

Abstract. Hydrocarbon resources are those quantities of hydrocarbons that exist naturally on the earth surface or in the subsurface. When considering resources, quantities of hydrocarbons both in known and undiscovered accumulations are estimated. Resource estimates are aimed at those quantities that can potentially be extracted and sold in the market during the implementation of commercial projects. The petroleum resource management system provides systematic approach to estimating quantities of hydrocarbons, evaluating projects and presenting results under the scope of universal classification.

During exploration, uncertainties and risks inevitably arise. Forecast estimates of hydrocarbon reserves are also performed under conditions of uncertainty. At present oil companies strive to minimize risks and remove some uncertainties before starting exploration work. In order to increase the efficiency of exploration, it is proposed to use several methods of forecast reserves estimation for exploration wells. The most widespread in modern oil and gas industry is classification of the Society of Petroleum Engineers (SPE) - Petroleum Resources Management System (PRMS) - liquid, gaseous and solid hydrocarbons reserves and resources management system.

Technology for prospecting and exploration, development, production and treatment of hydrocarbons is constantly evolving and improving. The SPE Oil and Gas Reserves Committee (OGRC) is in constant contact with stakeholder organizations to keep existing definitions and guidelines up to date with evolving technology and industry requirements.

Key words: oil, reservoir, reserves, SEC/PRMS reserves classification, management system, resource estimation methods.

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