June, 1941

Helmerich and Payne, No. 1 Lloyd
C S½ SE SE 6-4S-17W

Elevation 1854 feet

Rotary dry hole, with Gulf acreage purchase agreement. Samples poor. Markers raised for lag. Structurally low on all markers.

Pennsylvanian
Basal conglomerate 3535-3590 feet (Carmody)
Ordovician
Viola residuum 3590-3635 feet (Carmody)
Simpson (normal) 3635-3681 feet (Carmody)
Arbuckle top 3681 feet (corrected against drilling time), or 1827 feet subsea. Penetration 149 feet.

3681-3785 feet	Cotter, probably all of Zone I. Top of section probably corresponds to CE zone. Buff fine to medium crystalline dolomites, slightly sandy, locally pinkish, with porous oolite zone 3710-3725 feet, which probably carries water. Cherts quartzose and oolitic in amounts varying from 10 to 35 per cent, as estimated from poor rotary samples.
3785-3830 feet	TD. Pre-Cotter, of post-Boyce age. White and gray medium to coarse crystalline dolomites, locally slightly sandy, with green shaly seams in upper portion. Quartz dense noted 3815-3825 feet. Variably porous and vuggy, probably water-bearing.

Remarks: Like all Helmerich and Payne rotary wells in northwestern Kansas, the samples from this test are poor. However, the major divisions appear valid as above given.

Of particular interest here is the stratigraphic position of the Arbuckle at this latitude beneath Simpson overlap. Apparently the erosional contact truncates the section at the level of CE, and the 104 feet of Cotter sampled is practically the whole of Zone I as represented in this region.

Estimated pre-Cambrian top is at 4020 feet.

FBC