Feasibility Study for the Implementation of a Project to Improve Oil Recovery

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Citation: Cherepovitsyn A.E., Shchigolev K.V., Zhukov O.V. Feasibility Study for the Implementation of a Project to Improve Oil Recovery, *Kompetentnost' / Competency (Russia)*, 2023, no. 8, pp. 24–31. DOI: 10.24412/1993-8780-2023-8-24-31

key words

environmental economics, oil and gas reserves, carbon dioxide, decarbonization, classification, sequestration technologies, CO_2-EOR method

The material of our study was the global methods for the intensification of oil production, called CO_2-EOR. The introduction of effective technologies that ensure the complete extraction of oil reserves from reservoirs and aimed at reducing greenhouse gas emissions into the atmosphere are the most important tasks in light of the decarbonization trends of national economies around the world. The relevance of the topic is due to the need to use technological options to reduce greenhouse gas emissions in the interests of low-carbon economic development and intensification of oil inflow at fields.

The study presents an adapted hybrid technique based on a combination of domestic and foreign approaches. Its approbation and search for optimal solutions are carried out on the example of a field in Western Siberia. The results of the calculation of the technological effect confirm that the use of CO_2-EOR will allow additional production of 11 320,22 cubic meters of oil at the experimental site.

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