ISSN 1925-542X [Print] ISSN 1925-5438 [Online] www.cscanada.net www.cscanada.org

## **CONTENTS**

#### A Big Data Mining in Petroleum Exploration and Development

SHI Guangren, ZHU Yixiang, MI Shiyun, MA Jinshan, WAN Jun (1)

#### Analyze Horizontal Well Tests Using Reservoir Simulation Approach: A Case Study

James J. Sheng (9)

#### Full Waveform Modelling for Converted Waves Seismic Reflections in Mountainous and Marine Environment

Surender Singh, D. K. Gupta, Sanjeev Rajput (21)

# Pre-Stack Seismic Inversion and Amplitude Versus Angle Modeling Reduces the Risk in Hydrocarbon Prospect Evaluation

Surender Singh, D. K. Gupta, Sanjeev Rajput (30)

#### Formation and Distribution of Tight Sand Gas Reservoirs in the Sichuan Basin, China

WANG Hongjun, BIAN Congsheng, XU Zhaohui, WANG Zecheng, LI Yongxin (40)

#### Temperature Dependent Behavior of Oil Dispersion System in Bulk and on the Metal Surface

Vladimir Sigitov, Aleksey Shakhvorostov, Evgeniy Blagikh, Rymbek Torgaev, Sarkyt Kudaibergenov (52)

#### Why Crude Oil Vapor Pressure Should Be Tested Prior to Rail Transport

Hannes Pichler, Josef Lutz (58)

#### The Study of Rock Body Damage Constitutive Model in Multiple Fracturing

WANG Chen, GAO Xuezhen, SUN Chengyan, WANG Tingting, ZHAO Wanchun (64)

#### Laboratory Study on the Polymer Flexible Cement Slurry System

YANG Yanyun (68)

#### Horizontal Well Bottom-Hole Pressure Drop Steam Flooding Numerical Calculation

SUN Qiji, WANG Xu (76)

#### Laboratory Study on Optimization of Oil-Soluble Cement Material

FU Huaigang (80)

#### Experimental Research on Placement Law of Injected Agent in General Water Shutoff for Horizontal Wells

LI Lifeng, ZHOU Fangxi, YUE Xiang'an (85)

#### The Numerical Simulation of Serious Flooded Area of Jin-45 Block

DUAN Xiaowei (91)

#### On the Basic Parameters of Pipe Measuring Device

V. F. Shayakberov, E. V. Shayakberov (96)

#### The Study and Application of Gray-Orthogonal Wavelet Network Forecasting Mode on Cementing Quality

WANG Tingting, ZHAO Wanchun, SUN Chengyan, ZHANG Huizhen, SHAO Keyong (99)

#### The Research of Oil and Gas Pipeline Corrosion and Protection Technology

LIU Xu, WANG Xiaoyu (102)

### Fold Catastrophe Model of Fracture Propagation of Hydraulic Fracturing

ZHAO Wanchun, WANG Tingting, SUN Chengyan, WANG Chen, ZHANG Huizhen (106)

#### Quality Control for Weathered Rock Directional Drilling Pilot Hole Construction

ZHAO Peng, ZHANG Youzhu, ZHANG Haiyang (110)

#### Application of Conventional and Constant-Rate Mercury Injection on Microscopic Pore Structure Research

CHEN Lingyun, LIU Yikun, XIA Lihua, LIU Qian (116)

#### Pilot Test Study on Steam Flooding of Jin-45 Block Flooded Area

XIONG Mei (122)

#### **Natural Gas Transmission Pipeline Temperature Drop Calculation**

ZHAO Guangda, SUN Qiji, WANG Xiaohu, WANG Xu (127)