

Computer Invented

WENDELL S. JOHNS

FORMATION LOG

Ambassador #1 Johnson  
NW NW SE, 24-26S-16W  
Edwards County, Kansas  
Elevation: 2071 Derrick Floor  
2073 Kelly Bushing

8 5/8" Casing 329'  
5 1/2" Casing 4546'  
Comm: 3-22-56  
Comp:

Note: All measurements are from the top of the Kelly Bushing.

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
0 - 331	No Log - surface hole	Drillers log 0-3400
331 - 460	Shale and red beds	
460 - 1002	Red Beds	
1002 - 26	Anhydrite	Stone Corral Electric log
1026 - 1260	Sand and shale	
1260 - 1530	Shale	
1530 - 2040	Shale and shells	
2040 - 2180	Shale and limestone	
2180 - 2505	Limestone and shale	
2505 - 80	Limestone	
2580 - 2800	Limestone and shale	
2800 - 2950	Shale and shells	
2950 - 3210	Shale and limestone	
3210 - 3400	Limestone and shale	
3400 - 09	Limestone, gray, subcrystal- line to sucrose	Sample log 3400 to T.D.
3409 - 18	Mostly shale, gray and brown possibly some limestone streaks	
3418 - 59	Limestone, brown, subcrystal- line, some fossils. A few thin streaks of gray shale	Top Topeka 3418
3459 - 3516	Limestone, brown to tan to gray, dense to granular, a few fossils. Some chert in bottom. Some porosity.	No show
3516 - 27	Limestone, as above, no porosity	
3527 - 41	Limestone, light tan, subcrystal- line to sucrose, trace vugular and oolitic porosity	
3541 - 44	Limestone as above, no porosity	
3544 - 59	Streaks limestone as above, and shale, gray and green	

Formation Log: Ambassador #1 Johnson.

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3559 - 3569	Limestone as above, no porosity	
3569 - 71	Shale, gray, brown and green	
3571 - 84	Limestone, light tan, dense, some chert, tan opaque	
3584 - 94	Limestone, buff, granular to sucrose, some vugular porosity	Trace dark brown stain
3594 - 98	Limestone as above, no porosity, some gray opaque chert	
3598 - 3600	Shale, gray	
3600 - 10	Limestone, tan, dense to finely crystalline	
3610 - 11	Shale, gray	
3611 - 37	Limestone, light tan, sub-crystalline to finely crystalline, some fossils, some gray chert, some porosity	No show
3641 - 46	Shale, black	
3646 - 61	Limestone as above	
3661 - 63	Shale, gray and black	
3663 - 82	Limestone as above, some porosity. No chert.	No show
3682 - 3702	Limestone, tan, dense	
3702 - 17	Limestone, tan, finely crystalline to subcrystalline, possibly some porosity	Possible trace stain
3717 - 34	Limestone, as above, trace chert, white, opaque	
3734 - 54	Limestone, light brown, sucrose, some porosity	No show
3754 - 58	Shale, soft, gray black	
3758 - 74	Limestone, tan, finely crystalline to dense, trace chert, gray, opaque, non-vitreous	
3774 - 81	Shale, soft, black	Heebner
3781 - 85	Limestone, brown to dark gray-brown, dense	Leavenworth
3785 - 93	Shale, gray-green, nodular, trace brown shale	Snyderville
3793 - 3810	Limestone, light tan to light brown, clean, subcrystalline to finely crystalline	Toronto
3810 - 33	Shale, gray, dark gray, some green; Shale light gray-green, silty	Top Douglas 3810

-3- Formation Log: Ambassador #1 Johnson.

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3833 - 3838	Sand, gray, medium to fine, angular, micaceous	No show
3838 - 50	Shale, as above	
3850 - 60	Sand, as above	No show
3860 - 3924	Shale, gray to green-gray	
3924 - 31	Limestone, dark gray-brown, dense, some fossils	Brown Lansing
3931 - 42	Shale, gray	
3942 - 49	Limestone, light gray to tan, to brown, finely crystalline to dense, trace crinoids	Top Lansing 3942
3949 - 60	Streaks shale, gray and brown, and limestone as above	
3960 - 76	Limestone, as above, some fossils and oolites. Some porosity 3966-74	No show
3976 - 78	Shale, gray and green	
3978 - 81	Limestone, light tan, finely crystalline, some fossils	
3981 - 85	Shale, gray and green	
3985 - 4012	Limestone, tan to light brown, dense to subcrystalline	
4012 - 14	Shale, gray and brown	
4014 - 17	Limestone, tan to brown, finely crystalline to dense. Chert, dark brown to black vitreous, opaque	
4017 - 26	Limestone, as above, some porosity	No show
4026 - 33	Limestone, as above, no porosity	
4033 - 41	Limestone, light brown, very oolitic, some oolites, good porosity	No show, no odor
4041 - 57	Limestone, tan to gray, subcrystalline. Streak gray shale 4049-50	
4057 - 75	Limestone, as above, streaks vugular porosity. Some chert, white, vitreous, opaque	No show
4075 - 84	Limestone, as above, no porosity	
4084 - 90	Shale, gray and black	
4090 - 92	Limestone, as above	
4092 - 96	Limestone, light brown to gray,	No odor, or show

-4- Formation Log: Ambassador #1 Johnson.

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
4096 - 4105	oolitic, to oolitic, good porosity Limestone, tan, subcrystalline	
4105 - 08	Shale, gray	
4108 - 20	Limestone, tan to brown, dense. Possible trace porosity 4112-17	No show
4120 - 22	Shale, gray	
4122 - 28	Limestone, tan, dense	
4128 - 55	Limestone, brown to gray-brown, good oolitic and vugular porosity	No show
4155 - 63	Limestone, tan, dense	
4163 - 68	Limestone, light tan to brown, very oolitic and oolitic, fair oolitic and vugular porosity. Trace chert, white, translucent	No show
4168 - 72	Limestone, tan dense, chert white opaque, fossiliferous	
4172 - 75	Shale, gray to gray-green	
4175 - 80	Limestone, brown, sucrose, oolitic and oolitic, possibly some porosity.	No show
4180 - 82	Shale, as above	
4182 - 91	Limestone, as above, streaks of porosity	No show
4191 - 4202	Limestone, tan to brown, dense	
4202 - 08	Limestone, tan, subcrystalline to finely crystalline, some oolites and oolitic, slight porosity	No show
4208 - 16	Streaks limestone, as above, and shale, brown, green and black	
4216 - 41	Limestone, light tan, subcrystalline, considerable chert, gray, opaque. Possibly some streaks of slight porosity	No show
4241 - 43	Shale, black	
4243 - 48	Limestone, as above, no porosity	
4248 - 62	Shale, gray and green, and brown. Some streaks shaly gray limestone	
4262 - 69	Limestone, tan to light brown, dense, to subcrystalline, some	Base Kansas City 4269

-5- Formation Log: Ambassador #1 Johnson.

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
4269 - 4287	oolites Shale, gray, brown, purple-maroon. Trace green-gray fine sand. Trace red weathered limestone. Trace chert, white and dark gray	Marmaton
4287 - 4305	Limestone, light tan to brown, dense. Possible trace porosity	No show
4305 - 22	Shale, as above; some thin limestone streaks	
4322 - 27	Limestone, gray to brown, dense	
4327 - 35	Shale, gray, green and much purple	
4335 - 40	Limestone, as above, increase in red dense limestone	
4340 - 56	Shale, black, gray, maroon, green, olive, and pink-gray leached	Possible top of the Cherokee?
4356 - 72	Limestone, brown-gray to dark brown, dense. Trace green limestone. Some green shale	
4372 - 80	Mostly shale as above, some thin limestone streaks as above	
4380 - 85	Limestone, brown to tan, dense, fossiliferous	
4385 - 92	Shale, mostly gray and green. Some yellow variegated shale; some green limestone	
4392 - 98	Sand, light brown, glassy, medium, angular	Cherokee Sand. Light stain. Slight fluorescence - no odor and no free oil D.S.T. #1
4398 - 4417	Shale, gray, green, green and purple variegated, some weathered sandy shale	
4417 - 41	Chert, white, mostly devitrified, some vitreous, translucent	Mississippi No show D.S.T. #2
4441 - 64	Shale, purple-maroon, green, gray variegated. Trace coarse very shaly sand or sandy shale. Some blue-green shale. Trace green and brown dense limestone	Top Kinderhook 4441

-6- Formation Log: Ambassador #1 Johnson.

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
4464 - 4470	Sand, light brown, submedium, to fine, angular, well sorted	No odor. Light stain. Slight show free oil. Good fluorescence .
4470 - 82	Sand as above, white to green-white, silty, some quartzitic	No show
4482 - 86	Sand, brown, medium, angular, friable, well sorted	Possible trace odor. Good light stain. Good show free oil. Good fluorescence .
4486 - 4501	Sand, submedium to medium, angular, hard, much siliceous cement. Chert, white, devitrified and chert, white to gray, sandy, non-vitreous	D.S.T. #3 4450-86 Good show free oil. Good stain, slight odor and fair fluorescence in sand. Slight show free oil in devitrified chert.
4501 - 05	Shale, as above	Good show free oil
4505 - 14	Chert, citrine, green, gray, white, opaque, translucent; much white devitrified chert and some sandy chert	D.S.T. #4 4481-4510
4514 - 23	Shale, green and maroon. Much chert, green, brown, citrine, gray, white, vitreous translucent. Some red and pink jasperoid chert	No show
4523 - 34	Shale, as above, little if any chert, trace limestone, brown and green, dense	
4534 - 57	Chert, white to tan, opaque, subvitreous to devitrified	Top Viola 4534 No show
4557 - 64	Shale, green and maroon	
4564 - 93	Limestone, tan to gray, subcrystalline, some silicified. Some chert, as above	
4593 - 97	Dolomite, white to cream, finely crystalline. Trace fine vugular porosity 4595-97.	Possible trace stain 4595-97. No free oil.
4597 - 99	Shale, light green	
4599 - 4608	Dolomite, white to cream, to buff, finely crystalline to subcrystalline. Some white subvitreous chert	

-7- Formation Log: Ambassador #1 Johnson.

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
4608 - 4615	Limestone, brown to cream, to gray, subcrystalline. Much silicified limestone. Increase in chert, white to cream, vitreous to sub-vitreous	
4615 - 16	Shale, light green	
4616 - 25	Limestone, white, chalky, sandy. Some white devitrified chert with a light oil stain. Possible caving from above	
4625 - 33	Shale, gray muddy, some dirty gray-green sandy dolomite. Some leached gray sandy shale. Trace white, glassy, sand.	Top Simpson 4625
4633 - 50	Shale, pale green to dark green, some fine glassy sand	
4650 - 54	Sand, gray poorly sorted, angular, dolomitic. Probably some shale streaks	No show
4654 - 57	Shale, green	
4657 - 61	Sand, as above	
4661 - 66	Shale, green	
4666 - 77	Sand, white to gray, medium, subround to round, well sorted, shaly	No show
4677 - 4705	Shale, dark green to gray-green, pyritic. A few thin sand streaks.	
4705 - 07	Chert, amber vitreous oolitic. Trace weathered dolomite	Top Arbuckle 4705
4707 - 22	Dolomite, tan to gray, finely sucrose to subcrystalline. Some of dolomite appears weathered	
4722 - 33	Dolomite, tan to cream, finely sucrose to finely crystalline. Chert, white, subvitreous, oolitic	
4733 - 35	Dolomite, as above, trace vugular and inter-oolite porosity	No show
4735 - 36	Shale, light green	
4736 - 46	Dolomite, brown to buff. Sub-crystalline, to finely crystalline. Some oolitic chert.	
4746 - 48	Shale, dark green	
4748 - 56	Dolomite, brown to gray, coarsely crystalline, rhombohedral. Spotted vugular porosity.	No show
4756 - 88	Dolomite, cream to brown, coarsely	No show

-8- Formation Log: Ambassador #1 Johnson.

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
4788	crystalline, rhombohedral to dense. Streaks of vugular porosity Total Depth	Still in Arbuckle
	Ran electric log 4-6-56	
	Set 5 1/2" Casing 4546'	
	Shut well down.	

Drill Stem Tests:

The following drill stem tests were run on the #1 Johnson.

- #1 4383-4410 Cherokee Sand - open 1 hour - gas in 4 minutes  
Gauged 1,020,000 CF/d  
Recovered 66' gas cut mud.  
Bottom Hole Pressure 1530 p.s.i. (30 min.).
- #2 4419-50 Mississippi - open 1 hour.  
Recovered 28' mud.  
Bottom Hole Pressure 140 p.s.i. (20 min.).
- #3 4450-86 Kinderhook Sand - open 1 hour.  
Recovered 59' mud.  
Bottom Hole Pressure 60 p.s.i. (30 min.).
- #4 4481-4510 Kinderhook Sand - open 1 1/2 hours.  
Recovered 215' gas cut mud with a few small spots of live oil. Probably some water in bottom 60 feet.  
Bottom Hole Pressure 1220 p.s.i. (30 min.).

Samples examined by Wendell S. Johns and Willis  
Jack Magathan.  
Log compiled by Wendell S. Johns.

WENDELL S. JOHNS

TIME LOG

Ambassador #1 Johnson  
NW NW SE, 24-26S-16W  
Edwards County, Kansas  
Elevation: 2073 Kelly Bushing  
2071 Derrick Floor.

Note: All measurements are from the top of the kelly bushing.

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
3400 - 3410	X-4-3-4-2-2-1-3-5-5	
3410 - 20	3-4-3-4-4-4-2-3-3-4	Top Topeka 3418
3420 - 30	5-4-4-4-3-4-3-3-2-3	
3430 - 40	4-4-5-3-2-2-2-2-4-4	
3440 - 50	6-4-5-4-3-2-5-4-4-4	
2450 - 60	4-5-5-4-6-2-5-3-3-3	
3460 - 70	2-2-1-1-1-1-1-2-1-2	
3470 - 80	2-2-2-2-1-2-3-3-4-3	
3480 - 90	3-3-3-3-2-4-3-3-3-4	
3490 - 3500	3-3-3-3-2-2-2-2-2-3	
3500 - 10	3-3-4-3-3-3-4-4-5-4	
3510 - 20	3-3-3-3-2-3-3-4-5-5	
3520 - 30	4-4-4-4-4-5-5-5-4-3	
3530 - 40	2-2-2-3-3-3-3-2-2-3	
3540 - 50	3-3-5-6-6-5-6-7-8-4	
3550 - 60	4-4-4-4-4-6-8-6-5-6	
3560 - 70	6-7-8-8-9-7-8-7-4-4	
3570 - 80	2-3-4-4-4-5-5-4-5-6	
3580 - 90	4-4-5-6-5-4-5-4-4-3	
3590 - 3600	3-3-3-2-3-4-5-8-5-5	
3600 - 10	7-6-9-10-12-4-3-3-3-4	Trip 3604 OWV
3610 - 20	4-3-3-3-3-3-2-3-2-3	
3620 - 30	2-3-4-3-2-3-3-2-2-2	
3630 - 40	2-1-2-2-2-2-3-2-4-4	
3640 - 50	5-6-3-2-2-2-2-4-3-5	
3650 - 60	2-2-2-2-3-2-2-2-2-2	
3660 - 70	2-2-2-2-2-2-1-2-2-2	
3670 - 80	2-2-2-2-2-2-2-2-2-2	
3680 - 90	2-1-1-2-2-2-3-4-3-4	
3690 - 3700	4-4-4-4-4-4-4-4-4-4	
3700 - 10	5-5-6-5-4-3-5-4-4-4	
3710 - 20	4-4-5-4-5-4-4-5-7-8	
3720 - 30	9-8-6-6-4-5-4-4-4-6	
3730 - 40	6-4-4-6-4-3-3-3-3-2	

-2- Time Log: Ambassador #1 Johnson.

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
3740 - 3750	2-2-3-3-3-2-4-4-4-2	
3750 - 60	4-3-4-4-4-2-2-2-2-3	
3760 - 70	3-3-4-5-4-6-7-5-5-6	
3770 - 80	9-11-11-11-11-7-4-3-2-3	Heebner 3774-81
3780 - 90	3-2-7-11-12-8-6-3-3-4	
3790 - 3800	3-2-4-4-5-6-5-7-6-7	
3800 - 10	7-6-8-8-7-6-6-8-8-8	Top Douglas 3810
3810 - 20	8-6-4-5-7-5-4-4-4-3	
3820 - 30	4-3-3-4-4-3-4-4-4-4	
3830 - 40	3-4-3-3-2-2-3-4-3-4	
3840 - 50	4-4-4-4-5-3-4-4-5-4	
3850 - 60	3-2-2-2-2-2-2-1-2-2	
3860 - 70	3-3-3-3-3-4-4-5-4-5	
3870 - 80	5-4-4-5-5-5-5-5-5-4	
3880 - 90	3-5-4-4-5-4-5-4-4-4	
3890 - 3900	4-5-5-4-5-4-5-4-5-4	
3900 - 10	5-5-5-4-5-5-5-4-5-5	
3910 - 20	5-4-4-4-5-4-5-5-4-5	
3920 - 30	5-4-5-5-5-8-3-5-4-6	Top Brown Lansing 3924 Trip 3925 OWV
3930 - 40	3-5-4-4-4-4-4-4-4-4	
3940 - 50	4-5-5-6-7-6-6-4-6-7	Top Lansing 3942
3950 - 60	5-8-11-7-6-5-5-4-4-4	
3960 - 70	4-7-8-5-7-5-4-4-4-4	Circ. 3970 - 1 Hr.
3970 - 80	6-6-3-2-5-7-9-7-7-12	
3980 - 90	13-13-6-5-6-4-6-6-7-8	SR 3981-85
3990 - 4000	13-12-14-12-13-12-13-14-11-15	SR 3997-98
4000 - 10	13-16-17-17-16-8-15-15-12-15	
4010 - 20	10-14-19-5-5-12-18-17-12-13	
4020 - 30	11-11-12-9-6-6-8-9-14-11	
4030 - 40	11-12-16-15-1-1-1-1-1-1	
4040 - 50	4-2-6-7-7-10-10-10-14-16	Circ. 4045 - 1 1/2 Hrs.
4050 - 60	10-12-15-7-11-8-10-12-8-10	
4060 - 70	5-6-10-8-9-11-11-10-9-10	
4070 - 80	7-8-9-9-9-10-10-11-13-13	
4080 - 90	8-16-17-10-22-11-17-7-3-3	Trip 4086 W-7 SR 4086-90 SR 4093-94
4090 - 4100	4-5-5-1-1-1-5-9-7-7	Circ. 4097 - 1 Hr.
4100 - 10	7-6-7-8-6-5-3-3-5-4	SR 4106-07
4110 - 20	4-5-6-6-5-5-5-5-5-6	
4120 - 30	5-6-5-5-6-5-5-5-6-3	
4130 - 40	1-1- $\frac{1}{2}$ - $\frac{1}{2}$ -1- $\frac{1}{2}$ - $\frac{1}{2}$ -1-1- $\frac{1}{2}$	
4140 - 50	$\frac{1}{2}$ -1-2-4-2-3-3-3-4-3	Circ. 4143 - 1 1/2 Hrs.
4150 - 60	3-2-1-2-2-4-5-9-6-8	Slowed Rotary table 4156

-3- Time Log: Ambassador #1 Johnson.

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
4160 - 4170	8-9-8-6-5-4-5-5-5-9	
4170 - 80	8-7-8-6-5-5-6-5-4-4	
4180 - 90	3-1½-1½-3-3-3-4-6-7-6	Circ. 4188 - 1 Hr.
4190 - 4200	5-6-9-9-8-9-8-8-8-7	
4200 - 10	8-7-8-6-6-6-6-6-5-10	
4210 - 20	8-2-8-9-6-6-5-9-11-11	
4220 - 30	8-9-9-10-9-7-9-10-9-7	
4230 - 40	11-10-7-7-6-9-9-10-8-9	
4240 - 50	8-7-4-4-8-8-12-10-9-7	
4250 - 60	8-9-9-13-9-10-9-8-6-6	
4260 - 70	7-8-9-7-7-7-8-8-9-8	Base Kansas City 4269
4270 - 80	6-7-7-8-7-7-6-9-6-6	
4280 - 90	5-4-4-5-5-6-8-7-11-10	
4290 - 4300	11-8-8-7-7-8-7-6-7-7	Trip 4290 W-7
4300 - 10	7-7-8-8-7-8-6-4-4-3	
4310 - 20	2-4-6-5-7-7-5-5-6-5	
4320 - 30	5-7-7-7-8-8-9-11-6-7	
4330 - 40	10-11-10-7-8-8-11-11-10-10	Pos. top Cherokee 4340
4340 - 50	12-10-12-9-7-7-7-7-4-4	
4350 - 60	3-4-5-5-4-5-4-7-8-9	
4360 - 70	8-8-10-7-11-7-9-10-8-8	
4370 - 80	8-7-8-5-5-7-7-7-6-6	
4380 - 90	6-8-8-9-8-8-6-7-6-7	
4390 - 4400	6-6-5-2-6-5-4-7-10-7	Cherokee Sand 4392-98 Rough 4392-93
4400 - 10	8-6-6-9-8-10-8-8-8-9	Circ. 4410 - 1 Hr.
4410 - 20	9-6-6-5-4-6-4-4-3-3	D.S.T. #1 4383-4410 New W-7 Bit 4410 Top Mississippi 4417 Rough to SR 4417-48
4420 - 30	2-3-3-3-2-2-3-3-4-3	
4430 - 40	3-4-4-3-1-2-2-3-3-3	Circ. 4430 - 2 Hrs.
4440 - 50	2-3-5-5-3-3-5-4-4-6	Circ. 4440 - 1 Hr. Top Kinderhook 4441 Circ. 4450 - 1 1/2 Hrs. D.S.T. #2 4419-4450 New W-7 Bit 4450
4450 - 60	7-4-3-4-4-6-4-6-5-4	
4460 - 70	6-5-4-3-3-5-3-4-4-3	SR 4463-64 Kinderhook Sand 4464-4501
4470 - 80	4-5-5-6-6-5-5-5-5-5	
4480 - 90	6-6-6-3-3-3-2-2-1-3	Circ. 4486 - 2 Hrs. D.S.T. #3 4450-86 New W-7 Bit 4486 SR to R 4487-4508