

Improvement of Operating Efficiency of JSC TURGAI PETROLEUM Using Technologies of Integrated Modeling

Sector: Oil and gas

Region: Kazakhstan

Client: JSC TURGAI PETROLEUM

Result: **For the formation pressure maintenance system:**

1. Calculations based on the model revealed some bottlenecks. As a result, measures were taken, designed to limit nonproductive injection and increase pressure at wellheads for two modular cluster pump stations, which enabled producing 960 tons of oil during the next 2 months;
2. Injection capabilities taking into account the target injection capacity were estimated, and a list of injection wells was determined for measures aimed to increase/limit injection capacity;
3. To confirm optimum conditions of cyclic injection, the following series of calculations were completed on the base of the model of the formation pressure maintenance system.

For the collection and transportation system:

1. It is recommended for 28% of the production well stock to change the frequency or replace the electrical centrifugal pump with the optimum rating pumps;
2. It is recommended for 41 pipelines to carry out work aimed to detect restricting elements due to detection of excessive pressure surges.

For the pilot integrated model of the northern part of the Kumkol field:

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1. Based on the calculation of the long-term forecast, the collection and transportation system and the formation pressure maintenance system enable planned development of the field until 2021.

Line of activity:

Intelligent Oilfield

Review:

"Experts from Parma-Telecom (ITPS) demonstrated deep knowledge of integrated modeling, high competence in technical implementation of set objectives, and a sense of responsibility and efficiency during the work with the Customer. JSC TURGAI PETROLEUM expresses its gratitude to LLC Parma-Telecom (ITPS) for operational excellence, productivity, responsibility, and friendliness towards the Customer, and recommends the company for solving problems pertaining to the use of integrated modeling tools

Executive Director of JSC TURGAI PETROLEUM S.
Altynbekov.

** The material is available in Russian version only