

July, 1942.

Stearns and Vernon #2 Olson "B",
C EL SE NE, Sec. 28-14S-14W,
Elevation 1804'

Pennsylvanian conglomerate 3225-3266'

- 3225-3242 Coarse sand derived from granite and quartzite, with included lime nodules and partings of micaceous red and green shale. This arkosic sand contains worn pebbles of granite. Scattered sand grains and flakes of mica, both biotite and chlorite, are present in the limes as high as 3216'.
- 3242-3253 Interbedded sand, lime and rare shale partings. The sand is mainly rounded and Arbuckle-derived. Some limy sand fragments show rare coarse granite-derived grains. The lime is brown, marine, bedded, and sandy. This appears to be the type of marine deposition at the time the sea first began to scalp the weathered granite high to the east.
- 3253-3266 Conglomerate of coarse sand and chert pebbles. Chert is dominant at the top and sand decreases in fineness downward. Lack of consolidation makes it difficult to determine if the rare arkosic material is caving or belongs in this interval. This conglomerate may ~~xxxxx~~ be either land wash or the basal marine deposit at this spot. It appears to grade imperceptibly into residuum and the contact is arbitrarily called.

Questionable Arbuckle residuum 3266-3285' Sub-sea, minus 1462'

- 3266-3274 Clays, red with green mottling, mainly highly sandy. Traces of quartzose chert and considerable loose sand. Rare fragments of fine sand cemented with white siliceous clay. This interval suggests Post-Boyce residuum.
- 3274-3285 Mainly cavings. Abundant is micaceous shale, but also present are limes, chert pebbles, arkose, and even Pennsylvanian marine shale. Traces of residual material can be found but examination of these two samples alone would not lead to the conclusion that residual Arbuckle was drilled. The high percentage of cavings is probably due to the water reported from 3281-85'.

Remarks: Note that no dolomite was reached. It should be present in the next five feet. Map as Post-Boyce on evidence of residuum and the map picture.