Israel’s 2\textsuperscript{nd} Offshore Bid Round-New Exploration Opportunities in the Levant Basin

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Bid Round Area

- In November 2018 Israel launched its 2\textsuperscript{nd} offshore bid round
- 19 exploration blocks grouped into 5 Zones are being offered
- The offering includes attractive exploration targets south of major gas discoveries
- The bid round will be closed for submission on June 17, 2019
The Israeli Gas Revolution

- Ten gas fields have been discovered offshore Israel since the year 2000
- Proven gas reserves are estimated at 604 BCM/21 TCF (2P) with additional 234 BCM/8 TCF (2C) available for production
- Two fields are flowing gas to the shore and two more will be connected in 2019 and 2021
- The government promotes the development of gas infrastructure throughout the country
- Israel has taken a strategic decision to maximize the use of gas throughout its economy
Approx. 2400 BCM (85 TCF) of gas were discovered in the Levant Basin in the last 10 years.

Major Recent discoveries in Egypt (Zohr, Nour), Cyprus (Calypso, Glaucus) and Israel (Karish North).

The Levant Basin is an emerging hot spot for exploration with activity currently taking place in all the surrounding countries.
Regional Geology

- An Early Mesozoic extensional basin with multiple phases of contraction in Late Cretaceous to Tertiary
- A Slope-to-Basin paleo-environment with extensive deepmarine turbidite sands
- Marine source rock intervals generating both biogenic and thermogenic hydrocarbons
- Large underexplored structures and stratigraphic traps remain with good potential for oil and gas
The Tamar Sands

- Upper Oligocene-Lower Miocene turbidite sands (A,B,C,D), 30-140 m net pay, (25% por. / 1D per.)
- Gas is ~98% Methane, Carbon Isotope ratio indicates biogenic origin

(after Needham et al., 2017)
Zone C Prospectivity

- Possible Extension of the Tamar Sands Play
- Six Miocene intervals of stacked fans and channel-fill deposits below the thick Messinian Salt cover
- Prospective resources are estimated at 138 BCM/4.9 TCF of gas and 1.7MMBBL of Condensate (Best estimate by NSAI).
Deep Thermogenic Petroleum System

Mid-Up. Jurassic Source Rock

2D thermal maturation model (BeicipFranlab, 2015)

3D thermal maturation model of Mid-Upper Jurassic source (BeicipFranlab, 2015)
Zone D Prospectivity

- Potential for biogenic gas in shallower levels and oil in deeper levels.
- Large, elongated “Syrian-Arc” type fold with three reservoir intervals: Oligo-Miocene, Intra-Oligocene and Jurassic-Cretaceous
- Prospective resources are estimated at 99 BCM/3.5 TCF of gas and 351 MBBL of oil (Best estimate by NSAI).
Israel has among the highest growth rate of gas consumption in the world. The main driving factors are population growth, closing of coal-based electric plants and wider use in heavy industry, transportation and households. In 2022 85% of electricity will be generated from natural gas. Economic models predict that gas demand will more than double, to about 25 BCM/Y or approx. 1 TCF/Y in the next two decades.
Export Options

- Three export contracts have been signed with Jordanian companies valued at US$12 billion
- Two contracts have been signed with Egyptian companies valued at US$15 billion
- The Israeli government is cooperating with its neighbors to create the East Mediterranean Gas Hub
- The planning of the EastMed pipeline sponsored by the EU is well underway
Bid Terms

- Exploration and production blocks are managed as concessions under tax/royalty fiscal regime
- Maximum government take after production is a moderate 62-65%
- Exploration licenses will be granted for a period of up to 7 years with two drill-or-drop decision points (3+2+2)
- Bid evaluation criteria are 85% work program, 10% signature bonus and 5% general impression
- A comprehensive data packages including 20 wells two regional 2D surveys and 15 3D seismic surveys is offered
Bid Terms - Seismic Data Coverage

2D Data

3D Data

Bid Zones

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Come and visit our booth in the IP

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