

Under the High Patronage of His Excellency The President of the Lebanese Republic General Michel AOUN

Who We Are

SPE is the largest individual member organisation serving managers, engineers, scientists and other professionals worldwide in the upstream segment of the oil and gas industry.

Who Should Attend?

- › Petro-Technical experts and managers involved or in charge of exploration and development in the Eastern Mediterranean
- › Geophysicists
- › Geologists and Engineers
- › Technology and Service Providers

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Early Bird Registration Deadline is 28 January 2018

This SPE workshop is the first technical focused meeting dedicated to offshore oil and gas exploration and development in Lebanon, after a series of events addressing policies and marketing aspects.

The Levantine basin in the eastern Mediterranean waters is one of the largest untapped exploration basins worldwide and is, consequently, attracting a lot of attention especially due to several major discoveries in the last few years.

Interpretation of seismic data covering the entire Lebanese offshore has shown a great potential. On 21 January 2017, the Lebanese Council of Ministers approved two decrees needed for the completion of the first licensing round for Lebanon. The first decree divided the Lebanese Exclusive Economic Zone into ten blocks. The second decree presented the Tender Protocol that defines the conditions for participating in the bid round, the criteria used in the bids evaluation, and the model Exploration and Production Agreement that will be signed between the State and the winning consortia. Furthermore, the required petroleum tax law was signed by the Lebanese Council of Ministers on 19 September 2017.

Shortly after the approval of the decrees, a first licensing round started and five out of the ten offshore blocks were open for bidding. Prequalified companies, after two prequalification rounds, were invited to submit their bids on the open blocks. Eventually, the Lebanese Petroleum Administration received two bids presented by the consortium Total-ENI-Novatek for blocks 4 and 9. The evaluation of the bids and the signature of the EPAs will follow in November 2017.

Committee Members

CHAIRPERSON
Kassem Ghorayeb
American University of Beirut
Amir Alwazzan
Dragon Oil

Roy P. Borkhoche
Baker Hughes, a GE company
Ali Choumar
DNV GL - Oil & Gas
Elie Daher
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Hesham Elkhafif
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Rachad G. Ghanem
Lampion Oil & Gas Services

Gwenael Guerin
Total
Jevon Hilder
Spectrum Geo Limited
Ahmed Sabry
Schlumberger

Ali S. Sikandar
Qatar Petroleum
Rodrigo Siqueira
Halliburton

Wednesday, 14 March 2018

Opening Session

Session 1: Setting the Scene—Lebanon Exploration Activity and Potential

Session Chairs: Elie Daher, United Safety;
Kassem Ghorayeb, American University of Beirut

Experts from the Lebanese Petroleum Authority (LPA) will share up-to-date information about:

- Available data and studies
- Current understanding of the offshore fields' potential
- Status of exploration activity and plans

Session 2: De-Risking the Petroleum System Elements, Offshore Lebanon

Session Chairs: Gwenael Guerin, Total;
Jevon Hilder, Spectrum Geo Limited

There is still a good deal of uncertainty regarding the main petroleum system elements of the Levantine Basin offshore Lebanon. This session will focus on current thinking concerning:

- Source rock distribution, maturity and the likelihood of oil or gas generation and migration pathways—the biogenic gas system is proven in the recent discoveries close to Lebanon offshore, but is there any room for a thermogenic system?
- Possible reservoir provenance, quality and distribution—as no well has been drilled yet which could prove the sand presence, the regional understanding of the potential provenance is key for the future exploration in the area.
- Structural evolution of the basin and implications for hydrocarbon traps and their integrity—the tectonic history of the area is complex, and the structural evolution is one of the main ingredients for success in this case.

As well as examining areas which were the subject of some conjecture currently, we will attempt to identify where new data or different approaches will improve our understanding of the petroleum system, vital for de-risking the exploration phase.

Session 3: International and Regional Analogues and Lessons Learnt

Session Chairs: Rachad G. Ghanem, Lampion Oil
& Gas Services; Ahmed Sabry, Schlumberger

Recently acquired seismic data offshore Lebanon led to the identification of promising prospects, yet many questions remain unanswered (e.g. basin temperature, pressure, rock and fluid properties, etc.).

It has become common practice to use and supplement subsurface datasets with information and concepts derived from basin and reservoir analogues. This aims at building a better understanding of new frontiers being explored, reducing uncertainties, and focusing on key elements for successful exploration and development. The industry has spent substantial efforts in recent years in examining the challenges inherent in the selection and application of appropriate analogue data.

The western and south-western portions of the Levant basin were drilled with valuable direct and indirect measurements obtained from tests carried at well sites. Data from such regional analogues along with other international ones are believed to play a major role in reducing uncertainties pertaining to geology and reservoir characteristics within the Lebanese un-drilled area. Lessons learnt from regional and international analogues would significantly help to optimise well location selection and planning, improve managing drilling challenges, and enhance understanding of reservoir characteristics and challenges.

Session 4: Challenges in Deep and Ultra-Deep Offshore Drilling

Session Chairs: Roy P. Borkhoche, Baker Hughes,
a GE company; Kamel El Kholi, Schlumberger

The first exploratory well in the Levant basin (Leviathan-1 2010) was drilled to a depth of 5,170 metres at an estimated cost of USD 93 million when the natural gas commodity price was USD 5.42 /MMBTU. In the current market conditions, where natural gas prices are depressed (USD 3.0/MMBTU), drilling challenges or inefficiencies can easily deter further investment and development activity. Hence, it is critical to have the right combination of planning and execution coupled with the highest quality and HSE standards for the Lebanese offshore prospect to succeed. A full-stream integrated approach would be required to minimise the risks, improve well delivery efficiencies and drive down the cost per well.

The main purpose of this session is to go through the multiple drilling challenges and to ensure mitigation plans are in place prior to start-up. These complex deep wells are high pressure, high temperature applications which require a unique approach and cutting-edge technology in order to drill and place within the reservoir productive zone. Among these challenges are drilling in water depths of up to 2,000 metres, which require unconventional surface and sub-surface infrastructure. Other encountered drilling challenges include, wellbore stability with reactive shale zones, shallow gas subsea spots, casing and tubular collapse in salt and pressured zones, multiple traversing fault lines, narrow pressure window drilling intervals, ECD management and depleted targets, downhole dynamics and drilling inefficiencies, severe lost circulation, well control and reservoir uncertainties. All these challenges increase the drilling risks and can easily drive well costs beyond the economic break-even point, if not well understood and properly planned for along with effective mitigation planning.

Thursday, 15 March 2018

Session 5: The Journey of Environment, Health, and Safety (EHS) from the Regulatory, Technical, and Operational Aspects

Session Chairs: Elie Daher, United Safety;
Hesham Elkhafif, Petrobel

The Offshore Petroleum Resources Law (OPRL) establishes the main and general rules of the HSE regime in Lebanon, which is complemented by the extensive and detailed Petroleum Activities Regulations. New HSE legislation and regulations in Lebanon are currently being developed. The rules state that petroleum activities must be conducted in a way which enables a high level of safety. Any person managing or undertaking petroleum activities according to a petroleum right awarded under the OPRL must ensure high standard of health and high level of safety for their employees and the employees of subcontractors.

The right holder must ensure that anyone carrying out work on the behalf of the right holder through employees, contractors or subcontractors, complies with the HSE regulatory requirements. Petroleum activities must be conducted in a responsible and prudent manner and must include practices and methods that reasonably would be expected from internationally experienced operators. As we are embarking on the exploration journey, operators, contractors and regulators should strive to provide safe, healthy, and secure workplaces, protect the environment, uphold and promote human rights, and respect cultural norms and values everywhere we operate.

The exploration and production work has the potential to impact people, the environment and society but through good management practices, stakeholders are able to deliver excellence in HSE and SR performance.

In this session, we will take a look at how we can effectively manage, measure, and advance our HSE and SR performance to achieve excellence in the years ahead for a safe journey into oil and gas exploration and production. Case studies, lessons learnt, best practices will be shared and discussed, and recommendations will be drawn.

Session 6: Optimal Data Acquisition for Reservoir Characterisation

Session Chairs: Ali S. Sikandar, Qatar Petroleum; Rodrigo Siqueira, Halliburton

What is the impact of a low oil price environment on data acquisition programmes, especially exploration? Are operators gaining value out of their investments on gathering data and turning it into decision-making basis?

When business decisions or investment decisions on a new play need to be made, the impact of a high uncertainty level in volumetric or productivity estimates may make the difference between investing further or not. The lack of proper information and analysis can make you miss a good investment or can also lead to an investment on an uneconomical play.

Oil and gas operators gain insight from acquiring accurate reservoir data in order to help them make better decisions. The right balance between the cost of the technology and how the information from that technology will be able to help reduce the uncertainty on a specific well or play.

This workshop will focus on the engineering aspects and the available technologies for reservoir characterisation in early exploration stages and how companies are able to optimise the value that a proper planned and executed data acquisition programme brings to their plans and decisions.

Session 7: Post-Exploration Phase: The Way Forward towards Field Development

Session Chairs: Amir Alwazzan, Dragon Oil; Ali Choumar, DNV GL - Oil & Gas

Exploration and production of oil and gas is a high-risk venture and the process of making decisions pertaining to this industry, is still a very complex one due to the high number of parameters and issues involved in it. However, the industry has experienced significant improvements in the management of uncertainties in the past decades, and uncertainty and risk analyses are becoming more popular, contributing in an important manner to clarify the range and the impacts of new discoveries as well as development and production assets.

In this session, participants will share their experiences in addressing post-exploration issues to better understand and quantify the risks and uncertainties associated with this phase along with their effective controls. Discussions will be covering the principles of the FDP option selection, data acquisition and interpretation, risks' analyses and smart fields' developments.

Session 8: Workshop Summary Session

Highlights from different sessions will be recorded, consolidated, and summarised during and after each of the above sessions. The summary will be presented, discussed, and finalised in this session.

General Information

Format

Two days of informal discussions prompted by selected keynote presentations and discussions. Focused topics and issues critical to advancing both technology and best practices. Majority of the presentations are in the form of case studies, highlighting engineering achievements, and lessons learnt. In order to stimulate frank discussion, no proceedings are published and the press is not invited to attend.

Documentation

- Proceedings will not be published; therefore, formal papers and handouts are not expected from speakers.
- Work in progress, new ideas, and interesting projects are sought.

Poster Session

The Steering Committee encourages registrations from professionals who are able to prepare and present a poster on a relevant project.

Attendance

Registrations will be accepted on a first-come, first-serve basis. The Steering Committee encourages attendance from those who can contribute effectively either in discussions or with posters.

Workshop Deliverables

The Steering Committee will appoint a "scribe" to record the discussions and to produce the full workshop report for SPE.

Commercialism

Commercialism in posters or presentations will not be permitted.

Attendance Certificate

All attendees will receive an attendance certificate attesting to their participation in the workshop.

This certificate will be provided in exchange for a completed Workshop Questionnaire.

Continuing Education Units

Attendees at this workshop qualify for SPE Continuing Education Units (CEU) at the rate of 0.1 CEU per hour of the workshop.

Registration Information

This is a nonresidential workshop and therefore hotel accommodation is not included in the registration fees. The registration fees include all workshop sessions, coffee breaks, and luncheons.

Cancellation and Refund Policy

- A processing fee of USD 100 will be charged for cancellations received before the registration deadline, 12 February 2018.
- For cancellations received after the registration deadline, 12 February 2018, 25% refund will be made to the registrant.
- No refund on cancellations received within seven (7) days prior to the workshop date, i.e. on or after 7 March 2018.
- No refund will be issued if a registrant fails to attend the workshop.

Registration Policy

- Registration fee MUST be paid in advance for attending the workshop.
- Full fixed fee is charged regardless of the length of time that the registrant attends the workshop.
- Fixed fee cannot be prorated or reduced for anyone (workshop co-chairpersons, committee members, speakers, discussion leaders, students, and registrants).
- Delegates with no proof of advance payment are required to pay onsite by cash or cheque, present a copy of the wire transfer, or submit a letter from their company guaranteeing payment of the workshop fees.

Sponsorship Information

Sponsorship support helps offset the cost of producing workshops and allows SPE to keep the attendance price within reach of operations-level individuals, those who benefit most from these technical workshops.

Sponsors benefit both directly and indirectly by having their names associated with a specific workshop. While SPE prohibits any type of commercialism within the workshop hall itself, the society recognises that sponsoring companies offer valuable information to attendees outside the technical sessions.

Sponsorship Categories

Sponsorships are offered on a first come basis. Please contact SPE to verify the availability of a particular sponsorship. Existing sponsors have the opportunity to renew the same level of sponsorship for annual workshops.

Sponsorship Benefits

In addition to onsite recognition, SPE will recognise sponsors on the SPE website and in all printed material for the workshop. Based on the sponsorship selected, sponsoring companies also receive logo visibility on promotional workshop items.

For More Information

For a detailed list of available sponsorships, including benefits and pricing, contact **Muniza Bano Shaikh** at mshaikh@spe.org.

