



Figure S2. Refracted arrivals recorded by ORB1 (a) and OBH26 (b) downward continued to the seafloor. Top panels in a and b are plotted with a reduction velocity of 6.5 km/s. The phase velocities of the refracted arrivals are clearly less than mantle values. The kirchhoff downward continuation accentuates noise, producing the short hyperbolic events that curve away from the main arrival in some places, particularly for OBH26. c) Seafloor topography and position of the instruments along the line. Record-sections above are aligned with the corresponding instrument.