

Georgia Geological Survey well no. 855

Screven County, Georgia

Barnwell Drilling Co., Helen Pryor no. 1

TD 2677

datum: Kelly bushing, 137 feet above sea level

logged by Whitfield C. Osgood, Summer, 1976. Note! This is the first well ever logged by WCO

* after the depth indicates a microfossil sample is in the sample envelope

A Brief Summary

The first 140 feet of the well is through a feldspathic, medium to well sorted sand with micro-fossils appearing at 70 feet. Mega-fossils, i.e. shell fragments, are first found around 140 feet and continue to a depth of 200 feet. The percentage of limestone in the samples varying from 5 to 20 percent is comprized almost entirely of shell fragments and micro-fossils.

From 200 feet to 600 feet there are no samples. Then from a depth of 600 feet to 720 feet there is a sandy limestone which is very glauconitic and fossiliferous. Next, from 720 feet to approximately 950 feet the lithology is limy sand which is glauconitic untill 900 feet and pyritic from 850 feet on. From 830 feet to 910 feet a dark yellowish brown, dull, subtranslucent, dense chert is present. From 930 to 950 there is some silt, but never more than 5 percent. It should be noted that there are three samples in the interval between 980 and 990 that seem out of place because of their high, approximately 90 percent, limestone content and are not shown on the strip log.

From 1000 feet to 1250 feet there is a hard, speckled, light gray, slightly feldspathic, subangular, poorly sorted, medium grained to granular sand with some lignite and varying amounts of pyrite as an accessory mineral. From 1250 to 1400 the sand is similar, only it is slightly micaceous. From 1400 to 1650 the sand remains the same except for varying amounts of siltstone chips, usually running about two percent, but up to thirty percent at 1590. From 1640 to 1680 the siltstone content increases to sandy siltstone at 60 percent siltstone and then decrease to silty sand with 30 percent siltstone. From 1680 on the well is 100 percent sand, usually very slightly pyritic, very slightly glauconitic, feldspathic, poorly sorted, very fine grained to granular.

Then from 2140 feet to 2500 feet there are no samples. There are then two samples labeled 2500 and 2650 which are presumably in the basement complex. The 2500 packet contains yellowish gray, well sorted, very coarse grained sand, and the 2650 packet contains medium sorted, very coarse grained to pebble sized sand.

G.G.S. No. 855

Screven County, Georgia

Operator: F. W. McCain
Landowner: Helen H. Pryor No. 1.
Company: Barnwell Drilling Co.
Elevation: 130 feet G.L.
Total Depth: 2677 feet
Completed: June 13, 1963
Logged by Whitfield C. Osgood, June 1976

Note: An "*" indicates that a slide is enclosed in the packet

0-10	Hard, stained, grayish orange pink (5YR 7/2), feldspathic, subangular, well-sorted, coarse grained sand with some loosely cemented sand aggregates 100% sand
10-20	Hard, stained, pinkish gray (5YR 8/1), micaceous, slightly feldspathic, medium-sorted, medium grained to very coarse grained sand 100% sand
20-30	no change 100% sand
30-40	no change 100% sand
40-50	Hard, stained, grayish orange (10YR 7/4), subrounded, well-sorted, medium to coarse grained sand, feldspathic 100% sand
50-60	no change 100% sand
60-70	no change 100% sand
70-80	the same except slightly phosphatic, very slightly fossiliferous 100% sand
80-90	no change 100% sand
90-100	no change 100% sand
100-110	no change, some limestone fossil fragments 100% sand
110-120	the same with slightly more fossil fragments 100% sand

- 120-130 no change
100% sand
- 130-140 no change
100% sand
- 140-150 Hard, pale yellowish brown (10YR 6/2), slightly feldspathic, trace amounts of phosphate, subangular to subrounded, poorly-sorted, fine grained to granules, gravel with 4-5% fossil shell fragments
5% limestone 95% gravel
- 150-160 no sample
- 160-170 Hard, light olive gray (5YR 6/1), slightly feldspathic, very slightly phosphatic, fossil shell fragments, subrounded, poorly-sorted, fine grained to granules, gravel
10% limestone 90% gravel
- 170-180 Hard, yellowish gray (5Y 8/1), fossiliferous, subangular to subrounded, poorly sorted, very coarse grained sand limestone shell fragments and possible echinoid spines; some lime-cemented sand aggregates
25% limestone 75% sand
- *180-190 Hard, very pale orange (10YR 8/2), fossiliferous, subangular to subrounded, poorly-sorted, fine to very coarse grained sand
20% limestone 80% sand
- 190-200 no change
20% limestone 80% sand
- *****
- 200-600 no samples
- *****
- 600-610 Hard, very light gray (N8), glauconitic, fossiliferous, dull, porous, micrograined sandy limestone sand as poorly sorted, fine to coarse grained
5% glauconite 35% sand 60% limestone
- 610-620 no change
- 620-630 no change
- 630-640 no change
- 640-650 no change

650-660 no change
660-670 no change
670-680 no change
680-690 no change
690-700 Hard, very light gray (N8), slightly micaceous, glauconitic, slightly fossiliferous, earthy, porous, micrograined to very fine grained sandy limestone
30% sand 70% limestone
*700-710 Soft, yellowish gray (5Y 8/1), glauconitic, slightly fossiliferous, earthy, porous, micrograined to very fine grained, sandy limestone
sand as subangular, poorly-sorted, fine grained
5% glauconite 40% sand 55% limestone
710-720 no change
720-730 Hard, mottled very pale orange (10YR 8/2) sand with very light gray (N8) limestone, 1 piece pyrite, slightly glauconitic, slightly fossiliferous, very porous, micrograined limestone and poorly sorted, very fine to very coarse grained sand
40% limestone 60% sand
*730-740 the same except some lignite and less limestone
30% limestone 70% sand
740-750 the same except limestone is a slightly lighter color, very pale orange (10YR 7/4)
25% limestone 75% sand
750-760 the same except slightly less limestone
15% limestone 85% sand
760-770 no change
770-780 the same except now sandy limestone
45% sand 55% limestone
780-790 no change, except for 1 piece pyrite
790-800 the same, only no pyrite and less limestone, limy sand
40% limestone 60% sand
800-810 the same except very slightly pyritic
40% limestone 60% sand
810-820 the same except no pyrite
40% limestone 60% sand

- 820-830 the same plus a couple small magnetic spheres about 1/2 mm. in diameter, possibly meteoric
- 830-840 Weathered, medium hard, speckled, very pale orange (10YR 8/2) with greenish black (5GY 2/1) glauconite, very slightly pyritic, very glauconitic, very slightly fossiliferous, subrounded, poorly sorted, very fine to very coarse grained sand with micrograined to very fine grained limestone; and speckled, dark yellowish brown (10YR 4/2), dull, subtranslucent, dense chert. 5% glauconite 20% limestone 75% sand
- 840-850 no change
- *850-860 the same except slightly less glauconite 2% glauconite 23% limestone 75% sand
- !860-870 the same with a couple of mica flakes and magnetic spheres 2% glauconite 23% limestone 75% sand
- 870-880 no change
- !880-890 the same except for large glauconite granules and 1 magnetic sphere 2% glauconite 23% limestone 75% sand
- 890-900 no change
- 900-910 the same plus a few more mica chips 2% glauconite 23% limestone 75% sand
- 910-920 Hard, very pale orange (10YR 8/2), slightly micaceous, slightly pyritic, glauconitic, fossiliferous, poorly sorted, very coarse grained limy sand 20% limestone 80% sand
- 920-930 Hard, speckled, medium light grey (N6), pyritic, lignite, dull, poorly sorted, very fine grained to granules sand with fresh, hard, platy, very light gray (N8), slightly micaceous, dull siltstone 5% silt 95% sand
- 930-940 no change
- 940-950 Hard, fresh, yellowish gray (5Y 8/1), slightly pyritic, dull to vitreous, poorly sorted, very fine grained to granules sand with platy, medium light gray (N6), slightly micaceous, slightly limy siltstone; and glauconitic, slightly fossiliferous, earthy, micrograined limestone. Siltstone 5% limestone 40% sand 55%
- 950-960 Hard, speckled, light gray (N7), slightly feldspathic, lignite, slightly micaceous, pyritic, poorly sorted, very fine grained to granular sand with some lime--

- 950-960 (continued) cemented aggregates
100% sand
- 960-970 no sample
- 970-980 no change
100% sand
- 980-990 no change
100% sand
- 980.7 (?) Hard, fresh, mottled very light gray (N8) sand with medium dark gray siltstone, micaceous, phosphatic, fossiliferous, sub angular, poorly sorted, very fine to very coarse grained, limy, silty sand phosphate as pebbles up to 8mm. across limestone as cement and mega-fossils upto 15mm. siltstone as medium dark gray (N4), micaceous, dull, sandy siltstone
30% limestone 30% siltstone 40% sand
- 987.8 (?) Hard, fresh, medium gray (N5), sandy limestone sand as very light gray (N7), glauconitic, 1 piece phosphate, subangular, poorly sorted, very fine grained to granules limestone as medium gray (N5), dull, mega-fossils (shell fragments and a couple of bryozoans); with some lime--cemented aggregates
sand 5% 95% limestone
- 988.9 (?) the same except slightly more sand
10% sand 90% limestone
- 989.9 (?) no change
- 990-1000 Hard, speckled, light gray (N7), slightly feldspathic, some lignite, subangular, poorly-sorted, medium grained to granular sand
100% sand
- 1000-1010 the same except for more lignite and a few pieces of siltstone
- 1010-1020 no change
- 1020-1030 no change
- 1030-1040 no sample
- 1040-1050 no change, a couple of 5mm. lignite pebbles

- 1050-1060 the same with a couple of pyritic sand aggregates
- 1060-1080 no sample
- 1080-1090 Hard, speckled, light gray (N7), slightly feldspathic, some lignite, slightly pyritic, subangular, poorly sorted medium grained to granular sand
100% sand
- 1090-1100 no sample
- 1100-1110 the same only very slightly micaceous
- 1110-1120 the same with some lime-cemented sand aggregates
- 1120-1130 no sample
- 1130-1140 the same with fewer lime-cemented aggregates
- 1140-1150 no sample
- 1150-1160 no change
100% sand
- 1160-1170 no change
100% sand
- 1170-1180 the same only very slightly micaceous
100% sand
- 1180-1190 the same except for a piece of glauconitic limestone and a small limestone fossil fragment, both probably from caving; also slightly more micaceous
100% sand
- 1190-1200 the same sand with no limestone and two 13mm. pieces of lignite
100% sand
- 1200-1210 no sample
- 1210-1220 no change
100% sand
- 1220-1230 no change
100% sand
- 1230-1240 no sample
- 1240-1250 the same with a slightly greater percentage of fine and medium grained sand, and slightly lighter in color light gray (N7) to very light gray (N8).
100% sand

1250-1260 the same sand with chips limy, sandy, micaceous
siltstone
2% siltstone 98% sand

1260-1270 the same hard, speckled, light gray (N7), slightly
micaceous, pyritic, feldspathic, nonfossiliferous,
dull to vitreous, poorly sorted, very fine grained
to granular sand with less than 1% silt; some
loosely lime-cemented aggregates in the unwashed
sample
100% sand

1270-1280 no sample

1280-1290 no change
100% sand

1290-1300 no sample

1300-1310 no change
100% sand

1310-1320 no change
100% sand

1320-1330 no sample

1330-1340 no sample

1340-1350 no change
100% sand

1350-1360 no change
100% sand

1360-1370 the same only very slightly micaceous
100% sand

1370-1380 the same only slightly micaceous
100% sand

1380-1390 no change
100% sand

1390-1400 no change
100% sand

1400-1410 the same with a fossil spine (cave?)
100% sand

1410-1420 the same with a couple of chips moderately indurated,
medium light grey (N6), slightly micaceous, sandy silt-
stone
100% sand

- 1420-1430 the same sand with siltstone chips more numerous
silty sand
10% silt 90% sand
- 1430-1440 the same hard, light gray (N7), pyritic, slightly
micaceous, feldspathic, poorly sorted, very fine
grained to granular sand without any siltstone
100% sand
- 1440-1450 no sample
- 1450-1460 the same with a couple of siltstone chips
100% sand
- 1460-1470 the same sand with several siltstone chips
silty sand
5% siltstone 95% sand
- 1470-1480 the same sand with fewer siltstone chips and a couple
of pelecypods shell fragments, possibly from caving
2% siltstone 98% sand
- 1480-1490 the same sand with no siltstone and a couple of coarse
grained phosphate nodules
100% sand
- 1490-1500 the same sand with a couple of siltstone chips
100% sand
- 1500-1510 the same sand without any siltstone and more lignite
than usual
100% sand
- 1510-1520 the same sand with some siltstone chips, less than 2%
1% siltstone 99% sand
- 1520-1530 the same sand, however silty
5% siltstone 95% sand
- 1530-1540 no change
5% siltstone 95% sand
- 1540-1550 the same with less siltstone
2% siltstone 98% sand
- 1550-1560 no change
2% siltstone 98% sand
- 1560-1570 the same with a greater percentage of medium grained sand
2% siltstone 98% sand
- 1570-1580 the same poorly sorted, very fine grained to granular
sand with 2% siltstone chips, a couple of pieces of
glauconite and a 20mm. lime-cemented, pyritic, sand
aggregate
2% siltstone 98% sand

- 1580-1590 Hard, speckled, grayish orange pink (10R 8/2), pyritic, feldspathic, few pieces of glauconite, dull to vitreous, poorly sorted, medium grained sand with a few siltstone chips
1% siltstone 99% sand
- 1590-1600 Hard, very light gray (N8), very silty sand as before
20% siltstone 80% sand
- *1600-1610 Hard, very pale orange (10YR 8/2) speckled with iron staining light brown (5YR 5/6), slightly pyritic, slightly micaceous, feldspathic, very slightly glauconitic, dull to vitreous, poorly sorted, very fine grained to granular sand fossil tooth
100% sand
- 1610-1620 the same with less iron staining
100% sand
- 1620-1630 Fresh, hard, very light gray (N8), slightly micaceous, slightly pyritic, feldspathic, very slightly phosphatic, poorly sorted, very fine grained to granular sand with a few small siltstone chips
100% sand
- 1630-1640 the same as 1600-1610, hard, iron stained, very pale orange (10YR 8/2) speckled with light brown (5YR 5/6)
100% sand
- 1640-1650 the same sand with slightly weathered, soft, light gray (N7), slightly micaceous, limy sandy siltstone chips
30% siltstone 70% sand
- 1650-1660 Fresh, hard, medium gray (N5), slightly micaceous limy sandy siltstone; slightly lime-cemented with very fine grained, angular sand
lime 5% sand 35% siltstone 60%
- 1660-1670 no change
- 1670-1680 Hard, light gray (N7), very slightly micaceous, very slightly pyritic, feldspathic, poorly sorted, very fine grained to granular silty sand
30% silt 70% sand
- 1680-1700 no sample
- *1700-1710 Hard, very pale orange (10YR 8/2) slightly speckled with light brown (5YR 5/6) from iron staining, very slightly pyritic, very slightly micaceous, feldspathic, poorly sorted, very fine grained to granular sand with couple of pieces of glauconitic limestone
100% sand

1710-1720 the same only very slightly glauconitic and very slightly phosphatic
100% sand

1720-1730 no sample

1730-1740 the same except slightly iron stained giving the sand a grayish pink (5R 8/2) color

1740-1750 Hard, very pale orange (10YR 8/2) speckled with light brown (5YR 5/6) from iron staining, very slightly pyritic, very slightly micaceous, very slightly phosphatic, very slightly glauconitic, feldspathic, poorly sorted, very fine grained to granular sand
100% sand

1750-1770 no sample

1770-1780 no change
100% sand

1780-1790 no change
100% sand

1790-1800 no sample

1800-1810 no change
100% sand

1810-1820 no change
100% sand

1820-1830 no change
100% sand

1830-1840 no change
100% sand

1840-1850 no change
100% sand

1850-1860 no change
100% sand

1860-1870 no change
100% sand

1870-1880 no change
100% sand

1880-1890 no change

- 1890-1900 no change
100% sand
- 1900-1910 the same with a very small amount of lignite, also
100% sand
- *1910-1920 the same with a possible pelecypod fossil fragment
100% sand
- *1920-1930 the same with more fossil fragments
100% sand
- 1930-1940 Hard, pinkish gray (5YR 8/1) with a little light
brown iron staining (5YR 5/6), very slightly micaceous,
very slightly pyritic, very slightly glauconitic,
very slightly phosphatic, feldspathic, poorly sorted
very fine to granular sand
100% sand
- 1940-1950 no change
100% sand
- 1950-1960 no change
100% sand
- 1960-1970 no change
100% sand
- 1970-1980 Hard, grayish orange pink (5YR 7/2) iron stained, slightly
glauconitic, very slightly pyritic, very slightly phos-
phatic, feldspathic, poorly sorted, very fine grained to
granular sand
100% sand
- 1980-1990 the same type of sand only very pale orange (10YR 8/2)
with some iron stained sand grains, and more phosphate
than in previous sample
100% sand
- 1990-2000 Hard, very light gray (N8), very slightly glauconitic,
very slightly phosphatic, very slightly pyritic, feld-
spathic, poorly sorted, very fine grained to granular
sand
100% sand
- 2000-2010 no change
100% sand
- 2010-2020 the same with a couple of siltstone chips
100% sand

2020-2030 the same; less than 1 percent siltstone chips
100% sand

2030-2040 the same, however, about five percent siltstone
5% siltstone 95% sand

2040-2050 the same, only less siltstone, less than one percent
100% sand

2050-2060 no change
100% sand

2060-2070 no sample

2070-2080 no change
100% sand

2080-2090 no change
100% sand

2090-2100 no change
100% sand

2100-2110 no change
100% sand

2110-2120 no change
100% sand

2120-2130 no sample

2130-2140 no change
100% sand

2140-2500 no samples

2500 Hard, yellowish gray (5Y 8/1), pyritic, feldspathic, dull,
well sorted, very coarse grained sand with a couple of
mica packs 3mm. across and an unknown black accessory mineral
100% sand

2650 Hard, grayish orange (10YR 7/4), feldspathic, medium
sorted, very coarse grained to pebbles
100% sand