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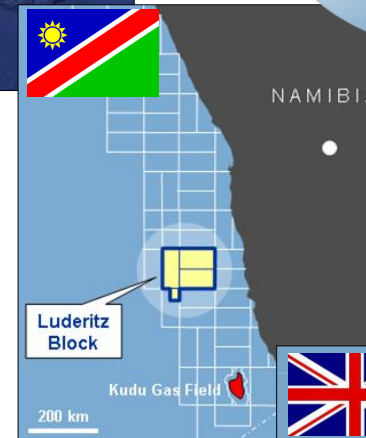
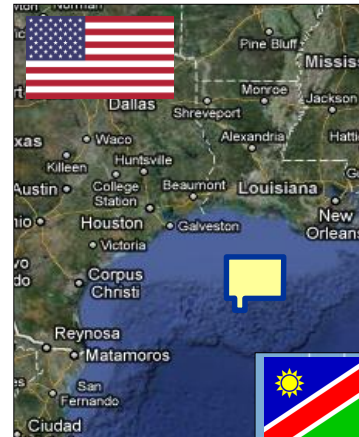
Namibia: Chasing Giant Cretaceous Oil Prospects in the South Atlantic



**NAPE Expo, Houston, Texas
Serica Energy plc, February 2014**

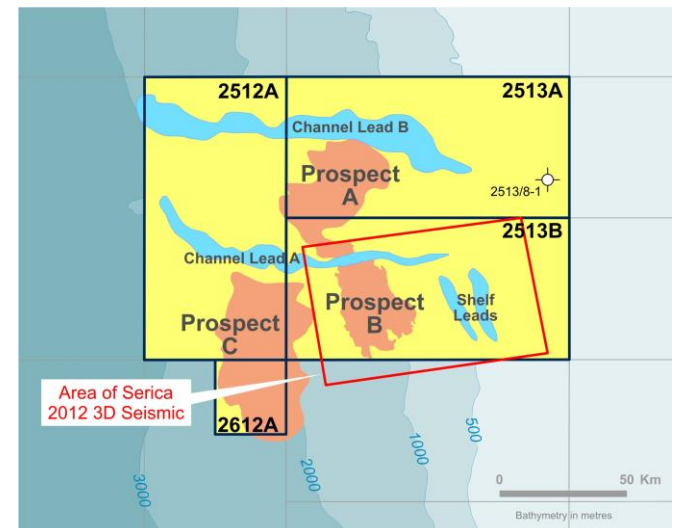
Why Namibia?

- Highly under-explored but prospective continental margin
- Several proven hydrocarbon systems including recent oil discovery
- Close to large South African markets
- Stable democracy
- Very favourable fiscal terms
- Business language is English
- Serica has very large 17,384 km² acreage holding within the central Luderitz Basin
- Equates to approximately one third of the size of the UK Central Graben

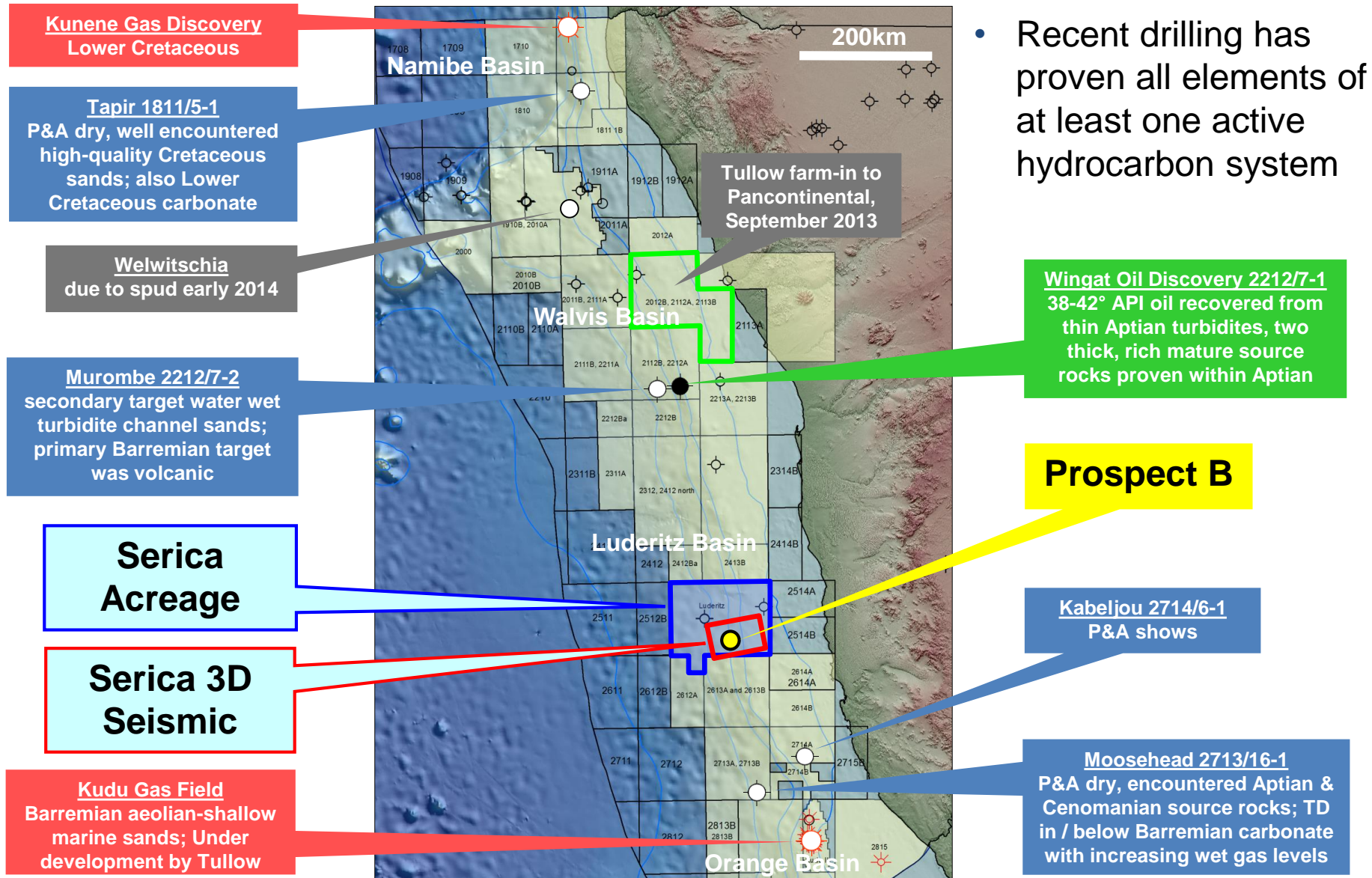


Serica Namibia Introduction

- Serica 85% (operator) NAMCOR (10%) & IEPL (5%)
- Water depth 500 – 2000 m
- 4,176 km² 3D seismic data acquired in 2012
- Multiple Lower Cretaceous structural prospects with billion-barrel oil potential
- Further prospects at shallower levels, within canyon-channel turbidite systems and along the shelf edge
- Prospect B mapped on 3D seismic and high-graded for drilling
- Substantial equity available

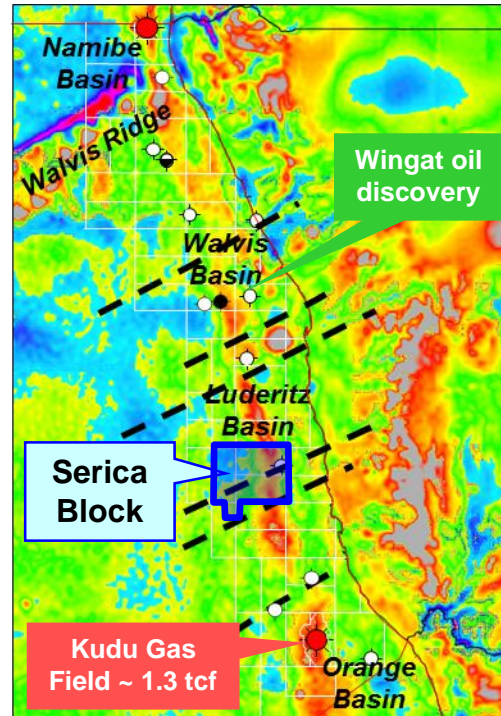
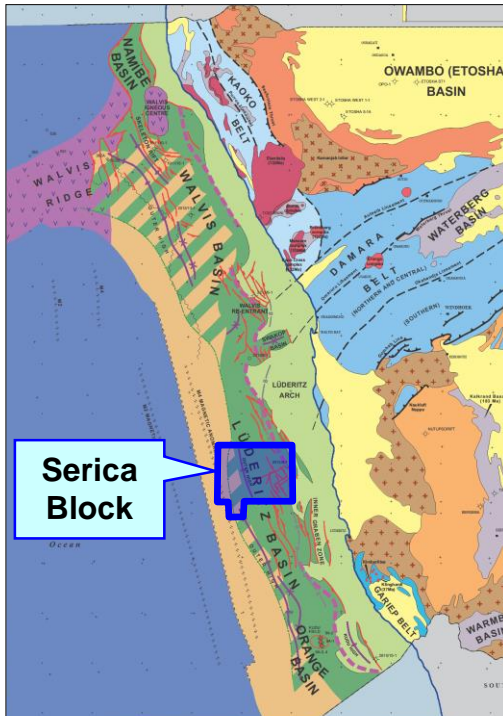


Namibia Recent Exploration History

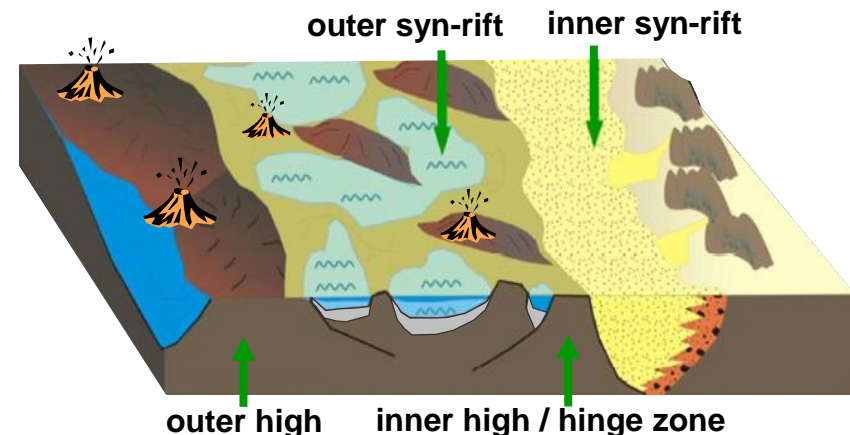
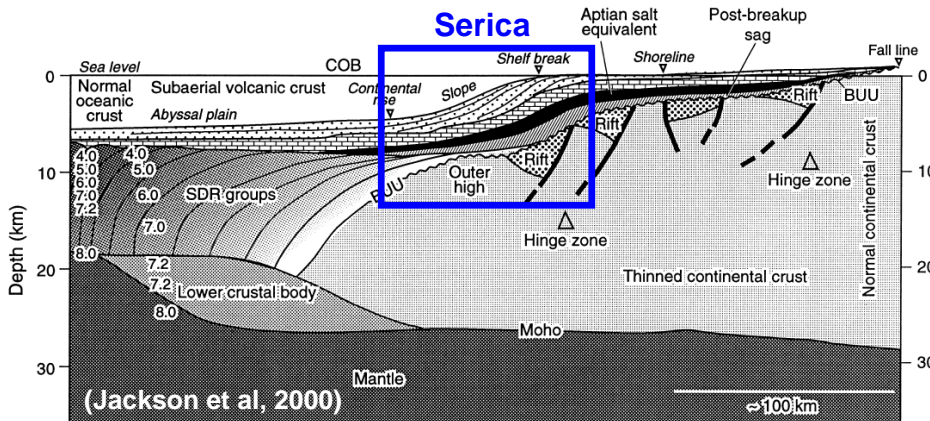


- Recent drilling has proven all elements of at least one active hydrocarbon system

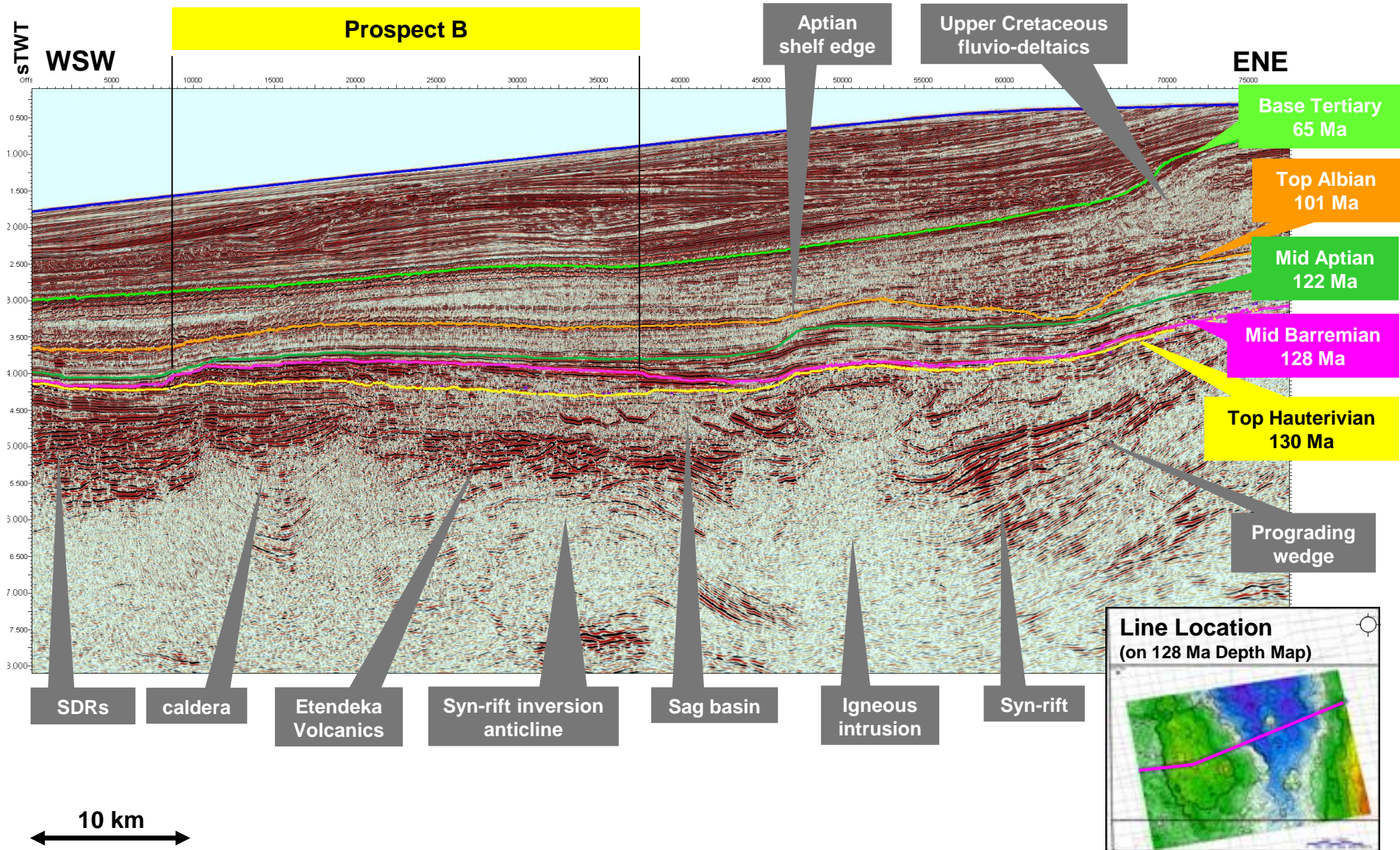
Namibia Geological Setting



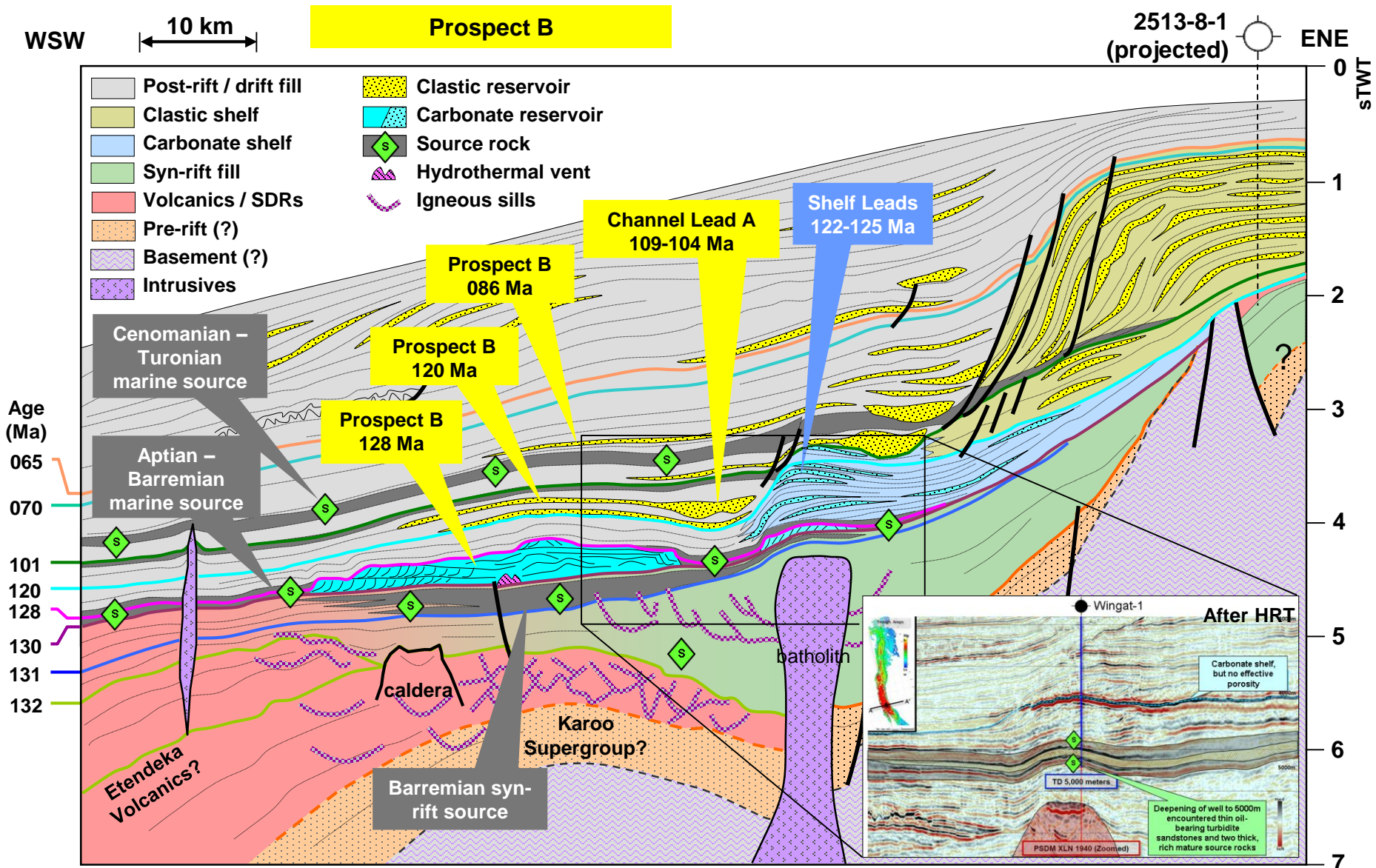
- Blocks located between inner and outer regional gravity highs
- Critical for exploring in outer syn-rift and sag basins
- These potentially contain mature lacustrine to restricted marine oil-prone source rocks



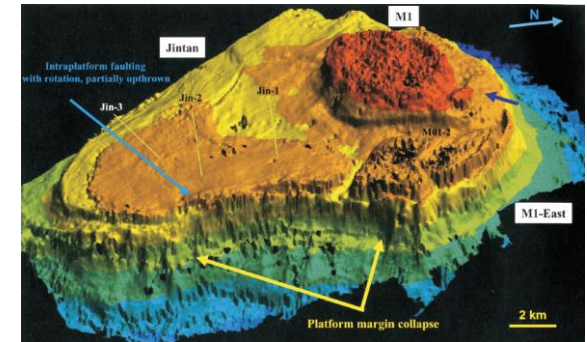
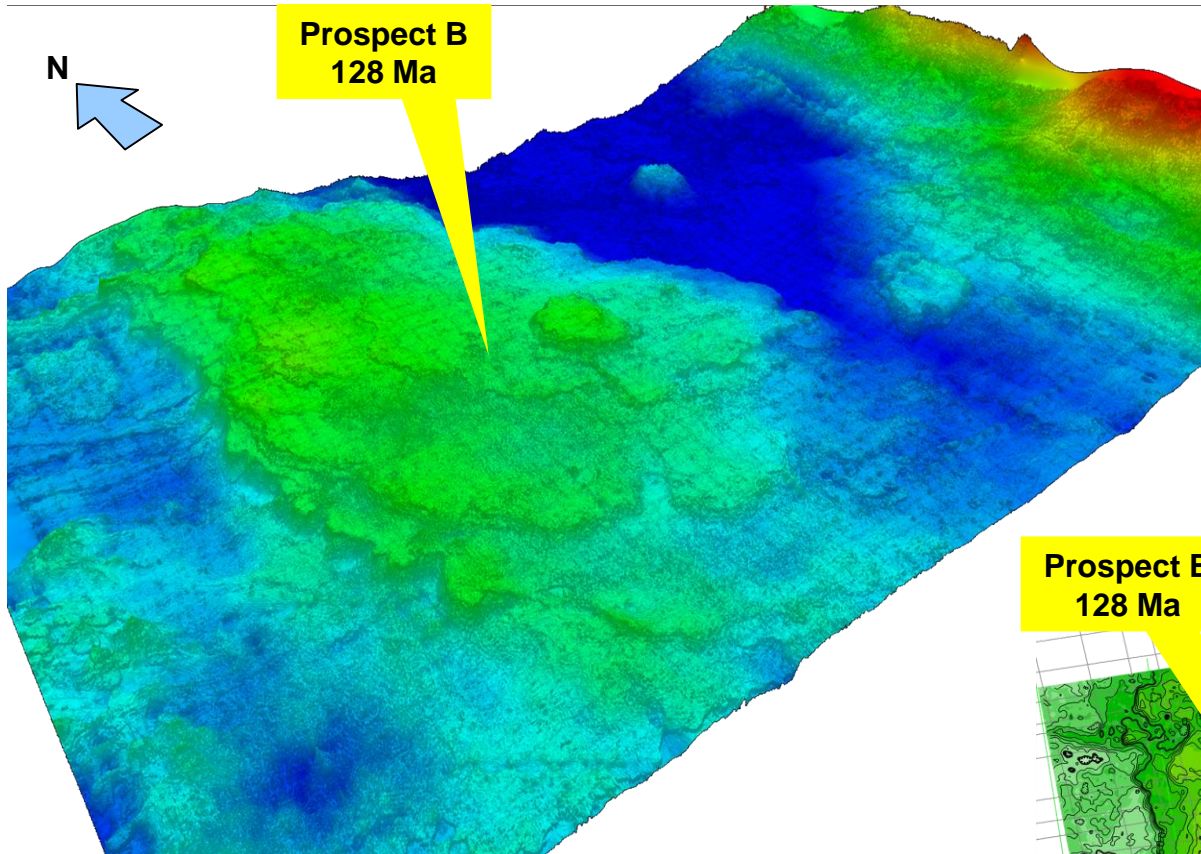
WSW-ENE Seismic Section (flattened on 0.25 * seabed)



Regional Geoseismic Section

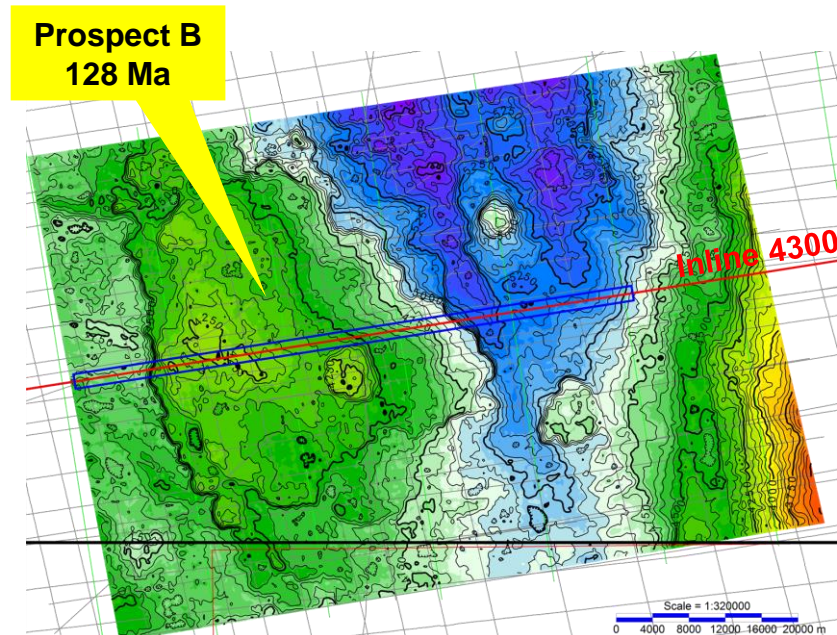


Prospect B, Barremian 128 Ma (3D Depth Perspective)



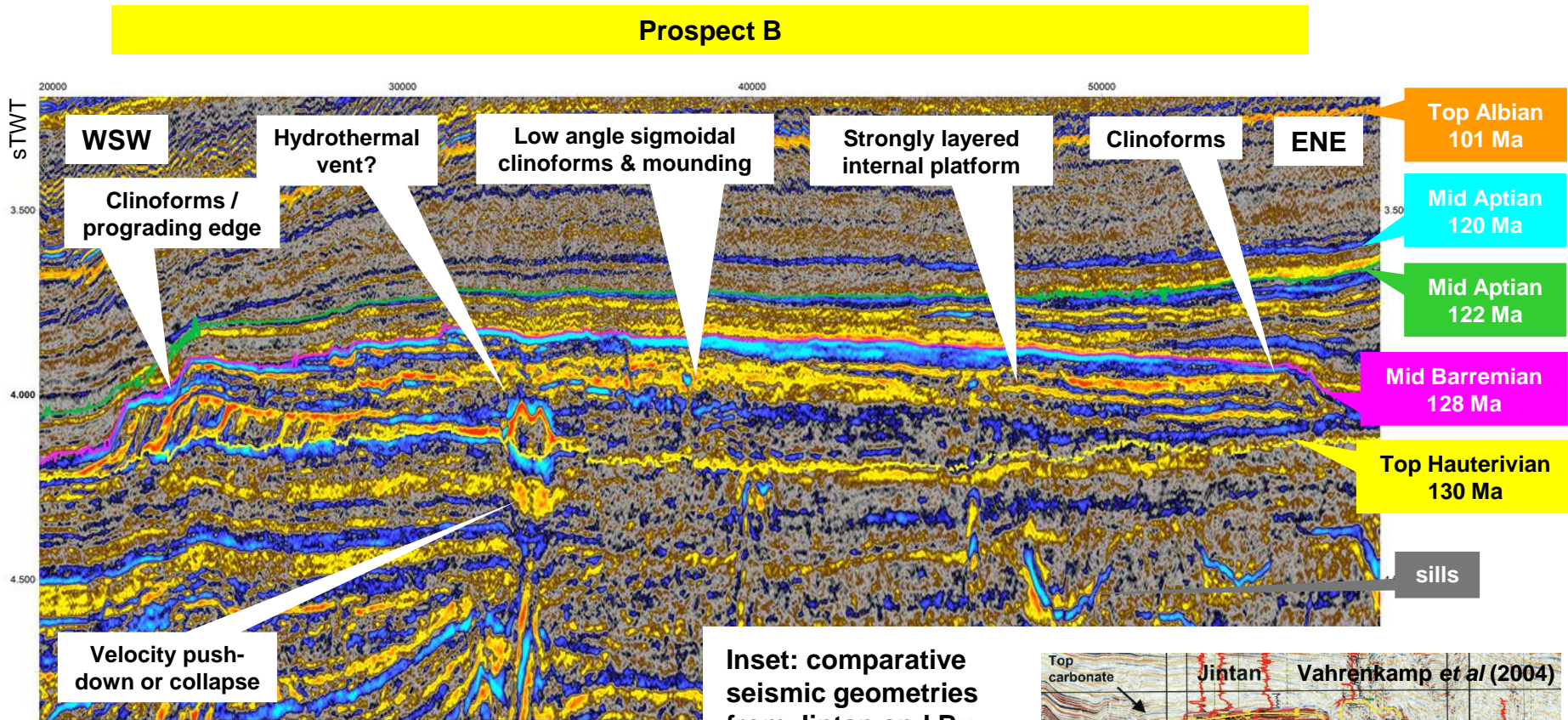
Potential Analogue: Jintan Field, Miocene, Luconia, Malaysia (Vahrenkamp et al, 2004)

- Giant Lower Cretaceous structural prospect
- 700 km² areal closure and 300 m relief
- Morphological similarities to known carbonate reservoirs worldwide

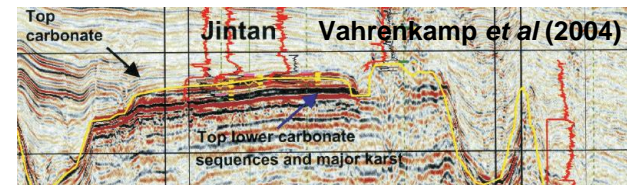


Prospect B Seismic Inline 4300

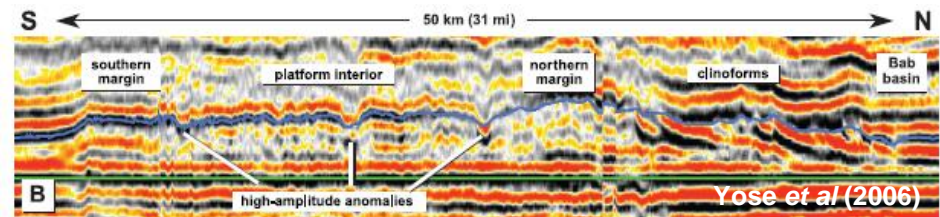
(Seismic Coloured Inversion, flattened on 0.25 * seabed)



Inset: comparative seismic geometries from Jintan and Bu Hasa carbonate fields (Malaysia & Abu Dhabi)



- Distinctive back-stepping, internal clinoforms, mounding & layering
- Potential reservoir analogues with Lower Cretaceous “microbialite” discoveries offshore Brazil and Angola



Shallower Canyon & Shelf Plays

(3D TWT Perspective, 120 to 101 Ma mid point Amplitude)

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Major canyon incision;
Cenomanian-Turonian



Channel Lead A
(Albian)

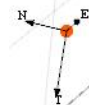
Aptian shelf edge
Carbonate Plays

Aptian turbidite
channels

Possible onlap over
edge of underlying
carbonate platform

Drape over underlying
Prospect B carbonate
platform

Albian volcanics



4

6

400000

Regional Hydrocarbon System

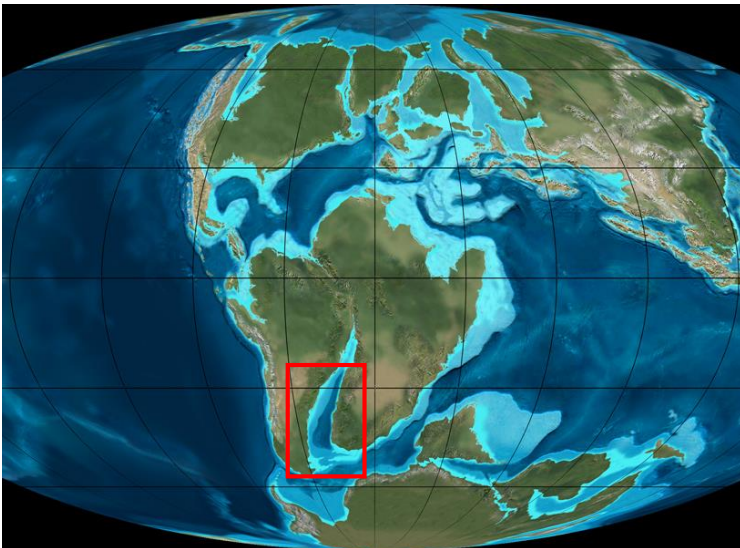
Lower Cretaceous



Wingat-1 oil sample

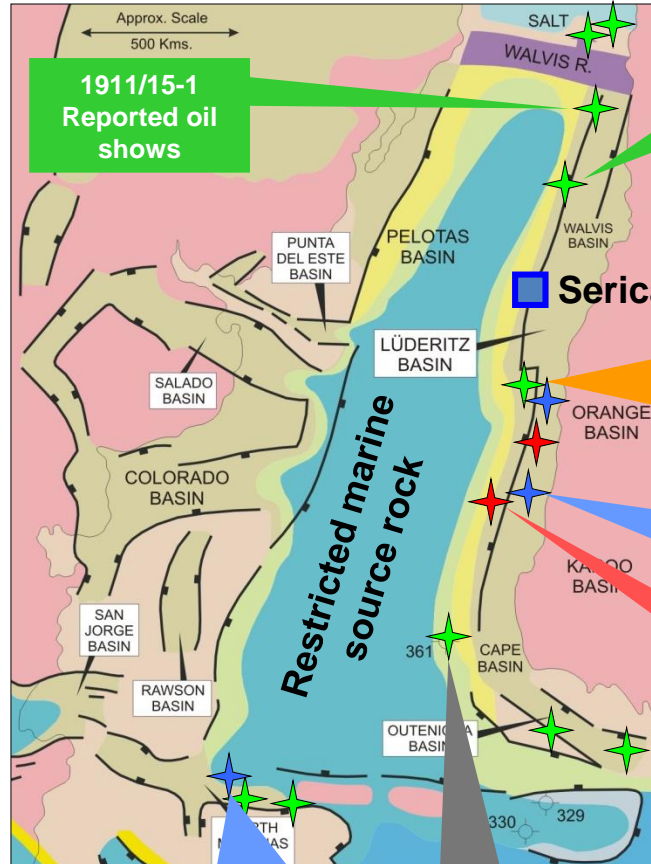


Kudu-4 condensate



Restricted basin, 120 Ma, Aptian

Aptian South Atlantic Palaeogeography



1911/15-1 Reported oil shows

Wingat Oil Discovery 38-42 °API oil, two proven Aptian marine source rocks

Kudu gas field 1.3 tcf gas + minor condensate; over-mature oil-prone lacustrine & restricted marine source, Barremian-Aptian age (Mello *et al*, 2012)

AJ-1 Oil Discovery Barremian-Hauterivian proven syn-rift lacustrine oil source

Ibhuesi gas Field Aptian-Albian highly mature fluvio-deltaic terrestrial source

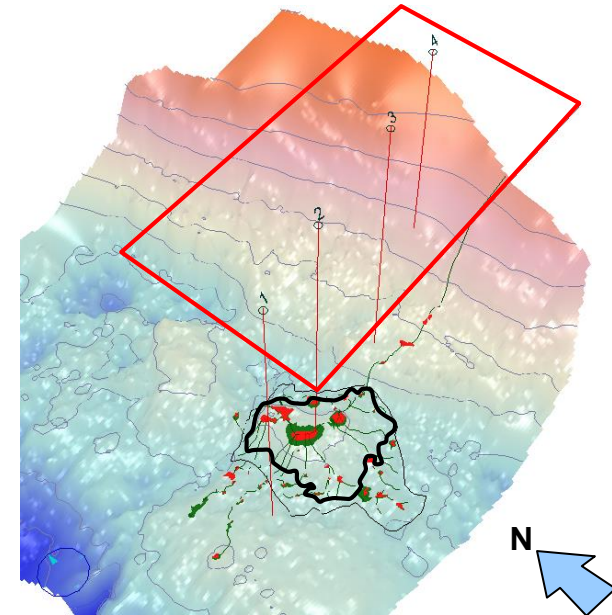
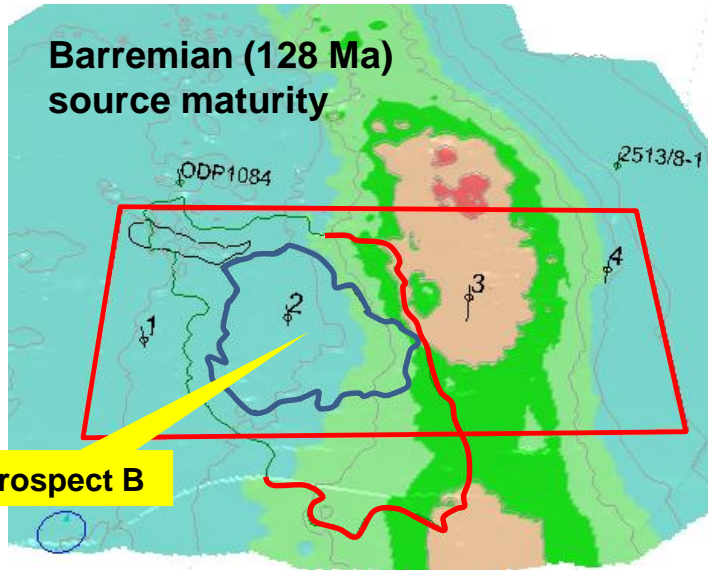
Falklands 14/10-1 Sealion Discovery Barremian reservoir and mixed lacustrine-volcanogenic oil source?

DSDP 361 Rich Aptian source rocks

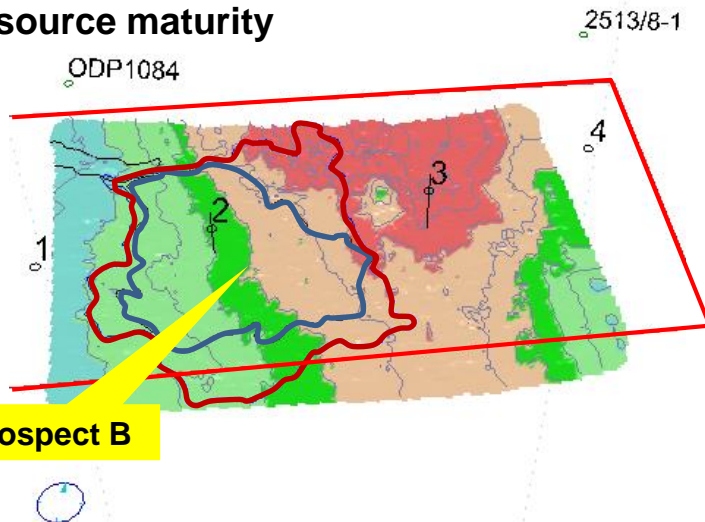
- ★ Lacustrine Source
- ★ Marine Source
- ★ Terrestrial source

Source Rock Modelling Study

131 & 128 Ma Source Kitchens (Preliminary Results)



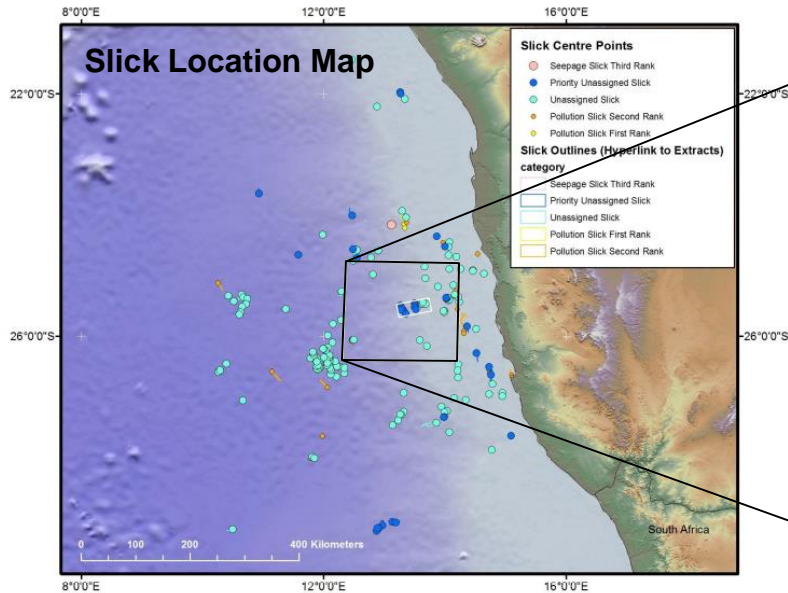
Hauterivian (131 Ma) source maturity



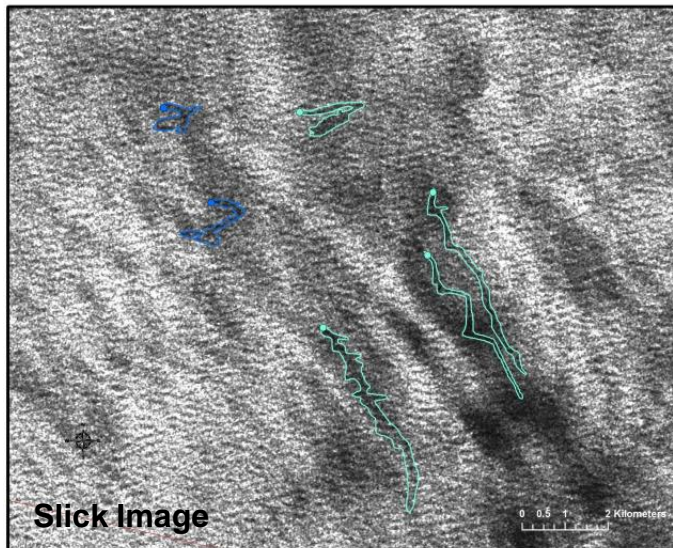
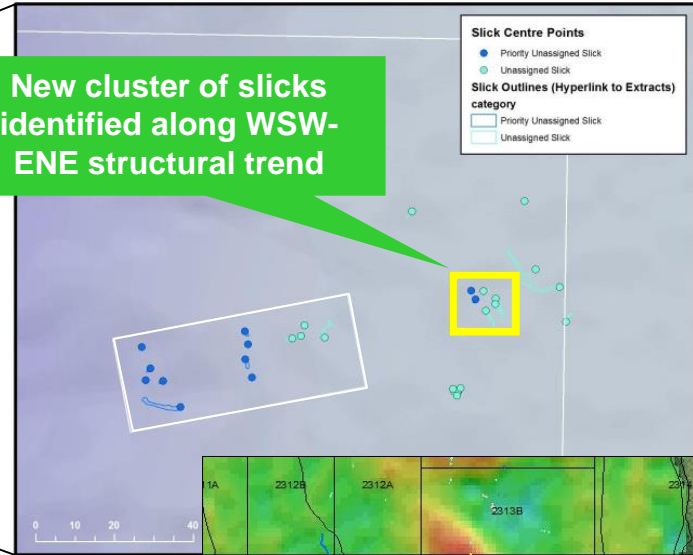
- Source Rocks modelled at Barremian & Hauterivian levels
- Corrected geothermal gradient of ± 30 °C/km
- Early oil generation starting at between ~120 Ma and 80 Ma, influenced by early high heat flow caused by rifting
- Positive implications for early preservation of reservoir quality

Evidence of Working Petroleum System

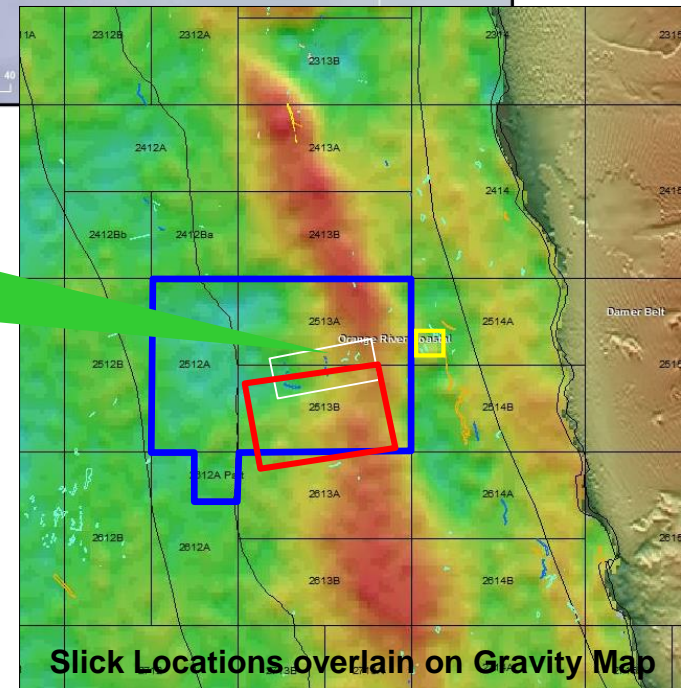
Fugro-NPA 2013 Data Acquisition



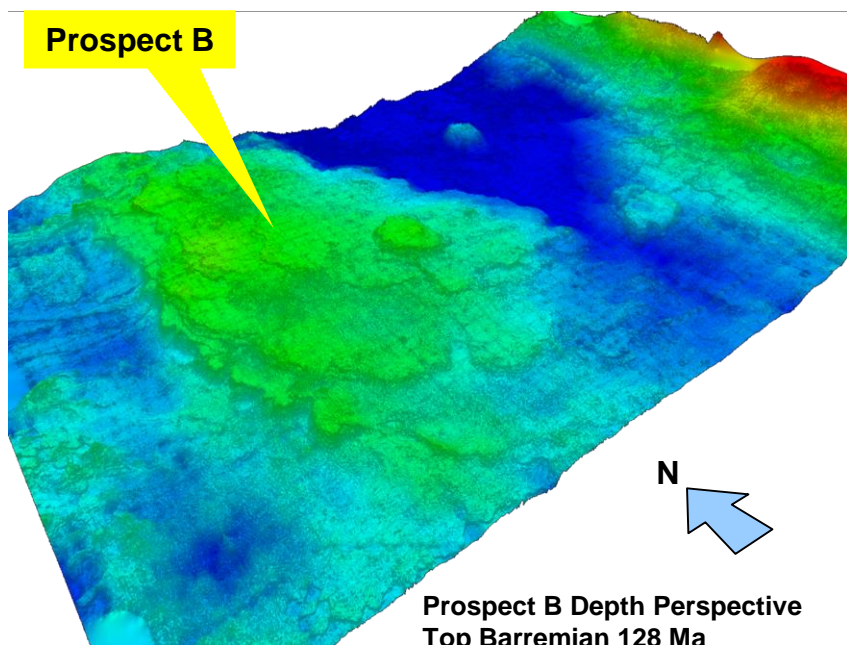
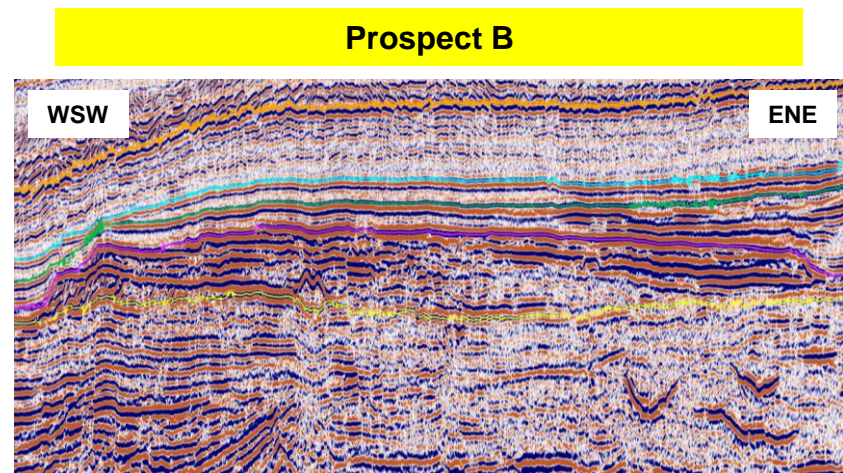
New cluster of slicks identified along WSW-ENE structural trend



Slicks are aligned with WSW-ENE trending, deep-seated structural lineament



Namibia Prospect B Conclusions



- Multiple Lower Cretaceous structural prospects with billion-barrel oil potential
- Prospect B: giant structure mapped on high-quality 3D seismic
- 700 km² areal closure and 300 m relief
- Seismic character consistent with a carbonate platform
- Further prospects at shallower levels, within canyon-channel turbidite systems and along the shelf edge
- Substantial equity available

Prospect B Resources *	P ₉₀ (low)	P ₅₀ (best)	P ₁₀ (high)	
NSAI, Sept. 2013	138	622	2810	mmbbls

* Resource estimate based on NSAI September 2013 interpretation of 3D seismic data. There is no certainty that any portion of the resources will be discovered. If discovered, there is no certainty that it will be commercially viable to produce any portion of the resources. NI 51-101 compliant.



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