

FEBRUARY 14, 1983

GEOLOGICAL WELL REPORT

#4 J. S. Brandon, 150' West of
 NW SE SW Section 31-T18S-R.15E.,
 Last Chance Pool Area,
 Osage County, Kansas
 Contractor: Alco Drilling Co., Inc.
 Under Surface: February 9, 1983
 7" Surface Casing @ 50'
 4 1/2" Production Casing @ 1515'
 Rotary Completion: February 11, 1983
 Total Depth: 1517'

ALCO DRILLING CO., INC.
 RFD #3
 IOLA, KANSAS 66749

Gentlemen:

Listed below are the pertinent geological tops and an evaluation of the porosities encountered. No drill stem tests were taken and the hole was not logged mechanically before being cased.

I arrived at the location at a depth of 1358' and witnessed the drilling from that point to TD 1517'. Samples were examined from 1500 - 1517' TD.

Enclosed herewith is a copy of the plotted drilling time log from 1000-1517 TD which also includes lithology, porous zones, tops and other pertinent data below 1300.

SAMPLE TOPS

ELEVATION	1151 (Private Elevation)
BASE OF KANSAS CITY	1040 (+ 111)
PAWNEE	1205 (- 54)
CHEROKEE	1321 (- 170)
BARTLESVILLE SANDSTONE	1512 (- 361)

1512-17 Sandstone, medium fine, clustered, fairly clean to clean, porous, scattered oil stain, trace of free oil. Good golden fluorescence.

TOTAL DEPTH: 1517 (- 366)

Conclusions and Recommendations

Being so close to the #1 well the subject Bartlesville sand and other markers check closely.

From the appearance of the sand penetrated we have a good show of oil at total depth and in an attempt to control penetration of the sand body better, it was decided to land casing near top of the sand and make any necessary new hole with cable tools. Recommended casing point was two feet off bottom at 1515'.

Yours very truly,

T. G. Wright

TGW:wlf

DRILLING PROGRESS

2/9/83	Under surface		
2/10/83	1000'		
2/11/83	1517' TD	4 1/2"	@ 1515'