



## **Technogenic transformation of the natural environment in the karst region during oil production**

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The environment of karst areas allows to migrate to oil-field pollution, causing negative consequences for water resources and ecosystems. Establishment of genesis of technogenic manifestations very complex problem which can be solved by means of a complex of hydrogeological and ecosystem researches. Under the influence of an oil-field technogenes ecosystems existing at the expense of a stream of hydrocarbons are formed.

There is a need to determine the causes of groundwater pollution by hydrocarbons, suspended solids; identification of hydrocarbon migration routes to underground and surface water; chemical mechanism of formation of turbidity of surface waters and their further self-purification; obtaining reliable data on the concentration of pollutants in the atmosphere, hydrosphere, soils and bottom sediments in the problem area, conducting a hydrogeological survey of the karst area, an ecosystem study to determine the effects of pollution and the corresponding stages of the transformation of the natural environment; assessment of the state and modeling of changes in the components of the natural environment.

The methodology of the research includes collecting actual material in the office environment; complex studies to identify the causes of groundwater pollution, route surveys with sampling of water, bottom sediments, soil, drilling wells, karstological survey, geophysical work.