

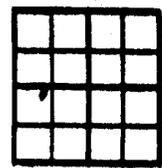
COMPANY Thunderbird Drilling

SEC. 18 T. 12 N. 17W
 100. NE NW SW

FARM Schmeidler "A" NO. 1

COUNTY Ellis
 KANSAS

TOTAL DEPTH 3681'
 COMM. 10-10-67 COMR. 10-17-67
 SHOT OR TREATED
 CONTRACTOR Sage Drilling
 ISSUED 4-27-68



CASING
 20 10
 15 8 5/8" 235' cem w/ 135 BX
 12 6
 13 5 1/2" 3680' cem w/ 75 BX

ELEVATION 2160' KB

PRODUCTION P 41 BOPD, NW
 ARB 3680-81 Grav 21

FIGURES INDICATE BOTTOM OF FORMATIONS

Top Soil	0	236	TOPS: SMP
Shale	236	538	Nakota 865
Sand	538	573	Anhydrite 1373
Red Bed	573	635	Heebner 3364
Sand	635	740	Toronto 3384
Shale	740	854	Lansing 3411
Sand	854	915	Base Kansas
Dakota	915	1035	City 3630
Shale & Red Bed	1035	1373	Arbuckle 3678
Anhydrite	1373	1415	RTD 3681
Shale	1415	1995	
Shale & Lime	1995	2300	
Lime	2300	2483	
Lime & Shale	2483	3055	
Shale & Lime	3055	3106	
Lime & Shale	3106	3553	
Lime	3553	3681	

5 1/2" @ 3680' w/75 sax

I certify that this is a true and correct copy of the above log to the best of my knowledge.

SAGE DRILLING CO., INC.

By Lawrence F. Gray
 Lawrence F. Gray

Subscribed and sworn to before me this 20th day of October, 1967.

Louise K. Whitted
 Louise K. Whitted, Notary Public