

6-19-15E

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April 14, 1977

GEOLOGICAL WELL REPORT

✓ Brunson-Spines, Inc. & Magnum Land Corporation  
✓ #1 W. Jones SW SW NW Section 6-T19S-R15E ✓  
Wildcat, Coffey County, Kansas  
Contractor: Alco Drilling Co., Inc.  
Spud: April 4, 1977 ✓  
7" Surface Casing @ 59'  
4 1/2" Production Casing @ 1762'  
Rotary Completion: April 12, 1977  
Total Depth 2297 Rotary ✓  
E. Log 2291 In Open Hole

NOTE: This discrepancy in measurement at TD is also recognized in the geological tops above, and cannot be explained.

Brunson-Spines, Inc.  
615 Fourth Financial Center  
Wichita, Kansas 67202

Gentlemen:

Listed below are the pertinent geological tops and an evaluation of the porosities encountered. No drill stem tests were taken but the hole was logged mechanically before being cased.

I arrived at the location at a depth of 1515' and witnessed the drilling from that point to TD 2297'. Samples were examined from 600-2297' TD.

Enclosed herewith is a copy of the plotted drilling time log from 100-2297' TD which also includes lithology, porous zones, tops, and other pertinent data.

GRN LOG TOPS

	1155 L+S	
ELEVATION	1154	GL (Private Elevation)
HEEBNER SHALE	293	(+ 861)
DOUGLAS	319	(+ 835)
486-566		Porous sandstone.
588-628		Sandstone, fine, loose grains, porous, no show.
LANSING	628	(+ 526)
KANSAS CITY	809	(+ 345)
SWOPE LIMESTONE	978	(+ 176)

1977  
T. G. WRIGHT  
SIGNATURE

982-86 Limestone, tan, finely oolitic, good porosity, fair odor, scattered oil stain and fluorescence, trace of free oil.

BASE OF KANSAS CITY 1025 (+ 129)

HEPLER SANDSTONE 1081 (+ 73)

1081-1108 Fine, gray, dirty sandstone in upper portion becoming coarser and cleaner downward. No show.

ALTAMONT 1145 (+ 9)

PAWNEE 1186 (- 32)

CHEROKEE 1306 (- 152)

CATTLEMEN SANDSTONE 1472 (- 317) -316

1472-86 Sandstone, clean to fairly clean, medium fine, clustered, fair odor wet, good golden fluorescence wet, trace of free oil wet, fair oil staining and fluorescence dry.

1493-1570 Sandstone, clean medium fine, loose to loosely clustered, excellent porosity, good golden fluorescence wet, trace of free oil wet, fair oil staining and fluorescence dry, fair odor wet. This description restricted to 1493-1515. Section 1515-1570 much the same reservoir but lacking "oil show" in my judgment. Potential "pay" restricted to 1493-1515.

1579-1614 Sandstone, clean, medium fine, loose to loosely cemented, good porosity, no show.

1614  
1155  
-459

NOTE: Although the entire sand body 1472-1614 is described as "Cattlemen Sand" part of same could prove to be Bartlesville with subsequent study and development.

MISSISSIPPI LIMESTONE 1714 (- 560)

1725-62 Dolomite, buff, medium crystalline to sucrosic. Good, coarse, cavernous porosity, no show.

1782-1824 As above, except cherty toward base, no show.

1832-56 Dolomite, buff, sucrosic, chert white to gray mottled vitreous to tripolitic, good porosity, no show.

OSAGE 1875 (- 721)

BASE OF OSAGE CHERT 1957 (- 803)

Brunson-Spines, Inc. & Magnum Land Corp. -3-  
#1 W. Jones

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KINDERHOOK SHALE	2096	(- 942)
BASE OF CHATTANOOGA - VIOLA	2179	(-1025)
2188-90	Limestone, white to tan, chalky to calcitic. Minor inter-crystalline porosity carrying dark residue oil staining.	
SIMPSON SAND	2237	(-1083)
2237-50	Clear, clustered medium grained sand and considerable chert, white to amber, vitreous. Good porosity, no show.	
2250-72	Sandstone, loose, rounded medium grained, thin green shale.	
ARBUCKLE	2272	(-1118)
2272-91	Dolomite tan to brown slightly cherty, medium to coarsely crystalline. Zones of excellent cavernous porosity, no show.	
TOTAL DEPTH	2297	Rotary
	2291	GRN Log in open hole

#### CONCLUSIONS AND RECOMMENDATIONS

In a regional structural comparison of this well to other holes in the area your #1 Combes, recently completed as a dry hole 4 1/2 miles east of the subject well is normally higher regionally but at the Cherokee in older Pennsylvanian beds the Combes to the east is only 7 feet higher than the Jones which would indicate the Jones as being relatively higher than normal at the Cherokee. However, due to thickening in the Cherokee the subject well is 47 feet lower than the Combes 4 1/2 miles east and is 21 feet lower than an old cable tool hole drilled 1 1/4 miles east-northeast up the regional dip. This structural relationship continues into the Ordovician where the Jones appears perhaps somewhat lower than regional.

The interesting aspect of this well is the development of a massive sand body within the Cherokee section. This sandstone which is being called "Cattlemen" covers most of 142 feet of section and on the basis of sample analysis and electric log data carries a relatively good "show of oil", both staining and fluorescence, in an estimated 32 feet of sand. This sand was not tested by drill stem test but the hole was cased preparatory to testing. Evidence of productivity is not conclusive but the "show" was sufficiently good to justify casing. In addition, a thin porous zone in the Swope Limestone just above the Base of the Kansas City carried sufficient "show" to warrant testing eventually.

Yours very truly,

T. G. Wright

TGW:bf

BIT RECORD

SMITH F2	0-1739
SMITH F4	1739-2297 TD

DRILLING PROGRESS

4/ 4	SPUD
4/ 5	707
4/ 6	1427
4/ 7	1855
4/ 8	2050
4/ 9	SD Easter
4/10	SD
4/11	2150
4/12	2297 TD 4 1/2" Casing @ 1762'