

S8 - SUPPLEMENT 8: RECONSTRUCTION WORKING MAP DISPLAY AT BREAKUP (~55 MA).

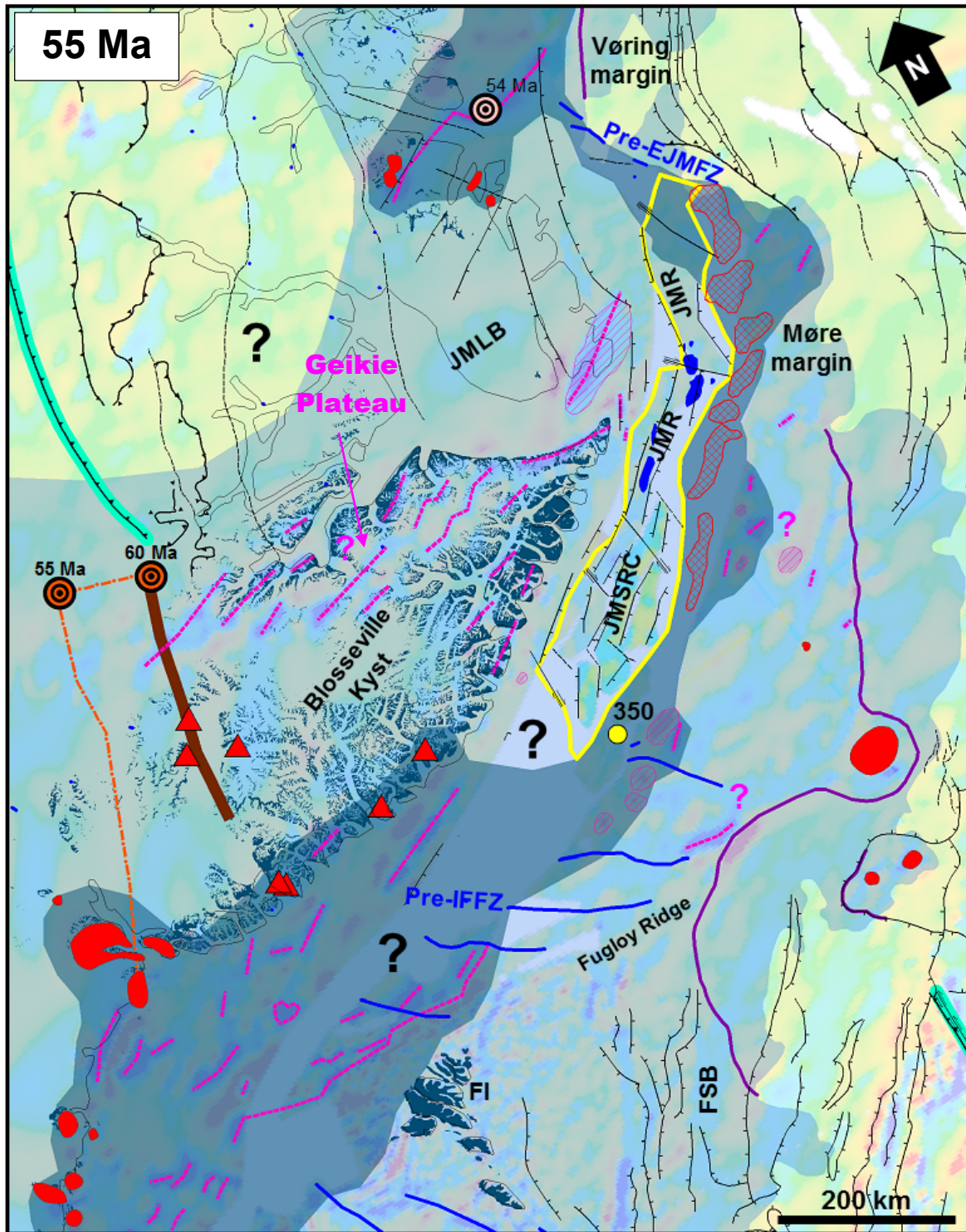
Reconstruction working map display of the igneous provinces in the Northeast Atlantic and basis for Figure 11a.

The positions of Eastern Greenland and main tectonic blocks of JMMC are shown in an absolute position (relative to the mantle) according to kinematic parameters that were computed by carrying out visual fits (in GPlates 2.0.0; <https://www.gplates.org>) for pre-breakup (~60-54 Ma) with the magnetic data [Nasuti and Olesen, 2014] as a basis in the background.

Abbreviations: EJMFZ – East Jan Mayen Fracture Zone segments; FI – Faroe Islands; FSB – Faroe-Shetland Basin; JMLB – Jameson Land Basin; JMR – Jan Mayen Ridge; JMSRC – Jan Mayen Southern Ridge Complex.

Legend:

Reconstructed features and maps	
<ul style="list-style-type: none"> DSDP Leg 38 borehole Country outline polygons JMMC outline & COB Cenozoic onshore basalt outcrop; JMMC Plateau basalt equivalent Landward flows <p>Faults major lineaments and outlines</p> <ul style="list-style-type: none"> Fault normal Fault reverse Strike-slip / transcurrent (dextral) Strike-slip / transcurrent (sinistral) Transfer system Unspecified lineament Fracture zones - lineaments Fracture zones – lineaments possible Caledonian lineaments Archean terrane boundaries (ATB) ATB parallel projection into the GIFRC 	<p>Rift systems, trends and igneous boundaries</p> <ul style="list-style-type: none"> Active MOR system Possible active IPR segments; possible flank rift systems; magnetic anomalies IFR failed rift systems Eastern lava basinward escarpment Trends of mapped magnetic anomalies <p>Hotspot – plume models</p> <ul style="list-style-type: none"> Estimated plume location ~54 Ma (Gaina et al. 2017; Geissler et al. 2017) Estimated plume location ~60-55 Ma (Dobrovine et al. 2012) Estimated plume track (Dobrovine et al. 2012) <p>Igneous complexes and areas</p> <ul style="list-style-type: none"> Igneous centres active at time interval Projected igneous activity / sills and intrusive Early Eocene deep seated JMR intrusive Eruptive centres 56-55 Ma estimated Pre-breakup volcanic focal area – heavily intruded crust ~55 Ma Poss. igneous centres ~55-53 Ma Possible pre-breakup volcanic complex areas ~55-53 Ma



830 -800

Magnetic anomaly (nT)