



Figure S1: Fine quartz sand fraction,  $\delta^{13}C_{inorganic}$ , total FMR absorption, rock magnetic parameters, and IRM acquisition coercivity spectra for upper Paleocene to lower Eocene strata, ODP Leg 174AX, Ancora, New Jersey. Maximum IRM was imparted in a 350 mT field. Coercivity of remanence  $B_{cr}$  was determined from the intersection of IRM acquisition and demagnetization curves (Cisowski, 1981).  $\chi_{ARM}/IRM$  is the ratio of ARM susceptibility determined in a 100 mT alternating field and a 0.1 mT DC biasing field to IRM acquired in 100 mT field. Left edges of coercivity spectra align with drillcore depth.