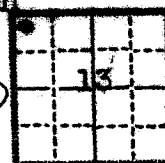


10' 8 1-4
12 1-2 6 5-8
12 1-2 5 3-16

FARM Winchester
COMPANY Northern Oil & Gas
CONTRACTOR
COMMENCED 10/22/1923

NO. COUNTY Jefferson

COMPLETED 3/20/1929 (CARD)



TOTAL DEPTH

SHOT

QUARTS BETWEEN

CORRESPONDENCE REGARDING THIS WELL SHOULD BE REFERRED TO

TD 3615 on Card
D & A

ELEVATION

INITIAL PRODUCTION

FIGURES INDICATE BOTTOM OF FORMATIONS.

REMARKS 1-29-27

Formation	Depth
shale	30
gravel	35
slate	55
shale	105
slate	115
lime	245
shale	363
lime set 15 1/2 inch pipe	366
shale	371
red rock	376
shale	480
lime	507
shale	522
lime	617
slate	627
lime	747
shale	752
lime	820
shale 12 1/2 inch pipe	950
lime	980
shale	1010
lime	1025
shale seam of coal	1150
lime	1154
shale	1304
lime	1334
shale	1409
lime	1417
shale	1590
lime	1600
Top of Miss lime	
shale	1620
lime	1728
sand	1734
lime	1905
shale	1974
lime	2085
brown sand Oil & Gas	2092
wh sand	2100
Hole full water	
lime	2110
water sand	2122
sdv lime	2186
shale blue	2189
white lime	2195
set 8 1/4 pipe	2196
sdv lime	2445
Gas and oil showing	2365 for 75 feet
lime	2455
sand	2525
lime	2528
sand	2579
lime	2599
sand	2639
lime	2649
sand	2720
lime	3016
dark shale	3051
blue shale	3078
red rock	3085
From 3100 feet every foot of the formation was saturated with oil and from 3300 feet to the bottom was a very hard sand completely	

Formation	Depth
saturadted with oil and the last screw before we cracked the box on the stem it softened up and showed gas and more live oil	
blk lime	3118
oil sand	3124
blk sdy lime	3142
blk lime	3155
brwn and grey sdy lime	3178
hard blk sdy lime	3275
soft brown sand	3280
hard lime	3300
sand hard	3420
This well is now 3440 feet and the last 12 feet is same as sample left in your office. The foam on top of Barrell in which is dumped the samples is Oil 0.47% character of Oil way.	
W.E.Niles.	

Note to Well Log Bureau.

I do not consider this log very trustworthy. I have examined cuttings from 3280 and below and am convinced that they are in the granite.

Kenneth K. Landes.
Acting State Geolgist.
Kansas State Survey.

Samples of Cuttings in office of Kansas State Geological Survey at Lawrence, Kansas.,