



DONALD HOY SMITH  
5206 E. CENTRAL  
WICHITA, KANSAS

April 20, 1957

GEOLOGIC REPORT

Linne Oil Co.  
No. 4 E. C. Borg  
SP. 118 Sec. 14-26S-2E  
Greenwich Pool  
Sedgewick County, Kansas

Elevation: 1372 Mb  
1369 DF (L & S)  
1367 GL  
Contractor: Company Tools  
Spud: 4-10-57; 2-5/8" csg at 130'  
Completed (Rotary): 4-19-57; 4" csg at 2879 1/2'

To be Done: Rotary Bushing  
Samples Saved: 2330-2890 1/2 T.D.  
Samples Examined: Same

Drilling Time Recorded:  
1-foot time 2330-2890 1/2 T.D.  
Drilling Observed: 2790-2890 1/2 T.D.

FORMATION TOPS, NOTABLE ZONES & TESTING DATA  
(\*Denotes Oil Staining or Gas Odor)

Depth below Surface      Dept. below See Level

KANSAS CITY

- Gray to light gray finely crystalline partly fossiliferous crystalline lime - traces slight vuggy porosity; dark gray, green and red shale (? in place) 2399
- \*Light gray to white finely crystalline fossiliferous lime with crystalline calcite - scattered traces slight to possibly fair vugular porosity and a few traces of slight spotted oil staining -1027
- \*White finely crystalline to chalky lime - 2 traces of very slight spotted oil staining, no apparent porosity 2410-20
- Buff-white finely crystalline to crystalline and sub-chalky lime with abundant clear calcite and traces oolites - scattered slight to fair vugular porosity, no show 2410-30
- White finely crystalline to crystalline sub-chalky fossiliferous lime with abundant clear calcite and traces oolites - scattered slight to fair vugular porosity, no show 2410-45
- Light gray finely crystalline sub-oolitic lime - scattered poor sub-oolitic porosity, no show; abundant gray fossiliferous opaque chert 2461-72
- Light gray-white finely crystalline to very chalky lime with trace oolites - traces slight vugular porosity, no show; trace buff granular fossiliferous lime 2472-30
- Light gray to white & buff finely crystalline to granular lime with crystalline calcite - traces slight vugular porosity, no show; light gray-white opaque chert, abundant dark gray, green, maroon and traces black shale 2484-94
- Gray-light gray to light buff finely crystalline to sucrose fossiliferous lime - traces slight vugular porosity 2494-97

TESTING  
 17-1-20-57  
 BOOK PAGE 78 LINE 16

APP

Medium-gray to buff-gray finely crystalline fossiliferous  
lime, no porosity; light gray finely crystalline sub-chalky  
lime - traces slight vugular porosity; some light gray to  
buff-gray opaque chert

2547-01

EAST KANSAS CITY

2551

-1189

Some light green fine soft shaly sand and dark gray, green,  
maroon and trace ochre shale

2623-25

Streaks light greenish-gray fine calcaceous soft shaly sand -  
slight porosity, no show; abundant light to dull green non-fissile  
shale

2646-52

MISSOURI CHERT & SHALE ZONE

2635

-1463

Light green non-vitreous partly fossiliferous and spicular sandy  
chert and light green partly siliceous clay shale; traces orange-  
amber-green vitreous opaque to translucent mottled chert; dark  
gray, green, maroon, purple maroon and ochre shale; traces very  
coarse white, yellow and orange rounded sand grains - ? in place

2835-38

? WEST SYLVANIA BASAL CONGLOMERATE

2638

-1466

Abundant very light gray & green pure waxy finely pyritic non-  
fissile clay shale; also maroon, lavender, ochre and red clay  
shale; traces orange to amber opaque chert - one piece  
devitrified with clay coating

2638-43

MISSISSIPPI

2843

-1471

Light gray to white opaque smooth to non-vitreous partly  
fossiliferous & pyritic chert with orange specks; amber-orange-  
light gray semi-translucent chert; traces white devitrified and  
buff to brown and dull pink opaque chert; slight trace light  
gray and green very finely succrose light dolomite

2843-51

Amber to light gray & traces orange to light gray semi-translucent  
to opaque vitreous sharp sub-fossiliferous chert; small amount of  
white opaque partly devitrified to tripclitic chert

2851-58

Amber-orange-light gray-white mottled semi-translucent to opaque  
sub-fossiliferous chert; some white opaque fossiliferous chert;  
small amount orange-light gray-green mottled semi-translucent to  
opaque partly devitrified chert

2858-67

Ditto, an considerable light to dark green semi-translucent to  
opaque chert; trace drab gray very finely crystalline impure  
dolomitic-lime

2867-72

Chert as above and light green to greenish-gray, drab gray and  
yellowish-gray very finely crystalline, slightly glauconitic,  
partly dolomitic, very siliceous lime; traces light gray medium  
granular glauconitic siliceous dolomitic-lime; traces brown  
semi-translucent fossiliferous chert

2872-80

Page 23, geologic Report  
 Wingo Oil Co #4 F. C. Borg  
 NW 1/4 Sec. 14-16S-2E  
 Geoprick Co., Kansas

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Chert as before and gray to light gray finely crystalline fairly pure,  
 dense slightly lauconitic siliceous lime and traces light  
 green, greenish-gray and yellowish-gray finely crystalline  
 lime; abundant light gray medium crystalline very fossiliferous  
 lauconitic lime with traces of included light gray opaque  
 lauconitic chert 2853-34

MISSISSIPPI "CHAT" ZONE 2864 -1512

\*Buff-gray opaque blocky tight chert with frosty mottling;  
 some white opaque vitreous to devitrified and tripolitic chert -  
 traces slight leached porosity, very small shows of free oil  
 and light spotted oil staining 2874-85

\*White opaque vitreous to partly devitrified and tripolitic  
 predominantly tight chert - traces slight leached porosity,  
 very small shows of free oil and light spotted oil staining 2885-87

DRILL STE TEST (Johnston; Dual Packers; Jars) 2891-87  
 Open 2 hours; wear intermittent blow throughout first 30  
 minutes; then flushed and reopened tool; wear intermittent  
 blow as before throughout remainder of test.  
 Recovered 34' of fluid as follows: 3 feet clean oil; 15  
 feet slightly oil cut mud; and 16 feet drilling mud with  
 no show.  
 Initial 30-minute BHP 665 lbs; IFP 35 lbs; FFP 40 lbs; Final  
 30-minute BHP 665 lbs.

\*White opaque to semi-opaque partly vitreous chert - small amount  
 devitrified and tripolitic with scattered traces of slight leached  
 porosity, very small shows of free oil and light spotted oil  
 staining; some amber-white, amber-gray and buff-gray opaque to  
 semi-translucent mottled chert - 2 pieces with slight leached  
 porosity, very small shows free oil and light spotted oil  
 staining 2897-90

ROTARY TOTAL DEPTH 2390-1/2 -1518-1/2

4-1/2" casing at 2879-1/2 -1507-1/2

REMARKS:

On the subsea top of the Mississippian at -1271 the #4 Borg is 10' higher than  
 the Operator's #1 Borg, 7' lower than his #2 Borg, and 3' lower than his #3 Borg. Also  
 it is flat with the Bedell-Catt #1 Stollei, NW cor. of sec. 13; 12' higher than the  
 Bedell-Catt #2 Stollei, east offset in the SW NW NW Sec. 13; 4' lower than the  
 Francis Raymond #1 Stollei "B", diagonal southeast offset in the NW SW NW Sec. 13; and  
 5' lower than the Bedell-Catt #1 Stollei "B", NE NE NW Sec. 13.

Structural comparison of the #4 Borg with the above-mentioned wells on  
 the subsea tops of the more critical Mississippian "Chat" pay zone is much more important.  
 The "Chat" datum at -1512 in #4 Borg is 11' higher than in #1 Borg; 16' lower than  
 in #2 Borg; flat with #3 Borg; 15' lower than Bedell-Catt #1 Stollei; 16' lower than  
 Bedell-Catt #2 Stollei; 12' lower than Francis Raymond #1 Stollei "B"; and 2' lower  
 than Bedell-Catt #1 Stollei "B".

Page #4, Geologic Report  
Winn Oil Co #4 F. C. Borg  
Sec. 14-26S-4E  
Geoplon Co., Kansas

**DONALD HOY SMITH**  
**5206 E. CENTRAL**  
**WICHITA, KANSAS**

Despite the fact that the #4 Borg is lower structurally on the "Chat" than all of the wells mentioned above except the operator's #1 and #3 Borg wells, it is considered to have a good chance for oil production. It is apparent that locally, stratigraphic or formation factors govern oil accumulation to an extent equal to or greater than structural factors. This idea would explain the recovery of oil at a low minus datum in #1 Borg, whereas the #3 Borg recovered predominantly salt water in a drill stem test of the "Chat" at a higher minus datum. The Badell-Catt #1 Stollei "B" mentioned above is only 2' higher on the "Chat" than #4 Borg and reportedly is yielding good oil production.

With the recovery of some free oil and no water in the previously-described drill stem in the #4 Borg it is believed that chances are very good that commercial quantities of oil will be encountered when the well is drilled in with cable tools.

The minor oil stainings logged in the Kansas City Group are not considered adequate to warrant testing.

Yours very truly,

Don H. Smith

DHS:KIS

DONALD E. SMITH  
1206 E. CENTRAL  
WICHITA, KANSAS

April 20, 1957

TIME LOG

Winne Oil Co.  
No. 4 F. C. Borg  
SE NE NE Sec. 14-26S-2E  
Greenwich Pool  
Sedgwick County, Kansas

Elevation: 1372 MB  
1369 DF (L & S)  
1367 GL  
Contractor: Company Tools  
Spud: 4-10-57; 3-5/8" cs. at 120'  
Completed (Rotary) 4-19-57; 4" cs. at 2372'

Drilling Time recorded: 1-foot time 2330-2890 $\frac{1}{2}$ ', T.D.

DEPTH	TIME												REMARKS		
2330-2340	3	3	2	4	3	4	3	4	3	3					
2340-2350	4	5	4	5	5	5	5	4	4	4					
2350-2360	4	4	4	5	4	4	5	5	6	6					
2360-2370	5	4	5	4	4	5	5	4	5	5					
2370-2380	5	5	5	6	6	6	6	5	4	5					
2380-2390	5	5	5	6	5	4	5	4	5	5					
2390-2400	5	5	5	3	3	4	4	5	5	9					
2400-2410	8	3	3	8	6	6	5	5	3	3					
2410-2420	4	4	4	3	3	4	4	3	3	4					
2420-2430	3	3	3	3	3	3	4	4	3	3					
2430-2440	4	5	5	5	5	4	5	5	5	5					
2440-2450	4	5	4	4	4	5	5	4	5	6					
2450-2460	4	5	7	5	5	4	3	3	4	4					
2460-2470	5	3	2	2	2	1	2	1	4	2					
2470-2480	2	2	4	4	3	2	3	2	2	3					
2480-2490	5	7	7	5	3	5	5	5	3	5					
2490-2500	4	5	5	6	4	3	3	6	7	6					
2500-2510	7	8	8	10	8	2	4	4	3	4					
2510-2520	5	8	10	7	9	10	8	6	6	4					
2520-2530	2	3	3	1	1	2	2	4	3	4				Trip 2522	
2530-2540	4	4	5	3	2	2	3	4	3	2					
2540-2550	3	4	4	2	2	2	2	3	4	4					
2550-2560	3	4	3	3	2	4	4	3	5	5					
2560-2570	4	3	3	2	3	3	4	3	3	4					
2570-2580	3	4	3	3	4	3	4	3	3	4					
2580-2590	3	3	4	4	4	3	3	3	3	3					
2590-2600	3	4	3	3	4	3	4	4	3	4					
2600-2610	3	3	3	4	3	4	3	4	4	3					
2610-2620	3	4	4	3	3	3	4	4	4	5					
2620-2630	4	4	4	3	3	4	5	4	4	4					
2630-2640	4	5	5	5	5	6	3	4	4	4					
2640-2650	4	4	3	3	3	3	2	2	2	2					
2650-2660	2	2	3	3	4	4	3	5	4	3					
2660-2670	4	4	4	4	4	4	4	4	5	8					
2670-2680	6	6	5	5	6	5	6	4	3	3					
2680-2690	7	6	5	3	4	3	4	4	5	3					
2690-2700	4	2	3	3	4	4	4	3	4	3					
2700-2710	4	4	7	7	7	6	4	6	7	4					
2710-2720	6	4	3	5	5	4	6	6	7	6					
2720-2730	8	8	6	5	6	7	5	6	6	6					

Page #2, Time Log  
 Winne Oil #4 E. C. Borg  
 SE NE NE Sec. 14-26S-2E  
 Sedgwick Co., Kansas

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 WICHITA, KANSAS

2730-2740	7- 6- 2- 3- 5- 4- 5- 4- 4- 6
2740-2750	5- 3- 6- 5- 7- 5- 4- 5- 5- 7
2750-2760	6- 7- 7- 8- 5- 7- 5- 6- 5- 8
2760-2770	6- 5- 5- 4- 4- 6- 4- 5- 3- 4
2770-2780	4- 3- 2- 3- 3- 6- 6- 5- 6- 6
2780-2790	6- 6- 5- 6- 4- 4- 6- 5- 6- 6
2790-2800	4- 4- 5- 6- 6- 6- 7- 5- 5- 6
2800-2810	4- 7- 8- 8- 3- 6- 6- 5- 5- 5
2810-2820	6- 7- 8- 8- 3- 8- 6- 5- 3- 2
2820-2830	2- 3- 4- 5- 4- 2- 2- 3- 4- 3
2830-2840	4- 4- 4- 4- 4- 5- 6- 4- 3- 3
2840-2850	2- 2- 2- 3- 4- 5- 4- 4- 5- 4
2850-2860	4- 3- 3- 2- 3- 3- 4- 3- 5- 5
2860-2870	5- 4- 6- 5- 5- 6- 5- 6- 6- 6
2870-2880	5- 5-10-11-11-10-11-11-11-11
2880-2890	13-10-11-11- 8- 2- 6- 4- 9- 7
2890-2890½	5 (1/2 foot)
2890½ Total Depth	

Trip 2837 W7

Circ. 3/4 hr 2842  
 Circ. 3/4 hr 2856

Circ. 3/4 hr 2887  
 Drill Stop Test 2881-2887  
 Circ. 3/4 hr 2887 after trip  
 at 2887 W7R

(Time Log Condensed by Don H. Smith)