

5-27 S-22 E
SE SE NE SE

Troike 1, Kansas Geological Survey,
"Prong Creek Core," ~ 1991, TD = 261.

Core description from KGS Geology Series 4, 1991.

	Thickness	
	ft	m
Prong Creek Core (KPC) (Kansas Geological Survey, Troike 1)-- 0.25 mi (0.40 km) north of K-39, 1.6 mi (2.6 km) west of K-39 bridge over Prong Creek (outcrop 16), Bourbon County, Kansas (SE SE NE SE sec. 5, T. 27 S., R. 22 E.; Porterville Quadrangle). Described by J. A. French; summarized and classified by P. H. Heckel.		
Hertha Limestone (21.1-86.6 ft)	65.5	19.7
Sniabar Limestone Member (21.1-41.4 ft)		
Limestone, undifferentiated	20.3	6.1
Mound City Shale Member (41.4-86.6 ft)	45.2	13.6
Shale, gray, undifferentiated, with calcareous beds	44.6	13.4
Shale, black, phosphatic	0.6	0.2
Upper Pleasanton shale unit (86.6-101.0 ft)		
Shale, gray, undifferentiated	14.4	4.3
Critzler Limestone (101.0-103.4 ft)		
Calcarenite to calcilutite, skeletal, argillaceous, with two shale beds	2.4	0.7
Middle Pleasanton shale unit (103.4-105.4 ft)		
Shale, dark-gray, silty	2.0	0.6
Exline limestone (105.4-106.1 ft)		
Calcarenite to calcilutite, skeletal, argillaceous, in two thin beds separated by dark-gray shale	0.7	0.2
Hepler unit (106.1-165.0 ft)	58.9	17.7
Shale, gray, silty, with large plant fragments	0.7	0.2
Mudstone, light-gray, blocky	2.5	0.8
Siltstone, gray, argillaceous, with carbonate nodules	2.7	0.8
Sandstone, gray, micaceous, locally rippled, with thin, silty, shaly interbeds and scattered plant fragments	16.0	4.8
Siltstone, argillaceous, with thin beds of micaceous sandstone, especially just above base	37.0	11.1
Lost Branch Formation (165.0-173.2 ft)	8.2	2.5
Shale, gray, silty	6.9	2.1
Shale, black, phosphatic (Nuyaka Creek black shale bed), with zone of fossils, including brachiopods, toward base and thin layer of cone-in-cone limestone at base	1.3	0.4
Memorial Shale, upper member (173.2-181.8 ft)	8.6	2.6
Shale, gray, with scattered silty laminae and plant fragments and zone of fossil fragments at base	7.4	2.2

bridge). This confirms that the sandstone at the bridge is in the Perry Farm Shale Member of the Lenapah Limestone, as apparently is also the originally designated type section of the Hepler sandstone nearly 2 mi (3 km) to the southeast, as explained in the description of outcrop 16. This core also shows that the sandstone in the Perry Farm Member at the K-39 bridge grades westward into siltstone, which confirms the findings of Sutton (1985) that only the sandstone above the Lost Branch Formation (traditional Hepler) is widespread in the subsurface.