September 1944

Gulf #1 Massman
Section 18-17S-10W, NW SW
Elev. 1858' DF (printed)

Rotary

Residuum of Arbuckle Top 3282' Thickness 55' Subsea -1424'

3282-3291	Samples not seen. Interval from 3282 to 3308' reported as, "conglomerate of chert and maroon, partly sandy, clay shale" by Price, letter #31, 1936, who placed the pre-Pennsylvanian surface at 3308'.
3291-3306	Oxidized basal Cotter residuum. Interval cored with a recovery of about 3 feet of red clay with included large chert nodules. Cherts are flinty at the top and brown quartzose oolitic in the bottom foot.
3306-3314	Pre Cotter residuum. Interval cored with a recovery of about 2 feet of white siliceous residual clay with rare chalcedonic chert.
3314-3318	Residuum as above. Cored with about 1' recovery.
3318-3327	Sandy buff to greenish residual clays with large nodules of banded chalcedonic chert in the top. Interval cored with about 2 feet recovery.
3327-3335	Residual clay and varied cherts, probably caving. Rotary samples.

3340 = 3338' SLM (Trax)

Arbuckle Top 3335' Penetration 27' Subsea -1477' -1475 -1473

Pre Cotter 3335'- 3362' T.D.

3335-3337	White coarsely crystalline dolomite. Post Boyce.
3337-3339	Dolomite as above. Rotary core with 6" recovery.
3339-3350	Dolomite, white, coarsely crystalline with vuggy porosity. Cable tool cores.
3350-3360	Cavern deposit of well sorted porous very fine sand with included grains of white siliceous clay. Probably 3 or 4 feet of sand as several 1 inch cable tool core biscuits are entirely sand. A few core biscuits with sand-dolomite contacts show that the sand was deposited in cracks, solution pockets, and channels in the dolomite.
3360-3362	Dolomite, white, with included brown granular quartzose chert. Post Boyce.

Remarks: Dry hole drilled in 1936.

Rotary cores from 3291-3327' and 3337-3339' together with cable tool cores from 3339-3362' T.D. give excellent detail on this solution riddled Arbuckle section.

The Cotter-Pre Cotter contact is in the residuum at about 3308' or -1450'.

RFW:HL