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**3-D View of Frac and Reservoir Pressures in Shale Leading to New Approach and More Reliable Predictions**

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**Abstract**

Frac and reservoir pressures are vital parameters to optimize drilling and completion and to adequately estimate potential hydrocarbon production from shale. Our study that includes five shale from three different basins is shedding a new light on pressure gradients. Whereas traditionally gradients are calculated with respect to a ground level reference, our analysis demonstrates the existence of very well behaved gradients connecting all of the pressure data pertaining to structural blocks, sub-basins and sedimentary packages.