

F O R M A T I O N L O G

H. L. Moore #2 Hoener
NW/NE/NW; 26-26S-13W
Pratt County, Kansas
Elevation: 1943 derrick floor

8 5/8" surface casing 541'
5 1/2" casing 4353'

Note: All measurements are from the top of the rotary bushing which is 3' above the derrick floor.

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
0 - 30	Surface	Drillers log 0 - 3500'
30 - 300	Clay and shale	
300 - 546	Red bed, shells and sand	
546 - 727	No log	
727 - 808	Red bed	
808 - 832	Anhydrite	Electric log top
832 - 1250	Red bed, shells and shale	
1250 - 1610	Shale and shells	
1610 - 1835	Salt, shale and shells	
1835 - 1985	Limestone	
1985 - 2220	Limestone and shale	
2220 - 2560	Shale and limestone	
2560 - 2745	Limestone and shale	
2745 - 3064	Shale and limestone	
3064 - 3430	Limestone and shale	
3430 - 3500	Sandy limestone	
3500 - 3543	Limestone, white to light tan, finely crystalline to dense; some vugular porosity	Sample log starts @ 3500'; No show
3543 - 3554	Limestone, light gray; dense; shale, gray.	
3554 - 3564	Limestone, tan, finely crystalline to sucrose; spotted vugular porosity	No show
	3554 - 62	
3564 - 3568	Shale, brown-black fissile, micaceous	Heebner
3568 - 3574	Limestone, brown-gray, sub-crystalline to dense	Leavenworth
3574 - 3581	Shale, gray-green to gray	Snyderville
3581 - 3598	Limestone, light tan to cream, dense to sub-crystalline; spotted porosity	Toronto; no show
	3585-98	
3598 - 3637	Shale, gray-green and gray; some fine gray, micaceous siltstone; trace fine gray sand	Top Douglas 3598
3637 - 3672	Sand, gray to green-gray, fine to sub-medium, micaceous, angular	Some brown oil stain
3672 - 3739	Limestone, brown to brown-gray, dense	Top Brown Lansing 3732
3739 - 3755	Mostly gray shale; streaks limestone, as above	
3755 - 3781	Limestone, gray, finely crystalline, some oolitic; trace gray opaque chert; streaks brown and gray shale.	Top Lansing 3755

(2) Formation log; H. Moore #2 Hoener

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3781 - 3798	Limestone, gray, finely crystalline to sucrose; good vugular porosity	Good odor, good spotted stain
3798 - 3810	Limestone, tan, sub-crystalline to granular; chert, as above; streak gray-brown shale at bottom	
3810 - 3820	Limestone, tan to white, finely crystalline; spotted vugular porosity	Spotted stain
3820 - 3853	Limestone, tan, sub-crystalline to granular; increase in chert, as above	
3853 - 3857	Limestone, as above; some vugular porosity	Trace stain
3857 - 3862	Limestone and chert, as above	
3862 - 3874	Limestone, gray-brown, dense to sub-crystalline; spotted vugular porosity; chert, as above	Slight odor, trace stain
3874 - 3878	Limestone and chert, as above; no porosity	
3878 - 3890	Limestone, gray to dark gray-brown, dense to finely sucrose, some oolitic; spotted vugular and oolitic porosity	Odor; spotted stain
3890 - 3894	Limestone and chert, as above; no porosity	
3894 - 3901	Porous limestone, as above	Very slight spotted stain
3901 - 3927	Limestone, tan to brown, dense; less chert; streaks gray-brown shale	
3927 - 3930	Limestone, gray to tan, oolitic, finely sucrose; good oolitic and vugular porosity	Good stain
3930 - 3944	Limestone, gray, dense; trace gray, opaque chert; streaks shale	
3944 - 3946	Limestone, gray to light gray, sub-crystalline, oolitic; good vugular and oolitic porosity	Good stain
3946 - 3979	Limestone, tan, dense; chert, white to light gray, semi-translucent; streaks shale	
3979 - 3982	Limestone, gray, sub-crystalline; fair spotted vugular porosity	Spotted stain
3982 - 4000	Limestone, tan to gray, dense; chert, gray, opaque; streaks brown and gray shale	
4000 - 4005	Limestone, gray-brown, mottled; spotted vugular and oolitic porosity	Spotted stain
4005 - 4033	Limestone, brown, gray and tan, dense; chert, brown, semi-translucent to gray opaque; thin streaks gray-black shale	
4033 - 4036	Limestone, tan, sub-crystalline, slightly oolitic; good oolitic and fine vugular porosity	Slight odor, slight show free oil
4036 - 4078	Limestone, gray to brown, dense to finely crystalline; streaks gray and gray-black shale	Base Kansas City 4078
4078 - 4087	Shale, brown to gray-green to green	Top Marmaton 4078

(3) Formation log; H.L.Moore #2 Hoener

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
4087 - 4110	Limestone, light gray to green, dense to finely crystalline; chert, brown to salmon to amber; streaks shale, as above	
4110 - 4118	Limestone, gray to white, sub-crystalline to dense, mottled, very cherty; spotted vugular porosity	No show
4118 - 4131	Shale and limestone streaks	
4131 - 4138	Limestone, as above; some gray, silicified limestone with gilsonite stains	No odor or free oil
4138 - 4173	Shale, brown, green, red-brown and maroon; decrease in chert, as above	
4173 - 4191	Chert, white, opaque to semi-translucent, vitreous to devitrified; chert, salmon and gray to brown, semi-translucent; chert, white, vitreous, vuggy.	Top Mississippi 4173; slight show free oil, trace odor; DST
4191 - 4193	Shale, gray-green to green to gray-black.	Top Kinderhook 4191
4193 - 4202	Limestone, brown-gray, earthy	
4202 - 4212	Shale, as above	
4212 - 4250	Chert, milky, translucent, spicular; chert, white, opaque, vitreous to partly devitrified; much white to brown, devitrified chert	Top Viola 4212; slight show free oil, trace odor; DST
4250 - 4255	Limestone, white, sub-crystalline, sandy, some chalky	
4255 - 4269	Shale, pale green to green-gray to olive, sandy	Top Simpson 4255
4269 - 4278	Dolomite, tan to brown to slightly pink, finely crystalline; some yellow-gray, weathered, sandy dolomite.	
4278 - 4288	Shale, as above	
4288 - 4291	Sand, gray to tan, sub-rounded, fine fairly well sorted, dirty	Very slight show free oil, slight odor; DST
4291 - 4299	Sand, as above, very shaly	No show
4299 - 4304	Sand, as above, shaly	Slight to fair spotted stain
4304 - 4310	Sand, white to tan, medium, sub-rounded, fairly well sorted	Slight to fair spotted stain
4310 - 4326	Mostly shale gray-green and dark gray; probable thin streaks sand	
4326 - 4332	Sand, gray, fine to medium, poorly sorted, dolomitic, sub-rounded to sub-angular	No show
4332 - 4352	Shale, as above; streaks sand and sandy dolomite, as above	
4352 - 4356	Dolomite, cream to tan, finely crystalline to medium crystalline	Top Arbuckle 4352
4356 - 4364	Dolomite, as above; spotted vugular porosity	Fair odor, slight show free oil; DST
4364 - 4366	Shale, forrest green	
4366 - 4371	Dolomite, cream to buff, medium crystalline to sub-crystalline; spotted good vugular and oolitic porosity; chert, white to gray, oolitic.	Fair odor; slight to fair show free oil; DST
<u>4371</u>	<u>Rotary total depth</u>	

(4) Formation log; H. L. Moore #2 Hoener. .

Drill Stem Test Data:

Mississippi: DST #1--4173-93; open 1 hour; good blow throughout test
Recovered 30' mud
Bottom hole pressure 0# (20 min.)

Viola: DST #2--4203-50; open 1 hour; strong blow throughout test;
gas to surface in 43 min.
Recovered 30' slightly oil and gas cut mud
120' heavily oil and gas cut mud
120' muddy oil
60' clean oil with few slugs mud
Bottom hole pressure 1110# (20 min.)

Simpson: DST #3--4260-95; packer failed
4245-95; open 1 hour - small blow throughout test
recovered 3950' gas
15' medium oil and gas cut mud
60' muddy oil and oily mud
Bottom hole pressure 1155# (20 min.)

Arbuckle: DST #4--4353-71; open 1 hour - strong blow throughout test -
gas to surface in 38 min.
Recovered 2630' clean oil
Bottom hole pressure 1380# (20 min.)
Initial flow pressure 390#
Final flow pressure 1010#

(Samples examined and log compiled by Willis Jack Magathan)