

PIMS / AMI Seminar

Friday, February 8, 2013 3:00 p.m. CAB 365



"Cold Heavy Oil Production with Sand: Recovery Mechanisms & Field Performance"

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Abstract

Cold heavy oil production with sand (CHOPS) is a method for enhancing primary production from heavy oil reservoirs by producing sand aggressively along with the heavy oil. It has been applied with commercial success in the area surrounding Lloydminster, Alberta, Canada. Oil production rates are improved substantially in this recovery process through the creation of channels of increased permeability – wormholes. The process seems to key on the formation and flow of foamy oil into wormholes, as they grow into the reservoir. The wormholes provide significantly increased access to the reservoir. This lecture will have two themes: a description of the dominant recovery mechanisms, foamy oil flow and wormhole network growth, obtained from laboratory scale investigations; and, a description of field performance, illustrated through case studies involving field data and field-scale reservoir simulations.