

HAROLD E. McNEIL  
GEOLOGIST

Post Office Box 211  
WHEAT RIDGE, COLORADO

Office: 266-2931

Res.: 424-3812

March 12, 1964

OKMAR OIL CO. HUMMEL #3  
NW NW SW 30-14-14W  
RUSSELL COUNTY, KANSAS

GEOLOGICAL REPORT

ELEVATION 1821 derrick floor  
1823 kelly bushing. (All depth references are from top of  
kelly bushing.)

CONTRACTOR Leben Drilling, Inc. Rig #3.

COMMENCED March 4, 1964.

COMPLETED Rotary drilling completed March 11, 1964.

CASING 8 5/8" cemented at 600' with 300 sacks.  
5 1/2" cemented at 3232 with 200 sacks.

FORMATION TOPS			
Topeka	2714		(-891)
Heebner	2937		(-1114)
Toronto	2956		(-1133)
Lansing-Kansas City	2993		(-1170)
Arbuckle	3231		(-1408)
Rotary total depth	3233		(-1410)

OIL SHOWS 2890-2899 TOPEKA Partly chalky to finely crystalline lime-  
spotted slight porosity-spotted light staining.

2956-2968 TORONTO Trace of staining in dense mostly chalky  
lime.

2995-3003 LANSING Mostly dense lime. Trace poor crystalline  
and vugular porosity with show of free live oil.  
Covered by attempted DST MISRUN. Some drilling fluid  
recovered(10' mud-barren of oil) and pressures  
recorded.

3019-3022 Oolitic lime-good porosity-spotted show of free  
oil-some barren oolitic porosity-faint odor.

3031-3036 Partly chalky mostly dense lime-trace poor porosity  
with staining and small show of free oil.

3058-3065 Partly vugular, oolitic, oolitic, and crystalline  
lime-spotted slight to fair porosity with show of  
free oil. Tested by DST #1.

3074-3079 Partly vugular and fossiliferous lime-spotted slight  
porosity with trace fair porosity-show of free oil.  
Tested by DST #1.

HAROLD E. McNEIL  
GEOLOGIST

Post Office Box 211  
WHEAT RIDGE, COLORADO

Office: 266-2931

Res.: 424-3812

OKMAR OIL CO. HUMMEL #3  
30-14-14W, RUSSELL COUNTY  
KANSAS.

OIL SHOWS (cont)

3084-3096 Collicastic lime-good porosity-very spotted show of free oil. Most porosity barren.

3175-3182 Oolitic and collicastic lime-spotted fair to good porosity-show of free oil-fair odor. Some barren collicastic porosity. Tested by DST #2.

3190-3225 Fair to strong odor in wet samples. Mostly dense and chalky lime. Scattered vugs carrying black residual dead oil staining-no free oil.

3231-3233 ARBUCKLE White fine to medium crystalline dolomite-spotted slight to fair crystalline porosity-show of free oil-good odor. Casing cemented for further testing with standard tools.

DRILL STEM TESTS

2944-3010 MISRUN due to malfunction of hydraulic tool. 30 minutes initial shut in-bottom hole pressure 500# psi. rising slowly. Open 1 hour (tool open total of 19 minutes during this interval due to mechanical trouble)-filled 10' mud with no trace of oil. 30 minutes final shut in-bottom hole pressure 240# psi. rising slowly.

3050-3080 DST #1 30 minutes initial shut in-bottom hole pressure 200# psi. rising slowly. Open 1 hour-filled 240' gas-90' medium oil and gas cut mud-good show of free oil in tool. Flow pressures 0 - 0. 30 minutes final shut in-bottom hole pressure 110# psi. rising.

3162-3190 DST #2 30 minutes initial shut in-bottom hole pressure 440# psi. Open 1 hour-filled 75' muddy salt water. 30 minutes final shut in-bottom hole pressure 430# psi.

REMARKS

Samples were examined 2700' to total depth. Drilling was supervised 2900' to total depth. The well structurally is flat to high when compared with nearby producing wells.

Yours very truly,

*Harold E. McNeil*  
Harold E. McNeil