

PE 5582

June, 1941

Wirick, No. 1 Friebus

C W $\frac{1}{2}$ SW NW 36-2S-19W

Elevation ~~2103~~ ^{2096 DF L.S. (Printed)} feet

15-147-00976

Recently completed wildcat, structurally high. No shows in Arbuckle, possible Pennsylvanian production. Rotary samples, fairly good but unsuited for residue study. Markers corrected for lag. Test supported by Carter.

Pennsylvanian

Marmaton 3413-3534 feet

Basal conglomerate 3534-3535 feet. Thin layer of detrital Arbuckle cherts.

Ordovician and Cambrian

Arbuckle top 3535 feet, or 1432 feet subsea. Penetration 280 feet to pre-Cambrian.

3535-3549 feet Basal Cotter. Highly oxidized red, orange and light buff, sugary to finely granular dolomites, slightly sandy, with minor amounts chert. Rare imbedded siliceous oolites.

3549-3815 feet Pre-Cotter. Provisionally subdivided as follows:

3549-3640 feet Post-Boyce dolomites, probably including also equivalents of normal Boyce sandy section. Pink to white medium to coarse crystalline dolomites, 3549 to 3600 feet (approximately); cream and buff medium to medium fine porous dolomite, 3600 to 3640 feet. Boyce very poorly developed or absent.

3640-3685 feet (approx.) Pre-Boyce, post-Weigel dolomites, light buff, slightly glauconitic and tripolitic, apparently oxidized at top, generally reddish tint throughout, with some interbedded red shale. Transitional below.

3685-3710 feet Weigel zone, poorly sampled. Slight increase in tripoli, trace dense chert. Predominantly buff dolomite, spotted with hematite, and including green shaly seams.

3710-3720 feet Pre-Weigel. May be stratigraphically part of above zone.

3720-3815 feet Everleigh zone. Pink and buff variably crystalline dolomite with large amounts medium to coarse sand included, and abundant glauconite. Coarseness of glauconite increases with crystallinity of dolomite. Local dolomitic sandstones in upper 75 feet; lower portion apparently less sandy than above with exception of basal transgressive bed. No basal sandstone as such.

Wirick, No. 1 Friebus, Continued

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Pre-Cambrian

Granite wash and

Meta-sediments 3815-3861 feet, TD.

(Solid granite reportedly penetrated two inches at total depth.)

Remarks:

This test ran 135 feet higher on Arbuckle top, as well as on higher markers, than Watsonian and British American, No. 1 Miller, approximately two miles west and slightly south in C SW SW 34-28-19W. Relatively uniform advantage on higher markers indicates that the difference between wells was produced chiefly by post-Pennsylvanian movement.

This section was examined and re-examined at considerable length in an attempt to obtain a more definite subdivision. From all indications, the Boyce zone is undeveloped in this test, only a trace of sand being found after long search. Also, the Weigel is quite difficult to bound satisfactorily. In contrast, the Everleigh top is fairly sharp.

Absence of basal sand is of considerable economic interest. Basal sand is also absent in the No. 1 Miller, above mentioned. However, the Miller, although sampled at long intervals, does show a good representation of Boyce sandy material, which cannot be found in the Friebus. Arbuckle intervals in the two tests are practically identical--270 and 280 feet respectively.

FBC