

GEORGIA
STATE DIVISION OF CONSERVATION
DEPARTMENT OF MINES, MINING AND GEOLOGY
GARLAND PEYTON, Director

THE GEOLOGICAL SURVEY
Bulletin Number 70

WELL LOGS OF THE
COASTAL PLAIN OF GEORGIA

by

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Prepared cooperatively by the U. S. Geological Survey

ATLANTA
1961

Summary:

	Thickness (feet)	Depth (feet)
Residuum	25	25
Upper Eocene (Cooper marl)	20	45
Upper Eocene (Barnwell formation)	105	150
Middle Eocene (Lisbon formation)	129	279
Middle Eocene (Tallahatta formation)	40	319

Potential Water-Bearing Zones:

Limestone	39	140
Sand: medium to coarse-grained	10	150
Sand: fine to coarse-grained	13	220
Sand: fine to coarse-grained	16	247
Sand: fine to coarse-grained	31	316

Remarks:

Limestones belonging to the Claiborne group are too dense and nonporous to constitute good water-bearing formations.

The more productive water-bearing sands for the area lie below the total depth (319) penetrated by this well. Such aquifers are of Upper Cretaceous age.

PULASKI COUNTY

Location: 4 mi. south of Pulaski-Bleckley County line. Well No.: GGS 472
 east side of U.S. Highway 26, Land Lot 306, 21st Land Elev.: 280
 District

Owner: No. 1 E. H. Tripp
 Driller: Ainsworth, Inc.
 Drilled: October 1954

Thickness (feet)	Depth (feet)
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Residuum:

Clay: mottled, very sandy, limonitic, and fragments of residual limestone (at depth)	80	80
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Rotalia mexicana var. at 70-80.

Oligocene (Undifferentiated):

Limestone: yellow, nodular, somewhat iron-stained, leached, cherty, fossiliferous (echinoid and frequent bryozoan remains, and some Foraminifera)	20	100
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Asterigerina sp., *Eponides byramensis* at 100-110.

	Thickness (feet)	Depth (feet)
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Upper Eocene: Jackson Group: Cooper Marl:

Limestone: cream, granular, loosely consolidated (gray, dense, somewhat saccharoidal, sandy, coarsely glauconitic at depth), fossiliferous (echinoid and bryozoan remains, Ostracods, and Foraminifera)	15	115
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Bulimina jacksonensis, *Uvigerina jacksonensis*, *Uvigerina topilensis*, *Spiroplectammina mississippiensis* var., *Cibicides lobatulus* at 110-120.

Indurated sand: fine-grained, angular, fossiliferous (casts and molds of megafossils)	20	135
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Barnwell Formation:

Marl: gray, silty, somewhat indurated, carbonaceous, fossiliferous (echinoid and bryozoan remains, Ostracods and Foraminifera)	40	175
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Nonion advena, *Valvulineria jacksonensis* at 150-160.

Limestone: gray, dense, coarsely glauconitic, sandy, fossiliferous (casts and molds of megafossils, echinoid and abundant bryozoan remains)	35	210
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Limestone: cream, porous, coarsely glauconitic, sandier with depth, fossiliferous (echinoid and abundant bryozoan remains, and Foraminifera)	45	255
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Operculina mariannensis, *Lepidocyclina ocalana* at 210-220.
Asterocyclina nassauensis, *Camerina striatoreticulata* at 220-230.

Middle Eocene: Claiborne Group: Lisbon Formation:

Marl: gray to dark-green, somewhat indurated, carbonaceous, micaceous, glauconitic (finely disseminated); interbedded limestone, gray, dense, sandy, glauconitic (finely disseminated); sand, fine to coarse-grained, angular, fossiliferous (a coquina)	125	380
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Macroshells prominent at 255-280.

Nonion advena, *Gryoidina soldanii* var., *Cibicides danvilensis*, *Cibicides americanus* var., *Cibicides pseudoungeri* var. *lisbonensis*, *Cibicides mississippiensis*, *Cibicides westi* at 280-290.

Pink sericitic clay prominent at 360-370.

	Thickness (feet)	Depth (feet)
Tallahatta Formation:		
Marl: dark-green, sandy, coarsely glauconitic, pyritiferous, fossiliferous (macroshells, Ostracods and Foraminifera)	70	450
<i>Cibicides blaniptedi</i> , <i>Cibicides tallahattensis</i> at 390-400.		
<i>Asterocyclina monticellensis</i> , <i>Cibicides pseudoungerianus</i> var. <i>lisbonensis</i> , <i>Cibicides blaniptedi</i> , <i>Cibicides tallahattensis</i> at 400-410.		
Upper Cretaceous: Post-Tuscaloosa (Undifferentiated):		
Sand: fine to medium-grained, angular, sideritic, lignitic; interbedded clay, black, carbonaceous, micaceous	35	485
Sideritic nodules abundant at 450-460.		
Sand: coarse-grained, angular, arkosic, sideritic, pyritiferous, lignitic; interbedded kaolin, white to red (mottled), micaceous	305	790
Pink kaolin prominent at 680-700.		
Clay: dark-gray to black, micaceous, carbonaceous	145	935
Limestone, gray, dense, crystalline, sandy, glauconitic; macroshells prominent at 840-855.		
Clay: dark-brown, silty, carbonaceous, highly micaceous	20	955
Sand: coarse-grained, angular, arkosic; interbedded clay, dark-brown, silty, carbonaceous, highly micaceous	195	1,150
Clay: dark-brown, silty, carbonaceous, very micaceous, fossiliferous (casts of megafossils); sand	50	1,200
Sand: coarse-grained, angular, arkosic; interbedded clay, dark-brown, silty, carbonaceous, very micaceous	170	1,370
In Tuscaloosa Formation:		
Sand: fine to coarse-grained, arkosic, rather massive; interbedded clay, yellowish-green, sandy, somewhat carbonaceous, micaceous	140	1,510
Sand: fine to coarse-grained, angular, arkosic; interbedded clay, yellowish-green, red to purple at depth, somewhat carbonaceous, sandy, micaceous	650	2,160
In Lower Cretaceous(?)		
Sand: very coarse-grained, angular, extremely arkosic; interbedded clay, olive-green to tan to brick-red, very micaceous, sandy	328	2,487

	Thickness (feet)	Depth (feet)
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Summary:

Residuum	80	80
Oligocene (undifferentiated)	20	100
Upper Eocene (Cooper marl)	35	135
Upper Eocene (Barnwell formation)	120	255
Middle Eocene (Lisbon formation)	125	380
Middle Eocene (Tallahatta formation)	70	450
Upper Cretaceous (post-Tuscaloosa, undifferentiated)	920	1,370
In Upper Cretaceous (Tuscaloosa formation)	790	2,160
In Lower Cretaceous (?)	328	2,488

Potential Water-Bearing Zones:

Limestone	80	255
Sand: coarse-grained	250	790
Sand: coarse-grained	200	1,150
Sand: fine to coarse-grained	140	1,510

QUITMAN COUNTY

Location: 0.9 mi. east of road intersection in Georgetown, 0.4 mi. east of junction of Highways 27 and 50, north side of Highway 50 at school house
 Well No.: GGS 436
 Elev.: 341
 Owner: No. 1 Kaigler School
 Driller: Gray Artesian Well Company
 Drilled: May 1955

	Thickness (feet)	Depth (feet)
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Pliocene to Recent (Undifferentiated):

Clay: mottled, sandy	11	11
Sand: fine to medium-grained, coarser-grained at depth, angular; some clay, as above	31	42
Sand: fine to coarse-grained, angular; some clay, tan, sandy, micaceous	9	51
Gravel: pea-size grains, subrounded	5	56

Upper Cretaceous: Providence Sand:

Marl: dark bluish-gray, sandy, micaceous, fossiliferous at depth (macroshells, Ostracods and Foraminifera)	39	95
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Anomalina pseudopapilloso at 72-82.

²This well reportedly penetrated the Basement complex. Samples in our collection reached a total depth of 2488.