

Computer Inventoried

WENDELL S. JOHNS

FORMATION LOG

Bedell-Catt and Johnston #1 Fluke
NW NW SW; 11-24S-1E
Harvey County, Kansas
Elevation: 1462 kelly bushing

8 5/8" surface casing: 210
Comm: 7-12-57
Comp: 7-26-57

NOTE: All measurements are from the top of the kelly bushing

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
0 - 210	Surface hole	Drillers log 0 - 1625
210 - 218	Limestone	
218 - 1625	Shale and limestone	
1625 - 26	Shale, gray	Sample log 1625 to total depth
1626 - 34	Limestone, tan to gray, flaggy, fossiliferous	
1634 - 40	Shale, gray	
1640 - 49	Limestone, dirty gray, sub-crystalline	
1649 - 65	Shale, gray; trace siltstone	
1665 - 82	Sand, gray, medium, angular, micaceous, calcareous; some sandy limestone.	
1682 - 1706	Shale, gray	
1706 - 12	Limestone, gray to brown, finely crystalline to dense, resinous	
1712 - 23	Shale, gray	
1723 - 28	Limestone, as above	
1728 - 35	Shale, as above; streaks limestone	
1735 - 45	Limestone, as above, more fossiliferous; some white devitrified fossiliferous chert	
1745 - 65	Shale, gray; streaks brown finely crystalline fossiliferous limestone	
1765 - 75	Limestone, as above, more fossiliferous	
1775 - 87	Shale, gray; some gray, submedium, angular, micaceous sand toward bottom	
1787 - 1800	Limestone, tan to gray-tan, dense to subcrystalline, fossiliferous	
1800 - 04	Shale, gray	
1804 - 10	Limestone, as above; trace chert	
1810 - 42	Mostly shale, gray; streaks limestone as above	
1842 - 55	Limestone, gray, finely crystalline to sucrose, some sandy	
1855 - 71	Shale, gray	
1871 - 91	Limestone, tan to brown, finely crystalline to dense, fossiliferous; porous 1881-87.	No show
1891 - 1902	Mostly shale, gray; some limestone, as above, shaly	

-2- Formation Log; Bedell-Catt and Johnston #1 Fluke

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
1902 - 69	Limestone, sucrose to dense, tan, fossiliferous, some oolitic; streaks porosity 1928-32, 1936-51 and 1960-69; some gray and tan fossiliferous chert.	No shows
1969 - 72	Shale, gray-green and brown	
1972 - 84	Sand, gray, medium, angular, micaceous, tight, shaly	No show
1984 - 2040	Shale, as above	
2040 - 72	Limestone, brown, tan and buff, sucrose to dense; trace white, opaque chert	
2072 - 80	Shale, black	Heebner
2080 - 83	Limestone, brown to tan, as above	Leavenworth
2083 - 96	Shale, gray	Snyderville
2096 - 2108	Limestone, white, finely crystalline, chalky	Toronto
2108 - 21	Shale, gray; some sand, fine, gray, micaceous, shaly	Top Douglas 2108
2121 - 33	Limestone, tan, finely crystalline, some fossiliferous limestone	
2133 - 80	Shale, as above; few streaks fine gray silty sand	
2180 - 92	Sand, as above, shaly	
2192 - 2273	Shale, gray, some maroon	
2273 - 87	Limestone, brown to white, crystalline to chalky, fossiliferous, oolitic, porous	Probably Haskell, no show
2287 - 2330	Shale, as above	
2330 - 42	Limestone, gray to brown, subcrystalline to dense, some resinous, few fossils	Top Lansing 2330
2342 - 45	Shale, gray to black	
2345 - 65	Limestone, tan, subcrystalline, oolitic, fossiliferous; trace devitrified chert; porous 2355-65	No show
2365 - 70	Shale, gray	
2370 - 78	Limestone, gray to light brown, sucrose to dense	
2378 - 85	Limestone, buff, sucrose, porous	No show
2385 - 89	Limestone, light gray dense to sub crystalline	
2389 - 94	Limestone, buff to tan, sucrose to subcrystalline, porous	No show
2394 - 10	Limestone, tan to buff, subcrystalline to dense; chert, gray, opaque	
2410 - 12	Shale, gray	
2412 - 22	Limestone, gray to tan, dense, increase in chert	

-3- Formation Log; Bedell-Catt & Johnston #1 Fluke

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
2422 - 24	Shale, gray	
2424 - 29	Limestone, as above	
2429 - 42	Limestone, tan, fossiliferous, oolitic, oolitic, considerable chert; porous 2429-35	No show
2442 - 44	Shale, gray-green and brown	
2444 - 79	Limestone, gray, sub-crystalline to dense; some porosity 2448-56 and 2473-79	No shows
2479 - 88	Limestone, tan to gray, subcrystalline to dense; chert, light gray, opaque	
2488 - 94	Shale, as above	
2494 - 2544	Limestone, as above; much light gray opaque chert, some porosity 2497-2506, possibly some porosity 2523 - 43; streak shale 2529-32	No show
2544 - 51	Shale, as above; some black shale toward bottom	
2551 - 79	Limestone, tan to brown, dense, some brown and black fossiliferous, some tan, fossiliferous, porous 2556-71	No show
2579 - 89	Shale, black and gray	
2589 - 2612	Limestone, buff to gray to white, finely crystalline to subcrystalline, fossiliferous, some porosity 2592-97 and 2603-09	No show
2612 - 20	Shale, gray and green	
2620 - 28	Limestone, dark gray, subcrystalline	
2628 - 30	Shale, black	
2630 - 37	Limestone, dark brown to dark gray, dense; chert, dark gray, opaque	
2637 - 38	Shale dark gray	
2638 - 54	Limestone, buff, crystalline to sucrose, fossiliferous porous; chert, tan, opaque, some devitrified.	No show
2654 - 62	Limestone, tan, subcrystalline to dense	
2662 - 68	Shale, black to gray	
2668 - 84	Limestone, gray tan, very oolitic and oolitic, good porosity, poor permeability 2670-84	Fair oder, slight show free oil; DST #1
2684 - 96	Limestone, as above, non-porous; chert, light gray, vitreous, opaque	
2696 - 2701	Shale, black	
2701 - 23	Limestone, tan to gray to brown, crystalline to chalky, some fossiliferous and oolitic; trace gray, opaque chert; some vugular porosity 2710-17	No show; Base Kansas City 2723

-4- Formation Log; Bedell-Catt and Johnston #1 Fluke

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
2723 - 33	Shale, gray	
2733 - 39	Limestone, as above	
2739 - 47	Shale, gray	
2747 - 55	Limestone, as above, shaly	
2755 - 96	Shale, gray; streaks brown fossiliferous limestone.	
2796 - 2805	Limestone, white to dark brown, chalky to dense	
2805 - 26	Mostly shale, gray; streaks green dense limestone	
2826 - 46	Limestone, tan to brown, dense, shaly; shale, brown to gray	
2846 - 53	Shale, as above	
2853 - 59	Limestone, tan to brown, dense, shaly	
2859 - 68	Shale, as above	
2868 - 89	Limestone, dark brown, resinous, shaly	
2889 - 2906	Shale, gray to brown	
2906 - 12	Limestone, dark brown, dense	
2912 - 19	Shale, gray	
2919 - 24	Limestone, gray to brown, dense to subcrystalline, fossiliferous and oolitic	
2924 - 32	Shale, as above	
2932 - 43	Limestone, brown, dense shaly	
2943 - 64	Shale, green-gray, maroon, variegated	
2964 - 73	Sand, coarse to submedium, angular, shaly, green; some fine green siltstone with coarse sand grains; some varicolored sandy shale	Burgess
2973 - 78	Shale, gray-green, varicolored; possible trace sand	
2978 - 85	Chert, red, yellow, flesh, tan and white, opaque to translucent, vitreous; some white, porous, fossiliferous silicified limestone	Top Mississippi; no show DST #2 and 2A
2985 - 86	Shale, gray	
2986 - 88	Trace tan fossiliferous limestone; dolomite, gray, finely sucrose	No show; DST #2 and 2A
2988 - 3008	Dolomite, tan to gray, finely sucrose, a few glauconite specks; trace chert	No show; DST #2 and 2A covered top 7'
3008 - 33	Limestone, gray to red to yellow, crystalline; chert, gray, gray and black, flesh and red fossiliferous and spicular	
3033 - 65	Limestone, as above; increase in chert	No show
3065 - 3118	Limestone, white, chalky, partly silicified, much pure tripoli, some buff sucrose dolomite toward bottom	

-5- Formation Log; Bedell-Catt and Johnston #1 Fluke

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3118 - 22	Shale, gray	
3122 - 53	Limestone, gray and tan, crystalline to finely crystalline, fossiliferous; chert, blue-gray, opaque, subvitreous, fossiliferous, spicular	
3153 - 73	Dolomite, gray to tan, sucrose; much chert, white to gray opaque, vitreous to devitrified	
3173 - 76	Shale, gray	
3176 - 3252	Limestone, white to tan, finely crystalline, some chalky; chert, white to blue-white, opaque, vitreous to devitrified; trace tan sucrose dolomite	
3252 - 59	Limestone tan to brown, finely crystalline to dense; increase in brown sucrose dolomite; chert, as above	
3259 - 80	Limestone, tan to brown, as above; chert, as above; some fossils in limestone	
3280 - 3376	Shale, gray to green-gray, finely micaceous; some pyrite; some dark gray to black shale; trace gray silty micaceous sand	Kinderhook
3376 - 82	Sand, brown to gray, poorly sorted, rounded, glassy, pyritic; some dark gray sandy dolomite and dolomitic sand	Misener; no show
3382 - 94	Dolomite, light cream to tan, dense to sucrose; chert, white, opaque, vitreous to devitrified	Top Hunton 3382
3394 - 3415	Dolomite, tan, more coarsely crystalline, sucrose, fair porosity; chert, as above	No show
3415 - 26	Dolomite, gray-tan, dense; less chert	
3426 - 62	Shale, gray-green, dolomitic, pyritic; few streaks dirty green-gray shaly dolomite	Maquoketa
3462 - 82	Dolomite, tan, coarsely crystalline, white to gray crystalline, rhombohedral, vuggy; some brown, medium crystalline, rhombohedral vuggy dolomite	Viola, no show
3482 - 96	Dolomite, dark, resinous brown to black, finely crystalline, sandy; some coarse rounded, white to brown dolomitic sand	Top Simpson 3482; no show

-6- Formation Log; Bedell-Catt and Johnston #1 Fluke

<u>Depth</u>	<u>Formation Description</u>	<u>Remarks</u>
3496 - 3504	Dolomite, gray to tan, finely crystalline, sandy	No show
3504 - 22	Sand, coarse, rounded to subrounded, dolomitic, brown to white; streak sandy green shale 3513-16	Very slight stain, no odor or free oil; DST #3
3522 - 28	Shale, as above	
3528 - 35	Sand, white, coarse, poorly sorted, angular to rounded, glassy, shaly	No show
3535 - 64	Mostly shale, bright green; streaks white sand, as above	
3564 - 74	Dolomite, gray to brown, crystalline, hard, tight	Top Arbuckle
3574 - 3600	Dolomite, tan, coarsely crystalline, rhombohedral with fair vugular porosity; some white to tan, crystalline to finely sucrose sandy dolomite, porous, some white to blue-white vitreous translucent chert	No shows
3600	Total Depth	

DRILL STEM TEST DATA: The following drill stem tests were run on the #1 Fluke. All tests were taken using Miller-Donelson tools.

Kansas City:

- (1) DST 2658-80; single packer test, open 1 hour slight blow for 10 min., intermittent blow for 10 more minutes - flushed tool at end 30 minutes, again had weak blow 8 min. Recovered 33' very slightly oil cut mud, no gas or water
Initial Closed In Pressure: 921 p.s.i. (30 min)
Initial Flow Pressure: 0
Final Flow Pressure: 0
Final Closed In Pressure: 336 p.s.i. (30 min. still bldg.)

Mississippi and Burgess:

- (2A) DST 2963-95 - tool plugged shortly after taking initial closed in pressure
Initial Closed In Pressure: 950 p.s.i. (30 min)

-7- Formation Log; Bedell-Catt and Johnston #1 Fluke

(Drill Stem Test Data cont'd)

- (2) DST 2958-95; dual packer test
open 30 min - strong blow throughout
Recovered 1050' mud, muddy salt water and clean salt water
Initial Flow Pressure: 230 p.s.i.
Final Flow Pressure: 520 p.s.i.
Closed In Pressure: 800 p.s.i. (30 min)

SIMPSON:

- (3) DST 3502-29; dual packer test
open 30 minutes - good blow throughout
Recovered 1900' slightly muddy salt water
Initial Closed In Pressure: 1320 p.s.i. (30 min)
Initial Flow Pressure: 223 p.s.i.
Final Flow Pressure: 905 p.s.i.
Final Closed In Pressure: 1270 p.s.i. (30 min)
D & A 7-26-57

Samples examined and log compiled by Wendell S. Johns.

WENDILL S. JOHNS

TIME LOG

Bedell-Catt Drilling Co. & Geo. Johnston #1 Fluke
 NW NW SW; 11-24S-1E
 Harvey County, Kansas
 Elevation: 1462 Kelly Bushing
 1460 Derrick Floor

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

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
1620 - 1630	2-2-3-3-3-3	
1630 - 40	2-3-2-3-3-3-2-3-3-2	
1640 - 50	3-2-2-3-3-3-3-3-2	
1650 - 60	2-1-2-3-2-2-3-2-2-3	
1660 - 70	2-3-2-2-3-2-2-2-3-2	
1670 - 80	2-3-2-2-2-2-3-2-3-3	
1680 - 90	2-3-2-3-2-3-3-3-3-4	
1690 - 1700	4-4-4-4-4-4-4-3-5-5	
1700 - 10	3-3-3-4-3-3-1-1-2-1	Trip 1706 OSC
1710 - 20	2-1-2-2-2-2-1-2-1-2	
1720 - 30	2-2-2-3-3-3-3-5-3-3	
1730 - 40	2-3-3-2-3-2-2-2-2-1	
1740 - 50	2-1-1-2-1-2-2-2-2-2	
1750 - 60	2-3-2-2-2-2-2-2-3-2	
1760 - 70	1-2-2-1-2-1-1-1-2-2	
1770 - 80	1-2-1-1-1-2-2-1-2-2	
1780 - 90	3-3-2-1-2-2-1-3-3-2	
1790 - 1800	3-3-3-2-3-4-3-3-3-3	
1800 - 10	3-3-3-3-4-4-4-4-4-3	
1810 - 20	2-2-3-3-3-2-3-3-3-5	
1820 - 30	3-2-2-2-3-3-4-3-3-2	
1830 - 40	2-4-3-3-3-2-2-3-4-3	SR 1831-32
1840 - 50	2-3-2-2-3-2-1-2-1-2	
1850 - 60	2-1-1½-1½-2-2-1-2-2-1	
1860 - 70	2-1-2-2-2-1-2-2-2-2	
1870 - 80	2-5-8-4-5-6-7-6-7-5	
1880 - 90	5-7-3-4-5-4-5-6-6-4	
1890 - 1900	6-4-3-3-2-2-5-5-4-5	
1900 - 10	4-3-4-4-4-5-7-4-4-4	
1910 - 20	4-4-4-4-5-5-5-5-4-4	
1920 - 30	5-4-5-5-4-5-4-4-3-2	
1930 - 40	3-3-4-4-4-3-3-2-2-1½	
1940 - 50	1-1½-2-2-2-2-2-2-3-2	
1950 - 60	2-3-3-3-3-3-4-5-3	
1960 - 70	3-3-4-3-4-3-3-3-3-4	
1970 - 80	4-5-3-3-2-3-3-3-2-1	
1980 - 90	3-2-3-2-3-3-3-3-3-3	
1990 - 2000	3-4-4-5-3-3-4-4-4-4	

-2- Time log; Bedell-Catt Drilling Co. & Geo. Johnston #1 Fluke

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
2000 - 10	3-3-4-4-3-4-4-4-4-5	
2010 - 20	4-3-4-3-4-4-3-4-4-3	
2020 - 30	4-4-4-4-4-4-4-4-3-4	
2030 - 40	4-4-4-4-4-4-5-4-4-4	
2040 - 50	3-4-4-3-6-6-5-4-4-3	
2050 - 60	3-4-4-4-3-4-4-5-4-5	
2060 - 70	6-7-5-3-2-2-3-5-5-4	
2070 - 80	5-6-4-4-4-4-2-2-3-2	
2080 - 90	7-9-6-3-3-2-2-3-4-3	
2090 - 2100	3-5-4-3-3-4-3-3-3-3	
2100 - 10	4-6-6-5-6-4-4-5-4-3	
2110 - 20	3-3-3-2-2-3-2-3-3-3	
2120 - 30	3-4-5-5-3-2-3-3-3-4	
2130 - 40	6-5-4-3-2-2-2-2-3-2	
2140 - 50	2-3-2-2-3-2-2-3-2-3	
2150 - 60	2-3-2-2-3-3-3-2-3-3	
2160 - 70	3-4-3-2-3-3-3-2-3-4	
2170 - 80	3-3-4-3-3-3-4-3-3-3	
2180 - 90	3-3-3-3-4-3-4-3-3-3	
2190 - 2200	3-3-5-3-3-4-4-3-3-3	
2200 - 10	4-3-3-3-3-3-3-3-3-2	
2210 - 20	3-3-3-3-3-3-3-4-3-3	
2220 - 30	4-3-3-3-4-3-3-3-3-3	
2230 - 40	2-2-2-2-2-3-2-2-3-3	Trip 2229 OWV
2240 - 50	2-3-3-3-2-2-2-3-2-2	
2250 - 60	2-3-2-2-2-2-3-2-3-2	
2260 - 70	2-2-2-2-2-2-2-2-2-1	
2270 - 80	2-2-2-3-5-4-5-4-3-3	
2280 - 90	3-2-2-2-2-2-4-3-3-3	
2290 - 2300	3-2-2-3-3-2-2-2-3-2	
2300 - 10	2-3-2-3-2-3-2-2-2-2	
2310 - 20	2-2-3-2-2-3-3-3-2-2	
2320 - 30	2-2-3-1-2-2-2-1-2-3	
2330 - 40	4-5-4-4-4-4-2-2-1-2	Top Lansing 2330
2340 - 50	2-4-3-4-4-6-5-4-5-5	
2350 - 60	4-3-6-4-5-6-5-6-5-4	
2360 - 70	5-5-5-4-4-3-4-5-5-5	
2370 - 80	7-7-8-7-7-6-7-7-5-2	
2380 - 90	2-2-2-4-5-6-6-7-7-5	
2390 - 2400	5-3-4-6-7-9-5-5-5-4	
2400 - 10	5-4-5-7-5-6-6-6-7-6	
2410 - 20	6-6-4-4-5-3-4-3-3-2	
2420 - 30	2-3-4-5-6-6-6-5-6-3	
2430 - 40	2-2-3-3-3-4-4-3-4-5	
2340 - 50	6-4-4-4-6-5-7-9-3-3	

-3- Time log; Bedell-Catt Drilling Co. & Geo. Johnston #1 Fluke

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
2450 - 60	4-4-3-5-6-6-6-7-7-7	
2460 - 70	8-9-7-8-7-5-8-10-9-8	
2470 - 80	7-6-6-4-2-5-3-3-3-4	
2480 - 90	8-8-8-8-8-7-8-8-9-10	Trip 2490 OWV
2490 - 2500	5-7-4-5-4-5-4-5-6-6	
2500 - 10	5-6-5-6-6-6-7-5-7-6	
2510 - 20	5-6-5-3-7-6-6-6-7-6	
2520 - 30	6-7-7-6-5-6-5-8-6-6	
2530 - 40	7-7-6-6-5-7-6-5-6-4	
2540 - 50	5-5-5-8-5-5-3-4-3-2½	
2550 - 60	2½-5-5-6-5-6-4-4-4-4	
2560 - 70	3-5-3-4-3-3-4-3-4-4	
2570 - 80	4-5-4-5-4-6-5-6-7-4	
2580 - 90	4-3-3-4-3-3-3-3-3-4	
2590 - 2600	5-5-4-4-3-4-4-5-6-6	SR 2592-93
2600 - 10	7-7-8-5-7-5-7-7-5-6	
2610 - 20	7-8-9-9-7-6-7-6-5-4	
2620 - 30	9-9-9-10-10-8-7-7-4-4	
2630 - 40	9-10-8-7-8-6-7-4-2-2	
2640 - 50	4-2-2-3-1-1-½-1½-3-1	
2650 - 60	2-2-2-2-5-9-9-12-9-8	R 2651-52; Circ. 2655, ½ hr.
2660 - 70	10-10-6-6-3-2-4-3-6-9	
2670 - 80	7-2-2-2-2-2-1-2-6-6	R 2674-75
2680 - 90	2-3-2-3-4-4-5-5-5-3	Circ. 2680 ½ hr; DST 2658-80; New OWV 2680
2690 - 2700	3-4-4-4-4-7-3-4-3-2	
2700 - 10	1-5-5-4-5-5-5-3-5-5	
2710 - 20	3-4-5-3-5-5-4-6-5-6	
2720 - 30	5-4-4-4-5-5-4-4-4-3	Base Kansas City 2721
2730 - 40	4-3-4-4-6-8-6-6-6-6	
2740 - 50	7-6-6-7-6-6-6-6-5-6	
2750 - 60	6-5-6-7-7-6-7-6-7-7	
2760 - 70	7-5-5-5-4-4-3-3-2-3	
2770 - 80	6-7-6-7-5-4-4-6-7-7	SR 2774-75
2780 - 90	7-6-5-6-6-5-5-6-5-4	
2790 - 2800	5-3-4-4-4-4-5-6-6-6	
2800 - 10	6-5-6-5-7-6-6-6-5-5	
2810 - 20	5-4-2-2-3-6-4-5-6-7	
2820 - 30	7-7-5-4-5-7-10-10-9-10	
2830 - 40	8-6-7-8-7-7-8-8-8-10	
2840 - 50	6-7-9-8-7-8-7-6-7-3	
2850 - 60	5-4-5-6-7-8-7-8-8-4	
2860 - 70	4-3-2-4-5-5-5-5-7-6	
2870 - 80	9-6-6-7-4-5-6-6-6-6	
2880 - 90	6-7-8-7-7-6-6-6-9-6	
2890 - 2900	7-6-8-6-5-5-5-8-4-5	

-4- Time log; Bedell-Catt Drilling Co. & Geo. Johnston #1 Fluke

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
2900 - 10	4-6-7-9-5-6-7-7-5-8	Trip 2904 W7 SR 2908-09
2910 - 20	7-10-7-7-6-6-6-5-6-8	
2920 - 30	9-8-7-7-5-7-5-4-6-5	
2930 - 40	5-4-5-7-7-7-8-7-8-8	
2940 - 50	8-9-9-7-7-7-4-4-3-3	
2950 - 60	4-5-7-6-4-3-7-7-5-5	
2960 - 70	6-6-9-9-6-3-3-1-1-1	R 2963-64 Top Conglomerate or Burgess 2964
2970 - 80	2-3-3-5-5-7-7-5-1-2	Circ. 2972 $\frac{1}{2}$ hr; SR 2973-74 Top Mississippi 2978; R 2978-79
2980 - 90	2-1-4-2-5-3-4-4-2-3	R 2980-83; Circ. 2983 $\frac{1}{2}$ hr
2990 - 3000	2-1-1-2-2-2-3-3-3-4	Circ. 2995 $\frac{1}{2}$ hr; DST 2958-95 New W7R at 2995; SR 2999-3000
3000 - 10	4-4-3-3-3-3-2-2-5-8	
3010 - 20	10-7-7-7-8-9-8-9-8-7	
3020 - 30	8-8-9-8-8-9-7-9-11-13	
3030 - 40	10-11-11-5-2-4-5-9-9-3	SR 3033-34; SR 3035-36 R 3039-40
3040 - 50	7-7-8-10-18-10-10-10-8-9	
3050 - 60	10-10-2-4-5-8-8-9-10-10	Trip 3052 W7R
3060 - 70	10-13-11-10-12-5-6-2-6-4	R 3067-68
3070 - 80	5-4-3-3-4-3-4-5-4-5	
3080 - 90	4-2-2-1-2-3-4-2-3-3	
3090 - 3100	2-5-5-5-3-3-4-3-2-1 $\frac{1}{2}$	
3100 - 10	2 $\frac{1}{2}$ -2-4 $\frac{1}{2}$ -5 $\frac{1}{2}$ -6-7-6-6-6-4	
3110 - 20	6-8-8-7-5-5-4-3-2-3	
3120 - 30	3-3-7-8-5-8-8-8-9-9	
3130 - 40	8-8-7-9-7-5-6-8-5-7	
3140 - 50	6-7-6-7-8-8-8-8-6-4	
3150 - 60	2-3-6-7-8-5-7-8-7-9	SR 3157-59
3160 - 70	9-11-7-7-8-11-13-8-8-8	SR 3164-65
3170 - 80	9-10-11-9-8-7-10-8-7-8	
3180 - 90	8-14-12-10-13-13-12-13-12-10	
3190 - 3200	12-14-10-9-12-10-10-12-13-14	Trip 3192 W7R
3200 - 10	13-13-18-14-13-3-7-8-6-5	Trip 3205 W7R
3210 - 20	4-6-5-10-11-11-9-9-10-7	Trip 3245 W7R
3220 - 30	9-8-12-12-9-11-9-11-11-12	
3230 - 40	13-11-12-12-12-12-12-15-13-10	
3240 - 50	10-13-13-15-16-6-9-11-11-11	
3250 - 60	13-13-12-12-12-12-12-14-16-12	
3260 - 70	14-16-15-15-14-15-16-15-13-13	
3270 - 80	12-12-11-12-13-10-12-10-10-11	
3280 - 90	12-10-10-12-12-12-12-14-5-5	Top Kinderhook 3280 Trip 3288 W7

-5- Time log; Bedell-Catt Drilling Co. & Geo. Johnston #1 Fluke

<u>Depth</u>	<u>Time</u>	<u>Remarks</u>
3290 - 3300	5-6-7-6-7-7-7-8-6	
3300 - 10	7-7-5-5-5-6-6-5-6	
3310 - 20	6-6-6-7-6-7-6-7-7	
3320 - 30	7-6-7-7-6-7-6-7-8-7	
3330 - 40	7-5-6-6-4-5-7-7-6-6	
3340 - 50	6-6-6-6-6-8-5-6-7-7	
3350 - 60	7-7-7-6-6-7-7-7-6-7	
3360 - 70	7-6-7-7-7-5-6-5-7-6	
3370 - 80	6-6-5-6-6-6-7-7-5-5	Circ. 3370; 3/4 hr Top Misener 3376 Top Hunton 3382 Circ. 3385; 3/4 hr Circ. 3397; 3/4 hr
3380 - 90	4-6-4-3-2-2-5-8-4-3	
3390 - 3400	3-4-5-6-3-1½-1-1-1½-2½	
3400 - 10	1-4-3-4-3-2-2-2-2-3	
3410 - 20	2-3-4-2-2-3-4-3-5-7	
3420 - 30	7-8-9-8-8-11-9-8-8-10	Top Maquoketa 3426
3430 - 40	7-13-15-16-13-11-10-11-12-8	
3440 - 50	18-15-6-6-6-8-7-8-6-8	Trip 3442 W7
3450 - 60	7-8-9-7-6-6-6-6-7-6	
3460 - 70	7-8-6-5-5-4-4-5-4-3	Top Viola 3462 Circ. 3470, 3/4 hr Circ. 3480, 3/4 hr Top Simpson 3482 R 3484-86
3470 - 80	4-4-4-3-2-5-4-3-5-5	
3480 - 90	5-6-8-8-5-5-8-4-5-8	
3490 - 3500	7-7-9-9-8-6-9-19-29-25	
3500 - 10	27-28-21-19-18-22-7-6-5-6	Trip 3506 W7
3510 - 20	5-6-6-6-5-5-5-5-5-5	Circ. 3516 ½ hr
3520 - 30	6-8-9-9-8-9-9-9-3-3	Circ. 3529, 3/4 hr
3530 - 40	2-3-2-4-5-9-16-11-11-9	DST 3502-29 Reran same bit
3540 - 50	9-5-5-7-11-6-7-8-4-9	SR 3542-43
3550 - 60	9-11-6-3-2½-2½-9-6-3-4	SR 3554 - 55
3560 - 70	3-4-9-3-8-8-7-9-9-9	Top Arbuckle 3564
3570 - 80	6-6-8-8-7-7-6-10-10-9	
3580 - 90	10-9-7-5-8-6-4-11-10-12	
3590 - 3600	9-7-5-4-5-5-9-6-9-4	TB 3600; Circ. 1 hr Ran electric log D & A 7-26-57

Log condensed by JOHNS & MAGATHAN.