Economic Evaluation of Water Resource Consumption in Shale Gas Development

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Abstract:

In this paper, the author researches on the economic evaluation of water resource consumption in shale gas development. Associated with shale gas exploitation stepping into the rapid development period, the resulting environmental problems are still worrying, especially the influence on water resources. In this article, the author suggests people take effective measures to reinforce water resources management and environmental conservation, and to realize sustainable development of shale gas exploration and exploitation in mainland China. The different technological schemes were comprehensively evaluated combined with fuzzy mathematic methods, thus an economic evaluation model of shale gas deve lopment was established. And it was finally verified by means of concrete cases. The results showed that, compared with a single evaluation index, this model could evaluate the shale gas projects more precisely and comprehensively. It would provide scientific basis for the shale gas development in China.

Keywords: Economic evaluation, Water resource consumption, Shale gas development