

Formation Log

WENDELL S. JOHNS

Pan-Kar #1 Zimmerman
NW NW SE; 12-14S-20W
Ellis County, Kansas
Elevation: 2196 derrick floor

8 5/8" surface casing 180'
Comm: 1-22-55
Comp: 2-3-55

Note: All measurements are taken from the top of the rotary bushing
which is 2' above the derrick floor

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
0-54	Rock	Drillers Log 0-3100'
54-570	Shale	
570-870	Shale and shells	
870-1144	Sandy shale	
1144-1486	Red bed and shale	
1486-1528	Anhydrite	Stone Corral-Drillers top
1528-1670	Red bed and shale	
1670-1755	Shale and shells	
1755-1936	Sandy shale	
1936-2070	Shale	
2070-2125	Shale and shells	
2125-2180	Broken limestone	
2180-2480	Limestone and shale	
2480-2510	Broken limestone	
2510-2628	Limestone	
2628-2640	Broken limestone	
2640-2650	Limestone and shale	
2650-2680	Broken limestone	
2680-2703	Shale	
2703-2743	Limestone and shale	
2743-2850	Shale and limestone	
2850-2940	Limestone and shale	
2940-3062	Shale and limestone	
3062-3100	Limestone and shale	
3100-37	Limestone, tan to gray, finely crystalline to medium crystalline, fossiliferous; streaks gray shale	Sample log 3100 to T.D.
3137-50	Shale, gray to gray-green, some silty; some fine, gray-green, silty sand	
3150-78	Limestone, light gray, finely sucrose, sandy at top; streaks gray shale	Howard
3178-3208	Shale, gray and gray-green, silty; thin streaks fine gray micaceous, argillaceous sand	Severy

**-2- Formation Log
Faw-Kar #1 Zimmerman**

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3208-14	Limestone, blue-gray, subcrystal- line	Top Topeka 3208
3214-17	Shale, gray, soft; trace brown shale	
3217-49	Limestone, cream to white to buff, finely crystalline to medium crystalline, fossiliferous; streaks gray and brown shale	
3249-57	Limestone, gray to white, sub- crystalline; good oolitic poro- sity	No show
3257-71	Limestone, gray, finely crystal- line, very shaly	
3271-91	Limestone, cream to buff, sub- crystalline, chalky; trace cream vitreous opaque chert	
3291-98	Limestone, tan, finely sucrose, dolomitic; good pinpoint porosity	No show
3298-3301	Shaly limestone	
3301-14	Limestone, white to cream, sub- crystalline; much white opaque subvitreous chert; spotted vug- ular porosity	No show
3314-25	Limestone, as above, chalky, oolitic; fair pinpoint porosity	No show
3325-38	Limestone and brown shale streaks	
3338-44	Limestone, blue-gray, subcrystal- line, to buff and white, finely crystalline, chalky; much white opaque, figured chert.	
3344-48	Shale, brown and gray	
3348-68	Limestone and chert, as above; thin streaks brown shale	
3368-76	Shale, gray, dark gray and brown	
3376-94	Limestone, cream to white, sub- crystalline; streaks shale, as above	
3394-3416	Limestone, white, subcrystalline, slightly sandy at top; spotted pinpoint porosity	No show
3416-31	Limestone and dark gray shale streaks	
3431-62	Limestone, white, finely crystal- line to tan and gray, mottled, dense; chert, gray, opaque to blue- gray, subvitreous opaque; thin streaks shale, as above	

-3- Formation Log
 Pan-Kar #1 Zimmerman

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3462-66	Shale, brown-black, soft, fissile, micaceous	Heabner
3466-71	Limestone, tan to blue-gray, sub-crystalline to dense	Leavenworth
3471-86	Shale, gray to pale olive	Sayderville
3486-99	Limestone, cream to white, finely sucrose to subcrystalline	Toronto
3499-3507	Shale, gray and brown	Douglas
3507-35	Limestone, cream to white, sub-crystalline to medium crystalline; much gray and brown shale	Top Lansing 3507
3535-41	Limestone, tan to gray, finely crystalline to granular; spotted pinpoint porosity	Trace dead stain, no free oil or odor
3541-50	Limestone, gray to salmon, dense mottled	
3550-54	Shale, brown and gray	
3554-59	Limestone, white to cream, finely crystalline, chalky; spotted vugular and oolitic porosity; trace light stain	No free oil or odor
3559-65	Shale and limestone streaks	
3565-67	Limestone, white, subcrystalline, chalky, crypto-oolitic; trace spotted pinpoint porosity	Trace spotted stain
3567-79	Limestone and brown shale streaks	
3579-84	Limestone, white to tan, finely sucrose, oolitic; poor vugular and oolitic porosity	No odor or free oil; fair stain
3584-98	Limestone, tan, dense; gray and brown shale streaks	
3598-3601	Limestone, cream, subcrystalline, slightly oolitic; spotted poor vugular and oolitic porosity	Trace dead stain
3601-18	Limestone, cream to salmon, sub-crystalline, some chalky	
3618-28	Mostly gray and brown shale; thin streaks limestone	
3628-34	Limestone, tan to buff, dense, lithographic; chert, salmon to gray, vitreous, opaque	
3634-46	Shale, as above	
3646-56	Limestone and chert, as above	
3656-65	Shaly limestone	
3665-69	Limestone tan to gray, translucent, dense	Porous on electric log- no porosity detected in samples

**-4- Formation Log
Pen-Kar #1 Zimmerman**

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3669-83	Limestone, as above	
3683-88	Shale, brown and gray-green	
3688-90	Limestone, tan, subcrystalline to very finely sucrose; trace spotted pinpoint porosity	Trace light stain
3690-96	Limestone, dense, as above; trace chert,	
3696-3701	Limestone, white to cream, subcrystalline, oolitic; trace spotted vugular porosity	Very slight trace free oil
3701-08	Shale and limestone streaks	
3708-16	Limestone, gray to white, finely sucrose, chalky, oolitic; trace spotted vugular and oolitic porosity	Trace stain
3716-22	Limestone and brown shale streaks	
3722-25	Limestone, buff, finely crystalline, chalky to light cream, semi-translucent, dense	Porous on electric log, no porosity detected in samples
3725-55	Limestone, as above; streaks dark gray shale	Base Kansas City 3755
3755-96	Streaks varicolored shale and salmon to tan, subcrystalline to dense limestone; some white, finely crystalline silicified limestone; chert, amber to amber, translucent, vitreous; trace gray, silty sand	Top Marmaton 3755
3796-3809	Limestone, buff to cream, finely sucrose, dolomitic; fair spotted vugular porosity; chert, white, opaque, vitreous; salmon to amber to flesh, translucent	Fair show free oil, trace odor; D.S.T.
3809-15	Limestone, white to salmon, subcrystalline to dense, shaly	
3815-31	Shale, gray-green, maroon and brown; much chert, as above; some cherty limestone, as above; trace gray, medium sand	Top Conglomerate 3815
3831-51	Much shale, as above, much amber to salmon, vitreous, translucent, oolitic chert; some white glassy pyritic sand; trace buff, sucrose, weathered dolomite	

**-3- Formation Log
Pan-Kar #1 Zimmerman**

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3851-60	Dolomite, gray to tan, finely crystalline to medium crystalline; rhombohedral; fair spotted vugular porosity; some oolitic chert	Top Arbuckle 3851 slight show free oil; D .S.T.
3860-62	Dolomite, gray to tan, finely crystalline to subcrystalline.	
3862	Total Depth	

Dry and abandoned 2-3-55

D Well Stem Test Data: The following drill stem tests were run on the #1 Zimmerman

Marmaton:

(1) D.S.T. 3798-3812; open 1 hour-small blow which died in 13 minutes. Flushed tool at 30 minutes, again had weak blow for 9 minutes.

Recovered: 40' slightly oil cut mud
Bottom Hole Pressure: 940# (20 min.)

Arbuckle:

(2) D.S.T. 3852-59; open 1 hour-good blow throughout test.

Recovered: 1035' salt water
Bottom Hole Pressure: 1100# (20 min.)

Samples examined and log compiled

by

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