

GeoPRISMS Planning Workshop for the East African Rift System

Pre-Meeting Field Trip to Newark Basin

Roy Schlische & Martha Withjack
Rutgers University

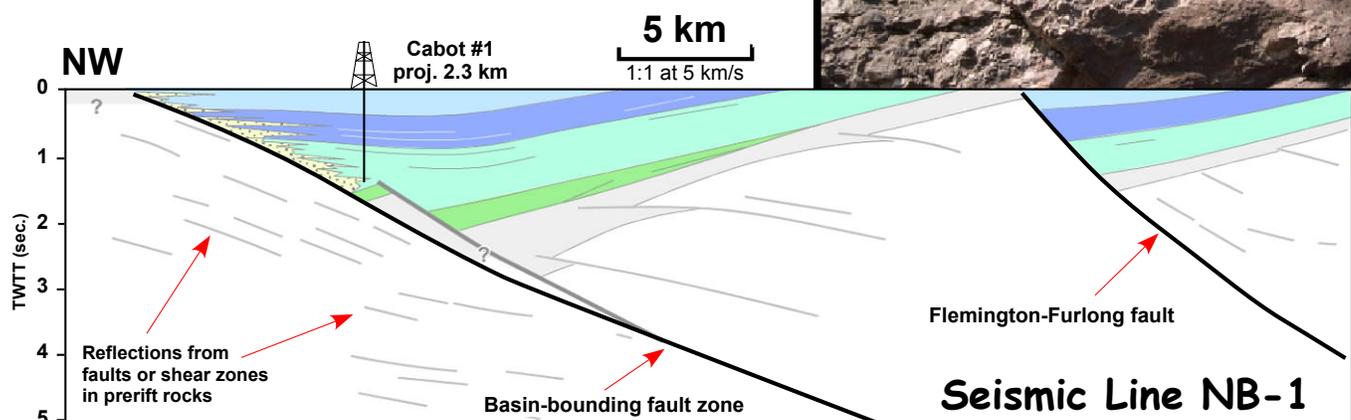
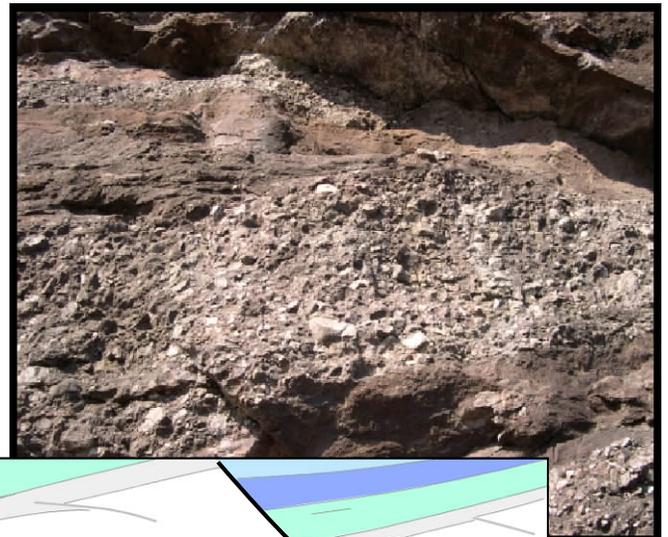
Purpose: To provide a brief overview of the Eastern North American (ENAM) rift system by observing the structures, stratigraphy, and igneous rocks of the Newark rift basin

STOP 1: Highly deformed Cambrian carbonates in the footwall of the border-fault zone of the basin; **the role of pre-existing zones of weakness on rift-basin evolution**

STOP 2: Small normal faults and fine-grain syn-rift sedimentary rocks near border-fault zone; **fault development; variability of syn-rift sedimentary patterns near border-fault zone**

STOP 3: Diabase intrusion within syn-rift strata; **short-lived syn-rift igneous activity associated with large igneous province (CAMP); fractures**

STOP 4: Interbedded fine-grained and coarse-grained sedimentary rocks near border-fault zone; **spatial and temporal variability of syn-rift strata**



Interpretation of seismic line NB-1 from Newark basin. Modified from Withjack et al. (2012).