

全国中文核心期刊  
中国科技核心期刊  
中国期刊全文数据库(CJFD)全文收录期刊  
中国学术期刊综合评价数据库(CAJCED)统计源期刊  
中国学术期刊(光盘版)收录期刊  
中国石油文摘收录期刊  
美国剑桥科学文摘(自然科学)收录期刊  
美国剑桥科学文摘(工程技术)收录期刊  
美国石油文摘(PA)收录期刊  
美国化学文摘(CA)收录期刊  
美国乌利希期刊指南收录期刊  
波兰哥白尼索引收录期刊

ISSN 1005-8907  
CN 41-1219/TE



# 断块油田

FAULT-BLOCK OIL & GAS FIELD

Vol.20 No.3  
2013.3

中国石油化工集团公司 主管  
中原石油勘探局 主办

ISSN 1005-8907



## 目 次

**专论综述**

- 套管钻井技术现状及发展趋势 ..... 郭先敏 273  
页岩地层压裂工艺新进展 ..... 张艺耀,王世彬,郭建春 278

**地质勘探**

- 叠前 AVA 同时反演的道集优化处理及应用效果 ..... 鲍熙杰 282  
边缘检测属性应用方法 ..... 许辉群,桂志先 286  
基于小波变换提取吸收系数方法及应用 ..... 周皓,桂志先,王宁 289  
高分辨率反演在春风油田储层预测中的应用 ..... 王有涛,陈学国,郝志伟,肖辉 293  
沾化凹陷新生界构造样式与油气分布 ..... 崔营滨 296  
江陵凹陷荆州背斜带形成演化及成藏特征 ..... 黄华,袁娟梅 301  
塔里木盆地古生界碳酸盐岩层序及沉积演化特征 ..... 谢世文,傅恒,张东辉,白晓亮,竹合林 305  
高纯气体乙烷及丙烷裂解的动力学研究 ..... 王英超,靳永斌,税蕾蕾,黄合庭,程子翔,王长江 311  
准噶尔盆地中部油气充注与调整过程分析 ..... 林会喜,曾治平,宫亚军,沈扬,江波 316  
查干凹陷乌力吉构造带浅层成藏主控因素 ..... 史大海,陈清棠,邱微,郭展,吴小琴 321  
塔中北斜坡奥陶系鹰山组岩溶作用与储层分布 ..... 谢欣睿,毛健,王振宇 324  
DJ 油田 Q 段复杂储层流体识别 ..... 王志强 329

**开发工程**

- 低渗致密气藏产能预测方法 ..... 何军,胡永乐,何东博,位云生,王慧 334  
流线法在二维两相渗流解析求解中的应用 ..... 刘雄,王晓冬,郝明强,姜龙燕,陆程 337  
裂缝性油藏井网水驱油物理模拟研究 ..... 张立强,孙雷,陈丽群,陈莹莹,董卫军 341  
温度对特低渗油藏油水相对渗透率的影响 ..... 王苛宇,蒲万芬,申哲娜,胡静 346  
裂缝性砂岩污染储层井底压力响应特征 ..... 范俊强,龙小军,刘洪,李政,田宝振 349  
特高含水开发期曲流河储层构型深化研究及应用 ..... 宁士华,肖斐,束宁凯 354  
不封闭气藏建库库容设计 ..... 李季,张吉军 359

**钻采工艺**

- 裂缝性储层控压钻井技术及应用 ..... 宋巍,李永杰,靳鹏菠,李皋,魏纳,赵向阳,刘金龙 362  
气体钻井中致密砂岩流固耦合实验研究 ..... 奉思曼,孟英峰,李皋,罗成波,李盼 366  
非标大水眼高强度钻杆水力破岩技术 ..... 李双贵,崔祥,方建波,黎刚,李翔,李少安,刘发顺,矫健 370  
低渗透油藏分段压裂水平井布缝方式优化 ..... 朱世琰,李海涛,阳明君,罗伟,黄诚 373  
低渗油藏裂缝封堵剂用量计算 ..... 王硕亮,张媛,董烈,陈文斌 377  
密度选择性堵水工艺在缝洞型油藏中的应用 ..... 何星,吴文明,李亮 380  
压裂施工过程中的井底压力计算 ..... 李达,贾建鹏,滕飞启,朱更更,吴明松 384  
乳化性能差异对中低渗岩心驱油效果的影响 ..... 徐晓丽,王业飞,李丹丹,刘晨,潘凌,王伟吉,王国瑞 388  
新型 Gemini 表活剂的合成及其降低油水界面张力性能 ..... 范海明,孟祥灿,康万利,黄经纬,李渊,徐海,路传波,傅建斌 392  
空气泡沫/表面活性剂复合驱在明 15 块的应用 ..... 董俊艳,王斌,刘永安,胡艳霞,蔡彩霞,郭茂雷 396  
CESP 水平井环空化学封堵工艺在渤海油田的应用 ..... 周赵川,陈立群,高尚,王培永 400  
长井段水平井油管输送式射孔管柱防卡技术 ..... 焦建国,张庆生,赵开良,孙兴宇 403  
同心测调一体分注技术研究与应用 ..... 耿海涛,肖国华,宋显民,胡慧莉 406

**信息简讯**

- “电磁波随钻测量”现场试验成功 300    2012 年我国探明地质储量最大的 3 个陆上油田 376    2012 年我国探明油气资源当量为新中国成立以来最高 399

(责任编辑:赵卫红 英文编辑:刘丽 美术编辑:崔鸣)

# Fault-Block Oil & Gas Field

Vol.20 No.3 May 2013 (Total No.117)

## CONTENTS

### COMPREHENSIVE VIEW

Present status and future trend of casing drilling techniques .....	Guo Xianmin	273
New progress of hydraulic fracturing technology for shale formation .....	Zhang Yiyao, Wang Shibin, Guo Jianchun	278

### PETROLEUM GEOLOGY AND EXPLORATION

Gather optimal processing and application effect of prestack AVA instantaneous inversion .....	Bao Xijie	282
Study on application method of edge detection attributes .....	Xu Huiqun, Gui Zhixian	286
Extraction method of absorption coefficient based on wavelet transform and its application .....	Zhou Zhe, Gui Zhixian, Wang Ning	289
Application of high-resolution seismic inversion in reservoir prediction of Chunfeng Oilfield .....	Wang Youtao, Chen Xueguo, Hao Zhiwei, Xiao Hui	293
Structural style and hydrocarbon distribution of Cainozoic in Zhanhua Depression .....	Cui Yingbin	296
Evolutionary process and accumulation feature of Jingzhou anticlinal belt in Jiangling Sag .....	Huang Hua, Yuan Juanmei	301
Sequence and sedimentary evolution characteristics of Lower Paleozoic carbonate rock in Tarim Basin .....	Xie Shiwen, Fu Heng, Zhang Donghui, Bai Xiaoliang, Zhu Helin	305
Study on kinetics of high-purity ethane and propane cracking .....	Wang Yingchao, Jin Yongbin, Shui Leilei, Huang Heting, Cheng Zixiang, Wang Changjiang	311
Process analysis of hydrocarbon charging and adjustment in central area of Junggar Basin .....	Lin Huixi, Zeng Zhiping, Gong Yajun, Shen Yang, Jiang Bo	316
Main controlling factors on shallow hydrocarbon accumulation of Wuliji tectonic zone, Chagan Depression .....	Shi Dahai, Chen Qingtang, Qiu Wei, Guo Zhan, Wu Xiaoqin	321
Karstification and reservoir distribution of Ordovician Yingshan Formation in the northern slope of Tazhong .....	Xie Xinrui, Mao Jian, Wang Zhenyu	324
Identification of complicated reservoir fluid in Member Q of DJ Oilfield .....	Wang Zhiqiang	329

### DEVELOPMENT ENGINEERING

Productivity prediction methods for tight gas reservoir with low permeability .....	He Jun, Hu Yongle, He Dongbo, Wei Yunsheng, Wang Hui	334
Application of streamline method in solving 2D two-phase seepage problem .....	Liu Xiong, Wang Xiaodong, Hao Mingqiang, Jiang Longyan, Lu Cheng	337
Experimental research on waterflooding physical simulation in well pattern of fractured reservoir .....	Zhang Liqiang, Sun Lei, Chen Liqun, Chen Yingying, Dong Weijun	341
Effect of temperature on oil-water relative permeability in ultra-low permeability reservoir .....	Wang Keyu, Pu Wanfen, Shen Zhena, Hu Jing	346
Response characteristics of bottomhole pressure on reservoir contamination in fractured sandstone .....	Fan Junqiang, Long Xiaojun, Liu Hong, Li Zheng, Tian Baozhen	349
Deepening research and application of meandering river reservoir configuration at extra-high water cut development period .....	Ning Shihua, Xiao Fei, Shu Ningkai	354
Optimal design of underground gas storage capacity in unbounded gas reservoir .....	Li Ji, Zhang Jijun	359

### DRILLING/PRODUCTION TECHNOLOGY

MPD technology on fractured reservoir and its application .....	Song Wei, Li Yongjie, Jin Pengbo, Li Gao1, Wei Na, Zhao Xiangyang, Liu Jinlong	362
Experimental study on liquid-solid coupling of tight sandstone during gas drilling .....	Gu Siman, Meng Yingfeng, Li Gao, Luo Chengbo, Li Pan	366
Hydraulic breaking rock technology on high-strength drill pipe with non-standard water hole .....	Li Shuanggui, Cui Xiang, Fang Jianbo, Li Gang, Li Xiang, Li Shaoan, Liu Fashun, Jiao Jian	370
Optimization of fracture laying patterns of horizontal well in multi-stage fracturing of low permeability reservoir .....	Zhu Shihuan, Li Haitao, Yang Mingjun, Luo Wei, Huang Cheng	373
Calculation of fracture plugging agent quantity in low permeability reservoir .....	Wang Shuoliang, Zhang Yuan, Dong Lie, Chen Wenbin	377
Application of selective water plugging with density in fracture-hole reservoir .....	He Xing, Wu Wenming, Li Liang	380
Calculation of bottomhole pressure during fracturing .....	Li Da, Jia Jianpeng, Teng Feiqi, Zhu Genggeng, Wu Mingsong	384
Influence of emulsification performance difference on oil displacement efficiency of medium-low permeability cores .....	Xu Xiaoli, Wang Yefei, Li Dandan, Liu Chen, Pan Ling, Wang Weiji, Wang Guorui	388
Synthesis and property of new Gemini surfactant in reducing oil-water interfacial tension .....	Fan Haiming, Meng Xiangcan, Kang Wanli, Huang Jingwei, Li Yuan, Xu Hai, Lu Chuanbo, Fu Jianbin	392
Application of air-foam/surfactant combination flooding in Block Ming 15 .....	Dong Junyan, Wang Bin, Liu Yongan, Hu Yanxia, Cai Caixia, Guo Maolei	396
Application of annulus chemical plugging for horizontal well with CESP screen pipe in Bohai Oilfield .....	Zhou Zhaochuan, Chen Liqun, Gao Shang, Wang Peiyong	400
Anti-stuck technology for tubing-conveyed perforating string in horizontal well with long perforating interval .....	Jiao Jianguo, Zhang Qingsheng, Zhao Kailiang, Sun Xingyu	403
Research and application of concentric testing and regulating in separate layer injection .....	Geng Haitao, Xiao Guohua, Song Xianmin, Hu Huili	406