

Basement structure of Grenville province crystalline rocks, modified from Black (1989), Drahozal and Noger (1995), and Hickman and others (2006)

Basement structure of Grenville province crystalline rocks is also based on part of single-fold seismic line G1531-1a (John Hickman, Kentucky Geological Survey, unpub. data, 2009)

Thickness of strata and fault geometries may be schematic in places due to structural complexity and vertical exaggeration. Also, the apparent thickness of the beds will increase and the apparent dip will decrease where the cross section is not perpendicular to strike.

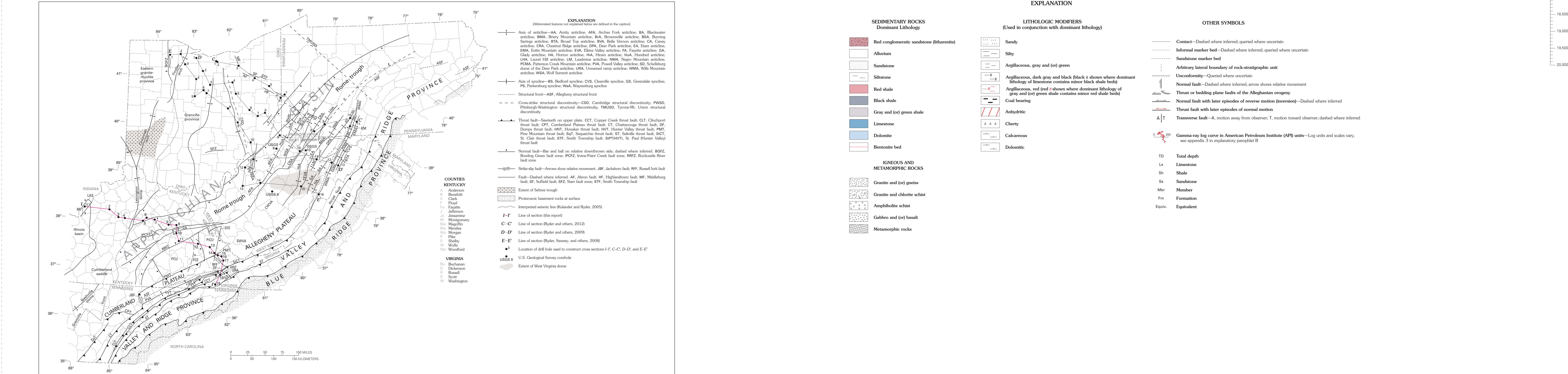


Figure 1.—Map of Kentucky, Virginia, and adjoining States showing location of cross section I-I' and selected tectonic features. Tectonic and geologic features are from Haselden (1966), Cardwell and others (1968), Rodgers (1970), Janessa (1973), Wallace and de Wit (1975), Mickl (1980), Denton and others (1984), McDowell (1985), Noger (1988), Virginia Division of Mineral Resources (1993), Drahozal and Noger (1995), Shumaker (1996), Fall (1998), Barrows (2002), and Shuler and others (2006). The Cumberland Plateau and Allegheny Province of the Appalachian Plateau Province are defined by Kaler and Deen (1986) and Harris (1979). Additional abbreviations: CMAV, Central West Virginia arch; DSF, Deep River embayment; LASe, Louisville accretionary structure; PCV, Pine County uplift; PCVd, Pine County uplift; SWVA, Southern West Virginia arch.

GEOLOGIC CROSS SECTION I-I' THROUGH THE APPALACHIAN BASIN FROM THE EASTERN MARGIN OF THE ILLINOIS BASIN, JEFFERSON COUNTY, KENTUCKY, TO THE VALLEY AND RIDGE PROVINCE, SCOTT COUNTY, VIRGINIA

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