This report is preliminary and has not been reviewed for
compliance with U.S. Geological Survey editorial standards and
stratigraphic nomenclature.

Plate 10: Seismic sections KE-MN-OP include: The southern limits of the eastern Kentucky Syncline, Southeastern Kentucky Uplift, and the Floyd County Embayment; basement faults of the New York-Alabama Lineament, Wise County Prominence, and Fishtrap Lake Depression; younger backthrusts, forethrusts, and monocline folds caused by compressive buckling of the Southeastern Kentucky Uplift.  Unlike the known arcuate pattern of overthrusting in the Appalachian Fold Belt (such as the Mountain Fault System that forms the hinge of the overthrusting Cumberland Allochthon), the southeast-dipping forethrusts shown in sections MN and OP to be asymptotic to Zone X project upward above the Wise County Prominence and are inferred to reflect a more complex tectonic history that may also be inferred from the nearby lineaments that mark the contact and south of the Lexington and Irvine-Paint Creek Lineaments.  Similar faults are recorded by Milici and others (1970) beneath the Cumberland Plateau and Valley and Ridge in Tennessee where ramp faults at various levels were inferred to continue. In Kentucky, however, the thrusts truncate opposing backthrusts and appear to reflect distinct tectonic pulses that must be of similar age to explain translation of underlying basement rocks, no displacement must also have occurred at still greater depths.