



中国石化集团石油工程技术研究院有限公司 主办

ISSN 1001-0890
CN 11-1763/TE

石油钻探技术

PETROLEUM DRILLING TECHNIQUES

2021年第 **1** 期
第49卷 (总第235期)

- ◎ 中国科学引文数据库 (CSCD) 来源期刊
- ◎ 全国中文核心期刊
- ◎ 美国《化学文摘》(CA) 收录期刊
- ◎ 俄罗斯《文摘杂志》(AJ) 收录期刊
- ◎ 日本科学技术振兴机构数据库 (JST) 收录期刊
- ◎ 中国科技论文统计源期刊
- ◎ RCCSE中国核心学术期刊



科学出版社
Science Press

目 次

■ 专家视点

- 中国石化石油工程技术新进展与发展建议·····路保平 (1)

■ 钻井完井

- 塔里木博孜区块超深井自动垂直钻井难点与技术对策·····
·····滕学清,刘洪涛,李宁,王天博,汝大军,董仁 (11)
- 克拉苏构造带博孜 1 区块复杂超深井钻井完井关键技术·····
·····殷召海,李国强,王海,丁永亮,王云,刘长柱 (16)
- 苏里格南区块小井眼钻井关键技术·····杨静,涂福洪,霍如军,陶瑞东,尚子博,郭亮 (22)
- 塔里木油田防漏堵漏技术进展与发展建议·····王涛,刘锋报,罗威,晏智航,陆海璠,郭斌 (28)
- 川西地区油基钻井液井壁强化技术·····王星媛,陆灯云,袁志平 (34)
- 伊拉克哈法亚油田 Mishrif 组碳酸盐岩储层防漏堵漏技术·····
·····谢春来,胡清富,张凤臣,白忠卫,尹传铭,司小东 (41)
- 延川南深部煤层气井防漏堵漏技术·····彭兴,周玉仓,朱智超,王军锋 (47)
- 基于相变蓄热原理的深井钻井液降温实验研究·····刘均一,陈二丁,李光泉,袁丽 (53)
- 基于石墨烯修饰的超低渗透成膜剂制备及性能评价·····王伟吉 (59)
- 满深 1 井碳酸盐岩地层自愈合水泥浆固井技术·····吴柏志,张怀兵 (67)
- 厄瓜多尔 Parahuacu 油田固井技术·····李万东 (74)

■ 油气开发

- 多分支井地热系统注采性能室内实验研究·····宋先知,李嘉成,石宇,许富强,曾义金 (81)
- 青海共和盆地干热岩压裂裂缝测斜仪监测研究·····周健,曾义金,陈作,张保平,徐胜强 (88)
- 四川盆地长宁页岩气区块套管变形井施工参数优化分析·····陈朝伟,黄锐,曾波,宋毅,周小金 (93)
- 水平井控水砾石充填防砂技术研究·····周泓宇,万小进,吴绍伟,张斌,孔洋 (101)
- 纳米二氧化硅改性聚合物的油藏适用性评价与微观驱油效果研究·····雷天猛,王秀军,王姗姗,曹杰 (107)

■ 测井录井

- 基于卡尔曼滤波的动态地质模型导向方法·····陆自清 (113)
- 直推式存储测井工艺在西北油田的应用·····张钰 (121)

CONTENTS

■ Expert Viewpoint

- New Progress and Development Proposals of Sinopec's Petroleum Engineering Technologies *LU Baoping* (1)

■ Drilling & Completion

- Difficulties and Technical Countermeasures for Automatic Vertical Drilling in Ultra-Deep Wells in the Bozi Block of the Tarim Basin *TENG Xueqing, LIU Hongtao, LI Ning, WANG Tianbo, RU Dajun, DONG Ren* (11)
- Key Technologies for Drilling and Completing Ultra-deep Wells in the Bozi 1 Block of Kelasu Structure *YIN Zhaohai, LI Guoqiang, WANG Hai, DING Yongliang, WANG Yun, LIU Changzhu* (16)
- Key Technologies for Slim Hole Drilling in the Southern Sulige Block *YANG Jing, TU Fuhong, HUO Rujun, TAO Ruidong, SHANG Zibo, GUO Liang* (22)
- The Technical Advance and Development Suggestions for Leakage Prevention and Plugging Technologies in the Tarim Oilfield *WANG Tao, LIU Fengbao, LUO Wei, YAN Zhihang, LU Haiying, GUO Bin* (28)
- Borehole Strengthening Technology with Oil-Based Drilling Fluid in the Western Sichuan Basin *WANG Xingyuan, LU Dengyun, YUAN Zhiping* (34)
- Antileaking and Lost Circulation Control Technology for the Mishrif Carbonate Reservoir in the Halfaya Oilfield of Iraq *XIE Chunlai, HU Qingfu, ZHANG Fengchen, BAI Zhongwei, YIN Chuanming, SI Xiaodong* (41)
- Anti leaking and Lost Circulation Control Technology for Deep Coalbed Methane Well in the Yanchuannan Block *PENG Xing, ZHOU Yucang, ZHU Zhichao, WANG Junfeng* (47)
- Experimental Study of Drilling Fluid Cooling in Deep Wells Based on Phase Change Heat Storage *LIU Junyi, CHEN Erding, LI Guangquan, YUAN Li* (53)
- Preparation and Performance Evaluations of an Ultra-low Permeability Film-Forming Agent Based on Graphene Modification *WANG Weiji* (59)
- Cementing Technology of a Self-Healing Cement Slurry in the Carbonate Formations in the Well Manshen 1 *WU Bozhi, ZHANG Huaibing* (67)
- Cementing Technology Applied in the Parahuacu Oilfield of Ecuador *LI Wandong* (74)

■ Oil & Gas Exploitation

- Laboratory-Scale Experimental Study on the Injection-Production Performance of a Multilateral-Well Enhanced Geothermal System *SONG Xianzhi, LI Jiacheng, SHI Yu, XU Fuqiang, ZENG Yijin* (81)
- Research on Fracture Mapping with Surface Tiltmeters for "Hot Dry Rock" Stimulation in Gonghe Basin, Qinghai *ZHOU Jian, ZENG Yijin, CHEN Zuo, ZHANG Baoping, XU Shengqiang* (88)
- Analysis and Optimization of Construction Parameters for Preventing Casing Deformation in the Changning Shale Gas Block, Sichuan Basin *CHEN Zhaowei, HUANG Rui, ZENG Bo, SONG Yi, ZHOU Xiaojin* (93)
- Study on the Sand Control Technique for Gravel Packing with Water Control for Horizontal Wells *ZHOU Hongyu, WAN Xiaojin, WU Shaowei, ZHANG Bin, KONG Yang* (101)
- Research on Reservoir Applicability Evaluation and Micro Oil Flooding Effect of a Nano-Silica Modified Polymer *LEI Tianmeng, WANG Xiujun, WANG Shanshan, CAO Jie* (107)

■ Well Logging & Surface Logging

- Geosteering Methods of a Dynamic Geological Model Based on Kalman Filter *LU Ziqing* (113)
- Application of Direct-Push Storage Logging Technology in the Northwest Oilfield *ZHANG Yu* (121)