

## Morocco Inezgane Licence Farm-out Opportunity



# World Class Early Entry Farm-in Opportunity

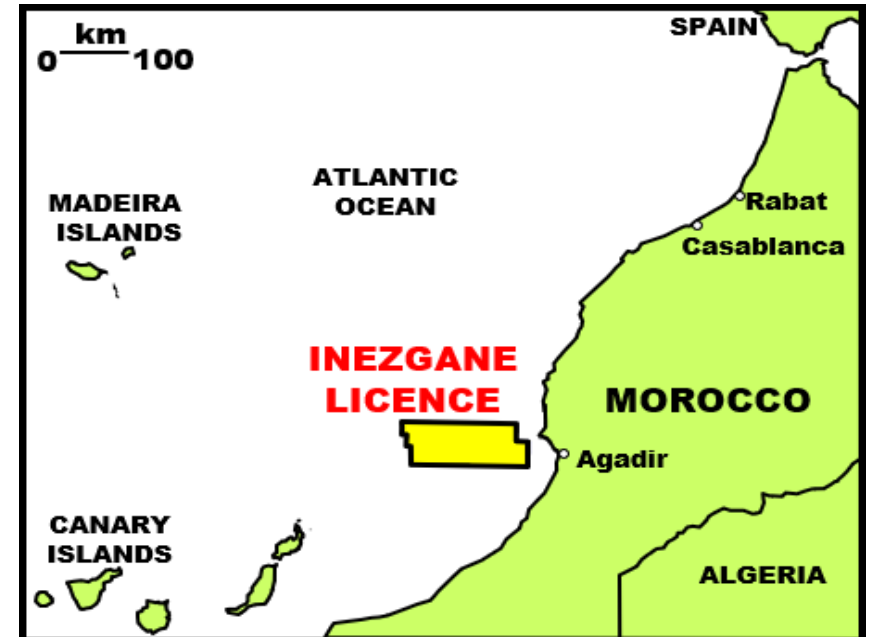


## INEZGANE LICENCE

- ❑ Inezgane Licence – 11,192 km<sup>2</sup> awarded Nov 2019
  - ❑ Europa Oil & Gas (operator) 75%
  - ❑ ONHYM 25%
- ❑ High impact exploration opportunity offshore Morocco
- ❑ Initial Phase comprises low cost WP with drill or drop at end of phase (2-years)
- ❑ 30 Prospects and Leads
- ❑ Approaching 10 billion barrels of unrisked resource
- ❑ Wide range of play types and trapping styles
- ❑ DHIs
- ❑ Analogues to West Africa
- ❑ Low cost opportunity to farm-in for significant equity

INEZGANE  
LICENCE

## LOCATION



# Why Morocco

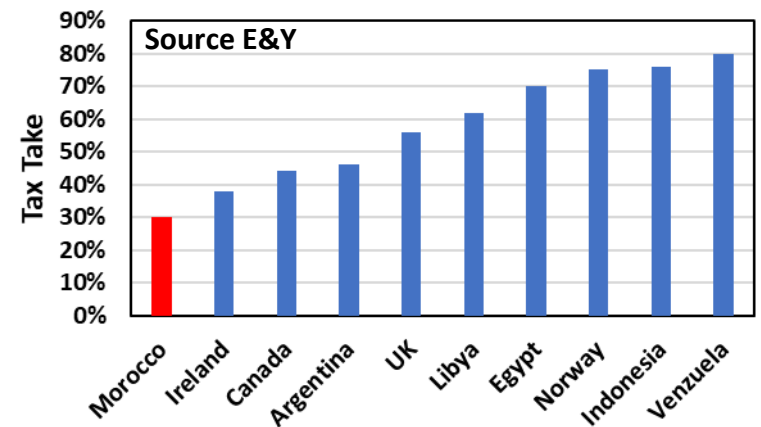


- ❑ Stable country with a transparent business environment
- ❑ Open and welcoming to new entrants
- ❑ Excellent fiscal terms – low tax take
- ❑ Low cost of entry including access to all legacy seismic and well data
- ❑ Several major and midcap companies with Moroccan acreage
  - ❑ Shell, ENI, Repsol, Genel, Hunt
- ❑ Highly under-explored

## FISCAL TERMS

- ❑ No rentals
- ❑ 10-year tax corporate holiday on commercial discoveries
- ❑ 10% Oil Royalty 10%
- ❑ 5% Gas Royalty

## Comparison of Country Tax Takes



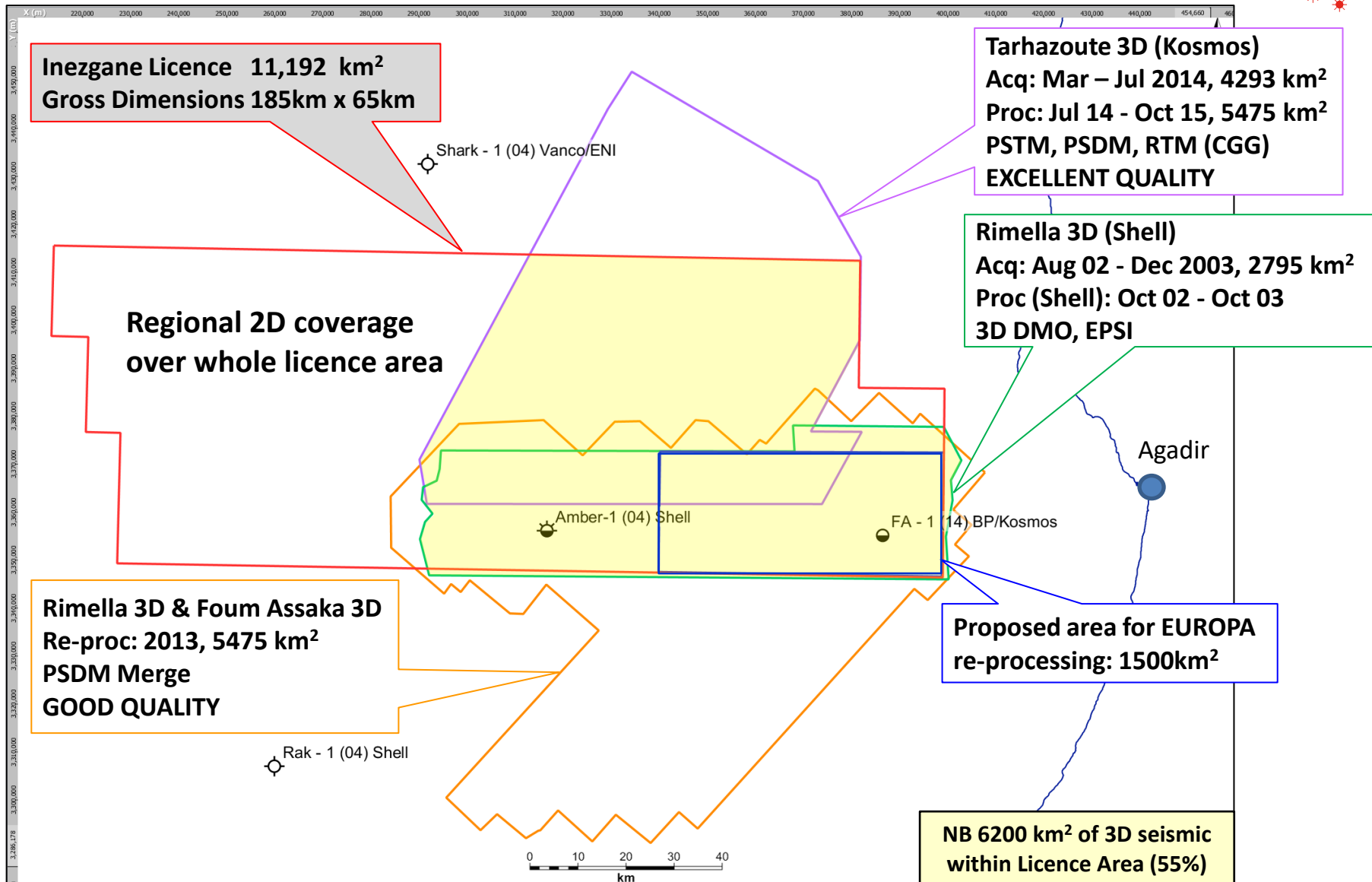
# Exploration History

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- ❑ 10 deepwater wells have been drilled offshore Morocco
- ❑ No commercial discoveries have been made although CB-1, drilled offshore Southern Morocco, did encounter 14m of gas condensate in Albian sandstones
- ❑ Of these 10 wells, 8 have targeted clastic reservoirs, essentially turbidite sands, while 2 targeted Jurassic carbonates
- ❑ Of the 8 wells targeting turbidite sands only 3 have penetrated below the Base Cretaceous
  - ❑ Initial exploration focus was on Tertiary and Upper Cretaceous
- ❑ Europa's focus on the Inezgane Permit is the Lower Cretaceous which is clearly highly under-explored
- ❑ Only 2 wells drilled on the Inezgane Licence
  - ❑ Amber-1 (2004): Only 22m of Lwr Cretaceous penetrated. Well drilled too far west. World class Cenomanian source rock drilled.
  - ❑ FA-1 (2014): Thin Barremian sands - oil shows at base of well indicates a working petroleum system. Drilled on Lower Cretaceous thin on flank of salt diapir. Proven Cenomanian and Albian source rocks.

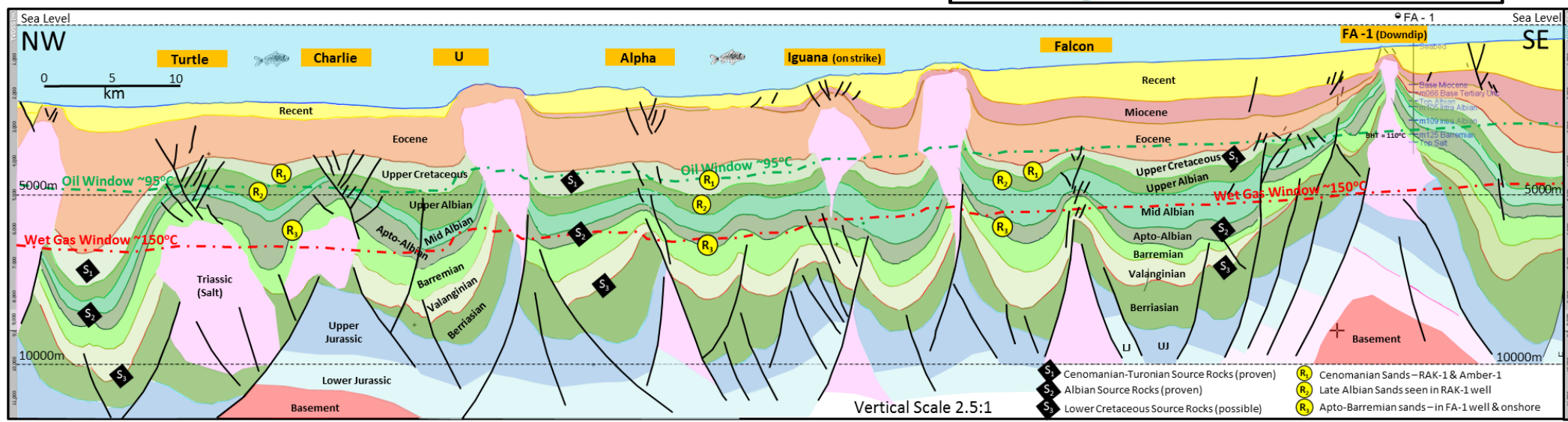
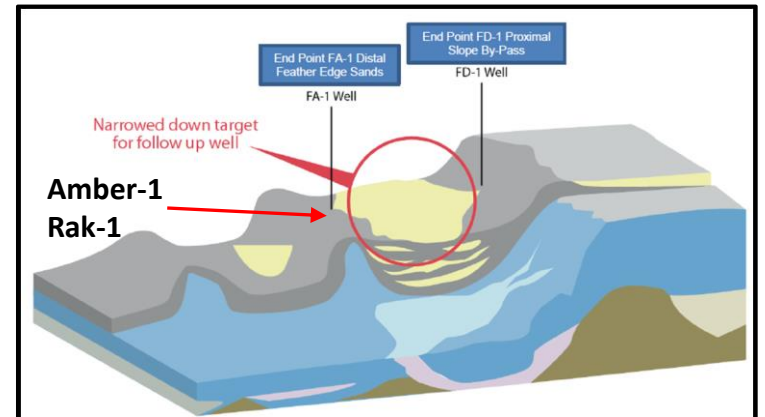
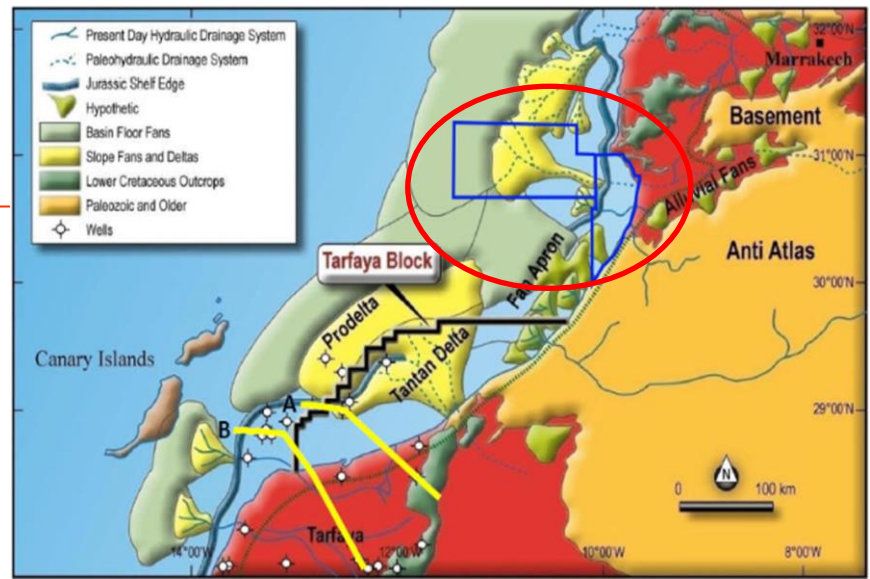
# Database Map





## Lower Cretaceous Play

- ❑ Early Deepwater drilling focused on Upper Cretaceous and Tertiary plays
- ❑ Number of wells targeted mostly salt piercement structures. Wells drilled very close to salt domes with disappointing results.
- ❑ Most wells have targeted sands where the Lower Cretaceous **has thinned or the Lower Cretaceous was not reached.**
- ❑ The Albian-Aptian-Barremian **fairway** has not been effectively tested by any wells in deep water Morocco.
- ❑ Late Jurassic/Early Cretaceous salt diapirism created mini-basins with accommodation space for capture of slope and basin sands.
- ❑ Source rocks are extensive within the basin at a number of horizons and many wells have drilled source rocks and/or seen hydrocarbon shows.



# Lower Cretaceous Reservoir



**DSDP 416:** Thick sequence of stacked thin turbidite ssts of Albian to Valanginian age

**Rak-1:** 25m net of Albian ssts – av Ø 22.3%

**FD-1:** 10m single sst within Albian section - av Ø 24%

**MO-1:** Lower Cretaceous delta-top and channel ssts in Tan Tan delta. Feeder system?

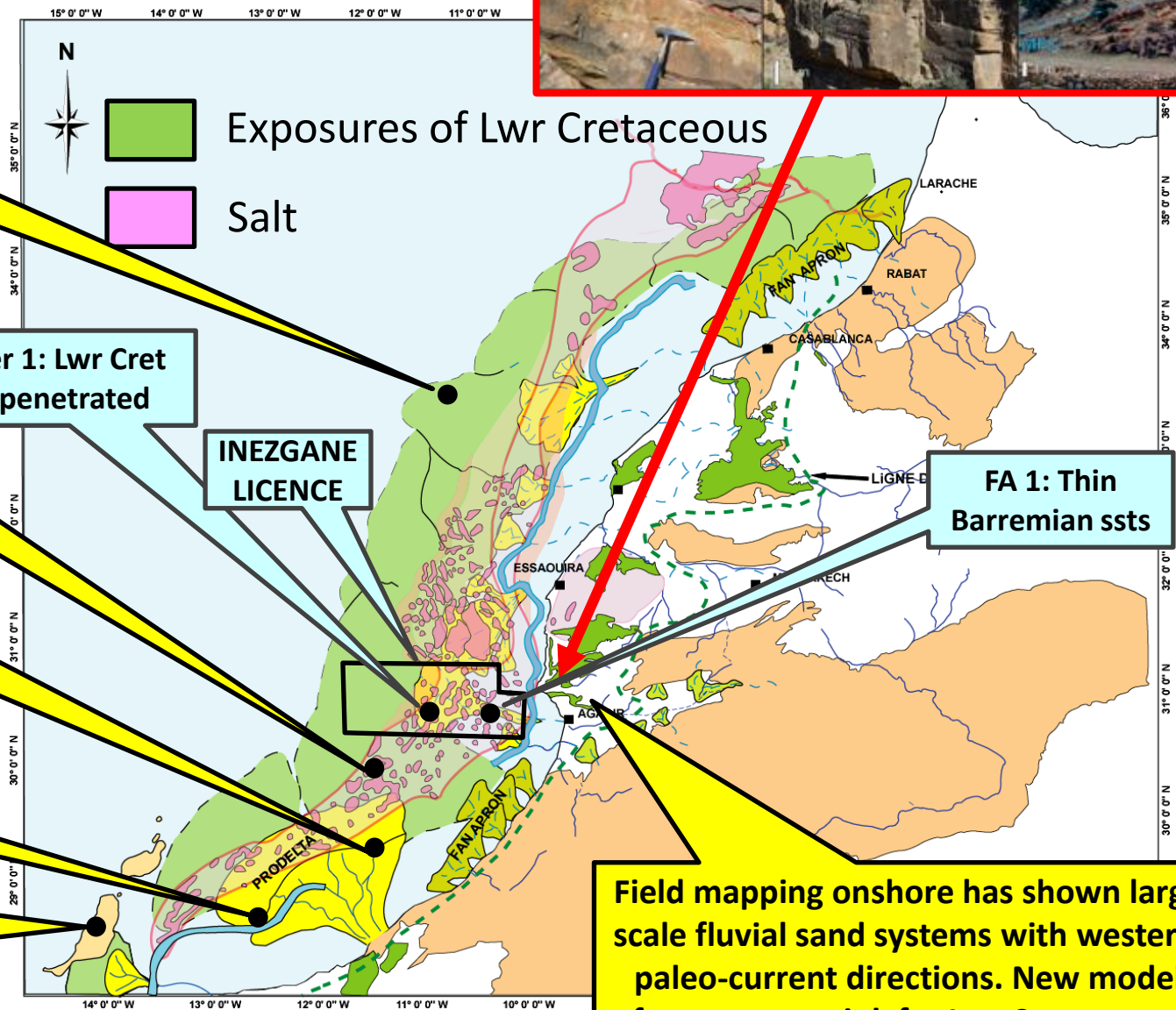
**Fuerteventura:** Thick sequence of stacked thin turbidite ssts of Aptian to Valanginian age

**Amber 1:** Lwr Cret not penetrated

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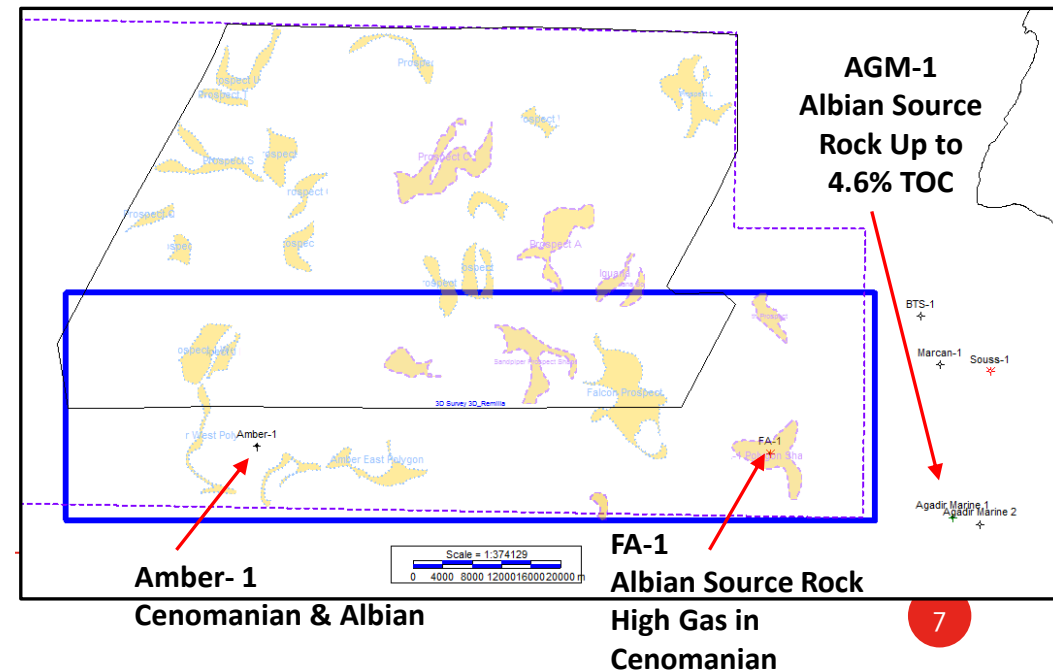
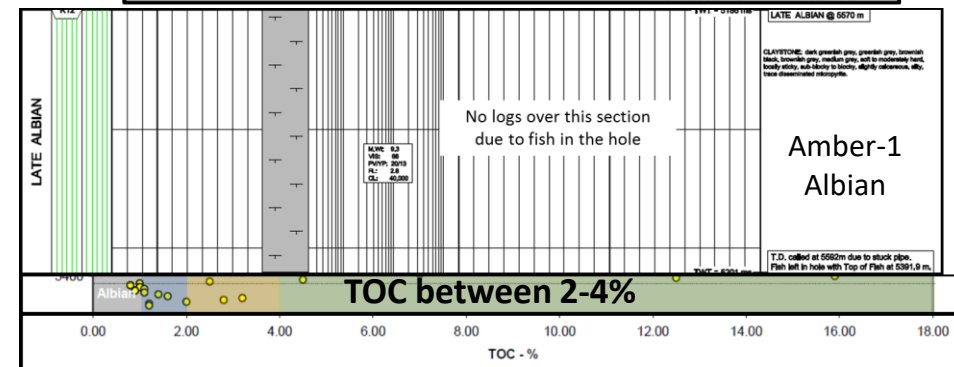
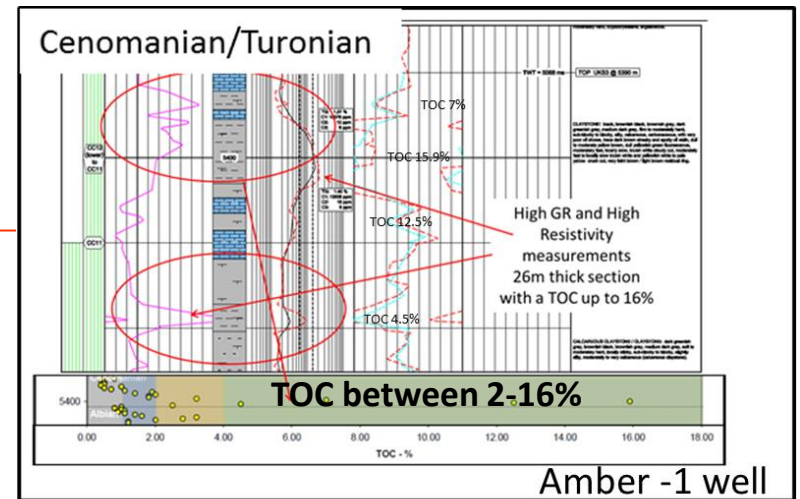
**FA 1:** Thin Barremian ssts

Field mapping onshore has shown large scale fluvial sand systems with westerly paleo-current directions. New model for source to sink for Lwr Cretaceous.



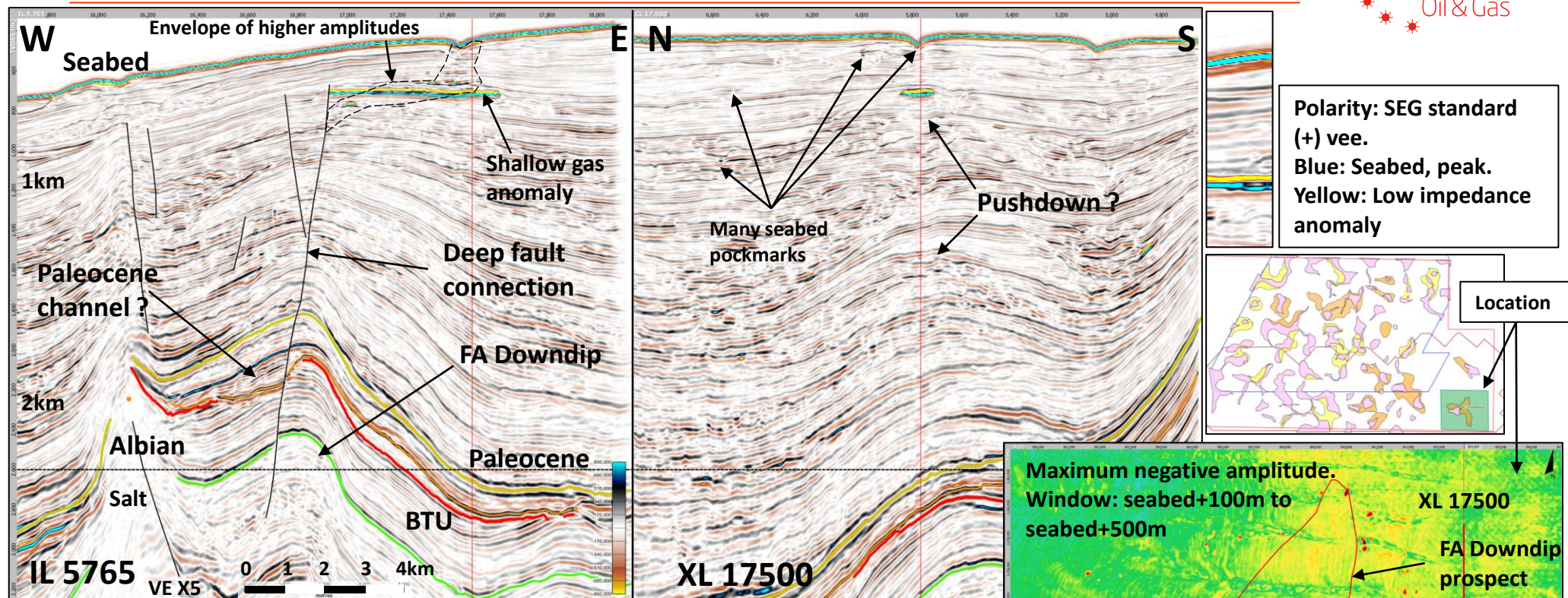
# Source Rock

- ❑ Multiple source rocks have been proven in the greater basin area either by well or outcrop.
  - ❑ Multiple oil and gas shows within the basin typed to a variety of sources.
  - ❑ The classic West African "Jubilee" type play was drilled on much less favourable information.
  - ❑ Sources rocks have been shown at
    - ❑ Cenomanian Turonian – proven world class oil prone source rocks
    - ❑ Albian – Drilled by wells within the area & regionally.
    - ❑ Lower Cretaceous – up to 4.2% in JRP-1 and TOC up to 6% seen in DSDP 370 (Hauterivian). Evidence in FA-1 well
    - ❑ Upper Jurassic – drilled by regional wells
    - ❑ Lower Jurassic – drilled by regional wells and typed to oil produced to surface in SM-1 well.
  - ❑ All source rocks drilled to date are predominantly oil prone.
  - ❑ Sufficient burial depth for large volumes of oil to be generated.
- Large areas where the Cenomanian-Turonian source rock would be mature

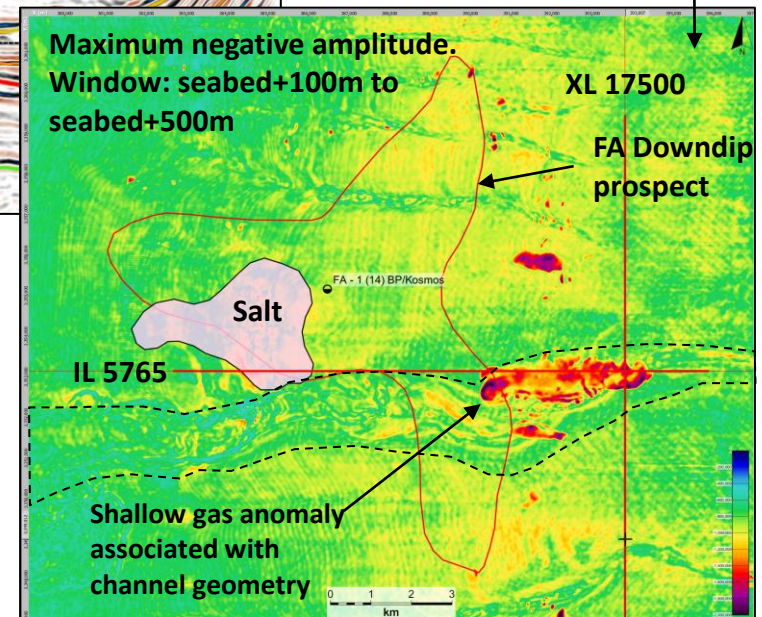




# DHIs on Rimella 3D survey PSDM Depth Data

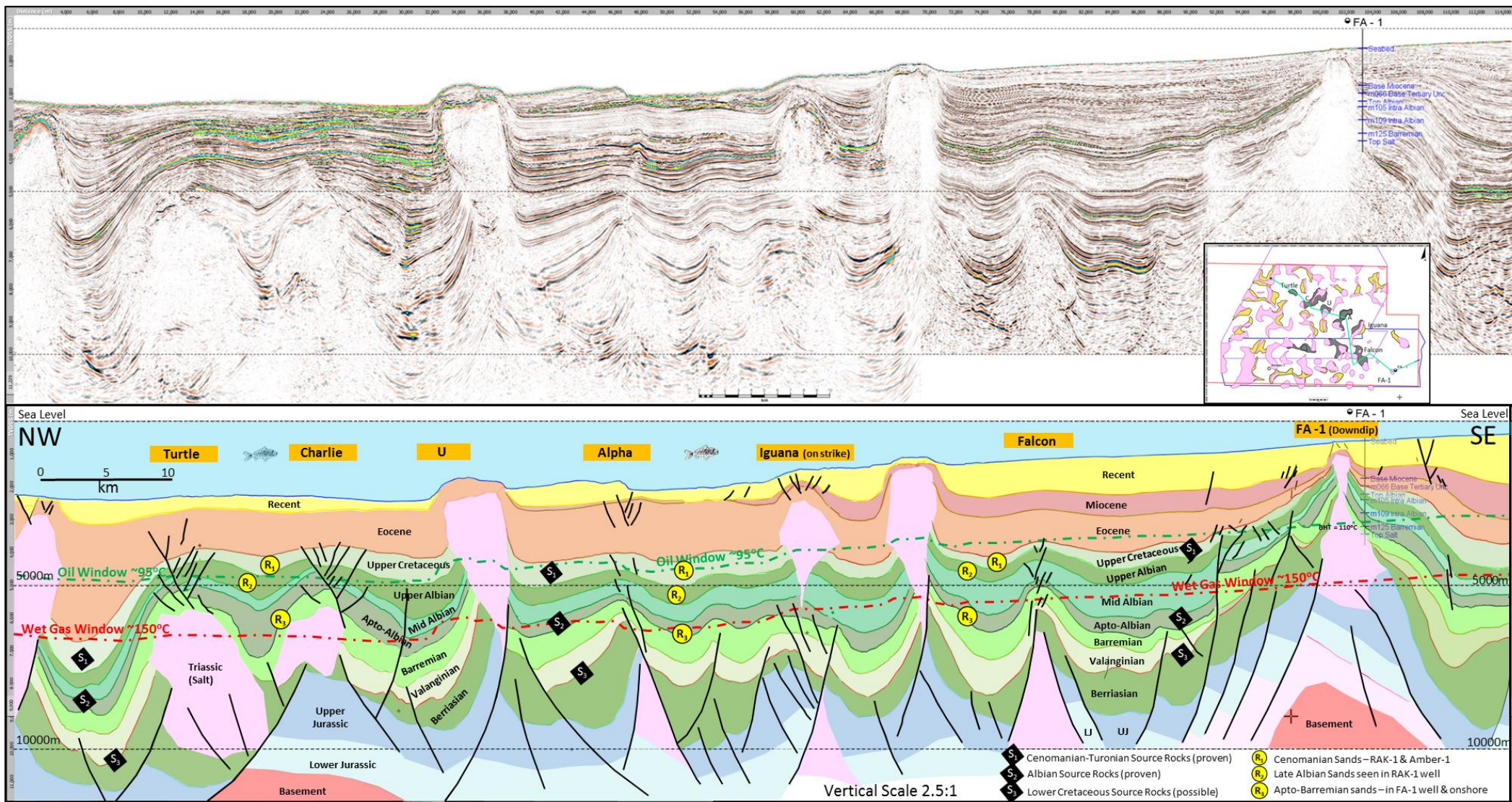


- Bright soft amplitude anomalies – indicative of a working hydrocarbon system at depths and effective migration route to shallow stratigraphy
- Some features show fault connection to the Cretaceous section, providing a migration pathway from hydrocarbons from depth





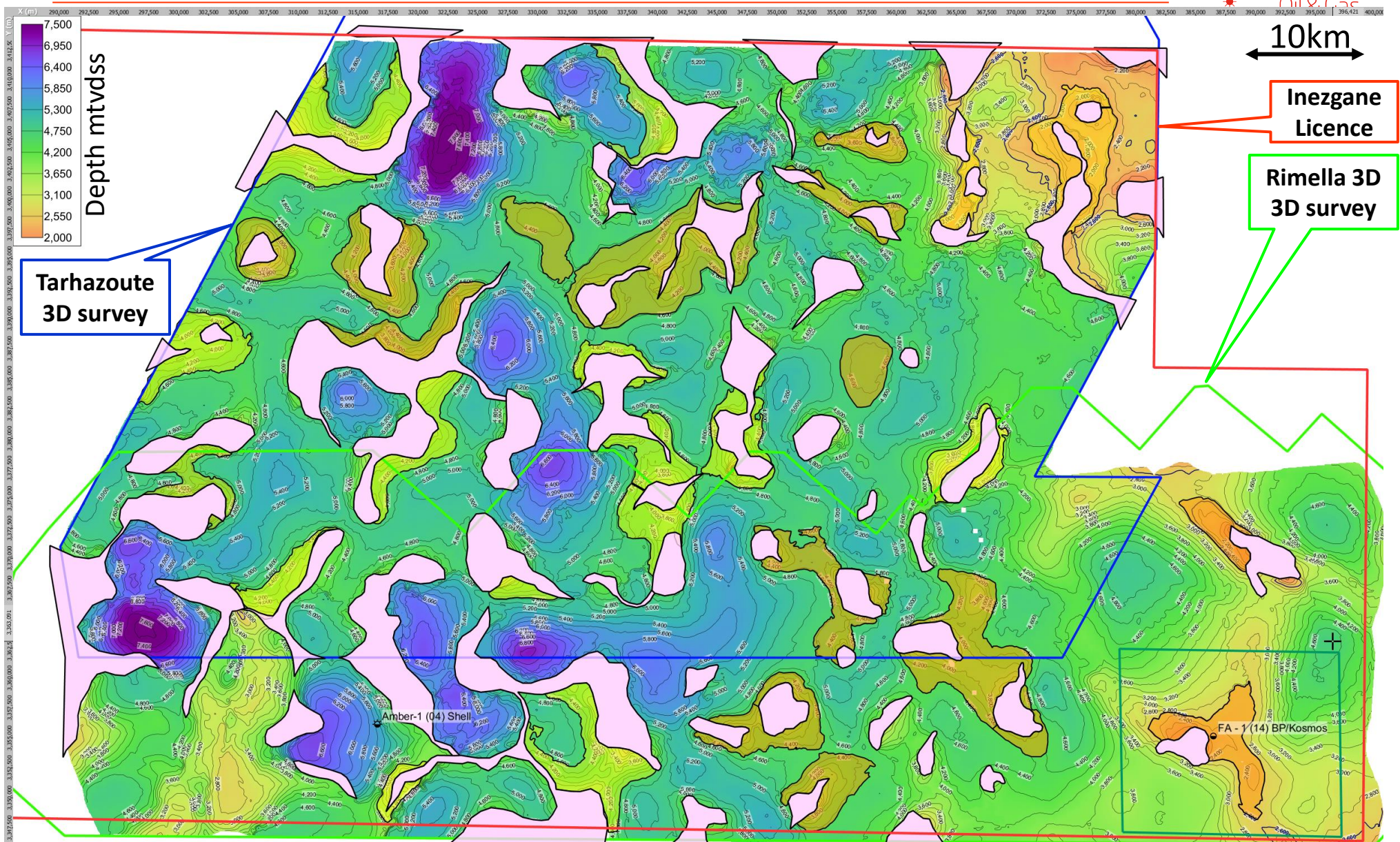
# Regional Seismic Line



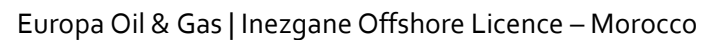


# Near Top Albian Depth Map (mtvdss)

NB Faults not shown



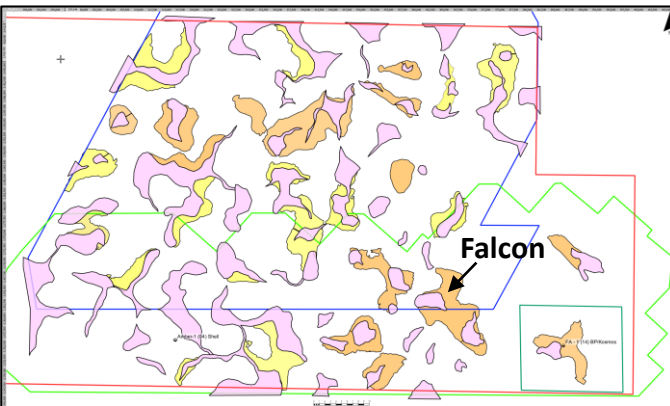




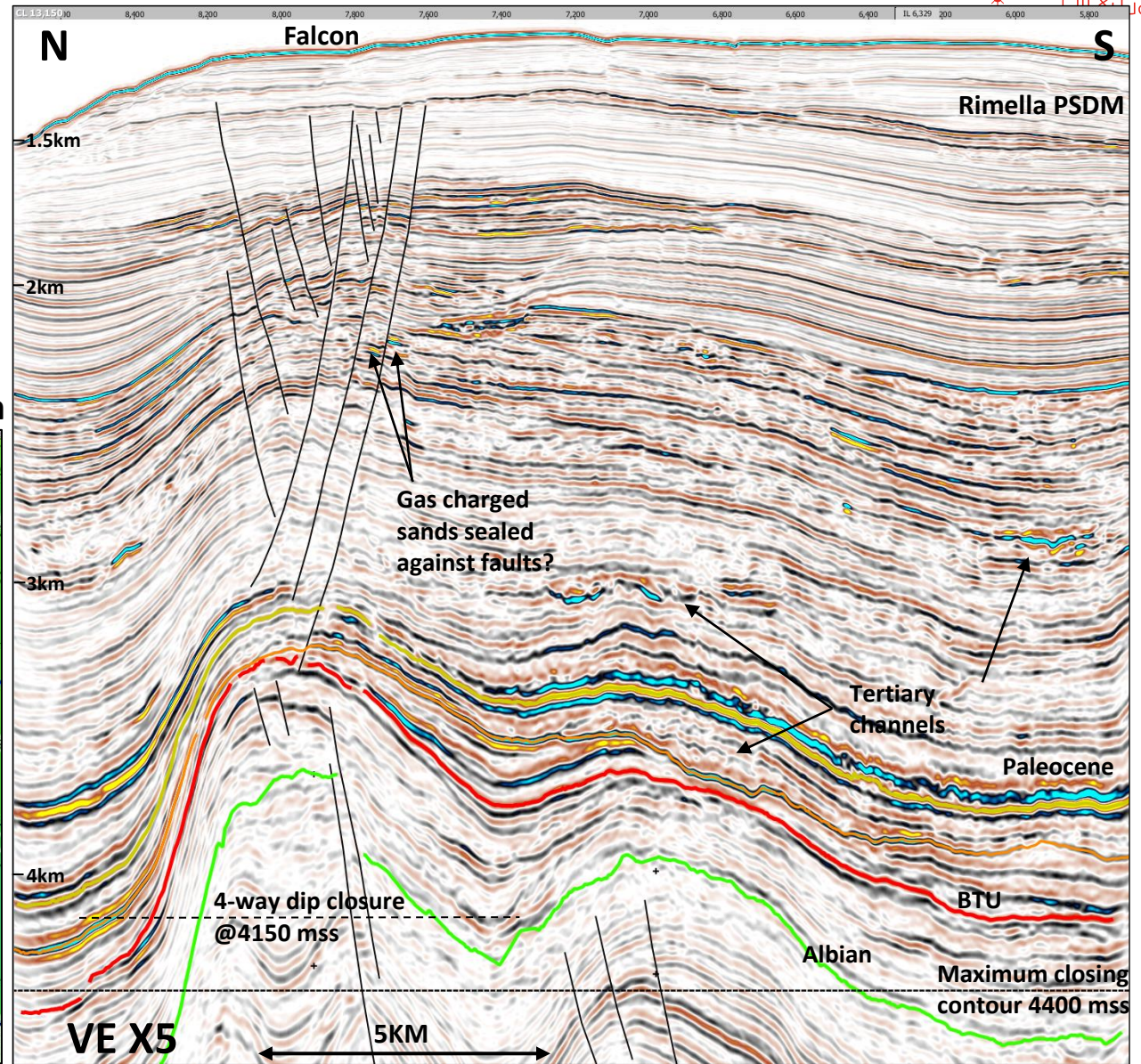
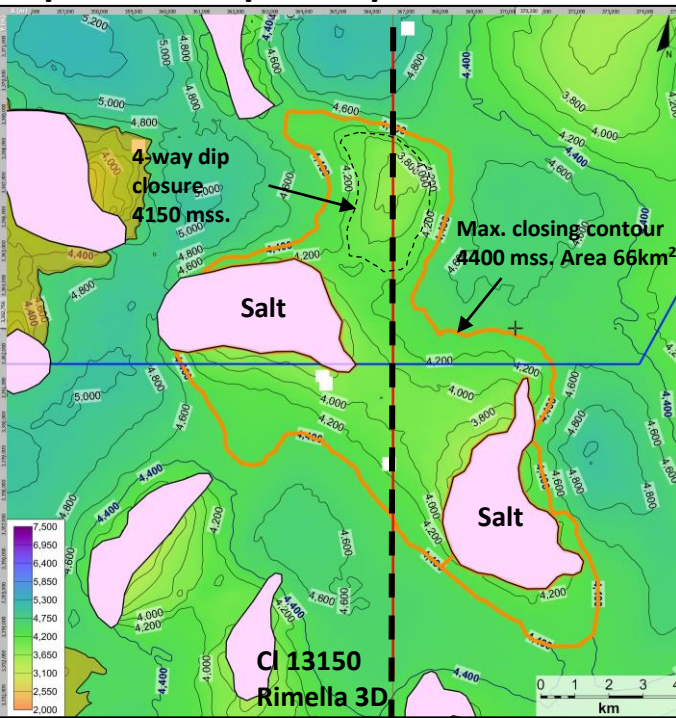


# Falcon Prospect: Mean Resources 827 mmboe

EUROPA  
Oil & Gas

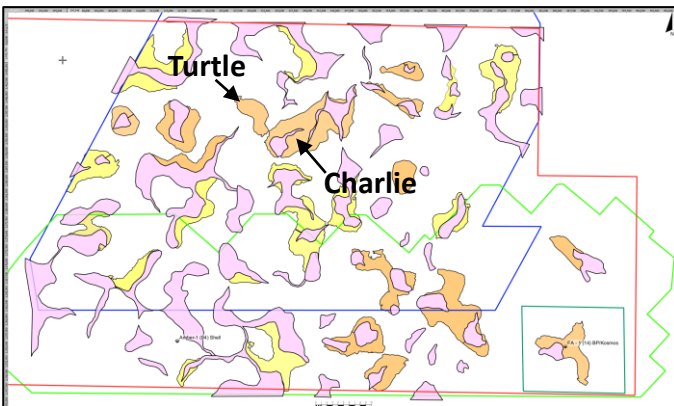


Top Albian depth map mtdvss. ci 200m

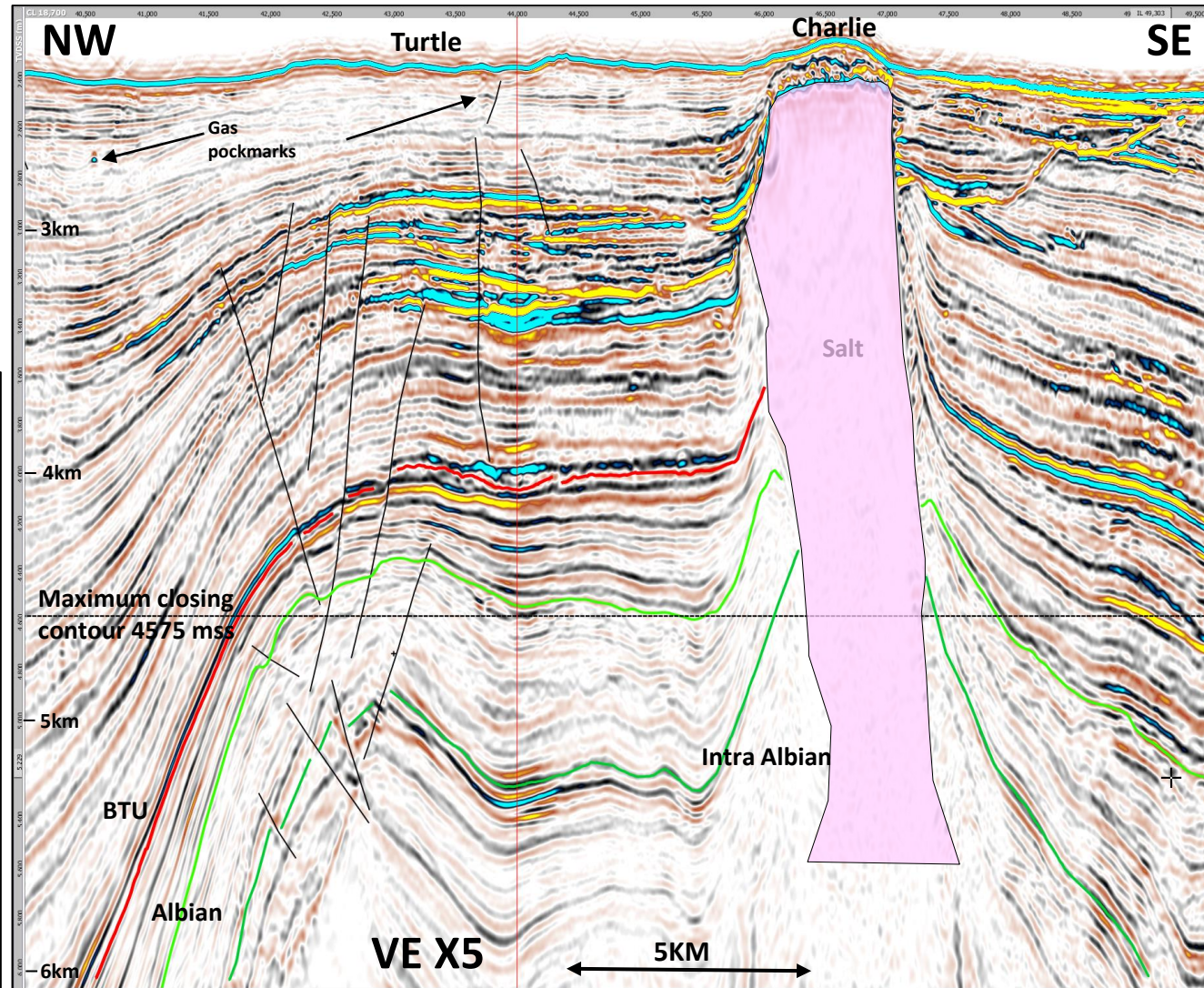
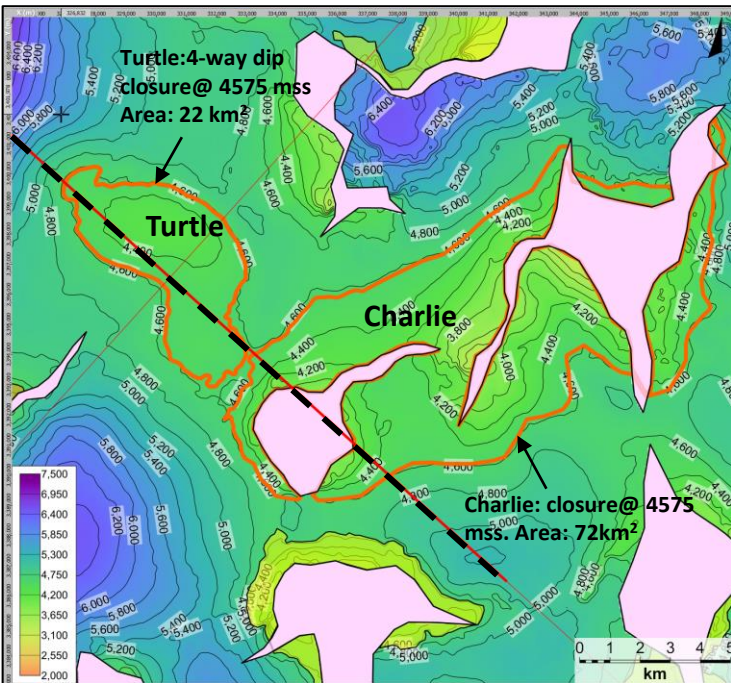




# Turtle Prospect: Mean Resources 204 mmboe



Top Albian depth map mtvdss. ci 200m



# Size of the Prize

- ❑ 14 Prospects have been mapped
  - ❑ Wide range of structural styles including 4-way dip, salt flank and salt under-hang
  - ❑ All prospects have mean resources in excess of **150 mmboe** at Albian level
  - ❑ Total mean resource in excess of **5 billion barrels (oil equivalent)**
  - ❑ All Prospects and Leads also have stacked reservoir potential
  - ❑ Prospect risk estimates between 20% and 35%
- ❑ 16 Leads have also been mapped
  - ❑ Enormous potential lies within rest of licence with a total resource range approaching **10 billion barrels (oil equivalent)**

Prospect		Area of Closure (km <sup>2</sup> )	Reserves mmboe (Albian level)			
No.	Name		P <sub>90</sub>	P <sub>50</sub>	P <sub>mean</sub>	P <sub>10</sub>
1	Charlie	72	192	756	1128	2551
2	Falcon	66	162	596	827	1791
3	Foxtrot	30	107	384	572	1274
4	Golf	20	50	270	423	999
5	FA Downdip	34	100	309	410	849
6	Sandpiper	33	81	258	347	726
7	Zebra	25	65	213	285	597
8	FA-N	14	60	202	284	613
9	Sierra	15	50	188	273	607
10	Whisky North	14	49	191	272	602
11	Yankee	24	38	148	218	492
12	Turtle	22	57	163	204	404
13	Alpha	20	50	135	162	310
14	Whisky	13	32	117	161	349
Total					5566	



- ❑ Initial Phase (2-years) with a low cost work programme commitment to reprocess 1300 sq. km 3D data
- ❑ Drill or drop at end of Initial Phase
- ❑ Opportunity to farm-in for carry of Initial Phase work programme and back costs



# Dataroom & Contact Details

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A virtual dataroom will be established for interested parties to access shortly

If you would like to register interest for dataroom access or have any other questions please contact one of us below

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