

October 1944

Shell #1 Riemann
Section 23-16S-12W, C NL NE NW
Elev. 1922'

Rotary

Pennsylvanian Conglomerate

3348-3352 Sandy limestone. White limestone with included coarse, rounded, frosted sand grains and, in the basal foot, with a few chert pebbles and individual chert oolites. Marine conglomerate.

Arbuckle Top 3352' Penetration 32' Subsea -1430'

Boyce 3352'- 3385'

3352-3358 Silicified sand. Recrystallized sand grains cemented with secondary clear silica showing voids, abundant dolocasts, and 1/2 mm drusy quartz crystals. This "siliceous crust" with dolocasts is excellent evidence that the underlying sand is Ordovician rather than Pennsylvanian.

3358-3362 Sand, fine to coarse, recrystallized in porous clusters, oil-stained.

3362-3370 Sand as above with some porosity. Muscovite flakes are present near 3368'.

3370-3385 Sand. Mostly very coarse (2 mm). Recrystallized subangular quartz grains, in part with black inclusions. These are set in a matrix of fine recrystallized sand which includes an occasional large (3mm) detrital muscovite flake. The influence of the Pre-Cambrian floor on the basal Boyce sedimentation is clearly shown.

Pre-Cambrian Top 3385' Penetration 76' Subsea -1463'

PE 3385-3430 Schist. Muscovite schist, stained red, with finely granular quartz, and with 1/4mm porphyroblasts of magnetite.

3430-3461 Schist as above, but with dark red clayey layers and with large (4 mm) and thick (1 mm) books of dark mica partly rotted. The abundant inclusions in the mica and holes from which inclusions have rotted out suggest that the mica is also porphyroblastic.

Remarks: 1676 barrels of oil and no water from 48 shots, 3354-3362', in the Boyce. Best pay reported 3358-3362'.

The above interpretation agrees exactly with that of Price (Letter No. 17, 1944). It is difficult to understand the interpretation of the operators who placed the top of the Pennsylvanian conglomerate at 3352' and Pre-Cambrian at 3459'.

RFW:HL