

May 10, 1965

Re: GEOLOGICAL WELL REPORT

Brunson-Spines #60 Johnson  
Approx. C N/2 S/2 SW  
Section 23-T24S-R12E, Virgil Pool,  
Greenwood County, Kansas  
Contractor: Jackman & Jackman Drlg.Co.  
Spud: May 2, 1965  
8 5/8" surface casing @ 86'  
5 1/2" oil string @ 1680'  
Rotary completion: May 5, 1965  
Total Depth: 1705'

Brunson-Spines  
800 Wichita Plaza  
Wichita, Kansas 67202

Gentlemen:

Following are the pertinent geological tops and an evaluation of the Cherokee - Mississippian Limestone section in the captioned well.

I arrived at the location at a depth of 1525 feet and witnessed the drilling from that point to total depth 1705 feet. Samples were examined from 1350 to 1705 total depth. The hole was not logged electrically before being cased and no drill stem tests were made.

Enclosed herewith is a copy of the plotted drilling time log from 1350 to 1705 total depth, which also includes lithology, tops, and other pertinent data.

Geological Tops

ELEVATION: 1086 K.B.

CATTLEMEN SAND 1493 (-407)  
1493-97 Sandstone, medium fine, fairly clean. Mostly  
loosely lime-cemented, no free oil, fair odor.

Brunson-Spines #60 Johnson  
Page Two

BARTLESVILLE SAND 1602 (-516)

1602-09 Sandstone gray, fairly clean, clustered, fair porosity, possible light staining, slight odor.

MISSISSIPPIAN LIMESTONE 1676 (-590)

1682-84 Limestone, tan to gray mottled, coarsely crystalline, some good cavernous porosity and staining.

1685-93 Dolomite, buff to gray, sucrosic, well oil stained and scattered, good, cavernous porosity and saturation, very cherty, good odor.

1698-1703 Limestone, tan to gray mottled, coarsely crystalline, scattered good cavernous porosity and staining.

Total Depth 1705

Conclusions and Recommendations

The subject well is relatively lower structurally on the top of the Mississippian Limestone than expected. The quality of the "show" was relatively good and the reservoir should prove adequate. It was recommended that the hole be cased to 1680 feet.

Yours very truly,

T. G. Wright

Brunson-Spines #60 Johnson  
Page Three

Drilling Progress

5-2	Spud
5-3	275'
5-4	1075'
5-5	1705' TD

Bit Record

Security	S6J	88-1002
Security	S4TJ	1002-1705