

January, 1942.

Cities Service #1 Federal Farm,  
SE SE SE, 15-4S-23W,  
Elevation 2391' <sup>37' less (Printed)</sup>  
Rotary samples.

Pennsylvanian conglomerate 3740-3776'

- 3740-3749 Red clay shales and loose sand. The sand appears to be surface sand. Rare pieces of fine white dolomite are present, possibly contamination of the samples or reworked material in the Penn.
- 3749-3776 Lime, sandy and silty, with thin layers of limy sand; probably interbedded with red clay shales. The sand included in the lime ranges from rounded to angular and is poorly sorted. Very rare chert and small fragments of fine white dolomite can be found, suggesting reworked Arbuckle. Very rare spots of porosity carrying heavy oil stain are present. In general the porosity appears low.

Pre-Cambrian Top 3776'

- 3776-3794 Arkose or weathered granite. Strongly suggests granite residuum in place, grading down into weathered granite. Sub-sea, minus <sup>-1383</sup> 1385'

The Pennsylvanian sand appears to have been derived from a varied terrain and is more like a coast-line beach deposit than a local sand derived from local materials. The lime content of the sand, together with lime layers suggests deposition during a regional lime epoch. In the rotary samples it is impossible to determine if this is a solid lime-sand body or is interbedded with red shales.