The Arbuckle Mountains as a Laboratory for Geological Education

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ABSTRACT

When a recent graduate of an engineering college signs on with Halliburton Energy Services in Duncan, Oklahoma, he or she begins their career with a 6-month training program. For more than two decades now, that training program begins with a day of geological instruction followed by a day-long field experience in the Arbuckle Mountains. The authors have built that field experience around outcrop exposures of formations that, at depth, are either source rocks or reservoirs, or both, such as the Oil Creek Sandstone and the Woodford Shale. We look at structure, study stratigraphy, visit both dead quarries and working quarries, and examine rocks of every age from Precambrian to Permian. The Arbuckle Mountains of South-Central Oklahoma are the only place between Laredo, Texas, and Duluth, Minnesota (along I-35) where rocks of the entire Paleozoic can be examined on the surface. Along the way we discuss geological age, section-township-range, stratigraphic columns, cross sections, and the “three F’s”: folding, faulting, and fried pies. Come see what fun we have had and share in our varied experiences in the last 20 years!