

Lebanon's Offshore :

Prospectivity , Petroleum Regulatory Framework and Bidding Process



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Overview

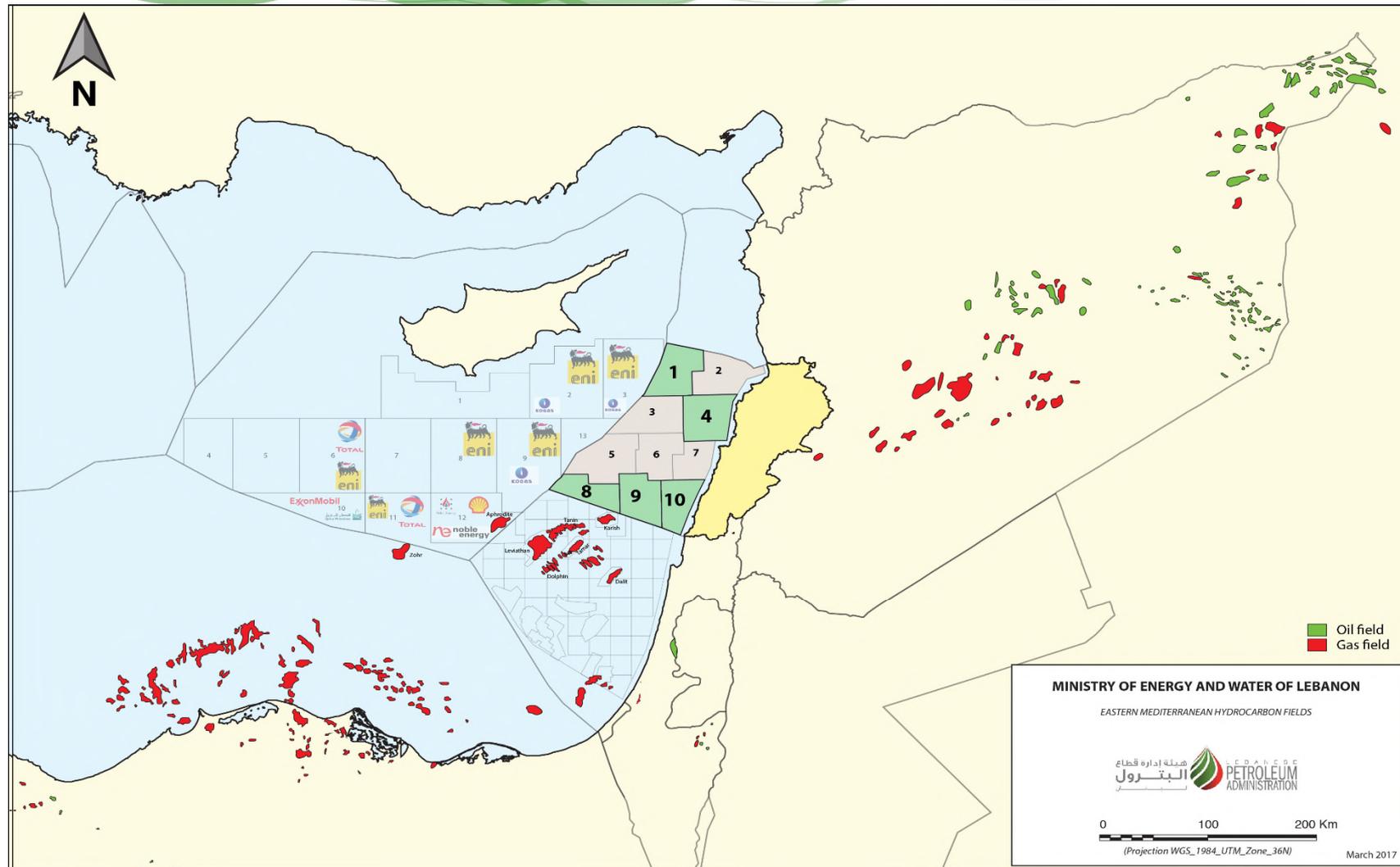


- Regional Exploration activity
- Offshore Lebanon prospectivity
- Lebanese Petroleum Legislation Bidding phase
- Transparency Measures
- Bidding Process
- Exploration and Production Agreement
- Draft Petroleum Tax Law

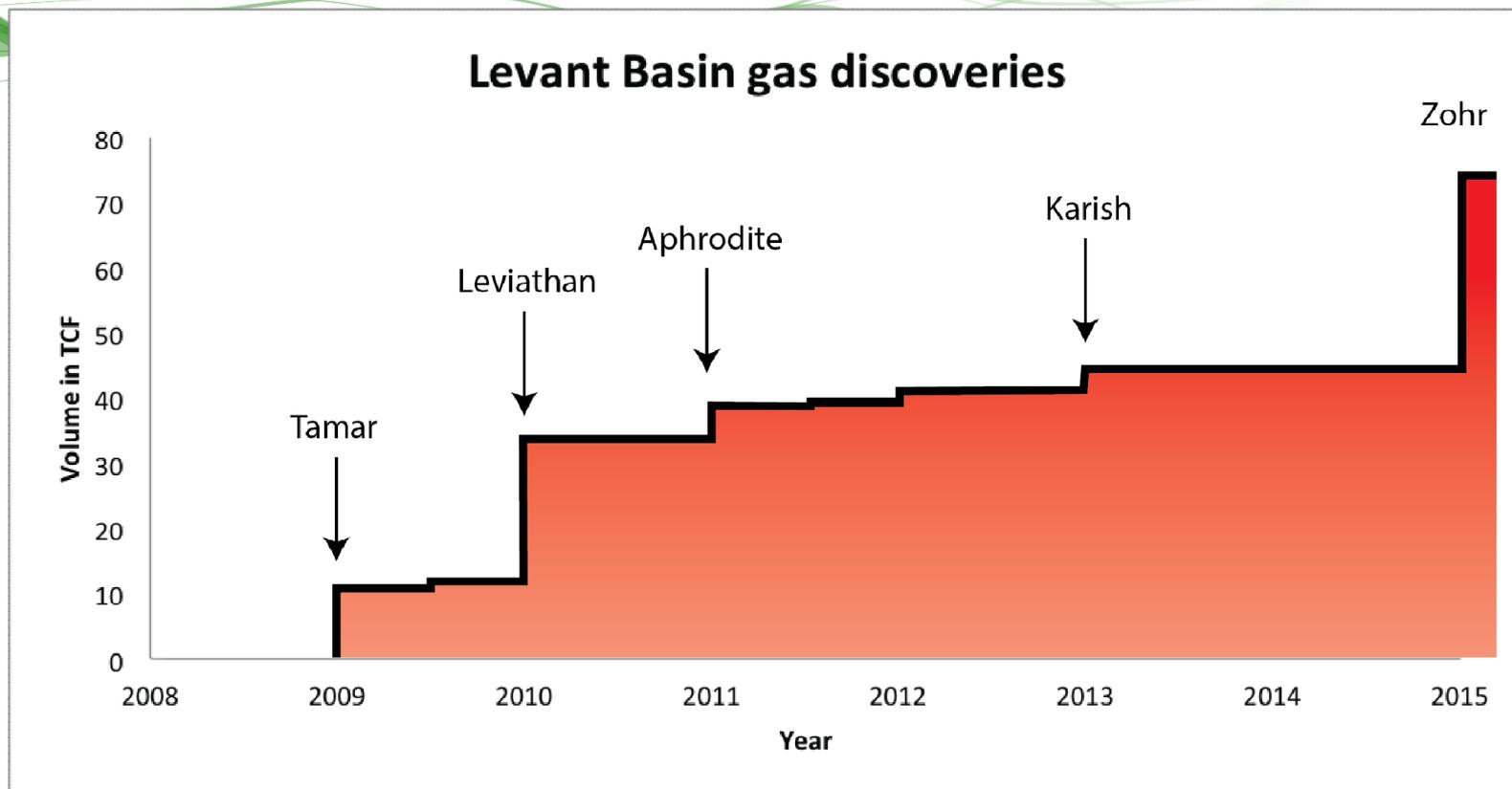
East med exploration



REGIONAL ACTIVITY



REGIONAL EXPLORATION



- ❁ Creaming curve was flattening before Zohr denoting the mature stage of conventional plays
- ❁ **The new paradigm shift to start a new exploration cycle in the basin will be in Lebanon**

Offshore lebanon



OIL SHOWS IN LEBANON

ACTIVE THERMOGENIC SYSTEM



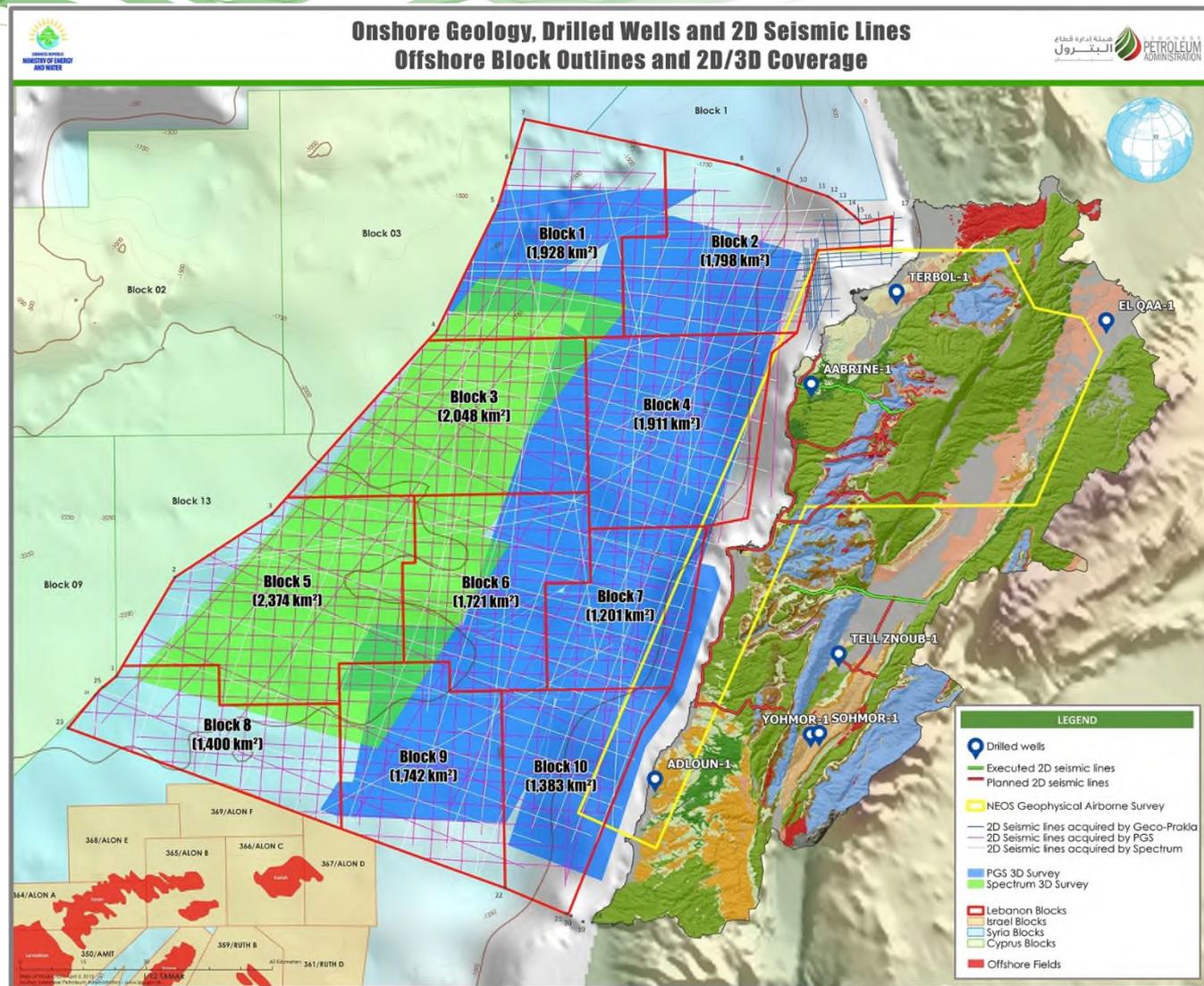
- Best shows observed in the bekaa valley
- Active thermogenic system



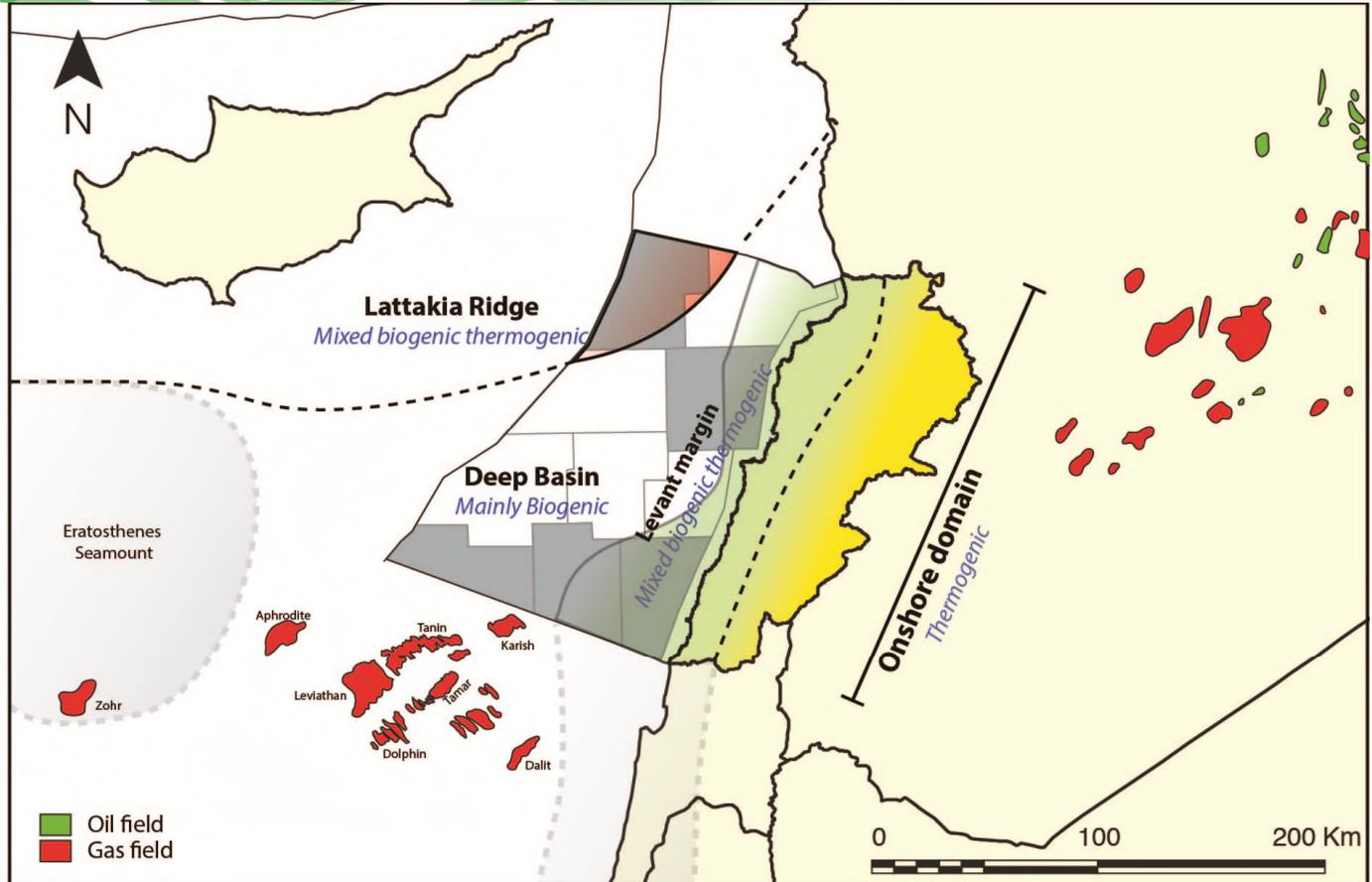
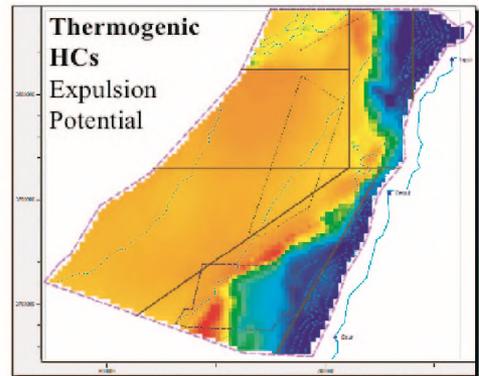
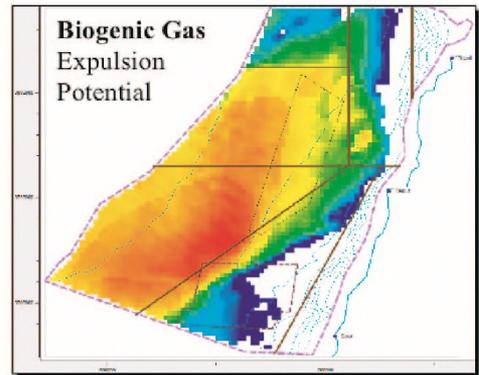
From Karanouh & Bou Jawde 2008. The caves of Lebanon

AVAILABLE MULTICLIENT DATA

- Spectrum 2D lines (5172 km)
- PGS 2D lines (5000 km)
- GeckoPrakla 2D lines (508 km)
- PGS 3D seismic data (9700 km²)
- Spectrum 3D seismic data (5360 km²)
- NEOS airborne geophysical (6000 km²)
- Onshore 2D lines (100 km)



BASIN MODELLING



EXPLORATION PLAYS

Structural plays

- Late Cretaceous 4-way dip closures sourced by Jurassic thermogenic source rocks and Oligo-Miocene gas
- Oligo-Miocene 4-way dip closures sourced by Oligo-Miocene biogenic gas
- Oligo-Miocene 3-way dip closures and tilted fault blocks sourced by Oligocene biogenic gas

Stratigraphic plays

- Lower Cretaceous sand pinchouts sourced by Triassic and Jurassic thermogenic source rocks
- Lower to Mid Cretaceous carbonate build-ups sourced by Triassic and Jurassic thermogenic source rocks
- Oligocene and Miocene pinchouts sourced by Oligo-Miocene biogenic gas
- Pliocene channel complexes sourced by Oligo-Miocene biogenic gas

NEW PLAY
CONCEPT

PROVEN

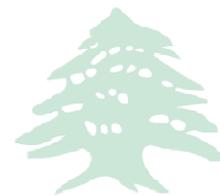
NEW PLAY
CONCEPT

NEW PLAY
CONCEPT

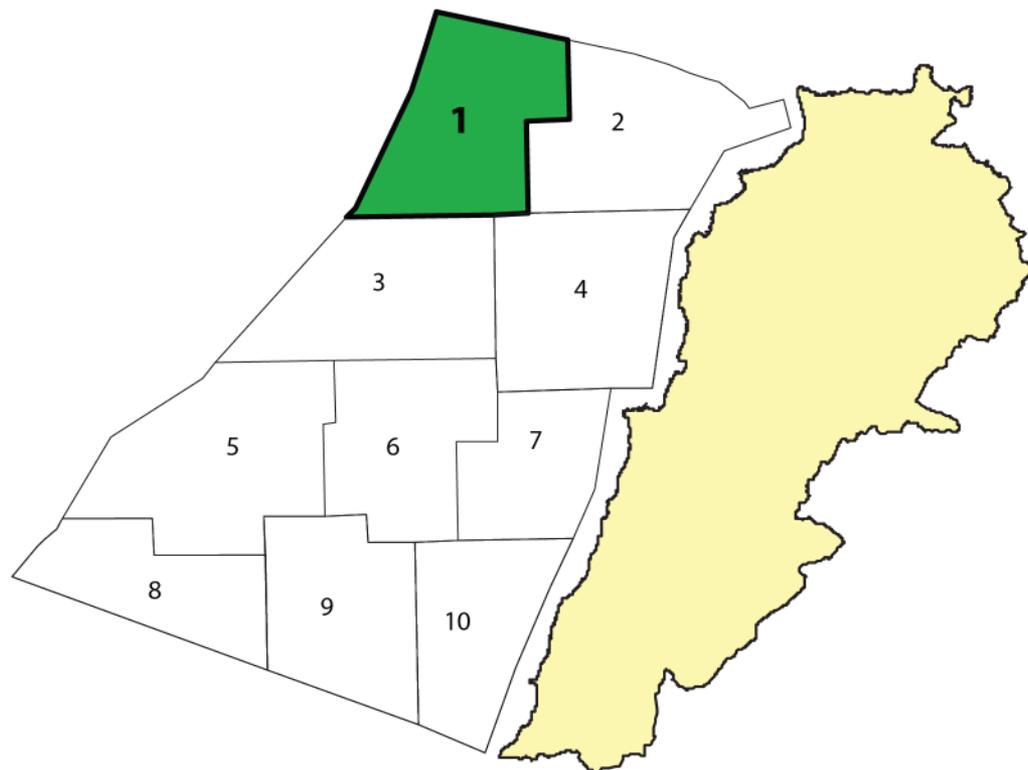
PROVEN

NEW PLAY
CONCEPT

PROVEN

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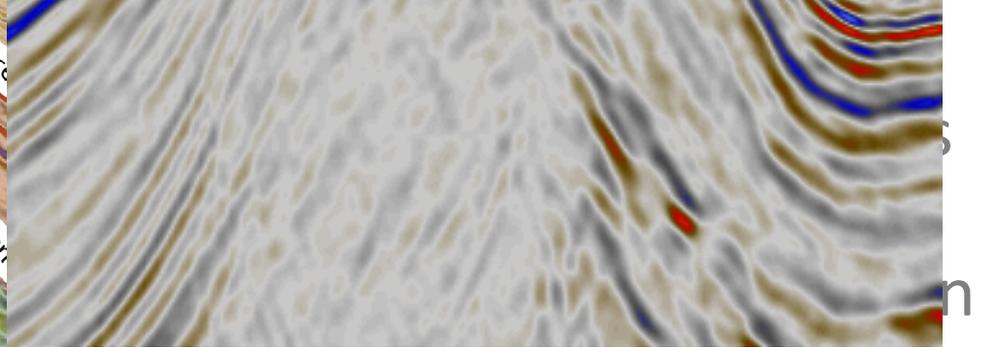
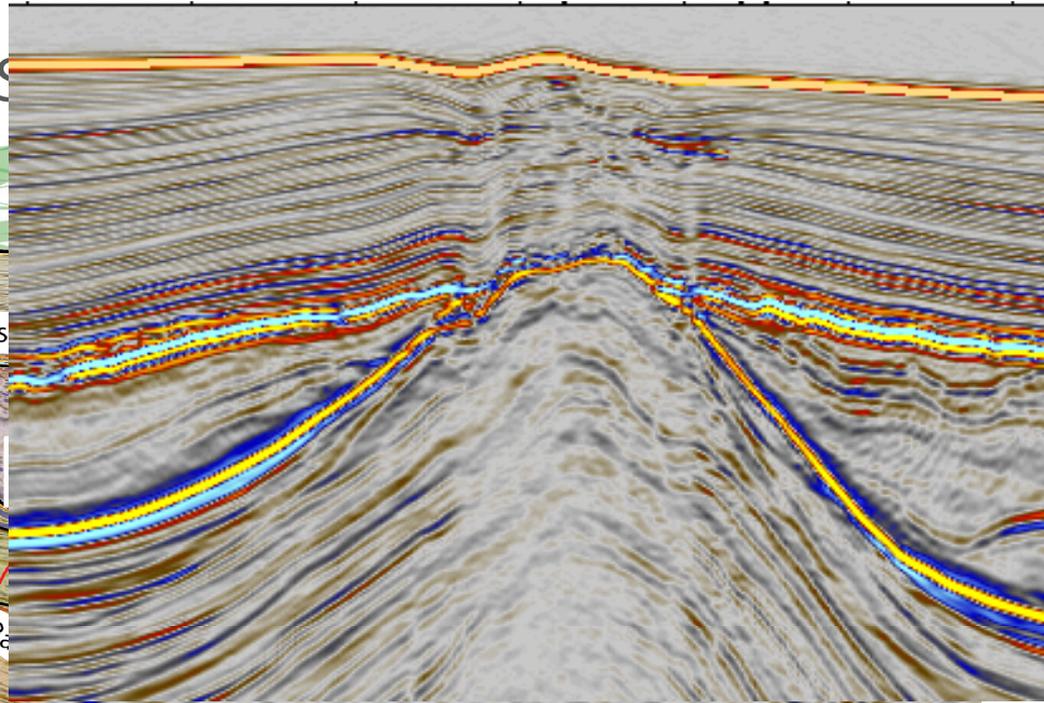
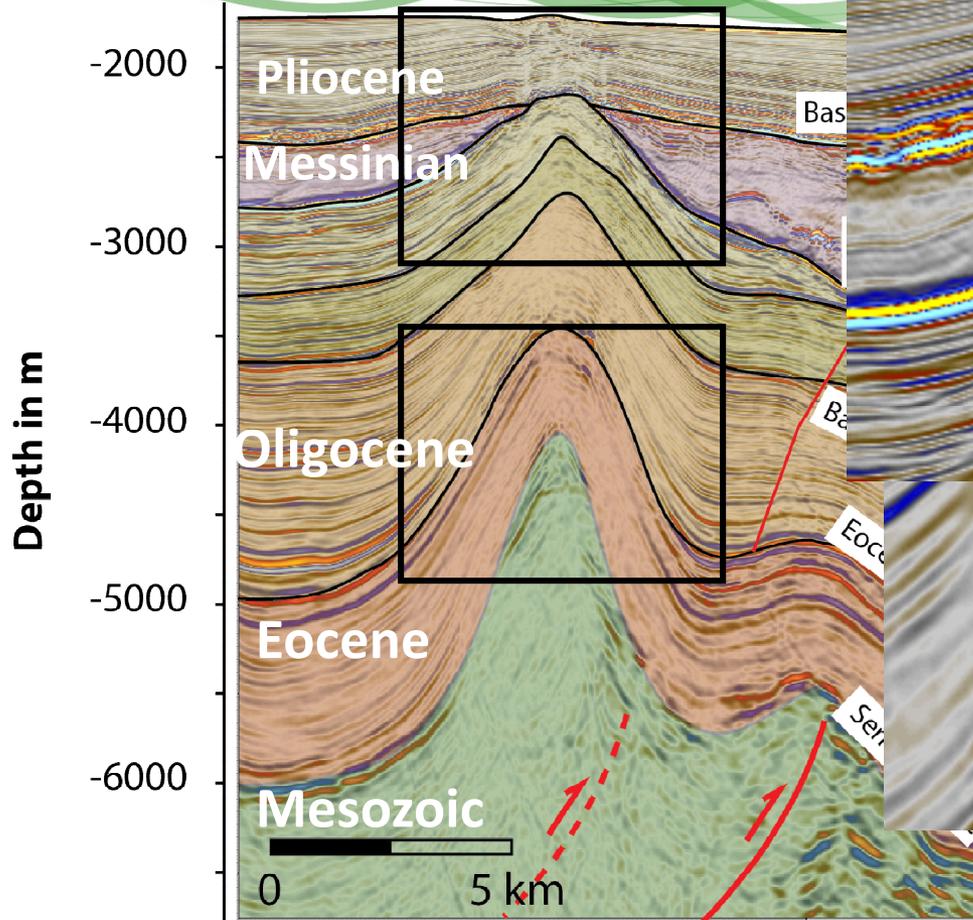
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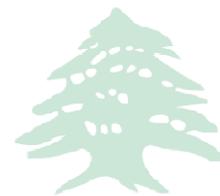


BLOCK 1

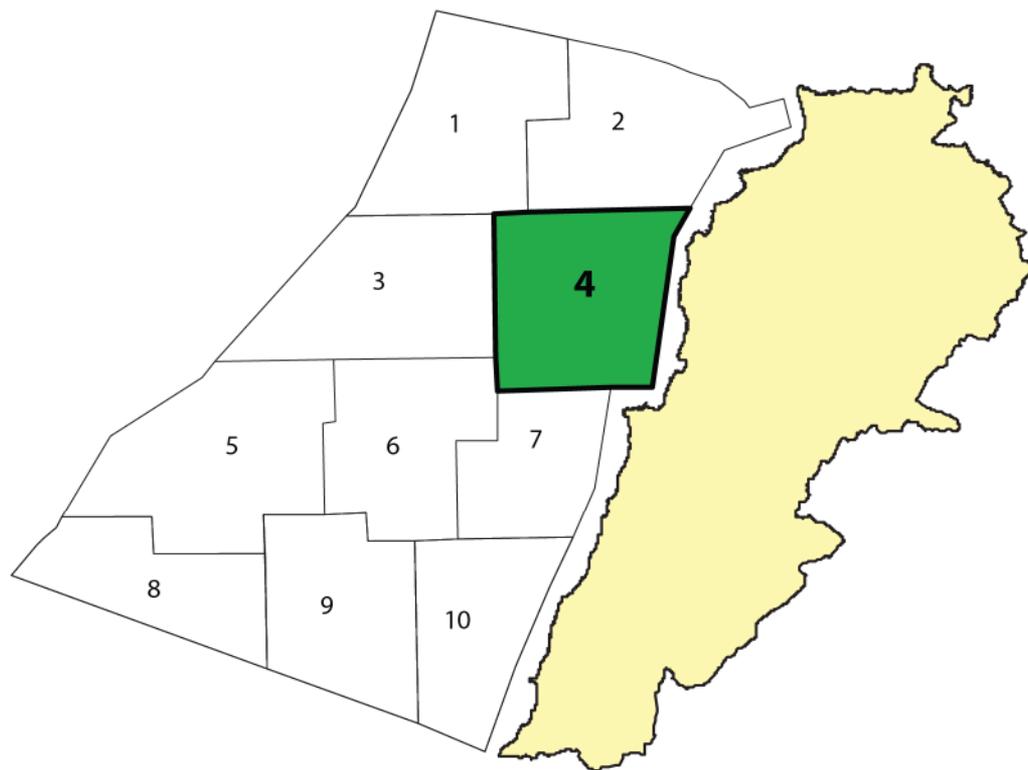
LATE CRETACEOUS ANTICLINES

WNW



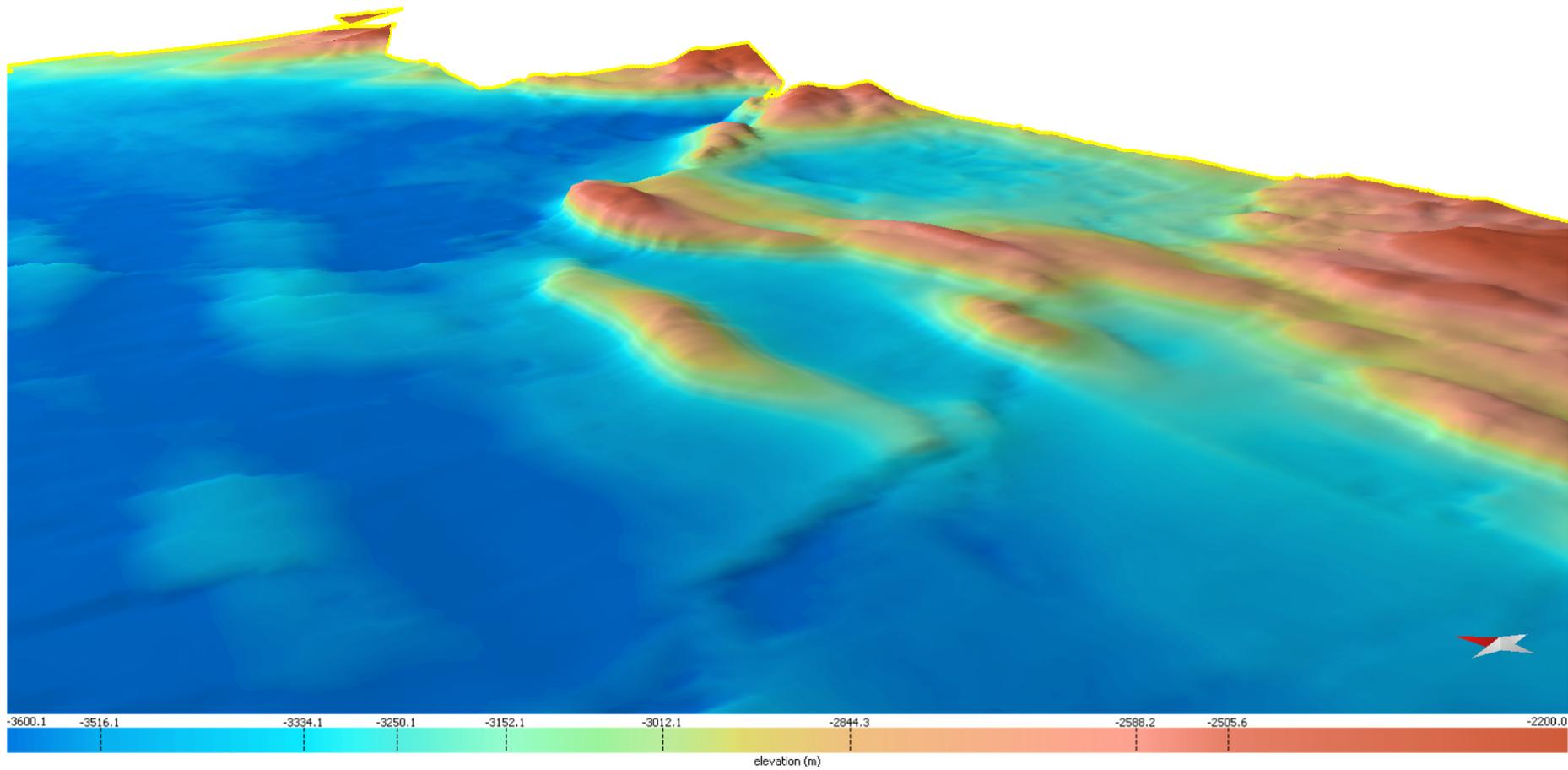
A decorative graphic consisting of several overlapping, wavy red lines that create a sense of motion and depth, located on the left side of the page.

Block 4



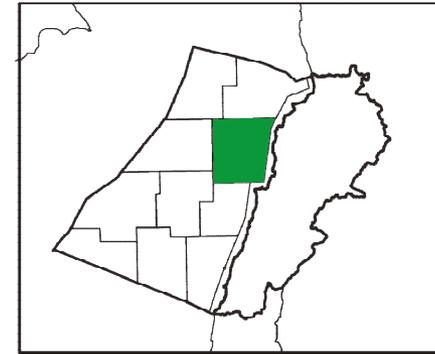
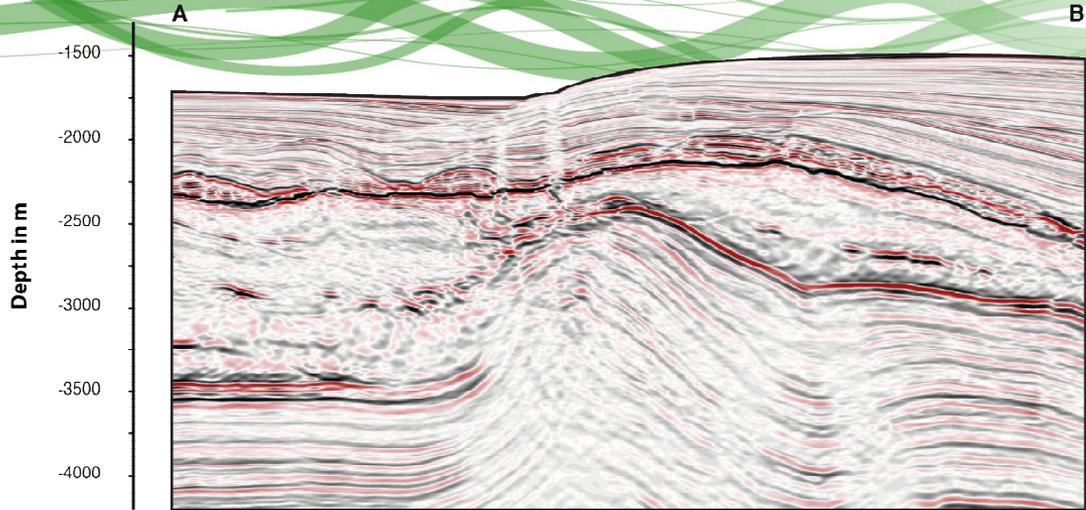
BLOCK 4

LATE MIOCENE ANTICLINES

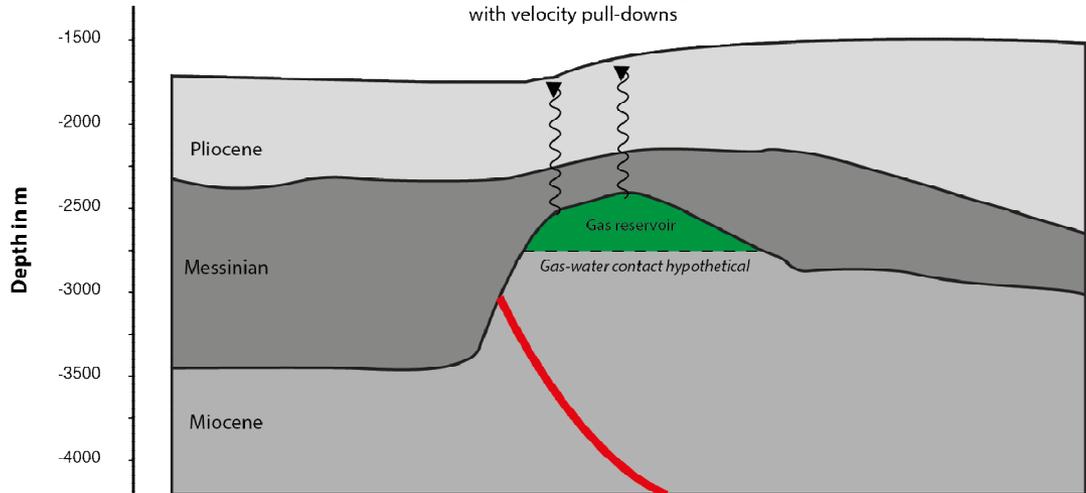


BLOCK 4

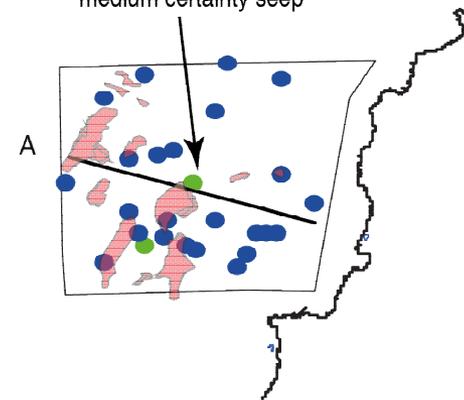
DIRECT HYDROCARBON INDICATORS



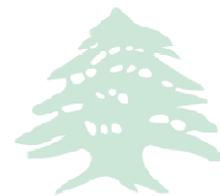
Gas chimneys observed when Messinian is thinning with velocity pull-downs



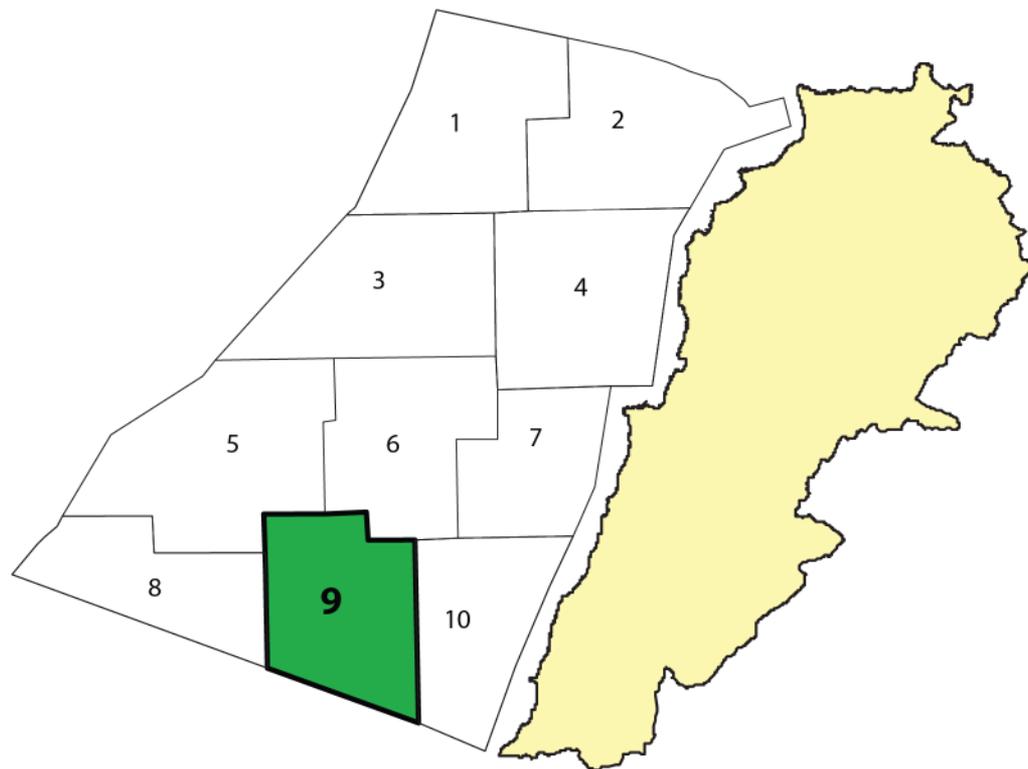
Gas chimney correlates with a medium certainty seep



- Medium Certainty
- Low Certainty

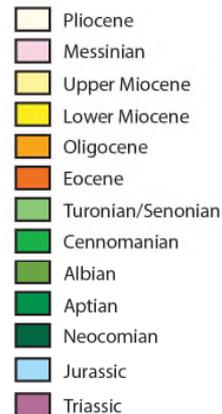
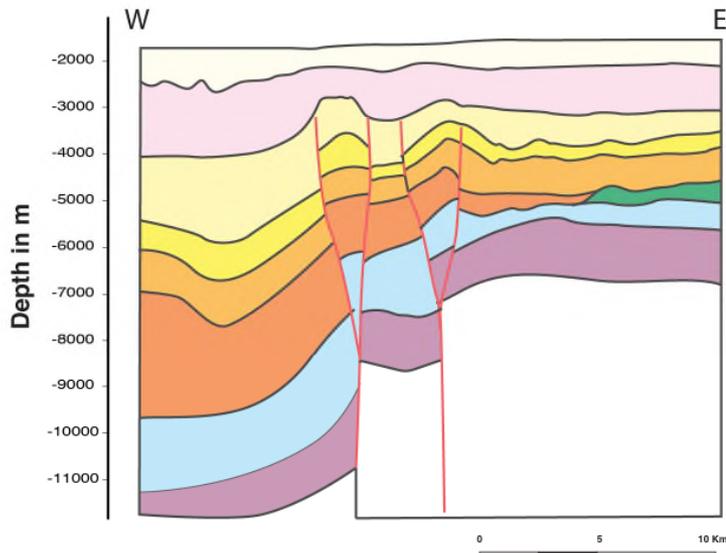
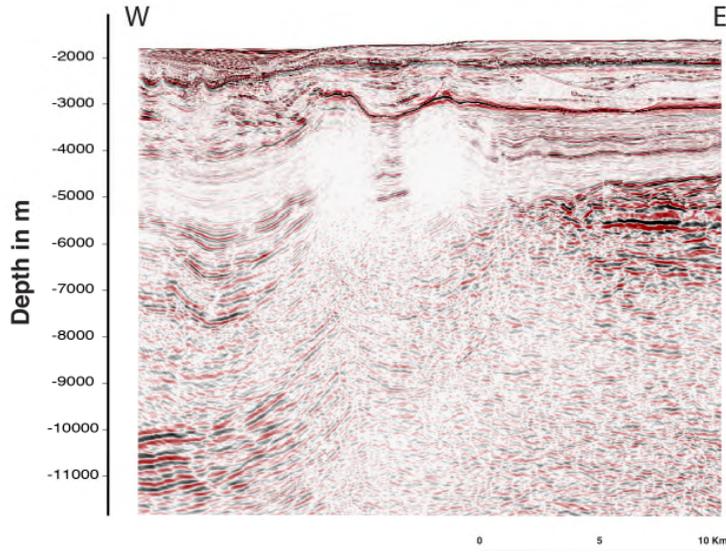


Block 9



BLOCK 9

LATE MIOCENE TRANSPRESSIVE ANTICLINES

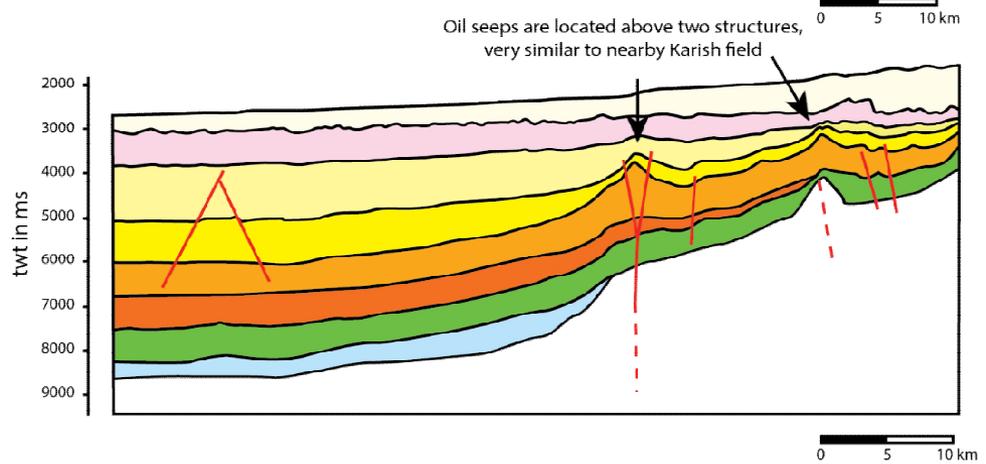
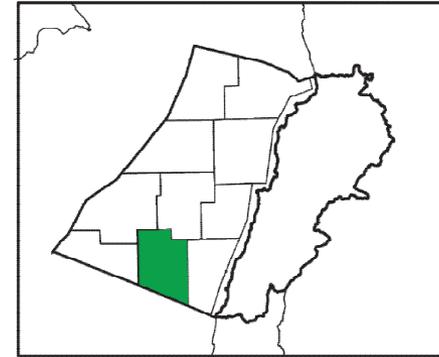
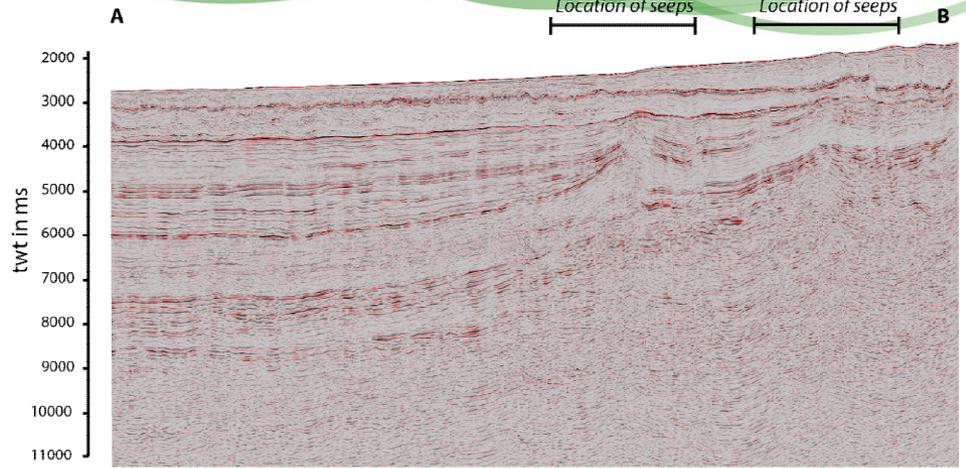


- Large transpressive anticlines are observed in block 9
- Overly deeply-rooted structures and faults
- Reservoirs filled mostly by biogenic gas
- Possible migration of hydrocarbon from deep thermogenic source rocks

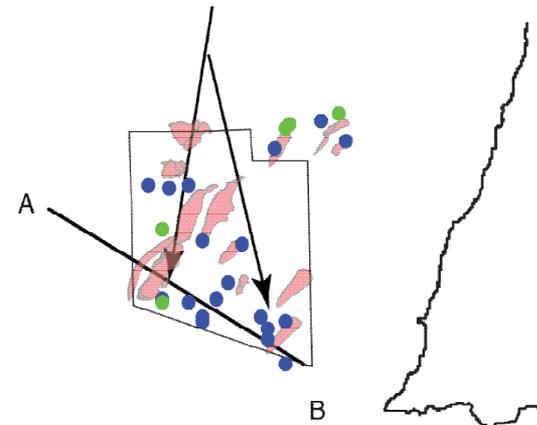
BLOCK 9

LATE MIOCENE TRANSPRESSIVE ANTICLINES

TGS LINE 2097



Seeps correlate with the presence of a large structure



- | | | |
|---------------|---------------|-------------------------|
| Pliocene | Lower Miocene | Cretaceous |
| Messinian | Oligocene | Post-rift Late Jurassic |
| Upper Miocene | Eocene | Syn-rift Early Jurassic |

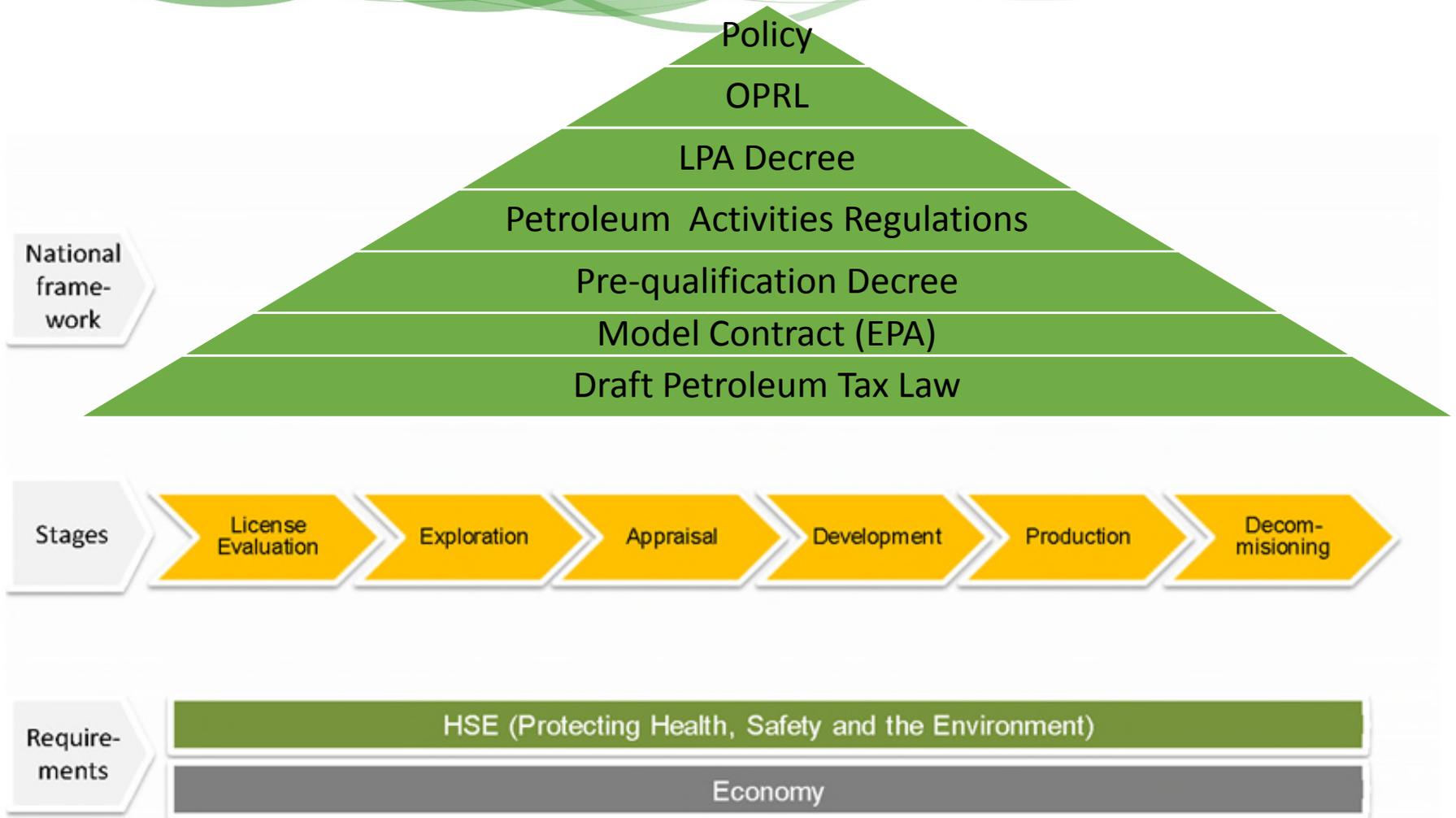
- Medium Certainty
- Low Certainty





Lebanese Petroleum Legislation

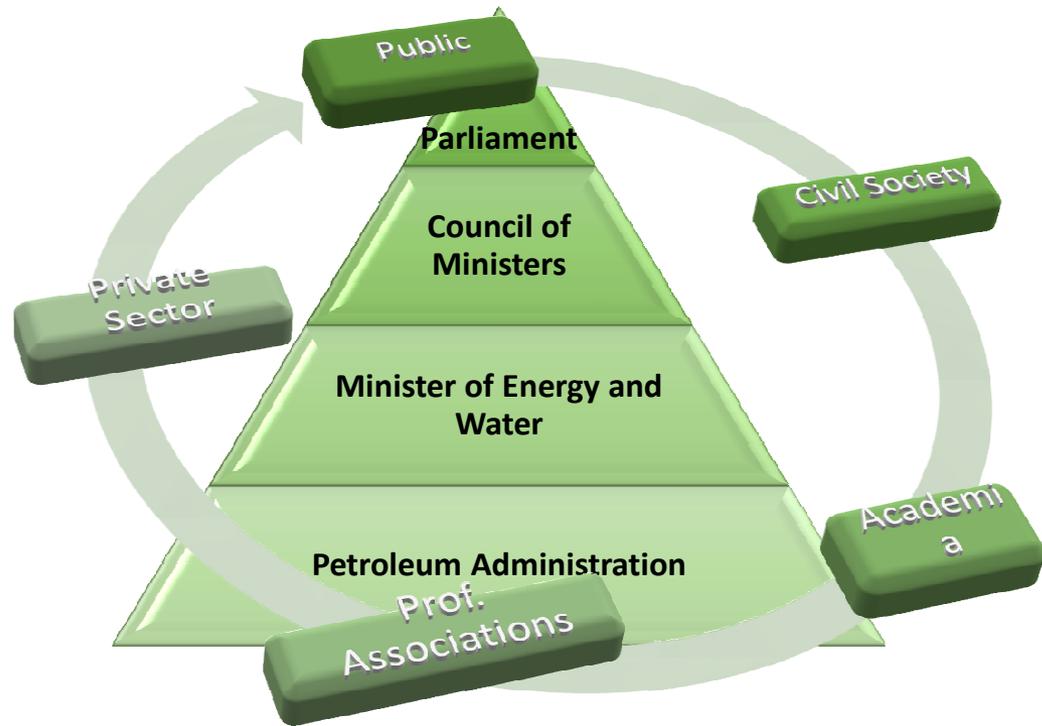
Petroleum exploitation – framework and stages



Governance structure

Line Ministries

Finance
Environment
Defense
Interior
Foreign Affairs
Public Works
Labor
Public Health
Economy





What Are the Transparency Measures Adopted in Lebanon's Petroleum Sector

Measures put in place to ensure transparency



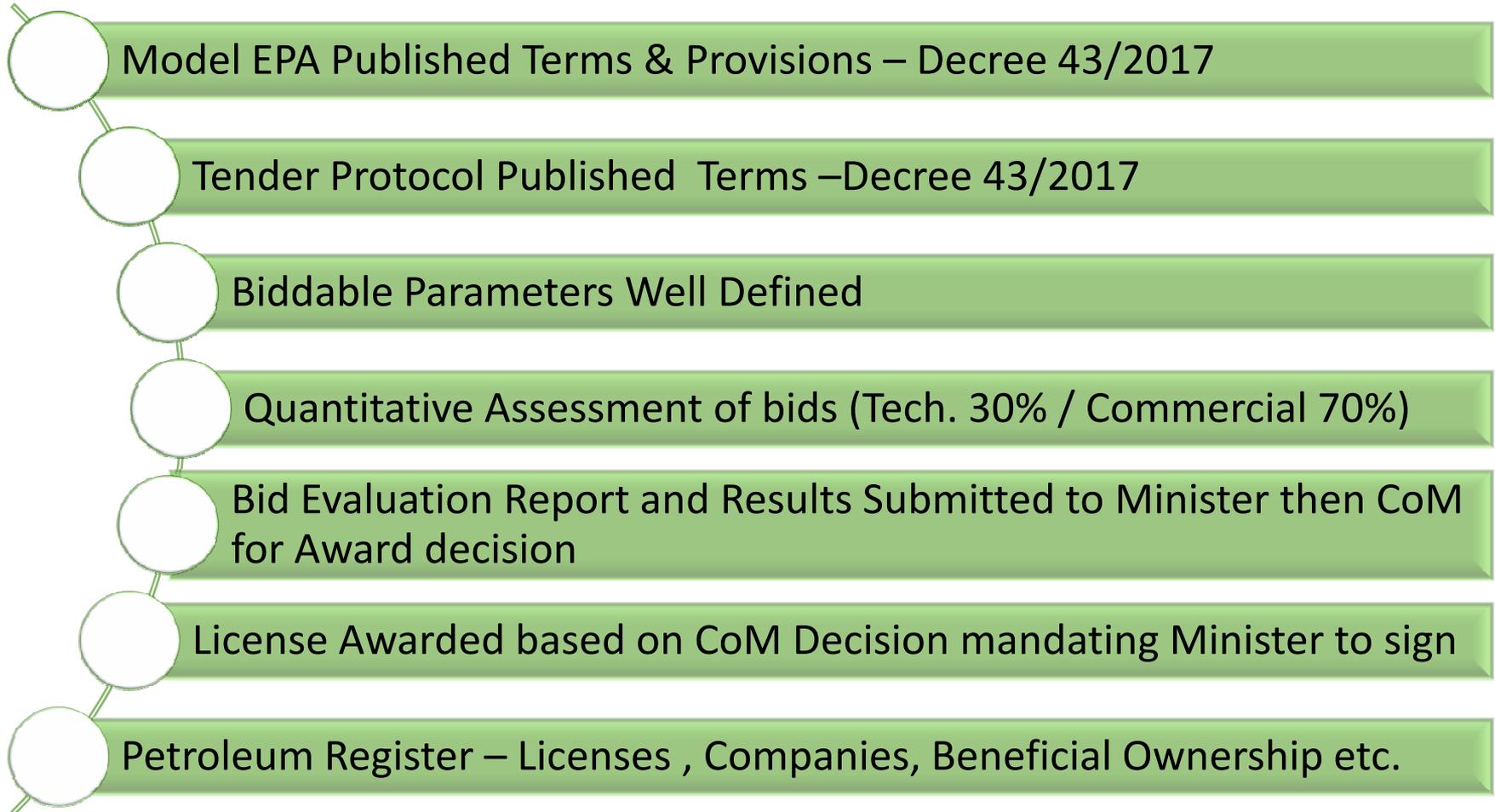
Put-in-place

- Clarity in legislation and regulations
- Transparent system, good reporting routines
- Agreement and contract terms fixed
- Open competitive licensing process
- Open tenders for sub contracts post award
- Clear accounting and financial procedures
- Multiple monitoring measures
- Metering control
- Regulations on health, safety and environment
- Well established and published procedures
- Government announced intention to join the EITI(Feb 2017)
- Petroleum register draft decree
- Draft transparency law specific for oil and gas



Bidding Process

Competitive Bidding Process



Pre-Qualification (Mandatory-law 132/2010)

RIGHT HOLDER - OPERATOR

Legal

- Joint stock company conducting Petroleum Activities

Financial

- Total assets of USD 10 Billion

Technical

- Operatorship of at least one petroleum development in water depths in excess of 500m

QHSE

- QHSE policy statement(s)
- Established & implemented QHSEMS

RIGHT HOLDER – NON-OPERATORS

Legal

- Joint stock company conducting Petroleum Activities

Financial

- Total assets of USD 500 Million

Technical

- Having an established petroleum production

QHSE

- QHSE policy statement(s)
- Established & implemented QHSEMS

Contents of bid

- Consortia must include **one Designated Operator** (minimum 35% stake) and at least **two Right Holders** (minimum 10% stake each), all **unaffiliated**
- Technical Proposal
- Commercial Proposal
- Proof of payment of \$50,000 Retrieval Fee and purchase of 3D seismic data
- \$5,000,000 bid bond per Applicant (i.e. Consortium), per Block
- Legal documentation (as detailed in the tender protocol)

**BIDS TO BE
SUBMITTED BY
September 15,
2017**

Bidding parameters – Technical Proposal

- Description of the general concept, approach and timing of proposed Exploration work, and a preliminary assessment per Block
- Proposed activities per exploration period:
 - Proposed 3D seismic survey (in square kilometers)
 - Proposed other geological and geophysical activities
 - Airborne, gravity, aero-magnetics, other (line kilometers)
 - Advanced technologies (e.g. electromagnetics) (square kilometers)
 - Exploration wells (number, minimum depths per well)
- Technical proposal must provide for at least one exploration well per exploration period

Bidding parameters – Commercial Proposal

- ❁ Cost Petroleum recovery ceiling
 - Maximum percentage of Disposable Petroleum (max 65%)

- ❁ Profit Petroleum sharing (based on the R-factor formula set forth in the EPA)
 - Parameters to be bid on include:
 - State share of Profit Petroleum when R-Factor < 1 (A=30% minimum)
 - State share of Profit Petroleum when R-Factor $\geq R_B$ (B)
 - Level of R_B

Bidding parameters – Grading System

- Tender protocol specifies weighting for the items included in the Technical Proposal and the Commercial Proposal
- Each of the items shall be evaluated independently, with the highest mark for each item attributed to the best proposal by an Applicant for such item
- Overall weight split: 70% for the Commercial Proposal and 30% for the Technical Proposal
 - For the Technical Proposal, the Minimum Work Commitment for 1st Exploration Period is given double the weight of that for 2nd Exploration Period

Grading Table – Technical aspect [30%]

Phase	Aspect	Metric for evaluation	Mark (up to)
First Exploration Period	3D seismic survey	Square kilometers	50
	Other geological and geophysical activities:		
	▪ Airborne, gravity, aero-magnetics, other	Line kilometers	10
	▪ Advanced technologies such as electro-magnetics	Square kilometers	50
	Exploration Wells:		
	▪ Cumulative depth proposed for all the Wells	True vertical depth from seabed (TVDss) in meters	240
▪ Maximum depth proposed among the Wells	True vertical depth from seabed (TVDss) in meters	50	

Grading Table – Technical aspect [30%] continued

Phase	Aspect	Metric for evaluation	Mark (up to)
Second Exploration Period	3D seismic survey	Square kilometers	25
	Other geological and geophysical activities:		
	▪ Airborne, gravity, aero-magnetics, other	Line kilometers	5
	▪ Advanced technologies such as electro-magnetics	Square kilometers	25
	Exploration Wells:		
	▪ Cumulative depth proposed for all the Wells	True vertical depth from seabed (TVDss) in meters	120
	▪ Maximum depth proposed among the Wells	True vertical depth from seabed (TVDss) in meters	25

Grading Table – Commercial aspect [70%]

Phase	Aspect	Metric for evaluation	Mark (up to)
EPA commercial terms	Cost Petroleum recovery ceiling and Profit Petroleum sharing	Govt. take and returns under govt. defined scenarios	600

Lebanon's 1st Licensing Round

Commercial Bid Evaluation Methodology

Principles

- Commercial bids are tested under a range of potential outcomes that are weighted to establish the total commercial score.
- The highest ranking bid will receive a score of 600.

Assumptions

- Generic model fields are assumed in each block.
- Several oil & gas price assumptions/combinations.
- A real discount rate would be chosen.

Scores

- Total government take is calculated for each individual scenario, with highest US\$ value receiving the highest mark and the rest are pro rated.
- The highest total from the scenarios is awarded 600 score while the remaining bidders scores are pro-rated.

Lebanon's 1st Licensing Round

Commercial Bid Evaluation Methodology

Calculation of Total Government Take

- The total government take for each bid will be calculated as a net cash flow accruing to the Government of Lebanon. The total government take will consist of the following elements that are payable on a block by block basis:
 - Royalty
 - Government Profit Share
 - Corporate Income Tax (CIT)

Price Assumptions

- Several oil prices are assumed based on the Long term Brent forecast.
- Several gas prices are benchmarked against relevant international gas prices.

Evaluation Process



- LPA will evaluate the Applications
- “*General approach and concept of the Exploration program*” and the “*Indicative Minimum Work Commitment*” will not be subject to a grade but will be taken into account in the final discussions .
- Each item will be evaluated independently
- Petroleum Administration may recommend selecting no Application for a Block, in particular if less than 2 Applications are made for such Block.
- The Minister, following CoM approval, reserves the right to award no more than 4 Blocks in the first licensing round.



Exploration and Production Agreement

Exploration & Production Agreement



The State, represented by
the Minister

Exploration and
Production Agreement
(EPA)

Right Holder

Operator / Right Holder

Right Holder

- At least three Right Holders at all times (OPR Law Requirement)
- No State Participation Interest in First Round EPAs
- State role is to receive share of production, and to exercise approval rights
- Some decisions reserved by OPR Law to Council of Ministers. Others made by Minister, acting on recommendation of Petroleum Administration.

Exploration and Production Agreement: Key Objectives

EPA Designed to Serve Essential Lebanese Objectives

- 🌱 Favoring long-term investment
- 🌱 Long-term partnership
- 🌱 Energy independence
- 🌱 Revenues for future generations
- 🌱 Opportunity for Lebanese service providers
- 🌱 Employment and Training
- 🌱 Environmental Protection

Scope and Term of EPA

Each EPA awards a **Petroleum Right to Right Holders** to conduct **Petroleum Activities** in an **Area**

Exclusive Rights

Exploration
Appraisal
Development
Production
Decommissioning

Non-Exclusive Rights

Construction and operation of facilities for processing, transportation and storage of Petroleum

Scope of such activities is dependent upon Development and Production Plans and location of Delivery Points

Term of EPA depends on duration of phases (subject to 10 year maximum Exploration Phase and 30 year maximum Production Phase under OPR Law)

Key EPA Annexes

In addition to the main body of the EPA, important annexes define the rights and obligations of the Right Holders

Accounting and Financial Procedure

- Determination and classification of Recoverable Costs
- Affiliate service contract charges and overhead charge
- Decommissioning fund calculations
- Reporting requirements

Joint Operating Agreement

- Regulates relationship among Right Holders
- Heads of JOA (annex to the EPA) defines key terms of interest to the State
- Right holders are free to determine other terms among themselves

Guarantees

- The following guarantees must be provided to the State:
 - Minimum Work Commitment Guarantees
 - Parent Company Guarantee (where applicable)
 - Joint and Several Shareholder Guarantee (where applicable)



Draft Petroleum Tax Law

Draft Petroleum Tax Law

- Corporate Income Tax of 20%
- Dividend withholding tax of 10%
- Stamp duty tax of 5,000,000 LBP on each EPA copy, other contracts are subject to 3‰
- Capital Gains tax of 20% on disposals of RHs shares or rights
- Exemption from Withholding tax of 2.25% for Goods purchased from non-resident
- Withholding tax of 7.5% for services rendered by non-resident
- Full Cost Method of Accounting (capitalization by phase)
- Ring fencing by EPA
- No time limit for losses carried forward
- Taxes will be paid in US Dollars and on a quarterly estimated basis

Draft Petroleum Tax Law (cced)

- Thin Capitalization rules - Interest due on the lesser of 150% of capital or 60 % of approved recoverable costs under the EPA will be considered tax deductible
- Related parties charges (coming from Resident and Non-resident) up to 0.5 % of total deductible costs per year will be considered tax deductible
- Exemption from Property Tax for all offshore Constructions, installations and vehicles
- Exemption from customs duties and VAT for purchases of specialized equipment and goods (based on predefined list)
- Exemption from article 78 and 144 of the Lebanese Commercial Law with respect to Lebanese Ownership and Composition of BODs

Current tax laws

- Corporate Income Tax of 15%
- Dividend withholding tax of 10%
- Stamp duty tax of 3‰ on all type of contracts
- Withholding tax of 2.25% for Goods purchased from non-resident
- Withholding tax of 7.5% for services rendered by non-resident
- 3 years for losses carried forward
- Companies are subject to property tax for all their constructions, installations and vehicles
- Companies are subject to VAT and Custom duties



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Thank you

