

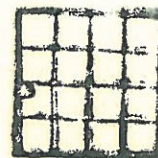
WELL LOG BUREAU - KANSAS GEOLOGICAL SOCIETY.
412 Union National Bank Bldg, Wichita, Kansas.

EMPIRE OIL & REFG.
Crawford No. 12

Sec. 2 T. 14 R. 15W.
NWc SW
330' S 330'E of W $\frac{1}{2}$ cor.

Total Depth. 3059 SLM
Comm. 12-7-36 Comp. 1-12-37
Shot or Treated. 2000 gal.
Contractor. Herman Trapp.
Issued. 4-17-37

County Russell.



CASING.

20" 21'6
15 $\frac{1}{2}$ " 350' UR 599'
133/8" 910'
10" 2285' UR 2349'
85/8" 2888' UR 3039' SLM

Production. Pot. 1996 B.
after acid.

Figures Indicate Bottom of Formations.

cellar	10	lime grey	1980	3 B.Oil. per hr 2877
clay yellow	20	shale grey	1985	lime 2885
shale blue	190	lime grey	2008	lime brown 2888
water sand grey	205	shale blue	2025	lime 2910
shale blue	220	red rock	2030	lime white 2950
red rock	240	lime	2065	small sh oil 2940-50
sand grey	252	red rock	2070	limo 2985
red rock	280	lime	2085	shale blk 2988
sand grey	335	red rock	2090	lime 2998
red rock	3 50	lime grey	2100	shale 3008
shale blue	370	shale grey	2110	lime 3015
lime	375	limo grey	2140	lime white 3023
sand grey	400	red rock	2160	shale brown 3030
shale blue	435	lime broken	2190	Top Oswald (corr) 3037
shale grey sdy	455	limo	2215	shale blue 3043
shale blue	475	red rock	2220	lime Oswald 3050
sand grey	515	lime	2230	lime 3065
red rock	580	lime grey	2250	S.O. 3055-65
sand red	594	shale grey	2260	SLM corr. 3065 equals 3059
red rock	901	lime grey	2265	Total Depth.
lime anhydrite	910	lime	2288	
lime	940	shale & shells	2295	1400' oil in hole.
red rock	1100	shale white	2305	
shale blue	1130	shale and shells	2315	
red rock	1185	shale blk	2324	
shale blue	1275	lime grey	2327	
salt	1545	show oil 2324-27		
shale grey	1555	shale white	2330	
lime grey	1565	shale blue	2335	
shale grey	1570	lime	2345	
shale blue	1575	shale small shells	2380	
lime	1590	hole caving	2380	
shells & shale	1600	lime	2390	
shale	1610	shale and shells	2475	
lime	1620	shale white	2490	
shale	1635	shale blk	2505	
lime	1645	lime cave	2520	
shale & shells	1675	lime grey	2530	
red rock	1700	shale blue	2550	
lime grey	1710	shale white	2560	
shale blue	1715	lime grey	2565	
lime grey	1720	shale blue	2575	
shale blue	1760	lime	2590	
lime	1780	shells & shale	2620	
shale grey	1785	shale grey	2625	
red rock	1810	lime grey	2640	
shale grey	1820	shale blue	2700	
lime grey	1745	lime brown	2705	
shale grey	1855	shells & shale	2733	
limo	1870	lime	2748	
shale	1875	shale blue	2759	
lime broken	1895	lime Topeka	2780	
lime	1935	show oil 2759-2764		
shale green	1940	lime	2877	
red rock	1950	show oil 2870-77		

WATER RECORD.

5 BW 190-205
HFW 240-252
HFW 280-335
HFW 375-400
3 BW 695-705
5 BW 705-765
HFW 2275-85
show oil & some water 2324-27
4 $\frac{1}{2}$ BWPFR 2380
Too much wtr to bail 2390
1 BWPFR 2950-60
HFW 3005-10

1215 Oil, No water nat.
Pot. 1996 after 2000 Gals.
Acid 24 hrs.