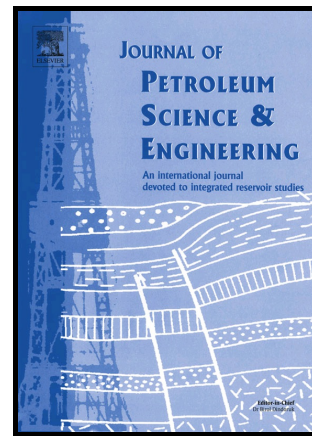


Author's Accepted Manuscript

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PII: S0920-4105(16)31292-X
DOI: <http://dx.doi.org/10.1016/j.petrol.2016.12.019>
Reference: PETROL3788

To appear in: *Journal of Petroleum Science and Engineering*

Received date: 9 September 2016
Revised date: 8 December 2016
Accepted date: 13 December 2016

Cite this article as: Sheng Luo, Jodie L. Lutkenhaus and Hadi Nasrabadi, Use of Differential Scanning Calorimetry to Study Phase Behavior of Hydrocarbon Mixtures in Nano-Scale Porous Media, *Journal of Petroleum Science and Engineering*, <http://dx.doi.org/10.1016/j.petrol.2016.12.019>

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Use of Differential Scanning Calorimetry to Study Phase Behavior of Hydrocarbon Mixtures in Nano-Scale Porous Media

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Abstract

The phase behavior of petroleum fluids is a challenging problem in shale oil and gas production. Due to strong surface-fluid interactions and complex pore geometries in shale nanopores, PVT properties of fluids in shale are altered from those of conventional reservoirs and cannot be described by bulk-phase thermodynamics. To our best knowledge, the experimental data for hydrocarbon phase behavior in shale systems is severely absent. The experimental difficulty lies

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