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MATHEMATICAL MODEL FOR PREDICTION OF GROUNDWATER LEVELS IN TWO-LAYER FORMATIONS

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ABSTRACT

A article discusses the process of forecasting changes in the level of ground and pressure water. A brief analysis and computational experiments of scientific papers on mathematical and numerical modeling of the object under study are given. For a comprehensive study of the problem under consideration, a mathematical model was developed that takes into account the external source, evaporation, filtration coefficients, active porosity, filtration rate and two-way boundary conditions. An effective numerical algorithm has been developed for predicting changes in the ground water level using a combination of finite-difference schemes and run-through methods. It has been studied that changes in the level of ground and pressure water, filtration permeability, water loss coefficient and filtration rate associated with the water level can have a serious impact on the environmental process.

KEYWORDS: *Groundwater Abstraction, Salt Transfer, Mathematical Model Of Filtration, Desalination Technological Schemes, Geofiltration Process.*

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