

Figure S1. Results of T<sup>2</sup> spectral transformation.

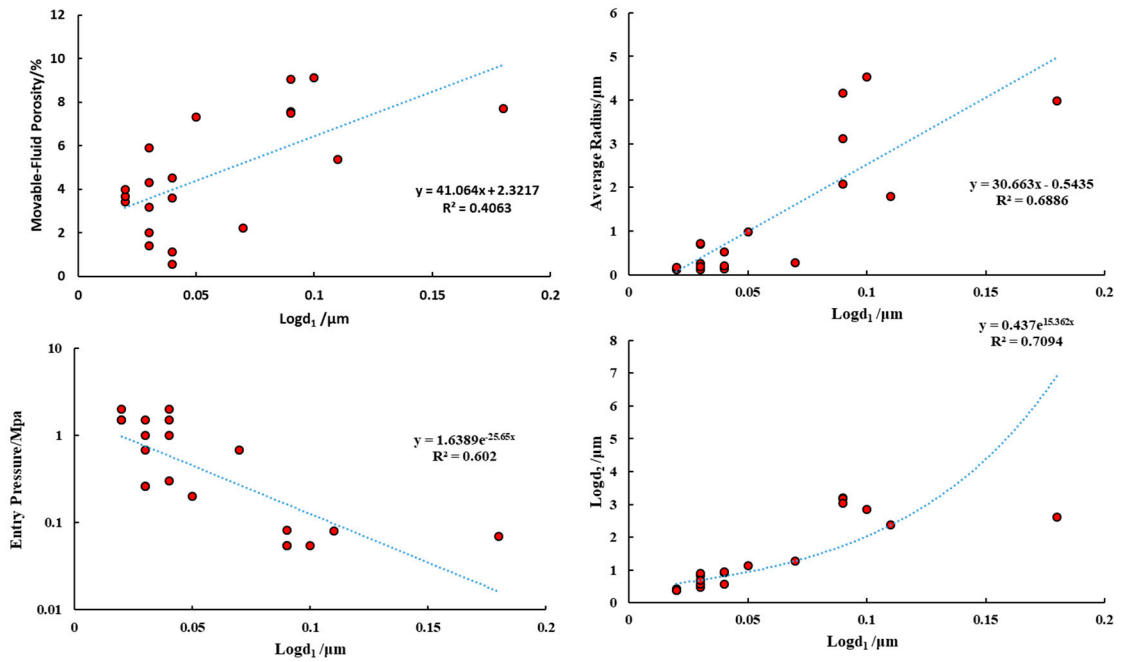
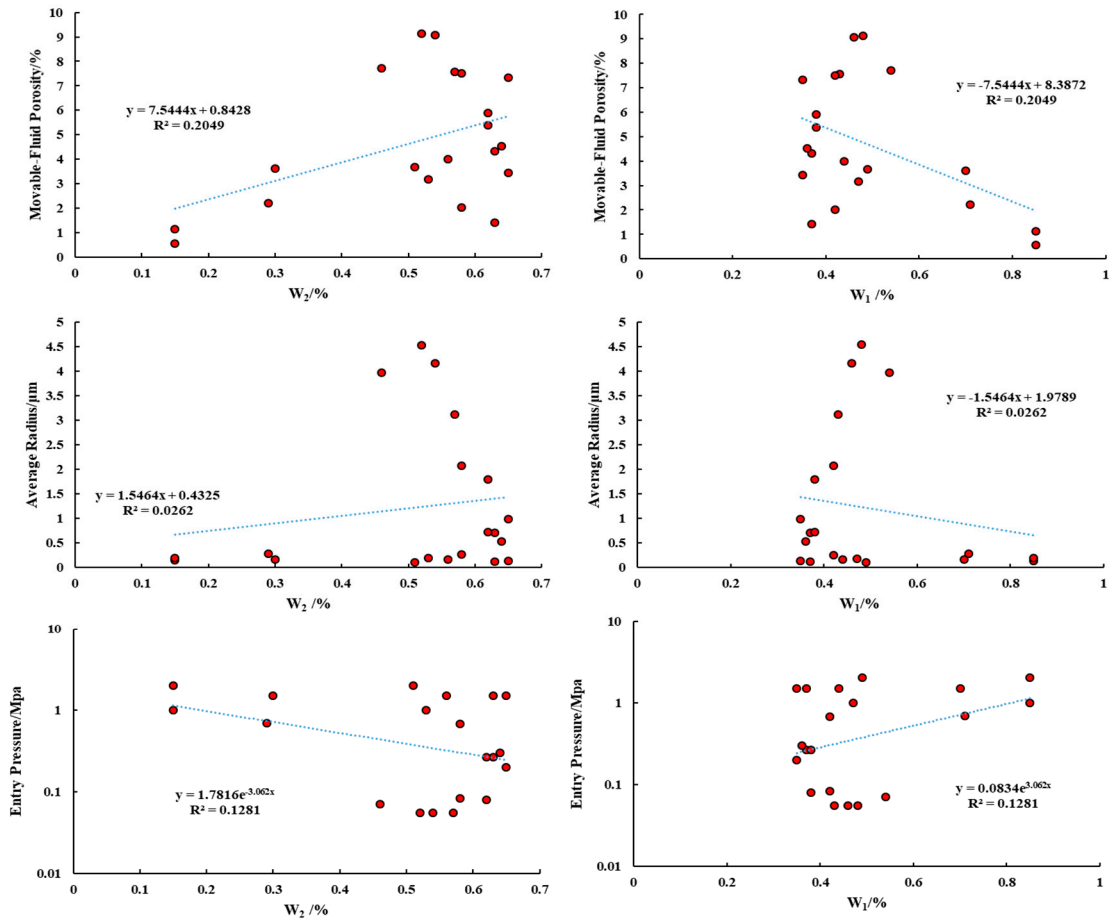
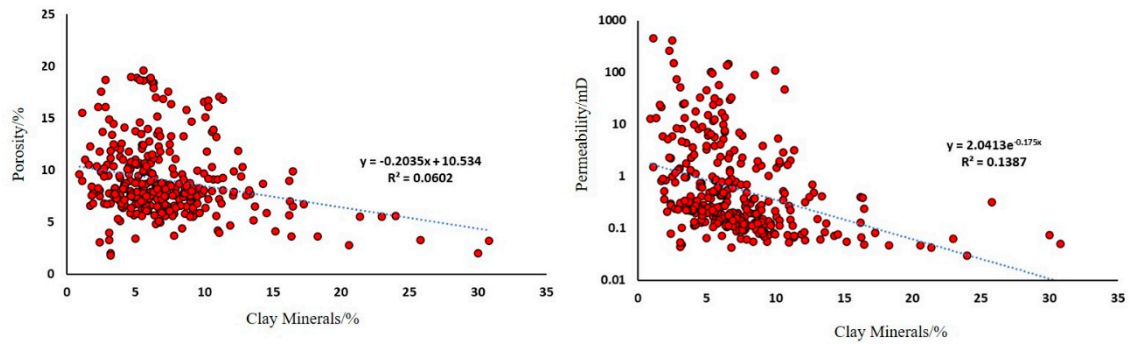


Figure S2. Correlations between  $\log d_1$  and movable fluid saturation, average throat radius, displacement pressure,  $\log u_2$



**Figure S3.** Correlations between  $W_2$ ,  $W_1$  and movable fluid saturation, average throat radius, entry pressure.



**Figure S4.** Correlations between clay content and porosity, permeability in Well A, B, and C.

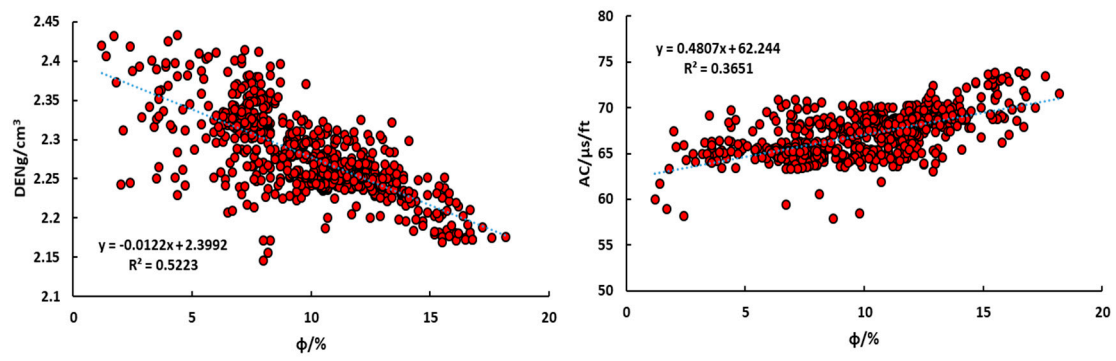


Figure S5. Correlations between DEN, AC and porosity.