

## Identifying Hidden Oil Potential in the Gulf of Suez Through Revisiting Previous

## **Unsuccessful Wells**

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#### Index

#### *01*

Gulf of Suez (GoS) Overview

#### 02

Main Challenges and Motivations

#### *03*

The way to improve the seismic data interpretation

#### *04*

The Hidden Prizes in the Gulf of Suez (GoS)

#### 05 Carala

Conclusion

#### 06 Acknowledgment



#### **GoS Overview**





## Main Motivations



#### The integration of previous studies with the current ones



## Central Gulf of Suez areas contain 4.7 BBOE reserve <u>Yet to Find!</u>

#### Where are these huge quantities of oil!?



## Main Challenges



**Seismic Challenges** 

Interpreted based on seismic

data regardless of dipmeter

readings!

Failure and Dry hole!

Let's check geology



deep Eocene? ---- Downthrown side!

NE Direction Pre-Miocene

#### Main Challenges



The Salt/Anhydrites/Shale intercalations are more than 3500ft thick! Everything below it is masked!





## The way to improve the seismic data processing and interpretation





## Detailed Well Correlation to address seismic data problems





Petrophysical and Structure integration



## Structural Evaluation (Geological)



#### The Hidden Prizes in the Gulf of Suez (GoS)



## Conclusions

- The misleading fault angle interpreted from the seismic for the pre-rift targets, kills the new opportunities.
- The engagement of the geology from the wells and correlation is crucial to generate a seismic model and to extend the mapping to the areas of seismic blind zones
- The faults can't be mapped without a geological model and good mapping for the surfaces.
- The presented workflow results in a more detailed and more robust seismic interpretation of different oil fields in the Gulf of Suez Rift Basin.
- The challenge to finding more fields is the poor quality of the seismic data, and we should use geological models to enhance it
- The GoS Rift basin has not yet been exploited fully for its source rock potential
- It was concluded that there are many oil traps (yet to find), which would add more to the reserves of this area.
- E&P companies need new ideas

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*It is time to find a few more explorers* of that caliber, and of many of the other innovators who helped build the Egyptian oil industry. Status quo and old paradigms will not find new, big, reserves. The future belongs to the innovators and companies who nurture them and take bold steps to try new things.



John Dolson, 2018



# Thank You