

Development of Faultap; the simulator for fault seal capacity

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In the Technology Research Center of Japan National Oil Corporation, We, the oil trap & fault seal project group, are concentrating our attention upon the fault sealing, because it is important for oil Exploration. we usually use SGR(shale gauge ratio), SSF(shale smear factor) and CSP(clay smear potential) for fault seal evaluation now, but it is not enough for prediction. Based on this situation, we start to make the simulator for fault seal evaluation on ours own. The simulator that named the Faultap is styled for using the Cam-clay theory and sediment's physical property. It will be able to simulate the fault surface permeability more theoretically.

In the Technology Research Center of Japan National Oil Corporation, We, the oil trap & fault seal project group, are concentrating our attention upon the fault sealing, because it is important for oil exploration. Of course, the datasets, which are collected from seismic section and well measurement, is the most important information for oil exploration. For all that, we don't have much data of fault and fault rock, so that we usually use SGR(shale gauge ratio), SSF(shale smear factor) and CSP(clay smear potential) for fault seal evaluation now. but these methods are based on field experience, therefore, it is not enough for prediction.

Based on this situation, we start to make the simulator for fault seal evaluation on ours own. The simulator that named the Faultap is styled for using the Cam-clay theory and sediment's physical property. It calculates the permeability tendency on the fault from depth and displacement (or throw) data from seismic section, gamma-ray data from well data and some coefficients from experimental study and sample measurement. It will be able to simulate the fault surface permeability more theoretically.