

WELL LOG BUREAU - KANSAS GEOLOGICAL SOCIETY.
Union National Bk Bldg, Wichita, Kansas.

EMPIRE OIL & REFG. CO.
Johnson No. 5.

SEC. 2 T. 14 R. 15W
SW SE NE
330' N 996' W E $\frac{1}{4}$ Cor.

County, Russell

Total Depth. 3325'
Comm. 4-14-36 Comp. 6-15-36
Shot or Treated.
Contractor. Rine Drlg. Co.
Issued. 8-1-36

CASING.
20 " 19.4 Pulled
15 $\frac{1}{8}$ " 405' UR 624' Pulled
12 $\frac{1}{2}$ " 940' Mudded to top after 15 $\frac{1}{2}$ &
20" Pulled.
10 " 2548' UR 2597' Pulled
8 5/8" 3082' Pulled
6 5/8" 3253' UR 3324

Elevation.

Production. Pot. 1347 B.O.

No water.

Figures Indicate Bottom of Formations.

clay yellow	35	sdv lime	1985	shale blue	2950
shale blue	235	red rock	1995	lime	3015
sand	270	lime	2020	S. O. 2985-95	
lime brown	280	shale light	2030	shale blue	3042
shale brown	290	lime	2055	lime	3054
sand brown	315	shale	2075	shale & red rock	3069
red rock	325	lime	2095	shale green & grey	3081
shale blue	415	red rock	2100	Oswald lime	3093
sand	435	lime	2110	shale	3105
shale blue	485	red rock	2120	lime	3150
sand	490	lime	2130	S. O. 3110-12	
shale blue	500	red rock	2135	shale	3155
sand	565	lime	2145	More oil 3121-25	
iron pyrite	575	shale	2155	lime	3131
shale	580	lime	2170	SLM 3181-3171	
red rock	610	shale grey	2180	lime	3185
sand	617	red rock	2195	shale	3190
red rock	790	lime	2248	lime	3237
sdv lime	800	slate & shells	2275	red rock & shale	3242
red rock	820	shale dark	2280	lime	3244
sdv lime	825	shale light	2290	shale	3243
red rock	922	lime	2330	lime	3270
gyp	935	shale blue	2360	shale	3281
anhydrite hard	940	lime	2380	lime	3293
anhydrite	977	shale	2385	shale & lime shells	3307
red rock	1130	lime	2390	lime	3315
shale blue	1165	shale blue	2445	shale	3317
red rock	1220	shale white	2450	shale & lime	3321
shale blue	1235	lime	2460	conglomerate	3324
red rock	1240	shale	2485	garham sand	3325
slate white	1310	red rock	2475	Total Depth	
salt	1605	shale blue	2510		
shale	1640	shale brown & shells	2515		
lime	1660	S.O. 2512			
slate white	1670	shale blue	2540		
lime	1675	lime	2548		
shale white	1690	10 B.O.P.H. 2544-48			
lime	1705	lime	2568		
shale	1715	shale blue	2597		
lime	1730	lime	2615		
red rock	1740	shale blue	2643		
shale blue	1760	lime	2650		
lime	1795	shale	2660		
shale white	1805	lime	2690		
salt	1810	shale	2740		
lime	1835	shale blue & shells	2770		
red rock	1855	lime	2790		
lime	1880	S.O. 2780-90			
shale	1890	shale	2795		
lime	1910	lime	2920		
shale	1920	shale blue	2925		
lime white	1960	lime	2945		

WATER RECORD

10 BW	235-270
HFW	290-315
HFW	415-551
10 BWPH	800'
5 BWPH	825'
15 BWPH	845'
350' from top of hole	915'
1/2 BW	2020-2025
1 BWPH	2215
1 $\frac{1}{2}$ BWPH	2985-95
Water	3167-71