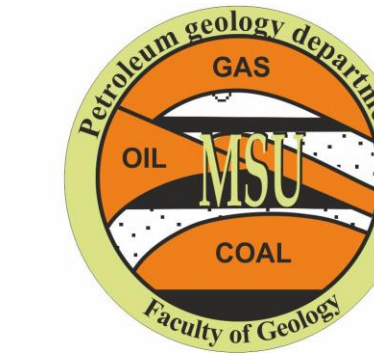


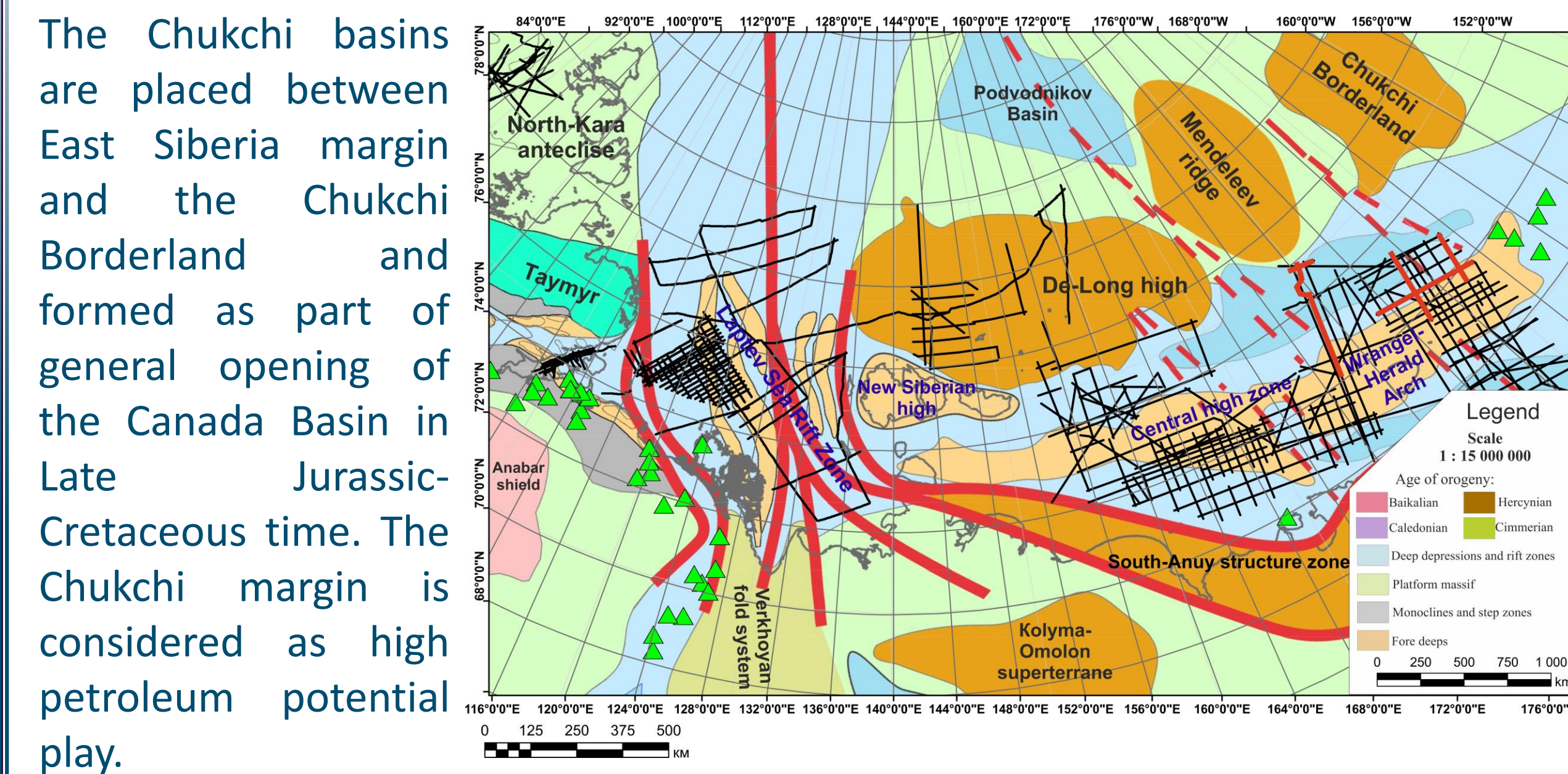
Geological structure and Petroleum Potential of Chukchi Sea Shelf

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Geological setting



Aims

- Tectonic model improvement by interpretation of seismic data
- Indicate main tectonic events in Chukchi Basins Evolution
- Allocate potential hydrocarbon traps in Chukchi Basins

Methods

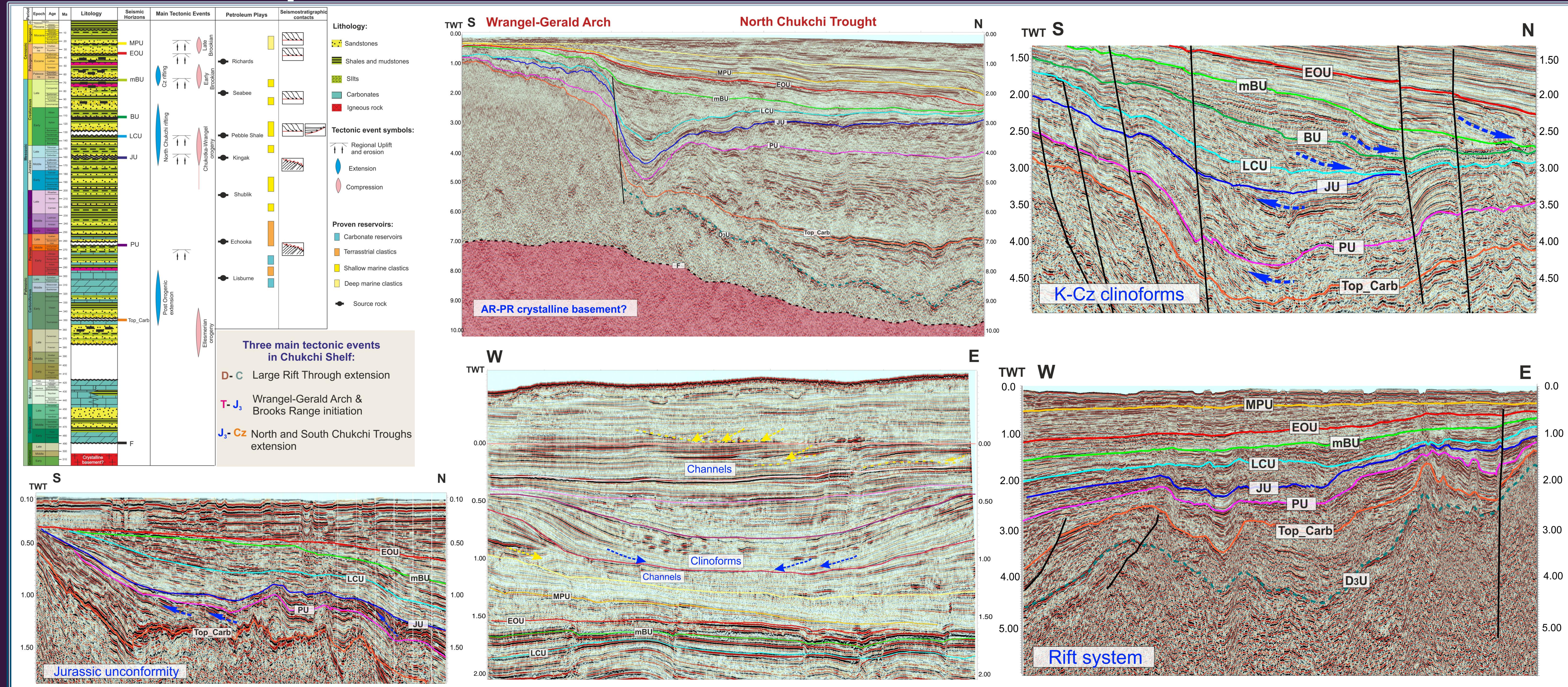
Seismic stratigraphic method was involved in the interpretation of seismic data. The main seismic horizons were indicated as: **F**, **Top_Carb**, **PU**, **JU**, **LCU**, **BU**, **mBU**, **EOU**, **MPU** marking each regional unconformities. The seismic complexes were divided by geometry of seismic reflection correlation pattern: **Carboniferous-Upper Permian**, **Triassic**, **Jurassic**, **Cretaceous**, **Paleogene** and **Neogene** seismic stratigraphy complexes.

Tectonic event chart was constructed to understand geological evolution of basins.

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Seismic Interpretation and Results



Conclusion

Combination of Wrangel-Gerald Arch initiation and North Chukchi rifting caused significant reconstruction in sedimentary province. Very large **Aptian-Albian and Paleogene clinoforms** mark the filling of a basin in front of orogeny. Progradating clinoform successions was mapped out and **discussed in terms of reservoir, seal and source rock development**. The arch is eroded by Upper Jurassic and Lower Cretaceous unconformity and it could be a key to several large **erosionally truncated traps in North Chukchi basin**. Furthermore erosion may cause migration from Triassic and Jurassic source rocks to Cretaceous and Paleogene traps.

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