

Bishop #1 Webster
 NE NE SE; 2-26S-14W
 Pratt County, Kansas
 Elevation: 1982 derrick floor

Comm: 4-9-53
 Comp:

WENDELL B. JOHNS

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

<u>Depth</u>	<u>Formation Name</u>	<u>Remarks</u>
0 - 250	Sand	Drillers log 0-3550'
250 - 825	Red bed	
825 - 885	Anhydrite	Stone Corral (Drillers top)
885 - 1380	Shale	
1380 - 1861	Shale and salt	
1861 - 2100	Limestone	
2100 - 2240	Sandy limestone	
2240 - 2435	Limestone	
2435 - 2765	Shale and limestone	
2765 - 2925	Shale	
2925 - 3550	Limestone	
3550 - 56	Limestone, brown, finely sucrose, dolomitic; some gray, sub-crystalline limestone	Sample log starts @ 3550
3556 - 79	Mostly limestone, light gray, dense, resinous; streaks gray-black, micaceous shale	
3579 - 82	Shale, brown-black, soft, micaceous, fissile	Heebner
3582 - 88	Limestone, blue-gray to brown-gray, sub-crystalline to dense	Leavenworth
3588 - 92	Shale, gray to gray-green	Snyderville
3592 - 3615	Limestone, cream to white, medium to finely crystalline	Toronto
3615 - 3736	Shale, gray and green; streaks sand, fine, gray, micaceous, trace glauconitic; siltstone, gray-green, micaceous, streaks gray-brown, sub-crystalline; fossiliferous limestone	Douglas
3736 - 45	Limestone, tan to brown, dense	Top Brown Lansing 3736
3745 - 64	Shale, gray; streaks limestone, as above	
3764 - 66	Limestone, cream to light gray, sub-crystalline, fossiliferous	Top Lansing 3764
3766 - 72	Limestone, as above, oolitic	Porous on electric log, no porosity in samples
3772 - 91	Limestone, gray to tan, resinous, sub-crystalline, fossiliferous; much gray shale	
3791 - 3802	Limestone, cream to buff, sub-crystalline; spotted vugular porosity	Possible trace stain, good odor

(2) Formation Log: Bishop #1 Webster

<u>Depth</u>	<u>Formation Name</u>	<u>Remarks</u>
3802 - 13	Limestone, gray to brown, dense; streak gray shale at bottom	
3813 - 20	Limestone, gray, sub-crystalline, oolitic; good porosity	Slight to fair show free oil, slight odor; D.S.T.
3820 - 50	Limestone, brown to gray, dense; Chert, gray, smoky, nodular, opaque to semi-translucent. Much gray opaque vitreous Chert; gray and gray-black shale	
3850 - 59	Limestone, gray, sub-crystalline, earthy; fair pinpoint porosity; Chert, as above	Fair show free oil, good odor; D.S.T.
3859 - 66	Limestone and gray shale	
3866 - 68	Limestone, cream to white, earthy; Chert, as above; poor spotted vugular and pinpoint porosity	Slight spotted dark stain
3868 - 71	Limestone and shale	
3871 - 80	Limestone, porous as above; Chert, as above	Slight spotted dark stain
3880 - 3904	Mostly limestone, gray to buff, sub-crystalline to dense, fossiliferous; Chert, as above; much tan to smoky, translucent, vitreous Chert; streak gray-green shale 3901-03	
3904 - 09	Limestone, gray to brown, sub-crystalline; good vugular porosity	Good show free oil, good odor; D.S.T.
3909 - 38	Limestone, gray to brown, dense; Chert, gray, opaque, mottled; streaks gray and green shale	
3938 - 42	Limestone, light gray, sub-crystalline, crypto-oolitic; fair vugular porosity	Fair stain
3942 - 49	Limestone, gray, sub-crystalline, resinous; streaks gray-green shale	
3949 - 60	Limestone, tan to light gray, sub-crystalline, oolitic, good oolitic porosity	Good odor, good show free oil; D.S.T.
3950 - 82	Limestone, gray to brown, sub-crystalline to finely crystalline; streak gray-green shale 3977-82	
3982 - 4002	Limestone, light gray, finely sacrose, oolitic; good oolitic porosity	Very good show free oil, good odor; D.S.T.
4002 - 29	Limestone, light gray to tan, sub-crystalline to dense; streaks gray-green and black shale	
4029 - 36	Limestone, as above	Porous on electric log, no porosity in samples

(3) Formation Log: Bishop #1 Webster

<u>Depth</u>	<u>Formation Name</u>	<u>Remarks</u>
4036 - 66	Limestone, gray to buff, sub-crystalline to dense; streaks gray-black shale	Base Kansas City 4066
4066 - 91	Shale, gray and pale green, some brown; trace fine green sand	Top Marmaton 4066
4091 - 4104	Mostly limestone, light gray, finely sucrose; Chert, gray to olive, opaque, vitreous; shale, gray-green	
4104 - 11	Shale, gray-green	
4111 - 23	Limestone, red to gray to tan, sub-crystalline to dense; much Chert, gray, maroon and green opaque; poor pinpoint porosity	Trace stain
4123 - 29	Mostly shale; some limestone, as above	
4129 - 47	Limestone, gray to gray-green, sub-crystalline; some red limestone; some red-tan, finely crystalline dolomite; Chert, as above	
4147 - 52	Shale, gray and gray-green	
4152 - 67	Shale, brick red, some pale green, some clear, rounded, free sand grains	Possible Top Conglomerate 4152
4167 - 81	Much red, jasperoid Chert, trace fine, gray, micaceous sand; much citrine, translucent, vitreous Chert	Probable Top Conglomerate 4167; slight trace free oil, trace odor; D.S.T.
4181 - 4202	Chert, white to cream to salmon, opaque, semi-vitreous; Chert, brown, devitrified	Top Mississippi 4181; slight trace free oil, trace odor; D.S.T.
4202 - 38	Shale, gray-green, green and silver-gray, micaceous; some Chert, cream to light tan, vitreous, semi-translucent; some white to brown, devitrified Chert; some pale green, silty shale; some brown, dense limestone inclusions in shale	Top Kinderhook 4202
4238 - 44	Chert, cream to buff to gray, vitreous to semi-vitreous, opaque	
4244 - 48	Shale, as above	
4248 - 86	Chert, white, opaque, vitreous, much white, tripolitic; some pale, green-white, opaque, semi-devitrified Chert; streaks tan to red, sub-crystalline limestone	Top Viola 4248; slight show free oil, trace odor; D.S.T.
4286 - 94	Limestone, cream to tan, coarsely crystalline, sandy, some oolitic	

(4) Formation Log: Bishop #1 Webster

<u>Depth</u>	<u>Formation Name</u>	<u>Remarks</u>
4294 - 99	Shale, pale-green, to gray-green, sandy	Top Simpson 4294
4299 - 4308	Sand, medium, sub-angular, poorly sorted; calcareous; limestone, white to light tan, sub-crystalline, chalky, very sandy	Slight to fair free oil, fair odor; D.S.T.
4308 - 10	Sand and limestone, as above, no porosity	
4310 - 12	Sand, tan to gray, sub-angular, poorly sorted; good porosity	Fair show free oil, fair odor; D.S.T.
4312 - 15	Shale, green, sandy	
4315 - 19	Limestone, sandy, as above	Spotted porosity, few pieces with show oil, as above
4319 - 58	Shale, gray-green to pale green, sandy; streaks sand, as above; some bright red shale; few streaks tan, very finely sucrose dolomite	
4358 - 67	Dolomite, cream to buff, finely crystalline to sub-crystalline; Chert, white to cream, translucent with amber oolites	Top Arbuckle 4358
4360	Rotary Total Depth	
4367 - 72	Much pale to fairly bright green shale, sandy; sand, white to pale green, medium to sub-medium, angular to sub-rounded, shaly, dolomitic; many clear to frosted, large, free, rounded sand grains. Trace porosity	No show
4372 - 79	Dolomite, tan to white to gray to cream, sub-crystalline to dense; some milky white oolitic Chert	
4379 - 82	Dolomite, as above, very finely powdered by bit. Some porosity	3 to 4 B.W.P.H.
4382 - 89	Dolomite and some Chert, as above	
4389 - 96½	Much dark forrest green shale; dolomite, dark green, sub-crystalline; some dolomite as above; many free sand grains, as above	Bailed 7 B.W. P.H.
4396½	Total depth	

The following drill stem tests were run on the #1 Webster

LANSING-KANSAS CITY:

- (1) D.S.T. 3808-28 (Zone #3); Open 1½ hours - tool partially plugged for 30 minutes. Weak intermittent blow which increased to fair, steady blow at end of test.

(5) Formation Log: Bishop #1 Webster

Recovered 2000' gas.

90' heavily oil and gas cut mud and muddy oil.

Bottom hole pressure 775# (20 min.).

(2) D.S.T. 3844-60 (Zone #4); Open 1 hour - small blow throughout test.
Recovered 180' slightly oil cut mud.
Bottom hole pressure 1075# (20 min.)

(3) D.S.T. 3900-10 (Zone #6); Open 1 hour - strong blow throughout test,
gas to surface in 35 minutes.
Recovered 30' slightly oil and gas cut mud.
90' heavily oil and gas cut mud and muddy oil.
90' clean gassy oil.
Bottom hole pressure 1035# (20 min.).

(4) D.S.T. 3943-62 (Zone #8); Open 45 minutes - weak blow throughout test,
Recovered 120' gas cut muddy water.
Bottom hole pressure 1230# (15 min.).

(5) D.S.T. 3977-4000 (Zone #9); Open 1 hour - strong blow throughout test,
gas to surface in 36 minutes.
Recovered 150' heavily oil and gas cut mud.
90' muddy oil.
Bottom hole pressure 975# (20 min.).

CONGLOMERATE - MISSISSIPPI:

(6) D.S.T. 4169-97; Open 1 hour - strong blow throughout test, gas to
surface in 23 minutes.
Recovered 60' gas cut mud.
Bottom hole pressure 1950# (15 minutes - still building up
rapidly).

VIOLA:

(7) D.S.T. 4237-87; Open 1 hour - strong blow throughout test, gas to
surface in 8 minutes.
Recovered 3840' clean gassy oil.
Bottom hole pressure 1320# (20 min.).
Initial flow pressure 475#.
Final flow pressure 840#.

SIMPSON:

(8) D.S.T. 4290-4323; Open 1 hour - strong blow throughout test, gas to
surface in 27 minutes.
Recovered 80' oil cut mud.
240' muddy oil.
400' clean oil.
Bottom hole pressure 975# (20 min.).
Initial flow pressure 205#.
Final flow pressure 270#.

Samples examined and log compiled by Willis Jack Magathan

TIME LOG

Bishop #1 Webster
 NE NE SE; 2-26S-14W
 Pratt County, Kansas
 Elevation: 1982 derrick floor

WENDELL S. JOHNS

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

The drill pipe and casing were strapped at the rotary total depth of 4360 and found 4360 = 4362. This log has not been corrected to these measurements.

1' time log starts at 3550

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
3550 - 60	3-3-4-3-3-4-4-3-3-4	
70	3-3-5-4-4-3-4-4-3-4	
80	4-5-4-6-5-6-5-5-4-3	Top Heebner 3576
90	3-3-4-2-2-3-4-5-5-3	
3590 - 3600	4-3-5-5-5-3-3-3-3-2	
10	2-2-3-2-2-4-3-3-2-2	
20	2-2-3-2-2-2-3-3-3-2	
30	3-3-3-2-2-3-3-3-3-2	
40	3-2-2-2-2-2-2-2-2-3	
50	3-3-2-3-3-3-3-2-2-2	
60	3-2-3-3-4-5-4-4-3-3	
70	2-3-2-2-3-3-2-2-3-3	
80	3-3-4-4-3-3-4-3-3-3	
90	4-3-3-3-3-2-3-3-4-3	
3690 - 3700	3-4-4-3-3-4-2-2-3-4	
10	3-3-4-3-5-5-5-3-4-4	Trip @ 3705
20	3-3-3-3-3-2-3-4-4-4	
30	4-4-4-4-4-4-4-4-4-4	
40	4-4-4-3-4-5-8-8-6-5	Top Brown Lansing 3734
50	6-5-4-3-3-5-5-4-3-5	
60	3-5-4-5-5-5-5-4-4-3	Top Lansing 3761
70	5-4-4-3-3-5-4-4-5-4	
80	3-3-5-5-5-3-5-3-4-5	
90	6-4-4-4-4-6-4-11-7-8	
3790 - 3800	8-6-4-5-4-4-4-4-5-6	
10	4-3-4-6-7-8-7-10-6-10	
20	4-3-2-2-2-3-5-6-4-5	Circ. 1 hr. 20 min. @ 3811
30	6-8-9-7-9-7-8-8-9-11	
40	8-8-6-8-8-8-10-8-8-9	New bit @ 3828
50	10-10-11-10-5-3-6-6-4-5	
60	2-3-3-3-3-3-3-2-2-7	
70	6-10-9-5-6-5-5-7-6-7	Circ. 1½ hrs. 3860 New bit 3860
80	7-4-4-7-4-4-3-4-3-8	
90	14-11-10-10-7-9-9-10-7-8	
3890 - 3900	9-11-8-9-8-10-10-11-11-12	
10	8-5-6-7-6-8-4-1-2-11	Circ. 1½ hrs. 3910 New bit 3910
20	10-11-10-10-8-10-9-10-5-4	
30	8-5-8-9-10-10-7-12-11-9	

(2) Time Log: Bishop #1 Webster

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
3930 - 40	6-8-8-7-5-6-3-4-3-4	
50	5-5-7-7-4-6-6-5-7-5	
60	1-1-1-1-1-2-1-2-2-5	
70	6-6-13-7-7-9-10-8-9-7-4-4-7-8	Circ. 1½ hrs. 3962 Strap Drill Pipe 3969 = 3965
80	10-7-8-6-6-7-8-7-8-5	
90	3-2-1-1-2-1-1-1-½-½	
3990 - 4000	2-2-5-5-4-5-4-4-8-8	
10	8-8-10-11-10-12-10-11-9-11	Circ. 1½ hrs. @ 4000
20	8-7-11-5-5-10-9-7-9-7	
30	7-5-6-10-11-7-6-11-8-8	
40	7-8-8-3-8-5-6-5-6-9	
50	6-8-7-6-7-6-6-6-7-7	
60	7-6-6-5-5-4-6-5-8-7	
70	8-8-6-7-5-7-6-6-6-5	Base Kansas City 4066
80	6-6-6-5-4-4-5-4-4-5	
90	5-6-9-9-8-8-7-6-8-6	
4090 - 4100	7-10-9-11-8-7-8-8-9-10	
10	10-8-7-10-7-6-5-5-6-6	
20	6-11-11-7-7-10-10-10-10-10	Trip 4113
30	10-4-6-4-4-4-4-4-7-8	
40	10-8-8-8-8-8-8-8-8-10	
50	8-8-8-10-8-8-8-7-8-6	
60	6-7-6-6-6-6-7-5-5-5	Possible Top Conglomerate 4151
70	5-5-5-5-5-5-8-6-5-4	Top Probable Conglomerate 4167
80	5-5-6-5-6-6-5-8-6-6	
90	7-5-3-3-4-4-3-3-4-2	Top Mississippi 4181
4190 - 4200	4-3-4-3-6-10-6-5-4-5	Circ. 1½ hrs. 4195 New bit 4195
10	11-5-5-6-8-6-7-7-8-7	Top Kinderhook 4201
20	8-6-7-7-7-8-8-8-8-8	
30	8-8-8-8-8-8-8-8-8-8	
40	7-7-7-7-7-7-6-7-4-3	
50	4-4-4-8-9-11-9-3-2-2	Top Viola 4248
60	3-3-6-5-5-4-2-8-5-4	Trip New W7R @ 4257
70	5-7-4-5-4-5-5-6-4-4	
80	6-6-6-7-6-7-7-6-5-5	
90	4-6-5-6-8-10-7-9-8-12	Circ. 1½ hrs. 4285
4290 - 4300	8-8-7-4-6-4-6-5-5-8	Top Simpson 4293
10	10-8-9-11-10-12-8-8-11-9	
20	9-2-4-5-7-7-7-5-6-4	
30	6-6-1-7-15-10-7-10-7-8	Circ. 2 hr. @ 4322
40	7-9-7-7-7-7-8-8-8-8	New bit @ 4322
50	8-8-9-6-7-7-8-10-9-9	Circ. 1½ hr. @ 4350

(3) Time Log: Bishop #1 Webster

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
4350 - 60	8-8-8-7-8-10-7-6-8-10	Top Arbuckle 4358 Circ. 1½ hrs. @ 4360
R.T.D. 4360		

Time log condensed by Willis Jack Magathan