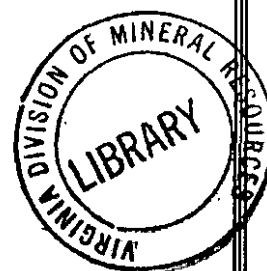


Georgia State Division of Conservation

DEPARTMENT OF MINES, MINING AND GEOLOGY

A. S. FURCRON, *Director*

JUN 29 1970



OIL TESTS IN GEORGIA

A Compilation

INFORMATION CIRCULAR 19, 3rd Edition

JUNE, 1965

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ILLUSTRATIONS

Figure 1 — Depth of oil tests in Georgia

Figure 2 — Relative age of formations

Figure 3 — Character of the pre-Cretaceous rocks

Map — Oil Tests in Georgia

INTRODUCTION

As of June, 1960, at least 113 oil tests have been drilled in Georgia. The deepest test, the J. R. Sealy Spindle Top #3 in Seminole County, has been drilled to a depth of 7620 feet. Three other wells in the same area have gone deeper than 7,000 feet. The average depth has been 2915 feet, (see Fig. 1). Many shows of oil and gas have been reported.

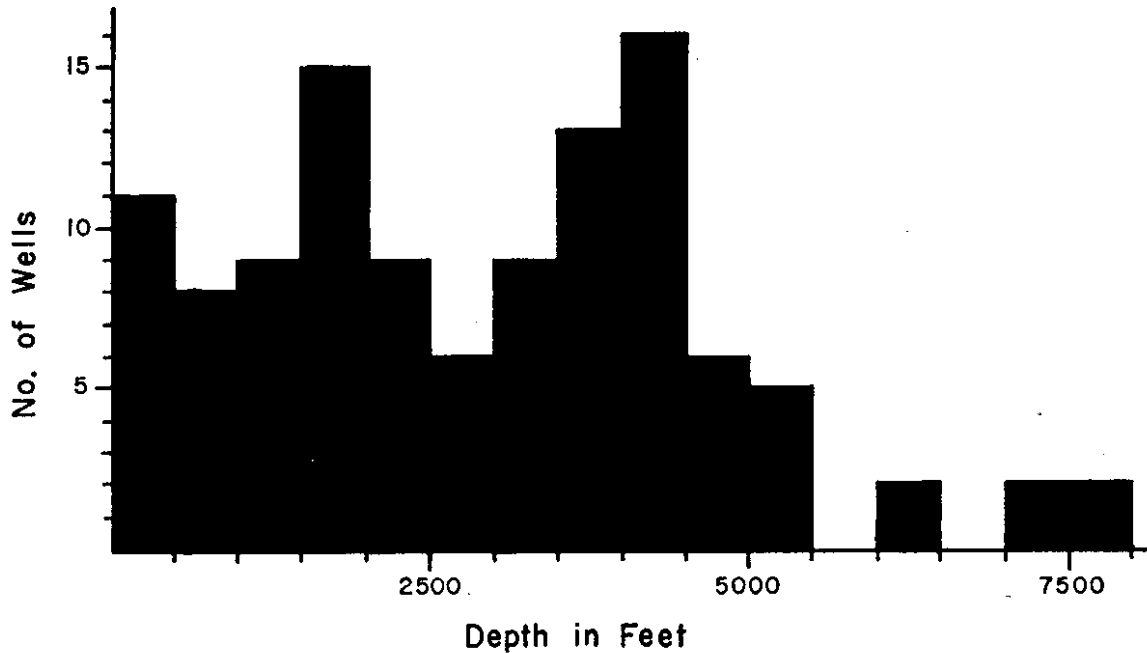


Fig. 1—Depth of Oil Tests in Georgia.

All oil tests for which information is available are listed below chronologically by counties. Information for each is presented in the following order:

GGS No. (the number under which cuttings are filed in the sample library of the Georgia Geological Survey.
D.P. # (Drilling permit) General location — Name — Operator. (Date completed)

Basis for locating well
Elevation at well site
Total depth drilled
Rock type at bottom of hole
Remarks

References

Elevations and depths are in feet. A few abbreviated formational logs that are considered typical are included. For the relative age of formations mentioned in the logs see Figure 2. When samples and an electric log are available, this is indicated under the heading "Remarks." Information sources are cited as references.

ABBREVIATIONS

LL = land lot
LD = land district
GMD = Georgia Military District
Elev = elevation at test site
REF = references (see end of circular)
CD Prospect = core drill prospect
Lse = lease
Basement = regionally metamorphosed rocks and associated intrusive rocks which were truncated by erosion prior to deposition of Coastal Plain sediments.

OIL TESTS

APPLING COUNTY

GGs 148
 LL 552, LD 2 — S. J. Felsenthal #1 — Weatherford-Felsenthal. (1947)
 Elev: 231
 TD: 4098
 Bottom: Basalt
 Remarks: Electric log and samples

ATKINSON COUNTY

GGs 107
 LL 71, LD 7 — Doster Ladson #1 — Sun Oil Co. (1945)
 Elev: 222
 TD: 4296
 Bottom: Altered volcanic rock. Apophyolite?
 Remarks:
 0-250 Miocene
 250-400 Oligocene
 400-1840 Eocene
 1840-3940 Upper Cretaceous
 3940-4282 Lower Cretaceous
 4282-4296 Altered volcanic rock.
 Electric log, samples and lithologic log.
 Ref: 1,2,3,4,5,6,14,17.

BEN HILL COUNTY

Nine miles northwest of Fitzgerald. (1919)
 TD: 830
 Ref: 20

BRANTLEY COUNTY

GGs 720 DP #63
 Humble Oil and Refining Co.—W. F. Hellema #1
 Location: 5.3 miles N.E. Nahunta, Ga. LL 95
 TD: 4512'
 Bottom: Lower Cretaceous
 Elev: 42' (GL)
 Spudded 2/19/61
 Completed 3/20/61
 Remarks:
 Electric, microlog, microlaterlog
 Tops of formations:

Miocene	40'
Oligocene	520
Upper Eocene	560
Middle Eocene	910
No Samples	1200-2200
Paleocene	2200
Navarro	2525
Taylor	3175
Austin	3680
Eutaw	4093
Tuscaloosa	4125
Lower Cretaceous	4500

Tops by S. M. Herrick

BROOKS COUNTY

GGs 184
 LL 454, LD 12 — Rogers, Sr. (1949)
 Elev: 136
 TD: 3845
 Bottom: Lower Tuscaloosa
 Remarks: Top of Cretaceous at 2258.
 Electric log and samples.
 Ref: 4,7,14

BURKE COUNTY

GGs 316
 2.5 miles east of Greencut — Three Creeks Oil Company
 (1923)
 TD: 1033
 Bottom: Crystalline rocks
 Remarks: Samples
 Ref: 1

CALHOUN COUNTY

GGs 192
 LL 328, LD 4—J. W. West #1—C. E. Walters & Sowege Mineral Exploration Company, Inc., (1950)
 Elev: 345
 TD: 5273+
 Bottom: Basalt
 Remarks:
 0-560 Tertiary
 560-2630 Upper Cretaceous
 2630-5043 Lower Cretaceous
 5043-
 Electric log and samples.
 Ref: 1,14,17

CAMDEN COUNTY

GGs 153
 4.5 miles south of Tarboro—John A. Buie #1—California Co. (1948)
 Elev: 65
 TD: 4955
 Bottom: Volcanic ash and rhyolite tuff.
 Remarks: Samples and electric log.
 Ref: 1,4,6

CATOOSA COUNTY

Two miles south of Ringgold—Art Craig. (1932)
 TD: 1625
 Bottom: Chickamauga (Silurian)
 Remarks: Lithologic log.
 Ref: 6

CHARLTON COUNTY

GGs 872 DP #72
 3 miles south of Folkston—1400' west of U.S. Hwy #1—Pennzoil—O. C. Mizell #1
 TD: 4577 4579 logger
 Bottom: Paleozoic Black Shale
 Elev: 25' GL 36 KB'
 Spudded: 7-6-63
 Completed: 7-30-63
 Remarks: Electric, Sonic and Gamma Ray Logs.
 T/Base: 4490? 1st cutting of sh dominant 4520
 RDE 4492' electric log.

CHATHAM COUNTY

GGs 62
 Seven miles northwest of Savannah, near Port Wentworth—Cherokee Hill #1—Savannah Oil & Gas Co. (1922)
 Elev: 21.5.
 TD: 2130
 Remarks: 0-620 Eocene
 1530-1560 Paleocene
 Lithologic log and samples.
 Ref: 4,5,6,14

CLINCH COUNTY

GGG 86

Five miles east of Stockton—J. W. Mathews.

TD: 180

Bottom: Miocene clay

Ref: 6

GGG 123

LL 273 LD 12—Dickerson #1—J. R. Gay. (1940)

TD: 435

Remarks: Lithologic log

Ref: 6

GGG 124

LL 200, LD 12—Gillican #1—Georgia Resources. (1940)

Elev: 135

TD: 1507

Bottom: Fossiliferous lime

Remarks: Samples and lithologic log

274-455 Miocene

445-520 Oligocene

520-720 Ocala

Ref: 4,6,14

GGG 144

LL 373, LD 12—Barlow #1—Sun Oil Co. (1947)

Elev: 177

TD: 3848

Bottom: Quartzite or dark shale.

Remarks: Electric log and samples.

Ref: 1,4,6

GGG 167

LL 523, LD 12—Alice Musgrove #2—Hunt Oil Co. (1944)

Elev: 171

TD: 3513

Bottom: Upper Cretaceous shale

Remarks: Electric log.

Ref: 4,6,7

LL 273, LD 12—Dickerson #2—J. R. Gay. (1940)

TD: 435

Remarks: Samples

Ref: 6

GGG 338

LL 36, LD 13—Lem Griffis #1—Brady Belcher et al. (1952)

TD: 4588

Bottom: Siltstone, containing volcanic debris

Remarks: Electric log and samples.

2170 Top of Cretaceous

3829 Top of Lower Tuscaloosa

3847 Water laid volcanics

4348 Siltstone containing much volcanic debris

4588 Siltstone

Ref: 6,14,17

GGG 481

LL 198, LD 12—Alice Musgrove #1—Hunt Oil Co. (1944)

Elev: 147

TD: 4110

Bottom: Shale, Paleozoic?

Remarks: Electric log and samples.

Ref: 1,4,6

GGG 496

LL 306, LD 7—No. 1A Timber Products—W. P. Ballard. (1956)

Basis: Subsurface geology

Elev: 215

TD: 4232

Bottom: Altered igneous rock

Remarks: 2430 Upper Cretaceous

3780 Lower Cretaceous

4120-4220 Basement

Electric log and samples.

Ref: 6,12,14

COFFEE COUNTY

LL 32, LD 6—Taylor. (1943)

Elev: 238

TD: 1240

Bottom: Eocene limestone-dolomite

Ref: 4,6

LL 327, LD 6 — Mattie Knightwell #1 — Rowland L. Taylor et al. (1943)

Elev: 238

TD: 1210

Bottom: Limestone-dolomite

Remarks: Abandoned because of cavernous limestone.

Ref: 6

GGG 444

LL 275, LD 1, 660 ft. N. and 1320 ft. E. of Southwest corner — Well #1 — Carpenter Oil Co. (1954)

Elev: 232

TD: 383

Remarks: Samples.

Ref: 13

GGG 445

LL 275, LD 1, 300 ft. S. and 2000 ft. W. of Northeast corner—Well #1-A — Carpenter Oil Co. (1954)

Elev: 196

TD: 1901

Remarks: Electric log to 1880 and samples.

412 Top of Ocala

1633 Upper Cretaceous

Ref: 13,14

GGG 446

LL 228, LD 1, 500 ft. N. and 650 ft. W. of Southeast corner — Well #2 — Carpenter Oil Co. (1954)

Elev: 259

TD: 1441

Remarks: Electric log.

607 Top of Ocala

Ref: 13,14

GGG 447

LL 144, LD 1, 650 ft. S. and 900 ft. E. of Northwest corner — Well #3 — Carpenter Oil Co. (1954)

Elev: 383

TD: 1953

Remarks: Electric log and samples.

1833 Top of Upper Cretaceous

Ref: 13,14

GGG 448

LL 176, LD 1, 660 ft. S. and 660 ft. E. of Northwest corner — Well #4 — Carpenter Oil Co. (1954)

Elev: 300

TD: 1605

Ref: 13

GGS 468

LL 189, LD 1, 660 ft. S. and 330 ft. W. of Northeast corner — T. Thurman #1 — Carpenter Oil Co.
(Abandoned 9-21-55)

Basis: Subsurface geology

TD: 4130

Remarks: Samples, electric log and lithologic log.

Ref: 13

GGS 508

LL 144, LD 1, cen. of SE ¼ — J. H. Knight #1 — Carpenter Oil Co. (Abandoned 5-12-56)

Basis: Subsurface geology

TD: 4151

Remarks: Electric log.

Ref: 12

GGS 509

LL 189, LD 1, 450 ft. NW of cen of SE ¼ — C. T. Thurman #2—Carpenter Oil Co. (Abandoned 4-27-56)

Basis: Subsurface geology

TD: 3550

Remarks: Electric log and samples.

Ref: 12

GGS 510

LL 86, LD 1 — W. D. Wall #1 — Carpenter Oil Co.
(Abandoned 5-24-56)

Basis: Gravity survey

TD: 2734

Remarks: Samples.

Ref: 12,15

COLQUITT COUNTY

GGS 170

LL 270, LD 8 — R. T. Adams #1 — D. C. Arrington.
(1948)

Elev: 270

TD: 4910

Bottom: Lower Cretaceous

Remarks: 1680 Top of Upper Cretaceous

3542 Top of Lower Cretaceous

Electric log.

Ref: 4,6,7,14

CRISP COUNTY

GGS 108

LL 144, LD 13 — Pate #1 — Kerr-McGee. (1946)

Elev: 364

TD: 5008

Bottom: Lower Cretaceous

Remarks: 0-370 No samples

370-475 Claiborne

478-700 Wilcox

800-920 Paleocene

920-2495 Upper Cretaceous

2495-3130 Tuscaloosa

3130-3250 Lower Cretaceous?

Electric log and samples.

Ref: 4,6,7,14

DADE COUNTY

Wildwood, Ga., on property of J. C. Wallen. (1954)

Basis: Drilled for water

TD: 292

Bottom:

Remarks: Gas at 192 feet.

Ref: 6

DECATUR COUNTY

GGS 168

LL 260, LD 21 — Metcalf #1 — Hunt Oil Co. (1944)

Elev: 104

TD: 6151

Bottom: Red shale of Lower Cretaceous

Remarks: Electric log and samples.

2920 Top of Eutaw

2975 Top of Tuscaloosa

Ref: 4,6,14

GGS 191

LL 189, LD 15 — Martin #1 — Hughes et al. (1947)

Elev: 132

TD: 3718

Bottom: Flint River sands of Lower Cretaceous

Remarks: Electric log and samples.

2845 Top of Eutaw

2900 Top of Tuscaloosa

Ref: 4,6,7,14

GGS 206

LL 25, LD 22 — W. P. Scott #1 — Calvary Development Co. (1950)

Elev: 277

TD: 4195

Remarks: Electric log and samples.

Ref: 6,7

GGS 387

LL 247, LD 21 — Fee #1 — J. R. Sealy. (1953)

TD: 3007

Bottom: Eutaw formation

Remarks: Gas and hot salt water at 3005 feet.

Lithologic log and samples.

Ref: 6

GGS 540

LL 111, LD 15 — Dollar #1 — Renwar Oil Co. (1957)

Elev: 129

TD: 5000

Bottom: Lower Cretaceous

Remarks: Electric log and samples.

Ref: 6,14

GGS EX-599

LL 232, LD 21 — J. R. Sealy Spindle Top #2.

Basis: Doodlebug

Elev: 78

TD: 4005

Bottom: Lower Cretaceous

Remarks: Electric log, no samples.

Ref: 6

DOOLY COUNTY

LL 74, LD 1 — Hill #1 — Merica Oil (Abandoned 7-4-54)

Basis: Subsurface geology

TD: 2319

Bottom: Quartzite

Remarks: Bureau of Mines CD prospect

Electric log and samples.

Tops of Formations:

510 Upper Cretaceous

655 Eutaw

940 Tuscaloosa

1730 Lower Cretaceous

2317 Basement

Ref: 1,3,6,14

DOOLY COUNTY (continued)

GGG 619
 LL 163, LD 6 — H. E. Walton #1 — Georgia-Florida
 Drilling Co. (1960)
 Basis:
 Elev: 443
 TD: 3748
 Bottom: Metaarkose
 Remarks: Gamma ray log, neutron log and samples.
 0-110 Miocene
 110-660 No samples
 660-720 Lower Eocene
 720-825 Paleocene
 825-2952 Upper Cretaceous
 2210-2952 Tuscaloosa
 2952-3512 Lower Cretaceous
 3512-3748 Basement

Ref: 6,14,17

DOUGHERTY COUNTY

GGG 11
 LL 116, LD 2 — Reynolds Lumber Company #1 —
 J. R. Sealy. (1942)
 Elev: 209
 TD: 5012
 Bottom: Lower Cretaceous sandstone
 Remarks: Electric log and samples and lithologic log.
 2390 Top of Eutaw
 2505 Top of Tuscaloosa

Ref: 4,6,14

GGG 183
 LL 374, LD 2 — Reynolds Lumber Company #2 —
 J. R. Sealy et al. (1942)
 Elev: 192
 TD: 5310
 Bottom: Sand-shale, probably Lower Cretaceous
 Remarks: Electric log and samples.
 2425 Top of Eutaw
 2545 Top of Tuscaloosa

Ref: 4,6,14

EARLY COUNTY

GGG 121
 LL 406, LD 26 — Chandler #1 — Mont Warren et al.
 (1943)
 Elev: 178
 TD: 7320
 Bottom: Quartzite, Lower Paleozoic
 Remarks: Electric log and samples. Fossils obtained
 from this well.
 2460 Top of Eutaw
 2510 Top of Tuscaloosa

Ref: 1,2,4,6,7,14

GGG 483
 LL 341, LD 26 — Sun #1 — R. V. Ellis — Sun Oil Co.
 Elev: 163
 TD: 3175

Ref: 6

GGG 484
 LL 330, LD 26—Sun #1—W. B. Martin—Sun Oil Co.
 Elev: 163
 TD: 3100

Ref: 6

GGG 485
 LL 283, LD 26—Sun #1 Mrs. Edith Harvey—Sun Oil Co.
 Elev: 122
 TD: 3250

Ref: 6

GGG 486
 LL 364, LD 26—Sun #1—J. S. Willoughby—Sun Oil Co.
 Elev: 175
 TD: 3130

Ref: 6

ECHOLS COUNTY

GGG 150
 LL 532, LD 13 — Superior Pines #3 — Hunt Oil Co.
 (1947)
 Elev: 143
 TD: 4003
 Bottom: Black shale (Paleozoic?)
 Remarks: Electric log and samples. Fossils obtained
 from this well.

Ref: 1,4,6,7

GGG 158
 LL 219, LD 13 — Superior Pines #4 — Hunt Oil Co.
 (1948)
 Elev: 156
 TD: 3916
 Bottom: Red, micaceous, silty shale. (Paleozoic?)
 Remarks: Electric log and samples. Fossils obtained
 from this well.

Ref: 1,4,6,7

GGG 166
 LL 364, LD 13 — Superior Pine Products #1 — Hunt
 Oil Company and Sun Oil Company. (1944)
 Elev: 181
 TD: 3865
 Bottom: Black shale (Paleozoic?)
 Remarks: Electric log and samples. Fossils obtained
 from this well.

Ref: 1,4,6,7

GGG 169
 LL 317, LD 13 — Superior Pines #2 — Hunt Oil Co.
 (1945)
 Elev: 142
 TD: 4062
 Bottom: Quartzite (Paleozoic?)
 Remarks: Electric log and samples.

Ref: 1,4,6

GGG 189
 LL 146, LD 12 — W. D. Bennett and H. Langdale #1
 — Humble Oil Co. (1949)
 Elev: 181
 TD: 4185
 Bottom: Paleozoic
 Remarks: Electric log and samples.

Ref: 1,4,6,7

EMANUEL COUNTY

2.4 Miles southwest of Midville — J. H. Kennedy and
 Pearl Kennedy — Bedingfield and Fallin. (1947)
 TD: 1861
 Remarks: Samples.

Ref: 6

GLYNN COUNTY

GGs 362
 Lot 16, Colonel's Island — Massey #1 — E. B. LaRue.
 (1953)
 TD: 4614
 Bottom: Upper Cretaceous
 Remarks: Electric log, gamma ray log and samples.
 Ref: 6

GGs 376
 LL 12 of LaRue map — Curry #1 — LaRue, et al.
 (Abandoned (3-24-54))
 Basis: Lse. evaluation to satisfy sale of spreads.
 TD: 2050
 Remarks: Samples
 Ref: 13,6

GGs 719 DP #64
 Humble Oil & Refining Co. — #1 W. C. McDonald —
 Location: N. 59° 10' W 14050' fr. USC&GS "Sky"—11
 miles northwest of Brunswick
 Elev: 15' GL 25' KB Kelly Bushing
 TD: 4737
 Bottom: Granite (Pink)
 Spudded 3-27-61
 Completed: 4-17-61
 Remarks: Electric, Sonic, Microlaterolog & Dip-
 meter T/Base 4718 (1st core)
 Tops of formations:
 931 Avon Park
 1305 Lake City
 1598 Oldsmar (Wilcox)
 2278 Cedar Keys (Midway)
 2547 Upper Cretaceous
 3174 Taylor
 3740 Austin
 4103 Atkinson
 4330 Lower Tuscaloosa
 4447 Lower Cretaceous

GGs 724 DP #65
 Humble Oil and Refining — Union Bag Camp Paper #1
 Location: GMD 27, N 45 10' W. 8 miles W. of Brun-
 swick, Ga. — 1/2 mile N. of Little Satilla River.
 Elev: 14'
 TD: 4642
 Bottom: Lower Cretaceous
 Spudded: 4-27-61
 Completed: 5-21-61
 Remarks: Electric, sonic, Microlaterolog, dipmeter
 Samples 0-4000'
 T/Base:
 Tops of formations:
 65 Pliocene
 95 Miocene
 550 Oligocene
 580-600 No sample
 600 In Upper Ocala
 920 Avon Park
 1200 Lake City
 1775 Lower Eocene (Oldsmar)
 2220 Paleocene (Clayton)
 2650 Upper Cretaceous (Lawson)
 3405 Taylor
 3793 Austin
 4235 Eutaw
 4255 Tuscaloosa
 4613 Lower Cretaceous

HEARD COUNTY

LL 133, LD 15—Williamson #1—C. C. Alfred. (1947)
 TD: 1100
 Remarks: Electric log.
 Ref: 6
 LL 133, LD 15 — Adams-Massey-Middlebrooks #1 —
 L. D. Cain. (1949)
 Bottom: Granite
 Ref: 6
 Northwest of Glenn — D. H. Shepherd #1 — L. D. Cain
 (1950)
 TD: 1000
 Ref: 6

HOUSTON COUNTY

GGs 193
 LL 44, LD 14—J. D. Duke #1—Tricon Minerals, Inc.
 (1949)
 Elev: 419
 TD: 1494
 Bottom: Biotite gneiss
 Remarks: Samples
 Ref: 1,6
 GGS 194
 LL 266, LD 13 — Gilbert #1 — Tricon Minerals, Inc.
 (1949)
 Elev: 367
 TD: 1698
 Bottom: Biotite gneiss
 Remarks: Electric log and samples.
 190-220 Paleocene
 910-1500 Tuscaloosa
 Ref: 1,3,6,14

JEFF DAVIS COUNTY

Town Bluff Ferry — Altamaha Oil and Gas Co.
 Elev: 81
 TD: 1105
 Bottom: Shaly limestone
 Remarks: Lithologic log.
 Ref: 6
 Twelve miles west of Hazlehurst — Hinson Oil, Gas &
 Development Co. (1908)
 Elev: 225
 TD: 1975
 Remarks: Lithologic log.
 Ref: 5,6

JEFFERSON COUNTY

3.5 miles southwest of Louisville—A. F. Lucas & Georgia
 Petroleum Oil Well. (1907)
 TD: 1143
 Bottom: Basement
 Remarks: Lithologic log.
 Ref: 1,8
 GGS 133
 Wrens, Ga. — #2 U.S.G.S. Test Hole.
 Elev: 445
 TD: 549
 Bottom: Tuscaloosa
 0-50 Oligocene-Miocene
 50-150 Barnwell
 150-185 Lisbon
 185-549 Tuscaloosa
 Ref: 6,14

JEFFERSON COUNTY (continued)

GMD 82, just northwest of Louisville—J. R. Phillips, Jr. #1—Owen Hembree. (1955)
 Basis: Stratigraphic test
 TD: 545
 Ref: 6,13

GGs 480
 GMD 82, north of Louisville — Enola Kelly #1 — Owen Hembree. (1955)
 Basis: Stratigraphic test
 TD: 787
 Remarks: Samples
 Ref: 6

LAURENS COUNTY

GGs 51
 One-half mile south of Minter — Grace McCain #1 — Calaphor Manufacturing Co. (1945)
 Elev: 280
 TD: 2546
 Bottom: Diabase
 Remarks: Diabase at 2532-2546 under Lower Cretaceous. Electric log and samples.
 Ref: 1

LIBERTY COUNTY

GGs 363
 LL 20, GMD 15 — Jelks-Rogers #1 — LaRue, et al. (Abandoned 1-14-54)
 Basis: Lsc. evaluation to satisfy sale of spreads
 TD: 4254
 Bottom: Devitrified rhyolite
 Remarks: Electric log, gamma ray log and samples.
 Tops of formations
 430 Ocala
 1100 Claiborne
 2290 Upper Cretaceous
 3615 Tuscaloosa
 4250 Basement
 Ref: 6,13,14,17

MACON COUNTY

LL 182, LD 1 — Forhand #1 — Merica Oil. (Abandoned 7-24-54)
 Basis: Bureau of Mines CD prospect
 Elev: 290
 TD: 2139
 Bottom: Schist
 Remarks: Electric log and samples.
 0-100 No samples
 100-340 Paleocene
 340-1510 Upper Cretaceous
 2139- Schist
 Ref: 6,13,14

MARION COUNTY

GGs 476
 LL 207, LD 31—J. F. Bergin #1—Lee Oil and Natural Gas Co., and Canadian Exploration Syndicate. (Abandoned (4-19-56)
 Basis: Lee Resistivity method
 TD: 1764
 Bottom: Basement
 Remarks: Samples
 Ref: 6,12,17

GGs 505
 LL 33, LD 25 — S. N. Winkler #1 — Lee Oil and Natural Gas Co. (Abandoned 10-5-56)
 Basis: Lee Resistivity method
 TD: 3990
 Remarks: 1-8-57. This well R.U. to drill out cmt. and set 5½" csg. to test porosity indicated on Schlumberger & Lee In-Hole Survey. Samples down to 2650 in Lower Cretaceous.
 Ref: 12,6

MITCHELL COUNTY

GGs 109
 LL 133, LD 10 — J. H. Pullen #1 — Stanolind Oil & Gas Co. (1944)
 Elev: 338
 TD: 7487
 Bottom: Clastic rocks
 Remarks: Electric log and samples.
 Olivine diabase sills at 6550-6612 and 7070.
 Tops of formations:
 525 Ocala
 710 Claiborne
 1150 Wilcox
 1320 Salt Mountain limestone
 1560 Clayton
 1710 Cretaceous
 3945 Tuscaloosa
 4478 Lower Cretaceous
 7474 Granite
 Ref: 1,2,3,4,6,7,14

MONTGOMERY COUNTY

GMD 1810 — Moses #1 — Meadows Development Co. (1939)
 Elev: 194
 TD: 1180
 Bottom: Eocene sand
 Ref: 4,6
 Uvalda-Moses #2 — Meadows Development Co. (1939)
 Elev: 199
 TD: 1619
 Bottom: Eocene sand
 Remarks: Electric log and samples.
 Ref: 4
 GGs 128
 GMD 1810 — Moses #3 — Meadows Development Co. (1940)
 Elev: 193
 TD: 1906
 Bottom: Hard limestone
 Remarks: Electric log.
 Ref: 4,6
 GGs 190
 GMD 1567, DF 293 — Lonnie Wilkes #1 — J. E. Weatherford. (1946)
 Elev: 293
 TD: 3433
 Bottom: Diabase
 Remarks: Schlumberger to 3424
 Ref: 1,3,4,14

PIERCE COUNTY

GGs 119
 LL 329, LD 4 — Adams-McCaskill — Pan American.
 (1939)
 Elev: 77
 TD: 4375
 Bottom: Altered medium-grained, biotite granite
 Remarks: Basement at 4370. Electric log and samples.

Ref: 1,2,3,17

GGs 120
 LL 332, LD 4 — McCaskill-Adams #1 — Donald Clark.
 (1939)
 Elev: 75
 TD: 4355
 Bottom: Intensely altered medium-grained granite
 Remarks: Electric log and samples.
 Tops of formations:
 450 Oligocene
 690 Jackson
 1895 Claiborne
 2075 Wilcox
 2317 Midway
 3995 Tuscaloosa
 4355 Granite

Ref: 1,2,3,11,17,19

PULASKI COUNTY

GGs 472
 LL 306, LD 21 — Tripp #1 — Ainsworth Corp.
 (Abandoned 11-7-54)
 Basis: Craver doodlebug "carried as corehole."
 Elev: 280
 TD: 2710
 Bottom: Serpentinized diabase?
 Remarks: Widco log, electric log to 2457 and samples.
 80-280 Jackson
 1510-2140 Tuscaloosa
 Bottom of Lower Cretaceous at 2488
 (Louise Jordan).

Ref: 6,13

GGs 491
 LL 280, LD 12 — Dana #1 — R. O. Leighton.
 (Abandoned 4-3-56)
 Basis: Combination of subsurface geology and doodlebug
 Elev:
 TD: 6035
 Bottom: Basement
 Remarks: Set 5½" diameter casing at 4947'; 2600 sacks of cement perforated at 4836. 1-8-57 — Well cleaned out to 4950, and operation claims to be W.O. csg to set and test porosity indicated on Schlumberger. 4-5-57 plugged back to 3117'; perforated at 3064-3076', bailed ¾ barrel of salty water per hour. Samples down to 3463'.

Ref: 6,12

GGs 960
 LL 307, LD 21 — #2 Tripp — R. O. Leighton. (1955)
 Elev: 305
 TD: 2895?
 Remarks: Metamorphic rocks encountered around 2500; electric log.

Ref: 6

RICHMOND COUNTY

Allen's Station, 9 miles south of Augusta — Three Creeks Oil Co. (1921)
 TD: 400
 Bottom: Basement
 Ref: 1

SCREVEN COUNTY

GGs 855 DP #71
 4 miles N. of 89 E. of Newington, Ga. — F. W. McCain-Helen H. Pryor — #1
 Elev: 130 GL 137 (KB)
 TD: 2677
 Bottom: Granite
 Spudded: 6-3-63
 Abandoned: 6-13-63
 Remarks: Electric log. 10' samples.
 T/Base: 2666
 Elev. of Basement: 2529'

SEMINOLE COUNTY

DP #61
 LL 42, LD 14 — Humble — J. R. Sealy
 Elev:
 TD: 4500
 Spudded: 12-7-60
 Abandoned: 1-8-61
 Bottom:
 Remarks: Electric log, microcaliper.
 T/Base:

GGs 187
 LL 82, LD 27 — Emily Harlow #1 — Mont Warren.
 (1949)
 TD: 3572
 Bottom: Lower Cretaceous sandstone and shale
 Remarks: Electric log and samples.
 Ref: 4,6,7

DP #74
 LL 170, LD 14 — C. E. Prince — Gibson Construction Co. #1, 660 ft. N. and 660 ft. W. of southeast corner of Seminole County.
 Elev: 119
 TD: 386
 Remarks: No samples.

GGs 204
 LL 61, LD 27 — Grady Bell #1 — Mont Warren. (1950)
 Elev: 114
 ED: 3810
 Bottom: Lower Cretaceous
 Remarks: Electric log and samples.
 Ref: 6,7

LL 235, LD 21 — Ruth Rambo #11 & Fee #2 — J. R. Sealy. (1954)
 Basis: Doodlebug
 TD: 880 (see remarks below)
 Remarks: Reopened in 1954 and renamed Fee #2;
 TD 3808
 Bottom: In Upper Cretaceous
 Ref: 6,13

LL 142, LD 21 — J. R. Sealy Spindle Top # 1; (#1 Lena Rebecca). (1955)
 TD: 7518
 Remarks: Samples
 Ref: 6,18

GGs 513

LL 142, LD 21 — J. R. Sealy Spindle Top #3

TD: 7620

Remarks: Electric log and samples.

Ref: 6

LL 214, LD 21 — J. R. Sealy Spindle Top #4.

(Abandoned 6-18-58)

Basis: Doodlebug

TD: 238

Ref: 13

LL 214, LD 21 — J. R. Sealy Spindle Top #5

(Started 150' from Spindle Top #4. (1958)

Basis: Doodlebug

TD: 958?

Ref: 6

STEWART COUNTY

GGs 716

LL 135, LD 21 — #1 W. D. Bradley Co., Inc. — Heinze & Spanel. (Abandoned 9-6-58)

TD: 2916

Remarks: Electric log.

Ref: 13

SUMTER COUNTY

GGs 442

LL 210, LD 17 — Walter Stevens #1 — Flinn-Austin & Co. (Abandoned 12-2-55)

Basis: Lcc Resistivity method and Carver doodlebug

TD: 5240

Remarks: Samples to 2430.

Tops of Formations

70 Wilcox

155 Clayton

270 Upper Cretaceous

1635 Tuscaloosa

2200 Lower Cretaceous

Ref: 13

LL 211, LD 17 — Sullivan #1 — W. B. Flinn.

(Abandoned 5-8-56)

Basis: Subsurface geology

TD: 2256

Remarks: Samples to 2430.

Ref: 12

Permit 66

LL 194, LD 26 — Georgia Oil & Gas Co. Inc. — R. S. Moore #1.

Elev: 530

TD: 2998

Bottom: Diabase 2998

T/Basc: 680'

Remarks: Electric log.

Elev. Basement: 2680-532-2148

Diabasic gabbro near bottom 2981

PRE-TRIASSIC Probably contact meta.

Very low-grade Meta rocks.

Permit #58

LL 193, LD 26 — East of Shiloh Church and School, 7 1/2 miles NW of Americus—Ernest Hill #1—Moore

Martino

Elev: 532 DF

TD: 2440

Bottom:

T/Basc:

Remarks: Electric log to 2365.

TELFAIR COUNTY

GGs 375

LL 260, LD 7 — Henry Spurlin #1 — Parsons & Hoke. (1953)

TD: 4008

Bottom: Below Lower Cretaceous

Remarks: Electric log and samples.

Tops of formations:

210 Suwannee

360 Ocala

1145 Midway

1246 Upper Cretaceous

2100 Eagleford shale

2157 Eutaw

2949 Tuscaloosa

3453 Lower Cretaceous

Ref: 6

TOOMBS COUNTY

5 miles southwest of Vidalia — Tropic Oil Company.

Elev: 189

TD: 2297

Bottom: Upper Cretaceous

Ref: 2,6,14

GGs 95

LL , LD —Gibson #1—Tropic Oil Company. (1945)

Elev: 198

TD: 3680

Bottom: Medium-grained, feldspathic quartzite (metamorphic).

Remarks: Electric log and samples.

Tops of formations:

512 Ocala

760 Claiborne

1338 Wilcox

1706 Upper Cretaceous

Ref: 4,5,6

GGs 146

(6 miles southeast Vidalia) — Brown #1 — Davis, et al. (1947)

TD: 3185

Bottom: Red formation?

Remarks: Samples.

Ref: 4,6

TREUTLEN COUNTY

GGs 127

LL 221, GM 1386 — Ray. (1942)

Elev: 291

TD: 1935

Bottom: Sand

Remarks: Samples

Ref: 4,6

GGs 730 DP #67

GMD 1386, Soperton, 3 miles, S. 81° E. of Soperton, 560' E. Hwy 227 — Barnwell Drilling Co. — Jim Gillis #1.

Elev: 351 GL

TD: 3240

Bottom: Metaquartzite

Began: 8-15-61

End: 8-24-61

Remarks: Electric log samples 640-3230'.

T/Basc: 3053 — Elev. of basement 2702

TREUTLEN COUNTY (continued)

Tops of formations:

796 Tallahatta
1030 Wilcox
1131 Midway
1330 Upper Cretaceous
1825 Atkinson
2380 Lower Tuscaloosa

Probably Triassic RDB

2491 Lower Cretaceous

Basement: Metaquartzite

Cutting (RDB) 3053

GGS 789 DP #68

7 miles S. 81 E. of Soperton, Ga. — McCain & Nicholson
— H. Gillis #1.

Elev: 245 GL 249 KB

TD: 3180

Bottom: Granite or gneiss elec. of basement 2847

Began: 5-23-62

Abandoned: 6-11-62

Remarks: Electric log, Sonic Log samples: 20'-3180

T/Base: 3158 3165 Hruby 3096 from E log RDB

Tops of formations:

812 Tallahatta
1030 Wilcox
1140 Midway
1423 Upper K (S. Herrick)
1898 Atkinson
2430 Lower Tuscaloosa
2547 Lower K Probably Triassic
3158 Basement Biotite
gneiss cutting, (R. D. Bentley)
side wall cores, 7 samples: 2875, 3035,
3047, 3050, 3071, 3073

WALKER COUNTY

LL 5, LD 7 — Vernon Close # 1 — T. P. Posey. (1953)

TD: 1940

Remarks: Samples.

Ref: 6

LL 33, LD 7 — Vernon Close #2 — T. O. Posey.

(Abandoned 10-13-54)

Basis: Doodlebug

TD: 3000

Bottom: Knox dolomite

Ref: 13

LL 270, LD 7 — Fowler #1 — T. O. Posey. (Abandoned 10-13-54)

Basis: Doodlebug

TD: 2500

Remarks: Samples.

Ref: 13

LL 25, LD 26 — Fitzpatrick #1 — H. L. Chapman.

(Abandoned 12-24-54)

Basis: Craver doodlebug

TD: 2064

Ref: 13

WARE COUNTY

GGS 63

LL 443, LD 8 — Waycross Well #W-7 — Waycross Oil & Gas Co. (1915)

Elev: 130

TD: 3045

Bottom: Dark grey marl

Remarks: Lithologic log and samples.

Ref: 4,5

LL 465, LD 8 — Merica Oil Company. (1957)

TD: 4200

Ref: 14

WASHINGTON COUNTY

GGS 223

Twelve miles northwest of Sandersville — Middle Georgia Oil & Gas Co. (1920)

TD: 400

Bottom: Basement

Remarks: Samples.

Ref: 1,6

WAYNE COUNTY

LL 161, one mile south of Doctortown. (1906)

Elev: 95

TD: 1901

Remarks: Lithologic log

Ref: 4

GGS 52

LL 7, GM 333—Brunswick Peninsular #1—California. (1944)

Elev: 73

TD: 4620

Bottom: Tuffaceous arkose (?)

Remarks: Electric log and samples.

Tops of formations:

682 Suwannee
740 Ocala
1045 Claiborne
1980 Wilcox
2627 Midway
2685 Upper Cretaceous
4065 Tuscaloosa
4430 Lower Cretaceous
4570 Basement

Ref: 2,6,13,14

LL 127, LD 3 — Byars. (1945)

Elev: 175

TD: 1965

Bottom: Sand

Ref: 6

LL 127, LD 3 — Byars. (1945)

Elev: 175

TD: 345

Bottom: Sand

Ref: 4,6

GGS 651 DP 60

LL 54, GMD 333 — Union-Bag-Camp Paper Corp. #1 — E. Gardi — Humble Oil & Refining Co.

12.5 miles SE of Jesup, Ga. — Lot 31, 31' 8.2" — Long. 81, 41' 7.5".

Elev: 49 (GL) 65 DF

TD: 4551

Bottom: Paleozoics — Elev of basement—4309

Remarks: Electric log.

Tops of formations:

2252 Upper Cretaceous
2870 Taylor
3447 Austin
3783 Atkinson
4062 Lower Tuscaloosa
4162 Lower Cretaceous
4358 Meta Paleozoic?

WHEELER COUNTY

A few miles south of Alamo — Dugas #1 — Telfair Oil Co. (1919)

TD: 2100

Ref: 6

GGs 221

LL 219, LD 10 — Wilcox #1 — Dixie Oil Co. (1923)

Elev: 240

TD: 3384

Bottom: Sand and gravel

Remarks: Lithologic log and samples.

Top of Tuscaloosa at 2515

Ref: 4,5,6

LL 288, LD 10 — E. Hinson #1 — Parsons and Hoke. (1953)

TD: 3630

Remarks: Electric log.

Ref: 6

GGs 336

LL 486, LD 7 — Jordan Heirs #1 — T. R. Davis & Associates. (Abandoned 6-22-56)

Basis: Doodlebug

TD: 4002

Bottom: Ferruginous siltstone, slightly metamorphosed.

Remarks: This is OWDD w/original TD of 2175 and final TD 4002. Footage drilled in 1956 is 1827. This well was reported in 1953 as the Natural Resources #1 Jordan Heirs. Electric log; lithologic log and samples.

Ref: 12

WHAT IS BASEMENT?

Past usage of the term "Basement" in reference to subsurface rocks of the Coastal Plain has been inconsistent. Some workers have designated as "Basement" all pre-Cretaceous rocks regardless of whether they are igneous, metamorphic, or sedimentary; others have reserved the term for the igneous and metamorphic rocks alone. If "Basement" be defined simply as a rock mass which has been eroded, perhaps base levelled, on which younger sediments have been deposited, then any mass beneath an erosional unconformity is a "Basement." Such a redefinition might be consistent with calling all pre-Cretaceous rocks basement, but it departs from past general usage and is therefore confusing. Basement, as used by geologists, bears the same connotations as "Basement Complex" and is best reserved, in the Southeastern Coastal Plain, for the rock mass beneath all unmetamorphosed strata.

At present, the term can be used accurately for few Coastal Plain rocks outside of zone 1 in Figure 3. We are safest in applying it to the high-grade metamorphic rocks, and can reasonably apply it to the medium- and low-grade metamorphic rocks, though not with strict accuracy until more is known about their distribution. The fact that a rock is metamorphic or igneous does not prove it is basement. Consider, for example, the contact metamorphic rocks adjacent to the thicker diabase intrusives in zone 2 and the rhyolites in zone 3.

The important question from the oil prospector's viewpoint is not whether a bottom core represents basement but whether it may be regarded as potentially oil-bearing or associated with other rocks that might be oil-bearing. Whether a sample is basement can be hard to determine; whether it has evolved at elevated temperatures which might preclude the possibility of oil being found in it (as an igneous or metamorphic rock) is not so hard to decide. The inferences to be drawn from a rock's identification are important—may indicate whether to continue or discontinue drilling. Identification should be based, therefore, on careful petrographic *measurements* and not on general appearance or a poll of opinions.

CHARACTER OF THE PRE-CRETACEOUS ROCKS

The deepest wells in zone 1 (Figure 3) bottom in diorite, schist, and gneiss—crystalline rocks similar to those of the Piedmont to the northwest.

The deepest wells in zone 2 bottom in "red beds" and diabase. These have been assigned a Triassic age because of lithologic similarity to Triassic rocks to the northeast. Actually, red beds are found in strata of all ages except those of the earliest pre-Cambrian age, and are common in the nearby Paleozoic strata of Northwest Georgia. Diabasic rocks, likewise, are not restricted to the Triassic period. The assignment of a Triassic age to all red beds and diabasic rocks under the Coastal Plain, by lithologic correlation, is little better than speculative until additional evidence bearing on their age can be obtained.

The deepest wells in zone 3 bottom in volcanic rocks, as basalt, rhyolite, and tuff, which are not correctly labelled as basement. Though their glassy component has devitrified, they have not been regionally metamorphosed and oil-bearing strata might be found underneath them. The granite penetrated by two Pierce County wells could represent a local intrusive rather than basement.

The deepest wells in zone 4 bottom in Paleozoic strata, typically in feldspathic quartz sandstone or dark shale.

POSSIBILITIES

The number and spacing of wildcats so far drilled are inadequate for appraisal of oil and gas possibilities in Georgia. We know, however, that rocks which might bear oil underlie a large part of the State and that most of them have not been prospected.

Interest is currently focused on the coastal and submerged portions of the Coastal Plain where the thickness of sediments probably exceeds 10,000 feet. This area is completely untested.

Considering the character and extent of the sedimentary rocks and production from neighboring States, the discovery of oil and gas in Georgia is a reasonable expectation.

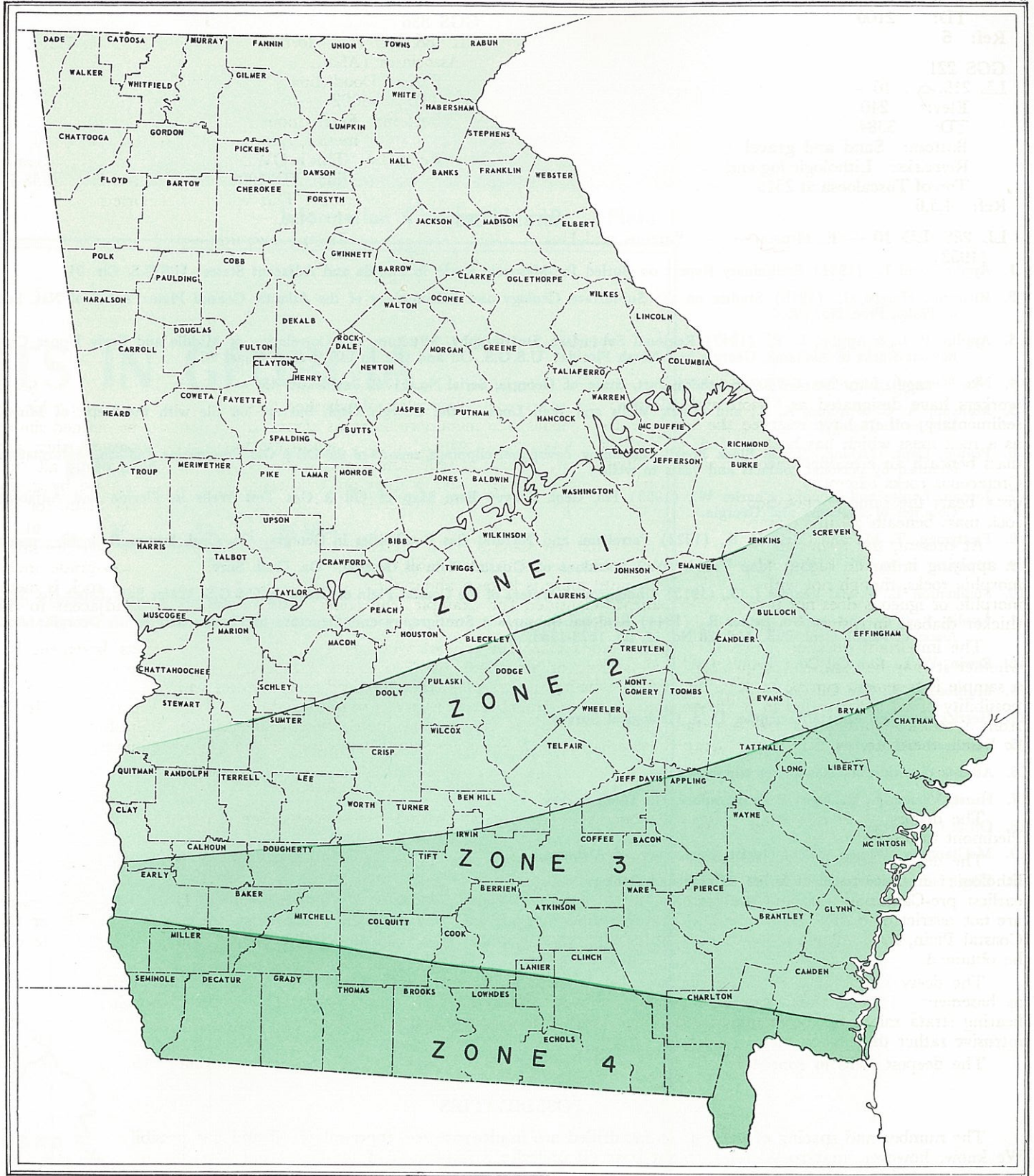


Fig. 3—Character of the pre-Cretaceous Rocks. See text for explanation.

REFERENCES

1. Applin, Paul L., (1951) Preliminary Report on Buried Pre-Mesozoic Rocks in Florida and Adjacent States: U.S.G.S. Cir. 91.
2. Richards, Horace G., (1948) Studies on the Subsurface Geology and Paleontology of the Atlantic Coastal Plain: Acad. of Nat. Sci. of Phila., Proc. No. 100.
3. Applin, P. L. & Applin, E. R., (1947) Regional Subsurface Stratigraphy, Structure and Correlation of Middle and Early Upper Cretaceous Rocks in Alabama, Georgia and North Florida: U.S.G.S. Oil and Gas Invest. Prelim. Chart 26.
4. Nix, Kenneth, Map No. G-7002 Southern Part, State of Georgia, Serial No. 51749 dated 10-9-45.
5. Munyan, A. C., Furcron, A. S., and others, Wells and Well Logs of the Georgia Geol. Survey: on file with the Dept. of Mines, Mining & Geology.
6. Peyton, Capt. Garland, "Little Black Book" containing newspaper clippings, reports of the Oil & Gas Commission and other information obtained by personal contacts and visits to wells.
7. Jordan, Louise and Hendry, Charles W., (1953) Fla. Geol. Survey Base Map of Oil & Gas Test Wells in Florida and Adjacent Counties of Alabama and Georgia.
8. Prettyman, T. M., and Cave, H. S., (1923) Petroleum and Natural Gas Possibilities in Georgia: Ga. Geol. Survey Bull. 40.
9. Munyan, Arthur C., (1939) Map Titled "Well Locations on Coastal Plain of Georgia," Ga. Geol. Surv.
10. Stephenson, L. W. and Veatch, J. O., (1915) Underground Waters of the Coastal Plain of Georgia: U.S.G.S. Water Sup. Paper No. 341.
11. Applin, Paul L., and Applin, Esther R., (1944) Regional Subsurface Stratigraphy and Structure of Florida and South Georgia: Am. Assoc. of Petrol. Geol. Bull., Vol. 28 No. 12, pp. 1673-1753.
12. Erwin, W. L., Sun Oil Co.
13. Munroe, D. J., Sun Oil Co.
14. Herrick, Stephen M., staff scientist, U. S. Geological Survey.
15. Southeast Oil Review.
16. Atlanta Constitution, Newspaper clippings from.
17. Hurst, Vernon J., Geologist & Petrographer, Ga. Geol. Survey.
18. Oil & Gas Review.
19. McGlammey, Winnie, Paleontologist, Geol. Surv. of Alabama.
20. Files of the Department of Mines, Mining and Geology.

