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# The Effect of DC Electrical Potential on Enhancing Sandstone Reservoir Permeability and Oil Recovery

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## Abstract

The merits of using electrokinetic phenomena to improve reservoir permeability on sandstone reservoir core plugs are investigated with detail clay mineralogy studies. Normal and reverse DC configuration is applied along with waterflood and studies are conducted on single-phase and two-phase fluid saturation conditions. The produced

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permeability, whereas in the reverse configuration, clay structures remained unchanged. The given explanations are supported by ICP-MS and X-ray diffraction results.

Keywords: clay migration electrokinetics electromigration permeability enhancement

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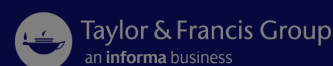
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