Two of the East Pacific Rise samples (EPR 1 and EPR 2) are extremely massive basalts with little or no alteration and are free of glass and vesicles. These samples are higher in density and velocity than previously studied oceanic basalts (Fig. 1). The velocities of these two rocks at pressures between 1 and 2 kb (Table 1) are, however, lower than seismic velocities of the lower oceanic crust, thus suggesting that even massive basalt can not be a major constituent of the lower oceanic crust. This is in agreement with earlier conclusions based upon laboratory velocities by Christensen (1970b) and Christensen & Shaw (1970).

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