CORRELATION OF SYN-RIFT STRUCTURAL ELEMENTS ACROSS THE CENTRAL ATLANTIC BETWEEN MOROCCO AND NOVA SCOTIA

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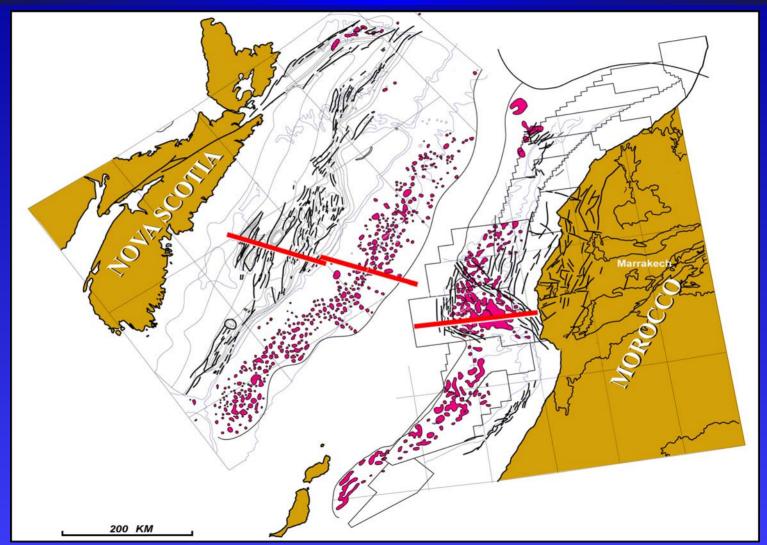
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OUTLINE OF PRESENTATION

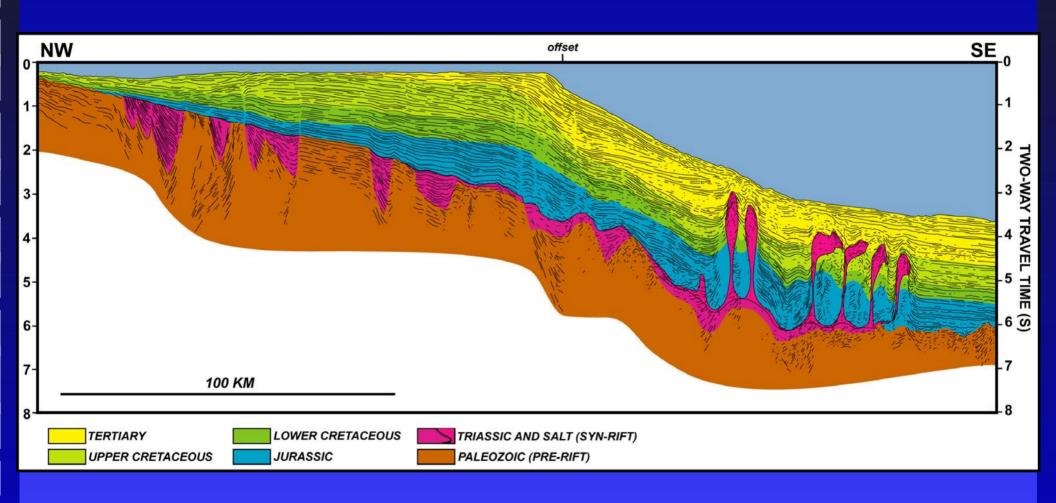
- Introduction
- Regional geology
- Syn-rift reconstruction of Morocco and Nova Scotia
- Hydrocarbon exploration implications
- Conclusions
- Acknowledgements

REGIONAL SEISMIC TRANSECTS, OFFSHORE NOVA SCOTIA AND MOROCCO



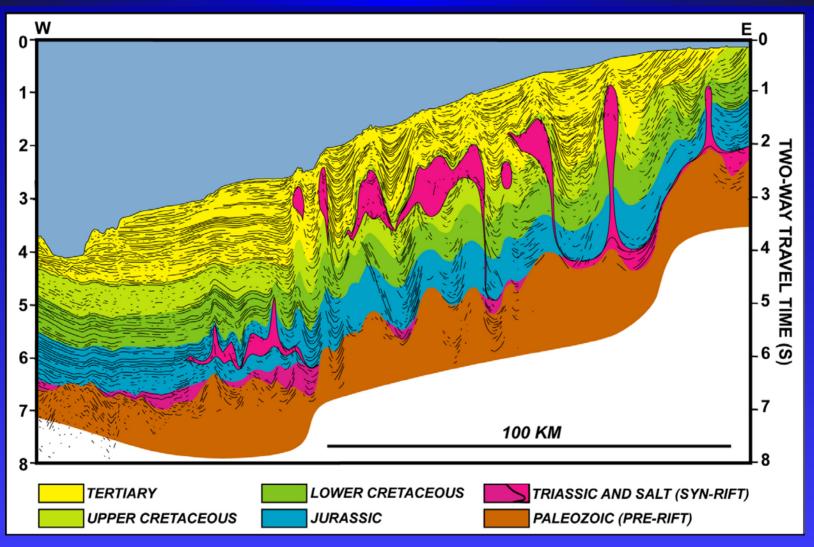


REGIONAL SEISMIC TRANSECT, LAHAVE PLATEAU, NOVA SCOTIA, CANADA



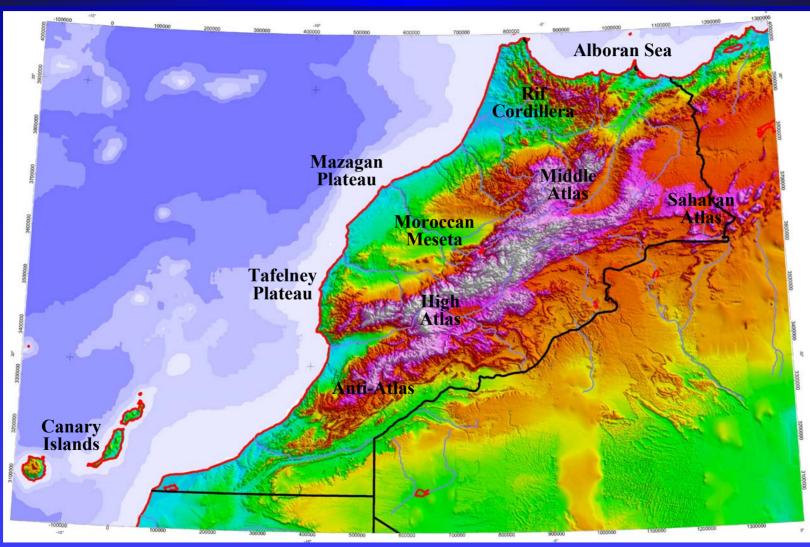


REGIONAL SEISMIC TRANSECT, TAFELNEY PLATEAU, MOROCCO



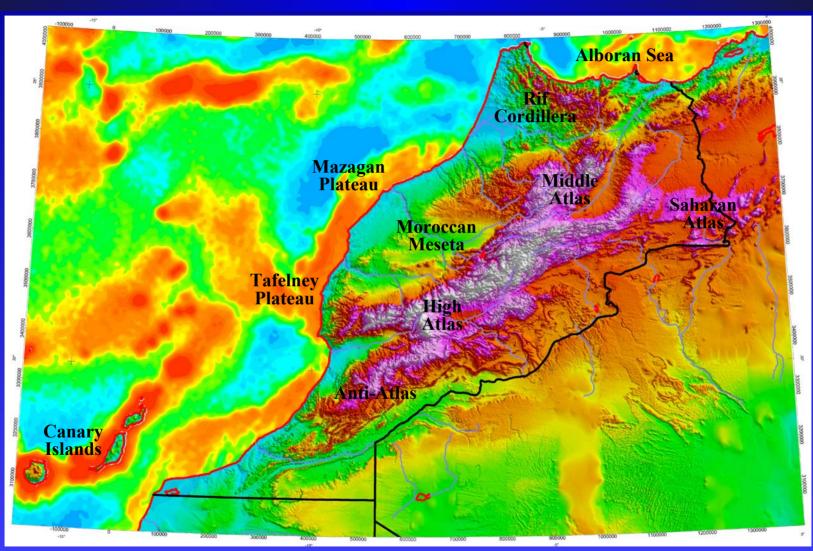


OFFSHORE BATHYMETRY AND ONSHORE TOPOGRAPHY



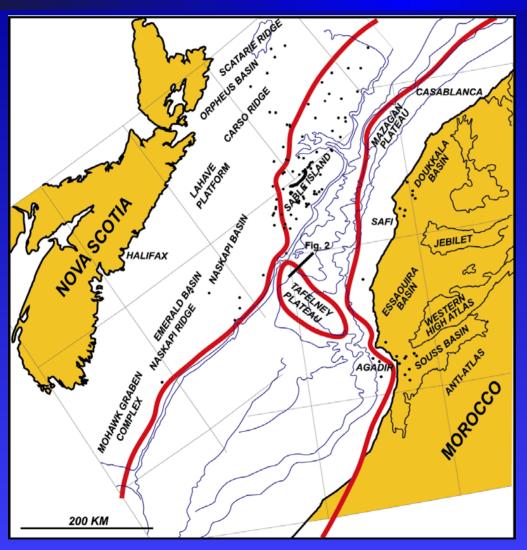


OFFSHORE FREE-AIR GRAVITY AND ONSHORE TOPOGRAPHY





LATE SYN-RIFT (EARLY JURASSIC) RECONSTRUCTION NOVA SCOTIA, CANADA AND MOROCCO

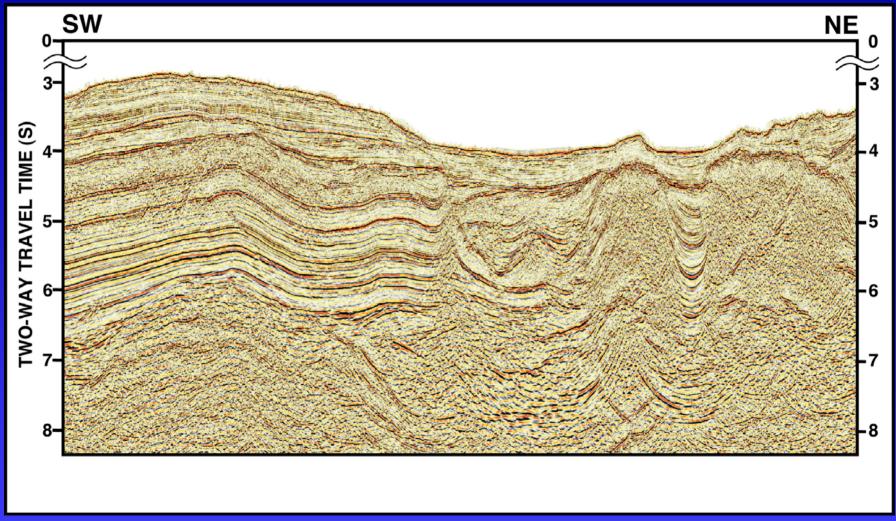


MINIMUM CLOSURE

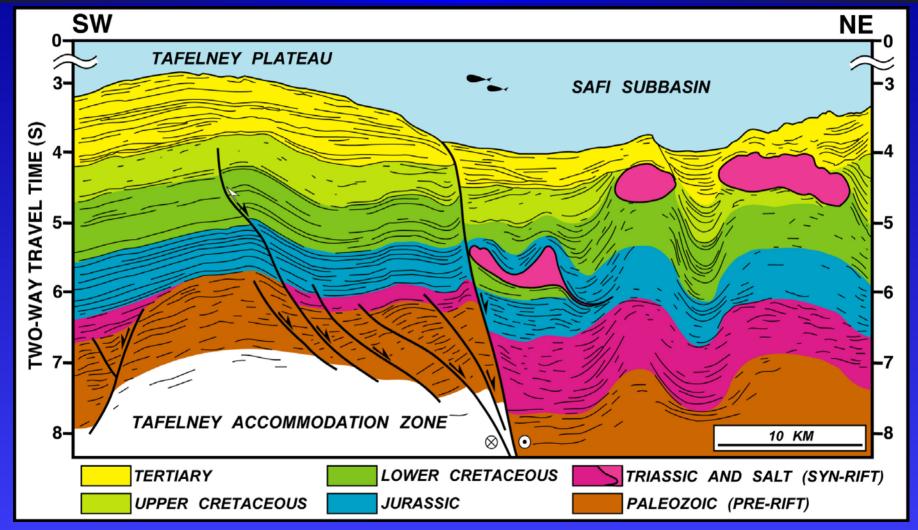
CCW rotation 74.57°
Pole at 66.97N and 12.34W
(Klitgord and Schouten, 1986)

CCW rotation 74.42° Pole at 66.92N and 12.45W (This work)

SUBREGIONAL STRIKE SECTION, TAFELNEY PLATEAU AND SAFI SUBBASIN, MOROCCO

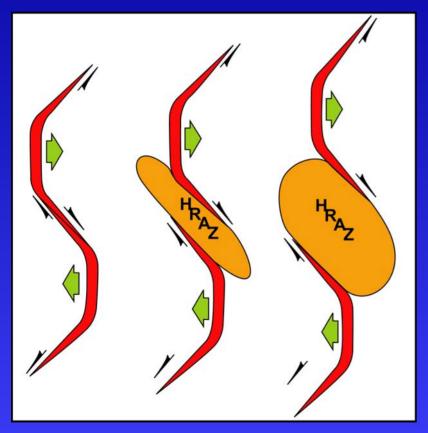


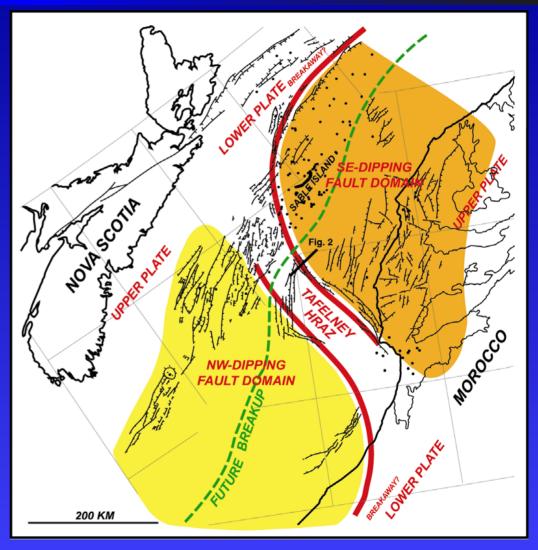
SUBREGIONAL STRIKE SECTION, TAFELNEY PLATEAU AND SAFI SUBBASIN, MOROCCO



LATE SYN-RIFT (EARLY JURASSIC) RECONSTRUCTION NOVA SCOTIA, CANADA AND MOROCCO

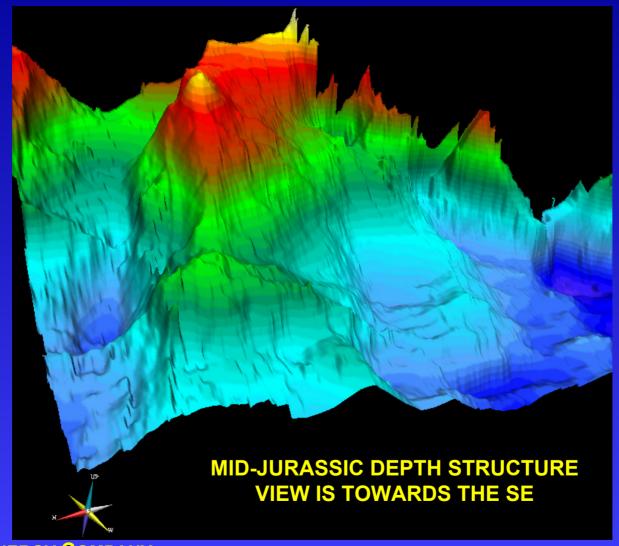
High-relief accommodation zones (HRAZ) in rift basins



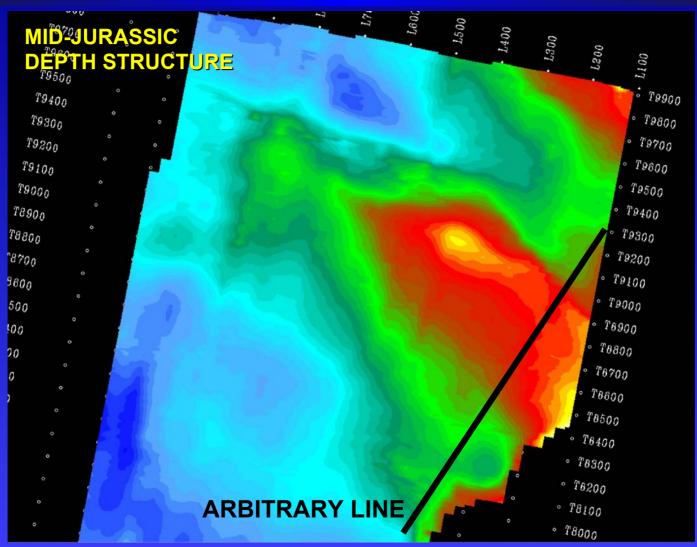




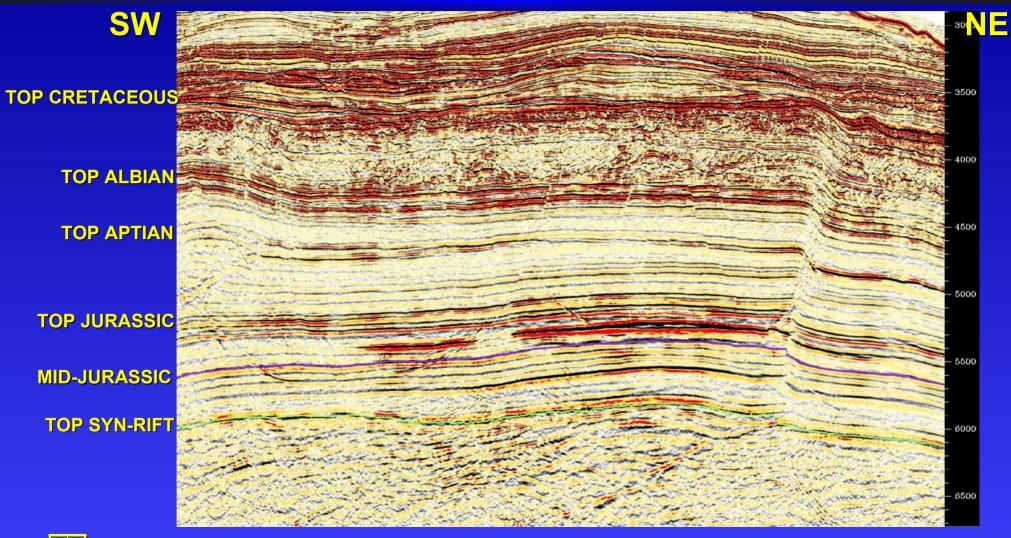
PRESENT-DAY EXPRESSION OF THE TAFELNEY ACCOMMODATION ZONE, SAFI HAUTE MER, MOROCCO



PRESENT-DAY EXPRESSION OF THE TAFELNEY ACCOMMODATION ZONE, SAFI HAUTE MER, MOROCCO

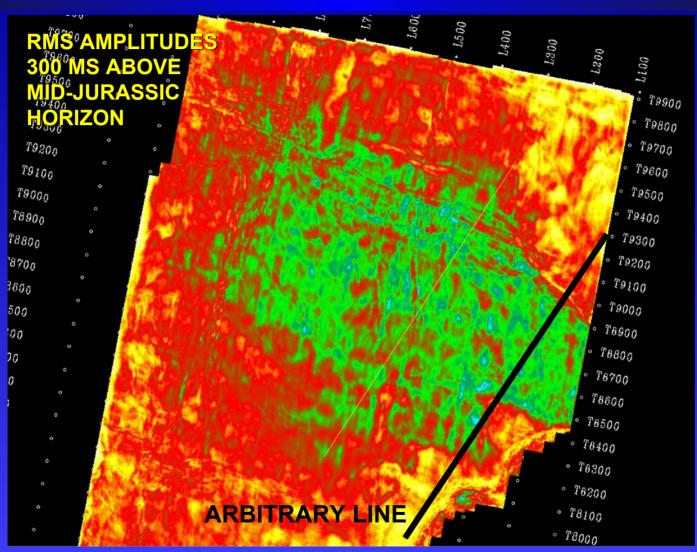


PRESENT-DAY EXPRESSION OF THE TAFELNEY ACCOMMODATION ZONE, SAFI HAUTE MER, MOROCCO

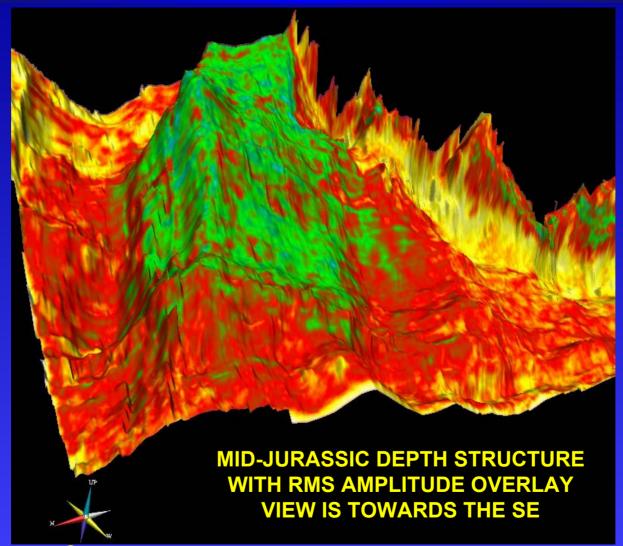




EXPLORATION IMPLICATIONS TAFELNEY ACCOMMODATION ZONE, MOROCCO



EXPLORATION IMPLICATIONS TAFELNEY ACCOMMODATION ZONE, MOROCCO



CONCLUSIONS

- Published structural patterns offshore Nova Scotia combined with detailed structural mapping results offshore Morocco are interpreted in terms of a very specific syn-rift reconstruction of these conjugate margins. The basement embayment beneath the Sable Basin, Canada, correlates with the basement promontory offshore Essaouira/Safi, Morocco.
- The basement high of the Tafelney Plateau is interpreted as a high-relief accommodation zone during the late syn-rift stage (Early Jurassic).
 The actual Middle Jurassic breakup occurred obliquely across this accommodation zone leaving most of it on the Moroccan margin.
- The area of the Tafelney accommodation zone experienced inversion as the offshore manifestation of the Atlas deformation onshore. Therefore a better understanding of the syn-rift structural evolution of the conjugate margins of both Nova Scotia and Morocco may have an impact on the ongoing hydrocarbon exploration efforts.

ACKNOWLEDGEMENTS

AGIP
AOA GEOPHYSICS
ONAREP
SHELL

