

The University of Texas

Report of Investigations No. 88

Open-File Report
OF-BR-1977-2



The Moore Hollow Group of Central Texas Part 3

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PART 3--SUBSURFACE STRATIGRAPHIC DATA

The sample descriptions and well information included in Part 3 furnishes the basis for the discussion of Subsurface Data in Part 1 of "The Moore Hollow Group of Central Texas," Report of Investigations No. 88, by V. E. Barnes and W. C. Bell. Figure 15 is an index map showing the location of wells from which data were obtained. Well data and stratigraphic data are given in tables 23 and 24, respectively.

Explanation for Figure 15
Index map showing location of wells and surface sections used in preparing
plates 3-5 of Part 1, and location of other wells for which
data are given in tables 23 and 24.

Wells

- | | |
|---|--|
| <p>Bandera County</p> <ol style="list-style-type: none"> 1. General Crude Oil Company No. 1 Anderson 2. G. L. Rowsey No. 2 Fee <p>Blanco County</p> <ol style="list-style-type: none"> 1. Roland K. Blumberg No. 1 Wagner 2. Stratoray Oil Corporation No. 1 Stribling <p>Brown County</p> <ol style="list-style-type: none"> 1. Gregg and others (Danewood Oil Company and others) No. 1 M. L. Smith <p>Burnet County</p> <ol style="list-style-type: none"> 1. T. F. Murchison Ranch well <p>Coleman County</p> <ol style="list-style-type: none"> 1. Naylor No. 1 Stone <p>Comanche County</p> <ol style="list-style-type: none"> 1. N. D. Gallagher and O. G. Lawson No. 1 Mrs. Bobbie I. Terry 2. Gilcrease Oil Company No. 1 Feril 3. Humble Oil and Refining Company No. 1 Autry <p>Crockett County</p> <ol style="list-style-type: none"> 1. Magnolia Petroleum Company No. 1 Shannon Hospital <p>Eastland County</p> <ol style="list-style-type: none"> 1. W. F. Bilsky No. 1 D. F. Mitchum <p>Edwards County</p> <ol style="list-style-type: none"> 1. H. M. Naylor No. 1 Lloyd Mitchell <p>Erath County</p> <ol style="list-style-type: none"> 1. Continental Oil Company No. 1 Wiley <p>Gillespie County</p> <ol style="list-style-type: none"> 1. City of Fredericksburg water well No. 9 2. L. U. Rowntree No. 1 Richard Kott <p>Hamilton County</p> <ol style="list-style-type: none"> 1. Phillips Petroleum Company No. 1-A Towson <p>Irion County</p> <ol style="list-style-type: none"> 1. The Atlantic Refining Company No. 1 Noelke <p>Kendall County</p> <ol style="list-style-type: none"> 1. Magnolia Petroleum Company No. 1 Below <p>Kerr County</p> <ol style="list-style-type: none"> 1. G. L. Rowsey No. 2 Nowlin 2. Tucker Drilling Company No. 1 Dr. Roy E. Perkins <p>Kimble County</p> <ol style="list-style-type: none"> 1. Forest Oil Corporation No. 1 Stapp 2. Humble Oil and Refining Company No. 1 Bolt 3. Humble Oil and Refining Company No. 1 Woodard 4. R. A. Irwin No. 1 G. R. Kothman 5. Phillips Petroleum Company No. 1 Spiller | <p>Kinney County</p> <ol style="list-style-type: none"> 1. Fish Petroleum Company No. 1 Postell <p>Lubbock County</p> <ol style="list-style-type: none"> 1. Humble Oil and Refining Company No. 1 Farris <p>Mason County</p> <ol style="list-style-type: none"> 1. Carpenter Exploration Company No. 1 Bradshaw <p>McCulloch County</p> <ol style="list-style-type: none"> 1. City of Brady water well No. 3 2. Tommy Brook water well 3. Carpenter Exploration Company No. 1-A McCollum <p>Menard County</p> <ol style="list-style-type: none"> 1. American Republics Corporation No. 1 Bradford 2. Deep Rock Oil Corporation No. 1 Bevans 3. Phillips Petroleum Company No. 1 Meta <p>Nolan County</p> <ol style="list-style-type: none"> 1. Honolulu Oil Corporation No. 2 Whitaker <p>Parker County</p> <ol style="list-style-type: none"> 1. Garland-Anthony No. 1 Hammons <p>Reagan County</p> <ol style="list-style-type: none"> 1. Amerada Petroleum Corporation No. 2 Hickman <p>Runnels County</p> <ol style="list-style-type: none"> 1. Harvey No. 1 Giesecke 2. The Superior Oil Company No. 1 J. E. McDowell <p>San Saba County</p> <ol style="list-style-type: none"> 1. Humble Oil and Refining Company No. 1 Millican and others 2. Humble Oil and Refining Company No. 1 White 3. Demsey Montgomery Oils No. 1 Yates 4. Shaw No. 1 Jordan <p>Schleicher County</p> <ol style="list-style-type: none"> 1. The Atlantic Refining Company No. 1 Roberts 2. Phillips Petroleum Company No. 1 Callan 3. Scherck and Chizum No. 1 D. C. O. Wilson 4. Taylor Oil and Gas Company and others No. 2 Sheen 5. Tucker Drilling Company No. 1 Boyd <p>Stonewall County</p> <ol style="list-style-type: none"> 1. Seaboard Oil Company No. 4 Upshaw <p>Taylor County</p> <ol style="list-style-type: none"> 1. J. B. Jameson No. 1 Webb <p>Terrell County</p> <ol style="list-style-type: none"> 1. Magnolia Petroleum Company and Western Natural Gas No. 1 Brown and Bassett <p>Tom Green County</p> <ol style="list-style-type: none"> 1. Richardson and Bass No. 1 Schwartz <p>Williamson County</p> <ol style="list-style-type: none"> 1. Shell Oil Company No. 1 Purcell |
|---|--|

Surface Sections

- | | |
|--|---|
| <p>Blanco County</p> <p>KW Klett-Walker</p> <p>WC White Creek</p> <p>Burnet County</p> <p>BM Backbone Mountain</p> <p>GR Goodrich Ranch</p> <p>LM Lion Mountain</p> <p>MC Morgan Creek</p> <p>Burnet and San Saba Counties</p> <p>T Tanyard (too far north on map)</p> <p>Gillespie and Mason Counties</p> <p>TC Threadgill Creek</p> <p>Llano County</p> <p>CC Cold Creek (CO in text)</p> <p>CR Carter Ranch</p> <p>EC East Canyon</p> <p>EP Everett Ranch-Point Peak</p> | <p>MH Moore Hollow</p> <p>SM Slick Mountain</p> <p>Llano, Mason, and San Saba Counties</p> <p>P Pontotoc</p> <p>Mason County</p> <p>BC Bluff Creek</p> <p>CA Calf Creek (CC in text)</p> <p>JRD James River, downstream (JRL in text)</p> <p>JRU James River, upstream (JR in text)</p> <p>LC Leon Creek</p> <p>S Streeter</p> <p>SC Squaw Creek</p> <p>McCulloch County</p> <p>SS Camp San Saba</p> <p>San Saba County</p> <p>LL Little Llano River</p> <p>TR Taylor Ranch</p> |
|--|---|

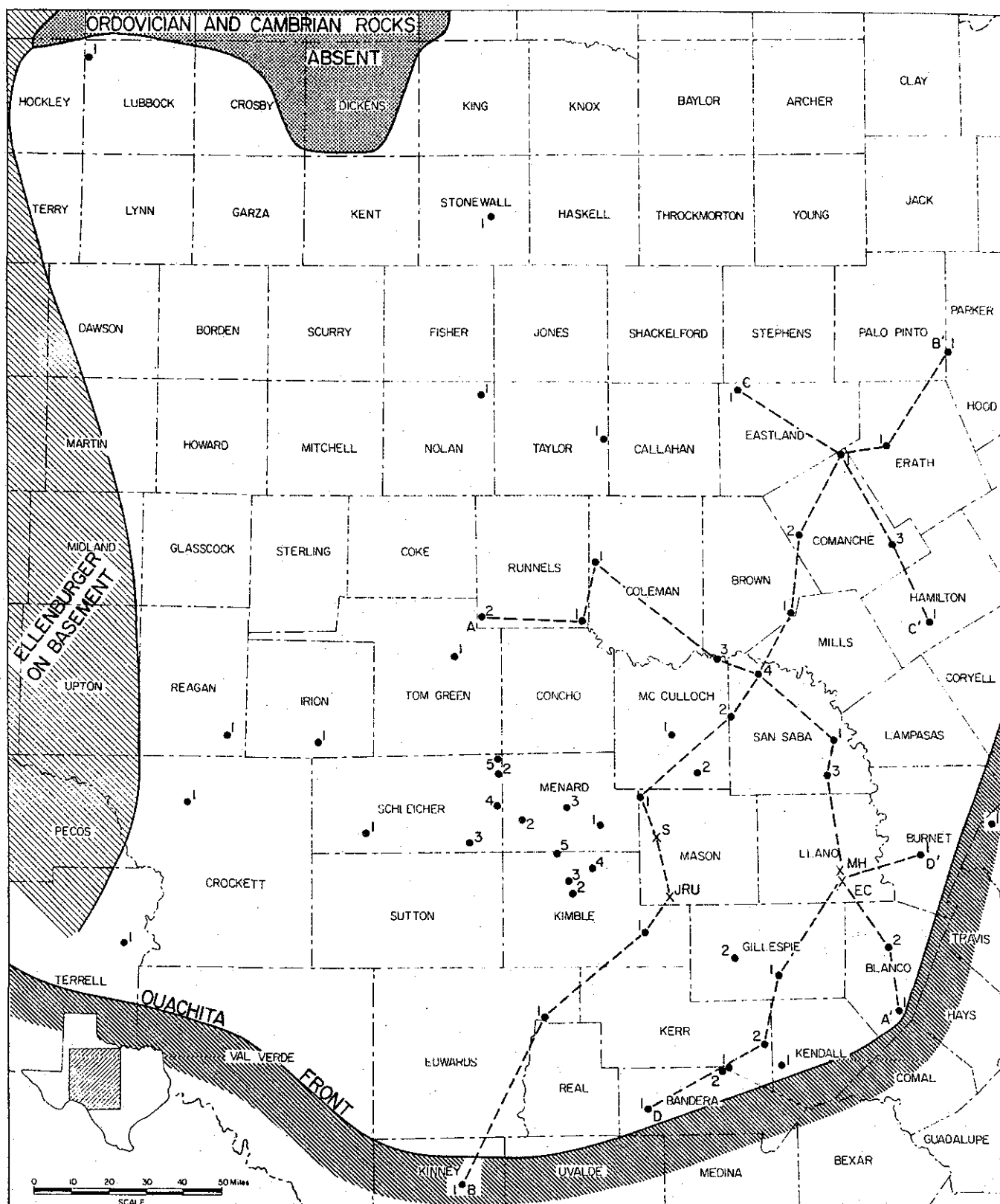


Figure 15. Index map showing location of wells and surface sections used in preparing Plates 3-5 of Part 1, "The Moore Hollow Group of Central Texas," and location of other wells for which data are given in tables 23 and 24.

Table 23. Data on Moore Hollow Group wells in Texas arranged by companies.

| Company | Lease | County | Location | | | | Elev. (feet) | Total Depth | Top of Moore Hollow |
|------------------------------------|----------------------------|------------|------------------------------------|------|------|---|--------------------|----------------|---------------------------|
| | | | Survey | Blk. | Sec. | Dist. from lines | | | |
| *Amerada Petroleum Corporation | No. 2 Hickman | Reagan | H.E.&W.T. Ry. Co. | | 4 | 2,016 FNL & 685 FEL | 2,767 | 10,077 | 9,965 |
| *American Republics Corporation | No. 1 Bradford | Menard | J. W. Massey | | 29 | 467 FS & WL | 2,054DF 2,043GL | 2,745 | 1,230 |
| *The Atlantic Refining Company | No. 1 Noelke | Irion | Tom Green County School Land No. 1 | | | 4,471 N of NW corner of sec. 1,147, H&O.B. survey, thence 3,329 E | 2,326DF (est.) | 7,960 | 7,500 |
| *The Atlantic Refining Company | No. 1 Roberts | Schleicher | H.E.&W.T. Ry. Co. | A | 175 | 1,980 FN & EL | 2,405DF 2,395GL | 7,751 | 7,090 |
| *W. F. Bilsky | No. 1 D. F. Mitchum | Eastland | S.P. R.R. | | 476 | | 1,587DF | 5,426 | 4,770 |
| **Roland K. Blumberg | No. 1 Wagner | Blanco | Henry Manton League No. 17 | | | 1,980 FWL of lge & 1,320 FSEL of 265.52-acre lease | 1,250 (est.) | 3,318 | 1,825 |
| Brady | No. 3 city water well | McCulloch | | | | 4 blks ESE of Courthouse | 1,675 (est.) | 2,075 | 940 |
| *Tommy Brook | Water well | McCulloch | | | | 2.4 miles ENE of Camp San Saba | | | 560 |
| *Carpenter Exploration Company | No. 1 Bradshaw | Mason | Indianola RR. | | 46 | 330 FS&EL of lease | 1,614 (est.) | 1,095 | 290 |
| **Carpenter Exploration Co. | No. 1-A McCollum | McCulloch | E. Greene (Greene) | | 957 | 150 FS & EL | | 2,559 | 1,860 |
| **Continental Oil Company | No. 1 Wiley | Erath | W. B. Whittaker | | | | 1,416DF | 6,069 | 5,510 |
| *Deep Rock Oil Corporation | No. 1 Bevans | Menard | G.H.&S.A. RR. Co. | A | 31 | 660 FN & WL | 2,218DF 2,212GL | 5,148 | 3,810 |
| **Fish Production Company | No. 1 Postell | Kinney | S. Bank | | 602 | 3,600 FNL, 4,620 FEL | 1,571DF | 5,374 | 4,440 |
| **Forest Oil Corporation | No. 1 Stapp | Kimble | G.H.&S.A. RR. Co. | N | 682 | 660 FNL & 1,866 FWL | 1,975 | 4,090 | 2,550 |
| **Fredericksburg | City water well No. 9 | Gillespie | | | | S of city | | 1,250 | 160 |
| **N. D. Gallagher and O. G. Lawson | No. 1 Mrs. Bobbie I. Terry | Comanche | N. H. Kuykendall | | | | 1,334DF | 5,259 | 4,535 |
| **Garland-Anthony | No. 1 Hammons | Parker | J. Johnson | | | | 877DF | 7,798 | 6,890 |
| **General Crude Oil Company | No. 1 Anderson | Bandera | G.H. & S.A. RR. Co. | | 21 | 3,245 FNWL & 300 FNEL | 1,843DF 1,833GL | 10,626 | 9,120 |

* See: correlation charts, plates 1-6, Barnes (1959).

** See: correlation charts, plates 2-5, this publication.

Table 23 (continued)

| Company | Lease | County | Location | | | | Elev. (feet) | Total Depth | Top of Moore Hollow |
|--|-------------------------|------------|------------------------------|-----|------|--------------------------------------|--------------------|----------------|---------------------------|
| | | | Survey | Bk. | Sec. | Dist. from lines | | | |
| **Gilcrease Oil Company | No. 1 Feril | Comanche | Vina Campbell | | 19 | 330 FE & SL | 1,562 | 4,278 | 3,620 |
| **Gregg et al. (Danewood Oil Co. et al.) | No. 1 M. L. Smith | Brown | J.F. (J.W.) Crawford | | 1 | 1,660 FNEL. 1,170 FSEL | 1,487 | 3,427 | 2,700 |
| **Harvey | No. 1 Giesecke | Runnels | Heirs of James Hughes | 132 | 227 | 660 FSL, 330 FWL | 1,678 1,680DF | 4,238 | 3,740 |
| *Honolulu Oil Corporation | No. 2 Whitaker | Nolan | T. & P. RR. Co. | 20 | 35 | 2,173 FSL & 467 FEL | 2,040DF | 5,705 | 5,520 |
| **Humble Oil & Refining Co. | No. 1 Autry | Comanche | Chas Sargent | | 73 | 710 FEL, 3,537 FNL | 1,115GL | 6,299 | 5,315 |
| *Humble Oil & Refining Company | No. 1 Bolt | Kimble | Mary Toliver | | 134 | 1,400 FS & EL | 2,025DF | 4,171 | 2,510 |
| *Humble Oil & Refining Company | No. 1 Farris | Lubbock | E.L. & R.R. RR. Co. | P | 29 | 1,980 FSL & 660 FWL | 3,350 | 11,775 | 11,660 |
| **Humble Oil & Refining Co. | No. 1 Millican et. al. | San Saba | L. Kessler | | 600 | 330 FSWL, 150 FSEL | nd | 2,170.5 | 1,425 |
| Humble Oil & Refining Company | No. 1 White | San Saba | | | | | | 1,680 | 895 |
| *Humble Oil & Refining Company | No. 1 Woodard | Kimble | T.W.N.G. RR. Co. | 15 | 5 | 1,980 FN & EL | 2,115DF 2,105GL | 3,033 | 2,610 |
| *R. A. Irwin | No. 1 G. R. Kothman | Kimble | T.W.N.G. RR. Co. | | 37 | 660 FS & WL | 2,193DF 2,188GL | 3,964 | 2,570 |
| *J. B. Jameson | No. 1 Webb | Taylor | Lunatic Asylum | | 46 | 1,170 FN & EL | 1,905 | 6,396 | 5,325 |
| *Magnolia Petroleum Company | No. 1 Below | Kendall | B. Ficklin Irr. Co., A-87 | | 881 | 2,786 F most S'y SWL & 1,085 FSEL | 1,724DF 1,712GL | 6,512 | 5,490 |
| Magnolia Petroleum Co. & Western Natural Gas | No. 1 Brown and Bassett | Terrell | TCRR | Y | 218 | | 2,448 | 15,556 | 15,365 |
| *Magnolia Petroleum Company | No. 1 Shannon Hospital | Crockett | E.L. & R.R. RR. Co. | BB | 5 | 660 FS & EL | 2,476DF 2,466GL | 8,623 | 8,550 |
| **Demsey Montgomery Oils | No. 1 Yates | San Saba | Martin Bruch | | 576 | 2,000 FWL, 1,200 FSL | 1,495 (est.) | 3,005 | 1,155 |
| **T. F. Murchison | Ranch well | Burnet | | | | 4.7 mi. S of Burnet | 1,160 (est.) | 2,491 | 1,325 |
| **H. M. Naylor | No. 1 Lloyd Mitchell | Edwards | H. E. & W. T. | E | 87 | 1,650' FSL, 337.2' FWL | 2,260 | 7,811 | 6,280 |
| **Naylor | No. 1 Stone | Coleman | Childress | | 73 | | 2,129DF | 5,348 | 4,620 |
| *Phillips Petroleum Company | No. 1 Callan | Schleicher | J. F. Wilhelm | | 311 | 660 FN & WL | 2,306DF | 6,065 | 5,165 |
| *Phillips Petroleum Company | No. 1 Meta | Menard | J. W. Bradford | | 501 | 660 FS & EL | 2,335DF | 3,939 | 2,530 |

Table 23 (continued)

| | | | | | | | | | |
|------------------------------------|--------------------------|------------|---------------------|------|------|--|--------------------|-------|-------|
| *Phillips Petroleum Company | No. 1 Spiller | Kimble | W. A. Choice | | 10 | 1,980 FEL & 765 FSL | 2,227DF | 4,264 | 2,820 |
| **Phillips Petroleum Company | No. 1-A Towson | Hamilton | | | | | | 6,390 | 5,250 |
| *Richardson & Bass | No. 1 Schwartz | Tom Green | John Cherry | | 155½ | 2,246 F most N'y SL & 3,451 FEL | 1,849DF 1,837GL | 7,168 | 6,350 |
| *L. U. Rowntree | No. 1 Richard Kott | Gillespie | Michael Erskin | | 154 | 1,200 FWL & 400 FSL | 2,067 | 3,189 | 1,830 |
| *G. L. Rowsey | No. 2 Fee | Bandera | J. M Shipp, A-1062 | | 13 | 6,500 FNL & 1,120 F most N'y EL | 1,809DF 1,798GL | 6,970 | 5,730 |
| *G. L. Rowsey | No. 2 Nowlin | Kerr | J. Corono | | 570 | 3,170 FWL & 3,865 FNL | 1,680DF 1,670GL | 7,902 | 6,280 |
| *Scherck & Chizum | No. 1 D.C.O. Wilson | Schleicher | W. H. Moulden | V-14 | 9 | 660 FN & EL | 2,237DF 2,229GL | 7,155 | 6,460 |
| *Seaboard Oil Company | No. 4 Upshaw | Stonewall | H. & T.C. RR. Co. | D | 61 | 780 FSL & 467 FWL | 1,767DF 1,759GL | 6,340 | 6,115 |
| **Shaw | No. 1 Jordan | San Saba | AB & M | | 1 | 467 FSL, 1,400 FEL | 1,386DF | 1,355 | 1,880 |
| *Shell Oil Company | No. 1 Purcell | Williamson | Wm. H. Magill | | | 1,196 FWL of survey & 1,196 FSL of Purcell tract | 1,074DF | 9,479 | 8,960 |
| **Stratray Oil Corporation | No. 1 Stribling | Blanco | | | | 4.5 mi. NNE of Johnson City | 1,245GL | 1,355 | 70 |
| **The Superior Oil Company | No. 1 J. E. McDowell | Runnels | T. & N.O. RR. Co. | | 80 | 1,980 FWL & 660 FNL of NW/4 of section | 1,900DF | 6,307 | 5,530 |
| *Taylor Oil and Gas Company et al. | No. 2 Sheen | Schleicher | E.L. & R.R. RR. Co. | | 66 | 660 FS & WL of SE/4 of section | 2,295DF 2,284GL | 5,584 | 5,180 |
| *Tucker Drilling Company | No. 1 Boyd | Schleicher | B.S. & F. | C | 7 | 660 FEL & 467 FSL | 2,389DF 2,379GL | 5,970 | 5,280 |
| **Tucker Drilling Company | No. 1 Dr. Roy E. Perkins | Kerr | W. S. Long | | 31 | 660 FWL & 1,499 FNL of survey | 1,544 | 3,355 | 1,560 |

Table 24. Thickness data for Moore Hollow Group rocks in Texas wells arranged by companies.

| | Moore Hollow Group | Wilberns Formation | San Saba Member | Point Peak Member | Morgan Creek Limestone | Welge Sandstone | Riley Formation | Lion Mountain Sandstone | Cap Mountain Limestone | Hickory Sandstone | Depth to top of Moore Hollow |
|-----------------------------------|-----------------------|-----------------------|--------------------|----------------------|---------------------------|--------------------|--------------------|----------------------------|---------------------------|----------------------|---------------------------------|
| Amerada No. 2 Hickman | 110 | 110 | 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9,965 |
| American Republics No. 1 Bradford | 1450 | 690 | 435 | 145 | 90 | 20 | 760 | 60 | 200 | 500 | 1,230 |
| Atlantic No. 1 Noelke | 460+ | 255 | 155 | 50 | 50 | 0 | 205+ | 60 | 0 | 145+ | 7,500 |
| Atlantic No. 1 Roberts | 630± | 450± | 320± | 50 | 80 | 0 | 180 | 70 | 0 | 110 | 7,090± |
| Bilsky No. 1 Mitchum | 465 | 465 | 465 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,770 |
| Blumberg No. 1 Wagner | 1500+ | 730 | 620 | 0 | 100 | 10 | 770+ | 45 | 600 | 125+ | 1,825 |
| Brady water well | 1100 | 500 | 230 | 120 | 110 | 40 | 600 | 45 | 145 | 410 | 940 |
| Tommy Brook water well | 605+ | 555 | 340 | 100 | 90 | 25 | 50+ | 50+ | | | 560 |
| Carpenter No. 1 Bradshaw | 805+ | 560 | 340 | 75 | 120 | 25 | 245+ | 50 | 155 | 40+ | 290 |
| Carpenter No. 1 McCollum | 700+ | 560 | 320 | 100 | 120 | 20 | 140+ | 65 | 70 | 5+ | 1,860 |
| Continental No. 1 Wiley | 540 | 540 | 540 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5,510 |
| Deeprook No. 1 Bevans | 1330 | 610 | 320 | 170 | 90 | 30 | 720 | 90 | 110 | 520 | 3,810 |
| Fish No. 1 Postell | 935+ | 935+ | 645 | 160 | 105 | 25+ | | | | | 4,440 |
| Forest No. 1 Stapp | 1540+ | 725 | 400 | 170 | 130 | 25 | 815+ | 70 | 290 | 455+ | 2,550 |
| Fredericksburg No. 9 water well | 1080+ | 150+ | 0 | 0 | 130+ | 20 | 930 | 75 | 555 | 300 | 160 |
| Gallager & Lawson No. 1 Terry | 640 | 640 | 445 | 40 | 120 | 35 | 0 | 0 | 0 | 0 | 4,535 |
| Garland-Anthony No. 1 Hammons | 770 | 730 | 565 | 0 | 140 | 25 | 40 | 40 | 0 | 0 | 6,890 |
| General Crude No. 1 Anderson | 1505+ | 1130 | 880 | 130 | 110 | 10 | 375+ | 50 | 325+ | | 9,120 |
| Gilcrease No. 1 Feril | 660+ | 565 | 355 | 80 | 95 | 35 | 95+ | 65 | 0 | 30+ | 3,620 |
| Gregg and others No. 1 Smith | 695 | 390 | 180 | 70 | 115 | 25 | 305 | 60 | 20 | 225 | 2,700 |
| Harvey No. 1 Giesecke | 420 | 415 | 230 | 130 | 60 | 0 | 0 | 0 | 0 | 0 | 3,740 |
| Honolulu No. 2 Whitaker | 165 | 140 | 30 | 20 | 80 | 10 | 25 | 25 | 0 | 0 | 5,520 |
| Humble No. 1 Autry | 965 | 695 | 465 | 110 | 110 | 10 | 270 | 80 | 0 | 190 | 5,315 |
| Humble No. 1 Bolt | 1540 | 750 | 360 | 260 | 110 | 20 | 790 | 90 | 215 | 485 | 2,510 |
| Humble No. 1 Farris | 60 | 60 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11,660 |
| Humble No. 1 Millican | 745 | 485 | 260 | 105 | 100 | 20 | 260 | 80 | 140 | 40 | 1,425 |
| Humble No. 1 White | 785+ | 570 | 360 | 65 | 110 | 35 | 215+ | 60 | 110 | 45+ | 895 |
| Humble No. 1 Woodard | 425+ | 425+ | 305 | 120+ | | | | | | | 2,610 |
| Irwin No. 1 Kothman | 1380 | 680 | 350 | 170 | 140 | 20 | 700 | 70 | 200 | 430 | 2,570 |
| Jameson No. 1 Webb | 485 | 315 | | | | | 170 | | | | 5,325 |
| Magnolia No. 1 Below | 1020+ | 870 | 705 | 0 | 140 | 25 | 150+ | 35 | 115+ | | 5,490 |
| Magnolia No. 1 Brown-Bassett | 77 | 77 | 77 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15,365 |
| Magnolia No. 1 Shannon Hospital | 50 | 50 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8,550 |
| Montgomery No. 1 Yates | 1070 | 560 | 260 | 140 | 140 | 20 | 510 | 50 | 165 | 295 | 1,155 |
| Murchison ranch well | 1145 | 485 | 280 | 65 | 130 | 10 | 660 | 55 | 300 | 305 | 1,325 |
| Naylor No. 1 Mitchell | 1530+ | 835 | 430 | 155 | 215 | 35 | 695+ | 45 | 420 | 230+ | 6,280 |
| Naylor No. 1 Stone | 720 | 570 | 280 | 150 | 120 | 20 | 150 | 50 | 0 | 100 | 4,620 |
| Phillips No. 1 Callan | 785 | 500 | 210 | 130 | 130 | 30 | 285 | 110 | 0 | 175 | 5,165 |
| Phillips No. 1 Meta | 1335 | 640 | 320 | 190 | 110 | 20 | 695 | 75 | 115 | 505 | 2,530 |
| Phillips No. 1 Spiller | 1430 | 695 | 340 | 240 | 95 | 20 | 735 | 75 | 130 | 530 | 2,820 |
| Phillips No. 1 Towson | 1130 | 865 | 540 | 185 | 130 | 10 | 265 | 75 | 0 | 190 | 5,250 |

Table 24 (continued)

| | | | | | | | | | | | |
|----------------------------------|---------|------|------|-----|-----|----|--------|-----|------|------|-------|
| Richardson & Bass No. 1 Schwartz | 720 | 450 | 180 | 140 | 100 | 30 | 270 | 120 | 0 | 150 | 6,350 |
| Rowntree No. 1 Kott | 1355 | 710 | 360 | 225 | 110 | 15 | 645 | 75 | 335 | 235 | 1,830 |
| Rowsey No. 2 Fee | 1790+ * | 950* | 720* | 45 | 165 | 20 | 840+ * | 70 | 520* | 250+ | 5,730 |
| Rowsey No. 2 Nowlin | 1620+ | 900 | 640 | 80 | 160 | 20 | 720+ | 55 | 535 | 130+ | 6,280 |
| Scherck & Chizum No. 1 Wilson | 650 | 560 | 340 | 140 | 80 | 0 | 90 | 90 | 0 | 0 | 6,460 |
| Seaboard No. 4 Upshaw | 225+ | 225+ | 225+ | | | | | | | | 6,115 |
| Shaw No. 1A Jordan | 820+ | 420 | 220 | 80 | 100 | 20 | 400+ | 80 | 40 | 280+ | 1,880 |
| Shell No. 1 Purcell | 480 | 480 | 420 | 20 | 40 | 0 | 0 | 0 | 0 | 0 | 8,960 |
| Stratoray No. 1 Stribling | 1270+ | 485+ | 310+ | 30 | 135 | 10 | 785 | 35 | 510 | 240 | 70 |
| Superior No. 1 McDowell | 650 | 430 | 150 | 150 | 105 | 25 | 220 | 35 | 0 | 185 | 5,530 |
| Taylor No. 2 Scheen | 405+ | 405+ | 335 | 70+ | | | | | | | 5,180 |
| Tucker No. 1 Boyd | 690+ | 490 | 220 | 130 | 120 | 20 | 200+ | 100 | 0 | 100+ | 5,280 |
| Tucker No. 1 Perkins | 1795+ | 970 | 790 | 20 | 140 | 20 | 825+ | 50 | 650 | 125+ | 1,560 |

*Allowances made for faults: 230 feet in the San Saba Member and 320 feet in the Cap Mountain Limestone Member.

Well-Sample Descriptions

W. F. Bilsky No. 1 D. F. Mitcham, Eastland County

Location.--S. P. R. R. survey, section 476.

Elevation.--1,587 feet derrick floor.

Top of Moore Hollow.--4,770 feet.

Top of Precambrian.--5,235 feet (5,424 feet, Flawn, 1956, p. 84).

Total depth.--5,426 feet.

Completed.--1948.

Correlation.--See Plate 5 of Moore Hollow Group, Part 1.

| <u>Cuttings</u> | <u>Depth in feet</u> |
|---|----------------------|
| Limestone--aphanitic, white, below 4,280 feet slightly dolomitic; dolomite medium to coarse grained. Chert in upper 20 and lower 10 feet, mostly translucent, white, smooth fracturing; from 4,260 to 4,270 feet, some opaque, white, smooth fracturing, some banded chalcedony. | 4,250 - 4,330 |
| No sample. | 4,330 - 4,340 |
| Limestone--aphanitic, white; in upper sample in part pelleted, a few fossil fragments, one sandy chip. Chert from 4,350 to 4,360 feet, slightly translucent, white, smooth fracturing. | 4,340 - 4,390 |
| No sample. | 4,390 - 4,400 |
| Limestone--aphanitic, white, somewhat dolomitic. Chert below 4,410 feet, opaque, white, smooth fracturing, grading to chalky and granular in lower sample. | 4,400 - 4,430 |
| Limestone and dolomite--in upper sample and from 4,450 to 4,490 feet, mostly dolomite, medium to coarse grained, some fine grained in upper sample, rest mostly limestone, aphanitic, white, dolomitic. Chert above 4,490 feet, mostly white, opaque, smooth fracturing; from 4,440 to 4,490 feet, some finely granular, in part chalky; in upper sample and from 4,450 to 4,460 feet, some banded chalcedony. | 4,430 - 4,500 |
| Limestone--aphanitic, white, dolomitic, lower sample in part dolomite, coarse grained. | 4,500 - 4,550 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Chert above 4,540 feet, opaque, white, smooth fracturing, from 4,530 to 4,540 feet, in part dolomitic, some granular quartzose. | |
| Dolomite--fine to medium grained, almost white with a slight olive-gray cast, in bottom sample some fine grained, medium brown; in upper sample some limestone, aphanitic, white. Quartz druse in lower sample. | 4,550 - 4,590 |
| Dolomite--fine grained, medium light brown at top to very light olive-gray at bottom. In upper sample chert opaque, white, smooth fracturing and some quartz druse; chert in lower 30 feet, opaque, white, smooth fracturing to granular quartzose, very dolomitic to interstitial, some quartz druse. | 4,590 - 4,640 |
| Dolomite--mostly fine grained, some very fine grained in upper and lower sample, very light olive-gray. Chert opaque, white, smooth fracturing to granular quartzose, very dolomitic to interstitial, some quartz druse. | 4,640 - 4,680 |
| Dolomite--fine to medium grained, very light yellowish-gray. | 4,680 - 4,700 |
| Dolomite--mostly fine grained, some very fine grained in upper sample, light brown; lower sample mostly medium grained, some from 4,740 to 4,750 feet light yellowish-gray. Chert above 4,740 feet, opaque, white, interstitial; below 4,750 feet, in part opaque, smooth fracturing to chalky, interstitial, in part opaque to translucent, white to very light gray, smooth fracturing, abundant in upper sample, scarce in lower sample. | 4,700 - 4,770 |
| Dolomite--very fine grained, light brown. | 4,770 - 4,790 |
| No sample. | 4,790 - 4,800 |
| Dolomite--mostly fine grained, upper sample and part of next sample very fine grained, light brown, interstitial glauconite below 4,820 feet. Some interstitial chert from 4,810 to 4,820 feet. | 4,800 - 4,840 |
| Dolomite (no sample from 4,860 to 4,870 feet)--fine to medium grained, upper sample medium grained, light brown, much interstitial glauconite except in lower sample. | 4,840 - 4,880 |
| No samples. | 4,880 - 4,910 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Dolomite--mostly fine grained, some medium grained from 5,000 to 5,010 feet, some coarse grained in lower sample; mostly light brown, from 4,990 to 5,000 feet, very light gray, below 5,000 feet, very light yellowish-gray; interstitial glauconite common; somewhat pyritiferous. | 4,910 - 5,020 |
| Dolomite--mostly coarse grained, vuggy, some very fine grained from 5,030 to 5,040 feet; fine to medium grained from 5,040 to 5,050 and 5,080 to 5,090 feet; some fine grained from 5,070 to 5,080 feet very light olive-gray, rest almost white to very light yellowish-gray and very light gray; slightly glauconitic from 5,030 to 5,040 and 5,070 to 5,080 feet. | 5,020 - 5,090 |
| Dolomite (no sample from 5,110 to 5,120 feet)--mostly coarse grained, ranges to fine grained in upper 20 feet, some fine grained from 5,130 to 5,140 feet; almost white to light yellowish-gray to very light olive-gray; slightly glauconitic in upper 20 feet and from 5,130 to 5,140 feet. Chert from 5,100 to 5,110 feet, granular, quartzose, oolitic to intraclastic. | 5,090 - 5,150 |
| Dolomite--coarse grained, almost white, a few very coarse sand grains from 5,210 to 5,220 feet, sand in bottom sample very coarse, abundant. | 5,150 - 5,230 |
| Dolomite and rhyolite(?)--dolomite similar to above, much very coarse sand and granules; mostly rhyolite(?). | 5,230 - 5,240 |
| *Rhyolite porphyry--probably an extrusive. | 5,240 - 5,425 |

*Determination from thin section examination by P. T. Flawn.

Brady City Water Well No. 3, McCulloch County

Location.--4 blocks E, 1 block S of courthouse.

Driller.--Layne-Texas Company.

Elevation.--est. 1,675 feet, ground-level.

Top of Ellenburger.--205 feet.

Top of Moore Hollow.--940 feet.

Top of Precambrian.--2,040 feet.

Total depth.--2,075 feet.

Completed.--October 15, 1943.

Remarks.--A fault at about 770 feet cuts out about 150 feet of Tanyard rocks. Samples are rather poor, examined independently by P. E. Cloud and V. E. Barnes; following description by Barnes.

Correlation.--

| | <u>Thickness in feet</u> |
|---|------------------------------|
| Carboniferous rocks | 205 |
| Ellenburger Group (allowing 150 feet for fault) | 885 |
| Gorman Formation | 355 |
| Tanyard Formation (allowing 150 feet for fault) | 540 |
| Staendebach Member (present) | 200 |
| Threadgill Member (present) | 190 |
| Moore Hollow Group | 1,100 |
| Wilberns Formation | 500 |
| San Saba Member | 230 |
| Point Peak Member | 120 |
| Morgan Creek Limestone Member | 110 |
| Welge Sandstone Member | 40 |
| Riley Formation | 600 |
| Lion Mountain Sandstone Member | 45 |
| Cap Mountain Limestone Member | 145 |
| Hickory Sandstone Member | 410 |
| Precambrian diorite | 35 |

Cuttings

| | <u>Depth in feet</u> |
|---|----------------------|
| Limestone--aphanitic. | 133 - 140 |
| Limestone--pink-stained, fossiliferous. | 140 - 170 |
| Shale--bluish-gray, hard and dark in lower 10 feet. | 170 - 205 |
| Dolomite--microgranular, light gray; some limestone, coarse grained, glauconitic, may be cavings. | 205 - 220 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Limestone--aphanitic, sandy, white; some dolomite microgranular. | 220 - 240 |
| Limestone--granular, glauconitic, light gray, abundant calcite rhombs (either a sink filling or cavings). | 240 - 260 |
| Limestone--aphanitic, dolomitic. | 260 - 280 |
| Dolomite--medium grained. | 280 - 300 |
| Dolomite--fine to medium grained, sandy, some microgranular. | 300 - 320 |
| No samples. | 320 - 340 |
| Dolomite--medium grained and microgranular; trace of limestone. | 340 - 355 |
| Dolomite--microgranular. | 355 - 370 |
| Chert white, opaque to translucent. | |
| Dolomite--microgranular and medium grained. | 370 - 390 |
| Limestone and dolomite--limestone, aphanitic; dolomite, medium-grained. | 390 - 420 |
| Dolomite--medium grained. | 420 - 440 |
| Dolomite--fine grained. | 440 - 460 |
| Dolomite--medium grained, sandy. | 460 - 500 |
| Dolomite and limestone--dolomite, fine to medium grained; some limestone, aphanitic. | 500 - 520 |
| Chert, chalcedonic, white, common. | |
| Dolomite--medium grained, some fine grained; some loose red sand. | 520 - 540 |
| Dolomite--fine grained, a few small clear sand grains in lower sample. | 540 - 555 |
| Dolomite--medium grained, sandy. | 555 - 560 |
| Chert, micro-oolitic to oolitic to oomoldic; quartzose, granular, very abundant. | |
| Dolomite--coarse grained, some fine grained in lower 5 feet. | 560 - 580 |
| Chert, white, opaque, granular, common. | |
| Dolomite--very fine grained to fine grained. | 580 - 600 |
| Chert, white, granular, micro-oolitic, very abundant. | |
| Dolomite--medium grained, vuggy. | 600 - 620 |
| Chert, white, granular, micro-oolitic, abundant | |
| Dolomite--microgranular to very fine grained. | 620 - 640 |
| Dolomite--medium grained to fine grained, vuggy. | 640 - 660 |
| Dolomite--medium grained, brown (above this interval, light colored). | 660 - 680 |
| Chert, white, rough, common. | |
| Dolomite--very fine grained to fine grained, medium gray. | 680 - 700 |
| Dolomite--medium grained to fine grained, brown. | 700 - 720 |
| Dolomite and limestone--dolomite medium grained to fine grained; limestone, aphanitic. | 720 - 740 |
| Chert, white, rough, common. | |
| Dolomite--fine grained to very fine grained. | 740 - 760 |
| Dolomite and limestone--dolomite, fine grained; limestone, aphanitic. | 760 - 780 |
| Limestone--yellowish-gray, some dolomite, fine grained. | 780 - 820 |
| Limestone--aphanitic, yellowish-gray. | 820 - 880 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Limestone and dolomite--limestone, aphanitic, yellowish-gray; some very fine grained dolomite. Loose sand abundant, may be contaminant. | 880 - 920 |
| Dolomite and limestone--dolomite very fine grained; limestone, aphanitic, yellowish-gray. | 920 - 940 |
| Limestone--granular, very glauconitic. | 940 - 960 |
| Limestone--aphanitic. | 960 - 980 |
| Limestone--aphanitic and granular, glauconitic. | 980 - 1,000 |
| No sample. | 1,000 - 1,010 |
| Limestone--granular, glauconitic. | 1,010 - 1,020 |
| Limestone--subgranular. | 1,020 - 1,040 |
| Limestone--granular, oolitic. | 1,040 - 1,060 |
| Limestone--subgranular. | 1,060 - 1,080 |
| Limestone--granular, glauconitic, red, green, and dark-gray. | 1,080 - 1,100 |
| No sample. | 1,100 - 1,110 |
| Limestone--granular, glauconitic, gray. | 1,110 - 1,140 |
| Limestone--granular, slightly glauconitic, light gray. | 1,140 - 1,170 |
| Dolomite and limestone--dolomite, very fine grained; limestone, granular, glauconitic. | 1,170 - 1,175 |
| Dolomite--very fine grained, loose sand in upper sample. | 1,175 - 1,200 |
| Dolomite--fine grained, possibly oolitic, loose sand. | 1,200 - 1,220 |
| Limestone--granular, glauconitic. | 1,220 - 1,230 |
| No sample. | 1,230 - 1,240 |
| Limestone--granular, glauconitic. | 1,240 - 1,250 |
| Shale. | 1,250 - 1,270 |
| No samples. | 1,270 - 1,290 |
| Limestone--granular, glauconite; trace of shale in upper sample; loose sand in lower sample | 1,290 - 1,335 |
| Limestone--granular, oolitic, some shale in lower sample. | 1,330 - 1,345 |
| Limestone--granular, glauconitic, very sandy. | 1,345 - 1,360 |
| Limestone--granular, glauconitic, sandy; some shale, possibly cavings. | 1,360 - 1,400 |
| No samples. | 1,400 - 1,414 |
| Sand. | 1,414 - 1,440 |
| Sand--in part glauconitic. | 1,440 - 1,450 |
| Greensand--abundant glauconite and quartz sand, some granular limestone. | 1,450 - 1,484 |
| Limestone--granular, sandy. | 1,484 - 1,500 |
| Limestone--granular, sandy, reddish-brown, glauconitic. | 1,500 - 1,505 |
| Limestone--granular, glauconitic, sandy. | 1,505 - 1,510 |
| Sand and shale--shale, green, silty. | 1,510 - 1,520 |
| No samples. | 1,520 - 1,535 |
| Sandstone--very fine grained. | 1,535 - 1,545 |
| Limestone--granular, sandy; some shale. | 1,545 - 1,550 |
| Sandstone and limestone--sandstone, reddish; limestone, granular. | 1,550 - 1,555 |
| Sandstone--fine grained. | 1,555 - 1,560 |
| Limestone--granular, some shale in middle sample. | 1,560 - 1,595 |
| Limestone--granular, sandy, sand fine. | 1,595 - 1,630 |

Sandstone--red, no samples from 1,710 - 1,765 and
1,970 - 2,035 feet.

Diorite.

T. D.

Depth in feet

1,630 - 2,040

2,040 - 2,075

Carpenter Exploration Company No. 1-A McCollum, McCulloch County

Location.--E. Greene (Gruene) Survey No. 957, 150 feet FSL and FEL.

Elevation.--

Top of Ellenburger.--1,100 feet.

Top of Moore Hollow.--1,860 feet.

Total depth.--2,559 feet.

Correlation.--See Plate 3 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|--|----------------------|
| Shale--mostly dark gray, some greenish-gray. | 1,005 - 1,095 |
| Shale, sandstone, dolomite, and chert (conglomerate?)-- shale similar to above; sandstone fine grained, grains strongly reconstituted; dolomite very fine grained, very light olive-gray. | 1,095 - 1,100 |
| Chert white, granular, quartzose, abundant. | |
| Limestone--aphanitic, light yellowish-gray in part with a light olive-gray cast; a few chips sandy from 1,115 to 1,125 feet; a few loose sand grains from 1,105 to 1,110 feet; from 1,110 to 1,115 feet, some dolomite, very fine grained, very light olive-gray. | 1,100 - 1,130 |
| Chert white, opaque, smooth fracturing, a few fragments oolitic from 1,105 to 1,115 feet, a few chips sandy from 1,110 to 1,115 feet. | |
| Dolomite--mostly very fine grained, some fine grained in lower sample, very light gray in part with a light olive-gray cast, a few chips sandy from 1,140 to 1,145 feet, sand well-rounded, frosted, fine to very fine; a few flakes of green shale from 1,135 to 1,140 feet; some limestone in upper sample similar to above. | 1,130 - 1,145 |
| Chert white, opaque, smooth fracturing; some in lower half translucent, very light gray, in part dolomitic and pseudospicular. | |
| Limestone--aphanitic, yellowish-gray in part with a light olive-gray cast, slightly dolomitic from 1,215 to 1,220 feet; sandy from 1,145 to 1,150 and 1,160 to 1,175 feet; green shale common in some samples, in upper sample in part sandy. | 1,145 - 1,230 |
| Chert in upper sample opaque, white, smooth fracturing. | |
| Dolomite--mostly medium to coarse grained, some fine grained in upper sample, some microgranular in lower sample, light to very light gray, yellowish-gray and light olive-gray, in part vuggy; some limestone in upper sample. | 1,230 - 1,245 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Chert in upper sample granular, quartzose, scarce. Dolomite--mostly very fine grained, some microgranular in upper sample, some fine grained in lower sample, yellowish-gray to light olive-gray. | 1,245 - 1,255 |
| Chert in lower sample opaque, white, smooth fractur- ing, in part dolomitic to interstitial, in part oolitic. | |
| Dolomite--medium grained, very light yellowish-gray. | 1,255 - 1,260 |
| Chert similar to above, in part quartzose. | |
| Dolomite--fine and very fine grained from 1,270 to 1,280 feet, some fine grained in upper sample, rest mostly microgranular; very light yellowish-gray. | 1,260 - 1,285 |
| Chert in upper 10 feet, opaque, white, smooth fractur- ing, in part oolitic; some quartz druse. | |
| Dolomite and limestone--mostly limestone from 1,290 to 1,300 and 1,310 to 1,315 feet, aphanitic, almost white to light yellowish-gray; rest of samples mostly dolo- mite, medium to coarse grained, light yellowish-gray; from 1,295 to 1,300 feet, some dolomite microgranular, very fine grained and fine grained. | 1,285 - 1,315 |
| Dolomite--mostly fine grained, some coarse-grained, very light yellowish-gray. | 1,315 - 1,340 |
| Chert in upper and lower samples opaque, white, smooth fracturing, in part oolitic in upper sample, in part quartzose in lower sample. | |
| Dolomite--mostly medium grained, some coarse grained in lower part, some fine grained from 1,355 to 1,360 feet, light yellowish-gray, lower part vuggy. | 1,340 - 1,370 |
| Chert from 1,355 to 1,360 feet, opaque, white, smooth fracturing, in part quartzose. | |
| Dolomite--medium to coarse grained, almost white, some limestone in lower sample. | 1,370 - 1,425 |
| Chert in upper 15 feet, opaque, white, smooth fractu- ring, in part dolomitic; from 1,415 to 1,420 feet, quartzose, granular, very abundant, some opaque, white, smooth fracturing. | |
| Limestone and dolomite--upper sample mostly limestone, aphanitic, very light yellowish-gray; lower sample mostly dolomite, coarse grained, almost white. | 1,425 - 1,435 |
| Chert similar to above, in part oolitic. | |
| Dolomite--medium to coarse grained, almost white; some limestone similar to above. | 1,435 - 1,445 |
| Limestone--aphanitic, very light yellowish-gray; some dolomite similar to above. | 1,445 - 1,455 |
| Chert in upper sample granular, quartzose, very abundant; lower sample mostly chert, granulated, quartz- ose, oolitic. | |
| Dolomite and limestone--mostly dolomite, medium grained, white; limestone aphanitic, almost white. | 1,455 - 1,465 |
| Chert granular, quartzose to granulated, mostly oolitic, very abundant. | |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--coarse grained, white; a few chips of aphanitic limestone. Chert similar to above scarce. | 1,465 - 1,470 |
| Dolomite and limestone--dolomite, coarse grained; limestone aphanitic; almost white. Chert granular, quartzose, some granulated in lower sample. | 1,470 - 1,480 |
| Dolomite--coarse grained, white; limestone aphanitic, scarce, in upper few samples. Chert granular, quartzose to granulated, very abundant becoming less abundant downward except in lower sample; some quartz druse in upper part, very abundant in lower sample. | 1,480 - 1,540 |
| Dolomite--fine to medium grained, yellowish-gray with an olive-gray cast. Samples mostly chert, opaque, white, smooth fracturing and granular, quartzose; much quartz druse. | 1,540 - 1,550 |
| Dolomite--fine grained, light olive-gray in upper part, yellowish-gray in lower part, some medium grained dolomite in lower sample. Quartz druse abundant to very abundant, scarce from 1,575 to 1,590 feet. | 1,550 - 1,610 |
| Dolomite--medium grained, yellowish-gray. Quartz druse abundant. | 1,610 - 1,615 |
| Dolomite--fine grained, yellowish-gray with an olive-gray cast. Quartz druse very abundant; chert below 1,625 feet, chalky, white, rough fracturing, dolomitic to interstitial, in part oolitic, forms more than half of samples. | 1,615 - 1,645 |
| Dolomite--very fine grained, light to very light olive-gray. Quartz druse, mostly abundant throughout; chert above 1,675 feet, chalky, white, dolomitic to oolitic; from 1,665 to 1,670 feet, some white, opaque, smooth fracturing, dolomitic to interstitial. | 1,645 - 1,685 |
| Dolomite--fine grained, light to very light olive-gray. Quartz druse very abundant; chert below 1,690 feet, opaque, white, dolomitic, in bottom 10 feet in part interstitial. | 1,685 - 1,715 |
| Dolomite--very fine grained, very light olive-gray. Quartz druse abundant; chert in lower sample, opaque, white, interstitial to dolomitic. | 1,715 - 1,725 |
| Dolomite--fine grained, light olive-gray; some medium grained in lower sample. Quartz druse common to very abundant; chert from 1,730 to 1,740 feet, opaque, white, smooth fracturing, in part interstitial and dolomitic, some opaque, very light olive-gray, smooth fracturing; below 1,740 feet, some white interstitial. | 1,725 - 1,755 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--mostly very fine grained, lower sample micro-granular, very light olive-gray. Quartz druse scarce to abundant. | 1,755 - 1,780 |
| Dolomite--mostly fine grained, very fine grained from 1,805 to 1,810 and 1,840 to 1,845 feet, light to very light olive-gray. | 1,780 - 1,860 |
| Above 1,835 feet, some quartz druse and opaque, white, interstitial chert; in bottom sample some quartz druse and opaque, white, smooth-fracturing to granular chert. | |
| Dolomite--upper and lower samples very fine grained, middle two samples fine grained, light olive-gray, in part pyritiferous. | 1,860 - 1,880 |
| Dolomite--mostly fine grained, bottom sample very fine grained, light olive-gray, very pyritiferous, much interstitial glauconite from 1,890 to 1,895 and 1,900 to 1,905 feet and some in lower sample. | 1,880 - 1,910 |
| Dolomite--fine grained, mostly light olive-gray, in lower part in part slightly lighter colored, pyritiferous; in bottom sample some medium olive-gray, slightly pyritiferous. | 1,910 - 1,950 |
| Dolomite--very fine grained in upper part to fine grained in lower part, light yellowish-gray to light olive-gray, pyritiferous. | 1,950 - 1,970 |
| Dolomite--mostly fine to medium grained, lower sample fine grained, yellowish-gray, rest medium olive-gray, pyritiferous, glauconitic, glauconite interstitial. | 1,970 - 1,990 |
| Dolomite--mostly coarse grained, almost white; some fine grained, light olive-gray; from 2,020 to 2,025 feet, some very fine grained, yellowish-gray; from 2,025 to 2,030 feet, some fine to medium grained, olive-gray; some interstitial glauconite; in part pyritiferous. | 1,990 - 2,030 |
| Dolomite--upper sample very fine to coarse grained, lower sample mostly coarse grained, almost white, some fine grained, olive-gray, upper sample very light gray to olive gray. | 2,030 - 2,040 |
| Dolomite--coarse grained, white, vuggy. | 2,040 - 2,070 |
| Dolomite--fine grained, mostly very light olive-gray, some pyrite and interstitial clay in upper few samples, glauconite scarce in lower 10 feet; some finely granular, glauconitic limestone in lower sample. | 2,070 - 2,180 |
| Limestone, siltstone, and shale--limestone from 2,185 to 2,190 feet and some in rest of samples, aphanitic, yellowish-gray to light olive-gray, probably stromatolitic, some in lower part coarsely granular, oolitic, fossiliferous, mostly very silty, glauconitic, and pyritiferous, grading to siltstone, very light gray, very calcareous, glauconitic; shale below 2,190 feet, greenish-gray, slightly micaceous, slightly to very silty, calcareous. | 2,180 - 2,205 |
| Limestone--granular, yellowish-gray, a few chips oolitic, in part slightly silty, in part fossiliferous, lower | 2,205 - 2,225 |

| | <u>Depth in feet</u> |
|---|----------------------|
| sample in part glauconitic; a few greenish-gray shale flakes, micaceous, silty. | |
| Limestone and siltstone--limestone in part similar to above; in part grading to siltstone, very calcareous, glauconitic. | 2,225 - 2,240 |
| Shale, siltstone, and limestone--mostly limestone from 2,245 to 2,250 feet, coarsely granular, slightly glauconitic, fossiliferous, in part oolitic; rest mostly shale and siltstone; shale greenish-gray, silty, very calcareous, some light greenish-gray non-silty; siltstone greenish-gray to brownish-gray, calcareous, micaceous, slightly glauconitic. | 2,240 - 2,260 |
| Siltstone, shale, and limestone--bottom sample mostly limestone, granular to aphanitic, light gray to light yellowish-gray, some limestone in upper part, granular, medium gray with brownish-cast, in part fossiliferous; mostly siltstone and shale similar to above. | 2,260 - 2,280 |
| Limestone--very coarsely granular, mostly light gray to light greenish-gray, in part with a pinkish cast in upper few samples, some grayish-red chips in lower sample, glauconitic, fossiliferous. | 2,280 - 2,325 |
| Limestone--samples alternately coarsely granular fossiliferous and finely granular, mostly greenish-gray to pinkish-gray and reddish-gray, lower sample grayish-red, glauconitic to very glauconitic in upper part, finer grained portion in part silty, very sandy from 2,330 to 2,340 feet, rest slightly sandy. | 2,325 - 2,355 |
| Limestone--coarsely granular, mostly pinkish-gray, in part grayish-red, below 2,375 feet, sandy, progressively sandier and coarser grained downward, a few coarse to very coarse grains in lower part. | 2,355 - 2,395 |
| Sandstone--coarse to very coarse grained, some medium grained, a few granules, grayish-red, grains fairly well-rounded, rough from reconstitution. | 2,395 - 2,400 |
| No samples. | 2,400 - 2,425 |
| Sandstone--medium to very coarse grained, very light gray, much adhering glauconite, grains well-rounded, rough from reconstitution. | 2,425 - 2,440 |
| Sandstone and limestone (no sample from 2,445 to 2,450 feet)--sandstone in part similar to above, in part fine grained, very glauconitic and calcareous; mostly limestone, granular, greenish-gray with a reddish cast, glauconitic, argillaceous, in part sandy and silty. | 2,440 - 2,465 |
| Siltstone--grayish-orange, calcareous, glauconitic, some very fine sand; in lower sample some limestone, granular, light brown, glauconitic. | 2,465 - 2,480 |
| Limestone and siltstone--above 2,505 feet mostly limestone, granular, light brown, some greenish-gray, glauconitic, silty, argillaceous, much very fine sand; in bottom 10 feet, mostly siltstone, very calcareous, | 2,480 - 2,515 |

| | <u>Depth in feet</u> |
|---|----------------------|
| somewhat sandy, glauconitic, grading to limestone, silty, glauconitic. | |
| Siltstone--grayish-orange to reddish-brown, very calcareous, glauconitic, much very fine sand; in bottom sample some sand, coarse to very coarse, grayish-red, very well-rounded, smooth. | 2,515 - 2,555 |

Continental Oil Company No. 1 Wiley, Erath County

Location.--W. B. Whittaker survey.

Elevation.--1,416 feet, derrick floor.

Top of Ellenburger.--4,120 feet.

Top of Moore Hollow.--5,500 feet.

Top of Precambrian.--6,050 feet.

Total depth.--6,069 feet.

Date completed.--1948.

Correlation.--See Plate 4 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|---|----------------------|
| Shale--black, blocky, a few calcite veins. | 4,100 - 4,120 |
| Dolomite and limestone--from 4,130 to 4,140 feet, mostly limestone, aphanitic, white to light olive-gray, dolomitic; rest mostly dolomite, upper 10 feet, fine-grained, very light olive-gray to pinkish-brown and medium brown, in part pyritiferous, lower 20 feet, microgranular and very fine grained, light to medium brown; some shale in upper sample similar to above. | 4,120 - 4,160 |
| Dolomite--very fine grained, mostly light brown, in upper sample some very light pinkish-brown to light yellowish-gray; some aphanitic limestone in upper sample. | 4,160 - 4,200 |
| Dolomite--microgranular in upper sample, microgranular and very fine grained from 4,220 to 4,240 feet and in bottom 20 feet, rest mostly very fine grained; some fine grained from 4,250 to 4,260 feet; mostly very light yellowish-gray to very light olive-gray, light brown from 4,210 to 4,220 feet, and very light to light brown in bottom 20 feet; some bright green interstitial clay in lower 30 feet. | 4,200 - 4,280 |
| Dolomite--upper sample mostly microgranular, some fine grained, middle sample fine grained, lower sample microgranular and very fine grained; mostly light olive-gray and very light brown to medium brown; bright green interstitial clay in upper 20 feet. | 4,280 - 4,310 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Dolomite--upper sample microgranular and medium grained, middle sample mostly very fine grained, some fine grained, lower sample mostly microgranular, some fine grained; mostly yellowish-gray to medium brown, upper sample light yellowish-gray to light pinkish-brown. | 4,310 - 4,340 |
| Dolomite--mostly microgranular; from 4,370 to 4,390 feet, and bottom sample, very fine grained and microgranular; some very fine grained from 4,350 to 4,360 feet; some fine grained from 4,390 to 4,400 feet; mostly very light olive-gray, light yellowish-gray from 4,370 to 4,380 feet; light to medium brown from 4,390 to 4,400 feet. | 4,340 - 4,420 |
| Dolomite--upper sample and from 4,500 to 4,510 feet, very fine and fine grained; rest mostly microgranular; some very fine grained from 4,450 to 4,470 feet and in bottom sample; mostly very fine grained and some microgranular from 4,480 to 4,500 feet; in part yellowish-gray to very light olive-gray, in part light brown to medium brown; some aphanitic limestone in bottom sample. | 4,420 - 4,520 |
| Limestone--aphanitic, light yellowish-gray with a slight olive-gray cast, dolomitic. | 4,520 - 4,530 |
| Dolomite and limestone--mostly dolomite, upper sample fine grained, middle sample microgranular, lower sample very fine grained, medium to light olive-gray; limestone similar to above. | 4,530 - 4,560 |
| Limestone--aphanitic, very light to light yellowish-gray, from 4,580 to 4,590, 4,610 to 4,620, and in bottom 40 feet, sandy. | 4,560 - 4,720 |
| Limestone--aphanitic, light to very light yellowish-gray, upper and lower samples and from 4,740 to 4,760 feet, dolomitic, sandy to very sandy in lower 30 feet, slightly sandy above 4,760 feet; some dolomite in upper sample fine grained, light yellowish-gray. | 4,720 - 4,800 |
| Limestone and dolomite--limestone similar to above, in part sandy; dolomite microgranular, mostly light gray, some light brown in upper 30 feet, fine grained, pink, and sandy in lower 20 feet. | 4,800 - 4,850 |
| Dolomite--microgranular and very fine grained, mostly light yellowish-gray, upper sample very light brown. | 4,850 - 4,890 |
| Limestone--aphanitic, light yellowish-gray, dolomitic dolomite fine grained. | 4,890 - 4,900 |
| Dolomite--mostly microgranular, some very fine grained from 4,910 to 4,940 feet, lower sample in part medium grained, slightly pinkish and sandy, rest very light yellowish-gray, slightly sandy above 4,940 feet. | 4,900 - 4,970 |
| Dolomite and limestone--mostly dolomite, medium grained, bottom sample coarse grained; lower sample in part limestone, aphanitic, dolomitic; both almost white. | 4,970 - 5,000 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--mostly coarse grained, medium grained from 5,020 to 5,030 feet; in part medium grained from 5,030 to 5,070 feet; some light brown from 5,030 to 5,060 feet, rest almost white. | 5,000 - 5,130 |
| Chert from 5,050 to 5,060 feet, mostly granular quartzose, light brown; from 5,050 to 5,070 feet, opaque, white, smooth fracturing, dolomitic. | |
| Dolomite--mostly medium grained, in part coarse grained from 5,150 to 5,160 feet, some fine grained in lower sample, mostly light yellowish-gray with a light olive-gray cast, in part with a pinkish cast, some light pinkish-brown from 5,150 to 5,160 feet. | 5,130 - 5,190 |
| Chert in upper and lower 20 feet mostly granular, quartzose, dolomitic, mostly about the same color as the dolomite, oolitic from 5,140 to 5,150 feet; from 5,150 to 5,170 feet and some in upper 20 feet, opaque, white, smooth fracturing, in part dolomitic. | |
| Dolomite--mostly fine grained, very fine grained from 5,290 to 5,300 feet; some very fine grained from 5,230 to 5,240 and from 5,270 to 5,290 feet, some coarse grained in bottom sample; mostly very light gray, from 5,300 to 5,320 feet, light yellowish-gray with an olive-gray cast, from 5,320 to 5,330 feet, very light to light brown. | 5,190 - 5,340 |
| Chert in upper 50 feet and from 5,310 to 5,320 feet, mostly granular quartzose, white, abundant, some smooth fracturing, dolomitic; from 5,230 to 5,240 feet, opaque, white, smooth fracturing; from 5,270 to 5,280 feet, chalky, rough fracturing, white, scarce; from 5,290 to 5,310 feet, opaque, white, smooth fracturing, dolomitic; in bottom 20 feet, opaque, smooth fracturing to chalky, white to very light brown, in part dolomitic. | |
| Dolomite--fine to coarse grained, light olive-gray. | 5,340 - 5,380 |
| Chert scarce from 5,360 to 5,370 feet. | |
| Dolomite--mostly fine grained, some medium grained in upper sample and from 5,400 to 5,410 feet; some coarse grained from 5,390 to 5,400 feet, some very fine grained in lower sample; very light gray to light yellowish-gray; bright green interstitial clay scarce. | 5,380 - 5,420 |
| Chert from 5,390 to 5,400 feet, opaque, white, smooth fracturing, scarce. | |

| | <u>Depth in feet</u> |
|--|----------------------|
| Dolomite--upper 20 feet fine and coarse grained; from 5,440 to 5,450 feet, mostly very fine grained, some coarse grained; bottom sample mostly fine grained, some very fine and coarse grained; in upper part very light yellowish-gray, in lower part very light pinkish-gray; in bottom sample some bright green interstitial clay. | 5,420 - 5,460 |
| Dolomite--mostly coarse grained, some medium grained from 5,470 to 5,480 feet, in part fine grained in bottom sample; very light yellowish-gray to almost white; coarser grained part vuggy; some interstitial green clay with a refractive index slightly higher than 1.560. | 5,460 - 5,500 |
| Dolomite--fine grained in upper sample and from 5,540 to 5,550 feet, very fine grained from 5,520 to 5,540 feet, some coarse grained, almost white, from 5,530 to 5,540 feet, rest fine and very fine grained; upper sample very light olive-gray, slightly vuggy, rest mostly white to medium brown and light olive-gray; in part pyritiferous. | 5,500 - 5,560 |
| Chert below 5,510 feet, granular, quartzose, very dolomitic, some from 5,510 to 5,520 feet, opaque, white, smooth fracturing. | |
| Limestone--aphanitic, light yellowish-gray to light olive-gray; some dolomite fine and very fine grained, light to medium brown. | 5,560 - 5,570 |
| Dolomite--very fine and fine grained, light to medium brown, some medium light gray, in part pyritiferous; interstitial glauconite common, refractive index in part equal to and in part less than 1.5735. | 5,570 - 5,680 |
| Dolomite--mostly fine grained, some very fine grained; light olive-gray to light brown in upper part, greenish-gray near middle and in lower part, grayish-red and pinkish-gray common below 5,760 feet; pyritiferous; interstitial glauconite common above 5,770 feet; mostly silty below 5,730 feet. | 5,680 - 5,800 |
| Dolomite--upper sample very fine grained, from 5,810 to 5,830 feet and part of lower sample, fine grained, rest medium grained; mostly very light yellowish-gray, some light to very light brown in upper part and light pinkish-brown in lower sample; glauconite very scarce from 5,830 to 5,840 feet. | 5,800 - 5,850 |
| Dolomite--upper sample very fine grained, lower sample fine grained, from 5,890 to 5,900 feet, fine to medium grained, rest fine and very fine grained; mostly light olive-gray and light pinkish-brown, in lower 20 feet in part grayish-red, reddish-brown, olive-gray, and greenish-gray; glauconitic below 5,860 feet; in part pyritiferous. | 5,850 - 5,910 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--coarse grained, almost white. | 5,910 - 5,920 |
| Dolomite--fine and very fine grained, a few chips coarse grained; white in lower 20 feet, rest mostly reddish-brown and greenish-gray; glauconitic; silty. | 5,920 - 5,950 |
| Dolomite--upper 20 feet mostly coarse grained, bottom sample medium to coarse grained, rest mostly medium grained, some fine grained from 5,970 to 5,980 feet; mostly very light yellowish-gray, upper 20 feet almost white, some light olive-gray in lower part and reddish-brown near middle. | 5,950 - 6,000 |
| Dolomite--upper sample fine to very fine grained, from 6,010 to 6,030 feet, fine grained, from 6,030 to 6,040 feet, fine to medium grained, bottom sample medium to coarse grained; grayish-red to olive-gray and yellowish-gray, reddish-gray perhaps most abundant in lower 20 feet; glauconitic; some coarse sand in lower few samples; a few chips of granite in bottom sample. | 6,000 - 6,050 |
| Granite--moderate reddish-orange, composed of microcline, quartz, plagioclase, and biotite, the latter possibly altered since it has a greenish cast. | 6,050 - 6,070 |

Fish Production Company No. 1 Postell, Kinney County

Location.--S. Bank survey 602, 3,600 feet FNL, 4,620 feet FEL.

Elevation.--1,571 derrick floor.

Top of Ellenburger.--4,210 feet.

Top of Moore Hollow.--4,440 feet.

Total depth.--5,374 feet.

Correlation.--See Plate 4 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|---|----------------------|
| Limestone--finely granular, dark gray, in part pyritiferous, shaly; in bottom sample some dolomite, fine grained, very light gray; calcite veins common. | 4,190 - 4,210 |
| Dolomite, sandstone, and limestone--dolomite very fine to fine grained, medium light gray; sandstone in lower sample fine to very coarse grained, dolomite cemented, grains fairly well-rounded; limestone in lower sample aphanitic, light olive-gray; calcite veins common. | 4,210 - 4,230 |
| Chert in upper sample granular, quartzose. | |
| Dolomite--microgranular to very fine grained, some fine grained from 4,240 to 4,250 feet, some medium grained from 4,250 to 4,260 feet; medium dark gray in upper part to medium light gray in lower part; sand very abundant from 4,240 to 4,250 feet, a few chips in samples immediately above and below this interval sandy; some calcite veining. | 4,230 - 4,270 |
| Chert from 4,240 to 4,250 feet, opaque to slightly translucent, white, smooth fracturing. | |
| Dolomite--very fine grained, some fine grained in upper sample; medium light gray in upper part to light gray in lower part; sand scarce from 4,290 to 4,310 and from 4,330 to 4,340 feet, very abundant from 4,320 to 4,330 feet, grains mostly fine, some medium. | 4,270 - 4,370 |
| Chert from 4,270 to 4,280 and 4,290 to 4,310 feet, translucent, very light gray to light olive-gray, smooth fracturing; from 4,290 to 4,310 feet, in part sandy; some quartz in upper sample. | |
| Dolomite--fine grained, light gray, in part sandy. | 4,370 - 4,380 |
| Sandy chert scarce. | |
| Dolomite--mostly microgranular and very fine grained, some fine grained from 4,400 to 4,420 feet; light to medium gray; sandy from 4,380 to 4,410, 4,420 to | 4,380 - 4,470 |

| | <u>Depth in feet</u> |
|---|----------------------|
| 4,430, and 4,460 to 4,470 feet, in upper part sand mostly fine to very fine, in lower part up to coarse and a few very coarse grains; below 4,440 feet very pyritiferous. | |
| Sandstone--fine to coarse grained, a few very coarse grains, light gray to medium gray, pyrite abundant, much dolomite cement, grains mostly reconstituted, a few well-rounded, fractures like quartzite. | 4,470 - 4,550 |
| No samples. | 4,550 - 5,036 |

Core Chips

| | |
|--|---------------|
| Limestone--alternately finely and coarsely granular, finely granular part dark gray, silty, argillaceous, pyritiferous, and some very fine sand; coarsely granular part dark gray, in part fossiliferous; some siltstone in upper foot black, very shaly, sandy, sand very fine to fine, dolomitic; some dolomite in upper foot very fine grained, dark gray, argillaceous; a few irregular shaly stylolites. Trilobite fragments common from 5,038 to 5,040 and 5,045 to 5,046 feet; abundant phosphatic brachiopod fragments in upper foot. | 5,036 - 5,060 |
| Sandstone--fine grained, dolomitic, micaceous, argillaceous, fractures like quartzite; petrographic microscope examination of crushed material from 5,071 to 5,072 feet reveals quartz, feldspar, dolomite, and a blue pleochroic mineral with a refractive index higher than 1.63, parallel extinction, and moderate to weak birefringence. From 5,073 to 5,074 feet, some limestone very coarse grained, mottled by dolomitic siltstone or very fine-grained sandstone, micaceous, argillaceous, pyritiferous. | 5,060 - 5,078 |
| Limestone--finely to coarsely granular, dark gray, silty, micaceous, argillaceous, some pyrite along a stylolite. A small brachiopod in upper foot may be an acrotretid; phosphatic brachiopod fragments common in middle sample. | 5,078 - 5,081 |

Cuttings

| | |
|--|---------------|
| Limestone and siltstone--limestone mostly finely granular, medium gray, in part oolitic and fossiliferous, in part grades to siltstone medium gray to grayish-pink, micaceous, much very fine sand. | 5,081 - 5,150 |
| Limestone and siltstone--mostly limestone in upper 20 feet, grayish-pink to pinkish-gray, micaceous, silty, sandy, oolitic; mostly siltstone from 5,210 to 5,220 and 5,230 to 5,240 feet, grayish-pink to pinkish-gray and | 5,150 - 5,240 |

| | <u>Depth in feet</u> |
|---|----------------------|
| medium gray, micaceous, very calcareous, much very fine sand. | |
| Limestone, shale, and sandstone--limestone coarsely granular, light gray, in part very sandy, in part fossiliferous, in part oolitic; shale medium gray with a slight greenish cast, pyritiferous, silty; sandstone in lower half fine to medium grained, grayish-red, very calcareous, grains in part coated by hematite; some siltstone in upper sample similar to above. | 5,240 - 5,280 |
| Limestone and sandstone--limestone coarsely granular, light to medium gray, some light grayish-red to pinkish-gray below 5,300 feet, oolitic, ooids most abundant in upper part; below 5,310 feet mostly sandstone, fine to medium grained, white to grayish-red, very calcareous; in lower two samples some dolomite, coarse grained, white, very sandy. Phosphatic brachiopods from 5,300 to 5,310 feet. | 5,280 - 5,348 |

Core Chips

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|--|---------------|
| Sandstone and shale--mostly sandstone, fine to medium grained, a few coarse grains, very light to medium light gray, lower sample very light pinkish-gray, calcareous to very slightly calcareous, a few chips in lower part contain green specks that resemble glauconite, tiny grains of a rounded, opaque mineral resemble ilmenite, fractures like quartzite; shale medium gray, mostly in thin beds and irregular partings, in part interstitial, pyritiferous; one dolomite vein. From 5,350 to 5,351 feet, one pyritized phosphatic brachiopod fragment. | 5,348 - 5,371 |
|--|---------------|

Fredericksburg City Water Well No. 9, Gillespie County

Location.--South of Fredericksburg.

Top of Cambrian.--160 feet.

Top of Precambrian.--1,240 feet.

Total depth.--1,250 feet.

Correlation.--See Plate 5 of Moore Hollow Group, Part 1.

Cable Tool Cuttings Submitted by Mayor William Schroeder January to September, 1955.

| | <u>Depth in feet</u> |
|---|----------------------|
| No samples--interval probably Hensell Sand. | 0 - 45 |
| Sand--very coarse, upper sample grayish-orange to light brown, rest contain some pale red clay, mostly very angular, very poorly sorted, about 25 per microcline, 1/8th-inch grains in lower sample and caliche(?) fragments. | 45 - 85 |
| Sand very coarse, some grains up to 0.25-inch, microcline scarce, some caliche(?). | 85 - 95 |
| Sand--very coarse, grayish-orange to light brown, very angular, poorly sorted, much microcline, a few samples contain clay and a few caliche(?). | 95 - 145 |
| Sand, conglomerate, and caliche--sand very coarse; conglomerate composed of Ellenburger chert and dolomite and Cambrian glauconitic limestone; caliche in part sandy, abundant. | 145 - 160 |
| Limestone--mostly coarse grained, very light gray mottled by dark yellowish-orange dolomite; some fine grained, glauconitic, silty. | 160 - 170 |
| Limestone--mostly fine grained, in part greenish-gray in part with an olive-gray cast, in part light gray to very light gray, in part abundantly glauconitic, in part silty and micaceous. | 170 - 185 |
| Limestone and siltstone--limestone similar to above; siltstone very argillaceous, glauconitic, micaceous, calcareous. | 185 - 190 |
| Limestone--very coarse grained, greenish-gray, in part very glauconitic, glauconite grains large. | 190 - 195 |
| Phosphatic brachiopod fragments abundant. | |
| Limestone--in part fine grained, mostly very light gray with very light olive-gray oolites; in part coarse grained similar to above. | 195 - 200 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Limestone and siltstone--limestone in part very coarse grained, light gray, somewhat glauconitic, fossiliferous; in part fine grained, silty, ranging to olive-gray to greenish-gray, micaceous, argillaceous, somewhat glauconitic siltstone. | 200 - 205 |
| Limestone--coarse-grained; mostly very light gray to yellowish-gray and greenish-gray, some light gray to very light olive-gray and light brown; glauconitic; in part fossiliferous; oolitic below 220 feet, oolites in part replaced by dolomite. | 205 - 265 |
| Some phosphatic brachiopods from 310 to 215 feet. | |
| Siltstone and limestone--mostly siltstone, argillaceous, micaceous, calcareous; grades to limestone, fine grained, very glauconitic, micaceous, silty; some limestone similar to above. | 265 - 275 |
| Limestone--coarse grained; light olive-gray to very pale red, some greenish-gray; slightly sandy, sand fine; oolitic; some grains appear to be pelmatozoan fragments. | 275 - 285 |
| Limestone and sandstone--limestone similar to above; sandstone coarse-grained, glauconitic, glauconite more abundant downward; sand grains well-rounded, in part somewhat rough from reconstitution. | 285 - 295 |
| Sandstone--fine to coarse grained, light gray with a slight greenish cast, slightly glauconitic, calcareous cement, grains well-rounded, in part angular from reconstitution. | 295 - 310 |
| Sandstone--similar to above except grayish-green from adhering glauconite, grains fine to very coarse, mostly reconstituted. | 310 - 326 |
| Greensand--very fine to coarse grained, poorly sorted quartz sand in a glauconite paste. | 326 - 336 |
| Greensand and limestone--greensand similar to above; limestone very coarse grained, very light gray, glauconitic. | 336 - 356 |
| Limestone and greensand--mostly limestone very coarse grained, light gray in part mottled very light olive-gray, glauconitic; some greensand similar to above; in lower few feet a few light olive-gray oolites. | 356 - 381 |
| Siltstone, limestone, and greensand--mostly siltstone medium olive-gray to dark greenish-gray, calcitic; limestone white to very light gray, glauconitic, very fossiliferous; greensand composed of glauconite in a silty matrix. | 381 - 385 |
| Limestone--granular, very light olive-gray oolites in a yellowish-gray matrix, slightly glauconitic, some oolites break free. | 385 - 440 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Limestone--very fine grained, very light olive-gray oolites in a very light gray matrix, slightly glauconitic. | 440 - 470 |
| Limestone--in part similar to above; in part very light olive-gray, silty. | 470 - 480 |
| Limestone--granular, very light olive-gray, silty, argillaceous, slightly micaceous, glauconitic. | 480 - 510 |
| Limestone--in part similar to above; in part coarse-grained, yellowish-gray, fossiliferous, glauconitic, glauconite grains large. | 510 - 520 |
| Limestone--granular, mostly very light olive-gray, very silty, argillaceous, slightly micaceous. | 520 - 530 |
| Siltstone or limestone--either a very calcareous siltstone or a very silty limestone, light olive-gray, argillaceous, slightly micaceous, some very fine-grained glauconite. | 530 - 540 |
| Limestone--in part very fine grained, very silty, argillaceous, slightly micaceous; in part coarse grained with very light olive-gray oolites in a very light gray matrix. | 540 - 550 |
| Limestone and/or siltstone--in part oolitic limestone similar to above; in part either very calcareous siltstone or very silty limestone, argillaceous, slightly micaceous. | 550 - 560 |
| Limestone--in part very fine grained, light olive-gray, silty, argillaceous; in part fine grained, light gray with an olive-gray cast. | 560 - 570 |
| Limestone--fine grained, in part very light olive-gray, in part light gray with an olive-gray cast, somewhat silty and micaceous, in part oolitic. | 570 - 580 |
| Limestone--mostly granular, light olive-gray oolites in a very light olive-gray matrix; some silty limestone similar to above. | 580 - 600 |
| No samples | 600 - 620 |
| Limestone--similar to above. | 620 - 630 |

Samples described by Lane Dixon

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|---|-----------|
| Limestone--fine-grained, light olive-gray, trace of glauconite. | 630 - 640 |
| Limestone--fine to medium grained, olive-gray to light gray, glauconitic. | 640 - 700 |
| No samples | 700 - 710 |
| Limestone--fine to coarse grained; olive-gray to light gray, below 720 feet some grains slightly reddish; | 710 - 790 |

| | <u>Depth in feet</u> |
|--|----------------------|
| glauconitic; below 730 feet some medium gray siltstone. | |
| Limestone--fine to medium grained; light gray to light olive-gray some reddish stain; glauconitic. | 790 - 800 |
| Limestone--mostly coarse grained, some fine to medium grained; light olive-gray with an orange cast; glauconitic. | 800 - 810 |
| Limestone--fine to medium grained, light olive-gray to very light gray, silty, glauconitic, some very fine sand below 830 feet. | 810 - 900 |
| Limestone--medium to coarse grained, white to light brownish-gray, some fine sand in upper half, glauconitic, some greenish-gray and black shale. | 900 - 940 |
| Sandstone--medium to fine grained, olive-gray, grains rounded, slightly frosted, mostly free, some embedded in olive-gray limestone; some limestone medium to coarse grained, light brownish-gray. | 940 - 950 |
| Sandstone--medium to coarse grained, reddish, calcareous cement increases downward, grains subrounded, slightly frosted. | 950 - 1,010 |
| No sample. | 1,010 - 1,020 |
| Sandstone--fine to very coarse grained, grains angular to subrounded, free. | 1,020 - 1,030 |
| No sample. | 1,030 - 1,040 |
| Sandstone--coarse grained, grains subangular to well-rounded, frosted, free. | 1,040 - 1,110 |
| Sandstone--very fine to very coarse grained. | 1,110 - 1,120 |
| Sandstone--coarse to very coarse grained, subangular to well-rounded. | 1,120 - 1,155 |

Rotary Samples

Described by Virgil E. Barnes

| | |
|---|---------------|
| Sandstone--medium to coarse grained, reddish, grains angular to subrounded, poorly sorted, downward samples finely ground until grain size is indeterminate, in upper part much material caved from the Hensell sand and Lion Mountain sandstone. | 1,155 - 1,240 |
| Granite--microcline, plagioclase, quartz, and biotite, probably Town Mountain Granite. | 1,240 - 1,250 |

Resume of rock units drilled:

| <u>Name</u> | <u>Depth in feet</u> | <u>Thickness in feet</u> |
|--------------------------------|----------------------|------------------------------|
| Cretaceous | | |
| No samples | 0 - 45 | |
| Hensell sand | 45 - 160 | 160 |
| Cambrian | | |
| Wilberns Formation | 160 - 310 | 150 |
| Morgan Creek Limestone | 160 - 290 | 130 |
| Welge Sandstone | 290 - 310 | 20 |
| Riley Formation | 310 - 1,240 | 930 |
| Lion Mountain Sandstone Member | 310 - 385 | 75 |
| Cap Mountain Limestone Member | 385 - 940 | 555 |
| Hickory Sandstone Member | 940 - 1,240 | 300 |
| Precambrian | | |
| Town Mountain Granite | 1,240 - 1,250 | 10 |

N. D. Gallagher and O. G. Lawson No. 1 Mrs. Bobbie I. Terry,
Comanche County

Location.--N. H. Kuykendall survey.

Elevation.--1,334 feet derrick floor.

Top of Ellenburger.--3,405 feet.

Top of Moore Hollow.--3,905 feet.

Top of Precambrian.--5,175 feet.

Total depth.--5,259 feet.

Date completed.--1938.

Correlation.--see Plates 4 and 5 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|--|----------------------|
| Shale--black. | 3,391 - 3,403 |
| Limestone and dolomite--upper and lower samples mostly limestone, aphanitic, very light yellowish-gray to very light olive-gray; dolomite mostly very fine to fine grained, some in lower sample microgranular, mostly light to medium brown; some shale in upper sample similar to above. | 3,403 - 3,431 |
| Chert mostly opaque, white, smooth fracturing; some in upper samples translucent, very light gray; in lower sample in part oolitic, some loose ooids. | |
| Limestone--aphanitic, light to very light olive-gray. | 3,431 - 3,475 |
| Chert opaque to translucent, white, smooth fracturing, in upper part pelleted. | |
| Limestone and dolomite--mostly limestone in upper sample to mostly dolomite in lower sample, limestone aphanitic, light yellowish-gray; dolomite mostly microgranular, light yellowish-gray to light olive-gray, in lower sample fine to very fine grained, light to medium brown. | 3,475 - 3,512 |
| Chert in upper part opaque to translucent, white to light brown, smooth fracturing, some chalky and rough fracturing from 3,480 to 3,495 feet, very sandy; in lower part opaque, white, smooth fracturing, scarce. | |

| | <u>Depth in feet</u> |
|--|----------------------|
| Limestone--aphanitic, light yellowish-gray to light olive-gray, upper sample and from 3,530 to 3,542 feet slightly sandy, lower sample in part dolomitic, a few fragments from 3,559 to 3,570 feet composed of loosely held together ooids. | 3,512 - 3,582 |
| Chert above 3,530 feet and from 3,542 to 3,550 feet, opaque to slightly translucent, smooth fracturing, in part oolitic; in bottom sample and from 3,550 to 3,559 feet, opaque, white, smooth fracturing. | |
| Dolomite and limestone--mostly dolomite, upper part mostly microgranular, some very fine grained, very light yellowish-gray, sandy, sand fine to medium, lower part very fine grained; limestone aphanitic; both light yellowish-gray. | 3,582 - 3,595 |
| Chert opaque, white, smooth fracturing to chalky, in part intraclastic in upper part. | |
| Limestone--aphanitic, very light yellowish-gray with an olive-gray cast, slightly dolomitic, some loose aggregates of ooids from 3,609 to 3,635 feet, slightly to very sandy. | 3,595 - 3,658 |
| Chert in upper sample opaque, white, smooth fracturing, a few chips indistinctly oolitic, sand very scarce; from 3,622 to 3,635 feet, opaque, white, smooth fracturing, scarce; in lower sample opaque to slightly translucent, smooth fracturing in part oolitic, sand very scarce. | |
| Limestone and dolomite (no sample from 3,726 to 3,735 feet)--limestone from 3,677 to 3,690, 3,719 to 3,726, and 3,762 to 3,771 feet, dolomite from 3,705 to 3,719 feet, very fine grained, rest dolomite and limestone; limestone aphanitic, very light olive-gray to very light yellowish-gray; dolomite microgranular from 3,658 to 3,677, 3,690 to 3,705, and 3,750 to 3,762 feet, very fine grained, from 3,735 to 3,750 feet, mostly very light gray, some light brown in lower part, mostly sandy above 3,690 feet and in bottom sample. | 3,658 - 3,771 |
| Chert above 3,690 feet, mostly opaque, white, smooth fracturing, some translucent in upper sample, in part sandy and oolitic from 3,658 to 3,677 and 3,685 to 3,690 feet; from 3,719 to 3,726 feet translucent, white, smooth fracturing. | |

| | <u>Depth in feet</u> |
|--|----------------------|
| Dolomite--mostly microgranular, very light gray, some light brown; very fine grained, very light gray from 3,819 to 3,825 feet; coarse grained, very light olive-gray from 3,800 to 3,810 feet; some very fine grained from 3,782 to 3,790 and 3,810 to 3,819 feet; some fine grained from 3,829 to 3,835 feet; bottom sample sandy. | 3,771 - 3,844 |
| Chert from 3,800 to 3,810 feet, opaque, white, very finely granular; below 3,819 feet, opaque, white, smooth fracturing to chalky and granular, in part quartzose, in part dolomitic to interstitial, sandy below 3,825 feet. | |
| Limestone--aphanitic, very light olive-gray, dolomitic, slightly sandy. | 3,844 - 3,850 |
| Chert opaque, white, smooth fracturing. | |
| Dolomite--coarse grained, almost white, some microgranular in lower 3 feet; in upper sample some limestone similar to above. | 3,850 - 3,881 |
| Chert in lower sample opaque, white, chalky, scarce. | |
| Dolomite--mostly microgranular, in part very fine grained above 3,900 feet, very light gray, middle portion sandy. | 3,881 - 3,907 |
| Chert in upper sample opaque, white, chalky, scarce. | |
| Dolomite and limestone--mostly dolomite, coarse grained, very light yellowish-gray with an olive-gray cast, lower sample sandy; upper 3 feet limestone, aphanitic, very light yellowish-gray with an olive-gray cast, dolomitic. | 3,907 - 3,935 |
| Chert in upper and lower samples in part opaque, white, smooth fracturing, some in lower sample chalky, sandy, much in upper sample quartzose, also some quartz. | |
| Limestone--aphanitic, very light yellowish-gray, dolomitic, dolomite coarse. | 3,935 - 3,951 |
| Chert opaque, white, smooth fracturing. | |

| | <u>Depth in feet</u> |
|--|----------------------|
| Dolomite--mostly coarse grained, very light yellowish-gray, upper sample microgranular; some limestone in lower sample aphanitic, very light olive-gray. | 3,951 - 3,998 |
| Chert in upper sample white, mostly quartzose, some smooth fracturing, abundant quartz; from 3,957 to 3,966 feet, white, chalky; from 3,987 to 3,994 feet, opaque, white, smooth fracturing, abundant. | |
| Limestone--aphanitic, very light olive-gray to very light yellowish-gray and almost white, a few samples dolomitic, some loose calcite ooids in bottom 17 feet. | 3,998 - 4,057 |
| Chert in upper 12 feet translucent, very light gray, smooth fracturing, abundant. | |
| No samples | 4,057 - 4,072 |
| Limestone--aphanitic, very light yellowish-gray, slightly dolomitic. | 4,072 - 4,126 |
| Chert from 4,093 to 4,100 feet, oolitic and below 4,107 feet, very abundant except in bottom 6 feet, both translucent to slightly translucent, very light gray, smooth fracturing. | |
| Dolomite and limestone--mostly dolomite, at least fine grained, possibly coarser; in part limestone from 4,134 to 4,143 and 4,155 to 4,162 feet, aphanitic, very light yellowish-gray. | 4,126 - 4,165 |
| Chert below 4,143 feet, white to very light gray, opaque to translucent, smooth fracturing, very abundant. | |
| No samples. | 4,165 - 4,295 |
| Dolomite--at least fine grained, perhaps coarser, light brown in upper part to very light yellowish-gray in lower part. | 4,295 - 4,325 |
| Chert mostly translucent, very light gray, some light brown, smooth fracturing, numerous chert ooids at 4,300 feet; in bottom sample white chalky, oolitic, some loose ooids and much quartz. | |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--mostly fine grained, some medium grained in upper sample, very light gray to light brown. Chert below 4,356 feet, white, finely granular, quartzose, dolomitic, numerous chert ooids from 4,349 to 4,360 feet, some quartz. | 4,325 - 4,375 |
| Dolomite--fine and very fine grained, light brown. | 4,375 - 4,445 |
| Dolomite--mostly coarse grained, very light yellowish-gray, some medium grained in upper 20 feet. | 4,445 - 4,536 |
| Dolomite--mostly very fine grained, some fine grained from 4,545 to 4,565 feet, some coarse grained from 4,564 to 4,569 feet; very light gray above 4,569 feet, light brown below 4,569 feet; much loose, well-rounded, polished sand from 4,608 to 4,612 feet, possibly cavings. | 4,536 - 4,648 |
| Dolomite and limestone--limestone from 4,662 to 4,690 feet, rest limestone and dolomite, limestone granular and in part fossiliferous in upper part to microgranular and very fine grained in lower part, very light to medium brown; dolomite very fine grained, glauconitic from 4,655 to 4,662 and 4,669 to 4,671 feet and in bottom sample, in part pyritiferous. | 4,648 - 4,705 |
| Limestone--mostly finely granular, light to medium brown, slightly glauconitic, somewhat oolitic, silty; in lower sample some coarsely granular. | 4,705 - 4,815 |
| Limestone--microgranular and very finely granular, medium brown, slightly glauconitic, silty, in part oolitic from 4,825 to 4,865 feet; a few chips of very calcareous siltstone; a few chips of glauconitic dolomite in lower sample. | 4,815 - 4,887 |
| Dolomite--fine grained, mostly medium brown, some greenish-gray, some interstitial glauconite, a few loose sand grains, polished, rounded. | 4,887 - 4,900 |
| Dolomite--probably coarse grained, very light yellowish-gray. | 4,900 - 4,935 |
| Dolomite--fine grained, medium brown in upper part to light brown in lower part, sandy to very sandy below 4,982 feet, sand fine to very fine; some sandstone below 5,000 feet. | 4,935 - 5,020 |
| Dolomite--probably fine to medium grained, very light yellowish-gray, middle portion slightly glauconitic. | 5,020 - 5,051 |
| Dolomite--fine grained, possibly some medium grained above 5,095 feet, very light yellowish-gray in upper part to light to medium brown in | 5,051 - 5,142 |

Depth in feet

lower part, sandy to very sandy, silty, sand mostly fine to very fine, slightly glauconitic; some sandstone from 5,065 to 5,075 feet, fine to very fine grained, some medium grained, a few medium sand grains below 5,115 feet.

Sandstone--mostly fine and very fine grained in upper part to fine grained in lower part, a few medium and coarse grains, light to very light gray, dolomitic, glauconitic. 5,142 - 5,175

Granite--samples mostly sand; top of granite based on presence of blocky mica below 5,175 feet and its absence above this level. Flawn (1956) places top of basement at 5,257 feet. 5,175 - 5,257

Garland-Anthony No. 1 Hammons (Anthony No. 1 Gilbert
on sample sacks), Parker County

Location.--J. Johnson survey

Elevation.--877 feet derrick floor.

Top of Ellenburger.--5,035 feet.

Top of Moore Hollow.--6,890 feet.

Top of Precambrian.--7,660 feet.

Total depth.--7,798 feet.

Date completed.--1952.

Correlation.--See Plate 4 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|---|----------------------|
| Shale--black, blocky, rough fracturing. In upper sample an impression of a phosphatic brachiopod. | 5,000 - 5,030 |
| Limestone and shale--limestone aphanitic, light olive-gray, in part dolomitic, dolomite fine grained; shale similar to above. Chert, translucent, smooth fracturing, very light gray, one chip. | 5,030 - 5,040 |
| Dolomite--mostly microgranular, upper sample fine and very fine grained, lower sample very fine grained, mostly very light gray and very light olive-gray, some light brown in upper 20 and lower 10 feet; some limestone in upper sample similar to above. Chert in upper 20 feet, translucent, smooth fracturing, very light gray. | 5,040 - 5,100 |
| Limestone--aphanitic, very light olive-gray, in upper part dolomitic. | 5,100 - 5,120 |
| Dolomite--very fine grained, light to very light olive-gray, some limestone in upper sample similar to above. | 5,120 - 5,140 |
| Limestone--aphanitic, very light olive-gray. | 5,140 - 5,160 |
| Dolomite--upper sample fine verging on very fine grained, middle sample microgranular, lower sample very fine grained; very light gray to light olive-gray; some aphanitic limestone in middle sample. | 5,160 - 5,190 |
| Limestone and dolomite--lower sample mostly limestone, aphanitic; upper sample in part dolomite, very fine grained; both light olive-gray. Chert translucent to opaque, white, smooth fracturing. | 5,190 - 5,210 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--very fine grained and microgranular from 5,210 to 5,230 feet; very fine grained from 5,240 to 5,250 feet, rest microgranular; light olive-gray in upper part to very light olive-gray to light brown in lower part; some limestone from 5,220 to 5,230 feet, aphanitic, light olive-gray. | 5,210 - 5,270 |
| Chert in upper sample translucent, white, smooth fracturing, very scarce; from 5,220 to 5,230 feet, opaque to slightly translucent, white, smooth fracturing; from 5,230 to 5,240 feet, opaque, white, smooth fracturing; similar chert in lower sample is dolomitic. | |
| Limestone--aphanitic, light olive-gray. | 5,270 - 5,280 |
| Chert opaque, white, smooth fracturing, scarce. | |
| Dolomite--microgranular in upper part to almost aphanitic in lower part; light olive-gray in upper part, very light gray in lower part; in lower sample some limestone, aphanitic, light olive-gray. | 5,280 - 5,320 |
| Limestone--aphanitic, very light olive-gray. | 5,320 - 5,330 |
| Chert slightly translucent, light olive-gray, smooth fracturing. | |
| Dolomite--microgranular verging on aphanitic, very light gray. | 5,330 - 5,340 |
| Chert opaque, smooth fracturing, white, scarce. | |
| Limestone--aphanitic, light olive-gray; in lower sample some dolomite, very fine grained. | 5,340 - 5,360 |
| Chert in upper sample opaque, white, smooth fracturing. | |
| Dolomite--microgranular, very light gray to very light olive-gray; some limestone in upper sample similar to above. | 5,360 - 5,390 |
| Chert in lower 20 feet, opaque, white, smooth fracturing. | |
| Limestone--aphanitic, light to very light olive-gray; some microgranular dolomite in upper sample. | 5,390 - 5,430 |
| Chert in upper 30 feet, opaque to translucent, white, smooth fracturing; in lower sample, white, opaque, smooth fracturing, scarce. | |
| Limestone and dolomite--limestone aphanitic, very light olive-gray; dolomite mostly microgranular verging on aphanitic, very light yellowish-gray. | 5,430 - 5,470 |
| Chert in upper sample opaque, white, smooth fracturing, very scarce; in lower sample opaque to translucent, white, smooth fracturing, scarce. | |
| Limestone--aphanitic, very light olive-gray. | 5,470 - 5,490 |
| Chert in upper sample opaque, white, smooth fracturing, very scarce. | |
| Limestone and dolomite--limestone aphanitic, very light olive-gray; dolomite very fine grained, light medium brown. | 5,490 - 5,510 |
| Chert in lower sample translucent, very light gray to light brown, smooth fracturing, very abundant. | |

| | <u>Depth in feet</u> |
|---|----------------------|
| Limestone--aphanitic, yellowish-gray to light and very light olive-gray; in lower sample some dolomite, microgranular, light olive-gray. Chert in upper 20 feet, translucent, very light gray to light brown, smooth fracturing, abundant in upper sample; from 5,530 to 5,540 feet, opaque, white, smooth fracturing, some translucent; from 5,550 to 5,560 feet, translucent, very light olive-gray, smooth fracturing; from 5,570 to 5,590 feet, slightly translucent, very light gray, smooth fracturing; from 5,630 to 5,650 feet, opaque to slightly translucent, white, smooth fracturing; from 5,680 to 5,690 feet, mostly opaque, white, some translucent, light olive-gray, both smooth fracturing; from 5,700 to 5,720 feet, translucent, very light olive-gray, smooth fracturing, scarce. | 5,510 - 5,760 |
| Limestone--aphanitic, light yellowish-gray to very light olive-gray, in upper sample a few loose sand grains, medium to coarse, very well rounded, frosted, in next sample one coarse sand grain. Chert from 5,790 to 5,800 feet, opaque, white, smooth fracturing; in bottom sample slightly translucent, very light olive-gray, smooth fracturing, scarce. | 5,760 - 5,820 |
| No samples. | 5,820 - 5,840 |
| Limestone--aphanitic, light yellowish-gray to very light olive gray; some dolomite from 5,850 to 5,860 feet, very fine grained, light brown. Chert in upper 20 feet, opaque, white, smooth fracturing; in lower 30 feet, opaque to slightly translucent, white, smooth fracturing, abundant to scarce. | 5,840 - 5,890 |
| Limestone and dolomite--mostly limestone similar to above, slightly sandy from 5,920 to 5,930 feet; some microgranular dolomite, light brown in upper 20 feet; very light gray from 5,920 to 5,930 feet. | 5,890 - 5,940 |
| Limestone--aphanitic, light yellowish-gray, slightly sandy in upper sample and from 5,980 to 6,000 feet; some dolomite from 5,980 to 5,990 feet, very fine grained, very light olive-gray, sandy. Chert in upper 30 feet, opaque and translucent, very scarce; from 5,970 to 5,980 feet, opaque, yellowish-gray, slightly rough fracturing. | 5,940 - 6,050 |
| Limestone and dolomite--mostly limestone, aphanitic, light yellowish-gray; upper sample in part dolomite, very fine grained, very light gray, slightly sandy. Chert in upper sample translucent, smooth fracturing, scarce. | 6,050 - 6,070 |
| Dolomite--microgranular, white, upper sample slightly sandy; some limestone similar to above. | 6,070 - 6,090 |
| Limestone and dolomite--mostly limestone, aphanitic, almost white; bottom sample in part dolomite, microgranular, very light gray. Chert in bottom sample opaque, white, smooth fracturing, scarce. | 6,090 - 6,120 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Limestone--aphanitic, very light yellowish-gray, sandy from 6,130 to 6,140 feet. | 6,120 - 6,230 |
| Chert in upper sample white to very light olive-gray, oolitic; from 6,190 to 6,200 feet, white, both opaque to translucent, smooth fracturing; from 6,130 to 6,140, 6,150 to 6,160, and 6,170 to 6,180 feet, opaque, white, smooth fracturing; from 6,200 to 6,210 feet, slightly translucent, white, smooth fracturing; from 6,220 to 6,230 feet, translucent, very light yellowish-gray, smooth fracturing. | |
| Limestone and dolomite--mostly limestone from 6,230 to 6,240, 6,250 to 6,260, 6,270 to 6,280, and below 6,300 feet; about equally limestone and dolomite from 6,240 to 6,250 feet, rest mostly dolomite; limestone aphanitic, very light yellowish-gray, in part dolomitic; dolomite coarse grained, very light yellowish-gray, below 6,320 feet, some dolomite fine grained, light brown. | 6,230 - 6,350 |
| Chert from 6,240 to 6,250 and 6,270 to 6,290 feet, opaque to translucent, white, smooth fracturing; from 6,260 to 6,270, 6,290 to 6,300, and 6,310 to 6,320 feet, opaque, white, smooth fracturing, upper sample in part oolitic; some quartz from 6,240 to 6,250 and 6,290 to 6,300 feet and in bottom 20 feet. | |
| Dolomite and limestone--mostly dolomite, in upper half medium grained, very light olive-gray, in lower half coarse grained, almost white; limestone in upper 10 and lower 20 feet aphanitic, almost white. | 6,350 - 6,390 |
| Chert opaque, white, smooth fracturing, in part slightly translucent in upper sample; quartz abundant from 6,360 to 6,370 feet, some in lower sample. | |
| Dolomite--mostly medium grained, very light olive-gray, in lower sample in part fine grained, light brown; some limestone in upper sample similar to above. | 6,390 - 6,460 |
| Chert opaque, white, smooth fracturing, scarce to abundant; quartz scarce to abundant. | |
| Dolomite and limestone--mostly dolomite, coarse grained from 6,470 to 6,490 feet, very light olive-gray to yellowish-gray; upper sample fine grained, light brown; lower sample fine to medium grained, light yellowish-gray; limestone aphanitic, very light olive-gray to light yellowish-gray. | 6,460 - 6,500 |
| Chert mostly opaque, white, smooth fracturing, some translucent in upper and lower samples, abundant in upper sample, scarce in lower sample; some quartz in lower sample. | |
| Dolomite--mostly coarse grained, white to very light olive-gray, slightly calcitic in upper part, some fine grained, light olive-gray from 6,520 to 6,530 feet and in bottom sample. | 6,500 - 6,560 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Chert from 6,510 to 6,550 feet, opaque, white, smooth fracturing, in lower sample dolomitic. | |
| Dolomite--fine grained, light to very light olive-gray, in part slightly pyritiferous. | 6,560 - 6,630 |
| Chert opaque, white to very light gray, smooth fracturing, in part dolomitic below 6,590 feet, scarce from 6,580 to 6,590 feet and in bottom sample, very abundant from 6,590 to 6,610 feet; quartz crystals common below 6,600 feet. | |
| Dolomite--fine to medium grained, very light olive-gray. | 6,630 - 6,670 |
| Chert opaque, white, smooth fracturing, dolomitic in upper part, very scarce to fairly common. | |
| Dolomite--medium to coarse grained, almost white; some fine grained from 6,680 to 6,700 feet. | 6,670 - 6,720 |
| Chert from 6,690 to 6,700 feet granular, quartzose, scarce. | |
| Dolomite--mostly coarse grained, almost white; some fine grained from 6,820 to 6,830 feet and some fine and medium grained from 6,830 to 6,840 feet, very light olive-gray; bottom sample in part very fine grained, light brown. | 6,720 - 6,890 |
| Dolomite--very fine grained, light to medium brown, finely pyritiferous, calcitic in lower sample; some coarse grained in upper sample similar to above. | 6,890 - 6,980 |
| Dolomite and limestone--mostly dolomite similar to above, fine to very fine grained, silty; some granular limestone, medium brown, pyritiferous, silty, lower sample oolitic, a trace of glauconite in upper sample. | 6,980 - 7,010 |
| Limestone--granular, medium brown, very dolomitic, silty and pyritiferous, some glauconite from 7,030 to 7,040 feet; shale flakes in upper sample, brown, calcareous, pyritiferous. | 7,010 - 7,090 |
| Limestone--finely granular to aphanitic, light to medium light brown, mostly dolomitic, pyritiferous, and silty, upper sample and from 7,160 to 7,170 feet, oolitic; a few brown shale flakes from 7,150 to 7,170 feet; in bottom sample some dolomite, coarse grained, almost white. | 7,090 - 7,280 |
| Dolomite--coarse to very coarse grained, almost white, vuggy; in bottom sample some fine grained, very light olive-gray. | 7,280 - 7,330 |
| Dolomite--mostly fine and very fine grained, from 7,330 to 7,360, 7,380 to 7,410, and 7,420 to 7,440 feet, fine to medium grained from 7,360 to 7,380 feet, some coarse grained in upper sample, rest very fine grained; light olive-gray | 7,330 - 7,450 |

Depth in feet

| | |
|---|---------------|
| to yellowish-gray; slightly pyritiferous; sugary and with much intergranular porosity from 7,420 to 7,440 feet. | |
| Limestone--coarsely granular; light to very light olive-gray in upper part, darker downward, below 7,540 feet in part grayish-red and reddish-gray, more prominent downward; slightly glauconitic in upper part to very glauconitic in lower part; somewhat silty throughout and slightly micaceous; slightly pyritiferous; oolitic from 7,490 to 7,500 and 7,510 to 7,530 feet; in lower sample much well-rounded sand mostly coarse and very coarse; upper sample about half dolomite similar to above, some other samples slightly dolomitic; fossil debris common throughout. | 7,450 - 7,590 |
| Limestone and sandstone--limestone similar to above; sandstone coarse to very coarse grained, grains fairly well-rounded, mostly pink. | 7,590 - 7,600 |
| No sample. | 7,600 - 7,610 |
| Sandstone--mostly fine to very coarse grained, very light gray; some very fine grained, silty, argillaceous, pyritiferous, lower sample slightly glauconitic. | 7,610 - 7,630 |
| Sandstone--fine to very coarse grained, more argillaceous than above, microcline chips scarce in upper sample to fairly abundant in lower sample, some with attached quartz. | 7,630 - 7,660 |
| Biotite, hornblende schist (Flawn, 1956). | 7,660 - 7,798 |

Gilcrease Oil Company No. 1 Feril, Comanche County

Location.--330 feet from east and south lines of Vina Campbell survey no. 19.

Elevation.--1,562 feet.

Top of Ellenburger.--2,670 feet.

Top of Moore Hollow.--3,620 feet.

Total depth.--4,278 feet.

Date completed.--1952.

Correlation.--See Plate 4 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|---|----------------------|
| Shale--dark gray with brownish cast, calcareous, pyritiferous, blocky fracture. | 2,604 - 2,625 |
| Shale--similar to above except only slightly calcareous and fracture less blocky; a few chips of fossiliferous limestone in lower sample. | 2,625 - 2,647 |
| Limestone--granular, yellowish-gray, pyritiferous, very fossiliferous with much pelmatozoan debris some of which is pinkish-orange; some shale in upper sample similar to above except mostly glauconitic. | 2,647 - 2,670 |
| Limestone-aphanitic, very light yellowish-gray; lower sample slightly dolomitic. One chip of sandstone at about 2,705 feet, grains very fine, polished, fairly well-rounded. Chert white, opaque to slightly translucent, more abundant in upper sample, slightly speckled by very minute white spots. | 2,670 - 2,725 |
| Limestone and dolomite--mostly limestone similar to above; dolomite very fine grained, very light yellowish-gray. Chert in part white, opaque, in part very light bluish-gray, translucent, speckled by white. | 2,725 - 2,735 |
| Dolomite--fine grained, yellowish-gray, very fine sand rare in lower half; some dolomitic limestone; many clear calcite rhombs. Chert in upper part white, opaque; in lower part white, translucent, oolitic or pelleted. | 2,735 - 2,750 |
| Limestone--aphanitic, very light yellowish-gray, in part dolomitic; some dolomite in lower sample, medium grained, light gray. Chert white, opaque. | 2,750 - 2,760 |

| | Depth in feet |
|--|---------------|
| Dolomite--upper half bordering on fine and very fine grained, lower half medium grained, some microgranular; very light to light olive-gray; sand in lower sample fine, well-rounded, common. Chert in upper sample, white, opaque, rare. | 2,760 - 2,775 |
| No sample. | 2,775 - 2,781 |
| Dolomite--upper part microgranular, lower part very fine grained; very light gray; upper part very sandy. | 2,781 - 2,793 |
| Dolomite--fine grained, very light gray. Chert white, opaque, dolomitic to interstitial, more abundant in upper sample. | 2,793 - 2,805 |
| Dolomite--microgranular, some very fine grained in upper sample; very light gray; lower sample sandy. | 2,805 - 2,820 |
| Dolomite--fine grained, very light yellowish-gray. | 2,820 - 2,828 |
| Dolomite--mostly coarse grained, some medium grained in upper sample; yellowish-gray to very light olive-gray in upper part, very light gray in lower part. Chert in upper sample white, opaque, from 2,835 to 2,845 feet white, opaque to translucent, in part sandy, in part intraclastic, pelleted, and veined by quartz; in lower sample white, slightly translucent, smooth fracturing. | 2,828 - 2,858 |
| Dolomite--upper sample microgranular, rest bordering on fine and very fine grained; very light gray; some sand in lower sample. | 2,858 - 2,875 |
| Dolomite--mostly fine grained, very light olive-gray, some medium grained, very light yellowish-gray in middle sample; upper sample sandy. Chert white, opaque to translucent, smooth fracturing, upper sample in part sandy. | 2,875 - 2,901 |
| Dolomite--microgranular and medium grained. Chert white, opaque, rare. | 2,901 - 2,909 |
| Dolomite and limestone--dolomite coarse grained, very light gray; grades to limestone, aphanitic, yellowish-gray. Chert in lower sample white, opaque, smooth fracturing. | 2,909 - 2,929 |
| Limestone--aphanitic, very light yellowish-gray; upper 20 feet dolomitic; from 2,970 to 2,984 feet mostly pelleted, in part sandy. Chert from 2,944 to 2,958 feet white, opaque, smooth fracturing, a few chips of banded chalcedony; from 2,958 to 2,970 feet white, opaque to slightly translucent, in part pelleted and perhaps intraclastic; in lower part oolitic, very abundant; from 2,970 to 2,980 feet very light gray, translucent, pelleted; in lower sample white to very light gray, opaque to translucent micro-oolitic to perhaps pelleted, very abundant. | 2,929 - 2,992 |
| Limestone--aphanitic, very light yellowish-gray to white. Chert in upper sample very scarce. | 2,992 - 3,010 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Dolomite and limestone--dolomite most abundant, fine grained in upper part, coarse grained in lower part; limestone aphanitic; both almost white. | 3,010 - 3,059 |
| Dolomite--coarse grained, very light gray verging on white; some aphanitic limestone. | 3,059 - 3,070 |
| Limestone and dolomite--mostly limestone, pelleted; some dolomite; both similar to above. | 3,070 - 3,094 |
| Chert below 3,072 feet comprises bulk of sample, mostly very light gray, opaque pellets in a clear quartz matrix, individual chert ooids common, some oolitic chert, some banded chalcedony; in lower part some white, opaque. | |
| No sample. | 3,094 - 3,098 |
| Limestone and dolomite--similar to above. | 3,098 - 3,105 |
| Chert similar to above, possibly less abundant. | |
| No sample | 3,105 - 3,113 |
| Dolomite--mostly medium grained, very light gray. | 3,113 - 3,138 |
| Chert white, opaque, quartzose in upper part; mostly translucent, pelleted, very light gray in lower part. | |
| Dolomite--fine grained; very light gray in upper part, light to very light olive-gray in lower part. | 3,138 - 3,194 |
| Chert in lower 10 feet quartzose, and white, opaque, scarce; in rest of interval very light gray to white, translucent, in part pelleted, very abundant. | |
| Dolomite--coarse grained, very light gray verging on white. | 3,194 - 3,213 |
| Dolomite--fine grained, very light gray verging on white. | 3,213 - 3,221 |
| Mostly chert of same color as dolomite, quartzose, granular. | |
| Dolomite--mostly medium grained, very light gray; some fine grained, light olive-gray in lower sample. | 3,221 - 3,250 |
| Chert in upper part similar to above; in middle white, granular and quartz druse; in lower part light olive-gray; granular, quartzose, abundant and quartz druse abundant. | |
| Dolomite--fine grained, light olive-gray. | 3,250 - 3,278 |
| Chert light olive-gray, granular, quartzose, individual ooids common except in lower sample; quartz druse common. | |
| Chert and quartz--chert white, opaque, granular, dolomitic; abundant quartz. | 3,278 - 3,287 |
| Dolomite--mostly fine grained, perhaps somewhat coarser in upper sample; very light gray to very light olive-gray. | 3,287 - 3,317 |
| Chert white to very light olive-gray, quartzose, dolomitic to interstitial, oolitic in upper part, some individual ooids, lower sample mostly chert; quartz and quartz druse abundant throughout. | |
| Dolomite--very fine grained, very light olive-gray. | 3,317 - 3,339 |
| Mostly chert white in part with a brownish cast, opaque, quartzose, granular; abundant quartz druse. | |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--fine grained or possibly coarser, very light gray verging on white. Quartz common. | 3,339 - 3,353 |
| Dolomite--fine grained, very light to light olive-gray. Chert, white, opaque, dolomitic to interstitial, in part quartzose and granular; quartz and quartz druse common. | 3,353 - 3,416 |
| Dolomite--mostly bordering on fine and very fine grained, some very fine grained in upper sample and fine grained in lower sample; very light to light olive-gray, some very light gray in lower part, lower sample almost white. Chert in upper sample similar to above; next sample light olive-gray, slightly translucent, dolomitic; below 3,427 feet white, opaque, dolomitic to interstitial, scarce in lower sample. | 3,416 - 3,455 |
| No sample. | 3,455 - 3,465 |
| Dolomite--coarse grained, white, some interstitial green clay. | 3,465 - 3,469 |
| No sample. | 3,469 - 3,477 |
| Dolomite--similar to above. | 3,477 - 3,482 |
| No sample. | 3,482 - 3,485 |
| Dolomite--mostly bordering on fine and very fine grained; light olive-gray in upper 15 feet, rest medium olive-gray; pyrite fairly common. Chert above 3,550 feet of same color as the dolomite, granular, interstitial to dolomitic. Insoluble residue from 3,485 to 3,520 feet mostly white, some brown, delicate, very dolomoldic mesh-work of clay, translucent to cloudy, very low birefringence to none; quartz rare; chert as above. | 3,485 - 3,587 |
| No sample. | 3,587 - 3,591 |
| Dolomite--fine grained, medium olive-gray, somewhat more pyritiferous than above. | 3,591 - 3,617 |
| No sample. | 3,617 - 3,625 |
| Dolomite--fine grained, light to very light gray, in part pyritiferous, some interstitial glauconite. | 3,625 - 3,629 |
| Dolomite--very fine grained, very light olive-gray. | 3,629 - 3,649 |
| No sample. | 3,649 - 3,655 |
| Dolomite--very fine grained, pyritiferous, interstitial glauconite common from 3,655 to 3,666 from 3,682 to 3,700 feet, and in bottom sample. | 3,655 - 3,717 |
| Dolomite--fine grained, medium light gray, some interstitial glauconite, pyritiferous. | 3,717 - 3,727 |
| No sample. | 3,727 - 3,730 |
| Dolomite--fine grained, medium light gray, interstitial glauconite scarce, pyritiferous. | 3,730 - 3,747 |
| No sample. | 3,747 - 3,754 |
| Dolomite--fine to medium grained, very light gray, some interstitial green clay, much light green | 3,754 - 3,764 |

| | <u>Depth in feet</u> |
|--|----------------------|
| pyritiferous clay, somewhat glauconitic. | |
| Dolomite--fine grained; mostly very light gray, some light gray and very light olive-gray. | 3,764 - 3,790 |
| No sample. | 3,790 - 3,795 |
| Dolomite--fine grained, very light olive-gray. | 3,795 - 3,800 |
| No sample. | 3,800 - 3,802 |
| Dolomite--fine grained, very light olive-gray. | 3,802 - 3,806 |
| No sample. | 3,806 - 3,814 |
| Dolomite--fine grained, very light yellowish-gray. | 3,814 - 3,820 |
| No sample. | 3,820 - 3,824 |
| Dolomite--very fine grained, very light olive-gray. | 3,824 - 3,834 |
| No sample. | 3,834 - 3,838 |
| Dolomite--fine grained verging on very fine grained, very light olive-gray. | 3,838 - 3,845 |
| No sample. | 3,845 - 3,849 |
| Dolomite--mostly fine grained verging on very fine grained, very light olive-gray; in lower sample some very fine grained, slightly glauconitic. | 3,849 - 3,871 |
| Dolomite--fine grained, various shades of medium to very light olive-gray, some interstitial clay and pyrite. | 3,871 - 3,879 |
| Dolomite--upper and lower samples very fine grained, rest fine-grained; very light olive-gray; a few tiny specks of glauconite in lower part. | 3,879 - 3,913 |
| No sample. | 3,913 - 3,920 |
| Dolomite--fine grained, very light olive-gray, tiny specks of glauconite rare in lower sample. | 3,920 - 3,951 |
| Insoluble residue from 3,945 to 3,951 feet some quartz, glauconite, soft chert(?), and authigenic feldspar around nuclei of microcline. | |
| Limestone--aphanitic to microgranular, yellowish-gray, pyritiferous, slightly fossiliferous, tiny glauconite grains rare, dolomitic in upper part. | 3,951 - 3,965 |
| Insoluble residue abundant authigenic feldspar in part in soft dolomoldic chert(?) on basis of index of refraction; glauconite, tiny quartz crystals, and spicules rare. The relationship of the feldspar and chert suggests that these minerals may have been formed in situ from clay. | |
| Limestone--granular, yellowish-gray to very light olive-gray, very tiny glauconite grains numerous, a few ooids, fossil fragments common. | 3,965 - 3,975 |
| No sample. | 3,975 - 3,981 |
| Limestone--aphanitic to microgranular, medium olive-gray, microgranular part silty, argillaceous, pyritiferous trilobite fragments common in aphanitic part; slightly glauconitic in lower half. | 3,981 - 4,020 |
| No sample. | 4,020 - 4,027 |
| Limestone--mostly aphanitic, very light olive-gray, somewhat fossiliferous; some microgranular, glauconitic. | 4,027 - 4,046 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Insoluble residue from 4,036 to 4,051 feet authigenic feldspar in part aggregated, some glauconite, a few light brown and light green shale flakes. | |
| Limestone--mostly very fine grained, glauconitic; some aphanitic similar to above. | 4,046 - 4,056 |
| Insoluble residue from 4,046 to 4,051 feet authigenic feldspar in part aggregated, some glauconite. | |
| Limestone--granular, glauconitic, yellowish-gray to very light olive-gray; some aphanitic, fossili- ferous. | 4,056 - 4,073 |
| No samples. | 4,073 - 4,097 |
| Limestone--granular, very light yellowish-gray to light olive-gray with a greenish cast, glauconite common in fairly large grains, very fine sand and silt common. | 4,097 - 4,102 |
| No sample. | 4,102 - 4,112 |
| Limestone--granular, glauconitic, much very fine sand and silt. | 4,112 - 4,122 |
| No sample. | 4,122 - 4,135 |
| Limestone--coarsely granular, very light yellowish- gray ranging through pinkish-gray to dull red, silty, dolomitic, large glauconite grains. | 4,135 - 4,149 |
| No sample. | 4,149 - 4,160 |
| Sandstone--fine to coarse grained; dusky red; grains poorly sorted, fairly well-rounded, very rough. | 4,160 - 4,183 |
| Sandstone--fine to medium grained; very light pinkish- brown; grains fairly well-rounded, mostly rough, many broken, a few coated by glauconite. | 4,183 - 4,188 |
| Sandstone--fine to medium grained, light gray, some grains stained by glauconite, glauconite grains common; in lower 8 feet some granular glauconitic limestone, a few chips mostly glauconite. | 4,188 - 4,210 |
| No sample. | 4,210 - 4,215 |
| Sandstone--mostly very fine to coarse grained, slightly pinkish, in part dolomite cemented, very glauconitic, somewhat more glauconitic downward. | 4,215 - 4,226 |
| Sandstone--fine to medium grained, very light yellowish- gray; a few chips cemented by dolomite are glauconitic and silty; in lower sample a few well-rounded, red, sand grains. | 4,226 - 4,256 |
| No sample. | 4,256 - 4,258 |
| Sandstone--fine to medium grained, pale red, grains well-rounded, smooth. | 4,258 - 4,271 |

Gregg and Others (Danewood Oil Company and Others) No. 1 M. L. Smith,
Brown County

Location.--J. F. (J. W.) Crawford survey No. 1, 660 feet from NEL, 1,170 feet from SEL.

Elevation.--1,487 feet.

Top of Ellenburger.--1,485 feet.

Top of Moore Hollow.--2,482 feet.

Top of Precambrian.--3,395 feet.

Total depth.--3,427 feet (drillers log, 3,434 feet)

Completed.--September 14, 1935.

Correlation.--See Plate 4 of Moore Hollow Group, Part 1.

Description of samples.--Individually by P. E. Cloud, Jr., and Barnes 1945-1946. This description by Barnes with additions from Cloud as noted. Samples in part very finely ground limiting the accuracy of grain size determinations.

Location of samples.--Gulf Oil Corporation.

Cuttings

| | <u>Depth in feet</u> |
|---|----------------------|
| Limestone--granular, dark gray, slightly glauconitic. | 1,477 - 1,485 |
| Limestone--very finely granular, white to light gray, sand scarce, a few cemented clumps in upper sample. | 1,485 - 1,500 |
| Chert translucent, white, smooth fracturing, in lower sample slightly sandy. | |
| Limestone--aphanitic, very light gray in upper part to very light yellowish-gray in lower part; some dolomite from 1,605 to 1,612 feet, very fine grained, light gray. Cloud noted sand at about 1,505, 1,525, 1,535, 1,555, and 1,575 feet, and in bottom 10 feet. | 1,500 - 1,625 |
| Chert in upper 10 feet and some from 1,605 to 1,612 feet, translucent, white, smooth fracturing; from 1,512 to 1,540, and below 1,570 feet, white, opaque, smooth fracturing. | |
| Dolomite--fine grained, some very fine grained in upper 20 feet; some limestone in upper 20 feet similar to above. Cloud noted sand at about 1,655 and 1,665 feet. | 1,625 - 1,665 |
| Chert white, opaque, smooth fracturing to very finely granular grading to chalky in upper part; some translucent, smooth fracturing in upper 20 | |

| | <u>Depth in feet</u> |
|---|----------------------|
| and lower 10 feet, that in upper 20 feet either finely oolitic or pelleted; some quartz in upper 20 feet. | |
| Limestone--aphanitic, white to very light gray. | 1,665 - 1,675 |
| Chert opaque, white, smooth fracturing. | |
| No sample | 1,675 - 1,685 |
| Dolomite--very fine grained verging on microgranular. | 1,685 - 1,715 |
| Cloud noted sand at about 1,705 and 1,715 feet. | |
| Chert opaque, white, smooth fracturing. | |
| Limestone--aphanitic, very light yellowish-gray, dolomitic, dolomite mostly medium grained, some in lower sample very fine grained, upper sample sandy. | 1,715 - 1,740 |
| Chert opaque, white, smooth fracturing; some in lower sample very finely granular. | |
| Dolomite--medium to coarse grained, some fine grained, sandy in lower part. | 1,740 - 1,755 |
| Chert opaque, white, smooth fracturing, in part dolomitic, in part very finely granular; in upper sample some translucent, smooth fracturing. | |
| Dolomite--fine to very fine grained, some medium-grained in upper and lower samples, lower sample sandy; some light green shale in upper sample. | 1,755 - 1,786 |
| Cloud noted some sand from about 1,765 to 1,770 feet. | |
| Chert opaque, white, smooth fracturing, some in upper and lower samples very finely granular. | |
| No samples. | 1,786 - 1,806 |
| Dolomite and limestone--mostly dolomite, coarse grained, sandy; upper 2 feet and some of lower 15 feet limestone, aphanitic, very light yellowish-gray. | 1,806 - 1,833 |
| Chert in upper 10 feet opaque, white, smooth fracturing. | |
| Limestone--mostly aphanitic, verges on microgranular in upper 25 feet, very light olive-gray, pelleted from 1,885 to 1,890 feet, a few ooids(?) and some sand from 1,858 to 1,867 feet, dolomitic from 1,839 to 1,845 and below 1,867 feet, dolomite coarse. Cloud noted some sand at about 1,855 and 1,885 feet. | 1,833 - 1,907 |
| Chert from 1,833 to 1,845 and 1,858 to 1,875 feet and in bottom sample, in part translucent, smooth fracturing; from 1,839 to 1,867 feet, in part opaque, white, smooth fracturing, in part very finely granular; from 1,839 to 1,845 feet, oolitic or pelleted; from 1,858 to 1,867 and 1,885 to 1,890 feet, some quartz and quartz druse. | |
| Limestone and dolomite--limestone aphanitic, very light olive-gray, dolomitic; dolomite coarse grained, very light gray. | 1,907 - 1,960 |
| Chert from 1,907 to 1,925 and below 1,940 feet, translucent, smooth fracturing; some opaque, white, | |

| | <u>Depth in feet</u> |
|--|----------------------|
| smooth fracturing in lower sample; some quartz from 1,915 to 1,925 feet and in lower sample. | |
| Limestone and dolomite--upper 8 feet limestone, aphanitic; lower 12 feet dolomite, coarse grained. Chert mostly opaque, white, smooth fracturing; in upper sample some translucent, oolitic, and some quartz druse. | 1,960 - 1,980 |
| Limestone and dolomite--mostly limestone, aphanitic; dolomite from 2,000 to 2,005 feet, very fine grained, brown, scarce elsewhere. Chert from 1,980 to 1,998 and 2,004 to 2,063 feet, translucent to slightly translucent, in part smooth fracturing; from 1,980 to 1,987, 2,000 to 2,010, 2,034 to 2,073 feet, in part opaque, white, smooth fracturing, some slightly granular from 2,000 to 2,005 feet; some quartz from 1,987 to 1,992 and 2,000 to 2,005 feet. | 1,980 - 2,083 |
| Dolomite--probably medium or coarse grained, samples very finely ground. Cloud noted some oolitic chert from 2,115 to 2,130 feet. | 2,083 - 2,138 |
| Dolomite--fine to medium grained, light brown. Chert from 2,138 to 2,152 feet, white, opaque, smooth fracturing, in part dolomitic; from 2,152 to 2,163 feet, translucent to opaque, white, smooth fracturing; some quartz above 2,160 feet. | 2,138 - 2,168 |
| Dolomite--fine to very fine grained, very light brown to very light gray. Chert opaque, white, smooth fracturing to very finely granular; some quartz from 2,173 to 2,185 and 2,205 to 2,231 feet and in bottom sample. | 2,168 - 2,242 |
| Dolomite--very fine grained, light brown. Chert mostly granular, white, in part interstitial; some translucent below 2,251 feet; quartz abundant in upper 15 feet, some from 2,263 to 2,269 feet. | 2,242 - 2,279 |
| Dolomite--above 2,343 feet, probably fine grained, below 2,343 feet, probably medium grained, mostly very light gray, some very light brown from 2,310 to 2,327 feet. Chert in upper 15 feet translucent, smooth fracturing; quartz abundant in upper 20 feet. | 2,279 - 2,390 |
| Dolomite--mostly very fine grained, fine grained from 2,432 to 2,438 feet; light to medium brown, some interstitial green clay(?) and pyrite from 2,425 to 2,435 feet. Much quartz from 2,417 to 2,422 feet. Cloud noted dolomitic chert and quartz below 2,410 feet. | 2,390 - 2,452 |
| Dolomite--mostly very fine grained, upper 7 feet fine grained, porous, medium brown; from 2,466 to | 2,452 - 2,482 |

| | <u>Depth in feet</u> |
|--|----------------------|
| 2,471 feet, some interstitial green material either clay or glauconite. | |
| Cloud noted some dolomitic chert in this interval. | |
| Dolomite--probably medium grained, very light gray, some finely disseminated pyrite in upper sample; from 2,519 to 2,528 and 2,622 to 2,632 feet, some light green shale. | 2,482 - 2,701 |
| Chert from 2,569 to 2,575 and 2,683 to 2,693 feet, granular, white. | |
| Dolomite--fine to very fine grained, medium light brown from 2,721 to 2,765 feet and in bottom 10 feet, rest mostly very light olive-gray, some light gray, glauconitic from 2,825 to 2,829 feet. | 2,701 - 2,857 |
| Chert from 2,796 to 2,802 feet, opaque, white, dolomitic; some quartz from 2,791 to 2,796 feet. | |
| Cloud noted also dolomitic chert above 2,770 feet. | |
| Limestone--mostly aphanitic to microgranular, some in lower sample coarsely granular, light olive-gray; some dolomite in upper 5 feet similar to above; in lower sample some dark greenish-gray shale. | 2,857 - 2,884 |
| Limestone and shale--limestone granular, medium-gray; shale dark greenish-gray, glauconitic, probably silty. | 2,884 - 2,952 |
| Limestone--mostly coarsely granular, some finely granular in upper part, glauconitic; below 3,025 feet in part reddish-gray to grayish-red. | 2,952 - 3,066 |
| Sandstone--probably medium grained. | 3,066 - 3,090 |
| Sandstone and shale--sandstone probably very fine to medium grained; shale green, glauconitic; in lower sample some limestone finely granular. | 3,090 - 3,129 |
| Limestone and shale--limestone finely to coarsely granular, glauconitic, sandy, sand most abundant near middle, lower 15 feet mostly limestone; shale (probably siltstone) similar to above. | 3,129 - 3,167 |
| Sandstone--grain size not stated, dusky red from hematite, grains well-rounded, smooth. | 3,167 - 3,246 |
| Sandstone--grain size not stated, pink to light pink, grains in part reconstituted. | 3,246 - 3,283 |
| Sandstone--grain size not stated, very light brown in upper part, some light pink downward, in bottom sample some feldspar. | 3,283 - 3,395 |
| Diorite. | 3,395 - 3,427 |

Harvey No. 1 Giesecke, Runnels County

Location.--Heirs of James Hughes survey, lot 132, section 227, 660 FSL
330 FWL.

Elevation.--1,678 (1,680) feet derrick floor.

Top of Ellenburger.--3,435 feet.

Top of Moore Hollow.--3,740 feet.

Top of Precambrian.--4,160 feet.

Total depth.--4,238 feet.

Correlation.--See Plate 3 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|--|----------------------|
| Shale. | 3,410 - 3,420 |
| No sample. | 3,420 - 3,430 |
| Cavings and chert--mostly shale cavings; some chert, slightly translucent to opaque, white, smooth fracturing (conglomerate?). | 3,430 - 3,440 |
| Limestone and cavings--limestone aphanitic, white; mostly cavings. | 3,440 - 3,460 |
| Chert opaque, white, smooth fracturing. | |
| No samples. | 3,460 - 3,510 |
| Limestone--aphanitic, white. | 3,510 - 3,550 |
| Chert from 3,510 to 3,540 feet, opaque, white, smooth fracturing; in bottom sample, translucent, very light gray, smooth fracturing. | |
| No sample. | 3,550 - 3,740 |
| Dolomite--fine grained, light olive-gray to light brown to pinkish-brown, pyritiferous from 3,750 to 3,760 feet, pyrite in cubes modified by octahedrons. | 3,740 - 3,780 |
| Chert in upper sample opaque, interstitial to quartzose; much quartz druse in upper 20 feet. | |
| Dolomite--mostly fine grained, very fine grained from 3,790 to 3,800 and 3,830 to 3,840 feet, some | 3,780 - 3,850 |

| | <u>Depth in feet</u> |
|---|----------------------|
| very fine grained in upper sample; mostly very light olive-gray, in lower 10 feet light brown to pinkish-brown; interstitial glauconite below 3,820 feet; bottom 20 feet pyritiferous; a few fragments of shaly siltstone in lower sample. | |
| Sandstone and dolomite--upper sample and part of middle sample sandstone, fine grained, white, slightly dolomitic; rest of interval dolomite, very fine grained, some fine grained, medium dark brown, middle sample mostly very light olive-gray, some greenish-gray; lower sample slightly to very glauconitic, in part very argillaceous, pyritiferous. | 3,850 - 3,880 |
| Sandstone--mostly fine grained, up to coarse grained from 3,890 to 3,900 feet; some very fine grained from 3,900 to 3,920 feet; the latter light to medium gray, very silty and argillaceous; rest mostly white and slightly dolomitic, argillaceous, and glauconitic; grains mostly reconstituted. | 3,880 - 3,960 |
| Sandstone and shale--upper sample sandstone, fine and very fine grained, white to light brown, silty, argillaceous, slightly glauconitic, dolomitic; lower 20 feet mostly shale, silty, dolomitic; lower sample perhaps one-third dolomite, microgranular, very silty. | 3,960 - 3,990 |
| Dolomite--mostly fine grained, upper sample and part of next microgranular, from 4,050 to 4,060 feet and some from 4,000 to 4,010 feet, very fine grained; medium brown, glauconitic, silty to very silty, in part micaceous and argillaceous, sandy above 4,050 feet. In upper sample some sandstone, fine grained, very glauconitic and dolomitic. | 3,990 - 4,090 |
| Dolomite and siltstone--dolomite microgranular, very silty; siltstone very dolomitic; both medium to dark brown, slightly glauconitic. | 4,090 - 4,100 |
| Dolomite and granite--mostly fine grained, some medium grained from 4,120 to 4,130 feet, medium brown in upper part to medium light grayish-brown in lower part, glauconitic, in part silty, below 4,130 feet very glauconitic and pyritiferous, sandy below 4,120 feet, grains up to coarse in upper part to granule size in lower part. In lower sample some granite, mostly microcline, some quartz, plagioclase, and fresh biotite. | 4,100 - 4,160 |
| Granite--similar to above. | 4,160 - 4,230 |

Humble Oil and Refining Company No. 1 Autry, Comanche County

Location.--Chas Sargent survey No.73, 710 feet from EL, 3,537 feet from NL.

Elevation.--1,115 feet (ground).

Top of Moore Hollow.--5,315 feet.

Top of Precambrian.--6,280 feet.

Total depth.--6,299 feet.

Completed.--May 15, 1956.

Correlation.-- See Plate 5 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|--|----------------------|
| Limestone and dolomite--limestone aphanitic, almost white in upper part to very light olive-gray in lower part, upper sample pelleted; dolomite in upper part microgranular, scarce from 3,960 to 3,980 feet, very light brownish-gray, in lower part very fine grained, very light olive-gray, scarce. Chert from 4,010 to 4,020 feet, opaque to slightly translucent, white, smooth fracturing; in bottom sample translucent, very light gray, smooth fracturing. | 3,950 - 4,030 |
| Limestone--aphanitic, white to very light olive-gray; some dolomite from 4,060 to 4,070 feet, very fine grained, very light olive-gray. Chert in upper sample translucent, very light gray, oolitic, smooth fracturing; from 4,040 to 4,090 feet, opaque to translucent, white, smooth fracturing, oolitic in lower 30 feet; from 4,100 to 4,110 feet, opaque, white, smooth fracturing; similar chert very scarce in lower 20 feet. | 4,030 - 4,130 |
| Limestone and dolomite--limestone aphanitic, very light olive-gray; dolomite very fine grained, very light gray, in lower sample sandy. Chert in upper sample opaque, white, smooth fracturing. | 4,130 - 4,150 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Limestone--aphanitic, very light olive-gray in upper part to almost white in lower part. Chert from 4,200 to 4,210 feet, opaque, white, smooth fracturing; from 4,210 to 4,220 feet, granular, quartzose; in lower sample translucent, very light gray, smooth fracturing. | 4,150 - 4,230 |
| Dolomite and limestone--mostly dolomite, fine-grained, very light gray to white; some limestone, most abundant in upper sample, aphanitic, almost white. Chert in upper sample opaque, white, smooth fracturing. | 4,230 - 4,260 |
| Limestone--aphanitic, very light olive-gray; from 4,270 to 4,280 feet, dolomitic, slightly sandy. | 4,260 - 4,300 |
| Dolomite and limestone--mostly dolomite, microgranular, almost white, upper sample fine grained, very light gray; some limestone from 4,310 to 4,320 feet, aphanitic, very light olive-gray. | 4,300 - 4,340 |
| Limestone--aphanitic, very light olive-gray to almost white, slightly sandy from 4,430 to 4,440 feet, abundantly sandy from 4,440 to 4,450 feet. Chert in upper 20 feet, translucent, very light gray, smooth fracturing; from 4,370 to 4,400 feet, opaque, white, smooth fracturing, abundant in upper part to scarce in lower part; similar chert from 4,440 to 4,450 feet, sandy; in lower sample, opaque to translucent, white, smooth fracturing. | 4,340 - 4,460 |
| Dolomite--mostly very fine grained, upper sample fine grained, very light gray. Chert from 4,480 to 4,490 feet, opaque, white, smooth fracturing. | 4,460 - 4,500 |
| Dolomite--mostly microgranular, some very fine grained from 4,550 to 4,560 feet; some fine grained from 4,560 to 4,570 feet, very light gray, in part sandy from 4,560 to 4,570 feet; some limestone in upper sample aphanitic, very light olive-gray. Chert in lower 30 feet, opaque, white, smooth fracturing; in lower sample, in part chalky, dolomitic, some translucent. | 4,500 - 4,610 |
| Dolomite and limestone--dolomite mostly very fine grained, some fine grained in lower sample, very light gray; limestone almost white with a slight olive-gray cast. | 4,610 - 4,640 |

Depth in feet

| | |
|---|---------------|
| Chert in middle sample opaque to translucent, white, smooth fracturing. | |
| Limestone--aphanitic, almost white, in part oolitic from 4,650 to 4,660 and 4,720 to 4,730 feet; from 4,720 to 4,730 feet, in part dolomitic, dolomite coarse. | 4,640 - 4,750 |
| Chert, except in lower sample, mostly opaque, white, smooth fracturing, very abundant from 4,670 to 4,700 feet; some translucent and a few chips of banded chalcedony in upper sample; from 4,650 to 4,660 feet, in part slightly translucent; from 4,710 to 4,740 feet, in part chalky, lower sample very dolomitic; in bottom sample translucent, very light gray, smooth fracturing. | |
| Dolomite--coarse grained, white, vuggy. | 4,750 - 4,810 |
| Dolomite--coarse grained, white. | 4,810 - 4,850 |
| Chert in upper sample opaque, white, smooth fracturing, pelleted, grades to chalky from 4,820 to 4,830 feet; similar chert from 4,830 to 4,840 feet, without pellets grades to very finely granular in lower sample. | |
| Dolomite--coarse grained, very light to light olive gray, one chip from 4,880 to 4,890 feet, sandy; some limestone in upper sample, aphanitic, very light olive-gray to almost white, dolomitic. | 4,850 - 4,930 |
| Chert from 4,860 to 4,870 feet, opaque, white, smooth fracturing to granular, quartzose; below 4,880 feet, mostly opaque, white, smooth fracturing, dolomitic to interstitial except in upper sample, below 4,900 feet, in part oolitic; some quartz druse from 4,880 to 4,900 feet. | |
| Dolomite--coarse grained, white in upper part, some light olive-gray in lower 30 feet. | 4,930 - 5,000 |
| Chert below 4,940 feet, mostly white, opaque, smooth fracturing, some quartzose chert in upper sample, oolitic from 4,970 to 4,980 feet; some quartz druse throughout. | |
| Dolomite--mostly fine grained, light olive-gray; some coarse grained in upper sample. | 5,000 - 5,050 |
| Chert opaque, white, smooth fracturing, in part dolomitic below 5,030 feet; some quartz druse in upper 30 feet. | |
| Dolomite--fine to medium grained, light olive-gray. | 5,050 - 5,080 |
| Chert opaque, white, smooth fracturing, in part interstitial; some quartz druse. | |

| | <u>Depth in feet</u> |
|--|----------------------|
| Dolomite--fine grained, light olive-gray. Chert opaque, white, dolomitic. | 5,080 - 5,110 |
| No sample. | 5,110 - 5,120 |
| Dolomite--medium grained, light olive-gray; in lower sample some coarse grained, white. | 5,120 - 5,180 |
| Chert in upper sample oolitic; from 5,130 to 5,150 feet, opaque, white, smooth fracturing; in lower sample opaque, very light olive-gray, dolomitic; quartz druse abundant in upper 20 feet. | |
| Dolomite--coarse grained, white. | 5,180 - 5,310 |
| Some quartz druse in upper sample. | |
| No sample. | 5,310 - 5,320 |
| Dolomite--mostly very fine grained, very light olive-gray; upper sample fine grained, very light gray. | 5,320 - 5,370 |
| Dolomite--mostly fine and very fine grained, lower sample fine grained, light olive-gray. | 5,370 - 5,440 |
| Chert from 5,380 to 5,390 feet, opaque, very finely granular, very light olive-gray, dolomitic; from 5,400 to 5,410 feet, white, opaque, smooth fracturing. | |
| Dolomite--mostly fine to medium grained, upper sample medium grained, light olive-gray, pyritiferous, a trace of interstitial glauconite in upper sample. | 5,440 - 5,470 |
| Dolomite--fine grained, mostly light olive- gray, some in lower half almost white, some interstitial glauconite and pyrite. | 5,470 - 5,510 |
| Dolomite--medium grained, light olive-gray, some interstitial glauconite. | 5,510 - 5,540 |
| Dolomite--coarse grained, white, in bottom sample a few chips fine grained, light olive- gray; a few flakes of light-green clay. | 5,540 - 5,610 |
| Dolomite--fine grained, light olive-gray, some interstitial glauconite from 5,620 to 5,630 feet, in part oolitic and pyritiferous from 5,710 to 5,720 feet. | 5,610 - 5,740 |
| Dolomite and limestone--dolomite in upper sample and part of next sample fine to medium grained, light olive-gray, pyritiferous; limestone mostly aphanitic, very light olive- gray to light olive-gray, in part dolomitic, in lower sample some microgranular, slightly glauconitic, in part fossiliferous; in lower sample a few chips of siltstone, glauconitic. | 5,740 - 5,780 |
| Limestone and siltstone--limestone similar to above; siltstone very calcareous, glauconitic. | 5,780 - 5,790 |
| Limestone--mostly aphanitic to microgranular, the latter silty and glauconitic, light | 5,790 - 5,890 |

| | <u>Depth in feet</u> |
|--|----------------------|
| olive-gray; below 5,830 feet, some coarsely granular. | |
| Limestone--mostly coarsely granular, very light olive-gray to yellowish-gray, fossiliferous, in part slightly glauconitic and micaceous; in upper 30 feet some aphanitic similar to above. | 5,890 - 5,980 |
| Limestone--very coarsely granular, upper sample in part similar to above, in part reddish-gray; lower sample light to very light olive-gray and yellowish-gray, glauconitic, slightly silty. | 5,980 - 6,000 |
| No sample. | 6,000 - 6,010 |
| Sandstone--fine to coarse grained, coarser upward, dolomitic, glauconitic. | 6,010 - 6,040 |
| Sandstone--mostly fine to very fine grained, glauconitic, silty, below 6,060 feet, very dolomitic, very slightly glauconitic. | 6,040 - 6,090 |
| Sandstone--fine to medium grained, a few coarse grains, white, nondolomitic. | 6,090 - 6,150 |
| Sandstone--coarse to very coarse grained, some granules below 6,180 feet, almost white, interstitial clay common. | 6,150 - 6,230 |
| No sample. | 6,230 - 6,240 |
| Sandstone--coarse to very coarse grained, almost white, some interstitial clay; in lower sample a few chips of fine-grained granite composed of quartz, plagioclase, a few chips of orthoclase or microcline, and biotite (conglomerate?); some quartzite very light pink. | 6,240 - 6,280 |
| *Metaquartzite--muscovitic, feldspathic. | 6,280 - 6,290 |

*Determination from thin section examination by P. T. Flawn.

Humble Oil and Refining Company No. 1 Millican and others,
San Saba County

Location.--L. Kessler survey No. 600, 330 feet from SWL, 150 feet from SEL.

Elevation.--Not determined.

Top of Ellenburger.--Well started in Ellenburger.

Top of Moore Hollow.--1,425 feet.

Top of Precambrian.--2,170 feet.

Total depth.--2,170.5 (samples to 2,180).

Correlation.--See Plate 3 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|--|----------------------|
| Limestone--aphanitic, very light yellowish-gray, slightly dolomitic. | 5 - 30 |
| Dolomite and limestone--mostly dolomite, very fine grained, very light gray to yellowish-gray with an olive-gray cast; limestone similar to above. | 30 - 50 |
| Chert opaque, white, in part smooth fracturing, in part chalky, slightly granular. | |
| Limestone--aphanitic, white with a slight yellowish cast, one chip sandy from 85 to 90 feet. | 50 - 100 |
| Chert above 90 feet, opaque, white, smooth fracturing; in bottom sample, slightly translucent, very light gray, smooth fracturing, scarce. | |
| Dolomite and limestone--mostly dolomite, very fine grained, very light brown and yellowish-gray; some limestone in upper and lower samples aphanitic, very light yellowish-gray. | 100 - 115 |
| Chert in upper sample slightly translucent, very light gray, smooth fracturing; in middle sample opaque, white, smooth fracturing. | |
| Limestone--aphanitic, very light yellowish-gray. | 115 - 140 |
| Dolomite and limestone--dolomite microgranular, | 140 - 150 |

Depth in feet

grayish-orange; limestone aphanitic, very light yellowish-gray.

Chert in lower sample mostly opaque, white, smooth fracturing, some translucent, very light gray, smooth fracturing.

Limestone--aphanitic, very light yellowish-gray, sandy above 175 feet, some loose sand from 175 to 190 feet; from 220 to 235 feet, some very light gray, pyritiferous; in lower sample some dolomite, very fine grained, very light gray.

150 - 240

Chert from 160 to 165, 190 to 195, and 205 to 210 feet, opaque, white, lower sample light yellowish-gray, smooth fracturing.

Limestone and dolomite--above 265 feet mostly dolomite, mostly very fine grained, some fine grained from 260 to 265 feet, very light gray, some grayish-orange; from 265 to 275 feet, mostly limestone, aphanitic, very light yellowish-gray, some dolomite fine grained; in lower sample, limestone, aphanitic and dolomite, very fine grained, in part very sandy.

240 - 280

Chert in lower 10 feet, opaque, white smooth fracturing to granular; in lower sample, some translucent, white to very light gray, smooth fracturing.

Limestone--aphanitic, very light yellowish-gray upper 10 feet sandy.

280 - 295

Chert in upper 10 feet, opaque to translucent, white to very light gray, smooth fracturing, upper sample in part sandy.

Limestone and dolomite--mostly limestone, aphanitic, very light yellowish-gray, sandy; dolomite very fine grained, very light gray to very light brown, sandy.

295 - 310

Chert in lower 10 feet, opaque, white, smooth fracturing.

Limestone--aphanitic, very light yellowish-gray, sandy; some dolomite in lower sample, very fine grained, very light gray.

310 - 320

Depth in feet

- Chert slightly translucent to opaque, very light yellowish-gray to very light gray, in part dolomitic, sandy.
- Dolomite--microgranular, very light yellowish-gray to light gray; some limestone in lower sample aphanitic, very light yellowish-gray. 320 - 335
- Chert in upper 10 feet, opaque, white, smooth fracturing, scarce.
- Limestone--aphanitic, very light yellowish-gray to almost white, sandy from 335 to 345, 355 to 360 and 365 to 375 feet; from 340 to 350 feet, a few shale fragments, very light green, sandy. 335 - 415
- Chert from 365 to 380 feet, opaque, white, smooth fracturing, from 365 to 375 feet, sandy; chert from 390 to 410 feet, opaque, white, smooth fracturing to chalky and rough.
- Dolomite and limestone--mostly dolomite, microgranular, grayish-orange; some limestone, aphanitic, almost white, lower sample very sandy. 415 - 425
- Limestone--aphanitic, very light yellowish-gray, upper 10 feet sandy, some loose sand. 425 - 450
- Chert in lower 10 feet, opaque, white, smooth fracturing to chalky, granular, very abundant.
- Limestone and dolomite--dolomite in upper sample fine to very fine grained, in lower sample microgranular, light yellowish-gray; some limestone aphanitic, light yellowish-gray. 450 - 460
- Chert mostly opaque, white, smooth fracturing to chalky and granular, some translucent, almost white, smooth fracturing.
- Limestone--aphanitic, very light yellowish-gray. 460 - 465
- Chert opaque, chalky, white, rough fracturing.
- Dolomite and limestone--mostly dolomite, microgranular, grayish-orange, sandy in lower 10 feet; some limestone aphanitic, very light yellowish-gray. 465 - 480
- Chert in upper sample chalky; in lower 10 feet, opaque, white, smooth fracturing to chalky and granular, in part oolitic, in part sandy.

| | <u>Depth in feet</u> |
|---|----------------------|
| Limestone--aphanitic, very light yellowish-gray, upper sample sandy; in lower sample some dolomite, microgranular, grayish-orange. | 480 - 500 |
| Chert in upper 10 feet similar to above. | |
| Dolomite--mostly microgranular, some very fine and coarse grained in lower sample, yellowish to very light yellowish-gray to very light pinkish-gray and light grayish-orange, sandy to very sandy; some dolomitic sandstone from 515 to 520 feet; in upper sample some limestone similar to above. | 500 - 525 |
| Chert from 505 to 515 and 520 and 525 feet, opaque, white smooth fracturing. | |
| Limestone--aphanitic, very light yellowish-gray, mostly sandy; some dolomite in upper sample, fine grained to microgranular, grayish-orange. | 525 - 565 |
| Dolomite--mostly microgranular, some coarse grained in upper 10 feet; from 575 to 580 feet, a few loose sand grains, a few sandy shale fragments; some limestone in upper sample similar to above. | 565 - 585 |
| Chert in upper 10 feet, opaque, white, smooth fracturing to chalky and somewhat granular. | |
| Dolomite--medium to coarse grained, some microgranular in upper sample, both sandy, almost white; in lower sample some limestone, aphanitic, almost white. | 585 - 600 |
| Chert in lower sample, opaque, white, smooth to irregular fracturing, in part dolomitic to interstitial. | |
| Dolomite--mostly microgranular, some fine grained in lower sample, very light gray, upper sample sandy; in upper 10 feet, some limestone, aphanitic, almost white. | 600 - 625 |
| Chert in upper 10 feet, opaque, white, smooth fracturing to chalky and irregular, in part dolomitic to interstitial; from 605 to 610 feet, one chip sandy, another oolitic. | |
| Limestone--aphanitic, white, in part dolomitic; some microgranular dolomite in upper sample; green, sandy shale fragments in lower sample may be cavings. | 625 - 635 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Chert in upper sample opaque, white, smooth fracturing. | |
| Dolomite--mostly microgranular, some very fine grained in upper part, very light pinkish-yellow, a few loose sand grains in lower sample. | 635 - 650 |
| Chert opaque, white, smooth fracturing to chalky and granular; one fragment in upper sample micro-oolitic. | |
| Dolomite--fine to very fine grained, very light yellowish-gray. | 650 - 660 |
| Chert chalky, irregular fracturing; in lower sample in part opaque, white, smooth fracturing. | |
| Dolomite and limestone--dolomite mostly coarse grained, some medium grained in upper sample; limestone aphanitic, in part dolomitic; both very light yellowish-gray. | 660 - 680 |
| Chert in lower 10 feet opaque to slightly translucent, white to light gray, smooth fracturing. | |
| Limestone--aphanitic, very light yellowish-gray, dolomitic from 730 to 755 feet; sandy from 690 to 695 feet; some dolomite, coarse grained, from 690 to 695 and 700 to 735 feet. | 680 - 770 |
| Chert from 700 to 725 feet and in bottom sample, opaque, white, smooth fracturing; from 685 to 695 feet, similar chert in part oolitic, grades to chalky, rough fracturing, makes up perhaps half of sample; in upper sample, translucent, very light gray, smooth fracturing; from 695 to 700 feet, granular, quartzose, a few loose ooids; from 690 to 695 feet, in part dolomitic, in part sandy, in part oolitic. | |
| Limestone--aphanitic, white; some coarse grained dolomite in lower 10 feet; many clear calcite cleavage rhombs in lower 15 feet; samples stained deep yellow from ochre. | 770 - 795 |
| Chert in upper 10 feet, granular, micro-oolitic. | |
| No samples | 795 - 863 |
| Limestone--aphanitic, white, in part dolomitic. | 863 - 880 |
| Chert very abundant, white, opaque, smooth fracturing to slightly granular; a few fragments translucent, very light gray, oolitic. | |
| Limestone and dolomite--limestone aphanitic, white; dolomite coarse grained. | 880 - 900 |
| Chert similar to above, abundant. | |
| Dolomite--mostly fine to medium grained, some coarse grained in upper sample, mostly very light brown, some yellowish-gray and almost white. | 900 - 915 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Chert in upper and lower samples opaque, white, smooth fracturing to chalky, granular, lower sample oolitic. | |
| Dolomite--medium to coarse grained, yellowish-gray, in upper part with a brownish cast. | 915 - 985 |
| Chert in upper 15 feet, opaque, white, smooth fracturing; some chalky in upper 10 feet, in part oolitic; some quartzose in lower 15 feet. | |
| Dolomite--fine grained, very light yellowish-gray. | 985 - 1,055 |
| Quartzose chert and quartz druse comprise more than half of most samples; chert in lower sample, oolitic; from 1,035 to 1,040 feet, some opaque, white, smooth fracturing. | |
| Dolomite--fine grained, some very fine grained in lower sample, pale yellowish-brown. | 1,055 - 1,070 |
| Chert and quartz druse similar to above very abundant; a few loose chert ooids. | |
| Dolomite--very fine grained, yellowish-gray with a brownish cast to very light olive-gray. | 1,070 - 1,090 |
| Chert opaque, white, smooth fracturing, in part dolomitic; some loose ooids; some chalky and translucent in lower 10 feet. Quartz druse common. | |
| Dolomite--fine grained, some very fine grained from 1,140 to 1,145 feet, very light yellowish-gray. | 1,090 - 1,165 |
| Chert from 1,090 to 1,100 and 1,140 to 1,150 feet, granular, quartzose, dolomitic to interstitial; from 1,100 to 1,130 feet, opaque, white, oolitic from 1,100 to 1,115 feet; quartz druse common to abundant. | |
| Dolomite--fine to medium grained, very light gray to very light yellowish-gray. | 1,165 - 1,195 |
| Chert granular, quartzose, dolomitic; some quartz druse. | |
| Dolomite--mostly fine grained, some very fine grained in lower half, very light yellowish-gray. | 1,195 - 1,215 |
| Chert similar to above. | |
| Dolomite--medium to coarse grained, some fine grained from 1,225 to 1,230 feet, very light yellowish-gray. | 1,215 - 1,250 |
| Chert from 1,220 to 1,230 feet, granular, quartzose, dolomitic to interstitial; some quartz druse from 1,240 to 1,245 feet. | |
| Dolomite--coarse grained, very light yellowish-gray, below 1,375 feet, white; some fine grained from 1,345 to 1,350 feet; below 1,375 feet, light green shale fragments very scarce. | 1,250 - 1,415 |
| Dolomite--coarse grained, very light gray; abundant debris probably caliche from the surface. | 1,415 - 1,425 |
| Dolomite--fine and very fine grained, mostly very light gray darkening downward to light olive-gray; upper | 1,425 - 1,465 |

| | <u>Depth in feet</u> |
|---|----------------------|
| 10 feet very light greenish-gray, argillaceous, pyritiferous, some green interstitial material resembles glauconite; caliche similar to above. | |
| Chert below 1,440 feet, opaque, dolomitic to interstitial, from 1,440 to 1,450 feet, white, from 1,450 to 1,465 feet very light olive-gray; from 1,435 to 1,440 feet, some granular quartzose chert and quartz druse; quartz druse scarce from 1,450 to 1,455 feet. | |
| Dolomite--very fine grained, light olive-gray, pyritiferous, interstitial glauconite very scarce. | 1,465 - 1,505 |
| Chert opaque, very light olive-gray, dolomitic to interstitial, scarce in lower part. | |
| Dolomite--fine grained, light olive-gray, slightly pyritiferous, interstitial glauconite common to abundant; in lower 10 feet some granular, glauconitic limestone. | 1,505 - 1,535 |
| Limestone--mostly finely to coarsely granular, some aphanitic below 1,545 feet, forms about half of sample from 1,550 to 1,555 feet, slightly glauconitic, in part pyritiferous. | 1,535 - 1,575 |
| No sample. | 1,575 - 1,580 |
| Limestone--aphanitic to very finely granular, light olive-gray to very light olive-gray, oolitic from 1,580 to 1,585 and 1,595 to 1,605 feet, slightly pyritiferous. | 1,580 - 1,625 |
| Limestone--mostly aphanitic, very light olive-gray, slightly pyritiferous, in lower sample a few chips finely granular, glauconitic; from 1,650 to 1,660 feet, some shale, greenish-gray, glauconitic. | 1,625 - 1,675 |
| Limestone--finely granular, greenish-gray, glauconitic, argillaceous, silty, some aphanitic similar to above. | 1,675 - 1,685 |
| Limestone and shale--limestone mostly aphanitic, similar to above, some granular, greenish-gray, glauconitic, argillaceous, silty, some in lower sample oolitic; shale medium light gray to greenish-gray, slightly micaceous and calcareous. | 1,685 - 1,695 |
| No samples. | 1,695 - 1,740 |
| Siltstone--dark greenish-gray, in part with a reddish tint, very calcareous, micaceous, slightly glauconitic; in lower sample some shale, very light green, slightly micaceous. | 1,740 - 1,760 |
| Shale and limestone--shale similar to above; limestone granular, light greenish-gray, slightly glauconitic. | 1,760 - 1,770 |
| Limestone and siltstone--limestone granular, light greenish-gray, slightly glauconitic; siltstone | 1,770 - 1,790 |

| | <u>Depth in feet</u> |
|---|----------------------|
| dark greenish-gray, very calcareous, micaceous, slightly glauconitic. | |
| Limestone--samples alternating coarsely to finely granular, coarsely granular more abundant in upper part, very light gray to very light greenish-gray, some grayish-red in upper 10 feet, slightly to very glauconitic, some silty, micaceous in lower 30 feet. | 1,790 - 1,850 |
| Limestone and sandstone--limestone coarsely granular, slightly to very glauconitic, in part sandy, grades to sandstone, fine to coarse grained, very calcareous, slightly to very glauconitic, sand well-rounded. Phosphatic brachiopods common. | 1,850 - 1,860 |
| Limestone--coarsely granular, in upper part very light yellowish-gray to greenish-gray, in lower part reddish-gray to grayish-red, slightly to very glauconitic, sandy in lower 10 feet, sand medium to very coarse. Phosphatic brachiopods common. | 1,860 - 1,890 |
| Limestone and sandstone--limestone in upper sample grayish-red, glauconitic, very sandy, in lower sample light greenish-gray, glauconitic; sandstone fine to very coarse grained, in part very light gray to almost white and grains reconstituted where there is little cement, in part grains very well rounded and smooth where cement fills all porosity, in lower sample a few chips of dusky-red sandstone. | 1,890 - 1,910 |
| Sandstone and limestone--sandstone most abundant in upper part, fine to very coarse grained, white to greenish-gray, slightly to very glauconitic, very calcareous in lower part, grains rough from reconstitution; limestone granular, very light gray to greenish-gray, glauconitic, in part fossiliferous, some pinkish-gray in upper sample. Phosphatic brachiopods common in lower sample. | 1,910 - 1,950 |
| No sample. | 1,950 - 1,960 |
| Sandstone, limestone, and siltstone--sandstone mostly very fine grained, very glauconitic, very silty, calcareous, grades to siltstone, some sandstone in upper sample similar to above; limestone coarsely granular, very light brown, glauconitic, in part sandy, in part fossiliferous. | 1,960 - 1,990 |
| Siltstone and limestone--siltstone greenish-gray to brownish-gray, argillaceous, glauconitic, much very fine sand, grades to very silty limestone, very glauconitic, much very fine sand; in upper sample and in lower half some coarsely granular limestone; in lower sample some sandstone, fine to coarse grained, grayish-red, grains very well rounded, very smooth. | 1,990 - 2,060 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Sandstone and siltstone--mostly sandstone, very fine grained, greenish-gray, pinkish- to reddish-gray, some in lower 20 feet almost white, some very coarse grained in lower part, in part grayish-red; very sandy, a few large sand grains, in part argillaceous; both slightly glauconitic and calcareous. A few phosphatic brachiopod fragments. | 2,060 - 2,130 |
| Sandstone--in part similar to above, in part much coarser grained with grains up to granule size. | 2,130 - 2,170 |
| Sandstone and granite--sandstone similar to above; granite fresh, probably coarse grained, composed of microcline, quartz, plagioclase, and biotite. | 2,170 - 2,180 |

Humble Oil and Refining Company No. 1 White, San Saba County

Top of Ellenburger.--Well starts in Ellenburger.

Top of Moore Hollow.--895 feet.

Total depth.--1,680 feet.

Correlation.--See Plate 4 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|---|----------------------|
| No samples. | 0 - 20 |
| Limestone aphanitic, white, sandy from 50 to 55 feet, slightly sandy from 60 to 65 feet, sand very fine to medium, well-rounded, frosted, poorly sorted; a few chips of sandstone, probably foreign to well in upper 15 feet. | 20 - 80 |
| Chert from 45 to 60 and 65 to 75 feet, white, opaque, mostly smooth fracturing, some very finely granular, in part sandy from 50 to 55 and 70 to 80 feet. | |
| Limestone--aphanitic; very light yellowish-gray to white, a few chips pink. | 80 - 95 |
| Chert very light gray, opaque to slightly translucent, in part intraclastic to pelleted. | |
| No sample. | 95 - 100 |
| Limestone--aphanitic, white. | 100 - 105 |
| Chert oolitic, rare. | |
| Limestone and dolomite--mostly limestone, aphanitic, yellowish-gray; some dolomite microgranular, very light gray; both sandy. | 105 - 115 |
| Chert white to very light gray, mostly translucent, some opaque, in part pelleted. | |
| Limestone--aphanitic to microgranular; white to yellowish-gray, in part stained orange. | 115 - 130 |
| Chert very light gray, translucent, rare. | |
| No sample. | 130 - 135 |
| Limestone--in part aphanitic, white; in part granular, dolomitic, stained pink (may be a cavity filling); loose sand and calcite rhombs common. | 135 - 155 |
| Chert translucent, sandy from 140 to 145 feet, rare. | |
| Dolomite--mostly microgranular, yellowish- to pinkish-gray, calcitic; some fine grained | 155 - 165 |

Depth in feet

| | |
|---|-----------|
| in clear calcite cement (may be a cavity filling); lower sample sandy, sand very fine. | |
| Chert in lower sample very light gray, slightly translucent, in part sandy, in part pelleted, ooids rare. | |
| Dolomite and limestone--mostly dolomite, microgranular, yellowish-gray to pinkish-gray; some limestone, aphanitic, white. | 165 - 175 |
| Chert white to very light gray, opaque to translucent, in part sandy, lower sample in part oolitic. | |
| No sample. | 175 - 180 |
| Dolomite and limestone--similar to above. | 180 - 185 |
| Chert similar to above. | |
| Dolomite--medium grained; medium gray with a brownish cast, somewhat lighter colored in lower sample. | 185 - 195 |
| Chert in lower sample, white, opaque, smooth fracturing. | |
| Dolomite--fine grained, very light gray; some limestone aphanitic, white, sandy. | 195 - 200 |
| Chert very light gray, slightly translucent, smooth fracturing, pelleted. | |
| Dolomite and limestone--dolomite fine to very fine grained, very light gray to yellowish-gray; limestone aphanitic, yellowish-gray. | 200 - 205 |
| Chert mostly white, opaque, smooth fracturing, in part pelleted; some very fine granular, chalky, slightly sandy. | |
| Limestone--aphanitic, white. | 205 - 210 |
| Chert dolomitic, scarce. | |
| Dolomite and limestone--dolomite mostly fine grained, very light yellowish-gray; some very fine grained, sandy; limestone, aphanitic, white. | 210 - 215 |
| Chert very light gray, opaque, scarce. | |
| Limestone--aphanitic, white, dolomitic, fine sand scarce from 230 to 235 feet. | 215 - 240 |
| Chert in upper and lower samples, white, opaque, smooth fracturing; from 225 to 235 feet very light gray, slightly translucent, oolitic to pelleted, very abundant in upper sample, scarce in lower sample. | |
| Limestone and dolomite--grading from limestone, aphanitic, white to dolomite, fine to medium grained, white to very light yellowish-gray. | 240 - 245 |
| Chert white, opaque, smooth fracturing. | |
| Dolomite--mostly microgranular, lower sample in part fine grained; yellowish-gray to very light gray, in part stained orange. | 245 - 255 |
| Chert white, opaque, smooth fracturing. | |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--mostly coarse grained, some fine grained in upper 10 feet; upper sample very light yellowish-gray, rest very light gray to pinkish-gray; lower sample sandy, fine-grained dolomite in middle sample very sandy. Chert scarce in upper sample to very abundant in lower sample, white to very light gray, opaque, smooth fracturing, in part oolitic. | 255 - 270 |
| Dolomite--mostly fine grained, some coarse grained; very light gray to pinkish-gray; upper sample sandy. Chert in upper sample white, opaque, smooth fracturing, in part very sandy, in part intraclastic to pelleted; in middle sample white, opaque to slightly translucent, in part slightly sandy and intraclastic; in lower sample white, opaque, mostly granular, some smooth fracturing. | 270 - 285 |
| Dolomite and limestone--dolomite mostly fine grained, some coarse grained; limestone aphanitic, white. Chert white, opaque, mostly granular, some smooth fracturing, scarce. | 285 - 290 |
| Dolomite--coarse grained, very light gray. | 290 - 295 |
| Dolomite and limestone--dolomite coarse grained; limestone aphanitic, dolomitic; both very light gray. Chert white, opaque, very finely granular. | 295 - 305 |
| Dolomite--coarse grained; yellowish-gray in upper 10 feet, medium light gray in lower 10 feet, rest very light gray with a pinkish cast; upper 10 feet in part calcitic. Chert mostly white, some very light gray, opaque to slightly translucent, mostly smooth fracturing; in lower part some granular, a few chips quartzose with chalcedony banding; in upper 10 feet abundant, in part oolitic, in rest of interval scarce. | 305 - 335 |
| Limestone and dolomite--limestone aphanitic, very light yellowish-gray; dolomite coarse grained, medium light gray. Chert mostly white, opaque, smooth fracturing, in part dolomitic; a few chips granular, translucent. | 335 - 345 |
| Limestone--aphanitic, white to very light gray and very light yellowish-gray, dolomitic, below 350 feet slightly sandy. Chert white to light gray, opaque to slightly translucent, smooth fracturing; some near middle intraclastic, some banded; oolitic from 355 to 360 feet. | 345 - 365 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Limestone and dolomite--limestone aphanitic, very light yellowish-gray; dolomite coarse grained, very light gray. Chert white, opaque, smooth fracturing. | 365 - 370 |
| Dolomite--coarse grained, very light gray, upper 15 feet and lower 5 feet in part calcitic. Chert from 370 to 385 feet, white, opaque, smooth fracturing; from 405 to 420 feet, white opaque, smooth fracturing, a few chips oolitic. | 370 - 420 |
| Dolomite--in part coarse grained, in part fine grained; both mostly very light yellowish-gray with a pinkish cast, some medium light gray in upper sample; lower sample in part calcitic; upper sample pyritiferous. | 420 - 450 |
| Dolomite and chert--dolomite fine and coarse grained intermixed, very light yellowish gray in part with a pinkish cast. Mostly chert, white, granular, quartzose, in part oolitic; quartz druse common. | 450 - 465 |
| Chert--some dolomite fine grained, light brownish-gray from 480 to 485 feet. Chert mostly granular, quartzose, in part porous and granulated; some white, opaque, smooth fracturing, in part dolomitic in lower 10 feet. | 465 - 490 |
| Dolomite--coarse grained, very light yellowish-gray. Chert mostly granular, quartzose; some white, opaque, dolomitic; some quartz druse in lower 10 feet. | 490 - 505 |
| Dolomite--mostly fine grained, some very fine grained in lower sample; mostly very light pinkish-gray, some very light gray, very light olive-gray, very light brown, and very light pinkish-brown; interstitial glauconite from 520 to 525 feet scarce. Chert in upper part white, opaque, dolomitic, very abundant; quartz crystals scarce. Chert in lower 10 feet in part white, opaque, dolomitic, interstitial, a few chips oolitic and others dolomoldic and oomoldic; in part very light brown, opaque, quartzose, dolomitic; quartz crystals and quartz druse abundant. | 505 - 530 |
| Dolomite--fine grained, very light brown to very light pinkish-gray. Chert mostly white, opaque, dolomitic to interstitial, in part oolitic, in part | 530 - 550 |

| | <u>Depth in feet</u> |
|--|----------------------|
| quartzose, some banded, translucent; quartz and quartz druse common. | |
| Dolomite--fine and very fine grained, some medium grained in upper sample; very light pinkish gray. | 550 - 565 |
| Chert in upper sample white, opaque; in rest of interval white, very finely granular. | |
| Dolomite--mostly fine grained, some medium grained, in upper sample some very fine grained; very light gray to very light pinkish-gray. | 565 - 585 |
| Chert below 570 feet white to light gray, very finely granular to quartzose, in part dolomitic; in lower 5 feet white, opaque, dolomitic; from 575 to 580 feet some banded, translucent; quartz crystals common in upper half. | |
| Dolomite--fine grained, very light brown. | 585 - 615 |
| Chert white, opaque, dolomitic to interstitial, in part very finely granular from 590 to 600 feet; quartz common to abundant. | |
| Dolomite--very fine grained, some fine grained in upper sample; very light brown to very light gray in upper part to very light pinkish-gray in lower part; interstitial glauconite common in upper 5 feet. | 615 - 640 |
| Chert in upper part very light gray, in lower part very light brown, granular, quartzose, upper sample oolitic; individual ooids common in lower 10 feet; some white opaque chert in lower 10 feet; quartz and quartz druse common throughout. | |
| Dolomite--mostly fine grained, some very fine grained in upper half; very light pinkish-gray. | 640 - 660 |
| Quartz and quartz druse very abundant; chert in lower half white, opaque to translucent, granular, quartzose, in part oolitic, dolomitic to interstitial. | |
| Dolomite--very fine grained, bordering on fine grained in lower part; very light pinkish-gray; a few rhombs of calcite in lower part. | 660 - 685 |
| Chert white, opaque, dolomitic, scarce; quartz and quartz druse in upper 15 feet. | |
| No sample. | 685 - 690 |
| Dolomite--mostly fine grained, some very fine grained in middle 10 feet; very light pinkish-gray, bottom sample very light olive-gray. | 690 - 710 |
| Chert in upper half very light brown, granular, quartzose, ranging to quartz druse; some quartz druse in lower 5 feet. | |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--mostly microgranular, some fine grained in lower half; very light yellowish-gray to pinkish-gray. A few quartz crystals in lower sample. | 710 - 720 |
| Dolomite--fine and very fine grained, very light yellowish-gray to pinkish-gray. A few quartz crystals. | 720 - 730 |
| Dolomite--fine grained; mostly very light olive-gray, some very light pinkish-gray in upper sample. | 730 - 740 |
| Chert white, opaque, dolomitic to interstitial, scarce; quartz scarce in lower sample. No samples. | 740 - 755 |
| Dolomite--fine grained, very light olive-gray. Chert white, quartzose, rare. | 755 - 760 |
| No sample. | 760 - 765 |
| Dolomite--fine grained, very light olive-gray. Chert, white, quartzose, scarce; some quartz in bottom sample. | 765 - 785 |
| Dolomite--mostly very fine grained, some fine grained; upper 5 feet very light gray to very light olive-gray, with greenish cast from 795 to 800 feet from glauconite; some porosity in lower 5 feet. Chert in upper 5 feet and lower 10 feet, white, opaque, interstitial; below 790 feet quartzose; a few quartz crystals. | 785 - 810 |
| Dolomite--fine grained, very light olive-gray, much porosity. | 810 - 815 |
| Dolomite--mostly on border of fine and very fine grained; mostly very light olive-gray, some very light yellowish-gray in upper 10 feet; pyrite common in upper sample. A few quartz crystals and quartz druse in upper sample; chert from 820 to 835 feet white, opaque, interstitial to dolomitic; below 835 feet in part white, quartzose, a few quartz crystals. | 815 - 850 |
| Dolomite--very fine grained and microgranular, very light yellowish-gray. Chert scarce. | 850 - 855 |
| No sample. | 855 - 860 |
| Dolomite--microgranular and very fine grained, very light yellowish-gray to very light olive-gray. Chert white, interstitial to dolomitic, scarce; a few quartz crystals. | 860 - 865 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Dolomite--fine grained, very light olive-gray. Chert rare; a few quartz crystals. | 865 - 870 |
| Dolomite--mostly very fine grained, some fine grained and microgranular, in lower sample some coarse grained; very light gray to very light brownish-gray; pyritiferous. A few quartz crystals in upper sample. | 870 - 885 |
| Dolomite--mostly coarse grained, pinkish-gray; some similar to above; calcite rhombs common. | 885 - 895 |
| Dolomite--mostly fine grained, some very fine grained in lower sample; upper sample very light olive-gray to yellowish-gray and pinkish-gray, lower sample very light gray; interstitial glauconite and porosity common in upper sample; lower sample pyritiferous. | 895 - 905 |
| Dolomite--mostly very fine grained, some fine grained in lower part; very light gray to yellowish-orange; pyritiferous; interstitial glauconite scarce. | 905 - 920 |
| Dolomite--very fine grained and microgranular, mostly very light olive-gray, slightly pyritiferous. | 920 - 950 |
| Dolomite--microgranular, very light gray, slightly pyritiferous. | 950 - 960 |
| Dolomite--very fine grained and microgranular; very light gray, some pinkish-gray in bottom sample; slightly pyritiferous. | 960 - 980 |
| Dolomite--mostly fine grained, some microgranular in upper sample, some very fine grained, very light gray from 1,000 to 1,005 feet; above 1,000 feet very light pinkish-brown to yellowish-gray, below 1,005 feet light olive-gray to very light gray; some interstitial glauconite below 1,005 feet; some pyrite in lower 15 feet. | 980 - 1,030 |
| Dolomite--very fine grained, very light olive-gray, some interstitial glauconite and pyrite. | 1,030 - 1,040 |
| Dolomite--mostly fine grained, some very fine grained in upper and lower samples; very light gray with a greenish cast and various shades of very light olive-gray; much interstitial glauconite and some pyrite. | 1,040 - 1,055 |
| Dolomite--mostly fine grained in upper part to coarse grained in lower part, very light olive-gray, some interstitial pyrite and glauconite. | 1,055 - 1,070 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--mostly coarse grained, some very fine grained in lower sample; very light gray to white; some large pieces of pyrite and a few grains of interstitial glauconite in upper 10 feet. | 1,070 - 1,095 |
| Dolomite--fine grained in upper sample ranging to about half microgranular in lower sample, light gray to yellowish-gray and very light gray to grayish-orange, upper sample slightly pyritiferous. | 1,095 - 1,115 |
| Dolomite--microgranular, very light olive-gray. | 1,115 - 1,125 |
| Dolomite--very fine grained; mostly very light gray, some grayish-orange in upper 10 feet. | 1,125 - 1,150 |
| Dolomite--microgranular, very light olive-gray. Chert yellowish-gray, very finely granular. | 1,150 - 1,155 |
| Dolomite--mostly very fine grained, about half microgranular in middle third; mostly light olive-gray, some medium gray from 1,160 to 1,170 feet, lower sample very light olive-gray. | 1,155 - 1,200 |
| Dolomite--microgranular and very fine grained, light olive-gray. | 1,200 - 1,205 |
| Dolomite--very fine and fine grained, yellowish-gray to grayish-orange, in part pyritiferous and perhaps silty; some limestone in lower sample very fine grained, greenish-gray, glauconitic, pyritiferous, perhaps silty. | 1,205 - 1,215 |
| Limestone--microgranular to very fine grained, yellowish-gray to greenish-gray, argillaceous, silty, slightly glauconitic. | 1,215 - 1,220 |
| Limestone--granular; in part oolitic with medium olive-gray ooids in a very light olive-gray matrix, some of the ooids break free; in part very fine grained, greenish-gray to light olive-gray, glauconitic, silty, argillaceous, micaceous. | 1,220 - 1,250 |
| Limestone--mostly coarse grained, yellowish-gray to very light olive-gray, slightly glauconitic; some very fine grained, greenish-gray to very light olive-gray, silty, argillaceous, glauconitic, micaceous; a few chips of shale, grayish-green and some light brown, very micaceous, in lower sample some reddish-brown. | 1,250 - 1,260 |
| Limestone--mostly very fine grained, silty, in part nearly siltstone, very argillaceous and glauconitic, somewhat micaceous; some coarse grained; a few chips of shale similar to above, more abundant in lower half. | 1,260 - 1,325 |
| Limestone--mostly coarse grained, light gray, glauconitic, in part fossiliferous; some very | 1,325 - 1,345 |

| | <u>Depth in feet</u> |
|---|----------------------|
| fine grained, similar to above; shale common, grayish-green, some reddish-brown. | |
| Limestone and shale--limestone similar to above, some with coarse glauconite grains; mostly shale similar to above and probably caved. | 1,345 - 1,415 |
| Limestone--coarse grained; mostly pink; in part glauconitic; oolitic in upper part; slightly sandy in upper part to very sandy in lower part, sand mostly medium well-rounded. | 1,415 - 1,435 |
| Sandstone--very fine to very coarse grained, one grain 0.2 inch; pinkish. | 1,435 - 1,445 |
| Sandstone--medium to very coarse grained; pink; grains fairly well-rounded but with rough pitted surfaces perhaps from solution, a few grains reconstituted; small round grains of ilmenite common. | 1,445 - 1,460 |
| Sandstone--mostly fine grained; white; some grains reconstituted, many crushed during drilling; small round grains of ilmenite common. | 1,460 - 1,470 |
| Sandstone--fine to coarse grained; mostly reddish, glauconitic chips in lower sample purplish-green; grains much reconstituted, some faintly smeared by glauconite. | 1,470 - 1,490 |
| Sandstone and limestone--sandstone mostly medium to coarse grained, some much finer grained in upper part; grains fairly well-rounded, mostly rough from reconstitution. Limestone granular, pink to pale red, glauconite, in part fossiliferous. | 1,490 - 1,515 |
| Sandstone--mostly fine to very fine grained, some fine and medium grained; somewhat calcareous and dolomitic; glauconite grains common. | 1,515 - 1,525 |
| Sandstone and limestone--sandstone mostly fine to very fine grained, glauconite grains numerous; limestone granular, mostly pink to pale red, some yellowish-gray in lower sample, very glauconitic. | 1,525 - 1,550 |
| Sandstone and limestone--sandstone fine to very coarse grained, deep dull red; limestone--upper sample deep dull red, granular, glauconitic, a few chips resemble the "bronze beds"; in lower sample yellowish-gray to greenish-gray, glauconitic, sandy. | 1,550 - 1,560 |
| Siltstone--pink, dolomitic, glauconitic; a few chips of light-colored limestone. | 1,560 - 1,565 |
| Siltstone and sandstone--siltstone similar to above; sandstone mostly very fine and | 1,565 - 1,585 |

| | <u>Depth in feet</u> |
|---|----------------------|
| fine grained, some medium grained, grains in part smooth, polished. | |
| Siltstone--dull pink, slightly glauconitic, calcareous and dolomitic, some very fine sand; some loose polished sand grains in lower half. | 1,585 - 1,605 |
| Siltstone--similar to above but slightly coarser grained verging on very fine grained sandstone, slightly lighter colored, cement entirely dolomite. | 1,605 - 1,625 |
| Siltstone--purplish-pink, slightly glauconitic and micaceous, dolomitic; some fine to very fine sand. | 1,625 - 1,635 |
| Sandstone--fine to coarse grained, dull red, grains fairly smooth to polished, re-entrant angles also polished; some siltstone in upper sample. | 1,635 - 1,650 |
| Sandstone--similar to above but with a brownish cast. | 1,650 - 1,670 |
| Sandstone--fine to coarse grained; mostly white to yellowish-gray, a few pink grains in upper sample; grains fairly well-rounded, slightly rough from reconstitution. | 1,670 - 1,680 |

Magnolia Petroleum Company and Western Natural Gas No. 1,
Brown and Bassett, Terrell County

Location.--Section 218, block Y, TCRR survey; 25 mi. S of Sheffield.

Elevation.--2,448 feet.

Top of Ellenburger.--13,755 feet.

Top of Moore Hollow.--15,365 feet.

Top of Precambrian.--15,442 (Flawn et al., 1961).

Total depth.--15,556 feet.

Completed.--1957.

Correlation.--

Depth in feet

| | |
|-------------------------------|-----------------|
| Ellenburger Group | |
| Tanyard Formation | 15,000 - 15,365 |
| Moore Hollow Group | |
| Wilberns Formation | |
| San Saba Member | 15,365 - 15,442 |
| Precambrian metavolcanic rock | 15,442 - 15,556 |

Cuttings

Depth in feet

| | |
|---|-----------------|
| Dolomite--fine to coarse grained, light olive-gray to dark brown, in part very sandy, sand well-rounded, frosted; veins of dolomite very coarse, white. | 15,000 - 15,015 |
|---|-----------------|

Chert in upper sample opaque, light olive-gray, smooth fracturing, dolomitic; in lower 10 feet translucent, quartzose, in part light gray.

| | |
|---|-----------------|
| Dolomite--medium to coarse grained, medium to dark brown, some interstitial very dark brown to black clay, some black, brittle bitumen, in part pyritiferous. | 15,015 - 15,045 |
|---|-----------------|

Chert above 15,030 feet, opaque to translucent, light to dark brown, smooth fracturing to slightly granular, in lower sample dolomitic; mostly chert from 15,030 to 15,040 feet, various shades of brown to black, mostly granular, some translucent, smooth fracturing; similar chert in lower sample much less abundant.

Depth in feet

Dolomite--mostly very fine to fine grained, upper sample fine to medium grained, light to dark brown; slightly sandy in middle sample to very sandy in lower sample, sand well-rounded, frosted; a few dolomite veins, coarse grained, white.

15,045 - 15,060

Chert in upper sample similar to above; in middle sample very scarce; in lower sample light brown, translucent, smooth fracturing to granular.

Dolomite--mostly fine grained, some very fine grained, below 15,070 feet, some medium grained, light to dark brown, upper 10 feet sandy, vugs below 15,070 feet, in part lined by quartz, filled by black, brittle bitumen.

15,060 - 15,085

Chert mostly mottled black and white, granular; in upper sample and lower 10 feet some translucent, smooth fracturing; from 15,065 to 15,070 feet, light brown, finely granular.

Dolomite--fine and very fine grained from 15,100 to 15,110 feet; mostly very fine grained and some fine grained, from 15,095 to 15,100 feet; in upper 10 feet mostly microgranular and some very fine to fine grained; in lower 10 feet mostly microgranular and some fine to medium grained, mostly medium to dark brown, sandy throughout except upper sample.

15,085 - 15,120

Chert in upper sample dark gray verging on black, granular; in next sample very scarce; from 15,095 to 15,110 feet, translucent, in part granular, in part smooth fracturing.

Dolomite--mostly fine to medium grained, some microgranular, light to medium brown, sandy.

15,120 - 15,135

In lower 10 feet some chert, translucent, granular to smooth fracturing; quartz crystals scarce.

Dolomite--in lower part fine grained, in upper part fine and very fine grained, light to medium brown, upper part slightly sandy.

15,135 - 15,160

Chert finely granular, light brown.

| | <u>Depth in feet</u> |
|--|----------------------|
| Dolomite--microgranular in upper part to fine grained in lower part, light brownish-gray to medium brown. | 15,160 - 15,170 |
| Chert opaque to translucent, very light gray to medium brown, smooth fracturing, in part oolitic. | |
| Dolomite--mostly fine grained, some very fine grained from 15,180 to 15,195 feet, light to medium brown, slightly sandy from 15,175 to 15,215 feet. | 15,170 - 15,230 |
| Chert from 15,170 to 15,215 feet, granular, quartzose, medium brown, bottom sample oolitic and sandy; in lower 15 feet finely granular to smooth fracturing, light brown, in part oolitic; quartz crystals common throughout. | |
| Dolomite--mostly microgranular in upper part to mostly fine grained in lower part, some very fine grained in upper 10 feet; light to medium dark brown, very slightly sandy from 15,240 to 15,255 feet and in lower sample. | 15,230 - 15,270 |
| Chert in upper 10 feet, granular, a few quartz crystals; from 15,245 to 15,265 feet, translucent, light to medium brown, very finely granular, some quartz, sandy in lower 10 feet; in bottom sample, very finely granular, medium olive-gray. | |
| Dolomite--upper sample microgranular and very fine grained, lower sample fine and very fine grained, light to medium brown, sandy. | 15,270 - 15,280 |
| Chert finely granular, in part sandy in lower sample. | |
| Dolomite--very fine grained and microgranular, some fine grained, light to medium brown. | 15,280 - 15,305 |
| Chert finely granular. | |
| Dolomite--microgranular, light grayish-brown darkening slightly in lower 10 feet, sandy; in bottom sample some fine grained, medium gray. | 15,305 - 15,340 |
| Dolomite--mostly very fine grained, in part fine grained in upper 10 feet and microgranular in lower 5 feet, | 15,340 - 15,355 |

| | <u>Depth in feet</u> |
|--|----------------------|
| medium brown to medium dark brown; dolomite veins, coarse grained, white. | |
| Dolomite--microgranular and fine grained, medium brown to medium dark brown, slightly sandy to very sandy in lower sample. | 15,355 - 15,370 |
| Dolomite and sandstone--dolomite similar to above; sandstone fine to medium grained, almost white, dolomitic, much interstitial black material which in part may be bitumen. | 15,370 - 15,380 |
| Sandstone--fine to medium grained, almost white, dolomitic, some light gray in lower 10 feet. | 15,380 - 15,405 |
| No sample. | 15,405 - 15,410 |
| Sandstone--mostly medium to coarse grained, white; in part very fine to medium grained, light to medium gray, argillaceous, silty, somewhat pyritiferous; in bottom sample some dolomite, white, coarse grained, glauconitic(?). | 15,410 - 15,440 |
| Sandstone and conglomerate--mostly sandstone in upper sample to mostly conglomerate in lower sample, the latter indicated by large fragments of quartz; some interstitial green clay. | 15,440 - 15,450 |
| Precambrian--see Flawn and others (1961). | 15,450 - 15,556 |

Dempsey Montgomery Oils No. 1 Yates, San Saba County

Location.--Martin Bruch survey, section 576, 2,000 feet FWL, 1,200 feet FSL.

Elevation.--est. 1,495 feet.

Top of Ellenburger.--Well starts in Ellenburger.

Top of Moore Hollow.--1,155 feet.

Top of Precambrian.--2,225 feet.

Total depth.--3,005 feet.

Completed.--1960.

Correlation.--See Plate 3 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|--|----------------------|
| Limestone--aphanitic, white to very light yellowish-gray; some caliche. | 0 - 10 |
| Limestone and dolomite--limestone aphanitic, white to very light yellowish-gray; dolomite very fine to fine grained, grayish-orange. | 10 - 30 |
| Chert opaque, white, smooth fracturing. | |
| Limestone and dolomite--limestone aphanitic, white to very light yellowish-gray, some reddish stain; dolomite fine grained, some reddish stain, fairly scarce; a few very well-rounded tiny sand grains. | 30 - 50 |
| Chert scarce, translucent, light brown; some opaque, white. | |
| Dolomite and limestone--mostly dolomite, very fine grained, grayish-orange; some limestone aphanitic, very light gray; a few loose very tiny sand grains. | 50 - 60 |
| Chert opaque, white to light gray; translucent, light gray to grayish-orange. | |
| Limestone--aphanitic, mostly white to very light pinkish gray; dolomite, very fine grained, scarce from 90 to 100 feet. | 60 - 110 |

Depth in feet

Chert from 60 to 70 and 80 to 90 feet translucent, very light pinkish-gray; from 70 to 80 and 100 to 110 feet chalky to granular, white; from 90 to 100 feet opaque, white.

Limestone and dolomite--limestone aphanitic, white to very light gray; some dolomite microgranular, grayish-orange; a few grains of loose sand from 130 to 170 feet, sand in limestone chips from 160 to 170 feet. 110 - 170

Chert from 110 to 120 and 150 to 160 feet translucent, grayish-orange.

Limestone and dolomite--limestone aphanitic, white to yellowish-gray; dolomite mostly microgranular, yellowish-gray, some finely ground cleavage fragments indicating medium or coarse grained dolomite; some loose sand. 170 - 190

Chert in upper sample translucent, grayish-orange; in lower sample mostly translucent, very light gray.

Dolomite and limestone--mostly dolomite, microgranular, yellowish- to pinkish-gray and very light gray; some limestone, aphanitic, white to yellowish-gray; loose sand common. 190 - 210

Chert in upper sample translucent, grayish-orange, smooth fracturing; in lower sample abundant, opaque, white, and translucent, white to grayish-orange.

Dolomite--about 75 percent microgranular, rest very fine grained; loose sand common. 210 - 270

Chert opaque, white, and translucent, white to grayish-orange, smooth fracturing.

Dolomite--microgranular, pinkish-gray to yellowish-gray; loose sand common, a few chips in bottom sample contain sand. 270 - 350

Chert from 270 to 310 feet translucent, very light gray to grayish-orange; from 300 to 310 feet in part opaque, white, dolomitic; from 310 to 330 feet translucent, light gray, smooth fracturing; from 330 to 350 feet translucent, grayish-orange, scarce; from 340 to 350 feet opaque, white, scarce, a few loose chert ooids.

Dolomite--microgranular and very fine grained; a few loose sand grains in upper sample. 350 - 380

Depth in feet

Chert in upper sample translucent, very light gray, some opaque, white; possibly also present in two lower very finely ground samples.

No sample.

380 - 390

Dolomite--mostly microgranular, some very fine grained, some fine grained from 400 to 420 feet, yellowish-gray to very light gray; some aphanitic limestone from 400 to 420 feet; some loose sand except in upper sample.

390 - 440

Chert in upper sample white, opaque, scarce; from 400 to 410 feet translucent, very light gray, slightly granular; from 410 to 420 feet similar except smooth fracturing.

Limestone and dolomite--dolomite microgranular; limestone aphanitic, white.

440 - 450

Chert translucent, light gray.

Limestone--aphanitic, white, in part dolomitic.

450 - 460

Chert translucent, very light gray.

Dolomite and limestone--mostly dolomite, microgranular, some medium to coarse grained in bottom sample; limestone aphanitic, white.

460 - 480

Dolomite--probably coarse grained (very finely ground).

480 - 490

Chert translucent, very light gray.

Limestone--aphanitic, white, dolomitic below 520 feet; dolomite coarse grained; some loose sand in upper two samples.

490 - 550

Chert from 510 to 520 and 530 to 550 feet, opaque, white, smooth fracturing.

Limestone and dolomite--limestone aphanitic, white; dolomite coarse grained, very light gray.

550 - 590

Chert from 560 to 570 feet opaque, white, and translucent, very light gray; from 570 to 580 feet, very scarce; from 580 to 590 feet, translucent, very light gray, some quartz druse.

Dolomite--mostly coarse grained, in upper part very light gray, in lower part mostly very pale orange; from 600 to 610 feet, mostly very fine grained, some limestone.

590 - 630

Depth in feet

Chert from 590 to 610 feet translucent, very light gray, abundant, some quartz druse in upper sample; from 600 to 620 feet opaque, white.

No samples.

630 - 650

Dolomite--coarse grained, very light gray.

650 - 730

Chert below 690 feet, white, opaque, smooth fracturing, abundant, in part dolomitic, translucent chert and quartz druse scarce; from 690 to 700 feet, slightly translucent, very light gray, scarce.

Dolomite--mostly medium grained, some fine grained in upper part, pinkish-gray.

730 - 740

Chert opaque, white, finely granular to smooth fracturing, in part oolitic.

Dolomite--mostly very fine and fine grained, pink.

740 - 750

Much quartz druse. Chert in lower sample translucent to slightly translucent, smooth fracturing to granular, oolitic and intraclastic.

Dolomite--mostly coarse grained, some fine grained in upper sample, very light gray to pink.

750 - 765

Quartz druse common. Chert in upper 10 feet opaque, white to translucent, very light gray; lower sample mostly chert, opaque, white, in part smooth fracturing, in part slightly chalky, in part quartzose.

Dolomite--fine grained, very light pinkish-gray.

765 - 775

Chert white, opaque, smooth fracturing, scarce in lower sample.

Dolomite--mostly coarse grained, very light gray, some fine grained, very light pinkish-gray.

775 - 785

Chert in lower sample opaque, white, some granular, oolitic.

Dolomite--fine grained, pinkish-gray, and medium grained, yellowish-gray.

785 - 790

Chert opaque, white, smooth fracturing, in part dolomitic.

| | <u>Depth in feet</u> |
|--|----------------------|
| Dolomite--very fine grained, very light olive-gray. | 790 - 795 |
| Chert white, opaque, mostly chalky, some smooth fracturing. | |
| Dolomite--upper sample medium grained, next sample fine to medium grained, lower half medium to coarse grained, mostly very light pinkish-gray. | 795 - 815 |
| Chert in upper half opaque, white, in part dolomitic, mostly smooth fracturing, in part chalky, granular. | |
| No samples. | 815 - 835 |
| Dolomite--medium to coarse grained, very light yellowish-gray. | 835 - 845 |
| Chert opaque, white, smooth fracturing to finely granular. | |
| Dolomite--mostly fine grained, some medium to coarse grained in middle sample, some very fine grained in lower sample, very light pinkish-gray. | 845 - 860 |
| Quartz druse in lower two samples. Chert in middle sample opaque, white, smooth fracturing; in lower sample granular. | |
| Dolomite--medium grained, upper 10 feet very light gray to very light pinkish-gray, rest very light yellowish-gray. | 860 - 890 |
| Quartz druse mostly scarce. Below 865 feet chert opaque, white, smooth fracturing. | |
| Dolomite--mostly fine grained, some medium grained in upper 10 feet, very light pinkish-gray to very light yellowish gray. | 890 - 915 |
| Quartz druse from 895 to 900 feet. Chert mostly opaque, white, smooth fracturing; from 895 to 900 feet, some chalky, some dolomitic, some quartzose. | |
| No sample. | 915 - 920 |
| Dolomite--mostly medium to coarse grained, some fine to very fine grained in upper sample, very light yellowish-gray. | 920 - 935 |
| Chert in upper sample opaque to slightly translucent, white, smooth fracturing to chalky and rough, in part dolomitic, in part oolitic. | |

| | <u>Depth in feet</u> |
|---|----------------------|
| No sample. | 935 - 940 |
| Dolomite--coarse grained, very light yellowish-gray. | 940 - 955 |
| Chert opaque, white, mostly granular and quartzose; lower sample smooth fracturing. | |
| No samples. | 955 - 970 |
| Dolomite--coarse grained, very light yellowish-gray, interstitial green clay from 990 to 995 feet; in bottom sample some limestone, aphanitic, white. | 970 - 1,000 |
| Limestone and dolomite--mostly limestone, aphanitic, white; some dolomite coarse grained, very light yellowish-gray, some interstitial green clay. | 1,000 - 1,020 |
| Limestone--aphanitic to microgranular, white, in part dolomitic, some green clay. | 1,020 - 1,060 |
| Dolomite and limestone--upper sample mostly dolomite, lower sample about half dolomite coarse grained, very light yellowish-gray; middle 10 feet mostly limestone aphanitic, white. | 1,060 - 1,080 |
| Dolomite--coarse grained, very light yellowish-gray; some bright green clay from 1,100 to 1,105 and 1,115 to 1,120 feet. | 1,080 - 1,155 |
| Dolomite--mostly fine grained, mostly very light olive-gray, some pinkish-gray and yellowish-gray in upper few samples; from 1,170 to 1,175 feet, mostly very fine grained. | 1,155 - 1,210 |
| Dolomite--fine grained, mostly light olive-gray, some medium light gray, in lower sample some greenish-gray and pinkish-gray, some interstitial glauconite. | 1,210 - 1,230 |
| Dolomite and limestone--dolomite similar to above; lime- stone granular, various shades of yellowish-brown, pink, light olive-gray, and greenish-gray, glauconitic. | 1,230 - 1,245 |
| Limestone--lower part microgranular to fine grained, upper part coarser grained, in upper part very light gray to greenish gray, in lower part very light yellowish-gray to very light olive-gray and some greenish-gray, glauconitic, dolomitic. | 1,245 - 1,265 |
| Limestone--mostly aphanitic, very light olive-gray, some granular, greenish-gray, slightly glauconite. | 1,265 - 1,280 |
| Limestone--microgranular, very light olive-gray, glauconite very scarce. | 1,280 - 1,360 |
| Limestone and siltstone--limestone similar to above, siltstone grayish-green, argillaceous, pyritiferous. | 1,360 - 1,365 |
| Limestone--mostly aphanitic, some microgranular; some light olive-gray dolomite; some siltstone from 1,380 to 1,385 feet, grayish-green, argillaceous, glauconitic, pyritiferous, micaceous, calcareous. | 1,365 - 1,390 |
| Siltstone--similar to above. | 1,390 - 1,395 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Limestone--mostly aphanitic, some microgranular, light olive-gray; some siltstone similar to above. | 1,395 - 1,415 |
| Siltstone and limestone--mostly siltstone, greenish-gray, argillaceous, slightly glauconitic, pyritiferous; from 1,495 to 1,500 and 1,510 to 1,520 feet, about equally finely granular limestone and siltstone; from 1,465 to 1,470 feet, mostly limestone. Limestone varies in amount and character from sample to sample--from 1,415 to 1,420, 1,425 to 1,430, and 1,445 to 1,450 feet, microgranular, light olive-gray, slightly glauconitic; from 1,420 to 1,425, 1,430 to 1,440, 1,450 to 1,455, and 1,470 to 1,475 feet, oolitic, upper sample light brown ooids in a very light brown matrix; below 1,455 feet mostly finely granular to coarse grained, fossiliferous. | 1,415 - 1,555 |
| Limestone--coarsely granular, reddish-gray to grayish-red and greenish-gray, in part glauconitic; some siltstone in upper sample similar to above. | 1,555 - 1,565 |
| Limestone--coarsely to finely granular, very light olive-gray to light olive-gray and greenish-gray, glauconitic, fossiliferous; below 1,575 feet some siltstone, argillaceous, calcareous, greenish-gray. | 1,565 - 1,605 |
| Limestone--granular light olive-gray in part with a greenish cast, glauconitic, silty. | 1,605 - 1,615 |
| Limestone--granular, light olive-gray, in part with a greenish cast, glauconitic, silty; some siltstone, greenish-gray, argillaceous, calcareous. | 1,615 - 1,650 |
| Limestone--coarsely granular, light olive-gray to greenish-gray, a few pink chips in lower sample, glauconitic, in part fossiliferous. | 1,650 - 1,680 |
| Phosphatic brachiopods from 1,660 to 1,665 feet. | |
| Limestone--coarsely granular, grayish-red, sandy, sand more abundant downward, medium to coarse, very well rounded, in lower sample some very coarse. | 1,680 - 1,695 |
| Sandstone--medium to very coarse grained in upper part, slightly finer grained in lower part, grains mostly well-rounded, rough from reconstitution, slightly glauconitic and calcitic. | 1,695 - 1,715 |
| Sandstone--mostly medium to coarse grained, greenish-gray, lower sample has pinkish cast, glauconite adheres to many sand grains, some very glauconitic fragments, grains mostly well-rounded, reconstituted, and rough. | 1,715 - 1,740 |
| Sandstone and limestone--mostly sandstone similar to above, mostly pink; limestone granular, pinkish-gray to light yellowish-gray, glauconitic. | 1,740 - 1,755 |
| Limestone and sandstone--mostly limestone, granular, yellowish-gray; sandstone in part similar to above, in part very fine grained, very glauconitic. | 1,755 - 1,760 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Sandstone--fine to medium grained, grains mostly reconstituted, very calcareous, somewhat glauconitic. | 1,760 - 1,765 |
| Limestone--granular, very light gray to very light yellowish-gray, glauconitic. | 1,765 - 1,770 |
| Limestone and cavings--some limestone similar to above; mostly cavings. | 1,770 - 1,785 |
| Cavings. | 1,785 - 1,830 |
| Cavings and limestone--mostly cavings; some limestone finely granular, micaceous, glauconitic. | 1,830 - 1,840 |
| Cavings and limestone--mostly cavings; limestone granular, reddish-gray to greenish-gray and pinkish-brown, glauconitic, silty. | 1,840 - 1,865 |
| Cavings and siltstone--mostly cavings; siltstone reddish-brown, calcareous, slightly glauconitic. | 1,865 - 1,870 |
| No sample. | 1,870 - 1,875 |
| Cavings and siltstone--mostly cavings; siltstone similar to above. | 1,875 - 1,885 |
| No sample. | 1,885 - 1,895 |
| Siltstone--pale yellowish-brown, some medium gray with greenish to brownish tint, very calcareous, argillaceous, much very fine sand, glauconite very scarce; some limestone from 1,905 to 1,910 feet, coarse grained, glauconitic, contains objects coated by bronzy iron oxide. | 1,895 - 1,920 |
| Siltstone and sandstone--mostly siltstone similar to above, fine sand abundant; some loose sand in middle sample up to coarse grained; some dolomite-cemented sandstone in lower sample, fine to medium grained, in part glauconitic, reddish. | 1,920 - 1,930 |
| Sandstone--fine to very coarse grained, light gray to yellowish-gray, coarser grained portions cemented by dolomite, grains mostly well-rounded, some rough from reconstitution, a few chips in upper sample very fine to fine grained; some siltstone similar to above. | 1,930 - 1,945 |
| Sandstone--medium to very coarse grained, a few small granules, light gray to yellowish-gray, grains mostly well-rounded, some rough from reconstitution, sand mostly loose in lower 10 feet, a few slightly glauconitic aggregates, very light yellowish-gray. | 1,945 - 1,995 |
| Sandstone--fine to very coarse grained, very light gray, in part argillaceous and glauconitic, a few granules in lower part. | 1,995 - 2,020 |
| Sandstone--medium to very coarse grained, granules common, argillaceous, glauconitic, occasional grains polished, most well-rounded, rough from reconstitution, in upper sample a few very fine to fine grained glauconitic chips. | 2,020 - 2,110 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Phosphatic brachiopod fragments common, especially abundant from 2,040 to 2,045 feet. | |
| Sandstone--similar to above but somewhat coarser grained in upper 20 and lower 5 feet, grains fairly well-rounded, rough from reconstitution. | 2,110 - 2,165 |
| No sample. | 2,165 - 2,170 |
| Sandstone--coarse to very coarse grained, many granules, some fine grained, slightly dolomitic from 2,190 to 2,200 feet, grains mostly fairly well-rounded, fairly smooth, surfaces undulatory, some grains reconstituted. | 2,170 - 2,215 |
| Conglomerate--mostly large fragments of quartz, in lower sample some fragments of microcline. | 2,215 - 2,225 |
| (Precambrian samples described by Cader Shelby): | |
| Gneiss(?) and pegmatite--mostly gneiss(?), fine grained, moderate reddish-orange, composed of microcline and quartz, some oriented muscovite and biotite; pegmatite in upper 10 feet indicated by quartz and microcline fragments and muscovite plates. The gneiss(?) has somewhat the appearance of Red Mountain Gneiss, also of fine-grained aplite, quartzite, or even some phases of the Valley Spring Gneiss. | 2,225 - 2,245 |
| Schist--mostly biotite schist; some gneiss(?) in upper part similar to above; some pegmatite from 2,255 to 2,260 feet. | 2,245 - 2,340 |
| Marble--upper 90 feet contains about 10 to 20 percent hornblende, rest contains both biotite and hornblende. | 2,340 - 2,525 |
| No samples. | 2,525 - 2,535 |
| Marble and schist--similar to above, proportion varies from sample to sample. No samples from 2,600 to 2,615, 2,620 to 2,630, and 2,695 to 2,700 feet. | 2,535 - 2,700 |
| Schist and marble--mostly schist similar to above; marble 10 percent of samples, rarely more, may be cavings. | 2,700 - 3,000 |

T. F. Murchison Ranch Well, Burnet County

Location.--4.7 miles due S of Hwy. intersection in Burnet, 1.5 miles N of mouth of Hairston Creek.

Elevation.--est. 1,160 feet.

Top of Moore Hollow.--1,325 feet.

Top of Precambrian.--2,470 feet.

Total depth.--2,491 feet.

Correlation.--See Plate 5 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|--|----------------------|
| No samples. | 0 - 245 |
| Limestone--aphanitic, white to very light yellowish-gray; some dolomite in lower sample microgranular, pinkish; sand loose, in part white, well-rounded, mostly pink, angular to subrounded, probably cavings. | 245 - 255 |
| Chert in upper sample, a few loose ooids; in lower sample white, opaque to translucent, smooth fracturing. | |
| Dolomite and limestone--mostly dolomite, microgranular, very light yellowish-gray to pinkish-gray; some limestone, aphanitic, white to very light yellowish-gray; loose sand similar to above scarce. | 255 - 270 |
| Chert white, opaque to slightly translucent, smooth fracturing; in lower sample a few loose ooids. | |
| Dolomite--mostly microgranular, some very fine grained from 275 to 280 feet; very light pinkish-gray in upper 20 feet, rest pinkish-gray to grayish-orange and very light olive-gray; loose sand grains throughout, in lower sample sand in dolomite chips and some loose sand rounded and frosted, the latter probably also from the Ellenburger. | 270 - 300 |
| Dolomite--mostly very fine grained in upper and lower samples, mostly microgranular in middle sample; very light olive-gray, some pinkish-gray in lower samples; loose sand scarce. | 300 - 315 |

Depth in feet

Chert in upper sample a few loose ooids.

Dolomite--microgranular, very light gray to pinkish-gray and a wide variety of shades of yellowish-gray and light gray, some loose sand from 320 to 325 feet. 315 - 365

Chert in upper 5 feet very finely granular, oolitic, many loose ooids; from 345 to 350 feet, a few loose ooids; from 320 to 330 feet, opaque, white, chalky, slightly rough fracturing, in part oolitic; from 335 to 340 feet, similar but not oolitic; from 325 to 335 and 340 to 345 feet opaque, white, smooth fracturing; from 325 to 335 feet, in part translucent, very light gray to light yellowish-gray, dolomitic.

Dolomite--mostly similar to above; some fine grained, very light yellowish-gray; a few chips in upper 10 feet, microgranular, very sandy. 365 - 380

Chert in upper sample scarce, in part finely granular, oolitic, in part translucent, very light gray.

Dolomite--microgranular; very light yellowish-gray to very light pinkish-gray, somewhat deeper tinted downward, below 435 feet mostly pink; from 385 to 390, 460 to 465, and 470 to 495 feet, some chips very sandy. 380 - 495

Chert in upper sample opaque, both yellowish-gray, banded and very light gray, scarce; from 385 to 390, 425 to 435, and 450 to 490 feet, opaque, white to very light gray, smooth fracturing, upper interval grades to chalky, and from 465 to 475 feet, dolomitic; from 440 to 445 feet, granular, white, quartzose, scarce; from 470 to 490 feet, slightly translucent, very light gray, quartzose; and from 490 to 495 feet, similar chert smooth fracturing.

Dolomite--upper sample fine and very fine grained, some microgranular, light to very light pinkish-gray, a few chips sandy; lower sample both fine grained, very light olive-gray, and microgranular, yellowish-gray to pinkish-gray. 495 - 505

Chert translucent to slightly translucent, mostly very light gray, some pale orange in lower sample, abundant.

Dolomite--mostly fine grained, some medium grained in lower sample; yellowish-gray to light olive-gray to pinkish-gray, some medium light gray. 505 - 520

Depth in feet

- Chert in upper sample slightly translucent to translucent, very light gray to pale orange; in lower sample translucent, very light gray, smooth fracturing.
- Dolomite--mostly medium grained, some coarse grained below 525 feet; very light pinkish-gray. 520 - 545
- Chert from 520 to 530 feet, opaque, chalky, interstitial to dolomitic; in lower sample very finely granular, quartzose.
- Dolomite--medium to coarse grained, very light pinkish-gray. 545 - 585
- Chert below 550 feet opaque to slightly translucent, white, in part chalky, in part interstitial and dolomitic, very abundant in lower 10 feet.
- Dolomite--most medium grained except upper sample that is mostly fine grained, some fine grained from 590 to 610 and 615 to 635 feet; light pinkish-gray in upper part, very light olive-gray in lower part. 585 - 635
- Chert in upper 10 feet opaque to slightly translucent, white, smooth fracturing, in part interstitial to dolomitic, in part slightly chalky; from 595 to 610 feet, mostly translucent, white to very pale orange and very light gray; from 610 to 635 feet, slightly translucent to opaque, smooth fracturing, below 615 feet, in part interstitial.
- Dolomite--fine grained, very light olive-gray; in bottom sample some coarse grained, very light gray to pinkish-gray. 635 - 665
- Chert in upper sample translucent, very light olive-gray, smooth fracturing; from 640 to 645 feet, opaque, white, interstitial; from 645 to 650 feet, opaque, white, smooth fracturing; from 650 to 660 feet, mostly translucent, very light olive-gray, some opaque, white; in bottom sample opaque, white, dolomitic to interstitial.
- Dolomite--mostly coarse grained, pinkish-gray to very light gray to very light yellowish-gray, some very light olive-gray; below 695 feet, in part fine grained, pinkish-gray. 665 - 710

Depth in feet

Chert in upper sample and from 670 to 680 feet, opaque to translucent, white to very light olive-gray, smooth fracturing, scarce in lower interval; from 680 to 695 feet, opaque, white, smooth fracturing, a few tiny fragments; in lower 15 feet, opaque to slightly translucent, white, smooth fracturing, abundant.

Dolomite--fine grained, very light yellowish-gray to very light pinkish-gray. 710 - 750

Chert from 710 to 725 and 745 to 750 feet, in part translucent to slightly translucent, very light gray, smooth fracturing; below 715 feet, mostly opaque, white, smooth fracturing to slightly rough; dolomitic from 725 to 735 feet.

Dolomite--mostly fine grained, some medium grained in upper and lower samples; very light pinkish-gray. 750 - 770

Chert opaque, white, smooth fracturing, in part dolomitic, some in upper sample with botryoidal surface. Quartz druse from 755 to 765 feet.

Dolomite--a few medium-grained fragments from 805 to 810 feet (much of the dolomite in this interval is finely ground consisting of individual rhombs that could be from medium- to coarse-grained crystals); white with a slight pinkish cast to very light pinkish-gray in upper part. 770 - 850

Quartz druse from 775 to 780 and below 795 feet, mostly scarce.

Dolomite--medium to coarse grained, white with a slight pinkish cast in upper part to slighter deeper pink in lower part. 850 - 870

Chert in upper part opaque, white, smooth fracturing. Quartz druse common throughout.

Dolomite--coarse grained, pinkish-white; some fine grained in lower sample. 870 - 920

Chert in lower sample opaque to slightly translucent, white, smooth fracturing, dolomitic. Quartz druse from 905 to 910 feet.

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--mostly fine grained, some medium grained in middle sample; pinkish-gray. | 920 - 935 |
| Chert opaque to slightly translucent, white, smooth fracturing, dolomitic. | |
| Dolomite--mostly medium to coarse grained, pinkish-gray, somewhat lighter colored below 950 feet; some very coarse dolomite in lower sample. | 935 - 1,010 |
| Chert common in upper sample, scarce from 940 to 955 feet, slightly translucent, very light gray, smooth fracturing. | |
| Dolomite--mostly medium to coarse-grained, some very coarse grained, below 1,015 feet, some fine grained, greenish-gray, argillaceous; very light pinkish-gray in upper part, below 1,050 feet, white with a slight yellowish-gray cast; green clay very scarce from 1,010 to 1,050 feet; some pyrite from 1,035 to 1,040 feet. | 1,010 - 1,080 |
| Dolomite--coarse grained; mostly white, some very light yellowish-gray in upper part; some pyrite in upper 10 feet; green clay and shale fragments scarce from 1,080 to 1,140, 1,150 to 1,200, 1,215 to 1,220, and 1,245 to 1,305 feet; some pyrite from 1,280 to 1,305 feet. | 1,080 - 1,325 |
| Dolomite--very fine grained, middle sample very finely ground and appears to be coarser than fine grained; light to very light gray. Cavings abundant. | 1,325 - 1,355 |
| Dolomite--mostly very fine grained, some fine grained from 1,370 to 1,405 and 1,450 to 1,465 feet; very light olive-gray, yellowish-gray with an olive-gray tint, a few chips grayish-red from 1,385 to 1,405 feet, very pale yellowish-brown from 1,305 to 1,425 feet, some very light grayish-orange pink, pyritiferous from about 1,450 to 1,465 feet and in bottom 10 feet. | 1,355 - 1,495 |
| Chert from 1,355 to 1,370 feet, opaque, white, interstitial; from 1,405 to 1,425 feet, quartzose chalcedony to quartz druse; from 1,425 to 1,440 feet, some quartz druse; from 1,440 to 1,460 feet, opaque, white, smooth fracturing, mostly dolomitic, in part quartzose, some slightly translucent in upper part. | |
| Dolomite--microgranular and very fine grained; very light to medium olive-gray, in lower part light brown, greenish-gray and various other colors; mostly pyritiferous, a few chips in lower part may be glauconitic; lower 25 feet, slightly calcitic. | 1,495 - 1,565 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Limestone--mostly aphanitic, in lower 10 feet about equally aphanitic and finely granular; from 1,580 to 1,590 feet, a few chips granular, very glauconitic; glauconite mostly scarce; colors mostly drab grays and browns, some yellowish-orange; finely disseminated pyrite common in upper 10 feet, some silty shale flakes in lower 10 feet. | 1,565 - 1,605 |
| Shale and limestone--shale dark greenish-gray, calcareous, micaceous; limestone similar to above. | 1,605 - 1,620 |
| Siltstone and limestone--mostly very calcareous, argillaceous siltstone to very silty, argillaceous limestone, dark to medium olive-gray to medium greenish-gray, mostly very micaceous, mica golden as if weathered; limestone mostly aphanitic to microgranular, very light olive-gray in part with a greenish cast, slightly glauconitic; some granular limestone at 1,650 feet. | 1,620 - 1,670 |
| Limestone--coarsely granular, grayish-red in upper part, greenish-gray and light olive-gray downward, glauconitic; some aphanitic at 1,690 feet, pale brown, possibly stromatolitic. | 1,670 - 1,695 |
| Limestone and siltstone--mostly limestone similar to above; siltstone medium olive-gray with a reddish tint, very calcareous, glauconitic, micaceous, argillaceous. | 1,695 - 1,710 |
| Limestone--finely granular; reddish-gray to greenish-gray in upper part, light olive-gray mostly with a greenish cast in lower part; glauconitic; upper 10 feet argillaceous. | 1,710 - 1,745 |
| Limestone--coarsely granular; very light to light olive-gray in part with a greenish cast, in lower 20 feet mostly reddish-gray; slightly to very glauconitic; some sand in lower 10 feet, more plentiful in bottom sample. | 1,745 - 1,800 |
| In part fossiliferous; small trilobites at 1,755 feet are possibly <u>Irvingella</u> ; a few small phosphatic brachiopods at 1,760 feet. | |
| Sandstone--mostly medium to very coarse grained, some fine grained in lower sample; light brown with a reddish tint, some grains very well-rounded, others rough from reconstitution. A few limestone chips in upper sample contain polished, shiny, elliptical grains of layered limonite. | 1,800 - 1,812 |
| Sandstone and greensand--mostly sandstone medium coarse grained, some fine and very coarse grained; grains mostly well-rounded, rough from reconstitution, mostly with adhering glauconite; greensand common at 1,820 feet, dusky green, mostly weathered blackish-red, probably the dominant material in this interval. | 1,812 - 1,845 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Sandstone, greensand, limestone, and siltstone--sandstone and greensand similar to above; siltstone in upper sample greenish-gray, calcareous, very argillaceous; limestone granular, mostly greenish-gray, sandy, glauconitic, in lower sample in part white and trilobitic. | 1,845 - 1,865 |
| Limestone--coarsely granular, very light to light yellowish-gray in part with a greenish cast, glauconitic, slightly sandy. | 1,865 - 1,895 |
| Limestone--granular, very light olive-gray, oolitic, slightly glauconitic. | 1,895 - 1,945 |
| Siltstone and limestone--siltstone very calcareous grading to very silty limestone, medium olive-gray, glauconitic, some very fine sand in lower part; some limestone in bottom sample, coarsely granular, very light olive gray, oolitic. | 1,945 - 2,015 |
| Siltstone and sandstone--siltstone with much very fine sand, some fine sand similar to above; sandstone represented by very fine to medium loose sand. | 2,015 - 2,025 |
| Limestone--coarsely granular, very light olive-gray, oolitic, glauconite very scarce, some loose sand. | 2,025 - 2,035 |
| Sandstone--mostly fine to very coarse grained, upper sample fine to medium grained, grayish-red, grains well-rounded. | 2,035 - 2,065 |
| Sandstone and limestone--sandstone fine to very coarse grained, some fine grained in lower sample, light olive-gray to greenish-gray, very calcareous, glauconitic, silty, argillaceous, grades to limestone, granular, brownish-gray, very sandy, glauconitic. | 2,065 - 2,115 |
| Limestone--granular, greenish-gray with a brownish cast, somewhat silty and glauconitic, sand scarce in lower part, upper part very sandy and argillaceous. | 2,115 - 2,155 |
| Sandstone--fine- to medium-grained, greenish-gray, very calcareous, glauconitic. | 2,155 - 2,165 |
| Sandstone--fine to medium grained, greenish-gray, dolomitic, very argillaceous and glauconitic. | 2,165 - 2,215 |
| Sandstone--fine to very coarse grained, upper 10 feet grayish-red, rest light greenish-gray, lower sample dolomitic, middle sample slightly calcareous and glauconitic, grains fairly well-rounded and rough. | 2,215 - 2,250 |
| Sandstone--medium to very coarse grained, very light yellowish-gray in upper part to almost white in lower part, grains fairly well-rounded, rough. | 2,250 - 2,300 |
| Sandstone and cavings (represented by six samples)--Mostly cavings. Sandstone at 2,325, from 2,340 to 2,348, and at 2,378 feet, fine to medium grained, many broken grains may have been from coarser grained sandstone, grains mostly angular, a few rounded; at 2,400 feet, mostly coarse grained; at 2,414 feet, a few very coarse grains; and from 2,458 to 2,470 feet, mostly loose sand. | 2,300 - 2,470 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Granite--mostly coarse fragments of microcline and quartz; plagioclase and a small amount of biotite mostly weathered. | 2,470 - 2,491 |

H. M. Naylor No. 1 Lloyd Mitchell, Edwards County

Location.--H. E. and W. T. survey, block E, section 87, 1,650 feet FSL,
337.2 feet FWL.

Elevation.--2,260 feet.

Top of Ellenburger.--4,940+ feet.

Top of Moore Hollow.--6,280 feet.

Total depth.--7,811 feet.

Correlation.--See Plate 4 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|--|----------------------|
| Limestone--granular, light brown, fossiliferous; abundant shale cavings. | 4,870 - 4,900 |
| No samples. | 4,900 - 4,980 |
| Dolomite--microgranular and very fine grained, yellowish-gray to light olive-gray. | 4,980 - 5,010 |
| No samples. | 5,010 - 5,065 |
| Limestone--aphanitic, mostly very light olive-gray, some yellowish-gray in upper part; some dolomite from 5,160 to 5,165 feet, fine grained, medium brown, some in lower 10 feet microgranular, very light gray. | 5,065 - 5,200 |
| <p>Chert in upper 15 feet, opaque, white, smooth fracturing, in part oolitic, a few individual ooids; from 5,090 to 5,100 feet, opaque, in part white, finely granular, rough fracturing, in part grayish- orange, smooth fracturing; from 5,100 to 5,115 feet, slightly translucent, very light olive-gray, smooth fracturing; from 5,155 to 5,165 feet, opaque, yellowish-gray to light olive-gray to translucent, very light gray, smooth fracturing, abundant; from 5,170 to 5,180 feet, white, opaque, smooth frac- turing; in bottom 10 feet, translucent, very light gray, smooth fracturing.</p> | |
| Dolomite--mostly fine grained, some microgranular in upper sample and medium grained in lower sample, very | 5,200 - 5,240 |

| | <u>Depth in feet</u> |
|--|----------------------|
| light to medium olive-gray, some medium brown in upper sample; some aphanitic limestone in lower sample, a few chips from 5,210 to 5,220 feet. | |
| Chert in upper 10 feet, translucent, light brown, smooth fracturing; in lower 20 feet, translucent, very light gray, smooth fracturing, abundant. | |
| Limestone--aphanitic, very light yellowish-gray. | 5,240 - 5,270 |
| Chert in upper 20 feet, translucent, white, smooth fracturing; in lower 10 feet, opaque, white to light brown, smooth fracturing. | |
| Dolomite--mostly medium grained and microgranular, upper sample fine grained, lower 20 feet mostly very fine grained, very light olive gray to yellowish-gray; some aphanitic limestone in upper sample. | 5,270 - 5,330 |
| Chert opaque, white, smooth fracturing, interstitial in medium-grained dolomite. | |
| Dolomite--mostly very fine grained, some microgranular and fine grained in upper sample; from 5,370 to 5,380 feet, mostly microgranular, light to medium olive-gray. | 5,330 - 5,390 |
| Chert above 5,380 feet, opaque, white, smooth fracturing; from 5,340 to 5,370 feet, dolomitic. | |
| Dolomite--microgranular to fine grained, light olive-gray. | 5,390 - 5,410 |
| Chert in lower sample slightly translucent, very light olive gray, smooth fracturing. | |
| Dolomite--mostly very fine grained, some fine grained in upper part, light to medium olive-gray. | 5,410 - 5,460 |
| Chert in lower sample slightly translucent, light brown, smooth fracturing. | |
| Dolomite--microgranular, medium olive-gray. | 5,460 - 5,480 |
| No samples. | 5,480 - 5,510 |
| Dolomite--mostly microgranular, upper sample very fine grained, in upper part medium light olive-gray to medium light gray, ranging to light olive-gray and very light yellowish gray in lower part. | 5,510 - 5,580 |

Depth in feet

Chert from 5,510 to 5,520 feet and in lower sample, opaque, white, smooth fracturing; from 5,530 to 5,540 feet, slightly translucent, white to light brown, smooth fracturing; from 5,540 to 5,550 feet, finely granular, very light gray; from 5,550 to 5,560 feet, opaque, white to translucent, very light gray, smooth fracturing.

No sample.

5,580 - 5,590

Dolomite and limestone--mostly dolomite, microgranular, light yellowish-gray to light olive-gray, some very fine grained in lower 20 feet; some limestone from 5,610 to 5,620 feet, aphanitic, light olive-gray.

5,590 - 5,640

Chert from 5,610 to 5,620 feet, translucent, very light olive-gray, smooth fracturing; from 5,620 to 5,640 feet, opaque, white to yellowish-gray, smooth fracturing.

Limestone and dolomite--mostly limestone, aphanitic; in upper 20 feet, some dolomite, microgranular; both light olive-gray.

5,640 - 5,670

Chert opaque to translucent, light olive-gray, smooth fracturing.

Dolomite--very fine grained, light olive-gray; some aphanitic limestone.

5,670 - 5,680

Chert opaque to translucent, white to light olive-gray, smooth fracturing.

Limestone and dolomite--ranging from aphanitic limestone in upper sample to very fine-grained dolomite in lower sample, both very light olive-gray; from 5,690 to 5,700 feet, both limestone and dolomite sandy.

5,680 - 5,720

Chert in upper sample translucent to opaque, very light olive-gray, smooth fracturing, very abundant; from 5,700 to 5,710 feet, opaque, white, smooth fracturing.

Dolomite and limestone--mostly limestone, from 5,730 to 5,750 feet aphanitic, very light olive-gray; rest mostly dolomite, fine grained, some very fine grained in upper sample, medium to light olive-gray, lower sample very light olive-gray, sandy.

5,720 - 5,770

| | <u>Depth in feet</u> |
|--|----------------------|
| Chert from 5,730 to 5,740 feet, slightly translucent, white, smooth fracturing; from 5,750 to 5,760 feet, opaque, white, smooth fracturing. | |
| Dolomite--mostly microgranular, some fine grained in upper sample, light olive-gray, sandy to very sandy. | 5,770 - 5,790 |
| Dolomite and limestone--mostly dolomite, mostly microgranular in upper sample, very fine grained in lower sample, some fine grained; limestone aphanitic. very light olive-gray, in part sandy. | 5,790 - 5,810 |
| Chert in lower sample opaque, white, smooth fracturing, in part sandy. | |
| Dolomite--microgranular and very fine grained, very light olive gray. | 5,810 - 5,840 |
| Dolomite--mostly fine grained, some very fine grained from 5,870 to 5,880 feet, medium to light olive-gray, some sand from 5,860 to 5,880 feet and in lower sample. | 5,840 - 5,900 |
| Chert in upper sample translucent, light olive-gray, smooth fracturing, in part dolomitic; from 5,850 to 5,870 feet, opaque, white, chalky, granular, some smooth fracturing, sandy from 5,860 to 5,870 feet; from 5,880 to 5,890 feet, opaque, white, dolomitic to interstitial to slightly translucent, white to light brown, smooth fracturing; in bottom sample in part interstitial, in part oolitic, a few individual chert ooids. | |
| No sample. | 5,900 - 5,910 |
| Dolomite--mostly coarse grained, some medium grained in lower 20 feet, some microgranular in upper sample, yellowish-gray and light olive-gray, sand common in upper 20 feet, some pyrite in upper sample, vuggy. | 5,910 - 5,970 |
| Chert in lower sample opaque to translucent, white to very light olive gray, smooth fracturing, some granular, chalky. | |
| No sample. | 5,970 - 5,980 |
| Dolomite--mostly medium grained, some fine grained in upper 20 feet, light olive-gray, middle sample sandy. | 5,980 - 6,010 |
| Chert in middle sample opaque, white, smooth fracturing. | |

| | <u>Depth in feet</u> |
|---|----------------------|
| No sample. | 6,010 - 6,030 |
| Dolomite--mostly very fine grained and microgranular some medium grained in upper sample, light olive- gray in upper part to light gray in lower part, upper half sandy. | 6,030 - 6,070 |
| Chert in upper sample very finely granular to smooth fracturing and slightly translucent, in part sandy; in rest of interval granular quartzose, some quartz druse. | |
| Dolomite--fine and very fine grained, middle sample mostly very fine grained, lower sample mostly fine grained, some medium grained in lower 20 feet, light olive-gray. | 6,070 - 6,100 |
| Chert in upper sample quartzose; in middle sample opaque, white, smooth fracturing, interstitial in medium-grained dolomite; in lower sample in part interstitial, in part quartzose. | |
| Dolomite--fine to medium grained, light olive-gray. | 6,100 - 6,110 |
| Chert quartzose, very abundant. | |
| Dolomite--mostly very fine grained, some fine grained in upper sample, light gray to light olive-gray, sandy. | 6,110 - 6,130 |
| Chert opaque, white, interstitial and granular quartzose, in part sandy in upper sample; quartz druse very abundant in upper sample. | |
| Dolomite--mostly microgranular, some very fine grained in upper 20 feet and lower 30 feet, some fine-grained from 6,140 to 6,150 feet and in bottom sample, yellowish-gray to very light olive- gray; sandy to slightly sandy below 6,160 feet; pyritiferous from 6,150 to 6,160 feet. | 6,130 - 6,200 |
| Chert in upper sample opaque, white, smooth fracturing, in part dolomitic; from 6,140 to 6,150 feet, granular, quartzose; from 6,160 to 6,170 feet, in part opaque, white, smooth fracturing, in part quartzose, some quartz druse; from 6,180 to 6,190 feet, some quartz druse and quartzose chert; from 6,140 to 6,150 and below 6,160 feet sandy. | |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--very fine grained, light olive-gray, slightly sandy. | 6,200 - 6,220 |
| Dolomite--mostly microgranular and very fine grained, some fine grained in upper sample, light to very light olive gray, sandy below 6,230 feet, some porosity from 6,230 to 6,250 feet. | 6,220 - 6,280 |
| Some quartzose chert in upper sample. | |
| Dolomite--mostly very fine grained, some fine grained in upper sample, light olive-gray, pyritiferous, some porosity in upper sample; below 6,290 feet, some fine grained, almost white, very glauconitic. | 6,280 - 6,340 |
| Limestone--granular, light olive-gray, glauconitic, in part pyritiferous, in part oolitic, in part fossiliferous, below 6,370 feet in part silty; in lower 20 feet some chips very finely granular, argillaceous, greenish-gray; in upper sample some dolomite similar to above. | 6,340 - 6,440 |
| Sandstone--fine to medium grained, some coarse grains in lower sample, light yellowish-gray to very light pinkish gray, in lower sample some light-gray to light brownish-gray, calcareous, some porosity in upper part, grains well-rounded, frosted; some limestone granular, sandy, in upper part. | 6,440 - 6,520 |
| Sandstone and limestone--mostly limestone, granular, glauconitic, sandy, light gray to light brownish-gray, grading to sandstone similar to above. | 6,520 - 6,550 |
| Sandstone--mostly fine to medium grained, some coarse-grained, white to brownish-gray, dolomitic, slightly glauconitic; some limestone in upper 40 feet similar to above. | 6,550 - 6,660 |
| No samples. | 6,660 - 6,710 |
| Sandstone and limestone--sandstone dolomitic, in part similar to above, in part very fine grained, silty, grades to limestone, somewhat micaceous, very light brownish-gray, glauconite scarce except in lower sample. | 6,710 - 6,770 |
| Sandstone and siltstone--mostly siltstone, calcareous, glauconitic, micaceous, argillaceous, much very fine sand; sandstone similar to above; both very light brownish gray to medium gray with a brownish cast. | 6,770 - 6,810 |
| Dolomite or sandstone--either very sandy dolomite or very dolomitic sandstone, medium grained, greenish-gray to almost white, a few fragments | 6,810 - 6,820 |

| | <u>Depth in feet</u> |
|--|----------------------|
| grayish-red, very glauconitic, somewhat pyritiferous. | |
| Limestone and sandstone--sandstone mostly fine grained; limestone mostly finely granular; both very glauconitic, micaceous, silty, in part dolomitic; in lower sample some limestone, very coarsely granular, fossiliferous, glauconitic. | 6,820 - 6,870 |
| Limestone--very coarsely granular, fossiliferous, glauconitic, oolitic from 6,960 to 6,970 feet. | 6,870 - 6,980 |
| Limestone--mostly coarsely granular, reddish-gray, in part very glauconitic, in upper and lower samples in part oolitic, below 7,005 feet, sandy; some finely granular, micaceous; from 7,020 to 7,030 feet, some sandstone medium to coarse-grained, very calcareous. | 6,980 - 7,040 |
| Limestone--coarsely granular, grayish-red to reddish-gray, glauconitic, sandy becoming more so downward, sand in part coated by hematite; some sandstone in lower sample fine to coarse grained, calcareous, light gray to reddish-gray. | 7,040 - 7,080 |
| Sandstone--fine to coarse grained, calcareous, light-gray to reddish-gray. | 7,080 - 7,110 |
| No sample. | 7,110 - 7,120 |
| Sandstone and limestone--mostly sandstone, fine to medium grained in upper sample, rest fine to very fine grained, greenish-gray, very glauconitic, mostly silty, calcareous, dolomitic, in lower part grades in impure granular limestone, sand grains reconstituted; some shale in lower part dark yellowish-brown, slightly micaceous, glauconitic. | 7,120 - 7,160 |
| Limestone--coarsely granular, oolitic, light brown ooids in a very light gray groundmass except from 7,220 to 7,230 feet, where both are very light yellowish-gray with little contrast; in lower 20 feet in part glauconitic, some finely granular, glauconitic, micaceous. | 7,160 - 7,280 |
| Limestone and siltstone--limestone mostly very finely granular, very silty, micaceous, argillaceous, glauconitic, grading to siltstone, very calcareous and slightly glauconitic, medium olive-gray in part with a reddish tint; some oolitic limestone in upper 20 feet; some coarsely granular limestone throughout, most abundant in lower sample. | 7,280 - 7,330 |
| Limestone and siltstone--in part intergradational limestone and siltstone, micaceous, argillaceous, glauconitic, medium olive-gray with a reddish tint in upper part to pinkish-gray in lower part; in part limestone coarsely granular, oolitic, in part fossiliferous. | 7,330 - 7,430 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Limestone and siltstone--mostly intergradational siltstone and limestone similar to above, except for some very fine sand and a mostly pale-red to reddish-gray color; some granular limestone throughout, in part oolitic from 7,440 to 7,450 feet; in bottom sample a few chips of sandstone, fine grained, grayish-red. | 7,430 - 7,480 |
| Siltstone and sandstone--intergradational siltstone and fine-grained sandstone, very calcareous, glauconitic, micaceous, reddish-gray to grayish-red, sandstone more abundant downward; some granular limestone. | 7,480 - 7,530 |
| Sandstone and siltstone--mostly sandstone, very fine to medium grained, reddish-gray to grayish-red, some greenish-gray in lower part, glauconitic, calcareous in upper part, dolomitic in lower part; siltstone abundant, very sandy, calcareous, glauconitic, micaceous, reddish-gray to grayish-red, forms most of sample from 7,560 to 7,570 feet; in lower sample some sandstone, coarse to very coarse grained, glauconitic, dolomitic. | 7,530 - 7,580 |
| Sandstone--fine to coarse grained, a few very coarse grains, in part very light gray, in part greenish-gray and argillaceous, in upper sample a few chips slightly calcareous, grains mostly angular, very poorly sorted. | 7,580 - 7,760 |
| Phosphatic brachiopod fragments common to abundant in upper 40 feet. | |
| Sandstone--fine to coarse grained, some grains up to granule size, mostly greenish-gray from green clay, microcline(?) abundant. | 7,760 - 7,810 |

Naylor No. 1 Stone, Coleman County

Location.--Childress survey, section 73.

Elevation.--2,129 feet derrick floor.

Top of Ellenburger.--4,275 feet.

Top of Moore Hollow.--4,620 feet.

Top of basement.--5,338 feet (Flawn, 1956).

Total depth.--5,348 feet.

Date completed.--1953.

Correlation.--See Plate 3 of Moore Hollow Group, Part 1.

| <u>Cuttings</u> | <u>Depth</u> |
|--|----------------------|
| | <u>Depth in feet</u> |
| Shale--medium to dark gray, upper sample has a brownish cast, some grayish-red fragments in lower part; some granular limestone in bottom sample. | 4,240 - 4,270 |
| Shale and chert--shale similar to above; a few chips of limestone, aphanitic, very light olive-gray. Chert mostly granular quartzose, some opaque, white, smooth fracturing. | 4,280 - 4,350 |
| Limestone and dolomite--limestone from 4,300 to 4,310 and 4,320 to 4,340 feet; rest limestone and dolomite; limestone aphanitic, very light to light yellowish-gray; dolomite fine to medium grained, almost white except lower sample that is very light brown. Chert in upper 30 feet opaque, white, smooth fracturing, some in lower sample chalky; chert below 4,310 feet, opaque to translucent, white to very light gray, mostly smooth fracturing, some chalky, a few chips dolomitic, abundant to scarce. | 4,350 - 4,380 |
| Dolomite--in upper 20 feet medium to coarse grained, almost white in part with a pinkish cast; in lower 10 feet, fine to medium grained, almost white, in part very sandy, sand fine, well-rounded, frosted; some limestone in upper sample similar to above. | 4,380 - 4,500 |
| Dolomite--coarse grained, almost white. | 4,500 - 4,600 |
| No samples. | |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite--mostly fine grained, some very fine grained from 4,650 to 4,680 feet, very light brown to medium light brown, some interstitial glauconite from 4,620 to 4,630 feet, pyrite common below 4,630 feet, intergranular porosity common from 4,600 to 4,620 and 4,640 to 4,690 feet. Interstitial chert common below 4,630 feet, mostly white and chalky. | 4,600 - 4,700 |
| No samples. | 4,700 - 4,710 |
| Dolomite--upper sample fine to very fine grained, middle sample mostly fine grained, lower sample mostly very fine grained; medium light brown; some interstitial porosity. Interstitial chert common. | 4,710 - 4,740 |
| Limestone--very finely granular to aphanitic, medium light brown, pyritiferous, dolomitic, glauconitic below 4,770 feet; in lower 20 feet some shale, medium brown, pyritiferous, very calcareous, slightly glauconitic, silty. | 4,740 - 4,800 |
| Limestone, siltstone, and sandstone--upper sample mostly limestone and siltstone; lower sample mostly limestone and sandstone; limestone in upper sample mostly similar to above, in lower sample coarsely granular, light to medium brown, glauconitic; siltstone light to medium brown, very calcareous, slightly glauconitic; sandstone fine to medium grained, glauconitic, scarce in upper sample; each rock type dolomitic. | 4,800 - 4,820 |
| Dolomite, sandstone, and siltstone--upper sample dolomite, fine grained, medium brown, silty, slightly glauconitic; middle sample intergradational dolomite, sandstone, and siltstone, sandstone very light gray, very fine grained, rest medium brown; lower sample mostly sandstone, fine to medium grained, some coarse grains, very light gray, grains reconstituted, some dolomite similar to above, siltstone scarce. | 4,820 - 4,850 |
| No samples. | 4,850 - 4,880 |
| Sandstone and dolomite--mostly sandstone, fine to medium grained, some coarse grained, very light gray, grains reconstituted; dolomite fine grained, medium brown, silty, slightly glauconitic; siltstone scarce. | 4,880 - 4,900 |
| Sandstone and siltstone--below 4,960 feet, siltstone, light brown to greenish-gray, glauconitic, dolomitic, very argillaceous, somewhat more dolomitic in lower sample; above 4,960 feet, sandstone and siltstone, sandstone fine to very fine grained grading to siltstone, light gray to very light brownish-gray, argillaceous, clay more abundant downward, in part pyritiferous, glauconite common in lower 20 feet. | 4,900 - 5,030 |

| | <u>Depth in feet</u> |
|---|----------------------|
| Dolomite and siltstone--upper 20 feet mostly siltstone; from 5,050 to 5,060 feet and in lower 30 feet, mostly dolomite, rest about equally dolomite and siltstone; siltstone light brown to greenish-gray, glauconitic, dolomitic, argillaceous; dolomite in upper 20 feet fine grained, rest fine and very fine grained, medium light brown to greenish-gray, glauconitic, silty, sandy below 5,090 feet, sand more abundant downward. | 5,030 - 5,120 |
| Dolomite, sandstone, and siltstone--intergradational one to the other, brownish-gray, very argillaceous, slightly glauconitic, dolomite mostly fine and very fine grained. | 5,120 - 5,130 |
| No samples. | 5,130 - 5,150 |
| Dolomite, sandstone, and siltstone--upper sample similar to above; lower sample dolomite, very fine to coarse grained, and sandstone, fine to very coarse grained, larger grains well-rounded, most rough from reconstitution, glauconite common. | 5,150 - 5,170 |
| Sandstone--fine to very coarse grained, in part pink, in part brownish-gray, some white in lower sample, glauconitic, dolomitic, larger grains well-rounded, mostly rough from reconstitution. | 5,170 - 5,190 |
| Siltstone and sandstone--fine to very fine grained sandstone grading to siltstone, mostly greenish-gray, some grayish-red, glauconitic, argillaceous, a few coarse to very coarse, well-rounded sand grains. | 5,190 - 5,200 |
| Sandstone--mostly very fine to very coarse grained, pinkish-gray to grayish-red and greenish-gray, very silty and argillaceous, glauconitic, dolomitic, grains poorly sorted, well-rounded; mostly very fine grained from 5,210 to 5,220 feet, grading to siltstone. | 5,200 - 5,240 |
| Sandstone--medium to very coarse grained, mostly white to yellowish-gray, some grayish-red, grains in part very well rounded and smooth, some rough from reconstitution. | 5,240 - 5,260 |
| Sandstone--fine to very coarse grained, white, grains rough from reconstitution. | 5,260 - 5,340 |

Core

| | |
|---|---------------|
| Granite--described by Flawn (1956, p. 140). | 5,338 - 5,348 |
|---|---------------|

Phillips Petroleum Company No. 1-A Towson (Townson on samples),
Hamilton County

Top of Ellenburger.--3,590 feet.

Top of Moore Hollow.--5,250 feet.

Top of Precambrian.--6,370 feet.

Total depth.--6,390 feet

Correlation.--See Plate 5 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|---|----------------------|
| Shale--dark gray, blocky to flaky. | 3,530 - 3,580 |
| Shale and limestone--shale similar to above; limestone granular, light gray, fossiliferous. | 3,580 - 3,590 |
| Dolomite--very fine grained and microgranular, light olive-gray. | 3,590 - 3,600 |
| Chert opaque to translucent, white to very light gray, smooth fracturing. | |
| No samples. | 3,600 - 3,700 |
| Dolomite--mostly microgranular, some very fine grained in lower sample; mostly very light olive gray, some light brown in lower sample. | 3,700 - 3,720 |
| Chert in lower sample opaque, white, smooth fracturing. | |
| Dolomite and limestone--upper sample mostly dolomite, microgranular, very light olive- gray; lower sample limestone, aphanitic, light yellowish-gray, in part dolomitic. | 3,720 - 3,740 |
| Chert opaque, white, smooth fracturing, some chalky in upper sample. | |
| Dolomite--microgranular, light brown. | 3,740 - 3,770 |
| Chert opaque, white, smooth fracturing to chalky; some very finely granular, medium brownish-gray. | |
| Limestone--aphanitic, light to very light olive- gray in upper part to yellowish-gray in lower part. | 3,770 - 3,810 |
| Chert mostly slightly translucent, white, smooth fracturing; in lower sample, very light olive gray. | |
| Limestone and dolomite--lower 20 feet limestone, aphanitic, very light olive-gray to yellowish- | 3,810 - 3,870 |

Depth in feet

| | |
|--|---------------|
| gray; upper 40 feet, dolomite, microgranular, light brown; rest dolomite and limestone. Chert smooth fracturing, white; in upper sample translucent to opaque; from 3,850 to 3,860 feet, opaque. | |
| Dolomite--mostly microgranular, some fine grained in upper sample, very light olive-gray. Chert in middle sample, opaque, white, smooth fracturing; in lower sample opaque to translucent, white to very light gray, smooth fracturing. | 3,870 - 3,900 |
| No samples. | 3,900 - 4,000 |
| Limestone--aphanitic, light yellowish-gray. Chert opaque to translucent, white to yellowish-gray, smooth fracturing. | 4,000 - 4,020 |
| Limestone and dolomite--mostly dolomite in lower sample, microgranular and fine grained, one chip sandy; mostly limestone in upper sample, aphanitic, light yellowish-gray, in part dolomitic. Chert smooth fracturing, white; in upper sample slightly translucent; in lower sample opaque, chalky. | 4,020 - 4,040 |
| Limestone--aphanitic, very light olive-gray to yellowish-gray, upper sample in part dolomitic. Chert in lower 30 feet opaque to slightly translucent, white to very light gray, smooth fracturing, very abundant. | 4,040 - 4,080 |
| Dolomite and limestone--upper 20 feet dolomite, microgranular, very light olive-gray; lower 30 feet limestone aphanitic, very light olive-gray to yellowish-gray; rest dolomite and limestone. Chert mostly opaque, white, smooth fracturing; some very light olive-gray from 4,100 to 4,110 feet; in part slightly translucent in lower 20 feet. | 4,080 - 4,140 |
| Dolomite--microgranular, light to very light olive-gray, pyritiferous. Chert opaque, white, smooth fracturing, scarce. | 4,140 - 4,150 |
| Limestone--aphanitic, very light olive-gray to yellowish-gray. Chert translucent to opaque, white, smooth fracturing, in part pelleted. | 4,150 - 4,160 |
| Limestone and dolomite--mostly limestone similar to above; dolomite in upper part very fine grained, light brown, in lower part microgranular, very light olive-gray. | 4,160 - 4,180 |

Depth in feet

| | |
|---|---------------|
| Chert in upper sample translucent, white, light gray and very light brown, smooth fracturing; in lower sample white, opaque, smooth fracturing, scarce. | |
| Limestone--aphanitic, very light olive-gray to yellowish gray, upper 20 feet very sandy, next 40 feet and bottom sample in part sandy. | 4,180 - 4,320 |
| Chert from 4,190 to 4,200 feet, opaque to slightly translucent, white, smooth fracturing; from 4,200 to 4,280 feet, white, opaque, smooth fracturing, very abundant; from 4,280 to 4,310 feet, similar chert, scarce. | |
| Limestone and dolomite--mostly limestone similar to above, sandy; some dolomite fine grained, pyritiferous; abundant cleavage rhombs of calcite. | 4,320 - 4,340 |
| Chert opaque, white, smooth fracturing, in part sandy, in part pelleted, abundant. | |
| Dolomite and limestone--upper sample mostly dolomite, microgranular, olive-gray to light gray; lower sample mostly limestone, aphanitic, very light olive-gray. | 4,340 - 4,360 |
| Chert slightly translucent to opaque, white, smooth fracturing. | |
| Dolomite and limestone--in part similar to above; upper sample about half coarse-grained dolomite; lower 20 feet about one-quarter coarse-grained dolomite, very light olive-gray. | 4,360 - 4,390 |
| Dolomite--microgranular, mostly very light gray to very light olive-gray, upper sample light brown; lower 20 feet sandy, some medium grained. | 4,390 - 4,490 |
| Chert in upper sample and from 4,440 to 4,460 feet, opaque, white, smooth fracturing. | |
| Dolomite--microgranular and medium grained, lower sample mostly medium grained, very light gray to very light olive-gray. | 4,490 - 4,510 |
| Chert opaque, white, smooth fracturing. | |
| Dolomite, microgranular, very light gray, slightly sandy from 4,530 to 4,550 feet. | 4,510 - 4,600 |
| Chert in upper sample opaque, white, smooth fracturing, scarce. | |
| No samples. | 4,600 - 4,700 |
| Dolomite--mostly coarse grained, very light yellowish-gray; in part medium grained, very light olive-gray in lower 60 feet. | 4,700 - 4,870 |

Depth in feet

- Chert in upper 20 and lower 30 feet, white, opaque, smooth fracturing; from 4,750 to 4,760 feet, opaque, white, smooth fracturing to granular; from 4,770 to 4,840 feet, opaque, white, smooth fracturing, chalky in part dolomitic, in part quartzose, very abundant.
- Dolomite--fine to medium grained, light olive-gray; some fine grained, medium brown from 4,880 to 4,900 feet. 4,870 - 4,910
- Chert in upper sample opaque, mostly white, some light olive-gray, smooth fracturing; from 4,880 to 4,900 feet, opaque to translucent, mostly white, very abundant, some medium brown, smooth fracturing; in lower sample translucent, white to very light olive-gray, smooth fracturing.
- Dolomite--mostly medium grained, lower sample coarse grained, some coarse grained from 4,940 to 4,950 feet, some fine grained from 4,950 to 4,960 feet, very light olive-gray. 4,910 - 4,970
- Chert from 4,930 to 4,940 feet, opaque, white, smooth fracturing, very scarce; from 4,950 to 4,960 feet, slightly granular, very light olive-gray, micro-oolitic or pelleted.
- Dolomite--mostly fine to medium grained, fine grained from 5,020 to 5,030 and 5,060 to 5,070 feet, fine and very fine grained from 5,040 to 5,050 feet, some microgranular from 4,990 to 5,000 feet; mostly very light olive gray, upper sample light brown, some light olive-gray from 5,040 to 5,050 feet. 4,970 - 5,100
- Chert in upper 80 feet, mostly granular quartzose, upper 30 feet very light olive-gray, rest mostly white, lower 50 feet, dolomitic to interstitial, opaque, white, very dolomitic, abundant; similar chert common from 5,000 to 5,050 feet, a few pieces oolitic from 5,020 to 5,040 feet; quartz druse abundant below 5,060 feet.
- Dolomite--upper 20 feet very fine to medium grained, lower 10 feet fine to very fine grained, yellowish-gray. 5,100 - 5,130
- Chert in lower sample interstitial; some quartz druse.
- Dolomite--mostly fine to medium grained, very light olive-gray; from 5,170 to 5,190 feet 5,130 - 5,220

Depth in feet

and in bottom sample fine grained, light olive-gray.

Chert in upper 20 feet dolomitic to interstitial, in part granular quartzose, some quartz druse; from 5,150 to 5,190 feet, opaque, white, smooth fracturing, dolomitic to interstitial and granular in lower 20 feet, some quartz druse in bottom sample.

Dolomite--medium-grained, very light olive-gray. 5,220 - 5,250

Dolomite--upper sample fine grained, middle sample fine to medium grained, lower sample medium to coarse grained; mostly very light yellowish-gray in part with a pinkish cast, to very light pinkish-gray in middle sample; pyritiferous; some interstitial glauconite(?) in middle sample. 5,250 - 5,280

Chert in upper sample white, opaque, smooth fracturing, scarce.

Dolomite--mostly fine grained, some coarse grained from 5,290 to 5,310 feet and in bottom 20 feet; in upper 30 feet, mostly very light gray with a pinkish cast, in lower 30 feet, mostly very light yellowish-gray, some light olive-gray, from 5,310 to 5,330 feet, some medium olive-gray; some interstitial glauconite(?) in upper 30 feet. 5,280 - 5,360

Chert from 5,310 to 5,330 feet, finely granular, very light olive-gray, dolomitic, abundant in upper sample; in lower 20 feet in part similar to above, in part opaque, white, smooth fracturing, dolomitic.

Dolomite--mostly coarse grained, light to very light yellowish-gray; some fine grained from 5,390 to 5,410 feet, greenish-gray; interstitial glauconite common except in upper and lower samples. 5,360 - 5,470

Chert in upper sample finely granular, very scarce; from 5,400 to 5,410 feet, finely granular, dolomitic; some quartz druse from 5,390 to 5,410 and 5,430 to 5,450 feet.

Dolomite--mostly fine grained, very fine grained from 5,480 to 5,490 feet and some in upper sample; white to light olive-gray in upper part, medium light olive-gray in lower part. 5,470 - 5,520

Chert in upper sample very finely granular, light olive-gray; in lower 30 feet, very finely granular, dolomitic to interstitial, very abundant.

| | <u>Depth in feet</u> |
|--|----------------------|
| Dolomite--mostly very fine grained, some fine to medium grained in lower sample; medium light olive-gray in upper part to pinkish-brown in lower part, a few grayish-green microgranular chips in lower part; lower 30 feet pyritiferous and glauconitic. Chert in upper sample and from 5,550 to 5,560 feet similar to above. | 5,520 - 5,590 |
| Dolomite--mostly fine grained, some medium grained in upper and lower sample, some very fine grained in upper sample; light to medium light pinkish-brown, some grayish-green glauconitic in upper sample, lower sample vuggy. | 5,590 - 5,620 |
| Dolomite--coarse grained, very light gray to almost white. | 5,620 - 5,640 |
| Dolomite--mostly fine to very fine grained, very fine grained in upper sample and from 5,730 to 5,770 feet, very fine grained and microgranular from 5,650 to 5,660 feet, some coarse grained from 5,660 to 5,680 feet; light olive-gray in upper part, medium light olive-gray toward middle, medium light brown toward base, bottom 20 feet reddish-brown in part argillaceous and with a greenish cast. | 5,640 - 5,790 |
| Limestone--aphanitic to microgranular, light yellowish-gray to pinkish-gray, silty, argillaceous, glauconitic. | 5,790 - 5,800 |
| No sample. | 5,800 - 5,810 |
| Limestone--mostly aphanitic, in part granular below 5,850 feet; light olive-gray in upper part to light brown in lower part, dolomitic, silty, argillaceous, granular portion fossiliferous; some shale in lower 40 feet, medium olive-gray. | 5,810 - 5,890 |
| Limestone--mostly aphanitic, some granular; light to medium brown in upper part to yellowish-gray and very light olive-gray in lower part; some dark brown shale along stylolites in upper sample. | 5,890 - 5,975 |
| Limestone--coarsely granular, mostly yellowish-gray to very light olive-gray in part with a greenish cast, in lower 25 feet in part grayish-red, glauconitic, silty, micaceous, fossiliferous, some phosphatic brachiopod fragments from 6,050 to 6,060 feet, lower sample sandy, some aphanitic limestone in upper few samples. | 5,975 - 6,105 |
| Sandstone--fine to very coarse grained, white, larger grains very well-rounded, rough from reconstitution. | 6,105 - 6,110 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Sandstone--fine to very coarse grained, greenish-gray, very calcitic and glauconitic. | 6,110 - 6,120 |
| Sandstone--fine to very fine grained, silty, very calcitic. | 6,120 - 6,130 |
| Sandstone--medium to very coarse grained, white to greenish-gray, glauconitic, grains strongly reconstituted. | 6,130 - 6,140 |
| Sandstone--mostly very fine to medium grained, upper sample fine to very fine grained, from 6,150 to 6,160 feet, fine to very coarse grained; greenish-gray to grayish-brown, dolomitic, glauconitic, silty, argillaceous; phosphatic brachiopod fragments numerous. | 6,140 - 6,190 |
| Sandstone--very fine to medium grained, white to very light greenish gray, argillaceous. | 6,190 - 6,210 |
| Sandstone--fine to very coarse grained, mostly white, some very light greenish-gray, argillaceous in upper part, in part slightly dolomitic; phosphatic brachiopod fragments in upper 20 feet. | 6,210 - 6,280 |
| Sandstone--mostly coarse to very coarse grained, fine to coarse grained from 6,290 to 6,300 feet, some medium to fine grained from 6,350 to 6,360 feet, granule-size fragments of quartz common below 6,310 feet; white, upper sample argillaceous. | 6,280 - 6,370 |
| Granite--coarse-grained Town Mountain(?) Granite composed of quartz, plagioclase, microcline, abundant biotite, and hornblende. | 6,370 - 6,390 |

Shaw No. 1 Jordan, San Saba County

Location.--AB&M survey No. 1, A-26, 467 feet FSL, 1,400 feet FEL.

Elevation.--1,386 feet, derrick floor.

Top of Moore Hollow.--1,880 feet.

Total depth.--at least 2,700 feet.

Correlation.--See Plates 3 and 4 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|--|----------------------|
| Limestone and dolomite--mostly limestone, aphanitic, white; from 1,040 to 1,060 feet and in lower sample about half dolomite, coarse grained, very light gray. Chert from 1,040 to 1,070 feet, mostly translucent to slightly translucent, very light gray, smooth fracturing, in middle sample oolitic; from 1,050 to 1,060 feet, in part and in lower sample all opaque, white, smooth fracturing. | 1,030 - 1,080 |
| Dolomite--coarse grained, very light gray. From 1,120 to 1,130 and 1,140 to 1,150 feet, some limestone, aphanitic, very light yellowish-gray, dolomitic. Chert from 1,090 to 1,120 feet, opaque, white, smooth fracturing, in part very finely granular; abundant quartz. | 1,080 - 1,160 |
| Limestone and dolomite--mostly limestone aphanitic, light yellowish-gray to almost white, pelleted from 1,190 to 1,200 feet, upper sample and from 1,220 to 1,240 and 1,250 to 1,260 feet, dolomitic; about half dolomite from 1,260 to 1,270 feet, coarse grained, white. Chert from 1,160 to 1,190, 1,240 to 1,250, and 1,270 to 1,310 feet, opaque, white, smooth fracturing, very abundant; from 1,190 to 1,200 feet, quartzose, very abundant. | 1,160 - 1,310 |
| Limestone and dolomite--dolomite coarse grained, upper sample white, next light brown, bottom 20 feet very light gray; limestone aphanitic, white, in part dolomitic. Chert in upper 20 feet, opaque to translucent, white, smooth fracturing, lower sample in | 1,310 - 1,350 |

| | <u>Depth in feet</u> |
|--|----------------------|
| part oolitic; from 1,340 to 1,350 feet, opaque, white, smooth fracturing. | |
| Dolomite--coarse grained, very light gray to very light brown. | 1,350 - 1,380 |
| Chert in upper sample opaque, white, slightly oolitic; in middle sample chalky; in lower sample quartzose. | |
| Chert--in part granular, very light brown; some opaque, white, smooth fracturing to chalky, the proportion of smooth fracturing highest from 1,400 to 1,410 feet; numerous individual chert ooids with quartzose surfaces; much quartz and quartz druse, more abundant downward. | 1,380 - 1,420 |
| Dolomite--probably medium grained, very light olive-gray. | 1,420 - 1,440 |
| Quartz druse abundant; a few individual chert ooids in upper sample; much quartzose chert in lower sample. | |
| Chert--mostly granular quartzose; much opaque, white, chalky, some smooth fracturing; in middle sample dolomitic, dolomite fine grained; quartz druse abundant. | 1,440 - 1,470 |
| Dolomite--fine grained, very light brown in upper part to very light olive-gray in lower part, some very light gray near middle. | 1,470 - 1,570 |
| Upper two samples mostly chert similar to above; from 1,490 to 1,500 feet, a few individual chert ooids; from 1,500 to 1,520 feet, dolomitic, very abundant; from 1,520 to 1,540 feet, some quartz druse; quartz common in lower 30 feet. | |
| Dolomite--very fine grained, light olive-gray. | 1,570 - 1,600 |
| Quartz scarce in upper 20 feet. | |
| Dolomite--mostly very fine grained, upper sample and from 1,630 to 1,640 feet, microgranular; in upper part light yellowish-gray, in lower part light olive-gray. | 1,600 - 1,670 |
| Dolomite--mostly very fine grained, upper sample fine grained, light to very light olive-gray, upper sample in part very pyritiferous. | 1,670 - 1,720 |
| Dolomite--mostly coarse grained, white; from 1,830 to 1,840 feet, some fine grained, medium gray; some light green shale from 1,780 to 1,790 and 1,840 to 1,870 feet; some pyrite from 1,850 to 1,860 feet. | 1,720 - 1,880 |
| Dolomite--mostly very fine grained, some fine grained from 1,900 to 1,930 and 2,030 to 2,060 feet, some microgranular from 1,930 to 1,950 and 1,990 to 2,000 feet; mostly very light gray with an olive-gray cast, some yellowish-gray and very light olive-gray in upper part; | 1,880 - 2,060 |

Depth in feet

| | |
|--|---------------|
| pyritiferous from 1,990 to 2,000 and 2,030 to 2,060 feet; some interstitial glauconite from 2,010 to 2,040 feet; in bottom 20 feet some limestone, microgranular, almost white, glauconitic. | |
| Chert from 2,040 to 2,050 feet, opaque, very finely granular to chalky, abundant. | |
| Limestone--mostly microgranular, very light olive gray to medium olive-gray; glauconitic; some aphanitic in lower half, very light yellowish-gray; upper sample pyritiferous and in part dolomite similar to above; in lower sample some shale, light greenish-gray to medium greenish-gray, in part silty and micaceous. | 2,060 - 2,100 |
| Shale and limestone--upper sample mostly shale, greenish-gray; rest mostly limestone, aphanitic to microgranular, the latter slightly glauconitic and silty. | 2,100 - 2,120 |
| Siltstone, shale, and limestone--siltstone reddish-brown, calcareous, micaceous; shale greenish-gray, in part slightly micaceous; limestone mostly aphanitic, in upper sample in part coarsely granular and fossiliferous. | 2,120 - 2,150 |
| Shale and limestone--shale greenish-gray, in part slightly micaceous; limestone mostly aphanitic, very light gray to very light greenish-gray, some in lower 20 feet coarsely granular, glauconitic, fossiliferous. | 2,150 - 2,180 |
| Limestone--mostly coarsely granular, slightly glauconitic, light olive-gray to light yellowish-gray; lower sample very fossiliferous; below 2,190 feet some finely granular, very glauconitic, greenish-gray to grayish-red and reddish-gray; some fine and very fine sand in lower 30 feet. | 2,180 - 2,230 |
| Limestone--coarsely granular; upper 20 feet yellowish-gray to very light olive gray, from 2,250 to 2,270 feet, grayish-red to reddish-gray and some greenish-gray, lower sample various shades of brown and reddish-brown to almost white; slightly glauconitic in upper part to very glauconitic near middle; very silty near middle; much very fine sand from 2,260 to 2,270 feet, sand up to coarse, abundant in lower sample; in part fossiliferous. | 2,230 - 2,280 |
| Sandstone--medium to very coarse grained, almost white, grains very well rounded, | 2,280 - 2,300 |

| | <u>Depth in feet</u> |
|--|----------------------|
| slightly reconstituted; some limestone in upper sample similar to above. | |
| Sandstone--upper sample fine to coarse grained, rest fine to medium grained; very light reddish brown; grains mostly rough from reconstitution, smeared by glauconite. | 2,300 - 2,330 |
| Sandstone--medium to very coarse grained, reddish-brown, grains well-rounded, rough from reconstitution; some limestone, coarsely granular, reddish-gray, glauconitic. | 2,330 - 2,340 |
| Sandstone--mostly very fine to fine grained, lower sample fine grained, some medium to very coarse grains in upper sample, very silty and glauconitic, dolomitic in lower 30 feet; in upper sample some limestone coarsely granular, reddish-gray glauconitic. | 2,340 - 2,380 |
| Dolomite--fine grained, reddish-gray to pinkish-gray, very glauconitic, silty, perhaps siltier toward bottom, some very fine sand; in upper sample some sandstone fine to very fine grained, glauconitic, light brown. | 2,380 - 2,420 |
| Sandstone--upper sample fine to very coarse grained, lower sample mostly fine to medium grained, grayish-red, grains exceptionally well rounded, smooth, smaller grains in part coated by hematite. | 2,420 - 2,440 |
| Sandstone--fine to coarse grained, light gray, grains in part well-rounded, mostly rough from reconstitution. | 2,440 - 2,450 |
| Sandstone--mostly coarse to very coarse grained, grayish-red, larger grains well-rounded, in part smooth, in part rough from reconstitution. | 2,450 - 2,470 |
| Sandstone--upper sample fine grained, rest mostly fine to medium grained, a few coarse grains; very light brown in upper part to nearly white in lower part; larger grains well-rounded, rough from reconstitution. | 2,470 - 2,520 |
| Sandstone--fine to medium grained from 2,530 to 2,560 feet, rest medium to coarse grained, a few very coarse grains from 2,560 to 2,570 feet. | 2,520 - 2,580 |
| Sandstone--coarse to very coarse grained, a few chips from 2,630 to 2,640 feet, very fine grained, larger grains well-rounded, mostly rough from reconstitution, smaller grains somewhat angular, some reconstitution, some grains in lower sample smooth. | 2,580 - 2,650 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Sandstone--mostly fine grained, some medium to very coarse grained, larger grains well-rounded and smooth, smaller grains somewhat angular, some reconstitution. | 2,650 - 2,670 |
| Sandstone--fine to very coarse grained, grains less well-rounded. | 2,670 - 2,700 |

Stratoray Oil Corporation No. 1 Stribling, Blanco County

Location.--400 feet W of U.S. Hwy. 281 at a point 3.35 miles NNE of Hwy. crossing of Pedernales River.

Elevation.--1,245 feet, ground.

Top of Moore Hollow.--70 feet.

Top of Precambrian.--1,340 feet.

Total depth.--1,355 feet.

Correlation.--See Plate 3 of Moore Hollow Group, Part 1.

Cuttings

| | <u>Depth in feet</u> |
|---|----------------------|
| Sand--fine to very coarse, light brown, grains angular to fairly well-rounded; some caliche, mostly as cement, more abundant in lower sample, in part glauconitic. | 0 - 30 |
| Caliche and sandstone (no sample from 40 to 50 feet)--caliche aphanitic to microgranular, mostly white to pink, some yellowish-orange mottles, in part slightly silty and glauconitic; sandstone mostly fine to very fine grained, glauconitic, various shades of pink, brown, and red; some microgranular dolomite in bottom sample. Some quartz druse. | 30 - 70 |
| Dolomite--mostly very fine grained, some fine grained in lower 20 feet, very pale yellowish brown to yellowish gray. | 70 - 110 |
| Dolomite--fine and very fine grained, some medium grained in lower sample, pink to very light gray. Chert in lower 20 feet, opaque, white, dolomitic, in bottom sample some granular quartzose. | 110 - 140 |
| Dolomite--medium to coarse grained, light pink. Chert opaque, white, dolomitic; some quartz druse. | 140 - 160 |
| Dolomite--mostly fine grained, pink to reddish-gray; in upper sample in part medium grained, yellowish-gray with a pinkish cast. Chert granular, quartzose; some quartz druse in upper sample; in part chalky and interstitial in lower sample. | 160 - 180 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Dolomite--mostly coarse grained, white to pinkish-gray; some fine grained, medium light gray from 200 to 210 and 270 to 280 feet. Chert from 200 to 210 feet mostly granular quartzose, pinkish-gray, very dolomitic. Quartz druse common in upper 30 feet. | 180 - 280 |
| Dolomite--fine grained, light gray. Chert interstitial, abundant. | 280 - 300 |
| Dolomite--very fine grained, mostly very light gray, some medium light gray and very light yellowish-gray, mostly pyritiferous, slightly glauconitic below 360 feet; in lower sample some finely granular glauconitic limestone, a few shale flakes. | 300 - 380 |
| Limestone and shale--limestone finely granular, very light gray to greenish-gray, silty, glauconitic, argillaceous, micaceous; below 390 feet, darker colored, more micaceous, and verging on siltstone; shale grayish-olive, calcareous. | 380 - 410 |
| Limestone--mostly aphanitic to very finely granular, white to very light gray, probably stromatolitic; some granular, greenish-gray, glauconitic. | 410 - 420 |
| Limestone--mostly granular, greenish-gray, glauconitic; some of upper and lower samples and about half of middle sample aphanitic to microgranular, white to very light gray. | 420 - 450 |
| Limestone--mostly very finely granular, very light greenish gray to very light yellowish-gray, slightly glauconitic. | 450 - 470 |
| Limestone--coarsely granular, mostly light yellowish-gray, some light greenish-gray, glauconitic. | 470 - 510 |
| Limestone--coarsely granular; upper sample mostly greenish-gray, glauconitic; lower sample very light brown with a pinkish cast, sand scarce. | 510 - 530 |
| Limestone--very finely granular, very light yellowish-gray and light greenish-gray, glauconitic (sample out of place, probably from interval 450 to 470 feet). | 530 - 540 |
| Limestone and sandstone--limestone coarsely granular, light brown, glauconitic; sandstone medium to very coarse grained, light brown, grains well-rounded, in part reconstituted. | 540 - 550 |
| Sandstone and limestone--sandstone similar to above grades to greensand; limestone granular, glauconitic. | 550 - 560 |
| Greensand--dark grayish-green, about equally quartz and glauconite; limestone scarce. | 560 - 570 |

| | <u>Depth in feet</u> |
|--|----------------------|
| Limestone and greensand--greensand similar to above; mostly limestone, coarsely granular, almost white, slightly glauconitic. | 570 - 580 |
| Sandstone and limestone--sandstone mostly fine to medium grained, smaller grains angular, larger grains fairly well-rounded, rough from reconstitution; limestone finely granular, very light olive gray, glauconitic. | 580 - 590 |
| Limestone--coarsely granular, light olive-gray and greenish-gray, glauconitic, oolitic below 600 feet. | 590 - 620 |
| Limestone--granular, very light olive gray, oolitic, slightly glauconitic. | 620 - 680 |
| Limestone--finely granular, light olive-gray with a greenish cast, silty, argillaceous, slightly micaceous. | 680 - 690 |
| Limestone--granular, light brownish-gray, oolitic, slightly glauconitic. | 690 - 710 |
| Limestone--finely granular, medium olive-gray, glauconitic, silty, argillaceous, slightly micaceous, in part verging on siltstone; some coarsely granular limestone in lower sample. | 710 - 750 |
| Limestone--mostly finely granular, light olive-gray, glauconitic; upper sample slightly silty; middle sample in part verging on siltstone. | 750 - 780 |
| Limestone--in part granular, light olive-gray, slightly glauconitic; in part finely granular, medium olive-gray to greenish-gray, glauconitic, silty, argillaceous; some granular, oolitic in lower sample. | 780 - 810 |
| Limestone--mostly granular, light olive-gray, oolitic, glauconitic, in part slightly silty. | 810 - 840 |
| Limestone (no sample from 960 to 970 feet)--finely granular, pale to dark yellowish-brown in upper part, mostly dark yellowish-brown in lower part, silty, slightly glauconitic; in upper sample some coarse grained, light olive-gray. | 840 - 1,000 |
| Limestone--finely granular, dark yellowish-brown, very sandy and silty, glauconite common; lower sample slightly sandier and more glauconitic; sand mostly fine to very fine, a few medium to coarse grains. | 1,000 - 1,040 |
| Limestone--granular, greenish-gray to olive-gray, some very light brown, mostly very glauconitic, silty, slightly sandy; sand mostly very fine; from 1,050 to 1,060 feet, in part oolitic; in lower sample some shale, greenish-gray to grayish-red, silty, micaceous. | 1,040 - 1,090 |
| Limestone and shale--limestone granular, glauconitic, very sandy and silty; sand mostly very | 1,090 - 1,100 |

| | <u>Depth in feet</u> |
|--|----------------------|
| fine to fine, a few medium grains; shale greenish-gray to grayish-red, noncalcareous, silty, micaceous. | |
| Sandstone and shale--sandstone in upper half mostly fine to very fine grained, very argillaceous, in part silty, medium gray with an olive-gray cast; in lower half some medium to coarse grained. Shale greenish-gray to grayish-red, silty, micaceous. | 1,100 - 1,160 |
| Sandstone--fine to very coarse grained, white, much silt to very fine sand matrix; slightly finer grained from 1,180 to 1,190 feet; from 1,170 to 1,180 feet, a few grains include manganese dioxide in reconstituted part of grains. | 1,160 - 1,210 |
| Siltstone and shale--both light to medium gray with an olive-gray cast, a few very coarse sand grains. | 1,210 - 1,220 |
| Sandstone--fine to very coarse grained, mostly yellowish-gray, some very light brown in middle sample, larger grains fairly well-rounded. | 1,220 - 1,250 |
| Sandstone--in part very coarse grained, some grains up to granule size, in part very fine to medium grained; reddish-gray to grayish-red and pinkish-gray, in part very silty and argillaceous. | 1,250 - 1,290 |
| Sandstone--in part fine and very fine grained, in part coarse to very coarse grained, a few granules, large quartz fragments indicate small pebbles, pinkish-gray. | 1,290 - 1,300 |
| Sandstone--very coarse grains to granules, white to very light yellowish-gray, mostly quartz in part crushed, a few microcline cleavage fragments. | 1,300 - 1,340 |
| Granite--large fragments containing coarse-grained fresh microcline, plagioclase, quartz, biotite, and hornblende. | 1,340 - 1,355 |

Supplementary Thin-Section Data

Thin sections were made of Wilberns and Riley cores from a few wells southeast of the Llano region. Samples from these wells were described by Barnes (1959), and the descriptions of the thin sections follow:

Bandera County

G. L. Rowsey No. 2 Fee

Six thin sections-5 of Morgan Creek Limestone; 1 of Hickory Sandstone.

At 6,274 feet, siltstone and limestone--siltstone mostly silt, very fine sand, glauconite and weathered mica and some small pelmatozoan fragments in an aphanitic to microgranular calcite matrix; limestone contains some glauconite, weathered mica and silt and a few pellets and trilobite fragments mostly in fine-grained, clear, secondary calcite added to pelmatozoan debris, the whole twinned; silt and sand mostly fresh, detrital feldspar, some authigenic feldspar and quartz; mica weathered, essentially opaque, muscovite scarce; a few wisps of clay; glauconite mostly fragments and irregular masses squeezed between other minerals, grains derived from mica common; spicules and phosphatic brachiopod fragments common.

At 6,279 feet, limestone--glauconite, dolomite and trilobite fragments in fine-to coarse-grained, clear, secondary calcite added to pelmatozoan debris, the whole twinned; glauconite rounded to lobate, much admixed calcite, in part replaced by dolomite; dolomite 0.2 to 0.4 mm, also replaces matrix and pelmatozoan debris, trilobite debris penetrates rhombs without being replaced, a few rhombs partly replaced by calcite, much limonitic stain; dolomite and chert in one pelmatozoan fragment; a few very small, aphanitic, silty intraclasts; a 0.3 mm grain of feldspar extensively replaced by calcite; a few angular, fine, quartz sand grains.

At 6,285 feet, siltstone and limestone--siltstone mostly silt, very fine sand, glauconite, weathered mica, dolomite and wisps of silty clay in a scanty matrix of microgranular to very fine grained calcite and clay; limestone, some weathered mica, glauconite and silt, and a few pellets in very fine to fine grained, clear, secondary calcite added to pelmatozoan debris, the whole twinned; silt and sand mostly authigenic feldspar rhombs in part with weathered detrital centers, some detrital feldspar and quartz; mica weathered, opaque, deformed, a few flakes of muscovite; glauconite fragmental to irregular from crowding between other minerals; dolomite to 0.03 to 0.2 mm, zoned, mostly associated with clay, possibly a burrow, in part showing irregular, cross cutting relationships, mostly replaced by calcite and admixed limonite, rhombs truncated along stylolites; stylolites have limonite, mica and silt along them.

At 6,298 feet, limestone and siltstone--mostly limestone, much glauconite, silt and sand, some dolomite, and a few trilobite fragments in fine-grained, clear, secondary calcite added to pelmatozoan debris, the

whole twinned; siltstone mostly very fine sand, silt, glauconite and some pelmatozoan debris in a clay matrix interbedded with silty clay; sand mostly very fine, a few fine grains, angular, sand and silt mostly fresh, detrital feldspar, some authigenic feldspar and quartz; glauconite in limestone rounded to fragmental, in siltstone fragmental to irregular from crowding between other minerals; dolomite 0.15 to 0.3 mm, mostly replaces pelmatozoan debris and matrix, in turn replaced by calcite and admixed limonite.

At 6,302 feet, limestone--pelmatozoan and trilobite debris in part with radial calcite, glauconite, silt, intraclasts, dolomite and a few gastropods in an aphanitic matrix; silt mostly fresh, detrital feldspar, some authigenic feldspar and quartz; glauconite rounded to lobate and fragmental; intraclasts mostly microgranular dolomite, a few tiny ones aphanitic; dolomite mostly microgranular, replaces intraclast, fossils, matrix, fossil fillings and present along stylolites; some limonitic clay and other minerals along stylolites; twinning scarce in pelmatozoan debris.

From 6,730 to 6,740 feet, sandstone--poorly sorted, very fine to coarse grained, porosity mostly filled by secondary growth of quartz grains, fine-grained calcite cement very scarce; glauconite irregular from crowding between quartz grains, some thin films between grains; phosphatic brachiopod shells very abundant, constitute most of a few thin beds; a few intraclasts, mostly fine and very fine grained sandstone with clay matrix, one contains abundant ilmenite.

Blanco County

Roland K. Blumberg No. 1 Wagner

Two thin sections, one between depths 2,279 and 2,290 feet and the other at 3,318 feet, are described by Barnes (1959, p. 357, 360), and their description will not be repeated here.

Kendall County

Magnolia Petroleum Company No. 1 Below

Eleven thin sections--7 of Welge Sandstone; 4 of Lion Mountain Sandstone.

At 6,338 feet, sandstone--grains poorly sorted, very fine to coarse, well-rounded to angular, many grains mesh in a manner suggesting secondary growth but no secondary material could be detected, similar meshing might be caused by solution with grains settling together, mostly quartz with straight extinction, some with strong undulatory extinction, composite grains common, bubble trains essentially absent; matrix mostly individual dolomite units replacing and extending beyond borders of pelmatozoan

fragments up to 2 mm in size until the units form common boundaries with other similar dolomite crystals, dolomite shows no strain; calcite very scarce, twinned, some twin lamellae bent; glauconite very abundant, exceptionally pure, some patches fairly well-ordered, a few rounded to elliptical grains, mostly squeezed between sand grains, dolomite in a few places appears to replace glauconite, hematite either replaces glauconite or possibly pyrite that is abundant in some grains; many 0.1 mm, elliptical, nonmagnetic, opaque grains more abundant in some beds than in others may be ilmenite; a 3 mm intraclast(?) of sandstone has matrix of microgranular dolomite; phosphatic brachiopod fragments scarce.

Thin section A at 6,343 feet, sandstone--similar in most ways to sandstone at 6,338 feet except bedding is more distinct with better segregation of materials; two beds, fine- to medium-grained, mostly with a squeezed glauconite matrix, show much hematitic alteration, pelmatozoan debris very scarce; another bed is mostly pelmatozoan debris replaced by dolomite with sand up to coarse-grained, stylolites numerous; another similar bed, except that the pelmatozoan debris is calcite in part twinned, twinning bent in a few grains, contains a few trilobite fragments.

Thin section B at 6,343 feet, limestone--very abundant sand, much glauconite, some trilobite debris, and a 0.75 inch intraclast mostly in fine to very coarse grained, clear, secondary calcite added to pelmatozoan debris, some aphanitic matrix in which pelmatozoan debris shows little enlargement; sand poorly sorted, very fine to coarse, larger grains well-rounded, rest mostly angular, mostly quartz, some ilmenite; glauconite rounded to elliptical, mostly fragmental, some admixed calcite; pelmatozoan debris and matrix twinned with many of the lamellae bent, some replaced by dolomite, some appear to have a peripheral zone sprinkled with sub-microgranular dolomite(?); intraclast, fine-grained sandstone, sand angular, mostly quartz with straight extinction, some detrital feldspar and ilmenite; very abundant glauconite, fragmental to rounded.

Thin section C at 6,343 feet, sandstone--two types, one type fine to very fine grained; grains angular, mostly quartz, abundant microcline, a few medium size pelmatozoan fragments, ilmenite common; matrix mostly squeezed glauconite and irregular stringers of silty clay. Second type fine- to medium-grained; grains well-rounded to angular, mostly quartz, ilmenite scarce; abundant fine to very coarse pelmatozoan debris, in part twinned, in part replaced by dolomite; a few rounded glauconite grains, a sprinkling of pyrite common in glauconite grains; a 3 mm intraclast; matrix microgranular calcite; phosphatic brachiopod fragments scarce.

At 6,350 feet, sandstone and limestone--sandstone two beds, fine to coarse-grained, a few very coarse grains; grains well-rounded to angular, mostly quartz with straight extinction, many grains with undulatory extinction, a few composite grains, some ilmenite; matrix mostly compressed glauconite slightly altered peripherally to hematite, some fine-grained, clear calcite, mostly twinned; little evidence either of

solution or enlargement of quartz. Limestone mostly large trilobite fragments with abundant radial calcite, some sand and glauconite in a meager microgranular to very fine grained, clear calcite matrix; glauconite contains much admixed calcite, a few grains replaced marginally by dolomite; a few phosphatic brachiopod fragments.

At 6359 feet, sandstone--in part very fine to fine grained; grains angular, mostly quartz with straight extinction, some undulatory extinction, a few feldspar grains, some ilmenite; a few pelmatozoan fragments replaced by dolomite, a few invaded by glauconite; matrix mostly compressed glauconite, silty clay and some very fine grained, clear calcite. In part fine- to medium-grained, grains well-rounded to angular, numerous pelmatozoan fragments replaced by dolomite; matrix possibly mostly squeezed glauconite, a few rounded grains, amounts to about 50 percent; phosphatic brachiopod shells abundant.

At 6361 feet, greensand and shale--mostly greensand with elliptical glauconite, in part squeezed, mostly in a silty shale matrix; very sandy, sand very fine to coarse, well-rounded to angular, mostly quartz, much straight and undulatory extinction, composite grains common, bubble trains mostly absent; a few sandstone intraclasts lenticular to rounded, sand mostly fine to medium, abundant compressed glauconite matrix with much hematitic alteration, ilmenite much more abundant than in greensand; shale silty, mostly occurs as matrix, beds and stringers, the latter in part may be intraclasts; phosphatic brachiopod fragments numerous, some pelmatozoan debris mostly(?) replaced by dolomite; glauconite in part contains much pyrite.

At 6368 feet, limestone and greensand--limestone contains some sand, glauconite and phosphatic brachiopod fragments, and much trilobite debris with radial calcite in fine- to coarse-grained, clear, secondary calcite added to pelmatozoan debris. Greensand mostly squeezed glauconite mostly sprinkled by pyrite; very sandy, sand mostly fine to very fine, angular, a few medium grains, rounded, some ilmenite; a few pelmatozoan fragments in part replaced by dolomite, a few invaded by glauconite; phosphatic brachiopod fragments very common; some pyrite and clay along stylolites.

At 6375 feet, limestone--much trilobite and phosphatic brachiopod debris, the former with some radial calcite, and some sand and glauconite in a matrix of fine- to coarse-grained, secondary calcite added to pelmatozoan debris; two irregular beds or stringers of greensand are possibly accumulations along stylolites; mostly squeezed glauconite in part with finely disseminated pyrite, abundant sand and phosphatic brachiopod debris, some dolomitized pelmatozoan debris; similar material is in cross cutting relationship between the two beds.

At 6386 feet, sandstone and limestone--sandstone fine to very fine grained; grains mostly angular, mostly quartz, some ilmenite, feldspar

very scarce; numerous phosphatic brachiopods; matrix mostly compressed glauconite, some silty shale, some very fine-grained, clear calcite. Limestone, numerous trilobite fragments in part with radial calcite, in part indistinctly merging with the rather hazy, fine-grained, calcite matrix; abundant phosphatic brachiopods, some pelmatozoan debris, sand and glauconite; calcite in part twinned; pyrite common in glauconite grains.

At 6,387 feet, limestone--abundant trilobite debris and some sand and glauconite in part in microgranular calcite matrix, in part in fine- to medium-grained, clear, secondary calcite added to pelmatozoan debris a few fragments of which have been invaded by glauconite; broad stylolite zones consist of squeezed, very pyritiferous glauconite, abundant pelmatozoan debris in part replaced by dolomite, much very fine to medium grained sand and some silt and clay; sand mostly quartz with straight extinction, some undulatory extinction, some ilmenite.

Kerr County

G. L. Rowsey No. 2 Nowlin

Two thin sections of Cap Mountain Limestone.

Thin section A at 7,396 feet, limestone--much silt and very fine sand, numerous pellets, some mica, much trilobite and pelmatozoan debris, and a few glauconite grains in a microgranular calcite matrix, some radial calcite about trilobite debris; silt and sand mostly fresh, detrital feldspar, some quartz, a few siltstone stringers mostly along stylolites; mica in part weathered, opaque, in part biotite, muscovite common.

Thin section B at 7,396 feet, siltstone--much very fine sand; sand and silt mostly fresh, detrital feldspar, some quartz; mica, glauconite and pelmatozoan and phosphatic brachiopod fragments common; matrix mostly microgranular calcite; a few thin limestone stringers similar to the limestone in thin section A.

Tucker Drilling Company No. 1 Dr. Roy E. Perkins

Three thin sections of Cap Mountain Limestone.

At 2,835 feet, limestone--numerous pellets, some silt and mica, a few pelmatozoan and trilobite fragments, and a few stringers of siltstone mostly in an aphanitic matrix, much microgranular and some fine-grained matrix; silt mostly fresh, detrital feldspar, some authigenic feldspar and quartz; mica mostly biotite, a few flakes of muscovite; siltstone stringers appear to be stylolite zones along which insoluble material in the limestone is concentrated.

At 2,838 feet, limestone and dolomite--limestone a 0.5-inch bed, abundant ooids and some silt, glauconite and pelmatozoan debris in a radial, clear calcite matrix; glauconite grains about 0.3 mm, all at centers of ooids, pelmatozoan debris in part at centers of ooids, a few partly replaced by a rhomb or two of dolomite; silt is clustered at intersections between tightly packed ooids; brown ooids with rather coarse radial structure appear sharp using a hand lens, but with a petrographic microscope are hazy and ill defined because the radial calcite of the matrix is optically continuous with the rather coarse radial wedges of the ooids and all the calcite is rather strongly twinned, microgranular calcite dust rather abundant mostly between crystal wedges, some in wedges, but almost none in matrix; stylolites truncate ooids and form boundaries with dolomite. A dolomite bed at one end of slide is extremely fine-grained, 0.01 to 0.03 mm, contains some silt and a zone of stylolites along which is some glauconite and silt; at other end of slide dolomite is of about the same grain size but intergrades with microgranular calcite and contains innumerable stylolites with clay, silt and glauconite along them. Silt mostly detrital feldspar and quartz, some authigenic feldspar.

At 2,852 feet, limestone and dolomite--limestone, abundant glauconite, pelmatozoan debris and ghost-like forms that may be spicule type B, and some sand and silt in a microgranular matrix; glauconite rounded to lobate, much admixed calcite, concentrated next to the dolomite along a rather indistinct stylolite. Dolomite microgranular, very sandy, silty, and glauconitic, sand mostly very fine, glauconite irregular from squeezing between dolomite and silt. Sand and silt mostly quartz, some detrital feldspar.

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