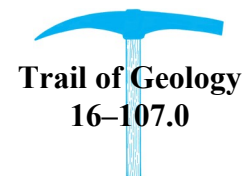


OUTSTANDING GEOLOGIC FEATURE OF PENNSYLVANIA

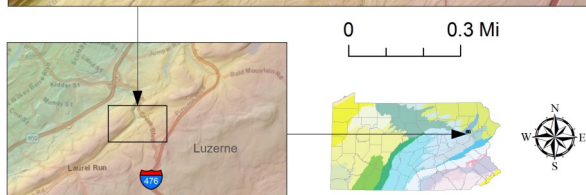
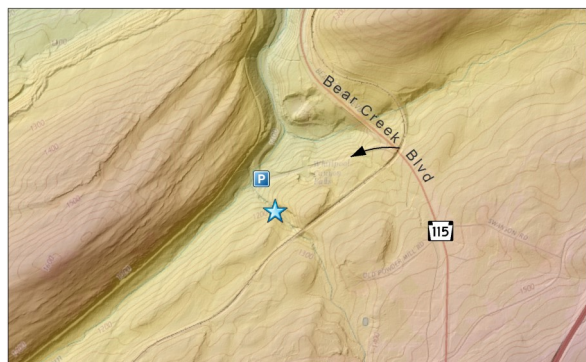
THE SEVEN TUBS, LUZERNE COUNTY

Stuart O. Reese, 2016



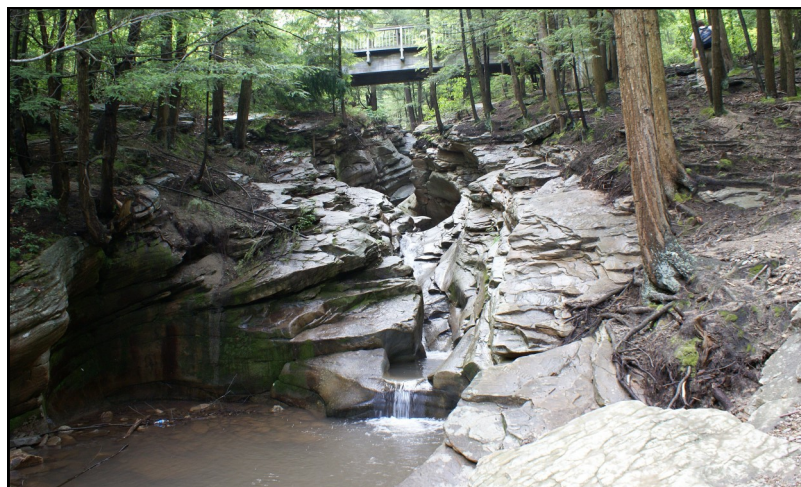
Location

Seven Tubs Nature Area, Luzerne Co., Plains Twp., lat: 41.23559, lon: -75.81043 (parking); Wilkes-Barre East 7.5-minute quadrangle



Geology

The Seven Tubs Nature Area located in Whirlpool Canyon is a short but rugged cut through the Early-Mississippian-age Pocono Formation on the southeastern flank of the Anthracite Valley physiographic section. The rocks dip to the northwest, the same direction in which Wheelbarrow Run flows through the canyon. After the departure of Pleistocene glaciers, substantial stream flows at a steep gradient (but not glacial meltwaters) are thought to have incised the large tublike potholes that give the area its name. The tubs—up to 30 feet across and 20 feet deep—were carved by the abrasive action of swirling, high-velocity water loaded with sand and gravel. The sandstone and conglomerate rocks were resistant enough to not be washed away in such flows; however, the potholes formed at zones of weakness in the hard rocks—places where joints of different directions met. The stream followed eroded joint sets of at least three directions, which resulted in a zig-zag course through the rocks.



Left: Small waterfall and stream-carved channel through the Pocono Formation. Note the joint surfaces on the edges of the sandstone. View is to the southeast; rocks dip northwest toward the viewer. Glaciers previously moved through the area with a flow direction of just west of due south, which is transverse to the gorge. Right: One of the distinct “tubs” in Whirlpool Canyon. Photographs by Kevin Tarbert, Pennsylvania Geological Survey intern.

Recommended Reading

Braun, D. D., Edmunds, W. E., and Gillmeister, N. W., 1997, Stop 3, The Seven Tubs Natural Area and its environs—geomorphic development of “The Tubs”; stratigraphy of the Mauch Chunk and Pottsville Formations; and structure at the Mauch Chunk/Pottsville contact, in Inners, J. D., ed., *Geology of the Wyoming-Lackawanna Valley and its mountain rim, northeastern Pennsylvania: Annual Field Conference of Pennsylvania Geologists*, 62nd, Scranton, Pa., [Guidebook](#), p. 94–104.