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A Deep Well at Laurens, Pocahontas County

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THE DEEP WELL AT LAURENS, POCAHONTAS COUNTY

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The town of Laurens is located in the northwest corner of Pocahontas county. The surface drift within the county is Wisconsin, while the underlying drifts are probably Kansan and Nebraskan.

	Feet	Inches
1. Black shale	3	6
2. Yellow calcareous clay	10	6
3. Blue clay, calcareous	206	....
4. Sand and gravel	10	....
5. Blue clay, compact, calcareous	20	....
6. Sand	150	....
7. Blue shale	50	....
8. Limestone	285	....
9. Blue shale	15	....
10. Limestone	260	....
11. Blue shale	80	....
12. Sandstone	35	....
	1,125	

Horizons (1) to (3), inclusive, are Wisconsin drift. Horizon (4) is probably interglacial and equivalent in time to the Aftonian or Buchanan gravels. Horizon (5) is either Kansan or Nebraskan drift with a strong probability of being Kansan. Horizons (6) and (7) are undoubtedly Cretaceous, as Cretaceous deposits, consisting of sand and shales, are found immediately beneath the drift in the county. Horizon (8) may be Mississippian in age. Horizon (9) has not been found previously in the county at this depth. The assignment of horizon (9) to the upper Ordovician, Maquoketa shale, may be a possibility. If horizon (9) is Maquoketa shale, horizons (10) and (11) are possibly Galena to Platteville, inclusive. Horizon (12) is unquestionably Saint Peter sandstone, which is an aquifer for deep wells in this locality.

The Saint Peter is encountered at Emmetsburg, Palo Alto county, at a depth of 864 feet, while at Laurens, it is reached at a depth of 1,100 feet. The Saint Peter sandstone descends 252 feet in 21¼ miles, or at the rate of 11.85 feet to the mile.

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