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Semi-finalist

Bubbles of Hope

PhD

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Image created in the Reservoir Geomechanics Research Group Lab at the University of Alberta Shale gas is one of the targets to produce energy but this type of reservoir is very tight and economic production from that without stimulation techniques (mainly fracturing) is almost impossible.

Meantime, one of the behaviors observed in this type of reservoirs is suction of water (which is the main component of fracturing fluid). Some people believe that this water uptake would lead to production decrease. During the tests while the Icm-thick sample is submerged in water all of a sudden I saw gas bubbles coming out of the shale sample which then turned into bubble trains. That interesting phenomenon could somehow give us the hope for production increase as a matter of water uptake. From that time up to now we have got some really good achievements regarding production increase. Therefore, I call them "Bubbles of Hope"!