

## **Numerical Simulation for Well Start-up in Pressure Depleted Gas Condensate Reservoirs**

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### **Abstract**

During the definition stage of the Sagari Field development, scientists identified the possibility of continuity in hydrocarbon bearing reservoirs of Sagari and Kinteroni fields. Both gas-condensate fields are located in Madre de Dios Basin in the Peruvian rain forest, within Block 57. Sagari field was discovered in 2012 and will start to produce in 2018. The Kinteroni Field started its production in 2014.

Under the scenario of Sagari reservoirs pressure declining due to Kinteroni production, numerical simulation models for reservoirs and wells are built in order to predict the initial behavior of Sagari field production. Results shows that the conventional diesel cushion will not provide the required underbalanced condition for well start-up; therefore, the use of nitrogen is suggested as an alternative to generate the desired underbalanced condition.