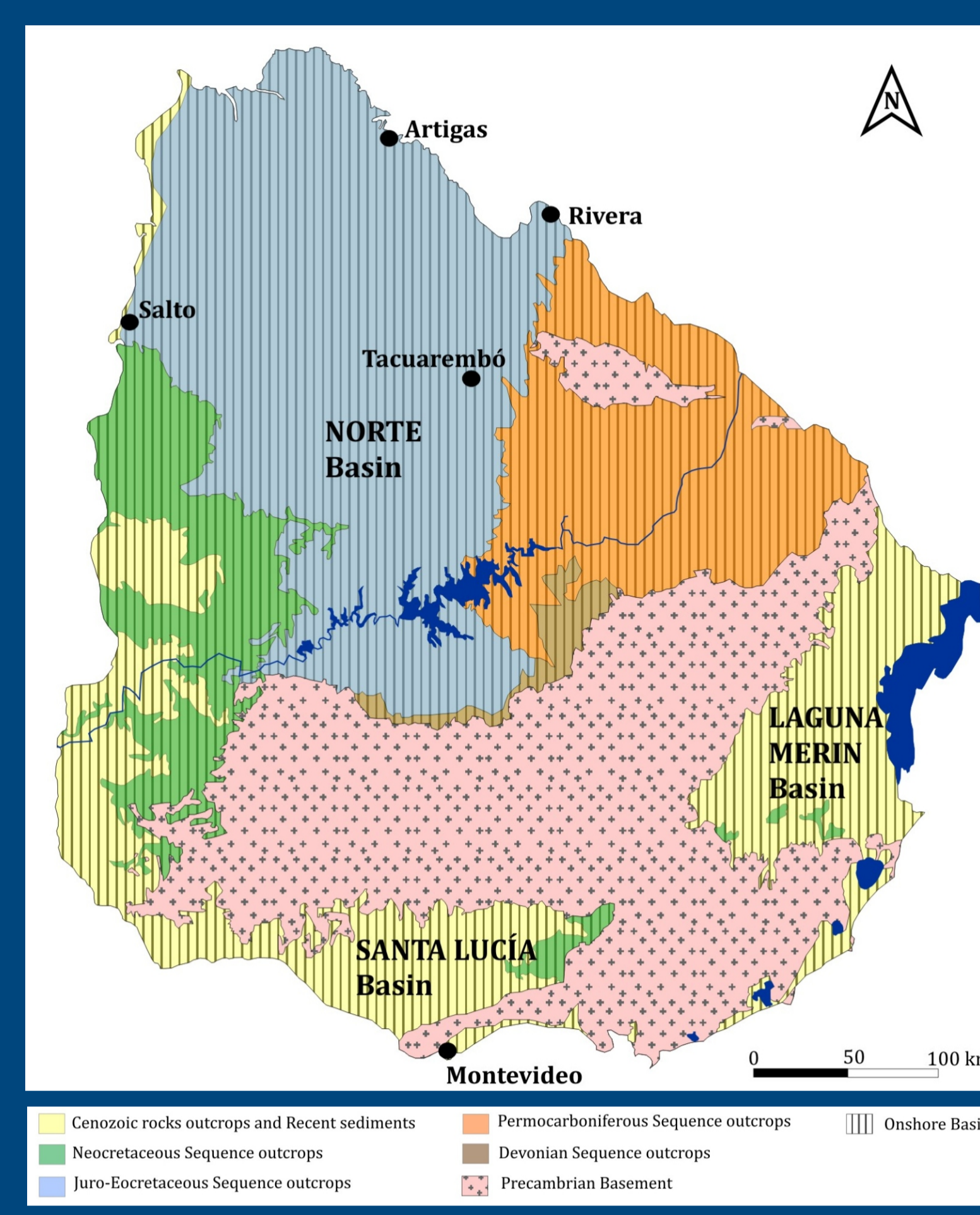
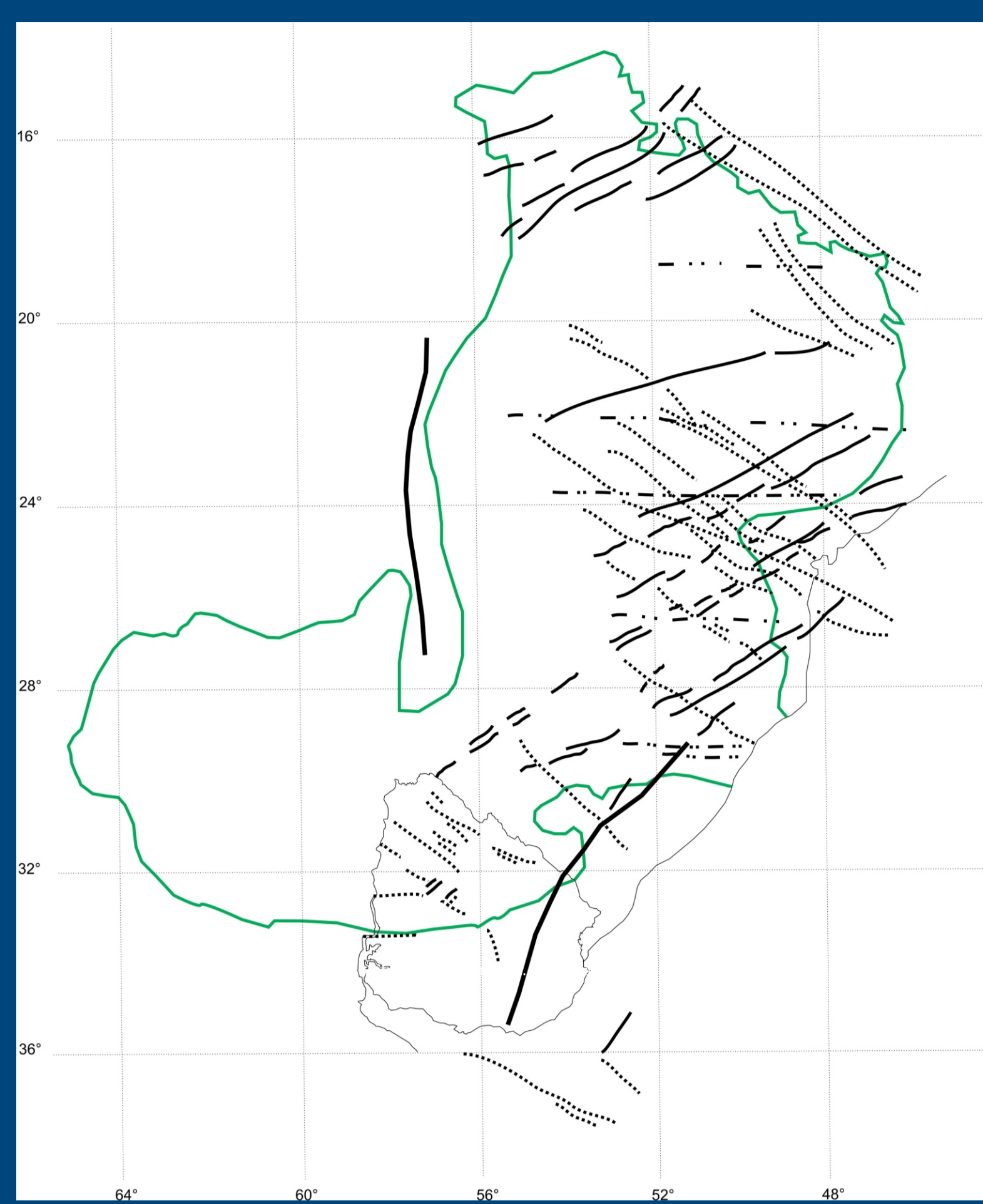


LOCATION AND REGIONAL FRAMEWORK



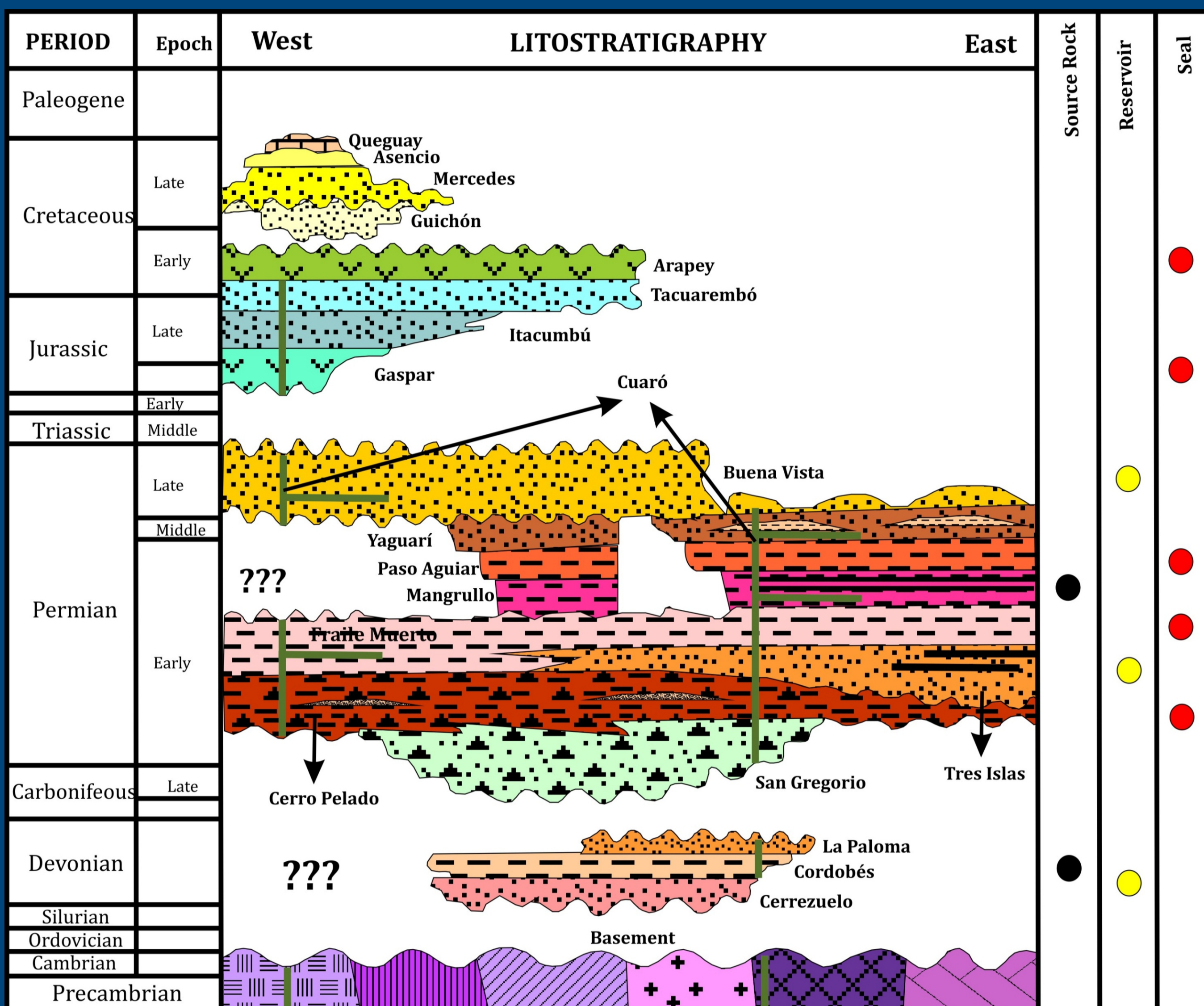
Norte Basin is the most Southern region of Paraná Basin. In Uruguay its extent is over 90,000 Km², has a volcano sedimentary Devonian to Late Cretaceous infill, with 2,500 meters of thickness recognized by Yacaré exploratory well.

Three preferential structural directions are recognized in the basin as consequence of the tectonism of Gondwana active margin. These main structures (NW-SE; NNE-SSW; E-W) were reactivated many times during Norte Basin evolution.

Four sequences are recognized, from base to top:
 1) Devonian
 2) Permian
 3) Juro-Cretaceous
 4) Late Cretaceous.

PETROLEUM SYSTEMS

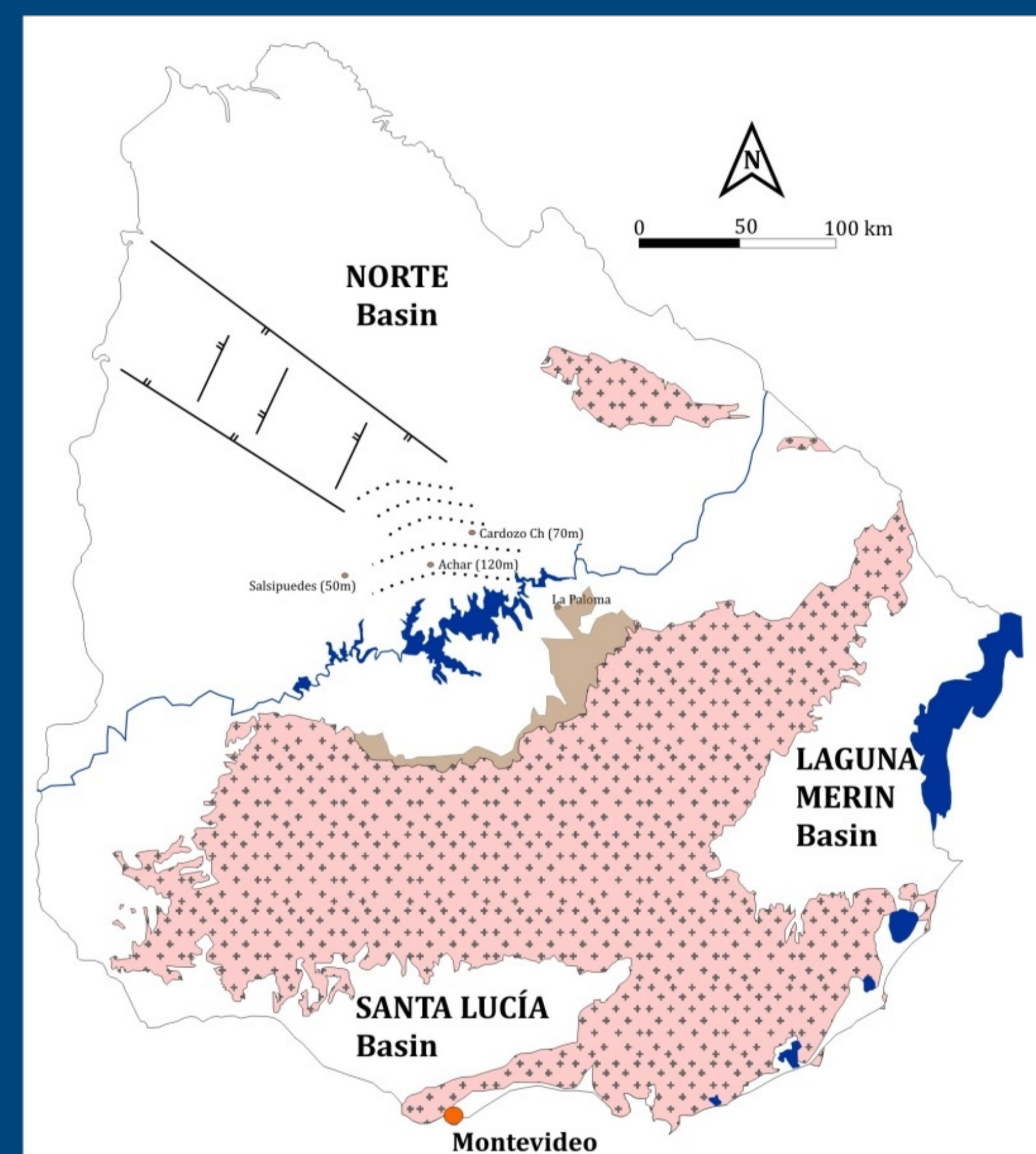
Speculative Petroleum Systems



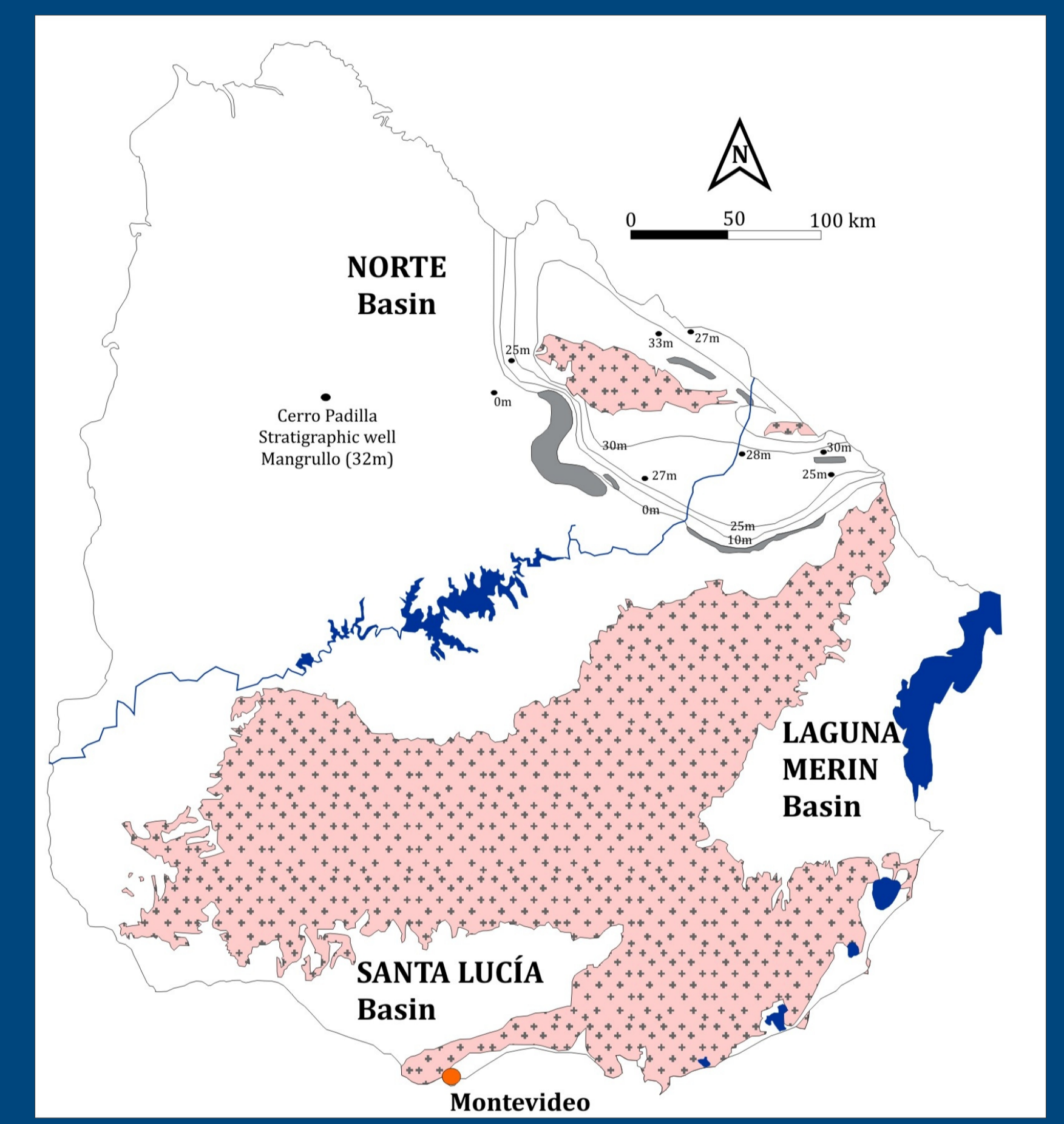
Potential source rocks

UNIT	AGE	TOC (%)	KEROGEN TYPE	HI (mgHC/gTOC)
Cordobés	Devonian	1,7 - 3,6	I & II	> 400
Mangrullo	Permian	6,0 - 12	I	> 600

Devonian source rock



Permian source rock



Potential reservoir rocks

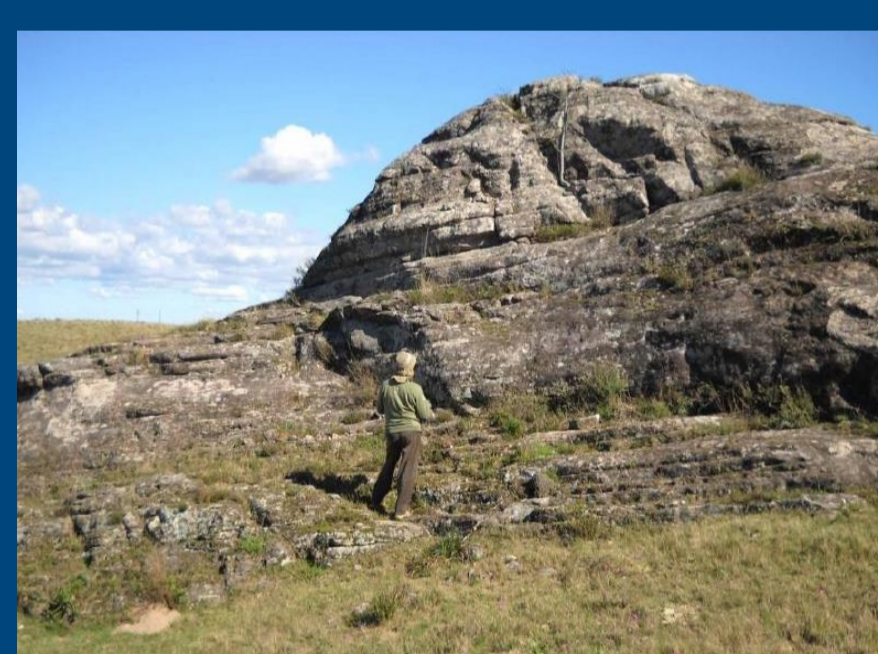
UNITS	FACIES	φ
Cerrezuelo Fm. (Devonian)	Fluvial sandstones	20-22%
Tres Islas Fm. (Early Permian)	Deltaic sandstones	20-30%
Buena Vista Fm. (Late Permian)	Aluvial, fluvial and aeolian sandstones and conglomerates	12-18%



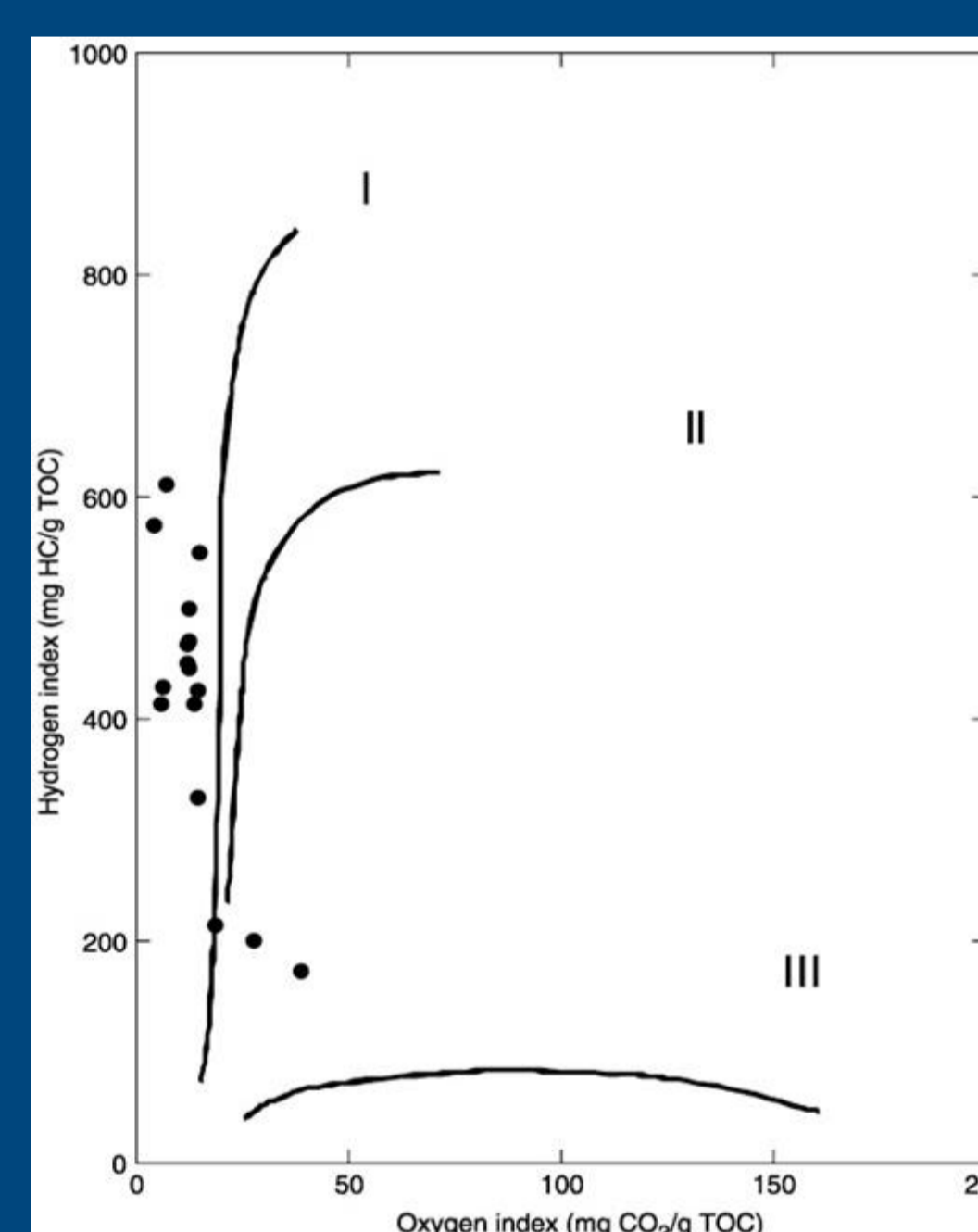
Cerrezuelo Fm. (Devonian)



Tres Islas Fm. (Permian)



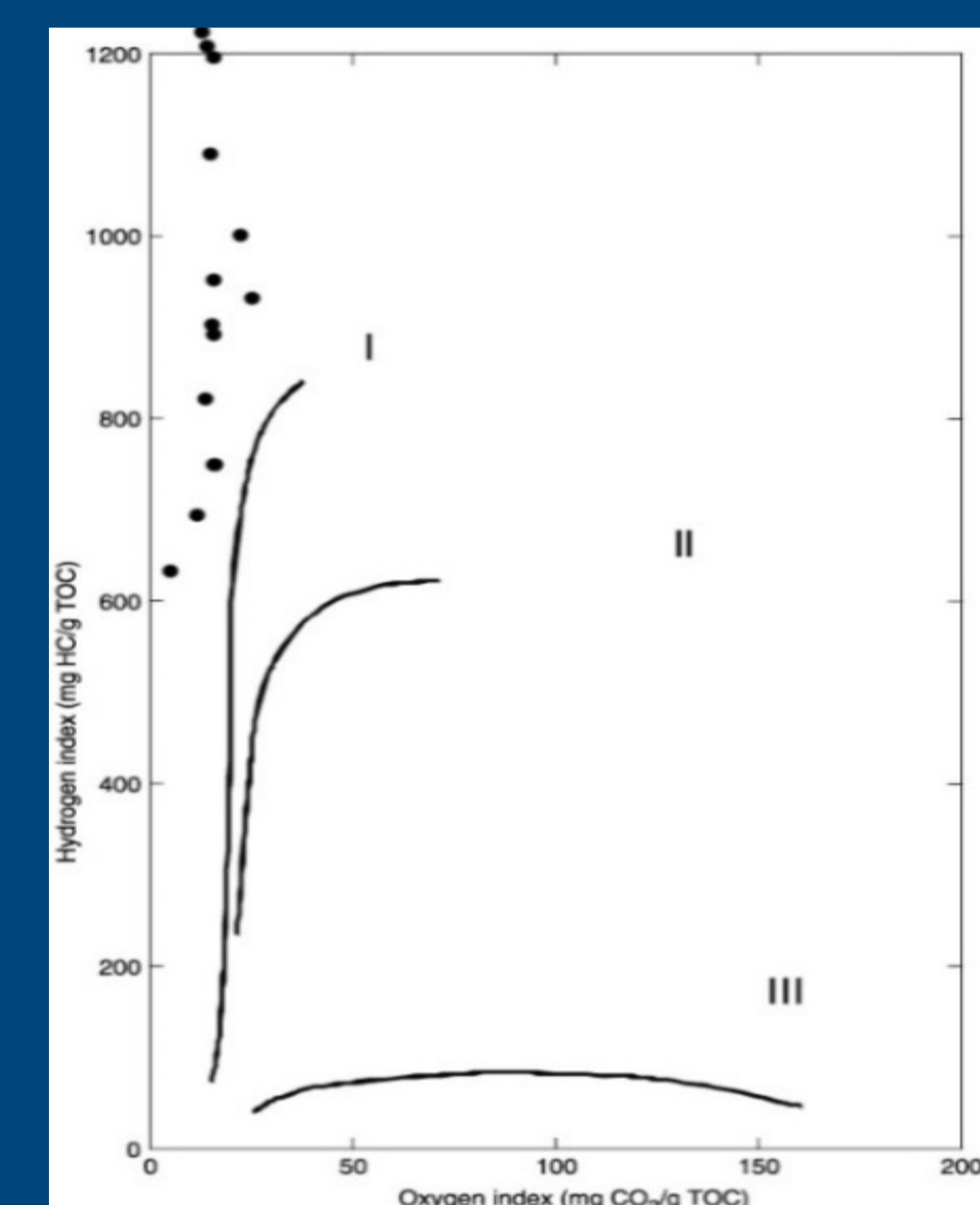
Buena Vista Fm. (Permian)



Van Krevelen Diagram of Cordobés Fm. (Devonian)



Core Sample of Cordobés Fm. (Devonian)



Van Krevelen Diagram of Mangrullo Fm. (Permian)

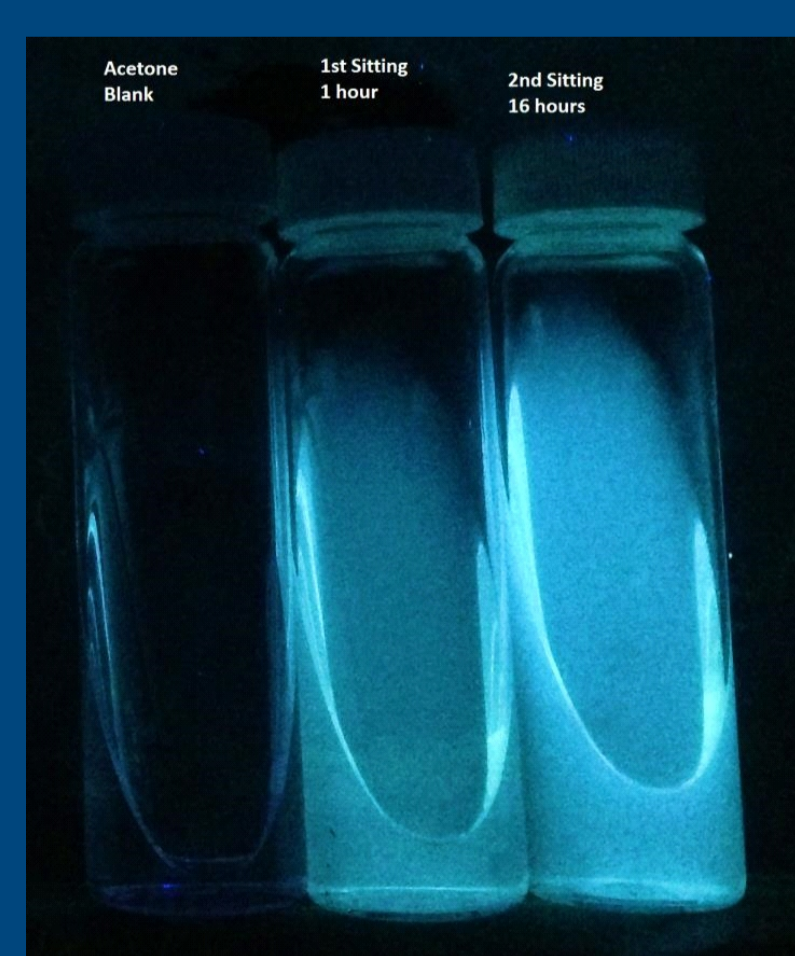


Core Sample of Mangrullo Fm. (Permian)

HYDROCARBON EVIDENCES

Recent Success... Oil Discovery @ Cerro Padilla 1

- Well successfully drilled to Total Depth (TD) of 845m
- Logging confirmed 2m of oil saturated sand at 793m with fluorescence (oil shows) across extended interval
- Testing confirms first ever discovery with oil to surface in Uruguay
- Very encouraging but further work required as appears well missed top of structure



Cordobés Fm fluorescence

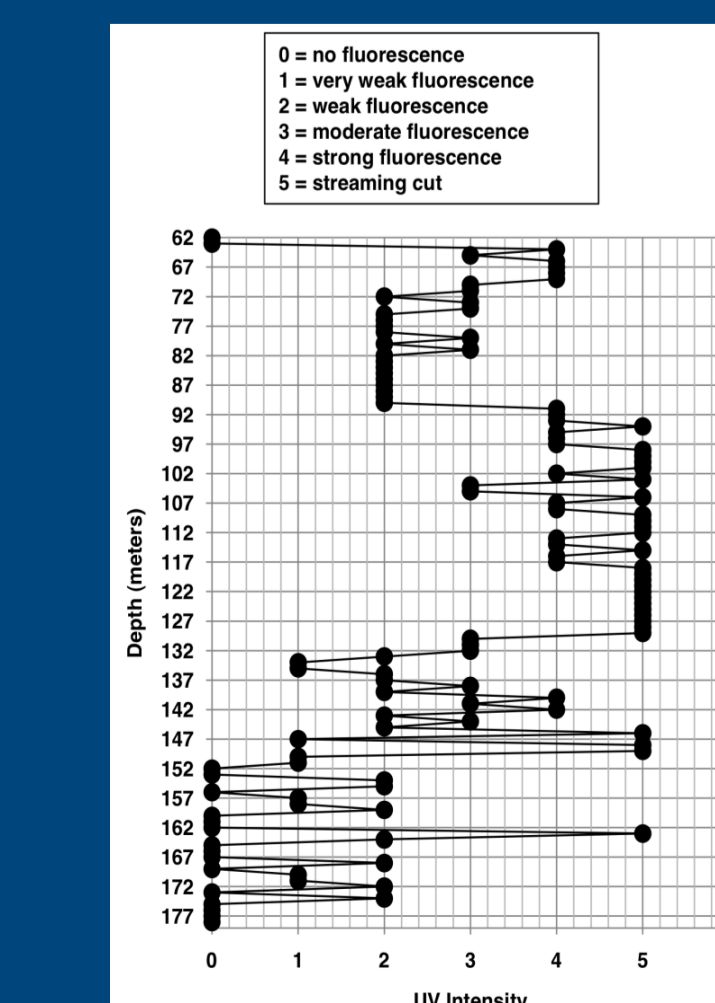
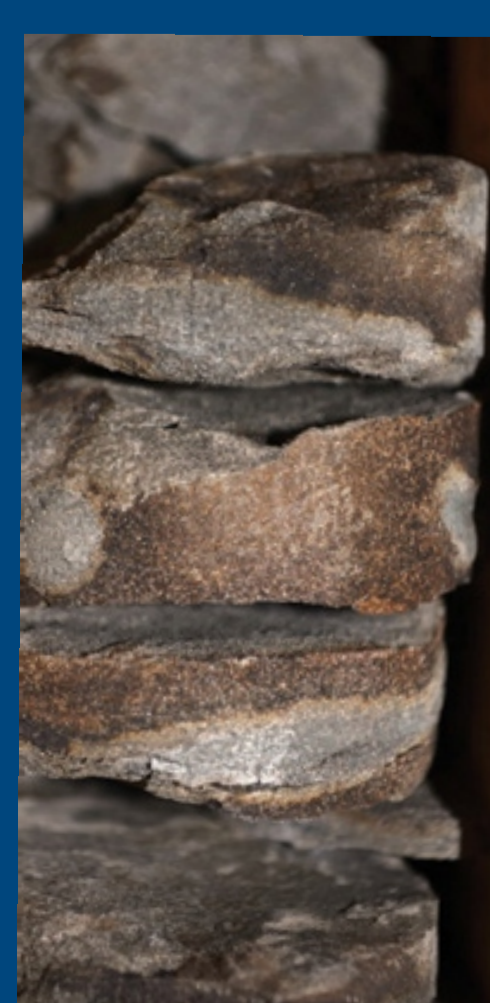
Modest initial discovery but quantum leap in hydrocarbon prospectivity of Uruguay

Source: http://www.petrelenergy.com/irm/PDF/2043_0/UruguayPresentation



Oil stains of Achar well

(Source: Schuepbach Energy Uruguay/www.petrelenergy.com)

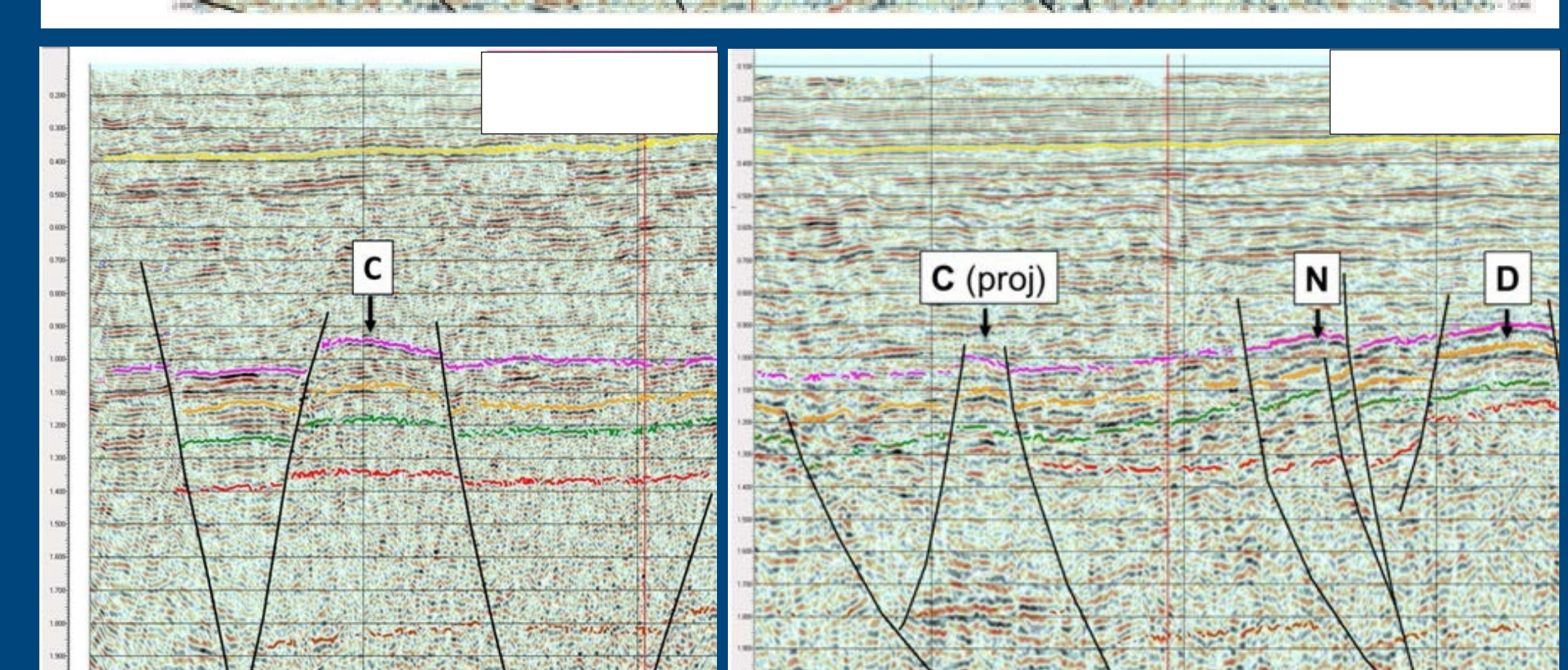
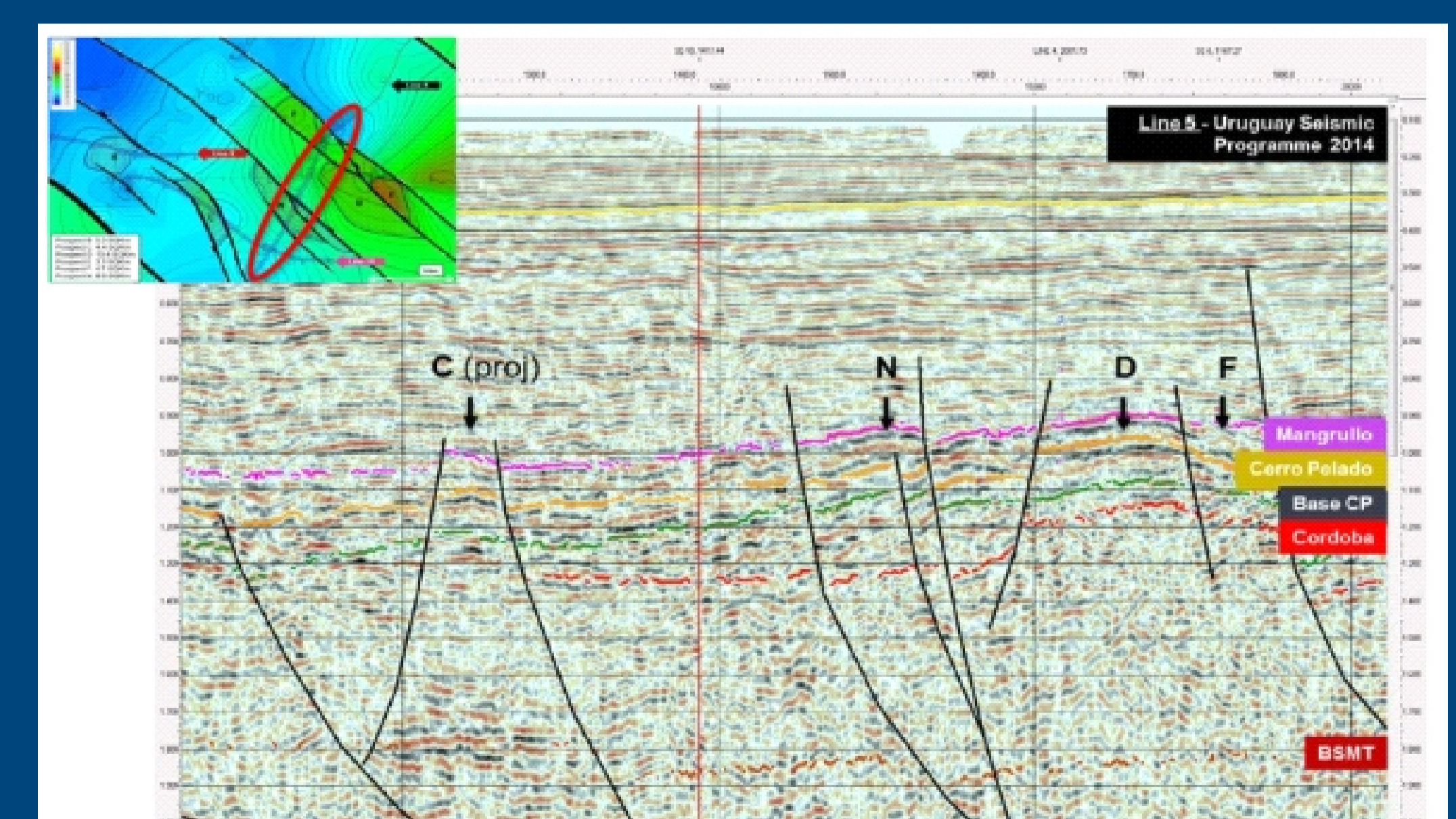


Devonian sandstones with oil traces in shallow stratigraphic well



PLAYS AND PROSPECTS

- Rotated and faulted blocks
- Anticlines
- Pinchouts (against basement highs and basin borders)
- Sea-gull traps



Examples of plays and prospect in Norte Basin. (Source: Schuepbach Energy Uruguay/www.petrelenergy.com)