

December, 1936.

Noah and Young #1 Hills,
NW SE SE, 19-10S21W,
Elevation 2255'

Dec

Pennsylvanian conglomerate 3892-3898'

3892-3898 Red shale with a small amount of weathered chert. It is entirely possible that ~~some~~ Kinderhook shale is present from 3851-3898 and that this chert represents the pre-Mississippian surface.

Ordovician Top 3898'

Sub-sea, minus 1643'

Decorah 3898-3923'

3898-3903 Shale, clayey, red.

3903-3923 Shale, red and green, sandy. Contains small amounts of asphaltic sand. Dolomitic green shale in base.

Arbuckle Top 3923' Penetration 51'

Sub-sea, minus 1668'

3923-3974 Unidentified Arbuckle. Probably Miller-Purcell on Cotter.

The Decorah and Arbuckle show intense weathering. The dolomite is considerably dissolved and is probably compacted, at least, the chert sequence is unusual and does not check any normal section.

December 1940

Noah and Young, No. 1 Hills
NW SE SE 19-10S-21W

Elevation 2225 feet

Cable-tool dry hole, structurally somewhat higher than other failures in area.
Samples contaminated by cavings, not very good.

Ordovician

Arbuckle Top 3923 feet (by others--residues start 3925 feet), or 1698 feet subsea. Penetration 51 feet. Simpson cover.

3923-3974 feet Total Depth. Cotter, probably middle Cotter. Somewhat similar to upper section in Prairie, No. 1 Gick, C SE $\frac{1}{4}$ 22-9S-19W. Top pre-Cotter roughly estimated at approximately 4115 feet.

Remarks:

This section is not ideal by any means, but appears to indicate fairly definitely Simpson resting on Cotter without any intervening Miller-Purcell. Presumably Miller-Purcell should not be expected in any part of Graham County, as well as counties to the north and west. Available information suggests Simpson on Cotter in southwestern Rooks County also.

FBC