



## LEBANON FIRST LICENSING ROUND

The Minister

It gives me great pleasure to invite you to evaluate the hydrocarbon potential of Lebanon in preparation for the First Licensing Round. Pre-qualification will open shortly and then qualified Companies will be invited to apply for an "Exploration and Production Agreement".

The newly formed Petroleum Administration was appointed in November 2012 and is working to complete all the technical, legal, fiscal and administrative documentation that are required to be in place. This work has been supplemented by a number of activities such as the "Lebanon International Petroleum Exploration Forum and Exhibition" to ensure that the international oil and gas exploration community has been kept informed and involved in our endeavours to exploit our hydrocarbon resources.

Please be assured that the Lebanese Government is fully committed to make this project materialise through the first licensing round.

We thank you for your interest in Lebanon and we look forward to the future partnerships between the Lebanese Government and the industry stakeholders.

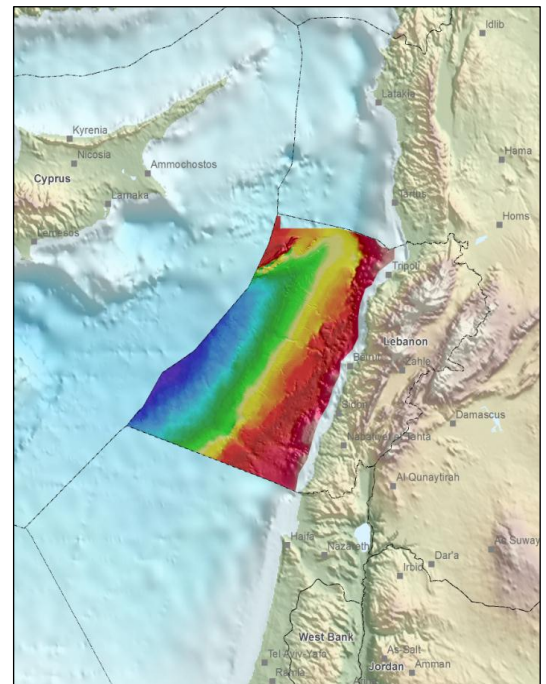
Eng. Gebran Bassil  
Minister of Energy and Water

### Technical Data

The Ministry has long recognised the hydrocarbon potential offshore Lebanon and in the last decade has commissioned 2D and 3D seismic surveys in preparation for the first offshore licensing round.

Seismic data offshore Lebanon acquired by:

- Geco Prakla (available at PA)
- Spectrum (available via Spectrum)
- PGS (available via PGS)

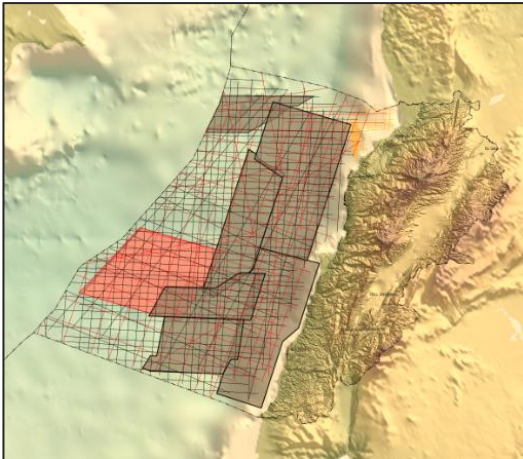


### Lebanon Offshore

The Lebanese offshore area covers a total of 22,730km<sup>2</sup> in the Eastern Mediterranean and has never been previously licensed for hydrocarbon exploration.

The recent deepwater, sub-salt gas discoveries to the South and West, which encountered high quality Lower Miocene sands, have significantly increased the industry interest in Lebanon and the Eastern Mediterranean.

The Levantine basin within the Eastern Mediterranean region is regarded to contain some of the most exciting exploration plays in the region which are being re-evaluated through advances in seismic technology.



Seismic Base Map Offshore Lebanon

Some 460km of 2D seismic lines were acquired by Geco-Prakla in 1993 over a limited area offshore northern Lebanon.

The Spectrum data includes 2D seismic surveys (1975 to 2002) which have been reprocessed (amounting to about 5,000 km) and more recently 3D seismic as shown on the map in red.

PGS data includes two 2D seismic surveys (2008 to 2011; covering some 8,800 km) complimented by six 3D surveys (2006 to 2013; covering around 9,700 km<sup>2</sup>). The location of the PGS 2D lines & 3D data is shown on the seismic base map in black & grey.

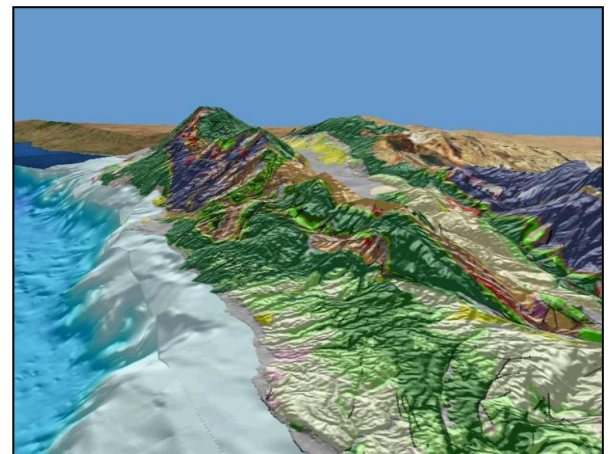
The seismic database provides valuable information about the prospectivity of the offshore Lebanon area.

## Geo-Package

The Geo-Package utilises GIS technology to integrate the older legacy paper data with the modern digital technical data to provide a dynamic digital data base for the entire area. It contains all the available data (onshore & offshore) including international borders, geological and geophysical data.

The first of 3 GeoPackages (The Framework Geopackage) is now available from the PA.

For more information about the GeoPackages available please visit; [www.lebanon-exploraton.com](http://www.lebanon-exploraton.com)



GIS – Digital Terrain & Geology



## Lebanon Data Room

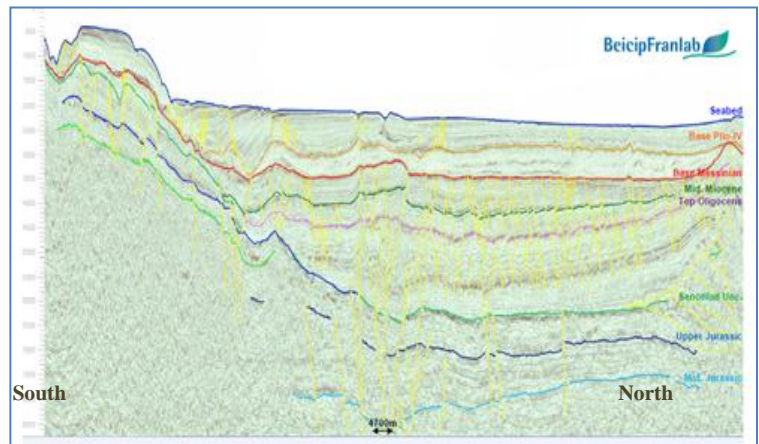
The available geoscience data has been loaded to technical workstation projects and is available for visitors to view at the PA data room in Beirut. This includes the seismic and well data some of which is contained within the GIS project, in addition to reports, studies and publications on the geology and prospectivity of Lebanon (onshore/offshore).



## Hydrocarbon Potential

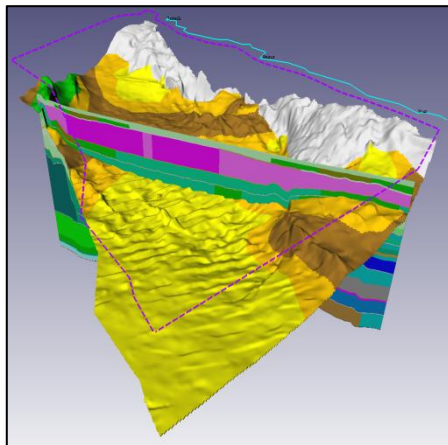
In 2011, the French consultant group, Beicip-Franlab was contracted to interpret more than 10,000 km of 2D seismic data and to prepare a regional interpretation report. This was followed by 3D interpretation analysis, basin modelling and prospectivity studies.

The Levantine Basin is a large deep basin which is estimated to contain more than 10,000 metres of Mesozoic and Cenozoic sediments. The basin contains all the key elements for successful hydrocarbon exploration with deepwater hydrocarbon plays within the Tertiary (Miocene / Oligocene sands) anticlinal structures enhanced by large potential stratigraphic traps. Nearer to shore, in relatively shallower water, hydrocarbon leads have also been recognised in the basin margin invoking new petroleum systems.

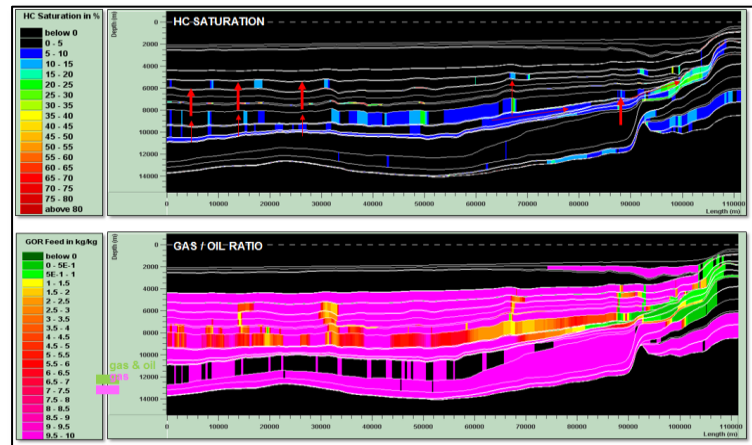


Regional Seismic Interpretation

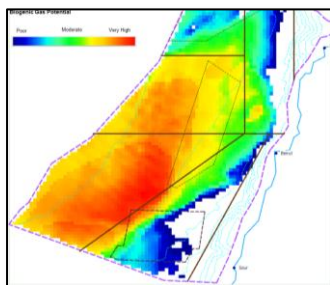
Recent analysis of the seismic data and basin modelling has provided a new understanding of the nature of the hydrocarbon systems, improved interpretation of plays and leads, and clearer understanding of the hydrocarbon potential of various areas in the Levantine Basin offshore Lebanon.



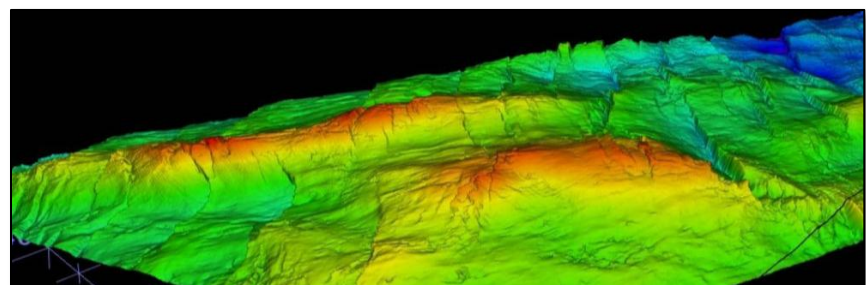
3D Geological Model



Basin Modelling – HC Migration in 2D



Biogenic Gas Potential



Large 4 way dip closures from the 3D seismic data





## Licensing Round Update: Pre-Qualification Process

According to the Offshore Petroleum Resources Law (Law No. 132 of August 24, 2010), the Petroleum Administration is planning to conduct, prior to the launching of the Offshore Oil and Gas licensing round, a pre-qualification round for all joint stock petroleum companies interested in applying for an "Exploration and Production Agreement" for the 1<sup>st</sup> Lebanese License Round.

The prequalification process will be conducted during the first quarter of 2013, and the 1<sup>st</sup> Licensing Round is planned to be launched on 2 May 2013.

The Pre-qualification Decree to be issued addresses the eligibility criteria and information requirements for all Petroleum Companies wishing to participate in the Licensing Round. Companies may apply as Right-Holder Operator and/or Right-Holder Non-Operator.

Pre-Qualification criteria address the following main categories:

### 1. Legal

The purpose is to define the company as a legal entity.

### 2. Financial

The purpose is to establish the company's financial strength on an on-going basis and its capacity to finance ongoing and prospective oil and gas activities.

### 3. Technical

The purpose is to demonstrate the company's competence in oil and gas exploration and production activities. Companies may pre-qualify as an Operator or Non-Operator.

### 4. QHSE

The purpose is for the company to demonstrate its operational procedures and issues relating to health, safety and the environment comply with Lebanese Law and international standards.

The detailed criteria and relevant documents will be posted soon on [www.lebanon-exploration.com](http://www.lebanon-exploration.com)

The granted pre-qualification status is valid for the 1<sup>st</sup> Licensing Round. All pre-qualified companies are required to notify the Petroleum Administration whenever there is an adverse material change in their status following pre-qualification.

Request for information about the license round, the pre-qualification process, Data Room booking and enquiries, should be submitted via email to [info@lebanon-exploration.com](mailto:info@lebanon-exploration.com).

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