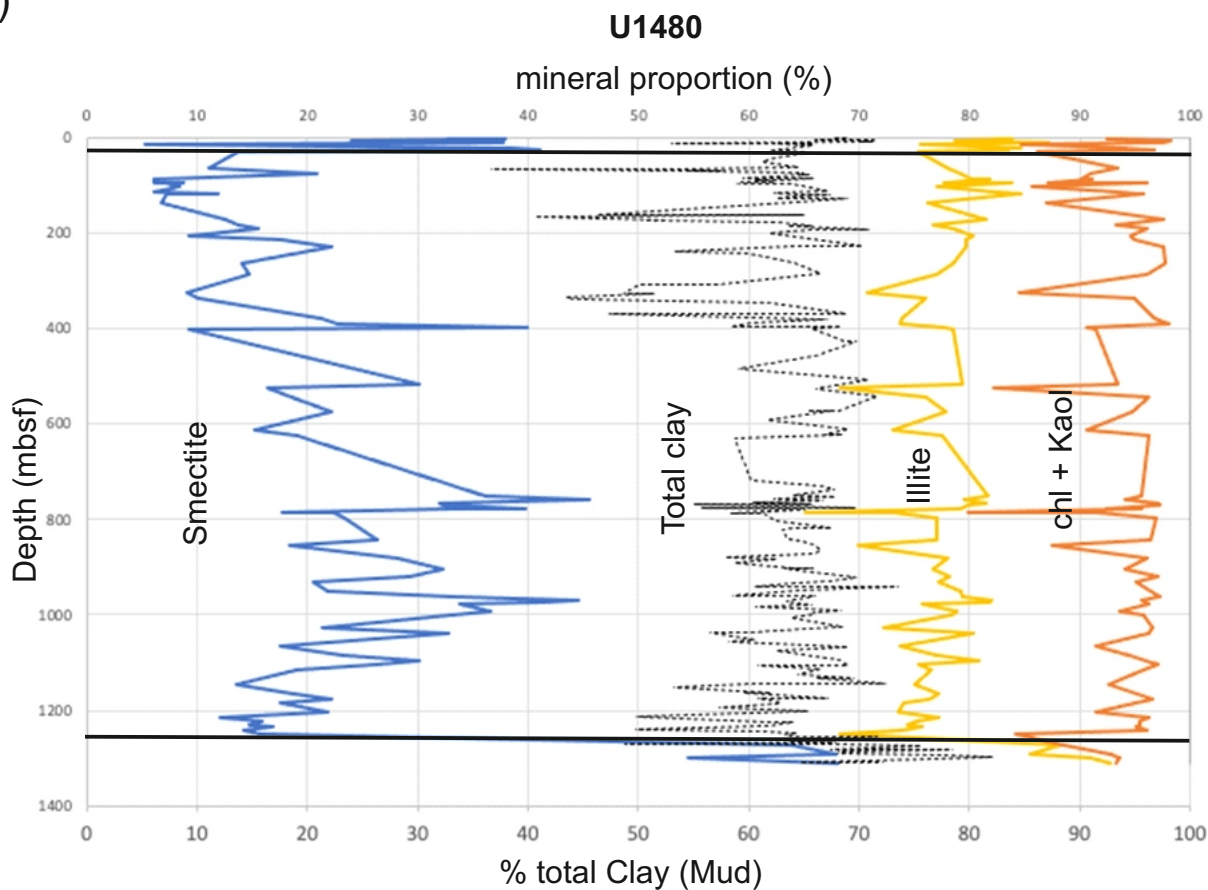


a)



b)

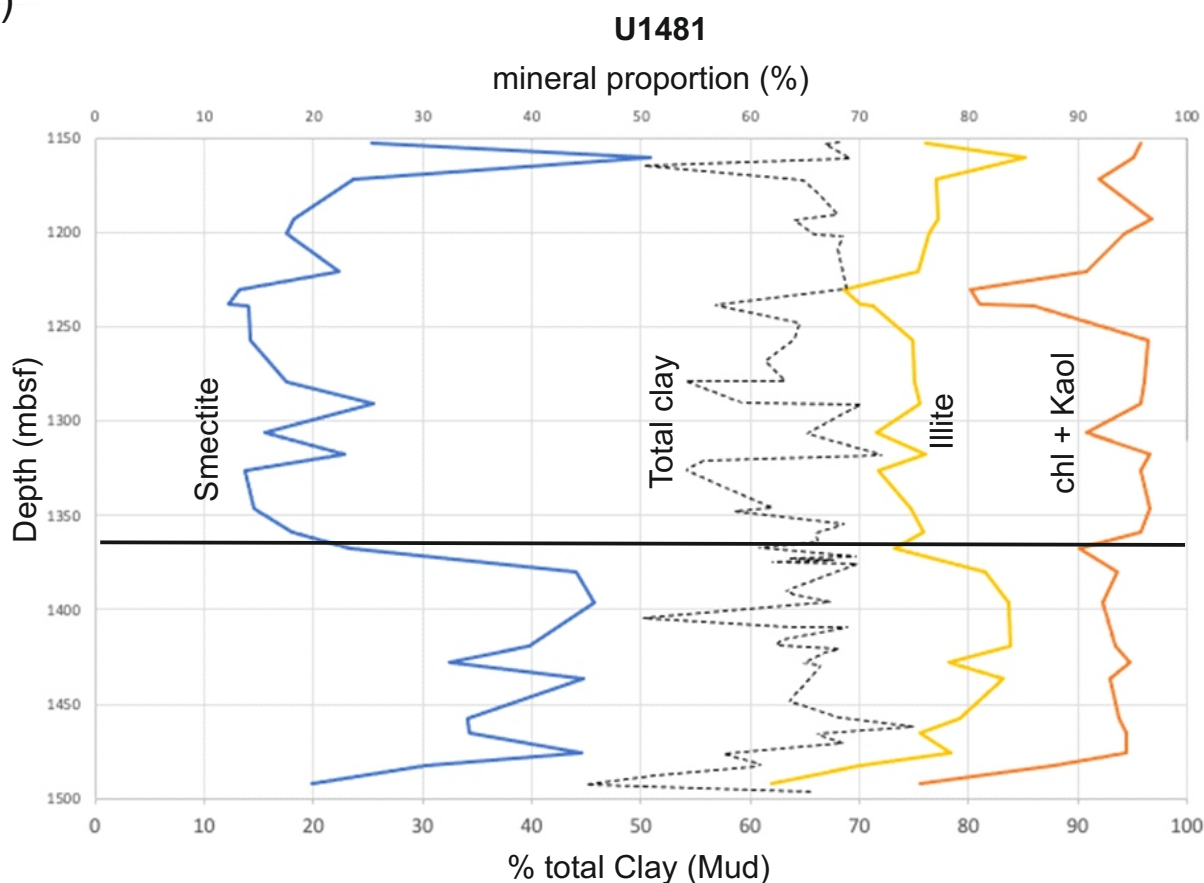


Figure S1: Clay mineral from clay ($<2\mu\text{m}$) separates, reported by Rosenberger et al., (2020) for U1480 and U1481 drill holes respectively in (a) and (b). Solid horizontal lines in (a) indicate base of Unit-I (Upper line) and base of Unit-II (Lower line) encountered at U1480 drilling site. Solid horizontal in (b) indicates base of Unit-II encountered at U1481 drilling site. Total clay fraction from bulk sample XRD (McNeill et al., 2017) shown as dotted line. Heating experiments (Rosenberger et al., 2020) indicate chlorite accounts for 66-100% Chl+Kaol fraction.