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# 浅层水平井钻井液技术在吉林油田实际应用

## 摘要

本文以吉林油田的浅层水平井作为研究对象，在浅层水平井的开发方式和井身结构的基础之上，根据吉林扶余地区的地质概况，通过观察钻井液对井壁稳定、减摩降阻、井眼净化的影响和钻井液的性能、体系与组分的优选实验等诸多方面的实验研究，最终确定的钻井液体系为聚合物水基钻井液体系（3%膨润土+0.2%KPA+1%铵盐+1%HA树脂+1%防塌润滑剂+1%乳化沥青+1%ORH+1%DYRH-3+0.08%XC+1%JYW-1+3%超细碳酸钙）。该钻井液体系有较好的抑制性和润滑性，能更好的保护油气层，为吉林油田地区浅层水平井钻井液技术研究提供了有效数据，也满足了钻井经济适用容易实现的要求。

**关键词：**钻井液；浅层水平井；吉林油田；润滑性；抑制性；

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## Abstract

Of shallow horizontal well in jilin oilfield as the research object, in the shallow horizontal well development way and the basis of well bore structure, according to the jilin fuyu regional geological survey, through the observation of drilling fluid on the borehole wall stability, anti-friction resistance reduction, the effect of hole cleaning and drilling fluid performance, system and components optimization experiment of the experimental study of many aspects, such as, The drilling fluid system finally determined was polymer water-based drilling fluid system (3% bentonite + 0.2% KPA+1% ammonium salt +1% HA resin +1% anti-slump lubricant +1% asphalt emulsion +1%ORH+ 1% dyrh-3 +0.08%XC+1% jyw-1 +3% superfine calcium carbonate). The drilling fluid system has better inhibition and lubricity, and can better protect oil and gas reservoirs. It provides effective data for the research on drilling fluid technology for shallow horizontal Wells in jilin oilfield, and also meets the requirements of economic application and easy realization of drilling.

**Key words:** drilling fluid; Shallow horizontal well; Jilin oilfield; Lubrication; Inhibitory;

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