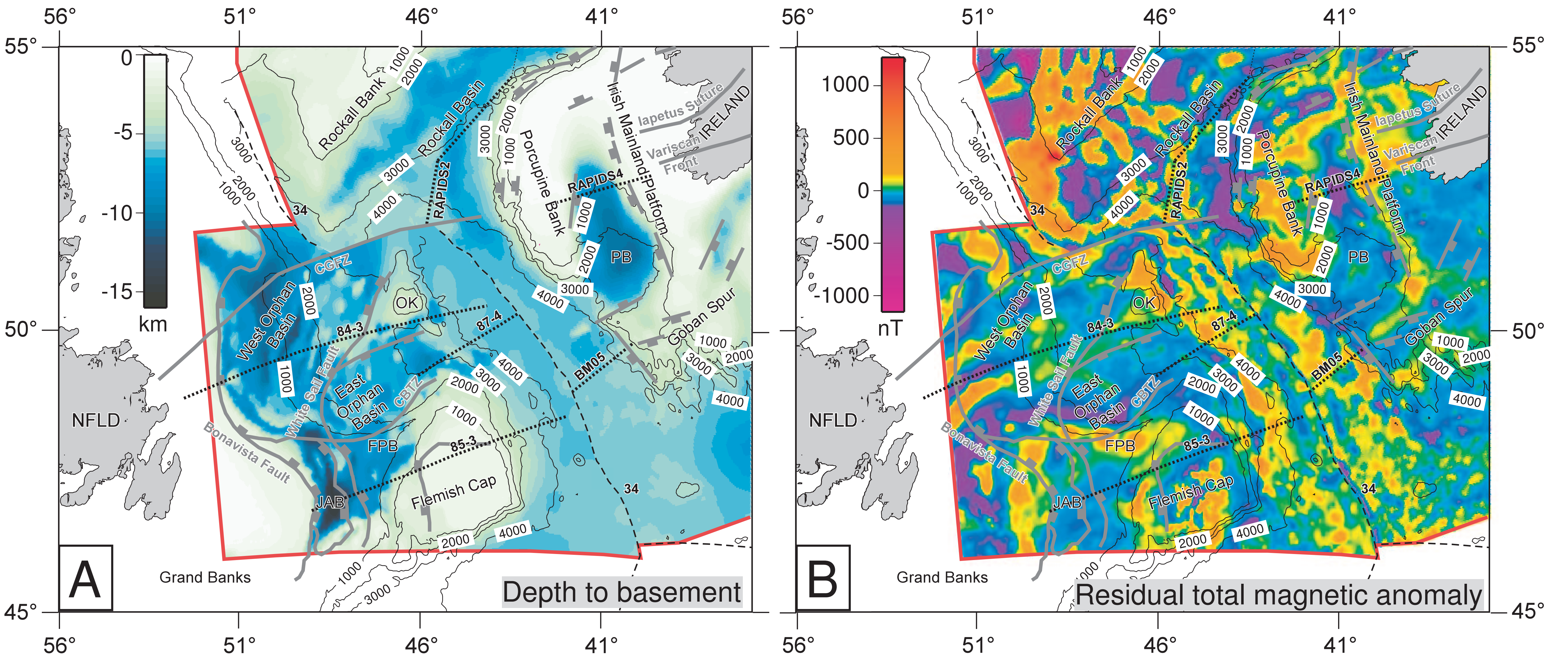

Fig. 3. Maps of juxtaposed present-day (A) depth to basement and (B) residual total magnetic anomaly on both margins on a reconstruction at the initiation of seafloor spreading (at magnetic chron 34). Depth to basement on the Irish margin was computed from the General Bathymetric Chart of the Oceans (GEBCO) global 30 arc-second gridded bathymetric data set and sediment estimates from the National Oceanic and Atmospheric (NOAA) Satellite Information Service. The aeromagnetic data for the Irish margin were also obtained from NOAA. For the Newfoundland margin, both the depth to basement and aeromagnetic data were obtained from the Geological Survey of Canada. Contours on both plots correspond to present-day bathymetry (1000 m contour interval). The red outlines define the limits of the regions used in the two inversions.

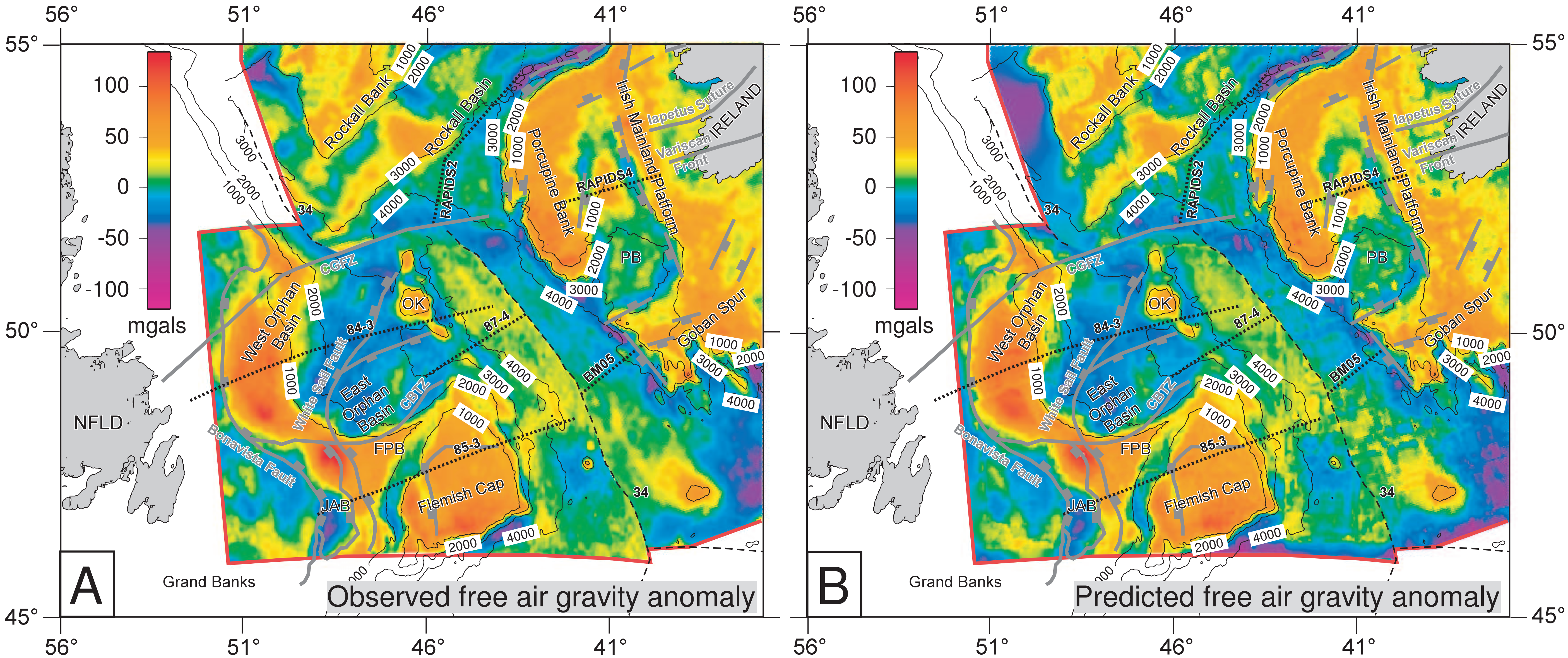

Fig. 4. Maps of juxtaposed present-day (A) observed and (B) predicted free air gravity anomaly on both margins on a reconstruction at the initiation of seafloor spreading (at magnetic chron 34). The observed free air gravity anomaly data for each margin were obtained from the DNSC08 gravity anomaly compilation from the National Space Institute of the Technical University of Denmark (Andersen *et al.* 2008). Contours on both plots correspond to present-day bathymetry (1000 m contour interval).

Reference

Andersen, O. B., Knudsen, P., Berry, P., Freeman, J., Pavlis, N. & Kenyon, S. 2008. The DNSC08 ocean wide altimetry derived gravity field. In: EGU 2008 Meeting Programme, Abstract EGU2008-A-07163; G1-1MO1O-003.

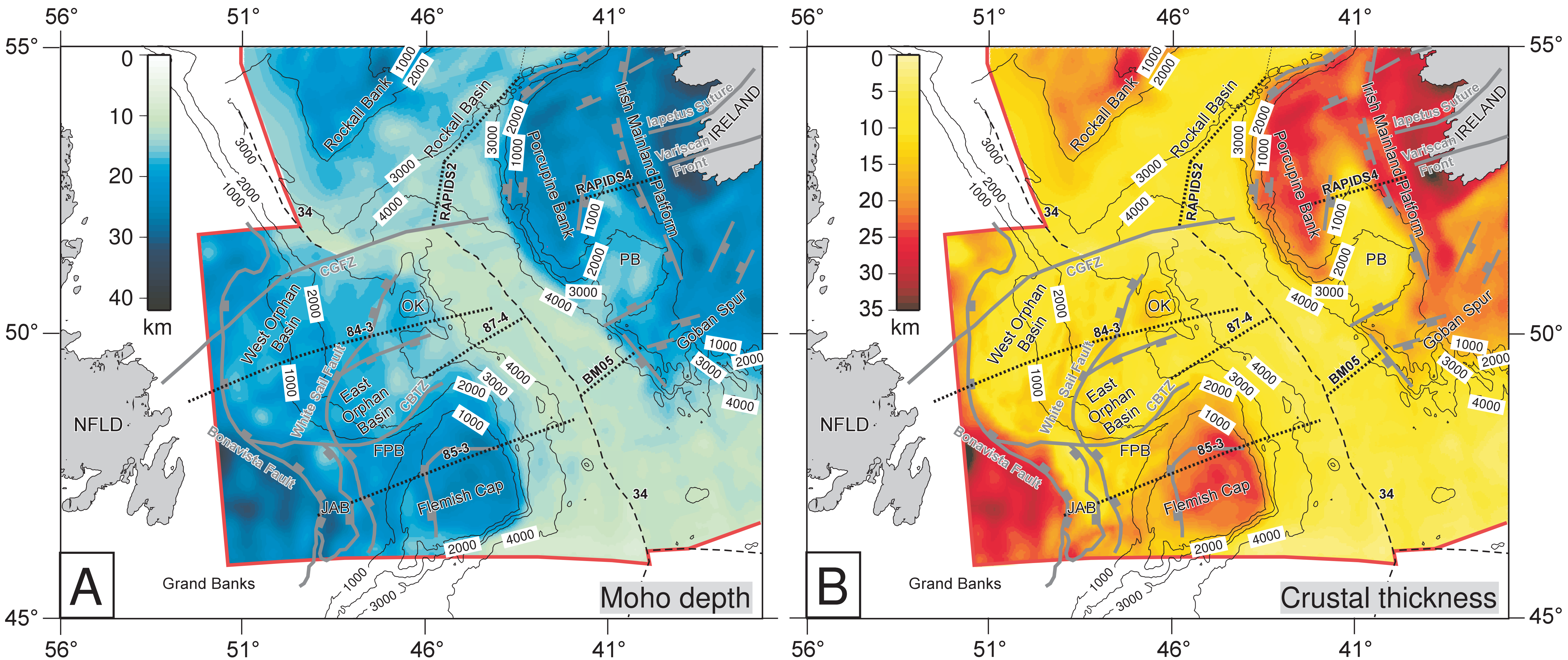

Fig. 5. Maps of juxtaposed present-day (A) Moho depth and (B) crustal thickness on both margins on a reconstruction at the initiation of seafloor spreading (at magnetic chron 34). These maps were derived from the inverted density anomaly model. Contours on both plots correspond to present-day bathymetry (1000 m contour interval).

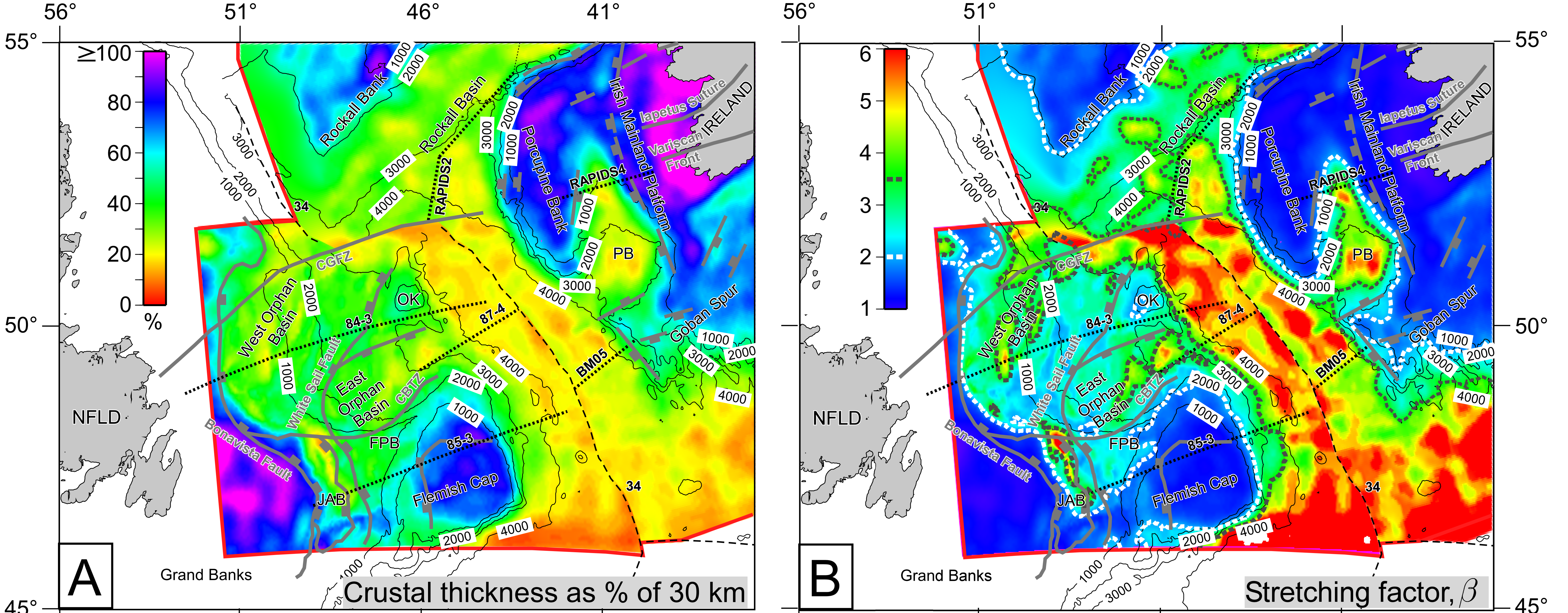

Fig. 8. Maps of juxtaposed present-day (A) crustal thickness (derived from the regional 3-D gravity inversions) as a percentage of the unstretched thickness of both Flemish Cap and the Irish crust (30 km) and (B) stretching factor, ß, on both margins on a reconstruction at the initiation of seafloor spreading (at magnetic chron 34). On plot B, the ß=2 contour corresponds to the stretching factor above which polyphase faulting becomes important (Reston, 2007) and the ß=3.5 contour corresponds to the stretching factor above which embrittlement of the entire crust is possible (Pérez-Gussinyé & Reston 2001; Pérez-Gussinyé et al. 2003). These contours are highlighted by the white and dark grey dotted lines respectively.

References

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