# Comparing the porous plate technique and the evaporation technique for establishing initial water saturation

*Lykourgos* Sigalas*, Hanne* Dahl Holmslykke*, Dan* Olsen

**Abstract.** Two techniques for establishing the initial water saturation, Swi, in core flooding experiments are compared, i.e. the porous plate technique and the evaporation technique. The porous plate technique is well established, and considered to conserve the wetting characteristics of the sample throughout the drainage process. The evaporation technique has the advantage of being much faster, and more precise in attaining a predetermined water saturation. However, questions have been raised, whether the evaporation technique changes the wetting characteristics of a sample because of drying the sample's surface. Results from a series of experiments indicate that sample preparation with the evaporation technique do result in lower Sorw values at the end of water-flooding experiments, and therefore affects the wetting characteristics of the samples. Processing of CT data is also in progress to quantify the water and oil distribution in the samples before and after the water-flooding experiments.