**Monday, February 25, 2019**

Live Oak Room • Norris Conference Center • 816 Town and Country Blvd #210
Social Hour 5:30–6:30 p.m.
Dinner 6:30–7:30 p.m.

**Cost: $40 Preregistered members; $45 non-members/walk-ups**

**To guarantee a seat, pre-register on the HGS website & pre-pay by credit card.**
**Pre-registration without payment will not be accepted.**
**Walk-ups may pay at the door if extra seats are available.**

*If you are an Active or Associate Member who is unemployed and would like to attend this meeting, please call the HGS office for a discounted registration cost. We are also seeking members to volunteer at the registration desk for this and other events.*

***Ana Krueger***
*Bluware*
***Katya Casey***
*Actus Veritas Geoscience LLC*



# Influence of Proterozoic Heritage on the Development of Rift Segments in the Equatorial Atlantic

***By Ana Krueger***

The last phase of Atlantic Ocean opening involved Late Albian rifting and separation of Africa and South America along the Equatorial Atlantic. Prior to the Albian, initiation and northward propagation of sea-floor spreading caused rotation of the South American plate and formation of two main rift systems in NE Brazil and West Africa: The Northeast Brazilian Rift System, consisting of the Reconcavo-Tucano-Jatoba (RTJ); Sergipe Alagoas/Gabon (SAG) and Cariri-Potiguar (CP) rifts in Brazil and the West- Central African Rift System (WCARS) in Africa. The Brazilian basins developed inside and around the Borborema Province, a key Proterozoic structure that controlled spatial and temporal differences between these rift systems. Our analysis of a new compilation of onshore and offshore faults of the Equatorial Atlantic led us to the conclusion that the segment bound by the Kribi and Bode Verde fracture zones south of Borborema acted as a link between intracontinental rifting to the north and late rifting stages in the Central Atlantic. During the Albian, this region acted as a ¨buffer zone¨, balancing, kinematically, in time and space, dextral strike-slip rifting in the Equatorial branch, with simultaneous sea floor spreading in the Central segment. In this paper, we tie sequence stratigraphic rift sequences to plate kinematic changes described in our new plate model. Attempts to consider the thermal and tectonic evolution of the Central Salt Basins of the South Atlantic as an analog for the Equatorial Margin may lead to wrong predictions in hydrocarbon exploration. The differences in the development of these segments may explain the asymmetry in the distribution of oil and gas reserves along the South Atlantic Margin. ■