

November, 1934.

Slick, Pryor, and Lockhart #2 Orth,
SW SE NE, 27-189-10W,
Elevation 1749'

Pennsylvanian conglomerate. 3203-3219'

3203-3214 Clay shales, maroon and green, fissile.

3214-3219 Chert and sand. Chert is stained red, yellow, and
amber. Conglomerate proper.

Ordovician residuum 3219-3255'

Sub-sea, minus 1470'

3219-3245 Chert, mottled red and white clays, red and green sandy
clay, and some sand. The exact contact between con-
glomerate and residuum is difficult to pick and the
exact foot is arbitrary. The chert types present in
this part of the section may be lower Cotter or even
Pre-Cotter, as oolites are not common. This is
tentatively assigned to the ~~xxx~~ Cotter.

3245-3255 Clays, red and green, with clear to brown quartzose
cherts. Much of clay is sandy and some white to
pale green is present. This material is certainly
Pre-Cotter residuum.

Pre-Cambrian Top 3255'

Sub-sea, minus 1506'

3255-3272 Quartzite.

This well adds to the complexity of this immediate area. Some wells
previously reported upon contained dolomite which was either Miller-Purcell
or Cotter, lying upon a short section of Pre-Cotter dolomite, which, in
turn, rested upon quartzite without a basal sand normal to the Pre-Cotter.
The #2 Orth shows no dolomite and the residuum might be interpreted either
as all Pre-Cotter or as Cotter lying on Pre-Cotter, the latter being preferred
but not proven.

This township, 189-10W, is a proving ground for three problems which
are fundamental to both local and regional stratigraphy of the Arbuckle.

1. The conglomerate-residuum problem. Finding the sequence of the
insoluble material in place in the residuum, has, to my satisfaction,
proven that it is residuum. Conglomerate should contain no definite
sequence and the general sequence should be the reverse of the order of
its presence in bedded dolomite.

2. Overlap of Miller-Purcell on Pre-Cotter and Pre-Cambrian. Several
wells have shown evidence that such was the case but no one well has
shown clear proof because of the fact that a short, weathered, section
of Miller-Purcell is difficult to distinguish from Cotter.

3. Thinning of Pre-Cotter by cutting out of base by overlap on buried
hills. Regional evidence is against any thinning of the Pre-Cotter
except a very gradual thinning to the north. However, regional evidence
only applies to the flanks, well away from the axes of the uplifts.
Local evidence in 189-10W suggests that Pre-Cambrian knobs may have been
islands in Pre-Cotter time. Also outcrop evidence.

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