

# *Rupe-Stoskopf*

OIL PRODUCERS & DRILLING CONTRACTORS

222 BROWN BUILDING

WICHITA, KANSAS

AREA CODE 316 - AMHERST 2-3748

Rupe-Stoskopf and Martin Glasco, Jr.  
Etal

KING #1 Well

SW-SW-NW/4 Section 35, T12S-R20W

ELLIS COUNTY, KANSAS

ELEVATION: 2189' Kelly Bushing (depth datum)  
2187' Derrick Floor  
2184' Ground Level

COMMENCED: October 28, 1965  
COMPLETED: November 7, 1965  
CONTRACTOR: March Drilling Co.

8-5/8" surface casing cemented at 180 feet with 75 sacks.  
5-1/2" casing cemented at 3889 feet.

## GEOLOGICAL REPORT

Following are the important geological markers, zones of porosity, and other pertinent data as determined by the appearance of the drill cuttings and the changes in the drilling rate--the results of three Byron Jackson Drill Stem Tests. There was no electric log run on this test because the logging companies are able to log only seven feet from bottom and the producing formation is from total depth to seven feet above total depth.

Geological markers and corresponding subsea data are as follows and corrected back to a 2' error in drill pipe measurements:

<u>FORMATION</u>	<u>DEPTH</u>	<u>DATUM</u>
Anhydrite	1536	+ 653
Topeka	3198	-1009
Heebner	3453	-1264
Toronto	3476	-1287
Lansing	3493	-1304
Base of Kansas City	3748	-1559
Cherty Conglomerate	3812	-1623
Arbuckle	3868	-1679

Samples and drilling time were saved from 3200 feet to 3897 lineal rotary feet.

TORONTO LIMESTONE -

3478-3487

Limestone, buff, fine to medium crystalline, cherty. Poor porosity with light spotted to even stain. Show of free oil.  
This zone covered by Drill Stem Test #1.

LANSING -

3403-3506

Limestone, white to buff, fine crystalline, semi-translucent chert. Poor porosity.  
No show of oil.

3512-3520

Limestone, white to buff, fine crystalline, fossiliferous partly shaly, poor porosity with light spotted stain.  
This zone covered by Drill Stem Test #1.

DRILL STEM  
TEST No. 1

(3478-3552).

Open 30 minutes, weak blow thruout.  
Recovered 50' very slightly oil cut mud.  
Initial bottom hole pressure in 30 Minutes 1286 psi  
Initial flow pressure - - - - 74 psi  
Final flow pressure - - - - 89 psi  
Final bottom hole pressure  
in 30 Minutes - - - - - 1105 psi  
Initial Hydrostatic pressure - 1957 psi

3573-3583

Cream, fine crystalline limestone with poor chalky porosity. Some poor-fair spotted oil staining. No free oil or odor.

3676-3683

Light gray, fine-medium crystalline limestone with poor porosity with slight spotted staining. No free oil, or odor.

BASE KANSAS CITY LIME - 3750.

Broken, pink-buff, medium crystalline,  
very cherty limestone.

CHERTY CONGLOMERATE 3814-3837.

White, chalky cherty limestone. Varicolored  
shale and variegated chert grading into brick  
red shale, abundant pyrite.

CHERTY CONGLOMERATE 3837-3870.

Varicolored shale and variegated chert. No  
oil stain or free oil.

ARBUCKLE

3870-3891 (-1679 corrected).

Tan-buff and light gray, fine-medium crystal-  
line, slightly oolitic and partly dolomitic.  
Some fair oil staining. Trace of free oil,  
faint odor.

DRILL STEM  
TEST No. 2

(3876-3891).

Open 95 Minutes, weak blow, dead in 35 minutes.  
Recovered: 23' of slightly oil cut mud and  
2' of free oil.

Initial bottom hole press. in 45 minutes -	
	1196 psi
" flow pressure - - - -	37 psi
Final " " - - - -	44 psi
Final bottom hole pressure	
30 minutes -	1083 psi
Initial Hydrostatic press.	2150 psi

ARBUCKLE

3891-3897.

Tan-buff, finely medium crystalline dolomite  
with fair vugular and intercrystalline  
porosity. Scattered light oil staining, some  
free oil, faint odor.

DRILL STEM  
TEST No. 3

(3873-3897).

Open 1 hour. Strong blow thruout test.

Recovered: 240' of gas, 1020' of clean oil  
50' heavy oil cut mud, 30' water.

Initial bottom hole pressure, 30 minutes - 1181 psi

Initial flow pressure - - - - - 111 psi

Final flow pressure - - - - - 410 psi

Final bottom hole pressure, 30 minutes - 1120 psi

Bottom hole temperature - - - - - 120°

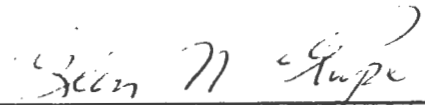
TOTAL DEPTH: 3897 (-1708).

REMARKS:

Drill cuttings were examined and described on location from 3200 to 3897 total depth. After completing Drill Stem Test #3, 5½ inch casing was run to 3889 or 8' off bottom and cemented with 75 sacks of cement. The rate of oil recovered on Drill Stem Test #3 is equivalent to 12 barrels of oil/hour.

The recorded pressures are higher than any recovered in the north Werth pool and are indicative of excellent Arbuckle production. After the mud cake and cement is removed from the face of the formation, this well should be capable of producing 250-300 barrels per day.

Respectfully submitted,



Glen N. Rupe  
Petroleum Geologist

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