Manhart-Millison & Beebe #1 Beck
SW NE NW, 24-23S-9W,
Reno County, Kansas
Elevation: 1705 Kelly Bushing
1702 Derrick Floor
1699 Ground

8 5/8" Casing 193
5 1/2" Casing 3903
Comm: 9-6-55
Comp: 10-13-55

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

Depth	Formation Description	Remarks
0 - 150	Sand and clay	Drillers log 0-2900
150 - 192	Red beds	
192 - 315	Red beds and shells	
315 - 30	Anhydrite	Stone corral Electric log
330 - 1305	Shale and shells	
1305 - 65	Shale and limestone	
1365 - 1875	Limestone and shale	
1875 - 2740	Shale and limestone	Top Topeka 2711 Electric Log
2740 - 2840	Limestone and shale	
2840 - 2900	Limestone	
2900 - 21	Limestone, white to light gray, finely crystalline to chalky, fossiliferous, chert white to gray, opaque, fossiliferous. Trace shale green-gray and brown.	Sample Log 2900 T.D.
2921 - 57	Limestone as above, some vugular and pinpoint porosity. Some oolites.	No show.
2957 - 75	Limestone, buff, subcrystalline to finely crystalline chert as above. Some porosity.	Possible trace dead stain.
2975 - 3003	Limestone as above, little or no porosity.	
3003 - 12	Limestone as above, fair porosity	Possible trace stain
3012 - 16	Shale, gray.	
3016 - 37	Limestone gray to tan, sub-crystalline, chert, gray and brown mottled, fossiliferous	
3037 - 44	Shale, soft, black; brown streak	Heebner
3044 - 47	Limestone, blue-gray to dark brown, subcrystalline	Leavenworth
3047 - 55	Shale, gray-green silty, some red brown shale	Snyderville
3055 - 63	Limestone, light tan dense; to brown crystalline	Toronto
3063 - 69	Shale, green-gray silty	Douglas 3063-3214

FORMATION LOG

Depth	Formation Description	Remarks
3069 - 83	Sand green-gray fine angular, micaceous.	
3083 - 86	Shale green-gray	
3086 - 92	Sand as above	
3092 - 95	Shale as above	
3095 - 3128	Sand, light gray, medium, angular, micaceous, porous	No show
3128 - 57	Shale, gray, dark gray, brown, thin streaks sand as above	
3157 - 66	Sand, as above	
3166 - 3214	Shale, as above, possible thin streaks dark brown dense limestone.	
3214 - 24	Limestone, dark gray-brown, dense fossiliferous	Brown Lansing
3224 - 33	Shale, gray, green, some brown. Trace fine gray sand.	
3233 - 36	Limestone as above	
3236 - 43	Shale as above	
3243 - 59	Limestone, gray to black, to tan and black mottled, some nearly black, subcrystalline to finely crystalline. Crinoidal, fossiliferous, black oolites.	Top Lansing
3259 - 75	Limestone tan to brown, finely crystalline fossiliferous	
3275 - 79	Shale, gray	
3279 - 3300	Limestone as above, small oolites, some gray dense, limestone, streaks gray shale	
3300 - 04	Limestone, gray dense, to finely crystalline; chert, gray, opaque, vitreous to nonvitreous. Possible trace pinpoint porosity.	No show
3304 - 16	Limestone gray, subcrystalline, some pinpoint and vugular porosity 3309-13	No show
3316 - 19	Shale gray	
3319 - 25	Limestone, as above	
3325 - 28	Shale gray	
3328 - 42	Limestone, gray to brown, subcrystalline to finely crystalline, very fossiliferous, possibly oolitic, chert gray to dark brown, opaque, vitreous.	

 Formation Log: Manhart-Millison & Beebe, #1 Beck.

Depth	Formation Description	Remarks
3342 - 3351	Limestone as above, good interfossil porosity.	No show
3351 - 62	Limestone gray to brown dense, less fossils, much chert; streaks shale, green, brown and gray. Possible porosity 3358-60.	No show
3362 - 68	Limestone, light brown, very oolitic. Much chert, very dark brown, black, gray and tan fossiliferous. Good porosity 3364-68.	No show
3368 - 3406	Limestone, gray-tan, dense, some chert as above. Some porosity 3376-88	No show
3406 - 09	Limestone as above, increase in chert.	
3409 - 17	Shale, gray-green and brown	
3417 - 20	Limestone as above	
3420 - 24	Limestone, gray to tan, subcrystalline, very oolitic and oolicastic, very good porosity.	No show
3424 - 29	Limestone, brown-gray, dense.	
3429 - 34	Limestone as above, shaly	
3434 - 36	Shale, green and brown	
3436 - 50	Limestone, as above, some oolites or fossils, chert tan subvitreous, figured opaque to blue-gray to brown, vitreous translucent.	
3450 - 54	Shale, green and brown	
3454 - 59	Limestone, as above, possible trace porosity, 3456-58	No show
3459 - 61	Shale black	
3461 - 74	Limestone, tan to gray, subcrystalline, fossiliferous.	
3474 - 78	Limestone, as above, oolitic, fossiliferous. Some vugular and oolicastic porosity.	No show
3478 - 85	Limestone, tan, dense, shaly, trace chert	
3485 - 3503	Limestone, as above, trace of porosity.	No show
3503 - 09	Shale, black soft, trace green and brown shale.	
3509 - 11	Limestone, tan to brown, subcrystalline to dense, some gray earthy limestone, fossils and possible oolites.	

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Depth	Formation Description	Remarks
3511 - 3519	Limestone, as above, very good oolicastic porosity. Chert white to tan, opaque, subvitreous.	No show
3519 - 44	Limestone, gray-brown, dense, trace gray opaque chert, streaks shale, green-gray silty.	
3544 - 51	Streaks limestone as above, and dark gray, soft, silty shale.	
3551 - 76	Limestone, gray to tan dense, some tan finely crystalline, oolitic limestone, chert, tan, gray, blue-gray, translucent to opaque, Vitreous.	
3576 - 78	Shale, black	
3578 - 81	Limestone as above	
3581 - 84	Limestone as above, chert, white to gray to salmon, opaque, sub-vitreous, to devitrified. Some oolites and trace porosity.	Trace of dead brown oil stain.
3584 - 91	Shale, brown	
3591 - 3600	Limestone, tan dense to white subcrystalline, fossiliferous, trace oolites and oolicastic porosity.	No show Base Kansas City 3600
3600 - 11	Shale, gray, soft, very silty, micaceous some red-maroon shale	Top Marmaton
3611 - 19	Limestone, gray to tan, dense, to subcrystalline, fossiliferous, dirty.	
3619 - 33	Shale, red, brown, maroon, gray, green, variegated, some pink-ish gray silty shale.	
3633 - 44	Limestone, resinous brown to tan dense to subcrystalline, some red limestone, some fossils and oolites.	
3644 - 49	Shale as above	
3649 - 62	Limestone as above, some gray-green limestone, possible trace porosity 3652-54.	No show
3662 - 66	Shale as above	
3666 - 78	Limestone, gray dense	
3678 - 87	Limestone, gray to dark gray to brown dense, some silicified limestone, some chert amber to red translucent.	
3687 - 3702	Shale, gray and purple-maroon	

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Depth	Formation Description	Remarks
	variegated.	
3702 - 3706	Chert, tan, brown and red, non-vitreous to jasperoid, some light gray, amber, salmon and brown, vitreous translucent. Trace vitreous oolitic chert.	Conglomerate 3207-38 D.S.T. #1 3693-3722 Good show free oil No odor.
3706 - 10	Shale, gray, brown, and red-brown	
3710 - 20	Chert as above, much white chert, vitreous to devitrified	Good show free oil No odor.
3720 - 23	Shale as above	
3723 - 32	Chert as above	No show
3732 - 38	Shale, maroon, green, gray and brown	
3738 - 81	Chert, white, opaque, figured, vitreous to devitrified. Some flesh and citrine chert.	Mississippi Fair show of free oil No odor D.S.T. #2 3738-70
3781 - 85	Shale, gray, green-gray, olive, trace brown. Trace slightly sandy shale. Some very thin streaks limestone, nodular, tan resinous finely crystalline	Kinderhook 3781-4011
3885 - 95	Limestone, tan to gray, mottled, subcrystalline to dense	
3895 - 3910	Limestone as above, some brown gritty dolomite. Some tan lithographic limestone at bottom.	
3910 - 60	Shale, as above, with considerable sandy shale and some streaks fine gray sand.	
3960 - 90	Shale as above, thin streaks very argillaceous dolomite, dark gray-brown.	
3990 - 4011	Shale as above, with nodules of limestone, very weathered, white to tan medium to coarsely crystalline.	
4011 - 20	Limestone, white to tan to pink, finely to medium crystalline, mottled, dolomitic.	Viola 4011-26
4020 - 26	Dolomite, tan finely sucrose to finely crystalline. Limestone, tan to gray, finely crystalline with included amber sand grains.	
4026 - 33	Shale green to gray-green, waxy slightly sandy.	Simpson 4026-4102

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Depth	Formation Description	Remarks
4033 - 4046	Sand white to gray-blue, medium to coarse, dolomitic subangular to subround	No show
4046 - 48	Shale, green, sandy	
4048 - 50	Sand, dirty, dolomitic	No show
4050 - 57	Shale, green to green-gray, sandy	
4057 - 72	Sand, very shaly	No show
4072 - 86	Shale, gray to green, streaks sand as above	
4086 - 4102	Shale as above with streaks dolomite, buff to red, medium crystalline to finely sucrose, sandy	
4102 - 06	Dolomite, tan to buff, finely sucrose to finely crystalline	Arbuckle 4102 T.D. No show
4106 - 10	Dolomite, as above, oolitic good oolicastic porosity	No show
4110 - 12	Dolomite, tan, subcrystalline to medium crystalline, rhombohedral; chert amber with white oolites.	
4112 - 14	Dolomite as above with streaks light green shale	
4114 - 17	Dolomite as above	
4117 - 21	Dolomite, cream to buff, oolitic, good oolicastic porosity	No show
4121 - 22	Shale, light green	
4122 - 30	Dolomite as above, some oolicastic porosity 4122-25	No show
4130	Total depth - Still in Arbuckle Ran Halliburton Guard Log Set 5 1/2" @ 3903 with 125 sacks posmix cement.	

Drill Stem Tests:

#1 3693-3722 - Conglomerate:
Open one hour - strong blow throughout test
Gas in 2 3/4 minutes - gauges 129,800 C.F./D.
Flowed oily mud in 19 minutes
Flowed clean oil with some water in 45 minutes
Circulated fluid out - two stands below
Circulating subs were as follows:
Top stand - 60' oily water
Bottom stand - 60' clean water
Initial flowing pressure 730 P.S.I.

Drill Stem Tests (cont'd):

Final flowing pressure 1315 P.S.I.
Bottom hole pressure 1345 P.S.I. (20 minutes).

Note: Probably 30% to 50% of the total fluid recovered in this test was actually water.

#2 3736-3770 - Mississippi
Open 1 hour - small blow throughout test
Recovered 65' mud - slightly oil cut at top. No water.
Initial flowing pressure 45 P.S.I.
Final flowing pressure 70 P.S.I.
Bottom hole pressure 730 P.S.I. (20 minutes-still building rapidly).

Completion Data:

Ran Welex Gamma Ray-Collar log - all measurements corrected to guard log.
All perforations are Welex jet shots.
Perforated 28 holes 3761-68 & 28 holes 3747-54. Acidized with 500 gallons mud acid.
Fractured with 1100 pounds sand and 28 barrels fuel oil. Before recovering load the well was making 4 to 5 barrels water per hour.
Let stand over night. Filled up 1600' with salt water.
Squeezed off perforations.

Perforated 28 holes 3723-30. Made 1/2 barrels fluid per hour.
About 50% oil.
Acidized with 500 gallon mud acid.
Swabbed and flowed 12 to 13 barrels fluid per hour.
About 75% to 80% water.
Squeezed off perforations with 50 sacks cement.

Perforated 32 holes 3711-15
Swabbed 27 barrels net fluid. 25% to 30% water.
Shut in over night. Filled up 900' of fluid - 250' to 300' water, rest oil.
Put well on pump 10-13-55
Producing interval 3711-15.

Samples examined and log compiled by

JOHNS & MAGATHAN.

WENDELL S. JOHNS

TIME LOG

Manhart-Millison & Beebe, #1 Beck,
SW NE NW, 24-23S-9W,
Reno County, Kansas
Elevation: 1702 Derrick Floor
1705 Kelly Bushing

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

Depth	Time	Remarks
2900 - 2910	6-5-4-5-4-4-5-6-5-5	
2910 - 20	6-6-4-5-3-3-4-4-6-4	
2920 - 30	4-2-2-2-3-1-2-2-4-3	
2930 - 40	2-4-4-4-6-8-2-3-2-2	
2940 - 50	2-2-2-2-2-2-2-1-3-2	
2950 - 60	2-2-3-4-3-4-3-4-6-5	
2960 - 70	4-4-6-5-5-4-4-4-4-3	
2970 - 80	3-3-3-3-3-5-7-7-7-7	
2980 - 90	6-6-6-5-3-6-6-7-6-3	
2990 - 3000	4-7-6-5-5-6-7-6-7-7	
3000 - 10	6-6-4-2-3-2-3-3-3-4	
3010 - 20	6-8-7-14-6-11-10-12-14-14	
3020 - 30	15-17-16-4-4-4-4-3-4-5	Trip 3023 OSQ
3030 - 40	3-4-5-4-5-5-5-4-3-2	Top Heebner 3037
3040 - 50	1-1-1-2-5-5-4-3-3-3	
3050 - 60	3-3-3-3-3-5-3-4-3-3	
3060 - 70	4-4-6-4-4-3-3-3-2-2	
3070 - 80	2-2-2-1-1-½-½-1-2-2	
3080 - 90	3-2-1-½-1½-1-1-1-1-1	
3090 - 3100	1-1-1-1-1-1-1-1-2-1	
3100 - 10	2-2-1-2-2-2-1-1-1-1	
3110 - 20	1-1-1-1-1-1-1-2-1-2	
3120 - 30	2-2-2-1-2-1-2-2-5-5	
3130 - 40	5-3-4-4-4-4-3-5-4-3	
3140 - 50	4-3-4-4-4-3-4-4-4-5	
3150 - 60	5-4-4-4-4-4-4-3-3-4	
3160 - 70	3-4-8-6-5-6-4-6-5-5	
3170 - 80	4-4-4-4-4-5-4-4-5-4	
3180 - 90	4-5-4-5-4-4-5-4-4-4	
3190 - 3200	4-4-4-4-5-4-5-5-5-4	
3200 - 3210	4-5-5-4-5-4-4-5-5-5	
3210 - 20	4-5-4-5-8-6-6-7-6-7	Top Brown Lansing 3214
3220 - 30	8-7-8-6-5-5-6-6-5-5	
3230 - 40	6-5-6-6-6-8-7-7-8-7	
3240 - 50	6-5-5-6-9-7-8-8-7-7	Top Lansing 3243
3250 - 60	9-8-9-8-7-10-7-7-6-8	
3260 - 70	8-7-8-8-9-8-6-7-9-9	

Time Log: Manhart-Millison & Beebe, #1 Beck

Depth	Time	Remarks
3270 - 3280	8-6-9-8-8-6-7-8-6-9	
3280 - 90	9-10-8-8-9-9-7-8-8-9	
3290 - 3300	7-7-8-9-9-10-10-11-9-7	
3300 - 10	8-6-4-7-9-9-10-10-9-7	
3310 - 20	8-7-8-8-12-10-10-10-10-12	
3320 - 30	13-12-11-11-13-8-10-5-6-7	SR 3325-26 - Trip 3327 W7
3330 - 40	8-8-5-7-7-9-7-8-7-9	
3340 - 50	8-7-6-6-4-2-2-5-5-5	Circ. 3348 1 1/2 Hrs.
3350 - 60	6-9-9-12-11-10-9-8-6-5	
3360 - 70	7-10-7-8-4-2-2-2-4-4	Circ. 3370 1 1/4 Hrs.
3370 - 80	6-6-5-5-5-6-5-5-5-4	
3380 - 90	3-4-3-5-5-4-5-4-6-4	SR 3382-83
3390 - 3400	4-4-5-5-4-6-6-6-6-6	
3400 - 10	9-8-11-11-12-13-12-10-11-10	
3410 - 20	8-7-7-6-6-4-4-6-9-10	
3420 - 30	3-1-3-3-10-12-14-11-10-12	Circ. 3425 1 1/4 Hrs.
3430 - 40	10-11-10-11-5-5-10-11-11-12	SR 3435-36
3440 - 50	10-11-10-13-9-11-12-11-13-14	
3450 - 60	13-10-13-9-9-12-7-7-8-9	
3460 - 70	6-9-9-8-9-9-12-13-11-8	Trip 3468 W7
3470 - 80	9-7-8-8-6-5-6-4-6-6	
3480 - 90	6-7-8-7-7-9-7-7-7-8	
3490 - 3500	8-8-9-7-7-6-6-7-7-7	
3500 - 10	8-9-8-6-3-3-4-4-4-6	Circ. 3510 1 Hr.
3510 - 20	9-1-½-½-½-1½-1-½-1½-6	Circ. 3520 1 1/2 Hrs.
3520 - 30	9-9-8-9-9-9-9-8-8-9	
3530 - 40	9-9-9-11-11-10-9-9-11-10	
3540 - 50	9-9-9-10-6-8-8-7-7-7	
3550 - 60	7-9-10-11-11-12-11-12-12-13	
3560 - 70	12-13-13-13-12-11-13-12-12-12	Lost Circ. 3560-65
3570 - 80	13-12-12-12-12-11-5-7-9-11	
3580 - 90	11-12-10-10-8-7-7-6-9-10	
3590 - 3600	8-9-11-11-12-13-7-6-5-6	Trip 3596 OSQ
3600 - 10	5-3-6-3-4-4-3-4-4-5	Base Kansas City 3600
3610 - 20	4-6-6-8-6-5-6-6-6-6	
3620 - 30	5-6-4-4-4-3-4-4-7-2	
3630 - 40	2-2-3-4-3-4-5-7-5-6	
3640 - 50	5-6-6-5-6-5-6-6-5-7	
3650 - 60	6-6-7-7-6-7-8-7-6-6	
3660 - 70	7-7-6-5-4-5-6-4-6-7	Circ. 3670 1 Hr.
3670 - 80	7-7-9-7-8-8-8-8-11-11	
3680 - 90	9-11-10-10-10-10-10-10-9-8	
3690 - 3700	8-10-10-9-9-8-8-10-10-15	
3700 - 10	15-15-8-3-4-5-14-11-6-4	Top Conglomerate 3702 Circ. 3707 1 Hr. Trip 3707 W7R Rough 3709-10
3710 - 20	1-2-2-1-3-2-1-1-1-1	Rough 3711-13 & 3715-19

Depth	Time	Remarks
3720 - 3730	6-9-7-3-2-1-1-2-1-2	Circ. 3722 1 Hr. D.S.T. #1 3693-3722 New W7 @ 3722 Rough 3724-25 3727-28 3729-31
3730 - 40	1-3-8-7-5-8-6-6-5-3	Top Mississippi 3738 SR 3738-39 Circ. 3740 1Hr.
3740 - 50	4-3-3-3-2-2-2-2-2-3	Rough 3741-44
3750 - 60	3-2-2-2-3-3-3-3-3-4	
3760 - 70	3-2-2-2-2-2-2-2-3-4	Circ. 3770 1 Hr. D.S.T. #2 3736-70 New W7 @ 3770
3770 - 80	2-2-2-1-3-2-3-3-2-2	
3780 - 90	5-9-6-6-8-7-8-10-9-8	Top Kinderhook 3781 SR 3781-82
3790 - 3800	5-6-7-6-8-8-7-7-6-7	
3800 - 10	10-8-8-7-6-7-8-7-6-7	
3810 - 20	7-6-8-6-5-6-6-6-9-7	
3820 - 30	9-6-8-7-8-7-9-9-7-7	
3830 - 40	8-9-7-7-6-7-6-7-7-7	
3840 - 50	7-7-7-8-6-7-7-7-5-7	
3850 - 60	6-6-8-7-7-8-6-7-8-7	
3860 - 70	7-7-8-7-8-8-8-7-7-7	
3870 - 80	7-6-7-8-8-7-7-7-7-7	
3880 - 90	7-7-7-6-8-13-10-10-9-10	
3890 - 3900	11-11-11-12-14-13-11-11-11-14	
3900 - 10	14-16-16-16-18-13-12-9-9-14	Trip 3905 W7
3910 - 20	5-6-3-3-5-6-5-6-6-5	
3920 - 30	5-5-5-5-5-5-5-5-5-6	
3930 - 40	5-5-5-5-4-5-4-5-4-5	Circ. 3938 1 1/2 Hrs.
3940 - 50	5-6-5-5-5-6-5-5-6-5	
3950 - 60	5-6-6-6-5-5-5-5-4-5	
3960 - 70	5-5-5-5-5-5-5-5-5-5	
3970 - 80	5-6-6-5-5-5-5-5-5-5	
3980 - 90	5-5-5-5-5-5-6-6-6-6	
3990 - 4000	5-5-5-5-5-5-5-5-6-5	
4000 - 10	5-5-4-5-5-5-5-5-6-6	
4010 - 20	7-13-9-9-8-10-11-10-10-10	Top Viola 4011
4020 - 30	11-11-9-12-10-11-10-9-9-9	Circ. 4025 1 1/4 Hrs. Top Simpson 4026
4030 - 40	8-8-8-7-5-5-5-4-5-5	
4040 - 50	5-4-5-5-6-6-6-5-6-7	Circ. 4050 1 Hr.
4050 - 60	6-8-11-15-18-7-8-7-7-7	Trip 4055 OSQ
4060 - 70	5-7-7-5-7-7-5-6-6-5	
4070 - 80	6-7-9-6-7-7-6-7-8-7	
4080 - 90	7-7-7-8-7-8-7-7-6-10	
4090 - 4100	8-8-6-6-7-7-10-10-8-5	

-4- Time Log: Manhart-Millison & Beebe, #1 Beck

Depth	Time	Remarks
4100 - 4110	7-3-6-8-7-7-5-8-5-6	Top Arbuckle 4102 Circ. 4105 1 Hr. SR 4106-07 4109-10
4110 - 20	8-10-11-9-9-9-10-9-9-8	
4120 - 30	8-1-6-7-7-8-10-5-5-6	Circ. 4125 1 1/2 Hrs. T.D. 4130 Circ. 4130 1 1/2 Hrs. Ran Halliburton guard log Set 5 1/2" Casing

Time Log condensed by Johns & Magathan