THE END OF THE OIL ERA IS STILL FAR AWAY...
(LE ‘PEAK OIL’ N’EST PLUS VRAIMENT D’ACTUALITÉ...)

Christophe de Margerie

SPE RUSSIAN PETROLEUM TECHNOLOGY CONFERENCE
26–28 October 2015 | InfoSpace, Moscow, Russia

CONFERENCE PREVIEW

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Dear Colleague,

We are pleased to invite you to participate in the SPE Russian Petroleum Technical Conference, to be held 26–28 October 2015 in Moscow, Russia. Traditionally, the programme committee chooses the motto that sets the tone of the conference. This year they have selected a quotation by Christophe de Margerie, “The end of the oil era is still far away...” (Le peak oil n’est plus vraiment d’actualité...).

It is no revelation to say that the time of “easy” oil and gas is over for all countries including Russia. The complexity of production increases every year and resource depletion becomes more prevalent for the industry. However, replacement of major hydrocarbon resources, or their complete elimination in the energy mix of today’s world is impossible. Oil and gas companies are actively exploring offshore, in remote and autonomous fields, in hard to recover reserves and searching for the new reserves. They also build partnerships to tackle the increasingly difficult challenges they have to face. To meet their objectives, companies require the most modern equipment, software, effective production techniques, and emerging technologies. The current industry demands are reflected in the list of the conference technical categories:

- Brownfields: Efficient Production
- Search of New Reserves. New in Direction Exploration
- Fast Tracking Field Development
- R&D and Innovations for Hydrocarbon Exploration and Production
- Advanced Equipment, Materials and Software
- Oil and Gas Production Equipment and Technologies, etc.

The SPE Russian Petroleum Technical Conference welcomes experienced specialists, experts from oil and gas companies, and university researchers, as well as novice specialists and students. SPE has organized several events in conjunction with the conference for the next generation of leaders in our field: a Young Professional Session, a Regional Student Paper Contest, and an Energy4me workshop for teachers.

We cordially invite you to take part in the conference where you will give the opportunity to learn about the latest industry technologies as well as discuss interesting topics and share your achievements and ideas with colleagues in the plenary sessions, 20 technical sessions, knowledge sharing eposter sessions, round tables, and topical luncheons.

We are looking forward to welcoming you at the SPE conference!

Pascal Dauboin, Total E&P Russia
Mikhail Chertenkov, LUKOIL Engineering
Alexander Shandrygin, DeGolyer and MacNaughton Corp.
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Director of Exploration, Russia

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CEO

CEO

Director of Exploration, Russia

Member of the Management Board

CEO

CEO
EVENT HIGHLIGHTS

SPE Russian Petroleum Technology Conference is envisioned to be a truly international conference, bringing together professionals from oil and gas and service companies, research institutes and universities and provides a unique opportunity to exchange experiences, best practices and ideas in a non-profit, non-competitive environment.

CONFERENCE HIGHLIGHTS

1. Advanced Equipment, Materials and Production for Oil and Gas Exploration – Developments, Experience and Application in Russia
2. Drilling Rigs and Specialized Equipment
3. Remote and Autonomous Fields’ Development
4. Search of New Reserves. New in Direction Exploration
5. Fast Tracking Field Development
6. Experience and Prospects of the Shelf Development
7. Hard-To-Recover Reserves
8. Well Construction – Drilling and Completion
9. Oil and Gas Production – Equipment and Technologies
10. Field Development Monitoring and Control
11. R&D and Innovations for Hydrocarbon Exploration and Production
12. Static, Dynamic and Geomechanical Modeling, Software
13. New Opportunities for Brownfields
14. An Integrated Approach to Gas and Gas-Condensate Field Development
15. Formation Evaluation
16. Smart field. Technology challenges
17. HSE

TOPOICAL LUNCHEONS

Topical luncheons will be taking place throughout the event, to book your place and for more information please mark appropriate field in the registration form.

TOPIC: Exploration Efficiency and Incentive Scheme
PRESENTED BY: Dmitry Bogdanov, Executive director, GeoKIN

TOPIC: Clay-Fines-Migration-Assisted Low-Salinity Oil and Gas Recovery: a formation damage may enhance production
PRESENTED BY: Pavel Bedrikovetsky, Professor, University of Adelaide

ROUND TABLE

«NEW RULES FOR HYDROCARBONS FIELDS’ DEVELOPMENT AND FDP DESIGN AND THEIR IMPACT ON THE SUBSOIL USAGE IN RUSSIA»
MONDAY, 26 OCTOBER

Rational and effective exploitation of hydrocarbons fields is one of the most important factors in the development of the Russian Federation in the short and long term. Several decades has already been passed since the approval of the existing field development rules. Progress in technology and technique of natural hydrocarbons fields development and oil and gas production, changing economic conditions in the country’s oil and gas industry and the adoption of a new classification of hydrocarbon reserves requires serious updating rules mining hydrocarbons. The same reasons cause the need to amend the rules of field development plan preparation. During the round table the main provisions of the new rules development of hydrocarbon field development and FDP design will be presented. We plan also to discuss most important moments of implementation of these rules, as well as their impact on improving the efficiency of subsoil usage in Russia.

TOPIC: «EOR PHYSICO-CHEMICAL METHODS»
TUESDAY, 27 OCTOBER

SPE REGIONAL AWARDS CEREMONY

This event will take place on 26 October during reception.

UNDERGRADUATE/POSTGRADUATE STUDENT PAPER CONTEST

There will be two divisions: undergraduate contest (28 October) and postgraduate contest (29 October).

The Student Paper Contest highlights SPE’s global links with Universities and student support groups around the world.

The winner of each division is invited to attend the international SPE student paper contest to be held at the 2016 SPE Annual Technical Conference & Exhibition in Dubai, UAE. All travel expenses and accommodation will be covered by SPE.

For further information please contact Yaroslava Chirkova, SPE Moscow office, at spemos@spe.org or +7 495 268 0454

YOUNG PROFESSIONAL SPECIAL TECHNICAL SESSION

Spearheaded by Russia and Caspian SPE Advisory Committee, SPE will hold traditional special Young Professionals Technical Session at the SPE Russian Petroleum Technology Conference. SPE invited the winners (first to third places) of internal corporate young professionals’ contests to speak. These contests are held 2014 to 2015 in Russian and Caspian oil and gas and service companies.

ENERGY4ME (workshop for regular school teachers)

In order to address the challenges of big crew change SPE has launched the Energy4me programme worldwide to enhance energy education in schools, increase public awareness about the oil and gas industry and help to attract young people to the industry.

Energy4me Teacher Workshop was for the first time held in Russia during SPE conference in 2014. The workshop was attended by fourteen middle and secondary school teachers from all across Russia who had an opportunity to try things out and conduct practical experiments in small groups.

We are pleased to announce that registration for the workshop is open. Deadline for registration is 11 September 2015. Workshop is free for teachers. For further information please contact Mariya Tishkova, SPE Moscow office, at mtishkova@spe.org or +7 495 268 0454

SPE will hold evening special session “Oil and Gas Legends” where Russian Honored industry experts such as Valery Graifer, Valeriy Kolibkov, Valentin Kudinov are invited to speak about the most favorite and interesting moments and memorials of their professional life.

SPECIAL SESSION

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<td>PLENARY SESSION: Development Perspectives and Priorities of the Oil and Gas Industry in Russia</td>
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<td>1230–1330</td>
<td>Technical Session 1: Topical Lunch on Knowledge Sharing ePoster presentations</td>
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<td>Technical Session 2: Knowledge Sharing ePoster presentations</td>
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<tr>
<td>1530–1600</td>
<td>Technical Session 3: Round Table “New Rules for Hydrocarbons Fields” Development and FDP Design and Their Impact on the Subsoil Usage in Russia” (start at 1600)</td>
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<td>1600–1800</td>
<td>Technical Session 4: Knowledge Sharing ePoster presentations</td>
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<td>Technical Session 10: Round Table “EOR Physico-Chemical Methods” (start at 1500)</td>
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<td>PLENARY SESSION: Hydrocarbon Source Rocks: Exploration, Evaluation and Production Technologies</td>
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<td>Technical Session 15: Young Professionals SPECIAL SESSION</td>
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<td>Technical Session 16: Knowledge Sharing ePoster presentations</td>
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### SCHEDULE OF EVENTS OVERVIEW

#### Special Sessions
- **Evaluation and Production Technologies**
- **Hydrocarbon Source Rocks: Exploration, Evaluation and Production Technologies**
- **Innovations in Russian Olfield Industry**

### PLENARY SESSIONS SUMMARY

#### DAY 1
- **Monday, 26 October 2015**
  - Welcome Speech: Denis Khramov, 1st Deputy Minister, Ministry of Natural Resources and Environment of the Russian Federation.
  - Managing the Future Challenges of Russian Reservoirs: An Example from Statoil
  - Innovation and Collaboration
  - Pascal Dauboin, Total E&P Russia

#### DAY 2
- **Tuesday, 27 October 2015**
  - The Vital Role of Collaborative Technology Development and How to Make it Effective for the Industry
  - New Technologies of Oil Production Enhancement Developed in the Gubkin Russian State Oil and Gas University
  - How to Turn an Innovative Idea into a Business Opportunity in the Oil and Gas Industry
  - Innovations in Russian Oilfield Industry
  - Marina Bulova, Director, Schlumberger Moscow Research Center

#### DAY 3
- **Wednesday, 28 October 2015**
  - Aspects of Prospecting and Exploration Stages of Unconventional Oil Reservoirs Study
  - New Approaches to Source Rock Examination by Core Material and Drilling Sludge
  - CSP-PRM: Exploration and Reservoir Management of Bazhenov Formation
  - Multistage Fracturing in Horizontal Wells: Technology and Case Studies
  - Mikhail Samoilov, Head of Project and Engineering Group, «Upstream Peer Review and Technical Development Center» in Tyumen, Rosneft
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<td>Plenary Session on R&amp;D and Innovations for Oil and Gas Industry “From Scientific Idea to Technology Implementation”</td>
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<td>Technical Lunchon</td>
<td>Knowledge Sharing ePoster presentations</td>
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<td>Technical Session 8</td>
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<td>1530–1600</td>
<td>Round Table “EOR Physico-Chemical Methods” (start at 1500)</td>
<td>Knowledge Sharing ePoster presentations</td>
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<td>1800–2000</td>
<td>Special Session “Oil and Gas Legends”</td>
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#### DAY 3. 28 OCTOBER 2015

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<td>1000–1200</td>
<td>Plenary Session: Hydrocarbon Source Rocks: Exploration, Evaluation and Production Technologies</td>
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<td>1300–1500</td>
<td>Young Professionals’ Special Session</td>
<td>Knowledge Sharing ePoster presentations</td>
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### PLENARY SESSIONS SUMMARY

#### Plenary Session 1

**Monday, 26 October 1000–1200**

**Welcome Speech:** Denis Khramov, 1st Deputy Minister, Ministry of Natural Resources and Environment of the Russian Federation.

**Managing the Future Challenges of Russian Reservoirs: an Example from Statoil**

Presented by: Torgeir Kydland, President, Statoil Russia

**Innovation and Collaboration**

Presented by: Nathan Meehan, SPE President 2016

#### Panel Session on R&D and Innovations for Oil and Gas Industry

**Tuesday, 27 October 1000–1200**

**The Vital Role of Collaborative Technology Development and How to Make It Effective for the Industry**

Presented by: Patrick O’Brien, CEO, ITF

**New Technologies of Oil Production Enhancement Developed in the Gubkin Russian State Oil and Gas University**

Presented by: Mikhail Simon, Vice-Rector of Innovations and Commercialization, Gubkin Russian State University of Oil and Gas

**How to Turn an Innovative Idea into a Business Opportunity in the Oil and Gas Industry**

Presented by: Marat Zaydullin, Head of Oil and Gas Center, Skolkovo

**Innovations in Russian Oilfield Industry**

Presented by: Marina Bulova, Director, Schlumberger Moscow Research Center

#### Panel Session

**Wednesday, 28 October 1000–1200**

**Hydrocarbon Source Rocks: Exploration, Evaluation and Production Technologies**

Aspects of Prospecting and Exploration Stages of Unconventional Oil Reservoirs Study

Presented by: Volodya Zhukov, Head of Unconventional Projects Department, Gazpromneft STC

**New Approaches to Source Rock Examination by Core Material and Drilling Sludge**

Presented by: Yan Glagov, Expert on Petrophysical Study, Core Research Center, TNNC

**CSP-PRM: Exploration and Reservoir Management of Bazhenov Formation**

Presented by: Gennady Erskhov, Technical Director, Technologii Oborotnyh Zadach

**Multistage Fracturing in Horizontal Wells: Technology and Case Studies**

Presented by: Mikhail Samoilov, Head of Project and Engineering Group, ZapSibNIPIC

**Upstream Peer Review and Technical Development Center in Tyumen, Rosneft**
PLENARY SESSIONS OVERVIEWS

PLENARY SESSION

MANAGING THE FUTURE CHALLENGES OF RUSSIAN RESERVOIRS: AN EXAMPLE FROM STATOIL

Torgeir Kydland, President, Statoil Russia

Torgeir Kydland graduated from the University of Oslo in 1981, he is MSc Mathematics. Kydland joined Hydro Oil & Energy in 1984 as a reservoir engineer. During his first ten years in Hydro, he held various management positions in petroleum engineering. In 1996, he joined the Exploration & Production management team, as Vice President for the Oseberg Field Asset, became Senior Vice President for the Troll Field Asset in 1999 and Head of all of Hydro’s Oil and Gas Operations in 2001. During 2005-2006, he was General Manager for Hydro’s businesses in Iran and in August 2006 became Senior Vice President and Head of Hydro Oil and Energy’s International Business Development.

From October 2007, following the merger between Statoil and the oil and gas division of Hydro, Kydland was appointed Senior Vice President with responsibility for Eurasia, Middle East & Asia (after 1 January 2011 Senior Vice President, Europe & Asia in Development & Production International (DPI)).

From July 2014, Torgeir Kydland was appointed President Statoil Russia.

INNOVATION AND COLLABORATION

NATHAN MEEHAN, SPE President 2016

D. Nathan Meehan, 2016 Society of Petroleum Engineers (SPE) president, is senior executive adviser at Baker Hughes, advising executive management on reservoir and geoscience issues. Previously, he was president of CMG Petroleum Consulting, vice president of engineering for Occidental Oil & Gas, and general manager exploration and production at Union Pacific Resources.

Meehan earned a BSc in physics from the Georgia Institute of Technology, an MSc in petroleum engineering from the University of Oklahoma, and a PhD degree in Petroleum Engineering from Stanford University. He previously served as chairman of the CMG Reservoir Simulation Foundation and as director of the Computer Modelling Group, Vanyoganett Oil Company, Pinnacle Technologies, SPE Board of Directors, and JOA Oil & Gas BV. He served on advisory boards of the University of Texas and the University of Houston and currently serves on the EME industry relations board at Pennsylvania State, the Interstate Oil and Gas Compact Commission and the Advisory Board of World Oil. He is the recipient of the Lester C. Uren Award for Distinguished Achievement in Petroleum Engineering and the Degolyer Distinguished Service Medal and served as a Distinguished Lecturer. He is a licensed professional engineer in four states and has published scores of papers.

ABSTRACT

Innovation in technology is essential during times of low product prices and difficult technical challenges. This presentation illustrates some of these technical challenges and the creative solutions that have been developed to address them, including the role of collaboration. The importance of safe, affordable energy and the necessary advances are illustrated with examples.
MANAGING THE FUTURE CHALLENGES OF RUSSIAN RESERVOIRS: AN EXAMPLE FROM STATOIL

Torgeir Kydland, President, Statoil Russia

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INNOVATION AND COLLABORATION

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Innovation in technology is essential during times of low product prices and difficult technical challenges. This presentation illustrates some of these technical challenges and the creative solutions that have been developed to address them, including the role of collaboration. The importance of safe, affordable energy and the necessary advances are illustrated with examples.
**ABSTRACT**

Several technologies have emerged that allow stimulation in remote locations from the borehole zone at required distances. Several series of processing operations were conducted at various fields, including GUSC Gazprom Neft and GUSC NK Lukoil. For example, water-gas stimulation technology was proposed as a form of local injection for petroleum gas. Field tests were conducted with newly developed equipment to implement the technology and filtration system. Positive results were obtained. Currently, one East-Siberian company is adapting the technology to use in their operations.

Marina Bulova has over 10 years of experience in the oil and gas industry. She primarily focuses on the development of new, innovative technologies for optimizing hydrocarbons production. In her current role at the Schlumberger Moscow Research Center Director, Bulova leads a team of over 70 talented researchers and professionals with worldwide reputation. The center focuses on fundamental investigations of downhole rock and hydrocarbons behavior to invent new approaches for effective production optimization. Bulova gained experience as the stimulation domain manager for the Russia and Central Asia region, where she ensured the technical excellence for each stimulation treatment in conventional and unconventional reservoirs, including tight sandstones, carbonates, Bazhenov, and Domanic shales. As a product line engineering manager for the Schlumberger Novosibirsk Technology Center, Bulova commercialized a number of key stimulation technologies, such as HWAY, PropGUARD, and RodPROP. Marina also worked at the Schlumberger DBR Technology Center in Edmonton, Canada, where she led petroleum chemistry research activities. Prior to joining Schlumberger, Bulova worked as project coordinator for Samsung Electronics Research Center in Moscow. She graduated from the chemical faculty, Lomonosov Moscow State University, with a specialty in chemistry. Thereafter in 2001, she earned a PhD degree in materials science in Grenoble, France, and in 2002 she earned a candidate of science degree in physical chemistry in Moscow.

**ABSTRACT**

Each time new technologies and equipment for oil and gas exploration appear, such innovative ideas and prototypes must undergo a long conversion process to become suitable products for industrial use. The problem with field-testing new technologies is particularly acute in this industry—obtain access to a well, the technology should already demonstrate its efficiency and reliability, but it is impossible to do this without field-testing. Small innovation companies along with big oil field service enterprises and equipment manufacturers each face this problem. Start-ups with outstanding teams, investments, and technologies that have only passed laboratory testing can sometimes be delayed in their development while searching for an oil producing company ready to take a risk and be the first to implement a new technology. This industry-specific problem can be solved by several means. The system of innovation support in Norway, with projects such as Petromaks and DEMO 2000, offers a spectacular example of such a solution. Russia should also develop its own instruments of support, starting from privileged access to financial resources for small companies to field testing to insurance systems that cover the risks of unsuccessful testing results, and ending with the development of independent and open test fields for new technologies at operating oil fields. Such process will enable the role of oil field service enterprises and manufacturers in integrating innovative solutions into their product range. The report will describe the initiatives implemented by Skolkovo Foundation to develop a comprehensive system of support to implement new technologies throughout the oil and gas industry.
NEW TECHNOLOGIES OF OIL PRODUCTION ENHANCEMENT DEVELOPED IN THE GUBKIN RUSSIAN STATE OIL AND GAS UNIVERSITY

MIKHAIL SILIN, Vice-Rector of Innovations and Commercialization, Gubkin Russian State University of Oil and Gas

ABSTRACT

Several technologies have emerged that allow stimulation in remote locations from the borehole zone at required distances. Several series of processing operations were conducted at various fields, including GUSC Gazprom Neft and GUSC NK Lukoil. For example, water-gas stimulation technology was proposed as a form of local injection for petroleum gas. Field tests were conducted with newly developed equipment to implement the technology and filtration system. Positive results were obtained. Currently, one East-Siberian company is adapting the technology to use in their product range. The report will describe the initiatives implemented by Skolkovo for new technologies at operating oil fields. Such process will enhance the role of big companies along with small innovation companies and equipment manufacturers each face this problem. Start-ups with outstanding field-testing. Small innovation companies along with big oil field service enterprises and manufacturers in integrating innovative solutions into their product range. The report will describe the initiatives implemented by Skolkovo to support in Norway, with projects such as Petromaks and DEMO 2000, offers instruments of support, starting from privileged access to financial resources for small companies to field-testing to insurance systems that cover the risks of unsuccessful testing results, and ending with the development of independent and open test fields for new technologies at operating oil fields. Such process will enhance the role of big oil field service enterprises and manufacturers in integrating innovative solutions into their product range. The report will describe the initiatives implemented by Skolkovo Foundation to develop a comprehensive system of support to implement new technologies throughout the oil and gas industry.

HOW TO TURN AN INNOVATIVE IDEA INTO A BUSINESS OPPORTUNITY IN THE OIL AND GAS INDUSTRY

MARAT ZAYDULLIN
Head of Oil and Gas Center, Skolkovo

ABSTRACT

Each time new technologies and equipment for oil and gas exploration appear, such innovative ideas and prototypes must undergo a long conversion process to become suitable products for industrial use. The problem with field-testing new technologies is particularly acute in this industry—to obtain access to a well, the technology should already demonstrate its efficiency and reliability, but it is impossible to do this without field-testing. Small innovation companies along with big oil field service enterprises and equipment manufacturers each face this problem. Start-ups with outstanding field-testing, sometimes be delayed in their development while searching for an oil producing company ready to take a risk and be the first to implement a new technology. This industry-specific problem can be solved by several means. The system of innovation support in Norway, with projects such as Petromaks and DEMO 2000, offers a spectacular example of such a solution. Russia should also develop its own instruments of support, starting from privileged access to financial resources for small companies to field-testing to insurance systems that cover the risks of unsuccessful testing results, and ending with the development of independent and open test fields for new technologies at operating oil fields. Such process will enhance the role of big oil field service enterprises and manufacturers in integrating innovative solutions into their product range. The report will describe the initiatives implemented by Skolkovo Foundation to develop a comprehensive system of support to implement new technologies throughout the oil and gas industry.
In our opinion, conventional approaches to source rock studies in the Russian Federation need to be revised and updated. The most reliable information is obtained by examining the core material. It is also equally important to correctly organize geological and technological exploration to support well construction. A comprehensive approach, beginning with the core material collection, its handling at the surface, transportation to a laboratory, and working through a detailed program of laboratory testing, can lead to effective solutions for evaluating crude hydrocarbon reserves and developing methods for exploiting these unconventional formations. The initial stage in examining core materials plays a key role for executing more specific, highly informative tests.

CSP-PRM: EXPLORATION AND RESERVOIR MANAGEMENT OF BAZHENOV FORMATION
GENNADY EROKHIN, Technical Director, Tehnologii Obratnyh Zadach

Gennady Nikolaievich Erokhin is a professor with a doctorate in physics and mathematics who founded and directs the Research and Development Institute of Applied Information Science and Mathematical Geophysics at Immanuel Kant Baltic Federal University. Erokhin also directed Yugorsk Research and Development Institute of Information Technologies during the years 2000–2011. He currently serves as technical director for Technologies of Inverse Problems, Ltd. His work specializes in the domain of inverse problems in mathematical geophysics, information, and supercomputer technologies. Erokhin graduated from Novosibirsk State University and worked many years in SB RAS, Computing Center of SB RAS at the Institute of Computational Mathematics and Mathematical Geophysics SB RAS, under the guidance of Academy of Sciences members M.M. Lavrentyev and A.S. Aleksseev.

ABSTRACT
Permanent reservoir monitoring (PRM) traditionally packages two independent technologies that depend on a single instrument system to record surface seismic signals. The first, 4D seismic study, ensures at least 6 months of active 3D seismic survey. The second, passive micro-seismic monitoring, is applied between periods of active 4D study.

CSP Approach technology package, developed by Tech Image CJSC, is based upon two methods:
1. FractureCSP—An innovative seismic study method based on scattered waves. It efficiently searches for and explores fractured reservoirs. Standard 2D/3D CDP survey data serve as reference data for the method. Processing data with supercomputers using the FractureCSP method generates SEG-Y cubies (for 2D cubes) of reflectors and fractures.
2. MicroseismicCSP—A high-precision method of micro-seismic monitoring for geologic and technical operations in hydrocarbon field development. The method is based upon original mathematical algorithms for solving inverse problems of micro-seisms, small-aperture seismic arrays, and processing high-precision measurement results with a supercomputer.

The report demonstrates a new approach to combining PRM and CSP Approach technologies for shale oil exploration.

Vladislav Zhukov is an employee at Scientific and Technical Center of Gazprom Neft since 2008. In his course of work, Zhukov actively participated in projects of Priob field, Prinzalomnoye field, and development of the Arctic shelf. He currently leads a multidisciplinary team of enthusiasts studying the Bazhenov formation, providing scientific and technical support to development projects of non-conventional resources for the company.

ABSTRACT
Currently, there is no globally established, generally accepted definition of non-conventional resources. In general, non-conventional resources are hydrocarbon resources that require a specific approach to their study, search, exploration, and development, which is different from the traditional approach. A textbook example of a non-conventional field in the territory of Russia is Bazhenov formation (BF). Though it is believed to contain substantial reserves of hydrocarbons, scientists still have not found a technology for its development despite its long history of study. The authors of the report propose to change the established methods of search and exploration for non-conventional oil fields. The main efforts are focused on deep integration of oil recovery technologies with methods to study geological properties of oil formations. The object of the study requires selection and justification of industrial development technology at the earliest stages. The report proposes a variant to the way search and exploration stages are organized for non-conventional oil and gas fields, while also staying focused on cost-efficient oil recovery technologies.

NEW APPROACHES TO SOURCE ROCK EXAMINATION BY CORE MATERIAL AND DRILLING SLUDGE
YAN GILMANOV, Expert on Petrophysical Study, Core Research Center, TNNC

Yan Gilmanov graduated from Tyumen State Oil and Gas University as a mining engineer geophysicist—oil-industry specialist in 1993. From 1997 to 2003, Gilmanov successfully graduated with his postgraduate studies in geological and mineralogical sciences with a specialization in geophysical methods of exploration of mineral resources. Gilmanov has 24 years of work experience in oil and gas industry. From 1991 to 2006 he worked with the Surgutneftegeologiya trust. He started as logging crew engineer and worked up to the position of geological and engineering survey manager. He has work experience in geophysical exploration of wells in an open and closed hole (prospective exploration and production drilling), field geophysical tests in the course of control over exploitation (production and injection wells), drilling and gas logging support, and core material and drilling sludge examinations. Starting in 2006, Gilmanov worked for Tyumen Oil Scientific Center LLC in the core material examination department supervising works in specific core material and petrophysical core material examinations. He participated in the organization and start-up of production areas in these domains. At present, he serves as expert in petrophysical studies.

ABSTRACT
As crude hydrocarbon reserves in conventional fields run low and the discovery of new fields does not significantly increase reserves, all leading oil and gas companies of the world are starting to study unconventional reserves. In foreign countries, such reserves include shale source rock and their equivalents. Reserves in the Russian Federation are found in Bazhenov, Abalak, and Domanik formations.
The authors of the report propose to change the established methods of search and exploration for unconventional oil fields. The main efforts are focused on the deep integration of oil recovery technologies with methods to study geological and technical operations in hydrocarbon field development. The method FractureCSP—An innovative seismic study method based on scattered waves. It efficiently searches for and explores fractured reservoirs. Standard 2D/3D CDP survey data serve as reference data for the method. Processing data with supercomputers using the FractureCSP method generates SEG-Y cubes (for 2D cubes) of reflectors and fracturers.

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PLENARY SESSIONS OVERVIEWS

TOPICAL LUNCH OVERVIEWS

EXPLORATION EFFICIENCY AND INCENTIVE SCHEME

Dmitry Bogdanov, Executive Director

In 1995, Dmitry Bogdanov graduated from the geophysical faculty of Moscow State Geological Exploration Academy, named after S. Ordzhonikidze, with a degree as mining engineer—geophysicist. From 1995 to 1998, he was a full time postgraduate student of the department of nuclear radiological methods and geophysical informatics (NRMGI) of the geophysical faculty of MSGEA with a specialization in mathematical simulation.

For over ten years, Bogdanov has specialised in a number of roles as head of laboratory, senior staff scientist, and head of mathematical simulation for the All-Russian Research and Development Geological Oil Institute (VNIGNI), OJSC WNILFed, Federal State Unitary Enterprise VNIGNI, and the Skolkovo business school Energy Center. Since 2012, he serves as executive director and partner for GeoKIN LLC. His work is focused on developing new procedures that improve recovery as well as the system for taxation and cost-estimating.

Bogdanov is expert for the Central Commission for the Development of Mineral Deposits of the Russian Federation and the Central Commission for Mineral Resources of the Russian Federation. He is also an active member of the National Association for the Expertise of Mineral Resources (NAEN) and senior expert of PravoTEK school for mineral resources exploitation and taxation. In 2013, he was awarded with the lapel badge “Specialist of Honor in the Domain of Resources Exploration”.

ABSTRACT

Issues in geological exploration stimulation are mainly connected with the economic performance of such works. Unfortunately today, the established system for taxes and payments interferes with the development of new and unexplored regions. A brief analysis of the economic risks involved in geological exploration works shows a paradoxical situation where companies are not motivated by the state to perform these works. However, the situation is starting to change for the better; the option to pay by installments upon a field’s discovery, along with additional initiatives, provides incentive to perform geological exploration works.

PLENARY SESSIONS OVERVIEWS

TOPICAL LUNCH OVERVIEWS

CLAY-FINES-MIGRATION-ASSISTED LOW-SALINITY OIL AND GAS RECOVERY: A FORMATION DAMAGE MAY ENHANCE RECOVERY AND PRODUCTION

Pavel Bedrikovetsky, Professor, University of Adelaide

Pavel Bedrikovetsky is professor of petroleum engineering at the University of Adelaide. He is the author of a seminal book on reservoir engineering along with over 200 published papers in international journals and SPE. His research covers waterflood, formation damage, EOR, and unconventional energy. He holds MSc in applied mathematics, PhD in fluid mechanics, and DSc in reservoir engineering, each from Moscow Gubkin Oil-Gas University. Bedrikovetsky was a visiting professor at Delft University of Technology and Imperial College of Science and Technology from 1991 to 1994. He boasts 40 years of industrial experience in Russia, Europe, Brazil, and Australia. He served as section chairman, short course instructor, and program committee member for numerous SPE conferences. Bedrikovetsky also served as 2008–2009 SPE Distinguished Lecturer.

ABSTRACT

Fines migration is the most common cause of formation damage that can greatly impact the economic viability of petroleum development projects. It occurs when reservoir fines are picked up and migrate, plugging pores along the flow path and consequently reducing permeability. The phenomenon is widely reported for production and injection wells, drilling, waterflooding, and pressure depletion with water support.

We introduce a function to determine the maximum retention for fines that models the fines’ mobility, giving the ability to interpret corefloods, analyze well impairment history, and predict well behavior. Several laboratory and field studies are included that validate the approach. One recent field study, in particular, shows how to use coreflood, Z-potential and SEM data along with well history to reliably predict productivity decline and successfully prevent and mitigate unwanted decline.

Fines migration is traditionally avoided for its detrimental effect on reservoir permeability. However, this particular effect provides a relatively simple method for water mobility control. Cases based on laboratory data show examples where fines-assisted low-salinity waterfloods significantly increased the reservoir sweep because the lifted fines reduced the permeability in the swept zone, when compared with “normal” waterflooding. Injecting fresh water back into watered-up wells decelerates the invaded water and significantly decreases water production in oil and gas fields. Injecting fresh water near the oil/gas-water contact also yields a decrease in water coning. The main idea of the lecture is naturally or deliberately induced fines migration can assist oil and gas production and recovery.
PLENARY SESSIONS OVERVIEWS

CLAY-FINES-MIGRATION-ASSISTED LOW-SALINITY OIL AND GAS RECOVERY: A FORMATION DAMAGE MAY ENHANCE RECOVERY AND PRODUCTION

PAVEL BEDRIKOVETSKY, Professor, University of Adelaide

ABSTRACT

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TOPICAL LUNCH OVERVIEWS

EXPLORATION EFFICIENCY AND INCENTIVE SCHEME

DMITRY BOGDANOV, Executive Director

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Programme correct as of May 13, 2015. All author names, companies and paper titles are listed as submitted to SPE.
TECHNICAL PROGRAMME 26–28 OCTOBER

176871 Dynamic Stability for Lift with Constant Gas Injection Rate
H. Ahamed, NTNU

176868 A New Approach to the Calculation of Operating Mode and Optimization Gas Lift Wells
Ya. Burba, R. Khabsultan, GazpromNef STC

176876 Prospects of Development of Jet Pump’s Well Operation Technology in Russia
A. Drozdov, Gubkin Russian State University of Oil and Gas

176877 Flow Assurance in the Gas Gathering Networks of Two Gas-Condense Formations of the Semyshensky Gas Condense Field
S. Bikbatovsk, V. Butuzov, I. Mukanov, ROSNAN INTERNATIONAL; R. Bikbatovsk, A. Vinokurov, RN-Uphemst

TECHNICAL SESSION - FIELD DEVELOPMENT AND MONITORING - CONTROL:

176862 Methods of Research for the Development of Spontaneous Flow of Induced Fractures during Flooding in Low Permeability Reservoirs

176865 Optimizing Multi-Stage Fractured Horizontal Performance Using Well Test Results
V. Kirichevskiy, N. Morozovsky, GazpromNef STC; M. Bikbatovsk, GazpromNefro

176860 Injection Profiling in Horizontal Wells by Using Distributed Fiber Optic Permanent Monitoring Systems
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Kh. Musaleev, S. Melnikov, Gubkin Russian State University of Oil and Gas

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A. Santiro, Utara State Technical University; G. Orobi; Research and Development Engineering Institute of Oil and Gas of Utara State Technical University (USTU)

176554 Vulnerability of Arctic Coastal Environments to Oil Spill Impacts (White Sea Case Study)
D. Zagretdinov, Center of Marine Research of Moscow State University named after M.V. Lomonosov

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176549 Optimization of Cyclic Steam Stimulation (CSS) under Geomechanics-Dependent Permeability
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176538 Optimization of Experimental Field Operations Technology - Multiple Cyclic Steam Treatment – on the Basis of Thermodynamic Modeling of the Drill out South Zone of Permian-Carboniferous deposit of Usinsk field
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176536 Optimization of Cyclic Steam Stimulation (CSS) under Geomechanics-Dependent Permeability
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176553 Real Options as the Instrument for Offshore Fields Development Project Management under FPS Conditions
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A. Badalyan, A. Keshavarz, R. Johnson, P. Bedrikovetsky, The University of Adelaide, Australian School of Petroleum

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A. Farewos, Neftekhim Technologies
176572 The Influence of Reagents on Alchoholic Operating Procedure Applied during Oil Field Development
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176728 Enzymatic Generation of Oil Displacing Compositions under Conditions of Low Temperature Viscous Oil Reservoirs
L. Alikhanyan, L. Srapunovskaya, Institute of Oil Chemistry SB RAS

176729 Physical and Chemical Processes in Oil Fields Developed under Carbonated Flooding
S. Zalevskiy, E. Zakhrova, A. Baranov, D. Klimov, IGOR RAS; V. Serebryakov, LLC Galadigma

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V. Danilenko, NPF GITA; S. Ergutsoy, Yu. Ivanov, A. Zubarev, IGOR

176594 Analysis of Black Oil Correlations for PVT Properties Estimation
P. Khadjouz, A. Dagdev, M. Khasanov, A. Brailovsky, Gazpromneft STC; V. Kranev, Rosneft

176595 Special Treatment of Thermo-Hydromineral Wells in Massive Fractured Reservoirs of Crystalline Basements
A. Forskin, V. Shlyuin, V. Nlichen, V. Plikin, Zenobedneff

176596 The application of K-ray Micro-Computed Tomography (Micro-CT) of Core Sample for Estimation of Physicochemical Treatment Efficiency
M. Orlova, P. Rossche, I. Struchkov, V. Lihin, National Mineral Resources University

176597 Using Small Size Samples for Rock Mechanics Studies
N. Andrianov, V. Alishehin, Schlumberger; A. Olyunin, T. Shevchuk, Gazpromneft-Angara

176598 Prediction of Gas Rates from Different Layers by Temperature Distributions in Wells: Application to Unconventional Fields
Z. You, P. Brezhovskiy, The University of Adelaide, Australian School of Petroleum

176599 Dielectric Permittivity Dispersion Measurement at Different Conditions
A. Bondarenko, V. Dorokov, Baker Hughes

176600 Tight Gas Achimov Formation Evaluation and Sampling with WL Logging Tools: Advanced Approaches and Technologies
S. Novikov, M. Churupa, P. Weinheimer, Schlumberger

176601 Qualitative Assessment of Petrophysical Model Uncertainty of Thin Layered Reservoirs in the Western Siberian Terrigenous Deposits
I. Ostryniyuk, A. Malakhov, TMNC

KNOWLEDGE SHARING PAPER PRESENTATIONS: SMART FIELD, TECHNOLOGY CHALLENGES

176602 Flow Regime Prediction Using Fuzzy Logic and Modification in Begas and Bril Multishow Correlation
M. Rammay, King Fahd University of Petroleum and Minerals; S. Alsalim, Saudi Aramco

176603 Theoretical Basics of Mathematical Modeling of the Gas Lift Process in the Well-Reservoir System
F. Ales, Research and Development Institute of Applied Mathematics; M. Dzhemalovskiy, SOCAR

176604 Optimal Closed-Loop Management of Field Development
E. Zakhrova, S. Zakhrova, I. Indrapaev, O. Lyubimova, D. Anikiev, I. Shtyov; M. Baganov; IGOR RAS

176605 Enzymatic Generation of Oil Displacing Compositions under Conditions of Low Temperature Viscous Oil Reservoirs
L. Alikhanyan, L. Srapunovskaya, Institute of Oil Chemistry SB RAS
TECHNICAL PROGRAMME 26–28 OCTOBER

KNOWLEDGE SHARING ePOSTER PRESENTATIONS: NEW OPPORTUNITIES FOR BROWNFIELDS

176727 Systematic Approach to the Application of Chemical EOR in JSC Rosneft N. Zakharyan, R. Muan, M. Cimco, Rosneft; T. Ismagilov, I. Ganiev, RN-UfaNIPIneft

176728 Combined Conformance Treatment with Mobility Control Improves Oil Sweep Efficiency in Non-Cross Flow Heterogeneous Reservoirs A. Impan, B. Bai, Missouri University of Science and Technology; M. Delash, The University of Texas at Austin

176723 Enzymatic Generation of Oil Displacing Compositions under Conditions of Low Temperature Viscous Oil Reservoirs L. Altunin, L. Svanovskaya, Institute of Oil Chemistry SB RAS

176729 Physical and Chemical Processes in Oil Fields Developed under Carbonated Waterflooding S. Zelevin, E. Zakirov, A. Baranov, D. Klimov, IOGP RAS; V. Sarbeykov, LLC Galadigma

176730 Some Methods for the Automation of the Flooding Optimization and Selection of Candidate Wells for Workover V. Syrzhon, E. Koralavi, A. Zhora, N. Mezhnova, O. Petrushov, Baker Hughes

KNOWLEDGE SHARING ePOSTER PRESENTATIONS: AN INTEGRATED APPROACH TO GAS AND GAS-CONDENSATE FIELD DEVELOPMENT

176596 Optimizing Spacing of Horizontal Wells in Gas and Gas-Condensate Reservoirs A. Berson Lermid, National Mineral Resources University

176587 Multistage Hydraulic Fracture Modelling in Tight Gas-Condensate Formations A. Molawo, V. Gorosits, V. Solvivex, ARCTIGAZ


176588 Unified Method for the Gas-Condensate Field Model History Matching and Prognosis Calculations T. Turunya, Yu. Filippova, NOVATEK STC

176585 Production Increase through Changing Completion Mindset for Achimov Tight Gas-Condensate Formation of Urengoyskoye Field S. Versachchin, A. Konchenko, Schlumberger

KNOWLEDGE SHARING ePOSTER PRESENTATIONS: FORMATION EVALUATION

176559 Absolute and Relative Permeabilities from Well Logs in Tight Reservoirs T. Elseway, The American University in Cairo

176562 Determining Methods of Static Mechanical Properties of Poorly Consolidated Sand-Rocks (by the Example of the Yushkin-Ruslayevsk Field) M. Markin, M. Lustew, Halliburton; I. Dobutnaya, V. Verostyev, Severneftegazprom

176565 Diagnostics of Nearfields of Gas Wells by a Set of Nautical Methods for Different Depths A. Lyserov, E. Sadikhovna, L. Borisova, NPP “VNIEGI”; V. Danilevko, NPP GTAI; S. Egorov, Yu. Ivanov, A. Zubarev, IOG

176556 Analysis of Black Oil Correlations for PVT Properties Estimation P. Khabibullin, A. Dragan, M. Khasanov, A. Bukaloivoski, Gazpromneft STC; V. Kranev, Rosneft

176501 Special Treatment of Thermo-Hydrodynamic Well Studies in Massive Fractured Reservoirs of Crystalline Basements A. Forokin, V. Shlymin, WIneft; V. Pryan, Zenoubelkh

176592 The application of X-ray Micro Computed Tomography (Micro-CT) of Core Sample for Estimation of Physicochemical Treatment Efficiency M. Ols, P. Roschin, I. Struchkov, V. Lihin, National Mineral Resources University


176595 Prediction of Gas Rates from Different Layers by Temperature Distributions in Wells: Application to Unconventional Fields Z. You, P. Bekhrinkovets, The University of Adelaide, Australian School of Petroleum

176593 Dielectric Permittivity Dispersion Measurement at Detrillate-Conditions A. Bondaerko, V. Dorevsky, Baker Hughes


176590 Qualitative Assessment of Petrophysical Model Uncertainty of Thin Layered Reservoirs in the Western Siberian Terrigenous Deposits I. Ostrvyak, A. Malakhin, TMNC

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176440 Flow Regime Prediction Using Fuzzy Logic and Modification in Begas and Brill Multiphase Correlation M. Ramray, King Fahd University of Petroleum and Minerals; S. Alusaim, Saudi Aramco

176441 Theoretical Basics of Mathematical Modelling of the Gas Lift Process in the Well-Reservoir System F. Ailes, Research and Development Institute of Applied Mathematics; M. Dhrambalakov, SOCAR

GEOCHEMICAL ANALYSIS DURING EXPLORATION AND FIELD DEVELOPMENT
29 OCTOBER 2015, MOSCOW

TARGETS

• To justify and provide a reasonable roadmap of modern geochemical analysis, and to provide a set of methods and procedures for its implementation.
• To give examples of practical solutions to geochemical challenges for various regions of Russia.

COURSE OUTLINE

General information
1.1. Targets, tasks, and methods of geochemical analysis.
1.2. Development of a geological assignment for geochemical analysis.

Regional geochemistry
2.1. The role of geochemistry in oil and gas potential evaluation.
2.2. Basin modeling
   2.2.1. Types of basin modeling at different stages of geological prospecting works.
   2.2.2. Example of 3D basin modeling of one of the Western Siberia regions.
2.3. Shale oil
   2.3.1. Application of geochemistry – the only way to correctly determine place, volume, and time of shale oil generation.
   2.3.2. Work experience with TOTAL, LUKOIL, STATOIL, and other organizations.
2.4. Shale geochemistry
   2.4.1. Particularities of geochemical works on a shelf during geological prospecting works.
   2.4.2. Work results for various terrains.

Reservoir geochemistry
3.1. Geochemistry for specification of reservoir geology, monitoring, and reservoir management.
3.2. Typical examples

Practice

SPECIAL INSTRUCTIONS: PARTICIPANTS MUST BRING A LAPTOP

Geochemical surveys constitute an integral part of performance of geological prospecting works. In particular, the surveys enable us to determine oil source rocks and to give a quantitative assessment of their ability to generate various hydrocarbon fluids. Obtained information serves as a basis for building a 3D model of a sedimentation basin and its thermal evolution.

At the well drilling and completion stage, the information obtained from the analysis of a bore core and the sludge of liquid and gaseous fluids allows us to determine producing formations and to identify inter-reservoir overflows.

At the field development stage, information on the composition of fluids at the molecular, nuclear, and isotope levels allows us to detect composition irregularity within the reservoir and to suggest the presence of hydro-dynamically isolated zones, and to monitor production of reserves.

The course is intended for geologists and geophysicists who plan geological prospecting works and perform a comprehensive interpretation of geological information, as well as for field geologists and exploitation specialists.

INSTRUCTOR

IVAN GONCHAROV

REGISTRATION IS OPEN: For more details and registration please contact us at RussianReg@spe.org.
GEOCHEMICAL ANALYSIS DURING EXPLORATION AND FIELD DEVELOPMENT
29 OCTOBER 2015, MOSCOW

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GENERAL INFORMATION:
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1.2. Development of a geological assignment for geochemical analysis.

INSTRUCTOR
IVAN GONCHAROV

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ADVANCED COST-EFFECTIVE WATERFLOODINGS
29–30 OCTOBER 2015, MOSCOW

COURSE OUTLINE

Reservoir Engineering Challenges of Waterflooding

Introduction
1.1. Reservoir physics (capillary phenomena, relative permeability, capillary pressure)

Basic waterflooding
1.3. Upscaling. Fractional flow in heterogeneous reservoirs
EXERCISE: recovery factor calculations.

Low salinity, smart and fines-assisted waterflooding
2.1. Capillary phenomena and wettability alteration during Low-Sal flooding
2.2. Physics of fines mobilisation, migration and permeability damage. Laboratory study
2.3. Reservoir simulation of low salinity and smart fines-assisted waterflooding.


2.4. Analytical models for low salinity fines-assisted waterflooding.
EXERCISES: calculation of fractional flow and relative permeability from lab data for different ion compositions
2.5. Routine laboratory studies of normal and smart waterflooding. Advanced coreflood tests.

2.6. Application of smart waterflood in sandstone and carbonate reservoirs

Injection and production wells
3.1. Injectivity decline in waterflood projects: deep bed filtration; external cake formation; cake erosion.
Mathematical modelling
3.2. Laboratory studies of injectivity. Field cases. Taking advantage of injectivity damage in horizontal wells for improved sweep efficiency
3.3. Effects of fines migration on injection and production wells
3.4. Water production control and conformance enhancement using low-salinity water
3.5. Two on-shore field cases of normal and smart waterflooding (Brazil, Russia): well behaviour, production history, reservoir studies

SUMMARY
Prospective of the cost-effective improvements of waterflooding in sandstone and carbonate oilfields

INSTRUCTOR
PAVEL BEDRIKOVETSKY

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Bedrikovetsky is professor of petroleum engineering at the University of Adelaide. He is the author of a seminal book on reservoir engineering along with over 200 published papers in international journals and SPE. His research covers waterflood, formation damage, EOR, and unconventional energy. He holds MSc in applied mathematics, PhD in fluid mechanics, and DSc in reservoir engineering, each from Moscow Gubkin Oil-Gas University.

Bedrikovetsky was a visiting professor at Delft University of Technology and Imperial College of Science and Technology from 1991 to 1994. He boasts 40 years of industrial experience in Russia, Europe, Brazil, and Australia. He served as section chairman, short course instructor, and program committee member for numerous SPE conferences. Bedrikovetsky also served as 2005–2008 SPE Distinguished Lecturer.
TRAINING COURSES

GEOMECHANICS FUNDAMENTALS
29–31 OCTOBER 2015, MOSCOW

This course provides understanding of necessary geomechanics basics and its applications in the oil and gas industry. This course covers the origin of earth’s stress and pore pressure in reservoir rocks, techniques and methods of assessment using well’s data; it gives good understanding of elastic and strength (mechanical) properties of the rocks, with an introduction to the basics of experimental rock mechanics. The course also examines the main approaches of construction of Mechanical Earth Model (MEM) and the further application of these models to solve the most important issues of exploration and development of oil and gas fields. The course deals with examples of wellbore stability, modeling and forecasting abnormally high formation pressures, deals with fracturing stimulation optimization and sanding issues; also there would be covered issues of geomechanics application to unconventional, and fractured shale oil and gas.

COURSE OUTLINE

DAY 1
Introduction to Geomechanics
1.1. Introduction to geomechanics and application in the oil and gas industry
1.2. Generation of stresses and tectonics inside the Earth, evaluation methods and techniques
1.3. Modeling techniques and methods of calculating natural stresses
1.4. Pore pressure generation, evaluation methods and techniques
1.5. Modeling techniques and methods of calculating pore pressure

DAY 2
Rock Mechanics and Mechanical Earth Modeling
2.1. Introduction to Rock Mechanics
2.2. Core testing for geomechanical modeling
2.3. The methods of calculation and simulation of existing approaches elastic and strength properties
2.4. The philosophy of MEM construction
2.5. Input data and quality control
2.6. 3D MEM construction. Geomechanics during the life of the field.

DAY 3
Calculations based on Mechanical Earth Model and Its Applications
3.1. Borehole wall geomechanics. Wellbore stability modeling and well construction optimization
3.2. Fracture design optimization
3.3. Sanding analysis and prevention
3.4. Geomechanics of unconventional reservoirs
3.5. Wrap up

SPECIAL INSTRUCTIONS: PARTICIPANTS MUST BRING A LAPTOP

INSTRUCTOR
NIKLAY SMIRNOV

Nikolay Smirnov is a recognized Russian expert in geomechanics that in 2005 founded this discipline for Russian oil and gas industry. He had successfully solved numerous problems in the industry, such as drilling through “chocolate” clays, problems of horizontal wells on Arkhir and Jurassic sediments, also looking at Bazhen-Abalak formation development issues, problems of developing shelf prospects with extended reach wells, problems of multistage fracturing, reservoir issues like sanding and many others. Smirnov started his career in Schlumberger Sasto-Forex in 1997 as a Drilling Engineer, working in West Africa. Throughout his carrier Smirnov was working as senior geomechanics engineer at Holditch-Reservoir Technologies in Houston Texas, which eventually became Schlumberger. Smirnov initiated geomechanics technology in Beijing, China. Nikolay Smirnov had authored and co-authored over 20 technical papers and patents. He graduated from Novosibirsk State University with degree in Geology and Geophysics. Currently he is working as a technical director of PetroGM company.

REGISTRATION INFORMATION

Attend the conference on one, or all three days of the event, and see technical and plenary presentations from Russian and international industry experts, sharing their experiences, innovations and thought-leadership.

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HOW TO REGISTER

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TERMS AND CONDITIONS

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1-y Zachatyevskiy perulok 4
Moscow, Russia, 119034
Metro station Kropotkinskaya, Park Kultury

InfoSpace is located in Moscow’s historic center, one kilometre from the Kremlin, 300 metres from the Cathedral of Christ the Savior, and 50 metres from the seafront Prechistenskaya.

TRAVEL—GETTING TO MOSCOW

There are three international airports in and around Moscow

• SHEREMETYEVO: is located north of the city and can be reached by taxi in approximately one hour.
• DOMODEDOVO: is about 22 km south of the city. A taxi ride into town takes approximately one hour and 30 minutes.
• VNUKOVO: is located 10 km southwest of Moscow. A taxi will take about one hour to the city centre.

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25–26.10 – RUB 4,400 / 4,800 per night for single / double
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HOLIDAY INN SOKOLNIKI ****
Standard Room
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26–28.10 – RUB 5,800 / 6,450 per night for single / double

BAGRATON ***
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100% payment is required on booking. For more information, including the hotel cancellation policy, please visit http://www.spe.org/events/rpc/2015/

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