

7th EAGE Saint Petersburg International Conference and Exhibition

Understanding the Harmony of the Earth's
Resources through Integration of
Geosciences

Saint Petersburg, Russia
11-14 April 2016

ISBN: 978-1-5108-2249-8

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2016) by the European Association of Geoscientists & Engineers (EAGE)
All rights reserved.

Printed by Curran Associates, Inc. (2016)

For permission requests, please contact by the European Association of Geoscientists & Engineers (EAGE)
at the address below.

European Association of Geoscientists & Engineers (EAGE)
PO Box 59
3990 DB Houten
The Netherlands

Phone: +31 88 995 5055
Fax: +31 30 634 3524

eage@eage.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

An Approach to Control Oil Field Development System for Heterogeneous Reservoir with Complex Structure	1
<i>M. V. Naugolnov, A. A. Borodkin, E. O. Cherkas, K. A. Kudaeva F. V. Grishko, M. S. Bolshakov</i>	
Presence of Oil-Degrading and H₂S-Producing Microorganisms in a Brownfield Hypersaline Sandstone Oil Reservoir	6
<i>U. Sognstrup Thomsen, T. Lundgaard, S. Hatscher</i>	
Considerations of Cementing Directional Wells in High-Pressure, High-Temperature Conditions	11
<i>S. S. Tabatabaee Moradi, N. I. Nikolaev</i>	
Cold Technologies for Enhanced Oil Recovery from High-Viscosity Oil Pools in Carbonate Reservoirs	16
<i>L. K. Altunina, V. A. Kuvshinov, I. V. Kuvshinov</i>	
Fluid Flow Prediction Under the Influence of Interwell Connectivity in the Well Development System	21
<i>M. Bolshakov, A. A. Pustovskikh, T. A. Deyeva, M. Naugolnov</i>	
Probabilistic Velocity Model as a Tool for Structural Uncertainty Analysis	26
<i>A. A. Bogatyrev, D. S. Kutcheravenko, A.A. Glebov</i>	
The Relative Permeability Regions Assignment on the Basis of Pore Network Models Parameters Distributions	31
<i>P. V. Markov</i>	
Optimization Workflow for Modelling of Two Phase Thermal Multicomponent Filtration	36
<i>L. A. Khakimova, A. V. Myasnikov, Y. S. Melnikova, A. M. Zhabkina</i>	
The Value of Geological Knowledge to Build Realistic Representations of the Reservoir and Manage Uncertainties	41
<i>A. Zhivodkov, E. Bileva, G. Samotorova, S. Mutaev, E. Shkunov</i>	
Integrating Outcrop and Subsurface Data for 3D Modeling of Outcrop Analogs: A Triassic Example	46
<i>L. M. Yeste, N. McDougall, S. Henares, C. Viseras</i>	
Integrated Geological and Reservoir Study of the Ri and Hamra Quartzite Reservoirs of Hassi Guettar Field - Oued Mya Basin	51
<i>N. Maache, D. Boufedda, S. Zemiti</i>	
Combination Drive Mechanism Simulation During Production in Carbonate Oil Reservoirs	56
<i>A. Khormali, D. G. Petrakov, H. Jafarpour</i>	
The Use of Hydraulic Flow Units and Neural Networks to Improve Rock Types Estimation and Reservoir Models: A Case Study	61
<i>Ana De Sousa, P. Bizarro, M. T. Ribeiro</i>	
Sergey Vasilyevich Goldin: Tyumen Period of Scientific Work	66
<i>G. M. Goloshubin</i>	
Reflection FWI in MBTT Formulation: Macro Velocity Reconstruction	69
<i>V. Tcheverda, K. Gadylshin, G. Chavent, C. Shin, J. Shin</i>	
Full Waveform Inversion for Elastic Medium Using Quantitative Lipschitz Stability Estimates	74
<i>H. Barucq, H. Calandra, M. V. De Hoop, F. Faucher, J. Shi</i>	
Multiscale Medium Approximation: Application to Geophysical Benchmarks	79
<i>H. Barucq, H. Calandra, T. Chaumont-Frelet, C. Gout</i>	
The Combining of Theoretical Solutions with Real Seismic Observations	84
<i>G. M. Mitrofanov</i>	
Seismic Inversion: What it is, and What it is Not	89
<i>E. Landa, S. Treitel, V. A. Tcheverda</i>	
High Resolution Diffraction Imaging of Small Scale Fractures in Shale and Carbonate Reservoirs	94
<i>A. M. Popovici, T. J. Moser, I. Sturzu, C. Tsingas</i>	
The Study of Anisotropy in Orientation of Fractures by Azimuth Distribution of Seismic Scattering Energy	99
<i>A. S. Merzlikina, A. N. Bibik, A. A. Volkova, A. A. Tuzovskiy, V. V. Shilikov, G. V. Reshetova, V. A. Tcheverda, V. A. Pozdnyakov</i>	
Modeling of Crustal Structure in Siberia and the Far East According to the Wide-Angle Seismic and Gravity Along the 3-DV	104
<i>V. D. Suvorov, E. A. Melnik, E. V. Pavlov, A. S. Salnikov</i>	
Absorbing Boundary Conditions for 3D Elastic TTI Modeling, Application to Time-Based and Time-Harmonic Simulations	109
<i>L. Boillot, H. Barucq, J. Diaz, H. Calandra</i>	
Solving Helmholtz Equation by Means of Domain Decomposition Using Discontinuous Galerkin and Pseudospectral Methods	114
<i>K. V. Voronin, V. V. Lisitsa, D. Neklyudov, G. V. Reshetova, C. Shin, J. Shin</i>	
Petrophysical Interpretation of Seismic and Gravity Data (the Example of the Muya Depression)	119
<i>E. A. Melnik, V. D. Suvorov, Z. R. Mishenkina</i>	
Analysis of Linear Variation of HTI Axes from VSP Data: A Model Study	124
<i>S. B. Gorshkalev, W. V. Karsten, I. A. Karpov, D. M. Vishnevskiy</i>	
Polarization Analysis of Reflected ps-Waves in an HTI Medium with Varying Axes Direction	129
<i>E. V. Afonina, S. B. Gorshkalev, W. V. Karsten, D. M. Vishnevskiy</i>	
Features of Thermohydrodynamic Studies of Directional Wells with Multiphase Flow	134
<i>R. F. Sharafutdinov, R. A. Valiullin, A. S. Ramazanov, T. R. Khabirov, I. V. Kanaphin</i>	
Fourier Spectrums Clustering for Automated Facies Recognition of Field Y	139
<i>D. I. Tengeldi, V. S. Rukavishnikov, M. Y. Mityaev, O. M. Fuks</i>	

Importance of Blocking in Petrophysical Interpretation	144
<i>F. Khoshbakh</i>	
Stratigraphic Interfaces and Lithofacies Recognition of Well logs: A Fourier and Wavelet Based Approach	149
<i>V. Srivardhan</i>	
Mineral Composition and Secondary Porosity Evaluation from Well Logs in Fractured and Vuggy Carbonate Reservoirs of the Timano-Pechora Province	154
<i>P. S. Kulyapin, T. F. Sokolova, Y. S. Sinyakina</i>	
Well Log Based Assessment of Oil and Gas Bearing Deposits of the Khadum Suite in the Ciscaucasia Region	159
<i>A. A. Galperina, V. N. Chernoglazov, A. V. Gorodnov</i>	
Special Features of Studying Artinskian Siliceous-Carbonate Rocks from Core and Well Log Data	164
<i>D. V. Klyazhnikov, M. D. Fedorova</i>	
Dual Laterolog to Array Laterolog - A New Method Based on Digital Focusing Coefficient	169
<i>J. S. Gao, J. M. Sun, Y. J. Jiang, L. K. Cui</i>	
Aspects of the Log Data Analysis in the Thinly Laminated Terrigenous Deposits	174
<i>Y. S. Sinyakina, T. F. Sokolova, D. Y. Golovanov, V. A. Nikitina</i>	
Using of the Surface Conductivity Parameter II May be Useful	179
<i>B. N. Enikeev</i>	
Using Elastic AVA Inversion for the Reservoirs Prediction in Deepwater Turbidite Series Offshore West Africa	184
<i>D. Miroshnichenko, I. Kerusov, E. Chaikovskaya, A. Grinevskiy</i>	
Analysis of AVO Inversion Results and Verification of Interpreted Reservoirs with New Wells – Case Study for Yamal Area	189
<i>T. E. Keller, V. I. Kuznetsov, I. P. Yakovleva, K. E. Filippova</i>	
Multi-Layered Seismic Inversion - a Universal Integration Method of Different-Scale Geological and Geophysical Studies	194
<i>V. I. Ryzhkov, D. A. Danko, S. V. Filimonenko</i>	
New CGG Methods for Quantitate Estimation of Seismic Anisotropy	199
<i>M. Romanenko, A. Kharitonov</i>	
New Technology of Azimuthal Inversion for Anisotropy Studies, and Special Features of Seismic Data Preprocessing	204
<i>K. E. Filippova, I. Yakovleva, Y. Pavlovskiy</i>	
Using the Results of Azimuthal Inversion to Optimize the Development Plans of Low-Permeable Reservoirs	209
<i>I. P. Yakovleva, K. E. Filippova, Y. V. Pavlovskiy</i>	
Lateral Distribution Estimation of Geological Risks Related to Structural Uncertainty	214
<i>T. I. Khasanov, A. A. Kurkin, S. A. Fedorov, E. A. Zyza</i>	
Effect of Processing Procedures on the Seismic Signals Form Reflected from Thin-layers Objects	219
<i>V. N. Bespechniy, G. M. Mitrofanov, E. V. Mosyagin</i>	
Synthetic Seismic Models Construction for Detailed Geological Outcrop Description	224
<i>E. V. Fedorova, N. V. Bukhanov, V. E. Baranov</i>	
Goelectrochemical Methods: Response to Criticism and Discussion of CHIM and MDI Methods Characteristics	229
<i>S. G. Alekseev, N. P. Senchina, S. Y. Shatkevich</i>	
Integration of Non-Seismic Methods in Identifying Oil and Gas Deposits in Keeping with the Geo-Soliton Theory	234
<i>M. I. Ryskin, E. N. Volkova, V. Y. Shigaev, E. A. Vlasenko</i>	
Geoinformation Technology for Prospecting of Groundwater for Water Supply of Oil and Gas Facilities in Eastern Siberia	239
<i>A. V. Parshin, L. I. Auzina</i>	
Space Thematic Spectral Anomalies And Forecast For Oil And Gas	244
<i>V. S. Antipov, E. A. Zhuravlev, K. A. Volin</i>	
Low-Altitude Aeromagnetic Survey: Drones and High Frequency Magnetometers. Experiences and Perspectives	249
<i>M. I. Epov, A. P. Firsov, I. N. Zligostev, A. V. Savluk, A. Y. Bondarenko, P. A. Weisman, A. S. Kolesov, A. S. Sheremet</i>	
Physical Modeling of Electromagnetic Soundings for Justification of New Geological Exploration Technologies	254
<i>N. Y. Bobrov, V. V. Polovkov, D. A. Popov</i>	
Synchronism of Geophysical Fields and Weather Conditions in the Near-Surface Zone of the Earth	259
<i>S. A. Riabova, A. A. Spivak</i>	
The Middle Ob' Oils (West Siberia): The Geochemical Peculiarities and Genesis	264
<i>E. A. Fursenko</i>	
Geological Descriptiveness for Specialized Methods in the Investigation of Oriented Core Samples	269
<i>L. A. Krasnoschekova, D. A. Cherdantseva, V. P. Merkulov</i>	
Lithological-Petrophysical Characterization of Oviparm Reservoir Rocks in the North-Eastern Part of Khoreyver Depression	274
<i>O. V. Sivalneva, S. Y. Rudakovskaya, K. Y. Olenova</i>	
A New Petrophysical Model for Acoustic Hysteresis Based on Transverse Wave Velocity Measurements	279
<i>M. Dobroka, J. Somogyine Molnar</i>	
Regional and Local Forecasts Oil-Bearing in Bazheno-Abalak Complex of Western Siberia	284
<i>M. Y. Zubkov</i>	
Collectors Tectonic-Hydrothermal Origin in the Pre-Jurassic Complex of West Siberia and Methods of its Forecasting	289
<i>M. Y. Zubkov</i>	
The SiO₂ Occurrence and Origin in Shale Reservoir, a Case Study from the Yanchang Formation, Ordos Basin	294
<i>L. G. H Liu</i>	

A New Method for Semi-Quantitative Analysis of Amorphous SiO₂ in Terrestrial Shale a Case Study About Yanchang Formation	299
<i>L. G. H Liu</i>	
The Exquisite Comparison of Shale Reservoir Characteristic Between Chang 7 Member and Chang 9 Member in Yanchang Formation	304
<i>L. G. H Liu</i>	
Experimental Measurement and Mathematical Model for Intrinsic Permeability of Tight Rocks and Shale at Low Pressure	309
<i>J. J. Wang, X. Dong, F. F. Long, Y. J. Li</i>	
Problems of a Choice of Profitable Hydrated-Gas Accumulations for Operation	314
<i>A. S. Babaev</i>	
The Stability of the Horizontal Wellbore While Drilling the Bazhenov Formation in Western Siberia	319
<i>E. A. Gladkov, E. E. Gladkova, E. G. Karpova, N. E. Pulkina</i>	
3D Geological Modelling Methodology for Unconventional Reservoirs of the Bazhenov Formation	324
<i>A. Telnova, V. Baranov, N. Bukhanov, P. Beschasova</i>	
Classification of the Bazhenov Formation Using Well Logs (R Field)	329
<i>D. A. Simonov, V. Baranov, N. Bukhanov, P. Beschasova</i>	
On the Selection of the Optimal Mode of the Wave Stimulation in Oil Production	334
<i>E. A. Marfin, A. A. Abdrashitov, Y. I. Kravtsov</i>	
Genesis and Geological Structure of Oil Pools in the Sediments of Abnormal Bazhenov Formation Section	339
<i>V. Grishkevich, V. K. Kasatkin, S. Lagutina, E. Panina</i>	
Features of Lithology and Geochemistry of Organic Matter of the Bazhenov Formation Pavlovskaya Area with the Use of GIS	344
<i>I. A. Zhigulsky, V. G. Eder, I. S. Sotnich, E. A. Kostireva, M. A. Halikova</i>	
Forecast of Perspective Areas in the Oligocene Deposits Using a Comprehensive Analysis of Geological-Geophysical Data	349
<i>Y. Varov, F. Bars, O. Karamisheva, O. Sivalneva</i>	
Updating of Geological Oil and Gas Zonation of the Russian Federation (Onshore and Offshore)	354
<i>V. S. Shein, A. A. Knipper</i>	
Tectonic Structure of the Conjunction Zone of the Laptev Sea Shelf and the Siberian Plate (From the Finding of 2D CDP Reflection Seismic Studies of 2013 - 2014)	359
<i>Y. Vasilyeva</i>	
Features in the Sedimentation and Organic Geochemistry of the Lower Toarcian Clays in Northern Eastern Siberia	364
<i>E. A. Fursenko, B. L. Nikitenko, V. G. Knyazev</i>	
Tectonic and Paleogeographic Conditions of Anadyr Trough Petroleum Systems	369
<i>E. A. Lavrenova, N. A. Malishev, V. V. Obmetko, A. A. Borodulin, A. A. Gorbunov</i>	
Geological and Geophysical Criteria for Identifying Zones of Productivity Bazhenov Formation of the Salym Group of Field	374
<i>S. I. Bilibin, A. V. Vovk, T. F. Diakonova, T. G. Isakova, E. A. Yukanova</i>	
Multiple-Point Geostatistical Modeling with Training Images	379
<i>M. S. Volkova</i>	
The Studying of Features of Reservoir Pressures in Area of Yamal-Nenets Autonomous District	384
<i>P. Gorbunov, S. Vorobyev</i>	
Regional Patterns of Porosity Evolution During Diagenesis of the South Barents Basin	389
<i>P. O. Sobolev, M. A. Lavrenteva</i>	
Hydrocarbon Potential of Izhma-Pechora Basin and Adjacent Pechora Sea as a Result of Basin Modeling	394
<i>Author: E. I. Grokhotov</i>	
Petroleum Potential of Marginal Parts of the Timan-Pechora Sedimentary Basin	399
<i>O. M. Prischeva, O. V. Chumakova</i>	
Substandard Carbonate Reservoirs of the Timan-Pechora Oil and Gas Province and Their Development Prospects	404
<i>Author: M. M. Kopylova</i>	
Features of Geological Structure Oligocene Deposits of the East Ciscaucasia	409
<i>A. V. Postnikov, Y. V. Lyapunov, N. A. Osintseva</i>	
Ways of Growth Hydrocarbon Resources in Russia	414
<i>V. L. Shuster, S. A. Punanova, A. V. Samoilova</i>	
Geological Structure of the Predsettedaban Trough	419
<i>I. N. Nafikov</i>	
Litho-Facial Reconstructions of the Upper Jurassic Deposits in the Central and Southern Parts of the W. Siberia Basin	424
<i>I. S. Nizyaeva, V. V. Shimansky, N. V. Taninskaya, N. N. Kolpenskaya</i>	
Guided Waves Leaking From High-Velocity Elastic Layer	429
<i>P. E. Znak, B. M. Kashtan, V. N. Troyan</i>	
Statistical Analysis of Free-Surface Variability's Impact on Seismic Wavefield	434
<i>D. R. Kolyukhin, V. V. Lisitsa, V. A. Tcheverda</i>	
Poroeastic Seismic Modeling to Study the Implications of Mesoscopic-scale Fluid Flow	439
<i>R. Wiley, S. W. Peters, P. H. Wilson</i>	
Use of Discontinuous Grids for Solving Helmholtz Equation in Complex Models	445
<i>A. Zaitseva, V. Lisitsa, S. Solovyev</i>	

Direct Problems in Seismic Data Processing and Interpretation	450
<i>D. B. Finikov, S. A. Kaplan, E. B. Lebedev, A. V. Shalashnikov</i>	
Cluster Implementation of Low-Rank Multifrontal Direct Solver for 3D Helmholtz Problem	455
<i>S. Solovyev, V. I. Kostin, D. Vishnevskiy</i>	
Numerical Simulation of Sonic Log for Anisotropic Media	460
<i>G. Reshetova, V. Lisitsa, V. Tcheverda</i>	
A Finite Element Method Whose Shape Functions are Constructed Thanks to a Boundary Element Method	465
<i>H. Barucq, A. Bendali, M. Fares, V. Mattesi, S. Tordeux</i>	
3D Gaussian Beam Imaging of 3D3C VSP Data	469
<i>M. Protasov</i>	
Efficient Deflection Angle Based Filtering for Waveform Inversion	474
<i>V. V. Kazei, E. Tessmer, T. Alkhalifah</i>	
Diffraction Imaging of Fault Facies Models	479
<i>M. Protasov, D. Kolyukhin, D. Qu, V. Tcheverda, J. Tveranger</i>	
Uncertainty from Grain Scale to Reservoir Scale	484
<i>B. T. Wells, O. Hinds, R. A. Duller, R. Worden</i>	
The Criteria of Decision-Making with Account of Risk and Uncertainty in Petroleum Exploration	489
<i>V. I. Poroskun, N. M. Emelyanova</i>	
Evaluation of the Value-of-Information (VOI) and Look Back Analysis During Modelling of the Exploration Works	494
<i>D. N. Peskova, A. V. Sizykh, V. S. Rukavishnikov</i>	
Probabilistic and Statistical Model for Evaluation of Geological Uncertainties Influence on Project Economics	499
<i>M. V. Naugolnov, A. A. Borodkin, N. F. Teplyakov, M. S. Bolshakov</i>	
A Stochastic Analysis of Value-of-Information Derived From Petroleum Systems Modelling	504
<i>A. Beha, G. Martinelli, D. A. Surovtsev, S. S. Husein</i>	
Selection of the Optimal Regular Development Scheme under Conditions of Considerable Geological Uncertainties	509
<i>A. F. Nazmutdinov, A. P. Roshchektaev, V. N. Sibilev</i>	
Integrated Sedimentological Analysis: A Key Approach for Volumetric Evaluation and Risk Assessment of Achimov Plays	514
<i>V. K. Piskunov, J. Rubino, S. Vitoux, T. S. Rychkova, O. Siccardi</i>	
Studies of Mid-Jurassic Thin Beds in Conditions of Presence of the Anomalous Bazhen Suite (Shirotnoe Priobje Case)	519
<i>M. V. Skaryatin, A. V. Shubin, D. V. Klyazhnikov, V. I. Ryzhkov</i>	
Jurassic and Cretaceous Tectonic Evolution of the Demerara Plateau – Implications for South Atlantic Opening	524
<i>K. C. Casey, A. K. Krueger, I. Norton</i>	
Prediction the Relative Changes of the Reservoir Permeability	529
<i>E. A. Korolev, A. I. Rozhkova, A. A. Shevchenko, K. A. Smirnov, G. M. Goloshubin</i>	
Sedimentary Control as a Key to Predict Natural Reservoirs Structure (Case Study of Pokur Formation, Western Siberia)	534
<i>V. A. Zhemchugova, M. O. Berbenev</i>	
Givetian Sedimentation in the Southern Part of Buzuluk Depression	539
<i>O. M. Myatchin</i>	
Technique of Paleochannels Identification Within Tyumen Suite Using Spectral Decomposition Method	544
<i>O. Y. Kirzeleva, T. N. Kiryanova, R. Y. Kopenkin, E. I. Bronskova</i>	
Methodology of Detection of Oil-Saturated Zones in the Middle Jurassic Sedimentary Rocks in Western Siberia	549
<i>I. V. Privalova, G. M. Goloshubin, Y. A. Tcimbaluk, P. S. Rusakov</i>	
Geological Modeling of Complex Traps of Oil and Evaluation of Prospects for Tight Reservoirs Bobrikovian	554
<i>R. R. Kamalova, I. R. Khabibullin, A. G. Babenkov, A. R. Akhmetov, A. V. Kolesnikov, G. A. Potapova, L. R. Shagiakhmetova</i>	
Retrospective Evaluation of the Structural Mapping Accuracy on the Oil Fields of the Company Gazprom Neft	559
<i>A. V. Ekimenko</i>	
I3D Attribute Enhances Fault Recognition in Seismic Data	564
<i>Y. Yu, I. Mardanova</i>	
Evaluation Criteria of Model Stationarity, Based on Seismic Wavefield, in Terms of Seismic Inversion	569
<i>D. N. Myasoedov</i>	
Inflow Performance Relationship for Horizontal Oil Wells in Fractured Reservoirs	574
<i>A. Jahanbani Ghahfarokhi, O. Torsaeter, M. Moradi</i>	
Consideration of Possible Signs of Promising Oil and Gas Facilities in Western Siberia from the Position of Seismic	579
<i>S. Kiselev, I. Gorbachev</i>	
Development of Exploration Project in the Uvat Area, South of Western Siberia	584
<i>K. Y. Zervando, V. G. Safonov</i>	
Metamorphosis of Geological Conception Seam Structure at a Late Stage of Development	589
<i>A. K. Bazanov</i>	
Structural-Facies Zonation of the Bazhenov Formation in the South Licence Domain of Priobskoe Field	593
<i>M. A. Ostapchuk, A. E. Gavrilov</i>	
Increased Utilization of Associated Gas at Field “N” in the Framework of Infrastructure Constraints	598
<i>A. I. Burykin, M. O. Pisarev</i>	
Hydraulic Fracture and Reservoir Parameters Estimation Based on Production History	603
<i>B. R. Minnebaev, T. R. Akhmedshin</i>	

Selection of the Optimal Technology of Re-Fracturing on Horizontal Wells with Multi-Stage Fracturing at the Field M	608
<i>M. V. Firsin, E. A. Demidova</i>	
A Study of Miscible Displacement Mechanism of Alcohol Mixture by Coreflooding	613
<i>F. Srisuriyachai, T. Karnchanamuntana, P. Trinavarat, S. Benjatanont</i>	
Development System Optimization on the Basis of Integrated Block-Facial Analysis	618
<i>D. I. Nigmatzianova, V. N. Sibilev, P. A. Beschasova, A. A. Mironenko</i>	
Impact of Assessment of Oil and Gas Horizons on Reliability of Reserve Estimation	623
<i>A. Narimanov, L. Alimuradova</i>	
Process-Based Benchmark Study on the Johansen Formation Analyzing Compositional and Thermal Effects During CCS	628
<i>K. Kurgyis, R. Manasipov, B. Jenei</i>	
Design And Optimization Of Matrix Acidizing In a Middle East Carbonate Reservoir	633
<i>H. Jafarpour, D. G. Petrakov, A. Khormali, A. S. Galtcova</i>	
Numerical Simulation of the Characteristics of Mud Invasion and Residual Oil Distribution in Low Permeability Reservoir	638
<i>Y. J. Jiang, J. M. Sun, J. S. Gao</i>	
The Principles of Geostatic Modeling of Complex Clay Collectors (as Demonstrated by Modeling North Buzachi Field)	643
<i>S. Istekova, G. Zhylykbayeva</i>	
Discovery of the Gas Field in Slope Turbidites of Northwestern Black Sea Shelf	648
<i>V. N. Koloskov, O. V. Pinous, D. N. Nadezhkin, A. A. Aseev, M. V. Brichikova, V. A. Gorchilin, M. N. Fonchikova</i>	
Fractal Analysis of Hydrocarbon Accumulations for Field S Confined to Vyngapursky Bank	653
<i>M. I. Lezhnina, V. S. Rukavishnikov, A. A. Timirgalin</i>	
Theory and Practice of Kinetics in Petroleum Systems Modeling	658
<i>S. M. Astakhov</i>	
Additional Exploration of the Oilfields with Complex Tectonics During Production Drilling	663
<i>D. V. Borisenok, T. I. Kosarev, F. A. Burkov, R. N. Vasilyev, K. V. Gorev</i>	
Advanced Reservoir Characterization in a Low Resistivity Gas Play Integrating Surface and Downhole Data–Offshore Ecuador	668
<i>I. F. Fornasier, F. B. Bringer, O. M. Morales, P. D. Delgado, J. R. Rodas, I. D. S. De Santo, S. R. K. Raja</i>	
Experience of Implementation of Low-Frequency Seismic Sounding at Exploration Stage in the Samara Region	673
<i>I. R. Sharapov, A. E. Manasyan, S. P. Papukhin, N. Y. Shabalin, V. A. Rizhov, S. A. Feofilov</i>	
Benchmark Case Study: Development Optimizaton of Synthetic Model of Shestakovo’s Outcrop Using Proxy Modelling	678
<i>E. M. Sochilovich, N. V. Bukhanov</i>	
Field Development Analysis Based on Analytical Approach in Order to Improve Simulation Reservoir Performance Prediction	683
<i>V. Kalinic, M. Kamartdinov</i>	
Regularity of Filtration Properties Distribution in Oil Bearing Reservoir with Complex Geological Structure	688
<i>V. P. Merkulov, L. A. Krasnoshchekova, M. O. Korovin, D. A. Cherdantseva</i>	
Modelling of the Achimov Fm Development in the Context of Exploration Immaturity	693
<i>A. I. Kirillov, A. K. Maltsev</i>	
Optimal Sequence of Gas Field Investigations from the Kovyyta Gas-Condensate Field	698
<i>I. V. Buddo, N. V. Misurkeeva, Y. A. Agafonov, A. S. Smirnov</i>	
Reservoir Monitoring Offshore Sakhalin	703
<i>M. Van Der Veen, I. Cheremisina</i>	
Integration of Earth Models in Total Seismic Response for Reservoir Monitoring	708
<i>A. Aristarkhov, I. Kerusov, D. Miroshnichenko</i>	
Evaluation of Potential of Multi-Fractured Horizontal Wells in Comparison with S-Shape Wells on Field X	713
<i>K. D. Salavatullin, M. O. Pisarev</i>	
Simulation of Reservoirs with Multiple Scale Fracturing	718
<i>S. P. Rodionov, V. P. Kosyakov, O. N. Pichugin, A. A. Pyatkov</i>	
Proppant Impact on Fractured Well Productivity in Gas Condensate Reservoir	723
<i>D. Krasnov</i>	
Deep Structure of the Barents-Kara Region According to Geophysical Investigations Along 1-AR and 2-AR Geotravers	728
<i>A. S. Egorov, I. Y. Vinokurov, A. P. Kalenich, E. S. Belevskaya, A. S. Ageev</i>	
Petroleum Potential of Paleozoic and Mesozoic Strata of Barents – North Kara Region Based on The Arctic Island Outcrops’ Studies	733
<i>G. V. Ulyanov, V. A. Nikishin, S. V. Parnachev, I. V. Goncharov, A. M. Nikishin, D. E. Cherepanov, N. A. Malyshev, D. Y. Golovanov, V. A. Nikitina</i>	
Overview and Timing of Main Structural Elements in the Northcentral Barents Sea and Impact on the L. Cretaceous Deposits	738
<i>B. Kairanov, A. Kayukova, A. Escalona</i>	
The Geological Aspects of Evolution the North Kara Basin and East Barents Megabasin	743
<i>V. A. Nikishin, N. A. Malyshev, A. A. Valiusheva, D. Y. Golovanov, L. N. Kleschina, V. A. Nikitina, A. M. Nikishin, G. V. Ulianov, D. E. Cherepanov</i>	

Stages of Exploration and Petroleum Potential in the South-Eastern part of the Norwegian Sector of the Barents Sea	748
<i>E. Bykova, A. Rabey, L. Surguchev, V. Koloskov, D. Nadezhkin, O. Pinous</i>	
Seismic-Stratigraphic Complexes and Hydrocarbon Prospects of the Lower Cretaceous in the Barents Sea	753
<i>A. V. Mordasova, A. V. Stoupakova, A. A. Suslova</i>	
The Outlook for the Search for Oil and Gas on the East Siberian Arctic Shelf	758
<i>G. A. Zavarzina, D. S. Shapabaeva, R. R. Murzin, O. A. Zakharova</i>	
Integration of Seismic Data, Regional Geotechnical Studies in the Laptev Sea	763
<i>A. A. Kolyubakin, E. Bulgakova, A. Fridenberg, A. Nosov, Y. Petrichenko, S. Savishkin</i>	
Using Phenomenology, Holistic Models and New Technologies to Optimise the Development of Oil and Gas Reservoirs	768
<i>A. V. Petukhov, S. I. Egorov, A. N. Karyakov, R. Oppermann, A. A. Petukhov</i>	
CSP as a Complex Approach to Exploration and Exploitation of Hard-to-Extract Hydrocarbon Deposits	773
<i>G. N. Erokhin, A. N. Kremlev, E. V. Anokhina, D. N. Gapeev, A. V. Kirichek</i>	
Mathematical Models of Fluid Flow in Fractured-Porous Media	778
<i>Y. M. Laevsky, M. V. Vasilieva, A. V. Grigoriev, A. A. Kalinkin</i>	
Uncertainty Quantification in Fractured Reservoirs Based on Outcrop Modelling from Northeast Brazil	783
<i>A. Bakay, V. Demyanov, D. Arnold</i>	
Estimation of Stability of Rock Massif by the Method of Seismic Exploration	788
<i>K. A. Dorokhin</i>	
Airborne Electromagnetic Near Surface Investigations – Fort McMurray, Alberta	793
<i>A. Prikhodko, T. Eadie, C. Izarra</i>	
Statistical Approach to Seismic Deghosting	798
<i>M. S. Denisov, A. E. Firsov</i>	
Integration of the Reflected and Diffracted Waves to Increase the Reliability of Predict Fractured-Porous Reservoirs	803
<i>A. N. Inozemtsev, A. S. Sorokin</i>	
Depth Velocity Model Building with Compensation of Near Surface Heterogeneities	808
<i>E. L. Svistova, A. A. Shevchenko, E. K. Korolev, A. E. Korolev</i>	
Low Frequency Seismic Spectrum Restoration in Case of Complex Seismogeological Environment	813
<i>A. A. Arkhipov</i>	
Marine Seismic Data Preprocessing for the Field Acquisition Distortions Compensation	818
<i>A. A. Shevchenko, A. E. Bronskiy, B. S. Esinov, A. V. Grobushkin, A. E. Korolev, S. A. Polyakov</i>	
Complete Wavefield Imaging for Lithology and Fluid Prediction in the Barents Sea	823
<i>G. Rønholt, Ø. Korsmo, S. Naumann, S. Marinets, E. Brenne, M. F. Abbasi</i>	
Filtering of Seismograms, for and Against	828
<i>V. M. Vingalov, S. V. Lagushov, A. A. Arjilowsky, R. V. Gritsenko</i>	
Geological Medium Induced Polarization as an Electromagnetic Phenomenon	833
<i>F. M. Kamenetsky, G. M. Trigubovich, A. V. Chernyshev</i>	
Some Results of Magnetic and Geochemical Work in Order to Search for Hydrocarbons (South of West Siberia)	838
<i>A. N. Orekhov, I. S. Sobolev</i>	
Geological Interpretation of MT Data in Combination with GIS Data and Seismic Surveys in Caspian Depression in Kazakhstan	843
<i>G. K. Umirova, S. A. Istekova, I. N. Modin</i>	
Wavefield Transformation of Transient Electromagnetic Induction Soundings Data	848
<i>G. A. Gretskov, M. I. Epov, E. Y. Antonov</i>	
Induction Component Separation from TEM Data: Theory and Experiments	853
<i>F. Kamenetsky, G. Trigubovich, A. Chernyshev, A. Kuklin</i>	
Background and Results of Adaptive Tem at Geoelectric Forecast in Eastern Siberia	858
<i>A. A. Belaya, G. M. Trigubovich, A. V. Chernyshev, N. V. Simankovich, E. N. Makhnach</i>	
Some Aspects of Research of a Natural Pulse Electromagnetic Field of Earth	863
<i>M. E. Dolgy, S. G. Kataev</i>	
Design and Construction of a High Pressure and High Temperature Apparatus for Measuring Rock Thermal Conductivity	868
<i>A. Aryanzadeh, S. M. Alavi, A. Soleymanzadeh, M. Yousefi</i>	
Using the Profilograf in the Study of Thin-Layers Sections of Sedimentary Rocks	873
<i>M. Y. Zubkov</i>	
Fluid Substitution Problem for Thermal Conductivity of Hydrocarbon Reservoirs Based on Rock Physics Methods	878
<i>T. R. Yalaev, I. O. Bayuk, E. Y. Popov</i>	
Fracturing Evaluation Methodology in Carbonate Rocks During Oil and Gas Fields Prospecting	883
<i>K. I. Bagrintseva, A. P. Afanasenkov, D. A. Astashkin</i>	
Generalization of Core Researches Results of the Bazhenov Formation Deposits in the Central Part of Western Siberia	888
<i>V. D. Nemova, I. V. Panchenko, M. E. Smirnova, A. M. Kirsanov</i>	
Comparative Study of Different Oil and Gas Relative Permeability Models for Iranian Carbonates [A Statistical Approach]	893
<i>S. M. Alavi, A. Aryanzadeh</i>	
Enhanced Wireline Core Size Retrieval By Casing Drilling Coring	898
<i>R. Ashena, G. Thonhauser, W. Vortisch, A. Roohi, C. Daws, C. Koller</i>	

The Structure of the Abalak Formation in Detail and Patterns of Distribution of Reservoir Rocks	903
<i>M. Smirnova, V. Nemova, I. Panchenko</i>	
From Digital Core Samples to Thermodynamically Compatible Model of Porous Media	908
<i>T. S. Khachkova, V. Lisitsa, E. Lys, M. Novikov, E. Romenskiy, V. Tcheverda</i>	
Geomechanics - A New Specialty of Seismic	913
<i>S. L. Fedotov</i>	
Three Levels of Well Log Data Interpretation In Geomechanical Modelling	917
<i>T. Nekrasova, K. Kozlov, I. Yakovleva, Y. Pavlovskiy</i>	
Analysis of Methods of Multi-Stage Hydraulic Fracturing Efficiency Assessment at Horizontal Wells.....	922
<i>M. V. Okunev, A. S. Aleshkin, P. V. Molodykh</i>	
Precursors of Rock Bursts in Rock Massif Using Seismological Catalogue Data Dat.....	927
<i>O. A. Hachay, O. Y. Khachay</i>	
A New Approach for Relating Dynamic Elastic Properties and Geomechanical Parameters Based on Rock Physics Modeling	932
<i>M. F. Ghasemi, I. O. Bayuk, Y. Alkhimenkov</i>	
Stability Modeling of a Production Well in Haft Kel Oilfield Using FLAC2D	937
<i>A. Barjasteh</i>	
Isolation of Prospective Oil and Gas Objects in the Viséan-Lower Permian Complex of Timan-Pechora Province	942
<i>T. N. Krykova</i>	
Geology and Petroleum Potential of the Pre-Jurassic and Lower Jurassic Deposits of the Southern Part of the Kara Sea	947
<i>L. A. Zadoenko, E. Firstaeva, O. Abdullina</i>	
Petroleum Potential of the Pre-Jurassic Deposits in the North of the Western Siberia	952
<i>Y. I. Gladisheva</i>	
The Use of Simulators for Designing and Interpretation of Well Thermal Survey	957
<i>A. Ramazanov, R. Valiullin, R. Sharafutdinov, T. Khabirov, A. Sadretdinov, M. Zakirov, D. Islamov</i>	
Joint 2D Inversion of Induction and Galvanic Borehole Sounding Data When Logging Hydrocarbon Reservoirs.....	962
<i>I. V. Mikhaylov, V. N. Glinskikh, M. N. Nikitenko, I. V. Surodina</i>	
Adaptation of Petrophysical Basis for Seismic Geological Modeling on the Example of the Tyumen Formation Sediments.....	967
<i>Y. A. Kalacheva, E. A. Cherepanov</i>	
Some Petrophysical Aspects of the Interpretation of Volcanic Rocks and their Weathering Crusts	972
<i>B. N. Enikeev</i>	
Sparsity Promoting Least Squares Migration for Laterally Inhomogeneous Media	977
<i>A. Siahkoobi, A. Gholami</i>	
Decision Making Based on Digital Oil Field Concept.....	982
<i>K. N. Milovidov, A. G. Gululyan</i>	
Author Index	