

Rine, Roberts & Murphy #1 Hoener "B"
 SW SW NW; 35-26S-13W
 Pratt County, Kansas
 Elevation: 1941 derrick floor

8 5/8" surface csg. 1214'; 240
 sacks cement; 63 sacks strata
 crete with 4% gel;
 200 sacks cement / 1% o.c.
 5 1/2" casing 4380'; 200 sacks omt.

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

| <u>Depth</u> | <u>Formation Description</u> | <u>Remarks</u> |
|--------------|---|---|
| 0 - 40 | Surface | Drillers log 0-2500' |
| 40 - 275 | Sand and shale | |
| 275 - 565 | Shale and red bed | |
| 565 - 790 | Shale, sand and shells | |
| 790 - 815 | Anhydrite | Stone Corral (Drillers top) |
| 815 - 1080 | Shale, sand and red bed | |
| 1080- 1214 | Shale and shells | |
| 1214- 1630 | Shale and shells | |
| 1630- 1915 | Shale and limestone | |
| 1915- 2065 | Limestone | |
| 2065- 2375 | Limestone and shale | |
| 2375- 2495 | Limestone | |
| 2495- 2500 | Limestone and shale | |
| 2500- 22 | Limestone, gray, sub-crystal- line, dolomitic; shale, green and gray | Sample log 2500 to T.D. |
| 2522- 32 | Limestone, gray to brown, finely crystalline; trace pin- point and oolitic porosity | Possible trace stain |
| 2532- 50 | Limestone, as above, some dense, red limestone; shale, brown and gray | |
| 2550- 60 | Limestone, tan, sub-crystal- line, dolomitic, trace porosity | No show |
| 2560- 73 | Limestone and shale, as above | |
| 2573- 97 | Limestone, dark gray, dense to finely crystalline, fossili- ferous | Spotted porosity on electric log |
| 2597- 2610 | Limestone, gray to dark brown, finely crystalline; shale, dark gray to black | |
| 2610- 27 | Sand, fine, gray, calcareous, some porosity | Possible trace stain |
| 2627- 33 | Limestone and shale, as above | |
| 2633- 52 | Limestone, brown, sucrose, dolomitic | Possible trace stain |
| 2652- 78 | Limestone, gray, sub-crystal- line to sucrose; much gray shale | |
| 2678- 84 | Limestone, as above, porous | Possible trace stain |
| 2684- 88 | Limestone and shale | |
| 2688- 2708 | Limestone, gray, sub-crystal- line | Porous on electric log, no porosity in samples |

WENDELL S. JOHNS

(2) Formation Log: Rine, Roberts & Murphy #1 Hoener "B"

| <u>Depth</u> | <u>Formation Description</u> | <u>Remarks</u> |
|--------------|---|---|
| 2708 - 19 | Gray shale and limestone, as above | |
| 2719 - 36 | Limestone, brown, sucrose, dolomitic | Possible oil stain |
| 2736 - 44 | Limestone, gray to brown, platy, dense to finely crystalline; shale streaks | |
| 2744 - 57 | Sand, fine, gray, silty, micaceous | Possible oil stain |
| 2757 - 85 | Mostly gray shale; streaks sand, as above | |
| 2785 -2800 | Limestone, gray to tan to brown, dense to sub-crystalline | Grandhaven? |
| 2800 - 19 | Mostly shale, gray; streaks sand, fine, gray, argillaceous, micaceous | Top Dry Shale 2800? |
| 2819 - 38 | Sand, gray-green to white, fine, angular, micaceous, silty | No show |
| 2838 - 46 | Sand and shale streaks as above | |
| 2846 - 51 | Limestone, gray and brown, mottled, finely crystalline | Dover? |
| 2851 -2903 | Mostly shale, gray; streaks sand, fine, silty to medium angular, clean, micaceous; streaks brown, crystalline, limestone. | |
| 2903 - 14 | Limestone, gray to tan to brown, sub-crystalline to crystalline, fossiliferous | Top Tarkio 2903? |
| 2914 - 18 | Limestone, tan to buff, finely crystalline, fossiliferous, fair vugular porosity | No show |
| 2918 - 23 | Mostly shale, gray | |
| 2923 - 32 | Limestone, porous, as above, possibly with a few sand grains | No show |
| 2932 - 64 | Shale, gray; streaks dark, dirty-gray limestone, dense to finely crystalline; some sandy shale | Possible Willard? |
| 2964 - 86 | Limestone, light gray, dense | Top Emporia - Burlingame 2964? Porous on electric log |
| 2986 - 93 | Limestone and shale streaks | |
| 2993 -3015 | Limestone, tan, dirty-gray and dark brown, fossiliferous, dense to finely crystalline | Porous on electric log |
| 3015 - 18 | Shale, gray | |
| 3018 - 31 | Limestone, dark gray, dirty, dense to sub-crystalline | |
| 3031 - 64 | Much shale, gray; streaks limestone, as above | |
| 3064 - 88 | Limestone, light to dark gray to tan, dense to finely crystalline | Porous on electric log; Base Emporia - Burlingame 3088? |

(3) Formation Log: Rine, Roberts & Murphy #1 Hoener "B"

| <u>Depth</u> | <u>Formation Description</u> | <u>Remarks</u> |
|--------------|---|--|
| 3088 - 3113 | Mostly shale, gray and green; much limestone, light to dark dirty gray, dense to finely crystalline | Scranton? |
| 3113 - 17 | Limestone, dark brown to black, sub-crystalline to finely crystalline with dark oolites | Happy Hallow? |
| 3117 - 27 | Shale, gray; streaks limestone | White Cloud? |
| 3127 - 37 | Limestone, tan to light gray, crystalline to finely crystalline; much gray shale | Possible Top Howard 3127? |
| 3137 - 73 | Mostly limestone, tan to gray, granular; increase in gray to black shale, near bottom | |
| 3173 - 84 | Increase in gray shale, some gray silty shale | Top Severy 3173 |
| 3184 - 92 | Mostly limestone streaks, as above, trace silty, micaceous sand | |
| 3192 - 3210 | Limestone, tan to dark gray, dense to finely crystalline | Top Topeka 3192 |
| 3210 - 26 | Limestone, as above; streak shale 3214-16 | Porous on electric log, no porosity in samples |
| 3226 - 30 | Limestone, tan to gray, sub-crystalline to crystalline, fossiliferous; trace brown opaque chert | |
| 3230 - 70 | Limestone, tan to buff, nodular, dolomitic; pinpoint porosity | No odor or stain |
| 3270 - 82 | Limestone and shale streak | |
| 3282 - 90 | Limestone, tan to gray, crystalline to sub-crystalline, some oolitic and fossiliferous, trace porosity | No show |
| 3290 - 3303 | Limestone, as above, no porosity; streaks shale | |
| 3303 - 13 | Limestone, as above, crypto-oolitic; spotted vugular and pinpoint porosity | No show |
| 3313 - 21 | Limestone and black shale | |
| 3321 - 27 | Limestone, tan to brown to gray, sub-crystalline to dense; chert, gray, opaque | Possibly porous on electric log? |
| 3327 - 53 | Limestone, as above; streaks gray shale | |
| 3353 - 3407 | Limestone, tan to gray, sub-crystalline, resinous, some dolomitic; some brown to tan, chalky limestone, finely crystalline to sub-crystalline, some oolitic; spotted fine pinpoint to fair vugular porosity | No show |
| 3407 - 11 | Limestone, brown, dense | |

(4) Formation Log: Rine, Roberts & Murphy #1 Hoener "B"

| <u>Depth</u> | <u>Formation Description</u> | <u>Remarks</u> |
|--------------|---|---|
| 3411 - 30 | Limestone, tan, finely sucrose, very good honeycomb porosity | No show |
| 3430 - 60 | Limestone, tan to brown, sub-crystalline to dense; streaks gray and brown shale at bottom | |
| 3460 - 76 | Limestone, as above; scattered vugs; some limestone, tan to buff with honeycomb porosity as above | No show |
| 3476 - 91 | Limestone, tan to gray, mottled, medium crystalline to finely crystalline | |
| 3491 - 3511 | Limestone, gray, dense, some tan, finely crystalline; some vugular porosity | No show |
| 3511 - 17 | Limestone, as above; streaks brown shale | |
| 3517 - 51 | Limestone, tan, crystalline, much calcite, fair vugular porosity; much buff, dolomitic limestone, good intercrystalline porosity, with possible oil stain | Some oil stain in calcite crystals |
| 3551 - 69 | Limestone, tan, dense; trace gray shale | |
| 3569 - 74 | Shale, black with brown streak | Heebner |
| 3574 - 79 | Limestone, blue-gray, dense | Leavenworth |
| 3579 - 90 | Shale, gray-green, trace brown | Snyderville |
| 3590 - 3607 | Limestone, tan, clean, sub-crystalline to finely crystalline, some gray shale at bottom | Toronto |
| 3607 - 33 | Shale, gray and gray-green, some slightly silty, micaceous, pyritic | Possible Base Oread 3607 Possible Top Douglas 3607 |
| 3633 - 76 | Sand, light gray to white, sub-angular to angular, micaceous, glauconitic; some light green sand, as above; some white, very micaceous sand, coarser | |
| 3676 - 3732 | Mostly shale, gray, gray-green and green, micaceous; streak sand, as above, tan to white. | |
| 3732 - 38 | Limestone, light to dark brown, sub-crystalline to dense | Top Brown Lansing 3732 |
| 3738 - 58 | Limestone, as above; streaks gray and brown shale | |
| 3758 - 65 | Limestone, white to light tan, finely crystalline | Top Lansing 3758 |
| 3765 - 72 | Limestone, tan to gray, mottled, finely crystalline, coarsely oolitic | Good odor, good show sticky black oil; D.S.T. |
| 3772 - 82 | Limestone and shale streaks | |
| 3782 - 95 | Limestone, gray, finely crystalline, mottled; fair spotted pinpoint and fine vugular porosity | Slight show free oil D.S.T. |

(5) Formation Log: Rine, Roberts & Murphy #1 Hoener "B"

| <u>Depth</u> | <u>Formation Description</u> | <u>Remarks</u> |
|--------------|--|---|
| 3795 - 3808 | Limestone, white to gray, mottled, sub-crystalline; shale, gray and brown | |
| 3808 - 22 | Limestone, gray, sub-crystalline, oolitic; good oolitic porosity | Fair to good stain; Water |
| 3822 - 52 | Limestone, brown to brown-black, sub-crystalline to dense, resinous; streak brown shale 3844-48 | |
| 3852 - 55 | Limestone, gray to tan, sub-crystalline, some finely sucrose; spotted pinpoint porosity | Spotted stain |
| 3855 - 64 | Limestone, dense, as above, some fossiliferous | |
| 3864 - 96 | Limestone, gray to brown, finely crystalline, dolomitic; some spotted pinpoint porosity in dolomitic streaks | Spotted stain |
| 3896 - 3905 | Limestone, as above, no porosity; streaks brown shale, chert, gray to black | |
| 3905 - 13 | Limestone, buff to salmon, finely sucrose; good oolitic porosity | Fair show sticky brown oil, some live oil |
| 3913 - 21 | Limestone, brown, sub-crystalline to dense; streaks gray-green and brown shale | |
| 3921 - 24 | Limestone, tan to buff, oolitic, sub-crystalline; fair inter-oolitic porosity | Trace odor, slight show free oil |
| 3924 - 43 | Limestone, gray-brown, dense; streaks shale, as above | |
| 3943 - 49 | Limestone, as above, some brown, dolomitic | Good porosity and stain |
| 3949 - 53 | Limestone, white to light gray to light tan, sub-crystalline; chert, gray, vitreous, translucent | |
| 3953 - 62 | Limestone, gray to chocolate brown, sub-crystalline, good pinpoint porosity | Good stain |
| 3962 - 74 | Limestone, gray to tan, dense, lithographic; chert, gray, opaque earthy | |
| 3974 - 77 | Limestone, brown, sub-crystalline, good vugular porosity | Fair odor, slight show free oil |
| 3977 - 84 | Limestone and gray-green shale | |
| 3984 - 91 | Limestone, brown, to gray, sub-crystalline, finely oolitic; good small vugular and oolitic porosity | Good odor, fair show free oil |
| 3991 - 4022 | Limestone, tan, dense, resinous | |
| 4022 - 24 | Limestone, gray to buff, sub-crystalline, very finely sucrose, oolitic; fair to good vugular and pinpoint porosity | Fair to good odor and show free oil |

(6) Formation Log: Rine, Roberts & Murphy #1 Hoener "B"

| <u>Depth</u> | <u>Formation Description</u> | <u>Remarks</u> |
|--------------|--|--|
| 4024 - 28 | Limestone and shale, as above | |
| 4028 - 39 | Limestone, porous, as above | Odor and show oil, as above |
| 4039 - 53 | Limestone, gray to buff, sub-crystalline and brown to black, dense; shale, green, gray and brown | |
| 4053 - 55 | Limestone, gray, finely crystalline; spotted vugular porosity | Spotted stain |
| 4055 - 75 | Limestone, sub-crystalline, as above; shale as above | Probable Base Kansas City 4075 |
| 4075 - 79 | Shale, gray-green to black, trace maroon | Probable Top Marmaton 4075 |
| 4079 - 97 | Shale, as above, increase in maroon shale; Limestone, gray to salmon, sub-crystalline, fossiliferous | |
| 4097 - 4101 | Limestone, as above | Porous on electric log |
| 4101 - 05 | Shale, as above | |
| 4105 - 13 | Limestone, white to gray, sub-crystalline, chalky; chert, tan to white to salmon, opaque to translucent, vitreous | |
| 4113 - 25 | Shale with streaks limestone, as above | |
| 4125 - 37 | Limestone, dirty gray, finely crystalline; much chert, as above | |
| 4137 - 41 | Chert, white, opaque, vitreous, fossiliferous, salmon, translucent, vitreous; chert, amber, translucent; chert, white, devitrified with dead, black stain; Some gray-green shale | Top Mississippi 4137 Mister Sippi |
| 4141 - 50 | Mostly shale, gray-green | |
| 4150 - 74 | Chert, white, opaque, vitreous, salmon to pale amber, vitreous; chert, white and brown, devitrified, mottled, Some brown, devitrified, porous chert | Light brown stain, much dead stain, no free oil in devitrified chert |
| 4174 - 90 | Shale, silver-gray, micaceous; Shale, gray-green to green-black | Top Kinderhook 4174 |
| 4190 - 4202 | Chert, white to blue-white to salmon, opaque, vitreous; chert, white to brown, devitrified; chert, salmon, with vugular porosity | Possible trace odor and trace free oil |
| 4202 - 32 | Shale, as above; streaks limestone, gray-brown to gray-blue, sub-crystalline, argillaceous, some dolomitic | |
| 4232 - 64 | Chert, white, opaque, China, some with brown, devitrified edges; chert, white to black, devitrified and brown to tan, devitrified | Top Viola 4232 Some brown stain and dead black stain, no free oil |

(7) Formation Log: Rine, Roberts & Murphy #1 Hoener "B"

| <u>Depth</u> | <u>Formation Description</u> | <u>Remarks</u> |
|--------------|---|---------------------------------|
| 4264 - 69 | Shale, gray-black to brown-black, waxy | |
| 4269 - 73 | Limestone, white, sub-crystalline, chalky, with large, clear, included sand grains | |
| 4273 - 77 | Shale, bright green, sandy; sand, gray to tan argillaceous, sub-angular, fine | Top Simpson 4273 |
| 4277 - 81 | Sand, as above, porous | No show |
| 4281 - 84 | Sandy shale, as above | |
| 4284 - 87 | Dolomite, yellow to tan to brown, sub-crystalline, sandy | |
| 4287 - 92 | Dolomite, as above, poor vugular porosity | Spotted stain, no free oil |
| 4292 - 96 | Dolomite, as above, no porosity | |
| 4296 - 99 | Shale, bright green, sandy | |
| 4299 - 4300 | Dolomite, as above | |
| 4300 - 05 | Sand, medium, rounded, dirty to clean, dolomitic; some brown, coarsely crystalline dolomite, fair vugular porosity | Slight odor, fair show free oil |
| 4305 - 08 | Sand and sandy shale, as above | |
| 4308 - 11 | Sand, as above | Slight show free oil |
| 4311 - 16 | Mostly shale, as above; some sand | |
| 4316 - 20 | Sand and sandy dolomite, porous, as above | No show |
| 4320 - 30 | Much shale, as above, streaks dolomite | |
| 4330 - 36 | Sand, as above, argillaceous | No show |
| 4336 - 76 | Much shale, as above; dolomite, yellow to tan, sub-crystalline to finely crystalline, sandy; much green-gray and green-black shale; streaks tan, medium, poorly sorted sand | |
| 4376 - 78 | Dolomite, gray to tan to pink, rhombohedral, sub-crystalline to finely crystalline | Top Arbuckle 4376 |
| 4378 - 81 | Dolomite, as above; chert, white, opaque, crypto-oolitic | |
| 4381 - 84 | Dolomite, tan to gray to buff, medium to coarsely crystalline, rhombohedral | |
| 4384 | Rotary Total Depth | |
| 4380 | 5 1/2" casing | 200 sacks cement |
| 4399 | Total Depth | No shows in Arbuckle |

DRILL STEM TESTS:LANSING:

- (1) 3770-3800; Open 1 hour - good blow which decreased to small blow at end of test.
Recovered 945' gas and 135' slightly oil and gas out mud.
Bottom hole pressure 125# (15 minutes).
- (2) 3969-95; Open 1 hour - small blow throughout test.
Recovered 930' gas, 60' slightly oil and gas out mud and 90' water,
Bottom hole pressure 1010# (20 minutes)

(8) Formation Log: Rine, Roberts & Murphy #1 Hoener "B"

- (3) 3999-4042; Open 1 hour - small blow which increased to fair blow at end of test.
Recovered 30' mud.
Bottom hole pressure 270# (20 minutes).

MISTERSIPPI:

- (4) 4132-46; Open 1 hour - small intermittent blow for 20 minutes.
Recovered 15' mud.
Bottom hole pressure 0 (20 minutes).

MISSISSIPPI CHERT:

- (5) 4146-78; Open 1 hour - strong blow throughout test.
Recovered 45' mud, no oil, gas or water.
Bottom hole pressure 450# (20 minutes).

KINDERHOOK:

- (6) 4177-4211; Open 1 hour - strong blow throughout test, gas to surface in 27 minutes.
Recovered 90' muddy oil and 30' clean oil.
Bottom hole pressure 1425# (20 minutes).
Initial flowing pressure 0.
Final flowing pressure 55#.

VIOLA:

- (7) 4228-65; Open 1 hour - strong blow throughout test, gas in 38 minutes.
Recovered 100' slightly oil and gas cut mud
120' heavily oil and gas cut mud and muddy oil.
Bottom hole pressure 970# (20 minutes).
Initial flowing pressure 0.
Final flowing pressure 70#.

SIMPSON:

- (8) 4272-4312; Open 45 minutes - weak intermittent blow throughout test.
Recovered 40' slightly gas cut mud.
Bottom hole pressure 1240# (20 minutes).

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

T I M E L O G

WENDELL C. JOHNS

Rine, Roberts & Murphy #1 Hoener "B"
 SW SW NW; 35-26S-13W
 Pratt County, Kansas
 Elevation: 1941 derrick floor

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

1' time log starts at 2500'

| <u>Depth</u> | <u>Time</u> | <u>Remarks</u> |
|--------------|---------------------|---------------------|
| 2500 - 10 | 3-3-3-4-4-4-4-3-2-3 | |
| 20 | 4-3-3-4-4-4-4-3-5-3 | |
| 30 | 3-5-3-2-3-3-4-3-2-3 | |
| 40 | 4-4-6-4-3-5-3-3-3-3 | |
| 50 | 3-5-7-5-5-5-5-6-4-2 | |
| 60 | 2-2-5-5-4-4-4-4-6-8 | |
| 70 | 5-4-3-3-4-4-4-3-3-4 | |
| 80 | 3-1-2-2-2-3-5-4-5-2 | |
| 90 | 1-2-1-7-4-4-4-4-3-3 | |
| 2590 - 2600 | 3-4-2-3-3-3-3-4-4-4 | |
| 2600 - 2610 | 3-2-3-5-4-4-4-3-2-3 | |
| 20 | 2-2-1-2-2-1-1-1-1-3 | |
| 30 | 2-2-2-3-3-3-2-3-5-5 | |
| 40 | 6-7-4-2-1-3-3-5-4-4 | |
| 50 | 4-5-5-4-5-4-4-2-2-2 | |
| 60 | 4-4-6-8-5-8-8-8-2-2 | |
| 70 | 2-2-2-2-2-2-2-1-2-5 | |
| 80 | 3-3-2-3-3-3-3-2-3-4 | |
| 90 | 4-4-6-4-3-3-4-5-3-3 | |
| 2690 - 2700 | 3-8-8-6-4-3-4-2-1-4 | |
| 2700 - 2710 | 3-3-3-3-3-3-5-4-3-3 | |
| 20 | 2-3-1-3-2-2-2-2-1-1 | |
| 30 | 1-1-1-2-3-3-3-2-2-2 | |
| 40 | 1-1-3-2-3-2-5-5-6-9 | Trip 2740 |
| 50 | 4-4-3-2-2-2-2-2-2-2 | |
| 60 | 1-1-1-1-1-1-1-1-1-1 | |
| 70 | 1-1-4-4-3-3-3-3-2-2 | |
| 80 | 2-2-2-3-3-3-3-3-3-3 | |
| 90 | 3-3-3-3-3-4-4-3-4-4 | |
| 2790 - 2800 | 5-5-4-4-4-4-4-4-4-4 | Circ. 1 hr. at 2800 |
| 2800 - 2810 | 3-3-2-2-3-3-3-3-3-5 | |
| 20 | 3-3-2-2-2-2-3-4-5-4 | |
| 30 | 4-4-6-6-3-2-2-2-2-3 | Circ. 1 hr. at 2830 |
| 40 | 1-1-1-1-2-1-2-3-3-4 | |
| 50 | 3-2-3-3-3-3-5-6-4-8 | |
| 60 | 5-4-3-5-5-5-5-5-5-5 | |
| 70 | 5-5-5-4-4-3-4-4-4-4 | |
| 80 | 4-4-4-4-3-3-4-4-3-3 | |
| 90 | 3-3-3-3-3-4-3-3-3-3 | |
| 2890 - 2900 | 3-4-3-3-3-3-4-3-3-3 | Circ. 1 hr. at 2900 |

(2) Time Log: Rine, Roberts & Murphy #1 Hoener "B"

| <u>Depth</u> | <u>Time</u> | <u>Remarks</u> |
|--------------|-------------------------|---------------------|
| 2900 - 2910 | 5-2-2-5-5-3-4-4-4-4 | Top Tarkio? 2903 |
| 20 | 4-4-5-3-3-4-5-4-5-5 | |
| 30 | 4-4-7-3-4-4-3-2-3-1 | |
| 40 | 1-1-3-4-3-4-3-2-2-5 | Circ. 1 hr. at 2940 |
| 50 | 4-2-2-3-2-2-3-3-2-3 | |
| 60 | 2-2-2-3-3-4-3-2-5-4 | |
| 70 | 4-3-4-4-8-7-6-5-5-5 | |
| 80 | 5-4-3-3-5-4-4-5-5-6 | |
| 90 | 6-6-6-4-4-6-5-3-5-5 | |
| 2990 - 3000 | 6-5-5-6-3-3-3-4-7 | Circ. 1 hr. at 3000 |
| 3000 - 3010 | 6-6-8-8-8-10-10-7-5-5 | |
| 20 | 6-6-7-7-7-7-7-5-5-5 | |
| 30 | 4-4-3-3-3-5-5-10-10-10 | Trip at 3030 |
| 40 | 8-6-7-6-6-5-4-3-4-5 | |
| 50 | 4-4-4-4-4-3-3-3-3-3 | |
| 60 | 3-2-3-2-3-4-6-5-5-5 | |
| 70 | 5-6-6-6-5-5-6-6-6-6 | |
| 80 | 6-6-5-5-6-5-4-5-6-6 | |
| 90 | 5-6-4-5-5-5-5-6-3-3 | |
| 3090 - 3100 | 3-4-3-3-3-3-3-3-4 | |
| 3100 - 3110 | 3-3-2-3-3-3-3-3-3 | |
| 20 | 3-3-4-5-6-6-4-4-3-3 | Circ. 1 hr. at 3120 |
| 30 | 2-3-6-4-4-4-3-5-5-4 | Circ. 1 hr. at 3130 |
| 40 | 3-4-4-2-3-3-4-7-5-4 | |
| 50 | 4-4-4-3-5-5-5-5-5-5 | |
| 60 | 3-4-4-3-6-6-4-4-3-4 | |
| 70 | 3-3-3-3-3-3-4-5-3-4 | |
| 80 | 4-4-4-3-5-4-3-4-3-3 | |
| 90 | 4-3-3-3-4-4-4-4-4-4 | |
| 3190 - 3200 | 3-3-5-6-3-3-3-6-6-6 | Top Topeka 3192 |
| 3200 - 3210 | 5-6-4-6-7-5-5-5-8-8 | |
| 20 | 4-3-5-5-4-4-5-7-7-7 | |
| 30 | 5-4-4-5-5-7-6-7-9-10 | |
| 40 | 10-10-7-6-6-7-5-5-6-5 | |
| 50 | 4-3-4-2-3-2-3-3-3-3 | |
| 60 | 2-3-3-3-4-2-4-2-3-3 | |
| 70 | 4-3-4-4-4-6-7-9-8-8 | |
| 80 | 9-7-7-6-6-6-7-7-6-4 | |
| 90 | 6-3-3-3-2-3-5-5-5-5 | |
| 3290 - 3300 | 5-4-6-7-6-8-5-9-9-7 | |
| 3300 - 3310 | 9-7-8-4-6-3-3-7-3-7 | |
| 20 | 7-7-4-8-9-8-7-5-3-4 | |
| 30 | 3-3-5-6-7-7-9-10-10-11 | |
| 40 | 10-10-10-10-7-6-8-5-7-7 | |
| 50 | 9-8-8-3-3-2-2-2-3-4 | |
| 60 | 4-3-2-2-3-2-2-2-3-3 | |
| 70 | 3-3-3-3-3-3-4-3-3-2 | |
| 80 | 4-4-4-3-4-4-6-5-4-4 | |
| 90 | 3-4-13-8-5-4-4-2-2-2 | |
| 3390 - 3400 | 3-3-3-4-4-4-4-4-4-4 | |

(3) Time Log: Rine, Roberts & Murphy #1 Hoener "B"

| <u>Depth</u> | <u>Time</u> | <u>Remarks</u> |
|--------------|------------------------------|------------------------|
| 3400 - 3410 | 5-5-5-4-5-5-5-10-7-6 | |
| 20 | 1-1-1-1-1-1-1-1-1-1 | |
| 30 | 1-2-5-7-7-7-6-6-6-6 | |
| 40 | 6-6-6-7-12-12-7-7-5-10 | |
| 50 | 10-6-7-8-6-6-6-6-7-9 | Trip at 3441 |
| 60 | 9-8-9-8-7-6-6-6-6-7 | |
| 70 | 6-5-5-5-6-6-6-6-6-5 | |
| 80 | 5-5-5-5-5-5-6-6-7-6 | |
| 90 | 5-7-7-6-6-6-6-6-7-6 | |
| 3490 - 3500 | 5-5-5-4-5-6-4-4-3-3 | |
| 3500 - 3510 | 3-3-3-3-2-3-3-4-3-7 | |
| 20 | 2-7-5-6-6-6-9-6-5-4 | |
| 30 | 4-3-4-4-4-5-5-7-6-4 | |
| 40 | 5-4-3-2-2-3-1-1-1-1 | |
| 50 | 1-2-2-2-2-2-2-3-2-4 | |
| 60 | 7-8-7-8-8-7-9-9-5-6 | |
| 70 | 7-7-6-4-5-7-5-4-5-5 | Top Heebner 3569 |
| 80 | 5-3-3-3-2-2-6-11-12-7 | |
| 90 | 6-5-6-5-4-5-6-6-7-7 | |
| 3590 - 3600 | 9-11-8-6-6-6-6-6-5-4 | Trip at 3592 |
| 3600 - 3610 | 4-4-5-6-6-6-7-4-6-10 | |
| 20 | 5-4-4-4-4-5-6-10-6-6- | |
| 30 | 6-6-7-7-8-8-8-7-5-5 | |
| 40 | 5-5-5-4-4-4-3-3-3-3 | |
| 50 | 4-4-3-3-3-3-3-3-3-2 | |
| 60 | 2-2-2-1-1-1-1-1-2-2 | |
| 70 | 2-1-2-1-2-2-2-2-2-3 | |
| 80 | 3-4-4-4-5-6-5-5-5-5 | |
| 90 | 6-5-5-5-4-5-5-5-5-4 | |
| 3690 - 3700 | 5-4-5-4-5-6-4-5-4-5 | |
| 3700 - 3710 | 5-4-4-5-5-5-4-5-4-4 | |
| 20 | 4-4-4-5-4-5-4-5-5-4 | |
| 30 | 4-4-4-3-4-5-4-5-4-4 | |
| 40 | 4-4-6-6-7-6-6-6-6-5 | Top Brown Lansing 3732 |
| 50 | 6-5-5-5-6-6-8-9-6-6 | Trip at 3748 |
| 60 | 4-5-4-4-3-3-4-4-6-10 | Top Lansing 3758 |
| 70 | 11-6-7-6-7-4-7-8-8-8 | |
| 80 | 8-5-6-9-11-8-5-6-8-7 | |
| 90 | 7-11-6-8-7-5-7-6-7-6 | |
| 3790 - 3800 | 4-5-4-4-4-6-7-6-8-7 | Circ. 1½ hrs. at 3800 |
| 3800 - 3810 | 8-14-10-10-20-9-7-7-5-5 | New Bit 3800 |
| 20 | 6-7-5-4-4-4-5-5-6-5 | |
| 30 | 6-8-12-15-14-16-19-12-13-13 | |
| 40 | 13-16-8-10-14-13-9-16-14-10 | Trip 3832 |
| 50 | 11-10-10-6-5-4-4-4-4-7 | |
| 60 | 9-8-9-5-6-10-10-8-5-5 | |
| 70 | 10-9-8-6-5-5-4-4-4-3 | |
| 80 | 4-7-7-4-5-4-4-5-6-6 | |
| 90 | 4-5-6-6-9-8-9-10-11-9 | |
| 3890 - 3900 | 7-7-7-8-7-10-10-10-20-14 | |
| 10 | 10-10-8-8-6-6-12-21-8-5 | |
| 20 | 8-16-15-20-10-9-9-10-10-9 | Trip at 3914 |
| 30 | 7-4-6-8-7-7-7-8-8-6 | Circ. 1½ hrs. at 3930 |
| 40 | 14-15-11-12-15-12-14-8-12-12 | |
| 50 | 9-13-12-5-4-5-6-9-9-9 | |

(4) Time Log: Rine, Roberts & Murphy #1 Hoener "B"

| <u>Depth</u> | <u>Time</u> | <u>Remarks</u> |
|--------------|-------------------------------|---|
| 3900 - 60 | 11-7-9-10-11-13-14-9-4-3 | |
| 70 | 4-7-12-13-12-13-13-10-16-12 | |
| 80 | 11-11-13-8-6-6-7-17-13-16 | |
| 90 | 10-9-10-9-9-10-10-11-11-11 | |
| 3990 - 4000 | 12-14-12-11-13-9-9-8-8-6 | Circ. 1½ hrs. at 3995 |
| 4000 - 4010 | 4-4-6-7-8-7-7-9-9-9 | New Bit at 3995 |
| 20 | 7-4-6-9-9-9-9-10-10-10 | |
| 30 | 10-9-4-9-6-7-9-5-6-6 | |
| 40 | 10-7-6-6-4-4-6-6-8-10 | |
| 50 | 10-10-15-11-13-10-12-8-10-10 | Circ. 1 hr. at 4042 New Bit at 4042 |
| 60 | 14-11-10-8-9-13-15-11-12-13 | |
| 70 | 10-15-15-14-8-8-7-7-13-12 | |
| 80 | 12-12-14-15-14-8-8-8-9-12 | Probable Base Kansas City 4075 |
| 90 | 11-10-7-6-8-7-7-7-10-6 | |
| 4090 - 4100 | 6-7-8-7-8-8-10-10-13-13 | |
| 4100 - 4110 | 14-12-12-10-9-10-12-10-12-12 | |
| 20 | 12-13-11-12-11-12-14-13-13-13 | |
| 30 | 13-12-13-13-12-12-9-8-11-12 | |
| 40 | 14-18-17-15-12-12-10-8-8-10 | Top Mississippi 4137 |
| 50 | 9-12-14-13-14-14-8-6-8-8 | Circ. 1½ hrs. at 4146 New Bit at 4146 |
| 60 | 7-5-5-5-5-5-5-5-6 | |
| 70 | 6-5-5-5-5-6-7-8-11-7 | |
| 80 | 4-8-8-12-14-20-27-27-9-15 | Top Kinderhook 4174 Circ. 1 hr. at 4178 New Bit at 4178 |
| 90 | 16-12-12-13-11-12-12-8-6-5 | |
| 4190 - 4200 | 4-4-6-5-5-5-6-5-6-6 | |
| 4200 - 4210 | 8-6-10-11-12-9-15-16-29-25 | |
| 20 | 30-18-15-12-18-20-18-15-14-14 | Circ. 1½ hrs. at 4211 New Bit at 4211 |
| 30 | 14-10-10-11-12-14-14-14-10-8 | |
| 40 | 7-6-5-7-5-6-5-5-5-4 | Top Viola 4232 |
| 50 | 6-5-4-9-6-5-6-5-5-7 | |
| 60 | 7-7-6-6-5-5-5-5-5-4 | |
| 70 | 4-6-7-9-10-10-7-8-9-11 | Circ. 1½ hrs. at 4265 New Bit 4265 |
| 80 | 12-12-12-5-9-11-7-8-4-7 | Top Simpson 4273 |
| 90 | 4-5-7-9-15-9-7-10-10-10 | |
| 4290 - 4300 | 12-12-15-15-16-10-12-12-11-14 | |
| 4300 - 4310 | 14-13-12-10-9-10-11-8-8-8 | Circ. 1/2 hr. at 4310 |
| 20 | 8-11-8-10-8-6-6-4-8-4 | Circ. 1½ hrs. at 4312 New Bit at 4312 |
| 30 | 7-9-9-9-10-5-9-13-15-8 | |
| 40 | 15-7-9-17-8-10-10-14-11-13 | Circ. 1½ hrs. at 4335 |
| 50 | 8-11-8-10-10-8-13-12-12-12 | |
| 60 | 12-12-7-8-8-8-11-11-10-9 | |
| 70 | 9-9-11-13-12-10-11-11-11-11 | |
| 80 | 8-9-9-10-10-9-13-18-16-16 | Top Arbuckle 4376 |
| 84 | 16-17-17-12 | Circ. 1½ hrs. at 4380 Circ. 1½ hrs. at 4384 |
| 4384 | R.T.D. | |

Time log condensed by Willis Jack Magathan