

论文

煤层气井煤粉产出规律及排采管控实践

刘升贵, 张新亮, 袁文峰, 田晓燕

中国矿业大学(北京) 力学与建筑工程学院, 北京 100083

摘要:

为减少煤粉对储层的伤害, 分析了煤层气井煤粉产出规律及其对排采的影响。基于煤层气井煤粉浓度、产气量、产水量等监测数据, 总结了煤粉产出动态规律; 研究了产气初期煤粉大量产出对采气设备及储层渗流通道的影响; 提出了通过提高排采设备携粉能力, 增加煤粉排出量的极限煤粉浓度管控方法。实践表明该方法能减少煤粉对储层的伤害, 延长检泵周期, 释放煤层气井产能。

关键词: 煤层气井; 煤粉浓度; 产气量; 产水量; 储层伤害

Regularity of coal powder production and concentration control method during CBM well drainage

Abstract:

In order to reduce the harm of coal powder to the reservoir in coalbed methane (CBM) well drainage, the regularity of coal powder production and the effect to drainage were analyzed. Based on the monitoring data of CBM well, such as coal powder concentration, gas production, water production, the dynamic regularity of coal powder concentration were summarized, the effect of numerous coal powder on the equipment and reservoir seepage channel during the early period of CBM desorption, was researched, the limited coal powder concentration control method to improve the production equipment carrying powder capacity, increase coal powder production was presented. The field application results demonstrate the limited coal powder concentration control method can reduce damage of the coal powder to reservoir seepage channel, extend the pump inspection cycle, and release gas productivity of CBM well.

Keywords: coalbed methane (CBM) well; coal powder concentration; gas production; water production; reservoir damage

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通讯作者: 刘升贵

作者简介: 刘升贵 (1978—), 男, 四川宜宾人, 讲师, 博士

作者Email: liushg2002@163.com

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