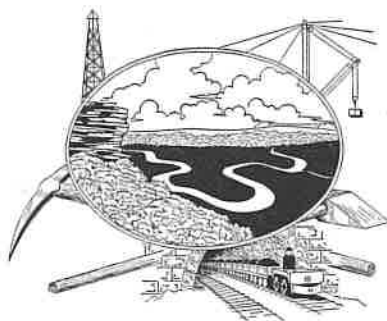


**STATE OF TENNESSEE
DEPARTMENT OF CONSERVATION AND COMMERCE
DIVISION OF GEOLOGY**

BULLETIN 62

**WELL LOGS
IN
TENNESSEE**

**Compiled
by
H. C. MILHOUS**



NASHVILLE, TENNESSEE

1959

STATE OF TENNESSEE

BUFORD ELLINGTON, Governor



DEPARTMENT OF CONSERVATION AND COMMERCE

J. BRENTS McBRIDE, Commissioner



DIVISION OF GEOLOGY

W. D. HARDEMAN, State Geologist

CONTENTS

	PAGE
Introduction	vii
Anderson County	1
Bedford County	7
Benton County	8
Bledsoe County	8
Campbell County	12
Cannon County	20
Carroll County	27
Cheatham County	29
Chester County	47
Claiborne County	52
Clay County	53
Coffee County	63
Cumberland County	66
Davidson County	82
Decatur County	86
DeKalb County	97
Dickson County	99
Dyer County	113
Fayette County	116
Fentress County	124
Franklin County	168
Gibson County	171
Giles County	173
Grundy County	178
Hardeman County	180
Hardin County	187
Haywood County	192
Henderson County	194
Henry County	195
Hickman County	195
Houston County	196
Humphreys County	200
Jackson County	202
Knox County	218
Lake County	219

Lauderdale County	233
Lawrence County	239
Lewis County	241
Lincoln County	243
Macon County	268
Madison County	275
Marshall County	281
McNairy County	284
Meigs County	300
Montgomery County	301
Moore County	305
Morgan County	306
Obion County	353
Overton County	367
Perry County	381
Pickett County	389
Putnam County	415
Rhea County	424
Robertson County	425
Rutherford County	442
Scott County	444
Shelby County	510
Smith County	520
Stewart County	526
Sumner County	536
Tipton County	555
Trousdale County	557
Van Buren County	559
Warren County	563
Wayne County	577
White County	588
Williamson County	590
Wilson County	591
County index	594

ILLUSTRATION

PLATE 1. Carter coordinate index map..... In pocket

INTRODUCTION

In publishing this bulletin, the Tennessee Division of Geology is making available to the public in one publication the great store of sub-surface information which has been accumulated over a period of almost 100 years.

Drillers' logs and sample descriptions are reproduced here as they were presented to the Division from many sources—little attempt has been made to change or interpret the wording or conclusions of the original contributors. Obvious errors have been corrected, but some statements of doubtful accuracy have been included for lack of definite information.

The logs have been grouped by counties, and the counties are presented in alphabetical order. Each log has been given an arbitrary map number, which was assigned according to the date of drilling. The numbers will apply to new maps which will be released in the future but do not correspond to the numbers on the present well locations maps distributed by this Division.

Well location designations accompanying these logs are based on the Carter coordinate system (see map in pocket at end of this report), which is also used as a basis for locations in the State of Kentucky.

Logs and sample descriptions are still being collected, and these will be published later in a similar bulletin. The Division of Geology would welcome logs or data on Tennessee wells from anyone having such information not included in the present bulletin. Any corrections from authoritative sources concerning the information presented here also would be appreciated.

ANDERSON COUNTY

Berry Stoll et al, R. M. MAPLES No. 1
(Map Number—1)

Location: SW SE NE Sec. 13, 4S-65E
Date: 1940

Elevation: ?
Total depth: 3480'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay	0	12
Light lime	12	78
Crevice	78	80
Light lime	80	175
Darker sandy lime	175	180
Light lime	180	195
Fresh water; big volume	195	200
Light lime	200	275
Brown lime	275	280
Coffee color coarse lime	280	
Show of oil		
Brown lime	280	321
Dark-gray lime	321	330
Brown lime	330	395
Gray and brown mixed lime	395	520
Dark-gray lime	520	570
Brown lime	570	577
Dark-gray and brown mixed lime	577	709
Sulphur water @ 587		
Second sulphur water @ 593		
Slate, dark	709	721
Lime and slate breaks, black	721	830
Lime mixed with red rock	830	1075
Black, broken lime	1075	1400
Sandy lime and slate, dark, broken	1400	1826
Sandy lime, dark and broken	1826	2020
Sand, black	2020	2045
Sandy shell and slate	2045	2060
Sand, dark	2060	2095
Sandy lime, dark and hard	2095	2210
Sandy lime, light and hard	2210	2615
Crystalline break in gray lime @ 2465		
Red rock, sandy, and slate	2615	2735
Sandy lime, dark	2735	2750
Sandy lime, green and gray, mixed	2750	2759
Brown and green sand and slate, mixed	2759	2850
Sandy lime and slate, soft	2850	2947
Red rock, hard	2947	2959
Sandy lime, hard	2959	3002
Brown, sandy lime, hard	3002	3050
Sandy lime, dark, soft	3050	3077
Red rock and green lime, mixed	3077	3083
Green, sandy lime, hard	3083	3132
Red, sandy lime, hard	3132	3265
Sandy lime, dark-gray, hard	3265	3353
Lime, red, mixed with shale	3353	3380
Lime, gray, dark	3380	3425
Lime, dark, almost black	3425	3465
Lime, gray and light	3465	3480

CASING:

10" @ 14.
 8¼" @ 605. Left in hole.
 6⅝" @ 2060. Recovered.
 (Well shut-in August 1951.)

Greenup, David, et al, COAL CREEK MINING & MFG. No. 1
 (Map Number—2)

Location: NW NE NE Sec. 22, 4S-64E

Elevation: 930'

Date: 1954

Total depth: 3107'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and clay, soft.....	0	7
Slate or shale, soft.....	7	315
Sand slate or shale, hard.....	315	385
Water (artesian) 382-85		
Sand, hard.....	385	630
Show dead oil 600, 610		
Slate, medium.....	630	646
Black coal, soft.....	646	650
Shale, medium.....	650	705
Sand, shale.....	705	795
White sand.....	795	855
Show oil 830		
Blue slate.....	855	870
Water 870		
Sand and shales.....	870	1090
Show oil 970		
Sand, gray.....	1090	1190
Sand and shales.....	1190	1355
Coal, blue.....	1355	1360
Sand and shales.....	1360	1368
Sand, white.....	1368	1500
Red rock, red.....	1500	1535
Sand and shales.....	1535	1850
Sandy lime, blue.....	1850	1905
Shale (not cave), blue.....	1905	1955
Sand and shales.....	1955	1975
Sand, white.....	1975	2045
(Steel line measurement)		
Sand and shales.....	2045	2085
Sand, brown.....	2085	2130
Sand, dark.....	2130	2136
Sand, brown.....	2136	2146
Lime (coffee), dark.....	2146	2295
Lime, gray.....	2295	2330
Lime, brown.....	2330	2350
Lime (shale), dark.....	2350	2360
Lime, brown.....	2360	2430
Lime, dark.....	2430	2455
Lime, brown.....	2455	2515
Red rock, red.....	2515	2535
Lime, gray.....	2535	2550

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy lime, brown	2550	2630
Show oil and gas 2600-20		
Lime, brown	2630	2660
Sandy lime, brown	2660	2816
Hole caving bad by 2793; dumped water to completion		
Red rock, red	2816	2818
Lime, dark	2818	2850
Lime	2850	2857
Iron ore		
Lime	2857	2865
Sandy lime, brown	2865	2875
Sandy lime, gray	2875	2880
Lime, brown	2880	2951
Lime, dark	2951	2995
Chattanooga shale, black	2995	3037±
Gas 3002-45		
Lime	3073	3099
(Steel line measurement)		

Upside-down packer set at 2885.

80-foot section of well was shot with 800 pounds of Solidified Glycerine on May 29, 1954. Blew 8¼-inch casing out 12 hours after shooting. 7-inch (outside diameter) casing cemented at 1378. Hole cemented from 1531 feet to 2295 feet to cut off caving section.

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, brown, very fine crystalline, silty and limy in part	2142	2150
Shale, varicolored, slightly dolomitic with gray shale, mica shale @ 2180. Gray, silty, very fine to fine limy dolomitic sandstone @ 2195. Trace gray-brown dense argillaceous limestone @ 2220	2150	2295
Dolomite, light-cream and gray, dense, very fine crystalline. Limy in part, with coarse crystalline calcite; white translucent chert, light-green chert, and darker green shale @ 2340	2295	2350
Limestone, dark-gray mottled, argillaceous, fossiliferous, with coarse-crystalline calcite grains and pseudo-oolitic limestone, brown mottled in part @ 2410	2350	2445
Shale, gray, micaceous, calcareous, with trace carbonaceous material, and tan, brown, dense, mottled limestone	2445	2560
Limestone, white, dense, very oolitic with trace coarse-crystalline grains; light-gray, very fine crystalline dolomite @ 2670; dark-brown, dense limestone @ 2680	2560	2795
Dolomite, gray-brown, dense-fine drusy; trace white translucent chert	2795	2965
Dolomite, gray-green, sucrosic, silty in part grading into dolomitic siltstone; shale @ 2975	2965	3015
Top of Chattanooga	3015	
No samples	3045	3055
Siltstone, light grayish-green, dolomitic, with disseminated pyrite and white chert; tan in lower portion, with silty dolomitic shale	3055	3107
Last sample	3107	

Nelson Oil & Gas Co., HATTIE BOOS No. 1
(Map Number—3)

Location: C SE Sec. 4, 5S-64E

Elevation: 1146'

Date: 1955

Total depth: 3404'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Brown surface soil	0	18
Sand and shale, gray	18	80
Shale and lime shells, gray	80	95
Hard rock, gray	95	105
Sand, blue and gray	105	118
Sand and shale, blue and gray	118	129
Coal and shale, blue, gray	129	139
Sand and shale, blue, gray	139	152
Sand, gray	152	200
Sand and shale, gray	200	240
Shale (muddy), blue, gray	240	265
Sandy slate, blue and gray	265	290
Sand and shale, gray	290	350
Shale, blue, gray	350	360
Sandy shale, blue-gray	360	386
Sand, blue, gray	386	395
Sand and shale, blue, gray	395	430
Sand, blue, gray	430	444
Sandy shale, blue, gray	444	482
Sand, gray	482	512
Sandy shale, blue, gray	512	600
Sand, blue, gray	600	628
Coal, black	628	632
Sand, gray	632	729
Sandy shale, blue, gray	729	740
Sand, white	740	878
Sandy shale, blue, gray	878	970
Sand, white	970	1044
Sandy shale, blue, gray	1044	1050
Sand, white	1050	1152
Shale, blue, gray	1152	1193
Sandy shale, blue, gray	1193	1215
Sand, shells, shale, blue, gray	1215	1228
Sand, blue, gray	1228	1278
Sand, shells, shale, blue, gray	1278	1295
Sand, blue, gray	1295	1315
Shale, blue, gray	1315	1332
Sandy shale, blue, gray	1332	1342
Sand, blue, gray	1342	1466
Shale, blue, gray	1466	1472
Sand shale, blue-gray	1472	1554
Sand, blue, gray	1554	1592
Sand shale, blue, gray	1592	1603
Sand, blue, gray	1603	1615
Sandy shale, blue, gray	1615	1625
Sand, shells, shale, blue, gray	1625	1665
Sand, blue, gray	1665	1815
Sandy lime, blue, gray	1815	1827
Sand, blue, gray	1827	1855
Sandy shale, blue, gray	1855	1865
Sandy shale, red rock, red, blue, gray	1865	1875
Red rock, red	1875	1890
Sandy shale, blue, gray	1890	1928

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, blue, gray	1928	1995
Sandy shale, blue, gray	1995	2005
Sand, blue, gray	2005	2110
Sandy shale, blue, gray	2110	2160
Sand, blue	2160	2185
Sandy shale, blue, gray	2185	2208
Shale break, blue, gray	2208	2215
Sandy shale, blue, gray	2215	2224
Sand shells and shale, blue, gray	2224	2242
Sand, white	2242	2335
Sand shells and lime, gray	2335	2342
Sand shells and shale, blue, gray	2342	2393
Sand, gray	2393	2475
Lime, dark	2475	2480
Lime and shale, blue, gray	2480	2533
Shale, blue, gray	2533	2572
Sand and shale, blue, gray	2572	2600
Shale, blue, gray	2600	2630
Shale and lime shells, blue, gray	2630	2638
Shale, blue, gray	2638	2670
Lime, gray	2670	2707
Lime, brown	2707	2735
Shale, gray	2735	2745
Lime, blue, gray	2745	2759
Shale, blue, gray	2759	2773
Lime, gray	2773	3038
Lime, blue-gray	3038	3100
Lime and sand shells, blue, gray	3100	3113
Lime, gray	3113	3289
Lime, brown	3289	3311
Sand and shale, blue, gray	3311	3315
Shale, blue, gray	3315	3350
Sand, blue	3350	3391
Shale, blue	3391	3404

CASING:

- 13' of 13" Conductor pipe, 532' of 10" casing
- 1163' of 8 $\frac{1}{4}$ " casing
- 2700' of 7" casing
- 3200' of 5 $\frac{1}{2}$ " casing (cemented)
- Oil show @ 522 and 897
- Strong oil smell @ 2972
- Gas @ 605 and 3311
- Break @ 2209-2214
- Water @ 25, 493, and 1550
- Blue Lick Water @ 3020
- Well shot with Nitroglycerine at 3:55 p.m., Aug. 12.

Columbian Carbon Co., TENNESSEE MINING & MFG. CO. No. 1
(Map Number—4)

Location: SW NE SW Sec. 3, 5S-62E
Date: 1956

Elevation: 1393'
Total depth: 3238'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	24
Lime	24	42
Fresh water		
Slate and shells	42	106

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime	106	213
Slate	213	224
Lime	224	512
Gas show @ 285		
Slate	512	520
Lime	520	595
Slate	595	622
Lime	622	762
643' D. L. M. ¹ =640' S. L. M. ²		
Slate and shells	762	912
Gas show @ 831-840		
Sand	912	945
Lime	945	958
Sand	958	1004
Coal	1004	1011
Slate	1011	1019
Lime	1019	1079
Sand	1079	1211
Slate	1211	1256
Lime	1256	1300
Gas show @ 1295		
Sand	1300	1317
Slate and shells	1317	1414
Lime	1414	1535
Sand	1535	1738
1545' D. L. M.=1549' S. L. M.		
Slate	1738	1750
Sand	1750	2044
Slate and shells	2044	2059
Sand	2059	2100
Slate	2100	2120
Red rock	2120	2160
Sand	2160	2219
Gas @ 2200-12 7/10 W.1" 28M		
Slate	2219	2265
Lime	2265	2342
2273' D. L. M.=2280' S. L. M.		
Slate and shells	2342	2390
Lime	2390	2861
Oil show @ 2650-60		
Red rock and shale	2861	2884
Gas		
Gray sand and shale	2884	3004
Oil show @ 2884-93		
Sand	3004	3082
Black shale	3082	3128
Gas		
Gray shale	3128	3238
3140' D. L. M.=3140' S. L. M.		

SHOT RECORD:

- 2-20-56 Shot shale from 3211 feet to 3080 feet with 1350 pounds Atlas Oilwell # 3 Gelatin and time bomb. Before shot gauged 27,900 cubic feet. Fourteen hours after shot gas gauged 27,900 cubic feet—30 feet cavings in hole.
- 2-21-56 Set brush bridge at 2900 feet—filled solid with rock and mud. Cemented

¹ Drill line measurement.² Steel line measurement.

from 2810 feet to 2800 feet to acidize Big Lime.
Ran tubing and set packer after third attempt at 2591 feet.

ACIDIZING RECORD:

2-29-56 Acidized Big Lime with 2000 gallons of acid—displaced with 28 barrels water. Acid went in under pressure at 1900-2100 pounds, then broke to 1900 pounds while pumping flush in well. Before acidizing show of oil; 3 hours after acidizing gas gauged 14,900 cubic feet—and maybe 1 barrel of oil—24 hours 6 barrels oil and 15 gallons acid water. Started setting bridge at 2315 feet; went to 2215 feet before setting bridge. Gas gauged 50,560 cubic feet.

FRACTURING RECORD:

3-21-56 Reset upside-down packer at 2171 feet and sandfraced Maxon with 2300 pounds of sand mixed with 48 barrels of gelled water. Pumped in flush with 38 barrels of water. When started pumping water pressure went to 3475 pounds; broke down to 3200 pounds and stayed at that point until all flush water was pumped in.

3-27-56 Tried to pull tubing, packer, and anchor. Packer covered with cavings. Left packer and anchor in hole. Tried to clean out, but cavings kept coming in on top of packer.
Plugged and abandoned 3-29-56.

BEDFORD COUNTY

Bedford Oil & Gas Co., F. L. MORTON No. 1

(Map Number—1)

Location: 12S-36E (?)

Elevation: ?

Date: 1920

Total depth: 1047'

SAMPLE DESCRIPTION¹

<i>Lithology</i>	<i>Depth</i>
Very dark limestone, very fine grained and dense	500
Same	675
Saccharoidal crystalline, glassy limestone, light-brown color. Might be oil sand	730
Gray, fine, granular limestone, crystalline, dove color	745
Mixed dark fine-grained limestone and light-green, gray, fine-grained saccharoidal limestone	765
Light green-gray very saccharoidal crystalline limestone	800
Light-brown crystalline limestone	825
Light-brown crystalline limestone mixed with milky chert and glassy chert	845
White to glassy crystalline limestone. Total effect light sandy color	900
Gray-white shale, porous and lumpy	965
Dark-brown rusty color limestone, fine cuttings	995
Dense, fine-grained, light-gray compact limestone; like sample from 745'	1047

¹ Examination by L. C. Glenn, of samples from Shelbyville, Tenn., April 19, 1920.

BENTON COUNTY**Jack Read & S. H. Massey, I. G. WILSON No. 1**

(Map Number—1)

Location: NW SW NW Sec. 15, 5S-18E

Elevation: 430'

Date: 1936

Total depth: 700'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray, fine-grained, argillaceous, fossiliferous	115	120
Limestone, white to gray, pyrite	200	210
Limestone, gray, fine-grained, cherty	210	320
Limestone, gray, fine-grained, argillaceous	320	335
Limestone, reddish-gray, medium-grained (75%), and some limestone, light-gray, fine-grained (25%)	335	345
Limestone, reddish-gray, sugary (90%), and some limestone, gray, fine-grained (10%)	345	355
Limestone, reddish, fine-grained, argillaceous (80%), and some limestone, light-gray, fine-grained (20%)	355	360
Limestone, reddish, fine-grained, argillaceous (90%), and some limestone, light-greenish, fine-grained	360	385
Limestone, reddish, fine-grained	385	395
Limestone, pinkish and reddish, crystalline	395	410
Limestone, light-gray, pink speckled, crystalline	410	415
Limestone, light-gray to slightly pinkish, fine-grained	415	425
Limestone, light-gray, fine-grained	425	440
Limestone, light-gray and pink speckled to reddish, medium- to coarse-grained	440	445
Limestone, reddish, fine-grained	460	475
Limestone, light-gray, crystalline, glauconitic	475	480
Limestone, gray, fine-grained	480	485
Limestone, gray, fine-grained, argillaceous	485	490
Limestone, light-gray, fine-grained	500	510
Limestone, light-gray, fine-grained, with much light-gray, dense chert	510	520
Limestone, white to light-gray, coarse-grained, glauconitic	520	530
Limestone, gray to light-gray and black-speckled, coarse-grained	530	

BLEDSOE COUNTY**Pike Oil & Gas Co.?, ROE ROBERSON No. 1**

(Map Number—1)

Location: SW NE NW Sec. 5, 12S-53E

Elevation: 1040'±

Date: 1937-1938

Total depth: 2820'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay	0	16
Shell, hard	16	17
Chert, soft	17	75
Flint, hard	75	150
Shale, green, soft	150	152
Chattanooga black shale, soft	152	175
Slate and shells, gray, soft	175	250
Lime, gray, soft	250	275

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray and red, soft.....	275	315
Lime, gray, soft.....	315	325
Lime, dark-gray and red mixture.....	325	345
Lime, gray.....	345	360
Lime, brown.....	360	365
Lime, medium-gray.....	365	385
Lime, dark-gray.....	385	516
Lime, brown.....	516	528
Lime, gray mixture.....	528	903
Slate, gray.....	903	905
Lime, gray.....	905	924
Shale, gray.....	924	927
Shale, green mixture.....	927	1045
Sand, gray.....	1045	1060
Lime, gray.....	1060	1280
Sand, brown.....	1280	1292
Lime, brown.....	1292	1340
Lime, brown, hard.....	1340	1350
Lime, light-gray mixture, hard.....	1350	1360
Sandy lime, dark, hard.....	1360	1370
Lime, gray.....	1370	1408
Shale, gray, soft.....	1408	1425
Lime, gray.....	1425	1438
Lime mixture, gray.....	1438	1452
Lime, dark.....	1452	1750
Lime, light.....	1750	1775
Lime, green.....	1775	1820
Lime, gray, medium to hard.....	1820	1945
Sand, light-gray, hard.....	1945	1965
Lime, light-gray, hard.....	1965	1998
Lime, gray, broken.....	1998	2020
Sandy lime, gray, hard.....	2020	2190
Sand, gray.....	2190	2490
Lime, gray.....	2490	2520
Sand, gray.....	2520	2820

CASING SET:

10".....	59' 10"
8 1/4".....	69' 1"
6 5/8".....	578' 1"

Gas at 467 feet. Water at 42 feet. Blew water above roof when struck. Cased off until well was finished, recased and blew out next morning. Blue sulfur at 2200, 2580, 2660, 2780 and 2810 feet.

Pike Oil & Gas Co., POPE No. 1
(Map Number—2)

Location: NE SW SW Sec. 19, 11S-52E

Elevation: ?

Date: 1938

Total depth: 3092'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay and shells.....	0	32
Lime, dark.....	32	40
Lime, broken, soft.....	40	42
Lime, dark, hard.....	42	186
Lime, light-gray, hard.....	186	192
Lime, dark, hard.....	192	285

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, medium-gray, soft	285	450
Sand, green	450	465
Sand, brown	465	490
Sand, gray	490	515
Lime, light	515	548
Sand, light	548	579
Lime, white	579	629
Slate, gray, soft	629	630
Sand, medium-gray	630	650
Lime, gray to brown	650	670
Sandy lime, medium-gray, hard	670	734
Sand, white, hard	734	825
Sand, medium-gray	825	1200
Lime, light-gray	1200	1206
Sand, light-gray	1206	1230
Lime, light-gray	1230	1239
Sandy lime, light-gray	1239	1300
Lime, light-gray	1300	1380
Lime, dark	1380	1619
Sand, dark	1619	1624
Lime, dark, hard	1624	1822
Slate, light	1822	1827
Lime, medium	1827	1945
Sand, brown	1945	1952
Lime, dark	1952	1982
Sand, dark	1982	1996
Lime, dark, hard	1996	2152
Sand, dark, hard	2152	2160
Lime, dark, soft	2160	2234
Sand, dark, sharp	2234	2245
Lime, dark	2245	2725
Lime, light, hard	2725	2825
Sand, red	2825	2832
Sand, green to red	2832	2850
Sand, gray	2850	2860
Lime, gray	2860	3008
Sand, gray, hard	3008	3033
Sandy lime, gray, hard	3033	3054
Lime, gray, hard	3054	3060
Sandy lime, gray, hard	3060	3092
CASING SET:		
10" @ 37; 8 1/4" @ 630; 6 5/8" @ 1435		
Oil smell @ 610, 625, 1203		
Crevice 2158		
Water 40		
Sulfur 542, 717, 812, 958, 1379.		

Sun Oil Co., CLEMMER-ROBERSON No. 1
(Map Number—3)

Location: NW NW NE Sec. 22, 9S-52E
Date: 1955

Elevation: 1662'
Total depth: 3380'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand	0	261
Sand, fine, some shale	261	390
Top of Mississippian (Glen Dean) @ 390		
Lime, brown	390	443

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red rock	443	464
Sand	464	480
Lime, brown, sandy	480	490
Sand and red rock	490	512
Lime, gray	512	540
Slate	540	548
Lime, gray	548	565
Slate	565	585
Lime, gray	585	635
Lime and slate	635	645
Lime, brown, hard	645	700
Lime, oolites, green shale	700	775
Lime and slate	775	785
Lime, brown	785	817
Cypress @ 817		
Sand, limy	817	843
Ste. Genevieve @ 843		
Lime, gray, hard	843	930
Lime, brown, oolites, hard	930	1020
Lime, gray, oolites, bailed 5 gallons oil	1020	1030
Lime, gray, oolites, hard	1030	1080
Lime, very dark, hard, with flint rock	1080	1200
Lime, brown and gray, sandy, hard	1200	1248
Garretts Mill @ 1248		
Lime, silty, sandy, dark, trace of gypsum	1248	1300
Lime, black and white, and flint rock	1300	1322
Ft. Payne chert @ 1322		
Flint rock, gray, translucent, 50-90%; trace of brown lime	1322	1448
Chattanooga shale @ 1448		
Shale, black	1448	1468
Corniferous (Devonian or Silurian) @ 1468		
Lime, gray, silty	1468	1610
Top of Ordovician @ 1610		
Lime, black, silty, with shale	1610	1700
Trace of fossils		
Lime, black, light-gray shale, fossils	1700	1900
Lime, gray and brown, hard, with flint rock and large white fossils	1900	2106
No samples (Top of Hermitage about 2125)	2106	2137
Lime, black and white, sandy (Hermitage)	2137	2170
Lime, dark and hard	2170	3072
Lime, very light, sandy	3072	3112
Knox @ 3112		
Lime, light-brown, with scattered sandy lenses and flint rock, blue-white and white	3112	3380
CASING RECORD:		
16" @ 17 left in hole		
13 $\frac{5}{8}$ " @ 545 pulled		
8 $\frac{3}{8}$ " @ 1516 pulled		
7" @ 2498 pulled		

CAMPBELL COUNTY

T. E. B. Siler Oil & Gas Co., ELLEN MEREDITH No. 1
(Map Number—1)

Location: NE NE SW Sec. 21, 1S-63E
Date: 1928

Elevation: 1400'±
Total depth: 3000'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Subsoil	0	16
Sand, white	16	40
Drilling same as at Sunbright		
Sand, blue	40	100
Drilling same as at Sunbright		
Sand, white	100	130
Sand, white	130	175
Same as at Sunbright, little softer		
White sand	175	185
Blue slate	185	220
We get this sand at Sunbright at same depth as here. It is there 300' to 400' thick.		
White sand	220	390
Salt Sand, white	390	490
Got this hard sand at 400. Got it at Sunbright at 350; should have 100' more of it (same formation at Sun- bright)		
Fishing job	545	575
Lime shells and slate	575	600
White sand	600	735
Got lime @ 735		
Limestone	735	755
White sand	755	850
Yellow sand, very hard	850	905
White sand	905	960
White, fine sand	960	1045
White sand	1045	1100
Lime shells and slate	1100	1140
Red lime	1140	1175
Gray lime	1175	1275
Slate	1275	1325
White lime	1325	1380
Red lime	1380	1430
Sandy lime	1430	1510
Gray lime	1510	1550
Blue slate	1550	1590
Blue lime	1590	1600
Slate and lime shells	1600	1640
Slate and shells	1640	1680
Slate and lime shells	1680	1720
Gray and black lime	1720	2300
Hard lime	2300	2315
Hard drilling	2315	2320
No change in formation	2320	2325
Gray granite (probably chert layers and quartz nodules)	2325	2330
Hard granite	2330	2365
Chattanooga shale	2365	2450
Soft green shale	2450	2650
Hard lime	2650	2700
Shale, dark	2700	2800

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale continued dark. Hit red shale at 2870 and the red shale lasted to 2900	2800	2900
Light lime, very hard but shaly	2910	2954

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>
Chert, dense, gray, and some dolomite	2300
Chert, light-gray, dense, and some shale and dolomite, dark	2305
Chert, light-gray, dense (75%); dolomite, sucrose (25%)	2315
Chert, light-gray, dense (75%); dolomite, sucrose (25%)	2320
Chert, light-gray, dense (75%); dolomite, sucrose (25%)	2325
Chert, light-gray, dense (25%); dolomite, white, sucrose (75%)	2350
Chert, light-gray, dense (25%); dolomite, white, sucrose (75%)	2355
Chert, white, dense (25%); dolomite, white, sucrose (75%)	2360
Chert, white, dense (25%); dolomite, white, sucrose (75%)	2365
Chert, white, dense (10%); dolomite, white, sucrose (90%)	2375
Dolomite, gray to dark-gray, dense to fine-grained, and some chert	2385
Chattanooga shale, black and pyritic	2450
Siltstone, light-gray and bluish-gray	2500
Shale or siltstone, dark bluish-gray	2600

Berry Stoll et al, N. A. SHOUN No. 1
(Map Number—2)

Location: SW SE NW Sec. 5, 3S-65E

Elevation: 1092'

Date: 1942

Total depth: 4219'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	8
Lime, white, hard	8	12
Chert, light, hard	12	17
Lime, light, hard	17	80
10" casing set @ 21' 8"		
Lime, sandy, hard	80	82
Water—3 bailers per hour		
Lime, light, hard	82	98
Slate, green, soft	98	100
Looks like Pencil Cave		
Lime, gray, hard	100	120
Lime, brown, sandy and hard	120	157
Gritty, cuts bits badly		
Lime, gray, hard	157	185
Lime, gray and brown, hard	185	208
Lime, gray, hard	208	260
Lime, brown, hard	260	270
Mixed with marble		
Lime, gray, hard	270	375

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, dark-gray, hard	375	425
Lime, gray, hard	425	460
Lime, sandy, dark-gray, hard	460	500
Lime, gray, hard	500	630
Lime, brown, hard	630	635
Lime, gray, hard	635	805
Set 8 1/4" casing @ 720		
Lime, brown and black mixed	805	865
50' with black		
Lime, dark-brown	865	940
Lime, gray	940	965
Lime, brown	965	987
Lime, sandy, gray	987	997
Salt water—3 bailers in 24 hours		
Lime, sandy, brown	997	1025
Lime, sandy, brown and gray mixed	1025	1065
Lime, brown, hard	1065	1089
Lime, gray, hard	1089	1092
Lime, dark-gray and hard	1092	1115
Lime, gray, hard	1115	1150
Cuttings contain particles of metal		
Lime, gray, hard	1150	1185
Cuts bits badly		
Lime, gray, hard	1185	1195
Sulphur water—1 1/5 bailers every 3 hrs.		
Sand, white	1195	1210
Lime, gray, hard	1210	1225
Gritty		
Lime, gray, hard	1225	1265
Mixed with quartz chips		
Lime, gray, hard	1265	1280
Sand, white	1280	1285
No water		
Lime, gray and brown	1285	1365
Lime, chocolate-brown	1365	1370
Lime, gray and brown	1370	1375
Lime, gray, gritty	1375	1395
Lime, gray, hard	1395	1410
Lime, gray	1410	1430
Lime, gray, sandy	1430	1445
Possibility of a crevice from 1444 to 1445		
Lime, gray, hard	1445	1453
Lime, brown, sandy and soft	1453	1458
Lime, gray, hard	1458	1489
Lime, brown	1489	1495
Lime, light-brown	1495	1501
Lime, brown, very hard	1501	1517
Lime, gray	1517	1529
Lime, gray, dark	1529	1565
Lime, gray, hard	1565	1590
Lime, gray and brown	1590	1642
Lime, dark-brown	1642	1647
Lime, gray and brown	1647	1652
Lime, dark-brown	1652	1688
Lime, brown	1688	1765
Some gas and smell of oil @ 1759		
Lime, brown	1765	1780
Lime, gray and brown	1780	1798
Lime, gray and brown, sandy	1798	1810
Lime, dark-brown	1810	1815
Lime, brown	1815	1820

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray, hard	1820	1824
Lime, brown, hard	1824	1834
Lime, brown and white, sandy	1834	1845
Lime, sandy, brown	1845	1850
More gas—about as we got @ 1759		
Lime, brown and gray, sandy	1850	1880
Lime, brown, sandy	1880	1895
Lime, gray	1895	1898
Lime, dark-gray	1898	1920
Lime, brown	1920	1945
Lime, brown and gray mixed	1945	1990
Lime, dark-gray	1990	2020
Lime, light-gray	2020	2090
Lime, brown and gray mixed	2090	2112
Lime, brown, hard	2112	2136
Lime, hard, gray	2136	2151
Lime, brown	2151	2200
Lime, brown, mixed with quartz chips	2200	2206
Lime, white, hard	2206	2222
Lime, brown	2222	2232
Lime, light-brown	2232	2247
Lime, dark-brown	2247	2308
Lime, brown	2308	2355
Lime, light-gray	2355	2365
Lime, brown and gray mixed	2365	2370
Lime, brown	2370	2380
Lime, brown and gray	2380	2385
Smell of oil in cuttings		
Lime, brown	2385	2400
Lime, brown and gray	2400	2406
Lime, gray	2406	2447
Lime, gray and brown, very hard and gritty	2447	2470
Lime, brown	2470	2492
Not quite as hard as it was		
Lime, brown	2492	2506
Lime, brown, mixed with black specks	2506	2511
Lime, brown	2511	2526
Lime, dark-brown	2526	2530
Smell of oil		
Lime, brown, hard	2530	2545
Lime, gray, soft	2545	2557
Drilled 12' in 3½ hrs.		
Lime, light-brown	2557	2590
Lime, light-gray and brown, soft	2590	2605
Lime, dark-brown	2605	2625
Lime, brown	2625	2655
Lime, gray and brown mixed	2655	2685
Lime, gray and brown	2685	2695
Lime, gray, very hard	2695	2705
Drilling very hard		
Lime, brown, gritty	2705	2725
Lime, brown	2725	2735
Lime, gray	2735	2755
Lime, gray	2755	2770
Formation very hard		
Lime, brown, gritty	2770	2780
Formation very hard		
Lime, brown, very hard	2780	2797
Lime, brown, mixed with a little black	2797	2830
Lime, brown, gritty	2830	2862
Lime, gray	2862	2866

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, brown	2868	2886
Lime, light-brown	2886	2896
Lime, gray	2896	2906
Lime, brown	2920	2935
Lime, gray, hard	2935	2945
Lime, gray	2945	2975
Lime, gray, hard	2975	3018
Lime, red and green mixed	3018	3067
Good drilling		
Lime, red and green mixed	3067	3075
Lime, dark-gray and green	3075	3095
Lime, dark-gray and green mixed	3095	3100
Lime, red and green mixed	3100	3135
Lime, dark-gray	3135	3155
Lime, gray and red	3155	3185
Lime, green and red mixed	3185	3240
Lime, red and green	3240	3275
Lime, red, sandy	3275	3327
Lime, gray	3327	3340
Lime, dark-gray	3340	3375
Better drilling (formation shows 95% lime)		
Lime, dark-gray	3375	3410
Lime, dark-gray	3410	3448
Medium drilling		
Lime, dark-gray	3448	3464
Very hard drilling		
Lime, dark-gray	3464	3470
Hard drilling		
Lime, dark-gray	3470	3497
Better drilling		
Lime, dark-gray	3497	3502
Drills good		
Lime and slate, dark-gray (almost black)	3502	3540
Good drilling		
Lime and slate, almost black, mixed with a few specks of black	3540	3607
Lime and slate, almost black (not so much white)	3607	3624
Lime, black	3624	3690
Medium drilling		
Lime, black	3690	3820
Very hard drilling		
Lime, brown and black mixed	3820	3830
Drilling hard		
Lime, brown and black mixed	3830	3850
Fair drilling		
Lime, brown and black mixed	3850	3870
Medium drilling		
Lime, dark-gray	3870	3888
Drilling medium		
Lime, sandy, black, gritty	3888	3892
Show of oil and gas; good drilling		
Lime, black	3892	3905
Good drilling; increase in gas		
Lime, black, sandy	3905	3925
Medium drilling		
Lime, dark-gray and black mixed	3925	3945
Medium drilling		
Lime, dark-gray	3945	3977
Hard drilling		
Lime, black	3977	4100
Medium drilling		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, brown and green mixed	4100	4125
Hard drilling		
Lime, sandy, brown	4125	4140
Cuts bit badly		
Lime, dark-brown	4140	4147
Medium drilling		
Lime, brown	4147	4157
Medium drilling		
Lime, black	4157	4174
Medium drilling		
Lime, mixed with shale (black)	4174	4200
Good drilling		
Lime, brown	4200	4219
Medium drilling		
Well abandoned @ 4219.		

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, gray-green, pink, medium- and coarse-grained, argillaceous and sandy, with light and dark chert and some fine-grained limestone	100	105
Samples missing	105	127
Dolomite, gray and brown, fine-grained, argillaceous and slightly cherty	127	132
Samples missing	132	150
Dolomite, brownish and greenish-gray, fine, medium-grained, slightly argillaceous and cherty	150	155
Samples missing	155	157
Chert, white to gray-brown, dense, translucent to opaque, with some gray, coarse-grained dolomite and a little green shale	157	160
Samples missing	160	168
Dolomite, gray and light-brown, fine-grained, argillaceous, slightly cherty and sandy	168	171
Dolomite, gray, fine-grained, slightly sandy	171	180
Samples missing	180	195
Dolomite, medium-brown, coarse-grained, with some green shale and chert	195	200
Dolomite, light-gray and brown, fine-grained, argillaceous and cherty	200	265
Samples missing	265	280
Same as sample above	280	307
Missing. Residue shows white, dense, doloclastic chert, some green shale, and considerable crystalline quartz	307	311
Dolomite, light-gray, fine- and coarse-grained, argillaceous and cherty	311	410
Limestone, brown to greenish-gray, fine-grained, slightly argillaceous and cherty	410	485
Dolomite, gray, medium-grained, argillaceous and slightly cherty	485	630
Limestone, gray and brown, fine-grained, with some coarse-grained dolomite, argillaceous and slightly cherty	630	655
Dolomite, gray and brown, fine- to coarse-grained, slightly argillaceous and cherty	655	940
Dolomite, brown and gray, fine- to coarse-grained, cherty	940	1065
Dolomite, brown and gray, fine-grained, cherty	1065	1103
Samples missing	1103	1114
Dolomite, tan and gray, medium-coarse grained, sandy and cherty	1114	1132

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	1132	1138
Dolomite, tan and gray, fine- to coarse-grained, cherty and sandy	1138	1178
Sand, individual grains imbedded in grayish chert, with some dolomite	1178	1183
Dolomite, gray and tan, coarse and medium-coarse grained, sandy	1183	1273
Chert @ 1225-1230 is oolitic		
Sand and chert, with some gray, fine-grained dolomite	1273	1279
Dolomite, gray, coarse- and medium-grained, sandy and slightly cherty	1279	1290
Dolomite, gray and brown, fine- to medium-grained, with some chert	1290	1463
Samples from 1295-1300 are missing		
Oolitic chert @ 1455		
Samples missing	1463	1470
Dolomite, gray to dark-brown, fine- to medium-grained, slightly argillaceous and cherty; some oolitic chert	1470	2411
Samples missing: 1677-1682, 1693-1698, 1722-1727, 1768-1780, 1809-1815, 1845-1849, 1888-1895, 1909-1915, 1920-1938, 1940-1958, 1963-1978, 1982-2002, 2007-2012, 2018-2032, 2042-2047, 2208-2223, 2229-2264, 2269-2292, 2297-2350, 2360-2375, 2385-2402		
Samples missing	2411	2446
Dolomite, dark-brown to gray, fine and very fine grained, argillaceous, with some chert	2446	3012
Samples missing: 2450-2458, 2463-2483, 2488-2526, 2535-2541, 2546-2556, 2560-2578, 2581-2608, 2618-2650, 2655-2687, 2692-2695, 2700-2710, 2715-2744, 2748-2761, 2766-2770, 2773-2811, 2816-2860, 2870-2922, 2927-2933, 2937-2947, 2952-2962, 2966-2975, 2985-2990		
Dolomite, dark-red and dark greenish-gray, very fine grained, with gray and red silty, doloclastic shale	3016	3021
Limestone, dark-red and dark-green, very fine grained, with red, gray, and green silty, doloclastic shale	3021	3026
Samples missing	3026	3055
Limestone and shale. Limestone is dark-red, dark-green, and gray, very fine grained. Shale is greenish-gray and red, silty and doloclastic	3055	3332
Samples missing: 3060-3075, 3085-3100, 3106-3115, 3125-3173, 3178-3184, 3190-3225, 3235-3250, 3255-3270, 3275-3327		
Samples missing	3332	3475
Limestone, dark-gray to black, coarsely crystalline to fine-grained and very argillaceous, with some chert and sand	3475	4219
Samples missing: 3485-3525, 3530-3606, 3615-3624, 3691-3698, 3737-3747, 3907-3917, 3981-3989, 4110-4115		

Columbian Carbon Co., EAST TENN. IRON & COAL CO. No. 1
(Map Number—3)

Location: NW SE SW Sec. 4, 3S-63E

Elevation: 1426'

Date: 1956

Total depth: 3811'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	15
Sand	15	30

<i>Lithology</i>	<i>From</i>	<i>To</i>
Slate and shells	30	60
Lime	60	112
Slate	112	144
Gritty lime	144	159
Slate and shells	159	177
Sand	177	264
Slate	264	300
Lime	300	316
Slate	316	340
Lime	340	389
Hard sand	389	501
Gritty lime	501	538
Slate	538	596
Sand	596	623
Lime	623	662
Slate	662	680
Broken sand	680	753
Lime	753	785
Hard sand	785	824
Lime	824	855
Sand	855	934
Lime	934	944
Hard sand	944	1047
Lime	1047	1084
Sand	1084	1112
Lime	1112	1146
Slate and shells	1146	1174
Lime	1174	1207
Coal	1207	1210
Lime	1210	1218
Sand	1218	1440
Gray sand	1440	1522
Gritty lime	1522	1557
Sand	1557	1698
Lime	1698	1724
Sand	1724	1871
Lime, shells and slate	1871	1907
Sand, shells and slate	1907	1926
Lime, shells and slate	1926	1990
Gritty lime	1990	2007
Hard lime	2007	2133
Red rock	2133	2148
Lime	2148	2401
Gritty lime	2401	2543
Sand	2543	2612
Sand shells and shale	2612	2761
Red rock	2761	2784
Slate and shells	2784	2840
Red rock	2840	2860
Gritty lime	2860	2920
Red rock	2920	2970
Lime	2970	3054
Red rock	3054	3078
Lime	3078	3588
Gritty shale	3588	3700
Pencil Cave, green	3700	3702
Lime	3702	3811

12-28-55: 10-day pressure 615 pounds, tubing; 120 pounds, bottom-hole.

FRACTURING RECORD:

Before sandfracing, no gas. Sandfraced with 2000 gallons gelled diesel oil mixed with 2400 pounds sand. Pressured up to 1600 pounds; then pressure broke down to 600 pounds. When 1800 gallons flush oil was pumped in, pressure started at 750 pounds and ended at 1600 pounds. After sandfracing gas gauged 18,260 cubic feet.

SHOT RECORD:

1-5-56. Before shooting, gas gauged 14,900 cubic feet. Shot shale and lime 2900-2502 feet with 4150 pounds 5-inch gelatin and 100 pounds nitroglycerin with time bomb and 2000 pounds sand on top. Final open flow 39,430 cubic feet.

CASING RECORD:

9-20-55—8 $\frac{3}{8}$ -inch casing ran at 1676 feet (S.L.M.)¹ with Midget bottom hole packer.

CANNON COUNTY**South Penn. Oil Co., L. B. McFARREN No. 1**

(Map Number—1)

Location: Sec. 5 (?), 9S-42E
Date: 1897

Elevation: ?
Total depth: 1927'±

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone	278	1031
Blue Lick water, hole full @ 1031		
Limestone	1331	1376
Water	1420	
Water	1829	
Water	1927	

Limestone all the way—no show of oil or gas.

J. F. Adams, FEE No. 1

(Map Number—2)

Location: SW NE NE Sec. 9, 10S-40E
Date: 1936

Elevation: ?
Total depth: 502'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, bluish, gray, soft	150	165
Limestone, light-gray, soft	165	170
Limestone, dark-gray, harder	170	180
Shaly limestone, gray, soft	180	190
Sandy limestone, brownish-gray, hard	190	200
Limestone, gray, soft	200	205
Limestone, bluish-gray, soft	205	225
Limestone, blue, soft	225	235
Limestone, gray, soft	235	255
Sandy limestone, brown, hard	255	260
Limestone, bluish-gray, softer	260	265
Limestone, blue, soft	265	290
Sandy limestone, brown, hard	290	308
Sandy limestone, gray, hard	308	314
Limestone, brownish-gray, softer	314	320
Limestone, light-gray, soft	320	325

¹ Steel line measurement.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-gray, soft	325	330
Limestone, brown, soft	330	350
Limestone, bluish-brown, soft	350	363
Limestone, brown, hard	363	376
Gas @ 374		
Limestone, brown, hard	376	380
Limestone, dark-brown, hard	380	390
Limestone, brown, soft	390	400
Limestone, brown, hard	400	410
Limestone, steel-gray, hard	410	415
Limestone, gray-brown, soft	415	423
Sandy limestone, dark-brown, hard	423	433
Limestone, blue-black, soft	433	440
Limestone, brown, soft	440	445
Sandstone, brown, hard	445	451
Limestone, dark-brown, soft	451	455
Limestone, white-gray, soft	455	463
Limestone, light-brown, soft	463	467
Limestone, brown, soft	467	475
Limestone, brownish-gray	475	478
Gas @ 478		
Sandy limestone, dark-gray, hard	478	481
Salt water @ 481		
Limestone, light-brown, hard	481	484
Limestone, brown, hard	484	486
Limestone, grayish-brown, soft	486	502

Dr. Gant Gaither, HOOVER No. 1
(Map Number—3)

Location: NE SW SW Sec. 15, 9S-42E

Elevation: ?

Date: 1943

Total depth: 342'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, blue-gray, hard	95	99
Limestone, blue-white, soft	99	106
Limestone, blue-brown, soft	106	114
Limestone, blue-brown, hard	114	117
Limestone, gray-brown, hard	117	125
Limestone, light brown, soft	125	130
Limestone, light blue, soft	130	135
Limestone, gray-black, soft	135	140
Limestone, gray-black, soft	140	144
Limestone, light-brown, soft	144	162
Gas and water @ 154-158		
Limestone, pale-blue, soft	162	166
Limestone, black, brown and white, soft	166	170
Limestone, brown-blue, soft	170	174
Limestone, grayish-brown, soft	174	185
Limestone, light-brown, hard	185	187
Limestone, light-gray, hard	187	191
Limestone, brown, hard	191	210
Limestone, light-brown, hard	210	215
Limestone, dark-brown, hard	215	220
Limestone, brown, hard	220	225
Limestone, gray-brown, hard	225	228
Limestone, dark-brown, hard	228	234
Limestone, brown, hard	234	248

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-brown, hard	248	256
Limestone, dark-brown, hard	256	259
Small showing of oil		
Limestone, brown, hard	259	274
Limestone, light-brown, hard	274	289
Limestone, black and brown, hard	289	295
Limestone, brown, hard	295	301
Limestone, blue and gray, hard	301	320
Limestone, blue, soft	320	325
Limestone, blue-brown, soft	325	330
Limestone, brown, hard	330	333
Light showing of oil		
Limestone, brown-black, hard	333	342

Howard Youree, FEE No. 1

(Map Number—4)

Location: C N/2 SE SW Sec. 2, 10S-40E

Elevation: 856'

Date: 1946

Total depth: 1005'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Missing	0	36
Dolomite and limestone, tan to gray, fine-grained	36	72
Limestone, tan, fine-grained	72	100
Dolomite and limestone, tan and gray	100	122
Limestone, tan, fine-grained, in part phosphatic	122	142
Limestone and dolomite, tan to light-brown, fine-grained; lower 4' contains salt	142	282
Limestone, tan to gray, fine-grained, argillaceous, with some fine-grained dolomite	282	342
Limestone, tan to white, very fine grained, with some dolo- mite and argillaceous zone	342	420
Limestone, brown, fine-grained, argillaceous	420	624
Limestone, tan to white, fine-grained, with some dolomite and argillaceous material	624	684
Dolomite, light-gray, fine-grained, silty and calcareous	684	726
Dolomite, light-gray, fine-grained, calcareous	726	732
Limestone and dolomite, white, fine-grained, pyritic	732	738
Dolomite, tan, medium-fine grained	738	756
Dolomite, white, medium-fine and fine-grained, cherty	756	774
Dolomite, white, fine-grained	774	780
Dolomite, brown and white, fine-grained, calcareous, with gray, white, and blue chert	780	788
Dolomite, white, fine-grained, with about 1' of green shale in lower part	788	799
Dolomite, white with some brown, medium-fine grained, cherty	799	816
Dolomite, tan, fine-grained	816	830
Dolomite, tan, fine-grained, with some chert	830	852
Dolomite, tan, fine-grained	852	864
Dolomite, tan, fine-grained, cherty	864	884
Dolomite, tan, fine- and medium-grained, calcareous	884	918
Limestone, white, fine-grained, cherty, dolomitic, with about 2' of gray shale	918	936
Dolomite, brown and white, medium-coarse grained, with gray and green shale	936	942

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, tan, medium-fine grained with some medium-coarse grained, some chert and argillaceous material . . .	942	948
Dolomite, brown, medium-grained, cherty, contains rounded frosted quartz grains	948	954
Dolomite, tan to brown, fine-grained, cherty, slightly argillaceous, with some limestone	954	960
Dolomite, white and tan, medium-coarse grained, cherty, argillaceous	984	995
Limestone, white and tan, fine-grained, cherty, calcareous, dolomitic	995	1000
Limestone and dolomite, tan and brown, fine- and medium-grained, cherty	1000	1005

Hoyt Bryson et al, CHARLES BELL No. 1

(Map Number—5)

Location: SW SE NW Sec. 24, 8S-42E

Elevation: 803'

Date: 1948

Total depth: 504'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Black soil and boulders	0	50
Limestone, no record	50	80
Limestone, dark-blue, soft	80	90
Limestone, blue-gray, hard	90	105
Limestone, blue, soft	105	110
Air pocket		
Limestone, blue-brown, soft	110	125
Samples lost	125	138
Limestone, blue-brown, soft	138	143
Limestone, brown, green, soft	143	150
Pencil Cave		
Limestone, brown, hard	150	185
Limestone, brown, hard	185	195
Rainbows in cuttings		
Limestone, light-brown, hard	195	200
Limestone, brown, black, hard	200	205
Limestone, brown, hard	205	214
Limestone, light-brown, hard	214	219
Limestone, brown, hard	219	224
Limestone, blue, soft	224	251
Limestone, blue, hard	251	257
Limestone, blue-brown, soft	257	262
Limestone, brown, soft	262	267
Limestone, blue-brown, soft	267	282
Limestone, blue-brown, soft	282	287
Water		
Limestone, brown, soft	287	295
Limestone, blue-brown, soft	295	310
Limestone, brown, soft	310	315
Limestone, brown, white, soft	315	325
Limestone, blue-gray, soft	325	335
Limestone, brown-white, hard	335	355
Limestone, brown, hard	355	360
Samples lost	360	365

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-brown, hard	365	370
Limestone, brown, hard	370	385
Limestone, light-brown, hard	385	395
Limestone, brown, hard	395	415
Limestone, brown, black	415	420
Limestone, brown-white, hard	420	425
Limestone, brown-gray, hard	425	430
Limestone, gray, hard	430	435
Limestone, light-brown, hard	435	440
Limestone, brown, hard	440	455
Limestone, brown, soft	455	465
Limestone, brown-blue, soft	465	470
Limestone, blue, soft	470	485
Limestone, brown, hard	485	504

Hoyt Bryson et al, CHARLES BELL No. 2
(Map Number—6)

Location: SW SE NW Sec. 34, 8S-43E
Date: 1948

Elevation: 814'
Total depth: 306'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Yellow clay with some hard gravel for the first 26 ft., then a hard black limestone		
Limestone, blue-black, hard	35	40
Limestone, dark-blue, hard	40	45
Limestone, blue-black, hard	45	55
Water in this space—samples lost	55	65
Limestone, blue-black, hard	65	70
Limestone, blue, soft	70	85
Chalk, white, soft	85	90
Limestone, blue, soft	90	135
Limestone, blue-white, soft	135	140
Limestone, blue, soft	140	160
Limestone, blue-brown, soft	160	165
Pencil Cave @ 163		
Limestone, brown, hard	165	235
Limestone, blue-brown, hard	235	245
Limestone, brown, hard	245	250
Limestone, blue-gray, hard	250	265
Limestone, brown, hard	265	270
Limestone, brown, soft	270	275
Limestone, brown, hard	275	280
Limestone, blue, hard	280	285
Limestone, gray, hard	285	290
Limestone, gray-white, hard	290	295
Limestone, light-brown, hard	295	300
Limestone, gray, light-brown, soft	300	304
Limestone, brown, soft	304	306

Magnolia Petroleum Co., M. B. GAITHER No. 1
(Map Number—7)

Location: NW NW NE Sec. 16, 9S-42E

Elevation: 780'±

Date: 1949

Total depth: 1944'

<i>Lithology</i>	SAMPLE DESCRIPTION	
	<i>From</i>	<i>To</i>
Limestone and sandstone, brownish-gray, fine- to medium-grained, slightly dolomitic and argillaceous; tan to cream and reddish chert; few fossil fragments	0	59
Limestone, brown, fine-grained, argillaceous; tan, cream and reddish chert; few fossil fragments; sandy	59	80
Limestone, brownish-gray, medium-fine grained, argillaceous; tan chert	80	96
Limestone, brown to brownish-gray, fine to medium-fine grained, argillaceous; tan chert; slightly dolomitic in part	96	140
Limestone, brown to brownish-gray, fine to medium-fine grained, argillaceous, silty, dolomitic; fossil fragments; few red shale particles near top	140	255
Same as above, plus small amounts of cream chert	255	264
Samples missing	264	268
Same as samples above	268	310
Same, plus cream chert	310	313
Same, getting more dolomitic	313	343
Dolomite, brown, medium-fine grained, argillaceous and calcareous	343	347
Limestone, brown, fine to medium-fine grained, dolomitic and argillaceous	347	351
Same, plus slight show of oil	351	357
Limestone, brown, fine to medium-fine grained, silty, and dolomite, silty, argillaceous	357	700
Limestone, brown, fine to medium-fine grained, silty, dolomitic; few green particles (shale)	700	713
Limestone, tan, fine-grained; green shale particles; abundant clear and cream chert	713	720
Dolomite, tan, medium-fine grained, calcareous; few green shale particles	720	730
Samples missing	730	736
Dolomite, tan, medium-fine grained; cream chert	736	757
Same, plus oolitic chert	757	765
Same, plus few particles of black-green shale	765	797
Same as above, plus oolitic chert	797	805
Dolomite, light-tan, medium-fine grained; cream chert; few calcite crystals; few argillaceous particles	805	819
Dolomite and limestone, light-tan, fine-grained; cream chert; slightly pyritic	819	828
Dolomite, light-tan, medium-fine grained; few black shale particles	828	842
Dolomite, light-tan, medium-fine grained, slightly argillaceous, pyritic; cavities in dolomite filled with chert	842	851
Dolomite and limestone, light-tan, fine to medium-fine grained, very oolitic and cherty	851	863
Same, chert and oolites slowly grading out and section darkens	863	888
Dolomite and limestone, tan, fine- to medium-grained; small amount of tan chert	888	910
Dolomite and limestone, tan, fine to medium-fine grained, argillaceous; tan chert, same; less limestone, plus small quartz crystals	910	922

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, less limestone plus small quartz crystals	922	931
Same, plus quartz crystals and oolites	931	940
Dolomite and limestone, fine to medium-fine grained, slightly pyritic in spots; cream and white oolitic chert in spots	940	1042
Same, less limestone	1042	1065
Dolomite, brown, medium-fine to medium-grained; cream, gray, and colorless chert; calcareous near bottom	1065	1140
Dolomite, light-tan, fine-grained; cream chert; sandy, small uncompact dolomite rhombs and sand grains; show of oil	1140	1162
Same, light show of oil	1162	1168
Same, less oil plus silt	1168	1186
Same, less oil plus oolitic chert	1186	1189
Dolomite, tan, medium-fine grained; cream to white chert; slightly calcareous at top	1189	1253
Same, plus silt	1253	1280
Same, plus silt and calcite crystals	1280	1311
Dolomite, tan, medium-fine to fine-grained; cream chert; silty	1311	1321
Same, plus oolitic chert	1321	1329
Same	1329	1335
Dolomite, light-tan, fine to medium-fine grained; cream chert; few rounded and frosted sand grains	1335	1345
Dolomite, light-tan, fine-grained, slightly calcareous; cream chert; slight show of oil	1345	1356
Same, except show of oil	1356	1360
Dolomite, light-brown, fine to medium-fine grained; cream chert; silty	1360	1380
Same, less silty, plus rounded and frosted sand grains	1380	1390
Dolomite, brown, fine to medium-fine grained; cream, white, and gray chert, oolitic	1390	1403
Dolomite, tan, fine-grained; small amount of cream chert; calcareous; over 50% of sample composed of silvery and golden arsenopyrite and marcasite; good show of oil	1403	1414
Same, less oil and metal	1414	1424
Dolomite, tan, fine to medium-fine grained; cream chert; calcareous	1424	1448
Samples missing	1448	1461
Dolomite, light-gray, fine to medium-fine grained, silty; abundant cream and gray chert	1461	1515
Same, plus calcareous	1515	1569
Same, plus calcareous and quartz, inclusions	1569	1593
Same, plus calcareous and frosted sand grains	1593	1605
Dolomite, light-gray, fine to medium-fine grained; white to blue-gray chert; calcareous	1605	1619
Same, less calcareous, plus oolites in chert	1619	1630
Same, less calcareous	1630	1643
Same, less calcareous, plus quartz inclusions	1643	1655
Dolomite, light-tan, fine- to medium-grained; quartz inclusions in blue-gray chert; oolitic chert	1655	1667
Same, less oolites, plus rounded and frosted sand grains	1667	1680
Dolomite, tan, medium-fine grained; white to gray chert	1680	1700
Dolomite, tan, fine to medium-fine grained; cream chert; calcareous	1700	1721
Dolomite, tan, fine to medium-fine grained, very calcareous, sandy; quartz inclusions in cream chert; few black shale particles	1721	1732

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, tan, fine to medium-fine grained, sandy; cream chert; slightly argillaceous	1732	1749
Dolomite, light-gray, fine to medium-fine grained; white to gray chert, rounded and frosted sand grains, quartz, inclusions in chert	1749	1766
Same, plus oolitic chert	1766	1776
Dolomite, light-gray, medium-fine grained; cream chert, sandy, few quartz crystal fragments	1776	1787
Dolomite, light-gray, medium-fine grained; abundant oolitic cream chert, rounded and frosted sand grains, few quartz crystal fragments	1787	1805
Same, except chert in a diminishing amount and plus few shale particles	1805	1813
Dolomite, light-gray, medium-fine grained; white to gray chert, few rounded and frosted sand grains	1813	1820
Dolomite, light-gray, medium-fine grained; sandy; cream and white chert	1820	1830
Dolomite, light-gray, medium-fine grained; white chert, oolitic	1830	1837
Dolomite, light-gray, fine- to medium-grained; white to gray chert; few shale particles	1837	1844
Dolomite, light-tan, medium-grained; gray chert	1844	1853
Samples missing	1853	1865
Dolomite, light-tan, medium-fine to medium-coarse grained	1865	1872
Same, plus few shale particles and oolites	1872	1879
Same, plus few oolites and a little cream chert	1879	1904
Dolomite, brown, fine-grained; very sandy cream chert	1904	1915
Dolomite, tan, medium-grained, sandy	1915	1921
Dolomite, tan, fine- to medium-grained, argillaceous, slightly oolitic; gray chert, sandy	1921	1925
Samples missing	1925	1929
Dolomite, light-brown, medium-fine to medium-grained, argillaceous; gray chert, sandy	1929	1936

CARROLL COUNTY

Tennessee Property Co., FEE No. 1

(Map Number—1)

Location: C Sec. 15, 6S-16E

Elevation: 455'

Date: ?

Total depth: 298'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red sand	0	60
Fine white sand (quicksand)	60	168
Black mud	168	278
Rock	278	282
Black mud	282	286
Black sand, water-bearing	286	298
Rock (not entered)		

Johnson Oil & Refining Co., JOHN F. VICKERS No. 1

(Map Number—2)

Location: NW NW SW Sec. 3, 7S-13E

Elevation: 416'

Date: 1921

Total depth: 775'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	13
Red quicksand	13	23
Red mud	23	30
Quicksand	30	40
Slaty formation (shale or clay)	40	145
Varicolored quicksand	145	186
Mud slip (clay)	186	189
Quicksand with mud slip (sand and clay)	189	203
Brownish shell with particles of mica	203	206
Broken sand and slate (thin-bedded sand and shale)	206	260
Pyrite	260	264
Sand and decayed vegetation	264	302
Shell (light-colored clay?)	302	304
Brown mud slips with well-preserved pieces of hardwood	304	370
Quicksand	370	380
Gray slate (shale)	380	395
Watery quicksand and mud slips (clay)	395	511
Slate (shale)	511	515
Coarse sand with less mud	515	556
Brown shell (clay or shale)	556	558
Quicksand	558	570
Slate (shale)	570	576
Quicksand	576	584
Broken shell and slips of slate (thin-bedded sand and shale)	584	598
Shell (clay or shale)	598	604
Quicksand	604	612
Mud, very tough	612	625
Slate (shale) and sand	625	656
Blue slate (shale)	656	700
Shell (clay or shale)	700	706
Quicksand	706	710
Slate (shale)	710	716
Shell (clay or shale)	716	719
Quicksand and mud	719	727
Slate (shale, small shells, and quicksand)	727	760
Shell (clay or shale)	760	766
Slate (shale)	766	775

CASING RECORD:

10" set @ 411

Louisville & Nashville Railroad, FEE No. 1

(Map Number—3)

Location: SE NE NE Sec. 12, 5S-12E

Elevation: 490'

Date: 1921

Total depth: 647'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil, loam, and clay	0	10
Red sand	10	36
White sand	36	47

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red sand; struck first water	47	67
Fine white sand	67	101
White sand and pipe clay	101	151
Gray pipe clay	151	225
Dark pipe clay	225	263
Yellow sand	263	273
White sand	273	311
Coarse white sand	311	320
Pipe clay	320	324
Fine white sand	324	340
Pipe clay	340	348
Fine white sand and pipe clay	348	352
Fine white sand	352	368
Gray pipe clay	368	490
Dark pipe clay	490	537
Fine white sand	537	543
Soapstone	543	563
Coarse white sand; good water-bearing	563	647

CASING RECORD:
 320' of 12", 360' of 8"

CHEATHAM COUNTY

Faery, White, Youree, W. T. DUNN No. 1 (Map Number—1)

Location: SW SE NW Sec. 11, 5S-29E

Elevation: 539' (?)

Date: ?

Total depth: 1947' (?)

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Siltstone, light green-gray, calcareous. Residue 80%—siltstone, green-gray, slightly porous	28	32
Siltstone, light green-gray, calcareous. Residue 45%—siltstone, green-gray, slightly porous, and pyrite	32	36
Siltstone, light green-gray, calcareous. Residue 50%—siltstone, green-gray, slightly porous, and pyrite	36	40
Siltstone, light green-gray, calcareous. Residue 55%—siltstone, green-gray, porous, pyritic	40	45
Siltstone, light green-gray, calcareous. Residue 60%—siltstone, green-gray, porous, pyritic, and small amounts glauconite	45	57
Limestone, light-gray, dense, and siltstone cavings. Residue 15%—siltstone, green-gray, porous, pyritic, and small amounts glauconite and secondary silica and chert	57	62
Limestone, light-gray, dense, and siltstone cavings. Residue 10%—siltstone residue cavings (95%), silica, gypsum, secondary	62	67
Limestone, light-gray, dense, and siltstone cavings. Residue 10%—composed almost entirely of siltstone cavings	67	71
Limestone, light-gray, dense, and siltstone cavings. Residue 5%—composed almost entirely of siltstone cavings and small amounts of gypsum and secondary silica	71	75
Limestone, light-gray, dense, and siltstone, small amounts (cavings). Residue 5%—composed almost entirely of siltstone cavings and small amounts of gypsum and secondary silica	75	78

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray, dense, and siltstone, small amounts (cavings). Residue 5%—composed almost entirely of siltstone cavings and small amounts of gypsum, secondary silica, and few frosted and rounded sand grains	78	83
Limestone, light-gray, dense (80%); shale, blue-gray, fossiliferous, calcareous; limestone, gray, fossiliferous, shaly. Residue 10%—shale, blue-gray, fine, porous, calcareous, and siltstone cavings	83	88
Limestone, light-gray, pink-specked, medium-grained, and small amounts shale, blue. Residue 8%—shale, dull blue-gray, firm, waxy (4%); shale, green-gray, soft, cave (4%)	88	92
Limestone, light-gray, pink-specked, fine-grained, and small amounts shale, blue. Residue 5%—shale, dull green-gray, firm, waxy (1%); shale cavings and pyrite (2%)	92	97
Limestone, light-gray, pink-specked, fine-grained. Residue 5%—shale, dull green-gray, firm, waxy (1%); silty aggregates, light-gray, and pyrite (4%)	97	102
Limestone, light-gray, pink-specked, fine-grained. Residue 3%—silty aggregates, light-gray; pyrite and gypsum	102	105
Limestone, light-gray, pink-specked, fine-grained. Residue 10%—shale, light-gray, firm, porous	105	110
Limestone, light-gray, pink-specked, fine-grained (50%); shale, blue-gray, fossiliferous, calcareous (50%). Residue 15%—shale, light-gray, soft to firm, porous	110	115
Limestone, light-gray, pink-specked, fine-grained (10%); shale, blue-gray calcareous (90%). Residue 25%—silty aggregates, light-gray	115	120
Shale, blue-gray, calcareous (80%); limestone, light-gray, cherty (20%). Residue 30%—shale, light-gray, firm, porous (90%); chert, milky, dense	120	125
Limestone, gray, fine-grained, cherty (80%); shale, blue-gray, calcareous (20%). Residue 30%—shale, light-gray, firm, porous (15%); chert, milky, dense, vitreous (15%)	125	130
Limestone, light-gray to gray, fine-grained, cherty (90%); shale, blue-gray, calcareous (10%). Residue 25%—chert, white, light-gray, dense to weathered, porous (10%)	130	135
Limestone, light-gray, to gray, fine-grained, cherty. Residue 15%—chert, white, light-gray, dense to weathered, porous (5%); shale, gray, soft, porous (10%)	135	140
Limestone, light-gray to gray, fine-grained, cherty. Residue 15%—chert, white, light-gray, dense to weathered, porous (7%); shale, gray, soft, porous (8%)	140	150
Limestone, light-gray to gray, fine-grained, cherty, and some glauconite. Residue 15%—chert, white, light-gray, dense to weathered, porous (5%); shale, gray, soft, porous, with glauconite and pyrite (10%)	150	155
Limestone, gray, glauconite-specked, cherty (50%); limestone, light-tan to pink, coarse-grained (50%). Residue 10%—chert, white, light-gray, dense to weathered, porous (3%); shale, gray, soft, porous, with glauconite, gypsum, and pyrite (7%)	155	160
Limestone, white to light-pink, tan and green, coarse-grained. Residue 2%—silty aggregates, gray, glauconite	160	165
Limestone, white to light-pink, tan and green, coarse-grained. Residue 1%—shale, mostly pale-green, glauconite	165	170
No sample	170	175

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-tan and pink, coarse-grained (90%); shale, green-gray, medium-grained, calcareous (10%). Residue 5%—shale, dark-gray, firm, slightly porous, sandy (4%); shale, pale-green (1%)	175	180
Limestone, light-tan and pink, coarse-grained (50%); shale, green-gray, medium-grained, calcareous (50%). Residue 10%—shale, dark-gray, pyritic, very sandy, and some gypsum	180	185
Limestone, white to light-tan, coarse-grained (25%); shale, green-gray, medium-grained, calcareous. Residue 50%—shale, dark-gray, pyritic, very sandy, and some gypsum	185	190
Limestone, dark-gray, medium-grained, highly fossiliferous, shaly. Residue 45%—shale, dark-gray, firm, porous, pyritic, fine-sandy	190	195
Limestone, dark-gray, medium-grained, highly fossiliferous, shaly. Residue 30%—shale, dark-gray, firm, porous, pyritic, fine-sandy, and small amounts secondary chert	195	200
Limestone, dark-gray, medium-grained, highly fossiliferous, shaly. Residue 20%—shale, dark-gray, firm, porous, pyritic, fine-sandy, and small amounts secondary chert	200	205
Limestone, dark-gray, medium-grained, highly fossiliferous, shaly. Residue 20%—shale, dark-gray, firm, pyritic, porous; secondary silica replacing bryozoa	205	210
Limestone, dark-gray, medium-grained, highly fossiliferous, shaly. Residue 15%—shale, dark-gray, firm, pyritic, porous; secondary silica replacing bryozoa	210	215
Limestone, dark-gray, medium-grained, highly fossiliferous, shaly. Residue 25%—shale, dark-gray, firm, pyritic, porous; secondary silica replacing bryozoa	215	220
Limestone, dark-gray, medium-grained, highly fossiliferous, shaly. Residue 15%—shale, dark-gray, firm, pyritic, fine-sandy, porous, and white, siliceous fucoids	220	225
Limestone, dark-gray, medium-grained, highly fossiliferous, shaly. Residue 15%—shale, dark-gray, firm, pyritic, fine-sandy and chert, white, secondary	225	230
Shale, dark-gray, medium-grained, highly fossiliferous, calcareous, and limestone, shaly. Residue 35%—shale, dark-gray, firm, pyritic, fine-sandy, and chert, white, secondary	230	235
Limestone, dark-gray, medium-grained, shaly. Residue 30%—shale, dark-gray, firm, pyritic, fine-sandy, and chert, white, secondary	235	240
Limestone, dark-gray, medium-granular, fossiliferous, shaly. Residue 25%—shale, dark-gray, firm, pyritic, fine-sandy	240	245
Limestone, blue-gray, medium-grained, fossiliferous, shaly. Residue 30%—shale, blue-gray, medium-grained, firm, fine-sandy, porous	245	250
Limestone, dark-gray, medium-grained, fossiliferous, shaly (50%); limestone, white, black-specked, coarse-grained, fossiliferous. Residue 25%—shale, blue-gray, medium-grained, firm, fine-sandy, porous	250	255
Limestone, blue-gray, medium-grained, fossiliferous, shaly. Residue 50%—shale, gray, medium-grained, fine-sandy, firm	255	270
Limestone, blue-gray, medium-grained, fossiliferous, shaly, and considerable crystalline calcite. Residue 30%—shale, gray, medium-grained, fine-sandy, firm	270	275
Limestone, white to gray, coarse-grained, pyritic, fossiliferous. Residue 10%—sand, fine, shale, and glauconite, small amounts	275	280

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-gray to black, medium- to coarse-grained, fossiliferous, shaly. Residue 15%—shale, black, medium-grained, porous, pyritic, fine-sandy	280	285
Limestone, dark-gray, medium-grained, fossiliferous, shaly (80%); limestone, white, black-specked, coarse-grained, fossiliferous. Residue 15%—shale, black, medium-grained, porous, pyritic, fine-sandy	285	290
Limestone, dark-gray, medium-grained, fossiliferous, shaly (50%); limestone, white, coarse-grained, black-specked, fossiliferous. Residue 10%—shale, dark-gray, fine-sandy, medium-grained, porous, pyritic	290	300
Limestone, white, and some pale-pink, black-specked, coarse-grained, pyritic, fossiliferous (75%); limestone, dark-gray, medium-grained, fossiliferous, shaly (25%). Residue 5%—shale, black, medium-grained, porous, fine-sandy, highly pyritic, and glauconitic	300	305
Limestone, white, and some pale-pink, black-specked, coarse-grained, pyritic, fossiliferous; limestone, medium-grained, fossiliferous, shaly (25%). Residue 5%—shale, black, medium-grained, porous, fine-sandy, highly pyritic	305	310
Limestone, dark-gray, medium-grained, shaly (75%); limestone, white, black-specked, coarse-grained (25%). Residue 25%—shale, black, medium-grained, porous, pyritic	310	315
Limestone, dark-gray, medium-grained, shaly (75%); limestone, white, black-specked, coarse-grained (25%), black, medium-grained, porous. Residue 30%—shale, pyritic	315	320
Limestone, dark-gray, medium-grained, shaly (75%); limestone, white, black-specked, coarse-grained (25%). Residue 35%—shale, black, medium-grained, porous, pyritic	320	325
Limestone, dark-gray, medium-grained, fossiliferous, shaly, and some calcite, crystalline. Residue 40%—shale, gray, medium-grained, porous, micaceous, pyritic	325	330
Limestone, dark-gray, medium-grained, fossiliferous (ostracods), shaly (50%); limestone, white, coarse-grained, fossiliferous (50%). Residue 20%—shale, gray, medium-grained, porous, pyritic	330	335
Limestone, white, coarse-grained, fossiliferous (75%); limestone, dark-gray, medium-grained, shaly (25%). Residue 15%—shale, gray, medium-grained, fine-sandy, pyritic	335	340
Limestone, white, and some amber, coarse-grained, bryozoan (80%); limestone, dark-gray, medium-grained, shaly (20%). Residue 15%—shale, gray, medium-grained, fine-sandy, pyritic, and silica, white, secondary	340	345
Limestone, white, and some amber, coarse-grained, bryozoan (80%); limestone, dark-gray, medium-grained, shaly (20%). Residue 30%—shale, gray, medium-grained, fine-sandy, pyritic, and silica, white, secondary	345	350
Limestone, white, and some amber, coarse-grained, bryozoan (80%); limestone, dark-gray, medium-grained, fine-sandy, pyritic, and silica, white, secondary	350	355
Limestone, dark-gray, medium-grained, shaly (50%); limestone, white, coarse-grained, fossiliferous (50%). Residue 25%—shale, gray, medium-grained, fine-sandy, pyritic, and silica, white, secondary	355	365
Limestone, dark-gray, medium-grained, shaly (50%); limestone, white, coarse-grained, fossiliferous (50%). Residue 20%—shale, gray, medium-grained, fine-sandy, pyritic, and silica, white, secondary	365	370

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, white to light-gray, coarse-grained, speckled, fossiliferous. Residue 5%—shale, gray, medium-grained, fine-sandy, pyritic, and silica, white, secondary	370	375
Limestone, white to light-gray, coarse-grained, speckled, fossiliferous. Residue 5%—shale, gray, medium-grained, fine-sandy, pyritic; silica, white, secondary; and one piece chert	375	380
Limestone, white to light-gray, coarse-grained, speckled, fossiliferous. Residue 10%—shale, black, porous, sandy; silica, white, massive, secondary; and some chert	380	385
Limestone, white to light-gray, coarse-grained, speckled, fossiliferous (80%); limestone, dark-gray, medium-grained, shaly (20%). Residue 20%—shale, gray, porous, sandy, and siliceous networks, white	385	390
Limestone, white to light-gray, coarse-grained, speckled (50%); shale, dark-gray, medium-grained, calcareous (50%). Residue 40%—shale, gray, porous, sandy, and siliceous networks, white	390	395
Limestone, light-gray, speckled, coarse-grained (25%); shale, dark-gray, medium-grained, calcareous (75%). Residue 40%—shale, gray, porous and siliceous networks, white	395	400
Shale, dark-gray, medium-grained, calcareous. Residue 55%—shale, gray, porous; siliceous networks, white; and fine sand	400	405
Shale, dark-gray, medium-grained, calcareous (90%); limestone, light-gray, coarse-grained, (10%). Residue 35%—shale, gray, porous; siliceous networks, white; and fine sand	405	410
Shale, dark-gray, medium-grained, calcareous, and small amounts limestone. Residue 60%—shale, gray, fine-grained, and fine sand	410	415
Shale, dark-gray, medium-grained, calcareous, and small amounts limestone. Residue 80%—shale, gray, fine-grained; fine sand; and siliceous networks, white	415	420
Shale, dark-gray, fine-grained, calcareous. Residue 80%—shale, gray, firm, porous; siliceous networks, white; and fine sand	420	435
Shale, dark-gray, medium-grained, calcareous. Residue 80%—shale, gray, firm, porous; siliceous networks, white; and fine sand	435	440
Shale, dark-gray, medium-grained, calcareous (50%); limestone, light-gray, medium-grained, highly fossiliferous (50%). Residue 50%—shale, gray, firm, porous; siliceous networks, white; and fine sand	440	445
Shale, dark-gray, medium-grained, calcareous (50%); limestone, light-gray, medium-grained, highly fossiliferous (50%). Residue 30%—shale, gray, firm, porous; siliceous networks, white; and fine sand	445	454
Shale, dark-gray, medium-grained, calcareous (50%); limestone, light-gray, medium-grained, highly fossiliferous (50%). Residue 40%—shale, gray, firm, porous; siliceous networks, white; and fine sand	454	458
Shale, dark-gray, medium-grained, calcareous (50%); limestone, light-gray, medium-grained, highly fossiliferous (50%). Residue 30%—shale, gray, firm (75%); chert, light-gray, secondary; sand, fine; siliceous networks	458	462
Limestone, light-gray, medium-grained, highly fossiliferous (75%); shale, dark-gray, medium-grained, calcareous (25%). Residue 40%—chert, light-gray, (50%); shale, dark-gray, porous, firm	462	466

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray, medium-grained, highly fossiliferous (75%); shale, dark-gray, medium-grained, calcareous (25%). Residue 40%—shale, gray, porous; siliceous networks, white; and fine sand	466	470
Limestone, light-gray, medium-grained, highly fossiliferous (75%); shale, dark-gray, medium-grained, calcareous (25%). Residue 45%—shale, gray, porous; silica, secondary, replacing brachiopods; fine sand	470	474
Shale, dark-gray, fine-grained, calcareous. Residue 70%—shale, gray, firm, porous, and fine sand, small amounts	474	478
Shale, dark-gray, fine-grained, calcareous (80%); limestone, light-gray, medium-grained, fossiliferous (20%). Residue 60%—shale, dark-brown, porous (90%); sand, fine, and silica, white, secondary (10%)	478	482
Shale, dark-gray, fine-grained, calcareous (80%); limestone, light-gray, medium-grained, fossiliferous (20%). Residue 45%—shale, dark-gray, porous; fine sand; and silica, white, secondary	482	486
Limestone, white to light-gray, coarse-grained, highly fossiliferous (25%); shale, dark-gray, medium-grained, calcareous. Residue 30%—shale, dark-gray, porous, sandy (90%); silica, white, secondary (10%)	486	490
Shale, dark-gray, medium-grained, calcareous, and some limestone. Residue 45%—shale, dark-gray, porous, sandy, and silica, white, secondary	490	494
Shale, dark-gray, medium-grained, calcareous (75%); limestone, light-gray, coarse-grained, fossiliferous (10%). Residue 35%—shale, black, porous, sandy (90%); silica, white, secondary (10%)	494	498
Shale, dark-gray, medium-grained, calcareous (75%); limestone, light-gray, coarse-grained, fossiliferous (10%). Residue 25%—shale, dark-brown, porous (90%); silica, white, replacing limestone, fossiliferous (10%)	498	500
Shale, blue-gray, medium-grained, calcareous, and limestone, shaly. Residue 25%—shale, dark-brown, porous (90%); silica, white, replacing limestone, fossiliferous (10%)	500	505
Shale, blue-gray, medium-grained, calcareous, and limestone, shaly. Residue 35%—shale, dark-brown, porous; sand, fine; and silica, white, secondary	505	509
Shale, blue-gray, medium-grained, calcareous, and limestone, shaly. Residue 40%—shale, brown, porous, and fine sand	509	514
Shale, blue-gray, medium-grained, calcareous, and limestone, shaly. Residue 35%—shale, brown, porous, and fine sand	514	528
Shale, blue-gray, medium-grained, calcareous and limestone, shaly. Residue 60%—shale, brown, porous, and sand, fine	528	532
Shale, blue-gray, medium-grained, calcareous, and limestone, shaly. Residue 45%—shale, brown, porous (90%); shale, tan, soft, porous (10%)	532	537
Shale, blue-gray, medium-grained, calcareous, and limestone, shaly. Residue 40%—shale, brown, firm, porous (90%); shale, tan, soft, porous (10%)	537	541
Shale, blue-gray, medium-grained, calcareous, and limestone, shaly. Residue 30%—shale, brown, firm to soft, porous	541	547
Limestone, dark-gray, medium-grained, shaly (90%); limestone, gray, fine-grained (10%). Residue 30%—shale, brown and gray, soft, porous	547	553

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dove-gray, fine-grained, fossiliferous, and limestone, small amounts, dark-gray, shaly. Residue 30%—shale, gray, firm, porous (90%); shale, brown, soft, porous (10%)	553	559
Limestone, blue-gray, fine-grained, fossiliferous. Residue 10%—shale, gray, firm, porous (90%); shale, brown, soft, porous (10%); and silica, white, replacing fossils	559	565
Limestone, dove-gray, fine-grained, fossiliferous. Residue 10%—shale, gray to tan, soft, porous, and silica, white, secondary, small amounts	565	571
Limestone, dove-gray, fine-grained, fossiliferous. Residue 15%—shale, tan, soft, porous (15%); Pencil Cave poorly developed; silica, white, secondary; and chert, few pieces	571	576
Limestone, light-gray, medium-grained, slightly dolomitic. Residue 10%—shale, white to tan, soft, porous (90%); silica, white, secondary, and chert, light-gray (10%)	576	582
Limestone, light-gray, medium-grained, slightly dolomitic. Residue 10%—shale, white to tan, soft, porous (50%); chert, light-gray to white, dolocastic (50%)	582	588
Limestone, light-gray, medium-grained, slightly dolomitic. Residue 10%—shale, white to tan, soft, porous (50%)	588	593
Limestone, light-gray, medium-grained, slightly dolomitic. Residue 2%—chert, white, dolocastic; silica, secondary; and shale, black	593	598
Limestone, light-gray, medium-grained, slightly dolomitic. Residue 1%—silica, white, secondary, and shale, black	598	603
Limestone, light-gray, medium-grained, slightly dolomitic. Residue 5%—shale, brown to black, porous (50%); silica, white, secondary (50%)	603	608
Limestone, light-gray, medium-grained, slightly dolomitic. Residue 5%—chert, light-gray, dolocastic (90%); shale, brown (10%)	608	620
Limestone, light-gray, medium-grained, slightly dolomitic. Residue—chert, light-gray, dolocastic (75%); chert, gray, smooth (20%); shale; and silica, secondary (5%)	620	625
Limestone, gray, fine- to medium-grained. Residue 10%—chert, gray, smooth (40%); chert, light-gray, dolocastic (40%); and shale, tan, porous (20%)	625	630
Limestone, gray, fine- to medium-grained. Residue 10%—chert, gray, smooth (30%); chert, light-gray, dolocastic (30%); and shale, brown, porous (4%)	630	635
Limestone, light-gray, fine-grained. Residue 5%—chert, gray to light-gray, smooth, and dolocastic (80%); shale, brown, porous (20%)	635	640
Limestone, gray, fine- to medium-grained. Residue 10%—chert, dark-gray to black, slightly dolocastic (80%); shale, brown, porous (20%)	640	645
Limestone, gray, fine- to medium-grained. Residue 5%—chert, light-gray, dolocastic (80%); chert, dark-gray, smooth; and shale, brown, porous	645	650
Limestone, gray, fine- to medium-grained. Residue 15%—shale, gray, soft, porous, and some chert, light-gray, smooth	650	655
Limestone, gray, fine- to medium-grained. Residue 15%—shale, gray, soft, porous, and some chert, light-gray, smooth	655	660
Limestone, gray, fine- to medium-grained. Residue 10%—shale, gray, soft, porous	660	665
Limestone, gray, fine- to medium-grained. Residue 15%—shale, gray, soft, porous	665	670

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray, medium-grained. Residue 15%—shale, gray, soft, porous	670	675
Limestone, gray, medium-grained. Residue 10%—shale, brown, soft, porous, and silica, white, secondary	675	685
Limestone, gray, medium-grained. Residue 5%—shale, brown, soft, porous	685	690
Limestone, gray, medium-grained. Residue 15%—shale, gray, firm, porous	690	695
Limestone, gray, medium-grained. Residue 10%—shale, gray to brown, firm, porous	695	700
Limestone, gray, medium-grained (oil show). Residue 5%—shale, gray, porous (50%); silica, white, porous, secondary (50%)	700	703
Limestone, gray, fine- to medium-grained (oil show). Residue 5%—shale, gray, porous (50%); silica, white, porous, secondary (50%)	703	708
Limestone, gray, fine-grained. Residue 5%—shale, gray, firm, porous (90%); siliceous networks, white	708	712
Limestone, gray, fine- to medium-grained. Residue 15%—shale, brown, firm, porous	712	717
Limestone, gray, fine- to medium-grained. Residue 15%—shale, soft, porous	717	727
Limestone, gray, fine- to medium-grained, fossiliferous. Residue 15%—shale, gray, soft, porous	727	732
Limestone, gray, medium-grained, fossiliferous. Residue 15%—shale, gray to dark-gray, soft to firm, porous	732	737
Limestone, gray, fine- to medium-grained, fossiliferous. Residue 10%—shale, gray, firm, porous	737	742
Limestone, gray, fine- to medium-grained. Residue 10%—shale, tan to gray, firm, porous	742	745
Limestone, gray, fine- to medium-grained. Residue 3%—shale, gray, firm, porous	745	755
Limestone, gray, fine-grained. Residue 5%—shale, gray, firm, porous	755	759
Limestone, gray, fine-grained. Residue 5%—shale, dark-gray, firm, porous	759	763
Limestone, gray, fine-grained. Residue 5%—shale, gray, firm, porous	763	767
Limestone, gray, fine-grained. Residue 5%—shale, gray, firm, finely porous	767	771
Limestone, gray, fine-grained. Residue 5%—shale, brown and gray, finely dolocastic	771	775
Limestone, gray, fine-grained. Residue 5%—shale, brown, firm, finely dolocastic	775	783
Limestone, gray, fine-grained. Residue 3%—shale, dark-gray and brown, porous (75%); chert, dark-gray, dense, pyritic (25%)	783	787
Limestone, gray, fine- to medium-grained, slightly oolitic. Residue 5%—shale, dark-gray, and brown, firm, porous (75%); chert, dark-gray, dense (20%); silica, white, "scoriaceous" (3%)	787	791
Limestone, gray, fine- to medium-grained, slightly oolitic. Residue 5%—shale, dark-gray and brown, firm, porous (75%); chert, dark-gray, dense; and silica, white, "scoriaceous" (3%)	791	795
Limestone, light-gray, fine- to medium-grained, slightly oolitic. Residue 3%—shale, tan, dolocastic (30%); shale, dark-gray (20%); silica, white, secondary (50%)	795	800
Limestone, light-gray, fine-grained. Residue 2%—shale, black, porous (50%); shale, brown, dolocastic (30%); silica, white, secondary (20%)	800	810

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray, fine- to medium-grained, slightly dolocastic. Residue 5%—shale, tan, soft, dolocastic (90%); shale, black, and silica, white, secondary (10%)	810	815
Limestone, light-gray, fine- to medium-grained, slightly dolomitic. Residue 10%—shale, brown, soft, dolocastic	815	820
Limestone, gray, fine- to medium-grained, fossiliferous, slightly dolomitic. Residue 5%—shale, brown, soft, dolocastic, and shale, black, small amounts	820	825
Limestone, light-gray, fine- to medium-grained, fossiliferous, slightly dolomitic. Residue 15%—shale, light-gray, firm, finely dolocastic	825	830
Limestone, light-gray, fine- to medium-grained, slightly dolomitic, and some limestone, greenish, shaly. Residue 25%—shale, light-gray, firm, finely dolocastic	830	835
Limestone, light-gray, fine- to medium-grained, slightly dolomitic, and some limestone, greenish, shaly. Residue 10%—shale, light-gray, firm, finely dolocastic	835	845
Limestone, dove-gray, fine-grained, slightly dolomitic. Residue 10%—shale, light-tan, firm, finely dolocastic	845	850
Limestone, light-gray, fine-grained, slightly dolomitic. Residue 10%—shale, light-tan, firm, finely dolocastic	850	855
Limestone, light-gray, medium-grained, slightly dolomitic. Residue 5%—chert, gray, brown-speckled, dense (80%); shale, tan, porous (20%)	855	860
Limestone, light-gray, fine- to medium-grained, slightly dolomitic, cherty. Residue 10%—chert, gray, very finely speckled, dense, slightly dolocastic	860	865
Limestone, dove-gray, fine-grained, cherty. Residue 10%—chert, gray, very finely speckled, dense, slightly dolocastic	865	870
Limestone, light-gray, medium-grained, dolomitic, cherty. Residue 20%—chert, gray, very finely speckled, dense, slightly dolocastic	870	875
Limestone, light-gray to light-tan, medium-grained, dolomitic, cherty. Residue 25%—chert, dark-gray, very finely speckled, dense	875	880
Limestone, gray, fine- to medium-grained, slightly dolomitic, cherty. Residue 20%—chert, dark-gray, dense (75%); shale, light-tan, soft, finely dolocastic (25%)	880	883
Limestone, gray, fine- to medium-grained, slightly dolomitic, cherty. Residue 10%—shale, light-tan, soft, finely dolocastic (90%); chert, dark-gray, dense (10%)	883	891
Limestone, gray, fine-grained, fossiliferous, shaly. Residue 30%—shale, gray, firm, finely dolocastic	891	895
Limestone, gray, fine- to medium-grained, fossiliferous, shaly. Residue 50%—shale, light-gray, soft, finely dolocastic	895	899
Limestone, gray, fine- to medium-grained, fossiliferous, shaly. Residue 20%—shale, light-gray to gray, soft, fossiliferous, finely dolocastic (80%); chert, black, dense (20%)	899	903
Limestone, gray, fine- to medium-grained, fossiliferous, shaly. Residue 30%—shale, light-gray, firm, fossiliferous	903	907
Limestone, gray, black, medium-grained, dolomitic, cherty. Residue 20%—chert, dark-gray to black, dense (80%); shale, brown, soft, dolocastic	907	911
Limestone, gray, black, fine- to medium-grained, dolomitic, cherty. Residue 15%—chert, dark-gray to black, dense (80%); shale, brown, soft, dolocastic	911	915
Limestone, gray to dark-gray, black, fine- to medium-grained, cherty. Residue 20%—shale, brown, soft to firm, finely dolocastic (90%); chert, black, dense (10%)	915	920

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray to dark-gray, black, fine- to medium-grained, cherty, and pyrite. Residue 15%—shale, brown, soft to firm, finely doloclastic (90%); chert, black, dense (10%); and pyrite	920	925
Limestone, gray, medium-grained, dolomitic. Residue 10%—shale, brown, firm, doloclastic (75%), and chert, black, pyritic (25%)	925	930
Limestone, gray, medium-grained, dolomitic. Residue 3%—shale, brown, firm, doloclastic; silica, white, concretionary, secondary; and chert, gray to black	930	935
Limestone, gray, medium-grained, dolomitic. Residue 5%—shale, brown, firm, doloclastic; silica, white, concretionary, secondary; and chert, light-gray, finely doloclastic	935	937
Limestone, gray, medium-grained, dolomitic. Residue 10%—shale, brown, firm, doloclastic; silica, white, concretionary, secondary; and chert, light-gray, finely doloclastic	937	941
Limestone, gray, medium-grained, dolomitic (50%); limestone, dark-gray, fine-grained (50%). Residue 30%—chert, light-gray, finely doloclastic (75%); chert, light-brown to gray, dense (25%)	941	945
Limestone, gray, medium-grained, dolomitic (80%); limestone, gray to dark-gray, fine-grained (20%). Residue 20%—chert, light-gray, finely doloclastic (90%); shale, dark-gray, fine-grained (10%)	945	949
Limestone, gray, medium-grained, dolomitic (80%); limestone, gray to dark-gray, fine-grained (20%). Residue 10%—chert, light-gray to dull-white, finely doloclastic (70%); shale, dark-gray, fine-grained, platy (30%)	949	953
Limestone, gray, medium-grained, dolomitic (80%); limestone, gray to dark-gray, fine-grained (20%). Residue 10%—shale, black, flaky (60%); chert, dull-white to light-gray, finely doloclastic (40%)	953	957
Limestone, gray, fine-grained (80%); limestone, gray, medium-grained, dolomitic (20%). Residue 3%—shale, dark-gray to black, flaky (70%); chert, dull-white, finely doloclastic, and siliceous networks, white (30%)	957	961
Limestone, gray, fine-grained. Residue 3%—shale, brown, soft, porous (50%); shale, black, flaky (25%); silica, white, secondary (25%)	961	965
Limestone, gray, fine-grained. Residue 2%—shale, brown, soft, porous (80%); shale, black, flaky (10%); and siliceous networks, white, pyritic (10%)	965	969
Limestone, gray, fine-grained. Residue 5%—shale, brown, soft, porous (90%); shale, black, flaky (10%)	969	973
Limestone, gray, fine-grained. Residue 5%—shale, gray to brown, soft to firm, porous	973	977
Limestone, gray, fine-grained, fossiliferous. Residue 10%—shale, gray to dark-gray, firm, porous	977	981
Limestone, gray to dark-gray, fine-grained. Residue 10%—shale, gray-tan, soft to firm, porous	981	986
Limestone, gray to dark-gray, fine-grained. Residue 10%—shale, gray-tan, soft to firm, porous, and quartz sand, small amounts, very fine	986	996
Limestone, gray to dark-gray, fine-grained (70%); limestone, light-gray, fine-grained (30%). Residue 5%—shale, gray-tan, soft to firm, porous, and quartz sand, small amounts, very fine	996	1000
Limestone, gray to dark-gray, fine-grained, fossiliferous (70%); limestone, light-gray, fine-grained (30%). Residue 5%—shale, gray-tan, soft to firm, porous, and quartz sand, small amounts, very fine	1000	1005

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray to dark-gray, fine-grained (80%); limestone, light-gray, fine-grained (20%). Residue 5%—shale, gray-tan, soft to firm, fine-sandy, finely dolocastic	1005	1020
Limestone, gray to dark-gray, fine-grained. Residue 15%—shale, gray-tan, soft to firm, fine-sandy, finely dolocastic	1020	1025
Limestone, gray to dark-gray, fine-grained. Residue 20%—shale, gray-tan, soft to firm, fine-sandy, finely dolocastic	1025	1026
Limestone, gray to dark-gray, fine-grained. Residue 15%—shale, gray-tan, soft to firm, fine-sandy, finely dolocastic	1026	1028
Limestone, gray to dark gray, fine-grained. Residue 25%—shale, gray-tan, soft to firm, fine-sandy, finely dolocastic	1028	1034
Limestone, gray to dark-gray, fine-grained. Residue 10%—shale, tan to brown, firm, finely dolocastic	1034	1038
Limestone, gray to dark-gray, fine-grained. Residue 5%—tan to brown, firm, finely dolocastic	1038	1042
Limestone, gray to dark-gray, fine-grained. Residue 10%—tan to brown, firm, finely dolocastic	1042	1048
Limestone, gray to dark-gray, fine-grained. Residue 15%—tan to brown, firm, finely dolocastic	1048	1058
Limestone, dark-gray, fine-grained. Residue 10%—shale, brown, mostly soft and partly powdered, porous	1058	1062
Limestone, dark-gray, fine-grained. Residue 5%—shale, brown, mostly soft and partly powdered, porous	1062	1070
Limestone, dark-gray, fine-grained. Residue 10%—shale, brown, mostly soft and partly powdered, porous	1070	1083
Limestone, dark-gray, fine-grained. Residue 15%—shale, brown, mostly soft and partly powdered, porous	1083	1090
Limestone, dark-gray, fine-grained. Residue 10%—shale, brown, mostly soft and partly powdered, porous	1090	1094
Limestone, dark-gray, fine-grained. Residue 5%—shale, brown, mostly soft and partly powdered, porous	1094	1099
Limestone, dark-gray, fine-grained. Residue 5%—shale, brown, firm, finely dolocastic	1099	1103
Limestone, dark-gray, fine-grained. Residue 10%—shale, brown, firm, finely dolocastic	1103	1108
Limestone, dark-gray, fine-grained. Residue 10%—shale, gray, soft to firm	1108	1126
Limestone, dark-gray, fine-grained. Residue 10%—shale, brown, soft, flaky	1126	1139
Limestone, dark-gray, fine-grained, partly pyritic. Residue 15%—shale, brown, firm to soft, finely porous	1139	1144
Limestone, dark-gray, fine-grained. Residue 20%—shale, brown, firm to soft, finely porous	1144	1148
Limestone, dark-gray, fine-grained. Residue 25%—shale, light-gray, firm to soft, finely porous	1148	1153
Limestone, dark-gray, fine-grained. Residue 15%—shale, light-gray, firm to soft, finely porous	1153	1157
Limestone, dark-gray, fine-grained. Residue 20%—shale, light-gray, firm to soft, finely porous	1157	1162
Limestone, dark-gray, fine-grained. Residue 15%—shale, brown, firm to soft, porous	1162	1165
Limestone, dark-gray, fine-grained. Residue 10%—shale, brown, firm to soft, porous	1165	1170
Limestone, dark-gray, fine-grained. Residue 15%—shale, brown, firm to soft, porous	1170	1183
Limestone, dark-gray, fine-grained. Residue 10%—shale, brown, soft, finely porous	1183	1188
Limestone, dark-gray, fine-grained. Residue 20%—shale, brown, soft, finely porous	1188	1192
Limestone, dark-gray, fine-grained. Residue 5%—shale, brown, soft, finely porous	1192	1200

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-gray, fine-grained. Residue 15%—shale, brown, soft, finely porous	1200	1205
Limestone, dark-gray, fine-grained. Residue 20%—shale, brown, soft, finely porous	1205	1209
Limestone, gray to dark-gray, fine-grained. Residue 15%—shale, dark-gray, powdered	1209	1214
Limestone, dark-gray, fine-grained. Residue 15%—shale, dark-gray, powdered	1214	1218
Limestone, dark-gray, fine-grained. Residue 30%—shale, dark-gray, powdered	1218	1223
Limestone, dark-gray, fine-grained. Residue 30%—shale, tan, soft, mostly powdered	1223	1227
Limestone, dark-gray, fine-grained (50%); limestone, dull-white, fine-grained, dolomitic (50%). Residue 15%—shale, tan, soft, mostly powdered	1227	1232
Limestone, dark-gray, fine-grained (50%); limestone, dull-white, light-gray, fine-grained, dolomitic. Residue 25%—shale, tan, soft, mostly powdered	1232	1235
Limestone, gray to dark-gray, fine-grained, dolomitic. Residue 15%—shale, tan, soft, mostly powdered	2135	1240
Limestone, light-gray, fine-grained, slightly dolomitic. Residue 5%—shale, tan, soft, mostly powdered	1240	1244
Limestone, light-gray, fine-grained. Residue 5%—shale, dark-gray to tan, fragmental and powdered	1244	1249
Limestone, dull-white, fine-grained. Residue 20%—shale, dark-gray to tan, fragmental and powdered	1249	1255
Limestone, dull-white, fine-grained (75%); limestone, dark-gray, fine-grained, soft, porous	1255	1260
Limestone, light-gray, fine-grained, slightly dolomitic (75%); limestone, dark-gray, fine-grained (25%). Residue 5%—shale, tan, soft, very fine sandy	1260	1265
Limestone, light-gray, fine-grained, dolomitic. Residue 10%—shale, tan, soft, powdered	1265	1272
Limestone, dull-white, fine-grained, dolomitic. Residue 5%—shale, tan, soft, powdered	1272	1276
Limestone, light-gray, fine-grained, dolomitic. Residue 10%—shale, tan, soft, powdered	1276	1281
Limestone, light-gray, medium-grained, dolomitic, and dolomite. Residue 10%—shale, tan, soft, powdered	1281	1285
Dolomite, light-gray, medium-grained, sucrose. Residue 10%—shale, tan, soft, powdered	1285	1290
Dolomite, light-gray, medium-grained, sucrose. Residue 5%—shale, light-gray, soft, disintegrated	1290	1299
Dolomite, light-gray, medium-grained, sucrose (75%); shale, dull-green, oolitic (25%). Residue 15%—shale, light green-gray, soft, disintegrated	1299	1303
Dolomite, light-gray, sucrose (50%); shale, pale-green, fine-grained (50%); quartz grains, few rounded and frosted. Residue 30%—shale, light green-gray, disintegrated (85%); quartz grains, rounded and frosted (15%)	1303	1308
Dolomite, light-gray, sucrose (50%); shale, pale-green, fine-grained (50%); quartz grains, few rounded and frosted. Residue 40%—shale, light green-gray, disintegrated (85%); quartz grains, rounded and frosted (15%)	1308	1312
Shale, pale-green, fine-grained (75%); dolomite, light-gray, sucrose (25%); quartz grains, rounded and frosted. Residue 45%—shale, light green-gray, disintegrated (85%); quartz grains, rounded and frosted (15%)	1312	1321

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, green-gray, medium-grained, shaly; shale, pale-green; and quartz grains, rounded and frosted. Residue 45%—shale, light green-gray, disintegrated (95%); quartz grains, rounded and frosted (5%)	1321	1326
Dolomite, green-gray, medium-grained, shaly; shale, pale-green; quartz grains, rounded and frosted; and pyrite. Residue 40%—shale, light green-gray, disintegrated (95%); quartz grains, rounded and frosted (5%)	1326	1330
Dolomite, green-gray, medium-grained, shaly; shale, pale-green; quartz grains, rounded and frosted; and pyrite. Residue 60%—shale, light green-gray, disintegrated (95%); quartz grains, rounded and frosted (5%)	1330	1334
Dolomite, light-gray, sucrose, with abundant frosted and rounded quartz grains embedded (90%); shale, pale-green, fine-grained (10%). Residue 40%—shale, light green-gray, firm to soft (50%); quartz grains, rounded and frosted (50%). "St. Peter" zone (?)	1334	1338
Dolomite, light-gray, sucrose, with abundant quartz grains, frosted and rounded. Residue 35%—shale, light-green, firm to soft (50%); quartz grains, rounded and frosted. "St. Peter" zone (?)	1338	1341
Limestone, light dove-gray, very fine grained (75%); dolomite, light green-gray, medium-grained, and quartz grains, small amounts, rounded and frosted (25%). Residue 15%—shale, light-gray, disintegrated (75%); quartz grains, rounded and frosted (25%)	1341	1346
Limestone, light dove-gray to dull-white, very fine grained. Residue 5%—shale, light-gray, disintegrated (75%); quartz grains, rounded and frosted (25%)	1346	1349
Limestone, light dove-gray to dull-white, very fine grained. Residue 5%—shale, light-gray, disintegrated and quartz grains, small amounts, rounded and frosted.	1349	1352
Limestone, light dove-gray, fine-grained (60%); dolomite, pale-brown, sucrose (40%). Residue 5%—shale, light-gray, disintegrated, and quartz grains, small amounts, rounded and frosted	1352	1359
Dolomite, pale-brown, sucrose (75%); limestone, dove-gray, fine-grained (25%). Residue 15%—shale, white, soft, flaky (90%); silica, white, secondary (10%)	1359	1363

J. H. JUDD No. 1

(Map Number—2)

Location: SE SE NE Sec. 11, 5S-29E

Elevation: 765'

Date: 1888

Total depth: 1632' (?)

Casinghead 60 feet below Chattanooga shale outcrop on nearby hillside.

Gas flow, reported encountered at 800 feet.

Show of oil, reported struck at 840 feet.

Well was cleaned out by T. J. Newall Oil Co., Oscar Pinion, contractor, in June 1928, who reported the well was 1350 feet deep, and that when the old plug was removed from the surface, the well was full of sulphur water with 6 to 8 feet of oil on top of the water.

The well has flowed a small stream of sulphur water from the casinghead since the date drilled.

Sewanee Oil & Gas Co., J. N. HUMPHREYS No. 1

(Map Number—3)

Location: SE SE SW Sec. 16, 2S-28E

Elevation: 383'

Date: 1920

Total depth: 1175'

DRILLER'S LOG

Lithology

Black limestone, with bubbles of gas @ 70
 Set 6¼" casing @ 175
 Chattanooga shale at about 600

Show oil and estimated 5000 cu. ft. gas in 6" black sand

(Hardin) just under Chattanooga shale

Well abandoned, with 6¼-inch casing left in hole.

Sewanee Oil & Gas Co., C. W. CLIFTON No. 1

(Map Number—4)

Location: NW NW SW Sec. 25, 2S-29E

Elevation: 650'

Date: 1920 (?)

Total depth: 800'

DRILLER'S LOG

Lithology

	<i>From</i>	<i>To</i>
Soil	2	20
Water, small yield	35	40
Water, large yield, at about	200	
Chattanooga shale	700	745 (?)

Sewanee Oil & Gas Co., R. O. DAVIS No. 1

(Map Number—5)

Location: NE SW SW Sec. 19, 2S-28E

Elevation: 575' (?)

Date: 1920 (?)

Total depth: 895'

DRILLER'S LOG

Chattanooga shale at about 700 feet.

B. E. Guibert, J. M. SEARS No. 1

(Map Number—6)

Location: C NE SW Sec. 11, 5S-29E

Elevation: 472'

Date: 1924

Total depth: 1002'

SAMPLE DESCRIPTION

Lithology

Recent

	<i>From</i>	<i>To</i>
Alluvium	0	30

Silurian system

Limestone, brown and gray, coarse	30	40
Limestone, dark-gray, fine	40	50
Limestone, light-gray, medium	50	60
Limestone, dark-gray to brown, medium	60	80
Limestone, light-gray, sandy, dolomitic	80	90
Limestone, light-brown, sandy, dolomitic	90	100
Limestone, bluish-gray	100	110
Limestone, bluish-gray, shaly	110	120

Ordovician system (Nashville and Trenton Groups)

Limestone, dark-brown to black, shaly	120	150
Limestone, dark-brown, fine	150	200
Limestone, dark-brown to black, gritty, fine	200	210
Limestone, dark-brown, dolomitic	210	220

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-blue, coarse	220	230
Limestone, black, medium	230	260
Limestone, light-gray, fine	260	308
Limestone, light-gray, coarse	308	316
Limestone, dark, shaly, fine	316	380
Limestone, dark, slightly shaly	380	388
Limestone, dark-brown	388	396
Limestone, very dark, compact, shaly (oil trace)	396	412
Limestone, dark, compact	412	420
Limestone, light, coarse (oil trace)	420	428
Limestone, dark, shaly	428	436
Limestone, very fine, dark	436	444
Limestone, dark, compact, shaly	444	452
Limestone, gray, coarse	452	460
Limestone, light-gray, shaly	460	468
Limestone, dark-gray, fossils	468	484
Limestone, dark, fine (oil sand?)	484	492
Limestone, dark, coarse	492	500
Limestone, gray-brown, soft	500	516
Limestone, soft, light-gray, medium	516	556
Limestone, fine, gray (oil sand?)	556	572
Limestone, gray-brown, medium	572	580
Limestone, brown, fine	580	588
Limestone, gray, medium, compact	588	604
Limestone, brown, light shale bank	604	620
Limestone, shaly, white	620	644
Limestone, shaly, light-gray	644	652
Limestone, gray, compact	652	660
Limestone, blue-gray, shaly, coarse		668
Limestone, gray, shaly, coarse		676
Limestone, gray, compact, coarse		684
Limestone, gray, shaly	684	708
Limestone, gray, compact	708	716
Limestone, gray, medium	716	732
Limestone, gray, calcite veins	732	756
Limestone, gray, shaly, coarse	756	780
Limestone, gray, shaly, compact	780	804
Limestone, gray, brown, compact, fine	804	820
Limestone, gray, brown, fine	820	828
Limestone, blue-gray, medium	828	836
Limestone, gray, coarse	836	844
Limestone, dark-brown, gray, fine	844	852
Limestone, blue-gray	852	860
Limestone, light-brown, fine, shaly	860	868
Limestone, light-brown (oil trace)	868	876
Limestone, blue-gray, compact, medium	876	892
Limestone, gray, impure	892	932
Limestone, light brownish-gray	932	948
Limestone, gray, medium	948	956
Limestone, blue-gray	956	964
Limestone, gray, medium	964	980
Limestone, dark-gray, shaly	980	996
Limestone, dark-gray, fine	996	1002

NOTE: The well is located 250 feet west of the J. M. Sears farm house, about 8 feet above creek waters and about 45 feet below the base of the Chattanooga black shale (Devonian), which is here removed by erosion of Dog Creek waters. The well starts in the Silurian.

Five possible oil sands were recognized as follows: 16 feet, 396-412; 8 feet, 420-428; 8 feet, 484-492; 16 feet, 556-572; 8 feet, 868-876. The last of the sands is undoubtedly the same that produced oil in the old Judd well on Dog Creek. (For geology of this region, see Oil and Gas Journal, Jan. 10, 1924, pages 58-70.)

T. J. Newall Oil Co., ED KING No. 1

(Map Number—7)

Location: SW SW NW Sec. 6, 5S-30E

Elevation: 508'

Date: 1927

Total depth: 500'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Well starts on top of Chattanooga black shale.		
Small show of oil in Pegram (Devonian) limestone just below Chattanooga shale.		
Fernvale limestone	185	
Bright red "Paint Rock"	280	285
Show of oil, in dark-blue, fine-grained limestone	440	
Well plugged with wood plug at surface.		

T. J. Newall Oil Co., J. E. HIGGINS No. 1

(Map Number—8)

Location: NE NW NW Sec. 16, 5S-30E

Elevation: 624'

Date: 1929

Total depth: 1000'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chattanooga shale	18	38
Set 6 $\frac{5}{8}$ " casing to shut off surface water at 43'		
Top of Ordovician at about	300	
Fresh water at base of Chattanooga shale		
Pencil Cave	630	
Show of oil in green sandy lime	670	
Well is cleaned, cased with 6 $\frac{1}{4}$ -inch casing to bottom, and plugged at surface with wooden plug driven in casing.		

Young & Ellis, J. H. UNSELD No. 1

(Map Number—9)

Location: SE NE NE Sec. 3, 4S-29E

Elevation: 524'

Date: 1930

Total depth: 1555'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mississippian		
Warsaw formation		
Black sulphur water @ 35' flowed over casinghead		
Ft. Payne chert		
New Providence formation		
Limestone, blue, shaly cuttings @ 151		
Chattanooga shale		
Shale, black, carbonaceous (reported to have been measured by driller as 170' thick) ¹		
Shale, black, carbonaceous, cuttings @ 220 (complete set of cuttings begins @ 220)		
Hardin sandstone		
Sandstone, black, fine-grained, glassy quartz	220	225

¹ This thickness of shale undoubtedly includes also the New Providence shale. A Chattanooga shale outcrop near Ashland City shows its thickness to be 20'.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Devonian (?)		
Pegram limestone		
Limestone, very light gray to white, finely granular, with abundant pyrite	225	250
Silurian (?)		
Limestone, light-gray, shaly, fine-grained	250	255
Limestone, very light gray to white and pale-pink, crystalline, with abundant shiny pyrite and numerous crystals of clear selenite gypsum	255	265
Limestone, light-gray to pink and white, crystalline, with abundant pyrite	265	280
Limestone, light bluish-gray, finely granular	280	320
Limestone, light-gray to white, finely crystalline, with abundant pyrite	320	335
Laurel (?)		
Limestone, light-gray to white and bright-pink, coarsely crystalline, with shiny pyrite very abundant	335	350
Limestone, white to pale-pink, coarsely crystalline	350	355
Limestone, dark blue-gray, shaly, finely crystalline	355	420
Limestone, mixture of dark blue-gray, white, and pink, crystalline, with abundant shiny pyrite	420	440
Limestone, dark blue-gray, shaly, finely crystalline	440	460
Limestone, very light gray to white or light-pink, very coarsely crystalline, pyrite common	460	500
NOTE: The cuttings appear to have been mixed somewhat between the depths 355 to 500 feet. Possibly the samples should have been numbered in reverse order. Samples 460-500 feet are undoubtedly Laurel limestone (Silurian), while samples 355-460 feet are very similar to the upper limestones of the Ordovician. With this group of samples reversed, the top of the Ordovician would come at about 395 or 400 feet.		
Ordovician		
Limestone, dark blue-gray, shaly to coarsely crystalline; occasional shell fragment	500	630
Limestone, light-gray to white, coarsely crystalline to granular	630	635
Limestone, light to dark blue-gray, shaly, finely granular	635	710
Limestone, mixture of very light to dark-gray to drab, finely granular or sugary, with numerous shell fragments	710	720
Limestone, light-gray to olive-drab, very fine grained to dense, with numerous shell impressions	720	810
Limestone, medium-gray to olive-drab or "dove," very dense	810	870
Limestone, dark blue-gray, very fine grained to dense	870	935
Limestone, dark blue-gray or brownish-gray to olive-drab, fine-grained to dense	935	975
Limestone, dark blue-gray to olive-drab, very fine grained to dense	975	1020
Limestone, very light gray or white to light olive-drab, fine-grained to dense	1020	1030
Limestone, light and dark blue-gray and olive-drab, fine-grained to dense	1030	1110
Limestone, very light gray or olive-drab, dense	1110	1115
Limestone, very dark blue-gray, fine-grained to dense, somewhat shaly in part	1115	1395
Limestone, very light gray to white, very finely granular or sugary, contains an occasional segregation of shiny pyrite	1395	1445

<i>Lithology</i>	<i>From</i>	<i>To</i>
"Green lime"		
Limestone, very light gray to white, finely granular, containing an abundance of fine, glassy, well-rounded, in part frosted grains of quartz. Also a few particles of dark-green, finely granular limestone, containing shiny pyrite	1445	1485
NOTE: The lower part of this unit contains an abundance of quartz grains and was reported by the driller to have carried a small amount of fresh water. This horizon possibly represents the "St. Peter."		
Knox dolomite		
Limestone, very light gray or buff to white, magnesian (?), with an occasional darker colored layer containing abundant pyrite	1485	1555

Cagle Bros., JOHN CAGLE No. 1
(Map Number—10)

Location: NE NW NW Sec. 8, 3S-31E

Elevation: 764'

Date: 1940

Total depth: 820'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and clay	0	80
Limestone, gray, hard	80	190
Limestone, dark, sandy, hard	190	195
No record	195	332
Shale, black, fissile (Chattanooga)	332	360
Limestone, bluish-gray, medium-hard	360	400
Limestone, light-brown	400	410
Limestone, brown, hard	410	415
Limestone, light-brown, medium-hard	415	420
Limestone, blue, soft	420	425
Limestone, light-brown, shelly, medium-hard	425	430
Limestone, light-brown, harder	430	450
Sand, blue, medium-hard	450	475
Sand, white, medium-hard	475	505
Sand, yellow, medium-hard	505	530
Limestone, gray and blue, medium-hard	530	540
Limestone, bluish-gray, soft	540	590
Limestone, light-gray, medium-hard	590	595
Limestone, gray, medium-hard	595	600
Limestone, blue, soft	600	604
Limestone, gray, medium-hard	604	614
Limestone, yellow, sandy, medium-hard	614	624
Limestone, gray, soft	624	634
Limestone, dark-gray, soft	634	644
Limestone, light-blue, soft	644	654
Limestone, gray, medium-hard	654	669
Limestone, blue	669	679
Limestone, brown	679	689
Limestone, blue	689	735
Limestone, light-gray	735	755
Limestone, dark-brown	755	770
Limestone, gray	770	800
Limestone, light-gray	800	820
S. L. M. ¹ —820 feet		

¹ Steel line measurement.

Cagle Bros., JOHN CAGLE No. 2

(Map Number—11)

Location: C S/2 NW NW Sec. 9, 3S-31E

Elevation: 767'

Date: 1947

Total depth: 510'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	59
Limestone, gray, hard	59	80
Fresh water		
Limestone, gray, sandy	80	125
Salt water in No. 1 @ 475±		
Limestone, brown, hard	125	140
Limestone, gray, hard	140	224
Limestone, brown, hard	224	332
Shale, green	332	335
Chattanooga shale, black	335	362
Shale, gray and brown	362	480
Limestone, brown	480	510
Oil show @ 485		

CHESTER COUNTY**Gilmore & Shreve, J. A. SCOTT No. 1**

(Map Number—1)

Location: NE NW SE Sec. 22, 14S-9E

Elevation: 615'

Date: 1932

Total depth: 2485'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Tertiary: 260' (thick)		
Eocene: 260' (thick)		
Wilcox: 155' (thick)		
Sand	0	155
Porters Creek clay: 105' (thick)		
Shale	155	260
Upper Cretaceous: 930' (thick)		
Ripley formation: 570' (thick)		
Sand	260	280
Shale	280	310
Sand	310	320
Shale	320	355
Sand	355	500
Shale	500	530
Sand	530	540
Shale, black	540	550
Sand, gravel, lignite, shells	550	590
Shale	590	600
Sand	600	630
Shale	630	650
Sand	650	653
Shale	653	660
Sand	660	665
Water		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale	665	685
Limy shale	685	686
Shale, black	686	760
Limestone, brown and broken	760	770
Shale, light	770	800
Shale, sandy and hard	800	815
Shale	815	832
Sand, hard	832	835
Selma clay (?): 184' (thick)		
Shale, white, soft	835	844
Shale	844	1000
Shale, blue, soft	1000	1019
Eutaw formation: 171' (thick)		
Sand, gray, hard	1019	1021
Shale, blue, soft	1021	1045
Sand, dark, gray, hard	1045	1050
Sand, green, soft	1050	1060
Shale, blue, soft	1060	1065
Sand, white, hard	1065	1102
Shale, blue, soft	1102	1107
Sand, white, soft	1107	1120
Shale, blue	1120	1140
Sand, gray	1140	1155
Water		
Shale, blue, soft	1155	1165
Sand, light-gray	1165	1170
Shale, blue, soft	1170	1185
Break, caving	1185	1190
Limestone, brown, hard	1190	1194
Limestone, gray, hard	1194	1200
Limestone, white	1200	1215
Sand, gray, extra hard	1215	1235
Water		
Limestone, white	1235	1265
Limestone, brown, hard	1265	1295
Paleozoic: 1295' (thick)		
Limestone, white	1295	1300
Limestone, brown, very hard	1300	1360
Limestone, gray, extra hard	1360	1390
Limestone, white, hard	1390	1400
Limestone, gray, hard	1400	1420
Limestone, brown, extra hard	1420	1430
Limestone, white, hard	1430	1440
Limestone, gray, extra hard	1440	1460
Limestone, white, medium hard	1460	1470
Limestone, gray, extra hard	1470	1480
Limestone, brown, extra hard	1480	1510
Limestone, gray	1510	1530
Limestone, gray, hard	1530	1540
Limestone, gray, extra hard	1540	1550
Limestone, gray, medium hard	1550	1560
Limestone, brown, hard (oil show)	1560	1565
Limestone and shale, white and black	1565	1570
Limestone, brown, hard	1570	1575
Limestone, gray, extra hard	1575	1615
Limestone, brown, hard (oil show)	1615	1670
Limestone, brown, extra hard	1670	1678
Limestone, brown, hard	1678	1690
Limestone, white, hard	1690	1700
Limestone, dark-brown	1700	1735
Limestone, gray, hard, some shale	1735	1750

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, brown, extra hard	1750	1755
Limestone, gray, hard	1775	1780
Limestone, brown, hard	1780	1790
Limestone, sandy, gray, extra hard	1790	1840
Limestone, gray, extra hard	1840	1860
Limestone, brown, extra hard	1860	1880
Limestone, gray, extra hard	1880	1890
Limestone, bluish, extra hard	1890	1915
Limestone, brown, hard (oil show)	1915	1920
Limestone, gray, hard	1920	1945
Limestone, white, hard	1945	1955
Limestone, sandy, gray, hard	1955	2000
Shale, sandy, white, hard, chalky	2000	2065
Limestone, sandy, brown, hard	2065	2085
Limestone and shale, white, hard	2085	2095
Limestone, sandy, brown, hard	2095	2100
Limestone and shale, white, hard	2100	2130
Limestone, shells, clean, white	2130	2131
Limestone and shale with shells	2131	2145
Limestone, brown, extra hard	2145	2150
Limestone, brown, hard, broken	2150	2180
Limestone, sandy, brown, hard	2180	2190
Limestone, hard, broken	2190	2220
Shale, sandy, gray (oil show)	2220	2230
Shale, white, medium hard	2230	2250
Limestone, gray, extra hard	2250	2270
Limestone and shale, white, shells	2270	2290
Shale, white, medium hard	2290	2315
Limestone, gray, extra hard	2315	2320
Shale, sandy, white, medium hard	2320	2330
Shale, sandy, blue, medium hard	2330	2396
Limestone, gray, extra hard	2396	2430
Shale, white, medium hard	2430	2445
Limestone, brown, hard	2445	2450
Limestone, gray, hard	2450	2456
Limestone, gray, hard	2456	2460
Oil show		
Limestone and shale, dark-gray	2460	2468
Limestone and shale, dark	2468	2473
Oil show		
Limestone, gray	2473	2475
Limestone and shale, gray	2475	2480
Limestone and sandstone	2480	2483
Oil show		
Limestone	2483	2485
STRATIGRAPHIC INTERPRETATION		
Tertiary system	0	260
Holly Springs sand	0	155
Porters Creek	155	260
Cretaceous system	260	1190
Ripley formation	260	835
Owl Creek tongue and McNairy sand member	260	760
Coon Creek tongue	760	835
Selma formation	835	1019
Eutaw formation	1019	1190
Paleozoic rocks (Lower Ordovician?)	1190	2485

REMARKS: The Paleozoic section in this test is composed essentially of light-gray to white, dense to medium-grained dolomitic limestones and gray, medium- to coarse-grained dolomites, with fragments of greenish-gray, hard, non-calcareous shale, and some rounded, pitted and frosted quartz grains. This

lithology is characteristic of the Knox group as developed in the subsurface in the Western Valley of Tennessee River. The beds penetrated from 1190-2483 feet have much lithologic similarity with the beds below 995 feet in the Standard Oil Company of Louisiana, C. W. Wyatt No. 1. White, tan, and brown, dense, angular cherts, such as at 1745-1750, 1995-2005, and 2015-2025 feet, are commonly present in Canadian residues from wells in the Western Valley and the Central Basin. In the absence of fossils, the Paleozoic section in this test is tentatively correlated with some part, probably the upper part, of the Knox dolomite group.

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, light-colored, medium to coarse, subangular to sub-rounded	415	
Sand, same as above	490	
Sand, same as above	560	
Sand, same as above	570	
Sand, same as above	580	
Shale, gray to brownish-gray, soft, coarse-grained, micaceous, carbonaceous; also laminae of light-gray, soft, fine-grained sand	590	
Sand, light-colored, medium-grained, micaceous	600	
Sand, light-colored, fine to coarse	610	
Sand, same as above	620	
Sand, same as above	615	630
Clay, dark brownish-gray, soft, micaceous, with some sand as above	630	650
Sand, light-colored, medium-grained	660	665
Shale, dark-gray to black, dense, hard	760	770
Shale, gray, soft, micaceous and calcareous, with some fine, white, micaceous sand	795	
Marl, gray, glauconitic, fine-grained, calcareous, very fossiliferous	805	
Marl, same as above	815	820
Sand, light-colored, glauconitic and micaceous	820	825
Sand, same as above, with some hard, dark-gray to black shale and some shell fragments	825	830
Clay, gray, calcareous, fossiliferous	865	
Clay, same as above	1003	1011
Sand, greenish-gray, fine- to medium-grained, glauconitic	1047	
Sand, light-colored, medium-grained, with some amount of glauconite	1050	
Sand, same as above	1050	1190
Limestone, white and gray, dense to fine-grained, dolomitic, iron-stained	1190	1210
Limestone, same as above		
Limestone, same as above, with a considerable amount of frosted, well-rounded quartz sand	1215	1235
Limestone and sand, same as above	1235	1245
Limestone, white to light-gray, dense to fine-grained, with some gray, hard, calcareous shale	1245	1255
Limestone, light-gray to white, dense to fine-grained, dolomitic	1255	1265
Limestone, gray, dense to fine-grained, dolomitic	1265	1285
Limestone, same as above, with rounded and frosted quartz grains	1285	1295
Limestone, white to light-gray, fine-grained, dolomitic, with some pyrite	1295	1300
Limestone, same as above, with a considerable amount of rounded quartz sand	1315	1325
Limestone, white to light-gray, dense to fine-grained, dolomitic, with some pyrite	1325	

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, same as above	1330	1340
Samples missing	1340	1350
Limestone, same as above	1350	1360
Limestone, same as above, with some rounded and frosted quartz grains	1360	1370
Limestone, same as above	1370	1470
Dolomite, gray, medium-grained, with some dark calcite, hard shale	1490	1500
Dolomite, same as above	1500	1510
Limestone, light-gray to white, medium-grained, dolomitic, with a few fragments of dark-gray to greenish-gray, hard calcite, shale	1510	1560
Limestone, light-gray to white, hard, dolomitic	1665	1670
Limestone, same as above	1675	1685
Limestone, light-gray, medium-grained, hard, arenaceous, dolomitic, with a few fragments of greenish, hard, non-calcareous shale	1685	1700
Dolomite, same as above	1700	1725
Limestone, light-gray to light-tan, medium-grained, arenaceous, dolomitic; a few rounded quartz grains and pieces of medium-gray, hard, siliceous shale	1725	1730
Limestone, light-gray, medium-grained, dolomitic	1730	1735
Samples missing	1735	1740
Limestone, same as above	1740	1745
Dolomite, white to light-gray, medium-grained, with some white and brown dense chert and gray, noncalcareous shale	1745	1760
Limestone, light-gray to light-brown, medium-grained, dolomitic	1760	1800
Dolomite, very light gray, medium-grained, with a few rounded and frosted quartz grains	1800	1810
Dolomite, light-gray to light-brown, hard, medium-grained	1810	1825
Dolomite, same as above, with a few fragments of dark-gray, fine-grained, noncalcareous shale	1825	1840
Dolomite, same as above, with a few fragments of dark-gray, fine-grained, noncalcareous shale	1840	1850
Dolomite, light-gray to light-brown, medium-grained	1850	1900
Limestone, light-gray, medium-grained, dolomitic, arenaceous, with some pyrite, rounded quartz grains, and a few fragments of dark-gray siliceous shale	1900	1910
Limestone, light-gray to brownish-gray, medium-grained, with some dark-gray shale and very light gray dolomitic limestone	1910	1955
Dolomite, same as above, with a few fragments of gray and brown, dense, dolomitic chert	1955	1965
Dolomite, same as above, but without chert	1965	1995
Limestone, light-gray to light-brown, medium-grained, dolomitic, with some dark-gray shale and a few fragments of bluish-gray and brown, dense chert	1995	2015
Dolomite, light-gray, medium-grained, with some rounded quartz grains, gray and brown chert, and a few grains of glauconite	2015	2102
Limestone, light-gray, medium-grained, dolomitic, with some white, dolocastic, and a few grains of rounded frosted sand	2102	2140
Limestone, brown, medium-grained, with a few fragments of light-gray, hard dolomitic limestone and a few pieces of dense, brown chert	2140	2190
Dolomite, light-gray, coarse-grained, with some pyrite	2190	2210

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray and brown, medium-grained, with some white, fine-grained limestone and a few fragments of medium-gray, coarse-textured dolomite	2210	2230
Limestone, light-gray, coarse-grained, dolomitic	2230	2255
Limestone, light-gray, hard, medium-grained, dolomitic	2255	2265
Limestone, light-gray, coarse-grained, dolomitic, with a few pieces of green, hard, fine-grained, siliceous shale	2265	2275
Samples missing	2275	2280
Limestone, same as above	2285	2305
Limestone, light-gray, medium-grained, with no shale	2305	2350
Limestone, light-gray to white, medium-grained, with some greenish, coarse-grained, hard, calcareous shale	2390	2405
Limestone, light-gray to white, fine-grained, with some light-brown, hard, dense limestone and a few pieces of greenish calcareous shale	2405	2435
Limestone, light-gray to white, fine-grained, dolomitic, with a few pieces of green calcareous shale	2455	2480
Limestone, light-gray, medium-grained, with some white, fine-grained limestone, some rounded and frosted quartz grains, and a few fragments of green, fine-grained, hard, siliceous shale	2480	2483

CLAIBORNE COUNTY

Thornburgh et al., J. H. PEARSON No. 1

(Map Number—1)

Location: NE NW Sec. 15, 1S-74E

Elevation: ?

Date: 1939

Total depth: 1005' (?)

DRILLER'S LOG

<i>Lithology</i>	<i>Depth</i>
Slate and shale with streaks of sand rock	70
Water crevice (small)	71
Slate and shale with streaks of sand rock 6" opening (water)	110
Slate and shale with sandrock seams and streaks of flint	270
1' water opening	410
Slate with seams of sand rock	425
Blue slate	500
Blue slate with sand rock seams	505
Blue limestone with flint (hard)	508
Blue slate with few limestone streaks	575
Limestone (dark-gray)	590
Red and pink shale rock	600

CASING:

Set 426' of 6¼" casing

CLAY COUNTY

Overstreet & Miller, C. HULL No. 1

(Map Number—1)

Location: SW NE NE Sec. 21, B-48E

Elevation: 581'

Date: 1938

Total depth: 674'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
(Started drilling August 5th, 1937)		
Rock	23	
8 1/4" @ 25		
Water	50	or 60
Gas	85	
Blowout 100, 123, 145, 175, 180, 198, 205, 225, 238, 245		
Gas	250	
Poison gas	255	
Blowout	275	
Show of oil	285	
Oil	290	
Oil and water	295	
Oil, water, and gas	330	
Pumped Aug. 24th		
Pulled casing August 26th		
Black water	365	
Gas and water	370	
Gas lifted tools	381	
Set casing	384	
Mud Cave	415	
Pencil Cave	426	
Bottom of Pencil Cave	427	
Gas down to	467	
Show of oil	467	
Put on pump Sept. 21	481	
Drilled deeper; flowed, October 27, 1937		
Put on pump. Flowed 25 to 30 bbl. per hr.	505	
Flowed about one month (probably agitation)		
March 2nd, drilled 45' deeper		
More oil at	535	
Began flowing	555	
Put pump on at	564	
May 1938, 4th drilling		
Began flowing at	586	
Salt water	613	
Drilled to		614
Put on pump May 10th, 1938		631
Gas and oil at	640	
More water at	660	

Coleman & Beckerle, F. HILL No. 1

(Map Number—2)

Location: SW NE NE Sec. 12, A-50E

Elevation: 680'±

Date: 1939 (Drilled deeper 1947)

Total depth: 990'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dirt	17	
Top black shale @ 68		
6¼" casing @ 109		
Gas blowout @ 140		
Gas and frogeyes	148	
Gas and show oil	155	
Gas and show oil	186	
Blowout	196	
Wet fog and gas	205	
Gas cleaned hole	216	
Gas cleaned hole	224	
Gas blew tools out	235	
Show oil	245	253
Gas cleaned hole	265	
Rainbows and gas	265	285
Gas cleaned hole	293	
Gas, wet	295	308
Gas blowout (tools length of line)	311	330
Drilled dry	340	360
Show oil	360	370
Wet foggy gas	370	374
Mild gas	380	457
Lifted tools up	547	
Yellow oil and gas	557	
Blew casing and tools out	592	
Dark oil (pumped 2 bbl. 605)		
Mild gas	611	615

Completed 615 in 1939

Started deepening June 1947

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shaly limestone and sand	615	622
Gray limestone	622	631
Dark-gray limestone, hard	631	635
Shaly, gas	635	639
Limestone, gray, hard	639	646
Gray limestone	646	650
Gray limestone, light	650	658
Pencil Cave	658	660
Limestone, dark-gray	660	663
Limestone, light-brown	663	666
Limestone, brown, coarse	666	669½
Limestone, dark-brown	669½	674
Limestone, blue	674	684
Limestone, light-brown	684	687
Limestone and sand, brown	687	691
Limestone and sand, white	700	710
Limestone and fine sand, brown	710	722
Limestone and fine sand, brown, coarse	722	728
Limestone	728	731
Gas		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone and sand	731	743
Limestone and sand, brown	743	747
Limestone, brown	747	764
Gas		
Limestone, light-gray, medium coarse	764	774
Limestone, light-brown	774	780
Sandy, dark-brown, hard	780	786
Gas @ 783		
Sandy, blue	786	916
Gas strong @ 901		
Sandy, gray	916	929
Sandy, brown	929	940
Sandy, blue	940	945
Sandy	945	985
Gas strong @ 958		
Sandy and shaly, brown, soft	985	990

W. O. Allen, JAKE JENKINS No. 1
(Map Number—3)

Location: SE NW NE Sec. 24, A-45E

Elevation: 1029'

Date: 1946

Total depth: 1701'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mississippian		
Fort Payne formation		
Dolomite, generally fine-grained, silty, white to tan and greenish, with varying amounts of white to dark-gray, sometimes greenish, dense chert. Sample at 29-34 feet contains yellowish siltstone. Increase in chert at 39-97 feet. Samples below 97 feet are essentially a white, often greenish, fine-grained dolomite with a minor amount of generally light colored, tan and white, coarse-grained limestone at 145-151 feet. Greenish dolomitic shale (Maury) with the dolomite at 160-165 feet	29	165
Chattanooga shale		
Shale, black, carbonaceous, fissile, with some pyrite	165	182
Ordovician		
Richmond formation		
Dolomite, dark-gray, fine- to medium-grained, generally phosphatic, with minor amount of gray, medium-grained, dolomitic limestone	182	205
Leipers formation		
Limestone, gray to dark, medium-grained, generally silty and argillaceous, with some gypsum and calcite and varying amounts of gray, calcareous shale	205	300
Catheys formation		
Shale, gray, fine- to medium-grained, with some dark-gray, medium-grained limestone	300	335
Limestone, dark-gray, fine- to medium-grained, some of which is speckled with white limestone. A considerable amount of hard, gray, calcareous shale. Much secondary calcite at 365-370 feet	335	535
Cannon limestone		
Limestone, medium- to dark-gray, fine- to medium-grained	540	550

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-gray to brownish, medium-grained	550	565
Limestone, gray to tannish-brown, fine- to medium-grained	565	610
Hermitage formation		
Limestone, gray to dark-gray, fine- to medium-grained, silty, argillaceous	610	620
Shale, dark-gray, calcareous, hard, silty, with limestone as above	620	625
Limestone, as in 610-620 sample; increasing amounts of shale in lower 30 feet; very phosphatic at 655-660 feet	625	673
Carters limestone		
Limestone, light-tan to brown, generally dense to fine-grained, with a greenish, waxy shale carrying biotite flakes ("Pencil Cave" of drillers). Some dark limestone from the overlying Hermitage formation	673	712
Limestone, white to tan and brownish, dense to fine-grained, with some milky, dense chert	712	735
Limestone, tan and brown, dense to fine-grained, with generally light-colored, dense, sharp chert and much Pencil Cave from above	735	745
Limestone, same as above, with less chert	745	755
Limestone, white to brown, fine- to medium-grained	755	770
Limestone, white to tan, dense to fine-grained	770	785
Limestone, tan to brown, fine- to medium-grained, with some tan dolomite	785	810
Lebanon limestone (?)		
Limestone, tan and brown, dense to fine-grained, with light- to dark-gray, dense, sharp chert at 810-820 feet. Considerable amount of tan, fine-grained dolomite at 820-840	810	855
Limestone, tan to dark-brown, dense to fine-grained	855	860
Limestone, tan, generally dense	860	870
Limestone, same as above, with fine-grained limestone predominating	870	894
Limestone, same as 860-870 feet	894	906
Lebanon and Ridley limestones		
Limestone, brown and tan, fine-grained, slightly argillaceous	906	918
Limestone, with some dark-brown speckled chert	918	936
Limestone, brown, fine-grained, with dark-brown sucrose limestone	936	941
Limestone, tan to dark-brown, fine- and medium-grained	941	953
Limestone, dense to medium-grained, dark-brown	953	966
Limestone, brown and tan, fine- to medium-grained, with some oolitic limestone	966	973
Limestone, tan to dark-brown, fine-grained	973	984
Limestone, brown and gray, fine-grained	984	1000
Limestone, brown to dark-brown, dense and sucrose	1000	1006
Limestone, brown, fine-grained, with gray-brown translucent and opaque chert	1006	1012
Limestone, brown, dense to crystalline, with slight decrease in chert	1012	1018
Limestone, tan to dark-brown, dense and fine-grained	1018	1024
Limestone, brown, fine-grained, with some brown chert	1024	1030
Limestone, brown, fine-grained	1030	1048
Limestone, brownish-gray, fine-grained	1048	1054

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, brown, fine-grained, and dark-brown, fine-grained, argillaceous limestone with a very slight show of oil	1054	1062
Pierce limestone		
Limestone, brown, fine-grained, with some dark-brown argillaceous limestone	1062	1082
Limestone, light-tan and brown, fine-grained	1082	1100
Murfreesboro		
Limestone, dark-brown, fine-grained, with few fragments of lighter colored limestone. (This whole section is very monotonous and the changes in lithology are very slight.)	1100	1342
Dolomite, brown, very fine grained, with a very slight stain of oil	1342	1346
Limestone, dark-gray, fine-grained	1346	1355
Dolomite, tan, fine-grained	1355	1367
Samples missing	1367	1369
Wells Creek dolomite		
Dolomite, tan, fine-grained, with light-gray chert	1369	1378
Dolomite, tan, fine- to medium-grained, with stringers of gray-green bentonitic shale	1378	1382
Dolomite, tan, fine- to medium-grained, cherty, with few poorly sorted, frosted sand grains	1382	1386
Knox dolomite		
Dolomite, tan, fine-grained, cherty	1386	1390
Dolomite, tan, fine- to medium-grained	1390	1400
Dolomite, tan, fine- to medium-grained, cherty	1400	1420
Dolomite, tan to brown, fine- to medium-grained	1420	1440
Dolomite, tan to brown, fine- to medium-grained, cherty (some of the chert oolitic); also contains few scattered rounded and frosted sand grains	1440	1460
Dolomite, tan to light-brown, medium-fine grained, with blue, translucent and white, opaque chert ..	1460	1468
Dolomite, brown, medium-grained, with some chert ..	1468	1472
Dolomite, tan, medium-fine and medium-grained, with traces of chert and green shale	1472	1500
Dolomite, gray, medium-fine grained, silty, with some chert	1500	1504
Dolomite, light-tan, medium-fine and fine-grained, silty	1504	1516
Dolomite, tan, fine-grained, silty, with blue and tan translucent chert	1516	1528
Dolomite, tan and light-tan, fine-grained, silty, with chert as above and some green shale	1528	1535
Dolomite, tan, fine and medium-fine grained, slightly cherty	1535	1552
Dolomite, light-tan, fine-grained	1552	1565
Dolomite, light-brown, fine-grained, with blue and tan translucent chert	1565	1570
Dolomite, tan, fine and medium-fine grained, with chert as above and some pale-green, opaque, dolocastic chert	1570	1580
Dolomite, brown and tan, medium-fine grained, cherty	1580	1595
Dolomite, light-brown, fine-grained, cherty; scattered fragments of chert show oolitic texture	1595	1600
Dolomite, tan, fine and medium-fine grained, slightly cherty	1600	1610
Dolomite, light-brown, medium-fine and fine-grained, with white, green, and tan translucent chert	1610	1620

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, tan, fine-grained, with blue and tan chert and some rounded, frosted quartz grains	1620	1625
Dolomite, brown and gray, medium-fine grained, slightly silty; lower 5 feet contains pyrite	1625	1647
Dolomite, gray-brown, fine and medium-fine grained, slightly silty	1647	1653
Dolomite, light-brown, fine-grained, with some chert	1653	1664
Dolomite, tan, medium-fine grained, slightly silty	1664	1669
Dolomite, brown, medium-grained, slightly calcareous	1669	1673
Dolomite, brown, medium-grained	1673	1685
Dolomite, light-brown, fine-grained, with white opaque and blue translucent chert	1685	1696
Dolomite, tan with brown staining, fine and fine-medium grained, with considerable pyrite and some green shale	1696	1701

Overstreet & Sparks, STEPHENS No. 1

(Map Number—4)

Location: NW NW SW Sec. 20, B-48E

Elevation: 550'±

Date: 1948

Total depth: 615'+

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Rock	10	
Water	25	
Gas	35	
Blowout	47	
Blowout	77	82
Set 84' casing		
Gas	89	
Blowout	128	
Gas	190	
Gas	220	
Blowout	230	
Blowout	235	
Gas	290	
Gas	327	
Blowout (oil came in after gas weakened)	348	
Put on pump	351	
Show of oil	365	371
Green lime	435	440
Gas	450	
Mud Cave	500	503
Pencil Cave	513	515

Overstreet & Sparks, A. B. DAVIS No. 1

(Map Number—5)

Location: SW NW SE Sec. 20, B-48E

Elevation: 545'

Date: 1948

Total depth: 489'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Oil show	75	76
Good oil show	216	222
Good oil show	277	283
Gas and oil	345	350
Gas	380	386
Mud Cave		401½
Pencil Cave		415
6¼" casing		416
Gas		438
Show of oil		473½
More oil	473½	489

Oil first rose 150 feet in hole. After standing one day, well began to run over.

Oil rose 15 inches, in 100-barrel tank, in 11 minutes; rose 8 inches in 5 minutes on April 26.

Moland Oil Co., W. COOK No. 1

(Map Number—6)

Location: NE SE NE Sec. 1, A-48E

Elevation: ?

Date: 1949

Total depth: 1516'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	55
Limestone, gray	55	105
Limestone, blue	105	160
Limestone, brown	160	340
Lime, shells, green	340	352
Limestone, black	352	365
Limestone, gray	365	381
Cave, black	381	400
Limestone, gray	400	412
Pencil Cave, green	412	413
Limestone, gray and brown	413	1131
Limestone, gray	1131	1166
Top of Knox		
Flinty limestone, gray	1166	1194
Limestone, gray	1194	1245
Limestone, gray	1245	1250
Show of oil		
Limestone, gray	1250	1516
Water @ 1510		

Mid-Eastern Oil Corp., CARL COLLINS No. 1

(Map Number—7)

Location: SW NE NE Sec. 19, A-50E

Elevation: 1021'

Date: 1949

Total depth: 2058'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dirt	0	52
Mud seep and water	52	55
Lime, blue, hard	55	72
Lime, green, shaly, hard	72	125
Lime, shaly, dark, hard	125	135
Lime, blue, hard, some sand	135	150
Lime, brown, sharp, medium, white specks like snow	150	170
Lime, brown, medium, sharp	170	200
Sulphur water 187		
Lime, black, hard, shaly	210	225
Gas—2½' white sand		
Lime, white, gray, hard, sand	225	235
Lime, dark-green, shaly, hard	235	320
Lime, dark-gray, gritty, hard	320	340
Lime, light-gray, hard	340	355
Lime, dark-gray, hard	355	381
Shale, black	381	399
Lime, dark, gray, hard	399	419
Lime, dark, gray, medium	419	500
Gas blisters		
Lime, light, gray, medium	500	515
Lime, gray, medium	515	565
Gas blisters		
Lime, dark, gray, medium	565	575
Lime, gray, light, medium	575	595
Lime, dark, gray, medium	595	605
Lime, light, gray, medium	605	615
Lime, dark, gray, medium	615	625
Lime, gray, hard, white specks	625	635
Lime, brownish, gray, hard	635	645
Lime, dark, brown, hard	645	660
Lime, brown, very hard, very fine	660	662½
Lime, brown, hard	662½	680
Lime, dark, gray, hard	680	690
Lime, gray, hard	690	700
Lime, brown, sandy, soft	700	705
Lime, dark, gray, hard	705	715
Lime, gray, hard	715	735
Lime, gray, dark, hard	735	760
Lime, light, gray, hard	760	770
Lime, light, brown, hard	770	796
Lime, light, gray, hard	796	820
Lime, light, brown, hard, sandy	820	830
Lime, dark, brown, hard	830	860
Lime, dark, gray, hard	860	890
Lime, light, brown, hard	890	905
Lime, dark, gray, hard	905	920
Black cave, medium	920	930
Lime, brownish-gray, medium	930	940
Lime, white, hard	940	952
Base of Mud Cave @ 950		
Lime, white, hard	952	957
Sand, white, hard	957	960
Lime, white, hard	960	980
Lime, light, brown, hard	980	1015

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, dark, brown, hard	1015	1040
Lime, light, brown, hard	1040	1052
Lime, dark, brown, hard	1052	1068
Lime, brown, light	1068	1090
Show of oil		
Lime, brown, hard	1090	1100
Lime, dark, bluish, hard	1100	1140
Lime, dark, hard, very fine	1140	1150
Lime, dark, hard	1150	1180
Lime, blue, hard	1180	1190
Lime, brown, hard	1190	1210
Lime, blue, soft, coarse	1210	1230
Lime, dark, brown, tight	1230	1255
Show of oil		
Lime, dark, brown, hard	1255	1275
Lime, dark, blue, hard	1275	1300
Lime, blue, brown-mixed, medium, coarse	1300	1336
Lime, blue, soft, coarse	1336	1348
Lime, dark, brown, medium, sandy	1348	1373
Oil show		
Lime, brown, tight	1373	1403
Rainbows		
Lime, chocolate-brown, medium-soft	1403	1428
Lime, chocolate-brown	1428	1450
Lime, light, blue, medium-soft	1450	1462
Lime, brown, medium-soft	1462	1472
Lime, chocolate-brown, medium-soft	1472	1485
Frog eyes		
Lime, light, brown, medium-soft	1485	1533
Frog eyes		
Lime, light, brown, medium-soft	1533	1545
Lime, light, brown or blue, medium-soft	1545	1575
Lime, blue, soft	1575	1618
Lime, dark-brown, soft	1618	1650
Rainbows		
Lime, gray, soft	1650	1665
Lime, brown, hard	1665	1675
Rainbows		
Lime, light-brown, medium-hard	1675	1712
Lime, light and black, medium-hard	1712	1725
Lime, light-brown, medium-hard	1725	1735
Knox		
Lime, dark-brown, medium-hard	1735	1755
Frog eyes		
Lime, light-brown, medium-hard	1755	1765
Lime, coffee-brown, medium-soft	1765	1775
Frog eyes		
Lime, light-brown, medium-hard	1775	1825
Lime, medium-dark brown, medium-hard	1825	1835
Frog eyes		
Lime, light, brown, medium-hard	1835	1855
Lime, very light	1855	1870
Lime, chocolate-brown, medium-soft	1870	1880
Oil show, some gas		
Lime, dark-brown, medium-soft	1880	1890
Oil show, some gas		
Lime, light-brown, hard	1890	1900
Frog eyes		
Lime, medium-light brown, medium-hard	1900	1910
Frog eyes		
Lime, light-gray, medium-hard	1910	1930
Lime, light-blue, medium-soft	1930	1940

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, light-brown, hard	1940	1950
Lime, light-gray, hard	1950	1965
Lime, light-gray, medium-hard	1965	1975
Gas		
Lime, light-brown, medium-hard	1975	2000
Frog eyes		
Lime, light-brown, medium-hard	2000	2025
Sand, light-brown or gray, medium-hard	2025	2040
Oil show		
Sand, light-brown or gray, hard	2040	2050
Oil show		
Sand, white, flinty, white and gray, hard	2050	2058

Popkins & Gwyn, J. SCOTT No. 1

(Map Number—8)

Location: SE NW NE Sec. 2, A-48E

Elevation: 606'

Date: 1951

Total depth: 632'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	12
Limestone, dark- to light-brown, coarse-grained	12	78
Limestone, gray and white, medium-fine grained with some coarse-grained	78	150
Limestone, brown and gray, coarse-grained with medium-grained material, slightly argillaceous	150	240
Limestone, gray-brown, fine-grained with some medium- to coarse-grained	240	258
Very slight show of oil		
Limestone, gray and brown, medium-fine and coarse-grained	258	270
Samples missing	270	275
Limestone, gray-brown, coarse-grained, argillaceous	275	318
Limestone, gray, brown, medium-fine grained, argillaceous ..	318	330
Limestone, brown, coarse- and fine-grained, argillaceous and silty in part	330	405
Limestone, gray, medium-fine grained, argillaceous	405	433
Limestone, gray, medium- and coarse-grained, argillaceous ..	433	463
Limestone, brown, fine-grained, argillaceous, some chert ...	463	469
Contains Mud Cave		
Limestone, brown, coarse-grained with medium-grained material; some chert	469	476
Contains some "Pencil Cave"		
Limestone, tan, fine-grained, cherty	476	487
Some "Pencil Cave"		
Limestone, brown, fine-grained	487	501
Samples missing	501	508
Limestone, tan, fine-grained; dark-brown chert; bentonite in upper part, and white, opaque, dolocastic chert in lower part	508	528
Limestone, tan to brown, fine-grained, with some coarse-grained material; slightly cherty in upper and lower parts ..	528	570
Limestone, tan, fine-grained, with brown and gray chert ...	570	584
Limestone, brown, medium-fine grained, with some chert ..	584	608
Limestone, light-brown, fine-grained with medium and coarse-grained material; contains dark-brown speckled chert	608	617
Limestone, brown, fine-grained	617	625
Limestone, gray-brown, medium-grained, sucrose, slightly dolomitic	625	632

COFFEE COUNTY

Tennessee Oil & Gas Co., C. E. PRICE No. 1

(Map Number—1)

Location: 13S-41E

Elevation: 1069'

Date: 1927

Total depth: 1418'

Complete record not available. The following information was obtained by W. F. Pond and W. F. Bailey, from visits to the well while being drilled, and from J. V. McGuire, contractor.

Considerable gas encountered at 500 feet.

Cable broke and tools lost in hole at 540 feet.

Well was shot with 25 sticks dynamite, which exploded near the surface and caved in the well.

June 19, 1929: Well visited by W. F. Bailey. Well has been cleaned out and machine is now over hole fishing for tools.

Chattanooga shale 37' thick

350' between Chattanooga shale and Pencil Cave

Pencil Cave @ 500' (?)

Gas	811-820'
Sand	1390'
Salt water	1400'
Total depth	1418'

July 16, 1930: Well visited by W. F. Bailey. Mrs. Price reports gas is being used from this well in her house nearby.

Tennessee Oil & Gas Co., C. E. PRICE No. 2

(Map Number—2)

Location: 13S-41E

Elevation: 1036'

Date: 1927-28

Total depth: 1407'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay at	19	
First water at	55	
Second water at	80	
Hard white lime	19	137
Chattanooga black shale	137	165
Set casing at	173	
Gas, with show of oil at	255	
Gas at	290	
Show of oil at	420	
Blue mud at	460	
Blue lime	165	460
Gray lime	460	483
Pencil Cave	483	487
Dark-brown lime	487	583
Show of oil at	543	
Show of oil at	588	
Dark-blue lime	588	690
Gas at	690	
Blue lime	690	740
Very hard brown lime	740	770
Blue lime and mud	770	795

<i>Lithology</i>	<i>From</i>	<i>To</i>
Brown and white lime	795	810
Gas; made between 3 and 4 million cubic feet for 8 days; 210 lbs. pressure on steam gauge. Very wet gas.....	810	820
Hard brown lime	820	877
Brown sand carrying some gas and considerable oil	877	880
Blue lime	880	940
Blue lime; with one gray streak	940	1100
Considerable blue mud; the lime changes from blue to gray every 5 to 7 feet.	1100	1165

Feb. 21, 1928: Well visited by W. F. Bailey. Drilling at 1215 feet. No sign of gas around the well. Cuttings for the last 50 feet have been dark-gray, very dense lime.

June 10, 1929: Well visited by W. F. Bailey. Well was abandoned at 1407 feet, at which depth the driller reports they struck the Knox dolomite. The well is now capped and contains a strong flow of gas, coming from 810-820 feet.

Notes by W. F. Pond:

Green shale	1345	1390
18' sand, salt water and show of oil @ 1390'—first water		

Tennessee Oil & Gas Co., C. E. PRICE No. 3

(Map Number—3)

Location: 18S-41E

Elevation: 1034'

Date: 1929-30

Total depth: 1812'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mississippian system		
Ft. Payne formation		
Surface, clay and cherty soil	0	43
Set 8" casing @ 35		
Limestone, cherty	43	171
Chattanooga black shale	171	202½
Ordovician system		
Limestone, blue and brown	202½	475
Set 6¼" casing @ 207		
Limestone, gray and brown	475	511
Pencil Cave; greenish-gray bentonitic clay with black mica flakes	511	514
Lime, blue, gray, and brown	514	1295
Lime, greenish-gray	1295	1320
Lime, blue and brown	1320	1340
Lime, greenish-gray	1340	1350
Lime, white, sandy	1350	1355
Lime, brown, hard (sulphur water)	1355	1365
Lime, light-gray and brown	1365	1460
Lime, dark-brown	1460	1475
Lime, gray, very hard	1475	1540
Lime, greenish-gray, sandy, hard	1540	1545
Lime, light- and dark-gray, sandy	1545	1585
Lime, brown, sandy	1585	1605
Lime, dark-gray, sandy, hard	1605	1640
St. Peter sandstone formation (?)		
Sand, hard, white	1640	1645
Abundant salt water		
Lime, light and dark, gray, sandy, very hard	1645	1812

Southern Exploration Co., C. H. HUTTON No. 1

(Map Number—4)

Location: NE SE NE Sec. 2, 12S-40E

Elevation: 860'

Date: 1930

Total depth: 670'

DRILLER'S LOG

Lithology

Ordovician system

	<i>From</i>	<i>To</i>
Lowville formation (?) (top ?)		
Limestone, dark blue-gray, fine-grained, somewhat shaly	0	115
Black sulphur water @ 26		
Puff of gas @ 48		
Limestone, very dark gray or olive-drab, very dense	115	145
Limestone, dark blue-gray, fine-grained, somewhat shaly	145	185
Pencil Cave; bright-green bentonitic clay full of black mica flakes	185	188
Limestone, dark blue-gray, fine-grained, somewhat shaly	188	215
Limestone, light to dark brownish or olive-drab, very dense	215	295
Limestone, dark blue-gray, very fine grained to dense	295	430
Limestone, blue-gray to brownish or olive-drab, fine-grained to very dense or lithographic	430	515
Limestone, dark blue-gray, finely granular, somewhat shaly	515	530
Limestone, dark to very light olive-drab or gray, very dense	530	565
Limestone, very dark blue-gray, very dense	565	580
Limestone, light blue-gray, finely granular, somewhat shaly	580	590
Limestone, very dark gray or olive-drab, very dense	590	595
Limestone, dark blue-gray, dense, quite shaly	595	605
Limestone, light-gray to dark olive-drab, fine-grained to dense	605	620
Limestone, dark blue-gray and olive-drab, fine-grained to dense	620	670

Casinghead is 148 feet below base of Chattanooga shale, which outcrops on hillside above the well.

CUMBERLAND COUNTY

Rackow, Zimmerlee & Co., FORBES No. 1

(Map Number—1)

Location: NW NW NW Sec. 18, 7S-54E

Elevation: ?

Date: 1904

Total depth: ?

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, yellow, hard, close (Rockcastle sandstone, lower part)	0	76
(Gap in record here)		
Slate, shales, and sand, fairly soft	139	215
Vandever shale		
Like Trenton, hard	215	235
Gritty slate and shales, soft	235	280
Big conglomerate, hard (Bon Air sandstone, upper bench)	280	375
Fire clay, coal, and conglomerate, soft (Eastland shale lentil)	375	380
Conglomerate, very hard (Bon Air sandstone, lower bench)	380	435
Sandstone, hard	435	610
Sandstone, hard, yellow	610	620
Limestone, blue	620	700
Limestone, clay, and shale (Pennington shale)	700	900
Limestone (Bangor limestone)	900	1185
Sandstone, dark, hard, close (Hartselle)	1185	1205

Peavine Coal Co., PEAVINE MOUNTAIN No. 1

(Map Number—2)

Location: C Sec. 19, 6S-56E

Elevation: 2117' (?)

Date: 1917

Total depth: 1885'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	2
Sand rock	2	82
Soapstone	82	110
Sand rock	110	140
Slate	140	170
Coal	170	172
Slate	172	182
Sand rock	182	200
Slate	200	260
Coal	260	272
Blue sand rock	272	395
Slate	395	400
White sand rock	400	715
Slate	715	718
White sand rock	718	865
Black sand rock	865	910
White sand rock	910	965
Slate	965	967
White sand rock	967	1110
Coal	1110	1119
Sand rock	1119	1122
Coal	1122	1129
Sand rock	1129	1260
Slate	1260	1262

<i>Lithology</i>	<i>From</i>	<i>To</i>
Conglomerate rock	1262	1333
Coal	1333	1344
Black slate	1344	1370
Black sandstone	1370	1390
Slate	1390	1393
White lime rock	1393	1400
Black lime rock	1400	1428
Red rock and lime	1428	1434
Black and brown lime	1434	1460
White sand rock	1460	1480
Broken lime and slate	1480	1525
Slate	1525	1530
Black lime	1530	1570
Red rock	1570	1595
Flint rock	1595	1600
Gray lime	1600	1610
Black slate	1610	1620
Brown lime	1620	1655
Black slate	1655	1658
Gray lime	1658	1788
Black slate	1788	1790
Big Injun sand	1790	1820
Gray lime	1820	1845
Gray and brown lime	1845	1885

Crab Orchard Oil Co., PEAVINE COAL CO. No. 1¹
 (Map Number—3)

Location: C Sec. 19, 6S-56E
 Date: 1920±

Elevation: 2100'+
 Total depth: 1885'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	2
Sand rock	2	82
Soapstone	82	110
Sand rock	110	140
Slate	140	170
Coal	170	172
Slate	172	182
Sand rock	182	200
Slate	200	260
Coal	260	272
Blue sand rock	272	395
Slate	395	400
White sand rock	400	715
Slate	715	718
White sand rock	718	865
Black sand rock	865	910
White sand rock	910	965
Slate	965	967
White sand rock	967	1110
Coal	1110	1119
Sand rock	1119	1122
Coal	1122	1129
Sand rock	1129	1260
Slate	1260	1262
Conglomerate rock	1262	1333
Coal	1333	1344

¹ Probably the same as the preceding well; the logs are identical.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Black slate	1344	1370
Black sandstone	1370	1390
Slate	1390	1393
White lime rock	1393	1400
Black lime rock	1400	1428
Red rock and lime	1428	1434
Black and brown lime	1434	1460
White sand rock	1460	1480
Broken lime and slate	1480	1525
Slate	1525	1530
Black lime	1530	1570
Red rock	1570	1595
Flint rock	1595	1600
Gray lime	1600	1610
Black slate	1610	1620
Brown lime	1620	1655
Black slate	1655	1658
Gray lime	1658	1788
Black slate	1788	1790
Big Injun sand	1790	1820
Gray lime	1820	1845
Gray and brown lime	1845	1885

Indian Refining Co., PHILLIPSBURG No. 1

(Map Number—4)

Location: SE SW SE Sec. 22, 8S-53E

Elevation: 1860'±

Date: 1920

Total depth: 1835'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Lee formation		
Soil and loose stone	0	6
Sand, yellow, hard	6	25
Coal, black, soft	25	26
Slate, dark, soft	26	30
Sand, gray, hard (water)	30	60
Set 12¼" casing @ 32		
Slate, dark, sandy	60	124
Sand, gray and white	124	180
Bad crevice @ 158		
Lime, gray, hard	180	185
Sand, white, coarse	185	208
Lime, white, hard, gritty	208	217
Sand, white to gray, hard	217	255
Lime, dark	255	275
Slate, dark, soft	275	325
Bad crevice @ 300		
Sand, white, hard	325	335
Lime, gray, hard	335	350
Sand, white, hard, settling	350	565
Hole reduced to 10" @ 463		
Lime, dark and slaty	565	575
Sand, white to gray, coarse	575	678

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mississippian system		
Slate, blue, muddy	678	685
Red rock, soft (shale)	685	686
Slate, blue-gray, hard	686	697
Sand, gray, hard	697	702
Slate, dark, soft	702	720
Lime, brown, hard	720	760
Slate, blue, soft	760	771
Red rock, soft (shale)	771	772
Slate, dark, solid	772	780
Sand, gray, hard	780	808
Lime, white, hard	808	815
Sand, gray, hard	815	820
Slate, dark, solid	820	838
Red rock, soft (shale)	838	842
Slate, dark, soft	842	846
Lime, dark, hard	846	849
Sulphur water @ 875		
Slate, dark, solid	849	870
Lime, dark, hard	870	895
Shale, light to black, soft	895	912
Lime, dark, hard	912	918
Slate, dark, solid	918	922
Red rock, soft (shale)	922	926
Lime, light, hard	926	929
Lime, blue, hard	929	934
Lime, blue, soft	934	942
Gas burns with 6' flame from 8" casing		
Lime, gray and brown, hard	942	1040
Lime, dark-blue and gray, hard	1040	1220
Black, bitter water @ 1055		
Green sweet water filled up hole 500' @ 1145		
Lime, light-gray to white	1220	1265
Black water filled up hole 700' @ 1225-1240		
More black water @ 1265		
Lime, brown, sandy	1265	1273
Lime, light-gray to white	1273	1306
Lime, brown, sandy	1306	1314
Lime, light-gray, hard	1314	1416
Lime, light- and dark-blue, flinty	1416	1515
Lime, light-brown, hard, sandy	1515	1520
Black scum showing traces of oil		
Sand, blue, fine, hard	1520	1542
Lime, blue, coarse	1542	1547
Sand, blue, fine, hard	1547	1553
Lime, gray, hard, fine	1553	1562
Sand, gray, fine, hard	1562	1580
Thin, greasy scum @ 1567		
Lime, gray, soft	1580	1585
Lime, dark-gray, hard, flinty	1585	1648
Lime, white, fine, hard	1648	1671
Lime, gray, hard, flinty	1671	1764
Lime and slate, dark, solid	1764	1768
Chattanooga black shale	1768	1786
Shale, black, hard, pyritic	1786	1801
Sand, light, hard, sharp	1801	1814
Sand, dark-gray, soft	1814	1825
Sand, light-blue, fine, hard	1825	1828
Lime, blue, fine, hard	1828	1835

Forced to abandon well because of caving black shale.

Waldensia Coal & Coke Co., WALDENIA WELLS No. 1

(Map Number—5)

Location: 8S-57E

Elevation: ?

Date: 1922

Total depth: 360'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	12
Sandstone with brown streaks	12	50
Sandstone	50	80' 6"
Soft, dark shale	80' 6"	108' 6"
Sandstone	108' 6"	129
Dark shale	129	133' 4"
Light, sandy shale	133' 4"	137' 9"
Gray, sandy shale	137' 9"	145
Dark shale	145	176
Sandstone	176	227
Gray slate	227	233
Gray, sandy shale	233	274
(Coal Measure level)		
Soft, dark clay and coal smut	274	274' 6"
Soft, dark fire clay	274' 6"	277' 6"
Light-gray shale	277' 6"	285
Sandy shale	285	293
Sandstone	293	316
Light shale	316	324
Clay and shale	324	324' 5"
Light shale	324' 5"	329
Clay and dark shale	329	330' 3"
Light, sandy shale	330' 3"	341' 5"
Hard sandstone, coarse-grained	341' 5"	360

Waldensia Coal & Coke Co., WALDENIA WELLS No. 2

(Map Number—6)

Location: 8S-57E

Elevation: ?

Date: 1922

Total depth: 352'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	16
Dark shale	16	31
Sandy shale	31	35
Sandstone	35	118
Sandstone and shale streaks	118	131
Sandstone	131	134
Sandy shale and sandstone	134	146
Dark shale	146	186
Dark sandstone	186	187' 6"
Sandstone	187' 6"	198' 6"
Gray shale	198' 6"	207
Dark shale	207	226
Black slate	226	227' 5"
Hard sandstone	227' 5"	237' 9"
Dark shale	237' 9"	268' 9"
Dark, soft clay	268' 9"	270
Dark shale	270	273' 2"
Hard stone, sand	273' 2"	296

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dark, soft shale	296	300' 9"
Dark shale	300' 9"	339' 5"
Coal	339' 5"	348' 5"
Light fire clay	348' 5"	349' 3"
Dark, sandy clay	349' 3"	352

Waldensia Coal & Coke Co., WALDENSIA WELLS No. 3

(Map Number—7)

Location: 8S-57E

Elevation: ?

Date: 1922

Total depth: 464'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	11
Sandstone	11	51
Dark shale	51	126
Light shale	126	128
Sandstone	128	173' 6"
Dark, sandy shale	173' 6"	179' 6"
Sandstone with shale streaks	179' 6"	202
Dark shale	202	267
Dark sandstone	267	268' 6"
Sandstone	268' 6"	285' 6"
Gray shale	285' 6"	300
Dark shale	300	309' 6"
Hard sandstone	309' 6"	395
Soft, dark shale	395	398
Sand rock with shale streaks	398	441
Dark shale	441	453' 6"
Brown draw slate	453' 6"	455
Coal	455	457' 10"
Clay and coal, mixed	457' 10"	458' 2"
Fire clay	458' 2"	458' 6"
Dark, sandy shale	458' 6"	464

Waldensia Coal & Coke Co., WALDENSIA WELLS No. 4

(Map Number—8)

Location: 8S-57E

Elevation: ?

Date: 1922

Total depth: 500'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	1
Sandstone	1	63' 6"
Sandstone and shale	63' 6"	80
Dark shale	80	108
Dark sandstone	108	110' 6"
Dark shale	110' 6"	153' 6"
Sandstone	153' 6"	154' 6"
Gray shale	154' 6"	157
Sandstone	157	232
Dark shale	232	298
Sandstone	298	308
Light, sandy shale	308	318
Black slate	318	319' 6"
Soft fire clay	319' 6"	321' 6"

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy fire clay	321' 6"	324
Sandy shale	324	328
Dark shale	328	337
Hard sandstone	337	433
Dark shale	433	437' 6"
Dark, sandy shale	437' 6"	471' 9"
Dark shale	471' 9"	477' 9"
Dark, soft draw slate	477' 9"	480' 1"
Coal	480' 1"	482' 9"
Hard gray shale, sandy	482' 9"	484' 9"
Dark fire clay	484' 9"	485' 9"
Dark shale	485' 9"	500

Waldensia Coal & Coke Co., WALDENIA WELLS No. 5

(Map Number—9)

Location: 8S-57E

Elevation: ?

Date: 1922

Total depth: 765'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	3
Sandstone	3	80
Dark-gray shale	80	82' 6"
Bony coal	82' 6"	84
Soft fire clay	84	86
Sandstone, hard	86	118
Dark, sandy shale	118	154
Dark-gray sandstone	154	156' 6"
Coal	156' 6"	157
Dark fire clay	157	157' 7"
Sandstone, hard	157' 7"	189' 7"
Gray shale	189' 7"	229
Coal	229	229' 6"
Dark shale	229' 6"	230' 3"
Coal	230' 3"	231
Dark, sandy shale	231	231' 4"
Hard sandstone	231' 4"	359' 4"
Dark shale	359' 4"	387' 10"
Light, sandy shale	387' 10"	392' 8"
Soft black slate	392' 8"	394' 1"
Dark clay, with coal spars	394' 1"	394' 5"
Sandy fire clay	394' 5"	398' 11"
Light shale	398' 11"	405
Hard sandstone	405	502
Dark shale	502	508
Soft, dark shale	508	608
Dark, sandy shale	608	617
Sandstone	617	617
Dark shale	617	638
Sandstone	638	639' 6"
Dark shale	639' 6"	639' 11"
Hard sandstone	639' 11"	640' 7"
Dark shale	640' 7"	689
Dark shale	689	696
Gray shale	696	731' 6"
Dark shale	731' 6"	753
Coal	753	756' 2"
Soft, dark fire clay	756' 2"	760' 2"
Hard, gray shale	760' 2"	760' 5"
Dark fire clay and shale	760' 5"	765

Waldensia Coal & Coke Co., WALDENSIA WELLS No. 6

(Map Number—10)

Location: 8S-57E

Elevation: ?

Date: 1922

Total depth: 285'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	15
Sandstone	15	27
Dark, sandy shale	27	34
Light fire clay	34	36
Sandy fire clay	36	39' 6"
Dark fire clay	39' 6"	40' 10"
Dark shale	40' 10"	42' 10"
Hard sandstone	42' 10"	132
Dark shale	132	145
Sandstone	145	153' 6"
Dark, sandy shale	153' 6"	171' 6"
Dark shale	171' 6"	184
Black slate	184	186' 6"
Dark, soft clay	186' 6"	187' 6"
Dark, sandy shale	187' 6"	191' 6"
Hard sandstone	191' 6"	274
Conglomerate sandstone	274	285

Benedum-Trees Oil Co., TENN. MINERAL-LUMBER CO. No. 1

(Map Number—11)

Location: SW NE NW Sec. 18, 5S-55E

Elevation: 1705'±

Date: 1929

Total depth: 3018'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and clay	0	5
Sand, brown	5	48
Slate, light	48	105
Sandy shells, light	105	135
Sand, white	135	157
Slate, dark	157	185
Salt Sand, white	185	383
Fresh water		
Slate, light	383	415
Lime, light-gray	415	438
Slate, light	438	455
Lime, gray	455	482
Shells, dark	482	500
Lime, dark	500	537
Slate and shells, light	537	576
Red rock	576	598
Slate, dark	598	630
Shells, light	630	675
Red rock	675	683
Lime, light	683	867
Sand, white	867	920
Lime, gray	920	960
Pencil Cave	960	962
Lime, gray	962	996

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand	996	1015
Gas in top; oil in bottom		
S. L. M. ¹		
Lime, light	1015	1092
Sand	1092	1099
Gas and oil		
S. L. M.		
Lime, sandy, with white pebbles	1099	1195
Lime, sandy, dark	1195	1220
Lime, sandy, pink	1220	1230
Lime, sandy, dark	1230	1265
Lime, sandy, pink	1265	1280
Coffee lime, black	1280	1325
Lime, sandy, dark- to light-gray	1325	1420
Sand, white	1420	1463
Slate, light	1463	1468
Chattanooga black shale	1468	1493
Sand, gray	1493	1510
Lime, light	1510	1730
Slate, light	1730	1750
Lime, light and dark	1750	2275
Pencil Cave, white	2275	2279
Lime, light-gray	2279	3018
CASING:		
10" casing @ 9		
8" casing @ 975		

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandstone, fine white quartz sand, stained light-brown by iron oxide; grains sub-angular to rounded	5	48
Sandstone, very fine white quartz sand	135	137
Limestone, very dark blue-gray, dense, slaty	158	185
Sandstone, very fine white quartz sand, badly stained by iron oxide		
"Salt Sand"	185	383
Limestone, dark blue-gray, dense, slaty		
Limestone, same as above, with considerable coarse-grained white sand	383	415
Sandstone, very fine white quartz sand, with abundant iron oxide stains. Also minor amount dark-blue dense lime	438	
Limestone, dark, blue-gray, finely crystalline	458	482
Limestone, light bluish-green, very dense, with many iron oxide stains	500	537
Limestone, dark blue-gray, dense, with many iron oxide stains	537	576
Limestone, dark blue-gray, dense, with many iron oxide stains	576	598
Limestone, dark blue-gray, dense, with less iron oxide stain	675	
Sandstone, fine white quartz sand, badly stained by iron oxide	685	
Limestone, light greenish-gray, dense	867	
Limestone, very light gray, finely crystalline	920	
Limestone, light-gray, oolitic	979	
Limestone, very light gray, oolitic	986	
Limestone, very light gray, finely crystalline	991	
Limestone, very light gray, oolitic	1015	
Show of oil		
Limestone, very light gray, finely crystalline	1092	
Limestone, very light greenish-gray, finely crystalline, full of shiny pyrite	1493	1510

¹ Steel line measurement.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pencil Cave; greenish-gray, shaly limc, full of tiny biotite mica flakes	2275	2279
Limestone, dark blue-gray, dense	2870	
Limestone, very dark blue-gray, very dense (has strong odor of oil when crushed)	3015	

The bottom of this well is probably in rocks of lower Stones River age, not far above the Knox dolomite horizon.

Benedum-Trees Oil Co.,
TENNESSEE MINERAL & LUMBER CO. No. 2

(Map Number—12)

Location: Sec. 21, 5S-55E

Elevation: ?

Date: 1931

Total depth: 1711'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Lee formation		
Soil	0	4
Sand, brown	4	26
Slate, white	26	36
Sand, light	36	105
Crevice from 60' to 83'		
Water @ 92		
Slate, dark	105	150
Sand, dark	150	252
Slate, dark	252	390
White sand, "Salt Sand"	390	495
Mississippian system		
Mud, white	495	503
Slate, brown	503	510
Slate, blue and white	510	579
Lime, dark-gray	579	650
Red rock (shale)	650	672
Sand, white (salt water)	672	708
Slate and lime, dark	708	744
Red rock (shale)	744	753
Lime, dark	753	770
Slate, shells	770	794
Red rock (shale)	794	802
Lime, dark-gray to brown	802	955
Sand, gray	955	963
Slate, black	963	970
Sand, white, very hard	970	1016
Lime, dark-gray	1016	1028
Pencil Cave, dark (lime)	1028	1038
Lime, light-gray (smell of oil)	1038	1062
Sand (trace of oil)	1062	1070
Lime, light-gray to white	1070	1219
Lime, light- to dark-gray	1219	1375
Lime, black ("Coffee lime")	1375	1440
Sand, light and hard	1440	1559
Lime, green	1559	1564
Chattanooga black shale	1564	1595
Silurian system		
Slate, green	1595	1665
Lime, pink	1665	1676
Lime, sandy, hard	1676	1711

Benedum-Trees Oil Co.,
TENNESSEE MINERAL & LUMBER Co. No. 3
 (Map Number—13)

Location: SE NE NE Sec. 17, 5S-55E

Elevation: ?

Date: 1931

Total depth: 1210'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian		
Soil, surface	0	2
Sand	2	83
Slate	83	140
Sand	140	173
Slate	173	235
Sand shells	235	250
Salt Sand	250	406
Mississippian		
Slate	406	430
Sand shells	430	445
Slate and shells	445	490
Sand	490	540
Lime	540	570
Slate	570	583
Red rock (shale)	583	600
Slate and shells	600	660
Lime	660	676
Shells	676	695
Red rock (lime)	695	700
Lime, very hard	700	895
Set 8¼" casing @ 748		
Little gas @ 815		
Little salt water @ 850		
Lime, very hard, sandy	895	954
Lime, medium-hard	954	1030
Little gas @ 970		
Lime, soft	1030	1038
Show of oil @ 1030		
Lime	1038	1155
Gas pay @ 1130 (steel line measure)		
Lime, hard, sandy	1155	1175
Lime, white, medium-hard	1175	1193
Lime, sandy	1193	1205
Lime	1205	1210

Kingwood, HARRISON No. 1

(Map Number—14)

Location: NE NE NE Sec. 12, 8S-53E

Elevation: 1950'

Date: 1945

Total depth: 3707'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian		
Rockcastle		
Sand	0	43
Vandever		
Coal streak	43	45
Sand, shaly		102
Coal streak @ 95		
Shale		174
Coal streak @ 165		
Bon Air		
Shale	174	198
Sand		205
Shale		220
Shale, Eastland		292
Coal streak @ 266		
Sand		334
Whitwell		
Shale	334	414
Coal streaks @ 360 and 398		
Coal, Sewanee	414	420
Sewanee conglomerate		
Sand	420	574
Coal streaks @ 536, 542, 574		
Gizzard		
Sand	574	585
Shale, sandy		630
Mississippian		
Pennington		
Lime	650	664
Shale, lime streaks		680
Sand, water		694
Shale, sandy		715
Lime		749
Shale	749	785
Sand		825
Dolomite		830
Shale, gray, red, green, brown		862
Lime		891
Shale, red, green		898
Lime		905
Shale, gray, red, green, and lime streaks		917
Golconda		
Lime and shale streaks, broken	917	942
Shale, gray, red, green		949
Lime, dense to crystalline to oolitic, fossiliferous		1108
Sand	1108	1133
Gasper		
Lime	1133	1142
Shale, red, brown		1147
Lime		1173
Dolomite		1178
Lime, oolitic		1237

<i>Lithology</i>	<i>From</i>	<i>To</i>
Fredonia		
Lime, oolitic	1237	1301
St. Louis		
Lime	1301	1424
Dolomite		1429
Lime	1462	
Warsaw		
Sand, Garrets Mill	1462	1482
Lime, silty, oolitic to cherty		1565
Ft. Payne		
Lime, 70% to 90% chert	1565	1690
Chattanooga shale	1690	1718
Silurian		
"Rockwood"		
Lime	1718	1720
Dolomite		1756
Lime		1775
Siltstone		1852
Siltstone and lime, gradational zone		1897
Ordovician		
Trenton		
Catheys		
Lime	1897	2032
Cannon		
Lime	2032	2394
Hermitage		
Siltstone	2394	2421
Carters-Black River		
Lime	2421	2475
Bentonite, Pencil Cave		2482
Lime		2500
Bentonite, Pencil Cave		2501
Stones River		
Lime	2501	2846
Lime, dolomite, little gas		2847
Lime		3047
Shale, argillaceous to calcareous		3144
Lime		3245
Shale, argillaceous to calcareous; dolomite streak		3245
Shale, argillaceous to calcareous; dolomite streak @ 3265 and 3277-80		3312
Lime		3335
Knox dolomite		
Dolomite, cherty, with very few large rounded quartz grains	3335	3429
Dolomite, gas odor, faint rainbow; 1 pint green oil in 6 hours	3429	3435
Dolomite	3435	3705
Estimated 5 bbls. water per hour		3707

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, fine-grained, shaly, with coal streaks @ 43-45 and 95...	0	105
Shale, with coal streaks @ 165 and 266; sand layer @ 200-205		
Sand, fine-grained	105	293
Shale, with coal streaks @ 360, 398, and 414-420	293	335
Sand, fine-grained, with coal streaks @ 536, 542, and 574...	335	420
Shale, sandy	420	585
Sand, fine-grained	585	631
Sand, fine-grained	631	652

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, brown to tan, fine-grained, with fragments of black carbonaceous material at top	652	672
Shale, gray to green, slightly sandy and calcareous	672	720
Limestone, brown, fine-grained, oolitic at top	720	750
Shale, red to green, calcareous and sandy	750	780
Sand, white, fine-grained	780	828
Limestone, brown, fine-grained, argillaceous	828	830
Shale, green, calcareous	830	862
Limestone, brown, medium- to coarse-grained, oolitic, crinoidal, with layer of green shale	862	890
Shale, green, calcareous	890	915
Limestone and dolomite. Dolomite is brown and green; limestone, brown, fine- to medium-grained	915	935
Shale, green, calcareous	935	950
Dolomite, brown, fine-grained	950	955
Limestone, brown, fine-grained, with oolites @ 985 to 995	955	1000
Samples missing	1000	1005
Limestone, brown to tan, oolitic	1005	1085
Limestone, dark-brown, fine-grained, dolomitic	1085	1110
Sand, fine, medium-grained, calcareous	1110	1135
Limestone, brown to tan, fine-grained, oolitic, with green shale fragments	1135	1350
Limestone, tan to brown, fine-grained, with gray, pink, and yellow chert	1350	1410
Dolomite, brown, fine-grained, with brown, gray, pink, and green chert	1410	1465
Sand, brown, gray, and green, fine- to medium-grained, argillaceous	1465	1485
Limestone, fine-grained, brown, oolitic, and sandy	1485	1525
Shale, gray to green, silty, with brown, dense chert	1525	1545
Limestone, brown and tan, fine- to medium-grained, with gray and brown chert. 10' of brown, sucrose dolomite @ 1620	1545	1665
Dolomite, white, sucrose, with gray and brown chert	1665	1690
Chattanooga shale	1690	1720
Dolomite, brown, green, and red, fine-grained, silty, cherty, and argillaceous	1720	1800
Limestone, red, green, and brown, fine-grained, silty and argillaceous	1800	1865
Limestone, brown and gray, fine-grained, argillaceous, with some brown chert at top	1865	2095
Limestone, brown, fine- to coarse-grained	2095	2165
Limestone, gray to brown, fine-grained, argillaceous	2165	2225
Limestone, brown, fine-grained, with some brown-speckled chert from 2250 to 2300	2225	2390
Limestone, brown to gray, fine- to medium-grained, fossiliferous and slightly phosphatic	2390	2450
Bentonite or "Pencil Cave," green, micaceous	2450	2482
Limestone, light-brown, fine-grained	2482	2478
Bentonite, green, micaceous	2478	2482
Limestone, brown, fine-grained, slightly cherty	2482	2878
Limestone, gray to brown, fine-grained, argillaceous	2878	2922
Limestone, brown, fine-grained	2922	3090
Limestone, gray to brown, fine-grained, argillaceous	3090	3150
Limestone, brown to gray, fine-grained, dolomitic at base	3150	3350

Shell Oil Co., PETERSON No. 1

(Map Number—15)

Location: NE NW NE Sec. 2, 8S-56E

Elevation: 2622'

Date: 1955

Total depth: 5405'

INFORMATION RELEASE

TOOLS:

Rotary

CONTRACTOR:

Hupp, Hume & Hahn (Triple H), Owensboro, Kentucky

SPUD:

May 23, 1955

COMPLETE:

August 9, 1955

DAYS DRILLING:

79

BITS USED:

3-15" Reamers

2-12¼" Rock bit HTC

6-11" Rock bit HTC

1-9" Reed

71-7⅞" Rock bit HTC

HOLE SIZE:

15" Surface to 303 feet

12¼" 303 feet to 547 feet

7⅞" 547 feet to 5405 feet (T. D.)

CASING RECORD:

Cemented 301 feet 13⅞" casing at 301 feet

MATERIAL USED:

30 sacks Quebracho

21 cans Caustic soda

7½ sacks Magcophos

2 sacks Soda Ash

38 sacks Magcobar

910 sacks Magcogel

108 sacks lost circulation material

250 sacks shavings

LOST CIRCULATION

ZONES:

170 feet

195 feet

1069 feet

DEFLECTION SURVEYS:

Surface to 2433—less than 3°

2433 to 3475—3° to 4¼°

3475 to 3806—2½° to 3°

3806 to 4090—4° to 4½°

4090 to 5405 (T. D.)—½° to 3½°

FORMATIONAL TOPS:

(K. B. Measurements)

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian	0	323
(undifferentiated)		
Mississippian	323	490
Pennington formation		
Glen Dean limestone	490	825
Gasper-Ste. Genevieve limestones	825	1035
(undifferentiated)		
St. Louis	1035	1103
Warsaw formation	1103	1210
Garretts Mill sandstone member	1103	1120
Warsaw limestone member	1120	1210
Fort Payne limestone	1210	1370
Chattanooga shale	1370	1403
Silurian?	1403	1455
(undifferentiated)		
Ordovician		
Sequatchie formation	1455	1650
Leipers limestone	1650	1710

<i>Lithology</i>	<i>From</i>	<i>To</i>
Catheys-Cannon limestones (undifferentiated)	1710	2160
Hermitage limestone	2160	2205
T ₅ Bentonite	2185	
Upper Carters limestone	2205	2245
T ₄ Bentonite	2214	
T ₃ Bentonite	2245	
Lower Carters limestone	2245	?
Reverse Fault Zone	3000	3940
Hermitage limestone (repeated)	3940	3953
Upper Carters limestone (repeated)	3953	4015
T ₄ Bentonite (repeated)	3958	
T ₃ Bentonite (repeated)	4015	
Lower Carters limestone (repeated)	4015	
Pierce limestone (marl)	4495	4530
Upper Murfreesboro limestone	4530	4700
Lower Murfreesboro limestone	4700	4985
Knox dolomite	4985	5405

POROSITY:

848'- 862'	Slight to scattered fair interoolitic
880'- 890'	Slight to fair interoolitic
925'- 940'	Slight to fair interoolitic
940'- 945'	Fair to good interoolitic
960'- 970'	Scattered slight interoolitic
980'- 995'	Slight to scattered fair interoolitic
1170'-1175'	Slight interoolitic
1770'-1775'	Trace pinpoint intergranular
4163'-4180'	Scattered isolated vugs

OIL AND GAS SHOWS:

(Note: Well was equipped with a baroid gas Detection Unit)

110'- 210'	Very slight oil show
848'- 862'	Slight to scattered fair oil show, dead
880'- 890'	Slight to fair oil show and odor, dead in part
925'- 940'	Slight to scattered fair oil show
940'- 945'	Fair to good oil show, dead in part
960'- 970'	Slight oil show
980'- 995'	Very slight to slight oil show
1170'-1175'	Very slight oil and gas show
1372'-1420'	Slight to fair gas show
1770'-1775'	Slight oil show, dead
4163'-4180'	Slight oil show in isolated vugs

DRILLSTEM TESTS:

(Derrick floor measurements)

839'- 854'	Open 1 hour, recovered 5' drilling mud, very weak to no blow, shut in 1/2 hour, SIBHP 40#, IFP 5#, FFP 15#, IHP 309#, FHP 398#
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CORES:

4163'-80'	Recovered 17' limestone, dark brownish-gray, dense to lithographic with scattered crystalline streaks, dark brownish, sugary dolomite splotches and streaks; some dark brownish-gray, opaque to semi-translucent chert; scattered black shaly partings and streaks, slickensided in part, slightly fossiliferous; scattered isolated calcite-filled vugs, slight oil show in vugs.
4216'-39'	Recovered 23' limestone, tannish-gray, micro-crystalline to dense to scattered lithographic, with dark-gray to greenish-gray shaly streaks and splotches, slightly fossiliferous.

LOGS:

Schlumberger logs:

5402'-307'

SP, 16" normal, 64" long normal, 19' lateral: 19' inverted lateral: 5375 feet to 307 feet

Micro log: 5399 feet to 307 feet with Micro Caliper

Gamma-Ray-Neutron log: 5402 feet to 50 feet

Full scale logs available to Schlumberger offices, Evansville, Indiana, upon request from Schlumberger.

SAMPLES:

Samples are available from the Evansville Sample Cut. A set is also on file with the Tennessee Division of Geology at Nashville, Tennessee.

DAVIDSON COUNTY

Daniel Lindsay et al, ARTHUR STEPHENS No. 1

(Map Number—1)

Location: NW SE SE Sec. 20, 4S-32E

Elevation: 470'

Date: 1924

Total depth: 1491'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Blue lime	1	141
Passed first water (fresh) @ 85		
Black lime	141	240
Passed sulphur water @ 195		
Brown lime	240	380
Gray lime	380	475
Brown lime	475	525
Gray lime	525	550
Brown lime	550	625
Show of oil @ 570		
Gray lime	625	645
Brown lime	645	695
Gray lime	695	700
Brown lime	700	926
White lime	926	932
Brown lime	932	938
Gray lime	938	968
Blue lime	968	1000
Brown lime	1000	1043
Little sulphur water @ 1030		
White sand and lime sand	1043	1045
Lime with sand	1045	1098
Heavy water began @ 1050		
White sandy lime	1098	1140
Brown sandy lime	1140	1160
Gray sandy lime	1160	1165
Most water @ 1165—approx. 4,000 barrels flowing		
White sand	1165	1175
White sand and lime	1175	1205
Brown sand and lime	1205	1210
Gray and brown lime	1210	1420
Hard, white	1420	1424
Dark-blue	1424	1430
Hard, gray	1430	1433
Light-gray lime, soft	1433	1463

<i>Lithology</i>	<i>From</i>	<i>To</i>
Light-gray	1463	1466
Brownish-gray, strong trace of oil	1466	1473
White lime	1473	1476
Dark-gray, pure lime	1476	1485
Yellowish-gray	1485	1487
Lost tools; no cuttings	1487	1491

G. P. Williams, E. D. JOHNSON No. 1

(Map Number—2)

Location: SW 6S-31E

Elevation: 504'

Date: 1929

Total depth: 1250'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface, soil and soft plastic clay or soapstone (exposed in creek 100' from well)	0	20
Struck solid limestone at 12'		
Small flow fresh water 16'		
Set 8" drive pipe 18'		
Limestone, dark-blue, coarsely crystalline, numerous impressions of shells, and large fragments of honey-yellow calcite	20	135
Limestone, mixture of dark-blue and very light gray, finely crystalline, with abundance of honey-yellow calcite	135	155
Limestone, very dark blue, coarsely crystalline, calcite abundant	155	200
Limestone, very light gray, largely crushed yellow and white calcite	200	275
Limestone, dark-blue, finely crystalline, with numerous shell impressions	275	325
Limestone, light-gray to drab, finely crystalline to dense, shell impressions common but not abundant, specks of tarnished pyrite	325	355
Carters limestone, very light-gray or drab, finely crystalline to dense	355	360
Pencil Cave, green clay shale, full of tiny flakes of black mica, very thin at		360
Limestone, light- and dark-gray or drab, very finely crystalline to dense	360	590
Limestone, light, drab, dense, mottled blue	590	595
Calcium carbonate	90.30%	
Magnesium carbonate	1.04	
Silica	7.68	
Limestone, light and dark, drab to blue mottled, very finely crystalline or granular to dense	595	805
Limestone, very dark, drab, very finely granular to dense or lithographic, large fragments show blue mottling and occasional calcite stringers	805	1000
Calcium carbonate	56.66%	
Magnesium carbonate	.85	
Silica	34.64	
Limestone, same as above	1000	1015
Limestone, very light gray or dove-colored, very finely granular or vuggy	1015	1075
At 1030'		
Calcium carbonate	88.07%	
Magnesium carbonate	3.90	
Silica	6.90	

Limestone, bright-green, finely granular, somewhat shaly . . .	1075	1110
Limestone, very light gray, finely granular	1110	1115
Sandstone, white, very fine grained, with light-gray granular limestone	1115	1120
Strong flow water		
Limestone, very light to dark-gray, very finely granular or sugary		1250

Vultee Aircraft, FEE No. 1

(Map Number—3)

Location: Nashville Municipal Airport

Elevation: 590'

Date: 1941

Total depth: 1300'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray lime	25	75
Gray lime and shale	75	85
Gray lime	85	100
Gray lime and shale	100	130
White lime	130	140
Gray lime and white lime	140	145
Gray lime and white	145	150
Gray lime	150	555
No record	555	560
Black lime	560	565
Gray and black lime	565	585
Gray lime	585	605
No record	605	610
Black lime	610	625
Gray lime and flint	625	635
Gray lime and shale	635	680
Gray lime and flint	680	695
Black lime	695	715
Gray lime	715	765
Gray lime and flint	765	810
Gray lime	810	845
No record	845	850
Gray lime	850	875
White lime and flint	875	885
Blue shale	885	910
Sandy lime	910	925
Small amount of water @ 914-920		
White lime and sand	925	930
Sandy white lime	930	935
Sandy lime	935	950
Sand	950	955
Sandy lime	955	965
Sand	965	970
Sandy lime	970	990
Brown sand	990	1000
Dark-gray lime and shale	1000	1005
Dark-gray lime	1005	1015
Lime and flint	1015	1025
Dark-gray lime	1025	1030
Gray lime and flint	1030	1050
Gray sandy lime	1050	1055
Gray lime and shale	1055	1060
Sandy gray lime	1060	1070
Dark-gray lime	1070	1075

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray lime	1075	1100
Brown and gray lime	1100	1110
Gray sandy lime	1110	1120
Gray lime	1120	1180
Lime and flint	1180	1190
Gray lime	1190	1235
Gray lime and flint	1235	1245
Gray lime	1245	1300

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-gray, coarse- to medium-grained, shaly, phosphatic. Residue 20%—clear, fine-grained, sub-angular quartz grains (50%); black, soft, porous shale (50%)...	20	35
Limestone, dark-gray, fine-grained, shaly. Residue 35-60%—dark-brown, firm, porous, fine, sandy shale	35	65
Shale, dark-gray, fine-grained, fossiliferous, calcareous. Residue 60% or more—dark-brown, firm, porous, fine, sandy shale	65	70
Shale, dark-gray, fine-grained, calcareous. Residue 60% or more—gray, dark-gray and brown, firm, fine, sandy shale	70	115
Limestone, gray, fine-grained, fossiliferous. Residue 10%—gray to tan, soft, porous, pyritic shale and white secondary silica	115	130
Limestone, light-tan, coarse-grained, slightly dolomitic. Residue 5%—gray, tan, iron stained, dolocastic chert	130	135
Limestone, light-tan to light-gray, medium-grained, slightly dolomitic. Residue 5% or less—white to gray, rough, dolocastic chert; white secondary silica; brown and black porous shale	135	150
Limestone, light-gray, medium-grained, slightly dolomitic. Residue 3% or less—soft, tan, dolocastic shale and white to gray secondary silica	150	175
Limestone, light-gray, medium-grained, slightly dolomitic. Residue 10%—light-gray, finely dolocastic chert (90%); tan, dolocastic shale (10%)	175	185
Limestone, light-gray, medium-grained, slightly dolomitic. Residue 10%—tan, dolocastic shale (75%); smooth, light-gray chert (10%); light-gray, fine, dolocastic chert (15%)	185	205
Limestone, gray to blue-gray, fine- to medium-grained, fossiliferous. Residue 5%—gray, soft, porous, dolocastic shale and some secondary silica	205	245
Limestone, gray, medium-grained. Residue 5%—gray, soft, porous, dolocastic shale	245	275
Limestone, gray, medium-grained, fossiliferous. Residue 5%—gray to tan, soft, dolocastic shale and some secondary silica	275	325
Limestone, light-gray to light-tan, medium-granular. Residue 2%—white, fine, globular, secondary silica and some tan shale	325	345
Limestone, gray, fine-grained. Residue 5%—brown, soft, dolocastic shale (75%); white, cavernous silica (25%)	345	380
Limestone, light-gray, fine-grained. Residue 10%—soft, tan, fine dolocastic shale and few white silica networks	380	405
Limestone, light-tan, medium-grained, cherty. Residue 15%—light-gray to gray, dense, smooth, partly dolocastic speckled chert	405	455
Limestone, gray, medium-grained. Residue 15% or more—tan, soft, dolocastic shale (95%); dark-gray to black, dense chert (5%)	455	470

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray, medium-grained (80%); limestone, blue-gray, fine-grained, shaly (20%). Residue 20-25%—soft, tan, dolocastic shale (80%); light-gray, rough, partly dolocastic chert (20%)	470	495
Limestone, light-tan, medium-grained, dolocastic. Residue 15%—white, finely dolocastic chert (75%); white secondary silica and gray, smooth chert (25%)	495	550
Limestone, gray, fine-grained. Residue 10%—soft, gray to tan, porous shale and white secondary silica	550	590
Limestone, light-gray, fine-grained. Residue 5%—soft, tan, porous, platy shale and some white secondary silica	590	610
Limestone, dark-gray, fine-grained, shaly. Residue 25%—soft, light-tan, porous, lumpy shale	610	625
Limestone, gray, fine-grained. Residue 5%—brown, soft, porous shale and some white secondary silica	625	635
Limestone, gray to dark-gray, fine-grained. Residue 10%—soft, tan, porous, platy to lumpy shale	635	830
Limestone, dove-gray, fine-grained (75%); limestone, gray, fine-grained (25%). Residue 5%—soft, tan, porous shale and white silica networks	830	840
Limestone, dove-gray, fine-grained, slightly dolocastic. Residue 1%—brittle, banded, dark-gray, slaty shale and some pyrite	840	860
Limestone, dove-gray, fine- to medium-grained, slightly dolomitic. Residue 2%—white, very fine sand (80%); dark-gray, banded shale and few rounded quartz grains (20%)	860	885

DECATUR COUNTY

Sardis Oil & Gas Co., J. J. SHANNON No. 1

(Map Number—1)

Location: SW SW NW Sec. 2, 14S-18E

Elevation: ?

Date: 1922

Total depth: 1076'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	5
Black lime	5	180
Dark-gray and brown lime	180	450
Water sand full of water	450	480
Gray lime	480	825
Good light-blue sand, dry	825	940
Gray lime	940	1076

Hole full of water from 1070 to 1076

CASING:

16' of 10"

170' of 8"

510' of 6½"

Standard Oil Co. of La., C. W. WYATT No. 1

(Map Number—2)

Location: NW SW SW Sec. 19, 12S-17E

Elevation: 514'

Date: 1929

Total depth: 1289'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red sandy clay, with mica and gravel	0	20
Red lime rock	20	22
Red clay	22	32
Red lime rock	32	44
Gray lime	44	46
Hard lime rock	46	59
Clay and gravel	59	61
Hard lime rock	61	62
Red clay	62	64
Red lime rock	64	69
Blue slate (shale)	69	70
Gray lime rock	70	81
Blue slate (shale)	81	83
Blue lime rock	83	165
Gray lime	165	176
Blue lime	176	184
Hard blue lime	184	216
Hard gray lime	216	226
Hard blue lime	226	240
Hard gray lime	240	252
Hard white lime	252	290
Hard blue lime	290	315
Hard gray lime	315	440
Hard white lime	440	455
Hard blue and gray lime	455	485
Hard gray lime	485	500
Hard and soft gray lime	500	510
Sand rock	510	515
Hard white lime	515	515
Hard and soft white lime	515	530
Hard sand rock	530	540
Hard gray lime	540	545
Hard white lime	545	570
Hard gray lime	570	580
Hard and soft blue lime	580	600
Hard gray lime	600	620
Blue lime	620	640
Hard gray lime	640	670
Hard and soft gray lime	670	700
Gray and brown lime	700	810
Show of oil	810	822
Hard gray lime	822	836
Hard and soft gray lime	836	840
Hard gray lime	840	882
Hard brown lime	882	885
Hard gray lime	885	890
Hard white lime	890	900
Hard and soft white lime	900	920
Blue and white lime and slate (shale)	920	945
Lime	945	975
Hard gray lime	975	980
Blue lime	980	995
White lime	995	1010

<i>Lithology</i>	<i>From</i>	<i>To</i>
Hard gray lime	1010	1015
Sand	1015	1020
Hard gray lime	1020	1028
White lime	1028	1050
Blue lime	1050	1060
Hard gray lime	1060	1125
Hard brown lime	1125	1135
Hard gray lime	1135	1140
Hard brown lime	1140	1160
Hard gray lime	1160	1210
No record	1210	1214
White lime	1214	1222
Crevice	1222	1223
Gray lime	1223	1249
Lime, with water	1249	1254
Lime	1254	1257
White lime	1257	1264
Gray lime	1264	1274
White lime	1274	1285
Gray lime	1285	1289

CASING RECORD:

10" set @ 64'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, yellowish, coarse-grained, with some greenish-gray, glauconitic and micaceous shale	0	20
Limestone, red to reddish-brown, medium-grained, fossiliferous (crinoid plates); small amount of dark-brown chert	20	45
Limestone, light-gray to greenish-gray, glauconitic	45	50
Limestone, same as above, with some greenish-gray, coarse-grained, calcareous shale	50	55
Limestone, light-gray, some fragments red, medium-grained, slightly glauconitic	55	69
Shale, medium-gray, coarse-grained, calcareous, with some brownish-gray, fine-grained limestone	69	83
Shale, gray, medium-grained, calcareous, with gray to brown, medium-grained limestone and some gray to brown, dense chert	83	98
Shale, gray to dark-gray and slightly greenish, coarse-grained, calcareous, with some gray to brown, dense chert	98	132
Shale, same as above, with brownish-gray, medium-grained limestone and some light-colored, dense chert	132	142
Sandstone, brown, fine-grained, calcareous, with some shale and limestone as above	142	155
Shale, gray and brown, coarse-grained, calcareous, with some light-colored to tan chert	155	160
Shale, dark-gray, coarse-grained, calcareous, with light-gray, medium-grained limestone	160	173
Shale, gray, hard, coarse-grained, calcareous and sandy, with limestone as above	173	182
Shale, same as above, with some dark-gray, hard, fine-grained sandstone	182	215
Shale, gray, coarse-grained, calcareous and sandy, with sandstone as above and a few fragments of light-gray, fine-grained limestone	215	235
Shale, dark-gray, coarse-grained, very calcareous, with brown, fine-grained limestone	235	250
No samples	250	252
Limestone, light-brown, hard, medium-grained	252	260

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, same as above, with a considerable amount of light-gray, slightly dolocastic chert	260	265
Limestone, light-gray to brown, medium-grained	265	275
Limestone, same as above, with some light-gray, dense, sharp chert	275	280
Limestone, gray and brown, dense to fine-grained	280	300
Limestone, medium-gray, fine-grained	300	320
Limestone, brown, fine- to medium-grained	320	336
Limestone, gray, fine-grained	336	340
Limestone, brownish-gray, dense, with some light-gray, fine-grained fragments	340	355
Limestone, light- to medium-gray, dense to fine-grained	355	385
Limestone, brown, dense, with a few fragments of dark-gray, medium-grained, carbonaceous shale	385	395
Limestone, light-gray, fine- to medium-grained	395	405
Limestone, same as above, with a few fragments of gray, dense, sharp chert	405	415
Limestone, brown and gray, dense, with some gray, granular magnesian limestone	415	440
Limestone, gray, dense	440	455
Limestone, same as above, with some greenish-gray, hard, medium-grained, calcareous shale	455	475
Limestone, light-gray to light-brown, medium-grained, with some light- to dark-gray, dense, sharp, vitreous chert	475	510
Limestone, light- to medium-gray, fine- to medium-grained	510	530
Limestone, light-gray to brown, coarse-grained; oil-stained shale	530	540
Limestone, light-brown and tan, fine-grained	540	590
Limestone, same as above, with some light-gray, coarse-grained limestone	590	600
Limestone, gray to brown, medium-grained, with some gray, coarse-grained, calcareous shale	600	640
Limestone, medium-gray, medium-grained and dense	640	670
Limestone, gray to brown, dense	670	680
Limestone, same as above, with some dark-gray, coarse-grained, calcareous shale	680	720
Limestone, gray to brown, fine-grained to dense	720	740
Limestone, light-gray, dense	740	780
Limestone, light-gray, dense, with some slightly magnesian, pearl-gray limestone	780	822
Limestone, light-gray, fine- to coarse-grained, dolomitic	822	836
Limestone, gray to brown, coarse-grained, dolomitic	836	882
Limestone, light-gray, medium-grained, dolomitic, with some tan, coarse-grained, dolomitic, and fragments of green, waxy, pyritiferous shale	882	920
Limestone, light-gray to brownish-gray, medium-grained, with greenish-gray, noncalcareous shale, and tan, coarse-grained sand cemented by a coarse-grained dolomite into a sandstone	920	945
Sandstone, light-gray, medium-grained, dolomitic, with a few well-rounded, pitted and frosted quartz grains	945	995
Dolomite, light-gray, sucrose, sandy, with a considerable amount of green, noncalcareous shale and some well-rounded quartz grains	995	1010
Dolomite, light brownish-gray, sucrose, sandy	1010	1015
Dolomite, same as above, with abundant white, crystalline calcite and some green, pyritiferous shale	1015	1020
Dolomite, tan and brown, medium-grained	1020	1028
Dolomite, same as above, with green and gray pyritiferous shale	1028	1060

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, light-gray, sucrose, with some white to bluish-gray, dense, sharp chert and a few well-rounded quartz grains	1060	1095
Dolomite, tan, sucrose, sandy, with some light-colored, dense, sharp chert and a small amount of pyrite	1095	1125
Dolomite, light-gray to light-brown, sucrose	1125	1160
Dolomite, same as above, with some greenish-gray, fine-grained, pyritiferous shale	1160	1211
Dolomite, light-gray to white, with some well-rounded quartz grains, some of which are cemented by gray dolomite	1211	1214
Dolomite, light-gray, sucrose, with some gray, medium-grained, dolomitic limestone	1214	1221
Dolomite, tan, sucrose, sandy	1221	1240
No samples	1240	1289

Chester County Oil Co., J. A. MONTGOMERY No. 1

(Map Number—3)

Location: SW SW SE Sec. 6, 13S-17E

Elevation: 520'

Date: 1931

Total depth: 2511'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface, mainly red clay	0	90
Set 10" casing @ 60		
Silurian system		
Limestone, dark blue-gray, dense	90	115
Limestone, dark blue-gray, shaly	115	125
Limestone, dark blue-gray, dense	125	135
Clay, blue	135	140
Limestone, dark-blue, shaly	140	150
Ordovician system		
Limestone, light blue-gray, finely crystalline to dense	150	230
Set 8" casing @ 200		
Limestone, light-gray, dense	230	240
Limestone, dark blue-gray, finely crystalline	240	280
Limestone, brownish-blue, dense	280	300
Limestone, light brownish-gray or olive-drab, dense	300	325
Limestone, typical light olive-drab, dense "dove"	325	355
Limestone, light-brown, coarsely-crystalline	355	440
Limestone, dark-blue, dense	440	470
Limestone, light- to dark-gray or olive-drab, dense	470	490
Limestone, blue-gray, streaked, finely crystalline	490	495
Limestone, brownish-gray, dense	495	525
Limestone, light to dark blue-gray, very dense	525	620
Limestone, light-gray to brown, very dense	620	650
Limestone, dark-blue, dense	650	680
Limestone, very light gray, dense	680	685
Limestone, light and dark blue-gray, very dense	685	740
Limestone, nearly white, dense	740	760
Limestone, light to dark blue-gray, very dense, hard	760	790
Limestone, white, finely crystalline or granular, pyritic	790	870
Limestone, same, with considerable dark-blue or green, shaly, pyritic limestone	870	948
Sulphur water @ 943-948		
Limestone, white, finely granular, magnesian, pyritic	948	971
Limestone, same, with numerous well-rounded, glassy quartz grains	971	1010

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, white, finely granular, very hard, magnesian ..	1010	1055
Limestone, same, with quartz grains abundant	1055	1060
Limestone, white, very finely granular, magnesian	1060	1142
Driller reported a very slight showing of oil @ 1127. Ether test on cuttings showed very slight residue.		
Limestone, light brownish-buff, finely granular or sugary, pyritic, magnesian	1142	1170
Limestone, light-gray to white, very finely granular, with quartz grains abundant	1170	1220
Limestone, same, with less pyrite and quartz grains.	1220	1345
Limestone, light- to dark-gray, very finely granular, pyritic, magnesian	1345	1361
Driller notes making about 8' per 24 hours, with 1282' water in hole		
Limestone, light-gray to white, very finely granular, no pyrite, magnesian	1361	1474
Limestone, same, with abundance of quartz and pyrite....	1474	1658
Limestone, chalky-white, very finely granular, quartz and pyrite present but not abundant	1658	1703
Limestone, same, with abundant quartz grains	1703	1714
Limestone, light-gray to honey-yellow or white, finely granular, magnesian, with no pyrite, and quartz rare.	1714	1881
Limestone, light-gray to white, very finely granular, mag- nesian, with abundant pyrite and quartz grains.	1881	1915
Sandstone, sub-angular to well-rounded quartz grains, milky and glassy	1915	1950
Limestone, light-gray to white, very finely granular, mag- nesian, quartz and pyrite abundant	1950	1960
Sandstone, same as above	1960	1970
Limestone, white, very finely granular, magnesian, with pyrite and quartz grains common	1970	2000
Limestone, light-gray to white, finely granular, with oc- casional well-rounded, clear or somewhat frosted quartz grains; no pyrite	2000	2055
Limestone, same, with addition of dark-gray granular limestone containing abundance of pyrite	2055	2081
Limestone, light-gray to white, finely granular, with abundant shiny pyrite and very little quartz ..	2081	2106
Limestone, same, with a few fragments of darker gray limestone and abundant shiny pyrite	2106	2141
Limestone, light-gray, hard, somewhat granular, slightly dolomitic, and limestone, light-brownish, hard, crypto- crystalline	2141	2151
Limestone, light-gray, hard, crystalline, fossiliferous, and limestone, light-brown, hard, coarse-textured, dolo- mitic. Casts of a minute brachiopod that resembles <i>Dalmanella</i> sp. noted	2151	2156
Limestone, light-gray, hard, coarse-textured; limestone, light-brown, hard, crystalline; limestone, light-gray, hard, crystalline, fossiliferous; and a few crystals of pyrite	2156	2161
Limestone, light-gray and slightly brownish, crystalline ..	2161	2171
Limestone, light-gray and slightly bluish-gray, hard, crys- talline	2171	2176
Limestone, light-gray, hard, crystalline, and limestone, light-brown, coarse-textured, hard, dolomitic. A few casts of minute Brachiopoda (probably <i>Raphistoma</i> sp.) noted	2176	2181
Limestone, light-gray and slightly brownish, hard, crys- talline; limestone, white, soft, medium-textured; and a few crystals of pyrite	2181	2191

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-brownish, hard, crystalline; limestone, light-gray, hard, crystalline; and limestone, soft, medium-textured	2191	2201
Limestone, brown, hard, crystalline, slightly fossiliferous; limestone, white, fairly hard, medium-textured; and a few fragments of shale, brownish, hard, medium-grained, calcareous, and limestone, brown, hard, coarse-textured, slightly dolomitic. Casts of minute Brachiopoda noted	2201	2206
Limestone, light-brownish, hard, coarse-textured; limestone, gray, hard, granular, dolomitic; and a few crystals of pyrite	2211	2216
Limestone, light-gray, hard, crystalline, fossiliferous (?); limestone, light-brown, crystalline; and a few crystals of pyrite	2216	2221
Limestone, light-brown, hard, crystalline; limestone, light-gray, hard, medium-textured; shale, dark-green, hard, fine-grained, calcareous; and a few crystals of pyrite	2221	2226
Limestone, brownish, hard, crystalline; limestone, light-gray, hard, somewhat granular, dolomitic; and a few fragments of dark-green shale and crystals of pyrite	2226	2231
The chloroform test shows oil in this sample, but no porous material was shown unless it is the granular limestone noted above.		
Limestone, light-brown, hard, crystalline; limestone, white, fairly hard, medium-textured; and a few crystals of pyrite	2231	2235
Limestone, light-gray, somewhat mottled, hard, cryptocrystalline; limestone, light-brown, crystalline; limestone, light-gray, hard, granular, slightly dolomitic; and a few pieces of shale, greenish, hard, medium-grained, calcareous	2235	2241
Limestone, light-brown, hard, cryptocrystalline and granular; limestone, light-gray, hard, slightly dolomitic; and a few crystals of pyrite	2241	2246
Core		
Sample same as above	2246	2251
Core		
Limestone, brownish, hard, coarsely crystalline; limestone, slightly dolomitic; limestone, light-gray, crystalline; limestone, white, fine-textured; and a few crystals of pyrite	2251	2261
Same as above. Also a few fragments of shale, dark-brown, hard, coarse-grained, calcareous	2261	2266
Limestone, light-brown, fairly hard, crystalline, oolitic; limestone, light-gray and brown, granular; and a few oolites and crystals of pyrite	2266	2271
NOTE: The chloroform test shows oil in this sample. The driller reports soft drilling; however, none of the above described rock is very porous. The granular limestone may have a small amount of porosity.		
Limestone, light-brownish, hard, crystalline; limestone, light-gray, hard, medium-textured, crystalline; a few pieces of shale, hard, green, fine-grained, calcareous; and a few light-brown oolites	2271	2276
Limestone, light-brown and gray, hard, crystalline; dolomite, light-brown, hard, crystalline; shale, green, fine, hard, calcareous; and a few crystals of pyrite	2276	2281
Limestone, light-brown, hard, crystalline; limestone, light-brown, hard, granular, dolomitic; a few pieces of limestone, white, fine-textured; and a few fragments		

<i>Lithology</i>	<i>From</i>	<i>To</i>
of shale, green, hard, medium-grained, calcareous, pyritiferous	2281	2286
Limestone, brown, hard, crystalline; limestone, light-gray, fairly hard, medium-textured; a few brown spherical oolites; and a few fragments of shale, black, fine-grained, carbonaceous	2286	2291
AGE: Paleozoic		
Limestone, brown, hard, crystalline, and a few fragments of colorless calcite	2291	2296
Limestone, brown, hard, crystalline; limestone, light-gray, medium-hard, fine-textured; and a few small oolites (?)	2296	2306
AGE: Probably Ordovician		
NOTE: The dark-brown material at 2299½' that colors chloroform is extraneous heavy oil which doubtless came from the tools.		
Limestone, brown, hard, crystalline; limestone, light-gray, fairly soft, medium-textured; and a few fragments of shale, dark-brown, hard, fine-grained, noncalcareous, carbonaceous	2306	2316
Limestone, light-brown, hard, crystalline; limestone, light-gray, medium-textured; and grains of colorless calcite	2316	2326
Limestone, light-gray, hard, granular, dolomitic; limestone, light-brown, hard, crystalline; and a few crystals of calcite	2326	2336
Limestone, brown, hard, coarse-textured, dolomitic; a few pieces of limestone, light-gray, hard, crystalline; and shale, dark-gray, hard, fine-grained, noncalcareous	2336	2341
AGE: Probably Ordovician		
Limestone, light-brown and light-gray, hard, crystalline	2346	2351
Limestone, light-gray and slightly brownish, hard, crystalline; and a few pieces of shale, dark-brown, hard, medium-grained, slightly calcareous	2351	2356
Dolomite, light-gray, medium-hard, granular, and limestone, light-gray, hard, crystalline, dolomitic—in approximately equal amounts	2356	2361
Dolomite, light-gray, medium-hard, granular; limestone, light-brown, hard, dolomitic, crystalline; and a few pieces of shale, dark-brown, hard, noncalcareous	2361	2366
Dolomite, light-brown, hard, granular; limestone, light-gray and brown, hard, crystalline, dolomitic; and a few pieces of hard black shale	2366	2371
Dolomite, light-gray, hard, granular; limestone, light-gray and brown, hard, crystalline, dolomitic; and limestone, white, soft, fine-textured	2371	2376
Limestone, brown and light-gray, hard, crystalline; limestone, gray, crystalline, hard, slightly dolomitic; and a few pieces of shale, black, hard, fine-grained, noncalcareous	2376	2381
AGE: Probably Ordovician		
Limestone, light-brown, hard, crystalline; limestone, light-gray, soft, fine-textured; and a few pieces of shale, black, hard, fine-grained, noncalcareous	2381	2386
Dolomite, light-gray, hard, granular, and limestone, brown and gray, crystalline, dolomitic	2386	2391
Limestone, brown, hard, crystalline, with small patches of a black, soft, fine-textured mineral; also limestone, light-gray, hard, crystalline	2391	2396
Sample same as above. Also a few fragments of shale, black, hard, fine-grained, noncalcareous, carbonaceous	2396	2401

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, brown, hard, crystalline, and limestone, brownish-gray, hard, crystalline, dolomitic	2401	2411
Dolomite, light-gray and brown, granular, and a few pieces of limestone, brown, crystalline	2411	2421
Limestone, light-brownish, hard, crystalline, and a few pieces of dolomite, light-gray, hard, granular	2421	2426
A chloroform test shows oil in these cuttings.		
Limestone, brown, hard, crystalline, and a few fragments of shale, almost black, hard, fine-grained, noncalcareous	2426	2431
Sample same as above, except no black was noted	2431	2436
Limestone, light-brown, hard, crystalline; limestone, light-gray, fairly hard, medium-textured; and limestone, light-brown, hard, coarse-textured, dolomitic	2436	2441
Limestone, hard, granular, dolomitic; a few pieces of black shale and an occasional rounded grain of quartz	2441	2451
AGE: Paleozoic		
Limestone, brown, hard, crystalline, dolomitic; limestone, light-gray, hard, coarse-textured, dolomitic; and a few small fragments of shale, dark-brownish, almost black, hard, fine-grained, noncalcareous	2451	2461
NOTE: An interesting condition noted in the above cuttings is the presence of the dark-colored shale fragments disseminated through the brown limestone. It was first thought that the shale represented laminae in the limestone, but a more thorough examination found this to be erroneous.		
Limestone, light-gray, fairly hard, granular, dolomitic; limestone, brown, hard, crystalline, dolomitic; and a few rounded grains of quartz	2461	2466
Limestone, light-gray and brownish, hard, granular, dolomitic, with a few disseminated fragments of shale, dark-brown, hard, fine-grained	2466	2471
Limestone, brown, hard, crystalline, slightly dolomitic	2471	2476
Same as above. Also limestone, brown, hard, crystalline, dolomitic, arenaceous; limestone, light-gray, hard, crystalline, dolomitic; fairly large rounded grains of quartz; and a few pieces of shale, dark-green, hard, noncalcareous	2476	2486
Limestone, light-brown, hard, crystalline; limestone, light-gray, hard, granular, dolomitic; shale, dark-brown, hard, medium-grained, slightly calcareous; and a few rounded grains of quartz in the washed residue	2486	2491
Limestone, light-brown, hard, crystalline, dolomitic; a few pieces of white dolomite; and shale, black, hard, fine-grained, noncalcareous, carbonaceous	2491	2501
Limestone, brown, hard, crystalline, arenaceous, dolomitic; limestone, light-gray, hard, crystalline, dolomitic; and a considerable number of large, well-rounded grains of quartz	2501	2506
AGE: Probably Ordovician		
Limestone, light-brown and light-gray, fairly hard, coarse-textured, slightly arenaceous, dolomitic, and a few fairly large, well-rounded grains of quartz	2506	2511

C. M. Pierce et al, J. A. MONTGOMERY No. 1

(Map Number—4)

Location: C/SW SE Sec. 6, 13S-17E

Elevation: 517'

Date: 1937 (Drilled deeper 1955)

Total depth: 1840'; 3900'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	70
Quicksand and gravel	70	90
Shale	90	100
Light limestone	100	150
Sandy limestone, red	150	190
Limestone	190	320
Green shale	320	350
Limestone	350	400
Brown sand and limestone	400	450
Black shale	450	470
Limestone	470	500
White limestone	500	550
Limestone	550	600
Limestone, hard and soft	600	700
Limestone, hard	700	820
Sandy limestone	820	840
Green shale	840	860
Limestone, hard	860	900
Limestone, light	900	950
Limestone	950	1000
Limestone, hard and soft	1000	1050
Limestone	1050	1100
Brown limestone	1100	1150
Limestone, hard	1150	1200
Limestone, hard and soft	1200	1250
Limestone	1250	1300
Dark shale (oil show)	1300	1320
Brown shale	1320	1340
Shale	1340	1360
Limestone	1360	1400
Sandy shale and limestone	1400	1450
Dark limestone	1450	1480
Limestone	1480	1500
Limestone, hard	1500	1600
Shale, light-gray	1600	1615
Porous limestone	1615	1640
Brown shale	1640	1650
Limestone	1650	1680
Green shale	1680	1700
Limestone	1700	1750

Memphis Equipment Co., HEYWOOD CORDLE No. 1

(Map Number—5)

Location: NW SW SE Sec. 15, 13S-17E

Elevation: 509'

Date: 1955

Total depth: 4800'

DRILL STEM TESTS

Heywood Cordle # 1, elevation 509

First sample @ 160', basal Hermitage—top Carters.

Top Knox 950' last sample @ 4695'

DST # 1

4600-52; 1/2 hour, continuous strong blow; recovered 3825' iron-sulfide (?) water; IFP 250#, FFP 1675#, SIBHP 1900# 15 minutes, H. H. 2175#

DST # 2

4484-4584; 30 minutes; recovered 930' mud, 1507' muddy, iron-sulfide (?) water and 1300' iron-sulfide (?) water; IFP 50#, FFP 1600#; SIBHP 1800# 15 minutes; H. H. 2100#.

DST # 3

3995-4020'; 20 minutes, weak blow for 15 minutes; recovered 3' watery mud. IFP O#; SIBHP 1225# 15 minutes; H. H. 1875#.

DST # 4

3800-42'; open 25 minutes, continuous steady weak blow; recovered 10' watery mud; IFP O#; FFP O#; SIBHP 1275# 15 minutes; H. H. 1800#.

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray, silty shale; tan, fine-crystalline limestone; limestone has occasional coarse-crystalline calcite specks	160	190
Brown, fine-crystalline limestone with dark spots; limestone, white, chalky in part; limestone, darker, and argillaceous in part; increasing dolomite toward bottom	190	695
Gray, sucrosic dolomite; disseminated pyrite, pyritic shale @ 800; tan, cream, dense limestone in part; cream dolomite in part; trace of vugular porosity @ 920	695	960
Cream, brown, medium-coarse crystalline dolomite; medium-granular dolomite, gray, tint in part; scattered greenish laminae; vugular porosity 1180-1420, with questionable stain; partial fluorescence	960	1340
White, chalky limestone, dolomitic in part; trace of disseminated pyrite; traces of vugular porosity	1340	1450

DE KALB COUNTY

Bethel Oil Co., J. W. OVERALL No. 1

(Map Number—1)

Location: NE SE NE Sec. 24, 6S-43E

Elevation: 692'

Date: 1925

Total depth: 880'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pencil Cave @ 15'		
Limestone, dark-gray, fine-grained to dense	15	30
Limestone, same, very shaly	30	35
Limestone, dark-gray, dense	35	70
Limestone, brownish-gray, fine-grained	300	335
Limestone, dark-gray and black	335	410
Limestone, light-gray to dove	410	525
Limestone, dark-gray to black	525	540
Limestone, light- and dark-dove	540	800
Limestone, gray, magnesian, and a little white flint	800	805
Limestone, gray, magnesian, with much white flint	805	810

Sample Description by H. D. Miser

Brownish-gray, fine-grained limestone	300	320
Brownish-gray, fine-grained limestone, but sample consists mostly of a dark-gray, almost black, limestone	320	325
Gray and dark-gray limestone	335	355
Dark-gray limestone	355	390
Black limestone	390	410
Dove-colored limestone	410	500
Dove-colored limestone and light-gray limestone	500	525
Dark-gray, almost black, limestone	525	540
Dove-colored limestone	540	580
Dark-colored limestone	580	640
Dove-colored limestone	640	680
Dark dove-colored limestone	680	715
Dove-colored limestone	715	760
Dove-colored limestone in fine particles	760	800
Gray magnesium limestone and a little white flint	800	805
Gray magnesium limestone and much white flint	805	810

C. L. Williams, W. F. BURTON No. 1

(Map Number—2)

Location: C S/2 SE Sec. 23, 5S-45E

Elevation: 687'

Date: 1946 - 1947

Total depth: 996'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark, hard	25	30
(Takes average 2 hrs. to each 5' screw.)		
Limestone, dark, hard	30	65
Limestone, lighter, hard	65	95
Limestone, brown, softer (2' of shale or mud, then hard lime)	95	100
Limestone, buff, hard	100	115
Limestone, buff, hard	115	120
Odor of gas		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, buff, hard and soft streaks	120	155
Limestone, buff, soft, light	155	160
Mud Cave		
Limestone, buff, hard	160	175
Limestone, light-brown, soft	175	180
Pencil Cave		
Limestone, light-brown	180	190
Limestone, white, hard	190	210
Limestone, brown, harder	210	255
(Shut down 2 wks.)		
Limestone, brown	255	300
Limestone, brown, soft	300	305
(Drilled in 40 min.)		
Limestone, brown, harder	305	475
(2 hrs. to drill 305-310')		
Limestone, buff, hard	475	500
Limestone, lighter, not so hard	500	525
Limestone, brown, harder	525	540
Limestone, blue, hard	540	625
(Making 20' to 25' per day)		
Limestone, dark-brown, hard	625	650
Rainbow of oil and show of gas @ 635-40.		
Limestone, same, softer	650	665
Limestone, same, hard	670	705
Limestone, blue, hard	705	740
Limestone, buff, not so hard	745	795
Limestone, brown, hard	795	815
(Make screw every 2 hrs.)		
Limestone, brown, hard	815	830
Dead oil scum		
Limestone, brown, softer	835	840
Rainbow and gas (small show)		
Limestone, brown, softer	840	850
Limestone, brown, hard	850	880
Limestone, light	880	920
Limestone, brown, medium	920	935
Limestone, gray, softer	935	950
Limestone, some scum	950	955
Light gas odor		
Limestone, brown	955	960
Limestone, brown, and sand	960	965
Limestone, brown	965	975
Limestone, brown, lighter, with some green	975	986
Gas and salt water; show very light		
Lime, white, hard	986	996
Bottom of hole 996 ft. (S. L. M.)		

NOTE: Well shot on February 12. Before shot, had small amount of gas which burned red after shot; had considerably more pressure which soon subsided, and on Feb. 13th no gas or pressure remained. Set bridge at 855; shot—800 to 855 feet with 500 pounds of 5½-inch gelatine sticks. Made a fine shot. Shot cleaned the hole of 300 feet of water used for loading shot, and blew rock 500 feet in the air. No porosity shows in any of the pieces examined. Well "dry."

¹ Steel line measurement.

DICKSON COUNTY

J. B. Weems et al, OAKLEY No. 1

(Map Number—1)

Location: S/2 NW NW Sec. 17, 4S-28E

Elevation: 450'

Date: ?

Total depth: 810'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	14
Lime, black	14	54
Shale, black (Chattanooga)	54	75
Lime, green	75	105
Lime, gray	105	150
Red rock	150	170
Lime, gray	170	180
Red rock	180	190
Lime, gray	190	210
Lime, gray	210	232
Lime, brown, sandy	232	300
Lime, dark-gray	300	400
Lime, dark	400	462
Lime, dark-gray	462	585
Lime, gray	585	597
Lime, brown	597	643
Lime, brown, hard	643	677
Lime, brown	677	710
Lime, brown, hard	710	745
Lime, grayish-brown	745	785
Lime, gray	785	810
Lime, grayish-brown		

Hole bridged @ 130' and plugged.
Pipe pulled.

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-gray, silty	65	75
Limestone, gray, fine-grained	75	80
Limestone, gray, silty, fine-grained	80	95
Limestone, gray, fine-grained, silty, with some pyrite	95	100
Limestone, gray, fine-grained, shaly	100	108
Limestone, light-gray, fine-grained	108	115
Limestone, gray, fine-grained (50%) and some limestone, white, fine-grained (50%)	115	120
Limestone, white to light-gray with some pink specks, fine-grained	120	130
Limestone, light-gray, pink speckled, fine-grained	130	135
Limestone, white to light-gray, pure, fine-grained	135	140
Limestone, bluish-gray, fine-grained, shaly, and some calcareous shale (Waldron)	140	145
Limestone, light-gray, heavily pink speckled, fine-grained (Top of Laurel)	145	150
Limestone, light-gray, pink speckled, fine-grained	150	160
Limestone, white to light-gray, pink speckled, fine-grained	160	170
Limestone, light-gray, pink speckled, slightly silty	170	175
Limestone, light-gray, pink specks not so abundant, slightly silty, fine-grained	175	180
Limestone, gray to reddish-gray, silty, fine-grained (Top of Osgood)	180	185

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray to reddish-gray, silty, fine-grained (90%), with some limestone, light-gray to white, silty, fine-grained (10%)	185	190
Limestone, white to light-gray, fine-grained, with much dense, milky to smoky chert and some pyrite (Top of Brassfield)	190	195
Limestone, gray, cherty, fine- to medium-grained	195	200
Limestone, gray, fine-grained, with small amounts chert and few specks of glauconite	200	205
Limestone, gray, speckled, fine-grained, glauconite, no chert	205	210

STARK No. 1

(Map Number—2)

Location: NE SW NE Sec. 20, 3S-26E

Elevation: 508'

Date: 1919

Total depth: 1166'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil		11
Cased 12½" casing		31
Blue lime, medium, to		131
Cased 10" water		131
Lime, hard, to		212
Lime, hard, then medium		229
Gas		235
Strong flow gas		263
Lime, hard-medium, last 5' softer		272
Lime, hard and soft		278
Gas		285
Lime, soft		285
Lime and slate, more water		295
Big gas lifted tools out of well; roaring for 35 minutes and then settled down to steady flow		
Streak soft lime, and brown shale		325½
Set 6¼" casing		342
Black shale	300	342
Brown shale	342	369
Cap rock	369	377
Showing oil		377½
Green shale		388
Green shale		400
White and pink lime		447
Same, lime, brownish		490
Oil sand, salt water		525
White sand, fine, velvety, close	525	540
Medium drilling	540	554
Lime, blue, soft		554
Set 6¼" casing after reaming down to bottom		
Shale, black, and lime		585
Lime, soft, 2' very hard		672
Lime and shale, to	630	695
Lime and calcite, laminated		696
Slate, shale, and lime (mostly slate)		700
Lime, very light, almost white	700	900
Lime, siliceous, very hard, supposed to be cap rock	900	906
Lime, sand	906	912
Shale, black, pure	918	921
Lime, gray, hard and soft	921	924
	924	1166

Tuxbury Oil Company, EMMA WALL No. 1

(Map Number—3)

Location: C NE NW Sec. 20, 3S-26E

Elevation: 657'±

Date: 1919

Total depth: 1142'

DRILLER'S LOG

Lithology	From	To
Cherty soil	0	52
Lime, white	52	162
Slate, blue, soft	162	164
Lime, blue, hard	164	180
Slate, blue, soft	180	185
Lime, hard, blue-gray	185	230
Sand and lime, gray, hard	230	245
Show of oil 235-245		
Lime, blue-gray, hard	245	290
Lime and slate, hard	290	310
Gas		
Lime, gray, hard, water	310	315
Sand, gray, medium-hard, water	315	350
Slate and lime, gray	350	378
Oil and gas		
Set 8¼" @ 378		
Shale and slate	378	396
Lime, gray, medium, hard	396	400
Lime, mixed, variegated	400	445
Black shale (Chattanooga)	445	485
Shale, soft, black	485	522
Oil and gas 510-520		
Lime, light-gray, sandy	522	557
Green shale and gray lime	557	584
Shale, black to brown, and cherty dolomitic limestone	584	591
Green shale and lime	591	600
Sand, brown, and green shale	600	604
Gas		
Gray lime and green shale	604	614
Lime, brown, sandy	614	632
Gray lime and green shale	632	636
Lime, soft, brown, sandy	636	650
Lime, gray and brown, sandy	650	672
Sand, dark-gray	672	705
Oil		
Sand, soft, light-colored	705	726
Shale and sand, soft, gray	726	842
Gas, strong; oil		
Lime and sandy shale, gray	842	1063
Gas @ 922		
Lime, hard, brown, sandy	1063	1116
Lime, soft, brown	1116	1142
Oil		

LYLE PETTY No. 1

(Map Number—4)

Location: NE SE SW Sec. 14, 4S-28E

Elevation: 440'±

Date: 1920 (?)

Total depth: ?

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	14
Flinty limestone	14	114
Limestone, gray and black	114	160
Black shale	160	195
Gas		
Sandy limestone, gray	195	202
Red and gray sand	202	242
Limestone (conglomeratic)	642	675
Oil		
Sand	675	685
Oil		
Sand, and limestone	685	710
Black shale	710	1010
Cap rock	1010	1014
Oil		
Sand	1014	1017
Oil		
Red	1017	1021
Limestone	1021	1050

Tennessee Central Oil Co., HENRY TAYLOR No. 1

(Map Number—5)

Location: SE SW SE Sec. 12, 5S-28E

Elevation: 559'

Date: 1920

Total depth: 1378'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray limestone and chert	0	109
Chattanooga black shale	109	114
Pink limestone	114	264
Blue limestone	264	315
Gray limestone and shale	315	440
Gray shale	440	490
Hard, sandy limestone	490	547
Hard (chert?)	547	563
Limestone	563	700
Gray shale	700	750
Hard, brown to gray limestone	750	925

5 $\frac{5}{8}$ " casing at bottom

Sulphur water: 1373-1378

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray, amorphous limestone	833	843
Light-gray, amorphous limestone	843	848
Gray limestone and chert	848	853
Brownish-gray, amorphous limestone	853	873
Gray, amorphous limestone	873	878

<i>Lithology</i>	<i>From</i>	<i>To</i>
Light dove-gray, amorphous limestone	878	883
Dark brownish-gray, amorphous limestone	883	888
Brownish-gray, amorphous limestone	888	898
Blue and gray, brownish, amorphous limestone	898	903
Gray, amorphous limestone	903	908
Blue and gray, brownish, amorphous limestone	908	913
Light-gray, amorphous limestone	913	923
Brownish-gray, amorphous limestone	923	933
Light-gray, amorphous limestone	933	938
Gray, amorphous limestone	938	943
Brownish-gray, amorphous limestone	943	948
Blue and brown, fine-grained limestone	948	953
Limestone, same as above, with white chert	953	963
Grayish-brown, amorphous limestone	963	973
Limestone, same as above, with chert	973	978
Light-gray and brown amorphous limestone with white chert	978	983
Brownish-gray, fine-grained limestone	983	988
Light dove-gray, granular limestone with pyrite	988	993
Light brownish-gray, granular limestone	993	998
Light dove-gray, green limestone	998	1003
Dark brownish-gray, fossiliferous limestone	1003	1008
Brownish-gray, amorphous limestone	1008	1013
Bluish-brown, amorphous limestone	1013	1018
Bluish-gray, amorphous limestone	1018	1033
Bluish-brown, amorphous limestone	1033	1038
Grayish-blue, amorphous limestone	1038	1043
Grayish-brown, amorphous limestone	1043	1048
Blue and grayish-brown, granular limestone	1048	1053
Brownish-gray, amorphous limestone	1053	1058
Blue and grayish-brown, fine-grained limestone	1058	1063
Bluish-gray limestone	1063	1068
Bluish-brown, amorphous limestone	1068	1073
Grayish-brown, amorphous limestone	1073	1088
Dark-blue and brownish-gray limestone	1088	1093
Bluish-gray limestone	1093	1103
Bluish-gray, amorphous limestone	1103	1108
Brownish-gray, amorphous limestone	1108	1113
Grayish-blue, amorphous limestone	1113	1123
Grayish-brown, amorphous limestone	1123	1128
Bluish-gray, fine-grained limestone	1128	1133
Grayish-brown, amorphous limestone	1133	1183
Blue and grayish-brown, amorphous limestone	1183	1188
Grayish-brown, amorphous limestone	1188	1223
Light grayish-brown, amorphous limestone	1223	1228
Greenish-brown, amorphous limestone	1228	1263
Very light gray, amorphous limestone	1263	1278
Light-gray, amorphous limestone	1278	1283
Light brownish-gray, amorphous limestone	1283	1333
Light-gray, sandy, amorphous limestone	1333	1343
Gray and greenish-gray, sandy limestone	1343	1358
Dark greenish-gray and gray, sandy limestone	1358	1363
Gray limestone, with dark-brown, very small sand grains	1363	1368
Greenish-gray, sandy limestone	1368	1373
Dark olive-green limestone (?) with few fragments light-brown, crystalline limestone (?)	1373	1378

Schulte & Kenyon, CLAUDE HOOPER No. 1

(Map Number—6)

Location: W/2 SE SE Sec. 17, 5S-25E

Elevation: 847'

Date: 1928

Total depth: 2607'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mississippian system		
Lime, light-gray, fine-grained		295
Set 10" casing @ 102'		
Lime, brownish-gray to drab, dense	295	460
Lime, dark blue-gray, shaly	460	545
Set 8¼" casing @ 480'		
Lime, dark-gray, shaly	545	585
Set 6½" casing @ 580'		
Chattanooga black shale	585	615
Silurian and Ordovician systems		
Lime, light-gray and pink	615	650
Lime, light greenish-gray, pyritic	650	680
Lime, dark blue-gray, shaly	680	710
Lime, bright-red and green, shaly	770	785
Lime, light- and dark-gray	785	805
Lime, light-gray, granular	805	820
Lime, dark blue-gray, shaly	820	1110
Lime, light- to dark-gray or olive-drab, dense	1110	1430
Lime, light-gray to olive-drab, fine-grained to dense, with numerous angular quartz or chert fragments; also green, shaly lime with abundant pyrite	1435	1445
Lime, dark blue-gray, shaly	1445	1460
Lime, light-gray to white, crystalline to fine-grained	1460	1465
Lime, light-gray to dark olive-drab, finely granular	1465	1560
Lime, dark blue-gray, shaly	1600	1630
Small puff of gas @ 1830		
Lime, dark blue-gray shale at		1915
Lime, very light gray and dark olive-drab, fine-grained to dense at		1943
Lime, light-gray to white, finely granular, sugary at		1978
Lime, very light gray and light olive-drab, finely crystalline	2000	2007

There is some question as to the accuracy with which some of the above horizons are recorded. The driller's log was very poorly kept, and the cuttings were poorly marked as to depths.

E. H. Crow et al, B. Y. BROWN No. 1
(Map Number—7)

Location: SE NE NW Sec. 17, 4S-28E

Elevation: 425' (?)

Date: 1929

Total depth: 1250'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-blue to gray, finely crystalline, full of shiny pyrite particles	0	30
Fresh water @ 6-10		
Limestone, light blue-gray, finely crystalline, full of shiny pyrite particles	30	50
Limestone, very light blue-gray, finely crystalline	50	60
Limestone, very light gray, fine-grained, considerable crushed white calcite and abundant shiny pyrite	65	70
Limestone, light-blue, very shaly; dark bluish-green clay full of shell fragments	70	75
Limestone, light-gray to bright-pink, finely crystalline, with considerable shiny pyrite	75	100
Limestone, dark-gray and reddish-brown, very shaly	100	105
Cherty	105	110
Gas: puff, sweet @ 105 in hard flinty 5' thick		
Limestone, same as above	110	125
Limestone, very light gray to bright-red and brown, coarsely crystalline	125	140
Limestone, dark-blue, fine- to coarse-crystalline, shaly; small amount pyrite; calcite fragments abundant	140	220
Gas: small puff @ 205		
Cuttings from 145-205 fairly coarse. Occasional fragment shows impressions of brachiopod shells		
Limestone, dark-blue, finely crystalline, shaly	220	240
Limestone, lighter gray, coarse-crystalline	240	265
Limestone, very dark blue-gray, fine-grained	265	340
Gas: small puff @ 318		
Limestone, mixture of very light gray and dark-blue, finely granular	340	495
Limestone, mixture of very light gray to drab, fine-grained to dense	495	520
"Pencil Cave," bright-green clay full of black mica	520	525
Limestone, light to dark, drab, very fine grained to dense	525	545
Limestone, very light gray, finely crystalline, consists chiefly of crushed white calcite	545	555
Limestone, very light gray, fine-grained to dense	555	710
Salt water @ 680		
Limestone, light, drab, dense	710	745
Limestone, dark olive-drab, very dense	745	795
Limestone, mixture of very light gray and dark olive-drab, very dense	795	850
Cuttings missing	850	1000
Limestone, very dark blue-gray, finely crystalline to dense	1000	1145
Limestone, very light gray or nearly white, finely granular to dense	1145	1160
Limestone, very dark blue-gray to drab, dense	1160	1165
Limestone, very light gray to white, very finely granular, reacts freely in hydrochloric acid	1165	1170
Limestone, magnesian, very light blue-gray, finely granular	1170	1245

Driller reported strike of salt water. Yellowish-brown clay containing a large amount of semi-rounded quartz grains was bailed from the bottom of the well. After 24 hours water rose in the well 100 feet and brought to the surface with it a considerable oil scum.

T. J. Newell et al, W. R. OAKLEY No. 1

(Map Number—8)

Location: NW SW SW Sec. 20, 4S-28E

Elevation: 461'

Date: 1930

Total depth: 700'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mississippian		
New Providence (Ridgetop) shale		
Surface soil, clay, and chert	0	12
Shale, dark-blue, calcareous, cherty	12	80
Chattanooga shale not present		
Chattanooga shale not present		
Devonian		
Pegram limestone		
Limestone, very light gray to white, coarsely crystalline, containing abundance of shiny pyrite and numerous angular, glassy fragments of clear white quartz; also numerous fragments of clear white gypsum	80	125
Silurian		
Waldron shale		
Shale, blue-gray, calcareous, containing numerous shell fragments	125	130
Laurel limestone		
Limestone, very light gray to white and bright-pink, coarsely crystalline	130	150
Osgood formation		
Limestone, light- to dark-gray, shaly, cherty	150	160
Brassfield limestone		
Limestone, dark-gray, fine-grained to dense, containing an abundance of dark-gray, translucent chert	160	190
Fernville formation		
Limestone, very light to white, bright-green and pink, coarsely crystalline	190	210
Show of oil @ 203 (Line measure)		
Ordovician		
Leipers or Catheys formations		
Limestone, dark gray-blue, shaly and coarsely crystalline, containing fragments of shell impressions	210	380
Limestone, light-gray and dark-blue, gray, mixed, coarsely crystalline	380	395
Limestone, dark blue-gray, shaly and coarsely crystalline, with numerous fragments of shell impressions	395	600
Carters formation		
Limestone, light to dark olive-drab, very fine grained to dense or lithographic, with a few impressions of shell fragments	600	660
Pencil Cave, dark-green clay shale, without mica flakes, @ 655-656		
Limestone, dark-blue and brownish-gray, fine to coarsely crystalline	660	700

R. W. Grimes et al, W. R. OAKLEY No. 1

(Map Number—9)

Location: C SW Sec. 20, 4S-28E

Elevation: 480'

Date: 1930

Total depth: 215'

SAMPLE DESCRIPTION		From	To
<i>Lithology</i>			
Mississippian			
New Providence shale			
Shale, dark blue-gray, sandy, calcareous, with numerous fragments of angular chert	36		80
Devonian			
Pegram (Jeffersonville) formation			
Sandstone, light-gray to white, fine-grained, slightly calcareous; numerous large angular fragments of milky quartz, shiny pyrite	80		90
Limestone, light-gray to white, coarsely crystalline, numerous particles of pyrite; pink color predominant in lower part of formation	95		100
Sample missing	120		125
Silurian			
Laurel limestone			
Limestone, light-gray to pink, coarsely crystalline; pink calcite abundant; pyrite common but not abundant ..	125		145
Osgood formation			
Limestone, same as Laurel with considerable darker gray, finely crystalline limestone; small amount of pyrite ..	145		160
Gas @ 155; gas blew in with sufficient pressure to be heard 1/2 mile away. Held tools off bottom of hole and blew mud water from casinghead.			
Brassfield limestone			
Limestone, quite similar to Osgood, with angular blue milky quartz	160		184
Fernvale limestone			
Limestone, very light gray, coarsely crystalline, some greenish shaly fragments; small amount of pyrite....	184		205
Gas @ 184-190 and 200-205			
Ordovician			
Leipers or Catheys formations			
Limestone, dark-gray and blue, coarsely crystalline, shell fragments	205		215
Main body of gas comes from this horizon. Estimated (by Mr. Grimes) to have volume of 3-4 million cu. ft. Gas is dry and has pungent odor. No signs of oil (May 20, 1930).			

May 25, 1930: Well capped, drilling ceased, and rig moved. Preparing to drill No. 2.

R. A. Lindsey et al, BEN SENSING No. 1

(Map Number—10)

Location: SE NW NW Sec. 20, 4S-27E

Elevation: 663'

Date: 1937

Total depth: 1020'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, hard, gray	72	85
Break, slide	85	87
Lime, gritty, hard	87	90
Lime, hard, gray	90	115
Lime, brown	115	135
Gravel bed, water	135	140
Lime, gritty	140	150
Lime, "blue mountain"	150	165
Lime, brown	165	211
Shale, black (Chattanooga)	211	260
Lime, gray	260	268
(Steel line measurement 268 feet)		
Set 6 $\frac{5}{8}$ " casing @ 268		
Lime, sandy	268	284
Good show of oil in this, identified as Pegram or Corniferous lime. Failed to shut off water.		
Shale, green	284	288
Lime, gray	288	345
Water	345	350
This water was in light-gray sand (probably upper Sunnybrook)		
Lime, red, hard	350	400
Lime, gray	400	426
Break	426	428
Sand, water	428	454
Lime	454	460
Lime, black, shaly	460	465
Reamed down and reset 6 $\frac{5}{8}$ " casing @ 468		
Lime, black, shaly	468	592
Lime, gray, hard	592	600
Lime, shaly, shells	600	645
Lime, gray, hard	645	653
Lime, dark-gray	653	675
Shale, sandy, show of oil	675	725
(Probably lower Sunnybrook)		
Lime, sandy	725	735
Lime, hard, sandy (show of oil)	735	740
Lime, sandy	740	755
Shale, sandy	755	790
Lime, gray	790	805
Lime, brown, hard	805	890
Lime, gray	890	910
Lime, gray, hard	910	1020

Glenn D. Rose et al, F. M. LUCAS No. 1

(Map Number—11)

Location: SW NW SE Sec. 2, 6S-24E

Elevation: 761'

Date: 1939

Total depth: 854'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chert, soft	1	128
Boulders, hard	128	143
Set 8¼" casing		
Lime, blue, hard	143	166
Chert, soft	166	224
Chert, white, hard	224	231
Chert, soft	231	246
Chert and cave	246	258
Chert, soft	258	275
Mud Cave	275	288
Set 6½" casing. More water		
Chert, hard	288	295
Mud, soft	295	297
Chert, hard	297	330
Limestone, white, hard	330	345

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chattanooga shale (90%), with some sandstone or siltstone, gray, very fine grained, reacts slowly in acid	490	495
Limestone, light-gray, fine-grained, with much finely divided pyrite	495	500
Limestone, gray, fine-grained, with considerable pyrite	500	505
Limestone and shale, bluish-gray, fine-grained, calcareous, with some pyrite	505	510
Shale or siltstone, bluish-gray, fine-grained, sucrose, calcareous	510	515
Siltstone, bluish-gray, fine-grained, with considerable pyrite	515	520
Siltstone, bluish-gray, fine-grained, with finely divided pyrite	520	528
Siltstone, bluish-gray, fine-grained (50%), with some limestone, light-gray, medium-grained, pure	528	534
Limestone, light-gray to gray, some pink specks, fine-grained, with considerable pyrite and decomposed pyrite	534	544
Siltstone, bluish-gray, fine-grained, (cave?) (50%), and some limestone, white to light-gray, pink-speckled, pure (50%)	544	549
Limestone, gray to light-gray, pink-speckled, fine-grained	549	565
Limestone, bluish-gray, no pink specks, fine-grained	565	576
Limestone, light-gray to bluish-gray, fine grained	576	578
Limestone, white to light-gray, heavily pink-speckled, fine-grained	578	580
Limestone, pink, fine-grained	580	590
Sample missing	590	595
Limestone, white, fine-grained, pure	595	605
Limestone, pink-speckled, medium-grained	605	610
Limestone, pink, fine-grained	610	617
Limestone, pink, fine-grained (50%), and some limestone, white, fine-grained, with much dense, white chert	617	623
Limestone, light-gray, fine-grained, glauconitic, with much dense, white chert	623	627
Limestone, light-gray, medium-grained, with some glauconite and much iron staining	627	630

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray, fine-grained, with considerable dense chert and some glauconite	630	632
Limestone, gray, fine-grained, glauconitic	632	642
Limestone, tan to white, coarse-grained, glauconitic	642	645
Limestone, white to tan, coarse-grained, with some glauconite	645	650
Limestone, white to tan, coarse-grained	650	656
Limestone, white to tan, coarse-grained (50%), and some limestone, black, medium-grained (50%)	656	660

McClung, B. MYATT No. 1

(Map Number—12)

Location: NE NW SW Sec. 5, 7S-27E

Elevation: 780'

Date: 1949

Total depth: 1701'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	50
Limestone, rusty-orange, fine to medium-fine grained, very fossiliferous, fragmental, and rusty to cream chert	50	65
Dolomite, tan-orange, medium-fine grained, and rusty chert	65	70
Siltstone, light rusty-orange, fine to medium-fine grained, fossiliferous, with abundant yellow to gray weathered chert, calcareous, dolomitic	70	80
Same, more highly calcareous and few calcite crystals	80	85
Samples missing	85	100
Limestone, very light tan, fine-grained, few fossil fragments, dolomitic, and small amount of chert near top	100	130
Same, plus abundant disseminated weathered iron particles	130	140
Limestone, very light tan, fine-grained, with small amount of chert and argillaceous material near bottom	140	165
Dolomite, tan, medium-fine grained, calcareous, with abundant white to gray chert	165	200
Limestone, light brownish-gray, fine-grained, dolomitic, argillaceous	200	210
Dolomite, tan, medium-fine grained, calcareous, slightly pyritic; abundant chert	210	240
Limestone, light-gray, fine to medium-fine grained, calcareous, slightly argillaceous, with small amount of white to gray chert	240	245
Dolomite, light to very light gray, medium-fine grained, calcareous, and small amount of chert	245	260
Limestone, light-tan, medium-fine grained, dolomitic, few fossil fragments, slightly argillaceous	260	265
Dolomite, light-tan, medium-fine grained, calcareous, slightly argillaceous, and small amount of white to gray chert	265	275
Limestone, very light tan, fine-grained; dolomite; calcite crystals	275	280
Dolomite, very light tan, medium-fine grained, calcareous, few fossil fragments, dull appearance	280	285
Limestone, very light tan, fine-grained, dolomitic, with gray chert and calcite crystals	285	295
Dolomite, very light tan spotted, gray in part, medium-fine grained, slightly calcareous, slightly dolomitic; cream to gray chert	295	410
Shale, black, calcareous, slightly pyritic; gray chert; abundant green glauconite	410	450

<i>Lithology</i>	<i>From</i>	<i>To</i>
Show of oil @ 445-450		
Samples missing	450	460
Limestone, very light gray, fine-grained, dolomitic, slightly pyritic and argillaceous; gray, red, and green shale particles	460	480
Limestone, light-tan to gray, fine to medium-fine grained; red, gray, and green shale particles; conglomeratic appearance; glauconitic near bottom; pyrite	480	540
Samples missing	540	550
Shale, black, calcareous, pyritic	550	555
Limestone, black, few fossil fragments, and gray chert	555	565
Shale, black, calcareous	565	570
Limestone, spotty, black and white, fine-grained, very argillaceous; gray chert; few fossil fragments; slightly pyritic	570	617
Shale, black, calcareous	617	625
Limestone, gray, fine-grained, argillaceous	625	630
Samples missing	630	635
Limestone, spotty black and white, fine to medium-fine grained, slightly argillaceous, fossiliferous and pyritic throughout	635	783
Shale, black, calcareous, sandy	783	800
Limestone, gray, fine-grained, argillaceous, sandy	800	805
Shale, black, calcareous, sandy, few fossil fragments	805	810
Limestone, gray, fine-grained, argillaceous, sandy	810	815
Shale, black, calcareous, sandy	815	820
Limestone, gray, fine-grained, sandy, argillaceous	820	835
Shale, black, calcareous, sandy	835	845
Limestone, gray, fine-grained, very argillaceous, sandy	845	850
Shale, black, calcareous, sandy	850	860
Limestone, gray, fine-grained, very argillaceous, sandy	860	898
Limestone, tan, fine-grained, slightly silty, slightly cherty	898	960
Same, plus argillaceous material and few fossil fragments	960	980
Same, less chert	980	1160
Limestone, tan to grayish, fine-grained in part, fossil fragments, argillaceous, dolomitic; small amount of gray chert	1160	1240
Dolomite, light-gray, medium-fine grained, calcareous	1240	1245
Limestone, tan to gray, fine-grained and medium-fine in part, argillaceous and slightly dolomitic in part	1245	1275
Same, plus very slight show of oil	1275	1290
Same, as above	1290	1370
Same, plus very slight show of oil	1370	1375
Same, plus few shale particles	1375	1565
Dolomite, light-tan, medium-fine grained, calcareous	1565	1590
Limestone, very light tan, fine-grained	1590	1598
Dolomite, light-tan, medium-fine grained	1598	1620
Same, plus small amounts of chert, finely disseminated pyrite, and green shale particles	1620	1650
Dolomite, light-gray, fine to medium-fine grained; rounded and frosted sand grains; few green and gray shale particles	1658	1690

Hoosier Drilling Co., GILBERT LYLE No. 1

(Map Number—13)

Location: NE SE NW Sec. 10, 3S-24E

Elevation: 640'±

Date: 1958

Total depth: 1202'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chert gravel and clay, fresh water	0	132
Brown sandy lime	132	136
Gray lime	136	140
Blue lime	140	156
Gray lime	156	225
Blue lime	225	250
Dark-gray lime	250	490
Black lime	490	500
Dark-gray lime	500	545
Black lime	545	565
Blue shale	565	577
Gray lime	577	580
Black shale	580	624
Gray lime	624	675
Gray lime and chert	675	685
Light-colored sandy lime	685	720
Pink sandy lime with green shale	720	735
Gray lime	735	770
Gray and green lime	770	790
Gray and pink lime	790	795
Pink lime	795	815
Gray lime	815	835
Gray and green lime	835	865
Gray, green, and pink lime	865	915
Gray and pink lime	915	930
Gray shaly lime	930	940
Pink lime	940	945
Gray lime	945	965
Pink lime	965	990
Gray lime	990	1010
Gray lime and chert	1010	1025
Gray lime	1025	1070
Dark-gray lime	1070	1140
Dark-gray shaly lime	1140	1202

Owen Hembree et al, JOHN LOGGINS No. 1

(Map Number—14)

Location: NW NW SE Sec. 14, 4S-28E

Elevation: 432'

Date: 1958

Total depth: 800'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Subsoil	0	15
Chattanooga shale	15	60
Brown shale	60	80
Green shaly lime	80	90
Green lime	90	115
Gray lime	115	130
Pink lime	130	140
Red shale and lime	140	155
Pinkish-gray lime (Fernvale)	155	173

<i>Lithology</i>	<i>From</i>	<i>To</i>
Variegated shale	173	180
Gray lime (Arnheim)	180	205
Gray lime (Leipers)	205	212
Brown sand	212	217
Good show of gas		
Blue-gray lime	217	305
Gray shale (salt and pepper)	305	315
Blue shale	315	322
Gray-blue shale, with lime streaks	322	363
Gray lime	363	375
Blue-gray lime	375	385
Gray shale	385	390
Gray sandy lime	390	412
Shale and lime	412	425
Sandy lime	425	437
Gray lime	437	450
Shale and lime	450	500
Shale and lime streaks	500	570
Brown sandy lime	570	577
Gray lime	577	672
Shale and lime streaks	672	700
Brown lime	700	705
Lime and shale	705	715
Brown lime	715	740
Blue-gray lime	740	800

DYER COUNTY

Henderson Oil Company, JOHN FIELDS No. 1

(Map Number—1)

Location: SW SE NE Sec. 25, 6S-1W

Elevation: 260'

Date: 1939

Total depth: 3240'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface gumbo	0	10
Water sand, soft	10	65
Gumbo, soft	65	130
Sand and lignite	130	190
Gumbo, brown, soft	190	210
Lignite, brown	210	230
Gumbo	230	260
Shale, brown, gummy	260	330
Shale, gummy	330	420
Gumbo	420	460
Gumbo, gray	460	495
Shale, gummy	495	548
Gumbo and boulders	548	590
Shale, gummy	590	639
Sand	639	689
Shale, hard	689	700
Lignite	700	740
Shale, gummy, tough	740	790
Sand and brown lignite	790	800
Shale, gummy	800	820
Gumbo	820	840
Shale, hard, sandy	840	870
Shale, hard, sandy, brown	870	900

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, hard, packed, brown	900	960
Shale, gummy	960	1020
Sand, hard	1020	1114
Gumbo and boulders	1114	1210
Sand, hard	1210	1215
Sand and boulders, hard	1215	1280
Gumbo	1280	1345
Shale	1345	1400
Shale, green	1400	1510
Sand, gray, water	1510	1620
Shale, gummy, green, sandy	1620	1780
Gumbo and boulders	1780	1890
Shale, gummy	1890	1930
Shale, hard, blue	1930	2080
Gumbo, blue, tough	2080	2100
Shale, green, hard	2100	2115
Gumbo, tough	2115	2140
Lime, sandy, hard	2140	2150
Shale, green	2150	2162
Gumbo	2162	2175
Shale, with lime streaks	2175	2235
Rock	2235	2237
Shale, gummy	2237	2300
Shale, hard	2300	2380
Chalk and shale	2380	2410
Gumbo, chalky	2410	2450
Shale, hard, with lime streaks	2450	2540
Rock	2540	2550
Shale	2550	2570
Gumbo and chalk	2570	2767
Lime, hard	2767	2790
Lime, black, broken, porous	2790	2862
Shale, hard	2862	2940
Lime, gray and white	2940	3008
Lime, white, crystalline	3008	3029
No record	3029	3240
CASING RECORD:		
Set 300' of 10"		

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-gray to black, fine-grained, contains many small vugs filled with clear to white calcite (core)		2770
Limestone, black, fine-grained	2770	2779
Limestone, dark-gray to black, fine-grained, with some black, platy, calcareous shale	2820	2830
Limestone, black, very fine grained	2830	2852
Limestone, same as above	2852	2890
Limestone, same as above (core)	2888	2890
Limestone, dark-gray to black, very fine grained, with a small amount of dark-gray, fine-grained shale	3000	3015
Limestone, dark-gray to light- and dark-gray mottled, fine-grained (core)		3015
Limestone, dark-gray to black, fine- to medium-grained, with some gray, fine-grained shale	3015	3020
Limestone, same as above	3020	3029
STRATIGRAPHIC INTERPRETATION		
Quaternary system	0	130
Tertiary system	130	2150
Wilcox and younger formations	130	1780
Porters Creek clay	1780	2140

	<i>From</i>	<i>To</i>
Clayton formation (?)	2140	2150
Upper Cretaceous system	2150	2767
Ripley formation	2150	2767
Paleozoic rocks	2767	3240
Ordovician (?)	2767	3029

Henderson Oil Company, JOHN E. RICE No. 1

(Map Number—2)

Location: SE NE SW Sec. 22, 4S-1E

Elevation: 277'

Date: 1939

Total depth: 2892'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	35
Sand	35	120
Clay	120	130
Sand	130	230
Shale	230	240
Sand	240	350
Gumbo	350	375
Sand	375	527
Sand and shale	527	550
Gumbo	550	710
Sand	710	985
Gumbo	985	1000
Sand and lignite	1000	1050
Sand and shale	1050	1150
Gumbo	1150	1214
Rock	1214	1218
Gumbo	1218	1250
Shale	1250	1320
Hard sand	1320	1460
Gumbo and shale	1460	1480
Gumbo	1480	1500
Shale	1500	1525
Hard sand	1525	1580
Shale	1580	1650
Gumbo	1650	1766
Shale	1766	1810
Gumbo	1810	1826
Shale	1826	1950
Gypsum and gumbo	1950	2050
Sand rock	2050	2058
Gumbo and chalk	2058	2068
Hard shale	2068	2160
Sand	2160	2170
Shale	2170	2192
Rock (light shell)	2192	2198
Black shale	2198	2202
Limestone, shale and sand	2202	2334
Limestone and shell	2334	2340
Limestone, sand, and shale	2340	2418
Rock	2418	2422
Gumbo	2422	2450
Shale and hard sand	2450	2495
Sand	2495	2551
Limestone, hard, gray and white	2551	2680
Limestone, black and gray	2680	2764
Dark shale	2764	2772
Dark limestone	2772	2850

FAYETTE COUNTY

M. J. Kissick, J. B. CLAXTON No. 1

(Map Number—1)

Location: SE NE Sec. 19, 14S-2E

Elevation: 345'

Date: 1935

Total depth: 3512'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soft, reddish clay	0	15
Sand and gravel	15	200
Fine water sand and gravel	200	483
Blue clay	483	505
Sandy shale	505	650
Gumbo, hard, blue	650	665
Sandy shale	665	750
Sandy shale, with streaks of gumbo	750	850
Blue, sandy shale	850	1125
Gumbo, hard, blue	1125	1200
Hard, blue shale	1200	1245
Hard packed sand	1245	1252
Show of gas		
Sandy shale	1252	1325
Hard rock	1325	1328
Sandy shale	1328	1450
Hard rock	1450	1454
Shale and boulders	1454	1475
Hard rock	1475	1478
Soft, blue shale	1478	1600
Hard, sandy shale	1600	1659
Hard rock	1659	1661
Gummy shale	1661	1750
Hard, gummy shale and boulders	1750	1825
Hard shale with streaks of lime	1825	1880
Shale and boulders	1880	1955
Gumbo	1955	1995
Hard, gummy shale	1995	2032
Sandy, white lime—took a core	2032	2040
Sandy lime	2040	2073
Green sand—took a core (show)	2073	2083
Eutaw formation		
Broken shale and lime with lots of fossils and shells	2083	2090
Hard sand—took a core	2090	2102
Hard, sandy lime—took a core	2102	2155
Hard lime—took a core	2155	2161
Brown, hard gumbo, with streaks of lime	2161	2170
Hard, dark lime	2170	2172
Lime, very hard	2172	2755
Broken formation—took a core	2755	2758
Lime, white, very hard	2758	3512
CASING RECORD:		
Set 507' of 10"		
STRATIGRAPHIC INTERPRETATION		
Tertiary system	0	850
Grenada and Holly Springs formations	0	650
Porters Creek clay	650	850
Upper Cretaceous system	850	2170
Ripley formation (?)	850	1661
Selma formation (?)	1661	1880
Eutaw formation (?)	1880	2170
Paleozoic rocks	2170	3512

Hay-Fay Oil Co., BAILEY MORRISON No. 1

(Map Number—2)

Location: C W/2 NW Sec. 11, 15S-3E

Elevation: 411'

Date: 1935

Total depth: 2705'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface clay and sand	0	250
Sand and gravel	250	300
Hard sand	300	460
Gumbo	460	475
Tough gumbo	475	545
Sand and gumbo	545	656
Sand	656	700
Hard gumbo	700	750
Black gumbo	750	800
Gummy shale	800	820
Coarse, black shale	820	822
Rock	822	862
Hard, black shale	862	890
Pack sand	890	892
Sand rock	892	924
Tough black gumbo	924	1064
Hard sand	1064	1124
Sandy lime	1124	1140
Broken lime	1140	1180
Coarse, black shale	1180	1200
Hard sand	1200	1240
Sandy shale	1240	1300
Soft, black gumbo	1300	1480
Hard sand	1480	1765
Tough, sandy gumbo	1765	1882
Hard green sand	1882	1909
Show of oil		
Tough gumbo	1909	1919
Gummy shale	1919	1933
Rock	1933	1934
Tough gumbo	1934	1959
Hard lime rock	1959	1973
Hard lime rock and pyrite	1973	1985
Hard lime rock	1985	1995
Hard lime rock, with shells and soft streaks of lime	1995	2062
Hard, gray lime rock	2062	2069
Hard lime and pyrite	2069	2113
Hard lime rock	2113	2157
Hard lime rock, with soft streaks	2157	2216
Hard lime rock and pyrite	2216	2256
Hard lime rock	2256	2263
Hard lime rock, with soft streaks	2263	2294
Hard lime rock	2294	2397
Hard lime rock, with soft streaks	2397	2494
No record	2494	2705
Show of oil @ 2609-2635		

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light- to dark-gray, fine- to medium-grained, with a small amount of gray, calcareous shale		1978
Limestone, same as above		1988
Limestone, medium- to dark-gray and tan-gray, dense to fine-grained, with fragments of white, medium-grained limestone. The dark-gray limestone shows fucoidal markings		2030
Limestone, same as above, no fucoidal markings		2125
Limestone, same as above		2140
Limestone, same as above		2147
Limestone, medium-gray to tan-gray, dense to fine-grained, with bright cubes of pyrite		2177
Limestone, same as above, no pyrite		2190
Limestone, same as above		2206
Limestone, medium-gray to dark-gray, fine- to medium-grained		2212
Limestone, light- to dark-gray and tan-gray, dense to fine-grained		2225
Limestone, same as above		2245
Limestone, same as above		2248
Limestone, same as above		2256
Limestone, same as above		2260
Limestone, same as above		2290
Limestone, medium- to dark-gray and tan-gray, dense to fine-grained		2316
Limestone, same as above		2330
Limestone, light- to dark-gray, dense to fine-grained		2409
Sample consists entirely of gray and greenish-gray micaceous shale, undoubtedly contamination from the overlying Upper Cretaceous	2464	2473
Limestone, gray, dense	2473	2478
Limestone, same as above	2483	2493
Limestone, light- to dark-gray, dense to fine-grained	2493	2498
Limestone, light- to dark-gray and tan-gray, dense to fine-grained	2500	2515
Limestone, medium-gray to tan-gray, dense to fine-grained	2515	2518
Limestone, light- to medium-gray and tan-gray, dense to medium-grained	2518	2523
Limestone, light- to medium-gray and tan-gray, dense to medium-grained	2523	2533
Limestone, medium-gray to tan-gray, dense to fine-grained	2533	2538
Limestone, white to dark-gray and tan-gray, dense to fine-grained	2538	2543
Limestone, medium- to dark-gray, dense to fine-grained	2543	2548
Limestone, medium- to dark-gray and tan-gray, dense to fine-grained	2548	2553
Limestone, light- to dark-gray and tan-gray, dense to fine-grained	2553	2558
Limestone, medium-gray, dense to fine-grained	2558	2563
Limestone, medium- to dark-gray and tan-gray, dense to fine-grained	2563	2568
Limestone, dense to fine-grained, white to medium to dark-gray	2568	2573
Limestone, light- to medium-gray and tan-gray, dense to fine-grained	2573	2578
Limestone, light- to medium-gray and tan-gray, dense to fine-grained	2583	2588

Anderson & Kerr Drilling Co., P. P. BEASLEY No. 1-A
 (Map Number—3)

Location: C NW Sec. 13, 18S-4E
 Date: 1935

Elevation: 620'
 Total depth: 2008'

DRILLER'S LOG

Lithology	From	To
Surface	0	107
Sand	107	378
Clay and shells	378	618
Shale and shells	618	980
Hard lime	930	940
Broken lime and sand	940	960
Shale and shells	960	1099
Shale and sand	1099	1311
Sand	1311	1370
Black shale and shells	1370	1458
Shale and gumbo	1458	1485
Black shale	1485	1507
Gumbo	1507	1540
Lime	1540	1550
Gumbo	1550	1612
Shale	1612	1635
Black shale	1635	1652
Shale	1652	1673
Gumbo	1673	1688
Shale and shells	1688	1738
Sand	1738	1849
Shale	1849	1897
Lime	1897	1907
Soft sand	1907	1932
Lime	1932	1942
Lime, hard	1942	2008

According to the driller a crevice was struck at 2008 feet, circulation was lost, and the test was abandoned.

SAMPLE DESCRIPTION

Lithology	From	To
No sample	0	10
Sand, light-tan to orange, fine- to medium-grained, angular to sub-rounded, with minor amounts of light-colored clay	10	110
Sand, gray to brown, medium- to coarse-grained, with some gray and white, dense clay	110	200
Sand, clear to light-gray, coarse to very coarse, angular, with some iron oxide and white to iron-stained clay	200	300
Sand, light-colored, coarse to very coarse, angular, with a considerable amount of iron oxide and white clay	300	380
Sand, greenish-gray, medium-grained, with a large amount of gray, iron-stained, sandy clay	380	420
Clay, gray, fine-grained, sticky, with some lignite and lignite clay	420	480
Clay, dark-gray, fine-grained, tough, somewhat micaceous, somewhat more shaly toward the base	480	760
Sand, greenish-gray, fine-grained, argillaceous, with some calcareous fossil fragments	760	790
Limestone, or marl, greenish-gray, argillaceous and sandy, with abundant shell fragments	790	820
Clay, gray to greenish-gray, very sandy, slightly micaceous	820	980
Sand, greenish-gray to tan and brown, medium-stained, glauconitic	980	1050

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, dark-gray, micaceous	1050	1060
Sand, greenish-gray and tan, fine-grained, micaceous, glauconitic	1060	1100
Clay and shale, gray, micaceous	1100	1140
Sand, greenish-gray, fine-grained, glauconitic	1140	1370
Clay, gray to dark-gray, fine-grained, fossiliferous	1370	1400
Clay, same as above, with more greenish-gray, fine-grained sand	1400	1410
Clay, gray to dark-gray, fine-grained, sandy, with many shell fragments	1410	1510
Clay, light-gray, fine-grained, calcareous	1510	1640
Clay, same as above, but less calcareous	1640	1650
Clay, light-gray, fine-grained, very calcareous, with a considerable amount of greenish-gray, glauconitic sand	1650	1700
Clay, light-gray to greenish-gray, marly, sandy	1700	1740
Shale, greenish-gray, hard, with some fine, greenish-gray sand	1740	1830
Sand, grayish-green, fine	1830	1950
Limestone, light-gray, dense to fine-grained	1950	1965
Limestone, same as above, with fragments of light-colored sharp chert	1965	2008
STRATIGRAPHIC INTERPRETATION		
Tertiary system	0	820
Holly Springs sand	0	420
Ackerman formation	420	480
Porters Creek clay	480	760
Clayton formation	760	820
Upper Cretaceous system	820	1932
Ripley formation	820	1510
Owl Creek tongue and McNairy sand member	820	1370
Coon Creek tongue	1370	1510
Selma formation	1510	1740
Eutaw formation	1740	1932
Paleozoic rocks	1932	2008
Pre-Trenton Ordovician (?)	1932	2008

Anderson & Kerr Drilling Co., P. P. BEASLEY No. 1-B
(Map Number—4)

Location: C NW Sec. 13, 18S-4E

Elevation: 620'

Date: 1935

Total depth: 2019'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	300
Sand shells	300	394
Sandy shale	394	473
Iron rock	473	474
Sandy shale	474	516
Shale	516	762
Hard sand	762	770
Sandy shale	770	785
Shale and shells	785	830
Hard sand	830	940
Sandy shale	940	960
Hard sand	960	1049
Shale	1049	1094
Sand, lime, hard	1094	1096
White sand	1096	1128
Clay and sand	1128	1150

<i>Lithology</i>	<i>From</i>	<i>To</i>
White sand	1150	1265
Hard sand	1265	1275
Sandy shale	1275	1390
Sand	1390	1440
Clay	1440	1450
Sandy clay	1450	1480
Sand	1480	1492
Sticky clay	1492	1643
Shale	1643	1655
Soft sand	1655	1685
Sand and shale	1685	1890
Lime rock	1890	1955
Lime rock, hard	1955	1990
Hard lime	1990	2019

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
No sample	0	10
Sand, gray to light-tan, fine- to medium-grained, angular, clean	10	410
Clay, gray to dark-gray, fine-grained, sticky, with some lignite	410	420
Clay, lead-gray, tough	420	630
Clay, dark-gray, fine-grained, with some mica	630	760
Clay, light-gray, very sandy, with calcareous shale	760	780
Clay, dark-gray, dense, slightly calcareous	780	790
Clay, dark-gray, dense, somewhat micaceous	790	820
Marl, light- to medium-gray, sandy, micaceous	820	850
Clay, light- to medium-gray, sandy, micaceous, very marly	850	980
Sand, gray and green, fine to medium, glauconitic	980	1030
Clay, dark-gray, fine-grained, micaceous	1030	1090
Sand, gray and green, fine- to medium-grained, glauconitic	1090	1150
Clay, dark-gray, sandy, micaceous, slightly calcareous	1150	1210
Sand, gray, fine to medium	1210	1270
Clay, dark-gray, fine-grained, sandy, micaceous	1270	1490
Clay, light-gray, fine-grained, calcareous	1490	1740
Sand, medium-gray, fine- to medium-grained, clean	1740	1790
Sand, same as above, with some dark-gray, lignitic clay	1790	1840
Sand, gray and brown, fine- to medium-grained, micaceous, lignitic	1840	1940
Chert, dark-gray and brownish-gray, angular to rounded, weathered	1940	1955
Limestone, light-gray to gray, dense to fine-grained	1955	2015

U. S. G. S. & Tenn. Div. of Geology, T-1-F

(Map Number—5)

Location: NW NW SW Sec. 13, 14S-1W

Elevation: 318'

Date: 1949

Total depth: 2582'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Jackson (?) formation		
Clay, buff to gray, silty	0	34
Clay, gray, silty, plastic	34	40
Clay, light bluish-gray, plastic, to light-gray, shaly clay	40	119
Claiborne group		
Sand, fine to medium	119	222
Sand, coarse to very coarse	222	237

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, fine to medium	237	260
Sand, medium to coarse	260	292
Clay, gray, silty to sandy	292	308
Sand, fine	308	319
Clay, sandy	319	322
Sand, fine to medium	322	347
Sand, medium to very coarse	347	382
Sand, fine to very coarse	382	402
Sand, fine with some coarse	402	452
Sand, fine to medium	452	619
Wilcox group		
Clay, grayish-brown, silty, plastic	619	643
Sand, fine to medium	643	645
Clay, plastic	645	647
Clay, sandy (?)	647	650
Clay, tan to buff, soft, silty, containing thin layers of fine to medium sand	650	666
Siltstone	666	667
Clay, brown, smooth, soft	667	677
Sand, fine	677	680
Clay, tan to brown, interbedded with thin layers of sand	680	696
Sand, fine, with thin layers of brown and white clay	696	707
Clay, brown, soft	707	708
Sand, fine (?)	708	710
Clay, gray, greenish-gray, green, tan, and brown, silty to sandy, interbedded with lignite	710	748
"Rock"	748	750
Clay, gray, green, brown, silty, shaly, lignitic	750	780
"Rock"	780	782
Clay, gray to gray-black, green, and brown, silty, shaly, carbonaceous, lignitic	782	917
Sand, fine, micaceous	917	983
Sand, fine to medium, in part micaceous	983	1003
Sand, medium	1003	1024
Sand, fine to medium, in part micaceous	1024	1054
Sand, fine, and silt, clayey, micaceous, with thin layers of clay	1054	1145
Clay, gray-black, black, and carbonaceous, and gray, clayey silt interbedded with lignite	1145	1325
Midway group		
Porters Creek clay		
Clay, dark-gray and black, silty, shaly	1325	1550
Clayton formation		
Clay, dark-gray and black, shaly, with many thin layers of fine sand	1550	1590
Owl Creek formation		
Clay, dark-gray and black, shaly, tough, with sandy layers near base	1590	1628
Ripley formation		
"Rock"	1628	1630
Clay	1630	1631
Sandstone (?), gray	1631	1632
Shale, gray, calcareous, clayey, fossiliferous, with layers of fine to coarse sand	1632	1702
"Rock"	1702	1703
Shale, gray, calcareous, clayey, fossiliferous, with sandy layers	1703	1731
Sand, fine to medium, clayey, interbedded with dark-gray shaly clay	1731	1796
Lignite	1796	1800
Shale, greenish-black	1800	1807
"Rock"	1807	1809

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale and sand, interbedded. Shale is black to dark-gray, fossiliferous. Sand is fine to medium, clayey. Contains several indurated layers	1809	1902
"Rock"	1902	1905
Sand and shale, interbedded. Sand is fine to medium, clayey. Shale is dark-gray to black, clayey, fossiliferous. Contains several indurated layers	1905	2021
Selma clay	2021	2024
"Rock" (limestone?)		
Shale and clayey silt, interbedded with some thin sandy layers. Shale is gray-black, silty, calcareous, fossiliferous, clayey. Contains several indurated layers.	2024	2460
Sand, fine to coarse		
Eutaw (?) formation		
Sand, fine to medium, micaceous, with some thin, gray-black, clayey shaly layers	2460	2484
Shale, black, clayey, fossiliferous, interbedded with thin layers of clayey silt and sand	2484	2517
Sandstone (?), clayey, shale, and clayey sand, interbedded. Sandstone is gray, calcareous, medium-grained. Clayey shale is dark-gray, calcareous. Sand is fine to medium	2517	2532
Paleozoic rocks		
Dolomitic limestone	2532	2582

Lazarov & Robilio Oil Co., BEASLEY No. 1

(Map Number—6)

Location: NW NW SW Sec. 16, 18S-4E

Elevation: 405'±

Date: 1950

Total depth: 1767'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	10
Coarse sand	10	180
Sandy clay	180	200
Dark-gray to greenish sandy clay and silty sand	200	400
Hard, sandy clay	400	475
Hard, brittle, dark-gray clay	475	540
Dark-gray, slightly sandy, micaceous clay	540	620
Dark-gray, hard, micaceous, glauconitic, clayey silt, micro-fossiliferous	620	675
Thin rock, followed by dark-gray, clayey, glauconitic sand	675	695
Alternating thin rocks, gray, micaceous silt and fine gray sand, with shell fragments and lignite	695	763
Fine, medium, and coarse, tan and gray sand, alternating with numerous thin, hard, pyritic rocks, fossiliferous and glauconitic throughout	763	1112
Dark-gray, green, and black, hard, shaly clay, alternating with thin sandy intervals, fossiliferous throughout, rarely somewhat chalky	1112	1530
Fine to medium gray sand	1530	1610
Dark-gray to black, hard, waxy clay, fossiliferous	1610	1623
Fine sand, sparingly glauconitic	1623	1645
Hard, sandy silt, lignite, and hard, black, shaly clay	1645	1675
Fine to medium, glauconitic, fossiliferous sand	1675	1720
Bluish-gray, hard, sandy silt, with much lignite—fossiliferous	1720	1745
Small gravels—probably residual cherts	1745	1766
Gray, hard limestone	1766	1767

FENTRESS COUNTY

B. J. Burns et al, COMPTON No. 1

(Map Number—1)

Location: SW SW NW Sec. 16, 1S-54E

Elevation: 905'

Date: ?

Total depth: 831'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	10
Red clay	10	20
Sand	20	25
Slate	25	40
Lime	40	75
Slate	75	80
Sand	80	85
Slate	85	110
Water sand	110	125
Blue slate	125	175
Black lime	175	200
Shale	200	338
Chattanooga shale	338	368
Lime	368	377
Water sand	377	389
Lime	389	408
Gas sand	408	412
Lime	412	420
Gas sand	420	423
Black lime	423	430
Sand	430	435
Lime	435	455
Gas sand	455	463
Lime	463	520
Gas sand	520	575
Gas sand, water	575	580
Upper Sunnybrook sands		
Black lime		625
Sand		640
Lime	625	640
Sand	640	806
Sand	806	816
Fresh water filled up the hole to 100'		
Black lime	816	831

Total 53 feet of gas showings; estimated at 300,000 cubic feet per day. Lifted tools and water.

202 feet between Chattanooga shale and Upper Sunnybrook; 246 feet between Upper and Lower Sunnybrook.

Forest Oil Co., RUGBY LAND No. 3
(Map Number—2)

Location: NE SE NW Sec. 14, 2S-58E

Elevation: 1238'

Date: 1896

Total depth: 1789'

<i>Lithology</i>	DRILLER'S LOG	<i>From</i>	<i>To</i>
<i>Pennsylvanian system</i>			
Lee formation		0	3
Sand, yellow, soft		3	30
Sand, pebbles, yellow, soft		30	65
Sand, gray, yellow, hard		65	68
Coal, black, soft		68	88
Slate, black, soft		88	254
Sand, white, hard		254	284
Sand, gray, hard		284	309
Slate, black, medium		309	314
Sand shell, gray, hard			
<i>Mississippian system</i>			
Pennington formation			
Sand shell, gray, hard		314	330
Slate, red, soft		330	385
Slate, blue, black, soft		385	450
Sand shell, dark, hard		450	460
Slate, red, soft		460	475
<i>Top of the Newman formation</i>			
Slate, light-gray, hard		475	480
Lime, gray, hard		480	490
Slate, black, soft		490	505
Lime, black, hard		505	530
Slate, blue, soft		530	540
Lime, gray, hard		540	555
Slate, black, hard		555	560
Lime, gray, hard		560	650
Slate, brown, medium		650	655
Slate, blue, soft		655	660
Sand, white, soft		660	685
Lime, white, hard		685	845
Sand, white, hard		845	915
Lime, gray, hard		915	925
Lime, brown, hard		925	945
Lime, gray, hard		945	980
Lime, brown, hard		980	1000
Lime, gray, hard		1000	1005
Lime, sand, gray, very hard		1005	1017
Sand, gray, very hard		1017	1022
Sand, brown, medium		1022	1026
Sand, gray, hard		1026	1040
Sand, blue, hard		1040	1060
Sand, black, hard		1060	1095
Lime, gray, hard		1095	1100
Lime shell, gray, very hard		1100	1150
Lime, sand, white, medium		1150	1160
Lime, grit, white, very hard		1160	1211
Lime, grit, gray, very hard		1211	1243
Chattanooga shale (black)		1243	1285
<i>Ordovician system</i>			
Lime, gray, soft		1285	1295
Lime, shell, gray, hard		1295	1300
Lime, gray, medium		1300	1764
Lime, black, medium		1764	1789

Flint & Strother, ANDERSON No. 1

(Map Number—3)

Location: SW NW NW Sec. 3, 2S-57E

Elevation: 1295'

Date: 1916

Total depth: 1700'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Conductor	0	15
Mud and slate	15	32
Coal	32	34
Reddish sandstone and shells	34	76
Coal (Whiteoak coal)	76	79½
Red shales and thin limestone	79½	305
Salt Sand, heavy flow salt water	305	321
Red rock and lime shells	321	440
Limestone	440	1085
Show of oil @ 630		
Some gas @ 640-680		
Black slate and shale	1085	1090
Gray lime	1090	1700

Norwood P. Johnson, GERNT No. 1

(Map Number—4)

Location: NE NW SE Sec. 16, 2S-57E

Elevation: 1586'

Date: 1926

Total depth: 1464'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
<i>Pennsylvanian</i>		
Lee formation		
Top soil	0	35
Sandstone, white	35	210
Shale, dark	210	337
Limestone, sandy	337	375
Sand, white (Salt Sand)	375	525
<i>Mississippian</i>		
Pennington formation		
Red rock (shale)	525	559
Limestone, gray	559	605
Slate, dark	605	620
Limestone	620	638
Slate, red and black	638	675
<i>Newman series</i>		
Limestone, brown and gray	675	850
Pencil Cave (caving lime)	850	851
Limestone, brown	851	1160
Show of gas @ 1160		
Red rock	1160	1200
Lime, light to black	1200	1260
Slate, black	1260	1275
Limestone, gray, sandy	1275	1421
Slate, green and black	1421	1464

Well dry, abandoned.

Norwood P. Johnson, GERNT No. 2
(Map Number—5)

Location: NE SW SW Sec. 4, 3S-57E
Date: 1927

Elevation: 1480'
Total depth: 1514'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and clay, brown (sandy clay)	0	10
Sand, brown	10	50
Slate, dark	50	80
Sand, blue	80	150
Water @ 125		
Slate and shells, dark	150	260
Salt Sand, white, broken (water sand)	260	465
Slate and shells, dark	465	480
Red rock	480	515
Slate, white	515	523
Lime, white	523	535
Slate and shells, light	535	615
Red rock, very soft	615	625
Lime, white	640	660
Shells, light	660	712
Lime, white	712	1012
Water @ 770		
Oil @ 974-76		
Sandy lime, pink	1012	1065
Lime, red, very hard	1090	1115
Sandy lime, light and dark to black	1115	1240
Sandy lime, gray and mixed colors	1240	1374
Oil @ 1259		
Chattanooga shale, black	1374	1412
Sandy lime, dark-gray	1412	1447
Sandy lime, dark-brown	1447	1459
Lime, blue-gray	1459	1514

(Steel line measurement)

CASING SET:

- 10" @ 16 (reclaimed)
- 8 1/4" @ 523 (reclaimed)
- 6 5/8" @ 1012 (reclaimed)

WILL WRIGHT No. 1

(Map Number—6)

Location: SW 1S-55E (?)
Date: 1927

Elevation: ?
Total depth: 1859'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Alluvium	0	10
Conglomerate (water)	10	14
Black lime	14	20
Light-colored lime	20	40
Lime, siliceous	40	52
Lime, hard	52	74
Oil show		
Lime, hard	74	90
Lime, cherty	90	126
Lime, gray	126	145

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime	145	147
Pocket of gas		
Lime	147	158
Oil and gas show		
Lime, coarse	158	163
Lime, dark	163	185
Lime	185	190
Oil show		
Bluish shale	190	210
Black shale	231	261
Lime, soft	261	290
Lime, whitish-gray, with shale	290	363
Oil show		
Lime, fossiliferous	363	373
Lime, sandy, fossiliferous	373	407
Lime	407	411
Gas show		
Lime, white	411	440
Lime	440	449
Lime, light color	449	461
Black clay, shale	461	471
Lime	471	487
Lime, whitish-gray	487	502
Lime, light-colored	502	545
Black lime	545	613
Gas show		
Lime, sandy	613	651
Lime, sulphur water, cased	651	718
Gray shale	718	732
Lime, heavy water	732	761
Cased		767
Lime, gray	761	777
Lime, white, fossiliferous	777	815
Whitish lime	815	841
Lime, bluish	841	880
Lime, sandy, white, porous	880	895
Lime, white	895	900
Pencil Cave (?)		925
Bentonite		953
Lime, white	953	955
Lime	955	1007
Show of oil with salt water		
Lime, cased	1007	1041
Lime	1041	1055
Lime, sandy, dark	1055	1080
Lime, light color	1080	1200
Lime, greenish-white with black specks	1200	1213
Lime, black	1213	1216
Lime, black	1216	1233
Show of oil		
Sand, fine texture	1233	1270
Salt water with asphalt and oil and gas		
Sand, fine texture, bit stuck	1270	1280
Lime with calcite	1280	1312
Lime, gritty	1312	1316
Lime, black	1316	1335
Lime, whitish-green	1335	1380
Lime; tools dropped into soft place; bailer brought additional gas show	1380	1390
Lime, yellowish-gray	1390	1398
Sand, limy	1398	1401

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy lime, fine, gray	1401	1455
Lime, sandy, dark	1455	1468
Lime, dark-brown, hard	1468	1491
Lime, clay, shale, very dark	1491	1515
Lime, black	1515	1554
Lime, black, hard	1554	1625
Lime, gray	1625	1700
Lime, light	1700	1710
Gas show		
Lime, slight gas	1710	1740
Lime, sandy, hard	1740	1776
Lime, sandy, very hard	1776	1785
Lime and sand with yellowish black specks	1785	1798
Lime and sand	1798	1801
Lime and sand, very hard	1801	1812
Lime and sand, extremely hard, with black specks	1812	1818
Lime with sand	1818	1820
Gas show		
Sand, white color	1820	1836
Sand with whitish clay	1836	1848
Sand with lime, white	1848	1859
Bottom, May 18, 1927		

S. P. Lalor et al, COBB HEIRS No. 1
(Map Number—7)

Location: NE SW NW Sec. 16, 1S-55E

Elevation: 819'

Date: 1937

Total depth: 765'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	10
Lime, light, soft	10	30
Lime, dark, hard	30	35
Shale, dark, soft	35	40
Lime, dark, very hard	40	80
Lime, gray, very hard	80	92
Lime, green, hard	92	138
Lime, green, very hard	138	230
Shale, green, soft	230	236
Chattanooga shale	236	268
Lime, green, soft	268	310
Lime, dark-brown, hard	310	410
Show of oil @ 376		
Oil 407-412 with considerable water. About a 5 bbl. well. Produced for a short time.		
Lime, dark-gray, hard	412	540
Water @ 465		
Set 4 7/8" @ 471		
Shale, brown, soft	540	545
Lime, brown, hard	545	555
Lime, gray, hard	555	585
Lime, dark	585	590
Gas @ 588-590		
Lime, dark-gray	590	645
Lime and sand, gray	645	649
Metallic iron, very hard	649	665
Lime, gray, broken, very hard	665	672
Lime, brown, very hard	672	693
Lime, dark-blue, very hard	693	722

Lithology

	<i>From</i>	<i>To</i>
Lime, dark-gray, very hard	722	738
Flinty shale, light, very hard (cap rock)	738	740
Sand, brown	740	746
Abundant salt and sulphur water; rose 500' in hole.		
Lime, dark-brown, hard	746	765
Gas @ 755		

S. P. Lalor et al, P. P. BEATY No. 1

(Map Number—8)

Location: NE NE NW Sec. 24, 1S-54E

Elevation: 689'

Date: 1937

Total depth: 1010'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface, dark, soft	0	26
Creek bed, gravel	26	35
Lime, gray, very hard	35	75
Lime, blue, very hard	75	116
Shale, black, soft	116	146
Lime, gray, hard	146	312
Lime, gray, very hard	312	367
Lime, black, hard	367	397
Lime, gray, hard	397	427
Lime, brown, hard	427	432
Lime, light-brown, very hard	432	550
Lime, dark-brown, very hard	550	608
Lime, brown, very hard	608	635
Lime, light-brown, very hard	635	655
Lime, gray, hard	655	700
Lime, blue, soft	700	755
Lime, gray, hard	755	760
Lime, gray, medium	760	785
Pencil Cave, green, soft		785
Lime, white, hard	785	820
Lime, gray, hard	820	847
Lime, brown, hard	847	874
Lime, brown, very hard	874	900
Lime, brown, hard	900	985
Lime, gray, very hard	985	998
Lime, brown, hard	998	1010

S. P. Lalor et al, P. P. BEATY No. 2

(Map Number—9)

Location: SE NE NW Sec. 24, 1S-54E

Elevation: 688'

Date: 1937

Total depth: 640' (?)

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil, dark, soft	0	30
Gravel, dark, hard	30	50
Lime, light-gray, hard	50	90
Lime, light-green, hard	90	146
Shale, black, hard	146	176
Lime, light-gray, hard	176	350
Lime, brown, hard	350	355
Lime, light-gray, hard	355	600
Lime, gray, hard	600	640

S. P. Lalor et al, P. P. BEATY No. 3
(Map Number—10)

Location: NW SW NE Sec. 24, 1S-54E
Date: 1937

Elevation: 689'
Total depth: 682'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface, dark, soft	0	30
Gravel, dark, soft	30	50
Lime, light, hard	50	75
Lime, blue, hard	75	130
Lime, gray, hard	130	147
Shale, black, hard	147	177
Lime, gray, hard	177	260
Lime, blue, hard	260	315
Lime, gray, hard	315	355
Lime, brown, hard	355	370
Lime, gray, hard, dark	370	465
Lime, brown, dark, hard	465	540
Lime, gray, dark, hard	540	565
Lime, brown, dark, hard	565	661
2nd Sunnybrook	661	682

W. M. Johnson, FEE No. 2
(Map Number—11)

Location: SW SW NE NW Sec. 10, A-54E
Date: 1937

Elevation: 900'
Total depth: 563'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand and shale mixed, light-brown, soft	0	35
Lime, black, medium-hard	35	55
Lime, black and white, medium-hard	55	140
Shale, pale-green, soft	140	160
Sand, white, hard	160	170
Stray Beaver		
Lime, green and white, hard	170	217
Sand, white, hard	217	236
Stray Beaver		
Slate, green, soft	236	243
Sand, brown, hard	243	250
Beaver sand		
Slate, green, soft	250	265
Shale, black, soft	265	295
Chattanooga shale		
Lime, yellow, hard	295	440
Lime, dark-gray, medium-hard	440	448
Lime, black and white, hard	448	458
Lime, brown, hard	458	465
Lime, gray, hard	465	476
Lime, gray and white, hard	476	548
Lime, dark-brown, hard	548	563

CASING: 8 1/4" @ 4, 6 1/4" @ 305
SHOWS: Oil @ 458; gas @ 385, 440, 458, 476, 507, 563
WATER: Fresh @ 55; sulfur @ 175 and 217

Brandon Development Co., MATILDA COOPER No. 2

(Map Number—12)

Location: NW SE SE Sec. 10, 2S-54E

Elevation: 832' (?)

Date: 1937

Total depth: 980'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dirt	0	23
Flinty lime, gray and white, hard	23	255
Water sand, yellow, very hard	255	257
Flinty lime, gray, hard	257	321
Flinty lime, gray, very hard	321	340
Lime, sand, yellow, hard	340	363
Lime, sand, white, hard	363	387
Lime, sand, white, softer	387	403
Flinty lime, gray, very hard	403	414
Flinty lime, brown, gray, hard	414	470
Shale, black, soft	470	502
Lime, gray, medium	502	535
Shale, brown, soft	535	560
Lime, black and white, medium	560	752
Upper Sunnybrook, brown, soft	752	759
Lime, black and white, medium	759	794
Lime, black and white, hard	794	798
Gas, sand, brown, soft	798	801
Lime, black and white, medium	801	918
Lower Sunnybrook, brown, soft	918	933
Lime, brown, hard	933	980
Salt and sulfur water @	255-257	
Cap rock for Beaver	321-340	
Beaver and gas	340-363	
Oil show for 16'	387-403	
Cap rock for Upper Sunnybrook	748-752	
Wet gas	752-759	cap
Cap to gas sand	794-798	
3' sand, heavy gas	798-801	
Heavy gas	918-933	
277' of 4 7/8" casing		

TEST NO. 1

<i>Depth</i>	<i>Thickness</i>	<i>Remarks</i>
340	63	Gas saturation
470	32	Chattanooga shale
752	5	Gas
798	3	Gas
918	15	Main gas pay (gas @ 918' more than doubled)

PRODUCTION:

Drilled in lower pay	
Finished drilling	October 16, 1937
Well shut in	November 4, 1937
Gasoline content	November 6, 1937
Pressure test	25 gal. per thousand cu. ft.
Well shut in 16 hours.	November 6, 1937
Rock pressure	150 lbs.
(Stop cock at well leaking badly, could not get actual rock pressure.)	

TEST NO. 2

Pressure test—November 19, 1937

Well shut in 13 days

Rock pressure 290 pounds with casing lifted and leaking badly at bottom.

From an open flow would build 50 pounds pressure to the minute until 200 pounds was reached; then casing would rise, allowing gas to escape.

With 4 $\frac{7}{8}$ -inch casing in well, would maintain 2 $\frac{1}{2}$ pounds pressure on 2-inch pipe with open flow, volume 650,000 cubic feet per 24 hours.

Brandon Development Corp., MATILDA COOPER No. 3

(Map Number—13)

Location: NW SW SW Sec. 6, 2S-55E

Elevation:: 832'

Date: 1938

Total depth: 1350'

DRILLER'S LOG

Lithology	From	To
Dirt	0	26
Flinty lime, gray and white	26	292
Hit sulphur water		
Flinty lime	292	308 $\frac{1}{2}$
Casing point 6 $\frac{1}{4}$ "		
Flinty lime, gray and white	308 $\frac{1}{2}$	472
Gas @ 365		
Sand, brown	472	480
Beaver sand. Gas		
Slate, blue	480	486
Black shale	486	522
Blue slate	522	526
Brown shale	526	531
Blue lime	526	556
Lime, blue and white	531	755
Brown lime, dark-brown	556	755
Upper Sunnybrook @ 772; hard.		
Some gas		
Gray lime	785	805
Lime, dark-gray	805	880
Lime, brown and gray	880	900
Lime, blue and gray	900	917
Lime, brown	917	927
Lime, gray and brown	927	930
Lime, dark-brown	930	945
Gas @ 932		
Lime, dark-gray	945	960
Lime, brown and gray	960	975
Lime, blue and gray	975	1000
Lime, gray	1000	1012
Lime, brown	1012	1036
Lime, gray	1036	1051
Lime, brown	1051	1067
Lime, dark-gray	1067	1110
Lime, brown and gray	1110	1112
Lime, dark-gray	1112	1122
Lime, brown and gray	1122	1130
Lime, brown and gray	1130	1145
Shaly lime, blue and gray	1145	1150
Shaly lime, dark-gray and white	1145	1155
Shaly lime, gray and brown	1150	1155
Sandy lime, gray	1160	1167
Gas @ 1164		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy lime, dark-gray	1167	1172
Some mud caving. Lower Sunnybrook usually found in this.		
Sandy lime, dark-gray	1172	1182
Shaly lime, blue and gray	1182	1191
Shaly lime, gray	1191	1196
Lime, gray and brown	1196	1201
Pencil Cave, white and green	1201	1203
Some green with black specks and green shale		
Hard shell of lime and shale, light-brown and green	1203	1205
Lime, light-brown, dense	1205	1225
2nd Pencil Cave (8" cave)	1225	1226
Dense lime, brown	1226	1350
Gas @ 1231		

S. P. Lalor, H. A. Cotton, et al, GRANVILLE COOPER No. 1

(Map Number—14)

Location: NW SW NW Sec. 23, 1S-54E

Elevation: 705' (?)

Date: 1938

Total depth: 1710'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	20
Lime, gray, hard	20	35
Lime, blue, hard	35	66
Lime, gray, hard	66	70
Lime, gray, hard	100	125
Shale, green, very soft	125	126
Shale, black, soft	126	157
Corniferous cap, dark-gray	157	162
Lime, blue, hard	162	210
Lime, dark, hard	210	220
Lime, dark-gray, hard	220	235
Lime, dark-gray, soft	235	263
Lime, gray, soft	263	280
Lime, black, soft	280	335
Lime, dark-gray, hard	335	365
Lime, dark-brown, hard	365	375
Water	375	380
Lime, dark-gray, hard	380	445
Lime, dark, hard	445	535
Lime, brown, hard	535	675
Lime, dark-brown, medium	675	715
Lime, dark-brown, hard	715	740
Lime, brown, soft	740	760
Lime, light-brown, soft	760	764
Pencil Cave, green, very soft	764	766
Lime, light-gray, soft	766	770
Lime, brown, medium	770	895
Lime, dark-brown, hard	895	955
Sand, light-brown	955	960
Light gas		
Lime, brown, hard	960	980
Lime, light-brown, hard	980	1025
Lime, brown, hard	1025	1100
Lime, dark-brown, hard	1100	1150
Lime, light-brown, hard	1150	1215
Lime, light-gray, hard	1215	1225

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, dark-brown, hard	1225	1375
Lime, dark-gray, hard	1375	1385
Lime, dark-blue, hard	1385	1425
Lime, dark-brown, hard	1425	1550
Lime, light-brown, hard	1550	1575
Lime, dark-gray, hard	1575	1620
Lime, light-gray, hard	1620	1640
Lime, light-green, medium	1640	1655
Lime, dark-green, very hard	1655	1660
Sand, dull-white, hard	1660	1670
Sand, light-brown	1670	1675
Sand, dark-brown, medium	1675	1680
Sand, light-brown, medium	1680	1690
Sand, light-brown, hard	1690	1695
Sand, dark-brown, medium	1695	1700
Lime, dark-brown, medium	1700	1705
Dolomite, light-brown, hard	1705	1710

CASING:

- 10" @ 66' 3"
- 8 1/4" @ 263'
- 6 1/4" @ 540'
- Water 30-35
- Gas @ 200
- Water @ 215 and 235
- Reamed from 178-261 and 261-355
- First Sunnybrook 375-380
(gas and water)
- Strong gas @ 535
- Show of oil @ 540-545
- Light gas @ 570-575
- Gas @ 955-960

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light- to dark-gray (plum pudding effect). Dark ground mass with light spots. Typical Cannon	540	545
Limestone, same, plus small amount of black chert	545	550
Limestone, same, but no chert	550	555
Limestone, same, plus small amount of light-brown, dense limestone	555	560
Limestone, same, except no light-brown limestone	560	565
Limestone, same	565	570
Limestone, dark-gray to light-brown, medium-crystalline, plus some light-brown chert	570	575
Limestone, same	575	580
Limestone, dark-gray to dark-brown, plus some lighter colored limestone. Few fragments of quartz and light-brown chert	580	585
Limestone, same	585	590
Limestone, light-brown to dark-gray, medium-crystalline, plus some quartz and gypsum	595	600
Limestone, same. More dark-gray limestone	600	605
Limestone, same. Increase in light-brown constituents	605	610
Limestone, same	610	615
Limestone, dark-gray to light-brown. Angular fragments of dark-brown chert; small percentage of gypsum	615	620
Limestone, light-brown to dark-gray, medium-crystalline	620	625
Limestone, light-brown, fine- to medium-crystalline	625	630
Limestone, dark-brown to dark-gray, medium-crystalline	630	635

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-brown to dark-gray, fine- to medium-crystalline		
Limestone, brown to dark-gray, medium-crystalline	635	640
Limestone, light-brown to dark-gray, medium-crystalline	640	645
Limestone, light-brown to dark-gray, medium-crystalline	645	650
Limestone, coarse, light-brown to dark-gray, medium-crystalline	650	655
Limestone, medium-brown to dark-gray, fine- to medium-crystalline	655	660
Limestone, light-brown to dark-gray, medium-crystalline (dirty sample)	660	665
Limestone, light-brown to dark-gray, fragments coarse, medium-crystalline	670	675
Limestone, light-brown, finely crystalline	675	680
Limestone, light-brown to dark-brown, medium-crystalline, fragments very coarse	680	685
Limestone, dark-brown to dark-gray, medium-crystalline	685	690
Limestone, brown to gray, medium-crystalline	690	695
Limestone, dark-gray, medium-crystalline	695	705
Limestone, white to dark-gray, medium-crystalline, some angular quartz	705	715
Limestone, white to dark-gray, coarsely crystalline	715	720
Limestone, light- to dark-gray, coarse to finely crystalline, considerable amount of light chert. (This sample seems to have carried a small amount of oil.)	720	735
Limestone, light- to dark-gray, medium-crystalline; some light chert	735	740
Limestone, dark-gray, medium-crystalline, somewhat impure	740	745
Limestone, dark-gray, shaly, medium-crystalline. Some fragments of pure white limestone (Carters)	745	755
Same, and light-brown, fine-crystalline limestone	755	760
Same, and some light-brown, dense, finely crystalline limestone and green Pencil Cave; light-green biotitic Pencil Cave; some pyrite	760	765
Limestone, light-gray to brown, dense, and some cave (float), somewhat more coarsely crystalline than usual in Carters	765	770
Limestone, gray to brown, dense and finer crystalline. Same. Pyrite.	770	775
Same. Cave float and pyritic limestone	775	780
Same (cave float @ 790-800)	780	785
Same, and some dark-gray, drab, medium-crystalline limestone	785	805
Same (cave float @ 815-820)	810	815
Same (more typical Carters @ 825-830)	815	825
Limestone, coarser crystalline, and brown to dark-brown chert. Lebanon (contact probably up the hole 10-20'.)	825	875
Same, and brown chert	875	885
Same, more coarsely crystalline, and chert, brown	885	895
Same, but no chert	900	905
Same (typical Lebanon)	905	910
Same (some light-brown chert @ 925-930, 935-950)	910	915
Gray, dense, finely crystalline limestone; some small crystals of pyrite	920	955
Same, and brown, dense limestone	955	960
Limestone, coarser and grayer	960	965
Same, and white fragments of limestone	965	970
Same. Ridley may be present here.	970	975
Limestone, gray and brown. Some fragments composite of both in angular crystals	975	980
Same, and some granular, gray, medium-crystalline limestone	980	985
	985	990

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray, granular, medium to finely crystalline limestone. Murfreesboro limestone (contact not definite)	990	1006
Limestone, light-brown, dense, finely crystalline	1006	1015
Limestone, gray, granular, to light-brown, finely crystalline	1015	1020
Same, and abundance of black chert	1020	1025
Same, and some black chert	1025	1030
Same (more shaly @ 1035-1040)	1030	1045
Same, but very pure	1045	1050
Same, and some shale	1050	1055
Same	1055	1060
Same, and black chert	1060	1065
Same (dirty sample @ 1080-1085)	1070	1090
White to gray, fine to medium, crystalline limestone	1090	1215
Same, and larger percentage of light-brown limestone	1220	1225
Dense, light-brown, finely crystalline limestone	1225	1230
Same (very dense and gray @ 1370-1375)	1230	1380
Same, and some light-brown chert	1380	1385
Same, no chert	1385	1390
Same	1390	1530
Same, plus one spherical black globule	1530	1535
Same, and fine, densely crystalline, light-brown limestone	1535	1540
Same	1540	1590
Same, with some transparent calcite and some transparent quartz	1590	1595
Same	1595	1600
Same, and some light-brown to white, dense, finely crystalline limestone	1600	1605
Same	1605	1635
Gray to white dolomite; calcite crystals in dolomite. Knox (very definite contact)	1635	1640
Same, and white chert (very angular)	1640	1645
Green and gray dolomite, pyrite, and some calcite crystals	1645	1650
Same, except darker green and prolific with quartz (rounded) grains, some chert (angular to rounded)	1650	1655
Same, and very few subangular frosted quartz grains	1655	1660
Same, with quartz and chert as above	1660	1665
Gray to white, coarsely crystalline dolomite, fragments very angular	1665	1675
White to gray, coarsely crystalline dolomite. Little quartz and chert	1675	1705

Travis Smith et al, PORTER WOODS No. 1

(Map Number—15)

Location: SW NW NW Sec. 2, 2S-54E

Elevation: 894'

Date: 1939

Total depth: 1380'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface, red, soft	0	20
Lime, blue, soft	20	23
Lime, soft	23	29
Lime, blue, soft	29	100
Lime, black, hard	100	125
Water @ 125		
Lime, blue, hard	125	183
Sulphur water @ 183		
Lime, blue, hard	183	207
Set casing @ 207		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, water, hard	207	225
Pulled and reamed		
Lime, black, hard	225	250
Lime, blue, hard	250	258
Lime, blue, hard	258	260
Black sulphur		
Lime, blue, hard	260	300
Water @ 260. Set pipe @ 265		
Lime, blue, hard	300	378
Shale, green, soft	378	383
Shale, black, soft	383	417
Lime, blue, soft	417	512
Gas @ 512		
Lime, blue, soft	512	575
Lime, black, hard	575	600
Lime, black-gray, hard	600	625
Lime, blue, soft	625	670
Lime, gray, hard	670	700
Lime, blue, hard	700	725
Lime, brown, hard	725	750
Lime, gray, hard	750	775
Lime, brown, hard	775	800
Lime, dark-brown, hard	800	825
Lime, gray and brown, hard	825	845
Lime, brown, hard	845	870
Lime, gray, hard	870	890
Lime, brown, hard	890	950
Lime, gray, hard	950	960
Lime, brown, soft	960	975
Lime, blue, soft	975	1012
Lime, black, soft	1012	1037
Pencil Cave, gray, soft	1037	1039
Lime, brown, soft	1039	1041
Lime, blue, soft	1041	1053
Lime, brown, soft	1053	1223
Lime, gray and brown, soft	1223	1241
Lime, gray, hard	1241	1261
Lime, brown, hard	1261	1284
Lime, gray, hard	1284	1294
Lime, brown, hard	1294	1373
Water sand, brown, soft	1373	1379
Water		
Lime, gray and mixed, soft	1379	1380

Brandon Development Corp., MATILDA COOPER No. 4

(Map Number—16)

Location: SW NW SE Sec. 10, 2S-54E

Elevation: 703' (?)

Date: 1940

Total depth: 1181'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Flinty lime, dark-gray	0	141
Sulphur water @ 118 and 140		
Flinty lime, light-gray	141	171
Casing point 141'		
Gas @ 171		
Sand, gray	171	173
Flinty lime, light-gray	173	185

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, gray	185	189
Some gas		
Sandy flint, gray	189	200
Gas @ 199-200		
Sandy flint, gray	200	210
Cap for Boone Camp sand		
Gas @ 251, 258, and 282 (Beaver)		
Blue slate, blue	310	314
Black shale, black	314	347
Slate, blue	347	350
Lime, blue-gray	350	485
Lime, blue-black	485	495
Lime, dark-gray	495	665
Lime, brown and gray	665	670
Lime, gray	670	700
Lime, brown and gray	700	715
Lime, gray	715	790
Lime, brown and gray	790	800
Lime, gray	800	815
Brown lime, brown	815	830
Lime, gray	830	846
Lime, brown	846	870
Lime, gray	870	878
Lime, brown	878	905
Lime, gray	905	910
Lime, brown	910	940
Lime, light-gray	940	952½
Lime, brown and gray	952½	960
Lime, blue and dark	960	975
Lime, some whiter	975	980
Lime, gray	980	985
Some mud cavings, black		
Lime, gray	985	988
Hard, and probably cap to Lower Sunnybrook		
Lower Sunnybrook, some brown	988	995
Hit some gas		
Lower Sunnybrook, brown	995	1010
Shaly lime, gray	1010	1024
Lime, gray (4' hard)	1024	1029
Pencil Cave, soft mud, gray and white (gray with black specks, and white mud)	1029	1030½
Lime, brown. Some cavings from Pencil Cave	1030½	1033
Lime, brown	1033	1059
Shaly mud, 2nd Pencil Cave, green	1059	1060
Flinty lime, brown	1060	1065
Some salt water. Show of oil, cavings		
Flinty lime, brown (caving)	1065	1070
Flinty lime, brown, some cavings	1070	1085
Flinty lime, brown, no cavings	1085	1090
Flinty lime, brown	1090	1100
Lime, gray and brown	1100	1120
Lime, gray	1120	1135
Lime, brownish-gray	1135	1181

Travis Smith et al, T. C. WRIGHT No. 1

(Map Number—17)

Location: NE SE NW Sec. 24, 1S-54E

Elevation: 883'

Date: 1940

Total depth: 840'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	24
Set 24' of 8½" casing		
Lime, gray, hard	24	50
Lime, black, soft	50	55
Cave	55	58
Water @ 55-58		
Lime, black, soft	58	140
Lime, gray, hard	140	160
Lime, blue, soft	160	331
Water @ 190-191		
Gas @ 280		
Set 298' of 6½" casing		
Shale, black, soft	331	363
Gas @ 331		
Lime, blue, soft	363	505
Gas and oil showing @ 505		
Lime, blue and gray, soft	505	565
Gas	565	650
Lime, blue and gray, soft	650	830
Oil started coming in @ 565		
Lime, brown and gray, soft	650	830
Sand, brown, soft	830	836
Oil started coming in @ 836—gas		
Lime and sand, brown	836	840
Flowed @ 840 and pumping		

Travis Smith et al, T. C. WRIGHT No. 2

(Map Number—18)

Location: NW SE NW Sec. 24, 1S-54E

Elevation: 911'

Date: 1940

Total depth: 1014'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface, soft	0	40
Lime, gray, soft	40	50
Set 45' of 8½" casing		
Cave	50	55
Lime, gray, hard	55	90
Water @ 65		
Lime, black, hard	90	105
Lime, gray, hard	105	110
Lime, black, soft	110	155
Sulphur water @ 155		
Lime, black, soft	155	170
Lime, gray, hard	170	200
Lime, blue, hard	200	205
Lime, blue, soft	205	215
Water @ 215		
Lime, blue, soft	215	345
Set 304' of 6½" casing		
Lime, brown, hard	345	350

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, blue, soft	350	362
Shale, black, soft	362	388
Lime, brown, soft	388	390
Lime, blue, soft	390	530
Lime, blue and gray, soft	530	675
Lime, brown and gray, medium	675	1008
Gas @ 810		
Gas and oil @ 855		
Pencil Cave, soft	1008	1009
Lime, brown, soft	1009	1011
Lime, gray, soft	1011	1014

Filled up 30 feet in bottom of hole.

Set one bridge at 427 feet. Filled up 20 feet.

Set bridge at 362 feet. Filled up to 315 feet with cuttings and rock.

Set wooden plug at 324 feet.

Travis Smith, T. C. WRIGHT No. 4

(Map Number—19)

Location: SE NE SW Sec. 24, 1S-54E

Elevation: 960'

Date: 1940

Total depth: 1000'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	20
Lime, blue, soft	20	150
Lime, blue, hard	150	225
Lime, gray and blue, hard	225	290
Salt @ 225		
Lime, green, soft	290	375
Lime, green, hard	375	380
Shale, black, soft	380	414
Salt water in the shale		
Lime, gray, soft	414	475
Lime, black, soft	475	488
Lime, blue and white, soft	488	500
Gas 488 to 500		
Lime, gray and white, medium	500	528
Gas @ 505 and 522		
Lime, gray, medium	528	575
Gas @ 528 and 544		
Lime, gray and white, medium	575	634
Gas @ 634		
Lime, dark, medium	634	690
Lime, gray and dark, medium	690	725
Lime, gray and white, medium	725	740
Lime, blue and white, medium	740	780
Lime, brown, hard	780	820
Lime, brown, hard, dark	820	825
Lime, gray and brown, hard	825	875
Lime, gray, hard	875	940
Lime, blue, soft	940	950
Lime, blue, medium	950	993
Lime, brown, hard	993	996
Pencil Cave	996	998
Lime, soft	998	1000

Set # 1 plug @ 434; filled to 419.

Set # 2 plug @ 380; filled to 315.

Travis Smith et al, L. F. CHOATE No. 1

(Map Number—20)

Location: SW NE NW Sec. 18, 1S-54E

Elevation: 918' (?)

Date: 1940

Total depth: 2305'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	5
Lime, blue, hard	5	25
Lime, flint, hard	25	40
Lime, slate, soft	40	65
Lime, flint, hard	65	85
Lime, slate, hard	85	110
Lime, gray, hard	110	120
Lime, blue, hard	120	150
2½" cave @ 128		
Water @ 128		
Lime, blue, hard	150	155
Lime, black, hard	155	165
Lime, brown, hard	165	190
Lime, gray, hard	190	207
6⅜" casing @ 207		
Lime, black, hard	207	235
Reduced hole @ 207		
Lime, blue, hard	235	245
Lime, black, shelly	245	260
Lime, brown, hard	260	285
Lime, blue, hard	285	295
Lime, brown, hard	295	305
Lime, blue, slate	305	315
Beaver formation	315	329
Top shale @ 329		
Shale	329	359
Little gas		
Cap, shale	359	365
Sandy formation	365	380
Beaver sand		
Lime, brown	380	400
Little gas		
Lime, brown	400	410
Lime, blue	410	420
Lime, dark	420	425
Lime, blue	425	450
Lime, dark	450	500
Lime, gray, hard	500	525
Lime, blue, hard	525	550
Lime, gray, shelly	550	560
Lime, dark, hard	560	570
Lime, dark, softer	570	600
Lime, blue, hard	600	615
Lime, dark, gray	615	660
Lime, dark, mixed	660	670
Lime, dark-gray	670	680
Lime, black	680	720
Lime, dark, hard	720	735
Lime, dark, gray	735	825
Lime, gray, hard	825	860
Lime, brown	860	895
Lime, looks like Sunnybrook formation	895	920
Lime, brown, hard	920	935

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray	935	975
Lime, black cave	975	990
Lime, gray, hard	995	1005
Lime, Pencil Cave	1005	1010
8" Pencil Cave @ 1010		
Lime, dark, shelly, brown to gray, hard to soft	1010	1850
Cap rock, brown, hard	1850	1855
Knox sand, gray, hard	1855	1865
Show of oil 1860-65		
Knox sand, brown, hard	1865	1870
Water sand, white	1870	1871½
Lime, gray to brown, hard to soft	1871½	2175
Sandy lime, brown, hard	2175	2195
Lime, blue, hard	2195	2210
Lime, gray, hard	2210	2305

Travis Smith et al, W. C. SMITH No. 1

(Map Number—21)

Location: S/2 SW Sec. 15, 1S-55E

Elevation: ?

Date: 1940

Total depth: 595'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	8
Lime, blue, hard	8	11
Gravel (cave)	11	16
Boulders (caves)	16	33
Lime	33	55
Lime, shelly	55	60
Lime, dark, hard	60	80
Lime, broken	80	100
Lime, black, soft	100	110
Lime, gray, hard	110	130
Lime, brown, hard	130	146
Lime, shelly, gray	146	175
Lime, light-gray, flinty	175	240
Lime, brown, hard	240	260
Lime, blue, hard	260	277
Lime, green, soft	277	287
Shale, black (Chattanooga shale)	287	317
Cap rock, hard	317	325
Lime, green, soft	325	360
Lime, blue, soft	360	370
Lime, gray, soft	370	410
Lime, blue, soft	410	440
Lime, brown	440	444
Lime, blue, soft	444	566
Lime, gray, soft	566	595

Water @ 60, 300-317, 391, 415, 443, 448, 500, 571 and 575

Sulphur water @ 80, 110, and 146

Sulphur, gas @ 130

Show of oil and gas @ 443

Show of oil and gas with water @ 448-450

Oil with water @ 571

Travis Smith et al, G. W. SMITH No. 1

(Map Number—22)

Location: NW NE NE Sec. 5, 2S—54E

Elevation: 808'

Date: 1941

Total depth: 1884'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	33
Broken formation	33	45
Lime, blue, soft	45	50
Lime, blue and gray, soft	50	75
Lime, blue, soft	75	90
Lime, blue and gray, soft	90	125
Sand, water, gray, hard	125	135
Water @ 125-135		
Lime, gray, hard	135	160
Lime, brown, hard	160	165
Lime, black, hard	165	200
Lime, green, medium	200	240
Set 230' of 65/8" casing		
Lime, green, hard	240	320 1/2
Shale, black, soft	320 1/2	352
Lime, blue and gray, soft	352	550
Gas @ 375		
Lime, blue and gray, medium	550	575
Lime, blue, soft	575	600
Lime, gray, soft	600	675
Gas @ 620		
Lime, blue and gray, medium	675	690
Lime, dark-brown, medium	690	720
Sand, brown and gray, medium	720	730
Lime, brown, medium	730	735
Lime, blue and gray, medium	735	800
Lime, brown, medium	800	825
Lime, blue, medium	825	896
Pencil Cave, soft	896	897
Lime, brown, medium	897	1025
Lime, blue, medium	1025	1050
Lime, brown, medium	1050	1055
Lime, blue, medium	1055	1090
Lime, brown, medium	1090	1100
Lime, gray and brown, medium	1100	1150
Lime, gray, medium	1150	1185
Lime, blue, soft	1185	1205
Lime, brown, medium	1205	1225
Lime, blue, medium	1225	1285
Lime, gray, medium	1285	1300
Lime, blue, medium	1300	1330
Lime, gray and brown, medium	1330	1380
Lime, gray, medium	1380	1390
Lime, brown, medium	1390	1410
Lime, gray, medium	1410	1425
Lime, blue, medium	1425	1505
Lime, brown and gray, medium	1505	1575
Lime, blue, medium	1575	1650
Lime, gray, hard	1650	1745
Sand and lime, hard	1745	1760

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, sandy, flinty, hard	1760	1770
Oil and little water 1760 to 1770		
Lime, gray, hard	1770	1780
Sandy lime, brown, hard	1780	1805
Lime, gray, hard	1805	1884

Joe Young, FEE No. 1

(Map Number—23)

Location: NE SE NE Sec. 6, 2S—55E

Elevation: 880'

Date: 1941

Total depth: 1219'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface, soft	0	17
14' of 10" casing		
White, sandy lime, soft	17	20
Sand, white, soft	20	50
Broken formation	50	68
Cave, water 60-63		
Lime, blue, gray, and white	68	90
Lime, blue and gray, soft	90	100
Water 90-95		
Water, sand, blue, hard	100	110
Sulphur water 100-110		
Lime, blue, hard	110	120
Lime, brown, hard	120	135
Lime, gray, hard	135	155
Gas and black sulphur water 150-155		
Lime, black hard	155	175
Lime, gray, hard	175	180
Lime, brown, hard	180	190
Lime, gray, hard	190	210
Lime, blue, hard	210	240
Lime, gray, hard	240	260
Lime, white, hard	260	275
Set 272' of 6½" casing		
Lime, brown, very hard	275	280
Lime, gray and brown, very hard	280	295
Lime, flint and gray, very hard	295	310
Lime, brown, very hard	310	315
Lime, flint and gray, very hard	315	370
Lime, blue and flinty, very hard	370	420
Shell, green, soft	420	423
Gas 423		
Shell, black, soft	423	457
Gas 457		
Lime, gray, medium	457	605
Lime, gray and brown, medium	605	650
Lime, blue and gray, medium	650	800
Lime, blue and gray, hard	800	1025
Lime and sand, brown, hard	1025	1050
Show of oil from 1030-1040		
Lime, brown, hard	1050	1145
Lime, blue, medium	1145	1175
Lime, gray and blue, medium	1175	1200
Pencil Cave at		1219

Joe Young, FEE No. 2

(Map Number—24)

Location: SW SW NE Sec. 6, 2S—55E

Elevation: 850'

Date: 1941

Total depth: 1030'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, brown, flinty, medium	15	50
Water @ 45		
Lime, blue, soft	50	90
Lime, black, medium	90	150
Water @ 115		
Some gas @ 145		
Lime, brownish-gray, medium	150	165
Lime, blue, medium	165	180
Lime, blue, hard	180	200
Little gas		
Lime, blue and gray, medium	200	250
Lime, grayish-blue, medium	250	265
Lime, gray, hard	265	290
Lime, gray and brown, hard	290	325
Some gas		
Lime, gray, hard	325	370
Lime, gray, flinty, very hard	370	385
Lime, gray, hard	385	395
Lime, gray, brownish, hard	395	404
Some gas		
Shale, black, soft	404	441
Gas 425-430		
Lime, gray and green, soft	441	630
Lime, blue, soft	630	665
Lime, blue and black, soft	665	720
Lime, blue, soft	720	875
Gas 825		
Lime, brown and gray, soft	875	900
Lime, blue and gray, soft	900	1010
Lime, brown, sandy, soft	1010	1025
Rainbow of oil @ 1015-1025		
Lime, brown and gray, soft	1025	1030

Joe Young, FEE No. 3

(Map Number—25)

Location: NE NE NW Sec. 7, 2S—55E

Elevation: 913'

Date: 1942

Total depth: 976'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Broken formation	0	80
Lime, blue and gray, medium-hard	80	118
Water @ 118		
Lime, blue and brown, medium-hard	118	160
Lime, blue, hard	160	215
Lime, brown, medium-hard	215	225
Lime, blue, hard	225	240
Lime, dark-blue, medium	240	275

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray, flinty, hard	275	325
Lime, brown, flinty, hard	325	375
Lime, white, flinty, hard	385	462
Shell, black, soft	462	493
Gas @ 467-472 and 487-497		
Lime, and sand, brown, medium	493	500
Lime, gray and blue, soft	500	625
Lime, blue, medium	625	650
Lime, gray, medium	650	968
Gas @ 855		
Sand, brown and gray, medium	968	971
Gas @ 968-971		
Lime, blue, medium	971	976

Joe Young, FEE No. 4

(Map Number—26)

Location: C NW NE Sec. 7, 2S—55E

Elevation: 940'

Date: 1942

Total depth: 1050'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Broken formation—caves and boulders	0	148
Lime, gray and cavings, medium	148	165
Lime, blue and gray, medium	165	265
Set pipe 167		
Lime, sandy, brown, hard	265	270
Lime, chert, blue-gray, hard	270	285
Lime, blue, soft	285	315
Lime, gray and blue, some chert, hard	315	345
Lime, gray, hard	345	455
Lime, grayish-blue, very hard	455	480
Gas, little @ 475		
Lime, brown and gray, very hard	480	490
Shale and lime mixed, gray, brown, and green, soft	490	496
Black shale, black, soft	496	533
Gas @ 526-533		
Lime, gray	533	550
Lime, greenish-gray	550	705
Lime, chert, gray and blue, medium	705	855
Gas @ 720—some oil		
Lime, grayish-blue, medium	855	1035
Gas increase		
Lime, blue, medium	1035	1050

Travis Smith et al, T. C. WRIGHT No. 5

(Map Number—27)

Location: SW SW NE Sec. 24, 1S—54E

Elevation: 894'

Date: 1942

Total depth: 1923'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	25
Lime, blue, soft	25	120
Water @ 33		
Lime, gray and blue, soft	120	135
Lime, gray, with caving, soft	135	185
Water 180-185		
Lime, blue and gray, medium	185	220
Lime, gray, hard	220	225
Lime, gray, soft	225	325
Shale, black, soft	325	356
Oil and gas 330-335		
Lime, blue and gray, soft	356	500
Gas @ 415 and 435		
Lime and sand, soft	500	505
Much gas @ 500		
Lime, blue and gray, soft	505	550
Lime, blue and gray, medium	550	835
Sand and lime, brown and gray, medium	835	850
Gas @ 836		
Lime, gray, hard	850	855
Lime, brown, medium	855	895
Lime, gray, medium	895	965
Lime, gray, soft	965	980
First Pencil Cave @ 967		
Lime, brown, soft	980	985
Lime, brown, soft	985	990
Second Pencil Cave @ 985-986		
Lime and caving, brown, medium	990	1000
Lime, brown and gray, medium	1000	1100
Little gas @ 1100		
Lime, brown, medium	1100	1125
Lime, blue and gray, medium	1125	1445
Sand lime, brown, medium	1445	1450
Showing of oil @ 1445-1450		
Lime, brown and gray, medium	1450	1500
Lime, blue and gray, medium	1500	1765
Lime (top of Knox), gray, hard	1765	1769
Oil @ 1769-1775		
Shaly lime, blue and gray, soft	1775	1782
Lime, blue and gray, hard	1782	1804
Lime and sand, brown and gray, hard	1804	1825
Showing of oil @ 1804-1811		
Lime, gray, medium	1825	1835
Lime, gray and brown, medium	1835	1886
Sand, brown, hard	1886	1907
Showing of oil @ 1886-1907		
Lime, gray and blue, hard	1907	1923

Travis Smith et al, BEATY & HARRIS No. 1

(Map Number—28)

Location: NE NW NW Sec. 17, 3S—55E

Elevation: 1641'

Date: 1943 (?)

Total depth: 1990'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface, soft	0	5
Sand, brown, hard	5	30
Sand, white, medium	30	126
Water 70		
Slate, blue, soft	126	170
Sand, gray, medium	170	175
Sand, white, medium	175	180
Sand, gray, medium	180	185
Slate, black, soft	185	190
Sand, gray, soft	190	200
Sand, blue, soft	200	220
Sand, 6" coal, soft	220	225
Sand, white, medium	225	230
Lost water 230		
Sand, gray, medium	230	240
Sand, blue, medium	240	245
Sand, gray, medium	245	290
Sand, blue, hard	290	320
Slate, blue, soft	320	325
Coal, black, soft	325	330½
Sand, dark, medium	330½	335
Sand, gray, medium	335	340
Sand, dark, hard	340	355
Sand, white, hard	355	395
Sand, blue, hard	395	410
Sand, gray, hard	410	425
Sand, dark, hard	425	430
Lime, gray, hard	430	435
Lime, gray-green and red, soft	435	455
Red rock, soft	455	470
Green, shell, soft	470	475
Red rock, soft	475	495
Lime, gray, medium	495	620
Set 500' of 6½" casing		
Lime, gray, medium	620	640
Lime, brown, hard	640	680
Lime, gray and brown, hard	680	700
Lime, gray, hard	700	730
Lime, brown, hard	730	735
Lime, gray, hard	735	795
Slate, blue, soft	795	800
Lime, gray and white, hard	800	825
Lime, white, hard	825	850
Lime, gray and white, hard	850	950
Lime and flint, white, hard	950	1000
Lime, gray and brown, hard	1050	1080
Lime and sand, brown, hard	1080	1085
Lime, gray and brown, hard	1085	1135
Lime, blue, hard	1135	1150
Lime, dark, hard	1150	1160
Lime, gray and brown, hard	1160	1255

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime and sand, brown, hard	1255	1260
Showing of oil, little gas 1255-1260		
Lime and flint, gray, hard	1260	1335
Lime and flint, green, hard	1335	1340
Lime and flint, gray, hard	1340	1345
Lime, green, medium	1345	1360
Shale, green, soft	1360	1362
Shale, black, soft	1362	1394
Lime, gray, hard	1394	1400
Sand, brown, hard	1400	1408
Lime, green and brown, medium	1408	1415
Showing of oil in sand		
Lime, green, medium	1415	1475
Lime, blue and green, medium	1475	1485
Lime, red and green, medium	1485	1500
Lime, blue, medium	1500	1555
Lime, blue and gray, medium	1555	1775
Lime, blue and gray, hard	1775	1970
Lime, brown, hard	1970	1975
Lime, gray and brown, hard	1975	1990

Andre & Peterson, J. B. REAGAN No. 1

(Map Number—29)

Location: SE Sec. 16, 1S—54E

Elevation: ?

Date: 1944

Total depth: 850'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	5
Lime, blue, hard	5	50
Lime, blue, medium	50	85
Lime, blue, soft	85	115
Lime, gray, hard	115	135
Lime, black, hard	135	175
Lime, blue, hard	175	190
Lime, gray, medium	190	240
Lime, gray, hard	240	245
Lime, black, soft	245	300
Lime, green, soft	300	314
Shell, black, soft	314	340
Lime, gray, hard	340	355
Lime, dark, hard	355	400
Lime, blue, hard	400	435
Lime and sand, dark, hard	435	440
Lime, gray and blue, hard	440	500
Lime, blue, hard	500	735
Lime and sand, brown, hard	735	750
Lime, blue and gray, hard	750	800
Lime, brown and gray, hard	800	850

Andre & Peterson, J. B. REAGAN No. 2

(Map Number—30)

Location: NE Sec. 16, 1S—54E

Elevation: ?

Date: 1944

Total depth: 518'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	5
Lime, blue, hard	5	60
Water 40		
Lime, blue and gray, soft	60	80
Lime, blue, soft	80	110
Water 110		
Lime, gray, medium	110	130
Lime, blue, soft	130	145
Gas and sulphur water 140		
Lime, black, soft	145	175
Lime, blue, soft	175	215
Lime, blue and gray, soft	215	250
Salt water 225		
Lime, gray, hard	250	270
Lime, green, soft	270	275
Shell, black, soft	275	304
Lime, blue, medium	304	310
Lime, green, medium	310	325
Lime, gray, hard	325	340
Lime, blue and gray, hard	340	400
Gas 345		
Lime, blue, hard	400	506
Gas 405		
Lime and sand, brown, hard	506	517
Gas 506-512		
Lime, blue, hard	517	518

A. C. York et al, A. C. YORK No. 1, Tract 2

(Map Number—31)

Location: NW SW NW Sec. 16, A—56E

Elevation: 907'

Date: 1945

Total depth: 1275'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	54
Dolomite, cream to brown, fine-grained, cherty, with a very slight show of oil	54	58
Limestone, gray-brown, fine-grained, argillaceous.....	58	62
Samples missing	62	177
Sandstone, gray to brown, fine-grained, dolomitic, slightly calcareous and tight	177	182
Samples missing	182	263
Siltstone, dark-gray, slightly dolomitic, slightly calcareous, very argillaceous	263	280
Dolomite, tan, fine-grained, cherty, tight, with shows of oil	280	318
Limestone, white to gray, medium-grained, cherty.....	318	321
Dolomite, cream to tan, fine-grained, cherty, slight show of oil	321	328
Limestone, gray-cream, fine- to medium-grained, cherty, slightly dolomitic	328	336

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, cream to tan, fine-grained, calcareous, cherty, very tight, very slight show of oil	336	347
Limestone, cream to tan, medium-grained, cherty	347	353
Dolomite, tan, fine-grained, cherty, shows of oil throughout	353	404
Limestone, white, fine- to medium-grained, cherty, dolomitic	404	411
Dolomite, cream to tan, fine-grained, cherty, with shows of oil throughout	411	454
Limestone, gray, medium-grained, cherty	454	458
Shale, gray	458	459
Shale, green	459	461
Shale, brown, carbonaceous, spore-bearing	461	497
Dolomite, gray and tan, medium- to coarse-grained, argillaceous, with green dolomitic shale partings throughout. Some of the dolomite has shows of oil	497	565
Dolomite, gray and greenish-gray, fine- to medium-grained, very argillaceous	565	670
Limestone, gray to tan, fine- to medium-grained, argillaceous, dolomitic	670	680
Dolomite, tan to gray, fine- to medium-grained, calcareous	680	690
Limestone, gray to brown, fine- to medium-grained, dolomitic, slightly argillaceous	690	700
Dolomite, gray, fine- to medium-grained, argillaceous	700	724
Limestone, gray with white flecks, medium-grained, argillaceous, slightly dolomitic, fossiliferous in part	724	776
Limestone, gray with white flecks, fine- to medium-grained, slightly argillaceous	776	784
Limestone, gray with white flecks, medium-grained, argillaceous, slightly dolomitic	784	806
Limestone, gray with white flecks, fine- to medium-grained, argillaceous	806	814
Limestone, gray with white flecks, medium-grained, argillaceous	814	826
Limestone, gray with white flecks, fine- to medium-grained, argillaceous	826	830
Limestone, gray with white flecks, medium-grained, argillaceous	830	835
Limestone, gray with white flecks, fine- to medium-grained, argillaceous, slightly dolomitic	835	859
Limestone, white with dark flecks, medium- to coarse-grained, slightly argillaceous, very phosphatic in the lower part	859	876
Samples missing	876	910
Limestone, white with dark flecks, fine- to medium-grained, argillaceous, slightly phosphatic	910	952
Limestone, gray with white flecks and white with gray flecks, medium- to coarse-grained, argillaceous, slightly phosphatic	952	1000
Limestone, gray-brown with white flecks, medium-grained, argillaceous	1000	1018
Limestone, gray-brown, fine- to medium-grained, argillaceous	1018	1030
Limestone, white with gray flecks, medium- to coarse-grained, slightly argillaceous and slightly phosphatic	1030	1035
Limestone, gray-brown, fine- to medium-grained, slightly argillaceous	1035	1060
Limestone, gray-brown with white flecks, medium-grained, slightly argillaceous	1060	1090
Limestone, brown, fine- to medium-grained	1090	1096
Limestone, brown, fine- to medium-grained, with dark-gray chert	1096	1104
Limestone, gray to brown, fine- to medium-grained, slightly argillaceous	1104	1128

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, tan to brown, fine-grained	1128	1150
Limestone, gray to tan, medium-grained	1150	1158
Limestone, gray-brown with white flecks, fine- to medium-grained	1158	1234
Samples missing	1234	1238
Limestone, dark-gray, fine-grained, slightly argillaceous	1238	1258
Limestone, white with dark flecks, medium-grained, argillaceous, very phosphatic	1258	1275

A. C. York et al, A. C. YORK No. 2, Tract 2

(Map Number—32)

Location: NW NW NW Sec. 16, A—56E

Elevation: 968'

Date: 1945 (Drilled deeper in 1947)

Total depth: (1) 1570'
(2) 2507'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	100
Limestone, light-tan, oolitic; oolites, medium, loose	100	110
Limestone, tan to gray, medium- to fine-grained, oolitic	110	120
Limestone, tan to white, medium-grained, oolitic	120	130
Dolomite, light-brown, crystalline, medium- to fine-grained, cherty, very slight show of oil	130	140
Limestone, tan to gray, fine-grained, cherty	140	170
Limestone, light-tan, fine-grained, dolomitic, cherty	170	175
Limestone, brown and white, fine-grained, cherty	175	195
Limestone, brown, fine-grained, with iron staining	195	205
Limestone, dark-brown, fine-grained, argillaceous, cherty	205	225
Limestone, brown, fine-grained, contains gypsum and clear quartz crystals	225	230
Dolomite, light-green, medium-grained, calcareous and silty	230	240
Sandstone, light-green, medium- to fine-grained, dolomitic, calcareous	240	254
Limestone, brown and gray, medium- to coarse-grained, sandy	254	274
Sandstone, gray, medium- to fine-grained, calcareous, with gypsum	274	282
Limestone, gray, medium-grained, sandy	282	286
Samples missing	286	290
Sandstone, brown and gray, medium and medium- to fine-grained, calcareous	290	332
Siltstone, dark-gray, fine-grained, cherty, argillaceous	332	352
Sandstone, light-tan, fine-grained, cherty, argillaceous, dolomitic, slight show of oil	352	356
Dolomite, tan, fine-grained, cherty	356	362
Limestone, gray and brown, fine-grained, cherty, argillaceous	362	377
Siltstone, tan, fine-grained, cherty, argillaceous, calcareous, very slight show of oil	377	379
Limestone, light-tan and gray, medium- to fine-grained with coarse-grained material, cherty, argillaceous	379	404
Siltstone, tan, fine-grained, cherty, calcareous, slight show of oil	404	424
Limestone, grayish-white, fine-grained, dolomitic, silty, cherty, very slight show of oil	424	438
Dolomite, tan, fine-grained, silty, cherty, very slight show of oil	438	451
Limestone, light-gray, fine-grained, dolomitic, cherty	451	462

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, tan, fine-grained, cherty, silty, calcareous, with slight shows of oil throughout	462	479
Limestone, grayish-white, fine-grained, cherty, very slight show of oil	479	490
Dolomite, light-tan and white, fine-grained, cherty, silty, very slight show of oil	490	504
Dolomite, light-tan and white, fine-grained, cherty, argillaceous	504	530
Shale, green, pyritic	530	531
Shale, black, fissile, carbonaceous	531	570
Shale, green, pyritic	570	574
Dolomite, green, medium-grained, argillaceous	574	582
Shale, green, dolomitic	582	585
Dolomite, light- and dark-green, medium- to fine-grained, argillaceous	585	590
Shale, green, dolomitic	590	594
Dolomite, brown, medium- to coarse-grained, argillaceous	594	597
Dolomite, brown to green, medium-grained, argillaceous	597	672
Dolomite, greenish-gray, medium- to fine-grained	672	684
Dolomite, greenish-gray, medium- to fine-grained, argillaceous	684	744
Limestone, dark-brown to green, medium- to fine-grained, dolomitic	744	768
Dolomite, gray-green, medium and medium- to fine-grained, calcareous	768	780
Limestone, dark-gray, medium- to fine-grained, dolomitic	780	800
Limestone, gray and white, medium- to fine-grained, argillaceous	800	876
Limestone, dark-gray with tan, medium- to fine-grained, silty, argillaceous	876	910
Limestone, dark-gray with tan, medium- to fine-grained, argillaceous	910	960
Limestone, dark-gray, medium- to fine-grained, dolomitic, argillaceous	960	980
Limestone, dark-gray and brown to tan, medium- to fine-grained, argillaceous	980	1225
Limestone, dark-brown and tan, medium- to fine-grained with coarse-grained material, argillaceous	1225	1275
Shale, green	1275	1275
Limestone, grayish-brown, medium- to fine-grained with coarse-grained material, argillaceous	1276	1295
Limestone, gray and brown, fine-grained, slightly argillaceous	1295	1305
Limestone, gray and white, medium- to fine-grained, argillaceous, silty	1305	1350
Limestone, gray and white, medium-grained, argillaceous	1350	1360
Limestone, dark-gray and white, medium- to coarse-grained, argillaceous	1360	1370
Limestone, dark-gray and white, medium and medium- to fine-grained, argillaceous, silty	1370	1380
Limestone, dark-gray and white, medium- to fine-grained, argillaceous, slightly cherty	1380	1398
Shale, light-green, micaceous	1398	1399
Limestone, tan, fine-grained	1399	1410
Shale, light-green, micaceous	1410	1412
Limestone, tan, fine-grained	1412	1440
Limestone, light-tan, fine-grained, cherty	1440	1470
Limestone, brown, fine-grained, slightly argillaceous	1470	1495
Limestone, brown, fine-grained	1495	1545
Limestone, brown, fine-grained, argillaceous, dolomitic	1545	1570

(Drilled deeper, in 1947, to 2507 feet.)

Burns et al, COMPTON No. 2
(Map Number—33)

Location: NW SW NW Sec. 16, 1S—54E
Date: 1945

Elevation: 865'
Total depth: 1909'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	20
Lime, gray	20	50
Lime, black	50	65
Lime, gray	65	110
Lime, green	110	135
Lime, gray	135	205
Cave cased	205	236
Lime, green	236	290
Chattanooga shale	290	315
Water		
Lime, green	315	320
Showing of oil		
Sandy lime	320	325
Lime, blue	325	425
Lime, gray	425	431
Lime, black	431	491
Lime, gray	491	515
Gas		
Sandy lime, brown	515	521
Lime, gray	521	533
Lime, blue	533	545
Lime, gray, sandy	545	566
Gas 565		
Lime, black	566	650
Sandy lime, brown	650	670
Lime, brown	670	685
Lime, blue	685	697
Lime, gray	697	709
Lime, brown	709	790
Sand lime	790	800
Lime, blue	800	850
Pencil Cave	850	851
Lime, gray	851	1670
Sand, brown	1670	1686
Oil		
Lime, blue	1686	1830
Sand, gray	1830	1842
Lime, gray	1842	1909

Alvin C. York, MARTHA SMITH No. 1
(Map Number—34)

Location: SW SW SW Sec. 13, A—54E
Date: 1946

Elevation: 811'
Total depth 1100'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	288
Chattanooga black shale (driller's log)	200	227
Limestone, gray to gray-brown, medium- to fine-grained, argillaceous	288	310
Limestone, tan to light-gray, medium- to fine-grained, dolomitic, argillaceous	310	335

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, tan, medium- to fine-grained, very argillaceous, slightly dolomitic	335	340
Limestone, light-tan to light-gray to brown, medium- to fine-grained, dolomitic, argillaceous	340	478
Limestone, light-tan, medium-grained, dolomitic, slightly argillaceous	478	484
Limestone, tan to light-gray, medium- to fine-grained, slightly dolomitic, argillaceous	484	501
Limestone, tan to light-gray, medium- to fine-grained, argillaceous, slightly cherty	501	514
Limestone, tan to light-gray, fine- to coarse-grained, argillaceous	514	525
Limestone, light-tan, fine- to medium-grained, argillaceous	525	529
Limestone, light-tan to brown, fine- to coarse-grained	529	532
Limestone, tan to gray-brown, fine- to medium-grained, argillaceous, cherty	532	547
Limestone, gray-tan, fine- to medium-grained, slightly argillaceous	547	555
Limestone, gray-tan, fine- to medium-grained, dolomitic, argillaceous	555	562
Limestone, light-gray to tan, fine- to coarse-grained, slightly dolomitic, slightly argillaceous	562	575
Limestone, light-gray to tan, fine- to medium-grained, slightly dolomitic, slightly argillaceous	575	585
Limestone, light-gray to tan, fine- to medium-grained, slightly dolomitic, argillaceous	585	596
Limestone, light-gray to tan, fine- to medium-grained, slightly dolomitic, slightly argillaceous	596	620
Limestone, brown to tan, fine- to medium-grained	620	638
Limestone, gray-tan, fine- to medium-grained, slightly dolomitic, slightly argillaceous	638	648
Limestone, gray-tan, fine- to medium-grained	648	670
Limestone, gray-tan, fine- to medium-grained, slightly dolomitic	670	675
Limestone, light-tan, fine- to medium-grained	675	689
Limestone, gray-tan to tan, fine- to medium-grained, slightly dolomitic	689	727
Samples missing	727	732
Limestone, gray to gray-tan, fine- to medium-grained, dolomitic, slightly argillaceous	732	740
Limestone, light-gray to light-tan, medium- to fine-grained, slightly argillaceous	740	752
Limestone, light-gray to gray-tan, fine- to medium-grained, slightly dolomitic, slightly argillaceous	752	767
Bentonite (Mud Cave), light-gray, fine-grained, waxy luster, fissile, slightly micaceous	767	769
Limestone, gray, fine- to medium-grained, argillaceous, slightly cherty, secondary silica	769	776
Bentonite, light-gray to cream, fine-grained, flaky, waxy luster, very slightly micaceous	776	778
Limestone, gray to gray-tan, medium-grained, argillaceous	778	780
Limestone, gray to light-tan, medium-grained, dolomitic, argillaceous	780	785
Samples missing	785	790
Limestone, gray to cream, medium-grained, argillaceous, cream-colored pieces speckled with black phosphatic material	790	795
Bentonite (Pencil Cave?), greenish-gray to cream, very fine grained, fissile, talc-like luster	795	797
Limestone, cream to tan, medium-grained, speckled with black in cream-colored parts, phosphatic	797	800

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, tannish-brown with greenish tinge, fine-grained	800	817
Bentonite, greenish-gray, very fine grained, fissile, talc-like luster, slightly micaceous	817	818
Limestone, tannish-brown with greenish tinge, fine-grained, dolomitic	818	826
Bentonite, greenish-gray, very fine grained, micaceous	826	827
Limestone, tan with greenish tinge, fine with a little medium-grained, dolomitic, cherty	827	832
Limestone, tan to brown, fine-grained, cherty	832	846
Limestone, tan, fine- to medium-grained, slightly dolomitic, slightly cherty	846	852
Limestone, tan, fine- to medium-grained, very dolomitic	852	860
Dolomite, tan to grayish-tan, medium-grained, calcareous	860	865
Dolomite, tan to grayish-tan, fine- to medium-grained, calcareous	865	870
Limestone, tan to cream, fine- to medium-grained, dolomitic	870	898
Limestone, tan to cream, fine- to medium-grained, dolomitic, cherty	898	913
Limestone, tan to cream to gray, fine- to medium-grained, dolomitic	913	924
Limestone, gray to tan, fine- to medium-grained, dolomitic, argillaceous	924	938
Limestone, gray to tan, fine- to medium-grained, slightly dolomitic	938	943
Limestone, gray to tan, fine- to medium-grained, slightly dolomitic, slightly argillaceous	943	950
Limestone, gray to tan, fine- to medium-grained, dolomitic	950	956
Limestone, gray to brown, fine- to medium-grained, very dolomitic	956	966
Limestone, tan, fine-grained, slightly argillaceous	966	970
Limestone, gray to tan, fine- to medium-grained, slightly dolomitic, slightly argillaceous	970	975
Limestone, gray to tan to cream, fine- to medium-grained, slightly dolomitic	975	994

Whitcher, Taylor & Abbott, JOHN GREER No. 1
(Map Number—35)

Location: SW SE SW Sec. 20, 1S—54E
Date: 1947

Elevation: 772'
Total depth: 752'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray limestone, hard	10	125
Little gas 93-97		
Blue limestone, hard	125	150
Blue limestone, hard, 191-193 green shale	150	193
Top of Chattanooga		
Chattanooga shale, soft	193	224
Limestone, gray, soft	224	242
Limestone, dark, hard	242	250
Limestone, dark-gray, hard	250	270
Limestone, gray, hard	270	300
Sand, blue, hard	312	318
Water—little gas		
Limestone, dark-gray, hard	318	483
Small show of oil (rainbow) @ 344-350		
Limestone, change dark, softening	483	487
Limestone, gray, hard	487	527
Set 7" O. D. @ 498-514. Got water shut off		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy limestone, dark-brown, softening	527	533
Water from 532 on		
Sandy limestone, gray, softening	533	539
Water		
Sand, gray, softening	539	550
Water		
Black limestone, black, hard	550	555
No water		
Limestone, gray, hard	555	560
No water		
Limestone, gray, hard	560	566
Sand, gray, soft	566	568
Water		
Limestone, gray, hard	568	644
No water		
Limestone, black, hard	644	655
No water		
Sand, gray, soft	655	660
Water		
Sand, brown, soft	660	675
Water		
Limestone, gray, hard	675	680
No water		
Limestone and sand, brown, soft	680	686
Oil show		
Limestone, blue-gray, hard	686	697
Limestone, brown, hard	697	715
Sand, brown, soft	715	721
Water sand		
Limestone, gray, hard	721	740
Sandy limestone, gray-brown, soft	740	746
Small show of oil		

A. L. Peterson, TANYARD No. 1
(Map Number—36)

Location: SW NW NW Sec. 16, 1S—55E

Date: 1947

Elevation: 852'

Total depth: 785'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shaly lime, dark, hard	22	75
Limestone, gray, very hard	75	130
Limestone, gray, hard	130	185
Top of Beaver @ 185		
Limestone and sand, green and gray, softening	185	196
Change of formation		
Sand, gray, softening	196	218
Sand, gray, hard	218	230
Bottom of Beaver @ 230		
Sand and shale, brown, soft	230	235
Shale, blue, hard	235	255
Shale, and sand, blue-gray, hard	255	260
Shale, black, blue, hard	260	285
Top of Chattanooga @ 260		
Limestone, gray, softening	285	290
Bottom of Chattanooga		
Limestone and shale, gray, softening	290	300
Top of Corniferous sand		
Limestone and shale	300	305

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale and limestone, gray	305	315
Bottom of Corniferous		445
Shale, blue to gray, soft in part	315	445
Shale and limestone, blue and gray, hardening	445	460
Caving shale and limestone, gas		460
Shale, blue, soft	450	530
Shale, blue, hard	460	
Water sand @ 485		
Sand, little gas @ 490		
Shale and limestone, blue-gray, softening	530	537
Top of 1st Sunnybrook		540
Limestone, gray sand, softening	537	
Gas, Sunnybrook		545
Shale, blue, hard	540	550
Sand, water, gray	545	555
Shale and limestone, blue-gray, hard	550	635
Granville show—oil, plenty gas	630	640
Show oil and gas	635	764
Top of Lower Sunnybrook	760	771
Sour water came up hole 400', bailed dry	764	776
Sour water came up hole to 150', bailed dry	771	780
Bottom of Lower Sunnybrook	776	785
Well closed down	780	

Compton Heirs, CARTHY KING No. 1
(Map Number—37)

Location: SE NE SE Sec. 16, 1S—54E
Date: 1948 (?)

Elevation: 829'
Total depth: 733'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	20
Sand	20	40
Lime	40	120
Sand	120	150
Water		190
Black lime	150	195
Sand	190	
Water 190		220
Lime	196	230
Sand	220	
Water 230		237
Lime	230	266
Shale, Chattanooga	237	285
Gray lime	266	315
Black lime	285	320
Sand	315	
Water 320		330
Lime	320	340
Sand	330	
Gas and water		395
Lime	340	405
Sand	395	
Salt water		448
Lime	405	455
Sand	448	
Gas 455		465
Gray lime	455	480
Sand	465	
Water 465		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime		
Sand	480	490
Oil @ 495	490	512
Lime		
Sand	512	539
Lime	539	544
Water 565	544	570
Sand, hard		
Lime	570	588
Sand	588	690
Gas and water 722	690	722
Lime	722	733

Dewey Carr, BOWDEN HEIRS No. 1
(Map Number—38)

Location: SW NW SW Sec. 13, 1S-54E

Elevation: 1750'

Date: 1948

Total depth: 1723'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Water @ 20		
Gas @ 52		
Lime, blue, hard		
Gas @ 118	100	125
Lime, light, hard		
Shale, black, soft	125	145
Lime, dark, hard	148	176
Lime, light, soft	176	180
Lime, light, hard	180	190
Lime, dark, hard	190	195
Set 7" O. D. pipe @ 198	195	245
Gas @ 238		
Lime, light, hard	245	250
Lime, dark, hard	250	265
Lime, light, hard	265	325
Large volume gas 251', extra large volume gas 278', small gas 290-295, large volume gas 295-300		
Lime, dark, hard	325	340
Lime, light, hard	340	370
Lime, dark, hard	370	400
Lime, light, hard	400	480
Lime, dark, hard	485	520
Small volume gas		
Lime, light, hard	520	575
Lime, dark, hard	575	630
Show of oil		
Lime, light, hard	630	650
Lime, gray, hard	650	665
Lime, light, hard	665	715
Oil show		
Lime, brown, hard	715	720
Lime, dark, hard	720	735
Lime, blue, soft	735	800
Oil show good		

Turner & Shaner, F. JOHNSON No. 1
(Map Number—39)

Location: NE SE NW Sec. 10, A-54E

Elevation: 974'

Date: 1948

Total depth: 1996'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and lime	0	30
Set 21' of 10" pipe		
Lime	30	55
Red rock	55	57
Lime	57	65
Crevice and gravel	65	75
Lime	75	85
Lime and gravel	85	103
Water at 87. Fishing job		
Lime	103	110
Fished out bailer		
Lime	110	177
Black lime	177	199
Lime	199	220
Fishing job		
Lime	220	240
Fished out tools		
Stray sand	240	252
Lime	252	288
S. L. M. ¹ 288 = 293		
Sand	293	298
Beaver sand	303	338
Sand	338	346
Slate	346	364
Black shale	364	388
Top black shale @ 364		
Black shale	395	410
Remudded pipe		
Lime	410	432
Bailed out water		
Gray lime	432	455
Dark lime	455	477
Dark lime	477	535
Dark lime	535	563
Dark-gray lime	563	597
Dark lime	597	600
Fishing job. Set 7" pipe	597	618
Bailed out water	603	618
Gray lime	641	662
5½ bailers, salt water		
Lime	662	697
Gas @ 675, making two bailers water		
Lime	697	717
Pulling pipe 6 hours	717	720
Reaming @ 720		
Lime	723	747
Bailed water 3 hours.		
Knocked off pin-fishing bit @ 747		
Lime	786	850
Filled socket		
Bailing water @ 803		
Bailing water 3 hours		
More water @ 808-819		

¹ Steel line measurement.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime	850	860
Bailing water 4 hours		
Lime	860	1063
Mud Cave @ 974		
Pencil Cave @ 995		
Pulled pipe. Reamed and set 7" pipe @ 1010		
Brown lime	1063	1096
Fishing job; fished out bit	1096	1116
Brown lime	1116	1230
Lime	1230	1262
Odor and light scum		
Brown lime	1262	1390
Lime	1390	1443
Show of oil 1431-1443		
Sandy lime	1443	1460
Lime	1460	1740
1730 top Knox (1747 correct measure)		
Lime, hard	1740	1790
Knox, hard	1790	1848
Softer from 1830-1832. 5½ bailers water, 3½ bailers more than run to drill with.		
Down 20 minutes, made ½ bailer water and oil. Little water @ 1830		
Knox	1848	1876
Knox	1876	1907
Knox	1907	1940
Knox	1940	1999
Washing down well, bailing		
S.L.M. ¹ 1999=1996		
Down 72 hours, well made 17 bailers water. Left 225' oil in hole		
Down 32 hours, well made 4.4 bbls. oil and 7.5 bbls. water		
First show oil, light free oil scum, was encountered at 1430 feet. The amount increased gradually as the well was drilled down.		

E. Whitcher, ALONZO HINDS No. 1
(Map Number—40)

Location: SW SE SE Sec. 17, 1S—54E

Elevation: 933'

Date: 1948

Total depth: 2004'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, dark, hard	200	220
Lime, gray, hard	220	250
Lime, green, hard	250	255
Lime, gray, hard	255	260
Lime, green, hard	260	320
Shale, green, soft	320	360
Shale, black, soft	360	365
Bottom shale	365	398
Cap rock, hard	398	400
Lime, green, hard	400	405
Lime, gray, hard	405	450
Lime, dark-gray, hard	450	455
Lime, gray, hard	455	485
Gas @ 490 and 498	485	685

¹ Steel line measurement.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, blue, medium	55	115
Limestone, gray, hard	115	145
Limestone, blue, soft	145	150
Water 145-150		
Limestone, gray, hard	150	275
Set 197' of 6 $\frac{3}{8}$ " pipe		
Gas @ 223		
Gas, salt water @ 227		
Limestone, brown, hard	275	325
Limestone, green, hard	325	350
Shale, black, soft	350	384
Salt water @ 384		
Limestone, gray and brown, medium	384	396
Limestone, brown, medium	396	402
Limestone, green, medium	402	438
Limestone, brown and gray, medium	438	606
Limestone, brown, medium	606	641
Limestone, gray, medium	641	652
Limestone, blue and gray, hard	652	700
Limestone, blue, medium	700	772
Limestone, gray, hard	772	972
Show of oil @ 932		
Limestone, brown, hard	972	980
Limestone, blue and gray, hard	980	1000
Limestone, blue and gray, medium	1000	1058
Pencil Cave	1058	1060
Limestone, brown, hard	1060	1240
Limestone, blue and gray, soft	1240	1272

Huston St. Clair, EDISON FROGGE No. 1

(Map Number—42)

Location: SW SE NE Sec. 14, A—55E

Elevation: 865'

Date: 1951

Total depth: 1992'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand	0	12
Shell	12	12 $\frac{1}{2}$
Mud Cave	12 $\frac{1}{2}$	17 $\frac{1}{2}$
Lime, gray	17 $\frac{1}{2}$	61
Lime, sandy	61	69
Lime, gray	69	120
Lime, gray, hard	120	132
Lime, gray	132	202
Shale, black, Chattanooga	202	234
Lime, gray	234	313
Lime, blue	313	340
Lime, dark	340	653
Lime, dark, hard	653	677
Lime, brown	677	832
Lime, gray	832	874
Cave, mud	874	876
Lime, gray	876	890
Lime, brown	890	946
Lime, gray	946	968
Lime, brown	968	1026
Lime, gray	1026	1125
Lime, brown	1125	1378
Lime, gray	1378	1436
Lime, brown	1436	1675

<i>Lithology</i>	<i>From</i>	<i>To</i>
Knox dolomite	1675	1992
COMMENCED DRILLING: December 1, 1950		
COMPLETED DRILLING: January 27, 1951		
CASING:		
10"—17' 10"		
8"—480'		
7"—906'		
Plugged; dry hole		

Young, Brandon & Kincheloe, MULLINEX No. 3
(Map Number—43)

Location: NE Sec. 12, 2S—54E

Elevation: ?

Date: 1951

Total depth 1000'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	26
Set 26' of 8"		
Lime	26	40
Water	40	110
Lime	40	110
Sulphur water	110	154
Lime	110	154
Gas	154	194
Lime		
Set 194' of 7"		
Lime	194	328
Shell	328	355
Lime	355	490
Gas	490	587
Lime	490	587
Salt water	587	612
Sand	612	820
Gray lime	820	832
Water sand	832	1000
Gray lime		
Set plug @ 846' and filled to 800 (rock and cement)		
Set plug @ 630' and filled to 570		
Set plug @ 230' and filled to 198		
Plugged September 11, 1951		

Guy Williams, WM. PYLE No. 1
(Map Number—44)

Location: SE NW NW Sec. 12, A—55E

Elevation: 895'

Date: 1953

Total depth: 1131'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay and boulders	0	87
Limestone, gray	87	160
Set 8" casing @ 90		
Limestone, gray, dark	160	230
Black sulphur water @ 225		
Limestone, gray	230	245
Lime and chert, gray	245	410
Black shale	410	445
Limestone, green	445	450
Set "7 casing @ 448		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone and shale, green	450	485
Limestone, gray	485	530
Limestone, greenish	530	570
Limestone, greenish and brown	570	655
Limestone, gray	655	925
Limestone, gray	925	1032
Little gas @ 970-975		
Shale and mud	1032	1058
Oil pay just below 1032		
Limestone, gray	1058	1065
Limestone, broken	1065	1108
Pencil Cave	1032	1108
(Mud and boulders)		
No way of knowing just where Pencil Cave caved in		
Moved back on well Sept. 9, 1953		
Limestone, brown	1108	1116
Crevice, broken formation	1116	1131
Lost 5" bit in crevice		

Guy Williams, WM. PYLE No. 2
(Map Number—45)

Location: NE SW NW Sec. 12, A-55E

Elevation: 882'

Date: 1953

Total depth: 1170'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Boulders and mud	0	20
Water, mud	20	40
Set 8" pipe @ 30'		
Soft, muddy streaks		
Limestone, solid	40	70
Limestone, gray	70	78
Crevice, blue mud	78	80
Limestone, gray	80	81
Limestone, gray and green	81	85
Limestone, dark-gray	85	110
Limestone, gray	110	135
Limestone, dark-gray	135	145
Limestone, dark-gray and blue	145	155
Limestone, dark-gray and blue	155	190
Gas pocket @ 194 blew cuttings from shale	190	240
Limestone, light-gray	240	250
Limestone, gray, hard	250	280
Limestone, gray, medium	280	300
Limestone, dark- to light-gray	300	305
Limestone, light-gray, hard	305	365
Limestone, greenish, hard	365	370
Limestone and green shale	370	385
Black shale	385	420
Limestone and green shale	420	440
Limestone, greenish	440	490
Limestone, dark-gray	490	495
Limestone, greenish	495	625
Limestone, gray	625	980
Limestone, brown and green	980	990
Limestone, gray	990	1005
Limestone, brown	1005	1040
Limestone, dark-brown	1040	1080
Limestone, gray	1080	1090
Limestone, brown	1090	1160

Gas @ 194 blew water over mast.
 Salt water @ 215.
 Little gas, show of oil @ 325-330.
 Gas @ 830.

Jerman & Witcher, O. G. DUNCAN No. 1
 (Map Number—46)

Location: NE NE NW Sec. 17, 1S—55E

Elevation: 916'

Date: 1953

Total depth: 2200'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
	0	31
Clay		36
10" hole drilled to 428	31	37
Lime, brown, hard	36	95
Mud crevice	37	110
Lime, gray, hard	95	
Chert, white		165
Water	110	185
Lime, dark- gray, hard	165	200
Lime, dark-brown, hard	185	225
Lime, dark-gray, hard	200	240
Lime and shale, dark, hard	225	260
Lime, gray and white, hard	240	290
Lime, chert, gray, hard	260	300
Lime, chert, blue, hard	290	355
Lime, chert, gray and brown, hard	300	390
Lime, chert, gray and green, hard	355	405
Lime, chert, gray, hard	390	428
Shale, green, soft	405	
Shale, black, soft		433
Reduced hole to 8" @ 428	428	455
Lime, gray, medium	433	465
Shale and lime, green, medium	455	470
Lime, green, medium	465	530
Lime, brown, medium	470	590
Lime, brown and blue, medium	530	785
Lime, blue, medium	590	825
Lime, gray and brown, medium	785	840
Lime, gray, medium	825	895
Lime and chert, gray, medium	840	1050
Lime, gray, medium	895	1100
Lime, brown and gray, medium	1050	1105
Lime, dark-gray, medium	1100	1117
Lime, light-gray, medium	1105	1118
Lime, brown, medium	1117	1135
Pencil Cave	1118	
Lime, brown, medium		1205
Reduced hole @ 1130 to 6½"	1135	1540
Lime, gray, medium	1205	
Lime, brown, medium		1625
Little gas from 1283-1285		1800
Showing of oil from 1409-17	1540	1860
Lime, gray and brown, medium	1625	1875
Lime, gray, medium	1800	1895
Lime, brown, medium	1860	1900
Lime, gray, medium	1875	
Lime, brown and gray, medium	1895	
Lime, light-gray, medium	1895	
Top of Knox dolomite @ 1895		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, brown and gray	1900	1910
Lime, light-gray	1910	1975
Reduced hole @ 1933 to 5 3/16"		
Lime, chert, brown, medium	1975	2050
Lime, light-gray	2050	2075
Lime, chert, brown and gray	2075	2130
Lime, light-gray	2130	2200

305' in Knox Dolomite. Drilled good 25' a tower with 5 3/16" bit.

FRANKLIN COUNTY

J. C. HALE No. 1

(Map Number—1)

Location: NE SE NW Sec. 20, 16S—41E

Elevation: ?

Date: ?

Total depth: 1500'

No log available. Gas was encountered at 275 feet and at 700-800 feet. Total depth reported at 1500 feet. Used the gas for heating the house for years. In June 1929, the gas was discontinued because of water.

BEN HEICKEN No. 1

(Map Number—2)

Location: NE NE SE Sec. 20, 16S—42E

Elevation: 975'

Date: ?

Total depth: 1440'

No log available.

Gas reported at seven horizons, the first being at 340 feet.

Show of oil reported at 700 feet.

Well shot with 150 sticks of dynamite at 700 feet.

Show of oil reported at 750 feet.

Well shot with dynamite at 750 feet.

Show of oil reported good for 3½ barrels daily, at 1395 feet.

Well shot with 100 quarts nitroglycerine at 1390 to 1440 feet.

Oil and water reported raised 100 feet in hole.

Johnson et al, S. M. SHELLEY No. 1

(Map Number—3)

Location: NW NW SW Sec. 25, 15S—42E

Elevation: ?

Date: 1905

Total depth: 1255'

Oil reported at about 150 feet, and in four or five pockets at about 1255 feet.

Total depth reported at 1255 feet.

Franklin Oil & Fuel Co., J. A. SHADOW No. 1

(Map Number—4)

Location: SE NW NE Sec. 20, 16S—41E

Elevation: 860'

Date: 1920

Total depth: 2245'

Water reported at 37, 1285, and 1638.

Gas reported at 57, 204, 228, 254, 578, 672, and 769 feet.

Oil reported at 433, 1449, and 1487 feet.

Total depth reported at 2245 feet.

J. L. HAYNES No. 1

(Map Number—5)

Location: NE NW NE Sec. 15, 16S—42E

Elevation: ?

Date: 1922

Total depth: 317'

No log available.

Top of Chattanooga shale reported at 235 feet.

Brown sand, with show of oil, at base of Chattanooga shale.

Gas reported at 280-282 feet.

Total depth at 317 feet.

Note: Gas used for heating house.

There is also another old well on this property that has been producing gas for more than 10 years.

Tennessee-Kentucky Oil & Gas Co., TRIGG No. 1

(Map Number—6)

Location: SW NE NE Sec. 25, 17S—40E

Elevation: 945'

Date: 1927

Total Depth: 1115'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dirt and gravel	1	50
Hard, flinty lime	50	145
Black shale	145	155
Gray lime	155	236
Brown and gray lime	236	365
Gas @ 236-272 and 365		
White lime	365	470
Gray and brown lime	470	610
Gas @ 610		
Gray and brown lime, hard	610	855
Large flow gas @ 720-745		
Soft gray lime	855	990
Brown sandy lime	990	1010
Gray lime	1010	1115

Tennessee-Kentucky Oil & Gas Co., TRIGG No. 2

(Map Number—7)

Location: NW NE SE Sec. 25, 17S—40E

Elevation: ?

Date: 1927 (?)

Total depth: 955'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dirt and gravel	1	62
Hard, flinty lime	62	160
Show of oil	160	180
Gray lime	180	230
Red sandy lime	230	240
Black lime	240	265
Gray lime	265	550
Show oil @ 506		
Gray shaly lime	550	658
Brown lime	658	675
Pencil Cave	675	680
Gray lime	680	955

Tennessee-Kentucky Oil & Gas Co., RICHARD MURRAY No. 1

(Map Number—8)

Location: NE NW SE Sec. 11, 16S—41E

Elevation: ?

Date: 1928

Total depth: 935'

Maury green shale reported at 195.

Chattanooga shale from 197-205.

Plenty of water above 200 feet.

Gas reported at 495, 600, and 800 feet.

Well shot at 215, with 25 sticks of dynamite, which broke casing, let water in well, and ruined well.

Total depth reported at 935 feet.

Well abandoned.

Tennessee-Kentucky Oil & Gas Co., CUMBERLAND CEMENT CO. No. 1

(Map Number—9)

Location: NW NW SE Sec. 1, 17S—42E

Elevation: 1050'±

Date: 1928

Total depth: 1752'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mississippian system		
Surface, red clay	0	18
Lime, white, very hard	18	288
Chattanooga black shale	288	300
Ordovician system		
Lime, blue and brown	300	741
Set 6¼" casing @ 305		
Pencil Cave, green bentonite	741	744
Lime, brown, soft	744	1100
Sulphur water @ 800 (raised 100' in well)		
Lime, gray, very hard	1100	1155
Lime, gray	1155	1171
Lime, gray, sandy (dry)	1171	1200
Lime, blue and white	1200	1400
Lime, blue-gray, hard	1400	1450
Lime, white, very hard	1450	1550
Lime, white, sandy	1550	1690
Puff of gas @ 1600—lasted 4 hours		
Shale, green, limy	1690	1740
St. Peter sandstone formation (?)		
Lime, brown, sandy		
Bailed out 1 bbl. sulphur water with oil scum		
Lime, white, very hard	1740	1752

Tennessee-Kentucky Oil & Gas Co., DICK TAYLOR No. 1

(Map Number—10)

Location: SE NW NE Sec. 22, 16S—41E

Elevation: 990'

Date: 1929

Total depth: 1300'

Chattanooga shale from 251-265.

Pencil Cave from 760-765.

Tennessee-Kentucky Oil & Gas Co., WEINGER No. 1
(Map Number—11)

Location: SE SW SW Sec. 19, 16S—41E

Elevation: 970'

Date: 1929

Total depth: 1476'

No log.

Fresh water reported at 65 feet.

Chattanooga shale reported at 190-203 feet.

Gas horizons reported at 340, 425, 507, 685, 700, and 980 feet.

Pencil Cave horizons reported at 610, 635 and 660 feet.

Salt water reported at 1476 feet.

Southern Exploration Co., WEBB No. 1
(Map Number—12)

Location: NE NW NE Sec. 17, 16S—41E

Elevation: 875'

Date: 1930

Total depth: 955'

No log.

White limestone from 0-76.

Chattanooga shale from 76-85.

Gas reported at 230, 290, 330, 347, 370 and 390 feet.

Total depth—955 feet.

Pencil Cave from 439-441.

Initial gas volume reported at 240,672 cubic feet, with 24 pounds rock pressure.

Southern Exploration Co., WILKINS No. 1
(Map Number—13)

Location: NE NW Sec. 17, 16S—41E

Elevation: 821'

Date: 1930

Total depth: 600'

No log.

Commenced drilling 5 feet above Chattanooga shale.

Sand and gravel from 11-73 feet, with gas.

Blue lime from 73-165 feet. Gas at 165 (incomplete).

GIBSON COUNTY

Dyer Oil & Gas Company, VANCE HOLT No. 1
(Map Number—1)

Location: SE NW SE Sec. 15, 6S—7E

Elevation: 319'

Date: 1924

Total depth: 2110'

DRILLER'S LOG

Lithology	From	To
Soil	0	20
Sand	20	24
Clay	24	27
Blue clay	27	47
Sand	47	77
Pipe clay	77	97
Sand, water	97	187

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pipe clay, white		
Sand, water	187	207
Clay	207	247
Sand, water	247	252
Pink and white clay	252	327
Sand, water	327	367
Pink and white clay	367	404
Packed sand	404	414
Blue clay	414	481
Pink sand	481	501
Sticky clay	501	509
Packed sand	509	523
Gumbo	523	639
Blue shale	639	700
Red sand rock	700	705
Gumbo	705	707
Blue shale	707	735
Sand rock, boulder	735	755
Blue shale	755	757
Sand rock, boulder	757	775
Shale	775	776
Sand rock	776	788
Shale	788	789
Red sand rock	789	817
Blue gumbo	817	820
Red sand rock	820	835
Gumbo	835	840
Sand rock	840	843
Blue shale	843	845
Sand rock	845	873
Shale	873	874
Gumbo	874	883
Blue shale	883	893
Gumbo	893	901
Sand rock	901	951
Shale	951	952
Sand rock	952	964
Blue shale	964	965
Gumbo	965	985
Shale	985	990
Gumbo	990	995
Blue shale	995	998
Gumbo	998	1017
Hard blue shale	1017	1018
Blue shale	1018	1058
Rock	1058	1068
Black shale	1068	1070
Rock	1070	1082
Gumbo	1082	1083
Black shale and shells	1083	1091
Black gumbo	1091	1159
Hard sand	1159	1205
Shale	1205	1215
Sand, water	1215	1217
Black gumbo	1217	1220
Sand	1220	1236
Hard, blue shale	1236	1262
Gumbo	1262	1282
Rock	1282	1300
Gumbo	1300	1304½
Rock	1304½	1314½
Shale	1314½	1316½
	1316½	1324

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gumbo	1324	1330
Rock	1330	1333
White gumbo	1333	1351
Lime rock	1351	1355
Sand	1355	1481
Hard sand and shale	1481	1597
Lime, hard sand, and iron pyrites	1597	1619
Lime	1619	1623
Show of oil		
Sand	1623	1750
Hard lime	1750	1758
Gray rock	1758	1767
Sandy shale	1767	1795
Gumbo	1795	1798
Black shale	1798	1804
Hard lime	1804	1807
Black shale and gumbo	1807	1847
Hard sand	1847	1917
Show of gas		
Gumbo and black shale	1917	1997
Show of gas		
Sandy lime	1997	2027
Show of gas		
S. L. M. ¹ correction: 2027 = 2009		
Very hard lime	2009	2110
CASING RECORD:		
Set 8" @ 1286'		
STRATIGRAPHIC INTERPRETATION		
Tertiary system	0	1205
Wilcox and younger formations	0	965
Porters Creek clay	965	1205
Upper Cretaceous system	1205	1807
Ripley formation	1205	1807
Paleozoic rocks (?)	1807 (?)	2110

GILES COUNTY

J. M. Young et al, JOHN SPEARS No. 1

(Map Number—1)

Location: NW 16S—31E

Elevation: 1050' (?)

Date: 1929

Total depth: 1040'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Ft. Payne cherty limestone	0	48
Chattanooga "black" shale	48	55
Limestone, dark-blue or gray, coarsely crystalline to somewhat shaly	55	95
Limestone, dark blue-gray, crystalline, with fragments of brachiopod shells	95	125
Limestone, dark blue-gray, finely crystalline to dense	125	145
Limestone, blue, shaly	145	150
Limestone, dark blue-gray, crystalline, with considerable pyrite	150	165
Limestone, dark blue-gray, shaly	165	195
Limestone, light blue-gray, crystalline	195	200

¹ Steel line measurement.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light to dark blue-gray, crystalline	200	295
Limestone, very dark (nearly black), fine-grained to dense	295	365
Limestone, very light gray or olive-drab, dense, dove	365	410
Limestone, very light brownish-gray to drab, dense	410	420
Limestone, light blue-gray, dense	420	430
Limestone, dark blue-gray, finely crystalline to dense	430	480
Limestone, light brownish-gray, dense	480	490
Limestone, mixture of light and dark blue-gray, finely crystalline to dense	490	595
Limestone, very light gray (nearly white), dense	595	620
Limestone, light- to dark-gray or drab, very dense or lithographic, dove, containing ostracods	620	625
Limestone, light- to dark-gray, dense	625	710
Limestone, light blue-gray, crystalline and somewhat shaly	710	715
Limestone, light blue-gray or brownish, dense	715	730
Limestone, dark blue-gray, dense	730	760
Limestone, dark-blue, dense, with balls of dark clayey material	760	765
Limestone, light to dark blue-gray, finely crystalline to dense	765	815
Limestone, very dark (nearly black), dense	815	880
Limestone, dark blue-gray, dense	880	970
Limestone, somewhat lighter gray, dense	970	985
Limestone, dark blue-gray, dense	985	1010
Limestone, very light gray or dove, very dense	1010	1025
Limestone, very dark blue, granular, with salt and sulphur water	1025	1030
Limestone, dark-blue, dense	1030	1040

The California Company, E. W. BEELER No. 1

(Map Number—2)

Location: SE NW NE NE Sec. 4, 15S—29E Elevation: 814'
 Date: 1947 Total depth: 5750'

INFORMATION RELEASE

LOCATION: Carter coordinates: NW NE NE Sec. 4, 15S-29E, or approximately 2000' SW of center of Campbellsville, Tenn.

ELEVATION: Rotary bushing 826, ground level 814 (Paulin).

CONTRACTOR: Loffland Bros. Diesel powered Wilson Super Titan rotary.

TOTAL DEPTH: 5750' in granite.

DRILLED: Spudded 4/6/47; stopped 8/6/47 (119 days); plugged 8/20/47.

SIZE OF HOLE AND CASING: Drilled 9 $\frac{7}{8}$ " hole to 234', reamed to 12 $\frac{1}{4}$ " to 234'; reamed to 17 $\frac{1}{2}$ " to 215'; reamed to 26" to 210' set 205' of 20" surface casing; drilled 12 $\frac{1}{4}$ " to 247'; drilled 9 $\frac{7}{8}$ " hole to 1201'. reamed to 12 $\frac{1}{4}$ " to 1200'; reamed to 17 $\frac{1}{2}$ " to 1102'; set 13 $\frac{3}{8}$ " casing 1102'; drilled 9 $\frac{7}{8}$ " to 5711'; drilled 8 $\frac{1}{4}$ " to 5745'; drilled 7 $\frac{3}{4}$ " to 5750'.

DRILLING TIME: 1275 hrs.; plus dead time 1353 hrs.; plus lost time 574 hrs.

DRILLING RATE: Overall average 48.31' per day. Actual average 4.51' per hr. Weight on bit was kept as high as consistent with maintaining a straight hole; as many as 14 drill collars were used at a time.

BITS USED: 245, including rock, reaming, and coring bits.

BIT FOOTAGE:	Overall average 23.5' per bit. Excluding reaming and coring bits 29' per rock bit. Average bit footage by formation: Black River-Stones River Groups 85'; Wells Creek 42'; Upper Knox 35'; Lower Knox 21'; Pre-Knox dolomite 27'; Cambrian (?) sand 30'; Metamorphosed Granite Wash 11'; Granite 5'.
RESULTS:	The well was dry; cement plugs were placed and the well abandoned.
FORMATIONAL TOPS AND GENERALIZED LITHOLOGY:	
0- 660	660' Black River-Stones River limestone; shaly and silty limestone, in part cherty.
660- 729	69' Wells Creek dolomitic limestone.
729-3770	3041' Lower Ordovician and Upper Cambrian dolomite. Possible Knox Dolomite equivalent.
3770-4390	620' Dolomite, fine medium to coarsely crystalline, slightly cherty.
4390-4800	410' Dolomite, sugary to finely crystalline, in parts slightly cherty, and in part shaly.
4800-5230	430' Dolomite, with small amounts of green shale.
5230-5310	80' Dolomite, with small percentages of poorly sorted sand.
5310-5410	100' Dolomite, some gray shale.
5410-5580	170' Dolomite, somewhat sandy.
5580-5620	40' Sand or sub-quartzite.
5620-5705	85' Quartzite with granite fragments, probably metamorphosed granite wash.
5705-5750	45' Granite.
SHOWS OF OIL AND GAS:	A slight show of gas was recorded by the Baroid truck at 2626-2629. Slight traces of oil were recorded by fluorescence at 734-736; 739-740; 922-952; 1510-1520; 1542-1548; 2626-2629; and 5300-5308. Shows of asphalt residues were recorded at 1528-1533; 3552; 2920-2924; 3206-3208; 3352-3354; 3464-3466; and 3750-3754. Drill stem tests were run at 734-736; 2626-2629; and 5296-5308 with negative results.
POROSITY AND PERMEABILITY DETERMINATIONS:	Determinations made by Core Lab from various parts of the section gave 0.7 to 2.0% porosity and 0.0 permeability.
ELECTRICAL LOGS:	Schlumberger logs were run at 1200' and 5750'. A temperature log was run from 100' to 5750'. Copies of electric log can be obtained from Lynn Blue Print Co., Lexington, Ky.
SAMPLES:	Cuts distributed by Evansville Sample Cut, and a set of cuttings and the cores have been deposited with the Tennessee Division of Geology, Nashville, Tennessee.

Ben H. Putnam, ZUCCARELLO No. 1
(Map Number—3)

Location: NE SW NW Sec. 3, 15S—29E

Elevation: 841'

Date: 1948

Total depth: 1000'

<i>Lithology</i>	SAMPLE DESCRIPTION	
	<i>From</i>	<i>To</i>
Limestone, very light tan, fine-grained with few medium-fine grained particles, sandy, few dark particles are sandier		
Samples missing	70	80
Limestone, light-tan, fine-grained with few medium-fine grains, few cream chert particles, few fossil fragments	80	115
Samples missing	115	120
Limestone, gray, medium-fine grained, argillaceous, cream chert, sandy	120	128
Limestone, half tan and half gray, fine to medium-fine grained, cream chert, sandy, very argillaceous	128	130
Samples missing	130	155
Limestone, tannish-gray, fine to medium-fine grained, cream chert, very argillaceous	155	170
Limestone, brownish-gray, fine to medium-fine grained, argillaceous	170	175
Limestone, tan, fine to medium-fine grained, very silty, few calcite crystals	175	180
Samples missing	180	195
Limestone, light-tan (spotted white in part), fine to medium-fine grained, silty, dolomite, few calcite crystals	195	207
Dolomite, tan (spotted white in part), medium-fine grained, calcareous, calcite crystals, cream chert	207	229
Limestone, tan to brown, fine to medium-fine grained, cream chert, very dolomitic, slightly silty, calcite crystals, few fossil fragments	229	242
Dolomite, brown to brownish-gray, medium-fine grained, few cream chert particles calcareous, silty, calcite crystals	242	270
Limestone, brown to brownish-gray, fine to medium-fine grained, argillaceous, slightly dolomitic near top, slightly pyritic, calcite crystals, few fossil fragments	270	285
Limestone, brownish-gray, fine to medium-fine grained, argillaceous, few shale particles, silty, few calcite crystals	285	300
Dolomite, brown, fine to medium-fine grained, calcareous, silty, few calcite crystals	300	308
Limestone, very light tan, fine to medium-fine grained, few shale particles	308	325
Limestone, tan, fine to medium-fine grained, silty, slightly dolomitic	325	331
Samples missing	331	340
Limestone, tan, fine to medium-fine grained	340	358
Samples missing	358	365
Dolomite, brown, fine to medium-fine grained, silty	365	381
Samples missing	381	386
Limestone, tan to brown, fine to medium-fine grained, argillaceous, calcite crystals, few fossil fragments, shale particles	386	410
Samples missing	410	440
Limestone, brown, fine to medium-fine grained, shale particles, argillaceous, slight show of oil	440	442
Limestone, tan, fine to medium-fine grained, shale particles, argillaceous, few calcite crystals	442	450
	450	463

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, brown to brownish-gray, fine to medium-fine grained, shale particles very argillaceous, slight show of oil	463	469
Same, less oil	469	475
Same, plus very slight show of oil	475	480
Same, less oil	480	490
Same, plus slight show of oil	490	495
Limestone, brown to brownish-gray, fine to medium-fine grained, very argillaceous and silty	495	520
Same, in diminishing amounts of silt and argillaceous material	525	572
Same, plus a few black shale particles	572	579
Same	579	622
Same, plus few brown and black shale particles	622	635
Same	635	674
Limestone, very light tan, fine to medium-fine grained, slightly argillaceous, slightly silty	674	684
Limestone, tan, medium-fine grained, slightly silty, slightly argillaceous, slightly dolomitic, few black shale particles	684	691
Limestone, brownish-gray, fine to medium-fine grained, silty, argillaceous, few black shale particles	691	700
Same, except very slight show of oil	700	707
Limestone, brownish-gray, fine to medium-fine grained, very slightly argillaceous	707	720
Dolomite, very light tan, medium-fine grained, very slightly argillaceous	720	734
Dolomite, light-green, medium-fine grained, few black shale particles	734	749
Dolomite, light-green, medium-fine grained, green shale particles in abundance	749	781
Same, plus slightly pyritic	781	796
Limestone, light-tan, fine to medium-fine grained, sandy, few rounded and frosted sand grains	796	810
Same, plus slightly dolomitic	810	816
Dolomite, tan, medium-fine grained cream chert	816	821
Limestone, tan, fine to medium-fine grained, dolomitic, small amount of chert	821	826
Dolomite, tan to light-brown, fine to medium-grained, calcite crystals	826	837
Same, plus very calcareous	837	863
Limestone, tan, fine to medium-fine grained, cream chert, very dolomitic, slightly pyritic	863	875
Dolomite, very light tan to tan, fine to medium-fine grained, very calcareous	875	900
Same, plus calcite crystals	900	915
Same, plus cream to gray chert	915	921
Limestone, tan, fine-grained, dolomitic, small amount of cream to gray chert, calcite crystals	921	927

GRUNDY COUNTY

Sequatchie Gas Company, SEWANEE FUEL & IRON CO. No. 1
(Map Number—1)

Location: SE SE SE Sec. 17, 14S—46E

Elevation: 1875'

Date: 1932

Total depth: 4325'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale	0	12
Coal	12	14
Sandstone	14	165
Coal	165	167
Slate	167	169
Shale	169	186
Coal	186	189
Limestone	350	355
Limestone and shale	355	450
Limestone	450	755
Gas and oil @ 755		
Limestone, white	755	950
Gas and oil (show) @ 910		
Limestone, gray	950	1060
Limestone, brown	1060	1335
Limestone, white	1335	1365
Limestone, brown	1365	1375
Chert, Ft. Payne	1375	1412
Chattanooga shale	1412	1435
Limestone, gray	1435	1825
Limestone, black-brown	1825	1860
Limestone, white	1860	1920
Limestone, black	1920	1940
Pencil Cave	1940	1944
Limestone, gray	1944	2147
Limestone, brown	2147	2200
Limestone, light-brown	2200	2395
Limestone, flaky	2395	2403
Limestone, brown	2403	2560
Gas (271,000)—sand	2560	2565
Limestone, gray	2565	2820
Limestone, green	2820	2850
Grit, hard	2850	2950
Limestone, light-brown	2950	3150
Grit, hard	3150	3190
Limestone, hard	3190	3400
Limestone, gray	3400	3425
Water	3425	3435
Limestone, gray	3435	3650
Water	3650	3670
Limestone, brown	3670	3900
Grit, very hard	3900	3985

Blew 4 months, after which open flow was 10-25,000. Closed-in pressure 102 pounds original.

Magnolia Petroleum Co., W. H. PATTERSON No. 1
(Map Number—2)

Location: NW NE SW Sec. 15, 14S—47E

Elevation: 1893'

Date: 1948

Total depth: 4413'

INFORMATION RELEASE

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian		
Sewanee conglomerate		
Coarse sand with frosted and opaque quartz pebbles . . .	0	41
Gizzard shale (sandy facies)		
White, hard sand with shale streaks	41	137
Variegated shales, fine sand, and calcareous sand . . .	137	317
Mississippian		
Chester		
Green and gray shales, dense and slightly oolitic limestones, and dolomitic limestones, with few sandy and silty zones. Very oolitic limestones of Gasper and Ste. Genevieve in lower part	317	1099
Meramec		
Crystalline and dense, cherty limestones and dolomitic limestones and in part silty. St. Louis and Warsaw	1099	1300
Osage		
Crystalline, dark-gray and brown to white, very cherty limestone and dolomitic limestones, silty and sandy zones. 5' of Maury green shale at base (possibly Devonian)	1300	1463
Devonian		
Chattanooga black shale		
Black, fissile, carbonaceous shale, slightly calcareous in lower part	1463	1488
Silurian		
Missing		
Ordovician		
Trenton Group		
Crystalline and argillaceous limestones, slightly dolomitic, cherty and silty in lower portion.		
Gas 1898-1904	1488	1988
Stones River Group		
Pencil Cave # 1—1926-96, soft, green bentonite shale		
Pencil Cave # 2—2006-11; pale-green bentonite and micaceous shale.		
Dense, sandy and dolomitic limestone, trace of chert—Unit A.		
Dense and crystalline, partly dolomitic limestones of Unit B.		
Brown and gray, dense limestone and dolomitic limestone, brown chert at top—Unit C.		
Calcareous and shale, siltstone, and shaly, silty dolomite—Pierce.		
Gray and brown, very dense limestone with some dolomite—Murfreesboro.		
Gray-green and red, argillaceous dolomite and shale—Murfreesboro.		
Gray-green and red, argillaceous dolomite and shale—Wells Creek	1988	2854
Knox		
Cream, white, and gray sucrose dolomite with much chert, some green shale streaks, and scattered round, clear and frosted quartz grains.		
Dense limestone streaks increasing in proportion to		

Lithology

	<i>From</i>	<i>To</i>
3820' (possibly base of Unit X)	2918	4413
Top Knox @ 2918		
SHOWS OF OIL AND GAS: 1367-1386 slight odor and stain 1898-1904 gas		
WATER: 43-88, 105-118, 160-166; trace of sulphur water 3070, and 3228; sulphur and salt water 2½ barrels in 8 hours @ 3294; sulphur water 4285 and 4303, bailed 20 hours at 4413, fluid @ 2200.		
LOGS: Electric log by Schlumberger 1188-3200. Copies are available by writing Schlumberger, Mattoon, Illinois. Gamma Ray-Neutron log by Lane-Wells, 0' to Total Depth. Copies are available by writing Lane-Wells Radioactivity Log Company, Oklahoma City, Oklahoma.		
SAMPLES: Cuts distributed by Evansville Sample Cut. Set of samples has been deposited with the Tennessee Division of Geology, Nashville, Tennessee.		

HARDEMAN COUNTY

City of Bolivar, FEE No. 1 (Water)

(Map Number—1)

Location: In Bolivar

Elevation: 445'

Date: ?

Total depth: 495'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red clay	0	20
Sand and clay	20	60
Sand	60	75
Pipe clay	75	80
Shale	80	175
Coarse salt and pepper sand	175	195
Tough clay (soapstone)	195	495
STRATIGRAPHIC INTERPRETATION		
Tertiary system		
Holly Springs sand	0	495
Porters Creek clay	0	195
Based upon a sample study of the nearby Western State Hospital well, the Porters Creek clay is too thick in this well. Probably the upper part of the "tough clay" represents the lower part of the Wilcox group.	195	495

Western State Hospital, FEE No. 1

(Map Number—2)

Location: NE SW Sec. 18, 15S—6E

Elevation: 470'

Date: ?

Total depth: 654'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
No record	0	100
Sand rock	100	101
Sand	101	104
Clay	104	120
Sand and clay	120	170
Rock	170	171
Blue clay	171	206
Sand and clay	206	315
Shale	315	417
Soapstone	417	423

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale	423	453
Soapstone	453	503
Sandy soapstone	503	601
Gumbo	601	621
Soapstone	621	631
Rock	631	632
Hard, brittle soapstone	632	637

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay loam	0	10
Medium-grained, quartz sand, water-bearing	10	20
Slightly finer red quartz sand, water-bearing	20	30
Medium-grained, white quartz sand, water-bearing	30	40
Coarse, white sand, water bearing	40	65
Very coarse sand, as much as 3 millimeters in diameter, water-bearing	65	90
Medium-grained, white sand, water-bearing	90	100
Coarse, white sand with pebbles as much as 3 centimeters long by 1½ centimeters in diameter (possibly coarser in well), water-bearing	100	108
Very fine, white sand grading into clay, containing some muscovite, water-bearing	108	120
Slightly finer sand, water-bearing	120	150
Brown, micaceous, sandy clay	150	172
Dove-gray clay	172	207
Fine-grained, yellowish sand, water-bearing	207	232
Fine-grained, white sand, water-bearing	232	256
Dirty-gray, medium-grained sand, water-bearing	256	316
Dark-gray clay	316	545
Medium-grained, salt and pepper sand, water-bearing	545	550
Gray, speckled, argillaceous sand, water-bearing	550	615
Salt and pepper, medium-grained, argillaceous sand streaked with brown, water-bearing	615	654
STRATIGRAPHIC INTERPRETATION		
Tertiary system	0	615
Holly Springs sand	0	316
Porters Creek clay	316	545
Clayton formation	545	615
Ripley formation	615	654
The driller's log does not allow definite correlation and conflicts with samples. Correlations are based upon sample examination.		

Spring Creek Development Co., E. B. SAIN No. 1
(Map Number—3)

Location: NE Sec. 21, 16S-6E

Elevation: 392'

Date: 1921

Total depth: 3210'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil, sandy loam	0	2
Soapstone	2	16
Quicksand	16	22
Lime, gray, soft	22	104
Sand, green	104	120
Water		
Sandstone, blue, soft	120	129
Lime, blue, soft	129	146
Lime, gray, soft	146	250

<i>Lithology</i>	<i>From</i>	<i>To</i>
Marl, gray, sandy	250	260
Shale, black, hard	260	311
Sand	311	370
Water		
Shale, black, hard	370	412
Sand, brown, coarse, shells	412	418
Show of oil		
Marl, gray, sandy	418	434
Sand, brown	434	450
Marl, blue, sandy	450	480
Sand, gray	480	551
Water		
Lime, hard	551	555
Water		
Sand, green	555	612
Water		
Lime, gray, hard	612	615
Marl, blue, sandy	615	660
Sandy, gray	660	718
Water		
Lime, gray, hard	718	720
Sand, white	720	748
Water		
Lime, gray, hard	748	750
Sand, hard	750	783
Water		
Marl, blue, sandy	783	801
Lime, white, hard	801	804
Sand, gray	804	820
Water		
Marl, black, sandy	820	850
Lime, blue, soft	850	872
Shale, black, hard	872	880
Marl, black, sandy	880	940
Lime, blue, soft	940	992
Lime, blue, shells	992	1001
Lime, blue, soft	1001	1015
Lime, blue, shells	1015	1051
Shale, black, hard	1051	1066
Lime, white, soft	1066	1089
Sand, gray	1089	1106
Water		
Lime, gray, hard	1106	1107
Sand, brown	1107	1109
Lime, blue, soft	1109	1112
Sand, gray, micaceous	1112	1124
Water		
Clay and sand	1124	1204
Sand, white, micaceous	1204	1280
Water		
Clay, gray, medium-hard	1280	1290
Shale, bluish-black	1290	1330
Gravel and sand, gray	1330	1340
Show of oil and gas		
Sandstone, gray, hard	1340	1345
Lime, white, hard	1345	1394
Sandstone, gray, hard	1394	1405
Lime, brown, hard	1405	1428
Sandstone, gray, hard	1428	1438
Lime, gray, hard	1438	1450
Sandstone, white, hard	1450	1463
Lime, gray, hard	1463	1548

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, blue, hard	1548	1635
Sandstone, gray, hard	1635	1670
Lime, blue, hard	1670	1677
Sand, gray, dry	1677	1680
Lime, brown, hard	1680	1685
Shale, black, hard	1685	1690
Lime, gray, sandy	1690	1720
Lime, white, hard	1720	1730
Shale, gray, hard	1730	1740
Lime, bluish, hard	1740	1830
Lime, gray, hard, shaly	1830	1895
Sandstone, gray, hard	1895	1975
Lime, gray, hard	1975	1995
Lime, gray, hard, shaly	1995	2070
Lime, bluish, hard	2070	2165
Shale, gray, hard	2165	2177
Lime, gray, hard, shaly	2177	2267
Sandstone, white, hard	2267	2280
Lime, gray, hard, shaly	2280	2340
Lime, white, hard	2340	2395
Shale, bluish, hard	2395	2415
Lime, blue, hard	2415	2427
Lime, blue-gray, hard	2427	2519
Shale, blue-gray, medium-hard	2519	2539
Lime, gray, hard	2539	2560
Lime, blue-gray, hard	2560	2605
Sand, dark-gray, dry	2605	2607
Shale, blue-black, hard	2607	2645
Sandstone, gray, hard	2645	2715
Lime, white, hard	2715	2795
Lime, bluish, very hard	2795	2835
Lime, gray, shaly, hard	2835	2897
Sandstone, gray, medium-hard	2897	2906
Lime, blue, hard	2906	2995
Lime, gray, hard	2995	3068
Shale, blue, hard	3068	3090
Lime, bluish-gray, hard	3090	3160
Sand, dark-gray	3160	3178
Water		
Lime, bluish-gray, hard	3178	3200
Lime, gray, hard	3200	3205
Lime, blue, hard, shaly	3205	3210

CASING RECORD:

- 12" drive pipe set @ 24
- 10" set @ 124
- 8¼" set @ 622
- 6¼" set @ 1284

STRATIGRAPHIC INTERPRETATION

Tertiary system	0	370
Holly Springs sand	0	129
Porters Creek clay	129	311
Clayton formation (?)	311	370
Upper Cretaceous system	370	1340
Ripley formation	370	1940
Owl Creek tongue	370	412
McNairy sand member	412	820
Coon Creek tongue	820	940
Selma formation	940	1089
Eutaw formation	1089	1330
Tuscaloosa formation (?)	1330	1340
Paleozoic rocks	1340	3210

Nance & Vivadelli, J. B. DONALDSON No. 1

(Map Number—4)

Location: SE SW NW Sec. 10, 16S—8E

Elevation: 357'

Date: 1951

Total depth: 3780'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Not examined	0	500
Highly fossiliferous, fine-grained, gray sandstone with some shale (Cretaceous)	500	810
Fine, clean water sand	810	865
Shaly	865	895
Sand (water sand?) as @ 810-865	895	905
Sand, fine, shaly, lignitic, and some fine gravel	905	920
Sand, fine, shaly, lignitic	920	940
Sand, loose, with some shale as above	940	950
Shale, one large chunk dark-gray clay shale	950	970
Sand, fine, and lignitic shale	970	975
Sand and gravel (Tuscaloosa?)	975	1000
Sand, lignitic	1000	1002
(Base of Cretaceous—Top of Paleozoic)		
Limestone, light-gray, silty and chalky (dirty)	1002	1010
Medium to very fine sand, clear, quartz rounded and frosted sand grains abundant, very fine sugary dolomite(?)	1010	1030
Dolomite, very fine, sugary, light-gray to white, some gray shale as above	1030	1040
Dolomite, very fine, sugary, white	1040	1050
Dolomite, very fine, sugary, white, no porosity, some gray pyritic shale	1050	1062
Dolomite, same, some fragments gray pyritic shale	1062	1080
Dolomite, same, some rounded and frosted sand grains, and some shale as above	1080	1090
Dolomite, fine-grained, white, about 40% dark-gray to black shale	1090	1100
No samples	1100	1110
Dolomite, light-tan, very fine grained, sugary, some fragments gray shale	1110	1125
Dolomite, fine-grained to dense, some shale fragments	1125	1155
Dolomite, very fine grained, same light-gray, some fragments gray shale	1155	1165
Dolomite, very fine grained (some coarser), some white limestone and some gray shale fragments	1165	1185
Dolomite, dense, fine-crystalline, gray-tan, some shale fragments	1185	1200
Dolomite, shale, same (dirty)	1200	1210
Dolomite, tan, very fine grained, some opaque chert, some dark-gray shale	1210	1220
Dolomite, white, very fine grained, and fragments of gray shale	1220	1230
Dolomite, same, fine- to coarse-grained, some dark-gray shale fragments	1230	1250
Dolomite, same, some brown, some limestone, some few fragments of shale	1250	1302
Dolomite, same, very fine grained, some fragments of shale, occasional fragments of brown chert	1302	1330
Dolomite, same, and few doloclastic chert fragments	1330	1340
Dolomite, as above, with shale fragments	1340	1368
Dolomite, same, slightly more brownish or tan; most above has been white in color	1368	1380
Dolomite, same, looks like should be some "pin-point" porosity	1380	1392

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, same, slightly coarser	1392	1400
Dolomite, same, somewhat browner	1400	1430
Dolomite, same, somewhat browner, rare rounded and frosted grains	1430	1440
Dolomite, same, somewhat browner, sandy, common rounded and frosted sand grains	1440	1450
Dolomite, same, tan color, some rounded and frosted sand grains, some dolocastic chert fragments	1450	1460
Limestone, hard, white, crystalline, some dolomite, rare rounded and frosted grains	1460	1470
Dolomite, coarser, white to tan, porous	1470	1480
Dolomite, coarser, chalky, some white calcite, fine rounded and frosted sand grains	1480	1490
As abundant rounded and frosted sand grains, some secondary quartz	1490	1506
Limestone and dolomite, abundant rounded and frosted sand grains	1506	1515
Limestone, grayish-tan, at least partially dolomitic	1515	1525
Limestone, grayish-tan to brown, some brown chert, some gray shale	1525	1535
Dolomite, white, medium-grained, porous, some brown chert, some gray shale	1535	1545
Dolomite, white, medium-grained, porous, some rounded and frosted sand grains	1545	1555
Dolomite, coarse, light grayish-tan, abundant rounded and frosted sand grains, some secondary calcite and quartz	1555	1565
Dolomite, same, rounded and frosted sand, some white crystalline calcite	1565	1574
Dolomite, same, medium to coarse, few rounded and frosted sand grains (driller reports sulphur water 1584-90)	1574	1590
Limestone, gray-brown, some dolomite	1590	1600
Limestone, gray-tan to white, dense, occasional stylolites, some dolomite	1600	1610
No samples (driller: "Brown lime")	1610	1625
Limestone, dolomitic, few fragments gray shale	1625	1635
Dolomite, fine-grained, in part shaly	1635	1640
Dolomite, same	1640	1650
Limestone, buff, and dolomite	1650	1660
Limestone, buff, fine and dense, some speckled, brown, some secondary quartz	1660	1680
Limestone, buff and dolomitic, some brown speckled shaly limestone (driller reports chert 1680-85)	1680	1690
Limestone, buff, abundant cloudy buff chert, some speckled shale	1690	1700
Limestone and dolomite, tan to brown, considerable brown chert	1700	1705
Dolomite, light grayish-tan, some tan limestone	1705	1710
Dolomite and limestone, light-gray to white, fine-grained, no chert	1710	1715
Limestone, brown to white or tan	1715	1720
Dolomite, light grayish-tan, no chert	1720	1725
Limestone and dolomite, light grayish-tan	1725	1775
Limestone, thin-bedded, dolomitic, light-gray	1775	1805
Limestone, dolomitic, tan to white	1805	1830
Limestone, grayish-tan with some brown and white, dense	1830	1905
Limestone, same, occasional chert fragment	1905	1928
Limestone, same, slightly more chert	1928	1942
Limestone, same, no chert	1942	1952
Limestone, light gray to tan, fine-grained, dolomitic	1952	1962
Limestone, dense, light-gray, tan, white, and fine-grained, chalky, dolomitic	1962	1994
Limestone, as above, less dolomite (20% or less)	1995	2018

<i>Lithology</i>	<i>From</i>	<i>To</i>
Same, more dolomite, perhaps 50-50	2018	2025
Same, about 20% dolomite	2025	2053
Same, about 50-50	2053	2063
Same, about 80-20	2063	2073
Limestone, light-gray to light-brown, dense, some white and chalky	2073	2113
Limestone, light-brown to white, dense	2113	2122
Limestone, same, occasional fine dolomite	2122	2137
Limestone, same, dense, light-tan to creamy-white	2137	2147
Limestone, same, light-brown to cream or white, dense	2147	2153
Dolomite, light-tan to creamy-white, with dolomitic limestone, fine-grained	2153	2162
Limestone, light-tan to creamy-white, some fine crystalline dolomite	2162	2198
Dolomite, gray-white, finely crystalline, and tan to white limestone, occasional white chert	2198	2218
Limestone, coarsely crystalline, with chalky matrix and some finely crystalline dolomite	2218	2227
Limestone, as above, and white, dense, chalky limestone	2227	2237
Limestone, as above (50%), plus medium-grained dolomite (50%) (Ran 8" casing @ 2250')	2237	2250
Dolomite, light-gray, fine-grained, some fragments of limestone	2250	2260
Dolomite, same	2260	2270
Dolomite, same, some chalky white limestone	2270	2285
Dolomite, same, some fossil fragments, some darker gray dolomite, some white limestone	2285	2294
Dolomite, same, some fossil fragments, some darker gray dolomite, some white limestone	2294	2307
Dolomite, same	2307	2316
Limestone, grayish-tan or brown, fine-grained, and some white and chalky	2316	2330
Limestone, cream-colored	2330	2337
Limestone, tan	2337	2346
(Another sample) Limestone, but considerable fine dolomite	2337	2346
Limestone, tan to white, chalky, considerable fine dolomite	2346	2355
No samples	2346	2355
Limestone, gray-brown, with some white chalk and shaly	2364	2370
Limestone, same	2370	2380
Limestone, same, gray, brown, mostly dense, some crystalline, some chalky-white	2380	2405
Limestone, dense, gray-brown, some brown, crystalline	2405	2425
Limestone, same, occasional fossils	2425	2435
Limestone, dense, gray-brown, some brown, crystalline, some dolomitic	2435	2445
Limestone, same, light gray-tan, more chalky and somewhat speckled (poor washed)	2445	2485
Limestone, light-tan or cream-colored, and tan, fine-grained dolomite	2485	2495
Limestone, light-tan or cream-colored, slightly dolomitic	2495	2503
Limestone, light-gray or cream, some dolomite	2503	2515
Limestone, same, slightly marly or silty	2515	2525
Limestone, cream to chalky-white, slightly marly or silty	2525	2550
Limestone, cream and white, somewhat chalky, some dolomite	2550	2595
Limestone, cream to white, somewhat chalky, some dolomite	2595	2607
Limestone, light-gray, fine dolomite. Limestone has a slightly brown cast under microscope. Some fine dolomite, some chalky, some speckled. Rare fossils	2607	2644
No samples	2655	2660

CONDENSED LOC	From	To
<i>Lithology</i>		
Vari-colored and shaped quartz grains, large, rounded; much glauconite; trace of gray, micaceous, carbonaceous shale	40	50
Shale, very sandy in part, large mica flakes; conodont, much shell material, and glauconite; pyrite nodules	50	80
Tan, very fine crystalline, dense, very fossiliferous, very glauconitic limestone; also inclusions of brown mineral and trace of quartz grains	80	110
Silt, medium; large rounded, loose quartz grains; with gray, soft, micaceous, sandy, carbonaceous shale @ 290; shells in part; glauconitic in part; coquina @ 750-780; rounded, polished chert fragments @ 905	110	1002
With rounded, polished quartz grains at contact; light-tan, dense, silty dolomite; trace of vugular porosity; medium-grained in part, fine-grained in part, sucrose in part; with translucent chert in part; with loose rounded, frosted quartz grains up to coarse @ 1490-1506	1002	1506
Pseudo-oolitic, tan, fine-crystalline limestone and limy dolomite with rounded, frosted quartz grains in part; trace tan, translucent chert; dolomite very sandy, grains coarse, rounded, frosted in part	1506	1590
Limestone, dark-brown, very fine crystalline, dense; white, dense limestone in part; possible vugular porosity in part; with white, dense limestone in part; trace of chert	1590	1626
With limestone, as above, but silty; with darker, brown limestone; mottled brown and white chert @ 1694; ostracodes @ 1702	1626	1705
Light-tan, very silty dolomite; possible vugular porosity grading to silty, dolomitic limestone; scattered ostracodes; limestone up to medium-crystalline with brown-mottled, coarse-crystalline, oolitic limestone @ 1752	1705	1952
Light-tan to brown, silty dolomite; limestone to coarse-crystalline and limy dolomite in part; very silty @ 2053-2071; zone of light-tan, silty dolomite; vugular porosity in part; with tan, brown, fine-crystalline to coarse-crystalline, very oolitic limestone @ 2445-2455; scattered oolites down section; loose frosted, rounded quartz grains @ 3149; secondary quartz crystal growth on rounded, frosted grains @ 3167; scattered gray, brown, tan translucent chert; dolomite increasing in crystallinity last 500', and more silty; large polished quartz grains @ 3712; hole bottomed in fine-grained, dense, silty dolomite. (No samples 2744-2966, 3759-3775)	1952	3780

HARDIN COUNTY

Wingfield & Dobie, WILL STRICKLAND No. 1

(Map Number—1)

Location: SE SE SE Sec. 19, 14S—16E

Elevation 386'

Date: 1941

Total depth: 1500'

DRILLER'S LOG

<i>Lithology</i>	From	To
Surface	0	28
Trenton lime, dark-gray	28	108
Lime, light-brown, hard	108	125
Lime, gray, medium	125	190

<i>Lithology</i>	<i>From</i>	<i>To</i>
Water sand, white, medium		195
Sulphur water	190	
Lime, light-gray, medium		200
Lime, brown, medium	195	
Lime, gray, medium	200	
Lime, light-brown, medium	280	
Lime, gray, medium	285	
Lime, brown, medium	305	
Lime, dark-gray, medium	310	
Lime, brown, hard	325	
Sand, white, hard	340	
Water	365	
Lime, gray, hard		370
Lime, brown, hard	370	
Lime, dark-gray, hard	380	
Sandy lime, brown, hard	415	
Little water	470	
Lime, dark-gray, hard		475
Lime, light-brown, hard	475	
Lime, gray, hard	505	
Lime, dark-gray, hard	530	
Sandy lime, gray, hard	540	
Water	575	
Lime, dark-gray, hard		585
Lime, gray, hard	585	
Lime, brown, hard	590	
Lime, gray, hard	595	
Water sand, gray, hard	605	
Water	675	
Lime, gray, hard		690
Lime, light-brown, hard	690	
Lime, brown, hard	795	
Lime, gray, hard, sandy	860	
Lime, light-brown, hard	867	
Lime, brown, hard	887	
Lime, dark-brown, hard	905	
Lime, light-brown, hard	970	
Lime, gray, hard	975	
Lime, brown, hard, sandy	988	
Sand, brown, hard (cuttings fine)	1020	
Lime, brown, hard	1035	
Lime, gray, hard, sandy	1040	
Lime, brown, hard, sandy	1080	
Water sand, white, hard	1107	
Lime, brown, hard	1113	
Lime, gray, hard	1140	
Lime, gray, hard, sandy	1145	
Lime, gray, hard	1155	
Sand, white, hard (water sand)	1165	
Lime, gray, hard, sandy	1190	
Lime, brown, hard	1195	
Lime, gray, hard, sandy	1205	
Lime, light-brown, hard, sandy	1210	
Lime, gray, hard, sandy	1240	
Water sand, white	1250	
Sulphur	1265	
Lime, light-brown, hard		1280
Lime, gray, hard	1280	
Lime, brown, hard	1285	
Lime, gray, hard	1290	
Sand, gray, hard (water sand)	1295	
Sand, brown, hard (water sand)	1310	
	1315	
	1315	
		1320

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, light-brown, hard	1320	1330
Lime, gray, hard	1330	1380
Lime, dark-brown, medium	1380	1385
Lime, brown, medium	1385	1395
Lime, dark-gray, medium	1395	1410
Lime, brown, hard	1410	1425
Lime, gray, hard	1425	1455
Lime, brown, hard	1455	1485
Lime, gray, hard	1485	1500
CASING:		
10" @ 40		
8" @ 600		
6 $\frac{5}{8}$ " @ 1065		

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dark blue-gray, medium-grained, silty limestone, pyrite	28	100
Dark-blue-gray, medium-grained, highly silty limestone, pyrite, "Mud Cave"	100	108
White to light-gray, medium-grained, cherty limestone	108	113
White to light-gray, medium-grained, cherty, fossiliferous limestone	113	120
Light-gray to gray, medium-grained, cherty limestone	120	130
Light-gray to gray, medium-grained limestone	130	135
Gray, medium-grained limestone	135	140
Gray, medium- to coarse-grained, speckled limestone	140	145
Gray, medium-grained, argillaceous limestone	145	150
Gray, medium-grained limestone	150	160
Light-gray, fine-grained limestone	160	170
Gray to light-gray, fine-grained limestone	170	175
Fine-grained (dense), gray limestone	175	190
White to light-tan, fine-grained limestone	190	195
Fine-grained, white to dove-gray, magnesium limestone (Sample out of place)	195	200
Medium-grained, gray limestone	200	210
Gray, fine-grained limestone	210	220
Gray, medium-grained limestone	220	225
Gray, fine-grained limestone	225	235
Gray, fine-grained limestone with dense, gray chert	235	245
Gray, medium-grained, slightly dolomitic limestone	245	250
Light-gray to light-tan, oolitic (?) limestone	250	255
Gray, medium-grained, slightly dolomitic limestone	255	260
Gray, fine-grained limestone	260	265
Gray, medium-grained, slightly dolomitic limestone; ostracods	265	270
Gray coarse-grained limestone	270	275
Gray, medium- to coarse-grained limestone	275	280
Greenish-gray, coarse-grained limestone	280	285
Gray to light-gray, medium-grained limestone	285	290
Gray, medium-grained limestone	290	295
Gray, fine-grained limestone	295	300
Gray, coarse-grained, highly fossiliferous limestone; ostracods and bryozoa	300	305
Gray, fine-grained limestone	305	310
Gray, fine-grained limestone, chert	310	315
Gray, fine- to medium-grained limestone, and dense, light-gray chert	315	320
Gray to dark-gray, fine-grained limestone, speckled chert, and ostracods	320	325
Gray, medium-grained limestone	325	330
Light-gray, medium- to coarse-grained, highly fossiliferous limestone	330	335

<i>Lithology</i>	<i>From</i>	<i>To</i>
Light-gray, medium- to coarse-grained limestone	335	340
Light-gray, medium-grained limestone	340	345
Light-gray, medium- to coarse-grained, partly oolitic, fossiliferous limestone	345	350
Light-gray, medium to coarse-grained limestone	350	355
Light-gray, medium-grained limestone—75%; white to dove-gray, fine-grained, limestone (Zone "B" Lithology)—25%	355	360
Gray and white to dove-gray, fine-grained limestone (Zone "B" lithology)	360	365
No samples	365	370
Gray and white to dove-gray, fine-grained, limestone (Zone "B" lithology)	370	375
As above, with some dark-gray, fine-grained limestone	375	380
Dark-gray, fine-grained, limestone	380	400
Dark-gray, fine-grained limestone, and ostracods	400	405
Dark-gray, fine-grained limestone	405	440
Dark-gray, fine-grained limestone, slightly dolomitic	440	450
Dark-gray, fine-grained, limestone	450	495
Gray to dark-gray, fine-grained limestone	495	500
Dark-gray, fine-grained limestone	500	535
Gray to light-gray, fine-grained, magnesium limestone (Zone "B" lithology)	535	545
Dark-gray, fine-grained limestone	545	560
Gray to light-gray, fine-grained limestone	560	565
Dark-gray, fine-grained limestone	565	575
Light-gray, fine-grained limestone	575	585
Dark-gray, fine-grained limestone	585	590
Light-gray and gray, fine-grained limestone, and pyrite	590	595
Light-gray and dark-gray, fine-grained limestone	595	600
Gray to dark-gray, fine-grained limestone	600	605
Gray, fine-grained, dolomitic limestone	605	615
Light-gray to gray, fine-grained limestone	615	620
Gray, fine-grained limestone	620	625
Light-gray, fine-grained, dolomitic limestone	625	630
Light tan-gray, sucrose dolomite	630	635
Light-gray, sucrose dolomite	635	640
Light-gray, sucrose dolomite and some fine-grained limestone	640	645
Gray, sucrose dolomite and some dolomitic limestone	645	650
Light-gray sucrose dolomite	650	655
Light-gray sucrose dolomite and dolomitic limestone	655	660
Light-gray, fine-grained dolomitic limestone	660	670
Light-gray, sucrose dolomite	670	675
White to light-gray, sucrose dolomite	675	685
White to light-gray, sucrose dolomite, with rounded and frosted quartz grains	685	690
White, sucrose dolomite with few rounded and frosted quartz grains	690	700
White sucrose dolomite	700	705
Light-gray sucrose dolomite	705	710
Light blue-gray, sucrose dolomite	710	725
Light-gray, sucrose dolomite	725	735
Light-gray, medium-grained dolomite	735	745
White, medium-grained dolomite, rounded and frosted quartz grains common	745	750
White, sucrose dolomite with few rounded and frosted quartz grains	750	755
Light blue-gray, medium-grained dolomite with few rounded and frosted quartz grains	755	770
Light blue-gray, medium-grained dolomite with few fragments blue-green shale	770	775
Light-gray, sucrose dolomite	775	780

<i>Lithology</i>	<i>From</i>	<i>To</i>
Light blue-gray, medium-grained dolomite, rounded and frosted quartz grains common	780	785
Light blue-gray, medium-grained dolomite, rounded and frosted quartz grains abundant	785	790
Dull-white, medium-grained dolomite	790	815
Light-gray, medium-grained dolomite	815	820
Dull-white, medium-grained dolomite	820	830
Light-gray, medium-grained dolomite	830	850
Light-gray, medium-grained, pyrite-speckled dolomite	850	855
Light-gray, medium-grained dolomite	855	860
Light-tan, medium-grained dolomite, with some angular, oolitic chert	860	870
Gray, fine-grained dolomite, with some blue-gray, dense, angular chert	870	880
Light-gray, medium-grained dolomite	880	900
Light-gray, medium- to coarse-grained dolomite	900	905
Light-gray, medium-grained dolomite	905	940
Gray, medium-grained dolomite. Milky, dense, angular chert	940	945
Light-gray, medium-grained dolomite. Dense, milky chert	945	950
Light-gray, medium-grained dolomite	950	960
Light-gray, medium-grained dolomite, with some dead-white, dolomitic chert	960	965
Tan-gray, medium-grained dolomite	965	970
Light-gray, medium-grained dolomite	970	985
Light-gray, medium-grained, dolomite, with some pale-green shale	985	990
Light-gray, fine-grained dolomite	990	1000
Gray, medium-grained dolomite	1000	1010
Light-gray, medium-grained dolomite	1010	1015
Gray, medium-grained dolomite	1015	1020
Light tan-gray, medium-grained dolomite. Some pale-green shale	1020	1025
Light tan-gray, medium-grained dolomite	1025	1030
Light-gray, medium-grained dolomite	1030	1035
Light-gray, medium-grained dolomite. Some pale-green shale	1035	1040
Light-gray, medium-grained dolomite	1040	1050
Tan-gray, medium-grained dolomite, with some green shale	1050	1060
Light tan-gray, medium-grained dolomite, with some pale-green shale	1060	1065
Tan-gray, medium-grained dolomite with some dark-green shale and light-colored angular chert	1065	1070
Tan-gray, medium-grained dolomite and some dark-green shale	1070	1080
Light-gray, medium-grained dolomite	1080	1085
Dull-white, medium-grained dolomite and pale-green shale	1085	1100
Dull-white, medium-grained dolomite and pale-green shale, speckled with pyrite	1100	1105
Tan-gray, medium-grained, dolomite, with abundant pyrite, speckled with pale-green shale and light-colored angular chert	1105	1110
Dull-white, medium-grained dolomite	1110	1145
Light-gray, medium-grained dolomite	1145	1150
Light-gray and dull-white, medium-grained dolomite	1150	1155
Light-gray, medium-grained dolomite	1155	1190
Dull-white, medium-grained dolomite	1190	1205
Light-gray, medium-grained dolomite	1205	1220
Dull-white, medium-grained dolomite	1220	1230
Light-gray, medium-grained dolomite	1230	1265
Dull-white, medium-grained dolomite	1265	1270
Light-gray, medium-grained dolomite	1270	1280
Light-gray, medium-grained dolomite	1280	1290
Tan-gray, medium-grained dolomite	1290	

<i>Lithology</i>	<i>From</i>	<i>To</i>
Light-gray, medium-grained dolomite	1290	1295
Light tan-gray, medium-grained dolomite	1295	1300
Light-gray, medium-grained dolomite	1300	1305
Light tan-gray, medium-grained dolomite	1305	1315
Tan-gray, medium-grained dolomite	1315	1320
Tan-gray and dull-white, medium-grained dolomite	1320	1325
Light-gray, medium-grained dolomite	1330	1350
Dull-white, medium-grained dolomite	1350	1375
Light-gray, medium-grained dolomite	1375	1380
Gray, medium-grained dolomite	1380	1385
Light tan-gray, medium-grained dolomite	1385	1390
Light blue-gray, sucrose dolomite	1390	1400
Light blue-gray, medium-grained dolomite	1400	1410
Light tan-gray, coarse-grained, speckled, cherty dolomite	1410	1415
Light tan-gray, coarse-grained dolomite	1415	1425
Light-gray, medium-grained dolomite	1425	1430
Dull-white, medium-grained dolomite	1430	1435
Dull-white, medium- to coarse-grained dolomite	1435	1455
Dull-white to tan-gray, medium-grained dolomite	1455	1460
Light-gray, medium-grained dolomite	1460	1470
Gray, medium-grained dolomite	1470	1480
Tan-gray, medium-grained dolomite	1480	1485
Light tan-gray, medium-grained dolomite	1485	1500

HAYWOOD COUNTY

E. R. Henderson et al, J. H. JARRETT No. 1-B

(Map Number—1)

Location: NW SW Sec. 5, 12S—4E

Elevation: 417'

Date: 1936

Total depth: 4202'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface clay	0	25
Sand and clay	25	75
Gumbo, white	75	110
Water sand	110	155
Gumbo, sandy	155	320
Water sand	320	325
Sand and gumbo	325	530
Sand and gravel	530	560
Gumbo and shale	560	580
Rock, boulder	580	581
Shale	581	605
Gumbo and boulders	605	725
Boulder	725	726
Gumbo and boulders	726	745
Shale and lime	745	980
Gumbo, tough, green	980	1250
Shale, micaceous, and lignite	1250	1325
Shale, black	1325	1342
Sand and lime	1342	1345
Gumbo and shells	1345	1366
Sand, lime and lignite	1366	1369
Rock	1369	1372
Sand and shale, hard	1372	1379
Shale, sand, and lime	1379	1415

<i>Lithology</i>	<i>From</i>	<i>To</i>
Rock	1415	1419
Shale and lime	1419	1452
Rock	1452	1456
Lime and shale	1456	1480
Sand and shale	1480	1482
Hard shale, micaceous	1482	1495
Shale, gummy	1495	1561
Cap rock	1561	1561½
Hard sand, shale, lignite	1561½	1566
Shale and sand	1566	1580
Rock	1580	1583
Shale, sandy	1583	1589
Rock	1589	1590
Shale	1590	1605
Cap rock	1605	1606
Sand and blue shale	1606	1611
Sand and shale	1611	1628
Rock, broken	1628	1635
Shale, sandy	1635	1642
Shale, gummy	1642	1664
Gumbo, tough	1664	1672
Shale	1672	1680
Gumbo, tough	1680	1688
Rock	1688	1691
Shale, sandy	1691	1705
Sand, micaceous	1705	1712
Shale, hard, sandy, with sand	1712	1746
Shale, hard	1746	1762
Shale, gummy	1762	1812
Gumbo, tough, blue	1812	1930
Gumbo, tough, blue, sandy	1930	1990
Gumbo, tough, blue	1990	2065
Shale with sand	2065	2095
Shale	2095	2115
Hard cap rock	2115	2116
Shale, hard, sandy	2116	2135
Shale	2135	2155
Cap rock	2155	2156
Lime, hard	2156	2456
Shale, chert, and lime	2456	2500
Lime, soft	2500	2650
Chert and lime	2650	3085
Lime and light- and dark-gray chert	3085	3105
Shale, black	3105	3225
Lime, light-gray, medium-hard, with chert	3225	3240
Lime, hard, with iron pyrites	3240	3285
Lime, dark-gray, crystalline, with brown chert	3285	3290
Lime, white, brittle, crystalline	3290	3305
Lime, brown, with gray chert	3305	3340
Lime, brown, white, and gray	3340	3400
Chert, gray and white	3400	3450
No record	3450	3500
Lime, light-gray and white, firm	3500	3510
Shale, light-brown, firm	3510	3650
Lime	3650	3675
Chert and lime	3675	3700
Lime, sandy	3700	3750
Lime, crystalline	3750	3810
Chert and iron pyrite	3810	3960
Chert and lime		

HENDERSON COUNTY

<i>Lithology</i>		
Lime, sandy	From	To
CASING RECORD:	3960	4201
10" set @ 560		
7" set @ 2156		

SAMPLE DESCRIPTION

<i>Lithology</i>	From	To
Limestone, medium-gray, dense to fine-grained, relatively pure		
Limestone, same as above	2518	2475
Limestone, same as above		2525
Limestone, same as above		2525
Limestone, same as above, with some white calcite		2600
Limestone, light- to medium-gray, fine-medium grained, with abundant white calcite	2645	?
Limestone, medium-dark gray, fine-grained		2685
Limestone, same as above, with some pyrite		2700
Limestone, same as above		2775
Limestone, same as above		2800
Limestone, same as above, with abundant white calcite	2480	2825
Limestone, same as above		2850
Limestone, dark-gray, fine-grained		2850
Limestone, medium- to dark-gray, dense to fine-grained		2875
Dolomite, gray to tan-gray, medium- to coarse-grained, with some medium-gray, fine-grained limestone		2900
Dolomite and limestone, same as above, with coarse white calcite		2950
Sandstone, reddish-brown, medium grained, very hard, quartzitic	3340	3290
Dolomite, gray and brown, medium- to coarse-grained, hard, with abundant white calcite (Core)		3350
		4200

STRATIGRAPHIC INTERPRETATION

Tertiary system	0	1250
Grenada and Holly Springs formations	0	980
Porters Creek clay	980	1250
Upper Cretaceous system	1250	2156
Ripley formation	1250	1930
Selma formation	1930	2065
Eutaw formation	2065	2156
Paleozoic rocks	2156	4202
Stones River group	2475	2950
Pre-Stones River	2950	4202

HENDERSON COUNTY

City of Lexington Water Well

(Map Number—1)

Location: SE NE NW Sec. 7, 11S—14E

Elevation: 484'

Date: ?

Total depth: 510'

DRILLER'S LOG

<i>Lithology</i>	From	To
Red clay and water-bearing sand	0	110
Indurated marl	110	140
Black clay	140	300
Fossiliferous clay	300	500
Dark-gray water sand	500	510

HENRY COUNTY

Louisville & Nashville Railroad, WATER WELL No. 4

(Map Number—1)

Location: SE NW NE Sec. 11, 3S—14E

Elevation: 489'

Date: ?

Total depth: 419'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy soil	0	59½
Sand rock	59½	63½
Clay	63½	190
Shale and clay	190	210½
Fine white sand	210½	230½
Clay (gumbo)	230½	240½
Sand	240½	258½
Clay	258½	280½
Red sand	280½	303½
White sand with clay	303½	325½
White sand and clay, less clay than preceding 22'	325½	355½
Black, plastic clay	355½	365½
White sand and clay	365½	413½
Black, stiff clay	413½	417½

HICKMAN COUNTY

Overby et al, FRANK OVERBY No. 1

(Map Number—1)

Location: SW NE NW Sec. 9, 10S—24E

Elevation: 645'

Date: 1955

Total depth: 1269'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, tan, fine-grained; scattered shale particles	484	489
Limestone, light-brown, coarse-grained, fossiliferous; considerable heavy residue; some fluorescence; good porosity Show of oil	489	494
Limestone, light-brown, coarse-grained, fossiliferous; some heavy residue; some fluorescence Show of oil	494	499
Limestone, light-brown, fine-grained with coarse-grained material; slightly fossiliferous; few particles have heavy residue	499	504
Limestone, light-brown, coarse-grained; good porosity; some residue	504	509
Limestone, light-brown, coarse-grained	509	514
Limestone, brown, fine-grained	711	716
Limestone, brown, fine-grained, crystalline; some medium-fine grained, dolomitic limestone; brown chert; some residue	716	723
Slight show of oil		
Limestone, brown, fine-grained, crystalline, with scattered shale particles	723	729
Limestone, brown, fine-grained	729	734
Limestone, light-brown, fine-grained	734	754
Limestone, whitish-tan, fine-grained	1090	1095

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	1095	1100
Limestone, brown, fine-grained	1100	1110
Limestone, light, fine-grained, crystalline	1110	1115
Limestone, brown, fine-grained, crystalline	1115	1120

HOUSTON COUNTY

B. A. Eubanks, C. N. PHILLIPS No. 1

(Map Number—1)

Location: NW SW NW Sec. 17, 3S—21E

Elevation: 650'

Date: 1942

Total depth: 1502'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	3
Clay and gravel	3	70
Boulders	70	76
Blue, sandy lime	76	84
Gray lime	84	94
Lime, blue, sandy	94	212
Lime, blue and gray	212	313
Lime, dark-gray	313	351
Shale, brown	351	409
Lime, gray	409	427
Lime, gray, sandy	427	449
Lime, gray	449	531
Shale and lime shells	531	549
Red rock	549	551
Lime, gray and blue	551	558
Lime, gray	558	575
Lime, gray and pink	575	585
Lime, gray and blue	585	595
Lime, blue	595	601
Lime, pinkish (white and gray)	601	629
Lime, gray and pink	629	635
Lime, gray and blue	635	645
Lime, pink, gray, and blue	645	665
Lime, gray and blue	665	676
Lime, blue	676	706
Lime, red and gray	706	787
Lime, gray	787	791
Lime, red and gray	791	815
Lime, gray	815	826
Lime, red and gray	826	845
Lime, gray and brown	845	855
Lime, gray	855	883
Shale	883	885
Lime, gray	885	897
Lime, blue	897	914
Chert	914	926
Lime, blue	926	938
Lime, black	938	1037
Shale	1037	1072
Lime	1072	1075
Lime, black	1075	1120
Lime, blue	1120	1130
Lime, gray	1130	1140
Lime, brown and gray	1140	1502

SAMPLE DESCRIPTION		From	To
<i>Lithology</i>			
Chert, light-colored, dense, residual		5	55
Samples missing		55	75
Chert, light-colored, dense, residual, stained with yellow iron oxide		84	93
Limestone, light-gray, coarse-grained, to a limestone, dirty-white, coarse-grained; chert, gray, dense		93	100
Limestone, light-gray, fine- to coarse-grained, silty; chert, gray, dense		100	110
Limestone, gray, silty; chert, gray, dense		110	120
Limestone, dark-gray, silty, siliceous; chert, gray, dense; 50% shaly		120	180
Limestone, dark-gray, silty, siliceous		180	185
Limestone, gray, medium-grained, silty, and shale, gray, calcaceous; chert, gray		185	190
Limestone, gray, fine-grained, silty, siliceous; chert, gray-blue, dense, angular 50%		190	195
Limestone, gray, silty (better limestone); chert 50%, gray-blue, dense		195	200
Limestone, tan-gray, siliceous; chert, light-gray (fossiliferous?)		200	205
Limestone, tan-gray, subcrystalline, siliceous, silty, and chert, light-gray (fossiliferous)		205	235
Limestone, gray, fine-grained, siliceous, and chert, dark-gray, dense, pyritic; chert, light-gray, fossiliferous		235	260
Limestone, tan-gray, fine- to medium-grained, siliceous; chert, blue-gray, dense, fossiliferous		260	285
Limestone, dark- to light-gray, siliceous, silty; chert, dark-gray, dense, fossiliferous		285	290
Limestone, light-gray, argillaceous, medium-grained; limestone, dark-gray, fine-grained, siliceous, silty; and chert, dark blue-gray, dense		290	300
Limestone, light-tan, sucrose, argillaceous, medium-grained; much shows replacement by white chert; chert, light-gray to white		300	305
Limestone, light-gray to dark-gray, siliceous, silty; chert, dark-gray, dense		305	315
Limestone, dark-gray, silty, siliceous, fine-grained; chert, dark-gray		315	320
Limestone, tan to dark-gray, fine-grained, silty, siliceous; shale, light-tan		320	325
Limestone, tan to dark-gray, fine-grained, silty, siliceous; shale, light-tan, but more argillaceous		325	335
Limestone, tan to dark-gray, fine-grained, silty, siliceous; shale, light-tan, but more argillaceous, with white, vitreous quartz		335	350
Siltstone, dark-gray		350	355
Shale, light-green, silty		355	370
Shale, light-green; shale, black, fissile, pyritic; limestone, light-gray, fine-grained, siliceous		370	375
Shale, green, silty; shale, black-brown, silty		375	380
Shale, brown-black, silty		380	405
Shale, brown-black, silty; pyrite; and chert, some light-gray		405	410
Chert, white to buff, dense, with crystals of calcite; limestone, light-tan, sucrose; chert, dolocastic		410	420
Chert, white to buff, dense, with crystals of calcite; limestone, light-tan, sucrose; chert, dolocastic; limestone, gray, subcrystalline; glauconite		420	425
Chert, white to buff, dense, with crystals of calcite; limestone, light-tan, sucrose; chert, dolocastic; limestone, gray, subcrystalline; glauconite. Limestone increases		425	430

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chert, white to buff, dense, with crystals of calcite; limestone, light-tan, sucrose; chert, dolocastic; limestone, gray, subcrystalline; glauconite	430	435
Limestone, white, coarse-grained, glauconitic and pyritic; chert, white, dolocastic	435	445
Limestone, buff-colored to white; chert, milky-white and dolocastic	445	450
Limestone, white-grayish, subcrystalline; shale, gray; chert, white, dolocastic	450	455
Limestone, light-tan to gray, coarse-grained; chert, buff-colored, rough, dolocastic	455	480
Limestone, light-gray to buff, subcrystalline, siliceous; chert, light-buff, rough, dolocastic; slightly more argillaceous	480	485
Limestone, light-gray to buff, subcrystalline, siliceous; chert, light-buff, rough, dolocastic; slightly more argillaceous, glauconitic, very little chert	485	495
Limestone, light-gray to buff, subcrystalline, siliceous; chert, light-buff, rough, dolocastic; slightly more argillaceous, glauconitic, with chert, buff, dolomitic	495	500
Limestone, light-gray to buff, subcrystalline, siliceous; chert, light-buff, rough, dolocastic; slightly more argillaceous, glauconitic	500	518
Limestone, light-gray to buff, subcrystalline, siliceous; chert, light-buff, rough, dolocastic; slightly more argillaceous, glauconitic; shale, gray	518	525
Limestone, light-gray to buff, subcrystalline, siliceous; chert, light-buff, rough, dolocastic; slightly more argillaceous, glauconitic shale, gray and glauconite increasing; pyritic; and limestone and chert, more tan in color	525	530
Limestone, greenish-gray and white; shale, greenish-gray, fossiliferous; chert, white, frosted; very glauconitic and pyritic	530	535
Limestone, gray, fine-grained, granular, earthy, and shale, pyritic, and fossiliferous (brachiopods and bryozoa)	535	540
Shale, greenish-gray; limestone, earthy to pure white, fossiliferous, pyritic	540	545
Limestone, white, green, and medium-argillaceous; shale, green and gray, fossiliferous	545	550
Limestone, buff to pink, coarse-grained; shale, green and gray	550	555
Limestone, white and pinkish, coarse-grained, and limestone, greenish-gray, siliceous	555	560
Limestone, white and pinkish, coarse-grained; limestone, greenish-gray, siliceous; and shale, green	560	565
Limestone, white, coarse-grained; limestone, greenish-gray, siliceous; shale; and chert, dull-white	565	570
Limestone, white to pinkish; shale, light-gray to greenish, calcareous, siliceous; chert, milky	570	590
Limestone, grayish-bronze, coarse-grained; limestone, greenish, siliceous; and shale	590	595
Limestone, white to greenish-gray, granular, siliceous; shale, greenish-gray; and chert, gray-blue	595	600
Limestone, bronze, pinkish, and white, and shale, greenish-gray	600	605
Limestone, pinkish to white, and shale, light-gray to greenish-gray (very small amount)	605	610
Limestone, bronze to white, crystalline; no chert; very little shale, greenish	610	635
Same, pyritic	635	640
Limestone, white, pinkish, and yellowish, crystalline, and shale, greenish	640	645
Limestone, yellowish and greenish, siliceous, and shale, red.	645	650

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, yellowish, red, and greenish, siliceous, crystalline, and shale, red and green	650	660
Limestone, white, subcrystalline; limestone, greenish-gray, siliceous, granular; limestone, yellow; shale, yellow; and chert, milky-white	660 665	665 670
Limestone, white, subcrystalline, and chert, milky, smooth		
Limestone, bronze to white, crystalline, and shale, gray, red, green, bronze	670	675
Limestone, tan-gray, argillaceous, subcrystalline; shale, greenish-gray and white; pyritic	675 680	680 700
Limestone, greenish-gray to dull-white, siliceous, granular		
Limestone, dull-white, subcrystalline, and shale, greenish, silty (siltstone)	700 705	705 710
Siltstone, green, and shale increase; shale has a purplish hue	710	715
Same, with chert, bluish-gray		
Siltstone, green, and shale increase; shale has a purplish hue, with shale, red	715 720	720 725
Siltstone, red and green	725	730
Siltstone, red and green, with chert, blue-gray		
Siltstone, red and green, with limestone, pink and greenish, siliceous, and limestone, white, subcrystalline	730	735
Siltstone, red and green, with limestone, pink and greenish, siliceous; limestone, white increase	735 740	740 745
Samples missing		
Siltstone, red and green, and limestone, greenish-dull-white, pink, siliceous	745	760
Siltstone, red and green, and limestone, greenish, dull-white, pink, siliceous, lighter in color; shale going to a limestone	760	765
Siltstone, red and green, and limestone, greenish, dull-white, pink, siliceous, lighter in color, crinoidal and fossiliferous	765	770
Limestone, pink, fine-grained, argillaceous, crinoidal, and ostracods	770 775	775 780
Limestone, pink, fine-grained, argillaceous	780	785
Limestone, pink and light gray-green, argillaceous		
Shale, greenish and red and limestone, light-gray to white, pinkish, greenish, siliceous (fossiliferous)	785	790
Limestone, pinkish, coarsely crystalline, fossiliferous; shale, greenish and bronze; ostracods, and fossiliferous	790 800	800 805
Limestone, bronze, pink, and greenish, granular, siliceous	805	810
Samples missing		
Limestone, bronze, pink, and greenish, granular, siliceous; very little pink limestone	810	815
Limestone, dull-white to light-gray, subcrystalline; shale, white and greenish, calcareous, silty	815	820
Limestone, light-gray, with limestone, red-brown, subcrystalline, argillaceous, and shale, red-brown, fossiliferous	820 825	825 830
Limestone, red, and shale increase; shale, green		
Siltstone, red-brown; limestone, very little, light-gray, siliceous, subcrystalline, crinoidal	830	840
Siltstone, red-brown; very little limestone, light-gray, siliceous, subcrystalline, crinoidal; limestone, light-gray, fine-grained, crystalline; limestone, light-tannish, subcrystalline; and chert, milky, pyritic	840	848
Limestone, gray-brown, coarse-grained; limestone, dull-white and greenish-gray, subcrystalline, glauconitic; chert, brown and brownish-blue, blended; pyritic	848	855
Limestone, light-gray to gray, fine-grained; chert, brown and brownish-blue, blended; pyritic	855	860
Limestone, light-gray to gray, fine-grained, glauconitic, and chert	860	865

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, tannish-gray, subcrystalline to sucrose; chert, tannish-gray, homogeneous, rough	865	870
Limestone, light-pink to white, coarsely crystalline	870	875
Limestone, tan-white, coarse-grained; limestone, gray; and shale	875	880
Limestone, tan-white, coarse-grained; limestone, gray; shale; and limestone, with gray, granular, calcareous siltstone	880	885
Limestone, white and gray (mottled), coarse-grained; siltstone, gray, calcareous, pyritic	885	900
Siltstone, light-gray to gray	900	908
Limestone, light-gray to black, argillaceous, containing blebs of phosphate or glauconite	908	914
Shale, light-gray to black, calcareous; limestone, argillaceous, phosphate (?); chert, dark-gray, speckled	914	922
Shale, dark-gray, black, silty	922	930
Shale, light-tan to dark-gray, and limestone, argillaceous, phosphatized	930	940

HUMPHREYS COUNTY

Humphreys Oil & Gas Co., M. W. PLANT No. 1

(Map Number—1)

Location: SE (?) NE Sec. 13, 6S—20E

Elevation 370'

Date: 1919

Total depth: 700'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Alluvium		
Gravel	0	40
Conductor to 14'		
Mississippian system		
Blue lime	40	45
Blue mud (shaly lime?)	45	55
Gravel and water (cavity?)	55	65
Yellow mud (shaly lime?)	65	100
Gravel and water (cavity?)	100	121
Reduced hole from 12½" to 10"		
Yellow mud (shaly lime)	121	175
Gravel and water (cavity?)	175	200
Set 8½" casing @ 200		
Blue slate (shale)	200	280
Set 6¼" casing @ 250		
Gray, sandy lime	280	282
Light-brown, sandy lime with show of gas	282	290
Sandy lime	290	382
Reddish and black sandy lime	382	483
Top of shale (Chattanooga?) at		483
Show of gas		

Tennessee Oil & Gas Co., G. T. & J. W. ANDERSON No. 1
(Map Number—2)

Location: SW NW Sec. 20, 7S—20E (?)

Elevation: 474' (?)

Date: 1921

Total depth: 2000' ±

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mississippian system		
Earth	0	5
Slate, bluish-black, hard	5	30
Chattanooga black shale	30	50
Silurian system (?)		
Sand, gray, hard	50	245
Lime and dark-blue shale	245	260
Lime, pink	260	370
Lime, white	370	375
Lime, and green shale	375	400
Lime, white	400	420
Lime, pink	420	470
Lime, brown, hard	470	500
Ordovician system (?)		
Shale, green, soft	500	505
Lime, brown, hard	505	540
Lime, brown, flinty	540	590
Lime, black, sandy, flinty	590	650
Shale, black, soft	650	710
Lime, brown	710	800
Lime, grayish-brown, hard	800	1380
Lime, grayish-brown	1380	1470
Lime, white, sandy, magnesian	1470	1500
Lime, gray and white, sandy	1500	1575
Sand, white (St. Peter)	1575	1580
Salt and Blue Lick water		
Lime, blue, shaly, sandy	1580	1650
Lime, gray, shaly, magnesian	1650	1700
Lime, gray and brown, shaly	1700	1800
More water @ 1700		
Lime, brown and white, sandy, very hard	1800	1965
More water @ 1940		

Chemical analysis of cuttings @ 1712' (J. D. Hinds, analyst):

Calcium carbonate	42.05%
Magnesium carbonate	32.48
Iron and aluminum	2.00
Insoluble (silicates)	22.54
Moisture	0.24
Undetermined	0.69
	100.00%

JACKSON COUNTY

Ohio Oil Company, J. T. QUARLES No. 1

(Map Number—1)

Location: SE SW NW Sec. 24, 2S—47E

Elevation: 625'

Date: 1927

Total depth: 1005'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray	50	90
Lime, blue	90	95
Gas		
Lime, gray	95	125
Lime, brown	125	156
Lime, gray	156	172
Lime, black	172	230
Mud Cave, blue	230	235
Lime, gray	235	240
Lime, green	240	243
Pencil Cave		
Lime, gray and brown	243	408
Lime, brown and gray	408	505
Gas @ 473		
Lime, brown	505	545
Gas @ 533		
Lime, black	545	600
Lime, blue and brown	600	900
Lime, black	900	954
Lime, gray	954	1005

Ohio Oil Company, G. M. FLYNN No. 1

(Map Number—2)

Location: NE NE NE Sec. 16, 1S—48E

Elevation: 575'±

Date: 1927

Total depth: 561'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	16
Lime, blue, soft	16	100
Lime, brown ("Upper Sunnybrook")	100	115
Lime, brown, hard	115	165
Lime, blue, soft	165	170
Lime, brown, hard	170	212
Lime, gray, hard	212	232
Sulphur water		
Lime, brown, hard	232	248
Lime, blue, soft	248	292
Puff of gas @ 276		
Lime, hard, gray ("Mud Cave")	292	312
"Pencil Cave"		
Lime, blue, soft	312	314
Lime, blue, hard	314	321
Lime, blue, soft	321	344
Lime, brown, hard	344	373
Lime, gray, hard	373	381
Lime, brown, hard	381	401
Lime, brown, hard	401	453
Lime, blue, soft	453	561

Celina Oil & Gas Co., RAD HAWKINS No. 7
(Map Number—3)

Location: SW Sec. 17, 1S—47E

Elevation: 550'

Date: 1927

Total depth: 1202'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Ordovician system		
Soil	0	2
Clay, yellow	2	32
Lime, gray	32	37
Set 8 1/4" casing @ 37		
Clay, yellow	37	40
Lime, blue and gray	40	110
Lime, white	110	120
Water		
Lime, brown, sandy	120	130
Gas		
Lime, gray and brown	130	165
"Upper Sunnybrook"	165	180
Lime, black, shelly	180	215
"Anderson sand," brown	215	225
Lime, white, sandy	225	237
Gas		
Lime, gray	237	287
"Lower Sunnybrook"	287	322
Lime, blue	322	372
Lime, gray	372	387
Lime, blue and gray	387	422
"Mud Cave," black	422	425
Lime, gray	425	432
"Pencil Cave"	432	434
Lime, brown and white	434	469
Set 6 1/4" casing @ 436		
Lime, gray, sandy	469	484
Gas		
Lime, brown	484	489
Lime, brown, sandy	489	509
Oil		
Lime, blue and gray	509	619
Lime, white, sandy	619	634
Gas		
Lime, gray and brown	634	804
Lime, brown, sandy	804	824
Gas		
Lime, gray and brown	824	899
Lime, white, sandy	899	906
Gas		
Lime, gray and brown	906	968
Lime, gray, sandy	968	1008
Oil		
Lime, brown	1008	1034
Lime, gray, sandy	1034	1054
Gas		
Lime, brown	1054	1079
Lime, gray, sandy	1079	1089
Oil		
Lime, brown and gray	1089	1184
Gas @ 1144		
Sand, white	1184	1202
Black sulphur water		

Ohio Oil Company, N. P. REED No. 1
(Map Number—4)

Location: SE NW SE Sec. 25, 2S—47E

Elevation: 585'

Date: 1927

Total depth: 573'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Ordovician system		
Lime, gray, hard	0	125
Water @ 40 and 72		
Lime, blue, soft	125	165
Lime, black, soft	165	185
Mud Cave	185	190
Lime, gray, hard	190	206
Pencil Cave	206	209
Lime, blue, hard	209	219
Set casing @ 215		
Lime, gray, hard and soft, brown	219	556
Small puff of gas @ 505		
Lime, brown, hard	556	566
Lime, gray, hard	566	573

Wittmer Oil & Gas Co., J. J. FUQUA No. 1
(Map Number—5)

Location: NE NW NW Sec. 13, 3S—46E

Elevation: 590'

Date: 1927

Total depth: 1020'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark blue-gray, dense	0	175
Limestone, light-gray, dense	175	185
Limestone, light-gray, finely-granular to dense, pyritic	185	205
Limestone, light to dark blue-gray, fine-grained to dense, with thin shaly layers	205	925
Pencil Cave; bright-green, sticky, micaceous clay, very thin ..		925
Limestone, very light gray to white, very fine grained	925	945
Limestone, dark-brown, coarsely-granular, pyritic	945	955
Limestone, light- to dark-gray, very finely granular to dense ..	955	1020

White Plains Oil Co., SMITH CARVER No. 1
(Map Number—6)

Location: NW SW SW Sec. 18, 1S—47E

Elevation: 525'

Date: 1927

Total depth: 600'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pencil Cave	227	
Lime, brown	229	
Lime, gray	237	237
Lime, black	327	327
		473

CASING:

Set 6¼" casing @ 217½

Wittmer Oil & Gas Co., CLAY BURNS No. 1
(Map Number—7)

Location: NE SE NW Sec. 6, 3S—46E
Date: 1927

Elevation: 500'
Total depth: 425'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	30
Mud Cave	113	121
Pencil Cave	123	125
Set casing to 128		168
Sand, sulphur water at		195
Reset casing to 180		242
More sulphur water at		272
Small show of oil at		286
Gas blow-out at		286
More gas at		286

J. R. Medlen Oil Co., R. L. MEADOWS No. 1
(Map Number—8)

Location: SW SE NW Sec. 6, 2S—47E
Date: 1929

Elevation: 530'
Total depth: 1250'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Ordovician system		170
Lime, dark bluish-brown, shaly, fine-grained to dense...	0	
Set 8" casing @ 42½		
Fresh water @ 87		
Show of oil @ 102		
Lime, very dark, blue-gray, finely-crystalline to dense....	170	235
Clay, light blue-gray (Mud Cave)	235	240
Lime, light to dark blue-gray, fine-grained to dense, pyritic	240	255
Pencil Cave, reported thin at		255
Lime, light to dark blue-gray, fine-grained to dense, pyritic	255	275
Set 6¼" casing @ 257		
Lime, light-gray to olive-drab, very fine grained to dense	275	310
Lime, light to dark blue-gray or olive-drab, very fine grained to dense	310	735
Show of oil @ 337 and 385		
Lime, very light gray to white, very finely granular to dense	735	760
Lime, dark blue-gray to olive-drab, fine-grained to dense	760	985
Show of oil @ 940		
Lime, very light gray to white, finely granular to dense..	985	1005
Green lime		
Lime, bright-green, shaly, very finely granular	1005	1040
St. Peter		
Lime, light and dark-brown and gray or olive-drab, finely granular, with abundance of iron-stained chert and numerous rounded, glassy white or milky quartz grains	1040	1200
Lime, very light gray to white, very finely granular to dense	1200	1250

<i>Lithology</i>	SAMPLE DESCRIPTION	
	<i>From</i>	<i>To</i>
Limestone, dark bluish-brown, shaly, fine-grained to dense, with light-colored streaks	150	170
Limestone, very dark blue-gray, finely crystalline to dense	170	235
Clay, light blue-gray	235	240
Limestone, light and dark blue-gray, fine-grained to dense, with abundant tarnished pyrite at 260	240	275
Limestone, light-gray to olive-drab, very finely granular to dense or even lithographic	275	310
Limestone, light to very dark blue-gray or olive-drab, fine-grained or crystalline to dense	310	735
Limestone, very light gray, nearly white, very finely granular to dense	735	760
Limestone, very dark blue-gray or olive-drab, very fine grained to dense	760	985
Top of Knox dolomite (?)		
Limestone, very light gray to white, finely granular or sugary to dense	985	1005
Limestone, bright-green, shaly, very finely granular or sugary	1005	1040
Limestone, light- and dark-brown and gray to drab, very finely granular or sugary, with abundance of iron-stained chert, and numerous rounded, glassy, white or milky quartz grains	1040	1200

S. G. Kennedy & Co., J. G. MONTGOMERY No. 1
(Map Number—9)

Location: SW NE SW Sec. 5, 4S—48E

Elevation: 860'

Date: 1936

Total depth: 820'

<i>Lithology</i>	DRILLER'S LOG	
	<i>From</i>	<i>To</i>
Surface, rocks and clay	0	12
Ft. Payne chert	12	53
Devonian shale	53	76
Lime, blue and gray	76	167
Gas @ 90—blew 80' water out of hole		
Lime, brown, hard	167	175
Lime, dark-gray	175	200
Gas @ 195 (light)		
Lime, light-brown	200	220
Lime, dark-blue	220	244
Lime, light-brown	244	254
Lime, dark-blue	254	333
Lime, light-brown	333	348
Lime, light-gray	348	387
Lime, blue	387	415
Lime, black with white specks	415	432
Lime, gray and black	432	454
Lime, blue, hard	454	470
Lime, dark-blue	470	498
Pencil Cave, black	498	503
Lime, dark-gray	503	515
Lime, gray	515	526
Green Pencil Cave	526	528
Lime, light-brown	528	574
Lime, brown, hard	574	668
Lime, gray	668	731
Lime, dark-brown	731	760
Lime, brown, hard	760	795
Lime, brown, medium	795	811

W. F. Carter et al, THOMAS SCANTLAND No. 1
(Map Number—10)

Location: SE SW SE Sec. 21, 1S—47E
Date: 1937

Elevation: 617'
Total depth: 1443'

DRILLER'S LOG

Lithology	From	To
Base of Chattanooga 742' elevation above sea level, 250 yards east of well		
Casing head 617' elevation above sea level		
Sand, oil, gas, water	143	146
1/2 bbl. oil		
Sand, gas, salt water	350	353
Pencil Cave	376	387
Set 6 5/8" casing		387
Gas	553	556
Gas	824	827
Lime, gray, soft	1150	1156
Lime, green, soft	1156	1163
Good drilling		
Sandy lime, light-gray, soft	1163	1169
Good drilling		
Lime, brown, soft	1169	1175
Lime, shells, brown, hard	1175	1178
Very hard		
Lime, dark-brown, hard	1178	1184
Very hard		
Lime, brown, hard	1184	1190
Very hard		
Lime, flint, brown, hard	1190	1194
Very hard		
Lime, brown, trace of white, hard	1194	1197
Lime, brown, hard	1197	1200
Sandy lime, brown and white, hard	1200	1212
Lime, gray, hard	1212	1214
Lime, brown, hard	1214	1224
Lime, gray, hard	1224	1255
Lime, brown, hard	1255	1261
Lime, gray, soft	1261	1268
Lime, brown, soft	1268	1281
Lime, brown, medium	1281	1287
Lime, light-brown, medium	1287	1294
Lime and sand, brown and gray, hard and soft	1294	1299
Lime, gray and brown	1299	1307
One bailer per hour water, salt and sulphides exhausted.		
Lime, gray, medium	1307	1336
Lime, white, hard	1336	1342
Sandy lime, white and brown, hard and soft	1342	1348
Lime, brown, medium	1348	1353
Lime, light-brown, hard	1353	1360
Lime, gray, hard	1360	1365
Lime, blue, hard	1365	1371
Lime, brown, hard	1371	1379
Sand, gray, hard	1379	1393
Water @ 1389—two bailers per hour. Blue water, flat taste.		
Sand, very fine, gray, hard	1393	1398
More water		
Sand, gray, hard	1398	1407
Carrying water		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, fine, white, hard	1407	1411
Carrying water		
Sand, fine, white, hard	1411	1433
700' blue sulphur water		

After standing 12 hours, 1400 feet water in hole.

Pulled pipe and plugged December 18, 1937.

Set 6-inch wood plug on bridge at 940 feet, filled with rock and cuttings to 900 feet. Set wood plug and covered with 20 feet of rock and cuttings.

Set 8-inch plug at 200 feet with cover of rock and cuttings.

Set 8-inch plug at 100 feet with cover of rock and cuttings.

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light- to dark-gray, medium to coarsely crystalline, some brown to yellow crystalline calcite.....	125	133
Limestone, same (dirty sample)	133	141
Limestone, same	141	167
Limestone, sand, and few fragments of angular chert	167	175
Limestone, same (very dirty sample)	175	183
Limestone, same (no chert)	183	190
Limestone, same	190	196
Limestone, same (dirty sample)	196	201
Limestone, same	201	206
Limestone, same (very dirty sample)	206	212
Limestone, white and dark-gray, medium to coarsely crystalline, few chert fragments	212	218
Limestone, same	218	223
Limestone, same, fragments platy	223	230
Limestone, same, a little coarser crystalline	230	235
Limestone, same, and considerable crystalline calcite	235	241
Limestone, same (dirty sample)	241	247
Limestone, same	247	253
Limestone, same (typical Cannon)	258	265
Limestone, same (very dirty sample)	265	277
Limestone, same, white to dark-gray, coarsely crystalline....	277	283
Limestone, same, except medium-crystalline	283	289
Limestone, same	289	295
Limestone, light-brown to dark-gray, fragments very fine, finely crystalline; driller's "water sand"	295	301
Limestone, same, and some dark-gray, argillaceous limestone	301	307
Limestone, dark-gray, shaly, medium-crystalline, some disseminated pyrite, light-gray ground mass with chunks in it (limestone conglomerate)	307	313
Limestone, same, fragments smaller	313	319
Limestone, same	319	331
Limestone, dark-gray, shaly, medium-crystalline (conglomerate)	331	336
Limestone, same	336	358
Limestone, dark-gray, shaly, medium-crystalline (driller's Mud Cave)	358	363
Limestone, white to dark-gray, medium to coarsely crystalline	363	367
Limestone, white to dark-gray, coarsely crystalline, and some colorless quartz	367	372
Limestone, white to dark-gray, coarsely crystalline, some brown quartz, and Pencil Cave (light drab-green with biotite)	372	377
Limestone, light- to dark-brown, and Pencil Cave	377	381
Limestone, drab brown-gray, medium-crystalline	381	391

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, same, a little browner	391	394
Limestone, light-brown to yellow, finely crystalline, more Pencil Cave, and some coarsely crystalline limestone.....	394	404
Limestone, same, except no Pencil Cave	404	409
Limestone, white to cream, finely crystalline	409	414
Limestone, same, and some light bentonite (Pencil Cave)...	414	419
Limestone, same (dirty sample)	419	424
Limestone, same	424	429
Limestone, same, except darker brown	429	434
Limestone, light drab-brown, finely crystalline	434	459
Limestone, same, and some dark-brown, angular chert.....	459	464
Limestone, same, and considerable dark-brown and cream- colored, angular chert	464	469
Limestone, light- to medium-brown, fine- to medium- crystalline, some light-brown chert	469	474
Limestone, light- to medium-brown, fine- to medium- crystalline, some brown chert, some drab-gray chert, and one piece of dolocastic or calcicastic chert	474	480
Limestone, light-gray, medium-crystalline, no appreciable chert	480	497
Limestone, same, and some brown, angular chert.....	497	502
Limestone, brown to gray, finely crystalline, (dirty sample)...	502	599
Limestone, light-brown to dark-brown, finely crystalline....	599	605
Limestone, lighter brown, coarsely crystalline	605	610
Limestone, light-brown, finely crystalline	610	706
Limestone, dark gray-brown, finely crystalline, some light- brown limestone	706	716
Limestone, same, but lighter in color.....	716	721
Limestone, same	721	725
Limestone, same, and white to brown chert.....	725	731
Limestone, same, but no chert	731	737
Limestone, same, and some shaly limestone	737	743
Limestone, same, but no shaly limestone.....	743	750
Limestone, same	750	803
Limestone, same, except somewhat purer	803	809
Limestone, same, and few dark shale fragments.....	809	815
Limestone, same	815	854
Limestone, same, except addition of finely crystalline lime- stone, fragments fine	854	855
Limestone, same, but no brown limestone	855	860
Limestone, same (dirty sample)	860	865
Limestone, same	865	868
Limestone, same, and addition of finely crystalline brown limestone	868	876
Limestone, same, no brown limestone	876	882
Limestone, same (dirty sample)	882	907
Limestone, dark-gray, fine- to medium-crystalline	907	913
Limestone, dark gray-brown, finely crystalline	913	963
Limestone, dark-gray, finely crystalline	963	1057
Limestone, same, and some brown chert	1057	1067
Limestone, same	1067	1072
Limestone, drab light-gray, finely crystalline, and some dis- seminated pyrite	1074	1099
Limestone, same, and some disseminated pyrite	1099	1105
Limestone, drab-gray, finely crystalline	1105	1137
Limestone, same color, definitely dolomitic, granular, medium-crystalline	1137	1144
Limestone, same, dolomitic	1144	1150
Limestone, same, but a little darker gray.....	1150	1156
Limestone, same (dirty sample)	1156	1163
Dolomite, light-gray, medium-granular, crystalline	1163	1175

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chert and dolomite	1176	1178
Chert, milky, angular		?
Dolomite, light-brown, coarsely crystalline, and some green chert		?
Chert and dolomite; same chert, very angular	1178	1184
Dolomite, cream-colored, fine- to medium-crystalline, but granular	1184	1190
Dolomite, same, and some milk-white chert	1190	1194
Dolomite, cream to light-brown, coarsely crystalline; white chert, some dolocastic chert, and few green and black shale particles	1194	1197
Dolomite, light-brown, medium-granular, crystalline, white chert, and green dolomite	1197	1200
Dolomite, same	1200	1208
Dolomite, white to light-gray, medium-crystalline, rounded and pitted quartz grains, and some white chert	1208	1214
Dolomite, white to light-gray, medium-granular, crystalline	1214	1218
Dolomite, white to light-gray, medium-crystalline, and few dark shale fragments	1218	1224
Dolomite, same, except fragments larger	1224	1231
Dolomite, same, and blue-green bentonite material	1231	1234
Dolomite, light-gray, medium-granular, crystalline	1242	1255
Dolomite, same, and blue-green shale	1255	1261
Dolomite, same	1261	1268
Dolomite, light-brown, medium to coarsely crystalline, granular	1268	1275
Dolomite, medium-brown, coarsely crystalline, and blue-green shale	1275	1280
Dolomite, white, medium-crystalline, and few fragments of white chert	1280	1285
Dolomite, same, and blue-green shale or bentonite material	1285	1292
Dolomite, same (dirty sample)	1292	1299
Dolomite, same, and blue-green bentonitic material	1299	1307
Dolomite, white, coarsely crystalline, and few fragments of black shale	1307	1314
Dolomite, white, coarsely crystalline, and few particles of disseminated pyrite	1314	1328
Dolomite, same	1328	1335
Dolomite, white to light-brown, coarsely crystalline, some pyrite and green dolomite	1335	1338
Dolomite, same, and rounded quartz grains	1338	1343
Dolomite, light-brown, medium-crystalline, granular, and some pyrite	1343	1348
Dolomite, light-brown, coarsely crystalline	1348	1360
Dolomite, white, coarsely crystalline and some white, oolitic chert	1360	1365
Dolomite, same, no chert	1365	1371
Dolomite, light-brown, coarsely crystalline, and some pyrite	1371	1379

(Do not have samples to the bottom of the hole, 1443'.)

W. F. Carter et al, R. L. GOOLSBY No. 1
(Map Number—11)

Location: SE SE SW Sec. 25, 1S—48E

Elevation: 940'

Date: 1938

Total depth: 800'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dirt, brown, soft	0	3
Chert, gray, hard	3	55
Mixed hard-soft streaks, cherty		
Flinty lime, gray, hard	55	85
Water @ 68		
Flinty lime, gray, hard	85	133
Shale, green, soft	133	136
Shale, black, soft	136	158
Chattanooga shale		
Corniferous, gray, hard	158	168
Lime, soft, rotten, gray	168	183
Lime, gray, soft	183	200
Lime, gray, hard	200	210
Lime, soft, blue	210	230
Lime, gray, hard	230	245
Lime, dark-gray	245	270
Good drilling		
Lime, light-gray	270	280
Good drilling		
Lime, light-gray	280	290
Good drilling		
Gas blowout—blew cuttings @ 286		
Lime, light-gray, hard	290	305
Lime, light-gray, solid	305	315
Lime, dark-gray, solid	315	330
Lime, gray, solid	330	340
Lime, dark-gray, solid	340	355
Set 6 $\frac{3}{8}$ " casing @ 341		
Lime, dark-gray, hard	355	360
Gas blow @ 358—1st Sunnybrook (?)		
Lime, dark-gray, hard	360	460
Streaks of gas every few feet		
Lime, light-gray, hard	460	474
Gas—could not catch samples		
Lime, brown, hard	474	479
Gas @ 479—very wet		
Lime, brown, hard	479	484
Gas		
Lime, brown, hard	484	494
Gas blowout @ 489—cleaned hole		
Lime, gray, broken	494	504
Lime, gray, hard	504	525
Lime, gray	525	530
Gas blowout @ 528—cleaned hole, 12 hrs. Shut down for gas.		
Lime, gray, hard	530	535
Lime, blue, hard	535	544
Lime, gray, broken	544	548
Gas blowout @ 546—cleaned hole 2 hrs. 2nd Sunnybrook		
Lime, dark, hard	548	553
Lime, light-gray, hard	553	578
Lime, dark-gray, hard	578	583

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, dark-gray, hard and soft	583	591
Pencil Cave @ 588		
Lime, brown, hard and soft	591	596
Lime, light-gray	596	602
Good drilling		
Lime, brown-gray	602	608
Good drilling		
Lime, brown	608	614
Good drilling		
Lime, gray	614	625
Good drilling		
Lime, brown, hard	625	642
Flinty lime, brown, hard	642	673
Lime, brown, hard	673	685
Lime, light-gray, hard	685	704
Sandy streak of lime, dark, gray, hard	704	711
Small show of oil @ 711		
Lime, dark-brown, hard	711	717
Lime, light-gray, hard	717	722
Lime, brown, hard	722	725
Lime, dark-gray, hard	725	730
Mixed lime, gray, hard	730	735
Lime, gray, hard	735	740
Mixed lime, light-gray, hard	740	745
Mixed lime, dark-gray, hard	745	755
Lime, light-gray, hard	755	760
Gas @ 755-760		
Lime, dark-gray, hard	760	764
Gas @ 764 (6/14/38)		
Lime, light-gray, hard	764	770
Lime, dark-gray, hard	770	784
Lime, brown, hard	784	789
Gas @ 789		
Lime, gray, hard	789	796

Casing pulled.

W. F. Carter; Sam Weil, CLAY RICHARDSON No. 1

(Map Number—12)

Location: SW SE SE Sec. 25, 1S—48E

Elevation: 988'

Date: 1938

Total depth: 1702'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Top soil, red-yellow, soft	0	44
Slate, blue, medium	44	60
Lime, blue, hard	60	70
Lime, gray, hard	70	75
Lime, blue, hard	75	140
Lime, green, hard	140	145
Cherty lime, green, soft	145	162
Cavings mixed with lime, yellow, soft	162	180
Shale, green, hard	180	183
Chattanooga shale, black, soft	183	204
Lime, dark-gray, hard	204	235
Sandy lime, gray, hard	235	295
Sandy lime, dark-gray, hard	295	495
Reamed hole for 6 $\frac{5}{8}$ " and set @ 361		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy lime, light-gray, hard	495	520
Gas @ 520		
Black lime, black, hard	520	620
Gas @ 595-598		
Lime, black, soft, muddy	620	627
Lime, gray, hard	627	635
Shale, green, soft	635	638
Pencil Cave		
Lime, brown, hard	638	794
Lime, blue-gray, hard	794	800
Little gas		

Welsh et al, G. C. MERCER No. 1
(Map Number—13)

Location: NW SW SE Sec. 11, 1S—47E

Elevation: 602'

Date: 1938

Total depth: 593'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and gravel, yellow	0	20
Lime, gray, hard	20	40
Lime, dark, medium-hard	40	160
Sulphur water @ 60-70		
Lime, gray, hard	160	170
Lime, dark, hard	170	190
Lime, dark-gray to brown, hard	190	225
Lime, gray, hard	225	235
Lime, dark-gray, hard	235	240
Gas @ 240		
Water sand, brown	240	245
Sulphur water @ 245		
Lime, brown	245	255
Lime, gray	255	290
Shaly lime, black, soft	290	310
"Mud Cave," dark-gray, soft and sticky	310	314
Lime, light-gray, hard	314	322
"Pencil Cave," green, soft	322	325
Lime, gray, medium-hard	325	350
S. L. M. ¹ @ 335		
Lime, flinty, yellowish-gray, medium-hard	350	395
Lime, brownish-gray, medium-hard	395	460
Show oil @ 440		
Show gas @ 445		
2/3 bailer oil in 46 hrs. @ 450		
Gas @ 460		
Lime, sandy, brownish-gray, soft	460	463
Lime, brownish-gray, hard	463	480
S. L. M. @ 476		
Lime, bluish-gray, soft	480	500
Lime, brownish-gray, soft	500	560
Gas @ 532		
Lime, brownish-gray, hard	560	570
Lime, brownish-gray, medium-hard	570	593
S. L. M. @ 588		

¹ Steel line measurement.

W. L. McKee et al, SMITH KEELING No. 1

(Map Number—14)

Location: Sec. 6, 1S-47E (?)

Elevation: 633'

Date: 1938

Total depth: 574'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	5
Lime, blue	5	100
8¼" casing @ 8' 6"		
Gas @ 35 (light), 81, and 98		
Lime, blue-brown (mix)	100	105
Lime, gray	105	110
Lime, blue-brown (mix)	110	120
Lime, dark-blue	120	125
Lime, blue	125	170
First Sunnybrook Sand (?), blue	170	205
No water in hole, 6¼" casing set @ 172' 10"		
Gas @ 177 and 190		
Lime, blue	205	220
Gas @ 207; gas pockets getting heavier as depth increases		
Lime, blue and brown (mix)	220	240
Gas @ 228		
Gas @ 237. Heavy pressure blew off in 24 hours. Estimated 1,000,000 cu. ft. Cleaned hole, floated tools, shut down drilling.		
Lime, brown	240	245
Lime, 2nd Sunnybrook (?), brown-white	245	255
Gas @ 255. Show of oil. Estimated 1,240,000 cu. ft. Blew cuttings 20' over mast. Floated tools. Shut down 12 hrs. for pressure to blow off.		
Lime, gray	255	260
Lime, brown	260	265
Lime, brown and gray mix	265	275
Gas @ 273		
Lime, blue	275	290
Gas @ 290, estimated 1,500,000 cu. ft. Almost blew out tools. Shut down 5 hrs. for pressure to blow off.		
Lime (finty), blue	290	300
Lime, dark-blue	300	315
Lime, black	315	330
Lime, gray	330	335
Lime and Pencil Cave, gray	335	340
First Pencil Cave, gray and light-brown, 336-339		
Sandy lime, gray	340	345
Six feet of very hard gritty lime between the two strata of Pencil Cave.		
"Lower Carters," Tyrone Lime, and Pencil Cave, light-brown	345	350
Tyrone lime, light-brown	350	574

Casing pulled and well plugged Aug. 29, 1938.

C. W. Marxer, et al, H. S. DAVIS & J. J. CLARK No. 1
 (Map Number—15)

Location: NE NW NE Sec. 14, 1S—45E
 Date: 1938

Elevation: 675'
 Total depth: 623'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	300
Limestone, gray and brown, medium-fine grained, argillaceous	300	304
Mudstone, brown	304	305
Limestone, gray and brown, medium-fine and medium-grained	305	310
Limestone, gray and brown, medium-fine and medium-grained, argillaceous, with some green mudstone	310	315
Limestone, gray, medium-fine to medium-coarse grained, argillaceous and fossiliferous	315	320
Limestone, gray, coarse-grained, argillaceous and fossiliferous	320	325
Limestone, gray and white, medium-grained, argillaceous, with a little chert	325	364
Very slight show of oil @ 325-330		
Bentonitic shale, brown	364	365
Limestone, brown and gray, medium-fine and fine-grained, argillaceous, with some blue chert	365	373
Bentonite or "Pencil Cave," green, micaceous	373	375
Limestone, light-tan, fine-grained	375	385
Bentonite, green, micaceous	385	386
Limestone, tan and brown, fine-grained, with blue, speckled, dolocastic chert from 435-440	386	465
Limestone, brown and white, oolitic, with fine-grained matrix. Trace of chert and dolomite @ 475	465	480
Limestone, brown, fine and medium-fine grained dolomite	480	500
Limestone, brown, fine-grained, and dolomite, dark-brown and gray, medium-fine grained, with gray, tan, and dark-brown chert	500	535
Limestone, brown, fine, medium-fine, and medium-grained. Lower portion slightly argillaceous	535	623

Dean Roland et al, CARL ANDERSON No. 1
 (Map Number—16)

Location: SW SE NW Sec. 15, 2S—47E
 Date: 1939

Elevation: 513'
 Total depth: 944'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
River sand	0	53
Brown sand	107	113
Sulphur water	140	150
Water sand	145	150
Brown limestone	150	162
Salt water	162	168
Hard, brown limestone	168	190
Salt water	190	195
Brown limestone	195	225
Sand	225	230
Brown limestone	230	235
Sand	235	240

<i>Lithology</i>	<i>From</i>	<i>To</i>
Brown limestone	240	283
Gas and rainbow	283	288
Gray limestone	288	340
Brown limestone	340	415
Gray limestone	415	450
Gas @ 440-450		
Brown limestone	450	480
Gray limestone	480	500
Drilling @ 524-7/6/39		
Later report drilling @ 580-7/7/39		
Completed hole @ 944-7/19/39		
Top of the sucrose dolomitic Knox @ 920 (picked from samples)		

REMARKS:

53' of 8¼" casing; 215' of 6¼" casing.

Fresh water @ 90 and 105; sulphur water @ 140-145; salt water @ 162-168 and 190-195.

W. H. Parks, G. H. LYNN No. 1

(Map Number—17)

Location: NW NW NW SW Sec. 10, 1S-47E

Elevation: 544'

Date: 1948

Total depth: 1315'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	14
Limestone, black	14	85
Water @ 85		
Limestone, gray	85	262
Cave, black	262	290
Pencil Cave	290	291
Limestone, blue	291	312
6½" pipe @ 312		
Limestone, gray	312	328
Water @ 328		
Water sand, brown	328	380
Limestone, gray	380	386
6½" pipe @ 386		
Limestone, brown	386	392
Water @ 392		
Limestone, gray	392	430
Limestone, blue	430	449
Gas sand, brown	449	454
Gas 449-454		
Limestone, blue	454	475
Limestone, brown	475	550
Gas 490, 535		
Limestone, gray, soft	550	602

Abercrombie et al, G. W. JONES No. 1
(Map Number—18)

Location: SW SE SE Sec. 1, 1S-45E
Date: 1950

Elevation: 634'
Total depth: 235'

DRILLER'S LOG

Lithology	From	To
Soil and gravel (no samples)	1	14
Lime, gray, dark, very hard	14	16
Surface pipe set		
Lime, dark- to light-gray, hard	16	21
Shale and lime, gray to brown, soft	21	21.5
Lime, gray to dark, hard	21.5	25
Lime, dark, hard	25	30
Lime and shale, light- to dark-gray, medium to soft	30	35
Water		
Lime and shale, dark-gray, medium	35	65
Lime, white, hard	65	80
Lime, blue to white, hard	80	85
Lime, blue to gray, hard	85	90
Lime, gray to white, hard	90	95
Lime, gray-brown and white, medium to soft	95	100
Oil and gas show @ 98		105
Lime and shale, gray-blue, soft	100	105
Oil and gas show		
Lime, gray, medium	105	115
Lime and shale, gray, soft	115	120
Lime, blue, very hard	120	125
Lime and sand, blue to white, very hard	125	130
Mud filled crevice very much like bentonite @ 127. No water loss.		
Lime, blue, hard	130	155
Lime, blue-gray, hard	155	170
Lime, gray to white, hard	170	170.5
(Short sample)		
Lime, blue and gray, hard	170.5	185
Lime, blue, hard	185	203.5
Cemented 4½" top to bottom @ 195		
Lime, gray to white, hard	203.5	205
Gas		
Lime, gray to blue, medium	205	210
Lime, blue, medium	210	215
Lime, gray and blue, medium	215	220
Gas		
Lime, gray, hard	220	230
Lime, gray to white, soft	230	235
Gas		

W. E. Adams, EMMER WARREN No. 2
(Map Number—19)

Location: SW NE SE Sec. 22, 1S-47E
Date: 1953 (?)

Elevation: ?
Total depth: 330' ±

DRILLER'S LOG

Lithology	From	To
Mud and rocks	0	32
Set 8" @ 32		
Rock shelf	32	34

<i>Lithology</i>	<i>From</i>	<i>To</i>
Cavey mud and sand		40
Set 7" @ 40	34	
Rock, gray		42
Soft gray mud	40	
Gray lime, dark, hard	42	42½
Gas shows @ 73 and 75	42½	75
Dark-gray lime		85
Gas show @ 82	75	
Lime, brownish-gray		170
Gas @ 103, 108, 115, 148, 153	85	
Lime, brown, softer		170
Brown to tan lime	170	175
Lime, gray, medium	175	190
Soft, gray shale	190	244
Gray lime	244	246
Shale, gray to tan, hard	246	255
Pencil Cave	255	260
Set 5" @ 263	260	263
Lime, hard, grayish-brown		275
Lime, tan to brown, hard	263	275
		330

KNOX COUNTY

Golden Rule Oil Co., GEORGE CALLAHAN No. 1

(Map Number—1)

Location: Sec. 16, 6S—67E

Date: 1927-1928

Elevation: 1000'

Total depth: 2680'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Light-brown, sandy soil		0
Black lime, many crevices	0	8
Fresh water	8	100
Slaty lime, caves badly		300
Black lime	100	300
Slate and lime	300	350
Red slate	350	380
Dark slate and lime	380	390
Dark gray lime	390	425
Fresh crevice water—exhausted @ 765	425	620
Gray lime		620
Sulphur water @ 820	620	905
Red lime		925
Brown lime	905	925
Red lime	925	1340
Gray lime	1340	1355
Red lime	1355	1470
Dark-gray lime	1470	1480
Red, shelly and sandy lime	1480	1565
Dark-gray, sandy lime	1565	1670
Red lime	1670	1830
Dark-gray, sandy lime	1830	1935
Red lime	1835	1890
Dark, shelly lime	1890	1990
Dark-gray lime	1990	2000
Light-gray, sandy lime	2000	2020
	2020	2085

<i>Lithology</i>	<i>From</i>	<i>To</i>
Blue sand	2085	2090
Fresh water		
Black, sandy lime—crevices	2090	2160
Gray lime	2160	2200
Dark-red lime	2200	2205
Gray lime	2205	2262
Dark, shelly lime	2262	2272
Dark-gray lime	2272	2284
Dark, shelly lime	2284	2410
Dark-gray lime	2410	2447
Gas @ 2430 and 2440		
Dark-gray slate	2447	2461
Gray lime	2461	2495
Gas and salt water @ 2463		
Red lime	2495	2500
Gray lime	2500	2520
Red lime	2520	2525
Gray lime	2525	2558
Light-gray and light-brown lime	2558	2580
Gas, scum of oil, and strong salt water coming in at a rate of 8-10 bbls. per day @ 2559		
Dark-gray, hard lime	2580	2588
Hard, white lime	2588	2600
Steel-gray lime	2600	2603
Light-brown lime	2603	2605
Dark-gray lime	2605	2626
Salt water @ 2626		
Red and gray lime	2626	2628
Light-gray lime	2628	2630
Dark-gray lime	2630	2632

CASING RECORD:

- 10" casing @ 65
- 8½" casing @ 628
- 6¾" casing @ 1570
- 5 3/6" casing @ 2240

LAKE COUNTY

Reelfoot-Ranger Oil Co., ETHELBERT ROGERS No. 1

(Map Number—1)

Location: Near Samburg

Elevation: 503'

Date: 1920

Total depth: 1740'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, calcareous, yellowish-gray	0	70
Clay, ferruginous	70	90
Clay, calcareous, yellow	90	100
Gravel, coarse and rounded	100	140
Sand and gravel, fine and rounded	140	145
Gravel, coarse, ferruginous	145	155
No record	155	300
Sand, fine, gray	300	325
Sand shale, fine, light-gray	325	330
Sand, dolomitic and calcareous	330	355
No record	355	360

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, dolomitic and carbonaceous	360	390
Sand, fine, with carbonaceous matter	390	410
Gravel, fine, light-gray	410	435
Sand, angular and carbonaceous	435	465
Sand, fine, light-gray, with gravel	465	495
Sand, fine, with light-gray gravel	495	540
Gravel, ferruginous, coarse	540	570
Sand, mostly white, fine	570	575
Sand and gravel	575	585
Shale, light-colored, with fine quartz sand	585	600
Sand, with little gravel and shale	600	620
Sand and gravel, shells	620	645
Sand, coarse, subangular	645	655
Sand, shale, gravel, small fossil	655	680
Sand, shale, and flat limonite gravel	680	750
Sand, and gravel, coarse and fine	750	770
Sand, fine and coarse	770	870
Sand and gravel, some clay	870	900
Sand, white, with ferruginous gravel	900	910
Sand, mostly white	910	920
Sand and gravel, pea size	920	950
Gravel, ferruginous, with some sand	950	1065
No record	1065	1205
Sand and gravel	1205	1225
Gravel and clay	1225	1235
Gravel and sand	1235	1275
Sand, gravel, and clay	1275	1320
Sand, gravel, and clear quartz sand	1320	1440
Sand and gravel, mostly clear quartz sand	1440	1485
Sand, quartz, and sandstone gravel	1485	1505
Sand and gravel, most white quartz sand	1505	1600
Sand, very fine	1600	1625
Sand and gravel, some shale	1625	1685
Sand and gravel, and bluish shale	1685	1725
Shale, bluish-gray	1725	1740

STRATIGRAPHIC INTERPRETATION

Quaternary and Tertiary systems	0	1740
Wilcox and younger formations	0	1725
Porters Creek clay (?)	1725	1740

Reelfoot Dome Oil Co., KATE WRIGHT No. 1

(Map Number—2)

Location: NW NW NW Sec. 22, 1S—1E

Elevation: 307'

Date: 1920

Total depth: 2075'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	10
Sand and gravel	10	135
No record	135	190
Clay, blue-gray, sticky	190	210
Sand and clay, reddish	210	225
Quicksand	225	300
Sand, blue, little clay	300	380
Sand, gray	380	483
Sand	483	528
Gumbo	528	565
Sand, hard	565	585

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, brown, coarse	585	785
Sand, hard, and gravel	785	900
Sand rock	900	950
Shale, black	950	1020
Sand, hard, coarse	1020	1080
Gumbo, gray	1080	1140
Sand, brown, coarse	1140	1265
Gumbo, sandy	1265	1475
Shale, black	1475	1500
Gumbo, sandy	1500	1580
Show of oil		
Shale, black	1580	1600
Shale, hard, yellow, fine shells	1600	1620
Gumbo, sand	1620	1650
Shale, black, with blue lime shells and flint	1650	1720
Shale, blue, with hard shells of flint and pyrite	1720	1950
Shells and hard sandstone	1950	1974
Lime rock	1974	2075
STRATIGRAPHIC INTERPRETATION		
Tertiary and Quaternary systems	0	1620
Wilcox and younger formations	0	1265
Porter Creek clay	1265	1600
Clayton formation (?)	1600	1620
Upper Cretaceous system	1620	1974
Ripley formation	1620	1974
Paleozoic rocks	1974	2075

Henderson Oil Co., LINDA MORRIS No. 1-A
(Map Number—3)

Location: C NE Sec. 17, 3S—1E

Elevation: 303'

Date: 1937

Total depth: 2590'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface, soft	0	23
Water sand	23	105
Walnut log	105	110
Sand and clay	110	150
Shale, green	150	235
Asphalt	235	250
Shale, green	250	460
Water sand	460	481
Gummy shale, dark-green	481	510
Water sand	510	550
Blue gumbo, tough	550	610
Water sand	610	686
Gummy shale, green	686	700
Sand, hard	700	878
Show of gas		
Gumbo, brown	878	928
Sand, packed	928	1007
Gumbo	1007	1082
Rock, hard	1082	1084
Gumbo, tough	1084	1120
Gummy shale	1120	1230
Sand, hard	1230	1265
Gumbo	1265	1280
Shale, hard	1280	1310

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand and pyrite, hard	1310	1340
Shale, hard	1340	1369
Sand, hard	1369	1400
Shale	1400	1430
Sand rock, hard	1430	1450
Shale and boulders	1450	1490
Shale, dark-green	1490	1600
Shale, tough	1600	1900
Sand rock	1900	1930
Show of gas		
Sand, hard	1930	2001
Show of gas		
Sand, green, hard	2001	2040
Lignite	2040	2045
Sand and shale	2045	2080
Marl, gray	2080	2120
Shale, hard	2120	2140
Rock, gray, medium-hard	2140	2150
Shale, gray, hard	2150	2207
Rock	2207	2210
Shale, hard	2210	2240
Rock and pyrite	2240	2245
Shale, chalky, white	2245	2260
Chalk and gumbo, white and brown, tough	2260	2350
Shale, light-brown, hard	2350	2420
Sand, brown and gray, hard	2420	2430
Chalk	2430	2470
Rock, hard	2470	2509
Sand, soft	2509	2516
Show of gas		
Sandy clay	2516	2538
Lime, hard	2538	2562
Lime, sandy, soft	2562	2577
Show of gas		
Lime, hard, dark-gray	2562	2577
Lime, sandy, light-gray, soft	2577	2590
Show of gas		
Sand, brown	2590	

CASING RECORD:

Set 10" @ 310

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, gray, fine-grained, subangular to well-rounded	510	550
Sand, white, well-rounded, with several small pieces of lignite	610	615
Gumbo, hard, gray, tough, with a small amount of well-rounded, white quartz grains and a considerable amount of mica		1000
Shale, gray, tough, with sand and mica as above		1135
Shale and siltstone. Shale is gray, hard, and carries a considerable amount of small rounded sand grains. Siltstone is composed of minute quartz grains cemented by silica, a few pieces of lignite, limonite, and several large subangular and frosted quartz grains		1190
Sand, white to colorless, subangular to rounded, glassy, with some gray shale		1235
Sand and shale. Sand is white, angular to rounded, glassy. Shale is gray, hard, and siliceous, with some mica		1322
Shale and gumbo, hard, gray, tough, with some mica and lignite		1392

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand and shale. Sand is fine-grained, subangular to well-rounded, and glassy; some of sand has been loosely cemented by a hard, gray, tough shale		1485
Shale, dark-gray to tan, hard, tough, somewhat siliceous		1500
Clay, lead-gray, tough		1575
Clay, same as above		1652
Clay, same as above		1700
Clay, same as above		1800
Clay, same as above		1875
Gumbo, same as above	1872	1892
Sand, white to colorless, subangular		1930
Shale, gray, micaceous, well-laminated		1962
Shale, gray, siliceous		1992
Shale, same as above		2010
Shale, same as above		2015
Shale, same as above	2013	2070
Shale, light- to dark-gray, very siliceous		2100
Mudstone, gray, siliceous and micaceous		2170
Clay, light- to dark-gray, tough, siliceous		2230
Shale, gray, thinly laminated, hard, micaceous		
Sand, white, very fine, with white and gray, tough clay or gumbo		2245
STRATIGRAPHIC INTERPRETATION		
Quaternary system	0	150
Tertiary system	150	1900
Wilcox and younger formations	150	1575
Porters Creek clay	1575	1900
Upper Cretaceous system	1900	2538
Ordovician or older (?)	2538	2590

REMARKS:

No samples are available from 1500 to 1575 feet. The first Porters Creek clay occurs at 1575 feet.

Henderson Oil Co., LINDA MORRIS No. 1-C

(Map Number—4)

Location: C NE Sec. 17, 3S—1E

Elevation: 303'

Date: 1937

Total depth: 3130'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray, dense to fine-grained, gray, with some pyrite and angular quartz grains		2470
Limestone, same as above		2482
Limestone, same as above		2495
Limestone, same as above		2510
Limestone, same as above		2523
Limestone, light-gray, medium-grained, dolomitic, very siliceous	2528	2547
Limestone, same as above, with iron-stained silica		2541
Limestone, same as above		2545
Limestone, same as above		2547
Limestone, same as above		2550
Limestone, same as above		2551
Limestone, same as above		2555
Limestone, same as above	2553	2557
Limestone, same as above		2565
Limestone, same as above		2567
Limestone, same as above		2575
Limestone, gray, medium-grained, very sandy, dolomitic	2568	

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, same as above		
Dolomite, gray, medium-grained, very siliceous, with about 50% light-colored, angular quartz		2576
Dolomite and quartz, same as above		2580
Sandstone, tan, coarse-grained, hard, quartzitic	2590	2593
Dolomite, gray, fine- to medium-grained, very siliceous, with some light-colored, angular quartz fragments		2600
Dolomite, same as above		2605
Dolomite, same as above		2609
Dolomite, same as above		2611
Dolomite, same as above		2614
Sandstone, tan, coarse-grained, hard, quartzitic		2619
Dolomite, gray, medium-grained, very siliceous, with considerable amount subrounded quartz grains		2620
Dolomite, same as above		2622
Dolomite, same as above		2628
Limestone, gray, fine- to medium-grained, with about an equal amount of light-colored to iron-stained, angular to subrounded quartz grains		2633
Limestone, gray, fine- to medium-grained, glauconitic, with about an equal amount of light-colored to iron-stained, angular to subrounded quartz grains	2639	2718
Limestone and quartz grains, same as above, no glauconite	2750	2722
Limestone, medium- to dark-gray, fine- to medium-grained, with white vein calcite	2824	2820
Limestone, medium- to dark-gray medium-grained, glauconitic, with white vein calcite		2879
Limestone, very dark gray, medium-grained, with abundant white vein calcite		2890
Limestone, same as above		2897
Limestone, gray to dark-gray, medium-grained, with some white vein calcite		2899
Sandstone, tan and iron-stained, medium-grained, hard, quartzitic, with about an equal amount of dark-gray, medium-grained limestone	2902	2965
Limestone, medium- to dark-gray, fine- to medium-grained, with some white vein calcite	2970	2980
Limestone, same as above	2985	2995
Limestone, same as above		3010
Limestone, same as above		3020
Limestone, light-gray, medium-grained, with some white vein calcite		3030
Limestone, same as above, with some iron-stained quartz fragments	3068	3087
Limestone, dark-gray, fine- to medium-grained, with white calcite and iron-stained quartz fragments	3088	3100
Sandstone, tan and iron-stained, fine- to medium-grained, hard, quartzitic, with about an equal amount of dark-gray, medium-grained limestone	3100	3110
Sandstone, tan and iron-stained, medium-hard		3120
		3124

Henderson Oil Co., LINDA MORRIS No. 1-D

(Map Number—5)

Location: C NE Sec. 17, 3S—1E

Date: 1938

Elevation: 303'

Total depth: 2452'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	25
Sand, soft	25	50

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale	50	100
Gumbo	100	135
Asphalt (lignite)	135	150
Oil show		235
Gumbo	150	235
Asphalt (lignite)	235	260
Gumbo, blue	260	400
Gumbo, brown	400	550
Sand and gravel	550	608
Lignite	608	630
Show of gas		680
Gumbo, blue	630	760
Gumbo and boulders	680	760
Shale, hard, blue	760	830
Gumbo, brown	830	1090
Shale and sand	1090	1160
Gumbo, blue	1160	1200
Sand	1200	1250
Sandy shale	1250	1290
Gumbo, brown	1290	1390
Sand rock	1390	1400
Shale	1400	1500
Gumbo, white	1500	1580
Shale, green	1580	1630
Gumbo	1630	1670
Shale, hard	1670	1700
Gumbo	1700	1800
Rock and pyrite	1800	1826
Shale	1826	1841
Rock	1841	1850
Shale and pyrite	1850	1950
Hard shale and pyrite	1950	2100
Sand, white	2100	2150
Hard shale	2150	2200
Rock	2200	2210
Slaty shale, black	2210	2244
Gumbo, white	2244	2254
Sand, red	2254	2300
Yellow sand and shale	2300	2350
Black shale	2350	2410
Lime rock	2410	2452

Henderson Oil Co., A. E. MARKHAM No. 1

(Map Number—6)

Location: NE NW NE Sec. 21, 2S—1E

Elevation: 301'

Date: 1939

Total depth: 3990' (?)

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	20
Water sand	20	100
Gumbo, blue, soft	100	386
Water sand	386	440
Shale, blue, soft	440	550
Water sand	550	729
Gumbo, blue	729	816
Shale, hard	816	900
Gumbo	900	950
Decomposed wood	950	960

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, blue	960	1050
Gumbo and boulders	1050	1100
Shale, hard, sandy	1100	1440
Sand, gray	1440	1470
Gumbo	1470	1490
Shale, dark-green	1490	1500
Gumbo, dark-green, tough	1500	1650
Shale, sandy, hard	1650	1700
Shale, gummy	1700	1800
Gumbo, tough	1800	1850
Shale, green	1850	1920
Sand rock	1920	1935
Gumbo	1935	2000
Lime, sandy, hard, with shale streaks	2000	2050
Shale, chalky	2050	2170
Sand, red, firm	2170	2230
Lime and shale, hard	2230	2250
Shale, black	2250	2540
Lime, black, crystalline, firm, with gray and white lime streaks	2540	2620
Shale, black, with pyrite	2620	2785
Lime, black, firm	2785	2880
Shale, black with pyrite	2880	2920
Lime, white and gray, firm, with gray and white streaks	2920	3060
Lime, hard	3060	3240
Shale, black	3240	3248
Lime, gray and black, with streaks of anhydrite	3248	3270
Chert, pink, no lime	3270	3280
Lime, black	3280	3292
Lime, red, firm, brittle	3292	3302
Lime, black, hard, broken	3302	3400
Lime, gray, hard	3400	3670
No record (driller reports "no change below 3670' ")	3670	3990

STRATIGRAPHIC INTERPRETATION

Quaternary system	0	100
Tertiary system	100	1850
Wilcox and younger formations	100	1500
Porters Creek clay	1500	1850
Upper Cretaceous system	1850	2230
Ripley formation	1850	2230
Paleozoic rocks	2230	3990
Upper Cambrian	2230	3242
No samples	3242	3990

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-gray, dense to fine-grained, with some dark-gray shale		2230
Limestone, same as above	2238	2242
Limestone, dark-gray, dense to fine-grained, with white vein calcite		2246
Limestone, same as above		2254
Limestone, same as above		2262
Limestone, same as above		2270
Limestone, same as above		2289
Limestone, same as above		2296
Limestone, same as above		2303
Limestone, same as above		2307
Limestone, same as above		2309
Limestone, same as above		2317

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, same as above		2326
Limestone, same as above		2335
Limestone, same as above		2346
Limestone, same as above		2352
Limestone, same as above		2356
Limestone, same as above		2360
Limestone, same as above		2372
Limestone, same as above		2381
Limestone, same as above		2387
Limestone, same as above		2389
Limestone, same as above		2392
Limestone, same as above		2394
Limestone, same as above		2398
Limestone, dark-gray, dense to fine-grained, with abundant dark-gray dike material carrying biotite (mica-perido- tite?)		2404
Limestone, dark-gray, dense		2411
Limestone, same as above, with white vein calcite		2416
Limestone, same as above, with dark dike material and much calcite	2420	2446
Limestone, dark-gray, dense to fine-grained, with white vein calcite		2450
Limestone, same as above		2455
Limestone, same as above		2462
Limestone, same as above		2468
Limestone, same as above		2474
Limestone, same as above		2482
Limestone, same as above		2486
Limestone, same as above		2488
Limestone, same as above		2492
Limestone, same as above		2500
Limestone, same as above		2509
Limestone, same as above		2511
Limestone, same as above		2515
Limestone, same as above		2523
Limestone, same as above		2531
Limestone, same as above		2535
Limestone, same as above		2540
Limestone, same as above		2547
Limestone, same as above		2552
Limestone, same as above		2559
Limestone, same as above		2565
Limestone, same as above		2572
Limestone, same as above		2579
Limestone, same as above		2584
Limestone, same as above		2595
Limestone, same as above		2605
Limestone, same as above		2612
Limestone, dark-gray, dense to fine-grained, with abundant dike material and biotite		2615
Limestone and dike material, same as above		2618
Limestone and dike material, same as above		2621
Limestone and dike material, same as above		2626
Limestone and dike material, same as above		2633
Limestone, dark-gray, dense, with abundant white vein cal- cite		2638
Limestone, same as above		2642
Limestone, same as above		2646
Limestone, same as above		2651
Limestone, same as above		2657
Limestone, same as above		2662

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, same as above		
Shale, very dark gray, hard, siliceous, somewhat calcareous, with dark-gray, dense limestone		2665
Shale and limestone, same as above		2671
Shale and limestone, same as above		2680
Shale and limestone, same as above		2682
Shale and limestone, same as above		2691
Shale and limestone, same as above		2696
Shale and limestone, same as above		2700
Shale and limestone, same as above		2702
Shale and limestone, same as above		2709
Shale, dark-gray to black, hard, siliceous, slaty, somewhat calcareous		2716
Shale, same as above		2721
Shale, same as above		2725
Shale, same as above		2728
Shale, same as above		2730
Shale, same as above		2737
Shale, same as above		2740
Shale, same as above, with black, dense limestone		2744
Shale and limestone, same as above		2755
Shale and limestone, same as above		2765
Shale and limestone, same as above, with dark dike material		2768
Limestone, black, dense, with dike material and white vein calcite	2770	2784
Limestone, same as above		2786
Shale, dark-gray to black, hard, slaty, calcareous		2792
Shale, same as above		2798
Shale, dark-gray to black, slaty, with dark-gray to black, dense to fine-grained limestone		2804
Shale and limestone, same as above		2810
Shale and limestone, same as above		2814
Shale and limestone, same as above		2820
Shale and limestone, same as above		2824
Shale and limestone, same as above		2826
Shale and limestone, same as above		2830
Shale and limestone, same as above, with abundant white vein calcite		2834
Limestone, dark-gray to black, dense to fine-grained, with dark-gray, hard, slaty shale	2837	2840
Limestone and shale, same as above		2845
Limestone and shale, same as above		2849
Limestone and shale, same as above		2854
Limestone and shale, same as above		2858
Limestone and shale, same as above		2860
Limestone and shale, same as above		2862
Limestone and shale, same as above		2864
Limestone and shale, same as above		2866
Limestone, medium-gray, dense to fine-grained		2868
Limestone, same as above		2870
Limestone, same as above		2872
Limestone, same as above		2875
Limestone, same as above, with some black, dense to fine-grained limestone		2877
Limestone, same as above		2880
Limestone, same as above		2884
Limestone, same as above		2889
Limestone, same as above		2892
Limestone, same as above		2896
Limestone, same as above		2902
Limestone, same as above		2904
Limestone, same as above		2908

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, same as above		2912
Limestone, same as above		2916
Limestone, same as above		2920
Limestone, same as above		2924
Limestone, same as above		2928
Limestone, same as above		2934
Limestone, same as above		2940
Limestone, same as above		2943
Limestone, same as above		2945
Limestone, same as above		2949
Limestone, same as above		2956
Limestone, medium-gray, medium-grained		2960
Limestone, same as above		2966
Limestone, same as above, with white vein calcite		2970
Limestone, same as above		2974
Limestone, same as above		2978
Limestone, same as above		2986
Limestone, medium- to dark-gray, dense to fine-grained		2995
Limestone, same as above		2999
Limestone, same as above		3004
Limestone, same as above		3007
Limestone, same as above		3010
Limestone, same as above		3014
Limestone, same as above		3017
Limestone, same as above		3020
Limestone, same as above		3025
Limestone, same as above		3027
Limestone, white to medium-gray, medium-grained, very siliceous. The white limestone appears porous and altered. Insoluble residue consists of loosely bonded, rounded quartz grains		3035
Limestone, same as above, with a considerable amount of pyrite		3036
Limestone, same as above		3037
Limestone, same as above		3038
Limestone, same as above		3039
Limestone, same as above		3040
Limestone, same as above		3042
Limestone, same as above		3046
Limestone, same as above		3051
Limestone, same as above		3055
Limestone, same as above		3060
Limestone, same as above		3070
Limestone, same as above		3074
Limestone, same as above		3078
Limestone, same as above		3080
Limestone, same as above		3084
Limestone, same as above		3089
Limestone, same as above		3093
Limestone, same as above		3096

Benz, J. E. VAUGHN No. 1

(Map Number—7)

Location: SW SW SW Sec. 23, 3S—1E

Elevation: 280'

Date: 1953

Total depth: 2590'

SCHLUMBERGER SIDEWALL CORES DESCRIPTION

<i>Lithology</i>	<i>Depth</i>
Sandstone, gray, fine- to medium-grained, angular, soft, micaceous, interbedded with soft gray clay	710
No show	
Same as 710	720
Sandstone, white to gray, medium-grained, subrounded, interbedded with soft gray clay, noncalcareous	1396
No show	
Sandstone, white to gray, medium-grained, subrounded, fairly clean, medium-porous, soft, looks wet	1425
No show	
Sandstone, greenish-gray, fine-grained, angular, micaceous and glauconitic, slightly shaly, noncalcareous, looks wet	1772
No show	
Same as 1772	1776
Laminated, shaly sand and sandy shale, greenish-gray, very micaceous, glauconitic and calcareous, fine-grained	1792
No show	
Dark greenish-gray marl, shaly and slightly sandy, very calcareous	2018
No show. Slight mineral fluorescence	
Sandy marl, dark greenish-gray, dirty, very calcareous and glauconitic. Sand is fine angular	2024
No show. Slight mineral fluorescence	
Sand, white to light-gray, fine- to medium-grained, soft, slightly shaly, non-calcareous	2085
No show	
Sand, white to light-gray, slightly greenish, fine- to medium-grained, angular to subrounded, micaceous, slightly glauconitic, slightly shaly and calcareous, looks wet	2144
No show	
Sand, medium-grained, subrounded, gray to greenish, soft, porous, micaceous and glauconitic, slightly calcareous, angular	2206
No show	
Sand, medium-grained, white, subrounded, soft, porous, noncalcareous, looks wet	2264
No show	
Sand, medium-grained, white, angular to medium round, slightly micaceous, non-calcareous, soft and porous, looks wet	2272
No show	
Sand, white, fine- to medium-grained, very soft, angular to subrounded, looks wet	2345
No show	
Same as 2345	2390
Sandstone, gray, fine- to medium-grained, soft, calcareous, slightly silty	2436
No show	
Sandstone, brown, fine- to medium-grained, angular, noncalcareous, slightly silty, fairly porous	2440
No show	

SAMPLE CORE DESCRIPTION

<i>Lithology</i>	<i>Depth</i>
(1) Gray, silty, very fine grained, angular, slightly dolomitic and calcareous, micaceous, very quartzitic sandstone	2484
(2) Light-gray, as above	

<i>Lithology</i>	<i>Depth</i>
(1) Gray, silty, very fine grained, angular, dolomitic and calcareous, micaceous, very quartzitic sandstone	
(2) Gray, fossiliferous, silty, very fine grained, angular, very calcareous sandstone with scattered shale laminae; sandstone contains disseminated flakes of red material	
(3) 6" of tan, silty, very fine grained, angular, very weathered sandstone; clayey in part, with quartzitic and very porous streaks. Also disseminated specks of red material as above	2490
(1) Gray, shaly, silty, very fine grained, angular sandstone	
(2) Brown, weathered, silty, very fine grained, angular, very porous in part, clayey, micaceous sandstone	2495
(1) Gray, quartzitic, slightly calcareous and dolomitic in part, extremely silty, very fine grained sandstone with occasional shale laminae	
(2) Same as above	2498
(1) Gray sandstone, as 2490—(1)	
(2) Same as above	
(3) Same as above	
(4) Same as above	
(5) Brown, weathered sandstone as 2495—(2)	2503
(1) Sandstone, as 2490—(1), with disseminated specks of red material	
(2) Same	
(3) As 2490—(1)	2505
(1) As 2490—(1)	
(2) Same	
(3) Same	2508
(1) Dark-gray, quartzitic sandstone, as above, very shaly, more calcareous, with scattered large calcite crystals, slightly fossiliferous	
(2) Same, less shaly and more calcareous	
(3) Same, less calcareous and fossiliferous	2512½
(1) Same	
(2) Same, with disseminated pyrite and red flakes	
(3) As 2512½—(2)	2516
(1) Same	
(2) As 2512½—(1), lighter in color, traces disseminated pyrite	
(3) Same, disseminated red flakes	2519
(1) Sandstone as above, but very light in color and very slightly calcareous	
(2) Same	2520
(1) Same, in contact with brown, weathered sandstone with occasional black mica flakes	
(2) Gray quartzitic sandstone, as above	2522
(1) Sandstone, as 2519—(2)	2522½
(1) Sandstone, as 2519—(2)	
(2) Same	
(3) Same, with brown-weathering, porous laminae	2524
(1) As above, with disseminated red flakes, and more calcareous with large crystals of calcite	
(2) Same, less calcareous	

<i>Lithology</i>	<i>Depth</i>
(3) Same	2527½
(1) As above, more shaly, and no red flakes	
(2) As above, with calcite crystals and disseminated pyrite, less quartzitic	2533½
(1) Same, no pyrite or calcite crystals	
(2) Same, with disseminated red flakes	2534
(1) Same, more shaly	2535.8
(1) As above	
(2) Greenish, quartzitic sandstone, as 2536-(1)	
(3) Same, darker and more shaly	2536
(1) Sandstone, with red disseminated flakes	
(2) Sandstone, very light in color and dolomitic	2539.5
(1) Sandstone, as 2536-(1)	
(2) Gray, quartzitic sandstone, as above, slightly calcareous	
(3) Same as above	#37
(1) Gray, coarse crystalline, sandy, micaceous, slightly fossiliferous, limestone, with disseminated pyrite	#35
(1) Gray, quartzitic, very calcareous, micaceous sandstone, with disseminated red flakes	
(2) Sandstone as 2536-(1)	#31
(1) Sandstone, grading to limestone, as #35-(1)	#29
(1) Very light gray, quartzitic sandstone, with very thin, silty laminae	
(2) Sandstone, as 2536-(1), very slightly limy	
(3) Sandstone, as 2536-(1)	#26
(1) Gray, quartzitic sandstone, as above	
(2) Same	
(3) As #26-(1), with disseminated pyrite	
(4) Same	#22
(1) Sandstone as above with scattered medium calcite crystals and more shaly	
(2) Very light gray sandstone, as #26-(1)	#17
(1) Same, slightly more shaly	
(2) As #26-(1)	
(3) Limestone, as #35-(1), very fossiliferous	#15
(1) Sandstone, as #26-(1), with disseminated pyrite	
(2) Same, more calcareous	
(3) Gray limestone, as #35-(1), in contact with green, silty, quartzitic sandstone	
(4) Sandstone, as #26-(1)	#14
(1) Sandstone, as #26-(1)	
(2) Dark greenish, very shaly, slightly quartzitic sandstone with much mica	
(3) Sandstone, quartzitic, micaceous, gray, calcareous	#12
(1) Sandstone, as #26-(1)	

<i>Lithology</i>	<i>Depth</i>
(2) Same, with shaly laminae	#10
(1) As #26-(1), with disseminated pyrite	
(2) Green, shaly sandstone, as #12-(2)	#8
(1) As #26-(1), with very thin, silty laminae	#6 (2583.6)
(1) As #26-(1)	#4 (2584)
(1) As #26-(1)	#2

LAUDERDALE COUNTY

Raymond Gear, DYER BROS. No. 1

(Map Number—1)

Location: NW NW NW Sec. 12, 8S-2E

Elevation: 270'

Date: 1939

Total depth: 3212'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	4
Clay	4	18
Sand	18	1040
Blue mud	1040	1298
Sand	1298	1379
Mud	1379	1515
Shale	1515	1595
Sand	1595	1613
Sandy shale	1613	1628
Sand	1628	1635
Shale	1635	1640
Sand	1640	1648
Shale	1648	1662
Sand	1662	1690
Shale	1690	1780
Lime	1780	1790
Shale, sandy streaks	1790	1835
Sand	1835	1900
Sandy shale	1900	1920
Shale	1920	1945
Sand (shell 1955-1960)	1945	2195
Sand	2195	2200
Lime shell	2200	2203
Sand	2203	2213
Lime shell	2213	2216
Sand	2216	2225
Lime shell	2225	2230
Sand	2230	2250
Lime shell	2250	2252
Sand, shale streaks	2252	2445
Shale	2445	2467
Sand	2467	2485
Shale	2485	2501
Lime	2501	2512
Shale	2512	2525
Lime and chert	2525	2565
Lime	2565	2675

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, hard	2675	2685
Lime	2685	2909
Lime, pyrites, and chert	2909	2947
Chert, soft	2947	2952
Lime and chert	2952	2957
Lime, pyrites, and chert	2957	2963
Chert and lime	2963	2978
Lime, pyrites, and chert	2978	2985
Lime and chert	2985	3030
Lime, pyrites and chert	3030	3080
No record	3080	3212

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
No samples	0	620
Sand, clear to translucent, coarse-grained, angular to subrounded, with minor amounts of gray clay	620	910
Clay, light-gray, sandy	910	920
Sand, clear to frosted, coarse-grained, angular to subrounded	920	935
Clay, light-gray, sandy	935	950
Sand, clear to translucent, coarse-grained, angular to subrounded	950	1010
Sand, clear to translucent, medium- to coarse-grained, with some dark-gray, slightly micaceous shale	1010	1030
Sand, same as above, no shale	1030	1040
Sand, clear to translucent, medium- to coarse-grained, angular to subrounded, with dark-gray, micaceous clay	1040	1050
Clay, medium- to dark-gray, somewhat micaceous, with some medium- to coarse-grained sand	1050	1250
Sand, clear to translucent, medium- to coarse-grained, angular to subrounded	1250	1358
Sand, clear to translucent, somewhat frosted, medium- to coarse-grained, with some medium- to dark-gray, tough clay	1358	1425
Clay, medium- to dark-gray, tough, with some medium-gray, thinly laminated micaceous shale	1425	1550
Shale, dark-gray, micaceous, somewhat sandy with medium- to dark-gray, tough clay	1550	1590
Shale, dark-gray, micaceous, with angular, clear, translucent, coarse sand (sand probably from above)	1590	1700
Clay, dark-gray, tough, with gray, micaceous shale, some of which is sandy	1700	1780
Limestone, light- to medium-gray, dense to medium-grained, glauconitic, abundant ostracods and fragments of gastropods, and a small amount of micaceous, sandy shale	1780	1800
Shale, dark-gray to greenish-gray, micaceous, with a considerable amount of clear to iron-stained, medium to coarse-angular, to glauconitic, sand	1800	1850
Sand, white to iron-stained, medium- to coarse-grained, glauconitic, with some dark-gray and greenish-gray, micaceous, sandy shale	1850	1910
Sand, same as above, no shale	1910	1920
Shale, greenish-gray to gray, medium-hard, micaceous, sandy, with a small amount of clear to iron-stained, medium-grained, angular to subrounded sand	1920	1960
Sand, white to amber, iron-stained, fine- to medium- and coarse-grained, with a minor amount of greenish-gray, micaceous and sandy shale	1960	2160
Shale, medium- to dark-gray, fine- to medium-grained, micaceous and sandy, with some clear to iron-stained, medium-grained sand	2160	2220

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, clear to translucent, white to amber, fine- to medium-grained, angular to subrounded, with gray, micaceous and sandy shale	2220	2290
Shale, medium- to dark-gray and greenish-gray, fine- to medium-grained, with amber, medium-grained sand	2290	2501
Limestone, gray to tan and brown, dense to fine-grained	2501	2600
Limestone, dark-gray to tan and gray, dense to fine-grained	2600	2900
Limestone, medium- to dark-gray, fine- to medium-grained, dolomitic, with some dark-gray to brownish-gray, dense to fine-grained limestone, and a few pieces of brown dense chert @ 2920	2900	2950
Limestone, medium- to dark-gray, fine- to medium-grained, with some light-colored, dense to slightly porous chert	2950	2960
Limestone, medium- to dark-gray, fine- to medium-grained	2960	2965
Limestone, light- to dark-gray, medium- to fine-grained, with a few fragments of tan, medium- to coarse-grained limestone and a minor amount of white and light-gray, dense, angular chert	2965	3080
Limestone, dark-gray, tan, fine-grained; some of the limestone fragments show white calcite veining	3080	3095
Limestone, light- to dark-gray and tan-gray, dense to fine-grained	3095	3105
Limestone, medium- to dark-gray, dense to fine-grained	3105	3205
Dolomite, gray to dark-brown, fine- to medium-grained, with some medium- to dark-gray, dense limestone; some of the fragments inclusions of subangular to well-rounded, clear quartz grains, minor amounts of dark-brown, dense chert	3205	3212

Raymond Gear, T. A. LEE No. 1
(Map Number—2)

Location: NE NW SE Sec. 5, 9S—2E

Elevation: 329'

Date: 1940

Total depth: 2815'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface soil and clay	0	25
Sand	25	340
Sand	340	380
Mud	380	675
Sand	675	695
Mud	695	970
Sand and mud streaks	970	980
Mud	980	1043
Sand	1043	1045
Lime shell	1045	1050
Sand	1050	1051
Shell, lime	1051	1110
Mud	1110	1113
Shells	1113	1323
Blue mud	1323	1395
Mud	1395	1477
Sand	1477	1736
Muddy shale	1736	1740
Sticky mud	1740	1760
Mud	1760	1891
Sand	1891	1905
Lime	1905	1914
Sand	1914	1930
Shale		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand	1930	1942
Shale	1942	1952
Shells (lime) and sand	1952	2002
Lime shell	2002	2005
Shale	2005	2020
Sand	2005	2020
Lime shell	2085	2114
Sand	2114	2116
Lime	2116	2180
Sand	2180	2184
Lime	2184	2324
Sand	2324	2330
Lime	2330	2342
Sand and shale streaks	2342	2345
Shale	2345	2370
Sand and shale streaks	2370	2398
Sandy lime, hard	2398	2448
Sand	2448	2465
Shale, hard	2465	2486
Shale, soft	2486	2520
Sand	2520	2643
Dolomite, sandy, hard	2643	2648
Lime	2648	2694
Dolomite lime	2694	2725
Lime and pyrites	2725	2741
Lime	2741	2748
Lime and chert streaks	2748	2772
Gray lime	2772	2783
Lime, chert	2783	2792
Sandy lime, hard	2792	2815
Sandy lime	2815	2827
Correction in drill pipe—17'	2827	2832

CASING RECORD:
350' of 10¾"

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, gray and tan, fine, subangular	1830	1980
Sand, light-colored and iron-stained, medium-grained, clean, glauconitic	1980	1990
Sand, light-colored, iron-stained, clayey	1990	2000
Shale, gray, fine-grained	2000	2010
Sand, clean, fine	2010	2020
Sand, fine, gray	2020	2100
Sand, clean, fine, gray, subangular	2100	2110
Sand, iron-stained, fine, subangular, glauconitic	2110	2230
Sand, same as above, with gray, fine-grained, siliceous shale	2230	2280
Sand, gray, fine, subangular, with some gray and greenish-gray, fine-grained shale	2280	2450
Shale, gray, fine-grained, siliceous, somewhat micaceous, with fine sand as above	2450	2480
Shale, gray, fine, hard	2480	2490
Shale, same as above, with fine, clean sand	2490	2610
Shale, gray to greenish-gray, fine-grained	2610	2650
Dolomite, medium- to dark-gray, medium-grained	2650	2765
Dolomite, same as above, with some light-gray, dense, angular chert	2765	2780
Dolomite, gray, medium-grained, with some light-colored, dense, angular chert	2780	2810
Dolomite, gray, medium-grained	2810	2832½

	<i>From</i>	<i>To</i>
STRATIGRAPHIC INTERPRETATION		
Tertiary and Quaternary systems	0	1760
Wilcox and younger formations	0	1477
Porters Creek clay	1477	1760
Upper Cretaceous system	1760	2648
Ripley formation	1760	2648
Paleozoic rocks	2648	2815
Lower Ordovician (?)	2648	2815

Pure Oil Co., C. W. GRAY No. 1

(Map Number—3)

Location: C/NW NE Sec. 16, 8S—2E

Elevation: 303'

Date: 1941

Total depth: 3289'

DRILLER'S LOG¹

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand	0	452
Shale	452	520
Sandy shale	520	555
Sand	555	700
Sandy shale	700	710
Sand	710	870
Sandy shale	870	960
Sand	960	970
Shale	970	980
Sand	980	1303
Sandy shale	1303	1420
Sand	1420	1448
Shale	1448	1660
Sand	1660	1675
Shale	1675	1720
Sand and lime	1720	1740
Sand	1740	2040
Calcareous shale	2040	2100
Sand	2100	2115
Broken sand and shale	2115	2145
Broken calcareous sand and shale	2145	2200
Silty shale	2200	2425
Sand	2425	2436
Slightly sandy lime	2436	2580
Dolomitic lime	2580	2660
Slightly sandy dolomite	2660	2702
Hard, sandy dolomite	2702	2818
Dolomite, with trace of chert	2818	2926
Dolomitic lime	2926	3025
Dolomite	3025	3070
Dolomitic lime	3070	3185
Slightly sandy dolomite	3185	3200
Dolomitic lime	3200	3225
Slightly sandy dolomite	3225	3235
Dolomite	3235	3250
Slightly cherty dolomitic lime	3250	3276
Hard dolomite	3276	3289

¹ Log furnished by the Pure Oil Company.

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clear, rounded and polished, medium-grained quartz sand	0	30
Clear, angular, fine-grained quartz sand	30	60
Clear, angular, fine-grained, black-specked quartz sand	60	270
Clear, subrounded, medium-grained, black-specked quartz sand	270	300
Clear, subrounded, medium-grained, red- and black-specked quartz sand	300	330
Clear, rounded, medium-grained, red- and black-specked quartz sand	330	390
Clear, rounded, fine- to medium-grained, red- and black-specked quartz sand	390	450
Firm, light-gray clay and medium-grained, rounded sand	494	555
Same as above, and very coarse grained, rounded sand	555	645
Medium- to coarse-grained, rounded quartz sand	645	675
Same as above and light-gray clay	675	704
Same as above	704	734
Medium-grained, subangular quartz sand	734	764
Medium- to coarse-grained, rounded quartz sand and light-gray clay	764	854
Coarse to gravelly, rounded quartz sand and gray, sandy clay	854	914
Medium-grained, rounded quartz sand and gray, micaceous clay	914	944
Gray, sandy, micaceous clay	944	974
Medium-grained, rounded and polished, variegated sand	974	1004
Same as above, plus quartz sand and gray clay	1004	1034
Medium- to coarse-grained, rounded and polished, variegated sand and light-gray, hard clay	1034	1064
Medium to gravelly, rounded and polished quartz sand and light-gray clay	1064	1093
Medium-grained, rounded and polished quartz sand	1093	1242
Same as above, and dark-gray clay	1242	1271
Medium-grained, rounded and polished, quartz sand, and dark-gray clay	1271	1330
Dark-gray, sandy clay	1330	1418
Medium-grained, rounded and polished, quartz sand, and dark-gray clay	1418	1448
Medium-grained, rounded and polished, quartz sand, and dark-gray, fine-textured clay	1448	1478
Dark-gray, fine-textured clay	1478	1599
Light-gray, sandy clay	1599	1599
Lead-gray, laminated, micaceous clay, and medium-grained, rounded and polished, quartz sand	1599	1747
Lead-gray, laminated, micaceous clay; medium-grained, highly variegated, fossiliferous sand; and fragments of sandy limestone	1747	1800
Medium-grained, highly variegated sand, sandy limestone, and laminated, dark-gray clay	1800	1806
Medium-grained, highly variegated sand and lead-gray, laminated, micaceous clay	1806	1835
Medium-grained, glauconitic sand, and lead-gray, laminated, micaceous clay	1835	1865
Medium-grained quartz sand, fragments of sandy limestone, and lead-gray, laminated, micaceous clay	1865	1880
Medium-grained, glauconitic sand and lead-gray, laminated, micaceous clay	1880	1910
Medium- to coarse-grained, variegated sand and lead-gray, laminated clay	1910	1955
Medium- to coarse-grained, variegated sand, lead-gray, laminated clay, and limestone fragments	1955	1999

<i>Lithology</i>	<i>From</i>	<i>To</i>
Medium-grained, glauconitic, variegated sand and lead-gray, laminated, glauconitic clay	1999	2013
Medium-grained, variegated sand and lead-gray, laminated clay	2013	2058
Lead-gray, micaceous clay and medium-grained, rounded and polished quartz sand	2058	2103
Medium-grained, rounded and polished quartz sand	2103	2118
Lead-gray, micaceous clay	2118	2133
Lead-gray, laminated, micaceous clay and medium-grained quartz sand	2133	2148
Lead-gray, laminated, micaceous clay and light-colored, micaceous limestone	2148	2207
Lead-gray, laminated, micaceous clay	2207	2294
Lead-gray, laminated, micaceous clay and medium-grained, fossiliferous, glauconitic sand	2294	2311
Lead-gray, laminated, micaceous clay (fossiliferous @ 2325-2341 and 2351-2386)	2311	2386
Lead-gray, micaceous clay and highly micaceous, sandy limestone	2386	2401
Lead-gray, micaceous clay	2401	2433
Medium to coarse, well-rounded and polished quartz grains	2433	2438
Lead-gray, micaceous clay. Gray to dark-gray, sucrose dolomite	2438	2452
Gray to dark-gray, sucrose dolomite with few rounded quartz grains embedded	2447	2452
Lead-gray, micaceous clay and gray, sucrose dolomite	2452	2458
Gray, sucrose, pyritic dolomite	2454	2458
Clay, coarse sand, and dolomite	2458	2463
Lead-gray, micaceous clay and gray, sucrose dolomite	2458	2465
Gray, sucrose dolomite and lead-gray clay, few embedded quartz grains	2465	2480
Gray, sucrose dolomite, with few embedded quartz grains	2465	2485
Gray, sucrose dolomite, with few embedded quartz grains and amber prismatic limestone	2480	2485
Gray, sucrose dolomite, with few embedded quartz grains and pyrite	2485	2490
Gray to dark-gray, sucrose, pyritic dolomite (embedded quartz grains @ 2490-2495 and 2520-2530)	2490	2530

LAWRENCE COUNTY

T. L. Moran, J. H. STRIBLING No. 1

(Map Number—1)

Location: SE, 16S—26E

Elevation: 760'

Date: 1922

Total depth: 2127'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mississippian system		
Surface	0	10
Set 13" conductor @ 10	10	355
Lime, blue and gray, flinty		
Set 10" casing @ 181		
Lime, dark-blue, shaly	355	590
Chattanooga shale, black	590	600

<i>Lithology</i>	<i>From</i>	<i>To</i>
Silurian system (?)		
Lime, very light gray, drab and pink, crystalline (may be in part Ordovician)	600	1030
Ordovician system		
Lime, dark-gray or olive-drab, fine-grained to dense	1030	1230
Reduced hole to 8" @ 1056		
Lime, light-gray to white	1230	1300
Lime, green, shaly	1300	1360
Lime, white, sandy (water)	1360	1780
Water @ 1650 and 1780		
Lime, light-gray to white, granular, hard	1780	2088
Reduced hole to 6½" @ 1903		
Reamed hole to 8" @ 1993		
Bad hole to 2086		
Sand, white	2088	2119
Lime, white, granular, hard	2119	2127

T. L. Moran, J. H. STRIBLING No. 2

(Map Number—2)

Location: 16S—26E

Elevation: ?

Date: 1922

Total depth: 2420'

DRILLER'S LOG

<i>Lithology</i>	<i>To</i>
Top of lime	56
10" casing set to 98	
Lime to	
Green slate	327
Broken lime	367
White lime	620
Broken lime	1100
White lime	1264
Water	1479
Green slate	
White lime	1482
Top of Niagara lime	1585
Break of lime	1585
Bottom of slate	1874
2nd break in lime, top	1876
Bottom	1904
White lime	1906
Water	2044
Lime	
Top of 1st sand	2075
Bottom of sand	2075
Brown lime	2095
White lime with water	2110
Hard, smooth lime	2128
Soft, brown lime	2360
Soft, white lime	2400
	2420

Chemical analysis of cuttings from 2250 ft.:

CaCO ₃	52.54%
MgCO ₃	26.48
Al ₂ O ₃	1.00
Fe ₂ O ₃	6.40
Insoluble	13.32

T. L. Moran, J. H. STRIBLING No. 3

(Map Number—3)

Location: SE, 16S—26E

Elevation: ?

Date: 1922

Total depth: 2155'

DRILLER'S LOG

<i>Lithology</i>	<i>To</i>
Flint	125
Broken lime and slate	700
Lime	2155

Water @ 30 and 95

Hole full of water @ 1525

Water @ 1915 and 2110

Hole full of water @ 2130 (Big flow)

T. L. Moran, J. H. STRIBLING No. 4

(Map Number—4)

Location: SE, 16S—26E

Elevation: ?

Date: 1922

Total depth: 2177'

DRILLER'S LOG

<i>Lithology</i>	<i>To</i>
Top of flint	7
1st water @ 104	
Bottom of flint	120
Top of white lime	375
Green slate	435
Broken lime	1520
Water @ 2070	
Top of sand	2092
White lime, water	2105

LEWIS COUNTY**H. W. MANN No. 1**

(Map Number—1)

Location: NW SW SW Sec. 11, 13S—23E

Elevation: 680'±

Date: ?

Total depth: 1210'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface and boulders (Ft. Payne)	0	43
Coarse, crystalline limestone (Silurian?)	43	55
Very dark sandstone	55	130
White and gray, crystalline limestone	130	135
Gray-white, granular to compact, crystalline limestone	135	140
Dark-leaden shale	140	155
Gray limestone and dark shale	155	160
Dark-leaden shale	160	170
Dark-leaden shale, with some dark limestone	170	175

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dark-leadén shale, with some white, coarse-crystalline limestone	175	180
White, crystalline limestone	180	185
Gray, crystalline limestone	185	190
Brown-gray, porous, crystalline limestone	190	195
Same, with some dark shale	195	200
Same (no shale)	200	210
Leadén shale and some dark limestone	210	215
Gray, porous, crystalline limestone (Bryozoa)	215	220
Dark-leadén shale and limestone	220	260
Medium-dark leadén shale and (10%) white, crystalline limestone	260	280
Dark-leadén shale	280	285
Dark-leadén shale and (25%) dark-gray limestone	285	290
Dark-leadén shale and (50%) gray-white limestone, crystalline	290	305
Dark-leadén shale and a little white limestone, crystalline	305	310
Dark-leadén shale, slightly brownish	310	315
Dark-leadén shale	315	335
Dark-leadén shale, with little dark limestone	335	345
Dark-leadén shale	345	350
Dark-leadén shale, small amount dark limestone	350	360
Dark-leadén shale	360	380
Dark-leadén shale and fine-grained, dark limestone	380	385
Fine-grained, white limestone	385	400
Fine-grained, white, crystalline limestone	400	425
Fine-grained, brownish limestone	425	440
Fine-grained, grayish limestone (very fine)	440	445
Fine-grained, gray limestone	445	450
Fine-grained, dark-gray limestone	450	460
Fine-grained, gray limestone (rusted)	460	470
Dark-gray, fine-grained limestone	470	475
Dark-gray, fine-grained limestone, and white flecks	475	485
Dark-gray, fine-grained limestone	485	510
Medium-gray, fine-grained limestone	510	535
Medium brown-gray, fine-grained, dove-texture limestone	535	540
Medium brown-gray, fine-grained limestone	540	545
Grayish-brown, fine-grained, crystalline limestone	545	555
Grayish-brown, fine-grained limestone	555	560
Grayish-brown, very fine grained, crystalline limestone	560	565
Grayish-brown, fine-grained, crystalline limestone	565	570
Brownish, fine-grained limestone	570	580
Brownish-gray, fine-grained limestone	580	585
Gray, fine-grained limestone	585	590
Brown-gray, fine-grained limestone (Dove texture)	590	610
Medium-dark, fine-grained limestone (Dove texture)	610	620
Fine-grained, dark dove limestone	620	630
Fine-grained, dark dove limestone—becoming brownish-gray	630	645
Bluish-gray, fine-grained limestone	645	655
Brownish, fine-grained limestone	655	660
Light-brown, fine-grained limestone	660	670
Gray, fine-grained limestone	670	675
Light-gray, fine-grained limestone	675	690
Very light gray, fine-grained limestone	690	715
Dark-gray, very fine grained limestone	715	730
Light- and dark-gray, very fine grained limestone	730	740
Dark brownish-gray, fine-grained limestone	740	745
Slate-gray, fine-grained limestone	745	760
Dark slate-gray, fine-grained limestone	760	790
Very dark slate-gray, fine-grained limestone	790	795
Dark slate-gray, fine-grained limestone	795	800

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dark slate-gray, fine-grained limestone, with some shale	800	805
Dark slate-gray, fine-grained limestone	805	810
Dark-gray, fine-grained limestone	810	815
Dark-gray, fine-grained limestone	815	820
Medium dark-gray, fine-grained limestone	820	935
Dark-gray, fine-grained limestone	820	940
Medium dark-gray, fine-grained limestone, fine-cut	935	940
Dark-dove, fine-grained limestone, coarser	940	950
Light and dark, fine-grained limestone	950	955
Dark, fine-grained limestone	955	960
Blue-gray, dove-texture limestone	960	970
Dark-leadon, fine-grained limestone, crystalline	970	975
Dark-leadon fine-grained limestone, and white limestone	975	980
Gray-white, fine-grained limestone	980	985
Dark, fine-grained limestone	985	990
Light dove-colored limestone	990	1000
Medium-gray, dove-colored limestone	1000	1140
Break		
Gray-white, fine-grained, crystalline dolomite (?) and (10%) green-white shale	1140	1145
Gray-white, fine-grained, crystalline dolomite (?) and green-white shale	1145	1175
White, sugary, granular, fine-grained, crystalline dolomite (?)	1175	1180
Same, with (5%) very dark shale	1180	

LINCOLN COUNTY

Chattanooga Gas Co., M. F. CHILDRESS No. 1

(Map Number—1)

Location: SW NE SW Sec. 14, 17S—38E

Elevation: ?

Date: ?

Total depth: 225' (?)

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand and gravel	0	8
Blue limestone	8	25
Blue, shaly limestone	25	45
Dark-gray limestone	45	60
Light-gray limestone	60	65
Dove limestone	65	70
Light-drab, shaly limestone	70	75
Light, granular limestone	75	80
Dark-drab limestone	80	100
Gas		
Drab limestone	100	125
Gas @ 125'—35,000 cu. ft.		
Light, granular, drab limestone	200	205
Light, granular limestone	220	225
Gas @ 220'-225'—40,000 cu. ft.		

Well completed produces 135,000 cu. ft. per 24 hrs.
Set 96¼' of 6¼" casing.

Chattanooga Gas Co., LEWIS DICKEY No. 2

(Map Number—2)

Location: NW NE SW Sec. 14, 17S—38E

Elevation: ?

Date: ?

Total depth: 265'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and rotten limestone	0	15
Blue limestone	15	25
Water @ 20		
Dark-gray limestone	25	35
Dark-gray and blue limestone, mixed	35	40
Green and blue limestone	40	45
Dark limestone	45	50
Pencil Cave		
Dark limestone	50	55
Dark-drab limestone	55	70
Set 63 6/10' of 6" casing		
Light-dove, muddy limestone	70	75
Drab limestone	75	80
Dark-drab and white limestone, mixed	80	125
Bluish-drab limestone	125	130
Green limestone	130	135
Blue, granular, shaly limestone	135	150
Dark-gray, granular limestone	150	170
Blue, sandy limestone	170	190
Dark-drab, sandy limestone	190	195
Light-drab, sandy limestone	195	200
Light-drab limestone	200	205
Drab limestone	205	265

Middle Tenn. Oil & Gas Co., ROBERT GRAY No. 1

(Map Number—3)

Location: SE NW NW Sec. 7, 17S—36E

Elevation: ?

Date: 1913

Total depth: 963'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Drift	0	19
Set 1 joint 13" casing @ 19'		
Lime, hard, blue	19	44
Lime, light-gray, very hard	44	48
Lime, dark-gray, very hard	48	65
Lime, light-gray, hard	65	75
Lime, dark-gray, porous	75	87
Big dose water @ 87		
Lime, light-gray, very hard	87	92
Sand, gray, bastard	92	100
Lime, dark, bastard	100	161
Sand, gray, bastard	161	170
Considerable gas, with oil odor		
Lime, dark-blue, bastard	170	260
Lime, gray, drilled slow	260	305' 7"
Set 10 5/8" casing		
Lime, gray, hard	305' 7"	326
Lime, bluish-gray	326	451
Lime, dark-gray	451	565
Lime, bluish-gray	565	661

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, dark-gray	661	666
Good show of oil, color dark-green, light gravity		
Limestone, bluish-gray to brown	666	745
Lime, bluish-gray to brown	745	865
Lime, light- to dark-gray, sandy	865	900
Drilled slow and cut bits out of gauge. Had 8 bailers (60 gal.) strong sulphur water over night		
Lime, dark-blue, shaly, bastard	900	960
Sandstone, white	960	963
Cuts bits out of gauge terribly		
Looks and acts like "Knox dolomite"		

Letter under date of Nov. 23, 1920, gives following information about this well:

"There was another well drilled in Fayetteville by a local company about 8 or 9 years ago and was drilled to a depth of 980 feet. Water was struck at 200 feet, gas at 260, and a show of oil at 800 feet. The gas when lighted in this well would burn several feet above the top of the well."

Bull Brown et al, M. J. ROWELL No. 1
(Map Number—4)

Location: NW SW Sec. 14, 18S—34E

Elevation: ?

Date: 1923

Total depth: 510'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	6
Dark, shaly lime	6	11
Rotten lime, iron-stained	11	16
Red rock	16	21
Pink Fernvale	21	26
Light-pink lime	26	31
Oil struck in both pink and light-pink Fernvale, and several barrels reported to have been produced from this horizon.		
Soapstone	31	36
Black lime	36	41
Dark-brown lime	41	45
Light-gray lime and blue soapstone	45	50
Dark lime	50	60
Coarse, green lime	60	65
Light-green lime with white specks	65	70
Dark, coarse lime	70	90
Gray lime	90	120
Dark-gray lime	120	130
Light-gray lime	130	150
Brown and gray lime	150	170
Light-brown lime	170	185
Gray, shaly lime	185	195
Steel-gray lime	195	215
Gray and white speckled lime	215	256
Brown and black, shaly lime	256	265
Green lime	265	275
Light-gray lime	275	284
Black, shaly lime	284	290
Fine, black, sandy lime with white specks	290	295
Coarse, black lime with white specks	295	300
Gray and white lime, mixed	300	323
Pencil Cave	323	325
Gray and black, shelly lime	325	330

<i>Lithology</i>	<i>From</i>	<i>To</i>
Black shelly lime	330	335
Dark-gray lime	335	340
Light-dove lime	340	370
Dark-dove lime	370	395
Dark-gray lime	395	435
Light-dove lime	435	460
Light and dark mixed, dove lime	460	465
Sandy, caramel lime	465	470
Dark-gray lime	475	500
Coarse, light-dove lime	500	510

Local Interests at Kelso, V. H. TARKINGTON No. 1

(Map Number—5)

Location: NW SW NE Sec. 13, 17S—37E

Elevation: 800'±

Date: 1928

Total depth: 555'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	9
Gravel	9	22
Fresh water @ 20		
Broken yellow lime	22	40
Red and dark lime	40	45
Steel-gray lime	45	55
Red and dark-gray lime	55	60
Dark-gray lime and soapstone	60	85
Dark-gray lime, mixed	85	125
Dark lime	125	160
Brown and gray lime	160	170
Black lime	170	185
Dark-gray lime	185	190
Brown and white lime	190	195
Dark-gray lime	195	210
Dark, shelly lime	210	215
Mixture of light-brown and white, shelly lime	215	225
Dark-gray lime	225	230
Dark-gray and white lime	230	240
Light-gray and brown lime	240	260
Steel-gray lime	260	270
Dark-gray and white lime	270	310
Dark-gray and light-brown lime	310	315
Dark-gray and brown lime	315	365
Pencil Cave	365	367
Caramel and gray lime	367	400
Brown and white, flaky lime	400	425
Dark-gray and brown lime	425	430
Brown and white, flaky lime	430	445
Dark lime	445	460
Gray and brown mixture	460	470
Dark-brown and white, flaky lime	470	495
Light-caramel to brown lime	495	520
Salt water (small amount) @ 515		
Green lime	520	525
Brown lime	525	530
Coarse, gray and brown lime	530	545
Gray lime	545	555

Young Development Co., E. W. PITTS No. 1
 (Map Number—6)

Location: NE SE NW Sec. 8, 17S—35E

Elevation: 690'

Date: 1928

Total depth: 955'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	8
Lime, dark-gray, shelly	8	34
Lime, light, granular	34	49
Lime, gray, shelly	49	60
Fresh water @ 60		
Lime, gray, shelly	60	140
Lime, light, granular	140	155
Lime, gray and white	155	229
Water sand	229	231
Black sulphur water @ 229		
Lime, light-brown, flaky	231	261
Lime, dark, shelly	261	289
Black sulphur water @ 289 rose to within 45' of top of hole.		
Showing of oil		
Lime, dark	289	296
Lime, fine, light-brown	296	380
Lime, caramel	380	405
Show of oil @ 390		
Lime, light-brown and white	405	450
Lime, dark-gray and brown	450	460
Pencil Cave	460	461
Lime, dark-dove	461	520
Lime, light-gray to dove	520	590
Lime, light- to dark-gray	590	610
Show of gas @ 600		
Lime, light-gray, shelly	610	635
Lime, dark-gray to dove	635	700
Lime, dark-green	700	750
Lime, fine, dove	750	775
Lime, dark-gray	775	785
Lime, brown to dove	785	807
Lime, hard, fine, white	807	955

Fayetteville Natural Gas Co., W. G. COWAN No. 1
 (Map Number—7)

Location: SW NE SW Sec. 4, 17S—36E

Elevation: 689'

Date: 1929

Total depth: 270'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-blue, coarsely crystalline, shaly. Cuttings very coarse	35	50
Limestone, light-gray to dark-blue and drab, coarse to finely crystalline	50	55
Limestone, mixture of very light gray and dark-blue, fine-grained	55	60
Limestone, dark blue-gray, coarsely crystalline, numerous fragments of brachiopod shells	60	80
Limestone, very dark blue-gray, fine-grained, shaly	80	95
Limestone, light- to dark-drab, fine-grained to dense	95	110

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light blue-gray, fine to coarsely crystalline	110	135
Limestone, dark-blue and gray, fine-grained to dense, mottled	135	140
Limestone, very light gray, coarsely crystalline	140	145
Limestone, light blue-gray to drab, very fine grained to dense	145	165
Limestone, light blue-gray, coarsely crystalline	165	180
Limestone, dark blue-gray, finely crystalline	180	185
Limestone, dark blue-gray, coarsely crystalline	185	190
Gas		
Limestone, dark blue-gray, finely crystalline, shaly, a few shell fragments	190	210
Limestone, light-gray to dark-blue or drab, very finely crystalline, a few shell fragments and occasional speck of shiny pyrite	210	225
Limestone, dark-drab, very fine grained to dense, numerous impressions of shell fragments	225	245
Limestone, dark blue-gray, finely crystalline	245	250
Limestone, dark-blue to drab, mottled, fine-grained to dense	250	270
Gas @ 256-267		

NOTE:

Driller reported salt water @ 65', additional gas puffs @ 75' and 90', and Pencil Cave @ 90'.

November 4, 1929: Well shut in and gas piped to nearby residence. Well must be pumped daily to keep out strong flow of salt water. Closed in pressure—45 pounds. Strong flow of salt water coming from 265 feet with gas.

Fayetteville Natural Gas Co., A. H. HATCHER No. 1

(Map Number—8)

Location: SE NE SW Sec. 5, 17S—36E

Elevation: 708'

Date: 1929

Total depth: 315'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light bluish-gray, finely crystalline	20	25
Fresh water @ 20		
Limestone, light-gray to dark-drab, finely crystalline	25	35
Limestone, dark bluish-gray to drab, very finely crystalline to dense	35	45
Limestone, very light gray to dark-drab, finely granular. Dark fragments contain ostracods, light fragments chiefly honey-yellow calcite	45	50
Limestone, dark blue-gray to drab, finely granular, large fragments show distinct mottling	50	55
Limestone, very light blue-gray to drab, fine-grained to dense	55	65
Limestone, dark-drab, very fine grained to dense	65	75
Limestone, dark blue-gray, shaly	75	90
Fresh water 75-80		
Puff gas 86-90		
Limestone, dark blue-gray to dark-drab, finely granular, with abundant shiny pyrite	90	95
Limestone, very light gray, coarsely crystalline, with abundant white calcite	95	100
Limestone, dark-blue, shaly	100	105
Limestone, light-gray, coarsely crystalline, numerous shell fragments, abundant white calcite	105	115

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light blue-gray to dark-blue or drab, finely crystalline	115	130
Limestone, dark blue-gray to light-drab, finely granular to dense	130	135
Limestone, very dark drab, with numerous bright-green, glassy particles, with abundant shiny pyrite and "cave," tiny flakes of black mica	135	140
Limestone, dark-drab, very fine grained to dense	140	160
Limestone, dark blue-gray, finely granular	160	165
Limestone, mixture of light- and dark-drab, finely granular	165	170
Limestone, light-drab, very fine grained to dense	170	175
Limestone, mixture of fine cuttings of light-drab and coarse cuttings of dark blue-gray, very finely granular to dense	175	180
Limestone, light blue-gray, finely granular	180	190
Limestone, dark blue-gray to drab, finely granular to dense	190	200
Limestone, mixture of light- and dark-drab, fine-grained to dense	200	205
Limestone, light blue-gray, finely granular, abundant honey-yellow calcite	205	250
Limestone, light to dark blue-gray, finely granular	250	260
Limestone, dark blue-gray and drab, mottled, very fine grained to dense, cuttings very fine	260	275
Limestone, dark-drab, very fine grained to dense, with numerous impressions of shell fragments	275	305
Limestone, dark-blue and drab, mottled, very fine grained to dense	305	315
Gas (85 lbs. pressure) @ 310-313		

Nov. 4, 1929:

Well capped and shut in. Gas not being used. Closed-in pressure 70 lbs. on steam gauge.

Chattanooga Gas Co., ARTHUR THOMPSON No. 1

(Map Number—9)

Location: SW SW SE Sec. 15, 17S—38E

Elevation: 720'

Date: 1930

Total depth: 415'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	5
Blue, shaly limestone	5	35
Fresh water @ 35		
Blue and gray limestone	35	40
Blue and black limestone	40	50
Brown and blue mixed limestone	50	55
Blue, shaly limestone	55	60
Pencil Cave		
Fine, blue limestone	60	65
Dark and white limestone, mixed	65	70
Dove-colored limestone	70	75
Gray limestone	75	80
Drab limestone	80	90
Brown limestone	90	105
Set 98' of 6¼" casing		
Drab and green limestone, mixed	105	110
Light and dark shaly limestone, mixed	110	115
Brown limestone	115	120
Dark-brown limestone, mixed	120	125
Gray shale and drab limestone	125	130

<i>Lithology</i>	<i>From</i>	<i>To</i>
Green limestone	130	135
Dark-blue limestone	135	150
Dark-blue and drab limestone, mixed	150	170
Dark-blue, shaly limestone	170	190
Dark-drab limestone	190	200
Drab limestone	200	215
Light-drab, sandy limestone	215	235
Gray and drab mixed limestone	235	245
Light-drab and white sandy limestone, mixed	245	250
Light-drab, hard, sandy limestone	250	260
Gray-drab and sandy limestone	260	265
Dark-gray and mixed limestone	265	295
Light-gray, shaly limestone	295	300
Gas		
Dark-gray, shaly limestone	300	325
Drab limestone	325	330
Blue limestone	330	340
Dark-drab limestone	340	375
Dark- and light-drab limestone	375	395
Light-drab limestone	395	410

Casing pulled and well plugged.

Elk Hills Petroleum & Gas Co., GEORGE WARD No. 1

(Map Number—10)

Location: NW SW SE Sec. 14, 17S—38E

Elevation: 762'

Date: 1930

Total depth: 160'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light blue-gray, finely granular, somewhat shaly; shiny pyrite rare	0	7
Limestone, dark blue-gray, finely granular	7	37
Limestone, light blue-gray, quite shaly, very finely granular	37	47
Limestone, very dark blue-gray, finely crystalline to dense	47	62
Limestone, light blue-gray, very shaly	62	65
Pencil Cave, very light grayish-green, slick shale, with tiny flakes of black mica	65	67
Limestone, light brownish-gray, granular	67	75
Limestone, dark blue-gray or drab, very fine grained to dense	75	95
Limestone, light blue-gray or olive-drab, finely granular	95	110
Limestone, light-gray or olive-drab, very finely granular	110	113
Limestone, dark blue-gray, very finely granular to dense	113	125
Limestone, very light gray, finely granular or shaly	125	150
Limestone, dark blue-gray or olive-drab, very fine-grained to dense	150	153

NOTE:

The sand was only tapped and the well blew itself in, lifting 82 feet of 6¼-inch casing and 2200 pounds of tools. Gas very wet. The entire string of 82 feet of casing had to be cemented to bedrock.

On April 20, 1930, the well was allowed to flow open for 3 hours, after which the following measurements were made:

Volume—380,000 cubic feet. Closed-in pressure after 1 minute—22½-25 pounds.

Chattanooga Gas Co., CHARLES NIX No. 1

(Map Number—11)

Location: NE SE SE Sec. 14, 17S—38E

Elevation: 782'

Date: 1930

Total depth: 408'

DRILLER'S LOG

Lithology	From	To
Soil	0	10
Limestone, blue	10	35
Limestone, blue and dark	35	45
Fresh water @ 40-45	45	60
Limestone, blue, shaly	60	80
Limestone, blue and gray mixed		
Pencil Cave @ 80	80	90
Limestone, blue-gray	90	95
Limestone, blue, shaly	95	105
Limestone, dark blue-gray		
Set 102' of 6 1/4" casing	105	115
Limestone, sandy, blue-gray	115	125
Limestone, dark-gray and white mixed	125	130
Limestone, brown and white mixed		
Gas @ 129	130	140
Limestone, blue and white mixed	140	150
Limestone, drab and light-drab	150	155
Limestone, brown	155	160
Limestone, blue and brown mixed	160	170
Limestone, green, shaly	170	175
Limestone, gray-green, sandy	175	190
Limestone, blue, sandy	190	195
Limestone, dark gray-blue, gritty	195	220
Limestone, dark gray-blue, sandy, "salt and pepper"	195	225
Limestone, dark gray-blue and white, mixed	220	
Gas @ 222	225	230
Limestone, light-drab dove, sandy		
Gas @ 229	230	235
Limestone, very light	235	240
Limestone, sandy, drab	240	245
Limestone, sandy, drab		
Green sand, gas in bottom of screw	245	260
Limestone, light-drab		
Gas @ 249	260	280
Limestone, dark-drab	280	290
Limestone, very light drab	290	297
Limestone, light-drab	297	305
Limestone, dark, sandy, gritty	305	340
Limestone, dark and white mixed	340	345
Limestone, drab, fossiliferous	340	360
Limestone, dark-drab and white, mixed	345	
Gas @ 360	360	380
Limestone, dark-drab, gritty and shaly		
Gas @ 380	380	395
Limestone, dark	395	404
Limestone, dark-drab, gritty		
Gas @ 404	404	408
Limestone, dark-drab		

Produced 666,400 cu. ft. gas in 24 hrs.

Elk Hills Petroleum & Gas Syn., D. T. HARDIN No. 1

(Map Number—12)

Location: SW SE Sec. 10, 18S—33E

Date: 1930

Elevation: 918'

Total depth: 665'

<i>Lithology</i>	SAMPLE DESCRIPTION	
	<i>From</i>	<i>To</i>
Chattanooga shale	27	31
Set 30' of 8½" drive pipe		
Limestone, dark-blue, very shaly, sandy, cherty, with abundance of pyrite	40	65
Limestone, reddish, greenish, very shaly and cherty, with considerable pyrite	65	85
Limestone, light-gray to very dark blue-gray, coarsely granular, shaly	85	150
Limestone, light-gray, very coarsely crystalline	150	155
Show of oil		
Limestone, dark blue-gray, fine- to coarse-grained and shaly	155	300
Puffs of gas @ 165; at 170' gas measured 70 lbs. pressure on mercury gauge		
Show of gas @ 183		
Limestone, blue-gray to dark olive-drab, fine-grained to dense (dove)	300	335
Limestone, very dark blue-gray, coarsely granular	335	395
Limestone, light-gray to dark blue-gray, very coarsely crystalline, with an abundance of shiny pyrite	395	415
Pencil Cave @ 395-397 (reported by driller; not found in cuttings)		
Limestone, light-gray or olive-drab, very fine grained to dense (dove)	415	460
Limestone, dark blue-gray, coarsely crystalline	460	520
Limestone, dark-gray or olive-drab, fine-grained to dense (dove)	520	565
Limestone, very light gray or olive-drab, fine-grained to dense	565	615
Well continued to 665' (no cuttings)		

United Light & Power Co., R. D. COWLEY No. 1

(Map Number—13)

Location: NW SE SW Sec. 20, 17S—37E

Date: 1930

Elevation: 1025'

Total depth: 735'

<i>Lithology</i>	DRILLER'S LOG	
	<i>From</i>	<i>To</i>
Soil and gravel	0	47
Light-colored chert and light-green limestone	47	51
Green shale (Maury)	51	52
Black shale (Chattanooga)	52	57
Dark, gritty limestone	57	70
Set 60' of 8¼" pipe		
Dark, gritty and green limestone, mixed	70	75
Blue and green shaly limestone, mixed	75	95
Green limestone	95	120
Red rock	120	125
Green and gray limestone, mixed	125	130
Green, blue, shaly limestone	130	145
Dark-gray, sandy limestone	145	150

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray, shaly limestone	150	155
Dark-gray and brown limestone, mixed	155	195
Set 160' of 6¼" casing		
Gas @ 182 and 187		200
Dark-gray, siliceous limestone	195	205
Very dark gray limestone	200	210
Black, gritty limestone	205	215
Dark-gray limestone	210	220
Green and gray limestone, mixed	215	225
Green and gray mixed with white limestone	220	230
Dark-gray limestone	225	240
Dark-gray, sandy limestone	230	
Gas @ 230-235		270
Brown and green mixed limestone	240	275
Light-brown, dove limestone with Pencil Cave	270	310
Light-drab limestone	295	315
Light-brown, drab limestone	310	320
Light-brown and drab-brown limestone, mixed	315	335
Dark-brown, shaly limestone	320	340
Dark-brown and drab shaly limestone, mixed	335	345
Light-blue, drab limestone	340	350
Light, sandy, drab limestone	345	355
Brown limestone	350	370
Dark-drab limestone	355	375
Light-gray limestone	370	385
Bluish, shaly, sandy limestone	375	395
Gray and white limestone	385	400
Gray and white, sandy limestone, mixed	395	415
Blue, gritty limestone	400	425
Drab limestone	415	430
Light-drab, sandy limestone	425	
Gas		445
Dark-drab limestone	430	
Gas show		450
Light-drab limestone	445	
Gas show		465
Dark-drab limestone	450	
Gas show @ 450-455		470
Drab limestone	465	475
Dark-drab, sandy limestone	470	
Gas		485
Light-drab, sandy limestone	475	520
Gray and white limestone, mixed	485	530
Dark-gray and white sandy limestone, mixed	520	535
Light-gray and white limestone, mixed	530	
Gas		545
Gray and white limestone, mixed	535	550
Drab and white limestone, mixed	545	580
Dark-drab limestone	550	600
Dark-drab and white limestone, mixed	580	
Gas @ 565-590		605
Dark-drab, shaly, and white limestone	600	
Gas		610
Light-drab limestone	605	625
Drab limestone	610	645
Light-drab limestone	625	725
Drab limestone	645	

Well completed.
 Production: 170,000 cu. ft.
 Rock pressure: 125 lbs.
 Working pressure: 25 lbs.

Chattanooga Gas Co., HUGH SYLER No. 1

(Map Number—14)

Location: NW NW SW Sec. 13, 18S—38E

Elevation: 792'

Date: 1930

Total depth: 1145'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface soil	0	11
Blue, shaly limestone	11	30
Black limestone	30	35
Gray, shaly limestone	35	40
Blue, gritty limestone	40	45
Blue limestone	45	50
Light-gray limestone	50	60
Gas and salt water	60	85
Black, shaly limestone		
Carters limestone		
Pencil Cave @ 85		
Dark-drab limestone	85	100
Show of oil		
Light-drab limestone	100	105
Drab, shaly limestone	105	110
Drab, sandy limestone	110	120
Gas @ 113		
Shaly, drab limestone	120	128
Gas @ 125		
Dark, shaly limestone	128	130
Dark-drab limestone	130	140
Light-drab limestone	140	145
Brown, gritty limestone	145	160
Blue, shaly limestone	160	165
Light blue-green lime	165	170
Blue, shaly limestone	170	180
Dark-gray, shaly lime	180	185
Very dark limestone	185	205
Black, sandy limestone	205	206
Gas		
Very dark, sandy lime		
Dark-drab limestone	206	225
Light-drab limestone	225	230
Dark-drab limestone	230	235
Dark-drab, sandy lime	235	245
Light-brown to dark-green, sandy limestone	245	250
Gas @ 255	250	260
Dark-brown limestone		
Gas	260	280
Light-drab, sandy lime		
Gas	280	285
Light-drab limestone		
Light- and dark-drab lime	285	290
Shaly, sandy, drab lime	290	320
Gas	320	325
Light and dark limestone		
Dark and light, sandy lime	325	345
Gas	345	350
Drab, sandy limestone		
Dark, siliceous limestone	350	355
Gas @ 360	355	370
Light-drab limestone	370	400

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy, caramel limestone	400	410
Gas		
Light-caramel limestone	410	425
Light-drab to white lime	425	435
Dark-drab limestone	435	440
Very light drab lime	440	445
Caramel, sandy limestone	445	460
Light-drab to white lime	460	465
Very dark drab lime	465	475
Light, hard, caramel lime	475	485
Dark, siliceous limestone	485	500
Dark-drab to white lime	500	515
Dark-caramel limestone	515	540
Dark-gray, sandy lime	540	545
Dark-blue or drab lime	545	570
Dense, hard, blue lime	570	585
Blue and gray limestone	585	590
Brown limestone	590	710
Dark-brown to black lime	710	720
Light-drab limestone	720	725
Dark to black limestone	725	730
Dark-gray to drab, shaly, variegated limestone	730	780
Very dark to black lime	780	815
Light- to dark-drab to brown, shaly to dense lime	815	910
Hard, light-dove limestone	910	950
Mottled drab limestone	950	970
Blue-gray, shaly lime	970	975
Knox dolomite		985
Light pearly, silty limestone	975	990
Very light pearly lime	985	1010
Light-green to drab lime	990	1025
Dark-green, sandy lime	1010	1040
Light to dark, pearly-gray to drab limestone	1025	1045
Light-brown, sandy lime	1040	
Very light gray to white, hard, finely granular, magnesian limestone	1045	1140
St. Peter (?)		1145
White sandstone	1140	
Gas and salt water		

Salt water rose 50 feet in well. Well was plugged and cemented at 1140 feet to shut off water.

June 28, 1930—Well was allowed to flow open for 10 minutes, and then was gauged with Pitot tube to measure 542,400 cubic feet of gas.

Chattanooga Gas Co., W. M. CRAWFORD No. 1

(Map Number—15)

Location: SW NE SW Sec. 13, 17S—38E

Elevation: 733'

Date: 1930

Total depth: 350'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	5
Blue limestone	5	10
Water @ 7		
Light-gray limestone	10	20
Blue, shaly limestone	20	25
Sulphur water @ 22		
Blue limestone	25	30
Blue, shaly limestone	30	35

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray to light-brown limestone	35	40
Pencil Cave		
Light-brown limestone	40	50
Light-blue, dove limestone	50	55
Dark-drab limestone	55	75
Brown limestone	75	80
Light-drab limestone	80	85
Light-drab and dark limestone, mixed	85	95
Light-gray water sand	95	100
Black sulphur water @ 98		
Brown limestone	100	105
Brown, fine water sand	105	115
Brown limestone	115	120
Set 118½' of 6¼" casing		
Very light drab and brown limestone, mixed	120	125
Brown limestone	125	130
Dark-drab, brown limestone	130	135
Dark greenish-gray limestone	135	140
Pale-green and drab limestone, mixed	140	145
Sulphur and salt water @ 142		
Blue, shaly limestone	145	150
Show of oil 145-150		
Blue, shaly limestone	150	155
Blue-gray limestone	155	160
Blue, drab limestone	160	165
Gray, granular limestone	165	185
Bluish, gritty limestone	185	205
Light-drab limestone	205	220
Drab limestone	220	230
Light-drab, brown, hard limestone	230	240
Drab and white limestone, mixed	240	255
Very light drab limestone	255	270
Dark-drab, shaly limestone	270	275
Dark-gray, sandy limestone	275	280
Dark-gray, drab limestone	280	290
Drab limestone	290	300
Shaly, bluish-drab limestone	300	310
Sandy, drab and gray limestone, mixed	310	315
Drab limestone	315	350

Chattanooga Gas Co., LEWIS DICKEY No. 1
(Map Number—16)

Location: NE SE NW Sec. 13, 17S—38E

Elevation: 759'

Date: 1930

Total depth: 445'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	10
Lime, dark-blue	10	50
Lime, light and dark mix	50	55
Lime, black and blue, shaly	55	65
Pencil Cave	65	67
Lime, dark-drab	67	80
Lime, dark-gray to dove	80	95
Lime, brown	95	100
Lime, light- to dark-drab	100	120
Lime, brown	120	130
Lime, blue	130	135
Lime, bluish-green	135	145
Lime, dark-blue, sandy	145	150
Lime, dark-gray to black	150	170

	From	To
<i>Lithology</i>		200
Lime, dark to drab, sandy	170	245
Lime, light- to dark-drab	200	250
Lime, drab, sandy	245	
Gas @ 250		259
Lime, light-drab, sandy	250	
Gas @ 258		
Gauged 214,000 cu. ft. in 24 hrs., and 155 lbs. pressure in 8 minutes. 40 lbs pressure in 1 minute.		270
Lime, light-drab	259	
Gas @ 265		275
Lime, dark-gray to drab	270	300
Lime, light-gray, sandy	275	
Gas @ 300		385
Lime, dark-gray to drab	300	
Gas @ 320		400
Lime, light bluish-drab	385	405
Lime, brownish-drab	400	415
Lime, brown, shaly	405	420
Lime, light-drab, sandy	415	445
Lime, drab, dense	420	

Chattanooga Gas Co., J. A. DICKEY No. 2
(Map Number—17)

Location: NW SE SW Sec. 14, 17S—38E
Date: 1930

Elevation: 728'
Total depth: 445'

DRILLER'S LOG

	From	To
<i>Lithology</i>		10
Soil	0	25
Dark-gray and blue limestone, mixed	10	30
Gray and white limestone, mixed	25	50
Blue, shaly limestone	30	55
Dark limestone	50	60
Very dark gray limestone	55	
Salt water @ 59		65
Light, shaly limestone	60	
Pencil Cave		90
Dark-gray, drab limestone	65	95
Dove limestone	90	
Gas @ 93		105
Brown and drab limestone, mixed	95	110
Light-drab, shaly limestone	105	
Set 110' of 6¼" casing		125
Dark-gray limestone	110	130
Light-gray, drab limestone	125	135
Dove and light-drab limestone	130	140
Dove and drab limestone, mixed	135	155
Dark-brown limestone	140	185
Blue and gray, sandy, shaly limestone	155	200
Blue and gray, shaly limestone	185	210
Gray, sandy limestone	200	225
Light-drab and white limestone, mixed	210	230
Dove limestone	225	240
Dark-mottled, drab limestone	230	245
Dark-drab limestone	240	250
Light-drab, sandy limestone	245	265
Dark-drab limestone	250	275
Light-drab, sandy limestone	265	285
Drab limestone	275	300
Gray and drab limestone, mixed	285	

Chattanooga Gas Co., B. E. HOLMAN No. 1

(Map Number—18)

Location: NE NW SW Sec. 23, 17S—38E

Elevation: 798'

Date: 1930

Total depth: 435'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	10
Crevices and boulders	10	15
Lime, bluish-gray	15	25
Lime, brown and gray mix	25	35
Lime, dark bluish-gray	35	60
Lime, brown, sandy	60	65
Lime, bluish-green, shaly	65	80
Lime, brown and green, sandy	80	90
Lime, green, shaly, muddy	90	95
Show of oil		
Lime, reddish-green, shaly	95	105
Lime, blue to greenish-gray	105	115
Lime, gray and brown, sandy	115	125
Pencil Cave	125	130
Lime, dark-drab, shaly	130	185
Lime, drab, fine, sandy	185	195
Gas @ 185-190		
Lime, light-drab, shaly	195	200
Lime, brown and drab	200	215
Lime, green and drab, sandy	215	240
Gas @ 220-225		
Lime, blue and gray, shaly	240	245
Lime, drab and white, sandy	245	250
Gas @ 245-250		
Lime, dark-gray, sandy	250	270
Lime, light- to dark-gray	270	280
Lime, light- and dark-drab	280	300
Lime, light-brown, sandy	300	305
Lime, light- and dark-drab, sandy	305	335
Lime, gray and white	335	340
Lime, dark-gray and drab, sandy	340	435
Gas @ 315-435		

United Light & Power Co., JOHN CALDWELL No. 1

(Map Number—19)

Location: SW NW NE Sec. 20, 17S—37E

Elevation: 931'

Date: 1931

Total depth: 525'±

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	15
Blue, shaly limestone	15	20
Blue limestone	20	35
Dark-gray limestone	35	45
Light-gray limestone	45	50
Dark-gray limestone	50	55
Dark- and light-gray limestone, mixed	55	65
Black limestone	65	70
Black and gray limestone, mixed	70	80
Blue, shaly limestone	80	80

<i>Lithology</i>	<i>From</i>	<i>To</i>
Blue, and white shaly limestone, mixed	100	110
Gas @ 100-105		115
Blue and white limestone, mixed	110	125
Blue, gritty limestone	115	135
Blue-gray limestone	125	145
Gray, drab limestone	135	155
Dark-gray limestone	145	160
Dark-gray, muddy limestone	155	170
Dark-gray, shaly limestone	160	175
Dark-gray limestone	170	180
Dark-drab and green limestone, mixed	175	185
Drab limestone	180	210
Light-drab limestone	185	215
Dark-drab limestone	210	230
Blue limestone	215	235
Light-drab limestone	230	240
Drab limestone	235	250
Dark-gray limestone	240	260
Blue-green, shaly limestone	250	265
Dark, granular limestone	260	305
Black and white, granular limestone	265	310
Drab limestone	305	315
Dark-drab, sandy limestone	310	320
Light bluish-drab limestone	315	525
Limestone	320	

Well completed.

Production: 170,000 cu. ft. Shut-in pressure: 55 lbs. Dropped while shut-in to 7 lbs.

Chattanooga Gas Co., DORA CALDWELL No. 1

(Map Number—20)

Location: NE NW NW Sec. 20, 17S—37E

Elevation: ?

Date: 1931

Total depth: 490'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	10
Blue limestone	10	20
Dark-gray limestone	20	25
Blue limestone	25	50
Blue-gray limestone	50	95
Water @ 62		115
Blue, shaly limestone	95	120
Dark-gray limestone	115	125
Blue, rotten limestone	120	
Set 125' of 6¼"		135
Dark-gray limestone	125	150
Dark-gray and brown limestone	135	175
Dove limestone	150	175
Brown limestone	175	190
Gas @ 190		195
Dove-colored limestone	190	205
Light-brown limestone	195	
Gas @ 200		215
Light-brown and blue limestone, mixed	205	220
Light-blue, gritty limestone	215	
Pencil Cave @ 220		240
Black, gritty limestone	220	

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dark-blue to drab limestone	240	265
Drab limestone	265	270
Light-drab limestone	275	330
Dark-drab, gray, and white limestone, mixed	330	395
Light-drab limestone	395	400
Blue-gray limestone	400	445
Light-drab limestone	445	470
Dark-drab limestone	470	490

Casing pulled, plugged, and cemented at 160 feet.

Chattanooga Gas Co., DORA CALDWELL No. 2

(Map Number—21)

Location: SW SE SW Sec. 11, 17S—37E

Elevation: ?

Date: 1931

Total depth: 370'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and chert	0	15
Blue limestone	15	80
Gray limestone	80	85
False Dove limestone	85	105
Gray and dove limestone, mixed	105	110
Dark-gray limestone	110	115
Blue-black limestone (Ward)	115	125
True Dove limestone	125	135
Brown, sandy limestone	135	145
Blue, shaly limestone	145	150
Blue, gritty limestone	150	165
Blue, gritty, white, flaky limestone	165	170
Dark, gritty limestone	170	180
Dark-blue, shaly limestone with Pencil Cave	180	185
Dark-blue shaly limestone without Pencil Cave	185	200
Blue, gritty limestone	200	205
Blue and gray mixed limestone	205	220
Light-drab limestone	220	225
Dark-drab limestone	225	235
Drab and gray, shaly limestone	235	240
Gas		
Light-drab limestone	240	250
Blue, drab limestone	250	255
Dark-drab and white limestone, mixed	255	265
Light-drab and white limestone, mixed	265	270
Dark-drab limestone	270	275
Dark-drab and gray limestone	275	280
Blue and dark-gray mixed limestone	280	315
Blue and gray, granular limestone	315	335
Blue, drab to white limestone	335	360
Dark-drab limestone	360	370

Casing pulled and well plugged.

Chattanooga Gas Co., TOM KEITHLER No. 1

(Map Number—22)

Location: NW SE NW Sec. 16, 17S—38E

Elevation: ?

Date: 1931

Total depth: 415'

DRILLER'S LOG

Lithology	From	To
Sand and gravel	0	10
Blue, shaly limestone	10	30
Blue sand, carrying water, and blue to black, shaly limestone	30	70
Blue limestone	70	80
False Dove	80	105
Blue limestone (Ward)	105	135
Gray, gritty limestone	135	140
Blue, gritty limestone	140	155
Blue and gray, granular limestone	155	175
Blue, gritty limestone	175	180
Gas	180	185
Gray, gritty limestone	185	190
Pencil Cave	190	195
Gray and drab limestone, mixed	195	205
Drab limestone	205	210
Light-drab limestone	210	230
Drab limestone	230	240
Bluish-drab limestone	240	275
Drab limestone	275	280
Bluish limestone	280	375
Dark-drab limestone	375	395
Drab limestone	395	400
Drab, sandy limestone		
Gas		

Well completed.

Rock pressure 47 lbs.; working pressure 5 lbs.

Chattanooga Gas Co., W. M. CRAWFORD No. 2

(Map Number—23)

Location: SE SW NW Sec. 13, 17S—38E

Elevation: 732'

Date: 1931

Total depth: 440'

DRILLER'S LOG

Lithology	From	To
Soil	0	2
Dark-gray limestone	2	30
Blue limestone	30	35
Gray limestone	35	40
Dark-gray to black limestone	40	60
Blue limestone	60	65
Blue and gray limestone, mixed	65	85
Blue and black, shaly limestone, mixed	85	95
Dark-gray, shaly limestone	95	105
Light-gray limestone	105	110
Set 108' of 6 1/4" casing		
Brown limestone	110	120
Light-dove limestone	120	130
Gas @ 121		
Dark-gray limestone	130	135

<i>Lithology</i>	<i>From</i>	<i>To</i>
Brown limestone	135	160
Dove limestone	160	165
Dark-gray, gritty limestone	165	175
Brown, gritty limestone	175	180
Gray, shaly limestone	180	185
Blue, sandy limestone	185	190
Blue, shaly limestone	190	200
Blue to greenish, shaly limestone	200	205
Dark-gray limestone	205	215
Blue, shaly limestone	215	235
Dark-gray to black limestone	235	240
Dark-drab limestone	240	260
Light-drab limestone	260	270
Dark-drab limestone	275	285
Light-drab limestone	285	300
Light, sandy limestone	300	305
Dark-drab limestone	305	310
Dark-drab and white limestone, mixed	310	370
Dark-drab limestone	370	440

Chattanooga Gas Co., SAM TIGERT No. 1

(Map Number—24)

Location: NW NW NE Sec. 20, 17S—37E

Elevation: 800'

Date: 1931

Total depth: 465'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	10
Blue limestone	10	20
Blue, shaly limestone (Catheys)	20	65
False dove; limestone with gypsum	65	80
Dark-gray and brown, shaly limestone (Ward)	80	95
True Dove	95	100
Brown, sandy limestone	100	120
Brown and green, sandy limestone	120	125
Green, shaly limestone (Hermitage)	125	130
Dark-brown, sandy limestone	130	145
Pencil Cave, with limestone	145	150
Gas		
Dark, black, gritty limestone	150	175
Drab limestone	175	195
Gas @ 175-190		
Drab, sandy limestone	195	200
Gas @ 199		
Drab limestone	200	240
Light-drab limestone	240	245
Bluish-drab limestone	245	250
Strong flow of gas		
Gray, gritty limestone	250	295
Gray, and gritty limestone, mixed	295	305
Drab, caramel-colored limestone	305	310
Dark-drab, sandy limestone	310	355
Gas strong @ 310-315		
Dark, caramel-colored limestone	355	360
Dark limestone	360	380
Dark, caramel-colored limestone and sandy limestone	380	385

<i>Lithology</i>	<i>From</i>	<i>To</i>
Light-drab limestone	385	415
Gas @ 400		
Blue-drab limestone	415	425
Light-drab limestone	425	435
Blue-drab limestone	435	450
Dark-drab limestone	450	455
Drab and white limestone, mixed	455	465

Well completed. Production 370,000 cu. ft.
Shut-in rock pressure 104 lbs.

Chattanooga Gas Co., SAM TIGERT No. 2

(Map Number—25)

Location: NE NE NE Sec. 20, 17S—37E

Elevation: 785'

Date: 1931

Total depth: 215'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	7
Blue, shaly limestone	7	10
Blue limestone	10	45
Gas @ 35		
Light-dove water sand	45	50
False Dove limestone	50	65
Gas and salt water @ 52		
Light-brown limestone	65	80
Gas @ 80		
Set 73' of 61/4" casing (Ward limestone)		
Light-brown limestone (Ward)	80	90
True Dove limestone	90	95
Brown, sandy limestone	95	100
Blue, gritty limestone	100	105
Blue, gritty and shaly limestone	105	120
Blue, dark-gray, and white, gritty flakes of limestone, mixed	120	130
Gas @ 125		
Dark-gray to blue and shaly, gritty limestone	130	155
Gas @ 150-155		
Blue limestone	155	160
Brown limestone	160	165
Light-brown limestone	165	170
Gas		
Drab, sandy limestone	170	175
Light-drab, sandy limestone	175	180
Gas		
Drab, sandy limestone	180	195
Dark-drab, sandy limestone	195	200
Gas. Blew cuttings out of hole.		
Dark-drab and brown limestone, mixed	200	205
Dark-drab and white limestone, mixed	205	210
Dark-drab, sandy limestone	210	215

Well completed. Production 800,000 cu. ft.
Rock pressure 140 lbs. while shut in; pressure dropped to 10 lbs.

Chattanooga Gas Co., SAM TIGERT No. 3

(Map Number—26)

Location: SE NW NW Sec. 16, 17S—37E

Elevation: 765'

Date: 1931

Total depth: 375'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	15
Blue, shaly limestone	15	40
Blue, and gray, shaly limestone, mixed	40	55
Light-gray, mixed limestone	55	60
Dark-gray water sand	60	65
Black sulphur and salt water		
False Dove limestone. Cut hard	65	70
Set 73' of 6¼"		
False Dove limestone	75	90
Dark-brown limestone (Ward)	90	95
Dark-brown limestone	95	105
Gas, 95-100		
Dark-brown and dove limestone, mixed	105	110
True Dove limestone	110	115
Brown, sandy limestone	115	125
Blue, sandy limestone	125	135
Dark-blue, shaly limestone	135	140
Dark-blue and white limestone, mixed	140	145
Dark-blue limestone with gypsum (one-third gypsum)	145	155
Dark-blue, sandy limestone with gypsum	155	160
Gray and brown mixed limestone	160	165
Blue, gritty limestone	165	185
Gas 165-170		
Blue and drab limestone	185	190
Drab limestone	190	200
Light-drab limestone	200	205
Gas		
Dark-drab limestone	205	215
Drab limestone	215	220
Light-drab limestone	220	225
Drab and brown limestone, mixed	225	240
Gas @ 235-240		
Drab, lighter colored limestone	240	250
Drab limestone	250	255
Gas		
Drab limestone	255	260
Dark-gray to black limestone	260	270
Very dark drab and gray limestone, mixed	270	310
Cherty, caramel-colored, drab mixed limestone with gypsum	310	320
Dark gray and dark-drab limestone, mixed	320	375
Gas 365-370		

Well completed. Production 80,000 cubic feet.

Elk Cotton Mills, FEE No. 1 (Water)
(Map Number—27)

Location: NW SW NW Sec. 4, 17S—36E

Elevation: 686'

Date: 1931

Total depth: 1055'

DRILLER'S LOG

Lithology	From	To
Soil	0	3 1/2
Blue, shaly lime	3 1/2	20
Dark-gray, shaly lime	20	30
Light-gray lime	30	40
Fresh water 40'; test, 4 bbl. in 1 hr.	40	45
Light-gray, shaly lime	45	60
Black and brown mix	60	65
Dove-colored lime	65	70
Light-brown water sand		75
Water had little sulphur taste.	70	80
Light-brown and blue mix	75	90
Blue and green mix, lime	80	100
Light-gray lime	90	130
White, granular lime	100	
Black, bluish, gritty lime		135
Shaly, light-drab mix, lime	130	150
Pencil Cave	135	155
Drab lime	150	165
Light-drab lime	155	175
Drab lime	165	180
Light-drab lime	175	185
Bluish-drab lime	180	195
Light-drab lime	185	205
Drab lime	195	235
Light-drab lime	205	255
Light-gray, granular lime	235	
Light-gray and blue, granular lime, mixed		305
Gas @ 245	255	335
Dark-drab lime	305	395
Dark-drab and little white lime, mixed	335	400
Light-drab lime	395	485
Dark-lime	400	490
Light-drab lime	485	505
Light-drab and blue lime, mixed	490	510
Dark-drab lime	505	560
Brown and little white lime, mixed	510	565
Drab lime	560	570
Dark-drab lime	565	580
Light-drab lime	570	610
Dark-drab and blue lime, mixed	580	615
Dark-drab lime	610	665
Dark-drab lime, almost black	615	670
Very drab lime	665	730
Very drab and white lime, mixed	670	735
Dark-drab lime	730	740
Bluish-drab lime	735	750
Black lime	740	755
Dark-drab lime	750	760
Black, shaly lime	755	765
Bluish-drab lime	760	770
Dark-drab lime	765	775
Bluish-drab lime	770	780
Dove-colored lime	775	
Dove-colored and drab lime, mixed		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dark-drab lime	780	785
Dove-colored lime	785	790
Dark-drab lime	790	795
Dark-drab and dove-colored lime, mixed	795	800
Dense, dove-colored lime	800	810
Drab lime	810	815
Drab lime	815	825
Light, dove-colored lime	825	830
Dark, dove-colored lime	830	835
Dark- and light-colored lime, mixed	835	850
Bluish dove-colored lime	850	860
Light, dove-colored lime	860	870
Bluish dove-colored lime	870	875
Very light colored, hard lime	875	880
White, hard lime	880	890
White with little green lime, mixed	890	895
White, hard lime	895	900
Green lime	900	935
Very green lime	935	945
Green and drab or brown lime, mixed	945	950
Light-drab (crystalline) lime	950	960
Brown, sandy (crystalline) lime	960	965
Very light colored, brown water sand	965	970
Brown sand	970	975
White and brown mix	975	980
Light, crystalline, gray	980	1000
Light-cream water sand	1000	1010
White sand	1010	1015
Light-brown sand (crystalline)	1015	1020
Brown sand, showed iron stain	1020	1035
Light-brown (crystalline)	1035	1040
Light-brown water sand	1040	1045
White to light-gray water sand	1045	1050
Almost white water sand, very fine	1050	1055

Temperature of water, 60°

Water rose 555 feet in hole, immediately after first sand was struck at 1000 to 1010 feet.

Chattanooga Gas Co., HENRY MARR No. 1

(Map Number—28)

Location: SE SE SW Sec. 15. 17S—38E

Date: 1931

Elevation: ?

Total depth: 305'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and chert	0	15
Blue limestone	15	25
Dark-gray limestone	25	30
Light-blue, shaly limestone	30	35
Black limestone	35	40
Dark-gray limestone	40	60
Brown limestone and light-gray water sand	60	65
Sulphur and salt water		
Dove limestone		
Brown limestone (Ward)	65	75
Brown, sandy limestone	75	85
Gas @ 90	85	90
Brown limestone		
Casing point	90	95

<i>Lithology</i>	<i>From</i>	<i>To</i>
True Dove limestone	95	105
Gas @ 100		
Light-brown limestone	105	120
Blue, gritty, sandy limestone with gypsum	120	130
Blue, shaly limestone mixed with gypsum	130	140
Dark-gray limestone, with gypsum	140	145
Dark, shaly and sandy limestone	145	165
Dark-blue, shaly and sandy limestone	165	180
Bluish-drab limestone	180	185
Drab limestone	185	190
Light-drab and blue limestone, mixed	190	200
Drab limestone	200	210
Gas @ 205		
Light-drab limestone	210	215
Drab limestone	215	220
Bluish-drab limestone	220	225
Drab limestone	225	230
Light-drab limestone	230	235
Very light drab limestone	235	240
Drab limestone	240	245
Dark-gray and drab limestone	245	250
Dark-gray, sandy limestone	250	255

Gas flow 135,000 cu. ft., pressure 102 lbs.
Dropped to 10 lbs. on line, then to 0.

Sam Hall et al, J. M. HILL No. 3

(Map Number—29)

Location: C SW NW SW Sec. 7, 18S—33E

Elevation: 674'

Date: 1949

Total depth: 1050'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay and soil	0	12
Limestone, light-gray, soft; mixed red rocks	12	20
Limestone, light-gray, soft	20	25
Shaly limestone, dark-gray, soft	25	50
Fresh water @ 36		
Sandy limestone, steel-gray, hard	50	55
Limestone, bluish, medium-hard	55	65
Fresh water @ 63 (10 gal. per min.)		
Limestone, light-gray, soft	65	70
Rotten, shaly limestone, dark-gray, soft	70	125
Limestone, dark-gray, soft	125	130
Rotten shaly limestone, medium	130	135
Rotten, shaly limestone, dark-gray, very soft	135	140
Pencil Cave @ 136		
Limestone, dark-gray, hard	140	165
Limestone, light-gray, hard	165	180
Limestone, caramel-colored, hard	180	185
Limestone, greenish, medium-hard	185	190
Limestone, light-gray, medium-hard	190	200
Limestone, dark, sandy, medium-hard	200	275
Limestone, light-brown, hard	275	310
Limestone, dark-gray, shaly, medium-soft	310	340
Limestone, light-brown, hard	340	380
Limestone, dark, shaly, medium-soft	380	385
Limestone, light-brown, hard	385	425
Limestone, dark, shaly, medium-soft	425	520
Limestone, light-brown, very hard	520	555
Limestone, steel-gray, very hard		

MACON COUNTY

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-brown, very hard	555	575
Limestone, light-brown, very hard, cuts very fine	575	590
Limestone, blue-gray, shaly, medium-hard	590	615
Limestone, light-brown, cherty, very hard (cut very fine)	615	655
Limestone, dark-gray, medium	655	670
Limestone, light-brown, hard	670	680
Limestone, brown, hard	680	685
Chloride water—1 gal./min., filled hole to 475'		
Limestone, brown, hard	685	690
Limestone, dark-gray, hard	690	755
Limestone, light, gray, hard	755	775
Limestone, light-gray, medium	775	785
Limestone, dark-gray	785	830
Limestone, caramel-colored	830	835
Limestone, pale-blue or green, medium	835	845
Chloride water @ 840		
Limestone, light-brown, fine, hard	845	855
Limestone, dark-gray and blue, mixed, medium	855	875
Limestone, light-gray, hard	875	895
Limestone, caramel-colored, hard	895	920
Limestone, gray, sandy, hard	920	940
Chloride water, mixed lumps of dead oil—slight rainbow		
Limestone, light-gray, hard	940	1000
Limestone, light-gray, sandy, hard	1000	1005
Chloride water, mixed lumps dead oil		
Limestone, light bluish, very hard	1005	1045

MACON COUNTY

G. W. Carson, F. D. HAYNES No. 1

(Map Number—1)

Location: Sec. 12, B—40E

Date: 1925

Elevation: 655'

Total depth: 924'

DRILLER'S LOG

<i>Lithology</i>	<i>Depth</i>
Red shale	130
Blue lime	134
Oil sand, faint odor of oil	138
Black lime	142
Green lime	146
Green lime	150
Black lime	153
Blue lime	180

Driller states that well is bailed every three feet, but that he has only taken samples where he would find a change in formation.

Ohio Oil Co., IDA GOAD No. 1

(Map Number—2)

Location: NE SE SW Sec. 16, 1S—42E

Elevation: ?

Date: 1927

Total depth: 712'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Ordovician	0	8
Surface	8	55
Dark lime	55	68
White lime	68	70
Blue shale	70	80
Brown lime	80	85
White lime	85	130
Brown lime	130	132
Gray lime	132	136
Brown lime	136	145
Gray lime	145	196
Brown lime		198
Pencil Cave @ 171-171½	196	198
White shale	198	205
Gray lime	205	215
Brown lime	215	265
Gray lime	265	495
Brown lime	495	520
Blue lime	520	540
Gray lime	540	585
Brown lime	585	712
Black lime		

J. H. McClurkin et al, W. W. TUCKER No. 1

(Map Number—3)

Location: SW SE SE Sec. 22, A—43E

Elevation: 770'

Date: 1927

Total depth: 640'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Ordovician system	0	18
Gravel and boulders	18	25
Lime, gray	25	28
Slate	28	70
Blue lime	70	90
Lime, dark-brown	90	120
Lime, black	120	140
Lime	140	165
Lime, dark-gray	165	190
Lime, black	190	250
Lime, dark-gray	250	265
Lime, gray, settling	265	278
Lime, dark-gray	278	287
Lime, hard, gray	287	290
Lime, hard, brown	290	310
Lime, hard, white	310	315
Lime, hard, blue	315	325
Lime, hard, white	325	355
Lime, gray, sandy	355	365
Lime, brown, hard, sandy	365	377
Lime, black and brown, and green shale		

Lithology

	<i>From</i>	<i>To</i>
Lime, black	377	425
Shale, green	425	437
Pencil Cave, green bentonite	437	440
Lime, white	440	450
Lime, gray, hard	450	468
Lime, brown, soft	468	525
Lime, gray	525	570
Lime, soft	570	590
Lime, black	590	615
Lime	615	640

Macon County Development Co., J. M. COOPER No. 1

(Map Number—4)

Location: SE SW SE Sec. 24, B-43E

Elevation: 991'

Date: 1928

Total depth: 803'

DRILLER'S LOG*Lithology*

	<i>From</i>	<i>To</i>
Mississippian system		
Warsaw and Fort Payne formations		
Surface soil	0	40
Coarse rock and boulders	40	47
Rock, gravel, mud	47	62
Lime, blue	62	68
Lime, rotten	68	70
Shell rock	70	81
Fresh water		
Lime, blue	81	135
Lime, gray, soft	135	150
Fresh water		
Set 6¼" casing @ 148		
Shale, green	150	153
Chattanooga black shale	153	169
Ordovician and Silurian systems		
Lime, blue	169	204
Sand, hard	204	209
Show of oil and gas		
Lime, blue	209	334
Lime, soft	334	404
Sand, gray, dry	404	420
Lime, blue	420	450
Lime, gray	450	460
Lime, dark-blue	460	520
Lime, gray	520	530
Lime, dark-blue	530	590
Lime, gray	590	600
Lime, blue and black	600	660
Sunnybrook	660	685
Show of oil		
Lime, blue	685	745
Pencil Cave	745	746
Lime, gray	746	800
Lime, brown	800	803

C. F. West et al, R. B. FREEMAN No. 1
(Map Number—5)

Location: SW NE SW Sec. 18, B—41E
Date: 1933

Elevation: 692'
Total depth: 835'

DRILLER'S LOG

	From	To
Lithology	0	4
Surface	4	6
Gravel	6	50
Broken lime		
Water @ 17	50	75
Light-blue lime	75	125
Dark-blue lime		
Gas @ 81	125	150
Blue and gray lime	150	191
Blue and gray lime	191	195
First Sunnybrook sand	195	280
Rotten lime	280	287
Gas sand (with gas)	287	373
Broken lime	373	376
Gas sand (with gas)	376	400
Gray lime	400	445
Blue lime		
Gas @ 432	445	455
Brown lime	455	460
Gray lime	460	466
Brown sand		
Some gas	466	530
Brown lime	530	576
Blue lime	576	603
Black lime	603	605
Pencil Cave, "green"	605	610
Brown flint	610	652
Hard, brown lime	652	664
Hard, gray lime	664	684
Hard, brown lime	684	700
Sandy, gray lime	700	724
Hard, brown lime	724	727
Gray sand		
Some gas	727	741
Brown lime	741	746
Gray lime	746	767
Brown lime	767	786
Gray lime	786	800
Light-blue lime	800	835
Light-gray lime		

Initial flow of 1,000,000 cu. ft. of gas reported.

R. A. Leslie, FEE No. 1
(Map Number—6)

Location: SW NE NW Sec. 20, A—44E
Date: 1943

Elevation: 772'
Total depth: 1588'

SAMPLE DESCRIPTION

	From	To
Lithology	0	310
No samples		
Limestone, gray and white, fine- to medium-grained, fossiliferous	310	315

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray and white, medium-grained, slightly argillaceous	315	332
Limestone, gray and tan, fine- to medium-grained, fossiliferous	332	340
Limestone, gray and tan, medium-grained, fossiliferous, slightly phosphatic	340	358
Limestone, light- and dark-gray, fine- to medium-grained, slightly phosphatic, argillaceous	358	364
Limestone, dark-gray to brown, fine- to medium-grained, slightly phosphatic	364	384
Limestone, dark-brown, fine-grained	384	395
Limestone, gray and brown, fine-grained	395	405
Limestone, gray, fine- to medium-grained	405	425
Limestone, gray and tan, fine- to medium-grained	425	440
No samples	440	445
Limestone, tan to dark-brown and gray, fine- to medium-grained	445	460
Limestone, gray and brown, fine-grained	460	480
No samples	480	485
Limestone, gray, fine-grained, silty, argillaceous	485	500
Limestone, dark-brown, fine- to medium-grained, silty, very argillaceous	500	520
Limestone, dark-gray, fine to medium-grained, argillaceous, silty	520	545
Limestone, tan, dense, with some white to tan, dense chert and greenish, waxy shale with biotite flakes (Pencil Cave)	545	555
Limestone, brown, dense, with some fine-grained, tan limestone	555	585
Limestone, brown, dense, with some dark-brown, dense chert	585	600
Limestone, tan, dense, with some white to light-gray, dense chert	600	615
Limestone, brown, dense, with some brown, fine-grained limestone	615	625
No samples	625	655
Limestone, brown, dense to fine-grained, with dark-brown chert @ 655-660	655	700
Limestone, same as above, with some brown to tan, dense and speckled chert @ 700-705	700	735
Limestone, tan and brown, fine-grained	735	745
Limestone, dense to fine-grained, argillaceous	745	770
Limestone, brown, dense, dolomitic	770	800
Limestone, brown, dense, fine-grained	800	825
No samples	825	830
Limestone, brown, dense to fine-grained, with dark-brown, dense chert	830	855
Limestone, brown, dense	855	870
Limestone, brown, dense to fine-grained, with tan and brown, dense chert @ 875-880	870	905
Limestone, tan and brown, dense to fine-grained, argillaceous	905	925
Limestone, brown, fine-grained, with tan to brown, dense chert	925	950
Limestone, brown, dense to fine-grained, argillaceous	950	975
Limestone, brown, dense to fine-grained, with tan and brown, dense chert	975	990
Limestone, dense to fine-grained	990	1000
No samples	1000	1005
Limestone, brown, dense	1005	1100
Limestone, brown, dense, argillaceous	1100	1140

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, brown, dense	1140	1275
Limestone, light-tan, dense	1275	1330
Dolomite, tan, fine-grained, with light-tan to gray, dense to fine, doloclastic chert	1330	1350
Dolomite, tan, fine-grained, with some light-gray, dense to fine-grained limestone	1350	1405
Dolomite, tan and brown, fine- to medium-grained, with some dark-brown, dense chert @ 1440-1450	1405	1460
Dolomite, light-gray and tan, fine- to medium-grained	1460	1475
Dolomite, tan, fine-grained, with tan and brown, doloclastic chert @ 1505-1515	1480	1525
Dolomite, tan and brown, fine- to medium-grained	1525	1550
Dolomite, brown, fine- to medium-grained, with some light-colored, oolitic chert and a few well-rounded, frosted sand grains	1550	1582
Dolomite, brown, fine- to medium-grained, silty	1582	1588
Driller reported show of oil in last sample		
STRATIGRAPHIC INTERPRETATION		
No samples	0	310
Chattanooga shale (reported by drillers)	18	34
Catheys and Cannon formations	310	485
Hermitage formation	485	545
Carters limestone	545	615
Pencil Cave @ 545-550		950
Lebanon and Ridley limestones	615	974
Pierce	950	1330
Murfreesboro	974	1330
Knox dolomite group	1330	1588

W. E. Adams & Son, WILLIE VANCE No. 1

(Map Number—7)

Location: NW SE NW Sec. 18, A-44E

Elevation: ?

Date: 1953

Total depth: 1531'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, brown	0	5
Lime, gray, soft	5	30
Crevice @ 12 to 20		70
Lime and sand rock, gray, hard	30	70
Water @ 35		82
Lime and sand rock	70	104
Black shale, hard	82	104
Lime and shale, gray	104	346
65/8" casing set @ 114		400
Lime, gray, hard	346	448
Lime and occasional shale, gray	400	448
Gas show @ 425		457
Lime, gray, hard and heavy	448	457
Showed reaction on geiger counter		490
Lime, gray, soft	457	490
Lime, gray, black and white	490	500
Fairly strong gas @ 498		518
Lime, gray to tan	500	521
Lime, dark-brown	518	521
Lime, gray and tan	521	530
Lime, brownish, gray	530	540
Lime, brown, medium	540	550

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, brown and gray	550	570
Lime, gray and black	570	580
Lime, gray and buff	580	600
Lime, gray, soft	600	610
Gas show 605-608		
Lime and shale, gray	610	640
Shale and occasional lime, brown	640	660
Shale and occasional lime, light-brown	660	675
Shale, gray, green	675	680
Pencil Cave		
Lime and shale, gray	680	707
Lime, light-brown, hard	707	712
Lime, gray, hard	712	720
Lime, buff, hard	720	730
Lime, gray, hard	730	735
Lime, buff, hard	735	750
Lime, gray to tan, hard	750	765
Lime, gray, hard	765	770
Lime, tan, hard	770	775
Lime, light-brown, hard	775	800
Slight show of salt water from 775 on		
Lime, light brown to gray, hard	800	820
Lime, with some green shale	820	830
Lime, occasional shale, gray, soft	830	850
Lime, gray, soft	850	860
Lime, gray to brown, soft	860	900
Lime, light-brown, medium	900	930
Lime, gray to brown, medium	930	940
Lime, hard	940	945
Lime, with some shale, tan, hard (10' run)	945	965
Lime, light-brown	965	985
Lime, gray, hard	985	990
Lime, gray and brown, hard	990	1050
Lime, some shale, gray and brown, soft	1050	1060
Lime, very little shale, brown, medium	1060	1090
Lime, brown	1090	1150
Cuttings seem heavier than usual—do not dump good		
Lime, gray	1150	1160
Lime, brown	1160	1170
Lime, brown and gray	1170	1200
Lime, gray and brown	1200	1210
Lime, gray, brown	1210	1230
Lime and shale, gray	1230	1240
Lime, dark-gray	1240	1260
Sulphur water @ 1240-46		
Lime, gray	1260	1310
Sulphur water came up within 400' of surface. Caused Pencil Cave to start falling in again.		
Gray lime, some gray shale	1310	1320
Gray lime and some green shale	1320	1330
Gray lime	1330	1390
Top of Knox		
5" pipe set @ 1385		
Gray shale and lime	1390	1400
Lime	1400	1440
White lime and some shale	1440	1450
Tan to white lime and some shale	1450	1462
Hard, tan and brown lime	1462	1468
Gray lime, hard	1468	
Black water came up 1200' in hole		
Hard, gray lime, abrasive	1468	1480

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, medium-hard, gray	1480	1490
Soft, tan, with some green and blue shale	1490	1495
Medium-hard, tan lime	1495	1515
Tan lime, some shale strips	1515	1520
Tan and gray lime	1520	1525
Light-gray lime	1525	1531
Break of chalk shale	1531	

CASING RECORD:

8" @ 6' cemented
6 $\frac{5}{8}$ " @ 114'

MADISON COUNTY

City of Jackson, ARTESIAN WELL

(Map Number—1)

Location: NW SE SW Sec. 17, 11S—9E

Elevation: 342'

Date: ?

Total depth: 525'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, sandy, red	0	12
Clay, tough, blue	12	28
Sand, coarse, white	28	40
Clay, snow-white, very tough	40	46
Sand, nearly pure white, some small gravel, and thin iron-stone crusts; water-bearing at the base	46	106
Clay; at top light-colored, lower part variegated red, yellow, etc.	106	149
Sandstone, dark brick-red, soft	149	160
Clay, fine, leaden-colored	160	330
Rock, dark, hard (limestone?)	330	335
Sand, white, with water	335	348
Quicksand, white, very micaceous	348	376
Shales; dark leaden-colored, with hard streaks of micaceous, sandy material, lignite fragments, and iron pyrite. Shark teeth at about 418 feet	376	448
Sand, white, water-bearing	448	525
Hard material (not entered)		

STRATIGRAPHIC INTERPRETATION

Tertiary system	0	335
Holly Springs sand	0	160
Porters Creek clay	160	330
Clayton formation	330	335
Upper Cretaceous system	335	525
Ripley formation	335	525

Bemis Bros. Bag Co., BEMIS No. 1

(Map Number—2)

Location: NE NW SE Sec. 5, 12S—9E

Elevation: 400'

Date: ?

Total depth: 433'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red and white clay	0	21
Sand and clay	21	41
Water-bearing sand	41	70
Blue clay	70	145
Sand	145	155
Sandstone	155	157
White clay	157	195
Hard blue clay	195	280
Sandstone	280	281
Blue clay	281	294
Sandstone	294	295
Blue clay	295	370
Black, water-bearing sand	370	385
Alternate thin layers of sandstone, clay and sand	385	430

STRATIGRAPHIC INTERPRETATION

Tertiary system	0	385
Holly Springs sand	0	195
Porters Creek clay	195	370
Clayton formation	370	385
Upper Cretaceous system	385	430
Ripley formation	385	430

W. J. Baum et al, W. J. BAUM No. 1

(Map Number—3)

Location: SE SE NW Sec. 12, 12S—9E

Elevation: 450'

Date: 1924

Total depth: 1115'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Ripley formation		
Sand and gumbo	0	734
Gumbo	734	785
Coon Creek tongue of Ripley formation or Selma clay:		
Gumbo and 3' of hard shale	785	804
Shale	804	826
Gumbo	826	887
Gumbo and 1' of shale	887	907
Eutaw formation:		
Gumbo	907	1043
Soft sandstone	1043	1051
Gumbo	1051	1110
Hard, brown, carboniferous sandstone.	1110	1115

CASING RECORD:

8¼" set at 300'±

Semte Oil Co., J. B. HOWARD No. 1

(Map Number—4)

Location: NE NW SE Sec. 18, 10S—8E

Elevation: 497' (?)

Date: 1929

Total depth: 1500'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
No record	0	217
Breaking sand rock	217	228
Sand and boulders	228	338
Rock	338	345
Sand, rock	345	351
Breaking sand rock	351	376
Water sand	376	391
Gumbo	391	401
Breaking sand rock	401	428
Pipe clay	428	441
Pack sand	441	444
Gumbo	444	446
Pack sand	446	459
Gumbo	459	464
Sand boulders	464	474
Charred wood	474	476
Gumbo	476	479
Sand	479	489
Pink gumbo	489	492
Pack sand	492	538
Gumbo	538	548
Sand and boulders	548	576
Gumbo	576	581
Shale	581	582
Hard sand	582	589
Gummy shale	589	629
Rock	629	630
Gumbo	630	640
Shale, sandy and gummy	640	665
Sand rock	665	671
Gummy shale	671	717
Breaking shale and gumbo	717	820
Gumbo	820	830
Sand rock	830	904
Gumbo	904	920
Sand rock, hard	920	938
Gummy shale	938	948
Pack shale	948	966
Gumbo	966	969
Sand rock	969	989
Gumbo	989	991
Sand rock	991	1011
Gumbo	1011	1014
Sand rock	1014	1025
Gummy shale and boulders	1025	1060
STRATIGRAPHIC INTERPRETATION		
Tertiary system	0	830
Holly Springs sand	0	576
Porters Creek clay	576	830
Upper Cretaceous system	830	1060
Ripley formation	830	1060

U. S. Geological Survey, T-1-M
(Map Number—5)

Location: NW NE SW Sec. 13, 10S—11E

Elevation: 570'

Date: 1949

Total depth: 1106'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
<i>Claiborne group</i>		
Clayey sand, red, medium to coarse	0	40
Clay, white, mottled pink	40	58
Clayey sand, fine to medium	58	76
Sandstone, ferruginous, hard	76	78
Clayey sand	78	82
Sandstone, ferruginous, hard	82	86
Sand, fine to medium	86	101
Sand, coarse to very coarse	101	110
Clay, gray, sandy	110	111
Sandstone, ferruginous	111	112
Clay, gray, sandy	112	114
Sandstone, ferruginous	114	115
Clay, gray to white, sandy	115	121
Sand, fine to coarse	121	129
Sand, with thin layers of clay	129	131
Clay, gray to dark-gray, sandy to silty, plastic	131	159
Sand, greenish-gray, clayey, fine	159	168
Clay, dark-gray, silty, plastic, carbonaceous	168	181
<i>Midway group</i>		
<i>Porters Creek clay</i>		
Clay, dark-gray, shaly	181	237
Sand, fine, micaceous	237	251
Clay and clayey shale, dark-gray to black	251	294
<i>Clayton formation</i>		
Sand, fine to medium, micaceous, clayey	294	360
<i>Ripley formation</i>		
Clay, gray and grayish-green, micaceous	360	387
Sand, fine to medium, micaceous	387	403
Clay, gray, micaceous, lignitic	403	408
Clay, dark-gray, and sand, fine, interbedded, lignitic	408	420
Clay, dark-gray, hard, lignitic	420	423
Clay, dark-gray, lignitic, with thin layers of fine, micaceous sand	423	470
Sand, fine to medium, micaceous, with thin clay layers	470	491
Clay, dark-gray, micaceous, shaly	491	495
Sand, fine to coarse, micaceous, lignitic, clayey	495	519
Clay, gray, soft, micaceous, with thin layers of fine to medium sand	519	523
Sand, fine to coarse, lignitic	523	545
Clay, gray, tough	545	547
Sand, medium to coarse, lignitic	547	549
Clay, gray, micaceous	549	554
Sand, fine to coarse, micaceous, lignitic	554	580
Clay, hard	580	583
Clay and sand, interbedded	583	585
Sand, fine to medium, micaceous	585	610
Sand, medium to coarse, lignitic	610	630
Sand, fine to medium, lignitic	630	666
Sand, fine to medium, clayey, with layers of dark-gray, silty to sandy clay	666	727
Lignite, hard, pyritic	727	728

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, bluish, black, hard, clayey	728	731
Lignite, hard, pyritic	731	732
Clay, bluish-black, hard, shaly	732	734
Sandstone (?), hard, pyritic	734	735
Shale, bluish-black, hard, clayey	735	739
Sand, greenish-gray, fine, clayey, micaceous	739	774
"Rock"	774	775
Silt and fine sand, clayey, with layers of dark bluish-gray to black clay	775	791
Selma clay		
Clay, gray-green to black, soft, silty, fossiliferous, calcareous	791	798
Siltstone, gray, calcareous	798	799
Clay, gray-green to black, silty, fossiliferous, calcareous ..	799	802
Siltstone, gray, calcareous	802	803
Clay, gray-green to black, silty	803	810
"Rock"	810	812
Clay, dark gray-green to black, fossiliferous, calcareous, micaceous, with some thin sand layers	812	824
"Rock"	824	825
Clay or shale, grayish-green, fossiliferous, calcareous	825	843
Clay or shale, grayish-green, fossiliferous, calcareous, with sandy layers	843	846
Clay or shale, grayish-green, hard, fossiliferous, calcareous, with several thin rock layers	846	878
"Rock"	878	879
Clay, dark greenish-gray, fossiliferous, in part sandy, calcareous, indurated	879	920
Clay, dark greenish-gray, hard, fossiliferous, calcareous, indurated	920	924
Clay, dark greenish-gray, soft, sandy (?), fossiliferous, calcareous	924	928
Clay and clayey silt, dark-gray, fossiliferous, calcareous, indurated	928	953
Silt, hard, calcareous, fossiliferous, sandy (?)	953	970
Clay and clayey silt, dark-gray to black, calcareous, fossiliferous, sandy	970	993
Eutaw (?) formation		
Sand, fine, and clay, gray to black, tough, sandy, shaly fossiliferous, calcareous	993	1044
"Rock"	1044	1045
Clay, dark-gray, silty to sandy, fossiliferous, calcareous, lignitic	1045	1072
Paleozoic rocks		
Limestone and/or dolomite, hard	1072	1106

U. S. Geological Survey, T-2-M
(Map Number—6)

Location: SE SW NW Sec. 11, 11S—8E

Elevation: 351'

Date: 1949

Total depth: 1289'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Claiborne group		
Sand, medium to coarse, gray and yellowish, with a few thin clay layers	0	31
Sand, fine to very coarse, some grains coated with iron oxide; lower part of section contains some clay layers	31	138
Clay, soft, sandy, white, tan, and pink with medium to coarse, sandy layers	138	147
Sand, medium to coarse, with some thin clay layers	147	160
Clay, silty to sandy, varicolored	160	175
Sand and clayey sand, fine to medium, with some thin layers of clay	175	221
Midway group		
Porters Creek clay:		
Clay, dark-gray, silty, plastic, in part shaly	221	280
Sand, fine, angular	280	284
Clay and shaly clay, bluish-black, dark-gray, and black, with a few thin, fine sand layers	284	442
Clayton formation		
Sand, fine to medium, with layers of dark-gray clay at base	442	453
Clay, dark-gray, sandy to silty, in part shaly, in part fossiliferous	453	478
Owl Creek formation		
Clay, dark-gray to black, silty, plastic, fossiliferous, with a few sandy layers	478	513
Ripley formation		
Sand, fine to coarse, micaceous	513	602
Clay, dark-gray, silty to sandy, plastic, in part shaly	602	638
Sand, fine to coarse	638	646
Clay, dark-gray, plastic	646	650
Clay, dark-gray, plastic, interbedded with sand, medium to coarse	650	662
Sand, medium to coarse	662	697
Clay, hard, dark-gray and light-gray, silty	697	705
Sand, medium, with a few thin, gray clay layers	705	736
Clay, gray, sandy	736	742
Sand, medium to coarse	742	803
Clay, gray, silty	803	806
Sand, medium, with some fine, micaceous	806	855
Sand, fine, some medium, clayey	855	874
Selma clay:		
Clay, dark-gray to black, silty to sandy, micaceous, calcareous, fossiliferous, laminated and interbedded with minor quantities of fine sand	874	1179
Eutaw (?) formation		
Sand and clay, laminated and interbedded. Sand, fine, laminated, clayey, calcareous. Clay, dark-gray, calcareous, micaceous, silty to sandy; in part hard and shaly	1179	1245
Clay, black, shaly, silty, tough	1245	1263
Clay, gray, sandy to silty	1263	1270
Paleozoic rocks		
Dolomitic limestone	1270	1289

MARSHALL COUNTY

Faust et al, R. A. MANIER No. 1

(Map Number—1)

Location: SE NE NW Sec. 19, 10S—34E

Elevation: 780'

Date: 1927

Total depth: 960'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Ordovician system		
Limestone	0	555
Shows of oil @ 182 and 222		
Strong crude oil odor @ 340		
Limestone, dark blue-gray, dense	555	590
Limestone, light blue-gray, dense	590	595
Limestone, very dark blue-gray, dense	595	600
Limestone, light and dark blue-gray, dense, shaly	600	680
Limestone, black, dense	680	690
Limestone, light and dark, blue-gray, dense	690	815
Limestone, black, dense	815	820
Limestone, very light gray, dense to shaly	820	850
Limestone, blue-gray, dense	850	855
Limestone, very light gray to white, dense	855	860
"St. Peter sand" (?)		
Limestone, white, dense, sandy	860	867
Sulphur water		
Knox dolomite (?)		
Limestone, very light gray to white, finely granular to dense	867	890
Limestone, light-gray, cherty	890	895
Limestone, light-gray, dense	895	900
Limestone, white, crystalline	900	925
Limestone, dark, crystalline	925	930
Limestone, white, crystalline, cherty	930	940
Limestone, white, crystalline, sandy	940	941
Limestone, buff, very sandy	941	942
Limestone, white, crystalline, sandy	942	960

W. H. Moores Oil Co., G. W. GOWER No. 1

(Map Number—2)

Location: C SW Sec. 4, 15S—33E

Elevation: 650'

Date: 1928

Total depth: 965'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	8
Fresh water		
Lime, light, sandy	8	40
Lime, brown, sandy	40	45
Lime, light flesh-colored	45	65
Lime, gray	65	125
Fresh water		
Pencil Cave (muck) @ 95		
Limestone, drab	125	130
Samples missing	130	160
Set 6 1/2" casing @ 141		
Lime, light-gray	160	165

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, dark-gray	165	195
Lime, drab, with dark stains	260	270
Salt and sulphur water @ 270 rose 80' in 5 hrs., and had light "rainbow" of oil on the water		
Limestone, drab	270	277
Set casing @ 277		
Lime, light- and dark-drab	277	325
Lime, gray and drab mixed	325	350
Lime, flaky, gray	350	355
Lime, flesh-colored	355	380
Lime, dark-gray and drab mixed, with white flakes	380	405
Muck, dark-gray	405	410
Lime, dark-gray and white mixed	410	415
Lime, brown and white mixed	415	420
Lime, brown and white, flaky	420	460
Lime, dark-drab when wet	460	605
Lime, dark dove-colored	605	635
Lime, dark	635	650
Lime, light-gray and flesh-colored	650	680
Lime, light-dove when wet	680	725
Lime, brown and green variegated	725	780
Limestone, green	780	785
Lime, hard, flesh-colored	785	825
Lime, hard, fine, flesh-colored	825	830
Lime, hard, crystallized, light-colored, with a little green, resembling Vermont marble	830	880
Lime, white and brown, crystallized	880	945
Sand, fine, white (St. Peter ?)	945	950
Water rose 290' in 12 hrs., then continued to rise within 8' of top of hole		
Limestone, hard, bluish	950	965

City of Petersburg, MORGAN SCHOOL No. 1 (WATER)

(Map Number—3)

Location: NW SE SW Sec. 4, 15S—35E

Elevation: 754'

Date: 1941

Total depth: 905'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	9
Rotten shaly lime, dark, soft	9	17
Dove-colored lime, light, medium	17	70
Shaly lime, light, medium	70	100
Shaly lime, dark, medium	100	140
Dark dove-colored lime, dark, medium	140	145
Dark, shaly lime, soft	145	185
Light-dove lime, medium	185	200
Light-gray lime, hard	200	210
Brown, dense lime, hard	210	265
Light-gray lime, hard	265	280
Dark-gray lime, soft	280	315
Brown, sandy lime, hard	315	340
Shaly lime, dark-gray, soft	340	355
Shaly lime, light-gray, medium	355	365
Dark, shaly lime, soft	365	370
Dove-color lime, hard	370	385
Brown lime, hard	385	405
Dove-color lime, medium	405	410
Dark-gray lime, medium	410	445

	From	To
<i>Lithology</i>	445	465
Brown lime, hard	465	470
Steel-gray lime, medium	470	490
Light-gray, shaly lime, medium	490	525
Dark-gray, shaly lime, soft	525	555
Light-gray, shaly lime, soft	555	570
Dark-gray, shaly lime, medium	570	590
Light-gray, shaly lime, soft	590	610
Dark-gray, shaly lime, soft	600	610
Light-gray, shaly lime, medium	610	635
Dark-gray, shaly lime, soft	635	680
Light-gray, shaly lime, soft	680	695
Dark-gray lime, soft	695	705
Light-gray lime, soft	705	710
Dark-gray lime, soft	710	725
Light steel-gray lime, hard	725	755
Dark steel-gray lime, hard	755	775
Light-green lime, hard	775	815
Dark-green lime, soft	815	825
Light steel-gray lime, hard	825	830
Brown, sandy lime, hard		840
Water filled up 100'	830	845
White, sandy lime, very fine, hard	840	
Light-brown lime, hard		850
Water filled up 300'	845	855
Light-brown and white flakes, mixed, hard	850	870
Brown, sandy lime, hard, water-bearing	855	880
Dark-brown lime, hard	870	885
Light-gray lime, hard	880	890
Dark-brown lime, hard	885	900
Steel-gray lime, hard	890	
White, sandy lime, fine, hard		905
Water 890-900	900	
Dark-brown lime, hard		

SAMPLE DESCRIPTION

	From	To
<i>Lithology</i>	0	40
No samples	40	45
Limestone, tan, dense	45	70
Dolomite, tan and brown, calcareous, fine-grained	70	110
Limestone, brown, dense to fine-grained		125
Limestone, brown, dense to fine-grained, with some dolomitic limestone	110	150
Limestone, generally brown, some tan, dense	125	155
Limestone, tan, dense, dolomitic	150	230
Limestone, tan and brown, dense to fine-grained	155	
Dolomite, brown, calcareous, with brown, dense to speckled chert	230	235
Limestone, tan, dense	235	240
Limestone, tan, with dense, brown speckled chert	240	245
Limestone, tan, dense, with some brown to gray, dense chert @ 260	245	280
Limestone, brown, dense to fine-grained, argillaceous	280	310
Limestone, brown and tan, dense, with gray to tan, slightly speckled chert @ 320-335	310	340
Limestone, brown, dense, slightly argillaceous	340	345
Limestone, tan, dense	345	355
Limestone, brown, dense, argillaceous	350	360
Limestone, tan	355	370
Limestone, brown, dense to fine-grained, argillaceous	360	375
Limestone, brown, dense to fine-grained	370	
Limestone, same as above, with brown to dark-brown, dense chert	375	385

Lithology		From	To
Limestone, tan, dense to fine-grained		385	400
Limestone, same as above, with tan to gray, dense to finely doloclastic chert		400	405
Limestone, generally brown, some tan, dense to fine-grained, with a small amount of chert @ 445		405	495
Limestone, brown, dense to fine-grained, slightly argillaceous		495	500
Limestone, brown and tan, dense, slightly argillaceous @ 620-625 and 635-640		500	620
Limestone, tan, dense		620	655
Limestone, brown, dense, slightly argillaceous		655	660
Limestone, tan, dense		660	690
Limestone, tan, dense, dolomitic		690	720
Dolomite, brown and tan, argillaceous		720	752
Dolomite, tan, dense to fine-grained		752	816
Dolomite, tan, medium-grained		816	825
Fresh water @ 825-840		825	840
Dolomite, brown, dense to fine-grained		840	845
Dolomite, tan, fine- to medium-grained		845	860
Fresh water @ 850-855			860
Dolomite, tan and brown, fine- to medium-grained, with some tan, dense chert @ 875-880 and 895-900		860	905

McNAIRY COUNTY

Stephens Petroleum Co., PETRIE No. 1

(Map Number—1)

Location: NW NE SW Sec. 9, 18S-13E

Elevation: 585'

Date: 1949

Total depth: 5280'

SAMPLE DESCRIPTION

Lithology		From	To
Gravel, oxidized quartz and chert		0	15
Same, also coarse quartz sand and limonite (Terrace)		15	25
Clay, medium-gray, very micaceous, very calcareous, slightly fossiliferous (Selma)		25	50
Same, fragmentary <i>Ostrea</i> shell		50	60
Same		60	70
Same, pyritiferous		70	80
Same, also sandstone, very chalky and fossiliferous; <i>Inoceramus</i> prisms		80	90
Clay, medium-gray, very micaceous, very calcareous, fossiliferous		90	100
Siltstone, light-gray, very calcareous, very fossiliferous; abundant microfossils, abundant <i>Inoceramus</i> prisms		100	110
Same, also medium dark-gray, calcareous clay		110	120
Same, some glauconite		120	130
Sand, medium-fine to coarse grained, glauconitic, oxidized (Eutaw)		130	140
Same, but generally finer grained		140	155
Sand, light-gray, medium-coarse grained, sparingly glauconitic; trace of dark-gray clay; lignite, pyrite; trace of free sulphur; numerous fibrous sulphate crystals		155	165
Samples missing		165	170
Sand, light-gray, fine- to coarse-grained, glauconitic		170	180

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, light-gray, medium-coarse grained, sparingly glauconitic; clay, medium-gray, micaceous, lignitic, noncalcareous	180	190
Clay, medium-gray, micaceous, lignitic, noncalcareous	190	200
Same, much pyrite and spathic siderite	200	210
Same, also limonite	210	220
Sand, light-gray, fine- to medium-grained, sparingly glauconitic (?), lignite	220	230
Same, but very lignitic	230	240
Same, few small pebbles noted	240	250
Same	250	260
Same, also dark-gray, lignitic clay	260	270
Same, but sand is mostly fine-grained	270	280
Sand, light-brown, fine- to coarse-grained, lignitic, pyritic, sideritic	280	300
Same, also much dark-gray, micaceous pyritic, lignitic clay	300	310
Sand, light-brown, fine- to medium-grained, lignitic, sideritic, slightly argillaceous	310	345
Sand, light-gray, fine- to medium-grained, very lignitic, pyritic, sideritic	345	355
Sand, light-gray, fine- to medium-grained, very glauconitic, slightly argillaceous; siderite, pyrite, and lignite	355	375
Same, abundant dark-gray, phosphatic vertebrate fossils; much medium-gray, lignitic, micaceous clay	375	380
Sand, light-gray, glauconitic, fine- to medium-grained, slightly fossiliferous, slightly lignitic and argillaceous	380	400
Sand, light-gray, fine- to medium-grained, glauconitic, slightly lignitic and argillaceous	400	410
Clay, light-gray to brown, siliceous, pyritic, sideritic, micaceous	410	420
Same, concentration of richly glauconitic sand; much siderite, pyrite, and lignite	420	430
Same, but much fine- to medium-grained, light-gray, glauconitic sand	430	440
Sand, light-gray, fine- to medium-grained, glauconitic; slightly lignitic, pyritic, and argillaceous	440	450
Gravel, varicolored chert; sand and clay, as above	450	455
Clay, medium-gray, siliceous, micaceous (probably cave); trace of gravel	455	465
Gravel, varicolored chert, also much greenish-gray, granular, dolomitic limestone (Paleozoic-Silurian)	465	470
Limestone, granular to coarsely crystalline, greenish-gray to cream and pinkish; ostracods	470	485
Same, slightly cherty	485	490
Limestone, light-gray to pinkish, soft, fossiliferous (ostracods abundant)	490	505
Limestone, cream-colored, in part slightly pinkish; ostracods; small amount dark-red, granular limestone	505	515
Limestone, coarsely crystalline to dense, pink to cream-colored; shale, dark-red and light-tan, greenish-gray, calcareous, fossiliferous, slightly glauconitic (Waldron)	515	520
Limestone, light-gray, light greenish-gray, and pinkish, slightly glauconitic	520	525
Same, slightly argillaceous, slightly pyritic	525	535
Same, increasing glauconite	535	540
Same, few very large grains of glauconite	540	550
Same, also small amount medium greenish-gray, silty shale (Ordovician-Fernvale)	550	555
Shale, medium greenish-gray and medium-gray, silty, calcareous; siltstone, light-gray, slightly sandy, calcareous, pyritic	555	560

<i>Lithology</i>	<i>From</i>	<i>To</i>
Siltstone, light- to medium-gray, calcareous, argillaceous; abundant small, dark-gray, phosphatic pellets	560	570
Sand, composed of small to large, dark-gray, phosphatic pellets, fossiliferous, slightly calcareous, slightly siliceous	570	575
Siltstone, light- to medium-gray, calcareous, fossiliferous, phosphatic in part; small amount brownish-gray limestone	575	585
Same, small amount speckled, chalcedonic chert	585	590
Same	590	595
Chert, blue-brown speckled, chalcedonic; limestone, light brownish-gray; small amount siltstone, as above	595	600
Chert and limestone, as above, but darker; small amount dark-gray, phosphatic shale	600	610
Same, but darker, more argillaceous	610	620
Same	620	630
Shale and limestone, dark-gray, calcareous, few very small phosphatic pellets	630	650
Samples missing	650	660
Same as above, but very silty	660	665
Same	665	680
Same, white calcite crystals	680	685
Same, also much limestone, light-brown, fine-crystalline, in part slightly dolomitic; large white calcite crystals (top of Carters?)	685	690
Limestone, as above; small amount dark-gray, phosphatic, fossiliferous, calcareous shale	690	695
Limestone, medium-gray to medium brownish-gray, dense, fossiliferous, slightly argillaceous	695	705
Same, slightly dolomitic	705	715
Same	715	725
Limestone, light-brown, slightly dolomitic, coralline, slightly porous	725	755
Limestone, light- to medium-brown, very fine granular, slightly dolomitic	755	760
Limestone, light- to medium-brown and gray, fine-granular to crystalline, fossiliferous, slightly dolomitic	760	770
Same, ostracods	770	780
Same	780	795
Samples missing	795	800
Limestone, as above; small amount dark-green, pyritic, calcareous shale	800	810
Same, but more crystalline and fossiliferous	810	820
Limestone, light-gray to light-brown, very crystalline, slightly oolitic, slightly porous	820	825
Same, also 30% blue-brown, chalcedonic chert	825	830
Limestone, light-gray, fine- to medium-crystalline, small amount chert	830	845
Limestone, light- to dark-gray, dense to fine-crystalline, fossiliferous, slightly cherty, slightly dolomitic	845	855
Same, some chert is very dark gray	855	860
Same	860	870
Limestone, medium brownish-gray, dense, slightly dolomitic, slightly argillaceous, fossiliferous	870	875
Same, also greenish-gray, calcareous, pyritic shale	875	880
Same	880	890
Same, much of limestone is light blue-gray, lithographic	890	895
Same	895	905
Limestone, pearl-gray to medium-brown, lithographic	905	915
Same, in part slightly crystalline and dolomitic	915	920
Same	920	930
Same, grading downward into darker grays	930	945

McNAIRY COUNTY

<i>Lithology</i>	<i>From</i>	<i>To</i>
	945	955
Same		960
Same, some medium-dark gray and greenish-gray shale; ostracods	955 960	1025 1030
Same	1025	1050
Same, slightly more argillaceous	1030	1060
Same	1050	1070
Same, pyrite	1060	1080
Same	1070	
Same, slightly more dolomitic		1090
Limestone, light-gray, very fine crystalline; small amount medium-gray, calcareous shale	1080	
Same, also small amount fine to sucrose, dolomitic lime- stone	1090 1095	1095 1105
Same, but much darker	1105	1115
Same, lighter than preceding sample		
Limestone, light-gray, very fine crystalline, slightly dolo- mitic	1115 1130	1130 1135
Same, ostracod	1135	1140
Same	1140	1145
Same, but more granular and dolomitic	1145	1155
Limestone, light-gray, sucrose, dolomitic		1160
Same, also much light-gray, fine-crystalline, slightly dolo- mitic limestone; ostracods common	1155	
Limestone, light-gray to tan, cryptocrystalline to fine-crys- talline, slightly dolomitic, much iron in sample	1160 1185	1185 1190
Same, also few rounded quartz sand grains embedded	1190	1195
Same, decrease of iron in samples	1195	1200
Same, lighter color and very dolomitic		
Limestone, light- to medium-gray, dense to granular, in part very dolomitic	1200 1205	1205 1230
Dolomite, pearl-gray, fine-crystalline, calcareous, pyritic	1230	1235
Samples missing		
Limestone, light- to medium-gray, dense; small amount sandy dolomite	1235	1245
Dolomite, pearl-gray, fine-crystalline, silty to sandy; some limestone, as above	1245 1255	1255 1265
Dolomite, as above		
Same, also much dense to fine-crystalline, light-gray lime- stone, pyritic	1265	1270
Same, also fine- to medium-grained, rounded quartz sand grains	1270	1275
Dolomite, pearl-gray, fine-crystalline, very silty and sandy, calcareous	1275	1295
Dolomite, light- to medium-brown, fine-crystalline, slightly calcareous; some pearl-gray dolomite, as above	1295	1310
Dolomite, light-brown, fine-crystalline, slightly calcareous; dark-brown oil stain in small vugs	1310	1315
Dolomite, pearl-gray, fine-crystalline, silty to fine-sandy; some dolomite as above; pyrite	1315 1325	1325 1335
Same, trace of porosity and dark-brown oil stain		
Same, slight increase in porosity and very dark brown, heavy oil stain	1335 1345	1345 1360
Same		
Same, also light-gray to light-brown, medium-crystalline, slightly calcareous dolomite (no show)	1360 1370	1370 1380
Dolomite, as above		
Dolomite, pearl-gray, in part very silty and fine-sandy, slight- ly argillaceous, pyritic	1380	1390
Same, also much hard, medium greenish-gray, waxy, pyritic shale	1390	1400
Dolomite, light- to medium-gray and light-brown, fine-crys- talline, silty, pyritic, slightly shaly, slightly calcareous	1400	1420

McNAIRY COUNTY

<i>Lithology</i>		<i>From</i>	<i>To</i>
Samples missing		1420	
Dolomite, as above		1425	1425
Same, slightly cherty		1430	1430
Dolomite, fine- to medium-crystalline, light-tan, slightly calcareous		1435	1435
Same, but slightly sandy and cherty		1445	1445
Same, also small amount light to medium gray-green shale		1450	1450
Same		1455	1455
Samples missing		1465	1465
Dolomite, as above; slight porosity noted		1490	1490
Same (sample fine, as if water-bearing)		1500	1500
Same as preceding sample, but very sandy and cherty		1510	1510
Dolomite, light-gray to tan, fine- to medium-crystalline, slightly sandy, slightly pyritic; trace of asphalt		1515	1515
Same, slightly cherty		1520	1520
Same, no asphalt noted		1530	1530
Same, increase in sand grains and chert		1535	1535
Same, but very cherty		1540	1540
Samples missing		1545	1545
Dolomite, light- to medium-tan, fine- to medium-crystalline, slightly calcareous, slightly pyritic, cherty; large sand grains		1565	1565
Same, trace of asphalt		1570	1570
Same		1575	1575
Dolomite, light-tan, medium-crystalline, slightly calcareous; trace of asphalt common		1585	1585
Same, but very cherty		1590	1590
Same		1600	1600
Same, but less asphalt		1615	1615
Dolomite, light-gray to light-tan, fine- to medium-crystalline, slightly calcareous, slightly cherty, pyritic		1625	1625
Same, trace of asphalt		1635	1635
Same		1645	1645
Dolomite, light-gray, fine-crystalline, slightly calcareous, slightly asphaltic, slightly pyritic		1660	1660
Same, also much medium-tan, medium-crystalline dolomite; some chert		1670	1670
Same		1680	1680
Same, also small amount coarsely crystalline dolomite; trace of asphalt		1685	1685
Dolomite, light-gray, coarsely crystalline, slightly asphaltic; also fine-crystalline dolomite, as above		1690	1690
Dolomite, light-gray to tan, fine crystalline, pyritic, slightly calcareous		1700	1700
Same, quartz sand embedded		1705	1705
Dolomite, light-tan, medium-crystalline, slightly calcareous, slightly asphaltic, slightly pyritic; small amount quartz sand		1715	1715
Dolomite, light-gray, medium-crystalline, slightly calcareous, slightly asphaltic, slightly pyritic, very sandy		1735	1735
Dolomite, light-gray to tan, medium-crystalline; sample 50% embedded round sand		1745	1745
Same, slight porosity		1750	1750
Samples missing		1755	1755
Dolomite, light-gray to tan, fine- to medium-crystalline, sandy		1775	1775
Dolomite, light-gray, fine-crystalline, slightly calcareous, slightly asphaltic, slightly sandy		1800	1800
Same, but mostly medium-crystalline		1805	1805
Dolomite, light-gray to tan, fine- to medium-crystalline, slightly calcareous, very sandy		1810	1810
Same, 50% quartz sand grains		1820	1820
			1830

<i>Lithology</i>	<i>From</i>	<i>To</i>
Same, also pyrite and asphalt common	1830	1835
Samples missing	1835	1845
Dolomite, light-gray, medium-crystalline, slightly calcareous	1845	1855
Same, slight porosity	1855	1865
Same	1865	1880
Same, also some light-gray, crystalline limestone; much light-gray, fine-crystalline, calcareous dolomite	1880	1890
Same	1890	1895
Dolomite, light-gray, fine- to medium-crystalline; 30% round quartz sand grains	1895	1900
Dolomite, light-gray, fine to coarsely crystalline, sandy; small calcite and quartz crystals	1900	1905
Same, quartz sand and small quartz crystals abundant; slightly cherty	1905	1915
Same	1915	1920
Same, quartz sand and small quartz crystals abundant; slightly calcareous, slightly sandy	1920	1945
Dolomite, light-gray to light-tan, medium to coarsely crystalline, slightly sandy, slightly calcareous	1945	1970
Same, slightly cherty	1970	1975
Dolomite, light-gray, coarsely crystalline, slightly calcareous, slightly sandy	1975	2000
Same, trace of asphalt	2000	2005
Same	2005	2015
Samples missing	2015	2025
Dolomite, light-gray, coarsely crystalline, slightly calcareous, pyritic, very sandy (small quartz crystals common)	2025	2050
Samples missing	2050	2065
Dolomite, as above, drusy quartz and chert common; light-gray limestone, porous in part; trace of asphalt, trace of glauconite	2065	2070
Same, much limestone	2070	2080
Limestone, light-gray, very fine crystalline, slightly dolomitic	2080	2090
Same, also dolomite, light-gray to tan, medium-crystalline, slightly sandy	2090	2095
Dolomite, light-gray to dark-brown, medium-crystalline, slightly calcareous, slight porosity, slightly cherty	2095	2110
Same, but lighter color	2110	2115
Same	2115	2120
Same, sandy and pyritic	2120	2125
Same, also much light-gray limestone	2125	2135
Limestone, light-gray, very fine to coarsely crystalline, some dolomite	2135	2165
Limestone, light-gray, fine-crystalline, slightly dolomitic	2165	2185
Same, also some very coarsely crystalline limestone, some dolomite	2185	2200
Same, also brown, dolomitic limestone, some green shale	2200	2210
Dolomite, light-gray to tan, fine- to medium-crystalline; slightly calcareous limestone, as above	2210	2215
Dolomite, light-gray to tan, medium-crystalline, slightly calcareous, slightly pyritic	2215	2230
Dolomite, light-gray, medium-crystalline, slightly calcareous	2230	2250
Dolomite, light-gray to tan, medium to coarsely crystalline, slightly calcareous, slight porosity	2250	2255
Dolomite, light-gray, fine- to medium-grained, slightly calcareous	2255	2260
Dolomite, light-gray to tan, fine- to medium-grained, slightly calcareous, pyritic	2260	2270
Dolomite, light-gray to brown, fine- to coarse-grained, slightly calcareous, porous	2270	2280
Same, large calcite and quartz crystals, much pyrite	2280	2290
Samples missing	2290	2294

<i>Lithology</i>	<i>From</i>	<i>To</i>
Same as 2280-90; much fine-crystalline dolomite	2294	2296
Same	2296	2300
Dolomite, light- to medium-gray, fine-crystalline, slight porosity	2300	2310
Limestone, medium-dark gray, argillaceous; dark-gray, calcareous, pyritic shale; some dolomite as above; brachiopod noted	2310	2325
Limestone, as above, slightly dolomitic	2325	2330
Sample is about 60% steel-gray to bronze pyrite (?)	2330	2335
Limestone, medium-dark gray, argillaceous, fine-crystalline, pyritic; much blue-brown chert	2335	2345
Same, also medium-gray, fine-crystalline, calcareous dolomite	2345	2350
Limestone, as above, slightly dolomitic	2350	2355
Limestone, medium-gray to brown, argillaceous, dolomitic; dolomite, medium-gray, fine-crystalline, calcareous	2355	2365
Dolomite, light- to medium-gray, fine-crystalline, calcareous, pyritic	2365	2380
Limestone, medium-dark gray, fine- to medium-crystalline, argillaceous, dolomitic, pyritic	2380	2405
Samples missing	2405	2410
Dolomite, medium-gray, fine-crystalline, calcareous, slightly pyritic	2410	2420
Limestone, medium-gray, very fine crystalline, dolomitic, as above	2420	2425
Limestone, light- to medium-gray, very fine crystalline, pyritic, dolomitic, slightly argillaceous	2425	2435
Same, small amount medium-gray, silty shale	2435	2440
Same, but very dolomitic	2440	2445
Same	2445	2470
Same, abundant large calcite inclusions	2470	2475
Samples missing	2475	2480
Limestone, light-gray to tan, fine to coarsely crystalline, slightly dolomitic, slightly argillaceous	2480	2485
Same, very dolomitic	2485	2495
Limestone, same as 2480-85	2495	2500
Dolomite, light-gray to light-tan, fine-crystalline, slightly calcareous, slightly pyritic	2500	2525
Same, slight porosity	2525	2535
Limestone, light-tan, very fine grained, slightly dolomitic; dolomite, as above	2535	2540
Limestone, light- to medium-tan, fine- to medium-grained, slightly dolomitic, slightly cherty; small amount dolomite	2540	2565
Dolomite, light- to medium-gray, fine-crystalline, pyritic, calcareous; limestone, above	2565	2570
Limestone, light- to medium-tan, fine- to medium-grained, slightly dolomitic	2570	2580
Same, brachiopod ribs noted	2580	2590
Limestone, as above	2590	2595
Same, also much dolomite, fine-crystalline, calcareous	2595	2605
Limestone, light- to medium-tan, very fine crystalline, slightly pyritic, slightly dolomitic; brachiopods	2605	2615
Same, also dolomite, light greenish-gray, medium-crystalline, slightly calcareous	2615	2620
Samples missing	2620	2625
Limestone, light-gray to light-tan, fine to coarsely crystalline, slightly dolomitic; trace of green shale	2625	2630
Limestone, light-gray to light-tan, fine-crystalline, slightly dolomitic	2630	2635
Samples missing	2635	2645
Limestone, as above, but more dolomitic; brachiopod	2645	2655

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, medium-gray to medium-tan, fine-crystalline, slightly argillaceous, slightly pyritic, slightly dolomitic	2665 2670	2670 2715
Samples missing		
Limestone, light- to medium-gray to medium-tan, fine-crystalline, slightly argillaceous, slightly dolomitic	2715 2725	2725 2730
Samples missing		
Limestone, same as 2715-25	2730	2740
Same	2735 2740	2745
Same, slightly pyritic		
Dolomite, medium-gray, fine-crystalline, calcareous, fossiliferous (brachiopod); small amount limestone	2745	2755
Limestone, light- to medium-tan, fine-crystalline, dolomitic, argillaceous; numerous small oolites	2755 2765	2765 2770
Same, less oolites	2770	2775
Samples missing		
Limestone, light- to medium-tan, very fine crystalline, slightly argillaceous, slightly dolomitic	2775	2780
Limestone, light- to medium-tan, fine- to medium-crystalline, fossiliferous, slightly argillaceous, slightly dolomitic	2780	2790
Limestone, medium-tan, fine-crystalline, slightly dolomitic	2790	2795
Same, but more coarsely crystalline and very dolomitic	2795	2805
Limestone, light-gray to dark brownish-gray, fine- to medium-crystalline, slightly pyritic, slightly dolomitic; brachiopod	2805 2810	2810 2815
Samples missing		
Dolomite, medium-tan, fine-crystalline; limestone, as above	2815	2825
Same, increase in limestone	2825	2830
Same, less limestone	2830	2840
Limestone, light to medium brownish-gray, fine-crystalline, dolomitic	2840	2855
Dolomite, light- to medium-tan, fine- to medium-crystalline, calcareous	2855 2870	2870 2875
Same, also limestone, medium-dark tan, fine-crystalline		
Limestone, light- to dark-tan, fine-crystalline; stylonitic dolomite; small amount dark-gray shale	2875	2890
Same, but more coarsely crystalline and more dolomitic	2890	2895
Same	2895	2905
Limestone, light- to dark-tan, fine-crystalline, slightly pyritic, slightly argillaceous, slightly dolomitic	2905	2930
Dolomite, light- to medium-gray and tan, fine- to medium-crystalline; limestone, as above	2930 2950	2950 2960
Dolomite, light-gray, fine-crystalline, calcareous		
Dolomite, light- to medium-tan, fine- to medium-crystalline, calcareous, cherty, slightly porous	2960	2970
Same, also embedded quartz sand grains	2970	2975
Dolomite, light- to medium-tan, fine- to medium-crystalline, calcareous, slightly porous	2975 2985	2985 2995
Samples missing		
Dolomite, as above, quartz sand grains common; also light-gray, fine-crystalline dolomite; increase in porosity	2995	3000
Same, but fewer sand grains	3000	3010
Same (sample very fine)	3010	3015
Same	3015	3035
Samples missing		
Limestone, medium-tan, very fine crystalline, pyritic, slightly argillaceous; dolomite, as above	3040	3045
Same, but limestone is lighter color; also green, "waxy" shale	3045	3050
Dolomite, light-gray, fine-crystalline, slightly sandy and cherty	3050	3060
Limestone, medium-tan, fine-crystalline, slightly dolomitic	3060	3065

<i>Lithology</i>	<i>From</i>	<i>To</i>
Same, also dolomite, medium-tan, fine- to medium-crystalline; also shale, green and dark-gray, pyritic	3065	
Same as above, but increase in dolomite; slightly cherty	3070	3070
Samples missing	3075	3075
Dolomite, light-gray to tan, fine- to medium-crystalline, sandy, calcareous, slightly cherty		3080
Same, also 50% limestone, medium-tan, fine- to medium-crystalline	3080	3090
Limestone, light-gray to medium-tan, fine-crystalline, slightly dolomitic, slightly argillaceous	3090	3095
Same, also 50% dolomite, light-tan, fine- to medium-crystalline, slightly sandy	3095	3105
Dolomite, light-gray to medium-tan, medium-crystalline, slightly calcareous	3105	3115
Dolomite, medium-tan, fine-crystalline, slightly calcareous	3115	3120
Limestone, light-gray to medium-brown, fine- to medium-crystalline, dolomitic; dolomite, as above	3120	3125
Limestone and dolomite, light-gray, fine- to medium-crystalline; much light-gray chert	3125	3135
Limestone and dolomite, light-gray to medium-tan, fine-crystalline; 50% blue-brown mottled, oolitic, chalcedonic chert	3135	3140
Dolomite, light-tan, medium-crystalline, slightly calcareous, slightly porous; 20% light-gray to blue-brown chert	3140	3150
Same, also quartz sand grains	3150	3160
Same, but 50% chert	3160	3165
Limestone, light-gray to light-tan, very fine crystalline, slightly cherty, slightly dolomitic	3165	3170
Dolomite, light-gray, fine-crystalline; limestone, as above	3170	3180
Dolomite, light-gray to light-tan, fine-crystalline, slightly calcareous, cherty; numerous round sand grains	3180	3195
Limestone and dolomite, light-gray to light-tan, very fine crystalline; 50% chert; much quartz sand	3195	3200
Chert, light-gray to light-tan, oolitic, sandy; some limestone and dolomite	3200	3210
Same, increase in dolomitic limestone; numerous small quartz crystals	3210	3215
Sandstone, light-gray, angular to well-rounded and frosted, fine- to medium-grained, calcareous and dolomitic	3215	3225
Same, also much medium-tan, fine-crystalline dolomite	3225	3230
Same, slightly cherty	3230	3240
Dolomite, light-tan, medium to coarsely crystalline, slightly calcareous, slightly cherty	3240	3245
Chert, light blue-gray, chalcedonic, very sandy; small amount dolomite, light-gray, fine to coarsely crystalline, sandy	3245	3250
Samples missing	3250	3255
Dolomite, light-tan, coarsely crystalline, porous; also dolomite, dark-tan, fine-crystalline	3255	3260
Same, but less dark-tan dolomite; also cherty and very sandy	3260	3265
Same, also light-tan, fine-crystalline, sandy limestone	3265	3270
Dolomite, light- to medium-tan, fine- to medium-crystalline, sandy, slightly pyritic	3270	3275
Samples missing	3275	3280
Dolomite, light-tan, coarsely crystalline, porous; dolomite, medium-dark tan, fine- to medium-crystalline	3280	3290
Dolomite, light-tan, coarsely crystalline, porous	3290	3300
Same, but less coarsely crystalline, also slightly cherty and sandy	3300	3305
Chert, light blue-gray, chalcedonic; also dolomite, light- to medium-tan, fine-crystalline, slightly pyritic	3305	3310
	3310	3315

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, light-gray to light-tan, fine- to medium-crystalline, slightly porous, slightly cherty	3315	3320
Dolomite, medium-gray, fine-crystalline, slightly sandy	3320	3325
Same, also limestone, medium-dark brown, slightly dolomitic	3325	3330
Dolomite, light-gray to light-tan, fine- to medium-crystalline, slightly cherty	3330	3335
Same, but very finely sandy, slightly pyritic	3335	3340
Dolomite, light-tan, fine- to medium-crystalline	3340	3345
Same, but slightly cherty	3345	3350
Same, also 10% quartz sand	3350	3360
Limestone and dolomite, gray to brown, fine-crystalline, sandy	3360	3365
Limestone, abundant tan, dense oolites in light-gray, soft matrix	3365	3370
Same, also 30% dolomite, medium-gray, fine- to medium-crystalline, slightly pyritic	3370	3375
Dolomite, light-gray to light-tan, fine-crystalline, slightly sandy; 25% light blue-tan, chalcidonic chert	3375	3390
Same, but mostly more coarsely crystalline	3390	3400
Chert, light blue-gray, chalcidonic, slightly pyritic; dolomite, as above; limestone, medium-tan, fine-crystalline	3400	3405
Same, also much sandstone, light-tan, dolomitic	3405	3410
Dolomite, light-gray, fine-crystalline; dolomitic sandstone, as above	3410	3425
Dolomite, light-gray, fine- to medium-crystalline, very slightly sandy, slightly calcareous	3425	3435
3435		3435
Samples missing		
Dolomite, light-gray, fine- to medium-crystalline, slightly sandy, cherty, slightly pyritic	3445	3450
Same, 35% light blue-gray, chalcidonic chert	3450	3460
Limestone, light- to medium-gray, fine-crystalline, slightly pyritic, slightly dolomitic; trace of green shale; dolomite, as above	3460	3470
Dolomite, light-gray to light-tan, fine- to medium-crystalline, slightly cherty, slightly sandy	3470	3495
Dolomite, light-gray, fine-crystalline, slightly calcareous, slightly pyritic, cherty; sandstone, fine- to medium-grained, dolomitic	3495	3505
Dolomite, light-gray to light-tan, fine- to medium-crystalline, calcareous, slightly pyritic, slightly sandy	3505	3515
Same, but slightly darker gray	3515	3520
Dolomite, medium-gray, fine- to medium-crystalline, slightly calcareous	3520	3530
Dolomite, light-gray, medium to coarsely crystalline; small amount light blue-tan chert	3530	3535
Same, also slightly sandy; porosity noted	3535	3540
Same, also dolomite, fine-crystalline, slightly argillaceous, slightly pyritic	3540	3550
Dolomite, light-gray, very fine to medium crystalline, slightly pyritic, slightly cherty	3550	3560
Dolomite, light-gray to medium-tan, very fine to coarsely crystalline, slightly cherty, porous in part	3560	3565
Dolomite, light- to medium-gray, fine-crystalline, slightly pyritic, slightly cherty	3565	3590
Same, also 35% light blue-tan, chalcidonic chert, quartz sand grains	3590	3595
Dolomite, light- to medium-gray, very fine to medium crystalline, slightly cherty, slight porosity	3595	3600
Same, also limestone, light-gray, fine-crystalline, dolomitic	3600	3605
Same	3605	3610
Dolomite, light-gray, fine-crystalline	3610	3620

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chert, light blue-gray, chalcedonic, slightly sandy; also light-gray, sandy dolomite and limestone	3620	3625
Sandstone, light-gray, fine- to medium-grained, dolomitic, cherty	3625	3630
Dolomite, light-gray, fine-crystalline, slightly calcareous, sandy; chert and sandstone, as above	3630	3635
Dolomite, light-gray, fine-crystalline, slightly calcareous, sandy, slightly cherty	3635	3650
Same, also 25% light gray-tan, chalcedonic chert	3650	3655
Same, but chert is white, novaculitic	3655	3660
Same	3660	3675
Dolomite, medium-gray to tan, fine-crystalline, slightly sandy; 40% light-tan, chalcedonic, sandy chert; also white, dolocastic chert	3675	3680
Dolomite, light-gray, fine-crystalline, slightly calcareous; 10% chert, novaculitic and chalcedonic	3680	3685
Same, but 50% chert	3685	3690
Same, but 10% chert; also common fine- to medium-grained quartz sand grains	3690	3700
Sandstone, fine- to medium-grained, very dolomitic; much chalcedonic chert; white, dolocastic chert	3700	3705
Dolomite, light-gray, fine-crystalline, slightly pyritic, slightly calcareous	3705	3720
Same, but slightly coarser crystalline	3720	3725
Same	3725	3730
Sandstone, light-gray, fine- to coarse-grained, dolomitic; dolomite, light-gray, fine- to medium-crystalline, sandy	3730	3735
Dolomite, light-gray, fine-crystalline, slightly calcareous, sandy; small amount sandstone, as above	3735	3740
Dolomite, as above	3740	3745
Chert, light blue-gray, chalcedonic; white, novaculitic, and white, dolocastic chert	3745	3755
Dolomite, light-gray, fine-crystalline, slightly calcareous, slightly sandy; chert, as above	3755	3760
Dolomite, light-gray, fine- to medium-crystalline, slightly calcareous; white, dolocastic chert; small amount sandstone	3760	3770
Dolomite, light-gray, fine-crystalline, slightly calcareous, very sandy	3770	3775
Dolomite, light-gray, medium-crystalline, sandy; 10% white, novaculitic chert	3775	3780
Dolomite, as above; also 50% chert, white, light blue-gray, and dolocastic	3780	3785
Dolomite, light-gray, fine-crystalline, in part very sandy; 10% chert, as above	3785	3790
Samples missing	3790	3795
Chert, white, novaculitic, and light blue-gray, chalcedonic; dolomite, as above	3795	3800
Dolomite, light-gray, fine-crystalline, slightly sandy, slightly pyritic, slightly cherty	3800	3805
Chert, light blue-tan, chalcedonic, to white, novaculitic, also dolocastic; 25% light-gray, fine-crystalline limestone and dolomite	3805	3815
Same, but 50% light-gray, fine-crystalline, slightly dolomitic limestone	3815	3820
Same	3820	3825
Dolomite and limestone, light-gray, fine-crystalline, sandy, cherty, slightly argillaceous, slightly pyritic	3825	3827
Dolomite, light-gray, fine-crystalline	3827	3835
Samples missing	3835	3840
Dolomite, light-tan, medium-crystalline; white, dolocastic chert	3840	3845

<i>Lithology</i>	<i>From</i>	<i>To</i>
Same, also much light blue-gray, chalcedonic chert	3845	3850
Same	3850	3860
Chert, light blue-gray to tan, chalcedonic; dolomite, as above	3860	3870
Dolomite, light-gray, fine- to medium-crystalline, slightly sandy; 5% chalcedonic chert	3870	3880
Dolomite, light-tan, medium-crystalline; dolocastic chert; 5% chalcedonic chert	3875	3885
Same, slight porosity	3880	3890
Same	3885	3895
Same, but slightly darker and more cherty	3890	
Dolomite, light-gray to medium-tan, fine- to medium-crystalline, slightly argillaceous; chert, chalcedonic and dolocastic	3895	3900
Same, 25% dolocastic chert	3900	3905
Dolomite, medium-tan, fine- to medium-crystalline, cherty	3905	3910
Same, slightly sandy	3910	3915
Samples missing	3915	3920
Dolomite, as above	3920	3925
Same, also small amount sandstone, very fine to medium-grained	3925	3935
Samples missing	3935	3945
Dolomite, medium-dark tan, medium to coarsely crystalline; slightly porous chert, chalcedonic, oolitic; dolocastic chert	3945	3950
Samples missing	3950	3955
Dolomite, light-gray, fine-crystalline, slightly calcareous; sandstone, fine-grained, dolomitic	3955	3965
Same, also light blue-gray, chalcedonic chert	3965	3970
Samples missing	3970	3990
Same as 3965-70, also small amount dolocastic chert	3970	3995
Same	3990	4000
Dolomite, light-gray to medium gray-tan, medium-crystalline, slightly cherty	4000	4005
Chert, light-tan, chalcedonic; dolomite, light-gray, fine to coarsely crystalline, in part porous	4005	4028
Samples missing	4028	4032
Dolomite, light- to medium-gray, medium to coarsely crystalline, very cherty	4032	4037
Same, also some drusy quartz; slightly porous	4037	4041
Samples missing	4041	4045
Same as 4032-37	4045	4055
Samples missing	4055	4060
Same as 4032-37	4060	4065
Samples missing	4065	4070
Dolomite, light-gray, fine-crystalline, sandy, cherty	4070	4075
Same, porosity noted	4075	4077
Dolomite, light-gray, fine-crystalline, slightly cherty	4077	4080
Dolomite, light-gray, fine to coarsely crystalline, slightly porous; chert, chalcedonic, and white, dolocastic	4080	4090
Same, but less cherty, slightly sandy	4090	4094
Dolomite, light-gray, coarsely crystalline, sandy; small amount chalcedonic chert	4094	4097
Same, 50% chert, small amount dolocastic chert	4097	4102
Dolomite, light- to medium-gray, fine- to medium-crystalline, slightly sandy, slightly pyritic, slightly calcareous; 30% chert	4102	4112
Samples missing	4112	4116
Same as above, 40% chert	4116	4120
Same	4120	4130
Same, 50% chert, some drusy quartz	4130	4133
Same	4133	4138
Same, also much white, dolocastic chert	4140	4143

<i>Lithology</i>	<i>From</i>	<i>To</i>
Same	4143	4155
Dolomite, medium-tan, medium-to coarse-grained; 15% chalc- cedonic chert	4155	4165
Same, 50% light blue-tan, chalcudonic chert	4165	4170
Same	4170	4175
Chert, light blue-brown, chalcudonic; 30% light-tan, fine- to medium-grained dolomite	4175	4180
Samples missing	4180	4200
Chert, as above, and dolomite	4200	4203
Same	4200	4205
Samples missing	4203	4208
Chert, as above	4205	4212
Dolomite, light-gray, fine- to medium-crystalline; chert, as above	4208	4215
Chert, light blue-tan, chalcudonic, much drusy quartz; 10% dolomite	4212	4228
Dolomite, light gray-tan, fine-crystalline; chert, as above	4215	4230
Dolomite, light- to medium-gray, fine-crystalline, slightly cherty	4228	4233
Same, but very cherty, some dolocastic chert	4230	4240
Chert, white to light-tan, novaculitic to chalcudonic; dolo- mite, as above	4233	4244
Dolomite, light- to medium-gray, fine to coarsely crystalline, cherty, slightly porous	4240	4247
Dolomite, light- to medium-gray, fine-crystalline; 10% chert	4244	4250
Same, 20% chert	4247	4255
Chert, light blue-gray, chalcudonic; small amount white, dolocastic chert; 30% dolomite	4250	4268
Dolomite, light- to medium-gray and tan, fine- to medium- crystalline, slightly calcareous; 10% chert, as above	4255	4271
Chert, light-tan, chalcudonic; dolomite, as above	4268	4274
Dolomite, light- to medium-tan, fine-crystalline, slightly cherty, slightly calcareous, slightly pyritic	4271	4277
Same, 25% chert	4171	4285
Chert, light-gray to light-tan, chalcudonic; 40% dolomite, as above	4274	4295
Dolomite, medium-gray, medium-crystalline, slightly argil- laceous; 10% chert	4277	4300
Dolomite, light- to medium-gray, coarsely crystalline	4285	4310
Dolomite, light- to medium-gray, fine- to medium-grained, slightly argillaceous, slightly pyritic; 10% light blue- gray, chalcudonic chert	4295	4313
Same, also light-gray, very coarsely crystalline, porous dolo- mite	4300	4315
Same, but less coarsely crystalline	4306	4318
Same	4310	4321
Same, dolocastic chert common	4313	4323
Same	4315	4347
Chert, light- to medium-tan and blue-gray, chalcudonic; 20% tan, fine- to medium-crystalline dolomite	4318	4350
Dolomite, light- to medium-tan, fine- to medium-crystalline, calcareous; 10% chert and drusy quartz	4321	4353
Dolomite, light- to medium-gray, fine- to medium-crystalline, very calcareous	4323	4355
Same, slightly cherty	4347	4357
Same, about 50% chalcudonic chert	4350	4360
Same	4353	
Same, also white, dolocastic chert	4355	
Chert, light blue-gray, chalcudonic, and white, novaculitic and dolocastic; small amount coarsely crystalline dolo- mite	4357	4360
	4360	4368

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, light-gray, medium-crystalline, slightly cherty, very calcareous	4368	4370
Same, much white, dolocastic chert	4370	4373
Same, 40% chert	4373	4378
Same, but fine-crystalline	4375	4380
Same	4380	4382
Dolomite, light- to medium-gray, fine-crystalline, very calcareous, cherty	4382	4388
Dolomite, light- to medium-gray, fine-crystalline, very calcareous	4388	4390
Same, also small amount quartz crystals and chert	4390	4392
Same	4392	4411
Dolomite, light-gray, coarsely crystalline, very calcareous	4411	4417
Same, also medium-gray, fine- to medium-crystalline dolomite; small amount of chert	4417	4422
Samples missing	4422	4424
Same as 4417-22	4424	4428
Same	4428	4430
Samples missing	4430	4434
Same as above	4430	4436
Dolomite, medium-gray, fine-crystalline, calcareous	4436	4438
Samples missing	4438	4440
Dolomite, medium-gray, fine- to medium-crystalline, calcareous; light blue-gray, chalcedonic and white, dolocastic chert	4440	4445
Dolomite, light-gray to tan, medium-crystalline, calcareous, slightly cherty, slightly pyritic	4445	4452
Same, slightly more chert	4452	4454
Samples missing	4454	4459
Same as 4452-54	4459	4461
Same	4461	4464
Chert, light blue-gray, chalcedonic; quartz crystals; small amount dolomite	4464	4467
Same, slight increase in dolomite	4467	4473
Same	4473	4482
Same, 30% chert	4482	4484
Same, also white, dolocastic chert	4484	4487
Chert, light blue-gray, chalcedonic; small amount dolomite	4487	4493
Sandstone, fine-grained, rounded, dolomitic, cherty	4493	4495
Sandstone, fine-grained, quartzitic	4495	4497
Same, but seemingly not so well cemented	4497	4498
Same, dolomitic and siliceous cement	4498	4501
Same	4501	4505
Dolomite, light-gray, medium to coarsely crystalline; some sandstone, as above	4505	4510
Same, less sandstone	4510	4513
Same, but very cherty, sandy	4513	4515
Same, less cherty and sandy	4515	4517
Same	4517	4519
Dolomite, light-gray, fine-crystalline, calcareous	4519	4522
Chert, light blue-gray, chalcedonic; dolomite, as above	4522	4524
Dolomite, light-gray, fine-crystalline, calcareous; much white, dolocastic chert	4524	4533
Same, also 50% light blue-gray, chalcedonic chert	4533	4536
Chert, light blue-gray, chalcedonic; dolomite as above; much drusy quartz	4536	4538
Same, more dolomite	4538	4540
Same	4540	4542
Same, also some medium-gray, fine-crystalline dolomite	4542	4544
Dolomite, light-gray to tan, fine- to medium-crystalline, cherty	4544	4550

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, light-gray to tan, medium to coarsely crystalline, slightly cherty	4550	4558
Same, also fine-grained dolomitic and quartzitic sandstone, dolocastic chert	4558	4560
Same (dolomite is light-gray)	4560	4564
Dolomite, light-gray, fine- to medium-crystalline, slightly cherty, calcareous	4564	4580
Dolomite, light-gray, medium to coarsely crystalline; light blue-gray, chalcedonic chert and white, dolocastic chert	4580	4583
Same, but 50% chert	4583	4585
Same	4585	4590
Chert, light blue-gray, chalcedonic; white, dolocastic chert; 30% dolomite, as above	4590	4595
Dolomite, light-gray to light-tan, fine-crystalline; 10% chert	4595	4597
Same, 25% chert	4597	4599
Chert, light blue-gray, chalcedonic; 10% light-gray dolomite	4599	4601
Same, but 50% dolomite	4601	4605
Same, 40% dolomite	4605	4608
Dolomite, light-gray, fine-crystalline; 30% chert	4608	4612
Same, 50% chert	4612	4617
Samples missing	4617	4620
Dolomite, light-gray, fine to medium to coarsely crystalline, sandy, calcareous, cherty	4620	4622
Chert, light blue-gray, chalcedonic, slightly sandy; dolomite	4622	4629
Dolomite, light-gray, medium-crystalline, slightly calcareous	4629	4640
Dolomite, light-gray, coarsely crystalline, calcareous	4640	4643
Same, slightly cherty, porous in part, slightly pyritic	4643	4647
Same	4647	4667
Same, also 30% white, novaculitic and dolocastic chert	4667	4670
Chert, light blue-gray, chalcedonic, pyritic; chert, white, novaculitic; 10% dolomite	4670	4677
Same, 40% dolomite	4677	4679
Dolomite, light-gray, coarsely crystalline; 25% chert	4679	4682
Chert, as above; 35% dolomite	4682	4685
Same, 5% dolomite	4685	4687
Same	4687	4689
Samples missing	4689	4693
Dolomite, light-gray, medium to coarsely crystalline; much white, dolocastic chert, chalcedonic	4693	4697
Samples missing	4697	4700
Dolomite, very light gray, medium-crystalline; much white, dolocastic chert	4700	4705
Samples missing	4705	4714
Same as 4700-05, but less chert and more coarsely crystalline	4714	4717
Dolomite, light-gray, fine- to medium-crystalline, slightly cherty	4717	4719
Dolomite, light-gray, medium to coarsely crystalline, slightly calcareous, slightly pyritic	4719	4726
Samples missing	4726	4731
Dolomite, light-gray, coarsely crystalline, slightly calcareous	4731	4741
Same, also 10% chert, light blue-gray, chalcedonic, and white, novaculitic	4741	4743
Chert, light-gray, chalcedonic, to white, novaculitic; firm tripolitic chert; silicified white oolites; 10% dolomite	4743	4745
Same, but very oolitic, porous	4745	4747
Same	4747	4750
Same, also 50% dolomite, light-gray, fine- to medium-crystalline	4750	4752
Dolomite, light-gray, medium to coarsely crystalline, slightly pyritic, slightly cherty	4752	4756
Samples missing	4756	4758
Dolomite, as above	4758	4760

Lithology	From	To
Same	4760	4764
Same, 10% light blue-gray, chalcedonic chert	4764	4767
Same, 40% light blue-gray, chalcedonic chert	4767	4769
Chert, light blue-gray, chalcedonic; small amount light-gray dolomite	4769	4771
Dolomite, light-gray, medium to coarsely crystalline; 20% chert	4771	4777
Chert, very light blue-gray, chalcedonic; 40% light-gray dolomite	4777	4779
Dolomite, light-gray, medium to coarsely crystalline, slightly cherty	4779	4781
Same, also small amount white, doloclastic chert	4781	4784
Same, 20% chert	4784	4786
Same, but trace of chert	4786	4788
Same	4788	4790
Same, 5% chert	4790	4794
Same, 30% chert	4794	4798
Same, 10% chert	4798	4800
Dolomite, light-gray, coarsely crystalline, slightly calcareous; 20% white, doloclastic chert	4800	4803
Same, also numerous, very small, angular quartz sand (?) grains	4803	4806
Dolomite, light-gray, medium-crystalline, slightly cherty, slightly sandy; also shale, light-green, fine, pyritic.	4806	4810
Dolomite, light-gray, medium to coarsely crystalline; shale, green and dark-gray	4810	4817
Same, shale decreasing	4817	4820
Same	4820	4829
Same, small amount white, doloclastic chert	4829	4831
Same	4831	4835
Same, pyrite common	4835	4838
Same, pyrite rare	4838	4840
Same	4840	4842

NOTE:

Samples below 4005 feet, especially below 4200 feet, were difficult to work because of fine grinding and contamination with rust and metal. Lithologic description from low-power microscopic examination of the finely ground samples is difficult for the following reasons:

1. Sand grains are shattered and may appear to be secondary crystalline quartz.
2. Large dolomite and limestone crystals may be broken and appear as a more finely crystalline rock.
3. Porosity which would be preserved in large chips would be not entirely in evidence.
4. In the more finely ground samples it is difficult or impossible to estimate the relative percentage of chert and carbonate rock.
5. Structure and association of the rock components cannot be observed.

The primary reason for the fine grinding appears to be "wet" drilling.

Frederic F. Mellen
July 12, 1952

SUMMARY OF FORMATIONS

Terrace gravel	0	25
Lower Selma	25	130
Eutaw	130	465
Silurian (Wayne)	465	554
Waldron	515	517
Ordovician (Richmond)	515	610
Hermitage (?)	554	687
Black River-Stones River	610	1295
Wells Creek Dolomite	687	1295 (?)
Knox	1205	TD
	1295 (?)	

MEIGS COUNTY

Freeman-Sport, ROBERTS No. 1

(Map Number—1)

Location: SW SE NW, Sec. 15, 13S-57E

Elevation: 810'

Date: 1949

Total depth: 2051'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, dark-gray, hard	100	110
Water 106		
Lime, light-gray, hard	110	115
Lime, blue	115	150
Lime, dark-gray, hard	150	190
Lime, blue	190	200
Lime, blue, hard	200	217
Water 200		
Lime, gray, hard	217	225
Lime, dark-gray, soft, some white specks	225	230
Lime, dark-gray, hard	230	237
Water 233		
Lime, light-gray, hard	237	245
Lime, gray, soft	245	252
Water sand @ 250-60' in hole		
Lime, gray, soft	252	260
Water sand		
Lime, dark, soft	260	285
Water sand 277-285		
Lime, brown, hard	285	294
40' of water in hole		
Lime, brown, hard	294	347
Lime, gray, soft	347	354
1' of water sand		
200' water in hole		
Lime, brown, soft	354	426
Steel line correction 427'		
Lime, brown, soft	426	477
Ran 435' of 7" casing		
Lime, blue, soft	477	567
Ran 7" to 560'		
Gas @ 565		
Lime, brown, hard	567	580
Show oil		
Lime, brown, soft	580	586
Lime, blue, soft	586	656
Lime, brown, soft	656	667
Lime, brown, hard	667	750
Lime, blue, soft	750	760
Lime, brown, hard	760	876
Lime, gray, hard	876	885
Lime, gray and red mixed, soft	885	908
Lime, red, soft	908	918
Lime, red and mixed, hard	918	927
Lime, gray, hard	927	938
Lime, gray, soft	938	950
Lime, gray, hard	950	980
Lime, brown, soft	980	1010
Lime, brown, hard	1010	1017
	1017	1148

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray, hard	1148	1158
Lime, gray, soft	1158	1169
Lime, mixed green, soft; red shale	1169	1178
Lime, green, soft; red shale	1178	1189
Lime, green, soft	1189	1209
Lime, green, soft; red shale	1209	1220
Lime, green, soft	1220	1228
Possible salt (?) water @ 80'-filled up 4 days after shut down		
Lime, blue, soft	1228	1258
Lime, brown, soft	1258	1270
Lime, gray, hard	1278	1297
Lime, blue, soft	1297	1340
Lime, green, soft	1340	1352
Lime, gray, soft	1352	1362
Lime, red, soft	1362	1391
Lime, blue, soft	1391	1402
Lime, red rocks, soft	1402	1412
Lime, red and green, soft	1412	1422
Lime, gray, hard	1422	1432
Lime, red, soft	1432	1444
Lime, gray, soft	1444	1464
Lime, gray, hard	1464	1537
Salt sand, gray, hard	1537	1548
20' salt water in hole		
Lime, gray, hard	1548	1555
Water now exhausted		
Lime, gray, blue, hard	1555	1608
Lime, gray, hard	1608	1616
Lime, gray, hard	1616	1626
Making 1½ gal. salt water per hr.		
Lime, gray, hard	1626	1804

MONTGOMERY COUNTY

Tuxbury Oil & Refining Co., JOHN H. JONES No. 1

(Map Number—1)

Location: 2S-27E

Elevation: ?

Date: 1919

Total depth: ?

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay and mud		30
Water		68
Blue lime	81	111
Show of gas	111	116
Sandstone	116	121
Blue lime	121	126
Red rock	126	127
Show oil		130
Soft sand	127	130
Reduced hole and set 6¼" casing @ 130		
Hard, gray lime	130	138
Gray lime, medium-hard		?

Young & Ellis, J. H. UNSELD No. 1

(Map Number—2)

Location: About 3 mi. E. of Clarksville

Elevation: ?

Date: 1931

Total depth: 2460'

DRILLER'S LOG¹

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	38
Lime	38	125
Mud	125	135
Lime	135	185
Sandy lime water	185	230
Lime	230	336
Broken lime with gas	336	338
Lime, fishing job	338	470
Lime, very hard	470	540
Lime, black, hard	540	544
Shale, brown	544	553
Lime, black, hard	553	566
Lime, black	566	630
Brown shale	630	725
A little gas @ 635		
Lime, gray	725	761
Lime, white	761	928
Lime, gray	928	963
Red rock with lime shells	963	993
Red lime	993	1018
Lime	1018	1020
Green shale	1020	1029
Lime	1029	1062
Gray lime	1062	1070
Green shale	1070	1075
Red rock	1075	1088
Lime, gray	1088	1181
Black lime, sandy	1181	1190
Slate and lime shells	1190	1320
Lime breaks	1320	1395
Slate	1395	1410
Lime, hard	1410	1425
Shale	1425	1480
Lime	1480	1505
Lime, hard	1505	1540
Lime	1540	1625
Gray lime	1625	2320
Sandy lime	2320	2460

CASING RECORD:

12½" @ 38

8" @ 1018

¹ Furnished by D. J. Jones, State Geologist, Lexington, Kentucky.

E. E. Rehn, L. E. BARNETT No. 1
(Map Number—3)

Location: NE NW SE Sec. 21, B-26E

Elevation: 548'

Date: 1953

Total depth: 1315'

DRILLER'S LOG

	From	To
<i>Lithology</i>	0	45
Cave and boulders at 45'; bad hole	45	50
Boulders and cave		
Reaming and cleaning out	50	52½
?		
Set 10" pipe	52½	70
Hard, gray lime, sharp	70	92
Gray lime, dark	92	126
Dark-gray lime, hard	126	157
Dark-gray lime		
Water @ 155	157	168
Gray, sandy lime	168	194
?	194	226
Gray lime	226	248
?	248	274
Dark lime, hard	274	305
?	305	345
Gray lime	345	375
?	375	402
Gray lime, hard	402	405
?	405	421
Gray lime, hard		
Set pipe, bailed hole dry	421	445
?	445	466
Dark, sandy lime, sharp	466	486
Brown lime	486	539
?	539	560
Brown lime	560	584
?	584	600
Brown lime, hard	600	610
?	620	632
Brown lime, hard		
Fishing @ 632	632	637
?		
Fishing out tools	637	649
Gray lime, cherty and hard		
Sulphur water @ 637	649	660
?	660	670
Gray lime, hard and cherty	670	705
Gray lime		
Cleaned out to bottom of hole	705	760
Dark lime	760	800
Dark lime and slate	800	865
Black shale	865	882
Gray lime, hard	882	903
Gray lime	903	924
Gray lime, hard and gritty	924	945
Gray lime, hard	945	955
Gray lime	955	976
Blue lime	976	1028
Gray lime	1028	1072
Brown lime	1072	1091
Red rock		
Fishing	1091	1126
Gray lime		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray lime, pinkish	1126	1166
Brown lime	1166	1262
Brown lime, hard and gritty	1262	1292
Gray lime	1292	1315
Ran steel line @ 1315. String on sand 4' ahead.		

E. E. Rehn et al, WADE BROTHERS No. 1

(Map Number—4)

Location: Sec. 19, B-26E

Elevation: 520'

Date: 1953

Total depth: 1302'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red soil	0	24
Shelly lime	24	40
Ran 31' of 10" pipe		
Gray lime, hard, gritty	40	57
Fishing	57	68
Gray lime	68	126
Fishing		135
Gray lime, hard	135	205
Gray lime	205	255
Dark lime	255	280
Dark lime, hard	280	312
Dark lime	312	344
Dark lime (drilled better)	312	344
Dark lime	344	374
Gray lime	374	436
Hard and gritty	436	463
Gray lime	463	489
Gray lime, hard	489	547
Ran steel line at 547½'		
Dark lime	547	557
Ran 547½' of 6⅞"; cleaned out mud		
Dark lime, hard	557	570
Dark lime	570	583
Dark lime, hard	570	583
Casing shut off good (hole dry)		
Dark lime, hard	583	595
Dark lime	595	608
Black lime, hard	608	677
Dark lime	677	690
Dark lime	690	748
Black lime	690	748
Dark lime	748	764
Dark, shaly lime	748	764
Black shale	764	863
Black shale	863	905
Ran steel line @ 905		
Gray lime	905	960
Dark lime	960	985
Gray lime	985	1000
Gray lime	1000	1000
Gray lime	1000	1200
Gray lime	1200	1215
Red rock	1215	1240
Red rock	1215	1240
Pulled pipe		
	1240	1302

MOORE COUNTY

Farnham Brothers, LEM MOTLOW No. 1 (Tract 1)

(Map Number—1)

Location: SE SE Sec. 13, 15S—38E

Elevation: ?

Date: 1937

Total depth: 300'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	11
Lime, dove, soft	11	35
Lime, gray, soft	35	82
Lime, brown, soft	82	95
Lime, dark-dove	95	103
Lime, brown, hard	103	115
Lime, dark-dove, soft	115	130
Lime, sandy, soft	130	135
Little gas		
Lime, dove, soft	135	185
Gas @ 180-185		
Lime, dark, soft, shaly	185	230
Lime, brown, hard	230	300
Salt water and gas in water		

CASING:

103' of 6¼" casing

Farnham Brothers, LEM MOTLOW No. 1 (Tract 2)

(Map Number—2)

Location: NW SE SE Sec. 14, 14S—39E

Elevation: ?

Date: 1937

Total depth: 1335'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and gravel	0	100
Black shale	100	110
Lime, black, gray, hard	110	130
Lime, light-gray, hard	130	140
Lime, black, gray, hard	140	185
Lime, dark-gray, hard	185	215
Lime, black, hard	215	255
Lime, gray, hard	255	290
Lime, brown, hard	290	400
Lime, broken, dark-gray, soft	400	435
Lime, broken, gray, soft	435	440
Pencil Cave, gray-green (soft)	440	445
Lime, brown, soft	445	460
Lime, brown, hard	460	495
Lime, light-brown, hard	495	510
Lime, dark-brown, hard	510	525
Lime, gray, hard	525	580
Lime, brown, hard	580	590
Lime, blue, hard	590	600
Lime, gray, hard	600	645
Lime, brown, hard (sandy @ 665-670 and 680-700)	645	700
Lime, brown, soft	700	705
Lime, brown, sandy, soft	705	715

MORGAN COUNTY

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, blue, soft	715	745
Lime, gray, hard	745	765
Lime, brown, hard	765	775
Lime, broken, blue, soft	775	815
Lime, brown, hard	815	825
Lime, gray, hard	825	840
Lime, brown, hard	840	845
Lime, gray, hard	845	895
Lime, brown, hard	895	900
Lime, dark, gray, soft	900	925
Lime, brown, soft	925	1000
Lime, sandy, gray, soft	1000	1005
Lime, brown, soft	1005	1040
Lime, black, green, soft	1040	1045
Lime, gray, soft	1045	1050
Lime, gray, brown, soft	1050	1060
Lime, dark-brown, soft	1060	1065
Lime, light-green, soft	1065	1075
Lime, sandy, brown, soft	1075	1090
Lime, light-gray, soft	1090	1110
Lime, brown, soft	1110	1120
Lime, gray, soft	1120	1125
Lime, brown, soft	1125	1131
Lime, black, soft	1131	1137
Lime, light-gray, soft	1137	1150
Lime, light-gray, hard	1150	1199
Lime, gritty and gray, hard	1199	1213
Shale, soft and green	1213	1240
Lime, light-gray	1240	1250
Lime, dark-gray	1250	1255
Lime, light-brown	1255	1265
Lime, dark-brown	1265	1275
Lime, gray and gritty	1275	1285
Lime, brown	1285	1300
Lime, gray	1300	1305
Lime, dark-gray	1305	1325
Sand, light-gray	1325	1330
Sand, brown	1330	1335

MORGAN COUNTY

Benedum-Trees Oil Co., HENDREN No. 1

(Map Number—1)

Location: Sec. 8, 4S-58E

Elevation: ?

Date: ?

Total depth: 1490½'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and clay, red	0	12
Sand, brown	12	50
Shells, light	50	75
Slate, dark	75	95
Sand, white	95	145
Slate, dark	145	225
Sandy lime, light	225	240
Sand, white	240	360
Slate, dark	360	402

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy lime, white	402	506
Slate, dark	506	538
Salt Sand, white	538	830
Slate, light	830	852
Lime, white	832	846
Slate, dark	846	854
Lime, white	854	873
Sand, gray	873	890
Lime, white	890	902
Red rock	902	910
Shells, light	910	920
Red rock	920	930
Slate, light	930	960
Shells, light	960	1027
Red rock	1027	1046
Shells, light	1046	1103
Red rock	1103	1133
Shells, light	1133	1141
Lime, white	1141	1250
1st gas @ 1169 (S. L. M.)		1290
2nd gas @ 1187 (S. L. M.)		1373
Sandy lime, dark-gray	1250	1373
Lime, white	1290	1378
3rd gas (S. L. M.)	1373	1464
Lime, white	1378	1465
4th gas (S. L. M.)	1464	1490½
Lime white (S. L. M.)	1465	

CASING:

- 10" 32 lb. casing @ 15
- 8¼" 24 lb. casing @ 1105
- 8¼" hole to 1490½

Forest Oil Co., RUGBY LAND COMPANY No. 2
(Map Number—2)

Location: Sec. 23, 2S—58E

Elevation: 1318'

Date: 1896

Total depth: 2793'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface, brown, soft	0	13
Sand, white, hard	13	125
Slate, black, soft	125	155
Sand, white, soft	155	165
Show of gas		205
Lime, black, medium	165	270
Slate, black, soft	205	355
Sand, white, hard	270	
Show of gas		375
Lime, black, hard	355	390
Slate, black, hard	375	430
Lime, black, hard	390	495
Sand, white, hard	430	
Show of gas @ 430		500
Lime, gray, hard	495	525
Sand, white, hard	500	525
Lime, gray, white	525	540

1 Steel line measurement.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, red, soft	540	560
Lime, gray, hard	560	570
Slate, red, soft	570	600
Slate, black, hard	600	630
Lime, gray, hard	630	640
Slate, black, soft	640	645
Lime, black, hard	645	655
Slate, red, soft	655	690
Slate, shale, black	690	715
Lime, gray, hard	715	750
Slate, black, very soft	750	760
Lime, black, hard	760	890
Sand, white, hard	890	905
Sand, red, hard	905	915
Lime, white, hard	915	1165
Sand, white, hard	1165	1170
Lime, gray, hard	1170	1175
Sand, gray, hard	1175	1215
Sand, red, hard	1215	1270
Show of oil 1215-1230		
Sand, black, hard	1270	1285
Sand, gray, hard	1285	1295
Sand, black, hard	1295	1310
Lime, gray, hard	1310	1330
Sand, gray, hard	1330	1450
Slate, blue, soft	1450	1455
Shale, black, soft	1455	1495
Slate, blue, soft	1495	1500
Lime, blue, hard	1500	1775
Slate, black	1775	1840
Lime, black, very hard	1840	2070
Sand, gray, hard	2070	2250
Limy sand, gray	2250	2325
Sand, gray, very hard	2325	2350
Lime, gray, very hard	2350	2780

State of Tennessee, STATE PRISON No. 1

(Map Number—3)

Location: Sec. 22, 5S—61E

Elevation: 1450'

Date: 1899

Total depth: 551'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Surface sand	0	14
Sandstone and slate	14	22
Slate	22	32
Sandstone	32	41.25
Slate	41.25	42.25
Sandstone	42.25	42.85
Slate	42.85	43.25
Sandstone	43.25	53
Slate	53	53.75
Sandstone	53.75	68.75
Slate	68.75	93.75
Sandstone	93.75	107.75
Slate	107.75	129.75
Sandstone and slate	129.75	137.25
Slate	137.25	240.25
Sandstone	240.25	248.45

<i>Lithology</i>	<i>From</i>	<i>To</i>
Slate	248.45	249.25
Coal (Coal Creek coal)	249.25	250.45
Sandstone and slate	250.45	259.7
Slate	259.7	269.2
Sandstone	269.2	290.2
Sandstone and slate	290.2	327.2
Slate	327.2	295.2
Sandstone	295.2	410.2
Shale, black	410.2	426.7
Coal (Oliver Springs coal)	426.7	428.7
Sandstone	428.7	438.7
Slate	438.7	440
Sandstone	440	451
Slate	451	463
Sandstone and slate	463	551

Ohio Oil Co., WILLIAM MATTHEWS No. 1

(Map Number—4)

Location: Sec. 5, 3S—59E

Elevation: 1231½'

Date: 1918

Total depth: 1184'

DRILLER'S LOG

The well was drilled during 1917-18. Mr. Matthews' son worked on the rig. The following figures were copied from a notebook belonging to Mr. Matthews:

Coal	8' thick @ 325
1st gas	@ 425
2nd gas	@ 1184

The gas came in with a pressure of 112-114 pounds on a steam gauge. The well is now plugged and abandoned.

Russell Producing Co., DRAKE No. 1

(Map Number—5)

Location: SE Sec. 13, 3S—58E

Elevation: 1322'

Date: 1924

Total depth: 1440'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil, brown, sandy	0	10
Sand, brown	10	70
Sand, blue	70	90
Sand, white	90	190
Water 95-150		
Slate, light	190	240
Coal, black	240	245
Shells, dark	245	300
Lime, sand, dark	300	335
Salt Sand, white	335	570
Slate, black	570	585
Lime, white	585	620
Red rock, red	620	660
Slate and shells, light	660	800
Lime, white	800	825
Shells, light	825	835
Lime, gray and white	835	945
Sandy lime, white	945	970
Gas @ 960—lasted 2 days		
Lime, white	970	1020

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pencil Cave, dark	1020	1022
Lime, white	1022	1032
Pencil Cave, dark	1032	1035
Candy lime	1035	1050
Light showing oil 1047		
Lime, white	1050	1180
Showing oil 1070-73, 1118-23		
Sandy lime, white	1180	1200
Lime, light and dark	1200	1250
Gas 1220-25		
Sandy lime, hard, red	1250	1270
Lime, very dark, white	1270	1280
Sandy lime, hard, light and dark to black	1280	1360
Lime, dark	1360	1400
Sandy lime, gray	1400	1440
Gas 1412-25, oil 1425		

CASING:

10" @ 22'	1 joint
8" @ 633½'	30 joints
6½" @ 1058' 3"	50 joints

Well shot from 1416-1434 with two 4" shells 9' long (35 qts.) solidified nitroglycerin, and 6' of Anchor.

White et al, LUTHER GRIFFITH No. 1

(Map Number—6)

Location: Sec. 2, 4S—58E

Elevation: 1351'

Date: 1925

Total depth: 2400'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Lee formation		
Clay and hard rock	0	15
Slate, black, soft	15	34
Slate, gray, hard	34	75
Slate, blue, soft	75	80
Sand, gray, hard	80	150
Slate, black, soft	150	160
Sand, white, hard	160	240
Sand, gray, hard	240	350
Slate	350	370
"Nigger-head," black	370	373
Shale, black	373	380
Sand, gray and white, hard	380	665
Mississippian system		
Pennington formation		
Shale, and slate, black	665	700
Lime, dark-brown	700	735
Red rock (shale)	735	750
Lime, dark	750	780
Red rock (shale)	780	790
Lime shells and slate	790	820
Lime shells and mud	820	874
Red rock (shale)	874	899
Newman limestone (top)		
Lime shells and slate	899	975
Lime, blue	975	995

MORGAN COUNTY

Lithology	From	To
Lime, gray and brown	995	1152
Gas @ 1000		
Lime, white, sandy	1152	1231
Oil @ 1152 to 1156		1445
Lime, gray and brown	1231	
Wet gas @ 1231		1460
Lime, red	1445	1525
Lime, gray and black	1460	1539
Lime, dark-gray	1525	

ADDITIONAL Loc:

State records show this well to be completed at 1539 feet. At this point Joe Mong took charge of the well, and his log from 1539 feet down is given below.

Sand, soft	1539	1554
Blue lime, hard	1554	1563
Blue lime, lighter	1563	1582
Blue lime, darker	1582	1587
Looks like oil sand	1587	1593
Dark lime	1593	1598
Lime, lighter	1598	1604
Lime, softer and darker	1604	1612
Lime, harder and close	1612	1622
Lime, dark-gray, hard	1622	1632
Lime, gray, softer	1632	1646
Lime, dark-gray, softer	1646	1675
Chattanooga shale	1675	1715
Slate	1715	1740
Sand, into crevice	1740	1750
To bottom of crevice	1750	1756
Broken formations	1756	1762
Sandy lime and slate	1762	1800
Slate and shells	1800	1888
sandy lime, pink	1888	1910
Shells and slate, soft	1910	1923
Dark, sandy lime	1923	1973
Sandy lime and shells	1973	2400

Russell Producing Co., D. B. ASHE No. 1
(Map Number—7)

Location: SE Sec. 13, 3S-58E

Elevation: 1273.2'

Date: 1925

Total depth: 1466'

DRILLER'S LOG

Lithology	From	To
Soil	0	8
Sand	2	180
Slate	180	300
Sandy lime	300	330
Salt Sand, white	330	460
Slate and shells	460	482
Sand	482	565
Slate	565	585
Lime, black	585	595
Slate and shells	595	655
Red rock	655	659
Slate	659	710
Lime	710	730
Slate	730	743
Red rock	743	760
Slate and shells	760	775

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime	775	782
Slate	782	840
Lime, white	840	950
Sand, white	950	970
Lime	970	984
Pencil Cave, dark	984	988
Lime, white	988	1045
Lime, red rock	1045	1262
Gas 1078		
Lime, white	1262	1346
Lime, soft, black	1346	1376
Lime, white and gray	1376	1410
Sandy lime, gray	1410	1466

CASING SET:

10" @ 20'
6 $\frac{5}{8}$ " @ 1050'
8 $\frac{1}{4}$ " @ 588'

CASING PULLED:

10" 20'
8 $\frac{1}{4}$ " 550'
6 $\frac{5}{8}$ " 1050'

Holly Oil Co., D. B. ASHE No. 1
(Map Number—8)

Location: SE Sec. 13, 3S—58E

Date: 1925

Elevation: 1384 $\frac{1}{2}$ '

Total depth: 1500'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	10
Set 10" casing @ 10		
Sand and slate		
Hard sandstone	10	40
Water @ 70	40	140
Black slate		
Sand	140	150
Green slate, lime shell	150	200
Sandstone	200	310
Slate and shells	310	360
Salt Sand	360	420
White water sand	420	550
Fire clay	550	630
White sand	630	635
Dark sand	635	660
Set 8 $\frac{1}{4}$ " casing @ 670	660	670
White lime		
Red rock	670	800
Slate and shales	800	820
Gray lime	820	850
Red rock	850	880
White lime	880	900
Gray lime	900	1000
Pencil Cave	1000	1025
White lime	1025	1030
Set 6 $\frac{5}{8}$ " casing @ 1050	1030	1250
Gray lime		
Red lime	1250	1340
Hard, dark-gray lime	1340	1380
Sandy lime, hard	1380	1460
Oil sand, too hard	1460	1470
Light-gray lime	1470	1500

Russell Producing Co., RUSSELL FEE No. 1

(Map Number—9)

Location: SE Sec. 13, 3S—58E

Elevation: 1281'

Date: 1925

Total depth: 1412'

DRILLER'S LOG

Lithology	From	To
Soil	0	6
Sand, brown	6	80
Sand, white	80	140
Slate and shells, dark	140	155
?	155	158
Slate and shells, light	158	300
Sand, white, water	300	500
Slate and sand, gray, salt	500	525
Sand, white, water	525	535
Slate, white	535	550
Lime, white	550	575
Red rock	575	610
Slate and shells, light	610	660
White lime	660	680
Slate and shells, light	680	715
Red rock	715	725
Shells, light	725	790
Lime, white	790	860
Pencil Cave	860	863
Lime, white	863	905
Sand, pink to light-gray	905	925
Lime, white	925	995
Salt water @ 940		
Gas @ 945		996
Pencil Cave, dark	996	1135
Lime, white		
Gas @ 1039 and 1113		
Oil showing @ 1040		
Lime, sandy, light	1135	1165
Lime, white	1165	1215
Lime, sandy, red	1215	1235
Lime, light	1235	1245
Lime, sandy, light and dark to black		1245
Lime, black	1245	1325
Lime, sandy, gray	1325	1360
Gas @ 1376-1378		1411½
Oil @ 1378-1390½		

Well shot April 15, 1925, with 80 quarts nitroglycerin. First day produced 32 barrels.

CASING:

10" @ 14
 8¼" @ 565 (pulled)
 6¾" @ 1026

Russell Producing Co., RUSSELL FEE No. 2

(Map Number—10)

Location: SE Sec. 13, 3S-58E

Date: 1925

Elevation: 1315'

Total depth: 1451'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	8
Sand, brown	8	100
Sand, blue	100	120
Sand, white	120	180
Slate and shells	180	340
Sand, white Salt Sand	340	580
Slate	580	585
Lime	585	610
Red rock	610	620
Slate and shells	620	630
Red rock	630	640
Slate and shells	640	660
Red rock	660	670
Slate and shells	670	700
Lime	700	720
Slate and shells	720	750
Red rock	750	755
Slate and shells	755	770
Lime	770	940
Sand, pink	940	950
Pencil Cave	950	953
Sand	953	963
Lime	963	995
Pencil Cave	995	998
Lime	998	1175
Showing of oil 1080		
Gas 1115-55		
Sandy lime		
Lime	1175	1205
Sandy lime, red	1205	1255
Lime, dark to light-gray	1255	1277
Lime, black	1277	1370
Lime, light	1370	1395
Sandy lime, gray	1395	1407
Gas pay 1417-19, oil 1419-30	1407	1451

CASING:

10" @ 22'
 8¼" @ 597' (pulled)
 6½" @ 1050'

Russell Producing Co., RUSSELL FEE No. 3

(Map Number—11)

Location: SE Sec. 13, 3S-58E

Date: 1925

Elevation: 1325½'

Total depth: 1483'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	2
Hard pan	2	18
Sand, light and dark	18	154

	<i>From</i>	<i>To</i>
<i>Lithology</i>	154	
Slate and shells, dark	353	353
Salt Sand, white	600	600
Slate, light and dark	635	635
Lime, white	660	660
Shells, light	680	680
Red rock	685	685
Slate, light	715	715
Lime, gray	750	750
Red rock	770	770
Lime, dark	805	805
Slate	818	818
Lime, white	970	970
Sandy lime, dark		1190
Water @ 990	990	
Lime, white		1190
Water @ 1075-80		1200
Gas @ 1175	1190	1275
Sandy lime, white	1200	1275
Lime, dark	1275	1285
Sandy lime, red	1285	1435
Sandy lime, dark to black	1435	1465
Lime, dark-gray		1483
Oil pay @ 1440-51	1465	
Sandy lime, dark-gray (Steel line measurement)		1483

CASING SET:

- 10" @ 20' (pulled)
- 8¼" @ 635' (pulled)
- 6⅝" @ 1060' (pulled)

Shot well from 1441-1459 with 80 quarts liquified nitroglycerin. Packer set @ 1150.

Russell Producing Co., DRAKE No. 2

(Map Number—12)

Location: SE Sec. 13, 3S—58E

Elevation: 1346.9'

Date: 1925

Total depth: 1483½'

DRILLER'S LOG

	<i>From</i>	<i>To</i>
<i>Lithology</i>	0	6
Soil, brown	6	12
Sand, brown	12	20
Slate	20	170
Sand, white	170	333
Slate, dark	333	572
Salt Sand	572	606
Shells	606	642
Lime, white	642	658
Red rock	658	673
Lime, white	673	691
Red rock	691	724
Slate, white	724	734
Lime, dark	734	738
Slate, dark	738	755
Shells	755	770
Red rock	770	797
Slate, dark	797	803
Lime, white	803	823
Slate, dark		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime	823	973
Gas 876		
Sand, gray		
Lime, gray	973	991
Pencil Cave, dark	991	1051
Lime, gray	1051	1054
Gas 1071	1054	1092
Lime, white		
Gas 1092, 1125, 1188	1092	1215
Oil 1145		
Sandy lime		
Lime, gray	1215	1225
Red lime	1225	1295
Sandy lime, light and dark to black	1295	1325
Lime, gray	1325	1430
Lime, gray	1430	1449
Oil pay (steel line) 1449-1460	1449	1483½
CASING SET:		
10" @ 20' (pulled)		
8" @ 606' (pulled)		
6½" @ 1065' (pulled)		

Payne et al, SAM GALLOWAY No. 1
(Map Number—13)

Location: SW NW SW Sec. 14, 3S—58E

Elevation: 1369'

Date: 1925

Total depth: 1552'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay		
Sand	0	7
Limestone	7	100
Slate and shells	100	150
Salt Sand	150	250
Slate	250	500
Sand	500	540
Slate and shells	540	600
Shells	600	670
Sandy lime	670	690
Red rock	690	715
Sand	715	725
Red rock	725	735
Slate and shells	735	750
Limestone	750	800
Pencil Cave, dark	800	998
White limestone	998	1000
Pink limestone and sand	1000	1075
Show of oil @ 1136	1075	1150
Limestone, light and brown		1150
Sandy limestone, gray	1150	1200
Limestone, light and brown	1200	1225
Limestone, light and black	1225	1300
Limestone, light to black	1300	1320
Sandy limestone, gray and brown	1320	1375
Chattanooga shale	1375	1490
Sandy limestone, light and dark	1490	1538
CASING:		
6½" @ 1070'		1552
Shot from 1137-1146		

Johnson-Messer Oil Co., H. W. SUMMERS No. 1
(Map Number—14)

Location: Sec. 8, 4S—58E

Elevation: 1614'

Date: 1926

Total depth: 1786'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvania system	0	22
Soil		200
Set 10" casing @ 22	22	280
Slate, dark	200	350
Lime, white, sandy	280	442
Slate and sand, white	350	540
Slate, dark	442	542
Sand, white	540	869
Slate, dark	542	
Sand, white		
(Base of Lee formation)		
Mississippian system		882
Pennington formation	869	892
Lime, black and white	882	960
Slate, white	892	
Red rock (shale)		975
Set 8 1/4" casing @ 905	960	990
Lime, dark	975	1040
Slate light	990	
Red rock (shale)		1192
Newman limestone (top)	1040	
Lime, white		1195
Gas @ 1180	1192	1280
Shale, dark ("Cave")	1195	1282
Lime, white	1280	1292
Shale, dark ("Cave")	1282	
Lime, white		1451
Gas @ 1288 to 1292	1292	
Lime, light-gray to white		1456
Set 6 3/8" casing @ 1310		1705
Gas @ 1320 and 1342	1451	1735
Lime, light-brown (oil)	1456	1740
Lime, light and dark-gray	1705	1786
Lime, light-gray and brown	1735	
Lime, dark-gray to brown	1740	
Lime, lighter colored		

Johnson-Messer Oil Co., GILREATH No. 1

(Map Number—15)

Location: NE NE SE Sec. 8, 4S—58E

Elevation: 1620'

Date: 1927

Total depth: 2800'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil, yellow, sandy	0	25
Slate, dark	25	170
Set 10" casing @ 27		220
Sand, white, quartz, fine	170	315
Slate, dark, micaceous, sandy	220	396
Sand, white quartz, iron-stained	315	465
Slate, dark, micaceous, sandy	396	

<i>Lithology</i>		
	<i>From</i>	<i>To</i>
Sand, white, quartz	465	
Slate, dark, sandy	515	515
Sand, hard, white	547	547
Sand, white, quartz, coarse	558	558
Sand, dark, quartz	580	580
Slate, dark, sandy	670	670
Sand, black and white, quartz	690	690
Sand, dark, quartz	825	825
Sand, very fine, white, quartz	915	915
Set 8¼" casing @ 926		940
Red rock (red, micaceous, sandy shale)		
Lime, dark-gray, crystalline	940	
Set 67½" casing @ 987	972	972
Lime, dark		1005
Red rock, dark-red shale	1005	1038
Lime, gray, crystalline	1038	
Show of gas @ 1184	1065	1065
Lime, light-gray, sandy		1370
Lime, light-gray, oolitic, porous	1370	
Main gas horizon @ 1472	1472	1472
Lime, gray, crystalline		1483
Lime, red to pink, sandy	1483	1515
Lime, dark-gray, coarse, sandy	1515	1578
Lime, black	1578	1630
Shale, light	1630	1670
Lime, dark	1670	1675
Lime, brown, hard	1675	1723
Lime, light greenish-gray, shaly	1723	1755
Lime, bright-green, shaly	1755	1782
Lime, dark-red, shale	1782	1796
Lime, dark-gray, hard	1796	1816
Chattanooga black shale	1816	1833
Lime, light bluish-green	1833	1877
Lime, dark greenish-gray	1877	1965
Lime, light-gray, iron-stained	1965	1975
Lime, red, sandy	1975	1990
Lime, dark-red and gray, pyritic	1990	2000
Lime, dark-gray	2000	2030
Lime, dark greenish-gray	2030	2052
Lime, light-gray	2052	2070
Lime, light-gray and dark-red	2070	2075
Lime, light-gray	2075	2090
Lime, dark, slaty	2090	2100
Lime, black, hard	2100	2401
Lime, light-to dark-brown	2401	2480
Lime, gray and brown	2480	2610
	2610	2800

SAMPLE DESCRIPTION

<i>Lithology</i>		
	<i>From</i>	<i>To</i>
Quartz sand, fine-grained (50%), coal (50%)		
Sandstone, fine-grained	0	170
Sand, iron-stained, medium-grained, subrounded	170	221
Sand, fine-to medium-grained, subrounded (90%); shale, dark-gray, sandy (10%)	221	230
Sand, fine-to medium-grained, subrounded (10%); shale, dark-gray, sandy (90%)	230	315
Quartz sand, white, fine-grained, micaceous	315	396
Quartz sand, fine-grained (90%); shale, dark-gray, sandy (10%)	396	465
Sandstone, fine-to medium-grained, iron-stained	465	545
	545	558

MORGAN COUNTY

319

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandstone, medium-grained, iron-stained	558	580
Sandstone, gray, coarse- to fine-grained	580	860
Limestone, dark-gray, fine-grained, sandy, and some sand	850	866
Sandstone, gray, fine-grained	860	915
Samples missing	866	940
Sandstone, light-gray, fine-grained	915	972
Shale, dark-red and green	940	1000
Samples missing	972	1038
Shale, dark-red and green	1000	1065
Limestone, gray to dark-gray, fine-grained	1038	
Limestone, dark-gray, fine-grained (75%); limestone, light-gray, fine-grained (25%)	1065	1070 (?)
Limestone, white to light-gray, oolitic	1184	1190
Samples missing	1190	1445
Limestone, gray, oolitic	1445	1455
Limestone, gray, oolitic (60%); limestone, gray, non-oolitic, fine-grained (40%)	1450	1456
Samples missing	1445	1470
Limestone, light-gray, fine-grained, <i>Fenestella</i>	1456	1472
Limestone (?), light-gray, oolitic	1470	1478
Limestone, light-gray, large lumps oolitic	1472	1750
Limestone, light-gray, siliceous, oolitic	1478	
Limestone, dark-gray, cherty, iron-stained, dolomitic (?), sandy	1750	1756
Limestone, white to greenish-gray, fine-grained, iron-stained	1756	1776
Limestone, bluish-gray, fine-grained	1776	1795
Samples missing	1795	1816
Limestone, dark bluish-gray, fine-grained	1816	1833
Chattanooga shale	1833	1877
Shale, bluish-gray, fine-grained, and some pyrite	1877	1892
Limestone, grayish to reddish, medium-grained	1892	1900
Shale, bluish-gray (80%); limestone, reddish, coarse- to medium-grained	1900	1907
Limestone, gray to dark-gray, medium-grained, some red	1907	1915
Shale, bluish-gray, fine-grained, calcareous	1915	1923
Limestone, light-gray, medium-grained, and chert, milky, dense	1923	1943
Limestone, light-gray, medium-granular, cherty	1943	1965
Limestone, light bluish-gray, medium-granular, cherty	1965	1975
Limestone, light bluish-gray, medium-granular, shaly	1975	1980
Limestone, light bluish-gray, medium-granular, shaly, iron-stained	1980	1990
Limestone, light-gray to gray, fine-grained, iron-stained	1990	1996
Limestone, reddish, fine-grained, cherty	1996	2000
Limestone, greenish-gray, medium-granular, iron-stained	2000	2005
Shale, bluish-gray and reddish, calcareous	2005	2030
Limestone, bluish-gray, argillaceous	2030	2037
Limestone, bluish-gray, argillaceous, and small amounts limestone, white	2037	2045
Limestone, gray, fine-grained	2045	2052
Limestone, greenish-gray, fine-grained	2052	2070
Limestone, greenish-gray and reddish, shaly	2070	2085
Samples missing	2085	2090
Limestone, greenish-gray and shaly	2090	2100
Limestone, bluish-gray, fine-grained, fossiliferous	2100	2114
Limestone, dark-gray, fine-grained	2114	2121
Limestone, dark-gray, fine-grained, iron-stained	2121	2145
Limestone, gray, fine-grained, cherty, argillaceous	2137	2145
Limestone, bluish-gray, fine-grained, argillaceous	2145	2160
Limestone, dark-gray, fine-grained, argillaceous, and calcite, white, crystalline	2160	2178

<i>Lithology</i>		<i>From</i>	<i>To</i>
Samples missing			
Shale, reddish and green, fine-grained, calcareous, and limestone, dark-gray, fine-grained, argillaceous		2178	2185
Limestone, dark-gray, fine-grained, fossiliferous		2185	2200
Shale, bluish-gray, fine-grained, calcareous		2200	2214
Limestone, dark-gray, fine-grained		2214	2221
Limestone, dark-gray, fine-grained, and some calcite, white		2221	2238
Limestone, dark-gray, fine-grained, fossiliferous, and calcite, white		2238	2242
Limestone, dark-gray, fine-grained, fossiliferous; calcite, white, and shale, dark-gray, fine-grained, calcareous		2242	2290
Limestone, dark-gray, fine-grained, shaly, fossiliferous, and calcite, white		2290	2300
Limestone, dark-gray to black, fine-grained, and calcite, white or clear		2300	2360
Limestone, dark-gray, fine-grained, argillaceous, fossiliferous		2360	2380
Limestone, dark-gray, fine-grained, shaly		2380	2390
Limestone, dark-gray, cherty, shaly, and calcite, white		2390	2470
Limestone, dark-gray, fine-grained, shaly, cherty, fossiliferous, and calcite, white		2470	2475
Samples missing		2475	2490
Limestone, bluish-gray, fine-grained, argillaceous		2490	2499
Limestone, dark-gray, fine-grained, shaly (50%); limestone, light-gray, coarse-crystalline		2499	2500
Limestone, dark-gray, fine-grained, shaly		2500	2510
Limestone, dark-gray, fine-grained, shaly, fossiliferous		2510	2520
Limestone, dark-gray, fine-grained, shaly, fossiliferous, and chert		2520	2540
Limestone, bluish-gray, fine-grained, argillaceous		2540	2555
Limestone, light-gray, coarse-grained, fossiliferous (80%); limestone, dark-gray, fine-grained, shaly (20%)		2555	2565
Limestone, light-gray, coarse-grained, fossiliferous (50%); limestone, dark-gray, fine-grained, shaly (50%)		2565	2580
Limestone, dark-gray to black, fine-grained, cherty		2580	2595
Limestone, gray, fine-grained, fossiliferous		2595	2600
Limestone, gray, fine-grained		2600	2610
Limestone, gray, fine-grained, fossiliferous		2610	2645
Limestone, gray, fine-grained		2645	2657
Limestone, gray to light-gray, coarse-grained		2657	2665
Limestone, gray, coarse-grained		2665	2672
		2672	2680

Johnson Messer Oil Co., BECK No. 1
(Map Number—16)

Location: NE NE NE Sec. 4, 5S—58E

Date: 1928

Elevation: 1309'

Total depth: 1751'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian		
Lee		
Surface soil		
Quicksand	0	5
White sandstone	5	15
Slate and shells	15	115
White sand ("Salt Sand")	115	258
Mississippian	258	562
Newman		
Slate and shells		
White settling sand	562	602
	602	608

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand	608	672
Slate, like fire-clay	672	675
Light-brown lime	675	710
Red rock	710	725
Shelly lime	725	735
Slate	735	772
Lime	772	795
Red rock	795	805
Slate	805	811
Sandy lime	811	850
Red rock	850	865
Lime	865	892
Red rock	892	902
White lime	902	1018
Gas @ 949		1024
Rotten lime	1018	1191
Chalky-white lime	1024	1215
White, sandy lime	1191	
Oil		1215
White lime	1215	1238
Dark lime	1228	1288
White lime	1238	1295
Light-gray, sandy lime	1288	1330
White lime	1295	1355
Dark-gray lime	1330	1365
Green lime	1355	1395
Dark lime	1365	1442
Sandy lime	1395	1460
Dark, coarse lime	1442	1505
Black lime	1460	1572
Brown and gray, sandy lime	1505	1635
Green shale	1633	1665
Chattanooga black shale	1635	
Silurian		1695
Clinton	1665	1727
Green lime	1695	1740
Soft, dark-gray lime	1727	1751
Light, sandy lime	1740	
Dark, sandy lime		
Well was shot with 100 quarts of nitroglycerin, without noticeable improvement.		
Production remained 4-5 barrels daily.		

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray, green and some limestone, red, sucrose	710	723
Samples missing	723	1190
Limestone, white, oolitic	1190	1215
Limestone, white to light-gray, oolitic	1215	1228
Limestone, gray, oolitic	1228	1288
Limestone, white, oolitic	1238	1330
Limestone, white to gray, oolitic	1288	
Limestone, light-gray, oolitic (50%); limestone, bluish-gray, dense (50%)	1330	1335
Limestone, light-gray, oolitic (50%); limestone, gray, dense (50%)	1335	1362
Samples missing	1362	1365
Limestone, dark-gray, fine-grained	1365	
Limestone, light-gray, medium-grained, and small amounts sandstone, light-gray, fine-grained	1395	1442
Limestone, black, medium-granular	1442	1505

MORGAN COUNTY

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray, fine-grained, iron-stained, and chert, much dense	1505	1524
Samples missing	1524	1635
Chattanooga shale	1635	1695
Shale, greenish-gray, and limestone, some red, sandstone, fine-grained (Hardin)	1695	1727
Samples missing	1727	1741
Shale, greenish-gray (25%); limestone, white, medium-grained (75%)	1741	1751

Grady Clark Oil Co., JIM SEIBOLT No. 1
(Map Number—17)

Location: Sec. 24, 3S—58E

Elevation: 1400.2'

Date: 1928

Total depth: ?

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Conductor 10" pipe	8	
Salt Sand	440	
Break in sand	580	
Through Salt Sand at 8 1/4" casing	720	
Pencil Cave	740	
Lime	1045	1050
6 3/8" casing	1050	1110
Gas at	1110	
More gas at	1245	
Top of oil sand	1270	
Bottom of oil sand	1366	
Shot with 80 qts.		1380
8 1/4" casing pulled out.		

Russell Producing Co., DRAKE No. 4
(Map Number—18)

Location: SE Sec. 13, 3S—58E

Elevation: 1327 1/2'

Date: 1928

Total depth: 1482'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	2
Sand, brown	2	150
Water @ 54		
Slate, dark		
Sand, white	150	200
Shells	200	280
Sandy lime	280	300
Salt Sand, white	300	330
Slate and shells, dark	330	560
Sandy lime, white	560	628
Slate and shells, dark	628	673
Lime	673	683
Slate, dark	683	697
Lime and shells, gray	697	708
Slate, dark	708	716
Lime	716	730
Slate, dark	730	738
	738	741

	<i>From</i>	<i>To</i>
<i>Lithology</i>		
Lime	741	748
Red rock	748	760
Lime shell	760	777
Slate and shell	777	815
Lime, white	815	838
Slate and shell	838	850
Lime, gray	850	964
Sand	964	978
Gas @ 978	978	980
Slate, black	980	1057
Lime, white		1058
Gas @ 1028	1057	1287
Pencil Cave, dark	1058	
Lime, light to gray		1301
Gas @ 1113 and 1160	1287	1337
Lime, pink	1301	1443
Lime, gray	1337	1456
Lime, dark	1443	1482
Lime, gray	1456	
Lime, gray		
Oil pay 1456 to 1461½		

CASING SET:

10" @ 14'
 8¼" @ 630' (pulled)
 6⅝" @ 1119'

Rock Creek Oil Co., W. S. OWENS No. 1
 (Map Number—19)

Location: SW SE NW Sec. 16, 3S—57E

Elevation: 1525'±

Date: 1929

Total depth: 1348'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian	0	30
Yellow sand	30	75
White sand	75	77
Coal	77	108
White sand		
Fresh water	108	192
Black slate	192	292
Shale	292	378
White sand ("Salt Sand")		
Base of Lee		
Mississippian		
Pennington	378	424
Coal, shale, fire clay	424	465
Gray sand	465	480
Fire clay	480	485
White lime	485	490
Fire clay	490	507
Red rock	507	540
White lime	540	565
Gray lime	565	610
Red rock	610	657
Black slate		
Newman	657	667
Black lime	667	678
Cherty lime		

Lithology

	From	To
Pink lime	678	694
Slate, shell and green	694	770
Black lime	770	782
Gray lime	782	795
Black shale, very hard	795	800
Black lime	800	813
Gray lime	813	900
Cherty gray lime	900	920
Sand	920	975
Sandy lime	975	978
Lime	978	995
Black lime	995	1004
Hard lime (cap rock)	1004	1005
Sand	1005	1013
Oil rose 600' in hole		
Lime	1013	1048
Lime, sandy	1048	1070
Sand	1070	1075
Gas		
White lime	1075	1095
Black lime	1095	1105
Lime, oolite	1105	1125
Oil and salt water rose 700'		
Black lime	1125	1135
Brown lime	1135	1143
White, sandy lime	1143	1158
Blue lime	1158	1163
White, sandy lime	1163	1170
Gray, sandy lime	1170	1194
Very hard, sandy lime	1194	1198
Sandy lime	1198	1203
Black lime	1203	1210
Brown lime	1210	1215
Gray lime	1215	1220
Black, sandy lime	1220	1225
Light-gray lime	1225	1233
Green-gray lime	1233	1235
Steel-gray lime	1235	1240
Very hard, gray, sandy lime	1240	1248
Very hard, light-gray lime	1248	1254
Hard, gray, sandy lime	1254	1260
Hard, brown, sandy lime	1260	1265
Hard, light-gray, sandy lime	1265	1270
Black lime		

Analysis of crude oil from well:

(D. F. Farrar, analyst)

Gravity—40° Baume at 60°F. Specific gravity—.8235

Initial boiling point at 42°C. (108°F.)

DISTILLATION TEST

	% vol.	% wt.	sp. gr.	Baume
To 150°	25.5	22.8	.7375	60°
155-300°C.	33.5	32.9	.8095	43
Over 300°C.	41.0	44.3	.8897	27.5

SAMPLE DESCRIPTION

Lithology	From	To
Quartz sand, clear, medium-grained, subangular	39	108
Quartz sand, clear, medium-grained, subangular, and fragments of black shale and coal	108	182

MORGAN COUNTY

325

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay-shale, gray, very fine grained, lumpy	182	185
Samples missing	185	378
Clay-shale, gray, very fine-grained, lumpy	378	425
Quartz sand, clear, fine-grained, subrounded, iron-stained, and some green specks	425	430
Samples missing	430	450
Sand, clear, iron-stained, slightly clayey and shaly, medium-grained	450	465
Clay, light-gray, very fine grained, with small piece of shale	465	470
Clay, light-gray, very fine grained, containing small pieces of shale	470	475
Quartz sand, clear, iron-stained, subrounded, fine-grained, peppered with fragments of black shale	475	485
Clay, light-gray, very fine grained, containing small pieces of shale	485	490
Quartz sand and shale, dark-gray, fine-grained	490	500
Quartz sand, clear, iron-stained, subrounded, very fine grained	500	540
Limestone, light-gray, fine-grained, argillaceous	540	565
Shale, chocolate-colored, fine-grained	565	570
Shale, green, sandy, fine-grained (80%), with some shale, chocolate (20%)	570	657
Limestone, drab-gray, very fine grained, sandy	657	662
Shale, dark-green, fine-grained, biotitic (?)	662	667
Limestone, green, coarse-grained, and some shale, brown	667	?
Shale, greenish-gray, greasy, biotitic	795	800
Samples missing	800	812
Limestone, dark-gray, oolitic	812	900
Samples missing	900	910
Limestone, dark-gray, oolitic, and shale, dark-gray, fine-gained, sandy	910	915
Limestone, dark-gray, oolitic, and some white, highly oolitic limestone	915	928
Limestone, white to light-gray, coarse-grained	928	945
Limestone, white to light-gray, highly oolitic	945	960
Samples missing	960	970
Limestone, greenish-gray, sandy, fine-grained	970	975
Samples missing	975	985
Limestone, white, highly oolitic	985	1005
Limestone, light-gray, clayey, oolitic	1005	1009
Limestone, light-gray, fine-grained, slightly oolitic	1009	1028
Samples missing	1028	1038
Limestone, light-gray, fine-grained, slightly oolitic	1038	1043
Limestone, light-gray, fine-grained, oolitic	1043	1055
Limestone, gray, fine-grained, highly oolitic	1055	1060
Samples missing	1060	1065
Limestone, gray, fine-grained, highly oolitic	1065	1075
Samples missing	1075	1090
Limestone, light-gray, fine-grained, highly oolitic	1090	1100
Samples missing	1100	1125
Limestone, light-gray, fine-grained, highly oolitic	1125	1130
Limestone, gray, fine-grained, highly oolitic	1130	1158
Quartz sand, mostly fine-grained, with some limestone	1158	1175
Samples missing	1175	1178
Limestone, gray to dark-gray, fine-grained, iron-stained, sandy	1178	1180
Limestone, gray, fine-grained, oolitic	1180	1185
Limestone, white, coarse-grained, oolitic	1185	1194
Quartz sand, fine-grained, and small amounts of limestone	1194	1200
Limestone, dark-gray, fine-grained, iron-stained	1200	1205

Lithology

	<i>From</i>	<i>To</i>
Samples missing	1205	
Limestone, dark-gray to light-gray, fine-grained	1215	1215
Limestone, dark-gray, fine-grained, cherty	1220	1220
Limestone, dark-gray to light-gray, sandy	1225	1225
Sand, fine-grained, clayey	1230	1230
Quartz sand, fine-grained, subangular	1235	1235
Samples missing	1248	1248
Quartz sand, fine-grained, subangular, and some limestone	1254	1254
Quartz sand, gray, fine-grained, and some shale, dark-gray	1265	1265
Limestone, dark-gray to black, sandy	1270	1270
Limestone, dark-gray to black, cherty, sandy	1290	1290
Limestone, dark-gray to black, sandy, and highly cherty	1320	1320
Samples missing	1332	1332
Limestone, light-gray to dark-gray, cherty	1335	1335
Limestone, dark-gray and light-gray, iron-stained, cherty, and quartz sand, gray, fine-grained, and some limestone	1340	1340

1345

Rock Creek Oil Co., J. A. BRADFORD No. 1

(Map Number—20)

Location: NW SE NE Sec. 3, 4S—58E

Elevation: 1415'

Date: 1929

Total depth: 1373'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, white to light-gray, oolitic; shale, green, small amounts. Residue (5%)—Shale, gray, fine-grained		
Limestone, gray, medium-grained, fossiliferous	995	995
Limestone, dark-gray, fine-grained. Residue (+10%)—Networks of silica, ash-gray, soft, porous	970	970
Limestone, dark-gray, fine-grained. Residue (+10%)—Networks of silica, ash-gray, soft, porous, and shale, black, fine-grained	978	978
Limestone, gray, medium-grained. Residue (+10%)—Networks of silica, ash-gray, soft, porous, and shale, black fine-grained	998	998
Limestone, light-gray to gray, medium to coarse-grained. Residue (+20%)—Shale, light-gray, porous, and some anhydrite	1018	1018
Limestone, gray, medium-grained. Residue—Networks of silica, ash-gray, porous, soft, specked with iron-stained silica	1100	1100
Limestone, white to light-gray, medium-grained, few oolities (5%). Residue (5%)—Shale, light- to dark-gray fragments, few sand grains	1100	1125
Limestone, white to light-gray, oolitic. Residue (2%)—Silica, soft porous, shale fragments and pyrite	1125	1140
Residue (5%)—Shale fragments, dark-gray, and sand grains	1150	1155
Limestone, white, oolitic. Residue (+1%)—Shale fragments and sand grains	1155	1159
Samples missing	1159	1159
Limestone, white, oolitic. Residue—Shale, dark-gray, fragments (50%) and sand, fine (5%)	1164	1174
Limestone, white, oolitic. Residue (5%)—Shale, dark-gray, fragments and quartz crystallines, prismatic	1174	1179
Limestone, gray, oolitic. Residue (+10%)—Networks of silica, light-tan, porous	1179	1184
Limestone, gray-speckled, with pyrite, some oolitic	1184	1189
	1189	1194

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray, dense. Residue (+20%)—Shale, light-gray, soft, porous	1194	1199
Limestone, tan, dense, petroliferous. Residue (5%)—Shale, fragments, soft, porous, and fine quartz sand	1199	1204
Limestone, light-gray, somewhat oolitic, petroliferous. Residue (5%)—Shale, fragments, dark- and light-gray	1204	1209
Limestone, gray, oolitic, petroliferous. Residue (5%)—Shale, fragments, dark-gray, and silica, soft, porous	1209	1214
Limestone, gray, oolitic, petroliferous. Residue (5%)—Shale, dark-gray fragments, networks of silica, white, pyrite	1214	1219
Limestone, gray, dense, petroliferous. Residue (5%)—Shale, dark-gray, fragments, networks of silica, white, pyrite	1219	1224
Limestone, white, to light-gray, oolitic. Residue (5%)—Shale, gray, and pyrite	1229	1234
Limestone, light-gray, dense. Residue (5%)—Shale, fragments, dark-gray, networks of silica, white, porous	1234	1239
Limestone, gray, oolitic. Residue ($\pm 20\%$)—Shale, light-gray, soft, porous	1239	1244
Limestone, gray, dense, oolitic	1244	1254
Limestone, gray, dense, oolitic. Residue (+10%)—Shale, light-gray, porous, fragments	1254	1259
Limestone, gray, somewhat oolitic. Residue (40%)—Shale, light-gray, soft	1259	1264
Limestone, white, oolitic. Residue (80%)—Shale, light-gray, soft	1264	1269
Limestone, white, oolitic. Residue (25%)—Shale, light-gray, soft, porous	1269	1274
Limestone, gray, somewhat oolitic, iron-stained ($\pm 20\%$); Residue—Networks of silica, light-gray, soft, porous (50%), chert, tan to milky, dense (50%)	1275	1285
Limestone, light-gray, fine-grained, cherty. Residue—Chert, white to light-gray, dense	1285	1287
Limestone, light-gray to white, iron-stained. Residue—Chert, light-gray to clear, dense	1287	1290

Benedum-Trees Oil Co., H. R. STUMP No. 2

(Map Number—21)

Location: Sec. 8, 4S—58E

Elevation: 1557'

Date: 1929

Total depth: 1673'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	12
Black slate	12	160
Hard, gray sand	160	240
Very hard, gray sand	240	300
Black slate	300	340
Dark sand	340	380
Gray sand	380	409
Black slate	409	480
Gray sand	480	530
Dark sand	530	760
Black slate	760	790
Very hard, black lime	790	805
Black sand, very hard	805	820
Lime, dark and hard	820	840
Slate	840	842
Red rock	842	847
Dark lime	847	860
Slate	860	880

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red rock	880	920
Slate	920	955
Lime	955	965
Red rock	965	985
Lime	985	988
Black slate	988	990
Soft lime	990	1000
Hard lime	1000	1010
Red rock	1010	1022
Lime	1022	1061
8 1/4" casing @ 1028		
Slate		
Lime	1061	1065
Pink lime	1065	1540
Brown lime	1540	1580
Dark lime	1580	1590
CASING:	1590	1673

10" @ 12' left in hole.

8 1/4" @ 1028'

Reduced hole to 6 5/8" @ 1100; all casing pulled out.

Gas @ 1120-1122, 1285-1287, and 1315-1318.

Tubed with 2" tubing and packer set at 1100, and cemented.

Russell Producing Co., STUMP No. 2

(Map Number—22)

Location: Sec. 12, 3S—58E

Date: 1930

Elevation: 1320'

Total depth: 1486'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and clay, yellow	0	9
Sand, white	9	170
Water 50'		
Shells, light		
Slate, dark	170	195
Lime, white	195	318
Salt Sand, white (water)	318	340
Shells, light	340	560
Lime, white	560	580
Red rock	580	610
Shells, white	610	622
Red rock	622	648
Shells, light	648	670
Red rock	670	732
Lime, white	732	752
Red rock	752	757
Slate and shells, light	757	771
Lime, light	771	843
Little gas 946	843	955
Sand, white		
Little gas 972	955	972
Lime, white		
Little gas 1067	972	1267
Gas 1121 and 1163		
Sandy lime, brown		
Lime, sandy, dark-gray	1267	1290
Lime, dark to black	1290	1330
Coffee lime, black	1330	1385
	1385	1410

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray	1410	1430
Oil pay, gray, with tint of red (S. L. M.) ¹	1430	1441
Sandy lime, steel-gray (S. L. M.)	1441	1486

CASING SET:

10" @ 9'	(pulled)
8¼" @ 596'	(pulled)
6⅝" @ 1103'	(pulled)

Russell Producing Co., STUMP No. 3

(Map Number—23)

Location: Sec. 18, 3S—58E

Elevation: 1376'

Date: 1930

Total depth: 1518'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and clay, yellow	0	7
Bluff sand, brown	7	65
Sand, brown	65	112
Sand, white	112	235
Shells, light	235	265
Slate, light	265	335
Shells, light	335	385
Sandy lime, white	385	405
Water @ 388		
Salt Sand, white	405	610
Shells, light	610	646
Lime, white	646	667
Red rock	667	694
Shells, light	694	710
Red rock	710	736
Slate, light	736	750
Shells, light	750	794
Red rock	794	828
Slate and shells, light	828	902
Lime, white	902	1022
Gas 1010		
Sand, white	1022	1030
Gas 1028-1030		
Lime, white	1030	1317
Salt water 1030, 1083, and 1165		
Gas 1130 and 1230		
Sandy lime, brown	1317	1346
Sandy lime, dark-gray	1346	1380
Lime, black	1380	1430
Coffee lime, black	1430	1460
Lime, gray	1460	1481
(S. L. M.)		
Lime, gray, with tint of red	1481	1491
Sandy lime, gray	1491	1517½
(S. L. M.)		

CASING SET:

10" @ 7'	(pulled)
8¼" @ 655'	(pulled)
6⅝" @ 1143'	(pulled)

¹ Steel line measurement.

Benedum-Trees Oil Co., E. W. SEDMAN No. 1

(Map Number—24)

Location: Sec. 13, 4S—58E

Elevation: 1627'

Date: 1930

Total depth: 1502'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	2
Clay, slate, sand	2	35
Sand	35	135
Slate	135	230
Crevice, big water	230	232
Sand and slate	232	540
Salt Sand	540	815
Slate	815	830
Sand	830	885
Lime	885	905
Red rock	905	910
Lime	910	930
Red rock, soft	930	940
Slate and lime shells	940	1030
Red rock	1030	1040
Lime	1040	1043
Lime, pink	1043	1048
Lime, gray	1048	1067
Slate	1067	1072
Lime and slate	1072	1140
Set 8¼" casing @ 1090 (S. L. M.)		
Slate	1140	1147
Lime	1147	1185
Gas pay—"Glenmary sand" (S. L. M.)	1185	1188
Lime	1188	1376
Lime, gas pay	1376	1381
Shot @ 1376 with 40 qts.; slight increase in gas		
Lime	1381	1481
Gas pay, light (S. L. M.)	1481	1483
Lime	1483	1502

Benedum-Trees Oil Co., HALL & DAVIS No. 1

(Map Number—25)

Location: SE NE NW Sec. 13, 4S—58E

Elevation: 1550'

Date: 1930

Total depth: 1695'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Salt Sand	466	745
Slate	745	750
Sand	750	795
Lime	795	814
Slate	814	818
Red rock	818	826
Lime	826	880
Slate	880	898

¹ Steel line measurement.

	<i>From</i>	<i>To</i>
<i>Lithology</i>	898	925
Lime shells	925	940
Slate	940	950
Lime	950	970
Red rock	970	1012
Lime	1012	1016
Slate	1016	1057
Lime		
Set 8¼" casing @ 1023	1057	1065
Slate ("Cave")	1065	1085
Lime	1085	1114
Lime, soft		
Gas @ 1114	1255	1280
Gas sand, gas	1280	1295
Lime, brown	1295	1435
Lime, gray	1435	1455
Lime, sandy	1455	1490
Lime, pink	1490	1498
Lime, sandy	1498	1525
Lime, red	1525	1540
Lime, sandy	1540	1560
Lime, black	1560	1600
Lime, "coffee"	1600	1643
Lime, gray	1643	1653
Lime, brown	1653	1695
Lime, gray		

Well was shot with nitroglycerin at 1261 feet.

SAMPLE DESCRIPTION

	<i>From</i>	<i>To</i>
<i>Lithology</i>	975	985
Limestone, gray, oolitic	985	990
Limestone, gray, coarse-grained, and some shale, calcareous	990	1000
Limestone, gray, coarse-grained, oolitic	1000	1020
Limestone, dark-gray, coarse-grained, oolitic	1020	1025
Limestone, gray to dark-gray, fine-grained, non-oolitic	1025	1035
Limestone, gray, slightly oolitic	1035	1045
Limestone, dark-gray, oolitic	1045	1050
Limestone, light-gray, oolitic	1050	1055
Limestone, dark-gray, fine-grained	1055	1060
Limestone, dark-gray, medium-grained		
Limestone, dark-gray, medium-grained (50%); limestone, white, coarse-grained (50%)	1060	1065
Limestone, white to light-gray	1065	1080
Limestone, white to light-gray, slightly oolitic	1080	1085
Limestone, light-gray, oolitic (90%); shale, bluish-gray (10%)	1085	1090
Limestone, light-gray, oolitic (75%); shale, bluish-gray (25%)	1090	1095
Limestone, light-gray, very dense, fine-grained	1095	1115
Limestone, white to light-gray, oolitic	1115	1120
Limestone, white, highly oolitic	1120	1135
Limestone, light-gray, highly oolitic	1135	1145
Limestone, gray, oolitic	1145	1165
Limestone, white, oolitic	1165	1190
Limestone, white, highly oolitic	1190	1195

Benedum-Trees Oil Co., F. S. ANDERSON No. 1

(Map Number—26)

Location: Sec. 12, 4S—58E

Elevation: ?

Date: 1931

Total depth: 1536'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy clay, brown	0	20
Slate, dark	20	55
Shells, light	55	120
Sand, white	120	170
Slate, dark	170	200
Slate and shells, dark	200	235
Lime, white	235	250
Sand, white	250	312
Shells, dark	312	330
Sandy lime, light	330	407
Slate, dark	407	559
Salt Sand, white	559	840
Water 640		
Slate and shells, dark	840	881
Sand, white	881	909
Sandy lime, white	909	925
Slate, dark	925	930
Red rock	930	942
Shells, light	942	955
Red rock	955	985
Slate and shells, light	985	1003
Shells, light	1003	1050
Red rock	1050	1067
Slate, dark	1067	1076
Lime, gray	1076	1090
Shells, light	1090	1105
Slate and shells, light	1105	1130
Lime, white	1130	1164
Pencil Cave, dark	1164	1167
Lime, white	1167	1194
Pencil Cave, dark	1194	1195
Lime, white	1195	1219
1st. gas	1219	1220
(S. L. M.)		
Lime, white,		
Sand, dark-gray	1220	1310
Lime, light-gray	1310	1315
Lime, white	1315	1342
2nd. gas	1342	1393
(S. L. M.)	1393	1410
Lime, white		
(S. L. M.)	1410	1536

CASING:

10"-32 lb. casing @ 36

8 1/4"-24 lb. casing @ 1097

Reduced to 6 5/8" @ 1183'

¹ Steel line measurement.

East Tennessee Oil Co., ANGELINE RITTER No. 1
(Map Number—27)

Location: Sec. 3, 5S—58E
Date: 1932

Elevation: 1457'
Total depth: 2096'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	2
Hard, yellow sand	2	55
Soft, dark slate, broken	55	160
Small amount water @ 65		
Dark slate and shells, soft and hard	160	480
Hard, white Salt Sand	480	736
Dark slate and shells, soft	736	802
Light, sandy lime, hard	802	853
Dark-gray lime, medium-hard	853	894
Pale red rock, soft	894	904
A little gas		
Light-gray slate and lime, soft and hard	904	1024
Dark red rock, soft	1024	1038
Big Lime, light-gray, hard	1038	1236
Dirty brown lime, medium-hard	1236	1246
Dark-gray, rotten lime, soft	1246	1251
Dark lime, little sand, hard	1251	1280
White lime, hard	1280	1370
Light lime, fish-egg sand, hard	1370	1380
Show of oil and salt water		
Light lime, hard	1380	1500
Light-gray, sandy lime, hard	1500	1584
Black, rotten lime, soft; gets harder and darker	1584	1714
Light-gray lime, sandy, hard	1714	1818
Light-green slate, soft	1818	1820
Chattanooga black shale, soft	1820	1855
A little gas		
Green shale, soft	1855	1989
Dark, sandy stuff, hard	1989	1990
Green lime, pink specks, medium-hard	1990	2050
Green lime, medium-hard	2050	2096

Well made 30,000 to 40,000 cubic feet of gas at time of completion, was never capped, and is still standing open on the 6-inch casing.
Will still make the same amount of gas as when originally drilled.

CASING RECORD:

8" @ 807
6 1/2" @ 1213
Casing left in well

Russell Producing Co., J. A. BRADFORD No. 1
(Map Number—28)

Location: Sec. 3, 4S—58E
Date: 1935

Elevation: 1397'
Total depth: 1180'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	4
Shells and slate	4	24
Sand, hard, yellow	24	85
Slate	85	89
Sand, gray grit	89	162

<i>Lithology</i>	<i>From</i>	<i>To</i>
Slate and shells	162	318
Salt Sand, hard	318	638
White slate	638	639
Lime, dark	639	667
Slate	667	670
Red rock	670	675
Slate and shells	675	700
Cased with 8¼" casing @ 687		
Red rock	700	715
Slate and shells	715	795
Red rock	795	810
Slate and shells	810	858
Lime, dark	858	891
Pencil Cave	891	895
Lime, white	895	920
Pencil Cave	920	921
Lime, gray and hard	921	987
Cased with 6½" casing @ 987		
Continuing lime	987	1135
Slight showing of oil and gas	1135	1139
Top of pay	1139	1144
Continued fair drilling, light-gray lime	1144	1162
Soft drilling, should produce oil	1162	1165
Lime, gray, hard	1166	1180
CASING:		
10½" casing @ 9'-3"		
8¼" casing @ 687'		
6½" casing @ 987'		

Tenn.-Ohio Oil & Supply Co., H. K. JONES No. 1
(Map Number—29)

Location: Sec. 2, 4S—58E
Date: 1939

Elevation: 1380'
Total depth: 1350'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay	0	17
Sand	17	30
Slate	30	50
Sand	50	120
Slate	120	130
Sand	130	195
Coal	195	197
Slate	197	213
Lime	213	227
Sand	227	280
Slate	280	300
Sand, black	300	310
Slate and shell	310	325
Sand, light-gray, soft	325	350
Salt Sand, white	350	400
Slate	400	417
Sand, dark	417	424
Sand, light, hard	424	588
Slate and shells	588	598
Sand	598	682
Slate, dark	682	685
Shells, sandy	685	690
Sand	690	703

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shells, sandy	703	724
Slate and shells	724	738
8 1/4" @ 727 (S. L. M. ²)		
Lime, brown	758	780
Slate, soft	780	790
Red rock	795	810
Lime	810	825
Slate and shells	825	835
Red rock	835	845
Slate and shells	845	880
Lime shells	880	915
Red rock	915	950
Slate and shells	950	980
Lime	980	1015
Slate	1015	1022
Lime, light	1022	1120
Gas 1046 (S. L. M.)		
Gathered samples from floor (marked 1050-1055)		
Sandy lime, dark	1120	1125
Lime, dark	1125	1170
Lime, brown	1170	1180
Sand, dark-gray	1180	1210
Show of oil—S. L. M. 1194, D. L. M. ² 1204		
Lime, gray	1210	1275
Sandy lime	1275	1280
Lime, light-gray	1280	

Tenn-Oil Co., W. H. GALLOWAY No. 1
(Map Number—30)

Location: Sec. 3, 4S—58E

Elevation: 1360'

Date: 1940

Total depth: 1165'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay	0	18
Sand	18	85
Water		
Slate	85	100
Water		
Sand	100	162
Slate	162	196
Sand, broken	196	267
Slate	267	330
Salt Sand	330	625
Slate and shells	625	662
Lime	662	670
Slate	670	680
Red rock	680	700
Lime, sandy, hard	700	717
Red rock	717	730
Slate and shells	730	763
Lime	763	782
Shale and shells	782	800
Red rock	800	845
Slate	845	850
Lime	850	862
Slate	862	870
Lime	870	906

¹ Steel line measurement.² Drill line measurement.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Slate	906	908
Lime	908	929
Salt water @ 920		
Pencil Cave	929	930
Lime	930	1020
Gas showing 945		
Lime, dark, hard	1020	1075
Lime, light, hard	1075	1100
Lime, lighter, hard	1100	1123
Oil smell		
Sand, brown	1123	1133
Lime, gray, hard	1133	1165

Russell Producing Co., MARKLEY No. 1

(Map Number—31)

Location: NW SE SE Sec. 2, 4S-58E

Elevation: 1354'

Date: 1946?

Total depth: 1206'

<i>Lithology</i>	SAMPLE DESCRIPTION	
	<i>From</i>	<i>To</i>
Sandstone, clear, medium-grained at 518		
Dolomite, blue-gray, siliceous, fine-grained (50%); shale, dark-gray, fine-grained (50%)	949	959
Samples missing	959	960
Limestone, dark-gray, mostly medium-grained; limestone, dove-gray; shale, dark-gray	960	965
Limestone, dark-gray, medium-grained (90%); shale, dark-gray (10%)	965	970
Limestone, dark-gray, medium-grained	970	975
Limestone, dark-gray, medium-grained, crystalline (80%); shale, dark-gray (20%)	975	980
Limestone, dark-gray, medium-grained, crystalline (20%); shale, dark-gray (80%)	980	987
Limestone, dark-gray, medium-grained, crystalline (10%); shale, bluish-gray (90%)	987	994
Limestone, dark-gray, medium-grained, crystalline (100%)	994	1000
Limestone, dark-gray, medium-grained, crystalline, and much crystalline calcite and pyrite	1000	1010
Limestone, white, crystalline, oolitic (80%); limestone, dark-gray, medium-grained (20%)	1015	1020
Limestone, white, crystalline, oolitic	1020	1025
Limestone, white, crystalline, oolitic (90%); limestone, dark-gray, fine-grained	1025	1030
Limestone, light-gray, crystalline, oolitic	1030	1055
Limestone, gray, crystalline, slightly oolitic	1055	1070
Limestone, gray, crystalline, slightly oolitic, and small amounts shale, dark-gray	1070	1080
Limestone, gray, crystalline (90%); shale, dark-gray, fine-grained	1080	1085
Limestone, gray, crystalline, and much calcite, white, crystalline	1085	1095
Limestone, gray, fine-grained; calcite, crystalline	1095	1100
Limestone, gray, fine-grained, oolitic; calcite, crystalline	1100	1105
Limestone, gray, fine-grained, oolitic	1105	1115
Limestone, gray, fine-grained, oolitic; calcite, crystalline	1115	1120
Limestone, gray, fine-grained, oolitic	1120	1130
Limestone, gray, fine-grained, oolitic, and limestone, dolomitic (cave)	1130	1135
Limestone, gray, fine-grained, oolitic (50%); dolomite, light-gray, sucrose (50%)	1135	1140

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray, slightly oolitic	1140	1150
Limestone, white to light-gray, crystalline, slightly oolitic	1150	1155
Limestone, white to light-gray, crystalline, oolitic	1155	1165
Samples missing	1165	1171
Limestone, white to light-gray, crystalline, oolitic, and limestone light-gray, very dense, with specks of clear calcite	1171	1177
Limestone, white to light-gray, crystalline, oolitic, and limestone, light-gray, very dense, with specks of clear calcite	1177	1183
Limestone, light-gray, fine-grained, slightly oolitic	1183	1187
Limestone, light-gray, fine-grained, dense, with specks of clear calcite	1187	1194
Limestone, light-gray, fine-grained, fine-sandy	1194	1197
Limestone, light-gray, crystalline, slightly oolitic	1197	1206

Tenn-Tex Oil Co., GEORGE CALDWELL No. 1

(Map Number—32)

Location: SW SE SE Sec. 24, 4S—58E

Elevation: 1343'

Date: 1948

Total depth: 960'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	1
Rock	1	137
Water @ 32		
Bad hole (crevice) @ 89		
Slate, soft	137	172
Rock, gray, hard	172	187
Slate, soft	187	277
Salt Sand, hard	277	595
Cave @ 594		
Sandy shale, hard (in streaks)	595	650
White sand, hard	650	674
Sandy shale, hard and soft	674	685
Fire clay, soft (stuck to bit)	685	688
Light-brown, hard	688	713
8 $\frac{5}{8}$ " @ 694		
Green shale, soft (stuck to bit)	713	717
Gray limestone, hard	717	719
Red rock, soft	719	720
Gray limestone, hard	720	725
Blue slate, soft	725	731
Red rock, hard and soft	731	745
Limestone and slate, hard and soft	745	765
Slate, soft (hard on bottom)	765	795
Red rock, soft	795	800
Slate, soft	800	847
Sand, hard	847	853
Shale, soft	853	863
Red rock, soft	863	873
Blue slate, soft	873	884
Blue limestone, hard	884	889
Slate like Pencil Cave, soft, green	889	894
Limestone, hard	894	902
Black slate, soft	902	909
Red rock, soft	909	921
Gray limestone, hard	921	934
Dark limestone	934	960

No oil or gas shows @ 960, with 3 strings of tools in hole.
Current plug at about 700-710.

Tenn-Tex Oil Co., G. CALDWELL No. 2

(Map Number—33)

Location: SW SE SE Sec. 24, 4S—58E

Elevation: 1332'

Date: 1948

Total depth: 1037'

Lithology	SAMPLE DESCRIPTION	
	From	To
Sandstone, very light gray, medium-coarse to coarse grained, iron stains, mica flakes	0	100
Samples missing	100	120
Sandstone, very light gray, medium-coarse to coarse grained, iron stains, small amounts of gray, brown, and green shale	120	125
Samples missing	125	136
Shale, dark-gray, medium-fine grained, sandy	136	145
Samples missing	145	150
Shale, dark-gray, medium-fine grained	150	155
Shale, dark-gray, medium-fine grained, sandy; brownish-red shale particles throughout	155	167
Shale, dark-gray, medium-fine grained, sandy, specks of mica	167	172
Sandstone, very light gray, medium-grained, calcareous, specks of mica	172	175
Sandstone, very light gray, medium-grained, mica particles; 1' bed of shale interbedded	175	180
Shale, dark-gray, medium-fine grained, mica particles	180	184
Sandstone, very light gray, medium to medium-coarse grained	184	187
Shale, dark-gray, medium-fine grained, mica particles	187	194
Sandstone, very light gray, medium to medium-coarse grained	194	196
Samples missing	196	225
Shale, dark-gray, medium-fine grained, sandy	225	230
Samples missing	230	275
Shale, dark-gray, medium-fine grained	275	278
Sandstone, very light gray, medium to medium-coarse grained, calcareous, argillaceous particles	278	285
Samples missing	285	295
Sandstone, very light gray, coarse-grained, calcareous; gray shale particles	295	300
Samples missing	300	383
Sandstone, white, medium-coarse grained; green and gray shale	383	387
Samples missing	387	399
Sandstone, white, medium to medium-coarse grained, calcareous; green and gray shale particles	399	405
Samples missing	405	415
Sandstone, white, medium to medium-coarse grained, calcareous; gray and green shale particles	415	420
Samples missing	420	430
Sandstone, white, medium-coarse to coarse grained; slightly calcareous; few gray shale particles; iron stains	430	437
Samples missing	437	445
Sandstone, white, medium to medium-coarse grained, few gray shale particles	445	450
Samples missing	450	470
Sandstone, white, medium-coarse to coarse grained, calcareous; gray shale particles	470	475
Samples missing	475	487
Sandstone, light-gray, medium to medium-coarse grained, calcareous; gray shale particles	487	492

MORGAN COUNTY

330

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	492	495
Sandstone, light-gray, medium to medium-coarse grained, calcareous; gray shale particles; small amount of white chert	495 500	500 505
Samples missing		
Sandstone, white, medium- to coarse-grained, slightly calcareous; few gray shale particles; small amount of white chert	505 510	510 525
Samples missing		
Sandstone, white, medium- to coarse-grained, slightly calcareous; few gray shale particles; small amount of white chert	525 530	530 532
Samples missing		
Sandstone, white, medium- to coarse-grained, slightly calcareous; gray shale particles; small amount white chert	532	543
Sandstone, white, medium- to coarse-grained, slightly calcareous in spots; gray shale particles	543 565	565 570
Samples missing		
Sandstone, white, medium- to coarse-grained, calcareous; small amount of white chert	570 580	580 585
Samples missing		
Sandstone, white, medium- to coarse-grained; white chert	585	595
Same, with gray shale particles	595	605
Samples missing		
Shale, dark-gray, medium-fine grained, sandy	605	610
Sandstone, white, medium-grained, calcareous	610	622
Shale, dark-gray, medium-fine grained	622	625
Sandstone, light yellow-gray, calcareous, argillaceous	625	628
Sandstone, gray, medium-grained, slightly calcareous, very argillaceous	628	635
Sandstone, white, medium-grained; thin shale interbedded; white chert, slightly calcareous	635	644
Samples missing		
Sandstone, white, medium to medium-coarse grained; gray shale particles; iron stains; small amount of white chert	644 655	655 660
Sandstone, white, medium-grained; gray, green, tan, and red shale particles	660	675
Limestone, tan, fine-grained, oolitic; sandy, white chert; few gray shale particles	675	685
Limestone, tan, fine-grained, very oolitic	685	690
Limestone, tan, fine-grained, slightly oolitic, slightly argillaceous; small amount of white chert	690	695
Limestone, brownish-gray, fine-grained, slightly argillaceous, slightly oolitic	695	705
Limestone, reddish-brown to red, fine-grained, argillaceous; abundant green and black shale particles	705	710
Shale, abundant red with green and gray shale, very calcareous, bottom few feet sandy	710	725
Shale, abundant green with red shale, sandy, very calcareous	725	758
Shale, gray with small amounts of red, calcareous, few fossil fragments	758	765
Shale, gray with small amounts of red, calcareous	765	770
Shale, grayish-green with small amounts of red, very calcareous	770	782
Shale, light- to dark-green with smaller amounts of gray and red shales, slightly calcareous; upper section with pyrite cubes, lower section with mica particles	782	790
Shale, gray with smaller amounts of gray and green shales, calcareous	790	825
Shale, dark gray-green, with small amount of red, calcareous, slightly oolitic, slightly sandy, dark-gray, conglomeratic-looking limestone particles, slightly cherty	825	840
	840	848

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, red to red-gray, slightly calcareous, and a white, medium-grained sandstone	848	855
Shale, gray-red with green and gray particles; sandstone, white, slightly calcareous	855	875
Shale, gray, green, red, tan (in order of abundance), calcareous and dolomitic	875	918
Shale, gray, red, and green; siltstone, white, calcareous	918	924
Limestone, white, medium-fine grained; abundant gray, red and green shale particles; silty dolomite	924	928
Limestone, gray, fine to medium-fine grained,, argillaceous, silty	928	939
Limestone, tan with gray and yellow tints, slightly argillaceous	939	947
Limestone, gray, fine to medium-fine grained, slightly argillaceous	947	950
Samples missing	950	955
Limestone, grayish-brown, fine to medium-fine grained, slightly argillaceous	955	960
Limestone, grayish-brown, medium-fine grained, slightly oolitic, very argillaceous; very slight show of oil	960	965
Limestone, brownish-gray, fine-grained, slightly argillaceous; varies to medium-fine grained at bottom with silt and fossil fragments	965	990
Limestone, very light gray, fine-grained, slightly argillaceous	990	1000
Limestone, tan, fine-grained, argillaceous; very slight show of oil	1000	1005
Limestone, tan, fine-grained, slightly argillaceous; few calcite crystals and fossil fragments	1005	1010
Samples missing	1010	1015
Limestone, tan, fine-grained, argillaceous; few calcite crystals; very slight show of oil	1015	1020
Limestone, brownish-gray, fine-grained, argillaceous; slight show of oil	1020	1025
Samples missing	1025	1028
Limestone, brownish-gray, fine-grained, argillaceous; few fossils; very slight show of oil	1028	1032
Samples missing	1032	1033
Limestone, brownish-gray, fine-grained, very argillaceous; show of oil	1033	1037

Russell Producing Co., FEE No. 1
(Map Number—34)

Location: SE SW NW Sec. 15, 3S—59E

Elevation: 1443'

Date: 1949

Total depth: 1415'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	1
Sand, gray, medium	1	20
Slate	20	90
Water @ 42		
Sand and shale, gray, medium	90	123
Coal	123	124
Slate and shale, medium	124	225
Sand, light-gray	225	314
Water @ 271		
Coal	314	315
Sand, light-gray	315	401
Slate and shale	401	505

<i>Lithology</i>	<i>From</i>	<i>To</i>
Coal	505	508
Slate and shale	508	515
Salt Sand, white, medium	515	847
Limestone, brown, hard	847	857
Limestone, dark-gray, hard	857	880
Red rock	880	888
Limestone, gray, hard	888	909
Red rock and limestone	909	940
Limestone, dark-gray, hard	940	945
Slate and shale	945	955
Limestone, black, sandy, hard	955	975
Slate, soft	975	993
Limestone, dark-gray, hard	993	1000
Red rock and slate	1000	1050
Limestone, gray, hard	1050	1074
Pencil Cave, dark	1074	1075
Limestone, dark, hard	1075	1096
(Red rock and slate caves between 1000 and 1086)		
Slate, dark	1096	1099
Limestone, dark-brown, hard	1099	1110
Break, soft	1110	1111
(Could be Pencil Cave)		
Limestone, dark-brown, hard	1111	1120
Lime, white, medium	1120	1132
Limestone, dark-gray, medium	1132	1198
Gas 1132 and salt (?) water		
Limestone, sandy, gray, hard	1198	1229
Limestone, light gray-tan, medium	1229	1265
Limestone, light-brown, hard	1265	1318
Show of oil		
Limestone, light-brown, medium to good drilling	1318	1343
Limestone, light-gray, hard-medium	1343	1356
S.L.M. ¹ @ 1344' same as D.L.M. ²		
Pebbly oolite		
Limestone, light-brown, hard	1356	1365
Limestone, light-gray, hard	1365	1415
Gas and oil @ 1384		
Good drilling 1374-84		
Soft-good drilling @ 1403		
Oil 1403-1411		

50 lbs. lead wool beaten into bottom of well.

Russell Producing Co., FEE No. 2

(Map Number—35)

Location: SW SE NW Sec. 15, 3S—59E

Elevation: 1431'

Date: 1949

Total depth: 1433'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	6
Sand, buff, soft	6	20
Slate, dark	20	90
Water @ 25 and 75		
Sand, shale, gray, medium	90	128
Slate	128	183
Sand, gray, medium	183	199
Slate and shale	199	216

¹ Steel line measurement.

² Drill line measurement.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, gray, medium, sharp	216	330
Sand, light, gray, hard	330	386
Sand, dark-gray, medium	386	454
Slate and shale, dark-gray, medium	454	511
Coal, soft	511	512
Slate and shale, dark-gray, medium	512	521
Salt Sand, white, medium	521	829
Slate, light	829	832
Limestone, gray and black, hard	832	870
(Correction—838' top limestone)		
Red rock	870	877
Limestone, dark-gray, hard	877	887
Slate	877	896
Limestone, shales, hard	896	905
Red rock and limestone, shales	905	943
Sandy limestone, dark-gray, hard	943	964
Slate and shales, medium	964	981
Limestone, dark-gray, hard	981	995
Red rock	995	1007
Limestone, shale, sandy, light-gray	1007	1015
Slate and shales, dark, medium	1015	1048
Limestone, dark-gray, hard	1048	1071
Pencil Cave	1071	1072
Limestone, dark-gray, hard	1072	1084
Slate	1084	1086
Limestone, dark, hard	1086	1088
Slate, soft	1088	1094
Limestone, dark, hard	1094	1115
15 cavings over weck-end—red rock and slate		
Limestone, dark-gray, hard	1141	1155
Limestone, light-gray, hard	1155	1159
Limestone, dark-gray, medium	1159	1215
Gas @ 1160, small		
6" slate @ 1164		
Salt water, gas @ 1167 (small amount water); gas burns		
1" high		
Set 5½" @ 1172		
Limestone, sandy, dark-gray, hard	1215	1230
Limestone, sandy, light-gray, very hard	1230	1233
Limestone, light-gray, medium	1233	1237
Limestone, white, hard (4" red rock)	1237	1248
Limestone, light-gray to tan, medium	1248	1321
Limestone, oolitic, light-gray, medium	1321	1333
Limestone, oolitic, light-gray, soft	1333	1351
Gas 1333-1351 blew cuttings over mast		
Limestone, light-gray, hard	1351	1358
Limestone, dark-gray, hard	1358	1376
Limestone, oolitic, gray and tan, medium	1376	1380
Limestone, light-gray, hard	1380	1388
Limestone, oolitic, light-gray and tan, medium-soft	1388	1395
Gas 1389-1395		
Limestone, gray-brown, medium	1395	1402
Limestone, light-brown, medium	1402	1409½
Oil		
Limestone, light-gray, very hard	1409½	1412
Gas 1409-1410		
Limestone, a little sandy, light-tan, medium	1412	1426
Oil stain 1412-1424		
Limestone, cherty, light-tan, very hard	1426	1433
Treated with 200 gals. acid, pump packer @ 1397		

<i>Lithology</i>	SAMPLE DESCRIPTION	<i>From</i>	<i>To</i>
Limestone, fine-grained, fossil fragments; shale, black and red		1159	1164
Slight show of oil			
Samples missing		1164	1172
Limestone, fine-grained, few fossil fragments; shale, red and black		1172	1182
Slight show of oil			
Limestone, fine-grained, slightly argillaceous; shale, red and black		1182	1187
Limestone, spotty brown and white, fine-grained, sandy, silty; shale (10-20%), black; few galena particles		1187	1210
Limestone, fine, spotty brown and white, slightly oolitic; few galena particles; few shale particles		1210	1217
Limestone, brown, fine-grained, sandy, silty; shale (50-60%), black		1217	1223
Shale, black, very sandy, calcareous		1223	1230
Shale, black, and sandstone, very light tan with greenish tint (some sand grains are frosted)		1230	1233
Limestone, very light tan, fine-grained, oolitic		1233	1245
Limestone, light-tan and shale (20%), gray to purplish-gray, fine-grained, calcareous		1245	1258
Limestone, light-tan, fine-grained, slightly oolitic; few black shale particles		1258	1268
Limestone, light-tan, fine-grained		1268	1279
Same, plus few oolites		1279	1283
Limestone, light-tan, fine-grained, slightly argillaceous		1283	1292
Limestone, brown, medium-fine grained, argillaceous; few green shale particles		1292	1295
Limestone, very light tan, fine-grained; few green shale particles		1295	1300
Limestone, very light tan, fine-grained, oolitic		1300	1304
Limestone, light-tan, fine-grained, slightly cherty at top		1304	1319
Limestone, light-tan, fine-grained, slightly oolitic		1319	1329
Limestone, very light tan, fine-grained, wholly oolites		1329	1350
Limestone, light-tan, fine-grained, very slightly argillaceous, oolitic in part		1350	1375
Limestone, light-tan, fine-grained, abundantly oolitic		1375	1379
Limestone, light-tan, fine to medium-fine grained, sandy, dolomitic; few gypsum particles		1379	1384
Limestone, very light tan, fine-grained, very oolitic		1384	1393
Limestone, light-tan, fine to medium-fine grained, argillaceous, slightly oolitic; few black shale particles		1393	1398
Limestone, very light tan, fine-grained		1398	1400
Limestone, very light tan, fine-grained, almost wholly oolites		1400	1404
Same, plus very slight show of oil		1404	1407
Limestone, very light tan, fine-grained, slightly oolitic; very slight show of oil		1407	1412
Dolomite, brown, medium-grained, silty, sandy; few black shale particles; few gypsum particles		1412	1422
Very good show of oil			
Limestone, white to brown, fine-grained, silty; colorless to gray chert		1422	1428
Limestone, very light tan, fine-grained; abundant colorless to cream chert		1428	1433

Russell Producing Co., FEE No. 3

(Map Number—36)

Location: NW NE SW Sec. 15, 3S—59E

Elevation: 1363'

Date: 1949

Total depth: 1653'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, gray	0	13
Sand, gray, medium	13	24
Slate and shale, dark	24	45
Slate, dark	45	100
Sand, gray, medium	100	127
Slate and shale, dark, medium	127	148
Sand, gray, medium	148	191
Coal	191	192
Sand, light-gray, medium	192	250
Sand, light-gray, hard, sharp	250	305
Sand, light-gray, medium to hard	305	365
Slate and shale, dark-gray, medium	365	431
Coal	431	433
Salt Sand, gray, medium	433	538
Coal	538	540
Salt Sand, gray, medium	540	753
Slate, light-gray	753	755
Limestone, light-gray to brown, hard	755	786
Slate, dark	786	796
Limestone shell, gray, hard	796	801
Red rock	801	842
Slate, dark	842	852
Limestone, shell, dark-gray, medium	852	858
Slate and shale, dark, medium	858	890
Limestone, dark, medium	890	912
Red rock and shale	912	933
Slate and shale	933	961
Limestone, dark-gray and brown, medium	961	983
Pencil Cave	983	984
Limestone, dark-gray, hard	984	995
Slate, soft	995	999
Limestone, brown	999	1001
Slate, soft	1001	1007
Limestone, brown and gray, hard	1007	1030
Gas @ 1023—blew cuttings 100' over mast		
Limestone, gray to white, hard	1030	1070
Limestone, dark-gray, hard	1070	1085
Limestone, dark-gray to brown, hard	1085	1095
Small amount gas @ 1095		
Limestone, dark-gray, hard	1095	1110
Salt water @ 1096		
Limestone, dark-brown, hard	1110	1131
Limestone, dark-gray, medium	1131	1137
Limestone, sandy, light-gray, hard	1137	1151
Limestone, light-gray, hard	1151	1181
Limestone, brown-tan, hard	1181	1210
Limestone, light-gray and tan, medium	1210	1241
Sweet gas 1215 (small amount)		
Limestone, oolitic, light-gray, medium	1241	1265
Gas @ 1254 (small)		
Limestone, light-gray, hard	1265	1272
Limestone, dark-gray, hard	1272	1288

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, oolitic, dark-gray, medium	1288	1294
Gas @ 1289 (small)		
Oil stain @ 1290		
Limestone, light-gray, hard	1294	1309
Limestone, oolitic, light-gray, medium	1309	1314
Limestone, cherty, gray-tan, hard	1314	1339
Gas @ 1322 (small)		
Limestone, shale, dark, medium	1339	1352
St. Louis limestone, dark-gray, hard	1358	1365
Limestone, dark-gray, medium-soft	1365	1377
Small amount oil and gas @ 1371		
Limestone, cherty, dark-gray and brown, hard	1377	1392
Limestone, dark-gray, medium-hard	1392	1406
Limestone, white speck, dark-gray, hard	1406	1429
Limestone, sandy, pink, hard	1429	1464
Limestone, sandy, dark-gray, hard	1464	1472
Limestone, dark gray-black, medium-hard	1472	1504
Limestone, sandy, dark-gray, medium	1504	1510
Limestone, dark-gray-black, hard	1510	1514
Limestone, gray and black, hard	1514	1538
Limestone, chert, gray, hard	1538	1540
Limestone, black, hard-medium	1540	1594
Limestone, dark-gray, hard-medium	1594	1641
Gas @ 1622-26		
Limestone, light-gray, hard	1641	1653

Makes gas (and about 4 gal. oil); 58 lbs. gas pressure—November 17, 1949.

Taylor & Shoemaker, RUSSELL PRODUCING CO. No. 1

(Map Number—37)

Location: NE NE NW Sec. 15, 3S—59E

Elevation: 1462'

Date: 1949

Total depth: 1734'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	14
Coal	14	16
Sand shells, gray, medium	16	43
Water @ 28		
Slate and shells, dark and gray, medium	43	106
Water @ 51 (plenty)		
Sand, bluish-gray, medium	106	139
Sand, light-gray, medium-hard	139	153
Slate, dark, muddy	153	196
Sand shells, dark-gray, medium	196	214
Slate, dark	214	228
Sand, light-gray, medium	228	240
Slate, dark, muddy	240	243
Sand bluff (?), light-gray, hard	243	330
Coal	330	342
Sand, light-gray, hard	342	388
Slate, muddy	388	392
Sand, light-gray, medium	392	401
Slate, dark, soft-medium	401	523
Coal, black, soft	523	526
Slate, dark	526	530
Salt Sand, white, medium-hard	530	792
Sand, coarse quartz, hard	792	866

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray-brown, hard	866	888
7" set @ 876½		
Rock, red	888	900
Limestone shells and red rock	900	909
Shells, slate, and red rock	909	947
Shales, limestone, dark-gray, medium	947	970
Limestone, sandy, dark-gray, hard to medium	970	990
Slate, bluish	990	998
Limestone, dark-gray, medium	998	1018
Limestone, light-gray, hard	1018	1028
Slate, dark, soft	1028	1057
Limestone, dark-gray, medium	1057	1078
Pencil Cave, dark	1078	1080
(Pencil Cave and red rock caves from 1078 on)		
Limestone, dark-gray, hard	1080	1103
Slate, dark, soft	1103	1111
Limestone, dark, medium-hard	1111	1130
Lime, white, medium-hard	1130	1168
Limestone, brown, medium	1168	1178
Limestone, dark-gray, medium	1178	1186
Limestone, light-gray, medium	1186	1193
Limestone, light-brown, medium	1193	1196
Limestone, dark-brown, medium	1196	1210
5½" casing set @ 1200		
Limestone and shale, dark-gray, medium	1210	1215
Limestone, light-brown, hard	1215	1220
Limestone, dark-gray, hard	1220	1242
Sand, dark-gray, hard and sharp (Cypress?)	1242	1252
Limestone, dark-gray, medium	1252	1265
Limestone, light gray-tan, medium	1265	1309
Shale, green, soft	1309	1310
Limestone, light-gray, medium	1310	1316
Limestone, light-brown, medium, dolomitic	1316	1342
Limestone, light-brown, medium, oolitic	1342	1350
Limestone, light-brown, soft	1350	1366
4' per hr. and better		
Gas 1350-1366		
Limestone, light-brown, medium	1366	1404
Limestone, light-brown, soft	1404	1409
Gas		
Limestone, tan to brown, medium-hard	1409	1428
Good drilling 1409-14		
Oil showing 1414—no free oil		
Limestone, brown, medium	1428	1434
Oil 1428-33		
Limestone, brown, hard	1434	1439
Limestone, sandy, gray, hard	1439	1445
Limestone, St. Louis (?), dark-gray, hard, small amount of chert	1445	1465
Limestone, light-gray, medium to good	1465	1471
Oil saturated		
Limestone, brown and cherty, hard	1471	1480
Limestone, brown, soft	1480	1486
Oil saturated		
Limestone, light-gray, hard	1486	1490
Limestone, dark-brown, hard	1490	1500
Limestone, sandy, dark-gray, hard	1500	1520
Limestone, white-specked, brown, medium-hard	1520	1535
Limestone, pink, hard	1535	1543
Limestone, sandy, light-gray, hard	1543	1565
Limestone, black, medium	1565	1588

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, sandy, light-gray, hard	1588	1592
Limestone, sandy, dark-gray, hard	1592	1596
Sand, light-gray, hard and sharp	1596	1606
Shale, lime, black, medium	1606	1611
Limestone, gray and black, medium	1611	1634
Limestone, chert, gray, hard	1634	1635
Limestone, black, medium to good	1635	1684
Limestone, dark-gray and white, pebbles	1684	1734
Gas 1693-1696		
Gas and oil 1696-99		
Treated 1000 gal. acid.		
Packer set between gas and oil pays. 7" casing all pulled.		

S. D. Jarvis, LYNN HONEYCUTT No. 1

(Map Number—38)

Location: SW SE NE Sec. 24, 4S—58E

Elevation: 1486'

Date: 1950

Total depth: 1393'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Not studied	0	1059
Dolomite, light, fine-grained, red rock, green shale	1059	1066
Limestone, brown, fine-grained	1066	1070
Samples missing	1070	1076
Limestone, brown and light, medium-coarse grained, argilla- ceous, contains poorly developed oolites	1076	1094
Samples missing	1094	1120
Limestone, brown, fine-grained, with coarse-grained material, argillaceous	1120	1125
Samples missing	1125	1131
Limestone, light to tan, fine-grained, with some dolomite ..	1131	1142
Limestone, light- and dark-brown, coarse-grained, slightly oolitic	1142	1167
Limestone, light- and dark-brown, coarse-grained	1167	1179
Limestone, gray-brown, medium-coarse grained, argillaceous, lower part oolitic	1179	1204
Samples missing	1204	1210
Limestone, tan, fine-grained, slightly silty	1210	1216
Limestone, light- and dark-brown, coarse-grained, fossilif- erous	1216	1224
Limestone, greenish-gray, medium-fine grained, silty, trace of oil	1224	1234
Limestone, brown, fine-grained, silty	1234	1240
Limestone, gray-brown, coarse-grained, with some medium- fine grained dolomite	1240	1247
Limestone, light, fine-grained	1247	1259
Samples missing	1259	1265
Limestone, tan, fine-grained, with coarse-grained material, silty	1265	1276
Dolomite, light, fine-grained	1276	1286
Limestone, tan, fine-grained	1286	1295
Limestone, light, coarse-grained, with some fine-grained, oolitic, vugular; has dead oil stain	1295	1303
Limestone, tan, medium-coarse grained, oolitic, some staining	1303	1315
Limestone, tan, medium-coarse grained	1315	1322
Green shale and limestone, brown, fine-grained	1322	1328
Limestone, light, coarse-grained, oolitic, very friable	1328	1345
Limestone, light- and dark-brown, fine-grained	1345	1351

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	1357	1357
Limestone, light- and dark-brown, coarse-grained, oolitic ...	1357	1364
Show of oil		
Limestone, tan, fine-grained	1364	1369
Limestone, light, coarse-grained, oolitic	1369	1377
Slight show of oil		
Limestone, tan, fine-grained, oolitic	1377	1393

S. D. Jarvis, G. E. HARRISON No. 1
(Map Number—39)

Location: SE SW SE Sec. 24, 4S—58E

Elevation: 1364'

Date: 1950

Total depth: 1430'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	6
Mud	6	16
White sand	16	56
Mud Cave	56	57
Brown sand	57	65
White sand	65	108
Dark-gray, sandy slate	108	115
Gray sand	115	120
White sand	120	162
Slate and blue mud	162	198
Gray sand	198	211
White sand	211	215
Slate and blue mud	215	247
Slate and gray sand rock	247	252
Slate	252	311
White sand	311	332
White Salt Sand	332	369
Salt Sand	369	429
Gray sand and sandy slate	429	445
Gray sand	445	462
Salt Sand	462	611
Sand and slate	611	617
Sandy slate	617	660
Sand and slate	660	666
Gray sand	666	715
Slate, blue-gray	715	718
Brown limestone	718	750
8" @ 728		
Slate and red rock	750	753
Limestone shell (gray)	753	755
Slate and red rock	755	779
Gray limestone	779	785
Gray limestone and slate	785	800
Slate	800	805
Slate and red rock	805	815
Slate	815	887
Slate and red rock	887	907
Slate	907	930
Hard shale	930	933
Slate	933	947
Slate and red rock	947	964
Dark-gray limestone	964	967
7" @ 967		
Limestone	967	971

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone and slate	971	976
Dark-gray limestone	976	1038
Gray limestone	1038	1054
Brown limestone	1054	1077
Gray limestone	1077	1120
Brown limestone	1120	1146
Dark-gray limestone	1146	1169
Grayish-brown lime	1169	1175
Brown lime	1175	1181
Grayish-brown lime	1181	1188
Light-brown lime	1188	1194
Brown limestone	1194	1199
Gray limestone and slate	1199	1204
Limestone and slate	1204	1214
Limestone, light-brown	1214	1238
Brown to gray lime, oolitic	1238	1242
Gray limestone	1242	1280
Dark, oolitic limestone	1280	1286
Dark, oolitic limestone, sandy	1286	1293
Dolomitic limestone, oolitic	1293	1298
Dolomitic limestone, not oolitic, sucrose	1298	1309
Dolomitic limestone, white to buff	1309	1321
Blue to gray, sandy limestone	1321	1327
Limestone, light, oolitic, tight	1327	1333
Light, dolomitic limestone, oolitic	1333	1339
Light, dolomitic limestone, tight, oolitic	1339	1344
Light dolomite, hard, limestone	1344	1350
Light, dolomitic, hard limestone, sucrose	1350	1355
Light, dolomitic, hard limestone (some gray)	1355	1360
Crystalline limestone	1360	1372
Dolomitic limestone	1372	1378
Dark-brown limestone	1378	1384
Lighter limestone, some chert	1384	1390
Gray-green limestone	1390	1396
Some chert and dark-brown limestone	1396	1401
Little chert and sandy, brown limestone	1401	1412
Dark-gray to brown limestone	1412	1418
Dark-brown limestone, chert	1418	1430

U. S. Oil Co., G. E. HARRISON No. 1

(Map Number—40)

Location: SE SW SE Sec. 24, 4S—58E

Elevation: 1339'

Date: 1951

Total depth: 1227'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand	0	150
Black, sandy limestone	150	230
Gray and white sand	230	240
Sandy shale	240	250
Sand	250	260
Blue shale	260	281
Gray and white sand rock, hard	281	477
Brown limestone, sandy	477	520
Gray sand, hard	520	605
Blue shale, soft	605	609
Gray sand rock, hard	609	681
Blue shale	681	691

<i>Lithology</i>	<i>From</i>	<i>To</i>
Brown limestone	691	750
Set casing		
Gray limestone	750	770
Blue limestone, shale	770	800
Red rock	800	810
Blue slate, soft	810	865
Red rock	865	880
Shaly limestone, blue	880	900
Red shale, limestone, soft	900	933
Light-gray limestone, hard	933	937
Brown limestone	937	1012
5½" casing @ 954		
Gray and white limestone	1012	1016
Brown and gray limestone, very hard	1016	1025
Brown and gray limestone	1025	1029
Gas		
Gray limestone	1029	1047
Gray sand	1047	1050
Gas		
Dark-brown limestone, hard	1050	1053
Gray and brown limestone	1053	1075
Show of oil 1073-1075		
Brown and gray limestone	1075	1192
Green shale (black shale)	1192	1198
Brown limestone	1198	1212
Rainbow of oil 1210, oolitic limestone		
Oolitic limestone	1212	1227
Oil		

Well estimated 7 barrels natural. Rod and tubing set at 1213. Placed on pump Feb. 17, 1951. Pump is 2-inch, old style, 12-inch stroke, 10 strokes per minute—Jensen 4D, Fairbanks-Morse #52, 3-5 horsepower.

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	998
Limestone, light-brown, fine-grained, argillaceous	998	1009
Limestone, light-brown, coarse-grained, oolitic, fossiliferous, friable	1009	1025
Limestone, light-brown, medium-fine grained, argillaceous, silty, with very slight show	1025	1029
Limestone, gray, brown, coarse-grained	1029	1043
Samples missing	1043	1047
Green shale and limestone, light, coarse-grained	1047	1050
Limestone, gray-brown, medium-coarse grained, argillaceous	1050	1053
Limestone, gray-brown, coarse-grained, argillaceous	1053	1072
Limestone, brown, fine-grained, argillaceous, silty, friable	1072	1091
Limestone, tan, coarse-grained, fossiliferous	1091	1100
Limestone, gray, medium-fine grained, silty, slightly dolomitic	1100	1105
Dolomite, gray, medium-fine grained, calcareous, with a trace of oil	1105	1113
Limestone, brown to tan, coarse and medium-coarse grained, argillaceous	1113	1152
Dolomite, pale-green, fine-grained	1152	1158
Limestone, greenish-brown, fine-grained	1158	1166
Limestone, light-brown, medium-fine grained, slightly dolomitic	1166	1170
Limestone, light, coarse and medium-coarse grained, vugular, and oolitic in part	1170	1176
Samples missing	1176	1185
Limestone, tan, fine and medium-coarse grained	1185	1192

<i>Lithology</i>	<i>From</i>	<i>To</i>
Green shale and limestone, tan, coarse-grained	1192	1198
Limestone, light-brown, coarse-grained, oolitic in part	1198	1206
Limestone, very light, coarse-grained, very oolitic, friable, vugular	1206	1224
Limestone, tan, fine-grained	1224	1227

U. S. Oil Co., G. E. HARRISON No. 2
(Map Number—41)

Location: NE NW NE Sec. 4, 5S—58E

Elevation: 1392'

Date: 1951

Total depth: 1375'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	20
Blue lime	20	40
Sand, gray, hard	40	65
Water	65	73
Sand, gray, hard	65	91
Sand, white	73	91
Sand, white, hard	91	118
Sand	118	150
Sand, blue, hard	150	165
Slate, soft, blue mud	165	188
Slate, blue	188	228
Slate, soft, blue mud	228	272
Slate, blue	272	320
Sand, gray, hard	320	346
Sand, hard	346	363
Sand	363	376
Sand, gray, hard	376	390
Sand, hard	390	409
Sand, gray, hard	409	432
Sand, hard	432	451
Sand, gray, hard	451	473
Sand, hard	473	500
Sand, gray, hard	500	522
Sand, hard	522	538
Sand, gray, hard	538	558
Sand, hard	558	581
Sand, gray, hard	581	603
Sand, hard	603	625
Sand, gray, hard	625	633
Slate, mud, break, soft	633	644
Sand, slate, hard	644	690
Sand, gray, hard	690	722
Sand, hard	722	733
Mud, blue	733	737
Brown lime, hard	737	764
Red rock, soft	764	766
Blue lime, hard	766	770
Water @ 770		
Blue lime, hard	770	782
Green slate, soft	782	784
Red rock, soft	784	786
Blue lime, hard	786	797
Set 8" casing @ 797		
Blue lime, soft	797	821
Broken lime and slate	821	873
Blue lime, slate, soft	873	895

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red rock, slate, soft	895	905
Slate, mud, soft	905	928
Lime, shale, and slate	928	948
Red rock	948	950
Lime, shale, and slate	950	967
Dark lime, hard	967	1000
Dark lime	1000	1030
Dark lime, hard	1030	1055
Lime, hard	1055	1060
Lime, dark-brown, hard	1060	1070
Lime, dark-brown	1070	1091
Lime, brown, hard	1091	1118
Lime, brown	1118	1148
Lime, brown, hard	1148	1202
Lime, brown	1202	1206
Lime, brown, hard	1206	1226
Lime, gray	1226	1232
Shale	1232	1237
Lime, gray	1237	1245
Broken lime and slate	1245	1250
Lime, brown, hard	1250	1260
Sand, gray	1260	1267
Show of oil		1267
Lime, brown	1267	1285
Lime, brown, hard	1285	1295
Lime, gray, hard	1295	1343
Lime, gray, very hard	1343	1356
Lime, gray, hard	1356	1375

Filled up hole with rock and tamped down hard; then cemented on top of rocks at the following levels: 1250, 1200, 1000, 800, 70, surface.

Ben Tate et al, BAKER-PEMBERTON No. 1

(Map Number—42)

Location: NW NW NW Sec. 15, 3S—59E

Elevation: 1545'

Date: 1956

Total depth: 5517'

FORMATION TOPS

	<i>From</i>	<i>To</i>
Pennington	983	
Glen Dean	1123	
Cypress	1303	
Gasper	1332	1316
St. Louis	1530	
Warsaw	1640	1640
Ft. Payne	1747	1747
Chattanooga shale	1858	1858
Trenton	2256	1906
Stones River	2771	2771
Knox	3704	3704
	3704	5517

Well bottomed in Copper Ridge

OBION COUNTY

J. W. Scott et al, A. M. RAINS No. 1

(Map Number—1)

Location: NW NE SE Sec. 18, 2S-2E

Elevation: 300'

Date: 1915

Total depth: 2239'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface soil, sand, and gravel	0	40
Sand and gravel	40	105
Limestone	105	190
Show of gas @ 105		
Blue shale	190	210
Hard, sandy shale	210	235
Gray water sand	235	250
Hard-packed sand	250	315
Show of oil @ 300		
Hard, blue shale	315	318
Shell rock	318	335
Sand and gumbo	335	360
Hard, sandy shale	360	420
Gray sand	420	430
Gumbo and shale	430	450
Gumbo and sand	450	485
Show of oil		
Brown shale	485	490
Slate (shale)	490	510
Coal (?)	510	515
Blue slate (shale)	515	530
Shale	530	550
Gumbo	550	565
White shale	565	580
Gumbo	580	625
White shale	625	627
Hard lime	627	660
Sand and gumbo	660	710
Blue shale	710	740
Sand and gumbo	740	790
Sandy blue shale	790	815
Sand	815	870
Show of gas @ 815		
Gray sand	870	900
Packed sand	900	945
Sandy shale	945	1050
Hard rock, sand	1050	1085
Sandy shale	1085	1130
Sandy gumbo	1130	1228
Blue gumbo	1228	1231
Hard cap rock	1231	1251
Sand	1251	1260
Gumbo	1260	1308
Sand	1308	1506
Show of oil and gas @ 1470-1487		
Show of oil @ 1487-1506		
Gumbo and blue shale	1506	1516
Rock sand and iron pyrites	1516	1580
Shale	1580	1595
Sandy gumbo	1595	1610

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand	1610	1635
Gumbo	1635	1655
Dark shale	1655	1670
Gumbo	1670	1700
Dark shale	1700	1740
Gumbo	1740	1760
Hard shale	1760	1780
Gumbo	1780	1815
Sand	1815	1895
Shale	1895	1904
Hard gumbo	1904	1906
Hard rock	1906	1915
Hard gumbo	1915	1920
Dark, sandy rock	1920	1927
Red rock and shell	1927	1945
Shale	1945	1965
Sand and shale	1965	1990
Sand	1990	1991
Hard rock	1991	2065
Shale	2065	2068
Hard rock	2068	2105
Slate (shale)	2105	2165
Sandy gumbo	2165	2190
Slate (shale)	2190	2205
Sand	2205	2239

Reelfoot-Ranger Oil Co., O. T. WOLLASTON No. 1

(Map Number—2)

Location: NW NE NE Sec. 15, 1S-3E

Elevation: 285'

Date: 1920

Total depth: 1240'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface soil	0	3
Clay, silt, and sand	3	20
Quicksand	20	90
Gravel, waterworn	90	185
Clay, silt, and sand	185	195
Water sand	195	215
Gravel and clay, artesian flow	215	260
Clay	260	275
Sand and clay	275	295
Sand, clay, and rock	295	300
Sand and clay	300	310
Sand and gravel	310	330
Quicksand	330	335
Gravel	335	340
Gravel and sand	340	345
Sand and clay	345	370
Sand and gravel	370	410
Gravel, sand, flint, and chalk rock	410	430
Clay, blue, fine, sticky	430	449
Sand and flint	449	480
Gravel	480	571
Clay, sticky, sandy	571	600
Gravel and sand	600	640
Clay, sticky, with sand	640	655
Sand	655	720

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandstone, hard	720	725
Show of gas	725	770
Gumbo and sand	770	780
Sand	780	800
Sand and gumbo	800	840
Sand	840	855
Sand and gumbo	855	860
Sand and asphalt	860	925
Clay, sticky, with sand	925	955
Sand	955	975
Clay, fine, with sand	975	1010
Sand	1010	1075
Clay, sticky, with sand	1075	1095
Sand	1095	1175
Gumbo and sand	1175	1220
Sand	1220	1240
Gumbo and sand		

Reelfoot-Ranger Oil Co., ETHELBERT ROGERS No. 1

(Map Number—3)

Location: NW SW NW Sec. 1, 1S-3E

Elevation: 503'

Date: 1920

Total depth: 1740'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, calcareous, yellowish-gray	0	70
Clay, ferruginous	70	90
Clay, calcareous, yellow	90	100
Gravel, coarse and rounded	100	140
Sand and gravel, fine and rounded	140	145
Gravel, coarse, ferruginous	145	155
No record	155	300
Sand, fine, gray	300	325
Sand and shale, fine, light-gray	325	330
Sand, dolomitic and calcareous	330	355
No record	355	360
Shale, dolomitic and carbonaceous	360	390
Sand, fine, with carbonaceous matter	390	410
Gravel, fine, light-gray	410	435
Sand, angular and carbonaceous	435	465
Sand, fine, light-gray, with gravel	465	495
Sand, fine, with light-gray gravel	495	540
Gravel, ferruginous, coarse	540	570
Sand, mostly white, fine	570	575
Sand and gravel	575	585
Shale, light-colored, with fine quartz sand	585	600
Sand, with little gravel and shale	600	620
Sand and gravel, shells	620	645
Sand, coarse, subangular	645	655
Sand, shale, gravel, small fossil	655	680
Sand, shale, and flat limonite gravel	680	750
Sand and gravel, coarse and fine	750	770
Sand, fine and coarse	770	870
Sand and gravel, some clay	870	900
Sand, white, with ferruginous gravel	900	910
Sand, mostly white	910	920
Sand and gravel, pea size	920	950
Gravel, ferruginous, with some sand	950	1065
No record	1065	1205

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand and gravel	1205	1225
Gravel and clay	1225	1235
Gravel and sand	1235	1275
Sand, gravel, and clay	1275	1320
Sand, gravel, and clear quartz sand	1320	1440
Sand and gravel, mostly clear quartz sand	1440	1485
Sand, quartz, and sandstone gravel	1485	1505
Sand and gravel, most white quartz sand	1505	1600
Sand, very fine	1600	1625
Sand and gravel, some shale	1625	1685
Sand and gravel, and bluish shale	1685	1725
Shale, bluish-gray	1725	1740
STRATIGRAPHIC INTERPRETATION:		
Quaternary and Tertiary systems	0	1740
Wilcox and younger formations	0	1725
Porters Creek clay (?)	1725	1740

Trimble Oil & Gas Co., M. A. GAULDIN No. 1
(Map Number—4)

Location: Sec. 7 (?), 4S-5E

Elevation: 315'

Date: 1925

Total depth: 1305'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	4
Red clay	4	24
Water sand	24	64
Blue clay	64	84
Gumbo	84	96
Water sand	96	136
Blue clay	136	176
Gravel	176	256
Water sand	256	326
Lignite	326	334
Blue clay	334	374
Sand	374	394
Show of gas		
Gravel	394	414
Blue clay	414	434
Dry sand	434	454
Gravel	454	534
Clay	534	549
Lignite	549	559
Dry sand	559	579
Gravel	579	619
Hard sand	619	659
Gumbo	659	679
Iron pyrites	679	689
Water sand	689	694
Iron pyrites	694	709
Broken formation	709	749
Shale	749	809
Sand rock	809	819
Dry sand	819	837
Boulder	837	842
Sand rock	842	852
Gumbo	852	872
Sand rock	872	912

	From	To
<i>Lithology</i>		916
Iron pyrites	912	956
Sand rock	916	996
Blue gumbo	956	1076
Sandy shale	996	1091
Broken rock	1076	1131
Gumbo	1091	1153
Sand rock	1131	1181
Blue shale	1153	1185
Rock	1181	
Show of gas		1305
No record	1185	

CASING RECORD:

89' of 12½"; 10" set @ 1205

STRATIGRAPHIC INTERPRETATION:

Tertiary system	0	1185
Wilcox and younger formations		

Ira T. Johnson Oil Co., S. L. BRADSHAW No. 1

(Map Number—5)

Location: SE SW NE, Sec. 10, 4S-1E

Elevation: 301'

Date: 1933

Total depth: 2692'

DRILLER'S LOG

<i>Lithology</i>	From	To
	0	25
Surface clay	25	55
Water sand and layers of clay	55	63
Lignite	63	83
Brown clay	83	120
Layers of green sand and blue clay	120	180
Blue clay	180	230
Blue clay, gravel, and layers of sand	230	290
Blue clay	290	315
Water sand	315	400
Gray shale, sandy	400	500
Gray, gummy shale	500	560
Water sand	560	590
Gummy chalk	590	600
Hard, chalky shale	600	680
Gummy chalk	680	700
Red and gray gumbo	700	728
Shale	728	880
Water sand	880	900
Water sand and lignite	900	1000
Coarse water sand and pyrite	1000	1020
Water sand and lignite	1020	1035
Water sand	1035	1040
Brown clay and layers of sand	1040	1070
Layers of sand and brown clay	1070	1087
Lignite	1087	1095
Gray clay	1095	1105
Brown shale	1105	1135
Brown clay	1135	1147
Water sand	1147	1148
Sand rock	1148	1165
Water sand and lignite	1165	1175
Sand and lignite	1175	1193
Gray and blue shale		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy shale	1193	1205
Rock	1205	1206
Sandy shale and lignite	1206	1210
Brown, sandy shale	1210	1213
Green shale	1213	1216
Brown shale	1216	1219
Brown, sandy shale	1219	1234
Lignite	1234	1236
Brown, sandy shale	1236	1248
Brown shale	1248	1255
Green shale	1255	1260
Brown shale	1260	1274
Hard sand rock	1260	1274
Soft green shale	1274	1275
Brown, sandy shale	1275	1279
Gray shale	1279	1290
Sand rock	1290	1295
Gray shale	1295	1296
Lignite	1296	1300
Gray, sandy shale	1300	1305
Lignite	1305	1308
Gray shale	1308	1311
Brown, sandy shale	1311	1319
Brown clay	1319	1326
Sand rock	1326	1336
Water sand	1336	1337
Show of gas	1337	1380
Hard sand rock	1380	1388
Hard sand, with streaks of lime	1388	1430
Sand with streaks of lignite	1430	1440
Gray shale	1440	1450
Hard sand rock	1440	1451
Shale	1450	1461
Hard sand rock	1451	1462
Hard sand rock with streaks of lime	1461	1600
Hard packed sand	1462	1665
Layers of black and gray shale	1600	1685
Black shale	1665	1695
Hard sand	1685	1697
Hard gray shale	1695	1725
Hard sand	1697	1730
Brown sand	1725	1732
Show of oil	1730	1733
Black shale	1732	1742
Brown sand	1732	1770
Show of oil	1733	1845
Gray sandy shale	1742	1860
Hard black shale	1770	1870
Green, sandy shale and mica	1845	1895
Hard black shale	1860	1960
Black gumbo	1870	1990
Hard black shale and shells	1895	2050
Hard and soft black shale and shells	1960	2070
Hard black shale and lime shells	1990	2078
Cumbo	2050	2080
Hard shale and shells	2070	2094
Sand and mica	2078	2100
Hard black shale and lime shells	2080	2115
Hard black shale	2094	2130
Red sand rock and shells	2100	2130
Black shale	2115	2130
Sandy shale	2130	2130

<i>Lithology</i>	<i>From</i>	<i>To</i>
Hard lime rock	2140	2142
Dark, gummy shale	2142	2170
Layers of hard sand and gummy shale	2170	2190
Streaks of sand and shale	2190	2191
Show of oil	2191	2200
Layers of sand and shale	2200	2215
Sand	2215	2235
Layers of sand and shale	2235	2236
Hard sand rock	2236	2240
Layers of sand rock and shale	2240	2241
Hard sand rock	2244	2260
Gumbo	2260	2280
Gummy shale	2280	2285
Hard sand	2285	2295
Dark shale	2295	2298
Hard, sandy lime	2298	2305
Shale and streaks of sand	2305	2309
Hard, sandy lime	2309	2340
Shale	2340	2344
Hard, sandy lime	2344	2360
Layers of sand and shale	2360	2361
Hard, sandy lime	2361	2370
Shale	2370	2371
Sandy lime	2371	2380
Shale	2380	2382
Lime	2382	2395
Shale	2395	2397
Lime	2397	2408
Shale	2408	2410
Lime	2410	2420
Shale	2420	2422
Lime	2422	2430
Shale	2430	2431
Sandy lime	2431	2445
Shale	2445	1447
Hard, sandy lime	2447	2460
Shale	2460	2462
Sandy lime	2462	2480
Shale	2480	2481
Sandy lime	2481	2609
Shale	2609	2610
Hard sand	2610	2692
Limestone and shale	2610	

CASING RECORD:

Set 279' of 12½"

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pale-green, tan, light-gray, and dark-brown lignite mudstone. No foraminifera. Bit sample (?)	?	?
Lignite. Tan, pale-green, and medium-brown sandy mudstone. Bit sample (?)	220	280
Lignite. Light-brown and cream-colored argillaceous sand. Cuttings	440	468
Light-brown and light grayish-brown sand and sandy mudstone. Bit sample	480	500
Light-brown, fine- to coarse-grained sand. Cuttings	500	520
Same as above. Cuttings	520	560
Cream-colored and tan mudstone, with a streak of sandy material. Bit sample	560	565
Cream-colored kaolin (?). Bit sample (?)	565	

<i>Lithology</i>	<i>From</i>	<i>To</i>
Same as above. Bit sample	660	680
Same, with medium-red and tan mudstone. Fine to coarse sand and siderite concretions. No fossils. Bit sample	680	700
Light-gray, fine- to medium-grained sand and argillaceous sand. No fossils. Core	730	740
Coarse-grained, friable sandstone. No fossils (labeled "core," probably cuttings)	740	815
Coarse-grained sand (rice-sand). Sandy mudstone and lignite. No fossils. Cuttings	815	850
Light-gray, medium-grained sand. Lignite. No foraminifera. Core	850	880
Same as material from 850'	880	900
Light-brown, fairly coarse-grained, friable sandstone. No fossils. Core	900	930
Fragments of kaolin, sandy mudstone, lignite, and fine- to coarse-grained sand. No foraminifera. Cuttings	930	950
Fine to very coarse grained sand. Traces of lignite. Cuttings	950	975
Fine- and coarse-grained sand with thin streaks of dark-brown, lignitic material. No fossils. Core	975	1000
Medium-brown, noncalcareous, sandy, lignitic, finely micaceous mudstone. No foraminifera. Core	1000	1035
Light-brown, noncalcareous, very fine grained, slightly micaceous sand and sandy mudstone. Core	1035	1040
Light-brown sand and sandy mudstone. No fossils. Core	1047	1053
Very coarse grained sand. Core	1068	1075
Light- to dark-brown, noncalcareous, silty, lignitic mudstone. No foraminifera. Core	1080	1087
Dark-brown, noncalcareous, lignitic, slightly micaceous mudstone. No fossils. Core.	1095	1103
Fine- to medium-grained, lignitic sand. Core	1140	1148
Fine- to coarse-grained, micaceous sand. Core	1155	1163
Light- and medium-brown, fine- to medium-grained, argillaceous, friable sandstone streaked with lignite. No foraminifera. Core	1167	1175
Light-gray, micaceous, noncalcareous, banded, silty mudstone. Few reworked Cretaceous foraminifera prisms.	1168	1170
Light grayish-brown, noncalcareous, waxy mudstone and pearl-gray kaolin. Fine-grained sand. No fossils. Core	1180	1185
Cream-colored, fine-grained, noncalcareous, silty, lignitic, micaceous, friable sandstone. No foraminifera. Core	1185	1193
Light-gray, fine-grained, argillaceous, lignitic, micaceous, friable sandstone. Same as above. Core	1193	1200
Light-gray, fine-grained, silty, micaceous, friable sandstone and lignite	1200	1208
Light-brown, silty, lignitic, micaceous, noncalcareous mudstone. Core	1220	1228
Light greenish-yellow, sandy, micaceous mudstone and light- and medium-brown mottled, waxy mudstone. Core	1228	1235
Medium-brown, silty, lignitic, micaceous mudstone with thin, light-brown, fine-grained sand lenses. Core	1236	1243
Medium- and light-gray, silty, lignitic, finely micaceous, noncalcareous mudstone. Core	1243	1248
Pale yellowish-green, noncalcareous, lignitic mudstone. Core	1248	1260
Light-gray, medium-brown, and light-green, noncalcareous, slightly micaceous, lignitic, waxy mudstones. Core	1260	1268
Light-gray and tan, lignitic, micaceous, waxy mudstone and hard, very fine grained sandstone. Core	1268	1278
Light brownish-gray, sandy, micaceous, lignitic, waxy mudstone. Core	1278	1283
Light and medium, noncalcareous, lignitic, waxy mudstone. Core	1285	1293

Lithology	From	To
Pale greenish-yellow, micaceous, slightly lignitic, silty mudstone and light-brown siltstone. Core	1293	1300
Lignite. Core	1300	1307
Light- and dark-brown, lignitic mudstone. Core	1303	1312
Light-gray banded, slightly lignitic, micaceous, sandy mudstone and very fine grained sand. No fossils. Core	1312	1319
Light grayish-brown, slightly lignitic, micaceous mudstone. Core	1319	1335
Light-brown, fine- to medium-grained sand. Core	1355	1363
Same. Core	1380	1388
Same. Core	1400	1410
Same. Core	1470	1482
Same. Core	1580	1590
Fine- to coarse-grained sand with a few fragments of light-brown mudstone and lignite. No foraminifera. Cuttings	1640	1675
Light-gray, fine-grained, micaceous sand with thin streaks of dark-gray and brown, lignitic mudstone. No foraminifera. Core	1675	1685
Light-brown, fine- to medium-grained, argillaceous, friable sandstone. Core	1695	1700
White, light-gray, and brown banded, sandy mudstone and sandstone. Bit sample	1700	1710
Dark-brown, fine-grained, glauconitic (rotten), argillaceous sandstone. No fossils. Core.	1725	1738
Light-gray, very fine grained, micaceous, argillaceous, friable sandstone. Core.	1740	1748
Dark-gray, noncalcareous, waxy mudstone. No fossils. Core.	1738	1758
Light-gray, highly micaceous, silty mudstone. Core.	1748	1753
Light-gray, highly micaceous, silty mudstone with streaks of very fine grained sand. Core.	1753	1770
Same as material @ 1748-1753. Core.	1770	1775
Same. Core.	1775	1780
Medium-gray, highly micaceous, noncalcareous, silty mudstone. Core.	1780	1784
Dark-gray, finely micaceous, noncalcareous, waxy mudstone. Fine-grained glauconite and a few pyritized foraminifera. Core.	1785	1792
Medium-gray, noncalcareous, waxy mudstone with thin, light-gray, silty partings. Few pyritized diatoms. Core.	1792	1798
Dark-gray, noncalcareous, waxy mudstone. <i>Globigerina</i> sp., <i>Cristellaria midwayensis</i> (small), gastropods, pelecypods, and ostracods. Core.	1798	1818
Light-gray, medium-grained, glauconitic, micaceous sand. Shell fragments. No foraminifera. Core.	1840	1855
Same. No fossils. Core.	1855	1864
Light- and medium-gray, sandy mudstone. Few shell fragments. No foraminifera. Bit sample.	1864	1890
Dark-gray, slightly calcareous, sandy mudstone. Shell fragments. Bit sample	1875	1890
Medium-gray, very slightly calcareous, waxy mudstone. <i>Cristellaria</i> sp. (small), <i>Anomalina</i> sp. and shell fragments. Core	1900	1910
Medium-gray, calcareous, micaceous mudstone, <i>Globigerina</i> sp., <i>Anomalina</i> sp., <i>Gyroidina soldanii</i> . Few arenaceous foraminifera. Core	1925	1935
Same, with <i>Textularia</i> sp. and <i>Bolivina</i> sp. Core	1960	1975
Medium-gray, calcareous mudstone and light-gray, fine-grained, highly micaceous, friable sandstone. <i>Cristellaria</i> sp. (small), <i>Anomalina</i> 2 sp., <i>Gyroidina soldanii</i> , <i>Globigerina</i> sp. Core.	2000	2015
Medium-gray, calcareous, micaceous, silty mudstone. <i>Lagena sulcata</i> , <i>Textularia</i> sp., <i>Anomalina</i> 2 sp., <i>Gyroidina sol-</i>		

Lithology		From	To
danii, <i>Cristellaria</i> sp., <i>Cristellaria midwayensis</i> , arenaceous foraminifera. Core		2015	2030
Dark-gray, calcareous, waxy mudstone. <i>Globigerina</i> . Core		2040	2050
Medium- and dark-gray, calcareous mudstone and light-gray, fine-grained, closely cemented, pyritic sandstone. <i>Cristellaria midwayensis</i> , <i>Anomalina</i> sp., <i>Gyroidina soldanii</i> , <i>Polymorphina cushmani</i> , <i>Cristellaria</i> cf. <i>pseudomamiligera</i> . Core		2050	2055
Medium-gray, slightly calcareous, finely micaceous, waxy mudstone. <i>Cristellaria</i> sp. (small), <i>Anomalina</i> sp., <i>Globigerina midwayensis</i> (fragments). Core		2060	2065
Highly micaceous, gray, coarse siltstone. Core		2070	2080
Gray, shaly siltstone. Core		2080	2094
Coarsely crystalline, light-tan, highly fossiliferous limestone. Core		2100	2101
Calcareous, fossiliferous, dark greenish-gray siltstone. Core		2101	2105
Highly calcareous, reddish-tan, coarse-grained sandstone (?). Core		2105	2108
Tan to brown, sandy clay containing fragments of chalk. Core		2108	2112
Medium tan-brown, fossiliferous, coarse sandstone. (1 large fossil in sack, "gastropod.") Piece is calcareous to acid. Core		2112	2115
Soft, dark-gray, micaceous, silty clay. Core		2125	2135
Light-gray, highly micaceous, fine-grained, argillaceous limestone. Core		2140	2141
Dark-gray, shaly siltstone. Core		2141	2145
Dark-gray, shaly, micaceous, soft siltstone. Core		2150	2160
Same. Core		2165	1270
Light-gray, micaceous, fine, loose, sandy silt		2176	2180
Dark-gray, micaceous, shaly siltstone. Core		2185	2190
Dark-gray, shaly siltstone. Core		2190	2196
Dark-gray, micaceous, fine, loose sand. Core		2215	2216
Very coarse, green to brown sandstone		2220	2224
Dark-gray, micaceous siltstone. Core		2224	2228
Friable, clay-bound, gray, fine-grained sandstone. Core		2235	2238
Dark-gray, sandy shale. Core		2242	2247
Same. Core		2255	2259
Same. Core		2280	2285
Loose, gray clay and medium-grained sand		2312	2314
Light-gray, argillaceous sandstone. Core		2355	2360
Contact of a soft, friable, very light gray, fine-grained sandstone and a hard, dark-gray, fine-grained sandstone. Core		2408	2410
Piece of marcasite and dark-gray, fine-grained sandstone. Core		2410	2610

Henderson Oil Company, F. B. CARROLL No. 1

(Map Number—6)

Location: SE SE SW Sec. 19, 3S-2E

Date: 1936

Elevation: 460'

Total depth: 3418'

Lithology		DRILLER'S LOG	
		From	To
Surface clay		0	25
Red clay		25	90
Water sand		90	118
Yellow clay		118	150
Green gumbo		150	180
White gumbo		180	200
Blue-green shale		200	300
Show of gas			

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand and gravel	390	420
Shale and gravel	420	450
Blue gumbo	450	465
Shale	465	500
Brown gravel	500	590
Sandy gumbo	590	614
Hard sand	614	700
Gumbo	700	780
Show of gas	780	870
Sand and gravel	870	873
Sand rock	873	960
Sand		970
Show of gas	960	1000
Gummy shale	970	1000
Gumbo	1000	1025
Clay	1025	1180
Hard sand and sand rock	1180	1230
Brown gumbo	1180	1270
Hard sand rock	1230	1320
Show of oil and gas	1270	1320
Tough brown gumbo and boulders	1320	1420
Blue limy gumbo	1320	1420
Blue shale	1420	1450
Blue gumbo and boulders	1450	1540
Hard shale and gray, sandy lime	1540	1600
Black gumbo	1600	1680
Sandy lime rock	1680	1770
Green shale	1770	1800
Tough green gumbo	1800	1830
Sand rock	1830	1850
Show of gas	1850	1860
Green shale	1860	1900
Black gumbo	1900	1980
Black shale and boulders	1980	2000
Hard, micaceous shale	1980	2015
Cream-colored lime	2000	2035
Black gumbo	2015	2060
Black, micaceous shale	2035	2090
Show of gas	2060	2090
Tough gumbo and lime boulders	2090	2100
Shale and gumbo	2100	2149
Hard, green shale	2100	2170
Gumbo	2149	2185
Hard shale	2170	2190
Lime rock	2185	2200
Gummy shale	2190	2220
Limy gumbo	2200	2226
Rock	2220	2245
Shale and boulders	2226	2270
Hard, sandy shale	2245	2324
Gumbo	2270	2344
Rock	2324	2380
Gummy shale	2344	2400
Hard, sandy shale	2380	2430
Hard, green, sandy clay	2400	2460
Sandy lime with pyrite	2430	2500
Hard, chalky shale	2460	2610
Black gumbo	2500	2625
Lignite	2610	2660
Chalk	2625	2660
Sandy chalk	2660	2690

Lithology

	<i>From</i>	<i>To</i>
Black, limy shale	2690	3090
Black shale with streaks of lime	3090	3295
Oil and gas show		
Gray and white lime	3295	3400
Dark-gray lime with pyrite, very hard	3400	3418

SAMPLE DESCRIPTION

Lithology

	<i>From</i>	<i>To</i>
Shale, greenish-gray, fine-grained		1680
Clay, lead-gray, tough		1750
Clay, same		1885
Clay, same		1975
Clay, same		1990
Clay, same		2005
Clay, same		2010
Clay, same		2035
Clay, same		2056
Sand, very fine grained, glauconitic, with some gray, mica- ceous clay		2080
Sand and clay, same as above		2085
Shale, hard, greenish-gray, siliceous		2114
Shale, same		2130
Shale, same	2165	2170
Shale, same, with some dark-gray, siliceous clay		2220
Shale, hard, greenish-gray, micaceous, sandy		2226
Shale, same		2235
Siltstone, light-tan, micaceous	2250	2260
Shale, dark-gray, soft, micaceous, sandy		2261
Clay, gray, fine-grained, somewhat sandy		2290
Shale, dark-gray, soft, somewhat calcareous		2298
Shale, hard, greenish-gray, micaceous, sandy	2335	2340
Clay, gray and tan, soft, sandy		2380
Shale, hard, greenish-gray, micaceous, sandy		2385
Shale, same, with some gray, somewhat calcareous		2452
Shale, same		2490
Shale, same	2500	2510
Shale, same	2520	2530
Shale, same		2552
Clay, black, lignitic, soft		2558
Shale, gray, fine-grained, with a small amount of fine, glau- conitic sand		2562
Clay, black, soft, lignitic		2580
Shale, light-gray, fine-grained, sandy		2582
Clay, medium-gray, fine-grained, somewhat calcareous		2590
Clay, black, soft, lignitic		2606
Clay, same as above		2610
Sand, white, fine-grained, angular	2610	2614
Clay, fine-grained, gray		2618
Sand, greenish-gray, very fine, angular, with some hard, greenish-gray, fine-grained, siliceous shale		2625
Sand and shale, same		2638
Sand and shale, same		2650
Shale, greenish-gray, hard, fine-grained		2666
Shale, same		2680
Limestone, dark-gray, medium-grained, hard, with some gray, calcareous shale		2692
Limestone, same		2698
Limestone, same		2700
Limestone, same		2709
Limestone, same		2715
Limestone, dark-gray, medium-grained	2718	2722
		2730

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, same as above, with some dark-gray, calcareous and carbonaceous shale		2750
Limestone and shale, same	2755	2757
Limestone and shale, same		2760
Limestone and shale, same	2765	2773
Limestone and shale, same		2773
Shale, dark-gray, very calcareous		
Core @ 2773 shows dip of 8-10°		
Shale, same as above, with a considerable amount of white calcite		2780
Shale, same		2790
Shale, same		2800
Shale, black, slaty, slightly calcareous		2810
Shale, same		2814
Shale, same, with some dark-gray, medium-grained limestone		2820
Shale, dark-gray, hard, slaty, calcareous		2837
Limestone, black, medium-grained, shaly, hard		2846
Limestone, same		
Limestone, dark-gray, subcrystalline, with light-gray shale and weathered pyrite; some secondary calcite in stringers in the limestone. Several poorly preserved fossil fragments, probably trilobites		2872
Limestone, same, with less calcite and no fossil fragments		2904
Shale, gray, with many dense, gray limestone fragments		2937
Limestone, dark-gray, almost black, dense to subcrystalline, some gray shale and shaly limestone		3008
Limestone and shale, same		3009
Shale, dark-gray, calcareous, gray; subcrystalline limestone; few well-rounded quartz grains		3028
Shale and limestone, same		3047
Limestone, dark-gray, medium-grained, shaly; few pieces of white, porous chert and several well-rounded quartz grains		3068
Limestone, same		3092
Limestone, dark-gray, dense to medium-grained, with gray, calcareous shale		3182
Limestone, dark-gray to black, medium-grained, with some light-colored, highly weathered limestone		3193
Limestone, same, with considerable amount of calcite, some pyrite, and few fragments of white chert		3200
Shale, dark-gray, nearly black, calcareous, with gray, dense limestone and some white chert		3230
Limestone, dark-gray, subcrystalline, with some lighter gray, calcareous shale		3235
Shale, dark-gray, slaty, calcareous, with abundant calcite		3280
Shale, same, with dark-gray, medium-grained limestone		3290
Limestone, dark-gray, dense, with some pyrite and white chert		3297
Limestone, light-gray, hard, shaly		3303
Limestone, light-gray, dense, with some dark-gray, slaty shale		3308
Limestone, same as above		3314
Limestone, light-gray and tan, dense, with some dark-gray, slaty shale and some calcite		3330
Limestone and shale, same as above		3343
Limestone and shale, same	3355	3360
Limestone and shale, same		3365
Limestone and shale, same		3371
Limestone and shale, same		3380
Limestone and shale, same		3395
Limestone, light- and dark-gray, medium-grained, shaly		3400
Limestone, same		3410
Limestone, same, with a dark-green, well crystallized, green mineral (epidote?) intergrown with silica		3418

Henderson Oil Company, S. J. BRADSHAW No. 1

(Map Number—7)

Location: SW SE NE Sec. 10, 4S-1E

Elevation: 300'

Date: 1940

Total depth: 2720' (?)

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface clay	0	30
Gumbo, white	30	110
Sand and clay	110	140
Gumbo, white	140	150
Sand and clay	150	165
Water sand	165	200
Gumbo, blue	200	379
Sand, water	379	560
Gumbo, white	560	658
Shale, blue	658	690
Sand	690	830
Shale, blue	830	870
Shale, hard, black, sandy	870	940
Sand, hard-packed, gray	940	1020
Gumbo, brown	1020	1050
Sand, brown	1050	1090
Gumbo, brown	1090	1170
Gumbo and boulders	1170	1220
Shale, brown	1220	1273
Sand rock	1273	1276
Gumbo	1276	1310
Shale, gummy	1310	1400
Sand, water, Cane River sand	1400	1570
Shale, green	1570	1680
Rock	1680	1690
Shale, black, gummy	1690	1730
Gumbo and boulders	1730	1800
Shale, black	1800	1840
Gumbo, dark, tough	1840	1850
Shale, black, hard	1850	1900
Rock	1900	1910
Shale, black	1910	2040
Gumbo	2040	2060
Sand rock	2060	2080
Shale and red sand	2080	2125
Shale, black	2125	2176
Rock	2176	2186
Shale, black	2186	2210
Black shale and lime shells	2210	2250
Sandy lime	2250	2290
Sand, gray	2290	2350
Gumbo and streaks of sand	2350	2376
Lime rock, white	2376	2400
Sandy lime and shale	2400	2420
Chalk, white	2420	2604
Eutaw sand, green	2604	2646
Show of gas		
Black lime	2646	

CASING RECORD:

Set 316' of 10"

OVERTON COUNTY

Spring Creek Development Co., F. T. MOORE No. 1

(Map Number—1)

Location: 3S-49E

Elevation: 853'

Date: ?

Total depth: 314'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	19
Green shale	19	22
Black shale (Chattanooga)	22	43
Limestone, soft, blue	43	93
Oil show @ 51; gas @ 93		
Limestone, fossiliferous	93	107
Bone limestone	107	114
Limestone, white, soft	114	180
Bone limestone	180	183
Gas @ 183		
Limestone, dark, soft	183	224
Limestone, gray	224	272
Bone limestone	272	277
No record		
Oil @ 286-290½	290½	293
Bone limestone		
Oil @ 293-296		

CASING:

Set 8¼" @ 37

Spring Creek Development Co., BREEDING No. 1

(Map Number—2)

Location: N/2, 3S-49E (?)

Elevation: 944'

Date: ?

Total depth: 500'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface and limestone	0	42
Limestone, flinty	42	115
Shale, black (Chattanooga)	115	138
Limestone, blue	138	251
Bone limestone	251	253
Gas		
Limestone, gray	253	449
Gas @ 253-275 and 419-422	449	500
Limestone, blue		
Gas @ 469		

CASING:

10¼" @ 42

8¼" @ 145

Empire Oil & Gas Co., J. F. MARTIN No. 2

(Map Number—3)

Location: SW Sec. 24, A-51E

Elevation: 1042'

Date: ?

Total depth: 1015'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mississippian system		
Lime, blue, shaly		
Chattanooga black shale	0	408
Ordovician system	408	423
Lime, blue		
Lime, dark	423	630
Upper Sunnybrook	630	650
Show of gas @ 652	650	665
Lime		
Anderson sand	665	672
Lime	672	676
Lime, gray	676 (?)	842
Lime, black	842	864
Lime, brown	864	874
Lime, dark, sandy	874	915
Lime, brown, sandy	915	920
Cave, brown	920	928
Lime	928	930
Pencil Cave	930	953
Lime	953	956
Lime, sandy	956	976
Lime, hard	976	980
	980	1015

South Penn Oil Co., L. D. BOHANAN No. 1

(Map Number—4)

Location: NE SW NW Sec. 15, 2S-51E

Elevation: 941'

Date: 1897

Total depth: 2079'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray lime		
Soap stone or blue mud	0	40
Gray lime	40	45
Limestone	45	65
Sulphur water	65	75
Black limestone		
Limestone	75	90
Sulphur water	90	125
Some gas		
Blue limestone	125	140
Gray limestone	140	165
Flint limestone	165	185
Blue limestone	185	240
Limestone	240	272
Hard limestone	272	280
Flinty limestone	280	285
Black flint	285	290
Gray lime and flint	290	295
Soap stone	295	304
	304	310

<i>Lithology</i>	<i>From</i>	<i>To</i>
Black shale, Chattanooga	310	340
Brown shale	340	345
Cased in gray lime @ 365		390
Little gas		415
Showing of oil		565
Gas		650
Gray limestone, little sand		700
Black limestone, little sand		780
Soft, blue rock (cave)		795
Gray limestone		940
Blue limestone		1010
Gray limestone		1060
Limestone with little sand		1105
Gray limestone		1175
Limestone		1305
Brown limestone		1350
Dark limestone		1371
Gray limestone		1506
Hard limestone		1511
Gray limestone, hard		1540
White limestone, hard		1545
Gray limestone, hard		1568
Gray limestone		1730
Gray limestone with little sand		1735
Gray limestone with little sand		1742
White limestone, flinty		1746
Sand		1785
Sandy with lime sand		1790
Sandy		1800
Sand		1810
Sand		1825
Lime with sand		1832
Limestone, softer		1838
Limestone, softer		1920
Sand		1972
Limestone		2079
Salt water (Blue Lick)		

John Elder et al, WILLIE D. CLARK No. 1

(Map Number—5)

Location: SW SE SE Sec. 3, 2S-51E

Elevation: 1009'

Date: 1924

Total depth: 895'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	56
Blue lime	56	141
Set 8 1/4" casing @ 96 1/2		
Gray lime	141	180
Gas	180	185
Brown lime	195	198
Set 6 3/8" casing @ 198		
Broken lime	198	230
Spring Creek sand (dry)	230	245
White lime	245	268
Gas	268	273
Brown lime	273	278
White lime	278	290

<i>Lithology</i>	<i>From</i>	<i>To</i>
Brown lime	290	308
White lime	308	328
Light-brown lime	328	348
Dark-brown lime	348	375
Green lime and shale	375	394
Blue-black shale	394	412
Dark-brown lime	412	427
Chattanooga black shale	427	450
Broken shale and broken lime	450	455
Brown lime, hard	455	495
Light-blue lime, hard	495	525
Gray lime, hard	525	568
Dark-gray lime	568	595
Gas		
Broken, light-gray lime	595	625
Dark-gray lime, hard	625	635
Broken gray lime	635	650
Dark-gray lime	650	675
Light, broken, gray lime	675	690
Brown lime, hard	690	705
Black lime	705	725
Gray lime	725	750
Brown lime, hard	750	783
Dark-brown lime, soft	783	800
Light-gray lime, hard	800	805
Dark-gray lime, hard	805	810
Light-gray lime, hard	810	815
Dark-brown lime, soft	815	827
Light-brown lime, soft	827	859
Dark-gray lime	859	880
Light-gray lime, soft	880	895

Duncan et al, JAMES BROWN No. 1

(Map Number—6)

Location: C NW Sec. 20, 2S-49E

Elevation: 914'

Date: 1925

Total depth: 1050'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	1	15
Gray limestone	15	28
Black limestone	28	55
Gray limestone	55	80
Green limestone	80	145
Chattanooga shale	145	168
Black limestone	168	185
Gray limestone	185	213
Black limestone	213	260
Gas pocket 258		
Gray limestone	260	315
Gas	315	358
Gas	358	400
1st "Sunnybrook" (almost sand)	400	405
Sweet gas and oil show		
Black limestone, soft	405	415
Gray limestone, soft	415	450
Black limestone, harder	450	460
Some gas		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray limestone, very hard	460	520
Gray limestone, hard	520	572
Soft, black streak (2nd "Sunnybrook"?)	572	574
Hard, black limestone	574	576
Black and brown limestone, very soft	576	596
Limestone, almost white, very soft	596	600
Brown limestone, hard	600	663
Pencil Cave (bentonite)	663	665
Black shaly limestone, soft	665	681
Pencil Cave (bentonite)	681	683
Gray and brown limestone, soft	683	721
Brown limestone, porous	721	732
Oil with lye or acid		737
Gray limestone, soft	732	737
Brown limestone, hard	737	741
Brown limestone, soft	741	762
Brown limestone, hard	762	770
Black limestone, hard	770	774
Gray limestone, soft	774	782
Brown limestone, soft	782	794
Gray limestone, soft	794	798
Brown limestone, soft	798	834
Gas pocket 810		858
Black limestone, soft	834	862
Black shale	858	935
Brown limestone	862	935
Brown limestone, hard	935	939
Brown limestone, soft	939	982
Brown and gray limestone, getting harder	982	1000
Gray limestone, hard	1000	1050

(This may be the same as the material @ 1400' in the Heisey well.)

A. H. Heisey & Co., JOHN (SHIRLEY) ROBBINS No. 1

(Map Number—7)

Location: SW NE NW Sec. 10, 2S-51E

Elevation: 1048'

Date: 1926

Total depth: 2024'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	43
Water		95
Chert	43	260
Sand	234	272
Sulphur gas, about 2'		251
Sweet gas	240	520
Black shale	467	672
Gray lime	670	
Salt water		792
Sand	789	
Amber oil		979
Pencil Cave	974	1024
Green shale	1019	1064
Hard white lime	1024	1822
Dark sand (some oil)		1828
Sand, lighter and coarser (showed some oil)		1887
Sand (still showed more oil)		1917
Oil sand (showed oil)	1917	

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, pink-colored, with streaks of hard and soft.....	1927	2013
Water		2015
Water		2024

Well shot with 160 quarts of Nitro-Glycerine.

First day bailed five barrels of oil. Second day bailed three barrels of oil, well caved in shot hole. Third day bailed three barrels of oil, well caving very badly in shot hole.

CASING RECORD:

10" @ 44'
8¼" @ 233'
6⅝" @ 993'

March 30—ran bailer and found 1100 feet of oil, no water.

Bernstein et al, EMMETT SMITH No. 1

(Map Number—8)

Location: SE Sec. 4, 1S-52E (?)

Elevation: 650'±

Date: 1927

Total depth: 808'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	0
Lime, gray	13	13
Show of oil		23
Chattanooga black shale		
Set 8¼" casing @ 36	23	46
Lime, hard, black		
Lime, black	46	48
Sulphur gas and water @ 48	48	64
Lime, gray and black		
Lime, blue and gray	64	170
Water @ 170	170	232
Lime, blue-gray, shaly		
Lime, blue-gray, hard	232	239
Set 6¼" casing @ 240½	239	258
Lime, blue ("Upper Sunnybrook")		
Strong puff sweet gas	258	270
Lime, dark-blue, gray, black and brown, and muck.....	270	453
Lime, light-gray and brown	453	530
Sulphur gas @ 491		
Lime, blue		
Green Cave	530	567
Lime, blue	567	573
Green Cave	573	580
Lime, blue and gray	580	581
Pencil Cave, green	581	594
Lime, gray and brown, hard	594	595
Strong puff gas @ 705	595	721
Sulphur gas strong @ 714		
Lime, blue and brown, hard	721	803
Lime, black, very hard	803	808

Hole abandoned, 6¼-inch casing pulled, and hole plugged.

Spring Creek Development Co., F. T. MOORE No. 1
(Map Number—9)

Location: 3S-49E

Elevation: 853'

Date: 1927

Total depth: 314'

DRILLER'S LOG

Lithology	From	To
Flint	0	19
Green shale	19	22
Black shale	22	43
Soft lime	43	93
Oil @ 51		
Fossil lime	93	107
Gas @ 107		
Bone lime	107	114
Soft lime	114	180
Bone	180	183
Gas 183		
Dark lime	183	202
Soft lime	202	224
Gray lime	224	272
Bone	272	277
Bone	286	290
Oil sand, Upper Sunnybrook	290	293
Bone	290	293
Bone, Upper Sunnybrook	293	296

Spring Creek Development Co., F. T. MOORE No. 2
(Map Number—10)

Location: 3S-49E (E. of Moore No. 3)

Elevation: 856'

Date: 1927

Total depth: 405'

DRILLER'S LOG

Lithology	From	To
Surface	0	5
Limestone, gray, flinty	5	35
Shale, green	35	37
Shale, black (Chattanooga)	37	57
Limestone, gray, hard	57	103
Limestone, gray, soft	103	170
Bone limestone	170	280
Limestone, black, soft	280	290
Gas @ 290		
Limestone, gray	290	316
Limestone, brown	316	334
Limestone, gray	334	405
Gas @ 352		

CASING:

5' of 10"
62' of 8¼"

Spring Creek Development Co., F. T. MOORE No. 3

(Map Number—11)

Location: 3S-49E (near mill)

Elevation: 852'

Date: 1927

Total depth: 300'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	15
Shale, black (Chattanooga)	15	35
No record	35	85
Limestone, blue	85	147
Gas @ 85 and 147		
Limestone, gray	147	217
Gas @ 184 and 217		
Limestone, black	217	238
Gas @ 238		
No record	238	300
Oil @ 277-282		

CASING:

Set 8¼" @ 49

Spring Creek Development Co., F. T. MOORE No. 4

(Map Number—12)

Location: 3S-49E (near house)

Elevation: 869'

Date: 1927

Total depth: 520'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, flinty	9½	37
Shale, green	37	39
Shale (Chattanooga)	39	54
Limestone, blue	54	282
Bone limestone	282	286
Limestone	286	296
Sunnybrook	296	303
Gas @ 303		
Bone limestone	303	309
Limestone, gray	309	499
Gas @ 314		
Sand	499	505
Limestone	505	520

CASING:

10" @ 9½

8¼" @ 64

Ohio Oil Co., W. L. MAINARD NEW WELL No. 1
 (Map Number—13)

Location: NE SE SE Sec. 10, 1S-49E

Elevation: 712'

Date: 1927

Total depth: 860'

DRILLER'S LOG

	From	To
Lithology	0	6
Surface soil, soft	6	13
Lime, dark	13	15
Gravel, soft	15	65
Lime, brown, hard	65	72
Shale, white, soft	72	95
Lime, brown, hard	95	120
Lime, gray, hard		
Gas @ 100	120	165
Lime, mixed, hard		
Gas and sulphur water @ 120-150	165	175
Mud, brown, soft		
Sulphur gas	175	195
Lime, black (settling sand)	195	205
Sand, water	205	240
Lime, brown, hard		
Salt water	240	270
Lime, white, hard		
First Sunnybrook 268-275; salt water	270	274
Lime, brown, hard	274	298
Lime, brown, soft	298	306
Sand, hard (Anderson sand?)		
Salt water and gas	306	314
Lime, mixed, hard	314	334
Lime, brown, hard	334	354
Lime, brown, soft	354	382
Lime, brown, hard		
Second Sunnybrook 376-402; dry, with gas	382	390
Lime, gray, soft	390	398
Lime, brown, hard	398	418
Lime, mixed, hard	418	442
Lime, gray, soft	442	450
Lime, brown, hard	450	468
Lime, black, soft	468	475
Mud Cave, soft	475	484
Black, hard lime (water)	484	488
Pencil Cave, green, soft	488	518
Lime, gray, hard	518	524
Lime, white, hard	524	556
Lime, light-brown	556	574
Lime, dark-brown	574	587
Lots of gas		
Lime, light-brown, at	587	631
Gas		
Lime, dark-brown, at	631	678
Gas		
Lime, soft, blue, at	678	709
Gas blow-out		
Lime, blue-gray, at	709	811
Gas blow-out		
Lime, brown, at	811	838½
Gas and salt water		
Lime, dark-brown, at	838½	860
Gas and showing of oil		
Lime, soft, blue	860	

Ohio Oil Co., J. E. SULLIVAN No. 1

(Map Number—14)

Location: NE SW NW Sec. 6, 1S-50E

Date: 1927

Elevation: 960'

Total depth: 1575'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gravel, clay, yellow, soft	0	20
Lime, blue, soft	20	40
Lime, brown, hard	40	60
Lime, brown, soft	60	90
Lime, brown, soft, broken	90	120
Lime, black, hard	120	233
Chattanooga shale, black, soft	233	250
Lime, dark, hard, sandy	250	260
Lime, blue, hard	260	340
Lime, gray, hard	340	425
Water @ 405		
Lime, blue, hard (settles)		
Lime, brown, very hard	425	465
Lime, mixed, hard	465	550
Lime, mixed, hard (settles)	550	600
Lime, brown, hard (settling)	600	650
Lime, black, hard	650	710
Shale, gray, soft, muddy	710	748
Lime, mixed, hard	748	752
Shale, blue, soft (Pencil Cave)	752	766
Lime, gray, hard	766	769
Lime, blue, hard	769	777
Lime, brown, hard	777	790
Lime, gray, hard	790	795
Lime, white, soft	795	810
Lime, brown, hard (slow drilling 840-870)	810	825
Lime, gray, hard (drills better)	825	880
Lime, brown, hard	880	890
Lime, blue, hard (good drilling)	890	955
Lime, gray, hard	955	1010
Lime, brown, very hard	1010	1020
Lime, brown, hard	1020	1045
Lime, mixed, hard (better drilling)	1045	1100
Lime, brown, hard	1100	1125
Lime, gray, very hard	1125	1160
Lime, brown, hard (sandy 1230-1238)	1160	1190
Lime, gray, hard	1190	1260
Lime, brown, hard	1260	1275
Lime, brown, hard (softer, drills better)	1275	1300
Lime, blue, hard	1300	1315
Lime, brown, hard	1315	1340
Lime, gray, hard	1340	1450
Lime, brown, hard	1450	1455
Lime, gray, hard	1455	1495
Lime, brown, hard	1495	1505
Lime, gray, hard	1505	1515
Lime, mixed, hard	1515	1540
Gas @ 425-416, 440-445, 460-465, 575-578, 605-610.		
Water @ 405 and 610.		

Empire Oil & Gas Co., J. F. MARTIN No. 2
(Map Number—15)

Location: SW Sec. 24, A-51E

Elevation: 1042'

Date: 1927

Total depth: 1015'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, blue, shaly	0	408
Chattanooga black shale	408	423
Lime, blue	423	630
Lime, dark	630	650
Upper Sunnybrook	650	665
Show of gas @ 652		
Lime	665	672
Anderson sand	672	676
Lime	676	842
Lime, gray	842	864
Lime, black	864	874
Lime, brown	874	915
Lime, dark, sandy	915	920
Lime, brown, sandy	920	928
Cave, brown	928	930
Lime	930	953
Pencil Cave	953	956
Lime	956	976
Lime, sandy	976	980
Lime, hard	980	1015

Spring Creek Development Co., JOHNSON No. 1
(Map Number—16)

Location: 3S-49E

Elevation: 884'

Date: 1927

Total depth: 704'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
No record	0	29
Shale, black (Chattanooga)	29	52
Gas @ 81 and 103		529
Mud Cave at		553
Pencil Cave	551	620
Gas at		

NOTE: Strong gas flow at 103 feet became ignited and burned the rig. Strong gas flow at 620 feet burned the rig.

Moore Oil Co., J. C. McCulley No. 1

(Map Number—17)

Location: SE NW SW Sec. 10, 3S-50E

Elevation: ?

Date: 1930

Total depth: 2100' (?)

SAMPLE DESCRIPTION		From	To
<i>Lithology</i>			
Limestone, light-gray to buff, finely granular, has glassy, sugary appearance; a few darker colored fragments contain an abundance of shiny pyrite; occasional shiny, glassy, angular fragments probably quartz. Apparently Knox dolomite		1758	1764
Limestone, same as above. Numerous particles of casing rust		1764	1765
Limestone, very light gray, nearly white; many large fragments have chalky appearance; bulk is finely granular and sugary		1765	1770
Limestone, same as above		1770	1775
Limestone, same as above. Large fragments of casing rust abundant		1775	1780
Limestone, slightly darker gray, finely granular; shiny pyrite abundant		1780	1783
Limestone, same as above; casing rust abundant		1783	1790
Limestone, same as above		1790	1795
Limestone, slightly lighter gray, very finely granular, sugary		1795	1800
Limestone, same as above		1800	1806
Limestone, slightly darker gray		1806	1812
Limestone, same as above, fairly dark gray. Gas		1812	1819
Calcium carbonate	51.39%		
Magnesium carbonate	31.83%		
Silica	14.20%		
Limestone, lighter gray. Otherwise the same		1819	1824
Limestone, same as above		1824	1829
Limestone, light-gray to buff, finely granular, sugary		1829	1834
Limestone, darker gray, glassy, sugary		1834	1839
Limestone, light-gray to buff, finely granular; numerous dark-green particles full of tiny specks of shiny pyrite		1839	1843
Calcium carbonate	51.02%		
Magnesium carbonate	30.06%		
Silica	15.05%		
Limestone, same as above. Gas		1843	1848
Limestone, same as above, slightly darker		1848	1853
Limestone, dark-gray, finely granular to dense, sugary; green particles numerous.		1853	1858
Calcium carbonate	49.62%		
Magnesium carbonate	32.36%		
Silica	16.21%		
Limestone, same as above, but considerably lighter		1864	1867
Limestone, same as above		1867	1877
Limestone, very light gray, finely granular. No green fragments or pyrite.		1877	1883
Limestone, very light gray, finely granular, sugary		1883	1888
Calcium carbonate	54.30%		
Magnesium carbonate	32.45%		
Silica	10.72%		
Limestone, same as above		1894	1900
Limestone, light to medium-dark gray, finely granular, sugary		1925	1928
Limestone, same as above		1928	1933

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, same as above. Showing of oil	1933	1939
Calcium carbonate	61.91%	
Magnesium carbonate	34.72%	
Silica	2.28%	
Limestone, same as above, light-gray to brownish-gray	1939	1944
Limestone, same as above	1944	1950
Limestone, very light gray, finely granular, sugary	1950	1956
Limestone, slightly darker gray	1956	1962
Limestone, same as above. Casing rust abundant	1962	1967
Calcium carbonate	60.12%	
Magnesium carbonate	33.07%	
Silica	4.35%	
Limestone, same as above	1967	1973
Limestone, same as above, numerous green fragments full of shiny pyrite	1973	1981
Limestone, same as above	1981	1985
Limestone, same as above, slightly brownish. Cuttings very fine. Show of oil	1985	1988
Limestone, same as above	1988	1991
Calcium carbonate	58.44%	
Magnesium carbonate	31.40%	
Silica	8.22%	
Limestone, same as above	1991	1993
Calcium carbonate	59.03%	
Magnesium carbonate	31.98%	
Silica	7.09%	
Limestone, medium-dark gray, finely granular, sugary. Cas- ing rust abundant	1993	1995
Calcium carbonate	59.58%	
Magnesium carbonate	32.54%	
Silica	6.36%	
Well was shot with nitro-glycerine Oct. 4, 1929:		
20 qts.	1740	1760
20 qts.	1780	1800
20 qts.	1820	1840
20 qts.	1850	1870
20 qts.	1940	1960
20 qts.	1985	1995
10 qts.		
Limestone, magnesian, very light gray to white, finely crystal- line or granular. Stained brown from casing rust	1995	2000
Limestone, same, slightly darker gray color	2000	2005
Limestone, magnesian, very light gray to white, finely crystal- line or granular.	2005	2010
Limestone, same.	2010	2015
Driller reports good showing of oil.		
Limestone, very light gray to white, magnesian, finely granu- lar. Numerous rounded milky and glassy white grains of quartz. Several angular fragments of very light gray, dense chert full of shiny pyrite.	2015	2020
Limestone, magnesian, light to medium-dark gray, finely granular. At 2020 driller reports strike of "Blue Lick salt water which rose 500' in the well."	2020	2025
Limestone, magnesian, very light gray to white, finely gran- ular (4 samples)	2025	2045
Limestone, magnesian, nearly white, finely granular, numer- ous glassy rounded grains of quartz	2045	2055
Limestone, same, quartz grains abundant	2055	2060
Limestone, same	2060	2065
Limestone, same	2065	2075
Limestone, same, fewer quartz grains	2065	2075
Limestone, same, slightly darker gray color, a few small particles shiny pyrite	2075	2085
Limestone, magnesian, nearly white, finely granular	2085	2100

Morgan Petroleum Co., ALLEN SELLS No. 1

(Map Number—18)

Location: SW SE SE Sec. 20, 1S-52E

Elevation: 830'

Date: 1951

Total depth: 1352'

DRILLER'S LOG

Lithology	From	To
Dirt	0	6
Blue lime	6	97
Water @ 65; sulphur water @ 90		
Black lime	97	131
Water @ 110-115		
Green lime	131	202
Blue lime	202	232
Green lime	232	285
Black shale	285	312
Gray lime	312	548
Little gas @ 390, some gas @ 463		
Brown lime	548	600
Top of Sunnybrook @ 550		
Gray lime	600	645
Brown lime	645	673
Gray lime	673	698
Brown lime	698	723
Little gas @ 707		
Gray lime	723	865
Mud Cave 861 to 863		
Brown lime	865	977
Green Cave @ 883 to 885 (poured 12 bags cement)		
Show of oil @ 982		
Salt water @ 982. Unable to control volume of water or to take samples of formation from this point.		
A little gas @ 1166		
Plugged @ 1000, 825, and 250. Plugged @ 7" casing point and @ 10" casing point.		
All casing pulled.		

Morgan Petroleum Co., J. D. HAYES No. 1

(Map Number—19)

Location: SE SE SW Sec. 20, 1S-52E

Elevation: 943'

Date: 1951

Total depth: 1703'

DRILLER'S LOG

Lithology	From	To
Dirt	0	30
Water @ 29		
Blue lime	30	75
Water @ 75		
Gray lime	75	80
Brown lime	80	104
100' 2" of 8¼" pipe		
Gray lime	104	115
Brown lime	115	130
Black lime	130	172
Water @ 135		
Gray lime	172	344½
Gas show @ 205 and 320		
Chattanooga black shale	344½	367½

<i>Lithology</i>	<i>From</i>	<i>To</i>
Blue lime	367½	385
385' of 7" pipe		
Gray lime	385	546
Gas show @ 395 and 477		
Dark-gray lime	546	580
Gray lime	580	595
Dark-brown lime	595	684
Gas show @ 605		
Brown lime	684	690
Upper Sunnybrook	690	695
Brown lime	695	810
Gray lime	810	840
Lower Sunnybrook	840	845
Gray lime	845	875
Mud Cave @ 854, bottom @ 857		
Brown lime	875	1307
Green Cave @ 881, bottom @ 883		
Dark-brown lime	1307	1420
Dark-gray lime	1420	1479
Dark-blue lime	1479	1545
Dark-gray lime	1545	1563
Gray lime	1563	1580
Brown lime	1580	1602
Gray lime	1602	1703

Plugs used at the following footages: 30, 100, 125, 160, 340, 385, 685, 710, 835, 855, 905, and 1575.

All casing pulled.

PERRY COUNTY

H. L. White et al, SHEPHARD HEIRS No. 1

(Map Number—1)

Location: C W/2 NW Sec. 13, 10S-21E

Elevation: 504'

Date: 1938

Total depth: 1155'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray, hard	26	36
Lime, blue, hard	36	41
Lime, blue, hard, crumbly	41	46
Lime, greenish, hard, crumbly	46	51
Lime, dark, various colors, hard	51	56
Lime, greenish and dark, hard	56	61
Lime, blue and gray, hard	61	66
Lime, pink, hard	66	76
Lime, more pink	76	101
Lime, red and blue shale, medium	101	106
Shaly lime, darker and red, medium	106	111
Shaly lime and sand, darker and red, medium	111	135
Oil show 125-130		
Shaly lime, blue, gray, and brown, hard	135	140
Shaly lime, blue, gray, and brown, hard (lighter)	140	145
Crumbly lime, shade lighter blue, gray and brown, medium	145	150
Crumbly lime, darker blue, gray and brown, medium	150	155
Crumbly sand, pink rock, hard	155	160

<i>Lithology</i>	<i>From</i>	<i>To</i>
Crumbly sand, shade darker pink rock, hard	160	165
Sandy lime, darker, hard	165	168
Lime, shale and sand, darker, hard	168	173
Lime, sand, blue, reddish-brown, hard to medium	173	176
Lime, fine, darker blue, reddish-brown, fast cutting	176	180
Lime, fine, reddish-brown, fast cutting	180	190
Lime, coarse, reddish-brown, trace green, fast cutting	190	195
Lime, fine, reddish-brown with trace of green, darker, fast cutting	195	200
Shaly lime, reddish-brown, soft	200	205
Shaly lime, green, pink, and brown, soft	205	210
Shaly lime, gray and brown, fast cutting	210	215
Sandy lime, darker gray and brown, fast cutting	215	220
Sandy, shaly lime, various colors, fast cutting	220	225
Shaly lime, various colors with less brown, medium	225	230
Shaly lime, various colors, shade light, harder	230	235
Shelly, shaly lime, dark-bluish and gray, softer	235	240
More crumbly lime, darker bluish and gray, softer	240	245
Sand, yellow case, medium	245	250
Crumbly and shaly lime, gray and dark, medium	250	259
Crumbly lime and sand, dark, medium	259	260
Crumbly lime and more sand, dark, medium	260	269
Oil show 261-265		
Crumbly, shaly lime, dark, harder	269	278
Sandy lime, very dark, hard	278	283
Coarse, sandy lime, very dark, medium	283	285
Shaly, slaty lime, very dark, fast cutting	285	295
Shaly, slaty lime, more crumbly, very dark, fast cutting	295	300
Fine, sharp, sandy, slaty lime, very dark, hard to fast cutting	300	339
Oil showing in slush @ 324		
Gas showing @ 334		
Crumbly, slaty, rotten shale, very dark, fast cutting	339	364
Crumbly lime, very dark, medium	364	420
Flaky, shaly lime, dark, medium	420	431
Brittle, flaky, shaly lime, dark, softer	431	449
Oil in slush @ 443		
Softer, more shaly, slaty lime, dark	449	479
Fine, more shaly, slaty lime, dark and yellow or beige, fast cutting, softer	479	485
Limy sand, brownish-gray, softer	485	490
Sand, brownish-gray	490	495
Dense lime, brownish, medium	495	508
Lime, sand, brownish-gray, slow cutting	508	547
Mostly lime, lighter gray, soft	547	562
Quartz lime, slightly darker, soft	562	580
Gas @ 575		
Lime, quartzly, medium	580	583
Lime, more limy, medium	583	587
Lime, quartzly, much coarser, medium	587	615
Lime, very limy, coarser, medium	615	622
Lime, less limy, gumbo, medium	622	629
Lime, less limy, medium	629	636
Lime, almost sand, faster cutting	636	639
Lime, brownish, sandy, flinty, faster cutting	639	644
Oil in slush		
Lime, brownish, faster cutting	644	654
Lime, dark-brown, rough and crumbly, cut fast	654	655
Lime, dark-brown, medium-fine sand, cut fast	655	658
Oil trace		
Lime, coarser, dark-brown, cut fast	658	663

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, sandy, flinty, browner, cut fast	663	673
Lime, beige and gray, indication cap rock, browner, hard	673	675
Lime, brown, shade lighter, hard	675	682
Lime, sandy, green and gray, softer	682	687
Lime, limy, flinty, brownish, hard	687	692
Lime, flint predominating, brownish, hard	692	702
Lime, more gray, hard	702	707
Lime, flint cap rock, brown, hard	707	713
Lime, finer sand, brown, very hard	713	717
Lime, lighter, medium-hard	717	722
Oil by test		
Lime, browner, medium-hard	722	724½
Oil by test		
Lime, very flinty, brown, medium-hard	724½	727
Lime, very flinty, brown, softer	727	735
Lime, small amount of shale, brown, faster cut	735	745
Lime, fine amount of shale, shade lighter, medium cut	745	750
Lime, practically all flint, shade lighter, hard	750	755
Lime, sandy, trace of shale, brownish-gray, hard	755	760
Lime, finer sand, brownish-gray, medium	760	765
Oil by test		
Lime, finer sand, brownish-gray, medium	765	768
Oil by test		
Lime, brownish-gray, medium	768	783
Lime, blue, brown and gray, softer	783	785
Lime, blue and gray, softer	785	793
Oil show		
Lime, sand, very dark, blue and gray, softer	793	798
Lime, shade finer, blue and gray, slower	798	803
Lime, shade finer, brown and gray, hard	803	808
Lime, sandy, brown and gray, hard	808	813
Lime, sandy, lighter, medium	813	815
Lime, sandy, brownish-gray, medium	815	820
Lime, sandy, darker, brownish-gray, slower cutting	820	825
Lime, cap rock, brownish-gray, slower cutting	825	835
Lime, cap rock, tan, slow	835	840
Lime, cap rock, darker, slow	840	848
Lime, more lime and sand, lighter, slow	848	850
Lime, no cap rock, browner, medium	850	852
Lime, browner, faster cutting	852	854

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, white to light-gray, medium-crystalline. Pyrite (small crystals), green mineral (glauconite?)	26	36
Limestone white to gray, medium-crystalline, some stained light-green. Dark-green minerals and few crystals of pyrite	36	41
Limestone, white to gray, medium-crystalline, some stained green. Pyrite and black mineral, probably altered pyrite-gradations from black mineral to dark-green with stained portion around it. One zone seems to be entirely green. Green zone peppered with fresh and altered pyrite	41	53
Limestone, pure white to light-gray and yellow, medium-crystalline; small amount green-stained limestone. Pyrite (fresh), green mineral probably alteration product of pyrite, and small amount gypsum.	53	61
Limestone, white to dark-gray, medium-crystalline; some green-stained limestone, probably float. Pyrite	61	66

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, pure with chunks of pink limestone and green particles similar to green-stained above in 41-53. No pyrite	66	81
Limestone, gray, medium-crystalline; green, impure limestone, medium-colored; constituents seem to be impure. . .	81	86
Same as above, except a larger percentage of green-stained limestone which is finely granular. No pyrite	86	91
Limestone, gray, finely crystalline; pure limestone, some pieces look rather impure. No pyrite	91	96
Limestone, white to light-gray, finely crystalline, parts dark-gray and coarse-crystalline. No pyrite	96	101
Limestone, mix of red, chocolate-brown, and light-green, coarse-crystalline; some white and finely crystalline. No pyrite	101	106
Limestone, dark reddish-brown, granular, medium-crystalline. Few parts of lighter colored limestone similar to major constituents in texture	106	111
Limestone, dark reddish-brown, granular to hard, medium finely crystalline. Few scattered parts of white calcite and green limestone	111	115
Limestone, same, except increase in amount of white, finely crystalline limestone. No green material	115	120
Limestone, 40% dark reddish-brown, granular, medium-crystalline; balance white, light-gray to green limestone, fine to coarse-crystalline. Some pyrite	120	125
Limestone, dark red-brown, granular, medium-crystalline. Small percentage white to light-brown, granular limestone	125	130
Limestone, same as above, except larger percentage of white, gray, and green limestone	130	135
Limestone, same, except larger percentage of lighter colored limestone	135	140
Limestone, 20% dark red-brown, granular, medium-crystalline; 80% white to light-brown and green limestone, some finely crystalline, some coarse	140	145
Limestone, white to light-brown, finely crystalline; some gray, granular, medium-crystalline limestone. Few fragments of dark red-brown, granular, medium-crystalline limestone	145	155
Limestone, white to pink, finely crystalline, has uniformly small fragments. Small amount gypsum	155	168
Limestone, light-brown, granular, medium-crystalline; some material as described @ 155-168; some white to light-gray, medium-crystalline limestone	168	173
Limestone, same as above, except no brown, granular limestone. Small amount gypsum	173	176
Limestone, red-brown, granular, medium-crystalline; light-gray, green, medium-crystalline, limestone; yellow, brown, coarse-crystalline limestone (calcite). 2 species of ostracods, 1 species <i>Favosites</i> , 1 species <i>Delthyrio</i> . Pyrite seems to be fossiliferous	176	180
Limestone, white to pink, finely crystalline; in most cases the pink part seems to occur as zones or spots in white limestone. 5% green limestone	180	185
Limestone, 50% red to brown, coarse-crystalline; 10% to 25% green, granular, medium, and brown limestone. Balance mixture of white, brown, and gray fragments; few chert fragments	185	190
Limestone, red to brown, granular, coarse-crystalline; some individual crystalline, dark; ground mass lighter color. Few fragments green limestone, probably float	190	195

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, same, fragments show heavy iron oxide stain or periphery of replacement zone	195	205
Limestone, same as above, except that mass seems to be a little finely crystalline, a small percentage increase of white limestone	205	210
Limestone, same as above, except that the whole is more uniformly brown. Some green limestone fragments	210	215
Limestone, chocolate-brown, granular, medium-crystalline; admixture of white, medium-crystalline limestone, brown fragments are decidedly more uniform in color	215	220
Limestone, same as above, except larger percentage of white limestone	220	225
Limestone, white to light-gray and green, fine- and medium-crystalline; limestone containing a green mineral, probably altered pyrite, as spots have rough cubic outlines	225	230
Limestone, same as above, except no float from depth hole	230	235
Limestone, dark-gray, granular, medium-crystalline, very uniform in color; some fragments more coarse-crystalline than others	235	245
Limestone, white to yellow, medium- to coarse-crystalline. Few fragments gypsum; some brachiopod impressions; few shale particles, probably up the hole	245	250
Limestone, same, except that white limestone has spots of darker limestone in it	250	255
Limestone, mixture of white and dark-gray, medium-crystalline	255	261
Limestone, dark-gray, medium-crystalline, with some clear and translucent chert; chert contains black spots. White limestone parts with black spots	261	265
Limestone, same as above, except amount of chert increasing	265	267
Limestone, same, with some milky chert; some of the chert seems to have calcite spots in it	269	278
Limestone same but less chert	278	283
Limestone, same	283	285
Limestone, same, but little chert	285	290
Limestone, same	290	295
Limestone, same, no chert	295	300
Limestone, dark gray-green, medium-crystalline; some fragments of white limestone with dark spots; small amount of chert	300	302
Limestone, same, no chert	302	304
Limestone, dark-gray, granular, medium- to coarse-crystalline; fragments seem to be covered with acicular crystals of gypsum (?)	304	309
Limestone, same as above	309	314
Limestone, same, except that some fragments show relatively high percentage of pyrite (?)	314	319
Limestone, somewhat lighter in color and increase in percentage of light-colored constituents. No pyrite	319	329
Limestone, dark-gray, medium-crystalline, granular. Some lighter colored limestone with same characteristics (black spots)	329	339
Limestone, same, less white limestone	339	354
Limestone, same, except some yellow calcite fragments. Some pyrite	354	364
Limestone, dark-gray to white (black spots), medium-crystalline	364	370
Limestone, same (incrustations of gypsum)	370	385

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, some increase in amount of white limestone with black spots	385	395
Limestone, dark-gray, granular, medium-crystalline; some white, medium-soft, crystalline limestone with black spots	395	400
Limestone, same, except less of white limestone	400	410
Limestone, same, with few fragments of clear to milk-white calcite	410	415
Limestone, same, very little white limestone	415	437
Limestone, a little lighter gray	437	479
Limestone, same, except that have present some dense, finely crystalline, light-brown limestone. Some pyrite	479	485
Limestone, white to light-brown, finely crystalline; some dark-gray, medium-crystalline limestone (probably float) fragments, very angular. Some pyrite	485	490
Limestone, same, the white seems to be coarse-crystalline	490	495
Limestone, same, fragments a little more uniform in size and color (light-brown)	495	502
Limestone, light-brown, finely crystalline, dense, hard; limestone fragments very small and angular	502	505
Limestone, same, except fragments somewhat smaller	505	508
Limestone, much the same, except nearly white in color and somewhat coarse fragments	508	537
Limestone, same, fragments coarse in size and crystallinity	537	547
Limestone same, except some dark-gray, medium-crystalline fragments	547	552
Limestone, same, fragments coarse-crystalline	552	567
Limestone, same, except some white parts of limestone	567	583
Limestone, some fragments smaller and more angular. Some pyrite	583	587
Limestone, light-gray to light-brown, finely crystalline. Some pyrite	587	594
Limestone, same, except some dark-gray, medium-crystalline limestone	594	601
Limestone, light to dark, medium-crystalline; some white limestone with black spots	601	608
Limestone, white to dark-gray, medium-crystalline, some pure yellow calcite	608	615
Limestone, same, except an increase in light-colored limestone	615	622
Limestone, same, fragments somewhat coarse, very light colored material	622	629
Limestone, dove-gray, finely crystalline, dense; some white limestone with darker spots	629	636
Limestone, dove-gray, finely crystalline, dense, very little light colored material, fragments somewhat smaller	636	639
Limestone, same, fragments larger, increase in light-colored material; some light-brown limestone present. Brachiopod impression	639	654
Limestone, light gray-brown, dense, finely crystalline; fragments small, very uniform in size	654	655
Limestone, same, few shale parts	655	658
Limestone, same, no shale, some pyrite	658	663
Limestone, same, very uniformly light-brown, a few shale parts, fragments angular. No pyrite	663	673
Limestone, same, with few shale parts	673	675
Limestone, same, increase in amount of gray and white limestone. Some calcite, crystalline, brown, fragments very angular, gray, subangular	675	678
Limestone, same; brown limestone, very dense, angular, fragments very characteristic in color	678	682

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray to light-brown, dense, finely crystalline, fragments very angular; limestone about 10% pure white with dark flecks	682	687
Limestone, same, few dark-colored parts	687	692
Limestone, same, no dark-colored material	692	697
Limestone, same, fragments much larger, less light-brown limestone	697	702
Limestone, gray to light-brown, fine to medium crystals; fragments, subangular, light-brown	702	707
Limestone, same, light-brown fragments more angular than gray fragments; some calcite stringers in brown limestone	707	712
Limestone, same, increase in the amount of brown limestone; few fragments of white limestone	712	713
Limestone, same, fragments somewhat smaller	713	717
Limestone, white to light-brown, medium-crystalline, granular, some coarsely crystalline fragments	717	722
Limestone, light- to dark-brown, medium- to coarse-crystalline, granular, few shale parts	724½	727
Limestone, gray to brown, dense, finely crystalline. Considerable pyrite	727	730
Limestone, white to light-brown, finely crystalline, some fragments angular; increase in amount of white limestone; angularity confined to light-brown limestone. Some pyrite	730	735
Same, fragments larger. No pyrite. Brachiopod impressions	735	740
Same, increase in brown limestone. No pyrite	740	745
Limestone, same, some gray limestone, few shale parts	745	755
Limestone, white to light-brown, fine- to medium-crystalline (brown limestone angular fragments). Brachiopod impressions	755	760
Limestone, white to light-brown, medium finely crystalline, no calcite fragments, fragments very small	760	765
Limestone, same, fragments small and angular	765	768
Limestone, same, some of brown fragments coarse-crystalline	768	780
Limestone, same, brown limestone more finely crystalline. Some pyrite	780	783
Limestone, same, gray, finely crystalline. Ostracod in gray limestone	783	785
Limestone, gray to light-brown, finely crystalline; some white limestone fragments	785	788
Limestone, light-brown to dark-gray (shaly), fine- to medium-crystalline; some pure calcite fragments, some white limestone fragments	788	793
Limestone, same, fragments larger. Some pyrite, 1 perfect pyritohedron	793	798
Limestone, light-brown to white, fine- to medium-crystalline; dark-gray shale parts. Pyrite crystals	798	803
Limestone, white to light-brown, fine- to medium-crystalline; few dark shale parts	803	808
Limestone, white to light-brown, medium-crystalline, no shale	808	813
Limestone, same, medium to coarse crystals	813	825
Same, fine- to medium-crystalline	825	830
Limestone, same, fragments larger and more angular	830	835
Limestone, white to light-brown, dense, finely crystalline, no shale	835	840
Limestone, same, few shale parts	840	843
Same, except coarse-crystalline	843	852
Same, and few shale parts	852	854

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray-brown, fine- to medium-crystalline; some fragments of white limestone. One cross section of a coral or a bryozoan	854	855
Limestone, same, some of the limestone carries stringers of colorless calcite (birdseye structure). The stringers seem to have replaced organic remains. Some selenite is present in small crystals	855	863
Limestone, gray, medium-crystalline	863	866
Limestone, gray, medium-crystalline, and an equal amount of gray-brown, medium-crystalline limestone	866	874
Limestone, light-brown to white, and a few calcite stringers	874	877
Limestone, same, and somewhat darker brown	877	882
Limestone, same, and some dark-gray, medium-crystalline limestone	882	897
Limestone, light-brown, finely crystalline. Some calcite and selenite crystals	897	900
Limestone, gray-brown, fine- to medium-crystalline	900	910
Limestone, same, and some white limestone which grades into brown limestone. Few stringers and a few fragments which look shaly	910	947
Limestone, gray-brown, finely crystalline	947	978
Limestone, drab-brown, finely crystalline, plus a considerable percentage of white limestone	978	985
Limestone, same, plus a few fragments of dark-gray, medium-crystalline limestone	985	990
Limestone, light- to drab-brown, finely crystalline. A few dark-gray shale particles	990	992
Limestone, same (dirty sample or a shale zone)	992	1000
Limestone, light-brown to dove-gray and finely crystalline	1000	1005
Limestone, gray-brown to dark-gray, fine- to medium-crystalline	1005	1025
Limestone, same color but difference in crystallinity—coarser and more granular, does not effervesce as freely in acid as the samples above	1025	1028
Limestone, drab, gray-brown, fine-crystalline	1028	1060
Limestone, same, except much lighter in color, cream-colored, may be dolomitic	1060	1065
Limestone, same, except that this screw looks more dolomitic than the screw above	1065	1067
Limestone, drab gray-brown, fine-crystalline	1067	1082
Limestone, light-brown to white, fine-crystalline	1082	1087
Limestone, gray-brown, medium-crystalline	1087	1092
Limestone, light-brown to dark-gray, medium-granular, crystalline, looks dolomitic	1092	1097
Limestone, same, plus a few fragments carrying disseminated pyrite	1097	1102
Limestone, cream-colored, fine-crystalline, not granular	1102	1107
Limestone, same, except darker brown	1107	1110
Limestone, light-brown to white, fine- to medium-granular, crystalline, looks dolomitic. Some pyrite	1110	1125
Limestone, same (Typical of the section just above the Knox cherts)	1125	1130
Limestone, same (darker brown)	1130	1155

The last sample is probably from the transitional zone between the Stones River and the Knox. There seems to be some 90 to 100 feet of this zone present. This is somewhat thicker than the zone as it is represented east of the Nashville Dome.

The fact that there are no cherts present at this depth and that the limestone is not very dolomitic are the only reasons for believing that the last sample is from the transitional zone rather than the Knox formation.

PICKETT COUNTY

New Domain Oil & Gas Co., S. L. RICH No. 1

(Map Number—1)

Location: SW SW NW Sec. 17, B-53E

Elevation: 700'

Date: 1904

Total depth: 1200'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay	0	14
Lime, blue	14	80
Shale, black, soft (Chattanooga)	80	95
Lime, blue, hard	95	180
Lime, white, hard	180	355
Lime, brown, hard	355	580
Rock, white, soft	580	615
Slate, blue, soft	615	640
Lime, white, hard	640	792
Pencil Cave	792	798
Lime, white, soft	798	890
Lime, brown, hard, open	890	895
Lime, blue, hard	895	995
		1200

CONTRACTOR: Raskow, Zimmerla & Pratt.

GAS SHOWS:

120, 150, 615, 798, 985

New Domain Oil & Gas Co., J. H. PENDERGRASS No. 1

(Map Number—2)

Location: NW SE NW Sec. 6, A-53E

Elevation: 1031'

Date: 1904

Total depth: 1500'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, red, soft	0	33
Limestone, dark, hard	33	73
Slate, dark, soft (Chattanooga)	73	93
Limestone, blue, hard	93	323
Shelly, gray, hard	323	458
Limestone, blue, hard	458	718
Sunnybrook, gray, very hard	718	833
Flint, dark, hard	833	923
Limestone, shells, dark, hard	923	1050
Pencil Cave @ 980 (?); 3' of cave		
Sandy lime, gray, very hard	1050	1200
Limestone, blue, open, hard	1200	1325
Limestone, white, hard	1325	1500

CONTRACTOR: Raskow, Zimmerla, Pratt & Co.

PRODUCTION: Dry.

Casing pulled; plugged and abandoned.

New Domain Oil & Gas Co., J. P. HARRISON No. 1

(Map Number—3)

Location: NE NE SE, Sec. 6, A-52E

Elevation: 620'

Date: 1904

Total depth: 1200'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, yellow	0	15
Rock, blue, hard	15	20
Shale, black, hard and close	20	140
Slate, black, soft (Chattanooga)	140	165
Lime, brown, hard	165	250
Lime, white, hard	250	360
Lime, blue, hard	360	415
Lime, brown, hard	415	592
Lime, black, hard	592	652
Lime, gray, hard	652	729
Sand, Sunnybrook, soft	729	804
Lime, blue, soft	804	879
Lime, brown, hard	879	929
Lime, blue, hard	929	1004
Lime, white, hard	1004	1084
Lime, brown, hard	1084	1200

CONTRACTOR: Raskow, Zimmerla, Pratt & Co.

GAS: 320, 400

PRODUCTION: Dry.

CASING:

8¼" @ 21

6¼" @ 200

REMARKS: Casing pulled; plugged.

New Domain Oil & Gas Co., G. B. LITTLE No. 1

(Map Number—4)

Location: NE NE NE Sec. 7, A-52E

Elevation: 630'

Date: 1904

Total depth: 1508'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gravel, loose	0	8
Lime, light, hard	8	14
Slate, black, soft (Chattanooga)	14	34
Sandy, lime, dark, hard	34	49
Lime, dark, hard	49	84
Lime, dark, softer	84	118
Sand, dark, hard	118	153
Slate, dark, soft	153	160
Lime, dark, hard	160	200
Slate, soft, dark	200	280
Lime, sandy, dark, hard	280	370
Lime, dark, hard	370	445
Lime, sandy, dark, hard	445	475
Lime, light, softer	475	535
Lime, sandy, dark, hard	535	575
Slate, light, soft (Pencil Cave)	575	585
Lime, white, hard	585	665
Lime, sandy, white, hard	665	725
Lime, light, hard	725	785

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, flint, shells, dark, very hard	785	935
Flint, dark, hard	935	965
Lime, blue, hard	965	1055
Lime, shells, dark, hard	1055	1140
Lime, sand, dark, very close	1140	1148
Lime, shells, dark, hard	1148	1292
Lime, sandy, white, close, hard	1292	1327
Lime, darker, softer	1327	1360
Sand, light, very close	1360	1395
Lime, dark, hard	1395	1403
Sandy lime, light, very hard	1403	1438
Lime, brown, hard	1438	1450
Flint, light, very hard	1450	1508

CONTRACTOR: Raskow, Zimmerla, Pratt & Co.

PAY: 1370'

GAS: 153, 200, 400, 960

CASING:

17' of 8 1/4"

160' of 6 1/4"

REMARKS: Sprayed salt water @ 153

Well shot but not commercial

New Domain Oil & Gas Co., M. V. PHILLIPS No. 1
(Map Number—5)

Location: Sec. 19, B-52E (covered by lake)

Elevation: 610'

Date: 1905

Total depth: 1502'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand and gravel, light, loose	0	19
Lime, sandy, black, hard	19	30
Shale, black, soft (Chattanooga)	30	55
Lime, sandy, dark, hard	55	90
Lime, blue, hard	90	130
Lime, shells, dark, hard	130	220
Lime, dark, hard	220	340
Lime, sandy, hard	340	420
Lime shells	420	545
Lime, dark	545	600
Slate, light, soft (Pencil Cave)	600	607
Lime, white, hard	607	697
Lime, sandy, light, hard	697	747
Lime, light, hard	747	807
Lime, flint, shells, dark, very hard	807	957
Flint, dark	957	997
Lime, blue, hard	997	1077
Lime, shells, dark	1077	1142
Sand, dark, very close	1142	1154
Lime, light, hard	1154	1254
Lime, white, hard	1254	1329
Lime, dark, open	1329	1390
Sand, (Green Berry) and flint	1390	1410
Lime, white, soft and open	1410	1420
Lime, sandy, dark	1420	1502

CONTRACTOR: Raskow, Zimmerla, & Co.

SHOWS: Oil @ 1410

REMARKS: Casing pulled; abandoned.

New Domain Oil & Gas Co., A. PHILLIPS No. 1

(Map Number—6)

Location: SC SW SW Sec. 15, B-52E

Elevation: 622'

Date: 1905

Total depth: 1502'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, yellow, soft	0	30
Shale, black, soft (Chattanooga)	30	48
Limestone, dark, very soft	48	118
Limestone, dark, soft	118	237
Limestone, dark, not so soft	237	302
Shale, blue, soft	302	337
Limestone, dark, soft	337	505
Limestone, light, softer	505	565
Limestone, sandy, dark, hard	565	600
Slate, light, soft (Pencil Cave)	600	605
Lime, light, hard	605	685
Lime, sandy, light, hard	685	745
Lime, light, hard	745	805
Lime, flint, shells, dark, very hard	805	955
Flint, rock, dark, very hard	955	985
Lime, dark, hard	985	1175
Lime, dark, very hard	1175	1320
Lime, sandy, white, close and hard	1320	1340
Lime, dark, hard	1340	1375
Sand, light, very close	1375	1395
Lime, dark, hard	1395	1445
Lime, brown, hard	1445	1495
Slate, dark, soft	1495	1502

CONTRACTOR: Raskow, Zimmerla & Co. (Dick Dunbar, driller)

PRODUCTION: 5-bbl. well

PAY: 1325' and 1335'

GAS SHOWS: 118, 137, 302, 505

WELL SHOT: 40 qt. @ 1325 and 44 qt. @ 1385

New Domain Oil & Gas Co., JOHN MARTIN No. 1

(Map Number—7)

Location: NW SE NE Sec. 18, A-52E

Elevation: 580'

Date: 1905

Total depth: 1398'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, yellow, soft	0	40
Lime, blue, hard	40	120
Lime, white, hard	120	150
Lime, dark, hard	150	182
Lime, sandy, light, not so hard	182	197
Lime, dark, soft	197	247
Sand, light, hard	247	263
Lime, dark, hard	263	278
Lime, shale, light, hard	278	288
Lime, dark, hard	288	323
Lime, shale, light, hard	323	348
Lime, dark, hard	348	393

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, shale, light	393	405
Lime, dark, hard	405	458
Lime, sandy, dark, soft	458	478
Lime, dark, hard	478	490
Lime, dark, soft	490	515
Lime, light, harder	515	555
Slate, light, soft (Pencil Cave)	555	558
Sandy, lime, brown, hard	558	685
Lime, dark, softer	658	820
Lime, dark, very hard	820	865
Lime, shaly, dark, hard	865	1000
Lime, light, hard	1000	1060
Lime, shaly, dark, hard	1060	1200
Lime, dark, softer	1200	1350
Lime, light, very hard	1350	1385
Lime, darker, hard	1385	1398

CONTRACTOR: Raskow, Zimmerla & Co.

PRODUCTION: Dry.

OIL SHOWS: 180, 460, 658

GAS SHOWS: 180, 288, 348, 405, 460, 490, 515, 658, 877, 890, 915, 990

New Domain Oil & Gas Co., W. T. RAMSEY No. 1

(Map Number—8)

Location: C SW NW Sec. 24, B-53E

Elevation: 961'

Date: 1906

Total depth: 1825'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, brown, broken	240	340
Shale, black, soft (Chattanooga)	340	360
Lime, brown, broken	360	450
Lime, gray, soft, broken	450	620
Lime, brown, soft	620	655
Lime, blue, hard	655	675
Lime, gray, hard	675	905
Mud, blue, soft (Pencil Cave?)	905	910
Lime, gray, hard	910	930
Mud, blue, soft (Pencil Cave?)	930	933
Lime, white, hard	933	1651
Sand, dark, hard	1651	1782
Lime, gray, broken	1782	1825

CONTRACTOR: Raskow, Zimmerla & Co.

PRODUCTION: Gas shows.

REMARKS: Casing pulled; plugged.

New Domain Oil & Gas Co., A. B. WALKER No. 1

(Map Number—9)

Location: SW SW NW Sec. 24, B-53E

Elevation: 889'

Date: 1906

Total depth: 1754'

Lithology

DRILLER'S LOG

	From	To
Lime, black, hard	15	205
Lime, gray, soft	205	275
Shale, black, gray, soft (Chattanooga)	275	293
Lime, gray, hard	293	835
Pencil Cave, blue, soft	835	838
Lime, white, soft	838	963
Lime, gray, hard	963	1676
Sand, gray, hard	1676	1754

CONTRACTOR: New Domain Oil & Gas Co.

PRODUCTION: Gas shows.

New Domain Oil & Gas Co., R. J. HEMBREE No. 1

(Map Number—10)

Location: NE NW NW Sec. 5, A-55E

Elevation: 901'

Date: 1910

Total depth: 802'

Lithology

DRILLER'S LOG

	From	To
Stray sand, hard	0	219
Shale	219	245
Lime	245	515
Rock and grit	515	718
Lime	718	802
Pencil Cave @ 802		

CASING RECORD:

247' 8" of 6¼"

18' of 8¼"

GAS: 535 and 718

Koger & Parrott, ALLARD PARROTT No. 1

(Map Number—11)

Location: NW NW NE Sec. 16, A-53E

Elevation: ?

Date: 1934

Total depth: 575'

Lithology

DRILLER'S LOG

	From	To
Fresh water	30	
Black sulphur water @ 80 and 120		
Gas and salt water @ 243		
Oil, gas and salt water	302	
Oil and gas	328	340
6¼" @ 328		
Gas @ 345 and 380		
Mud Cave	568	573
Pencil Cave	573	575

Started at base of Chattanooga shale, got light-green or semi-amber oil of high gravity and paraffine base at 430 feet.

PRODUCTION: about 3½ barrels of oil per day.

Koger & Parrott, ALLARD PARROTT No. 2

(Map Number—12)

Location: NW NW NE Sec. 16, A-53E

Elevation: 599' (?)

Date: 1934

Total depth: 575'

DRILLER'S LOG

- Top Chattanooga @ 19
- Base Chattanooga @ 51
- Fresh water @ 54
- Sulphur water @ 175
- Black sulphur water @ 255
- Salt water @ 360
- Gas @ 370, 400, 440 and 480
- 6¼" casing set @ 378

No oil in this well, and #1 went dry when its producing horizon was reached by this well.

Robinson Oil Co., A. PHILLIPS No. 1

(Map Number—13)

Location: SE SW SW Sec. 15, B-52E

Elevation: 624'

Date: 1937

Total depth: 1402'

DRILLER'S LOG

Lithology	From	To
Clay	0	35
Black shale (Chattanooga)	35	50
Lime	50	100
Lime, gray	100	140
Lime, gray and white	140	180
Lime, gray	180	220
Brown and gray lime	220	280
Lime, blue and gray	280	330
Lime, blue	330	380
Brown lime	380	420
Gray lime	420	470
Brown lime	470	500
Gray lime	500	530
Blue and gray lime	530	575
Gray and brown lime	575	670
Pencil Cave @ 577-579	670	730
Brown lime	730	820
Brown and gray lime	820	850
Brown lime	850	885
Brown and gray lime	885	915
Brown lime	915	1020
Brown and gray lime	1020	1050
Brown lime	1050	1095
Gray lime	1095	1125
Gray and brown lime	1125	1160
Brown lime	1160	1205
Brown and gray lime	1205	1315
Brown lime	1315	1330
Light-brown lime	1330	1375
Brown lime	1375	

<i>Lithology</i>	<i>From</i>	<i>To</i>
Light-brown lime	1375	1383
Brown and gray sand	1383	1394
Oil		
Light-brown formation	1394	1402
WATER:		
@ 35, 50 and 80		
GAS:		
@ 100, 185, 530, 760 and 780		
CASING RECORD:		
36½' of 8¼"		
168' of 6¼"		
TUBING RECORD:		
1385' of 2"		
PRODUCTION:		
Oil. Producing formation—Upper Part of Knox, 1383-94		

Jesse Ashby et al, CINDA SELLS No. 1

(Map Number—14)

Location: NE NW NE Sec. 8, A-54E

Elevation: 886'

Date: 1938

Total depth: 1660'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil, gray, hard	0	6
Lime, black, hard	6	55
Lime, gray, hard	70	212
Green break, soft	212	214
Chattanooga black shale, soft	214	239
Lime, brown, hard	239	285
Lime, gray, hard	285	475
Gas @ 367		
Lime, brown, medium	475	555
Gas @ 497		
Lime, gray, medium	555	565
Lime, brown, hard	565	730
Gas @ 660		
Lime, gray, hard	730	760
Lime, gray mud break	760	765
Lime, gray, medium	765	785
Pencil Cave 768		
8" hole reduced @ 778		
Lime, brown, medium	785	960
Lime, dark-gray, medium	960	980
Lime, brown, medium	980	1010
Lime, brown, hard	1010	1290
Water 1185		
Lime, dark-gray, hard	1290	1305
Lime, brown, hard	1305	1325
Lime, dark-gray, hard	1325	1350
Lime, brown, hard	1350	1365
Lime, dark-gray, medium	1365	1465
Lime, brown, hard	1465	1505
Lime, gray, hard	1505	

W. P. Clements et al, ALBERT KEISLING No. 1

(Map Number—15)

Location: SW NW SE Sec. 13, A-52E

Elevation: 631'

Date: 1938

Total depth: 876'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	18
Chattanooga black shale	18	40
Lime, gray, hard	40	50
Cave, lost cuttings	50	55
Sand with water, hard	55	60
Lime, gray, hard	60	165
Sand with water, soft	165	175
Lime, gray, hard	175	200
Sand, water, hard	200	210
Lime, gray, hard	210	300
Gas @ 265-270		
Lime, blue, hard	300	370
Lime, brown, hard	370	435
Gas @ 400-405 and 430-435		
Lime, gray, hard	435	445
Lime, brown, hard	445	460
Lime, brown, soft	460	490
Gas @ 485-490		
Lime, brown, hard	490	510
Lime, brown, soft	510	515
Lime, brown, hard	515	530
Lime, gray, hard	530	540
Lime, black, soft	540	570
Gas @ 540-545		
Lime, gray, hard	570	575
Lime, brown, hard	575	585
Lime and Pencil Cave	585	591
Lime, brown, hard	591	764
Gas @ 730-736		
Lime, gray, hard	764	812
Lime, brown, hard	812	848
Lime, gray, hard	848	873

Dutch Creek Oil Co., JOUETT AMONETT No. 1

(Map Number—16)

Location: NE SE SE Sec. 25, B-52E

Elevation: 663'

Date: 1939

Total depth: 900'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, black	65	87
Lime, gray and hard	87	112
Lime, broken	112	116
Sand	116	118
Gas		
Lime	118	140
Gas @ 140		
Lime, broken	140	160
Gas @ 160		
Lime and sand, broken	160	170

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, broken and gray	170	210
Lime, broken and blue	210	215
Lime, blue	215	225
Gas		
Lime, gray	225	230
Lime, gray, hard	230	235
Lime, brown	235	240
Lime, black and broken	240	250
Gas		
Lime	250	255
Lime, broken and gray	255	280
Lime and sand, blue	280	290
Lime, brown and hard	290	295
Lime, blue	295	322
Sand and some gas	322	326
Lime, blue	326	335
Gas	335	340
Lime, blue	340	375
Gas	375	380
Lime, blue	380	410
Lime, blue and hard	410	435
Lime, gray and hard	435	440
Lime, brown and hard	440	455
Lime and sand, broken and hard	455	460
Lime, gray and hard	460	475
Lime, brown and broken	475	480
Lime, brown and hard	480	500
Lime, brown and broken	500	510
Sand	510	530
Oil show		
Lime, broken	530	545
Lime, blue and broken	545	555
Lime, gray and broken	555	575
Lime, black and soft	575	590
Lime, hard	590	615
Pencil Cave	615	618
Lime, brown and hard	618	640
Lime, light- to dark-brown, hard	640	690

Tennessee Oil and Refining Co., CORA RAINS No. 1

(Map Number—17)

Location: NW SW SW Sec. 14, A-54E

Elevation: 864'

Date: 1941

Total depth: 1742'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Both the fresh water and sulphur water cased off with 6 1/4" casing @ 229. Heavy gas encountered @ 264 and again @ 280.		
Beaver sand	290	
Black shale	296	323
Irvine sand	324	328
Good oil showing		

Big strike of oil encountered at 521, causing a blowout and a loss of an estimated 200 to 300 bbls. of oil that flowed off down the Wolf River before the well was got under control and connected to the tank. It continued to flow at the rate of over 100 bbls. per day for three days, and then settled down to about 35 bbls. per day for several

<i>Lithology</i>	<i>From</i>	<i>To</i>
days, when it was pumped. It finally got down after about three weeks to 10 to 15 bbls. a day on the pump. It was then decided to drill deeper with the following results:		
Mud Cave	879	882
Pencil Cave (no trouble with caving as the well was drilled deeper)	882	892
Brown sand	962	975
More gas	1001	1005
More gas and strike light-amber oil	1100	
Heavy strike gas	1152	
More gas	1358	
Light-green oil and gas		
Big strike light-amber oil in first pay sand above the dolomite (raised over 300' in hole)	1670	1681
Small cavity	1693	
Oil sand	1724	
Slight showing	1742	
Bottom of hole		
Small showing salt water		

Drilling was discontinued at this depth, casing pulled and well plugged. (3 ft. plug at bottom of hole shutting off the salt water; 2½ ft. plug of white oak at 285; 3 ft. white oak plug at 229; 3 ft. white oak plug at top of hole)

No casing was required in this hole below 229 feet.

Samples of cuttings taken every four to five feet forwarded to Nashville. (W. C. Koger, contractor).

A. C. York, WILL MATTHEWS No. 1
(Map Number—18)

Location: 3 mi. NW of Pall Mall

Elevation: ?

Date: 1944

Total depth: 861'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and clay, red, soft	0	8
Lime shell, white, hard	8	50
Sand and lime, gray, medium	50	125
Lime, black, medium	125	137
Fresh water @ 126		
Glenmary sand, brown, medium-hard	137	141
Oil and water		
Slate and lime, black, soft	141	175
Lime, black and white, medium	175	225
Sand and slate, white and green, medium	225	238
Sand, brown, soft	238	240
Sulphur and salt water, oil		
Sand, white, medium	240	248
Sand, dark-brown, medium	248	258
Show of oil		
Slate, green, soft	258	317
Sand, brown, medium (Beaver sand)	317	337
Slate, green, soft	337	347
Chattanooga shale, black, soft	347	377
Lime, light-brown, hard	377	397
Lime, light-gray, medium	397	550
Lime, dark-gray, medium	550	647
Lime, black and brown, hard	647	700
Gas @ 670		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, dark-gray, medium-hard	700	790
Lime, brown and black, hard (Top Lower Sunnybrook @ 790)		
Lime, black and brown, hard (Lower Sunnybrook)	815	858
Lime, light-gray, medium	858	861
One 30-inch plug at 410 feet filled with drillings at 385. Drove 30-inch plug to 385.		
Set a plug at 150 feet, filled with drillings to 143. Drove a 30-inch plug to 143.		

W. D. Morton et al, CLINTON STORIE No. 1

(Map Number—19)

Location: SW SE NE Sec. 14, A-54E

Elevation: 760'

Date: 1947

Total depth: 1728'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	
Slight gas show		13
Fresh water		18
Black limestone		42
Hard, gray limestone	45	55
Soft, dark limestone	55	60
Soft, gray limestone	60	65
Coarse limestone	65	70
Gray limestone	70	75
Shale	75	80
White sand mixed with lime	80	90
Hard lime	90	115
Show of oil	115	145
Beaver sand and show of oil; slight show of gas and salt water	145	150
Dark shale	173	183
Chattanooga shale	183	193
Jones sand, coffee color	205	222
Dark shale	222	230
Black lime	230	260
Gray shale and dark lime	260	300
Wet gas, heavy pressure in black lime	300	310
Black lime	310	325
Brown clay	325	342
Gas	342	345
Dark-gray lime	345	348
Heavy gas, oil show in dark-gray sand	348	412
Dark-gray lime	415	425
Lime, top of "sand"	425	450
Gas and oil	450	456
Sand with lime, whitish-gray	457	460
Hard lime	460	472
Still harder and gray lime	472	480
Gas, heavy pressure	480	486
Gray lime	490	
Lime, black and gritty	492	505
Brown lime	520	565
Dark-green lime	565	580
Hard, gray lime	580	594
Show of oil and gas	594	599
Softer gray lime		
Black lime	599	604
Black lime	604	604

S. W. Bardill (Peters), FLOYD PILE No. 1
(Map Number—20)

Location: NW NE NE Sec. 21, B-54E
Date: 1947

Elevation: 925'
Total depth: 1103'

DRILLER'S LOG

Lithology	From	To
Surface	1	3
Lime, black, hard	3	135
Water @ 20, 35 and 60		
Lime, gray, hard	135	185
Slate, blue, hard	185	205
Gas		
Stray sand, gray, hard	205	215
Gas and small show of oil		
Slate, blue, hard	215	265
Slate, green, hard	265	280
Beaver sand, gray, hard	280	281
Black shale, black, soft	281	311
Lime, gray, soft	311	545
Sandy lime, light-brown, soft	545	555
Lime, gray, soft	555	580
Lime, brown, and shaly, soft	580	715
Gas @ 715		
Lime, brown, soft	715	735
Larger volume of gas		
Lime, gray, hard	735	750
Lime, light-brown, soft	750	755
Lime, brown, soft	755	780
Lime, gray, hard	780	820
Lime, brown, hard	820	845
Lime, gray, hard	845	870
Lime, gray, soft	870	905
Mud Cave, blue, soft @ 870-875		
Pencil Cave, blue-gray with small dark spots	905	906½
Lime, brown, hard	906½	1102

HORIZONS:

Oil @ 190, 715-720
Gas @ 187, 715-720

CASING:

6¼" @ 204½

I. J. Vauter, W. PRICHARD No. 1
(Map Number—21)

Location: NW SE NE Sec. 14, A-54E
Date: 1947

Elevation: 871'
Total depth: 1835'

SAMPLE DESCRIPTION

Lithology	From	To
Limestone, white, brown, and gray, medium-fine grained, argillaceous, silty; gypsum particles; small amount of tan chert	800	812
Show of oil		
Limestone, white, brown, and gray, fine to medium-fine grained, argillaceous; silty; small amount of tan chert; few gypsum crystals	812	824
Slight show of oil		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, white, brown, and gray, fine to medium-fine grained, silty and argillaceous; small amount of tan chert	824	829
Samples missing	829	830
Limestone, white, brown, and gray, fine to medium-fine grained, argillaceous; small amount of tan chert	830	847
Very slight show of oil		
Limestone, white, brown, gray, fine to medium-fine grained, argillaceous and silty; calcite crystals	847	853
Slight show of oil		
Same as above, but no calcite	853	859
Limestone, white, brown, and gray, fine to medium-fine grained, argillaceous and silty	859	865
Very slight show of oil		
Limestone, brown to gray, fine to medium-fine grained, very argillaceous; small amount of tan chert	865	870
Same as above, but no chert	870	876
Limestone, brown and light- to dark-gray, fine to medium-fine grained; calcite crystals; small amount of cream chert	876	888
Limestone, gray, medium-fine grained, argillaceous; trace of oil; few fossil fragments	888	894
Limestone, gray, fine to medium-fine grained, argillaceous; cream chert; calcite crystals	894	900
Slight show of oil		
Limestone, gray, fine to medium-fine grained, argillaceous and silty; calcite crystals	900	907
Limestone, gray, fine to medium-fine grained, argillaceous; bluish-cream chert	907	910
Shale, light-gray, micaceous; bluish-cream chert, slightly silty, earthy appearance	910	917
Limestone, gray, medium-fine grained, very argillaceous and silty; few fossil fragments	917	923
Limestone, tan to gray, fine to medium-fine grained; silty and argillaceous	923	928
Slight show of oil		
Shale, light-gray, somewhat silty; few fossil fragments	928	931
Limestone, gray, fine to medium-fine grained, silty and argillaceous, micaceous	931	935
Very slight show of oil		
Limestone, gray, fine to medium-fine grained, argillaceous; cream chert	935	939
Slight show of oil		
Shale, light-gray, micaceous	939	943
Limestone, brownish-gray, fine to medium-fine grained, argillaceous; bluish-cream chert	943	947
Slight show of oil		
Limestone, tan-gray, fine to medium-fine grained, silty; abundant cream chert	947	950
Very slight show of oil		
Limestone, and shale, tan-gray, fine to medium-fine grained, silty; shale is micaceous	950	955
Limestone, tan to tan-gray, fine-grained, slightly silty	955	967
Limestone, tan, fine to medium-fine grained, silty; green shale particles	967	974
Shale, greenish, micaceous; brown chert	974	977
Limestone, tan, fine to medium-fine grained; brown chert; green shale particles	977	980
Limestone, very light tan, fine-grained, slightly argillaceous	980	992
Limestone, very light tan, fine to medium-fine grained; green shale particles	992	1000
Dolomite, brown, medium-fine grained, calcareous; tan chert	1000	1017

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, brown, fine- to medium-grained, slightly silty and argillaceous; brown chert	1017	1036
Limestone, brown, fine to medium-fine grained, slightly silty; brown chert	1036	1042
Very slight show of oil		
Limestone, brown, fine to medium-fine grained, slightly dolomitic; gray chert	1042	1048
Dolomite, brown, fine-grained; slightly white chert	1048	1055
Limestone, tan, fine to medium-fine grained; light-gray chert	1055	1060
Limestone, brown, fine-grained, dolomitic; gray chert	1060	1065
Limestone, brown to gray, fine to medium-fine grained; gray chert	1065	1070
Limestone, brown, medium-fine grained; small amount of gray chert	1070	1077
Limestone, brown, fine to medium-fine grained, dolomitic	1077	1085
Limestone, brown to gray, fine to medium-fine grained, argillaceous	1085	1091
Very slight show of oil		
Limestone, white, brown, gray, medium-fine grained; abundant brown chert; slightly argillaceous	1091	1097
Limestone, tan to brown, fine to medium-fine grained; tan chert; slightly silty	1097	1103
Trace of oil		
Limestone, brown to gray, fine to medium-fine grained; small amount of tan chert; slightly silty and dolomitic	1103	1115
Limestone, brownish-gray, medium-fine grained, argillaceous, dolomitic	1115	1128
Limestone, tan to gray, medium-fine grained, argillaceous, slightly dolomitic; small amount of white chert; gypsum particles	1128	1136
Limestone, white and tan to gray, medium-fine grained, argillaceous and dolomitic	1136	1158
Limestone, tan to gray, fine to medium-fine grained, slightly argillaceous and silty	1158	1165
Limestone, white to brown, fine to medium-fine grained, slightly silty; few fossil fragments	1165	1172
Trace of oil		
Limestone, brown, fine to medium-fine grained, dolomitic, slightly argillaceous	1172	1179
Limestone, brown, fine to medium-fine grained, silty, slightly crystalline	1179	1192
Limestone, tan to brown, fine to medium-fine grained, slightly dolomitic and silty	1192	1200
Very slight show of oil		
Limestone, brown to gray, fine to medium-fine grained, slightly silty and dolomitic	1200	1212
Limestone, brown, fine to medium-fine grained, slightly silty	1212	1219
Very slight show of oil		
Limestone, tan to brown to gray, fine to medium-fine grained, silty, dolomitic, slightly crystalline	1219	1249
Samples missing	1249	1257
Dolomite, gray, medium-fine to medium grained, calcareous and silty	1257	1265
Limestone, tan to gray, fine to medium-fine grained, silty	1265	1270
Shale, gray	1270	1271
Limestone, brown, fine to medium-fine grained, silty	1271	1277
Dolomite, brown, medium-fine grained, silty	1277	1285
Very slight show of oil		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, dark-brown, medium-fine grained, silty; brown and white chert	1285	1299
Show of oil		
Dolomite, brown to gray, slightly argillaceous; brown chert	1299	1306
Slight show of oil		
Dolomite, white to gray, fine to medium-fine grained, slightly argillaceous; light-gray to blue chert	1306	1312
Same as above, plus pyrite particles	1312	1319
Dolomite, tan, brown and gray, medium-fine grained, slightly silty and argillaceous	1319	1325
Limestone, white, brown and gray, fine to medium-fine grained, slightly argillaceous and dolomitic	1325	1333
Dolomite, gray, fine to medium-fine grained, slightly argillaceous	1333	1343
Dolomite, brown to gray, medium-fine to medium-coarse grained, slightly argillaceous; small amount of brown chert	1343	1350
Very slight show of oil		
Dolomite, brown, fine to medium-fine grained, slightly silty; white chert	1350	1360
Show of oil		
Samples missing	1360	1365
Limestone, brown to gray, fine to medium-fine grained, argillaceous, dolomitic	1365	1371
Very slight show of oil		
Samples missing	1371	1378
Dolomite, brown, medium-fine grained, silty	1378	1390
Dolomite, brown to gray, medium-fine grained, slightly silty	1390	1401
Slight show of oil		
Limestone, white to brown, fine- to medium-grained, slightly silty and dolomitic	1401	1415
Limestone, light-gray, fine to medium-fine grained, slightly silty	1415	1422
Dolomite, tan, fine- to medium-grained, slightly silty and calcareous	1422	1455
Dolomite, dark brownish-gray, medium-fine grained, argillaceous	1455	1461
Dolomite, light-tan and gray, fine to medium-fine grained, calcareous, argillaceous	1461	1475
Limestone, gray, medium-fine grained, dolomitic, silty	1475	1483
Limestone and dolomite, light-gray and brown, medium-fine grained, silty	1483	1496
Dolomite, white to brown, medium-fine grained, slightly calcareous and silty	1496	1510
Dolomite, tan, brown, and gray, medium-fine grained, argillaceous, calcareous	1510	1520
Very slight show of oil		
Dolomite, brown, fine to medium-fine grained, very slightly silty and calcareous	1520	1538
Dolomite, gray, fine to medium-fine grained, slightly silty and calcareous	1538	1544
Dolomite, brown, medium-fine grained, argillaceous	1544	1561
Dolomite, very light tan to tan, medium-fine grained, slightly argillaceous; white to cream chert	1575	1585
Dolomite, tan, medium-fine grained, slightly argillaceous; clear calcite crystals	1585	1597
Dolomite, tan, medium-fine grained	1597	1601
Trace of oil		
Dolomite, brown, fine to medium-fine grained, slightly argillaceous; clear calcite crystals	1601	1607

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, tan to gray, medium-fine grained, argillaceous; calcite crystals	1607	1650
Dolomite, very light tan and gray, fine to medium-fine grained, argillaceous; calcite crystals	1650	1683
Dolomite, very light tan, medium-fine to medium-coarse grained, slightly argillaceous	1683	1691
Dolomite, very light tan, fine to medium-fine grained, calcareous; white calcite particles found in spots	1691	1738
Dolomite, very light tan and gray, fine to medium-fine; cream chert	1738	1743
Dolomite, very light tan, medium-fine grained; cream chert; calcite crystals	1743	1748
Dolomite, very light tan and gray, medium-fine grained	1748	1760
Dolomite, very light tan, fine to medium-fine grained; cream chert	1760	1765
Dolomite, tan to brown, fine to medium-fine grained; rounded, frosted sand grains very abundant; white chert	1765	1773
Dolomite, very light tan, medium-fine to medium-grained; gray chert; very slightly argillaceous	1773	1780
Dolomite, very light tan, medium-fine grained; gray chert; very slightly argillaceous	1780	1787
Dolomite, tan, fine to medium-fine grained; cream chert	1787	1800
Dolomite, tan, medium-fine grained; abundant cream chert	1800	1803

Alvin C. York, PRINT HUFF No. 2

(Map Number—22)

Location: NW SE SE Sec. 14, A-54E

Elevation: 919'

Date: 1947 (Drilled deeper in 1953)

Total depth: 1702'; 1800'±

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	306
Limestone, gray and brown with white, fine-grained, very cherty	306	333
Samples missing (Chattanooga shale 333-360)	333	425
Limestone, dark-gray and white, medium to medium-coarse grained, argillaceous	425	450
Samples missing	450	455
Limestone, gray and white, medium-fine to coarse grained, argillaceous	455	530
Samples missing	530	535
Limestone, gray and white, coarse-grained, argillaceous (Samples missing 560-565)	535	620
Limestone, gray with brown and white, medium-coarse grained, argillaceous. (Samples missing 665-669)	620	695
Limestone, brown and gray with white, coarse-grained, argillaceous; last sample contains brown-speckled chert	695	720
Limestone, brown, gray, and white, medium- to coarse-grained, argillaceous	720	730
Limestone, brown, gray, and white, medium-coarse grained, slightly argillaceous and dolomitic. Scattered fragments of chert, tan to dark-brown, translucent to opaque	730	870
Limestone, gray, brown, and white, medium- to coarse-grained, very argillaceous. "Mud Cave" @ 895	870	931
Shale, bentonite, green, micaceous	931	932
Limestone, light-gray to brown, fine-grained. Upper 8' contains tan to dark-brown, translucent to opaque, angular chert	932	947
Shale, green, micaceous, 2nd "Pencil Cave"	947	948

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, tan, fine-grained, with some brown and blue, translucent to opaque chert	948	982
Limestone, brown, medium-grained, with fragments of brown and tan opaque chert	982	995
Limestone, light-brown, fine- to medium-grained, slightly dolomitic, with gray and brown opaque chert	995	1050
Limestone, light- to dark-brown, fine- to medium-grained, slightly argillaceous and dolomitic	1050	1200
Limestone, light-brown, fine to medium-fine grained, slightly argillaceous, with very dark brown opaque chert	1200	1205
Limestone, brown to gray-green, fine- to medium-grained, slightly argillaceous	1205	1300
Limestone, light- and dark-brown, fine-grained, with some dark-brown, medium-grained dolomite	1300	1420
Limestone, light-gray to tan, fine-grained, slightly argillaceous	1420	1450
Limestone, dark-brown, fine and medium-fine grained, very argillaceous	1450	1500
Limestone, light- and dark-brown, fine and medium-fine grained, slightly argillaceous. Samples missing: 1560-65, 1575-80	1500	1640
Limestone, light-brown, fine-grained	1640	1675
Dolomite, tan, medium-fine grained, calcareous, with fragments of pale-blue opaque, and tan translucent chert	1675	1685
Dolomite, tan, medium-fine grained, cherty, sandy. Chert is cream and blue, translucent to blue-white opaque and sandy. Samples missing 1690-1700	1685	1702

Myers et al., MRS. ED STORIE No. 1

(Map Number—23)

Location: SE SE SE Sec. 15, A-54E

Elevation: 1047'

Date: 1948

Total depth: 2223'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray, hard	10	70
Mud Cave, red, soft	90	95
Mud and water, red, soft	110	120
Sulphur and water, black, soft	120	225
Shale, black, hard	225	492
7" pipe set @ 314		
Pencil Cave, black, hard	492	1085
Small cave, some oil		
Some oil	1085	1205
Pocket of oil	1205	1325
Brown, hard lime	1325	1600
Dark-brown, hard lime	1600	1780
Murfreesboro lime, light, hard	1780	1875
St. Peter (?), white, coarse	1875	1881
Some dolomite	1881	1919
More gas and dolomite	1919	1926
Brown, hard dolomite	1928	1935
More oil 1928		
Sandy, dark dolomite	1935	1942
Bailed out oil		
Brown and white, hard dolomite	1942	1982
Darker, soft dolomite	1994	2012

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray to brown, medium-fine and medium grained, argillaceous, slightly silty	795	802
Very slight show of oil		
Pencil Cave	1085	1087
Not studied	1087	1823
Limestone, gray to tan, fine-grained	1823	1830
Limestone, tan, fine-grained, and dolomite, gray, fine-grained	1830	1837
Limestone, dark-green and brown, slightly dolomitic and argillaceous	1837	1857
Dolomite, tan, fine-grained, with milky chert and limestone, tan, fine-grained	1857	1865
Dolomite, tan to gray, fine-grained, with some white, opaque, sandy chert	1865	1875
Dolomite, tan to gray, fine, medium, and medium-coarse grained, with white, opaque chert. Sample shows good porosity; is contaminated with Pencil Cave.	1875	1884
Very slight show of oil		
Dolomite, tan to brown, fine-grained, with white, dolocastic chert	1884	1910
Dolomite, tan and brown, fine, medium-fine, and medium grained, with some white, opaque, sandy chert	1910	1975
Dolomite, light-tan to brown, fine, medium-fine, and medium-coarse grained, cherty. Chert is white, opaque, sandy, with oolitic texture. Sand grains are both rounded and frosted and angular	1975	2012

Clarence Eleson, B. C. ARNEY No. 1
(Map Number—24)

Location: NW NW NE Sec. 25, B-52E

Elevation: 950'

Date: 1948

Total depth: 2200'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray, hard	75	110
Limestone, light-blue, hard	110	135
Limestone, dark, blue, soft	135	305
Limestone, light-blue, soft (probably cave)	305	315
Limestone, dark, blue, soft	315	330
Limestone, gray, hard	330	362
Chattanooga shale, black, soft	362	385
Limestone, gray, soft	385	400
Limestone, dark-gray, soft	400	500
Limestone, brown, soft	500	520
Limestone, gray, soft	520	545
Limestone, blue, soft	545	715
6 5/8" casing @ 565		
Gas 710-715		
Limestone, brown, soft (Anderson sand)	715	725
Limestone, blue, soft	725	745
Limestone, brown, blue, soft	745	860
Limestone, brown, soft	860	950
Gas 865 and 915		
Mud Cave 921; Pencil Cave 950		
Limestone, gray, soft	950	985
Limestone, brown, hard	985	1025
Limestone, brown-gray, hard	1025	1060
Limestone, brown, hard	1060	1200

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-brown	1200	1215
Limestone, brown, hard	1215	1685
Sand, gray-brown, soft	1685	1700
Sand, light-gray, hard	1700	1800
Sand, gray-brown, hard	1800	1865
Sand, brown, hard	1865	1880
Rainbow		
Sand, blue, medium	1880	1900
Little oil		
Sand, light-gray, hard	1900	1940
Sand, brown, hard	1940	1950
Very little rainbow		
Sand, light-gray, hard	1950	2165
Sand, dark, gray, hard	2165	2180
Sand, light, hard	2180	2200
Cut fault @ 1810-15, 2010-2020		

C. L. Eleson, P. T. COPELAND No. 1

(Map Number—25)

Location: NE NE SE Sec. 25, B-52E

Elevation: 681'

Date: 1948

Total depth: 785'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dirt	0	5
Limestone, black, medium	5	45
Limestone, gray, medium	45	80
Shale, black	80	100
Sand, brown	100	105
Gas		
Limestone, gray	105	200
Limestone, blue	200	315
Gas @ 275-280, 290, 305, 310		
Limestone, gray	315	335
Gas @ 330-35		
Limestone, blue	335	345
Gas		
Sand, brown	345	350
Sunnybrook	350	375
Gas show		
Limestone, gray	375	420
Limestone, brown	420	440
Limestone	455	573

Clarence Eleson, RAYMOND NEAL No. 1

(Map Number—26)

Location: WC SW Sec. 24, B-52E

Elevation: 673'

Date: 1948

Total depth: 1550'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	2
Limestone, blue, hard	2	10
Limestone, gray, hard	10	18
Slate, black, soft	18	23

	From	To
<i>Lithology</i>		
Limestone, black	23	43
Limestone, gray, sandy	43	70
Chattanooga shale	70	91
Limestone, gray	91	114
Gas @ 110		
Sand, gray, hard	114	125
Limestone, gray, hard	125	189
Sand, hard	189	200
Limestone, gray, hard	200	290
Limestone, gray-blue	290	330
Limestone, gray, hard	330	360
Gas @ 335 (Sunnybrook?)		
Limestone, brown	360	370
Limestone, brown, hard	370	430
Limestone, sandy	430	463
Limestone, brown, hard	463	520

C. L. Eleson, J. AMONETT No. 1
(Map Number—27)

Location: C SE Sec. 25, B-52E

Elevation: 679'

Date: 1948

Total depth: 1800'

DRILLER'S LOG

	From	To
<i>Lithology</i>		
Blue lime	0	35
Beaver sand, water	35	45
Blue lime	45	90
Black shale	90	115
Brown lime	115	125
Gas, little oil showing		
Blue lime	125	220
Salt water 175		
Gas 220		
Gray lime	220	255
Blue lime	255	335
Brown lime	335	405
Blue lime	405	470
Brown lime	470	500
Gas and oil		
Gray lime	500	520
Brown lime	520	570
Little oil showing @ 550-570		
Blue lime	570	595
Gray lime	595	600
Mud Cave	600	630
Brown lime	630	635
Oil showing	635	640
Pencil Cave	640	650
Brown lime	650	655
Sand (light)	655	660
Blue lime	660	710
White sand		
Oil show throughout		
Brown lime	710	1020
Blue lime	1020	1300
Blue lime	1300	1345
Blue and brown lime	1345	1360
Brown lime (dark)	1360	1370
Brown lime	1370	1375
Light sand		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Blue lime		
Blue lime (light)	1375	1385
Gray lime (light)	1385	1400
Oil showing @ 1450-1480	1400	1480
Gray lime		
Brown lime	1480	1490
Gray lime (light)	1490	1495
Brown sand and lime	1495	1530
Oil showing	1530	1550
Blue lime	1550	1580

Clarence Eleson, JOUETT AMONETT No. 2
(Map Number—28)

Location: SE NE SE Sec. 25, B-53E

Elevation: 688'

Date: 1948

Total depth: 815'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dirt		
Top stone	0	5
Limestone, blue	5	10
Limestone, gray	10	35
Water sand	35	40
Limestone, blue	40	45
Sand, brown	45	60
Limestone, sandy	60	77
Chattanooga shale	77	90
Limestone, sandy	90	110
Limestone, brown, hard	110	125
Gas	125	135
Limestone, gray, sandy	135	160
Limestone, gray, hard	160	200
Limestone, sandy, hard	200	235
Limestone, gray, hard	235	260
Limestone, blue, hard	260	300
Slate, black	300	340
Gas		
Limestone, black-brown		
Limestone, brown, hard	340	385
Sand	385	460
Limestone, brown, hard		
Limestone, gray, hard	460	485
Limestone, gray-brown	485	500
Limestone, brown, sandy	500	540
Limestone, blue-brown	540	550
Top Lower Sunnybrook @ 550	550	625
Show oil 550-600		
Gas @ 585-600		
Mud Cave @ 600; Pencil Cave 624-625		
Limestone, gray-brown	625	660
Limestone, brown, sandy, hard	660	685
Limestone, brown, hard	685	735
Sand	735	780
Oil and gas		
Sand, medium	780	785
Oil		
Limestone, gray	785	795
Limestone, soft	795	800
Limestone, gray	800	815

Clarence Eleson, JOUETT AMONETT No. 3

(Map Number—29)

Location: SW SE SE Sec. 35, B-53E

Elevation: ?

Date: 1949

Total depth: 1000'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
	75	95
Limestone, blue	95	120
Limestone, gray	120	140
Chattanooga shale	140	185
Limestone, gray, sandy	185	210
Limestone, gray	210	220
Limestone, soft		
Gas	220	240
Limestone, gray	240	250
Limestone, gray, hard	250	260
Limestone, gray, silty	260	405
Limestone, gray		
Gas @ 280-300	405	430
Limestone, brown	430	460
Limestone, dark, hard	460	520
Limestone, brown	520	555
Anderson sand	555	593
Limestone, brown	593	633
Limestone, blue	633	638
Mud Cave	638	670
Limestone, brown, blue, sandy	670	700
Limestone		
Pencil Cave @ 670	700	820
Limestone, brown, hard		

Bisset & Dillon Heirs, STORIE No. 1

(Map Number—30)

Location: NW NW SE Sec. 14, A-54E

Elevation: 848'

Date: 1949

Total depth: 1350'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	305
Dolomite, greenish-gray, medium-fine grained, pyritic, argillaceous	305	310
Dolomite, gray, medium-fine grained, pyritic; white chert; argillaceous	310	330
Dolomite, spotty gray, medium-fine grained, slightly pyritic; white chert; slightly calcareous	330	355
Dolomite, spotty, gray, medium-fine grained, slightly argillaceous, slightly calcareous, slightly cherty, fossiliferous near bottom	355	365
Limestone, spotty gray, medium-fine grained, argillaceous, dolomitic, slightly fossiliferous	365	390
Samples missing	390	395
Limestone, spotty gray and white, fine to medium-fine grained, argillaceous, dolomitic, slightly fossiliferous and pyritic in part	395	485
Limestone, gray and spotty in part, fine to medium-fine grained, argillaceous; gray to tan chert in part	485	525

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, spotty gray and white, fine to medium-fine grained, very argillaceous		
Trace of oil	525	530
Limestone, spotty, gray and white, fine to medium-fine grained, argillaceous; white chert	530	565
Limestone, spotty gray and white, fine to medium-fine grained, argillaceous		
Same, plus varying amounts of pyrite	565	610
Limestone, spotty gray, fine to medium-fine grained; yellow chert; slightly fossiliferous; argillaceous	610	640
Limestone, spotty gray, fine to medium-fine grained, argillaceous	640	650
Same, plus small amount of chert	650	665
Same, plus small amount of pyrite	665	670
Same, plus very slight show of oil	670	685
Limestone, spotty gray in part, fine to medium-fine grained, argillaceous, slightly pyritic, and fossiliferous	685	690
Slight show of oil @ 745-750	690	760
Limestone, tan to grayish-tan, fine to medium-fine grained, slightly argillaceous	760	780
Same, plus slight show of oil	780	785
Limestone, brown and spotty gray and brown, fine to medium-fine grained, argillaceous		
Limestone, spotty gray, fine to medium-fine grained, slightly argillaceous, slightly fossiliferous	785	865
Same, plus particles of light-gray, micaceous shale	865	880
Limestone, grayish-brown, fine to medium-fine grained, slightly argillaceous; particles of green micaceous shale	880	920
Limestone, tan, fine-grained; many green micaceous shale particles	920	945
Limestone, tan, fine to medium-fine grained, slightly argillaceous; few green micaceous shale particles; abundant tan and gray chert	945	960
Limestone, tan, fine to medium-fine grained, slightly argillaceous	960	970
Limestone, brown to gray, fine to medium-fine grained, slightly argillaceous; gray and tan chert	970	985
	985	1010

John Buckner, J. P. UPCHURCH No. 1

(Map Number—31)

Location: NW SW SW Sec. 25, B-55E

Elevation: 902'

Date: 1954

Total depth: 1700'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil, gravel, brown, soft	0	8
Lime, blue	8	70
Stray, white, hard	70	78
Slate, green	78	140
Stray sand	140	165
Show of oil and gas 140-145		
Set 157' of casing		
Sandy lime, water, gray	165	180
Lime, gray-white	180	190
Sand, Beaver sand, gray-white, hard	190	205
Slate, green, soft	205	221
Shale, blue, soft	221	251
Pulled pipe, reamed		
Corniferous, chloride water	251	280

	From	To
<i>Lithology</i>		360
Lime, gray	281	
7" casing @ 290		375
Lime, white	360	485
Lime, gray	375	
Gas @ 422		570
Lime, gray and white	485	
Gas @ 490		595
Lime, gray	570	610
Lime, gray-brown	595	
Good show of oil		650
Lime, gray	610	680
Lime, gray and blue, hard	650	712
Lime, brown and blue	680	
Started showing oil 680-712		

John Buckner et al, GEORGE BEATY No. 1

(Map Number—32)

Location: SE NE NW Sec. 1, A-54E

Elevation: 1048'

Date: 1954

Total depth: 986'

DRILLER'S LOG

	From	To
<i>Lithology</i>		26
Clay and gravel, red, soft	0	36
Slate, green, soft (open cave)	26	78
Slate, green, hard; black lime	36	98
Lime, black, hard	78	
Fresh water 88-98		110
Slate, gray-green, hard	98	125
Lime, black, hard	110	185
Lime, black, hard, gritty	125	205
Lime, bluish-gray, hard	185	
Show of oil		300
Lime, black	205	
Show gas 208		305
Lime, black, hard	300	320
Lime, black, medium	305	348
Stray sand, white, hard	320	355
Slate, gray, medium	348	360
Lime, gray, hard	355	375
Sand and lime, white, hard	360	390
Slate, gray	375	434
Slate, green	390	437
Sand and lime, white	434	
(Stray Beaver)		460
Shale, black	437	480
Lime, cream, hard	460	
Show of oil 460-465		640
Lime, gray	480	730
Lime, white and gray, hard	640	750
Lime, brown, hard	730	755
Slate, gray, soft	750	815
Lime, gray-white	755	875
Lime and chert, gray, hard	815	855
Lime, brown, hard	875	940
Lime, gray and white	885	950
Lime, brown	940	980
Lime, gray and white	950	986
Slate, gray, black cave	980	
Show oil 985		

Claud B. Hamill et al, PRINT HUFF No. 1

(Map Number—33)

Location: SW SE SE Sec. 14, A-54E

Elevation: 925'

Date: 1955

Total depth: 1828'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mud-soil	0	30
Soap stone	30	32
Cave	32	37
Hard lime	37	40
Lime	40	210
Green to blue cherty lime	210	233
Blue to gray lime	233	257
Blue mixed lime	257	308
Beaver lime	308	316
Blue to green lime	316	330
Hard lime	330	348
Black shale	348	379
Blue lime	379	488
Mixed lime	488	527
Dark lime	527	563
Lighter lime	563	622
Dark lime	622	768
Light lime	768	780
Dark lime	780	800
Gray lime	800	822
Light lime	822	855
Gray to brown lime	855	874
Gray lime	874	885
Brown lime	885	899
Dark lime with chert	899	921
Dark lime	921	955
Gray lime	955	976
Light lime	976	1011
Dark, sandy lime	1011	1032
Dark lime	1032	1060
Dark, hard lime	1060	1085
Dark lime	1085	1370
Blue lime	1370	1393
Dark lime	1393	1422
Blue lime	1422	1451
Dark lime	1451	1476
Gray lime	1476	1564
Dark lime	1564	1583
Gray lime	1583	1613
Dark lime	1613	1698
Brown lime	1698	1720
Light lime	1720	1741
Knox. Core	1741	1745½
Gray lime	1745½	1749
Limestone and dolomite	1749	1828

PUTNAM COUNTY

J. F. TUCKER No. 1

(Map Number—1)

Location: SE SE NW Sec. 11, 5S-45E

Elevation: 820'

Date: ?

Total depth: 650'

DRILLER'S LOG

Lithology	From	To
Soil	0	23
Blue lime	23	160
Blue lime, hard	160	165
Light-brown lime	165	175
Brown lime	175	185
Gray lime, hard	185	190
Gray and brown lime	190	195
Light-brown and gray lime, hard	195	205
Brown lime	205	220
Light-brown and blue lime	220	250
Gravel	253	260
Blue lime	260	320
6 1/4" casing @ 261	320	325
Light-brown and gray lime, fossils	325	345
Light-brown lime	345	350
Light-brown and green lime	350	410
Light-brown lime	410	425
Pencil Cave 354-355	425	430
Light-brown and gray lime, sandy	430	605
Light-brown and blue lime, sandy	605	620
Light-brown lime (no noticeable change in formation in this 175')	620	630
Brown lime, hard	630	640
Light-brown and blue lime	640	645
Light-brown and gray lime	645	650
Light-brown and blue lime	645	650
Light-brown lime, with black streaks	645	650

Carolina-Tenn. Oil & Gas Co., RIPPITOE No. 1

(Map Number—2)

Location: NW SW SE Sec. 14, 4S-48E

Elevation: 900'±

Date: ?

Total depth: 400'

DRILLER'S LOG¹

Lithology	From	To
White limestone and flint	8	101
Sand and flint	101	119
Beaver oil sand	119	130
Gas @ 122 1/2	130	155
Shale, black (Chattanooga)	155	302
Limestone, gray	302	308
Gas @ 202 1/2	308	320
Gray bone limestone	320	330
Limestone, gray to white	330	340
Limestone, brown	330	340
Limestone, gray, fossiliferous	330	340
Gas @ 335		

¹ Log from George H. Clark, Birmingham, Alabama.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray	340	347
Limestone, fossiliferous	347	400
Gas @ 347½		

CASING:

Set 8" @ 8'
Set 6¼" @ 94'

South Penn. Oil Co., M. V. LEWIS No. 1
(Map Number—3)

Location: About 3 miles west of Cookeville

Elevation: ?

Date: 1897

Total depth: 1900'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime	246	
Shale	246	
Gas	380	276
Limestone with sand	1551	
Limestone with sand	1803	1556
Blue lick water	1566	1890
Blue lick water	1657	
Blue lick water	1900	
Filled up 1500'		

Butler & Newman, JOE H. JARED No. 1
(Map Number—4)

Location: NE NW NW Sec. 1, 5S-45E

Elevation: 603'

Date: 1926

Total depth: 550'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	2
Blue lime	2	55
Dark lime	55	70
Blue lime, sulphur water (top of Carters?)	70	75
Light-blue lime, (sandy @ 90-95)	75	100
Light-blue lime, hard, mixed with Pencil Cave (top of Pencil Cave 100, bottom 103)	100	105
Blue lime	105	110
Blue lime, soft	110	125
Blue lime, soft, fragments of fossils abundant	125	130
Light-blue lime and brown, sandy lime mixed (Driller correlates this with the first pay in the Tinsleys Bottom field; it is probably the top of the Lebanon limestone)	130	135
Light-brown lime	135	150
Light-brown lime, mixed with green	150	155
Light-brown lime (½' of mucky formation in last of this screw)	155	160
Light-brown lime	160	165
Light-brown lime, hard	165	185
Light-brown lime, mixed with white	185	190
Light-brown lime, mixed with white, very hard	190	195
Brown and white lime mixed	195	200
A little salt water		200

<i>Lithology</i>	<i>From</i>	<i>To</i>
Light-brown lime, mixed with white	200	210
Brown lime, very hard	210	215
Brown lime and white lime, mixed, very hard	215	220
Salt Sand	220	225
Salt water filled up 125' in hole, bailed down, drilled hard (top of Ridley formation?)		
Salt Sand	225	230
Water stood within 25' of top after standing all night	230	235
Brown, flinty lime, hard	235	245
Brown lime, hard		
6 1/4" casing @ 240	245	250
Light-brown and gray lime, mixed	250	255
Brown lime, black flint streaks in it, hard	255	260
Brown lime, light-brown streaks in it	260	265
Light-brown and blue lime, mixed	265	275
Blue lime mixed with a little brown		
Gas @ 268	275	285
Brown lime, a little blue mixed in	285	310
Light-brown lime		
A little gas @ 306	310	315
Light-brown lime, a little blue mixed with it	315	330
Light-brown lime	330	340
Brown lime with white streaks in it, sandy (top of Pierce?)	340	360
Brown lime (black flint streaks, 355-360)	360	400
Brown lime		
Gas (top of Murfreesboro)	400	405
Brown lime, lighter in color		
Gas @ 403, estimated at 300,000 to 400,000 cu. ft.; soft- ened up at end of screw	405	425
Light-brown lime		
Gas @ 410-415	425	430
Brown lime	430	435
Light-brown lime	435	450
Light-brown lime, mixed with blue	450	460
Brown lime with black flint streaks in it	460	465
Brown lime, hard	465	470
Light-brown lime, a little white mixed in	470	475
Gray lime and flint	475	480
Light-brown lime	480	485
Gray lime		
Small pocket of gas @ 483	485	490
Gray and brown lime, mixed	490	495
Light-brown and gray lime, mixed	495	500
Blue lime	500	505
Brown lime mixed with flint and a little white lime	505	510
Light-brown lime and gray lime mixed, flint streaks in it	510	525
Brown lime with a little gray mixed in it	525	530
Light-brown lime	530	535
Light-brown lime with a little gray, mixed	535	540
Gray lime		
Light-brown lime (probably still in Murfreesboro lime- stone)	540	550

Butler & Newman, E. H. MADDUX No. 1

(Map Number—5)

Location: SW NW NW Sec. 11, 5S-45E

Elevation: 542'

Date: 1927

Total depth: 1116'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Light-brown lime	450	475
Brown lime, hard	475	480
Gray lime	480	490
Brown lime	490	495
Light-brown lime	495	510
Brown lime, hard	510	575
Brown lime	575	580
Light-brown and gray lime	580	590
Light-brown lime	590	600
Light-brown and gray lime	600	605
Light-brown lime	605	645
Brown lime, hard	645	655
Brown lime	655	660
Light-brown lime	660	735
Brown lime	735	740
Light-brown lime	740	750
Light-brown and blue lime	750	755
Light-brown lime	755	760
Light-brown and blue lime	760	765
Light-brown lime	765	795
Gray lime	795	810
Light-brown lime	810	835
Brown lime	835	840
Light-brown lime	840	845
Gray lime	845	860
Top of Trenton bed. Brown lime, hard and sandy	860	865
Brown lime	865	875
Light-brown and green lime	875	880
Brown lime	880	885
Light-brown lime	885	890
Light-brown lime mixed with white flint	890	895
Gray lime	895	905
Brown lime	905	910
Gray lime	910	915
Light-brown lime	915	925
Brown lime	925	935
Light-brown lime	935	940
Light-brown and gray lime	940	945
Light-brown lime	945	950
Brown lime	950	960
Gray lime	960	965
Light-brown lime	965	970
Light-brown, gray, and green lime	970	975
Light-brown lime	975	995
Brown lime	995	1000
Light-brown lime	1000	1005
Gray lime	1005	1010
Light-brown lime	1010	1020
Brown lime	1020	1030
Brown and gray lime	1030	1035
Gray lime	1035	1050
Light-brown lime	1050	1065
Light-brown and gray lime	1065	1065

	From	To
<i>Lithology</i>		
Light-brown lime	1070	1075
Brown lime	1075	1080
Gray lime	1080	1090
Water, sand	1090	1116

Wittmer Oil & Gas Co., C. P. JERNIGAN No. 1

(Map Number—6)

Location: NE SW NE Sec. 22, 4S-47E

Elevation: 1069'

Date: 1927

Total depth: 983'

DRILLER'S LOG

<i>Lithology</i>	From	To
Red rock		65
Sulphur water	135	150
Chattanooga shale		175
Cased 8 1/4" casing	227	257
Little gas		277
Second Sunnybrook (show little oil)		332
Pencil Cave at		617
Cave	705	707
Started to drill 6 5/8" hole		
All casing pulled.		
Well plugged @ 720' in 6 5/8" hole and @ 300' in 8" hole.		

Butler & Newman, JESSE RITTENBERRY No. 1

(Map Number—7)

Location: NW SW NW Sec. 9, 5S-45E

Elevation: 782'

Date: 1927

Total depth: 601'

DRILLER'S LOG

<i>Lithology</i>	From	To
Soil	0	1
Shelly lime	1	35
Blue lime	35	115
Blue and gray lime	115	125
Blue lime	125	135
Gray lime	135	145
Brown lime, hard (base of Cannon formation?)	145	155
Light-brown lime (top of Hermitage?)	155	210
Brown lime	210	215
Dark-brown lime		
Sulphur water stood within 110' of top		220
Brown lime (base of Hermitage formation)	215	225
Blue and brown lime (top of Carters limestone?)	220	258
Blue lime	225	260
Pencil Cave	258	260
Blue lime	260	285
6 1/4" casing set @ 280		
Blue and white lime, some fossils (base of Carters limestone?)	285	295
Very light brown lime (top of Lebanon limestone?)	295	305
Very light brown lime, mixed with green	305	310
Light-brown lime, mixed with green	310	315
Light-brown lime, mucky formation	315	320
Light-brown lime	320	325

<i>Lithology</i>	<i>From</i>	<i>To</i>
Light-brown lime, hard	325	330
Light-brown lime	330	355
Light-brown lime, mixed with white	355	360
Brown lime, mixed with white (base of Lebanon?)	360	385
Light-brown lime (top of Ridley?)	385	400
Light-brown and gray lime	400	405
Light-brown lime	405	410
Brown lime, black flint streaks	410	415
Light-brown lime, water	415	430
Gas @ 428		
Blue lime		
Light-brown lime (base of Ridley formation?)	430	435
Show of oil and abundant water from 465 to 475	435	505
Brown lime (top of Pierce?)		
Brown lime, hard (base of Pierce formation?)	505	510
Brown lime, black flint streaks (top of Murfreesboro limestone?)	510	530
Brown lime	530	535
Light-brown lime	535	555
Brown lime	555	570
Brown lime, hard	570	575
Light-brown lime and blue lime	575	590
	590	601

Carolina-Tennessee Oil & Gas Co., HARVEY SHIPLEY No. 1

(Map Number—8)

Location: NE NW SE Sec. 10, 4S-48E

Elevation: 965'

Date: 1928

Total depth: ?

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	20
Limestone, white	20	60
Limestone, flinty	60	140
Gas @ 60		
Shale, black (Chattanooga)	140	170
Limestone, blue	170	350
Gas @ 240-241		

CASING:

Set 8¼" @ 20
Set 6¼" @ 100

Carolina-Tenn. Oil & Gas Co., GEORGE GENTRY No. 1

(Map Number—9)

Location: SW NW SE Sec. 13, 4S-48E

Elevation: 935'

Date: 1926 and 1929

Total depth: 531'

DRILLER'S LOG¹

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface and gray limestone, flinty	0	50
Sand, white	50	54
Limestone, gray	54	69
Gas @ 64		
Limestone, brown	69	117

¹ Log from George H. Clark, Birmingham, Alabama.

Lithology	From	To
White limestone and blue flint	117	145
Sand	145	148
Limestone, blue	148	171
Shale, black (Chattanooga)	171	196
Limestone, gray	196	213
Gray limestone conglomerate and sand	213	220
Gray, pebbly limestone	220	455
Limestone, black, shaly	455	475
Limestone, brown	475	513
Limestone, gray	513	531

CASING:

- Set 8¼" casing @ 11
- Set 6¼" casing @ 204

Nathaniel Berthoff et al, O. K. HOLLADAY No. 1

(Map Number—10)

Location: NE NW SW Sec. 22, 4S-48E

Elevation: 1028'

Date: 1935-36

Total depth: 1485'

DRILLER'S LOG

Lithology	From	To
Soil	0	63
Top of limestone @ 63		
Reduced hole to 8" @ 75		
Water @ 115		
Hard, shaly limestone	126	141
Gray limestone	141	160
Blue, shaly limestone	160	163
White flint	163	168
Blue shale	168	171
White, flinty limestone	171	176
Blue shale	176	179
White, flinty limestone	179	245
Blue-gray limestone	245	280
Brown, sandy lime	280	284
Gray limestone	284	314
White limestone	314	321
Blue limestone	321	325
Chattanooga shale, black	325	402
Black limestone	355	
Reduced hole to 6¼" and cased @ 402		
Gray-brown limestone	402	564
Oil (25 bbls.) @ 565		
Top of Sunnybrook @ 608 (little gas)		
Brown, sandy limestone	608	670
Dark-gray, sandy limestone	670	672
Oil (25 bbls.) @ 672		
Gray limestone	672	706
Dark-brown limestone	706	715
Gray-brown limestone	715	725
Light-gray limestone	725	731
Gray limestone	731	815
Pencil Cave	815	827
Brown limestone	827	828
Gas show	828	853
Hard, bluish limestone	853	860
Gray-brown limestone	860	970

<i>Lithology</i>	<i>From</i>	<i>To</i>
Coarse brown limestone	970	1002
Light-brown limestone	1002	1024
Dark-brown limestone	1024	1042
Light-brown limestone	1042	1070
Little gas @ 1056		
Dark-brown limestone	1070	1080
Loose, brown limestone	1116	1134
Oil and gas show @ 1134		
Dark-brown limestone	1134	1138
Oil show		
Gray limestone	1138	1163
Gray-brown limestone	1163	1178
Light-brown, hard limestone	1178	1190
White flint	1190	1200
Gray, brown limestone	1200	1207
Dark-gray limestone	1207	1230
Gas show		
Dark-brown limestone	1230	1246
Brown limestone, very hard	1246	1250
Dark-gray limestone	1250	1267
Black limestone	1267	1291
Brown limestone, hard	1291	1335
Black limestone with white streaks	1335	1342
Brown limestone, hard	1342	1350
Dark-brown, sandy limestone	1350	1360
Oil show		
Gray limestone	1360	1485

Stanolind Oil & Gas Co., W. H. HYDER No. 1

(Map Number—11)

Location: SE SE NE Sec. 1, 5S-49E

Elevation: 1150'

Date: 1942

Total depth: 2130'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Cellar	0	6
Lime, very hard	6	111
White lime	111	118
Gray lime	118	123
Lime	123	143
Lime and quartz	143	150
Lime	150	213
Lime and quartz	213	221
Flint and quartz	221	231
Quartz	231	270
Flint and lime	270	288
Quartz	288	324
Gum shale	324	326
Black shale	326	355
Lime	355	360
Gray lime	360	591
White lime	591	595
Brown lime	595	600
Gray lime	600	620
Gray and brown lime	620	631
Lime	631	815
Broken lime	815	827
Gray lime	827	855
Pencil Cave	855	860

	<i>From</i>	<i>To</i>
<i>Lithology</i>		865
Broken lime and shale	860	870
Brown lime	865	929
Broken lime	870	960
Brown lime	929	971
Brown and gray lime	960	985
Brown lime	971	1002
Brown lime and flint	985	1050
Gray and brown lime	1002	1063
Gray lime	1050	1098
Brown lime	1063	1128
Brown and gray lime	1098	1148
Brown lime	1128	1315
Brown and gray lime	1148	1330
Brown and white lime	1315	1350
Brown lime	1330	1355
Brown and gray lime	1350	1365
Gray and white lime	1355	1381
Gray and brown lime	1365	1385
Brown lime	1381	1412
Gray and brown lime	1385	1427
Brown lime	1412	1455
Gray and brown lime	1427	1460
Brown lime	1455	1496
Gray lime	1460	1500
Dark-brown lime	1496	1505
Gray lime	1500	1548
Gray and brown lime	1505	1560
Blue and brown lime	1548	1564
Brown lime	1560	1585
Brown and gray lime	1564	1648
Light-gray lime	1585	1653
Brown, sandy lime, soft	1648	1667
Light-gray lime	1653	1703
Gray and white, sandy lime	1667	1713
Chert and brown lime	1703	1743
Quartz and lime	1713	1766
Gray and brown lime	1743	1773
Brown lime	1766	1795
Gray lime	1773	1802
Chert and lime	1795	1820
Gray lime	1802	1824
Brown, sandy lime	1820	1868
Light-gray lime	1824	1871
Lime and quartz	1868	1877
Brown and gray lime	1871	1900
Gray lime	1877	1905
Brown lime and quartz	1900	1961
Gray lime	1905	1969
Gray lime and quartz	1961	1970
Gray lime and chert	1969	1990
Gray lime	1970	1996
Brown lime and quartz	1990	2005
Gray lime	1996	2018
Brown lime	2005	2025
Gray, sandy lime	2018	2079
Gray and white lime	2025	2087
Gray lime and chert	2079	2100
Light-gray lime	2087	2130
St. Peter sand	2100	

Gas show (puff) @ 425

Oil show (small) @ 1653-1661

RHEA COUNTY

Richland Oil & Gas Co., R. P. THOMISON No. 1

(Map Number—1)

Location: 12S-55E

Date: 1922

Elevation: 730'

Total depth: 1366'

DRILLER'S LOG

Lithology	From	To
Top soil	0	11
Blue lime	11	161
Set 10" casing @ 13		
Set 8" casing @ 73		
Gray lime		
Set 6" casing @ 402	161	500
Brown lime		
Red shale	500	720
Gray lime	720	740
Gray sand	740	760
Made one barrel salt water every 6 hrs.	760	767
Brown sand		
Black shale	767	778
Gray shale	778	784
Blue shale	784	833
Brown lime	833	859
Black lime	859	1007
Brown lime	1007	1047
Brown sand	1047	1181
Oil	1181	1290

ANALYSIS OF OIL

(D. F. Farrar, analyst)

Color	Reddish-brown
Fluorescence	Dark-green
Specific gravity	.8218
Sulphur	.065%
Brown lime	1290
NOTE:	1366

Well was plugged back to 1200 feet and shot at 1181-1200 with 40 quarts nitro-glycerin. Reported to have made a 5-barrel well.

Richland Oil & Gas Co., R. P. THOMISON No. 2

(Map Number—2)

Location: 12S-55E

Date: 1922

Elevation: ?

Total depth: 1860'

DRILLER'S LOG

Lithology	From	To
Top soil	0	20
White lime	20	430
Set 10" casing @ 26		
Set 8" casing @ 63		
Brown lime	430	656

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray lime	656	806
Set 6" casing @ 677		
Black shale	806	930
Set 5" casing @ 930		
Gray granite	930	1150
Brown sand	1150	1230
Oil at top of sand		
Brown lime	1230	1540
Gray lime	1540	1860

NOTE:

Shot casing off at 800 feet, but got out only 160 feet.

Richland Oil & Gas Co., R. P. THOMISON No. 3
(Map Number—3)

Location: 12S-55E
Date: 1922

Elevation: ?
Total depth: 1205'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Top soil	0	30
Blue lime	30	330
Gray lime	330	570
Red Shale	570	620
Gray lime	620	770
Black shale	770	800
Gray sand	800	860
Gray lime	860	1120
Show of oil @ 1115		
Brown sand	1120	1205
Gas		

ROBERTSON COUNTY

W. A. Batten et al, W. H. HEATHERLY No. 1
(Map Number—1)

Location: NE NW NE Sec. 18, B-31E
Date: ?

Elevation: 598'
Total depth: 687'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil, etc.	0	30
Lime	30	90
Blue Lick water	90	95
Gas		
Blue lime	95	175
Gray lime	175	225
Sulphur gas and show of oil	225	235
Lime	235	485
Black lime	485	600
Black shale (Chattanooga)	600	642
Gas and oil sand	642	660
Sandy lime	660	687

W. A. Batten et al, ARCH MASON No. 1

(Map Number—2)

Location: SW NW NE Sec. 18, B-31E

Elevation: 580'

Date: ?

Total depth: 863'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil, etc.	0	40
Lime	40	180
Blue Lick water (casing point)	180	
Gray lime	180	480
Black lime	480	597
Black shale (Chattanooga)	597	652½
Gas sand	652½	680
Hard, gray lime	680	750
Blue sand	750	772
Gray lime	772	780
Green, slaty lime	780	863

R. D. Wright et al, JOE GROVES No. 1

(Map Number—3)

Location: NE NW NE, Sec. 15, B-36E

Elevation: ?

Date: 1919

Total depth: 700'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dirt	15	
Lime rock		455
Water @ 90		
Cased off water @ 162		
Chattanooga shale	455	520
Sand	520	526
Limestone, with show of oil and gas	?	
Drilled 180' below shale.		
Casing left in well; abandoned.		

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Coarsely crystalline limestone, light-gray	533	
Light-colored, crystalline limestone	536	
Gray shale	547½	
Gray limestone with some granular pieces, but nearly all very fine grained. Not so sugary as 533-536	555	
Bottom of well in green, gritty shale	700	

M. E. Morrison et al, L. M. MERRIT No. 1

(Map Number—4)

Location: NE SW NW Sec. 7, A-35E

Elevation: 792'

Date: 1919

Total depth: 510'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
	0	20
Clay to gravel	20	50
Gray lime boulders	50	340
Hard, blue lime to flint	340	390
Black shale	390	412
Cap rock	412	420
Hard oil sand	420	510
Hard, gray lime to flint		

Water @ 60

Gas @ 140, 260, and 440

8 $\frac{1}{4}$ " hole to 2026 $\frac{1}{4}$ " hole from 202 to 510**Tulsa-Texas Oil Co., W. S. HOLMAN No. 1**

(Map Number—5)

Location: NW NW SE Sec. 21, A-31E

Elevation: 506'

Date: 1920

Total depth: 537'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
	1	8
Soil	8	20
Boulders	20	180
Blue limestone		270
Water @ 40, 130, and 180	190	310
Blue limestone	270	330
Chattanooga black shale	310	340
Limestone, gray	330	350
Blue lime	340	410
Hard, gray lime	350	435
Blue lime (almost like shale)	410	440
White lime, very hard	435	470
Blue lime, very soft (almost shale)	440	480
Hard, gray lime	470	496
Blue lime	480	500
Gray, sandy limestone	496	512
Blue limestone	500	522
Crystalline limestone, sandy, white and gray	512	537
Blue limestone, large flakes	522	
White, crystalline, and blue, phosphatic limestone		

Sewanee Oil & Gas Co., FELIX EWING No. 1

(Map Number—6)

Location: NE NE SW Sec. 25, A-30E

Elevation: 561'

Date: 1920

Total depth: 1022' (?)

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface clay	0	30
Blue limestone (first water)	30	60
Gray limestone	60	180
Blue limestone	180	220
Blue and brown lime and gas	220	226
Dark lime	226	523
Very dark lime	523	570
Black shale (Chattanooga)	570	615
Light-gray lime	615	685
White limestone	685	690
Pink limestone, crystalline (Fernvale?)	690	700
White limestone, some light-pinkish	700	725
Gray limestone	725	745
Various colored limestones	745	940
Dark blue-black, phosphatic limestone	940	950
Base of Trenton		
Dark-gray limestone	950	1015

M. E. Morrison et al, PAYNE BROS. No. 1

(Map Number—7)

Location: SW NW SE Sec. 12, A-34E

Elevation: 648'

Date: 1920

Total depth: 530'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay and boulders		
Blue lime	1	36
Water @ 50	36	140
Gas @ 70		
Gray lime		
Green shale	140	250
Gray lime	250	280
Black shale (Chattanooga)	280	330
Cap rock	330	380
Hard oil sand	380	392
Hard gray lime and flint	392	402
	402	530

8¼" hole to 140

6¼" hole from 140 to 530

LESLIE TAYLOR No. 1

(Map Number—8)

Location: SW NE NE Sec. 11, B-31E

Elevation: 566'

Date: 1920

Total depth: 1346'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lithology	0	26
Soil, etc.	26	463
Lime	463	570
Brown shale	570	617
Black shale (Chattanooga)	617	622 (?)
Gas and oil sand	622	778
Lime, slate break @ 722	778	783
Good show oil	783	1340
Lime		
Good show oil 783-1140		

W. A. Batten, R. W. BENSON No. 1

(Map Number—9)

Location: NE SE NE Sec. 20, B-31E

Elevation: 640'

Date: 1929 (?)

Total depth: 860'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lithology	0	47
Clay, soil, etc.	47	115
Gray lime	115	120
Blue lime	120	128
Gas sand	128	500
Blue lime	500	554
Black lime	554	598
Black shale (Chattanooga)	598	608
Gas sand	608	740
Lime	740	750
Gas sand	750	768
Lime	768	778
Gas sand		860
Bottom of hole, red rock		

A. F. Engle et al, R. L. MATTHEWS No. 1

(Map Number—10)

Location: SW SE SW Sec. 5, A-32E

Elevation: 664'

Date: 1941

Total depth: 700'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lithology	0	53
Clay, surface soil		
Set 53' of 8" casing	53	65
Black limestone, water	65	70
Black limestone, hard	70	113
Blue-gray lime, very hard		118
Blue-gray lime	113	
Sulphur gas		250
Gray limestone	118	
Set 176' of 6¼" casing	250	305
Gray limestone, very hard		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray limestone		312
Gas	305	
Gray limestone, hard		312
Gray limestone, softer		455
Gray limestone (crinoids)		535
Greenish shale, soft		538
Black shale		554
Cherty, sandy limestone		592
Gas	592	
Gray, sandy lime, pyrites		603
Light-brown lime, sandy		632
Light-brown lime, coarse		660
Muddy, dark shale		664
Bluish limestone		664
		670
		700

A. F. Engle et al, R. B. McINTOSH No. 1

(Map Number—11)

Location: NC SE NW Sec. 5, A-32E

Elevation: 728'

Date: 1941

Total depth: 699'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clays, surface soil		
Set 29' of 8" casing	0	29
Black limestone, very hard		
Black limestone, fresh water	29	90
Blue-black limestone, very hard	90	95
Blue-gray limestone, hard	95	143
Set 149' of 6 1/4" casing	143	149
Blue-gray limestone		
"Blue Lick"—small amount salt water and sulphur gas	149	220
Gray limestone	220	223
Gray limestone, hard	223	315
Gray limestone, softer	315	410
Soft, shaly lime	410	560
Black shale	560	620
Oil show @ 620-630	620	662
Gas @ 630-662		
Brown limestone, compact, hard, nonporous	662	681
Blue-gray limestone, sandy	681	692
Gas		
Shale break		
Grayish-brown limestone	692	693
	693	699

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light- to dark-gray, fine-grained, argillaceous, siliceous; quartz, much secondary; fossiliferous, cherty...	65	75
Limestone, same, quartz, slightly cherty and secondary, slightly fossiliferous		
Limestone and quartz, same; chert increasing	75	96
Limestone and quartz, same; siltstone, dark	96	114
Limestone, light- to dark-gray, fine- to medium-grained, siliceous, slightly cherty	114	126
Limestone, light- to dark-gray, fine-grained, siliceous; quartz, white, secondary, cherty	126	132
Limestone, light to gray, fine-grained, very siliceous; chert, tabular and much heterogeneous; quartz; siltstone, dark-gray	132	143
	143	152

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray, fine- to medium-grained, slightly siliceous; chert, fossiliferous, heterogeneous	152	157
Limestone, light to gray, fine- to medium-grained, slightly siliceous, very fossiliferous, slightly cherty	157	162
Limestone, same; more fossiliferous than above (ostracods, gastropods, crinoids)	162	167
Limestone, gray, fine-grained, siliceous, cherty, slightly fossiliferous	167	172
Limestone, same; increasingly siliceous	172	178
Limestone, same; more siliceous	178	184
Limestone, same, very siliceous, non-fossiliferous	184	190
Limestone, same, slightly siliceous	190	195
Limestone, same, more siliceous	195	200
Limestone, same, very siliceous	200	205
Limestone, light to gray, fine-grained, siliceous, fossiliferous, cherty	205	211
Limestone, light, medium-grained, siliceous, fossiliferous, cherty	211	216
Limestone, light to gray, medium-grained, speckled with gypsum, fossiliferous, siliceous	216	222
Limestone, light to gray, medium-grained, gypsum, slightly siliceous	222	227
Limestone, light to gray, medium-grained	227	243
Limestone, light to gray, medium-grained	243	250
Limestone, light-gray, coarse-grained		
Limestone, light-gray to drab, coarse-grained, fossiliferous (<i>Rhombotrypa?</i>)	250	256
Limestone, light-gray, coarse-grained, fossiliferous, slightly siliceous	256	262
Limestone, light-gray, medium-grained, slightly fossiliferous, siliceous, and abundant bluish-gray chert	262	268
Limestone, light- to dark-gray, medium-grained, siliceous, cherty, fossiliferous	268	273
Limestone, light-gray to gray, medium- to coarse-grained, siliceous, fossiliferous (fenestrated bryozoan, crinoid)	273	279
Limestone, light-gray, coarse-grained, pyritic	279	297
Limestone, light- to dark-gray, coarse-grained, slightly siliceous; much speckled chert	297	303
Limestone, gray, coarse-grained; chert, speckled	303	310
Limestone, light- to dark-gray, medium-grained, fossiliferous (ostracods); siltstone, limy, cherty	310	315
Limestone, light- to dark-gray, medium-grained, siliceous; much siltstone and sandstone, calcareous; chert, gray-bluish, speckled; and quartz, white, non-fossiliferous	315	322
Same (80%-90% siliceous)	322	326
Same	326	340
Sandstone, light- to dark-gray, fine-grained, calcareous, micaceous, and siltstone (95%); chert, bluish-gray; limestone, siliceous; gypsum, pyritic	340	350
Sandstone, gray, fine-grained, micaceous, calcareous, slightly cherty; gypsum, pyritic	350	355
Sandstone, tan to gray, fine-grained, slightly calcareous, aggregate; quartz, milky, frosted; gypsum crystals present; pyritic; non-fossiliferous	355	516
Sandstone, same (becoming more silty and dark-gray, less gypsiferous)	516	526
Shale, dark-gray, fine-grained, silty; quartz, white, milky, hard, non-fossiliferous; and chert	526	599
Shale, dark-gray, blotchy, silty; shale, tan, silty	599	618
Shale, dark-gray to black, silty, pyritic	618	627
Shale, black, carbonaceous, silty, pyritic	627	639
Samples missing	639	641

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, black, carbonaceous, silty, pyritic, with sandstone, fine-grained	641	660
Shale, black, with limestone, tan, coarse-grained, pyritic	660	664
Limestone, light-tan, granular, medium-grained, dolomitic; limestone, dark-gray, siliceous, pyritic, non-cherty, non-fossiliferous	664	670
Limestone, light-tan to gray, medium-grained, dolomitic; limestone, black, siliceous, pyritic, non-cherty, non-fossiliferous	670	681
Same, with shale, gray	681	694
Same, with shale, gray (50%)	694	699

Leeper Oil Co., CLAUDE BARBEE No. 1
(Map Number—12)

Location: NW NE NE Sec. 13, B-32E

Elevation: 620'

Date: 1941

Total depth: 874'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface clays and gravels	0	22
Gray limestone	22	33
White limestone	33	45
Brown limestone	45	95
Sulphur gas @ 85-95		
Brown limestone, hard	95	145
Gray limestone	145	200
Brown limestone, hard	200	300
Brown limestone	300	345
White and brown limestones	345	450
Brown, coarse limestone	450	525
Black lime shell	525	620
Green shale, limy	620	635
Chattanooga shale	635	682
Gray-brown limestone, hard	682	697
Gray limestone, dark, softer	697	705
Blue-green limestone (shale break @ 735-736)	705	740
Blue-green limestone, sandy streaks	740	747
Black shale	747	748
Brown limestone, fairly sandy	748	765
Brown limestone	765	782
Shaly blue limestone	782	794
Bluish limestone	794	800
Blue-green limestone, hard	800	805
Brownish limestone, hard	805	815
Blue-green limestone, sandy, soft	815	820
Greenish-white sandy limestone	820	825
Gas		
Brownish-white, dolomitic limestone, very hard	825	845
Same, with sandy break in bottom	845	850
Brownish-white, dolomitic, very hard	850	855
Greenish-black, calcite streaks	855	860
Brownish-white, dolomitic limestone, hard	860	865
Whitish-brown, dolomitic limestone, very hard	865	874

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chattanooga shale	628	680
Dolomite, tan, medium-grained, slightly sandy and calcareous	680	687
Slight show of oil		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, cream-colored, coarse-grained, silty	687	704
Limestone, gray, brown, and light-colored, medium and medium-coarse grained, silty and argillaceous	704	721
Limestone, light-tan, coarse-grained, and shale, dark-gray, silty	721	750
Limestone, light-tan, coarse-grained, oolitic	750	760
Dolomite, light-gray, medium-fine grained, silty, argillaceous, calcareous	760	765
Limestone, light- and dark-brown, medium and medium-coarse grained, slightly silty, dolomitic and argillaceous, and shale, greenish-gray	765	780
Dolomite and limestone, greenish-gray and gray-brown, fine-grained, with some medium-grained material, silty and argillaceous	780	821
Limestone, light, coarse- and medium-grained material, silty and argillaceous	821	844
Dolomite, light-brown, medium-fine grained, calcareous, with shale, gray-green, dolomitic	844	855
Limestone, light-gray and tan, medium-grained, dolomitic	855	866
Dolomite, light-gray and tan, medium-grained, with some coarse-grained material	866	870

Draughon Bros., FEE (PITT) No. 1

(Map Number—13)

Location: SW NE NW Sec. 14, A-33E

Elevation: 700'

Date: 1949

Total depth: 765'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	33
Limestone, gray, fine and medium-fine grained, argillaceous, cherty	60	117
Limestone, light- and dark-brown, coarse-grained	117	150
Dolomite, tan, fine-grained, calcareous	150	155
Limestone, white, medium-fine grained	155	160
Limestone, brown to tan, coarse-grained	160	218
Limestone, brown, fine-grained, argillaceous	218	220
Dolomite, gray and brown, fine-grained, silty	220	225
Limestone, brown, medium-coarse to fine-grained, argillaceous	225	240
Limestone, gray and white, fine-grained, cherty	240	245
Dolomite, gray-brown, medium-fine grained, cherty, calcareous, silty	245	255
Limestone, light- and dark-brown, coarse-grained, cherty	255	277
Limestone, dark-brown to light-gray, medium-fine, silty, with some chert	277	305
Dolomite, light-brown, medium-fine grained, calcareous, with some chert	305	340
Limestone, brown, medium-fine grained with some coarse-grained; water; chert, brown-speckled	340	370
Dolomite, brown, medium-fine grained, cherty	370	400
Limestone, brown, medium-fine grained, with some chert	400	430
Dolomite, brown, medium-fine grained, calcareous, silty, argillaceous	430	495
Limestone, dark-brown, fine-grained, argillaceous	495	555½
Green shale	555½	556
Chattanooga shale	556	596
Limestone, brown and light-brown, coarse-grained, oolitic	596	602
Limestone, light-brown, coarse-grained	602	616

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, brown, fine to medium-fine grained with coarse-grained material	616	625
Dolomite, brownish-gray, medium-fine grained, silty	625	632
Limestone, light grayish-brown, medium-fine with medium-coarse grained material, dolomitic and silty in part	632	680
Limestone, light-brown, coarse-grained, dolomitic, lower part argillaceous	680	698
Shale, greenish-gray, fossiliferous	698	698½
Limestone, tan, coarse-grained, argillaceous, oolites (questionable) in lower part	698½	706
Limestone, light, pink-flecked, coarse-grained with medium-fine grained material	706	730
Limestone, greenish-gray, medium-fine grained with coarse grained material	730	738
Red rock, red, medium-fine grained	738	741
Limestone, yellow, coarse-grained, cherty	741	748
Limestone, brownish-gray, coarse- and medium-grained, slightly argillaceous	748	765

Draughon Bros., FEE (JOYNER) No. 1

(Map Number—14)

Location: SE NW SE Sec. 6, A-33E

Elevation: 725'

Date: 1949 (Drilled deeper in 1954)

Total depth: 1251'±

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	34
Limestone, brown, fine and medium-fine grained, dolomitic and cherty	34	115
Limestone, dark-brown, coarse- and medium-grained	115	130
Limestone, dark gray-brown to brown, medium-fine and fine grained, cherty, lower part dolomitic	130	170
Limestone, light- and dark-brown, coarse-grained, some chert	170	225
Limestone, gray, coarse- and medium-grained	225	235
Dolomite, gray, fine-grained, argillaceous, silty, with some chert	235	255
Limestone, light- and dark-gray, medium- and coarse-grained, silty, argillaceous; part dolomite with scattered chert	255	265
Dolomite, gray, fine-grained, silty, argillaceous	265	270
Limestone, light- and dark-gray, medium-coarse grained, some chert	270	279
Limestone, gray-brown, medium- and coarse-grained, silty, argillaceous, calcareous, and cherty	279	360
Dolomite, light-brown, medium-grained, silty, argillaceous, calcareous, and cherty	360	420
Dolomite, light-gray, medium-fine with some medium grained, silty, some calcareous	420	485
Dolomite, dark-brown, fine-grained, silty, argillaceous, calcareous, with some chert. Lower part glauconitic	485	543
Chatanooga shale, black	543	583
Limestone, light-tan, coarse-grained, fossiliferous	583	585
Limestone, light-tan, coarse-grained, oolitic	585	597
Dolomite, light, medium-fine grained, and limestone, tan, coarse-grained	597	612
Dolomite, light-green, medium-fine grained, silty, with green argillaceous material	612	627

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone and dolomite, brownish-gray, medium-fine grained, silty, with approximately 2' of tan, coarse-grained, glauconitic limestone	627	654
Limestone, very light, coarse-grained	659	685
Limestone, very light, coarse-grained, argillaceous, with poorly developed oolites	685	687
Green shale	687	688
Dolomite and limestone, brown, medium-grained, argillaceous	688	695
Limestone, light-brown, coarse-grained, oolitic	695	700

Draughon Bros., FEE (JOYNER) No. 2

(Map Number—15)

Location: SW SW SW Sec. 6, A-33E

Elevation: 708'

Date: 1950

Total depth: 765'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	40
Limestone, brown, medium-fine and fine grained, cherty	40	100
Limestone, light and dark-brown, coarse and medium-coarse grained	100	115
Limestone, brown, medium-fine grained, dolomitic	115	120
Limestone, dark-brown, medium-fine grained, with some chert	120	125
Limestone, light and dark-brown, medium-grained, with fossiliferous and speckled chert	125	130
Limestone, dark-brown, fine-grained, dolomitic	130	145
Limestone, light and dark-brown, medium-coarse grained	145	150
Limestone, brown, fine-grained, dolomitic, and cherty	150	170
Limestone, light, coarse-grained	170	205
Limestone, gray, medium-fine grained, silty	205	210
Dolomite, gray, medium-fine grained, silty, cherty; limestone, gray, medium-fine and some coarse grained, silty, cherty	210	265
Limestone, brownish, gray, medium-fine grained, dolomitic, silty, cherty	265	305
Dolomite, light to dark-brown, medium-fine grained, argillaceous, silty, cherty, some calcareous	305	505
Limestone, dark-brown, medium-fine grained, silty, argillaceous, cherty. Lower part is glauconitic	505	520
Chattanooga shale	520	561
Limestone, greenish-gray, coarse-grained, silty, with some green shale	561	567½
Siltstone, gray, calcareous	567½	572
Limestone, coarse-grained, silty, with some gray siltstone	572	579
Limestone, light-brown, coarse-grained, oolitic	579	587
Limestone, light-brown, coarse-grained, silty	587	601
Siltstone, green, calcareous, dolomitic, with brown, coarse-grained limestone	601	605
Dolomite, light-green, medium-fine grained, silty	605	613
Limestone, light-brown, silty, dolomitic, with some green shale	613	630
Dolomite, greenish-gray, medium-fine grained, silty	630	643
Limestone, brown, coarse-grained, glauconite	643	645
Limestone, tan, coarse-grained	645	670
Limestone, tan, coarse-grained, with about 2' of light-green, medium-grained dolomite	670	675

W. E. Fennell, CLAUDE BARBEE No. 1

(Map Number—16)

Location: SE NE NW Sec. 13, B-32E

Elevation: 620'

Date: 1950

Total depth: 840'±

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chattanooga shale	682	728
Dolomite, light, medium-grained, sandy, with very slight show of oil	728	730
Limestone, tan to dark-brown, coarse-grained, some silty	730	764
Shale, dark-gray, pyrite	764	766
Limestone, gray-tan, medium-coarse grained, silty	766	770
Limestone, light, pink- and gray-flecked, coarse-grained	770	775
Shale, dark-gray, pyritic	775	777
Limestone, light, coarse-grained, oolitic, silty	777	785
Limestone, tan, coarse-grained, oolitic, silty	785	795
Limestone, tan to brown, coarse-grained, some slightly oolitic	795	805

Draughon Bros. FEE (PITT) No. 2

(Map Number—17)

Location: NE SW SW Sec. 7, A-33E

Elevation: 747'

Date: 1951

Total depth: 775'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	80
Dolomite, tan to gray, medium and medium-fine grained, with some limestone and chert	80	125
Limestone, tan and gray, medium-fine grained, with some dolomite and chert	125	175
Limestone, tan, coarse-grained	175	225
Limestone, tan, medium-coarse grained, with some dolomite	225	235
Dolomite, gray, medium-grained, cherty, silty, with some limestone	235	250
Limestone, gray, coarse-grained, cherty, with some medium-grained dolomite	250	270
Dolomite, gray, fine-grained, silty, with some limestone and chert	270	285
Limestone, gray, medium and medium-fine grained, cherty, silty, argillaceous	285	360
Very slight show of oil 355-360		
Dolomite, tan, medium-fine and medium grained, cherty, silty, calcareous and argillaceous	360	485
Very slight show of oil 365-370		
Samples missing	485	490
Limestone, dark-brown, fine-grained, argillaceous and silty	490	555
Green shale	555	557
Chattanooga shale	557	595
Limestone, light, fine to medium-fine grained	595	615
Limestone, brown, coarse-grained, oolitic and fossiliferous	615	620
Limestone, brown, fine-grained, with some medium-fine grained dolomite	620	663
Dolomite, green, fine-grained	663	670
Limestone, light-brown, fine-grained with coarse-grained material, dolomitic, silty	670	714

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, gray	714	718
Limestone, light-brown, and dolomite, green, medium-fine grained	718	725
Limestone, light with pink and green flecks, fine-grained ...	725	750
Dolomite, gray, medium-grained, silty, calcareous	750	760
Limestone, green and pink, fine-grained, dolomitic, silty, lower 5' cherty	760	770
Dolomite, light and dark-brown, medium and medium-coarse grained, cherty, argillaceous	770	775

W. C. Jackson et al, D. L. GOAD No. 1

(Map Number—18)

Location: SW NW SW Sec. 16, B-32E

Elevation: 652'

Date: 1952

Total depth: 1650'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Brown sand, soft	125	170
Gas show		
Lime, gray, soft	250	335
Sulphur water		
Lime, gray, hard	335	350
Lime, black, medium	350	360
Lime, gray, hard	360	365
Lime, dark, hard	365	370
Lime, blue, hard	375	385
Lime, dark, hard	385	390
Lime, dark, medium	390	395
Light show of gas and oil		
Lime, brown, soft	395	400
Good odor of gas and oil		
Lime, black, hard	400	405
Lime, gray, hard	405	410
Lime, brown, hard	410	420
Lime, black, hard	420	445
Lime, brown, hard	445	550
Lime, black, hard	550	570
Shale, black, soft	570	610
Lime, Devonian	610	615½'
(By tape measure 617½')		
Lime, brown, medium	620	635
Lime, gray, medium	635	655
Shale, green, soft	655	665
Little gas		
Lime, dark-gray, medium	665	690
Lime, gray, shaly, medium	690	730
Lime, gray, hard	730	745
Lime, light-gray, medium	745	795
Lime, gray, medium	795	805
Lime, pink, medium	805	815
Lime, green, medium	815	855
Lime, red, medium	855	870
Lime, blue, medium	870	1085
Lime, salt and pepper, medium	1085	1115
Lime, dark, shelly	1115	1155
Lime, light-gray	1155	1165
Lime, dark-gray	1165	1175
Lime, light-brown	1175	1190
Lime, light-gray	1190	1195

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, dark-gray	1195	1220
Lime, light-gray	1220	1240
Lime, dark-gray	1240	1285
Lime, light-brown	1285	1420
Hit heavy gas @ 1404		
Lime, blue-gray	1420	1530
Lime, light-brown and gray	1530	1545
Lime, brownish-gray	1545	1650
(Steel tape 1645)		

W. C. Jackson et al, J. S. HOLLINGSWORTH No. 1

(Map Number—19)

Location: SW NE SW Sec. 20, B-31E

Elevation: 645'

Date: 1952

Total depth: 1476'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, brown	75	95
Gas blowout heavy @ 85		
Lime, dark-gray	95	205
Some gas @ 95-165		
Water @ 165-205		
Lime, brown	205	220
Lime, gray	220	300
Lime, brown, hard	300	315
Lime, gray, hard	315	410
Set 7" @ 330		
Lime, brown, gray	410	490
Lime, black	490	575
Lime, gray	575	579
Shale, black	579	622
Cap rock, brown, gray	622	640
Limestone, gray	640	680
Lime, brown	680	700
Lime, blue-gray	700	710
Lime, gray, shaly	710	715
Lime, brown	715	725
Lime, gray	725	745
Lime, medium, brown	745	750
Sand, light-brown	750	765
Lime, salt and pepper	765	780
Lime, pink	780	790
Sand, brown	790	800
Sand, salt and pepper	800	805
Sand, gray	805	810
Red rock, red shale	810	820
Limestone, salt and pepper	820	830
Limestone, dark-brown	830	850
Limestone, dark	850	865
Limestone, brown	865	875
Limestone, purple	875	880
Limestone, gray, shaly	880	900
Limestone, black	900	915
Limestone, salt and pepper	915	930
Limestone, gray, shaly	930	1035
Limestone, salt and pepper	1035	1050
Limestone, gray, shaly	1050	1055
Limestone, salt and pepper, brown	1055	1075
Limestone, gray, shaly	1075	1085

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark-brown, shaly	1095	1105
Limestone, salt and pepper	1105	1115
Limestone, brown and gray	1115	1120
Limestone, salt and pepper, shaly	1120	1125
Limestone, salt and pepper, dark-gray	1125	1135
Sand, gray	1135	1145
Shaly, darker	1145	1160
Sand, light	1160	1170
Sand, black	1170	1180
Sand, dark-brown	1180	1185
Sand, light-brown	1185	1210
Limestone, gray	1210	1250
Limestone, dark-brown, shaly	1250	1300
Limestone, gray, shaly	1300	1305
Limestone, brown	1305	1320
Limestone, brown, white, little green	1320	1335
Limestone, brown, green, shaly	1335	1340
Sand, brown	1340	1355
Limestone, shaly, brown	1355	1385
Gas (medium) @ 1370	1380	1395
Sand, brown	1385	1400
Limestone, brown	1395	1410
Limestone, gray cap rock, hard	1400	1415
Sand, light-gray	1410	1450
Limestone, sandy, light-gray	1415	1476
Heavy gas @ 1415	1415	
Sand, gray	1450	
Limestone, dark, shaly, brown (Steel tape 1476)		

W. C. Jackson et al, C. CLINARD No. 1
(Map Number—20)

Location: NW NW NW Sec. 21, B-31E
Date: 1953

Elevation: 646'
Total depth: 1440'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray	245	260
Lime, dark, shaly	260	290
Lime, brown, hard	290	345
Lime, gray, hard	345	405
Lime, gray, shaly, hard	405	460
Lime, brown, hard	460	490
Lime, gray, shaly	490	520
Lime, black, soft, good drilling	520	600
Shale	600	642
Hit gas @ 622—bottom of shale cap rock	642	650
Lime, dark-gray, hard	650	655
Lime, light-gray	655	670
Lime, brownish-gray	670	680
Lime, little darker	680	690
Lime, light-gray	690	700
Blue muck	700	710
Lime, blue, shaly	710	725
Lime, white and brown	725	790
Lime, light-gray	790	815
Lime, white	815	875
Lime, purplish and white	875	905
Lime, blue-gray, shaly		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red rock		
Lime, blue-gray and black	905	930
Gas @ 1145	930	1145
Lime, blue, shaly		
Lime, blue and white, sandy	1145	1240
Lime, black, shaly	1240	1265
Lime, blue, shaly	1265	1310
Lime, brown	1310	1355
Brown cap rock and green shale	1355	1395
Good oil sands saturated; hit some free oil	1395	1400
Oil sands saturated	1400	1411
Lime, blue-gray	1411	1435
CASING SET:		1440
8" @ 35' 8"		
7" @ 355' 8"		

W. C. Jackson et al, CLINARD No. 2
(Map Number—21)

Location: SW SW SW Sec. 20, B-31E

Date: 1953

Elevation: 647'

Total depth: 1957'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray, shaly	85	120
Limestone, light-gray	120	135
Limestone, brownish-gray, hard	135	170
Limestone, dark-gray, hard	170	210
Limestone, gray, shaly	210	250
Limestone, dark-brownish, hard	250	270
Limestone, light-gray, hard	270	290
Limestone, gray, shaly	290	330
Limestone, brownish, gray, hard	330	355
Limestone, dark-gray, shaly	355	475
Limestone, brownish-gray	475	485
Limestone, black, shaly	485	602
Chattanooga shale (S. L. M.) ¹	602	643
Gas @ 643		
Cap rock		
Limestone, light-gray	643	655
Shale, gray	655	680
Shale, white	680	705
Limestone, white and light-gray	705	710
Limestone, brownish-gray	710	725
Limestone, light-gray	725	795
Limestone, bluish-gray	795	805
Limestone, slightly reddish	805	845
Limestone, gray	845	850
Limestone, blue, shaly	850	865
Limestone, brownish-gray	865	895
Limestone, red rock (S. L. M.)	895	900
Limestone, blue, shaly	900	920
Limestone, gray	920	935
Limestone, dark salt and pepper	935	990
Limestone, dark-gray, shaly, with white specks	990	1025
Limestone, dark-gray, shaly	1025	1110
Limestone, light- and dark-gray	1110	1200
Limestone, light brownish-gray	1200	1220
	1220	1230

¹ Steel line measurement.

	<i>From</i>	<i>To</i>
<i>Lithology</i>		
Limestone, light-gray, sandy	1230	1255
Limestone, dark with lighter mixed	1255	1335
Limestone, brownish-gray, sandy	1335	1385
(Should set packer here)		
Limestone	1385	1393
Saturated oil sands, free oil	1393	1430
Hit top of oil sands 1400. Gained 5' on line to 1403		
Sandy limestone, brown and gray	1430	1440
Sand, light-gray	1440	1457
S. L. M. Finished, hit some salt water.		

CASING:

Set 7" @ 335' 5"

Sulphur gas @ 270, very little

Gas 643 and 1180±

W. C. Jackson, C. CLINARD No. 3

(Map Number—22)

Location: NE NW NW Sec. 21, B-31E

Elevation: 647'

Date: 1953

Total depth: 1432'

SAMPLE DESCRIPTION

	<i>From</i>	<i>To</i>
<i>Lithology</i>		
Gray-brown, argillaceous, fossiliferous limestone and dolomitic shale	1310	1332
Light-tan, dense, fossiliferous limestone with tan, fine- to medium-crystalline dolomite in part; trace gray, waxy, pyritic shale @ 1350; limestone, coarse-crystalline in part and silty in part @ 1360	1332	1380
Light-tan mottled with white, dense to very fine crystalline limestone, slightly oolitic in part with possible vugular porosity; with gray, medium-crystalline dolomite and gray, black shale @ 1390	1380	1403
Light-tan, dense to fine-crystalline, sucrose limestone with good light stain; light-brown, medium-crystalline dolomite	1403	1423

W. C. Jackson, C. CLINARD No. 4

(Map Number—23)

Location: NW SE SE Sec. 19, B-31E

Elevation: 663'

Date: 1953

Total depth: 1462'

SAMPLE DESCRIPTION

	<i>From</i>	<i>To</i>
<i>Lithology</i>		
Light- and dark-gray, brown-mottled limestone and dolomitic shale, sandy in part	1320	1330
With light-tan, dense limestone; with light-brown, crystalline dolomite; with gray-brown chert; with gray, waxy shale	1330	1385
Light-brown, dense to fine-crystalline limestone, oolitic in part; with dark-brown, fine-crystalline dolomite and dark gray-brown chert @ 1390; light-tan, dense limestone and fine-crystalline dolomite @ 1395	1385	1415
With light-tan, gray, dense limestone (last sample)	1415	1425

RUTHERFORD COUNTY

Franklin Fuel Oil Co., J. M. ALSUP No. 1

(Map Number—1)

Location: SW NE NE Sec. 6, 8S-38E

Elevation: 602'

Date: 1929

Total depth: 2290'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Murfreesboro limestone		
Limestone, fine-grained, light-gray and dove-colored, water-bearing @ 70	40	90
Limestone, dense, dark bluish-gray; phosphatic, sandy limestone at base	90	210
Limestone, dense, light-gray to dove-colored	210	285
Knox dolomite (?)		
Magnesian limestone, dense, white, yellowish, or gray, little or no chert	285	330
Magnesian limestone, fine-grained, light-gray, containing dense white chert	330	440
Magnesian limestone, white or light-gray, with little or no chert	440	610
Sandstone, dark buff-colored, with grains of chert and of magnesian limestone in calcareous and ferruginous cement	610	620
Magnesian limestone, massive or crystalline, white or light-gray, with very little or no chert	620	680
Magnesian limestone, fine-grained, light-gray or yellowish, containing much white or light-gray chert and particles of pyrite	680	995
Magnesian limestone, very fine grained, yellowish, little or no chert; calcareous sand @ 1980	995	1150
Magnesian limestone, bluish-gray, fine-grained	1150	1170
Magnesian limestone, yellow-gray, no chert; calcareous sand @ 1200 and 1235	1170	1240
Magnesian limestone, gray, granular, cherty	1240	1255
Magnesian limestone, fine-grained, white or gray, with moderate amount of white or smoky chert	1255	1355
Magnesian limestone, fine-grained, white or yellowish-gray, iron-stained, contains rounded grains of chert and magnesian limestone, also moderate amount of white chert	1355	1425
Magnesian limestone, dense or crystalline, white, with white and smoky chert	1425	1465
Magnesian limestone, dense or fine-grained, light-buff or gray, with no chert	1465	1540
Magnesian limestone, white or light-gray, dense, with much banded bluish-gray chert and some crystalline quartz	1540	1600
Magnesian limestone, dense or fine-grained, white or light-gray, with no chert	1600	1680
Magnesian limestone, massive, very light gray, with no chert	1680	1715
Dolomite, light-gray, very cherty, with much iron oxide	1715	1725
Dolomite, white to dark-gray, extremely cherty, with some crystalline quartz	1725	1795

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, dense or fine-grained, dark-gray, with no chert ...	1795	1810
Dolomite, light-gray, extremely cherty, with much iron oxide	1810	1825
Dolomite, white or dark-gray, massive and crystalline; white and smoky chert very abundant from 1845-1860	1825	1930

Well continued to depth of 2290'. Very little change in cuttings.

City of Murfreesboro, FEE No. 9

(Map Number—2)

Location: NE side of Murfreesboro on Bell Street

Elevation: ?

Date: 1940

Total depth: 303'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and red clay	0	17½
Limestone, soft	17½	26
Limestone, gray, hard (no sample)	26	44
Limestone, blue-gray, soft, little water	44	48
Limestone, brownish-gray, soft	48	54
Limestone, light-brown, hard	54	65
Limestone, blue-brown, soft	65	70
Limestone, brown, hard	70	73
Limestone, dark-blue, soft	73	83
Sandstone, brown, soft (water-bearing)	83	98
Limestone, dark-brown, soft	98	100
Limestone, blue-gray, soft	100	121
Limestone, brownish-gray, harder	121	131
Limestone, gray-brown, hard	131	135
Limestone, light-brown, hard	135	137
Limestone, dark-brown, softer	137	142
Limestone, blue-brown, soft	142	163
Water showing @ 154		167
Limestone, dark-brown, soft	163	167
Limestone, light-brown, hard	167	175
Limestone, light-gray, hard	175	180
Limestone, brown, harder	180	185
Limestone, blue and brown, softer	185	192
Limestone, light-brown, soft	192	196
Limestone, dark-gray, soft	196	202
Limestone, blue and brown, soft	202	206
Limestone, dark-brown, soft (water-bearing)	206	212
Sand, dark-brown, soft (water-bearing)	212	220
Limestone, light-brown, soft	220	231
Limestone, brown and blue, hard	231	241
Limestone, dark-brown and blue, soft	241	250
Limestone, pale-brown, soft	250	255
Limestone, dark-brown, hard	255	260
Limestone, light-brown, hard	260	271
Limestone, white and brown, hard	271	278
Limestone, pale-gray, hard	278	283
Limestone, white and brown, hard	283	286
Limestone, light-gray, hard	286	291
Limestone, dark-gray, hard	291	303

Carnation Milk Co., FEE (WATER) No. 13

(Map Number—3)

Location: Sec. 25 (?), 8S-38E

Elevation: ?

Date: 1941

Total depth: 325'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray, hard 1' dirt	0	5
Lime, gray, hard Small amount water—4" opening; static level 20' Crevice, small amount water @ 105-110 Crevice @ 220-225	5	225
Lime, gray, soft Test out 2 hrs. - approximately 100 gal. per minute @ 260-265	225	325

SCOTT COUNTY

Benedum-Trees, YELLOW CLIFF No. 2

(Map Number—1)

Location: NW SE SW, Sec. 14, A-60E

Elevation: 1360'

Date: ?

Total depth: 1048'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	12	
Conductor	12	
Sand	12	330
Water 80' 8" casing @ 330		
Break	330	470
Lime	470	490
Slate	490	555
Lime	555	595
Slate	595	605
Red rock	605	690
Slate	690	725
Red rock	725	810
Slate	810	855
Gray lime	855	919
Break	919	926
6¼" casing @ 926		
Gray lime	926	960
Brown lime	960	1009
Oil	1009	1029

Syndicate Oil & Gas, TOOMEY (WHITCOMB) No. 1

(Map Number—2)

Location: NW NE SW Sec. 14, A-60E

Elevation: 1347'

Date: ?

Total depth: 965'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Slate and mud, blue, soft	12	17
Slate and sand, blue, hard	17	32
Slate and sand, blue and white, hard	32	46
Sandstone, white, hard	46	260
Water @ 120		
Particles of coal and slate 135-140		
2' coal @ 235		
Sandstone and conglomerate, light-gray, hard	260	270
Sandstone, white, hard; contains particles of slate and iron pyrites		316
Sandstone, hard, shaly, gray	270	316
Slate, blue, hard	316	354
Sand, gray, hard	354	395
Sandstone, white, hard	395	425
Slate, black, soft	425	466
Sandstone, gray, hard	466	481
White sand and blue slate, hard	481	526
Sandstone, gray, hard	526	532
Slate, dark-gray, sandy	532	556
Sandstone and sandy lime, white	556	562
Shale, white, red and green (Chester shale)	562	609
Top of hard, white lime	609	810
Limestone, light, hard, gray	810	820
Shale, bluish-brown, hard; some lime	820	845
Limestone, dark-gray, hard	845	965
Gas and some oil @ 945-950		
Oil @ 960-965		
Top of Chester shale	609	
Base of shale	805	
Top of Big Lime (solid)	810	
Gas and show of oil at	945	

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandstone, medium-grained, subangular (75%); shale, dark-gray (25%)	609	614
Limestone; white, fine-grained; some shale, dark-gray; and sand	614	619
Limestone, white to light-gray, red-specked	619	628
Shale, red and green, fine-grained, pyritic	628	634
Samples missing	634	800
Shale, mostly green and some dark-red	800	805
Shale, green; few pieces dolomite, white, fine-grained, sucrose	805	810
Dolomite, white, sucrose (80%); shale, dark-gray, pyritic	810	815
Shale, bluish-gray, fine-grained, pyritic	815	820
Samples missing	820	855
Shale, dark-gray, greenish-gray, and dark-red	855	860
Shale, dark-gray; siltstone, tan; and limestone, few pieces	860	865
Siltstone, tan (25%); shale, dark-gray and greenish-gray (75%)	865	870
Samples missing	870	945

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shales, dark-gray, petroliferous odor when heated	945	950
Limestone, light-gray, coarse-grained (90%); shale, greenish-gray (10%)	950	955
Limestone, gray, fine-grained, oolitic (90%); shale, dark-gray (10%)	955	965

Bear Creek Oil & Gas Co., DOUGLAS WELL No. 1

(Map Number—3)

Location: SE NW NE Sec. 2, A-60E

Elevation: 1161'

Date: ?

Total depth: 1429'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
8¼" casing	420	
6¼" casing	765	
Top of lime	700	
Black shale	770	788
Black shale	800	807
Gas at 840		
Oil show at 935		
Bottom Big Lime	1100	
Bottom Beaver Sand	1370	

Shot—show of oil increased after shot to 1-1½ barrels.

Very little gas. Nothing in Beaver.

Russell Producing Co., RUGBY LAND No. 1

(Map Number—4)

Location: NE NE NW Sec. 3, 3S-59E

Elevation: 1396'

Date: ?

Total depth: 2217'+

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray and dark-gray, fine-grained, argillaceous @ 1581		
Limestone, gray, medium-grained, and chert, gray, dense @ 1715		
Limestone, gray, medium-grained, sandy @ 1798		
Limestone, gray, sandy @ 1840		
Limestone, greenish-gray, sandy @ 1875		
Limestone, dark-gray, medium-granular	1875	1905
Samples missing	1905	1910
Limestone, dark-gray, fine-granular; slight tinge of red	1910	1941
Limestone, dark-gray, fine-granular	1941	1951
Limestone, dark-gray and some white, fine-granular at		2217

Whitcomb Oil & Gas Co., J. R. WEST No. 1

(Map Number—5)

Location: NW SW NW Sec. 14, A-60E

Elevation: 1320'

Date: ?

Total depth: 1110'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, gray, sandy	60	
Shale, gray, sandy	75	80
Shale, gray, sandy (90%); sandstone, white (10%)	80	90
Shale, gray, sandy (10%); sandstone, white, coarse-grained (90%)		
Shale, gray, sandy (10%); sandstone	90	102
Sandstone, white, coarse-grained, angular	102	113
Sandstone, white, coarse-grained, angular (90%); shale, dark-gray, micaceous (10%)	113	119
Sandstone, white, coarse-grained, angular, clayey		
Sandstone, white, coarse-grained, angular	119	125
Sandstone, white, coarse-grained, angular, clayey	125	130
Sandstone, white, coarse-grained, angular	130	169
Sandstone, white, coarse-grained, angular, clayey (90%); shale, dark-gray (10%)		
Sandstone, white, coarse-grained, angular, clayey	169	185
Sandstone, dark-gray, medium-grained, micaceous	185	196
Sandstone, dark-gray, medium-grained, micaceous	196	215
Samples missing	215	219
Sandstone, dark-gray, medium-grained, micaceous	219	224
Samples missing	224	232
Sandstone, dark-gray, medium-grained, micaceous	232	250
Sandstone, white, coarse-grained, angular, micaceous	250	256
Sandstone, gray, medium-grained (80%); shale, dark-gray, sandy (10%)		
Sandstone, light-gray, coarse-grained (75%); shale, dark-gray (25%)	256	260
Sandstone, light-gray, medium-grained, and some shale	260	265
Sandstone, white, coarse-grained	265	281
Sandstone, light-gray, medium-grained (75%); shale, dark-gray, micaceous (25%)	281	325
Samples missing		
Shale, dark-gray, fine-grained	325	341
Samples missing	341	346
Shale, dark-gray, fine-grained	346	362
Samples missing	362	368
Sandstone, white, coarse-grained (50%); shale, dark-gray (50%)	368	385
Sandstone, white, fine-grained (50%); shale, dark-gray (50%)		
Sandstone, white, medium-grained	385	404
Sandstone, white, medium-grained	404	432
Samples missing	432	450
Sandstone, light-gray, medium-grained, micaceous, and shale		
Sandstone, light-gray, medium-grained, micaceous, and shale	450	455
Samples missing	455	460
Sandstone, light-gray, fine-grained (90%); sandstone, dark-gray (10%)		
Sandstone, light-gray, fine-grained, micaceous	460	465
Samples missing	465	488
Sandstone, light-gray, fine-grained, micaceous	488	504
Sandstone, white, fine-grained, and some shale, dark-gray	504	537
Sandstone, light-to dark-gray, fine-grained, micaceous	537	556
Shale, dark-gray to black, platy	556	561
Samples missing	561	566
Sandstone, fine-grained, and shale, black	566	572
Samples missing	572	582
Sandstone, dark-gray, fine-grained	582	588
Sandstone, dark-to light-gray, medium-grained	588	594
Sandstone, white, medium-grained	594	599

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandstone, white, medium-grained and shale, black	599	605
Shale, green, fine-grained	605	610
Shale, green, fine-grained, and some shale, red	610	620
Shale, green and red	620	632
Shale, red and green, conglomeratic	632	638
Shale, green and some red; sandstone, coarse-grained	638	647
Shale, green and some red	647	653
Shale, red and green	653	688
Samples missing	688	693
Shale, light-green	693	705
Shale, light-green, micaceous	705	721
Samples missing	721	727
Shale, light-green, micaceous	727	734
Shale, light-green and red	734	776
Shale, light-green	776	794
Dolomite, dead-white, sucrose (75%); shale, green (25%)	794	800
Shale, green and some red, micaceous	800	830
Shale, greenish-gray	830	848
Sandstone, tan, fine-grained (90%); shale, green (10%)	848	853
Sandstone, tan, fine-grained (5%); shale, green and reddish, platy (80%); limestone, light-gray, crystalline (15%)	853	858
Shale, green, platy (75%); limestone, light-gray, crystalline (25%)	858	878
Samples missing	878	883
Limestone, white, coarse-grained, fossiliferous	883	895
Samples missing	895	930
Limestone, gray, coarse-grained, and some silica, green	930	935
Limestone, gray, coarse-grained, crinoidal	935	940
Limestone, bluish-gray, fine-grained, argillaceous (95%); limestone, light-gray, coarse-grained (5%)	940	965
Limestone, bluish-gray, fine-grained, argillaceous (25%); limestone, light-gray, coarse-grained, possibly oolitic (75%)	965	995
Limestone, light-gray to gray, coarse-grained, and few pieces limestone, bluish-gray	995	1000
Limestone, light-gray, coarse-grained, oolitic	1000	1050
Limestone, light-gray, fine-grained, and some shale, green	1050	1055
Limestone, light-gray, fine-grained, oolitic	1055	1070
Limestone, dead-white and gray, oolitic	1070	1078
Limestone, dead-white, oolitic	1078	1084
Limestone, white, fine-granular	1084	1090
Limestone, gray, speckled, medium-grained. Residue—shale, white, porous (possible break in oolite)	1090	1110

McCormick et al, HARRIS THOMAS No. 1

(Map Number—6)

Location: NE NW SE Sec. 14, A-60E

Elevation: 1276'

Date: ?

Total depth: 972'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Conductor	11	
8¼" casing	411	
Salt water	550	
Red rock (top)	560	
Big Lime (top)	730	
Break in Big Lime	865	869
6¼" casing	905	

Oneida Oil & Gas Co., JOEL REED No. 1

(Map Number—7)

Location: NW NE SE Sec. 3, 1S-60E

Elevation: 1320'

Date: ?

Total depth: 1334'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	10
White sand	10	135
Slate	135	165
Black lime	165	173
Black slate	173	198
Black lime	198	233
Slate and shells	233	310
White sand	310	360
Slate and lime shells	360	543
White sand	543	590
Slate	590	603
Black lime	603	628
Slate	628	705
Shells and slate	705	745
Sand	745	778
Slate	778	792
Black lime	792	854
Red rock	854	1040
Top of Big Lime	1040	1060
Black slate	1060	1085
White lime	1085	1334
Water @ 108		
8¼" casing @ 593		
Gas @ 760		
6¼" casing @ 1129		

Oneida Oil & Gas Co., ANDERSON No. 1

(Map Number—8)

Location: Sec. 2, 1S-60E

Elevation: ?

Date: ?

Total depth: ?

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	28
Sand	28	150
Slate	150	175
Sand	175	220
Slate	220	280
Sand	280	340
Lime	340	360
Sand	360	400
Lime	400	435
Slate	435	450
Slate and lime	450	500
Sand	500	595
Slate and lime	595	826
Coal	826	830
Lime and slate	830	870
White sand	870	921

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red rock	921	995
White slate, clayey	995	1040
Red rock	1040	1070
Slate	1070	1085
Lime	1085	1100
Black slate	1100	1116
Big Lime	1116	1226
Slate	1226	1230
White lime	1230	1510
Red rock	1510	1541
Gray sand	1541	1600
Black slate	1600	1641
Lime	1641	1665
Beaver sand	1665	1790
Chattanooga shale	1790	1803

CASING:

13" @ 28
 8¼" @ 652
 6¼" @ 1216

Good show of oil @ 1210

Gas @ 1250

Tubed 2" @ 1282 to save gas. Make easily 50,000 a day.

Ohio Fuel Co., JOEL McCART No. 1

(Map Number—9)

Location: SW SW SE Sec. 8, 3S-59E

Elevation: 1270'

Date: ?

Total depth: 1450'

Log not available. Well totally dry, plugged, and abandoned.

The following note, taken from Resources of Tennessee, Vol. VIII, No. 3, p. 212, 1918, probably refers to this well:

"... On top of the hill 500 yards southwest of the station at Glenmary and 175 feet above station level, which is given as 1275 feet above the sea level, the Ohio Fuel Company have recently gotten a gas well at a depth of 1445 feet. The yield of gas was not ascertained. The well has been plugged."

White Bros. Oil & Gas Co., G. A. CHANDLER No. 1

(Map Number—10)

Location: SW NW NW Sec. 25, 3S-60E

Elevation: 1350'

Date: ?

Total depth: 2090'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil, yellow, soft	0	4
Sand, blue, hard	4	30
Sand, gray, hard	30	60
Hole full of water @ 37		
Slate, brown, soft	60	90
Sand, white, hard	90	125
Slate, black, soft	125	150
Sand, gray, hard	150	625
Sltae, dark, medium (shelly)	625	750

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, gray, hard	750	760
Slate, brown, soft	760	765
Sand, gray, hard	765	1040
Lime, white, hard (top of Pennington)	1040	1046
Shale, brown, soft	1046	1081
Sand, gray, hard	1081	1100
Lime, brown, hard	1100	1150
Red rock, red, soft	1150	1180
Sand, gray, hard	1180	1200
Red rock, red, soft	1200	1215
Lime, white, hard	1215	1218
Slate, brown, soft	1218	1230
Sand, white, hard	1230	1250
Slate, brown, soft	1250	1265
Lime, white, hard	1265	1275
Slate, dark, soft	1275	1300
Red rock, red, soft	1300	1305
Lime, white, hard	1305	1318
Sand, dark, medium	1318	1338
Lime, black, hard	1338	1385
Slate, black, soft	1385	1403
Lime, black, hard	1403	1440
Slate, black, soft	1440	1443
Lime, black, hard	1443	1458
Slate, black, soft	1458	1461
Lime, black, hard	1461	1510
Sand, gray, hard	1510	1530
Lime, black, hard	1530	1555
Lime, white, hard	1555	1840
Little gas @ 1608		
Blue lime and red rock, hard (broken Clinton)	1840	1865
Lime, black, hard	1865	1985
Lime, white, hard	1985	2025
Gas and show of oil		
Lime, gray, hard	2025	2090

W. G. Strubbe et al, BOARD OF AID No. 1

(Map Number—11)

Location: Sec. 5, 3S-59E

Elevation: 1251'

Date: 1891

Total depth: 1236'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Alluvium, gray, soft	0	15
Shale and sand, gray and black, medium	15	70
Sandstone, gray, hard	70	170
Sandstone and shale, gray, medium	170	180
Sandstone, gray, hard	180	220
Sandstone and shale, black, medium	220	260
Sandstone, gray, hard	260	320
Sandstone and shale, black, medium	320	375
Sandstone, gray, hard	375	680
Limestone, gray, dark, hard	680	690
Shale and limestone, red and black, medium	690	755
Limestone, gray, hard	755	760
Shale and limestone, black, medium	760	780
Limestone, black, hard	780	805
Shale, black, medium	805	825

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, red and black, soft	825	850
Shale, black, soft	850	885
Limestone, gray and black, hard	885	1070
Limestone, dark-gray, hard	1070	1236
Coal—2" @ 65; 4" @ 506		
Base of Lee, with salt water @ 680		
Casing—700'		
Top of Glen Dean @ 885		
Little gas @ 1128		
Oil @ 1233		

Forest Oil Co., RUGBY LAND CO. No. 1

(Map Number—12)

Location: NW NE NE Sec. Sec. 23, 2S-59E

Elevation: 1280'

Date: 1896

Total depth: 2401'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Shale and clay, yellow, soft	0	15
Slate, black, soft	15	30
Coal, black, soft	30	33
Slate, black, soft	33	48
Shale, black, hard	48	60
Sand, white, very hard	60	130
Slate, black, soft	130	150
Sand, gray, very hard	150	250
Little water—about 3 bailers to each screw		
Sand, white, very hard	250	395
Slate, black, soft	395	475
Oil, black, thick	475	512
Sand, gray, hard	512	762
Mississippian system		
Pennington		
Lime, white, hard	762	780
774.07' of 8¼" casing		
Slate, light, soft	780	795
Red shale, dark, soft	795	816
Shale, brown, soft	816	846
Slate, black, soft	846	873
Lime, black, hard (shell)	873	878
Shale, red, soft	878	906
Lime, dark, hard	906	945
Slate, black, soft	945	970
Newman		
Lime, dark, hard	970	983
Lime, dark, hard, gray	983	1120
Show of gas @ 1060		
St. Louis limestone @ 1106		
Slate, black, soft	1120	1135
Shell, dark, hard	1135	1140
6¼" casing @ 1139		
Sand, white, hard	1140	1148
Lime, dark, hard	1148	1244
Lime, dark-gray, hard	1244	1306
Lime, white, very hard	1306	1309
Lime, gray, hard	1309	1387
Dark-green oil 1340		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, gray, hard (Waverly shales)	1387	1388
Lime, dark, brown, medium-hard	1388	1404
Lime, dark-brown, hard	1404	1414
Shell, gray, very hard	1414	1421
Sand, brown, very hard	1421	1442
Sand, dark-gray, hard	1442	1460
Lime, dark-gray, hard	1460	1473
Sand, light, hard	1473	1476
Slate and lime, dark, soft	1476	1488
Sand, gray, hard	1488	1503
Slate, black, hard	1503	1507
Slate, dark-gray, hard	1507	1540
Slate, black, soft	1540	1558
Lime, gray, very hard	1558	1611
Lime and flint, gray, very hard	1611	1681
Chattanooga		
Ordovician	1681	1683
Shale, dark, gray, soft	1683	1728
Shale, black, soft	1728	1756
Lime, blue, very hard	1756	1798
Lime, gray, hard	1798	1987
Lime, brown, medium hard	1987	2117
Lime, gray, blue, medium hard	2117	2388
Slate and lime, dark-gray	2388	2393
Slate and lime, brown, very hard	2393	2401
Slate and lime, light-brown, hard		

Put down 30 wood pails of pumpings. Measured on cable 1120 feet, and put string on cable at that length; then put down 2-foot wooden plug. Actual depth of 6¼-inch casing 1131 feet, difference being taken up in joints.

Whitcomb Oil Co., HENDREN No. 1

(Map Number—13)

Location: C NE SW Sec. 14, 60E

Elevation: 1300'

Date: 1915

Total depth: 973'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Lec formation	0	5
Soil	5	47
Sandstone, yellowish-red, hard		
Water @ 40	47	205
Sandstone, gray, white, hard		
Traces of coal @ 137-145	205	210
Shale, black, hard	210	285
Sandstone, white, hard (contains considerable coal)	285	300
Shale, blue, soft	300	320
Sandstone, blue, white, hard	320	335
Shale, bluish-gray, hard	335	402
Sandstone, white, gray, hard		
Set 8¼" casing @ 335		
Water @ 368	402	424
Sandstone, dark, blue, soft	424	565
Shale and sandstone, gray, black, hard, containing coal		
Mississippian system		
Pennington formation	565	748
Shale, red, blue, green, soft		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Newman limestone (top)		
Limestone, gray, very hard	748	876
Set 6¼" casing @ 788		
Gas @ 845		
Shale and lime, blue-gray, hard	876	886
Limestone, gray, hard	886	940
Show of oil @ 930		
Lime, gray, blue, hard, shaly	940	973
Oil pay @ 945-968		

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Quartz sandstone, medium-grained, some grains frosted and rounded (90%); shale, black (10%)	554	560
Shale, green, sandy (80%); shale, dark-red (20%)	560	565
Samples missing	565	739
Shale, greenish-gray	739	746
Dolomite, dead-white (90%); shale, greenish-gray	746	751
Shale, dark-gray, fine-grained	751	757
Samples missing	757	934
Limestone, white, crystalline	934	940
Shale, greenish-gray, caved (90%); limestone, oolitic (10%)	940	946
Shale, greenish-gray, caved, (80%); limestone, fine-grained, dense (20%)	946	952
Shale, greenish-gray, caved (10%); limestone, fine-grained, dense (90%)	952	960
Limestone, light-gray, fine-grained, (80%); shale, greenish-gray (20%)	960	964
Limestone, light-gray, fine-grained, fine-sandy	964	968
Limestone, light-gray, fine-grained (80%); shale, greenish-gray (20%)	968	973

Easter Oil & Gas Co., CROSS No. 1

(Map Number—14)

Location: NW NE SE Sec. 1, 1S-60E

Elevation: 1481'

Date: 1915

Total depth: 1428'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, light-gray, soft (about 1' coal @ 90)	0	300
Sandstone, white, soft	300	355
Slate, black, soft	355	390
Sand, white, hard	390	460
Slate, black, soft	460	480
Sand, white, hard	480	525
Slate, black, soft	525	530
Sand, white, hard	530	650
Slate, black, soft	650	655
Sand	655	695
Water		
Coal		
Slate, black, hard	695	700
Shale, black, soft	700	730
Slate, and some sand, black, hard	730	875
Sand, white, hard	875	885
Slate, black, soft	885	900
Sand, white, hard	900	985
Lime	980	990
	990	1000

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red shale, soft	1000	1085
Shale, black, soft	1085	1150
Lime, hard, gray	1150	1170
Lime, soft, blue, shaly	1170	1200
Lime, hard, gray	1200	1428
3 small shows of oil		

CASING:

Diameter at casing head 8¼"
 8¼" casing set @ 525
 6¼" casing set @ 1158

Charles W. Whitcomb, WEST No. 1
 (Map Number—15)

Location: SW SW NE Sec. 14A, 60E

Elevation: 1354'

Date: 1915

Total depth: 1100'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	45
Slate, blue, hard	45	80
Sandstone, white, hard	80	114
Sandstone, white, hard (traces of coal @ 114-119 and 163-169)	114	169
Sandstone, white, hard, cementing coarse brown gravels and quartz grains	169	174
Slate, blue, hard	174	185
Sandstone, white, hard	185	191
White sandstone and blue slate, hard	191	196
Sandstone, gray, hard	196	224
Sandstone, white, hard	232	256
Sandstone, gray and white, hard	256	281
Sandstone, white, hard (traces of coal)	281	325
Coal and sandstone, hard	325	330
Shale, blue, hard	330	335
Shale, bluish-gray, hard	335	362
8¼" casing @ 352		
Sandstone, gray and white, hard	368	390
Sandstone, white with some gray-white, hard	396	404
Sandstone, white with some gray-white	404	410
Gas		
Sandstone, white with some gray-white, hard	410	421
Sandstone, white with some black particles, hard	421	432
Sandstone, gray and white, hard	450	510
Sandstone, white, hard	510	521
Sandstone, white and gray, hard (black slate @ 526-532)	521	537
Sandstone, gray, hard	537	556
Slate, bluish-black, hard	556	561
Sand and shale, white and blue, hard	566	594
Sandstone, white	594	599
Sand and sandstone, gray, hard, white and blue	599	610
Sandstone, gray, hard	610	616
Sandstone, gray, and shale, red, hard	616	624
Shale, red and green, soft	624	685
Shale, gray, soft, rather sandy	688	716
Shale, gray and red, soft	716	758
Shale, blue and red, hard	758	794
Shale and limestone, light-gray, hard	794	800

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, blue and red, soft		806
Shale, blue and red, soft		812
Shale, blue and red, soft		818
Shale, blue and red, soft		824
Shale, blue and red, soft		830
Shale, blue and red, soft		836
Shale and lime, light-gray, soft (limestone @ 840 by tape-line measurement)		842
Shale, and lime, light-gray, soft (largely shale from caving)	848	878
Lime and shale, dirty-gray, hard	883	889
Tape line measurement		
Set 6¼" casing		
Limestone, dirty-gray, hard	889	955
Limestone, gray	955	960
Limestone, light-gray	960	1100

Benedum-Trees, YELLOW CLIFF No. 1

(Map Number—16)

Location: SW SW Sec. 14, A-60E

Elevation: 1310'

Date: 1915

Total depth: 1100'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay	1	12
Conductor	12	
Sand	12	195
Water	37	
10" casing	78	
Break	195	225
Sand	225	310
Break	310	389
Sand	389	405
8" casing @ 404		
Break	405	430
Lime shells	430	450
Slate	450	486
Sand	486	500
Shale	500	555
Sand	555	578
Red rock	578	582
Slate	582	695
Red rock	695	750
Slate	750	790
Solid lime	790	885
Break	885	896
Lime	896	1100

Chas. W. Whitcomb, TOOMEY No. 1

(Map Number—17)

Location: SW NE SW Sec. 14, A-60E

Elevation: 1320'

Date: 1915

Total depth: 1700'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, dark, soft	0	20
Sand, white, hard (this sand was very hard on the bits, and seemed to correspond to what we used to call the "settling sand" in Morgan Co., Ky.)	20	200
Slate and thin coal, dark, hard	200	230
Sand, white, hard ("settling sand")	230	310
Slate, soft	310	350
Sand, white, hard	350	420
Slate, soft	420	480
Slate, soft and hard, by streaks	480	550
Sand, white, hard ("settling sand")	550	610
Slate, red, soft and caving (Pennington shale in the Chester formation)	610	750
Limestone, gray, hard	750	945
This is the thickness of the Big Lime from this top to production		
Limestone, gray, sandy, fairly soft	945	965
This is the thickness of the producing sand where the oil flowed from the mouth of the well, and several times, spurted over top of derrick. Drillers estimated it would make 300-500 bbls. per day.		
Limestone, gray and brown, mostly hard	965	1296
Second pay struck @ 970, which made over 5 bbls. per day during balance of drilling, as well as was not cased off below bottom of first pay @ 965. Brownish limestone @ about 1175, probably top of Waverly formation.		
Slate, blue, soft	1296	1306
Limestone, dark-gray, hard and gritty	1306	1377
Probably Berea sand; when subjected to acid tests, about 1/3 of it remained as sand and silicon. Steel tape measurement @ 1306		
Limestone, pinkish, crystalline, and calcite with streaks of white	1377	1396 1/2
Hard except the first 2'. Possibly top of Beaver or its correlation.		
Limestone, gray with dark streaks, very hard	1396 1/2	1398 1/2
Small, brownish-colored, oil-bearing particles would continually dart out from underlying sand in the bottom of a can to the surface of the overlying water, until they had formed a flake of oily scum; then the whole mass, apparently attracted by some element in the composition of the can, would impinge and plaster itself on the side of the can. These particles appeared to be soft and fibrous and when crushed, exuded oil.		
Limestone, very hard, varying in color	1398 1/2	1418
Limestone, white, hard	1418	1430
Limestone, beginning to be brownish, hard	1430	1432 1/2
Limestone, hard (Beaver?)	1435	1475
Shale, black, soft (Devonian or Chattanooga?)	1475	1540
Slate, bluish, soft (Niagara?)	1540	1555
Lime with thin layers of slate, blue, soft	1555	1600
Lime, blue, hard (Clinton or Hudson?)	1600	1635
Lime, grayish, blue, soft and hard at times (Hudson?)	1635	1700

The diameter of the well at the mouth was 13 inches. It was found impossible to use 10-inch casing, on account of this catching on a crevice. 8¼-inch casing was placed at 412 and 6¼-inch casing at 840.

Whitcomb Oil & Gas Co., TOOMEY No. 3

(Map Number—18)

Location: NE NE SE Sec. 15, A-60E

Elevation: 1324'

Date: 1916 (?)

Total depth: 953'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Top of red shale		
Bottom of shale (top Big Lime)	575	
Lime (solid)	760	
Five feet break in lime	800	
Top of pay sand	890	895
Bottom of pay	920	
Bottom of well	944	
Bottom of well	953	
Four feet limestone shell on top of red shale		

Russell Producing Co., GATEWOOD PEMBERTON No. 1

(Map Number—19)

Location: NW SW SW Sec. 3, 3S-59E

Elevation: 1262'

Date: 1916

Total depth: 1244'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	3
Hard white sand	3	45
Black slate	45	150
Hole full of water @ 110		
Hard white sand	150	305
Slate	305	435
Coarse loamy sandstone	435	540
Salt water @ 505		
Black slate	540	547
Hard white sandstone	547	730
Slate and lime shells	730	745
Red shale	775	795
Black slate	795	822
Dark lime	822	895
Red shale	895	908
Dark lime	908	930
Black slate	930	950
St. Louis lime	950	1048
Little show of gas @ 1045		
White slate	1048	1050
Dark lime	1050	1144
Black slate	1144	1147
Gray sand	1147	1155
Hard white lime	1155	1232
Gray sand and small pebble	1232	1240
Oil sand @ 1232-1240		
Top of oil @ 1232		
Little or no gas		
Oil standing in well by gravity		
Lime, hard, white	1240	1244

CASING:

8" @ 552
6½" @ 950

Completed 250-barrel tank

Aug. 30—640' of oil standing in well.

Aug. 31—700' of oil standing in well. Capped well waiting to swab.

Quality of oil dark-green. Gravity 35°. High in naphtha.

Ohio Fuel Co., HAGEMEYER No. 1

(Map Number—20)

Location: SE SE SW Sec. 3, 3S-59E

Elevation: 1260'

Date: 1917

Total depth: 1805'

DRILLER'S LOG

Lithology	From	To
Pennsylvanian system		
Briceville formation		
Quicksand	0	18
Slate	18	36
Set 10" casing @ 23		
Lee formation		
Sandstone	36	100
Slate	100	180
Sandstone	180	360
Slate	360	470
Sand, white ("Salt Sand")	470	760
Set 8" casing @ 760		
Mississippian system		
Pennington formation		
Slate	760	785
Lime	785	810
Water @ 795		
Red rock (shale)	8 0	820
Slate shells	820	900
Red rock (shale)	900	960
Top of Newman formation		
Lime	960	1040
Slate	1040	1050
Lime	1050	1140
Show of gas @ 1060		
Salt water @ 1070		
Slate	1140	1160
Set 6½" casing @ 1160		
Sand	1160	1170
Lime	1170	1420
Show oil @ 1225 (2 gal. in 3 days)		
Red rock (shale)	1420	1425
Sand	1425	1450
Lime, black	1450	1465
Sand	1465	1505
Lime, black, shaly	1505	1630
Shale, black (Waverly ?)	1630	1695
Shell	1695	1700
Chattanooga black shale	1700	1750
Silurian system		
Lime, gray	1750	1805

Ohio Oil Co., WILLIAMS No. 1

(Map Number—21)

Location: NE NW NE Sec. 3, 3S-59E

Elevation: 1415'

Date: 1917

Total depth: 1486'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	15
Blue slate and shells	15	40
Black slate and shells	40	75
Sand (water)	75	100
Slate	100	105
Lime	105	130
Slate (blue)	130	145
Gray sand, hard	145	160
Black shale	160	180
White slate	180	195
Lime, grit	195	205
White slate	205	208
Lime, grit	208	270
Black slate	270	278
Very hard, gray sand	278	415
Slate	415	420
Sand, sharp white	420	495
Slate	495	505
Sand, hard, white	505	525
Lime and slate	525	620
Hard, gray sand	620	865
Slate and shells	865	945
Red shale	945	960
Lime	960	980
Red shale	980	995
White slate	995	1008
White lime, hard	1008	1030
White slate	1030	1058
Gray sand, hard	1058	1062
Red shale	1062	1070
Lime, hard	1070	1075
Red shale	1075	1085
White slate	1085	1120
Dark lime, hard	1120	1127
Dark slate, soft	1127	1131
Lime, hard	1131	1135
Black slate	1135	1140
Dark lime	1140	1162
Dark slate	1162	1177
White lime, hard	1177	1307
Sand	1307	1318
Lime	1318	1486

Three bailers water @ 40. Hole full @ 75. Hole full water @ 790.
 Gas sand @ 1307 to 1318—about 2½ to 3 million.

CASING:

Conductor @ 10

8¼" @ 662

6⅝" @ 1153

Ohio Oil Co., WILLIAMS No. 2

(Map Number—22)

Location: SE NW NE Sec. 3, 3S-59E

Elevation: 1411'

Date: 1917

Total depth: 1505'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	5
Conductor—5'		
Black slate	5	20
Shells and slate	20	75
Sand	75	90
Black slate and shells	90	175
Lime	175	220
Black slate	220	260
Lime	260	275
Black slate	275	300
Lime	300	325
Sand	325	500
Slate and lime	500	595
Sand	595	690
Slate and shells	690	710
Sand	710	860
Shale	860	880
Lime and sand	880	900
Set 6 $\frac{5}{8}$ " @ 900		
Lime	900	940
Red rock	940	955
Slate and lime	955	985
Red rock	985	1010
Lime	1010	1030
White slate	1030	1035
Lime	1035	1050
Red rock	1050	1065
Lime and white slate	1065	1115
Lime	1115	1145
Black slate	1145	1160
Lime	1160	1178
White slate	1178	1180
White lime	1180	1234
8 $\frac{1}{4}$ " @ 1187		
Black slate	1234	1235
Dark lime	1235	1270
Slate and lime	1270	1283
Red rock	1283	1285
Gray sand	1285	1293
Slate	1293	1295
White	1295	1505

Hole full of water at 45 feet. At 200 feet could bail hole out; about 5 bailers per hour.

At 250 feet water stood 150 feet from top of hole. At 920 hole filled up 400 feet and could not bail.

Strong puff of gas at 1310.

Rugby Land Co., C. E. & W. L. RUSSELL No. 1

(Map Number—23)

Location: NE NE NW Sec. 3, 3S-59E

Elevation: 1396'

Date: 1917

Total depth: 1508'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	8
Slate	8	30
Sand (some water)	30	40
Slate	40	78
Sand (hole full of water @ 78)	78	95
Slate	95	135
Soft white sand	135	140
Slate	140	155
Lime	155	165
Slate	165	200
Blue lime	200	207
White lime	207	265
Slate	265	320
Lime	320	330
Slate	330	345
Sand	345	415
Slate	415	420
White sand	420	530
Slate	530	535
Coal	535	536
Slate	536	626
Sandy lime	626	715
Slate	715	740
Soft white sand, heavily charged with black carbon	740	785
White sand	785	825
Blue slate	825	830
Sand	830	850
Slate	850	860
Sand	860	870
Black slate	870	928
Red rock	928	935
Gray sand	935	940
Red rock	940	950
Lime	950	965
White slate	965	990
Lime	990	994
Red rock	994	998
Slate	998	1005
Lime	1005	1020
Slate and lime	1020	1063
Red rock	1063	1100
White slate	1100	1113
Lime and slate	1113	1138
St. Louis lime	1138	1152
Slate	1152	1157
Gray slate, sandy	1157	1174
Lime	1174	1183
Pencil Cave	1183	1188
Lime	1188	1190
Pencil Cave	1190	1196
Lime	1196	1240
Slate	1240	1242
White lime	1242	1260

<i>Lithology</i>	<i>From</i>	<i>To</i>
Black lime	1260	1275
White lime	1275	1282
Green slate	1282	1290
Gas sand	1290	1308
Shell	1308	1309
Big gas sand	1309	1310
Whitish lime	1310	1327
White lime	1327	1450
Brown lime	1450	1460
Show of oil	1460	1466
Gray lime	1466	1475
Lime	1475	1480
Soft brown sand, some oil	1480	1485
Black lime	1485	1508

CASING:

Wood conductor 12½" x 8'
 136' 5" of 10" casing
 936' of 8¼" casing
 1220' of 6⅝" casing

Hole full of water 78

3 bailers water under 10" pipe

Hole full of water 795

Soft sand @ 740 heavily charged with greasy black carbon.

Heavy flow of gas between 1309 and 1310.

More gas @ 1328 on top of white lime.

Showing of oil 1460 and 1480.

Russell Producing Co., ANNA PEMBERTON No. 1

(Map Number—24)

Location: C NE SE Sec. 8, 3S-59E

Elevation: 1255'

Date: 1917

Total depth: 1377'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Soil	0	3
Slate	3	30
13" wood conductor to 14'		
Limestone	30	60
Sand	60	110
Slate	110	360
Set 10" casing @ 127		
Sand	360	370
Slate and shells	370	495
"Salt Sand"	495	800
Mississippian system		
Slate	800	818
Lime	818	825
Set 8" casing to 820		
Red rock (shale)	825	837
Lime	837	857
Slate and shells	857	1065
Lime	1065	1100
Slate, black	1100	1112
Lime	1112	1130
Slate	1130	1170

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime	1170	1185
Set 6 $\frac{5}{8}$ " casing @ 1170		
Slate	1185	1200
Lime	1200	1216
Sand	1216	1220
Lime	1220	1347
Lime, sandy (oil pay)	1347	1362
Lime	1362	1377

Fisher Oil Co., ANNA PEMBERTON No. 1

(Map Number—25)

Location: NW NW SE Sec. 8, 3S-59E

Elevation: 1269'

Date: 1917

Total depth: 1524'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Surface	0	15
Slate	15	30
Wooden conductor to 16'		
Lime (probably sandstone)	30	60
Slate	60	110
Set 10" casing @ 74		
Sand	110	310
Slate and shells	310	500
Salt Sand	500	760
Coal (?)	760	761
Mississippian system		
Lime	761	766
Sand	766	780
Lime	780	800
Red rock (shale)	800	816
Set 8 $\frac{1}{4}$ " casing @ 816		
Slate	816	850
Lime	850	860
Slate	860	930
Lime	930	945
Slate	945	975
Lime	975	1100
Slate	1100	1120
Lime	1120	1175
Slate	1175	1185
Lime	1185	1190
Slate	1190	1200
Lime	1200	1440
Set 6 $\frac{5}{8}$ " casing @ 1205		
Lime, red	1440	1460
Lime, gray	1460	1520
Lime	1520	1524

Russell Producing Co., ANNA PEMBERTON No. 2

(Map Number—26)

Location: NW SW SE Sec. 8, 3S-59E

Elevation: 1264'

Date: 1917

Total depth: 1411'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Soil	0	4
Slate	4	40
Set 10" casing @ 28		
Lime	40	60
Slate	60	112
Lime	112	120
Slate	120	360
Sand	360	370
Slate and shells	370	500
Sand	500	810
Mississippian system		
Slate	810	835
Set 8" casing @ 820		
Lime	835	843
Pink rock (shale)	843	853
Slate and shells	853	1053
Lime	1053	1073
Slate	1073	1103
Lime	1103	1123
Pencil Cave (shaly lime)	1123	1138
Lime	1138	1185
Slate	1185	1200
Lime	1200	1240
Set 6 $\frac{5}{8}$ " casing @ 1200		
Sand (sandy lime)	1240	1250
Lime (sandy lime)	1250	1345
Sand	1345	1353
Lime	1353	1390
Sand (oil pay)	1390	1411

CASING:

28' of 10"

820' of 8"

1200' of 6 $\frac{5}{8}$ "

Pumped 25 inches first 9 hrs. Initial production, 75 bbls. daily. No gas. Well went dry in 60 days, was plugged and abandoned.

Drilled later to Beaver Sand.

McCurdy & Co., ROUND MTN. LUMBER & COAL CO. No. 1

(Map Number—27)

Location: Sec. 15, 3S-61E

Elevation: 1234'

Date: 1917

Total depth: 1815'

DRILLER'S LOG

10" surface pipe from 42-46

8" casing @ 531

Gas @ 798

Set 6 $\frac{5}{8}$ casing on packer to test out for gas; continued with 6 $\frac{5}{8}$ hole and got salt water. Then pulled 6 $\frac{5}{8}$ casing, reamed hole to 8 inches, and continued with 8-inch wet hole to 1278 feet; had dry hole to 1405, but hole caved in red rock formation.

Pulled 6½-inch casing and reamed hole to 8-inch from 1278 to 1379. Total amount of 6½-inch casing in hole was 1379 feet, but should have used more casing on account of red rock cave at 1575 to 1600.

Gas estimated at 300,000 cubic feet at 1630 with good sand from 1630 to 1660.

Total depth of well, 6½" at bottom, 1815 ft.

Well plugged back to 1652 with black pine poles 10 feet long. Tubing with packer at 1652 feet.

Complete strings of 6½-inch and 8-inch removed from the hole, and well completed August 17, 1918.

Fisher Oil Co., J. R. McCART No. 1

(Map Number—28)

Location: SW NE SW Sec. 2, 3S-59E

Elevation: 1315'

Date: 1917

Total depth: 1342'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	12
Slate	12	110
Sandstone	110	160
Slate and shells	160	220
Sandstone	220	480
Slate	480	500
Sandstone	500	540
Slate	540	560
Sandstone	560	810
Slate	810	817
Limestone	817	880
Red rock	880	955
Limestone	955	970
Slate	970	980
Red rock	980	1035
Slate	1035	1050
Limestone	1050	1076
Slate	1076	1091
Limestone	1091	1167
Slate	1167	1170
Limestone	1170	1220
Red rock	1220	1235
Limestone	1235	1275
Red rock	1275	1280
Limestone	1280	1321
Sand	1321	1330
Lime	1330	1342

CASING:

10" @ 172
8¼" @ 730
6⅝" @ 1068

PRODUCTION:

First 24 hours 20 bbls.
Second 24 hours 30 bbls.
Third 24 hours 50 bbls.

Show of gas at 1321 feet, which continued getting stronger until it reached a volume of ¼ million feet per day. Well began spraying oil, which also kept getting stronger. Filled up 800 feet with oil first night, and then began flowing by heads about once every hour.

Oil from 1326 feet to 1330 ft.

Water at 60, 197 and 800 feet.

Russell Producing Co., WILLIAM TODD No. 1
(Map Number—29)

Location: C SE SW, Sec. 2, 3S-59E

Elevation: 1260'

Date: 1917

Total depth: 1249'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Lee formation		
Soil	0	10
Slate	10	13
Coal	13	15
Slate	15	110
Set 10" casing @ 19' 6"		
Hole full of fresh water @ 80		
Sand	110	147
Slate	147	164
Slate and shell	164	245
Sand	245	368
Lime, hard	368	395
Slate and shell	395	515
Sand, hard	515	538
Slate	538	540
Sand, white, hard	540	732
Set 8" casing @ 662		
Slate, black	732	736
Sand, hard, white	736	833
Mississippian system		
Lime, white	833	864
Red rock (shale)	864	936
Slate	936	966
Red rock (shale)	966	1035
Slate, white	1035	1045
Lime, white	1045	1070
Slate, black	1070	1078
Lime, black	1078	1120
Slate, black	1120	1123
Lime, white	1123	1219
Lime, sandy (oil pay)	1219	1230
Lime	1230	1249

Initial production, estimated at 2000 barrels first 24 hours, and 5,000,000 cubic feet of gas.

The well was completed Jan. 25, 1917, at which time the entire flat along Black Wolf Creek was flooded by high water. The well came in flowing oil and gas, and could not be shut in on account of high water. J. C. Amsler estimated 2,000 barrels of oil were lost during the first 24 hours. In March 1930, 13 years after completion, this well was pumping about 8 barrels oil per week, and making 1,000 to 1,500-cubic feet of gas daily. Hole full of salt water at 736 feet. 6¼-inch casing at 1050 feet.

Russell Producing Co., WILLIAM TODD No. 2

(Map Number—30)

Location: SW SE SW Sec. 2, 3S-59E

Elevation: 1258'

Date: 1917

Total depth: 1345'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Surface, earth	0	14
White sand	14	20
Hole full of water		
Slate, black	20	30
Lime, white	30	40
Slate, blue	40	45
Coal	45	48
Lime, blue and white	48	90
Lime, blue, salty, sandy	90	124
Lime, yellow, sandy	124	135
Lime, blue and gray, salty	135	169
Slate and lime, shell	169	240
Sandy, white, settling	240	245
Lime and slate	245	305
Sand, white	305	380
Slate, blue, gray, sandy	380	460
Lime and slate	460	514
Lime, hard, sandy	514	540
Slate	540	545
Lime, hard, blue	545	550
Lime, gray, sandy	550	639
Slate	639	650
Sand, hard, white, and slate	650	784
Mississippian system		
Slate, blue and black	784	818
Show of gas @ 800		
Lime, white	818	853
Red rock (shale)	853	910
Lime and slate, gray, hard	910	964
Red rock (shale)	964	972
Lime shell	972	974
Red rock (shale)	974	1000
Lime and slate, white	1000	1128
Pencil Cave (shaly lime)	1128	1130
Lime, blue, salty	1130	1206
Lime, brown, sandy	1206	1210
Lime, gray, blue, hard	1210	1317
Smell of oil @ 1287		
Lime, brown, sandy	1317	1328
Oil filled up hole 38 ft. in 14 hrs.		
Lime	1328	1345

Plugged with 80 feet of sand pumpings, then a plug, then 80 feet more sand pumpings, then another plug. Slight show of oil and gas. Abandoned.

CASING:

8" @ 764

6 $\frac{5}{8}$ " @ 1136

14' Wood Conductor

Russell Producing Co., WILLIAM TODD No. 3
(Map Number—31)

Location: NE SW SW Sec. 2, 3S-59E

Elevation: 1260'

Date: 1918

Total depth: 1370'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Soil	0	16
Slate and shells	16	70
Sand	70	110
Slate and shells	110	197
Sand	197	248
Slate, brown	248	273
Sand	273	311
Slate and shells	311	474
Coal	474	479
Slate and shells	479	512
Sand	512	828
Mississippian system		
Red rock (shale)	828	844
Slate and shells	844	940
Red rock (shale)	940	980
Slate and shells	980	1020
Lime (St. Louis)	1020	1052
Slate and shells	1052	1195
Sand, gray	1195	1210
Lime, white	1210	1242
Lime, sandy	1242	1245
Gas		
Lime, brown	1245	1300
Lime, white	1300	1346
Lime, white, sandy	1346	1354
Oil		
Lime, white	1354	1365
Lime, gray	1365	1370
Little salt water		

CASING:

Wooden conductor 16'
10" @ 164 (pulled)
8" @ 828 (pulled)
6 $\frac{5}{8}$ " @ 1155

Russell Producing Co., WILLIAM TODD No. 4

(Map Number—32)

Location: C SW SW Sec. 2, 3S-59E

Elevation: 1461'

Date: 1918

Total depth: 1401'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Soil	0	24
Slate, blue	24	70
Set 10" casing @ 25		
Sand	70	145
Slate	145	230
Sand	230	428
Slate and shells	428	488
Slate and lime	488	526
Sand, white	526	800
Mississippian system		
Slate	800	805
Lime	805	830
Red rock (shale)	830	924
Set 8" casing @ 836		
Sand, black	924	930
Lime	930	945
Red rock (shale)	945	998
Lime and slate	998	1090
Lime	1090	1123
Shaly lime	1123	1130
Lime	1130	1401
Set 6½" casing @ 1169		

Russell Producing Co., LIVONIA STONECIPHER No. 1

(Map Number—33)

Location: NE NW NW Sec. 3, 3S-59E

Elevation: 1381'

Date: 1918

Total depth: 1454'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	8
Slate	8	30
Soft sand, water	30	35
Slate and shells	35	72
Lime	72	81
Slate and shells	81	200
White lime	200	260
Slate	260	340
Lime	340	350
Soft lime	350	365
Sand	365	475
Slate and shells	475	500
Slate	500	530
Sandy lime	530	645
White sand	645	745
Slate	745	751
White sand	751	800
Blue slate	800	805

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand	805	830
Lime	830	834
Black slate	834	885
Pink rock	885	897
Black slate	897	902
Red rock	902	933
Hard white sand	933	950
Lime and shells	950	1143
Pencil Cave	1143	1150
Lime	1150	1193
Sandy lime	1193	1430
Oil and gas sand	1430	1450
Black lime	1450	1454

CASING:

Conductor—8'

10" pipe @ 72

8" pipe @ 933

6 $\frac{5}{8}$ " pipe @ 1193

Oil was found at 1439 and hole filled up 700 feet. Dry hole to 780 and then cased water off at 933; the hole was dry from that point.

Fisher Oil Co., J. R. McCART No. 2

(Map Number—34)

Location: SE NW SW Sec. 2, 3S-59E

Elevation: 1318'

Date: 1918

Total depth: 1523'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime and sand	16	150
Slate	150	180
Sand and lime	180	230
Black lime	230	250
Sand	250	400
Lime	400	485
Slate	485	550
Salt Sand	550	818
Mississippian		
Slate and shells	818	845
Lime	845	880
Red rock	880	948
Lime	948	1007
Red rock	1007	1065
Lime	1065	1095
Slate	1095	1115
Lime	1115	1248
Red rock	1248	1257
Lime	1257	1339
Gray lime	1339	1437
Red lime	1437	1523

CASING:

10" @ 330

8 $\frac{1}{4}$ " @ 915

Gas @ 1270

Oil show @ 1270 and 1416

Well showed for about one million feet of gas when first drilled in and sprayed a little oil the following night. After starting to drill again well increased in volume to five to six million feet. Rock pressure—70 pounds.

Russell Producing Co., GATEWOOD PEMBERTON No. 2

(Map Number—35)

Location: SW SW SW Sec. 3, 3S-59E

Elevation: 1261'

Date: 1918

Total depth: 1447'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	13
Sand	13	50
Slate and shells	50	80
Hard sand	80	85
Slate and shells	85	170
Hard sand	170	305
Black slate	305	415
Close, white sand	415	730
Slate	730	735
White lime	735	770
Red rock	770	780
Lime	780	792
Slate	792	856
Lime	856	876
Black slate	876	880
Lime	880	896
Red rock	896	912
Slate and shells	912	963
St. Louis lime	963	990
Slate	990	996
Slate and shells	996	1139
Pencil Cave	1139	1142
White lime	1142	1227
Oil sand	1227	1231
Lime	1231	1240
Green slate	1240	1245
Lime	1245	1290
Pebbly lime	1290	1297
Gritty lime	1297	1447

CASING:
 8" @ 588
 6 $\frac{5}{8}$ " @ 1155
 Conductor—16'

Russell Producing Co., GATEWOOD PEMBERTON No. 3

(Map Number—36)

Location: NE SE SE Sec. 4, 3S-59E

Elevation: 1275'

Date: 1918

Total depth: 1274'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	7
Lime	7	40
Slate and shells	40	375
Slate	375	490
Sand	490	693
Lime	693	780
Red rock	780	796
Slate and shells	796	975

<i>Lithology</i>	<i>From</i>	<i>To</i>
St. Louis lime	975	1145
Pencil Cave	1145	1154
Lime	1154	1236
Gas sand	1236	1239
Oil sand	1239	1249
Lime	1249	1274

CASING:

10" pipe @ 20
 8" pipe @ 693
 6 $\frac{5}{8}$ " pipe @ 1167

Russell Producing Co., GATEWOOD PEMBERTON No. 4

(Map Number—37)

Location: SW NW SW Sec. 3, 3S-59E

Elevation: 1281'

Date: 1918

Total depth: 1268'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	20
Sand and slate	20	100
Lime and sand	100	150
Slate	150	180
Sandy lime	180	210
Sand and lime	210	380
Slate	380	415
White sand	415	750
Slate	750	768
Lime	768	780
Slate	780	840
Red rock	840	860
Slate	860	910
Red rock	910	925
White slate	925	930
Lime	930	940
Black slate	940	954
Lime	954	974
Slate	974	984
St. Louis lime	984	1015
Slate	1015	1030
Lime	1030	1070
Slate	1070	1100
Lime	1100	1124
Pencil Cave	1124	1127
Brown lime	1127	1134
Slate	1134	1168
Lime	1168	1247
Sand, oil and gas	1247	1255
White lime	1255	1268

Hole filled with oil 125 feet, first hour.

CASING:

10" pipe @ 20
 8" pipe @ 768
 6 $\frac{5}{8}$ " pipe @ 1268

Russell Producing Co., ANNA PEMBERTON No. 3

(Map Number—38)

Location: NE SE SW Sec. 8, 3S-59E

Elevation: 1266'

Date: 1918

Total depth: 2050'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	5
Slate	5	40
Lime	40	60
Slate	60	100
Lime	100	120
Slate	120	365
Sand	365	375
Slate	375	505
Salt Sand	505	808
Mississippian system		
Pennington		
Slate	808	835
Lime	835	850
Red rock	850	860
Slate and shells	860	1050
St. Louis		
Lime	1050	1070
Slate	1070	1106
Lime	1106	1140
Pencil Cave	1140	1148
Lime	1148	1190
Slate	1190	1206
Lime	1206	1499
Gas @ 1390		
Sand	1499	1509
Show of oil		
Lime	1509	1704
Sand	1704	1730
Show of oil		
Chattanooga shale	1730	1805
Silurian		
Red lime	1805	1825
Ordovician		
Gray lime	1825	2050

CASING:

- 10" casing @ 28
- 8" casing @ 808
- 6 $\frac{5}{8}$ " casing @ 1206

Tested for oil from Beaver Sand, 24 hours—8 $\frac{1}{2}$ bailers fresh oil. Well plugged from 1805 (bottom Chattanooga shale) to 1750 (in Chattanooga shale). 20-foot pocket below Beaver Sand.

Russell Producing Co. & Carl L. Russell & Assoc.,**I. M. GRIFFITH No. 1**

(Map Number—39)

Location: NW SW SW Sec. 4, 3S-59E

Elevation: 1256'

Date: 1918

Total depth: 1530'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	24
Sand	24	200
Slate and shells	200	420
Sand	420	685
Lime	685	720
Red rock	720	730
Slate and shells	730	1075
Lime	1075	1130
Gas sand	1130	1140
Lime	1140	1530

CASING:

10" @ 24
 8" @ 685
 6 $\frac{5}{8}$ " @ 1140

At the depth of 1130 to 1140 feet, large flow of gas was developed, estimated at eight million feet per day and about 300 pounds pressure to the square inch.

The 6 $\frac{5}{8}$ -inch 17-pound casing was then set for the purpose of confining the gas outside the 6 $\frac{5}{8}$ and inside the 8 $\frac{1}{4}$ -inch casing; then the gas was confined by attaching the Bradenhead at the top of the casings, thus confining the gas between those two pipes, and permitting the drillers to continue drilling.

The well was then drilled to the depth of 1530 feet, at which depth the drill was broken and it was not possible to drill deeper. The hole was then plugged at about 1150 feet, and the 6 $\frac{5}{8}$ -inch casing withdrawn and reset at the depth of 1099 feet, with an Anchor Packer, which is a contrivance that fastens to the wall of the well and holds the casing in position at that depth and being above the gas, permits the gas to flow through the 6 $\frac{5}{8}$ -inch casing and also permits withdrawing the 8- and 10-inch casing. The well is effectively capped and the gas confined for future use.

John Toomey et al, RIDGEWAY SPRANKLE CO.,**(HELENWOOD) No. 1**

(Map Number—40)

Location: C NE Sec. 23, 1S-60E

Elevation: 1360'

Date: 1918

Total depth: 3937'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Pennsylvanian system		
Lee formation		
Soil	0	8
Sand rock	8	40
Slate, black	40	50
Sand rock	50	90
Artesian sulphur water @	50	

<i>Lithology</i>	<i>From</i>	<i>To</i>
Slate, black	90	130
Shale, black	130	180
Coal	180	181
Sand, dark	181	275
Slate	275	320
Sand rock	320	420
Brown rock	420	430
Slate	430	450
Sand rock	450	600
Slate	600	640
Sand rock	640	825
Mississippian system		
Pennington formation		
Slate and shells	825	905
Red rock (shale)	905	910
Slate	910	930
Red rock (shale)	930	1020
Slate	1020	1045
Hard shell	1045	1050
Slate	1050	1060
Hard shell	1060	1063
Red rock (shale)	1063	1090
Slate	1090	1115
Top of Newman formation		
Lime	1115	1130
Slate	1130	1160
Lime, gray	1160	1790
Chattanooga shale	1790	1845
Silurian system		
Clinton formation		
Lime	1845	1875
Slate	1875	1890
Lime, red	1890	1905
Ordovician system		
Lime, gray	1905	3680
Lime, blue	3680	3937
CASING:		
Conductor—10'		
10" casing @ 485		
8¼" casing @ 1060		
6⅝" casing @ 2090		
Flowing water well @ 50		

Russell Producing Co., RUGBY LAND No. 2

(Map Number—41)

Location: NW NE SW Sec. 4, 3S-59E

Elevation: 1303'

Date: 1919

Total depth: 1270'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	8
Sand	8	38
Slate	38	100
Lime	100	110
Sand	110	260
Slate	260	290
Sand	290	315

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lithology	315	405
Slate	405	695
Salt Sand	695	700
Slate	700	733
Lime	733	757
Red rock	757	810
Slate	810	850
Lime	850	880
Red rock	880	903
Lime	903	940
Slate	940	970
Lime	970	980
Sand and gas	980	1085
Lime	1085	1090
Slate	1090	1095
Lime	1095	1100
Sand	1100	1250
Lime	1250	1259
Sand	1259	1270
Lime	1270	

A fine flow of gas was found at 975 in 10 feet of sand, and was shut off with Bradenhead. Oil was struck at 1250, and is showing for about 8 barrels in 9 feet of pay sand.

CASING:

- 10" drive pipe @ 13
- 8" pipe (left in the well) @ 700
- 6 5/8" casing @ 978

Superior Oil Corp., HINES No. 1

(Map Number—42)

Location: SW NW SW Sec. 9, A-61E

Elevation: 1296'

Date: 1919

Total depth: 1017'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	70
Slate and shale	70	120
Lime	120	125
Slate and shale	125	170
Blue shale	170	270
White sand	270	360
Blue shale	360	390
Blue and white sand	390	400
Shale	400	467
Oil showing		560
Sand	467	691
Sand and shale	560	752
Sand	691	
Showing of oil		780
Slate	752	786
Hard slate	780	819
Lime	786	858
Black slate	819	864
Sand and slate	858	870
Gray shale and slate	864	884
Lime	870	895
Lime, white sand	884	901
Lime	895	912
Fine sand	901	912
Coal and slate	912	

<i>Lithology</i>	<i>From</i>	<i>To</i>
Black lumpy shale (caves badly)	918	929
Slate	929	946
Black shale, lumpy (caves badly)	946	957
Green shale	957	962
Red rock	962	967
Broken shale	967	989
Fine gray sand	989	995
Red rock	995	1017
Hard shale		1017

Driller stated that after drilling on hard shale for several hours failed to make any progress. Hole caved badly at 918 to 929 and 946 to 957. Attempted to set liner but dropped it and failed to get hold of it. Hole abandoned and plugged with wooden and cement plugs.

Russell Producing Co., GATEWOOD PEMBERTON No. 5

(Map Number—43)

Location: SE NW SW Sec. 3, 3S-59E

Elevation: 1285'

Date: 1919

Total depth: 1400'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	20
Sand and shells	20	120
Slate and shells	120	170
Slate	170	200
Sandy lime	200	230
Slate and shells	230	500
White sand	500	775
Lime and slate	775	785
Lime	785	794
Red rock	794	859
Slate	859	879
Lime and red rock	879	920
Lime and slate	920	1158
White lime	1158	1175
Dark lime	1175	1253
Oil sand	1253	1261
Lime	1261	1365
Sandy lime	1365	1400

CASING:

10" pipe @ 20

8" pipe @ 785

6 $\frac{5}{8}$ " pipe @ 1175

Russell Producing Co., GATEWOOD PEMBERTON No. 6

(Map Number—44)

Location: SE NE SE Sec. 4, 3S-59E

Elevation: 1286'

Date: 1919

Total depth: 1269'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	16
Lime	16	50
Slate	50	75
Sand	75	105
Slate	105	185

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand	185	315
Slate	315	330
Sand	330	352
Slate	352	455
Sand	455	740
Slate	740	750
Lime shell	750	751
Slate	751	765
Lime	765	785
Red rock	785	830
Lime	830	836
Slate	836	871
Lime	871	877
Slate	877	887
Lime	887	894
Slate	894	910
Red rock	910	942
Lime	942	948
Slate	948	961
Lime	961	1022
Slate and cave	1022	1032
Lime and water	1032	1145
Sandy slate	1145	1170
Lime	1170	1251
Oil sand	1251	1260
Lime	1260	1269

CASING:

10" casing @ 22
 8" pipe @ 750
 6 $\frac{5}{8}$ " casing @ 1172

Russell Producing Co., GATEWOOD PEMBERTON No. 7
 (Map Number—45)

Location: SW NE SE Sec. 4, 3S-59E

Elevation: 1295'

Date: 1919

Total depth: 1286'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	20
Slate	20	110
Sand	110	120
Slate	120	165
Sand	165	308
Slate	308	456
Salt Sand	456	725
Slate	725	730
Soft sand	730	765
Lime	765	770
Sand	770	790
Slate	790	800
Red rock	800	825
Slate	825	870
Lime	870	910
Red rock	910	940
Slate	940	960
Lime	960	970
Slate	970	1020
Lime	1020	1134
Red rock	1134	1164

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime	1164	1257
Sand, oil	1257	1266
Lime	1266	1286
CASING:		
10" drive pipe @ 20		
8" casing @ 790 (pulled)		
6 $\frac{5}{8}$ " casing @ 1175		

Russell Producing Co., GATEWOOD PEMBERTON No. 8
(Map Number—46)

Location: NE NE SE Sec. 4, 3S-59E

Elevation: 1321'

Date: 1919

Total depth: 1305'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	23
Slate and sand	23	503
Salt Sand	503	792
Red rock	792	850
Lime	850	910
Slate	910	970
Red rock	970	1005
St. Louis lime	1005	1060
Lime	1060	1284
Oil sand	1284	1293
Lime	1293	1305
CASING:		
10" casing @ 23		
8" casing @ 820 (pulled)		
6 $\frac{5}{8}$ " casing @ 1195		

Russell Producing Co., GATEWOOD PEMBERTON No. 9
(Map Number—47)

Location: NW NW SW Sec. 3, 3S-59E

Elevation: 1376'

Date: 1919

Total depth: 1803'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	21
Slate and sand	21	603
Salt Sand	582	872
Red rock	872	928
Lime	928	993
Slate	993	1055
Red rock	1055	1090
St. Louis lime	1090	1150
Pencil Cave	1150	1159
Lime	1159	1332
Sand and gas	1332	1340
Lime, gray	1340	1602
Lime, black	1602	1765
Beaver Sand	1765	1777
Chattanooga shale	1777	1803
CASING:		
10" casing @ 21		
8" casing @ 872		
6 $\frac{5}{8}$ " casing @ 1240		

Russell Producing Co., GATEWOOD PEMBERTON No. 10

(Map Number—48)

Location: NW NE SE Sec. 4, 3S-59E

Elevation: 1372'

Date: 1920

Total depth: 1375'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	5
Slate and sand	5	110
Lime	110	165
Sandy lime	165	255
Slate and shells	255	400
Sand	400	470
Slate and shells	470	540
Salt Sand	540	865
Slate	865	910
Lime and shells	910	950
Lime	950	985
Slate	985	1035
Lime	1035	1200
Slate	1200	1235
Lime	1235	1335
Gas sand	1335	1341
Lime	1341	1375

CASING:

- 10" casing @ 34
- 8" casing @ 870
- 6 7/8" casing @ 1230

Russell Producing Co., GATEWOOD PEMBERTON No. 11

(Map Number—49)

Location: NE SE SE Sec. 4, 3S-59E

Elevation: 1280'

Date: 1920

Total depth: 1311'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	10
Sand	10	60
Slate and shells	60	130
Sandy lime	130	290
Sand	290	320
Slate	320	410
Lime	410	455
Salt Sand	455	780
Slate and shells	780	900
Lime	900	1050
Slate	1050	1100
Lime	1100	1125
Pencil Cave	1125	1135
Lime	1135	1238
Sandy lime	1238	1287
Oil sand and gas	1287	1291
Lime	1291	1311

CASING:

- 10" drive pipe @ 17
- 8" casing @ 778
- 6 7/8" casing @ 1170 (pulled)
- Small amount of gas @ 1238

Russell Producing Co., GATEWOOD PEMBERTON No. 12

(Map Number—50)

Location: NW SE SE Sec. 4, 3S-59E

Elevation: 1268'

Date: 1920

Total depth: 1702'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	6
Slate and shells	6	90
Sandy lime	90	200
Slate and shells	200	350
Lime	350	400
Slate	400	440
Salt Sand	440	760
Slate and shells	760	890
Lime	890	1165
Pencil Cave	1165	1170
Lime	1170	1400
Sandy lime	1400	1420
Lime	1420	1603
Beaver Sand	1603	1621
Chattanooga shale	1621	1681
Lime shells	1681	1702

CASING:

10" drive pipe @ 21
 8" casing @ 762
 6 $\frac{5}{8}$ " casing @ 1172

Dry hole; all the casing was pulled, except 80 feet of 6 $\frac{5}{8}$ -inch casing.**Russell Producing Co., GATEWOOD PEMBERTON No. 13**

(Map Number—51)

Location: SE NW SW Sec. 3, 3S-59E

Elevation: 1267'

Date: 1920

Total depth: 1271'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	6
Sand	6	16
Sandy lime	16	350
Slate and shells	350	455
Salt Sand	455	705
Slate and shells	705	740
Sand	740	780
Red rock	780	800
Slate and shells	800	1025
Lime	1025	1140
Slate and shells	1140	1200
Lime	1200	1243
Oil sand	1243	1251
Lime	1251	1271

CASING:

10" drive pipe @ 18
 8" casing @ 780
 6 $\frac{5}{8}$ " casing @ 1166

Superior Oil Corp., HINES No. 2

(Map Number—52)

Location: SE NE SW Sec. 9, A-61E

Elevation: ?

Date: 1920-1921

Total depth: 751'

DRILLER'S LOG

Oil show @ 720-725

Oil pay @ 730-743

Well pumped 6 barrels in first 24 hours. Well shot on Jan. 28, 1921 with 40 quarts at 737-43 by Ky. Glycerine Co.

Contractor—R. E. Chapin

This well is 400 feet north of well # 1. Approximately the same elevation above sea level in the bottom of Paunch Creek.

The top of the sandstone was struck at 392. Apparently there was no difference in the other materials found in the # 1. The bottom of this sandstone was struck at 570 feet, 8 inches. Casing was set at 573. The shale in which this was set lasted from 570-700. At 702 another string of casing was set in sandstone in which at 720 a little showing of oil was struck and was thought to extend to 736. The bottom of this sand was 743.

Well was put on pump Feb. 1, 1921, and pumped off in one hour. Well was pumped three hours on the first day and made 6 inches in 100-barrel tank; considerable water showing of a salty nature, which seemed to increase as well was pumped.

On Feb. 4, well was pumped and showed water and oil mixed; no increase in oil, but nearly all water. Total production on 4th showed 4 inches water and oil. When water was drawn off, oil pumped was ½ barrel.

Russell Producing Co., RUGBY LAND No. 3

(Map Number—53)

Location: SW NW NW Sec. 3, 3S-59E

Elevation: 1356'

Date: 1921

Total depth: 1435'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	6
Slate	6	40?
Sand	34	39
Slate and shells	39	72
Lime	72	81
Slate and shells	81	222
Lime	222	260
Slate	260	340
Lime	340	345
Sand	345	475
Slate and shells	475	530
Salt Sand	530	830
Slate	830	850
Red rock	850	875
Slate and shells	875	1050
Lime	1050	1100
Pencil Cave	1100	1107
Lime	1107	1435

CASING:

10" drive pipe @ 20 (pulled)

8" casing @ 860 (pulled)

6½" casing @ 1190 (pulled)

Russell Producing Co., GATEWOOD PEMBERTON No. 14

(Map Number—54)

Location: SW NE SW Sec. 3, 3S-59E

Elevation: 1262'

Date: 1921

Total depth: 1376'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	7
Sand	7	100
Slate	100	160
Sand	160	310
Slate	310	450
Salt Sand	450	715
Slate	715	740
Lime	740	773
Red rock	773	785
Slate	785	1000
Lime	1000	1115
Pencil Cave	1115	1125
Sand	1125	1175
Lime	1175	1376

CASING:

10" drive pipe @ 19
8" casing @ 783
6 $\frac{3}{4}$ " casing @ 1200

McCurdy & Co., ISAAC RISDEN No. 1

(Map Number—55)

Location: SW SE NE Sec. 20, 2S-58E

Elevation: 1250'

Date: 1922

Total depth: 1260'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and quicksand	0	16
Sandy lime	16	96
Slate and shells	96	106
Sand	106	130
Slate and shells	130	210
Sandy shells	210	240
Slate	240	306
Sand	306	400
Slate and shells	400	450
Lime	450	460
Sand	460	470
Slate	470	549
Red rock	549	564
Lime	564	590
Slate	590	656
Lime	656	674
Red rock	674	708
Slate	708	740
Sandy lime	740	765
Slate	765	776
Lime	776	897
Sand	897	921
Lime	921	960

Little gas

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red rock	960	961
Flint lime	961	965
Lime	965	974
Sand	974	980
Lime	980	1126
Sand	1126	1132
Show of oil		
Lime	1132	1137
Sand	1137	1141
Sandy lime, dark	1141	1260

CASING:

10" pipe @ 20

8" pipe @ 670

Superior Oil Corp. L. E. BRYANT No. 1

(Map Number—56)

Location: SW NE SE Sec. 8, A-61E

Elevation: ?

Date: 1922-1924

Total depth: 1900'± (?)

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
White sand, hard	0	79
#4 coal 20' above derrick floor		
White sand	79	102
Water		
Coal 8" thick		
White sand, hard and fine	102	122
Black shale	122	220
Sand	222	240
Sand, hard and dark	240	272
Hole full water		
White sand	272	580
Black slate	580	620
#3 coal 3' thick @ 617-620		
Shale	620	640
Bryant sand	640	705
Oil @ 702		
Black shale	705	710
#2 coal 705-706		
Black slate	710	752
Black shale	752	820
#1 coal 12", 819-820		
White slate (really hard, white, fine clay)	820	830
Slate and shaly, dark-bluish shale	830	877
Sand, coarse, white	877	887
Chester red shale with greenish streak	887	907
Reddish-brown and green streaks	907	965
Reddish and greenish caving shale	965	1052
Lime	1052	1054
Gas @ 1054 in very dark limestone 3-4' thick		
Dark lime	1054	1058
Gas		
Lime	1058	1070
Blue shale, caving	1070	1089
Lost bit @ 1058		
Cave from 1070-1089		
2 cu. yds. cement to shut off cave		
Big Lime	1089	1094

<i>Lithology</i>	<i>From</i>	<i>To</i>
White lime	1094	1270
Lime	1270	1380
Hard lime	1380	1475
Brown lime	1475	1477
Show gas		
Dark-blue lime	1477	1480
Sandstone (?)	1480	1501
Lime	1501	1514
Shale	1514	1570
Cherty limestone	1570	1725
Green shale (Knot Lick formation)	1725	1750
Black shale (Chattanooga)	1750	1782
Green, brown, gray shale	1782	1803
Lime (Upper Silurian)	1803	1900

CASING:

8¼" casing @ 602

Russell Producing Co., GEORGE TODD No. 1

(Map Number—57)

Location: C NW NW Sec. 10, 3S-59E

Elevation: 1265'

Date: 1923

Total depth: 1500'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	20
Slate	20	80
Lime	80	120
Slate	120	160
Lime	160	190
Slate	190	230
Hard shell and slate	230	270
Lime	270	295
Coal	295	298
Slate	298	320
Lime	320	342
Sand	342	410
Slate	410	425
Hard sand	425	495
Slate	495	525
Sand	525	788
Slate	788	835
Lime	835	865
Red rock	865	940
Lime	940	964
Slate	964	975
Red rock	975	1020
Slate	1020	1041
Lime	1041	1085
Slate and lime	1085	1130
Slate	1130	1135
White lime	1135	1165
Sandy lime	1165	1188
Black lime	1188	1195
Struck gas		
White sand	1195	1204
Black lime	1204	1270
Sandy lime	1270	1300
Show of oil	1300	

<i>Lithology</i>	<i>From</i>	<i>To</i>
White lime	1300	1334
Oil and gas, sandy lime	1334	
Gray lime	1334	1364
White lime	1364	1440
Black lime	1440	1480
Black sand	1480	1500

CASING:

10" casing @ 22' 6"
 8" casing @ 800
 6 $\frac{5}{8}$ " casing @ 1170

Russell Producing Co., RUGBY LAND No. 4
 (Map Number—58)

Location: NE SW SE Sec. 5, 3S-59E

Elevation: 1276'±

Date: 1924

Total depth: 1500'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	6
Quicksand	6	20
Sand, hard	20	40
Slate and lime shells	40	75
White sand, hard	75	190
Coal	190	191
Sandy lime	191	230
Lime shells	230	265
Sand, gray	365	680
Water 565-570		
Black slate	680	700
Red rock	700	705
Slate and shells	705	820
Red rock	820	850
Slate and shells	850	875
Lime, white	875	900
Lime shells	900	925
Lime, gray	925	1120
Sandy lime	1120	1140
Show of gas 1135		
Lime, medium-hard	1140	1255
Show of oil 1235		
Sandy lime	1255	1265
Lime, hard	1265	1295
Sandy lime	1295	1310
Show of oil 1300		
Lime, hard	1310	1340
Hard, sandy lime	1340	1350
Lime, hard, white	1350	1370
Hard, sandy lime	1370	1400
Hard black lime	1400	1435
Hard, sandy lime	1435	1460
Hard gray lime	1460	1500

Completed dry hole.

Pulled the 10", 8", and 6 $\frac{5}{8}$ " casing.

Set pine plug at bottom of 8-inch hole and 15 feet of stone and sand pumpings on top of pine plug. Set plug and bridge at bottom of 10-inch hole, and filled up to top of well with stone and sand pumpings.

Superior Oil Corp. REED No. 1

(Map Number—59)

Location: SE SE Sec. 17, A-61E

Elevation: 1374'

Date: 1925

Total depth: 1278' (?)

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, white, hard	190	210
Slate, blue, hard	210	260
Sand, white, hard	260	350
Sandy shale, gray, hard	350	410
Sand, gray, hard	410	455
Coal	455	459
Sand, white, hard	459	489
Break. soft	489	491
Sand, brown, hard	491	494
Oil and gas show		
Sand, white, hard	494	504
Sand, gray, hard	504	519
Sand, white, hard	519	549
Slate, soft	549	641
Sand, gray, hard	641	656
Oil and gas		
Slate, black, soft	656	671
Sand, brown, hard	671	686
Slate, blue, soft	686	716
Sand, brown, soft	716	741
Oil and gas		
Slate, soft	741	756
Sand, brown, hard	756	811
Oil and gas		
Slate, blue, soft	811	870
Sand, white, hard	870	910
Shale, red and green, soft	910	1100
Lime, brown, hard	1100	1110
Slate, blue, soft	1110	1130
Lime, gray, hard	1130	1144
Deepened		
Lime, gray, hard	1144	1271
Shale, gray, hard	1271	1278

Superior Oil Corp., ABBOTT LASWELL No. 1

(Map Number—60)

Location: Sec. 9, A-61E

Elevation: ?

Date: 1927

Total depth: 2277' (?)

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, red, soft	0	20
Slate, blue, soft	20	50
Sand, red, hard	50	250
Slate, blue, soft	250	335
Sand, white, hard	335	345
Sandy shale, blue	345	425
Sand, white, hard	425	525
Sandy shale, brown	525	543

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, white, hard	543	621
Coal	621	625
Shale, brown, hard	625	635
Sand, white, hard	635	745
Gas and water @ 645-665		
Shale, brown, soft	745	805
Sand, gray, hard	805	815
Shale, brown, soft	815	925
Sand, gray, hard	925	965
Shale, brown, soft	965	1015
Sand, gray, hard	1015	1030
Shale, gray, hard	1030	1040
Sand, white, soft	1040	1050
Shale, gray	1050	1070
Lime and shale, gray, hard	1070	1175
Red rock, gray, soft	1175	1220
Lime, gray, hard	1220	1260
Break, blue, soft	1260	1270
Lime, gray, hard	1270	1325
Oil 1310-15		
Break, blue, soft	1325	1332
Lime, gray, hard	1332	1375
6 $\frac{5}{8}$ " @ 1360		
Break, blue, soft	1375	1380
Lime, gray, hard	1380	1610
Lime, brown, hard	1610	1660
Gas 1650-60		
Lime, dark-gray, hard	1660	1685
Sand, white, hard	1685	1725
Shale, black, hard	1725	1737
Lime, brown, hard	1737	1743
Shale, brown, hard	1743	1800
Lime, black, hard (very hard drilling)	1800	1825
Sand, gray, hard (very hard drilling)	1825	1845
Sand, white, hard (very hard drilling)	1845	1851
Sand, brown, hard (very hard drilling)	1851	1871
Sand, white, hard (very hard drilling)	1871	1906
Lime, white, blue	1906	1941
Shale, black, soft	1941	2003
Shale, gray, soft	2003	2093
Red ore	2093	2097
Brown lime and shale, gray, hard	2097	2177
Green shale	2177	2207
Lime and shale, gray, hard	2207	2257
Red rock, hard	2257	2267
Shale, gray	2267	2277

Oneida Improvement Co., COOPER No. 1

(Map Number—61)

Location: NE SE NW Sec. 21, A-60E

Elevation: 1466'

Date: 1941

Total depth: 1598'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	6
Slate and shells	6	100
Water @ 50 and 70		
Sand, gray, medium	100	115

<i>Lithology</i>	<i>From</i>	<i>To</i>
Slate, black, soft	115	125
Water @ 122		
Sand, white, medium	125	165
Slate and shells, black, medium	165	265
Slate and shells, dark, medium	265	347
Salt Sand, white, medium to reasonably hard	347	593
Coal 476-478		
Water level lowered @ 570-575		
Slate, dark, soft	593	596
Sand, black, hard	596	639
Slate, black, soft	639	653
Sand shell, gray, medium	653	671
Slate, black, soft	671	680
Shell, dark, hard	680	683
Slate and shells, dark, medium	683	730
Shells, gray, medium	730	746
Salt water 737-43		
Slate, black, soft	746	832
Sand, gray, medium	832	846
Oil 832-835 (14" sand)		
Slate, black, soft	846	854
Show coal 854		
Sand shell, gray, medium	854	877
Slate, black, medium	877	907
Sandy shell, gray, hard	907	913
Slate, black, medium	913	970
Sand, gray, medium	970	1005
Small amount gas between 976-985		
Slate, black	1005	1015
Slate, green	1015	1028
Red rock, red, medium	1028	1040
Slate, dark	1040	1080
Red rock, red, soft	1080	1107
Shell, dark, hard	1107	1113
Slate, dark	1113	1137
Lime, light-gray, medium	1137	1160
Slate, black	1160	1180
Lime, dark, medium	1180	1267
Slate and red rock, green and red, soft	1267	1273
Lime, light-gray, hard	1273	1510
Oil smell 1365		
Lime, brown, hard	1510	1530
Oil show 1522-24		
Lime, sandy, brown, hard	1530	1569
Lime, sandy, red, medium	1569	1579
Gas 1579		
Shot well @ 1580. Increased gas double.		

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Siltstone, black, carbonaceous	204	220
Siltstone, dark, gray, carbonaceous	220	226
Siltstone, dark-gray, black, carbonaceous	226	232
Siltstone, dark-gray, black, carbonaceous; coal; sandstone, white, indurated, medium-grained	232	240
Samples missing	240	244
Sandstone, white, vitreous, frosted, medium-grained	244	254
Same, with thin seams of very carbonaceous material, mica- ceous	254	259
Sandstone, dirty-white, medium-grained; siltstone, dark-gray; shale, black, carbonaceous, micaceous	259	267

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandstone, dark-gray to black, fine-grained, grading to a siltstone	267	275
Shale, silty, very carbonaceous	275	298
Sandstone, white, vitreous, medium-grained; brown siderite; sand shows oxidation; coaly	298	303
Sandstone, white, vitreous, medium-grained; brown siderite; sand shows oxidation; coaly; siltstone, gray	303	310
Sandstone, white, vitreous, medium-grained; brown siderite; sand shows oxidation; coaly; shale, dark-gray, silty	310	315
Shale, dark-gray, black, silty	315	321
Same, with siltstone, gray	321	333
Shale, dark-gray, black, silty; with siltstone, gray; with sandstone, white, frosted, fine- to medium-grained	333	338
Samples missing	338	350
Sandstone, white, medium- to coarse-grained, vitreous, loosely cemented	350	358
Same, with apatite, green; siderite, brown	358	366
Sandstone, white, medium-grained, vitreous, loosely cemented	366	375
Same, with gypsum, white	375	380
Sandstone, white, medium-grained, vitreous, loosely cemented, with fragments of green mineral; quartz grains cemented with brown siderite	380	385
Samples missing	385	395
Sandstone, white, vitreous to frosted, medium- to coarse-grained, loosely cemented; green mineral (?)	395	431
Same, sideritic	431	436
Same, contains much siderite, light-gray	436	445
Samples missing	445	450
Sandstone, white, vitreous to frosted, medium- to coarse-grained, loosely cemented; green mineral; slightly sideritic	450	467
Same, without siderite	467	472
Same, and shale, gray, silty; coal; gypsum	472	478
Sandstone, same; green mineral; sideritic, brown	478	480
Sandstone, white, vitreous, fine-grained, loosely cemented	480	485
Sandstone, white, medium-grained, sideritic; shale, carbonaceous	485	492
Sandstone, white, medium- to coarse-grained; shale, carbonaceous; gypsum	492	499
Sandstone, white, medium-grained, loosely cemented	499	525
Sandstone, white, vitreous, medium- to coarse-grained, fairly indurated, sideritic; shale, carbonaceous; gypsum	525	532
Sandstone, white, vitreous, fine- to medium-grained, loosely cemented; shale, carbonaceous	532	538
Sandstone, white, medium- to coarse-grained, wet to frosted, loosely cemented	538	556
Sandstone, medium-grained	556	561
Same, with siltstone, dark-gray, carbonaceous	561	569
Sandstone, white, medium-grained, loosely cemented	569	575
Sandstone, medium-grained, vitreous, fairly indurated	575	581
Same, but loosely cemented	581	595
Same; coal	595	599
Sandstone, medium-grained, indurated; siderite, bronze; shale, dark-gray	599	601
Sandstone, fine- to medium-grained, loosely cemented	601	605
Sandstone, medium- to coarse-grained, vitreous to frosted; coal	605	611
Sandstone, same; siltstone, gray (50%)	611	614
Sandstone, medium- to coarse-grained, vitreous to frosted, silty; shale, black, carbonaceous, sideritic, pyritic	614	617
Sandstone, gray, fine-grained, indurated; siltstone, dark-gray; and shale, carbonaceous, sideritic	617	623

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandstone, dirty-white, fine-grained, indurated; siderite, red-brown; gypsum	623	629
Sandstone, gray, fine-grained, indurated; shale, carbonaceous; silt; sideritic	629	634
Shale, dark-gray, silty, carbonaceous; sandstone, white	634	639
Shale, dark-gray to black, carbonaceous	639	650
Sandstone, dirty-white, fine-grained, indurated; silt, gray to dark-gray; coal	650	656
Sandstone, same,	656	661
Sandstone, dirty-white to black, fine-grained; and siltstone	661	667
Siltstone, dark-gray to black, carbonaceous; and shale	667	674
Samples missing	674	682
Siltstone, dark-gray and black-brown; sandstone, very fine grained; shale, carbonaceous	682	713
Sandstone, dark-gray to black, carbonaceous, fine-grained; siltstone, largely carbonaceous; shale, silty	713	724
Sandstone, tan-gray, fine-grained, very indurated; shale, black, carbonaceous, silty	724	731
Sandstone, dirty-white, very indurated, fine-grained; sandstone, gray, carbonaceous	731	743
Same, with shale, black, silty	743	749
Shale, dark-gray to black, carbonaceous, silty	749	819
Samples missing	819	832
Sandstone, dirty-white, medium-grained, uncemented; shale; some black, carbonaceous	832	842
Same, with 50% shale, black, carbonaceous	842	848
Shale, black, very carbonaceous containing a poor coal; sandstone, dirty-white, medium-grained, uncemented	848	854
Sandstone, dirty-white to tannish, garnetiferous; siltstone, dark-gray to black; and shale	854	860
Sandstone, gray, tan, dirty-white, fine-grained, indurated (garnetiferous?); and shale, black, carbonaceous	860	866
Sandstone, tan to white, medium-grained, poorly indurated	866	872
Same, with shale	872	877
Siltstone, dark-gray; and shale, black	877	903
Same, with indurated white and tan, medium- to fine-grained sandstone	903	909
Siltstone, dark-gray to black; and shale	909	921
Shale, dark-gray to black	921	940
Same, blotchy, silty	940	952
Shale, dark-gray to black; with sandstone, white, medium-grained and shale, red	952	959
Sandstone, dirty-white, gray, and tannish, indurated; siltstone, black; and shale	959	964
Sandstone, same; shale, greenish and red-brown, and some calcareous	964	970
Samples missing	970	994
Sandstone, medium-grained, uncemented, vitreous	994	1000
Samples missing	1000	1005
Sandstone, dirty-white, poorly indurated, medium-grained; shale, gray, carbonaceous, calcareous; limestone, argillaceous; and shale, brown	1005	1010
Samples missing	1010	1050
Shale, gray to dark-gray, brown-red	1050	1056
Samples missing	1056	1119
Shale, brown-red, dark-gray	1119	1125
Samples missing	1125	1159
Shale, dark-gray; and limestone, gray, medium- to coarse-grained	1159	1163
Shale, dark-gray; and limestone, fossiliferous	1163	1184
Same (more shale than above)	1184	1189
Shale; sandstone, very fine, indurated, limy	1189	1198

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, greenish-gray and gray to dark-gray; siltstone, brown, limy	1198	1203
Shale, greenish-gray, gray, brown-red; limestone, gray; sandstone	1203	1207
Limestone, gray, fine-grained; and shale, gray	1207	1210
Limestone, grayish-tan, argillaceous; shale, greenish-gray and gray	1210	1215
Limestone, tan-gray, fine-grained, very fossiliferous, argillaceous; and shale, dark-gray	1215	1226
Samples missing	1226	1232
Limestone, tan-gray, medium-grained, argillaceous; shale, gray	1232	1236
Shale, gray; limestone, whitish-gray, fine-grained, argillaceous	1236	1245
Limestone, grayish, medium-grained, argillaceous; shale, gray	1245	1250
Limestone, tannish-gray, medium-grained; shale, gray	1250	1266
Shale, greenish-gray and brown-red	1266	1273
Shale, same; limestone, light-tan to light-gray, medium-grained; shale, gray	1273	1278
Samples missing	1278	1286
Shale, greenish-gray, brown-red, gray; limestone, light-tan, dull-white, medium-grained	1286	1292
Samples missing	1292	1294
Limestone, tan-gray, fine-grained (oolitic?); shale, red-brown, gray	1294	1297
Limestone, tan-gray, argillaceous, oolitic; shale, gray	1297	1299
Samples missing	1299	1303
Limestone, light-tan to dull-white, semicrystalline, pure oolitic; limestone, gray, argillaceous	1303	1307
Samples missing	1307	1325
Limestone, light-tan, very oolitic, fine-grained	1325	1330
Samples missing	1330	1335
Limestone, tan, dense, non-oolitic; shale, brown-red, green	1335	1340
Limestone, tan, fine-grained, oolitic; shale, green and gray	1340	1347
Limestone, tan, fine-grained, oolitic, semicrystalline; shale, green and brown-red	1347	1355
Samples missing	1355	1370
Limestone, tan, fine-grained, slightly oolitic; shale, green, brown, and gray; sandstone, white	1370	1375
Limestone, buff-colored, fine-grained, oolitic	1375	1380
Limestone, tan, oolitic; limestone, grayish-green, silty	1380	1386
Limestone, tan, argillaceous, oolitic; limestone, gray, greenish-gray, silty; shale, gray and brown-red	1386	1391
Limestone, tan, oolitic; shale, dark-gray; and sandstone, fine-grained	1391	1400
Samples missing	1400	1408
Limestone, tan, fine-grained; sandstone, white, medium-grained; shale, greenish-gray and brown-red	1408	1414
Limestone, tan, oolitic; shale, green and brown-red	1414	1420
Samples missing	1420	1425
Limestone, tan, oolitic; shale, green and brown-red	1425	1429
Samples missing	1429	1457
Limestone, tan, dense, oolitic; sandstone, white, medium-grained; shale, red and green	1457	1462
Samples missing	1462	1585
Limestone, tan, very arenaceous	1585	1592

Tenn.-Tex Oil Co., YELLOW CLIFF No. 1

(Map Number—62)

Location: NW SE SW Sec. 14, A-60E

Elevation: ?

Date: 1943

Total depth: 1148'

DRILLER'S LOG

Lithology	From	To
Mountain sand, brownish, soft	0	167
Shale, gray, soft	167	172
Lime and sand, gray, hard	172	174
Slate, blue, soft	174	205
Coal vein, black, soft	205	207
Slate, blue, soft	207	225
Sand, brownish, soft	225	310
Water		
Shale, blue, soft	310	315
Lime, gray, hard	315	330
Shale, blue, soft	330	335
Broken lime, gray, soft	335	380
Lime, gray, hard	380	388
Sand, gray, hard	388	406
Shale, blue, soft	406	440
Sand, gray, hard	440	452
Shale, gray, soft	452	458
Lime, gray, hard	458	490
Sand, gray, hard	490	509
Shale, blue, hard	509	532
Shale, and lime, gray, hard	532	542
Sand, gray, soft	542	560
Little gas show		
Lime, gray, hard	560	565
Sand, gray, soft	565	583
Little water		
Lime and red rock, soft	583	626
Red rock and shells, soft	626	670
Shale, blue, soft	670	675
Broken lime, gray, hard	675	680
Lime, gray, hard	680	685
Lime, broken, gray, soft	685	694
Shale, blue, soft	694	707
Red rock and shells, soft	707	750
Shale, blue, soft	750	760
Lime, blue, hard	760	763
Shale, blue, soft	763	768
Lime, gray, hard	768	773
Lime, blue, hard	773	829
Lime, brown, very hard	829	857
Lime, gray, very hard	857	900
Lime, broken, gray, hard	900	905
Muddy shale, blue, soft	905	910
Lime, gray, hard	910	933
Shale, green, soft	933	934
Lime, gray, hard, fine	934	945
Lime, gray, hard, coarse	945	948
Shale, gray, soft	948	949
Lime, gray, hard, fine	949	952
Lime, gray, hard, coarse	952	955
Shale, gray, soft	955	956
Lime, broken, blue and gray, hard and soft	956	960
Lime, brownish, hard (thin shale breaks @ 960-981)	960	987

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, brownish, very hard	987	990
Lime, gray, soft	990	995
Free oil		
Lime, light, gray, hard	995	1015
Oil show	1015	1023
Lime, light-gray, flaky	1023	1027
Lime, brown, hard	1027	1034
Good show of gas; some oil		
Lime, dark-gray, hard	1034	1058
Lime, light-gray, flaky	1058	1075
Lime, dark-gray, flaky	1075	1086
Lime, light-gray, flaky	1086	1089
Lime, light-gray, hard	1089	1102
Lime, dark-gray, hard	1102	1122
Lime, light-gray, hard	1102	1122
Show of gas; some oil 1108-1117		
Lime, dark-gray, hard	1122	1127
Lime, light-gray, hard	1127	1148

Clock Oil Co., FATE COOPER No. 1

(Map Number—63)

Location: Sec. 5, 1S-60E

Elevation: ?

Date: 1943

Total depth: 1756'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil and shells, dark, soft	0	12
Sandstone, light, medium-soft	12	135
Hole full water		
Shale, blue, soft	135	190
Sand shell, gray, hard	190	210
Shale, blue, soft	210	298
Sand, light, medium-soft	298	361
Shale, blue, soft	361	367
Sand, light, medium-soft	367	377
Sand shells and shale, dark, medium-soft	377	388
Sand, light, hard	388	410
Sand, light, medium-soft	410	470
Sand, light, hard	470	485
Coal and shale, dark, soft	485	492
Sand, light, medium-soft	492	578
Shale, blue, soft	578	583
Shaly lime, dark, medium-soft	583	637
Shale and shells, dark, medium-soft	637	758
Lime, gray, hard	758	769
Shale, blue, soft	769	774
Lime, gray, hard	774	793
Shale and shells, dark, medium-soft	793	800
Shale, blue, soft	800	825
Shale and shells, dark, medium-soft	825	841
Lime, gray, hard	841	865
Very good show of gas from 845-865, with trace of salt water		
Shale, blue, soft	865	869
Lime, gray, hard	869	888
Shale, blue, soft	888	895
Red rock and shells, medium-soft	895	925
Lime, gray, hard	925	933
Red rock and shells, medium-soft	933	971

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale and shells, dark, medium-soft	971	988
Shale, blue, soft	988	1003
Shale and shells, dark, medium-soft	1003	1010
Red rock and shells, medium-soft	1010	1030
Shale and shells, dark, medium-soft	1030	1060
Lime, gray, hard	1060	1077
Shale, blue, soft (very soft—bad cave)	1077	1106
Lime, gray, hard	1106	1200
Shale, green, soft	1200	1205
Lime, gray, hard	1205	1327
Lime, fine, light-gray, medium-hard	1327	1350
Very good show of rich smelling gas with small trace of oil from 1330-1333		
Lime, brownish-gray, medium-hard	1350	1359
Gas increased		
Lime, light-gray, medium-hard	1359	1370
Increase in oil show		
Lime, dark, hard	1370	1375
Lime, light-gray, hard	1375	1414
Lime, dark, hard	1414	1456
Trace of oil 1419-1425		
Increase in gas 1440-1443		
Lime, red to brown, medium-soft	1456	1460
Lime, sharp, dark, hard	1460	1540
Increase in gas @ 1503		
Broken lime and shale, dark, medium-soft	1540	1547
Lime, sharp, dark, hard	1547	1562
Broken lime and shale, dark, medium-soft	1562	1575
Lime, sharp, dark, hard	1575	1579
Shale, dark, very soft (bad cave)	1579	1585
Lime, black, hard	1585	1590
Shale, dark, very soft (bad cave)	1590	1595
Black lime and shale, dark, medium-soft	1595	1614
Lime, gray, hard	1614	1750
Approximately one million cu. ft. of gas encountered from 1623-1625		
Shale, green, soft	1750	1755
Shale, Chattanooga, medium-soft	1755	1756
Bad fishing job; left drill stem and bit in hole; plugged back to 1700.		

Completed for gas well.

C. S. Beck, ROSA TERRY No. 1

(Map Number—64)

Location: SE NE SW Sec. 14, A-60E

Elevation: 890'

Date: 1944

Total depth: 1320' (?)

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand rock and clay, yellow, soft	0	30
Sandstone, brown, soft	30	75
Water sand @ 65-75		
Sandstone, brown, hard	75	215
Water sand		
Shale and coal, black and gray, medium	215	220
(Approximately 5' coal seam)		
Sandstone, brown, hard (end of Mountain Sand)	220	341
Shale and lime, gray, hard	341	351

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray, hard	351	357
7" @ 357		
Sandy shale, gray, soft	357	360
Broken lime, gray, hard	360	370
Shale and lime, gray, hard	370	400
Sand, brown, hard	400	405
Streaks of iron		
Lime, gray, hard; water and iron	405	410
Lime, gray, hard; iron ore	410	415
Sand, brown, hard; streaky iron ore	415	425
Lime, gray, hard; light iron ore	425	435
Sand, brown, hard; light iron ore	435	440
Lime and shale, gray, hard; light iron ore	440	450
Shale, blue, soft, muddy	450	490
Lime, shale, blue, soft	490	495
Lime, gray, soft	495	505
Sand, brown, hard	505	510
Lime and shale, gray, hard	510	520
Sandy lime, gray, hard	520	530
Shale and lime, gray, soft	530	535
Shale, blue, soft	535	550
Lime, shale, blue, soft	550	580
Shale, blue, soft, muddy	580	590
Sand, brown, hard; iron ore	590	595
Shale, blue, soft	595	605
Shale, red and blue, soft	605	610
Shale, green, soft	610	615
Shale, red, soft (caving)	615	675
Shale, blue and red, soft	675	680
Shale and lime, gray, soft	680	685
Shale, blue, soft	685	690
Shale, and lime, red and gray, soft	690	695
Shale, red, soft; some lime partings	695	750
Shale, red, soft	750	770
Shale, blue, soft	770	775
Shale and lime, gray, soft	775	810
Shale and lime, gray, hard	810	845
Lime, brown, soft	845	850
Gas and oil odor		
Lime, gray, hard, oolitic	850	870
Shale and lime, gray, soft	870	875
Lime, gray, soft, oolitic	875	880
Lime, gray, hard	880	885
Lime, brown, medium-hard	885	890
Gas @ 886		

Well abandoned with three strings of tools in hole at total depth of 890.
(Oil and Gas Chart #2 reports total depth 1320'.)

Charles S. Beck, TERRY No. 2

(Map Number—65)

Location: Sec. 14, A-60E (?)

Elevation: 1318'

Date: 1944

Total depth: 1150'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil, light-yellow, soft	0	5
Clay, yellow, soft	5	15
Slate, dark, soft	15	35
Fresh water @ 25		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy lime, light, hard	35	42
Sandy, white, hard, broken, caving	42	198
Coal, black, soft, and sand, white, hard	198	206
Sand, white, hard	206	312
Slate, dark, soft	312	345
Sandy lime, dark-gray, medium	345	412
Slate, dark, soft	412	432
Shells, light, medium	432	475
Sand, light-gray, medium	475	485
Salt water @ 480		
Slate and shells, dark, medium	485	560
Sand, white, medium	560	575
Salt water @ 566		
Lime, gray, hard	575	595
Red rock, medium	595	608
Sandy lime, gray, hard	608	615
Red rock, red, medium	615	640
Slate, dark, soft	640	650
Red rock, red, medium	650	675
Lime, gray, hard	675	690
Slate, dark, soft	690	705
Lime, gray, hard	705	712
Red rock, medium	712	743
Slate, dark, soft	743	775
Lime, light-gray, hard	775	783
Slate and shells, light, medium	783	808
Lime, gray, very hard	808	877
Slate, dark, soft	877	878
Lime, gray, very hard	878	883
Lime, gray, dark, medium	883	885
Lime, gray, hard	885	902
Slate, dark, soft	902	907
Lime, light- to dark-gray, hard	907	915
Shale, dark, soft	915	920
Lime, brown, hard	920	934
Lime, brown, very hard	934	940
Lime, light-gray, hard	940	964
Smell of oil @ 940		
Slate, green, soft	964	965
Lime, light, gray, hard	965	971
Show of oil @ 966-67 and salt water rose 100'		
Lime, light-gray, very hard	971	1150
No free oil		

CASING:

Conductor 8 $\frac{1}{4}$ " @ 62
 6 $\frac{5}{8}$ " casing @ 490
 5 3/16" casing @ 927

All pipe recovered; well plugged and abandoned Nov. 23, 1944.

Clock Oil Co., COOPER No. 1

(Map Number—66)

Location: Sec. 5, 1S-60E

Elevation: 1500'

Date: 1944

Total depth: 1656'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Spudded in sand rock	0	20
Red sand	20	38
White sand	38	71
Blue shale; hole full of water	71	142
Blue shale, medium	142	167
Gray sand, medium	167	175
Blue, sandy shale, soft	175	185
Brown lime, hard	185	205
Gray sand	205	228
Blue, sandy shale	228	241
Blue, sandy shale, soft	241	266
Gray sand	266	365
Sandy shale	365	378
Sandy shale, hard	378	379
White water sand, hard	379	415
Sand, gray, hard	415	450
Sandy shale, light	450	457
Sandy, gray, hard	457	460
Sand, white, hard	460	497
Blue sand, hard	497	542
Blue shale, sandy, medium	542	553
Brown, sandy, hard	553	572
Brown shale, medium	572	576
Gray lime, hard	576	579
Muddy sand, soft	579	588
Sandy shale, brown, medium	588	600
Blue shale, soft	600	609
Gray lime, hard	609	610
Running 6" pipe @ 610		
Lime, brown, hard	610	630
Broken gray lime and shale	630	646
Sandy lime, brown, soft	646	675
Shale, brown, soft	675	679
Shale and broken lime, gray, medium	679	700
Red rock, broken, soft	700	739
Sandy shale, brown, medium	739	799
Sandy shale, brown, soft	799	815
Gray sand, hard	815	825
Brown, sandy shale, soft	825	842
Mississippian		
Pennington shale		
Red rock	842	854
Brown, sandy shale, medium	854	860
Red rock, medium-hard	860	895
Red rock, soft, hole caving bad; gas. Pulled 6" pipe.		
Reamed hole from 606 to 626. 21' of 8" hole reamed	895	912
Lime, gray, hard	912	915
Red rock, soft	915	940
Lime shells, hard	940	973
Sandy shale, soft	973	987
Green shale, sandy, soft	987	1013
Blue shale, soft, caving, sandy	1013	1033
Blue mud, soft	1033	1036

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray lime, hard	1036	1060
Blue shale, soft	1060	1078
Gray lime, hard	1078	1114
Little gas @ 1105		
Gray lime, hard	1114	1401
Little gas @ 1125-30 and 1338-39		
Set 5" casing @ 1166		
Brown, sandy lime, hard	1401	1412
Gray lime, hard	1412	1416
Brown, sandy lime, hard	1416	1422
Gray lime, hard	1427	1430
Brown lime, hard	1430	1467
Brown lime, hard, broken	1467	1478
Brown lime, hard	1478	1524
Pink lime, hard, sandy	1524	1526
Brown lime, hard, sandy	1526	1571
Black lime, hard	1571	1605
Black shale, sandy, medium-hard	1605	1617
Brown, sandy lime, hard	1617	1630
Brown lime, hard	1630	1645
Gray sandy lime, hard	1645	1656

Clock Oil Co., COOPER No. 2

(Map Number—67)

Location: NE NE SE Sec. 5, 1S-60E

Elevation: 1504'

Date: 1944

Total depth: 1810'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	3
Sand rock	3	35
Sand	35	50
White, hard sand	50	84
White sand	84	136
Brown sand	136	145
Brown shale	145	160
Shale and shells	160	200
Brown shale	200	291
Hard, brown shale	291	310
Sand	310	375
White sand	375	390
Coal	390	393
White sand	393	403
Sand	403	429
Hard, white sand	429	456
Sand	456	480
Sandy shale	480	484
Sandy brown shale	484	489
Blue shale	489	496
Brown, hard sand	496	512
Blue sand	512	537
Blue, hard sand	537	563
Sandy shale	563	567
Black slate	567	572
Black sand	572	592
Gray, hard lime	592	596
Sandy mud and gray, hard lime	596	600
Black sand	600	622

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray lime	622	651
Black sand	651	665
Sandy shale	665	722
Sandy brown shale	722	740
Hard, gray lime	740	755
Brown shale	755	784
Sandy shale	784	800
Gray lime	800	825
Lime	825	838
Sandy shale	838	850
Lime	850	855
Gray, soft sand	855	858
Brown shale	858	871
Gray, soft shale	871	876
Red rock, hard	876	895
Red rock and shells	895	953
Hard, sandy lime	953	957
Little gas	957	962
Red rock and green shale	962	975
Green shale	975	1015
Red rock and shells	1015	1030
Gray shale	1030	1034
Gray lime, very hard	1034	1039
Blue shale, soft	1039	1041
Broken shale and lime	1041	1055
Gray lime	1055	1067
Brown lime	1067	1076
Blue shale, soft	1076	1090
Brown, hard lime	1090	1111
Gray lime	1111	1123
Medium-hard lime	1111	1123
Gray lime	1123	1138
Gas, plenty, @ 1123-1125	1138	1153
Gray, hard lime	1153	1178
Brown lime	1178	1182
Gas 1172-1175	1182	1194
Blue, soft shale	1182	1217
Brown lime, hard	1194	1231
Gray lime	1217	1231
Gray, hard lime	1231	1247
Gray lime	1247	1258
Increase gas 1245-1247	1247	1258
Gray lime (caving)	1258	1273
Gray lime	1273	1281
Gray, hard lime	1281	1285
Dark-brown lime	1285	1290
Gray, hard lime	1290	1310
Brown lime, hard	1290	1322
Very hard brown lime	1310	1338
Gray lime	1322	1341
Gray lime, very hard	1338	1341
Pink lime, very hard	1341	1350
Big gas 1350	1350	1450
Gray lime	1450	1452
Broken lime, hard, and shale	1452	1462
Gray, hard lime	1462	1480
Gray lime	1462	1487
Very hard, dark, broken, sandy lime	1480	1487
Brown, sandy lime	1487	1495
Increase of gas	1495	1498
Hard, sandy lime	1498	1503
Sandy lime	1503	1512

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sandy lime, hard	1512	1518
Brown lime	1518	1525
Red, sandy shale	1525	1526
Red mud	1526	1528
Brown lime, hard	1528	1532
Brown sand	1532	
Increase in gas		
Hard sand	1532	1539
Brown, hard sand	1539	1552
Brown sand	1552	1559
Hard, sandy lime	1559	1565
Sandy shale	1565	1570
Sandy shale, soft, dark	1570	1576
Black lime, hard	1576	1579
Brown, sandy shale	1579	1589
Black, sandy shale	1589	1614
Black, sandy shale, sharp	1614	1615
Gray lime, hard	1615	1621
Gray lime	1621	1632
Very hard gray lime	1632	1642
Gray lime	1642	1648
Hard, gray lime	1648	1653
Light, sandy lime, hard	1653	1654
Sandy lime	1654	1659
Brown, sandy lime, hard	1659	1661
Sandy lime	1661	1665
Gray lime	1665	1668
Gray lime, soft	1668	1677
Brown, sandy lime	1677	1680
Gray lime	1680	1682
Gray, sandy lime, hard	1682	1687
Light sand, hard	1687	1689
Brown sand	1689	1692
Gray sand, hard	1692	1695
Gray, sandy, hard lime	1695	1698
Sandy lime	1698	1701
Sandy lime, light-brown	1701	1704
Gray lime	1704	1706
Fine, sandy lime, gray, hard	1706	1708
Flinty lime	1708	1709
Sandy lime	1709	1713
Sandy lime, gray, hard	1713	1716
Sandy lime, brown	1716	1719
Dark, sandy lime	1719	1721
Gray, sandy lime	1721	1723
Gray, sandy lime, hard	1723	1731
Gray lime	1731	1735
Green shale	1735	1738
Black shale	1738	1745
Black shale, sandy	1745	1786
Gray, sandy shale	1786	1795
Brown, sandy shale	1795	1800
Gray, sandy lime	1800	

Howard Baker; Olds Oil Co., PAYNE No. 1

(Map Number—68)

Location: SW NW SE Sec. 10, 3S-60E

Elevation: 1203'

Date: 1947

Total depth: 3004'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chattanooga shale (Driller)	1920	1965
No sample	1946	1976
Gray, siliceous shale, pyrite; trace quartzite	1976	1996
No sample	1996	2012
Gray, siliceous shale, as above; red, siliceous shale	2012	2022
Gray, siliceous shale; gray quartzite; siltstone; sandstone	2022	2030
As above; gray-brown, soft, fissile shale; trace red shale; sandstone, slightly quartzitic and glauconitic	2030	2038
As above, much quartzitic siltstone and glauconitic sandstone	2038	2046
As above; red shale; tan, glauconitic chert	2046	2051
No sample	2051	2060
As above, with gray-brown, dense, spicular chert	2060	2070
Tan-gray siltstone-sandstone, quartzitic in part; shale, as above	2070	2076
Sandstone, as above	2076	2079
No sample	2079	2093
Gray-brown sandstone and siltstone; red, siliceous shale	2093	2100
As above; gray-brown, smooth, dense chert	2100	2107
No sample	2107	2171
As above, with tan, very fine crystalline limestone, siliceous and dolomitic	2171	2176
As above	2176	2195
As above; iron ore horizon	2195	2200
As above; red, siliceous limestone and shale	2200	2205
As above	2205	2210
No sample	2210	2220
Red, gray-green, siliceous shale and siltstone; limestone	2220	2237
Dark-gray, siliceous shale; light-tan, dense, siliceous, fossiliferous limestone	2237	2245
As above; limestone has faint black-speckled appearance	2245	2250
Gray, quartzitic siltstone; limestone, as above	2250	2278
Dark-gray shale, as 2237-45, and dense limestone	2278	2295
No sample	2295	2303
Dark-gray, siliceous shale; gray-tan, dense, siliceous limestone with black specks, shell imprints	2303	2310
As above; fossil fragments	2310	2315
No sample	2315	2347
Gray, siliceous shale, etc., as above	2347	2355
As above, very fossiliferous; gray-white, dense limestone	2355	2384
As above, much gray-white, fossiliferous, dense limestone	2384	2390
As above, white, dense limestone with black inclusions	2390	2400
As above	2400	2413
As above; trace gray-tan, medium-coarse crystalline limestone	2413	2445
As above; much white, chalky, mottled, dense to coarse-crystalline limestone	2445	2454
As above; mostly limestone	2454	2480
As above; much dark-gray, siliceous shale	2480	2489
As above; brown, dense to slightly sucrose limestone	2489	2500
Brownish-white mottled, dense to fine-crystalline limestone, argillaceous in part	2500	2519
As above; gray, siliceous shale	2519	2543
As above; white, dense limestone	2543	2575

<i>Lithology</i>	<i>From</i>	<i>To</i>
As above; trace ostracods in white, dense limestone; brown, dense to very fine crystalline limestone	2575	2622
No sample	2622	2636
As above; much brown, fine-crystalline limestone; trace gray, translucent chert; tan, dense, chalky limestone	2636	2655
As above; ostracods	2655	2673
As above; fossiliferous	2673	2687
Brown, very fine crystalline limestone; brown, dense, smooth chert; black shale partings	2687	2700
As above; argillaceous in part	2700	2710
As above; much whitish-tan, chalky, dense limestone with coarse-crystalline calcite grains; fossiliferous	2710	2732
As above; black shale	2732	2758
As above; dark brownish-black, smooth, dense chert	2758	2775
White, dense limestone with black spots, probably phosphatic fossils; gray-brown, siliceous shale	2775	2785
Brown-tan-white mottled, dense to very fine crystalline limestone; some chalky, tan limestone; brown, siliceous, argillaceous limestone; coarse-crystalline calcite grains	2785	2822
White, chalky limestone with black inclusions; gray-brown, siliceous to calcareous shale; shale, very fossiliferous with many gastropods; coarse calcite grains	2822	2841
As above; many specks in shale and limestone with coarse shale fragments or spots	2841	2888
Tan-brown, dense limestone; trace coarse calcite grains; pale-green bentonite with black mica flakes (Top Carters, with Pencil Cave bentonite)	2888	2895
No sample	2895	2908
As 2888-95	2908	2919

Russell Producing Co., FEE No. 1

(Map Number—69)

Location: SW SW NW Sec. 2, 3S-59E

Elevation: 1419'

Date: 1948

Total depth: 1965'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	12
Slate and shells	12	98
18' of 10" pipe		
Coal	98	100
Slate and shells	100	205
Sand, hard	205	260
Slate and shells	260	338
Sand	338	432
Slate	432	443
Sand, white	443	485
Slate and shell	485	614
Salt Sand, hard-medium	614	901
Slate, dark	901	942
Limestone, sandy	942	948
Red rock	948	953
Lime shell	953	978
Red rock	978	1000
Lime shell	1000	1007
8¼" pipe @ 1003		
Slate and red rock	1007	1020
Lime shell	1020	1042

<i>Lithology</i>	<i>From</i>	<i>To</i>
Slate	1042	1074
Red rock	1074	1105
Slate	1105	1120
Slate and shells	1120	1134
Lime shell, hard	1134	1164
Slate	1164	1172
Lime, brown, medium	1172	1208
Pencil Cave, black	1208	1209
Limestone, brown	1209	1241
Reduced hole to 6 $\frac{5}{8}$ " @ 1213		
Limestone, dark	1241	1267
Lime, brown, soft	1267	1287
Lime, green	1287	1289
Red rock	1289	1296
Lime, dark	1296	1308
Sand, gray	1308	1314
Limestone, sandy, dark	1314	1317
Gas (big show)		
Lime, light-brown, medium-hard	1317	1320
Lime, light-gray, hard	1320	1342
Lime, red, hard	1342	1348
Lime, light- and dark-gray, medium-hard	1348	1520
Show oil @ 1392-1395		
Gas @ 1464		
Lime, dark-gray	1520	1551
Lime, sandy, pink	1511	1561
Lime, sandy, dark-gray	1561	1578
Lime, sandy, red	1578	1582
Lime, sandy, bluish	1582	1593
Lime, coffee, black and white specks	1593	1608
Lime, dark	1608	1639
Lime, black, medium	1639	
Hard from 1670'		

S. D. Jarvis, COLDITZ No. 1

(Map Number—70)

Location: NW Sec. 2, A-59E (?)

Elevation: 1400' \pm

Date: 1950

Total depth: 1755'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	28
Sand-mud streaks	28	51
Brown sand	51	150
Water @ 145-150		
Dark-gray slate	150	175
Brown sand	175	241
Gray sand	241	250
Salt Sand	250	308
Black slate	308	311
Gray slate	311	364
Gray sand	364	381
Sand and slate	381	386
Sandy blue mud	386	401
Sandy slate	401	406
Dark-gray sand and slate	406	411
Gray sand	411	448
Blue slate and mud	448	464

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray sand	464	468
Gray sand and slate	468	500
S. L. M. ¹ 500=501		
Dark-gray, sandy shale	500	524
Set 8" @ 501		
Gray sand and slate	524	548
Reduced hole to 6¼" @ 529		
Blue-gray limestone	548	557
Dark-gray limestone	557	570
Limestone and gray shale	570	575
Red rock	575	580
Green slate (sandy)	580	625
Sandy shale	625	654
Gray limestone	654	670
Gray slate and mud	670	682
Red rock and slate	682	720
Slate	720	745
Gray limestone	745	754
Slate	754	768
Limestone and slate	768	774
Gray slate and mud	774	792
Gray limestone	792	808
Green slate	808	810
Brown limestone	810	833
Gray limestone	833	878
Slate	878	890
Brown limestone	890	1021
Gas pocket @ 907—estimated 150,000 cu. ft.		
5½" casing @ 928		
Light-brown limestone	1021	1039
More gas @ 1021-1027		
Brown limestone	1039	1068
First oolitic section 1039-1045		
Gray limestone	1068	1078
Second oolitic section 1068-1078		
Brown limestone	1078	1116
Brown limestone, very hard	1116	1128
Brown limestone	1128	1139
Gray limestone	1139	1142
Brown limestone	1142	1169
Ran S.L.M. 1169=1169		
Gray limestone	1169	1186
Brown limestone	1186	1204
Dark-gray, sandy slate	1204	1223
Blue-gray limestone, hard	1223	1234
Dark-gray, hard material	1234	1247
Hard, gray material	1247	1262
Dark-gray limestone	1262	1284
Blue limestone	1284	1290
Gray-brown limestone	1290	1299
Brown limestone	1299	1317
Gray lime, hard	1317	1326
Gray lime and chert	1326	1337
Gray lime, hard	1337	1350
Gray lime and chert	1350	1365
Brown lime and chert	1365	1376
Gray limestone and chert	1376	1389
White sand	1389	1393
White sand and limestone	1393	1395
(Ran S.L.M. 1393=1393)		

¹ Steel line measurement.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray, hard material	1395	1404
Dolomite and chert	1404	1413
Gray lime and chert	1413	1441
Chert	1441	1450
Chert and dolomite	1450	1459
Black shale	1459	1512
Green slate	1512	1532
Green shale and gray sand	1532	1543
Gray sand	1543	1555
Gray, sandy limestone	1555	1584
Gray sand	1584	1613
Grayish-green limestone and slate	1613	1646
Grayish, sandy slate	1646	1671
Grayish-brown limestone	1671	1697
Brown, sandy	1697	1755

Set brush plug at 563, filled back with rock and mud to 556, and plugged back to 545.
Shot 40 quarts solidified nitroglycerine from 525-545.

Ran brush plug at 518, filled back with coal and mud to 511 and ran 1 bag cement.
Pulled 8-inch pipe and ran bridge at 8 feet. Filled up 4 feet and ran 2 bags cement.
Pulled 23 feet of 10-inch casing.

Bill Arnn, O & W RAILROAD No. 1

(Map Number—71)

Location: NE NE NE Sec. 2, 1S-60E

Elevation: 1430'

Date: 1951

Total depth: 1385'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dirt	0	6
Slate, sand shell	6	37
Coal	37	39
White sand, medium-hard	39	120
Water @ 39		
Slate, black	120	211
Sand, medium-hard	211	241
Sand shell, slate	241	313
Sand, gray-white	313	391
Sand, light, dark-gray	391	486
Slate, blue	486	487
Sand, white, medium-hard	487	507
Sandy shale, gray, black, medium	507	517
Sand, white, medium	517	602
Sandy lime and slate, black, blue, medium-hard	602	640
Lime, gray, black, hard	640	661
Slate, lime, shell, dark	661	687
Red rock, muddy	687	702
Lime, sandy, black, light-gray, medium-hard	702	726
Slate, red rock, blue, soft	726	838
Lime	838	844
Sand, gray, white, hard, sharp	844	874
Oil @ 844		
Lime, gray, brown	874	878
Ran 7" OD casing @ 877		
Slate and lime, medium-hard	878	915
Coal, hard	915	917
Sandy lime, gray, hard	917	950
Lime, green, hard	950	967

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red rock, red-brown	967	975
Lime, green, medium-hard	975	995
Lime, gray, black, hard	995	1010
Red rock, soft	1010	1037
Pencil Cave (?)	1037	1039
Lime, brown, green	1039	1065
Red rock, slate, soft	1065	1091
Lime, white, hard	1091	

Russell Producing Co., BRANCE KEETON No. 1

(Map Number—72)

Location: NE NW SW Sec. 8, 1S-60E

Elevation: 1548'

Date: 1952

Total depth: 1701'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	2
Sandy, blue, hard	2	53
Coal, black	53	54
Sand, blue, hard	54	97
Sand, white-gray, hard to medium	97	161
Slate, sand and shale, dark, medium	161	241
Coal	241	243+
Sand, gray, hard, sharp	243	269
Slate, sand and shale, gray-black, medium	269	308
Sand, gray, hard	308	531
Sand, shale and slate, dark, medium	531	557
Sand, white, hard	557	633
Slate, sand and shale, white and black	633	694
Sand, gray, medium	694	733
Slate, black	733	787
Sandy lime, dark, gray, medium-hard	787	833
Sand, sharp, gray-brown, hard	833	867
Slate, sand and shale, dark, medium	867	893
Sand, sharp, white, gray, hard	893	954
Lime, brown-gray, hard	954	971
Red rock, green shale, medium	971	1060
Lime, gray, hard	1060	1072
Slate, blue	1072	1083
Lime, brown	1083	1094
Red rock (Pencil Cave? @ 1094)	1094	1129
Lime and slate, green	1129	1152
Lime (Big?)	1152	1167
Pencil Cave 1166		
Lime, brown, medium-hard	1167	1176
Lime and slate mud, black	1176	1184
Lime, gray	1184	1209
Lime, brown, medium	1209	1233
Oil show 1216-20		
Lime, gray to blue, hard	1233	1248
Slate and lime, blue, soft	1248	1253
Lime, light- to dark-gray, medium-hard	1253	1292
Lime, oolitic, tan, medium, green shale	1292	1320
Lime, light-gray, medium-hard	1320	1364
Lime, tan, hard	1364	1380
Lime, light-gray, hard	1380	1395
Lime, tan, hard	1395	1410

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, light-brown, medium	1410	1418
Oil show		
Lime, light-gray, hard	1418	1448
Lime, oolitic, pebbly, light-brown, hard to medium	1448	1465
Lime, sandy, dark-gray, hard	1465	1482
Lime, oolitic, light-gray, medium-hard	1482	1500
Lime, red-green-gray, medium	1500	1505
Lime, dark-gray, hard	1505	1560
Slate, dark, soft	1560	1563
Sand, green, black, hard	1563	1579
Chert, pink-white, hard	1579	1580
Lime, black, medium	1580	1583
Sand, dark, hard	1583	1595
Slate and lime, black, medium	1595	1600
Chert, white-pink, hard	1600	1601
Sand and lime, dark-gray, hard	1601	1676
Shale, dark to black, soft, muddy	1676	1701

CASING:

8 $\frac{1}{4}$ " @ 957
6 $\frac{5}{8}$ " @ 1235

Russell Producing Co., GATEWOOD PEMBERTON No. 16

(Map Number—73)

Location: SW SW SW Sec. 3, 3S-59E

Elevation: 1270'

Date: 1953

Total depth: 1485'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	8
Sand, gray, hard	8	37
Water		
Coal, black, medium-soft	37	39
Sand, gray, hard	39	53
Slate, dark, medium-soft	53	146
Sand, gray, hard	146	289
Slate, dark, medium	289	299
Sand, white, hard	299	327
Slate, dark	327	418
Salt Sand, with light-gray, medium-hard	418	702
Coal, black	702	703
Sand, gray	703	706
Slate, dark-gray, soft	706	714
Slate, black, hard	714	723
Slate, white, soft	723	728
Limestone, dark, hard	728	755
Slate, light, soft	755	761
Red rock, soft	761	766
Slate, lime, light, medium	766	779
Red rock, soft	779	806
Slate, lime, light-gray, medium	806	835
Sandy lime, light-gray, hard	835	857
Slate and shaly lime, dark-gray, medium-hard	857	870
Lime, light-gray, hard	870	890
Red rock, medium	890	915
Slate, dark-gray, medium-hard	915	927
Sand, greenish-gray, hard, sharp	927	943
Slate, dark, soft	943	960
Lime, light, gray, hard	960	992

<i>Lithology</i>	<i>From</i>	<i>To</i>
Slate, dark, medium	992	1001
Lime, small oolitic, gray-brown, medium-hard	1001	1012
Lime, gray, hard	1012	1036
Lime, oolitic, light-gray, hard	1036	1052
Salt water 1052		
Lime, dark, hard	1052	1087
Gas 1052-1070		
Salt water 1058 and 1070		
Lime, gray, brown, medium-hard	1087	1125
Slate, black, sand, white and gray, medium-hard	1125	1132
Lime, white, light-gray	1132	1232
S.L.M. ¹ 1212=1215		
More gas 1232 (S.L.M.); oil		
Lime, oolitic, light-brown, medium	1232	1243
Lime, light-gray, hard	1243	1252
Lime, oolitic, tannish-gray, medium	1252	1264
Lime, light-gray, hard, medium	1264	1485

SHELBY COUNTY

Memphis Artesian Water Dept., No. 25

(Map Number—1)

Location: Memphis

Elevation: 250'

Date: ?

Total depth: 2656'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Yellow clay	0	43
Sand and gravel	43	101
Rock	101	103
Sand and gravel	103	121
Clay	121	145
Sand	145	160
Clay	160	358
Sand	358	430
Good water-bearing sand	430	547
Clay	547	552
Sand	552	560
Clay	560	800
Sand	800	831
Clay	831	851
Rock	851	853
Clay	853	940
Sand	940	995
Clay	995	1001
Rock	1001	1002
Clay	1002	1012
Rock	1012	1014
Clay	1014	1020
Rock	1020	1024
Clay	1024	1125
Rock	1125	1128
Clay	1128	1159
Rock	1159	1165
Clay	1165	1213

¹ Steel line measurement.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Rock (may be very hard shale)	1213	1229
Clay	1229	1249
Rock	1249	1251
Clay	1251	1328
Probably sand	1328	1344
Water-bearing sand	1344	1434
Clay	1434	1700
Probably rock	1700	1705
Clay (muck)	1705	1744
Rock	1744	1746
Clay	1746	1784
Rock	1784	1788
Rock	1788	1824
Clay	1824	1826
Rock	1826	1830
Clay	1830	1836
Rock	1836	1847
Clay	1847	1859
Rock (may be hard shale)	1847	1870
Clay	1859	1872
Rock	1870	1872
Clay	1872	1885
Rock	1885	1890
Clay	1890	1906
Rock	1906	1908
Clay	1908	2010
Rock	2010	2012
Clay	2012	2054
Rock	2054	2055
Clay	2055	2093
Rock	2093	2094
Clay	2094	2120
Soft as if sand, no returns	2120	2135
Clay	2135	2149
Probably sand, no returns	2149	2169
Water-bearing sand	2169	2220
Probably sand, seems to be boulder ahead of drill	2220	2242
Black shale or lignite clay. All cuttings below 2,200 feet seemed to be more of a black shale than clay	2242	2340
Cuts like rock, may be hard shale	2340	2355
Shale	2355	2371
Cuts like sand, no returns	2371	2395
Rock	2395	2399
Clay	2399	2405
Rock (may be very hard shale)	2405	2429
Sand	2429	2456
Clay	2456	2569
Rock	2569	2571
Clay	2571	2578
Sand	2578	2619
Rock	2619	2622
Sand	2622	2634
Rock	2634	2636
Shale	2636	2656

Memphis Water Dept., No. 109

(Map Number—2)

Location: Memphis

Elevation: 238'

Date: ?

Total depth: 1583'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Yellow clay	0	27
Hard brown clay	27	37
Slightly soft brown clay	37	45
Gravel and sand	45	49
Soft brown clay and shale	49	63
Slightly harder brown clay	63	76
Stiff blue clay	76	79
Soft blue clay	79	83
Stiff blue clay	83	86
Soft brown clay	86	87
Very hard brown clay	87	89
Hard reddish clay	89	90
Hard blue clay	90	106
Soft blue clay	106	121
Stiff blue clay	121	122
Soft brown clay	122	126
Slightly hard brown clay	126	127
Hard brown clay	127	196
Hard blue clay	196	223
Sandy blue clay	223	276
Fine sand and clay	276	303
Fine sand	303	338
Fine sand and lumps of clay	338	370
Coarse sand and lumps of clay	370	390
Soft blue clay	390	407
Sandy blue clay	407	417
Fine sand and clay	417	432
Sandy blue clay	432	445
Fine sand and clay	445	452
Sandy blue clay	452	474
Fine sand	474	476
Sandy blue clay	476	483
Fine sand	483	484
Coarse sand and clay	484	490
Soft blue clay	490	492
Fine sand and clay	492	510
Very fine sand	510	535
Very fine sand and clay	535	575
Very fine sand	575	590
Very coarse sand	590	598
Lignite and iron pyrite	598	600
Fine sand and lignite	600	630
Very fine sand	630	795
Soft white clay	795	812
Very fine sand	812	865
Hard brown clay	865	896
Hard white sand	896	926
Hard brown clay	926	950
Fine sand	950	1000
Stiff brown clay	1000	1025
Very hard substance	1025	1026
Very stiff blue clay	1026	1058
Blue clay, slightly sandy	1058	1160

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale	1160	1160½
Sandy clay	1160½	1164
Gravel	1164	1170
Blue clay and sand	1170	1196
Sand and rock	1196	1203
Sand and blue clay	1203	1209
Sand, clay, and rock	1209	1232
Fine sand and clay	1232	1240
Blue clay and sand	1240	1286
Sand and clay	1286	1365
Fine sand	1365	1400
White sand	1400	1404
Water flowed to surface		
White sand	1404	1442
Blue clay	1442	1537
Good sand	1537	1563
Blue clay and sand	1563	1566
Clay	1566	1582
Fine gray sand	1582	1583
STRATIGRAPHIC INTERPRETATION		
Tertiary and Quaternary systems	0	1583
Wilcox and younger formations	0	1583

Memphis Natural Gas & Oil Co., GLASSCOCK & BENNETT No. 2
(Map Number—3)

Location: 16S-7W

Elevation: 220'

Date: 1910

Total depth: 1250'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay and sand	0	22
Gumbo	22	27
White sand	27	30
Blue clay	30	35
Show of gas		
Blue sand and clay	35	42
White sand	42	63
Show of gas		
Blue sand and clay	63	110
White sand	110	129
Fine gas sand	129	135
Blue clay	135	162
Fine white sand	162	326
Fine art sand	326	426
Shale	426	432
Fine brown sand	432	492
Blue clay	492	506
Coarse art sand	506	511
Blue shale and gumbo	511	582
show of gas		
Fine sand	582	593
Blue clay and gumbo	593	690
Show of gas		
Hard gumbo	690	712
Fine brown sand	712	796
Show of oil and gas		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gas sand	796	862
Strong show of oil and gas		
Clay	862	880
STRATIGRAPHIC INTERPRETATION		
Tertiary system		
Wilcox and younger formations	0	880

REMARKS

A part of the blue clay and sand above 162 may represent a part of the upper Eocene Jackson formation.

Memphis Natural Gas & Oil Co., OVERTON No. 1

(Map Number—4)

Location: 17S-7W

Elevation: 220'

Date: 1911

Total depth: 1794'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray sand	0	35
Clay	35	38
Gas sand	38	58
Blue gumbo	58	62
Fine gray sand	62	105
Fine gravel	105	109
Coarse gravel	109	121
White sand	121	125
Clay and lignite	125	255
Gray (water-bearing?) sand and lignite	255	476
Blue clay (chunks)	476	546
Gray sand and lignite	546	710
Gray coarse water sand	710	755
Gray sand and lignite	755	980
Blue clay (no sample)	980	1135
Brown sand	1135	1145
Good show of oil		
Black gas sand	1145	1157
Oil and gas show		
Cemented rock and gravel	1157	1158
Gas sand	1158	1182
Blue rock	1182	1184
Green clay	1184	1187
Brown clay	1187	1194
Lignite	1194	1199
Blue clay	1199	1222
Fine sand	1222	1232
Green clay	1232	1255
Hard clay	1255	1300
Fine sand	1300	1304
Gumbo	1304	1324
Fine sand	1324	1351
Gumbo	1351	1359
Artesian sand	1359	1589
Clay	1589	1675
Fine sand	1675	1684
Clay	1684	1700
Blue rock	1700	1705
Fine sand	1705	1708
Clay	1708	1746

<i>Lithology</i>	<i>From</i>	<i>To</i>
Fine sand	1746	1763
Clay	1763	1771
Fine sand	1771	1780
Gumbo	1780	1793
Rock (supposed to be cap rock, no sample, strong oil showing).		
STRATIGRAPHIC INTERPRETATION		
Tertiary and Quaternary systems	0	1793 ¾
Wilcox and younger formations	0	1793 ¾

Memphis Natural Gas & Oil Co., GLASSCOCK & BENNETT No. 3

(Map Number—5)

Location: 16S-7W

Elevation: 220'

Date: 1912

Total depth: 2521'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	7
Sand, fine	7	17
Clay	17	25
Sand, coarse	25	35
Gumbo	35	80
Sand, coarse	80	85
Gumbo	85	105
Sand	105	109
Gumbo	109	205
Sand, hard, white	205	574
Clay	574	592
Sand	592	653
Clay	653	663
Sand	663	673
Clay	673	693
Sand	693	713
Hard rock	713	721
Sand rock	721	732
Gumbo	732	752
Sand rock	752	836
Light show of oil		
Rock	836	838
Sand	838	873
Sand rock	873	968
Show of gas		
Sand rock	968	988
Rock	988	990
Sand rock	990	1018
Gumbo	1018	1039
Rock	1039	1041
Gumbo	1041	1044
Rock	1044	1045
Gumbo and boulders	1045	1107
Rock	1107	1108
Gumbo	1108	1111
Rock	1111	1115
Sand	1115	1124
Show of gas		
Rock	1124	1126
Clay and boulders	1126	1236

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, hard, white	1236	1241
Gumbo	1241	1258
Soft rock	1258	1267
Sand rock	1267	1350
Rock	1350	1352
Sand	1352	1360
Rock	1360	1363
Sand, hard	1363	1371
Rock	1371	1375
Sand, hard	1375	1383
Rock	1383	1385
Sand rock	1385	1394
Rock	1394	1401
Sand rock	1401	1482
Rock	1482	1484
Sand rock	1484	1509
Show of gas @ 1484-1492		
Rock	1509	1512
Sand rock	1512	1537
Gumbo	1537	1563
Rock	1563	1565
Show of gas		
Gumbo	1565	1644
Rock	1644	1646
Gumbo	1646	1648
Rock	1648	1653
Gumbo, boulders	1653	1673
Gumbo	1673	1693
Gumbo, boulders	1693	1713
Gumbo	1713	1827
Gumbo, boulders	1827	1904
Gumbo	1904	2021
Gumbo, boulders	2021	2120
Gumbo	2120	2199
Rock	2199	2200
Show of oil and gas		
Gumbo	2200	2319
Gumbo, boulders	2319	2348
Rock	2348	2359
Show of gas		
Rock, in layers 6" to 3', with muddy sand and shale	2359	2441
Gumbo	2441	2521

Arlington Oil & Gas Co., GARRETT No. 1

(Map Number—6)

Location: 16S-3W

Elevation: 350'

Date: 1923

Total depth: 2225'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, brown	0	20
Sand rock	20	22
Water sand	22	34
Chalk, white	34	65
Pipe clay	65	100
Shale, brown	100	120
Clay, white	120	130
Shale, sandy	130	140

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gumbo	140	149
Sand rock	149	150
Shale, sandy	150	170
Pipe clay	170	180
Water sand	180	205
Sand, white	205	500
Sand, hard, white	500	535
Sand, white	535	695
Clay	695	710
Clay, red	710	738
Lignite	738	740
Clay, blue	740	780
Sand rock	780	781
Clay, blue	781	900
Sand rock	900	901
Sand	901	904
Show of gas		
Shale, blue	904	910
Shale, brown and blue	910	923
Gas sand	923	925
Sand and shale	925	1025
Sand, shale, and lignite	1025	1065
Sand and lignite	1065	1112
Water sand	1112	1168
Gumbo, blue	1168	1246
Sand, white	1246	1250
Sand, gray, compact	1250	1281
Gumbo, blue	1281	1342
Shell rock	1342	1343
Gumbo, blue	1343	1419
Water sand	1419	1422
Gumbo, blue	1422	1467
Water sand	1467	1483
Gumbo, blue	1483	1539
Sand and lignite	1539	1541
Shale, black	1541	1579
Gumbo, blue	1579	1711
Water sand	1711	1713
Gumbo, blue	1713	1751
Water sand	1751	1768
Sand rock	1768	1769
Water sand	1769	1789
Shale, blue, sandy	1789	1807
Sand rock	1807	1823
Shale, sandy	1809	1823
Sand rock	1823	1825
Shale, sandy	1825	1827
Lime, sandy	1827	1830
Shale, blue, sandy	1830	1834
Lime, sandy	1834	1837
Gumbo, blue	1837	1840
Shale, sandy	1840	1862
Lime, sandy	1862	1864
Sand and shale	1864	1871
Shaly sand rock	1871	1872
Sand and shale	1872	1883
Lime, sandy	1883	1892
Shale, sandy	1892	1896
Sand rock	1896	1898
Shale, sticky	1898	1911
Lime, sandy	1911	1917
Shale, sandy	1917	1925

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, sandy	1925	1927
Sand rock, hard	1927	1935
Lime rock	1935	1949
Shale, sandy	1949	1953
Hard lime shell	1953	1975
Sand and shale	1975	2003
Shale, blue, sandy	2003	2021
Lime shell	2021	2023
Shale, shelly	2023	2029
Sand rock, soft	2029	2033
Gumbo, blue	2033	2037
Shale, fine, sandy	2037	2059
Lime	2059	2066
Shale, sandy	2066	2075
Sand, hard, fine	2075	2090
Lime shell and shale	2090	2105
Gumbo, blue	2105	2120
Lime rock	2120	2124
Shale, soft, sticky	2124	2134
Gumbo, blue	2134	2135
Shale, soft, sticky	2135	2150
Gumbo, blue	2150	2169
Shale, blue, sticky	2169	2183
Gumbo, blue	2183	2204
Shale, hard, sticky	2204	2225

Lion Oil Co., BATEMAN No. 1

(Map Number—7)

Location: NE SE SW Sec. 14, 15S-5W

Elevation: 250'

Date: 1941

Total depth: 2860'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, sand, and boulders	0	71
Clay and sand	71	102
Gravel and shale	102	160
Sand, gravel, and shale	160	346
Sand and clay	346	592
Shale	592	653
Sand	653	684
Sand and gravel	684	745
Shale and sand	745	989
Sand and green shale	989	1019
Broken sand	1019	1050
Shale	1050	1233
Shale and lignite	1233	1296
Sand	1296	1370
Shale and sand	1370	1430
Shale	1430	1473
Shale and shells	1473	1700
Sticky shale	1700	1751
Shale	1751	1813
Hard sand	1813	1830
Shale and sand	1830	1994
Shale	1994	2053
Sticky shale	2053	2103
Sand and shells	2103	2128
Hard sand	2128	2131

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale and sand	2131	2290
Shells and green sand	2290	2325
Green sand and chert streaks	2325	2350
Shale and shells	2350	2412
Sand	2412	2490
Shale	2490	2538
Sticky shale	2538	2610
Shale and lime	2610	2640
Shale and chert	2640	2680
Shale and lime	2680	2715
Hard coarse sand and hard lime	2715	2757
Hard lime	2757	2840
Paleozoic	2840	2860

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	455
Tertiary system		
Grenada formation		
Medium- to coarse-grained, variegated sand	455	490
Samples missing	495	705
Holly Springs sand		
Variegated gravel	705	715
Medium-grained, subrounded quartz sand with some variegated gravel	715	785
Medium-grained, subrounded to rounded and polished quartz sand with some micaceous clay	785	1030
Ackerman formation		
Gray, fine to coarse, sandy, micaceous clay	1030	1260
Medium-grained, rounded and polished sand with some clay	1260	1430
Dark-gray, fine, sandy, micaceous clay	1430	1690
Porters Creek clay		
Lead-gray, micaceous clay with hackly fracture	1690	2000
Clayton formation		
Lead-gray, sandy, slightly glauconitic, micaceous clay ..	2000	2110
As above, with some white to light-pink, highly fossiliferous limestone studded with variegated sand and glauconite	2110	2130
Upper Cretaceous system		
Ripley formation		
Gray, sandy, glauconitic, micaceous, fossiliferous clay (probably Owl Creek member)	2130	2230
Medium-grained, rounded and polished, highly fossiliferous and glauconitic quartz sand with varying amounts of lead-gray, fossiliferous, micaceous clay (probably McNairy member)	2230	2400
Dark-gray, micaceous, highly glauconitic, fossiliferous clay	2400	2530
Lead-gray, micaceous clay and some glauconitic sand ...	2530	2720
Pre-Cretaceous rocks		
Gray, micaceous, fossiliferous clay probably from above. Highly weathered, igneous rock composed of quartz, feldspar, and a black or dark-green, brittle mineral with well-developed cleavage, probably one of the amphiboles. The mineral assemblage suggests a granite	2720	2860

E. R. Owen, CRUMPLER No. 1

(Map Number—8)

Location: NW NW SE Sec. 21, 18S-5W

Elevation: 390'

Date: 1945

Total depth: 3075'

PROGRESS REPORT

<i>Lithology</i>	<i>From</i>	<i>To</i>
First sample received and examined	2536	
Gray, soft shale; trace of glauconite	2536	
Loose, medium, subangular grained sand; trace of glauconite	2600	
Gray, silty, micaceous shale	2791	
Gray shale; trace of light-gray chalk	2827	2857
Loose, fine- to medium- and coarse-grained, subangular and rounded sand; gray, micaceous shale and calcareous shale	3010	3039
Top Ordovician	3039	3055
Gray, light-gray, and steel-gray, fine and coarsely crystalline dolomite	3039	3075

NOTE: The Ordovician dolomite in this well is very similar to, if not the same as, Ordovician encountered in the Sun Oil Company No. 1 Citizens National Bank, 23-5N-13E, Newton County, Mississippi, at a depth of 8310.

SMITH COUNTY**Kirkwood & Campbell, JIM TURNER No. 1**

(Map Number—1)

Location: Carthage

Elevation: 525'

Date: ?

Total depth: 820'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Yellow clay	0	45
Gray lime, water	45	50
Yellow clay	50	54
White lime	54	74
Set 10" casing		
Yellow clay	74	78
White lime	78	80
Black slate and water	80	85
Gray lime	85	90
Mud Cave	90	93
Gray lime	93	98
Pencil Cave	98	100
White lime	100	120
Brown lime and sand	120	145
Water		
Brown, sandy lime	145	160
Water		
Gray lime	160	170
Brown lime	170	175
Blue lime	175	180
Gas and sulphur water		

<i>Lithology</i>	<i>From</i>	<i>To</i>
White lime	180	200
Set 6¼" casing		
Sandy lime	200	210
Gas		
Blue lime	210	235
Sand, brown	235	250
Gas		
White lime	250	265
Brown lime	265	290
Brown, sandy lime	290	300
Gas		
Gray lime	300	320
White lime	320	335
Brown lime	335	345
Brown, sandy lime	345	350
White water sand	350	357
Brown lime	357	377
6¼" set @ 362		
Gray lime	377	402
Brown, sandy lime	402	417
Gas		
Gray lime	417	432
Brown, sandy lime	432	442
Gas		
Blue lime	442	457
Gray lime	457	477
Brown gas sand	477	482
Brown lime	482	497
Gray lime	497	522
Brown lime	522	537
White lime	537	549
Brown, sandy lime	549	564
Gas		
Gray lime	564	589
Brown lime	589	600
Gray gas sand	600	615
Brown lime	615	620
Blue lime	620	670
Gray lime	670	690
Blue lime	690	715
Gray lime	715	745
Brown lime	745	770
White lime	770	780
Brown lime	780	790
White lime	790	795
White water sand	795	820

Haynes Oil & Gas Co., ALEX ALLEN No. 4

(Map Number—2)

Location: E/2 Sec. 16, 2S-42E

Elevation: ?

Date: ?

Total depth: 850'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	18
Shale and slate	18	65
Gas		
Brown lime	65	235

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sulphur water with strong show of oil @ 235		
Hard gray limestone	235	450
Break with strong show of gas @ 450		
Hard brown lime	450	590
Black shale and slate	590	656
Change in color of lime every screw	656	710
Black shale	710	730
Lime, changing color every screw	730	776
White limestone, very hard	776	800
Green limestone	800	810
Gritty gray lime	810	820
Changing from light-gray limestone to very dark brown every screw. One screw contained about 3' of green shale	820	850

E. A. Haynes et al, DIXON SPRINGS WELL

(Map Number—3)

Location: NE Sec. 17, 2S-42E

Elevation: ?

Date: ?

Total depth: 601'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray lime, water	0	85
Brown lime	85	130
Green shale	130	134
Sulphur water		
Brown lime	134	230
Gas, in thin shaly limestone		
Brown and gray, fine-grained lime	230	400
Gas		
Brown lime	400	438
Light-gray lime	438	440
Gas		
Brown lime	440	480
Banded gray and brown lime	480	601
Gas @ 230, 400; main flow @ 440		

Macyopia Oil Co., J. Y. PHILLIPS No. 1

(Map Number—4)

Location: NW Sec. 6, 5S-43E

Elevation: ?

Date: 1921

Total depth: 987½'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	6
Gray limestone	6	30
Soft, calcareous clay (very much like bentonite)	98	105
Blue limestone	105	140
Blue-gray lime with specks	140	150
Compact limestone	150	340
Soft limestone; blue-gray lime with brown specks @ 344		
Show of oil and gas @ 366-388 (no oil, gas, or water below 388)	340	390
Uniform lime	390	446

<i>Lithology</i>	<i>From</i>	<i>To</i>
Green shale	446	447
Dove limestone	447	451
Hard, flinty lime	451	459
Blue-gray, hard, compact limestone with specks in lower part	459	987½

Ohio Oil Co., JOE BALLARD No. 1

(Map Number—5)

Location: SE Sec. 2, 4S—43E

Elevation: ?

Date: 1927

Total depth: 450'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray lime	0	85
Pencil Cave	85	90
Gray lime	90	125
Brown sand	125	130
Gray lime	130	150
Water sand	150	160
Brown lime	160	175
Gas sand	175	180
Blue lime	180	195
Gray lime	195	215
Gas sand	215	220
Brown, blue, gray lime	220	291
Brown sand	291	307
Gas and salt water		
Brown, sandy lime	307	323½
Gray and brown lime	323½	430
Gas sand	430	434½
Brown lime	434½	450
Plugged and abandoned.		

REYNOLDS No. 1

(Map Number—6)

Location: C NE Sec. 3, 4S—43E

Elevation: 480'

Date: 1930

Total depth: 1173'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand	0	5
Clay	5	25
Boulders	25	32
Sand and water	32	38
Blue lime	38	40
Set 10" casing		
Pencil Cave	40	42
Water		
Gray lime	42	52
Brown lime	52	57
Sand and water	57	64
Brown lime	64	74
White lime and sulphur water	74	78
Brown lime	78	103
8¼" set @ 80		
Gray lime	103	118

<i>Lithology</i>	<i>From</i>	<i>To</i>
Light water sand	118	128
Brown lime	128	130
Reamed, reset 8¼" @ 130		
Gray lime	130	155
Brown lime	155	175
Cavey lime	175	195
Blue lime	195	210
Brown sand	210	240
Gray lime	240	245
Brown sand	245	250
White lime and gas	250	260
White sand, salt water	260	265
Brown lime	265	275
Sand, gas and salt water	275	278
Brown lime	278	285
Reset 8¼"		
Gray lime	285	310
Brown lime	310	325
Blue lime	325	345
Gray lime	345	360
Sand, gas and salt water	360	363
Brown lime	363	373
White lime	373	380
Sand, gas and salt water	380	383
Gray lime	383	408
Brown lime	408	433
Gray sand	433	468
Brown lime	468	478
Gray sand	478	485
Brown lime	485	495
Blue lime	495	760
White lime	760	775
Brown, sandy lime	775	795
Gray lime	795	805
Brown, sandy lime	805	820
Blue lime	820	830
Gray cap rock	830	836
Brown lime	836	856
Gray sand	856	906
Water 3' @ 870		
Brown lime	906	930
Gray lime	930	945
Brown sand	945	955
Blue lime	955	965
Gray lime	965	975
White, flinty lime	975	980
White water sand	980	986
Gray lime	986	991
6¼" set @ 987		
Brown lime	991	996
Gray sand	996	1021
Brown lime	1021	1031
Brown sand	1031	1046
White, flinty lime	1046	1061
White sand	1061	1086
Brown lime	1086	1091
White water sand	1091	1106
Gray lime	1106	1113
White water sand	1113	1128
Brown lime	1128	1133
Set 6¼" casing		
Gray lime	1133	1173

Kirkwood & Campbell, J. E. HIGH No. 1

(Map Number—7)

Location: SE SW SW Sec. 22, 3S—43E

Elevation: 544'

Date: 1932

Total depth: 590'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	3
Clay	3	23
Gray lime	23	28
Blue lime	28	98
Pencil Cave	98	100
Gray lime	100	125
Blue lime	125	150
Brown lime	150	165
Blue lime	165	185
White lime and water	185	205
Gray lime	205	230
Blue lime	230	255
Gray lime	255	280
Sand	280	305
Gas		
Gray lime	305	320
Set 6 1/4" casing		
Brown lime	320	345
Sand	345	360
Gas		
Gray lime	360	380
Gas sand	380	390
Brown lime	390	402
Gas sand	402	437
Gray lime	437	500
Brown lime	500	525
Gas sand	525	535
Gray lime	535	550
Brown lime	550	565
Gray lime	565	575
Gas sand	575	590

STEWART COUNTY

Midwest Tenn. Oil Co., A. J. GRAY No. 1

(Map Number—1)

Location: SE NE NW Sec. 18, 1S—18E (?)

Elevation: 377' (?)

Date: 1921

Total depth: 548'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand and gravel	0	8
Shale, black	8	63
Limestone, hard, white	63	110
Limestone, very hard (flint)	110	130
Limestone, white, hard	130	182
Limestone, white, fine	182	190
Limestone, gray, hard	190	210
Limestone, gray, brown	210	220
Limestone, gray	220	230
Limestone, brown, dark	230	260
Limestone, white	260	275
Limestone, gray	275	290
Limestone and flint	290	320
Limestone, blue and hard	320	340
Limestone, blue, and flint	340	350
Limestone, brown	350	355
Flint	355	360
Limestone, blue	360	380
Limestone, blue and hard	380	415
Limestone, hard, white	415	440
Limestone, blue and white	440	530
Limestone, white (oil sand)	530	540
Limestone, red	540	548

Midwest Tenn. Oil Co., MARVIN MILTON No. 1

(Map Number—2)

Location: NE SE SE Sec. 17, 1S—19E

Elevation: 391'

Date: 1921

Total depth: 1638'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	30
Chert, dense	30	164
Shale, black (Chattanooga shale)	164	239
Limestone, white and brown, water-bearing	239	375
Limestone, petroliferous	375	380
Limestone, dense, brown	380	495
Shale, blue	495	597
Limestone, white	597	602
Limestone, gray	602	608
Limestone, brown	608	612
Limestone, red	612	670
Limestone, white	670	696
Shale, green	696	706
Limestone and shale, brown	706	742
Limestone, red	742	904
Limestone, white	904	924
Limestone, dark-blue	924	1129
Limestone, gray	1129	1220

W. W. Dameron, L. H. PAGE No. 1-D

(Map Number—3)

Location: NE SW SW Sec. 11, A-20E

Elevation: 445'

Date: 1941

Total depth: 1805'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay and gravel	0	100
Red mud and gravel	100	132
Set 132' of 10" surface pipe		
Lime	132	155
Lime, broken	155	175
Set 174' of 8" casing		
Lime, gray	175	224
Lime, blue	224	262
Lime, black	262	288
Lime, blue	288	318
Lime, sandy	318	332
Lime, blue	332	474
Slate	474	495
Shale, green	495	507
Red rock	507	515
Shale, gray	515	530
Lime	530	540
Shale, blue	540	543
Shale, black	543	605
Lime, sandy	605	611
Sand	611	627
Show of oil @ 613		
Water @ 613-627		
Lime, gray	627	642
Lime, white	642	696
Set 6 3/4" casing @ 642		
Lime, gray	696	810
Lime, brown	810	820
Shale, gray	820	855
Lime, gray	855	858
Lime, red	858	965
Lime, brown	965	972
Shale, sandy	972	989
Lime, gray	989	1020
Shale and red rock	1020	1045
Lime, red	1045	1080
Lime, gray	1080	1093
Red rock	1093	1108
Lime, gray	1108	1130
Lime, red	1130	1152
Lime, gray	1152	1243
Lime, blue	1243	1252
Lime, black	1252	1350
Lime and blue slate	1350	1381
Slate, blue	1381	1420
Lime, blue	1420	1437
Lime shells and blue slate	1437	1451
Lime, gray	1451	1455
Lime, brown	1455	1485
Lime, gray	1485	1501
Shale, gray	1501	1504
Lime, gray	1504	1597
Lime, brown	1597	1612
Lime, gray	1612	1805

<i>Lithology</i>	SAMPLE DESCRIPTION	
	<i>From</i>	<i>To</i>
Samples missing	0	150
Tan to gray, medium-grained, highly cherty limestone	150	162
Blue-gray, medium-grained limestone (50%); tan and weathered to gray and dense chert (50%)	162	182
Light-tan to gray and brown chert (80%); gray, medium-grained limestone (20%)	182	187
Dull-white, angular chert (95%); gray, medium-grained limestone (5%)	187	192
Light-tan to dark-gray chert and some limestone	192	210
Dark-gray, medium-grained limestone (50%); light-tan to dark-gray chert (50%)	210	235
Dark-gray, medium-grained, cherty, argillaceous limestone	235	245
Dark-gray, fine-grained, cherty, argillaceous limestone	245	265
Dark-gray, medium-grained, pyritic, cherty, argillaceous limestone	267	311
Same as above, and clear, crystalline calcite	311	318
Same as above	318	327
Dark-gray, medium-grained, cherty, argillaceous limestone and crystalline calcite	327	345
Dark-gray, medium-grained, cherty, argillaceous limestone	349	395
Dark-gray, medium-grained, argillaceous limestone	395	407
Dark-gray, medium-grained, shaly limestone	407	433
Dark-gray, medium-grained, calcareous shale	433	490
Dark-gray, fine-grained shale	490	500
Reddish-brown and green, fine-grained, calcareous shale	500	521
Light to reddish-gray, medium-grained limestone and some shale	521	534
Light-gray, fine-grained limestone (50%); dark-gray to black shale (50%)	534	540
Coal-black shale and some pyrite	540	587
Same as above	594	601
Dull-white, glauconite-specked, medium-grained limestone (50%); coal-black shale (50%)	601	608
Dull-white, glauconite-specked, medium-grained, cherty limestone	608	612
Chalk-white, calcareous chert	618	627
White, calcareous chert	627	632
Light-gray to white, calcareous chert	632	647
White, calcareous chert	647	667
White to buff, fine-grained limestone and chert	667	680
White, medium-grained, cherty limestone	680	687
White to buff, fine-grained, cherty limestone	687	696
Light-gray, medium-grained limestone and some glauconite (50%); light-gray, glassy, speckled chert (50%)	696	702
Light-gray, medium-grained, cherty limestone	702	708
Light-gray, medium-grained, cherty limestone	712	716
Light-gray, medium-grained, slightly glauconitic, cherty limestone	716	720
Light-gray, glassy, calcareous chert	720	728
Buff to light-gray, medium-grained, cherty limestone	728	735
Light-gray, medium-grained, cherty limestone	735	740
Light-gray, fine-grained, slightly cherty, glauconitic limestone	740	750
Light-gray, medium-grained, slightly cherty, glauconitic limestone	750	765
Light-gray, medium-grained, cherty limestone	765	770
Light-gray, medium-grained, glauconitic, cherty limestone	770	780
Light-gray, medium-grained, cherty limestone	780	795
Same as above, and glauconite	795	800
White, pink-specked, coarse-grained, pyritic limestone (distinct change in lithology)	800	805

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray, fine-grained, argillaceous limestone	805	813
Gray, fine-grained, fossiliferous, argillaceous limestone	813	820
White to gray, fine- to coarse-grained, fossiliferous, argillaceous limestone (glauconite @ 829-837)	820	855
White, coarse-grained, pink-specked limestone and some gray, argillaceous limestone	855	860
White, coarse-grained, pink-specked limestone	860	865
Dull-red, coarse-grained limestone	865	870
White to pink, coarse-grained limestone and few pieces green shale	870	880
Pink, coarse-grained limestone and some green shale	880	892
Beautiful pinkish-red, coarse-grained limestone and some green shale	892	901
Brownish-red, coarse-grained limestone and some green shale	901	907
Pink, coarse-grained limestone and some green shale	907	912
White to red, coarse-grained limestone	918	923
White to pinkish-red, coarse-grained limestone	923	947
Reddish-brown, coarse-grained limestone	947	957
Reddish-brown, coarse limestone	957	962
Pink, coarse-grained limestone	962	965
White to light-amber and pink, coarse-grained limestone	965	971
Gray, medium-grained, shaly limestone (50%); white, coarse-grained limestone (50%)	971	980
Gray, medium- to fine-grained, cherty, shaly limestone	980	994
Gray, medium-grained limestone	994	1006
White to reddish-gray, coarse-grained limestone	1006	1011
White, greenish, and reddish, medium- to coarse-grained limestone	1011	1020
Gray, medium- to coarse-grained limestone (50%); deep-red, fine-grained, argillaceous limestone	1020	1030
Deep-red and green, fine-grained, shaly limestone	1030	1040
Deep-red and green, fine- to coarse-grained, shaly limestone	1040	1045
Deep-red, coarse-grained, argillaceous limestone	1045	1055
Deep-red, medium-grained, argillaceous limestone	1055	1060
Red, coarse-grained, fossiliferous limestone	1060	1062
Deep-red, fossiliferous limestone	1068	1076
Light-gray to gray, fine-grained limestone	1076	1086
Light-gray, coarse-grained, fossiliferous, heavily pink-specked limestone ("Laurel" lithology)	1086	1098
Red, medium-grained limestone	1098	1100
Light-gray to reddish, coarse-grained limestone	1100	1110
Light-gray to pinkish, coarse-grained limestone	1110	1117
White, fine-grained limestone	1117	1122
Light-gray to red, fine- to coarse-grained limestone	1122	1130
Dark-red to green, coarse-grained limestone	1130	1140
Reddish-brown, medium-grained, shaly limestone	1140	1146
Reddish-brown and green, medium-grained limestone	1146	1152
Light-gray, fine-grained, highly cherty limestone	1152	1157
Light-gray, glassy, semitransparent chert and limestone	1157	1161
Light-gray, medium-grained, glauconitic, cherty limestone	1161	1173
Light-gray, medium-grained, pyritic, heavily glauconitic, cherty limestone	1173	1180
White, coarse-grained limestone (Fernvale lithology)	1180	1189
White, black-specked, coarse-grained limestone (Fernvale lithology)	1189	1206
Dark-gray, medium-grained, shaly limestone	1206	1220
Dark-gray, medium-grained, black-specked, shaly limestone	1220	1230
Dark-gray, medium-grained, shaly limestone	1230	1243
Very dark gray, medium-grained, black-specked, cherty, shaly limestone	1243	1252
Dark-gray, medium-grained, shaly limestone	1252	1270

<i>Lithology</i>	<i>From</i>	<i>To</i>
Very dark gray, medium-grained, shaly limestone (Hermitage lithology)	1270	1294
Limestone, dark-gray, medium-grained, phosphatic, silty	1294	1305
Limestone, gray, medium-grained, silty, phosphatic; siltstone, dark-gray	1305	1325
Siltstone, dark-gray to tan, limy; limestone, dark-gray, very silty	1325	1361
Siltstone, dark-gray, limy	1361	1368
Siltstone, dark-gray; limestone, dark-gray to tannish, silty; shale, tan	1368	1375
Siltstone, dark-gray; limestone, dark-gray, silty	1375	1392
Siltstone, dark-gray; limestone, light-gray, granular, phosphatic (5%)	1392	1397
Siltstone, dark-gray; limestone, light-gray, granular, phosphatic (?) with few fragments of dull-gray chert and pyrite	1397	1411
Siltstone, dark-gray to tan, fine-grained; limy siltstone; limestone, dark-gray, silty	1411	1448
Siltstone, dark-gray; siltstone, light-gray, limy; limestone, dark-gray, silty; limestone, fine-grained, tan, slightly magnesian	1448	1455
Limestone, tan, granular, fine-grained, slightly magnesian; limestone, light-tan, slightly argillaceous	1455	1463
Limestone, tan, granular, fine-grained, slightly magnesian; limestone, light-tan, slightly argillaceous, shaly nature	1463	1473
Limestone, dark-tan, dense, slightly magnesian; limestone, light-tan, medium-grained	1473	1477
Limestone, dull-white to light-tan; numerous facets of calcite crystals in finer matrix	1477	1484
Limestone, dull-white to light-tan; numerous facets of calcite crystals in finer matrix, but becoming sucrositic	1484	1491
Limestone, dull-white to tan, dense to medium-grained	1491	1506
Limestone, dull-white, soft, argillaceous; limestone, dull-white to tan, dense to granular	1506	1513
Limestone, dull-white, soft; limestone, tan to grayish-tan, dense to granular	1513	1520
Limestone, dull-white, soft; limestone, light-tan to tan, dense to granular, slightly magnesian	1520	1526
Limestone, tan-gray, dense, argillaceous	1526	1550
Limestone, tan to dark-tan, dense to granular, argillaceous; limestone, dull-white, soft, argillaceous	1550	1555
Limestone, dull-white to dark-gray, dense to granular, slightly organic and argillaceous	1555	1562
Limestone, tan to dark-gray, dense to fine-grained, argillaceous	1562	1570
Limestone, dull-white to dark-gray, dense, and medium-grained, argillaceous	1570	1577
Limestone, dull-white to tan, dense to fine-grained, argillaceous	1577	1585
Limestone, dull-white, soft, argillaceous; limestone, tan to tannish-gray, fine-grained, blended, argillaceous; chert, bluish-gray, speckled (15%)	1585	1592
Limestone, dull-white, soft, argillaceous; limestone, tan to tannish-gray, fine-grained, blended, argillaceous; chert, bluish-gray, speckled increases (40%)	1592	1615
Limestone, grayish-blue, fine-grained, argillaceous; chert, (10%)	1615	1627
Limestone, dull-white to light-gray, fine-grained, silty; limestone, tan to bluish-gray, dense, argillaceous	1627	1642
Limestone, dark grayish-tan to bluish-gray, dense to granular, very argillaceous	1642	1650
Limestone, tan to dark-gray, dense to granular, argillaceous	1650	1658

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dull-white, to dark-gray, dense to fine-grained, argillaceous; chert, brown-speckled	1658	1668
Limestone, tan, dense; limestone, dull-white, soft; chert, brown-speckled	1668	1673
Limestone, tan to dark-gray, granular; chert	1673	1679
Limestone, tan and gray, dense; chert	1679	1687
Limestone, tan and gray, dense; shale, dark-gray; chert	1687	1692
Limestone, tan to gray, dense to fine-grained; limestone, dark-gray, fine-grained, very argillaceous; chert	1692	1699
Limestone, tan, dense; shale, dark-gray and greenish	1699	1705
Limestone, tan-gray, dense, blended; limestone, dark-gray, argillaceous (greenish)	1705	1710
Limestone, tan-gray, dense; limestone, dark-gray, very argillaceous	1710	1714

S. P. Berry et al, A. J. GRAY No. 1

(Map Number—4)

Location: NW SE SW Sec. 13, 1S—18E

Elevation: 364'

Date: 1943

Total depth: 1950'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Not recorded	0	652
Red rock, green shale, hard	652	657
Red rock, hard	657	725
Lime, white, hard	725	730
Lime, light-gray, hard	730	740
Red rock, hard	740	765
Lime, light-gray, hard	765	770
Lime, gray, hard	770	830
Lime, dark-gray, hard	830	900
Lime, black, hard	900	985
Lime, change black to brown, hard	985	990
Lime, brown, hard	990	1070
Lime, gray-brown, hard	1070	1095
Lime, brown, hard	1095	1125
Lime, brown, medium	1125	1130
Lime, dark-gray, medium	1130	1150
Lime, medium-dark gray, hard	1150	1170
Lime, dark-gray, hard	1170	1180
Lime, brown, hard	1180	1185
Lime, dark-gray, hard	1185	1195
Lime, dark-gray, medium	1195	1230
Lime, gray-brown, medium	1230	1245
Lime, gray-brown, hard	1245	1330
Lime, gray-brown, medium	1330	1335
Lime, light-brown, medium	1335	1365
Lime, medium-gray, hard	1365	1375
Lime, dark-gray, hard	1375	1405
Lime, medium-gray, hard	1405	1415
Lime, light-gray, hard	1415	1435
Lime, gray to brown, hard	1435	1710
Lime, light-gray, hard	1710	1720
Lime, medium-gray, hard	1720	1730
Lime, light-gray, hard	1730	1775
Lime, sandy, gray, hard	1775	1785

<i>Lithology</i>	SAMPLE DESCRIPTION	<i>From</i>	<i>To</i>
Mississippian system			
Lower Mississippian Series			
	Chattanooga shale, very dark gray to dull-black, fine-grained shale with minor amounts of pyrite	0	77
Devonian system			
Middle Devonian Series			
	Pegram (?) limestone	77	90
	Light-gray to slightly pinkish, medium- to coarse-grained limestone, some of which (sample 82-85' and 87-90') contains many phosphatic pellets. The insoluble residues show a considerable amount of gray to milky, sharp, smooth, dense, translucent chert and a small amount of glassy, angular quartz. A short distance south of State Highway 76, probably near the axis of the Standing Rock anticline, some 8-10' of cherty limestone overlies beds of undoubted Camden age. The direct correlation of these strata with the Middle Devonian Pegram limestone of Middle Tennessee has not been definitely established, but the relationship on the outcrop clearly indicates that these beds are younger than the Camden.		
	Camden chert	90	470
	Dead-white to grayish, medium-grained limestone with some white, sugary dolomite. The residues consist essentially of two types of chert: (1) white, finely doloclastic to novaculitic variety and (2) a dead-white, chalky variety. The residues throughout this section range from approximately 35-60% by volume of the original samples. A marked decrease in residues occurs in samples between 248-290', where approximately 10-25% of the originals are insoluble. Below 319' the cherts become somewhat darker—gray, tan, and brown being the predominant colors. The cherts in this section remain finely doloclastic, dense and sharp, but there is an almost complete absence of the tripolitic variety which characterizes the upper part of this chert section. It is possible that the section between 319 and 470 represents the Harriman chert, which is known to underlie the Camden at no great distance to the south. However, since these formations are very difficult to differentiate on the outcrop, no attempt has been made to distinguish them in the samples.		
Lower Devonian Series			
	Birdsong formation	470	555
	Calcareous, hard, gray to greenish-gray shales, some samples abundantly fossiliferous, ostracods and crinoid fragments common. Occasional white, fine-grained to dense limestone, some of which is glauconitic. A small amount of greenish to opaque chert. The residues consist of soft, tan shales with a few pieces of greenish opaque chert and constitute 25-45% of the original samples.		
	The general lithology, together with the abundant ostracods make it possible to correlate this section with the Birdsong formation of Helderberg age which is exposed at the steel bridge on Big Sandy River a few miles to the south-southwest of the well.		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Silurian System		
Middle Silurian Series		
Decatur limestone	555	577
Chocolate-colored, somewhat glauconitic, fine-grained, slightly argillaceous limestone with minor amounts of white to somewhat pinkish, medium- to coarse-grained limestone. The residues, averaging approximately 10-15%, are soft, porous, chocolate and tan shales.		
Although the Decatur in its type section to the south consists essentially of pure gray and white to pinkish limestone, surface work north of the type area indicates an increasing amount of red in the formation. At the sulphur spring in Henry County some 12 miles to the south-southwest the Decatur outcrops where the lithology is essentially the same as in this test.		
Brownsport formation	577	599
Medium-grained to dense, somewhat dolomitic limestone, varying in color from white to gray with some samples showing a pinkish tinge. Some white to milky, dense, sharp chert is present, especially in the samples between 588-599. The residues consist of cherts described above, together with tan to slightly reddish, soft, porous shales and constitute 10-15% of the original samples.		
The section between 577-599 probably represents the Lobelville member of the Brownsport formation. Although no samples are available from 599-645, it is quite probable that a fully developed Brownsport section was penetrated in this test. The two other members, the Bob, a coarse-grained pure glauconitic limestone, and the shaly Beech River member are probably present in the missing samples.		
Dixon formation	645	679
Chocolate-colored to grayish, very argillaceous and clayey, fine-grained, mottled limestone with some white, fine-grained limestone and chocolate-colored, soft shales. The residues are soft, porous, red shale forming 20-25% of the original samples and are in striking contrast by volume with the overlying Brownsport and the underlying Lego formations.		
The Dixon formation is well-exposed in the highly disturbed Wells Creek Basin in southeastern Stewart County, approximately 25 miles from this test, where the formation is 42' thick.		
Lego formation	679	720
Gray to pinkish- and reddish-mottled, medium- to coarse-grained limestone. Residues, 10-15% by volume, are light reddish-tan shales with minor amounts of light-colored chert and siltstone.		
Laurel formation	725	740
White to light-gray and pinkish, dense, fine- to medium-grained pure limestone. The residues are soft, light-gray shales averaging less than 10% by volume.		
Lower Silurian Series		
Osgood formation	740	760
Reddish to white and gray limestone, much of which is argillaceous. The red limestone predominates in		

<i>Lithology</i>	<i>From</i>	<i>To</i>
the samples between 745-760. The residues consist of red and gray, soft, porous shales and constitute 30-50% of the original samples.		
Brassfield formation	760	780
White to light-gray, fine- to medium-grained limestone with abundant translucent to milky, sharp, dense chert. The residues are essentially chert described above and minor amounts of soft, porous, tan and gray shale. They constitute approximately 50% of the sample.		
Fernvale formation	780	810
Fine- to coarse-grained, white to gray and pinkish limestone with many phosphatic pellets and some glauconite. Pyrite relatively common. A pyritized gastropod in sample 785-790. The residues, less than 10% by volume, are soft, phosphatic, gray and reddish-brown shales.		
Ordovician System		
Trenton group		
Hermitage formation (?)	810	995
Medium- to dark-gray, nearly black, calcareous shale with varying amounts of somewhat lighter gray, argillaceous and clayey limestone. Residue, 50-75% by volume, is a gray to very dark gray, rather hard, medium- to fine-grained shale with minor amounts of light-colored siltstone.		
<p>The absence of deep wells on the northwest flank of the Nashville dome makes it difficult to correlate this part of the section with the well-developed Middle Ordovician (Trenton group) on the outcrop in the Central Basin. The general lithology of the section of this test is strikingly similar to the Hermitage formation (basal Trenton in the Central Basin). The Bigby, Cannon, and Catheys, all of Trenton age, and the overlying Leipers (Maysville) do not appear to be developed in this test. Moreover, the entire Trenton section has decreased in thickness from approximately 450-500' on the outcrop to the 185' logged in this test. In the Wells Creek Basin, some 25 miles southwest of this test, the Hermitage has been recognized where it is probably directly overlain by strata of Silurian age.</p>		
Black River group		
Carters limestone	995	1070
Medium- to coarse-grained, light-tan and gray to brownish limestone. The residues (5-10% by volume) consist of tan, finely dolocastic chert with some white, dense, sharp chert and minor amounts of hard, tan shale. A silicified cross-section of <i>Tetradium</i> , probably <i>T. celluloseum</i> in the sample at 1030-1035. From 1050-1070 the dead-white, dense to dolocastic chert so characteristic of the lower Carters, is present.		
Stones River group		
Lebanon limestone	1070	1225
Dense to medium-grained, tan and gray limestone. The residues, averaging around 5%, consist of tan and brown, finely dolocastic chert, some dark-brown and tan shales, and chert as above. The residues below 1120 are essentially shale with increasing amounts of dense chert below 1155.		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Ridley limestone	1225	1325
Medium-gray to tannish limestone with some light-gray to white, coarse-grained limestone. The insoluble residues, averaging less than 5%, are very dark gray, sharp to dolocastic chert with light-colored cherts at 1255-1270. Minor amounts of tan and brown, soft, porous shales are present, especially below 1270.		
Pierce formation	1325	1365
Gray and tan with white, medium-grained limestone. The residues, 10-15% by volume, consist essentially of light-gray and tan shale.		
Murfreesboro limestone	1365	1710
Medium- to dark-gray, fine- to medium-grained limestone. The residues (10-15%) from 1365-1385 are dark-gray, dense to dolocastic chert, a characteristic residue of the Upper Murfreesboro section. Shales predominate in the lower part of the section, ranging from soft, tan and brown, porous types to very dark gray, hard shales.		
Dolomite	1710	1950
Light-gray to medium-gray and tan, fine- to medium-grained dolomite with minor amounts of soft, green, waxy shale. The residues from 1710-1820 consist of dark-gray, hard shale with some light-tan to greenish gray, softer shale and minor amounts of dolocastic silica. The residues through this interval approximate 5%. From 1820-1840 the residues (10%) consist of harder green shales, white dolocastic silica, and varying amounts of angular to subrounded, pitted and frosted grains. Between 1840-1890, hard, darker greenish-gray shale, some light-colored dolocastic silica, and minor amounts of quartz grains are present. At 1890 a rather abrupt increase in residues (25-40%) appears. The insolubles are white, dolocastic shale, minor amounts of green shale, and pitted and frosted, angular to subrounded quartz grains.		

The general lithology of the section below 1710 is essentially dolomite and is undoubtedly Knox. The complete absence of typical, dense and dolocastic to oolitic cherts suggests the possibility that the Knox section penetrated in this test is somewhat younger than the Knox as known in the subsurface in the Nashville region.

Yandell Oil Co., MOORE No. 1

(Map Number—5)

Location: NE SW NE Sec. 7, B—20E

Elevation: 360'±

Date: 1951

Total depth: 741'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Tuscaloosa—Alluvial gravel, cherty and hard to core	0	57
Warsaw—Lime, fine-grained, crystallized	57	87
Osage—Dark lime, fine-grained, almost metamorphic, closely cemented with chert	87	138
More chert, fine-grained, almost black, massive and dense	138	155
Fine-grained, dark, closely cemented, very siliceous and thicker seams of flinty chert	155	162

<i>Lithology</i>	<i>From</i>	<i>To</i>
Fine-grained, dark, still siliceous, sulphur gas	162	184
Same as above, with sulphur gas	184	200
More dense and siliceous, extremely hard, cherty, dark	200	220
So hard it smooths diamonds in 12'	220	285
Sulphur gas		
Fine-grained, siliceous, still massive, very hard	285	310
Still hard, but firm, closely cemented, cherty	310	350
Fine-grained, dark	350	395
Sulphur gas blew for 22 hrs.		
Chert laminations thicker than above	395	450
Less chert, but still fine, cemented, hard	450	475
Shale, seams of light-gray lime, still very hard	475	500
Chert seams in place of shale formation, hard	500	560
Unconformity, broken, still dark lime and shale	560	580
Greenish to blue shale	580	587
Chattanooga shale, black, dense	587	679
Light-gray with white spots	679	689
Upper member softer, but lower member very hard, with chert seams	689	741

SUMNER COUNTY

Davenport & Harper, PAUL CRAFTON No. 1

(Map Number—1)

Location: SW NE SW Sec. 5, A—36E

Elevation: 711'

Date: ?

Total depth: 790'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chattanooga shale (60%) and some siltstone, light-gray, medium-granular (40%)	375	380
Siltstone, light-gray, medium-granular	380	390
Same, plus limestone, light-gray, fine-grained (10%)	390	395
Limestone, light-gray, fine-grained	395	410
Limestone, light-gray, medium-grained	410	415
Limestone and shale, light-gray, medium-granular	415	420
Limestone, bluish-gray, fine-grained, silty (reacts slowly in dilute hydrochloric acid)	420	430
Limestone, light-gray, pure, fine-grained, with some pyrite	430	435
Limestone, light-gray, fine-grained (95%) with some limestone, gray and gray to black (5%), and some pyrite	440	445
Limestone, white to light-gray, fine-granular, with small amounts of chert and pyrite	445	450
Limestone, light-gray, medium- to coarse-grained, with chert, dense, small amounts	450	455
Limestone, light-gray, fine-granular, with small amount iron staining	455	460
Limestone, light-gray, fine-granular, iron staining (specks)	460	465
Limestone, light-gray, fine-granular	465	470
Limestone, light-gray, fine-granular, pure, with considerable iron staining	470	475
Limestone, pure white, fine-granular, with small amounts of pink staining	475	480
Limestone, pure white, medium-grained, with pink specks	480	485
Limestone, pure white, pink-speckled, medium-grained (80%) and some limestone, gray, medium-grained (20%)	485	490

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray, medium-grained (80%) containing considerable pyrite, and some limestone, pure white, medium-grained (20%)	490	495
Limestone, light-gray, fine-grained to dense (40%); some limestone, gray (30%); pure white, medium-granular limestone (30%)	495	500
Limestone, light-gray, fine-grained to dense (90%) and limestone, gray, medium-grained (10%)	500	505
Limestone, light-gray, fine-grained, with small amounts of pyrite	505	510
Limestone, light-gray, fine-grained, pure	510	515
Limestone, light-gray, fine-grained, pink-speckled (Laurel lithology)	515	520
Limestone, light-gray to white, pink-speckled, medium-grained	520	525
Limestone, light-gray to white, medium-granular, containing decomposed pyrite	525	530
Limestone and shale, light-gray, fine- to medium-grained (Osgood ?)	530	535
Shale, gray, fine-grained	535	540
Same, plus limestone, light-gray, sucrose (50%)	540	545
Shale, gray, fine-grained, calcareous (30%) and limestone, light-gray to tan, medium-grained (70%)	545	550
Limestone, light-gray to tan, coarse-grained (90%) with some limestone, gray, fine-grained, and with some shale, calcareous (10%)	550	555
Shale, gray, fine-grained, sucrose, calcareous	555	560
Limestone, gray, medium-grained, fossiliferous	560	565
Limestone, gray, crystalline (Fernvale ?)	565	570
Limestone, gray to light-gray, crystalline	570	575
Limestone, gray, crystalline, with some iron staining	575	580
Limestone, gray to light-gray, crystalline	580	585
Limestone, gray, fine-grained	585	590
Limestone, gray, medium-grained	590	595

White & Moore, ALBRIGHT No. 1

(Map Number—2)

Location: SE SE SW Sec. 3, 1S—38E

Elevation: 593'

Date: 1919 (?)

Total depth: 1250'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	6
Gray limestone, hard	6	38
Brown limestone, hard	38	80
Gray limestone, soft	80	230
Light-brown limestone	230	260
Slate (shale) and limestone	260	420
Brown limestone, hard	420	435
Brown limestone, soft	435	480
Gray limestone, hard	480	600
Brown limestone, soft	600	606
Brown limestone, hard	606	646
Gray limestone, soft	646	706
Gray limestone, hard	706	931
Light-brown limestone, hard	931	1011
Brown limestone, hard	1011	1170
"Trenton" rock, soft	1170	1240

Stopped in a hard, brown limestone.

Jones & Huffman, E. E. COLE No. 1

(Map Number—3)

Location: NE SE NW Sec. 14, 2S—34E

Elevation: 524'

Date: 1928

Total depth: 815'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, dark-blue, shaly, with numerous specimens <i>Strep-</i> <i>telasma rusticum</i>	0	65
Puff of gas @ 58		
Lime, blue, granular, with abundant bryozoa fragments ...	65	120
Set 6¼" casing @ 91½		
Puff of wet gas @ 116		
Lime, dark-blue and black, shaly, with many bryozoa frag- ments	120	160
Lime, lighter blue-gray, coarsely crystalline, much pyrite ...	160	175
Lime, dark-blue to black, coarsely-crystalline, pyritic	175	185
Lime, dark-blue to black, dense	185	190
Lime, dark-blue, crystalline, with abundant pyrite	190	200
Lime, light- and dark-blue, shaly	200	260
Lime, light-gray, crystalline	260	285
Lime, dark-blue, crystalline	285	290
Lime, light-gray, crystalline	290	305
Lime, dark blue-gray, coarsely crystalline, shell fragments ...	305	350
Lime, very light gray, crystalline	350	375
Lime, black, shaly	375	380
Lime, light blue-gray, crystalline, with much altered pyrite and numerous fragments of brachiopod shells	380	430
Lime, dark blue-gray, dense, shaly, numerous shell frag- ments	430	470
Lime, very light gray, dense	470	500
Lime, light to dark blue-gray, finely crystalline to dense ...	500	510
Lime, light-gray, coarsely crystalline, abundant pyrite	510	555
Lime, dark blue-gray, dense, pyritic	555	560
Lime, light-blue, crystalline	560	565
Lime, dark blue-gray, fine-grained to dense, pyritic	565	595
Lime, brownish-gray, crystalline, pyritic	595	600
Lime, light-gray, crystalline	600	605
Lime, dark blue-gray, finely crystalline to dense, pyritic ...	605	620
Pencil Cave (very thin, if present)		
Note: The Pencil Cave horizon was not definitely recog- nized. The driller reported its presence @ 620, but no indication could be found in the cuttings.		
Lime, dark blue-gray, dense	620	635
Lime, dark blue-gray, crystalline, pyritic	635	640
Lime, dark-blue, dense	640	695
Lime, dark brownish-gray, crystalline	695	700
Lime, dark-blue, dense, pyritic	700	730
Lime, dark-blue to brown, coarsely crystalline, pyritic	730	765
Lime, dark-blue to black, dense	765	775
Lime, dark-blue and light-gray, dense, with much pyrite ...	775	795
Lime, very light gray to white	795	805
Lime, light-gray, dense	805	810
Lime, light-gray, coarsely crystalline, with much pyrite ...	810	815

Tennessee Fuel Gas Syn., HUB PERDUE No. 1

(Map Number—4)

Location: NW NW SW Sec. 11, 1S—38E

Elevation: 527'

Date: 1936

Total depth: 1125'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, dark blue-gray	7	13
Same, fine to coarse	13	33
Limestone, dark blue-gray, particles of white calcite	33	38
Limestone, dark blue-gray, fine to coarse	38	64
Limestone, blue-gray, calcite crystalline	64	70
Limestone, gray to dark-gray, fine to coarse	70	76
Limestone, light-gray, fine to coarse	76	82
Limestone, blue-gray, medium to coarse	82	88
Limestone, white- to light-gray to blue-gray, calcite crystalline	88	94
Limestone, blue-gray, calcite crystalline	94	100
Limestone, dark blue-gray, calcite crystals	100	120
Limestone, gray, calcite crystals	120	125
Limestone, dark blue-gray, no calcite crystals, medium to coarse	125	136
Limestone, dark blue-gray, medium to coarse, no calcite crystals	136	175
Limestone, light-gray, calcite crystals	175	180
Limestone, gray, limonite flakes	182	189
Same	195	205
Limestone, gray to dark-gray	205	210
Limestone, gray, fine to medium	210	215
Same	225	230
Limestone, same, some dark to blue-gray particles	230	235
Limestone, gray, fine to medium	235	254
Same	259	264
Limestone, gray and dark-gray	264	269
Same	274	279
Limestone, dark-gray, fine to medium	279	306
Limestone, gray	306	330
Limestone, dark-gray	330	350
Limestone, blue-gray, fine to coarse	350	357
Limestone, dark-gray	357	364
Limestone, blue-gray	364	378
Limestone, dark-gray	378	402
Limestone, gray, coral fragments present	402	407
Same, no coral fragments noted (sample dirty)	407	425
Limestone, dark-gray	425	440
Same, large flakes present	440	445
Limestone, dark-gray	445	450
Same, with shell fragments	450	457
Limestone, dark-gray, with some gray limestone	464	470
Limestone, blue-gray	470	496
Limestone, gray and dark-gray	496	532
Limestone, blue-gray, small amount of gray limestone	532	538
Limestone, blue-gray	538	544
Limestone, gray and blue-gray	544	550
Same, dirty sample	550	577
Limestone, gray, small fragments of blue-gray	577	595
Limestone, very light-gray, dirty sample	595	600
Limestone, gray, dirty sample	600	605
Limestone, gray	605	610
Limestone, brown-gray and dark-gray	610	615
Limestone, blue-gray and brown-gray	615	626

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, blue-gray, dirty sample	626	644
Limestone, blue-gray	644	650
Same, some shell fragments	650	656
Limestone, gray, some dark blue-gray limestone	656	662
Limestone, blue-gray, some gray limestone	662	680
Limestone, blue-gray	680	691
Same, dirty sample	691	759
Limestone, blue-gray, small amount of gray limestone	759	773
Limestone, gray and blue-gray	773	794
Limestone, dark-gray	794	806
Same, dirty sample	806	812
Limestone, dark-gray, small amount of gray limestone	812	817
Limestone, dark-gray, small flakes of steel (?)—probably drill bit	817	820
Same, no particles of steel	820	836
Limestone, blue-gray	836	855
Limestone, gray to dark-gray	855	869
Limestone, gray	869	874
Limestone, dark-gray to blue-gray	874	887
Limestone, gray to almost white	887	900
Limestone, gray to white, crystalline	900	937
Limestone, white to gray, contains large amounts of green granular material	937	944
Limestone, white to gray, contains pyrite (?) crystals	944	956
Dolomite, crystalline, white, some pyrite imbedded, some green granular material	956	962
Dolomite, white, with small amount of green material	962	968

C. F. West et al, O. L. McDOLE No. 1

(Map Number—5)

Location: Sec. 4 (?), A—40E

Elevation: ?

Date: 1938

Total depth: 450'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	2
Gravel	2	6
Black shale	6	46
Cave @ 25-30 in shale		
Lime, blue	46	53
Clay and mud	53	56
Lime, gray and brown, hard	56	58
Lime, gray and blue, hard	58	63
Same, softer	63	68
Lime, gray, soft	68	78
Lime, gray, very hard	78	88
Lime, gray and green, medium	88	93
Shale, soft, green (Waldron)	93	103
Limy shale, gray and brown	103	108
Limy shale, dark-brown	108	113
Shaly lime, brown-blue	113	118
Lime, greenish-yellow	118	120
Sandy lime, yellow	120	125
Water		
Shaly limestone, blue-green	125	130
Gas		
Lime, dark-gray, hard	130	143
CASING RECORD:		
6¼" @ 81		

Shwab, Hurt, Taggart & Read, JESSE SLAYTON No. 1

(Map Number—6)

Location: NE NE SE Sec. 23, B—39E

Elevation: 794' (?)

Date: 1938

Total depth: 1015'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
No record available above 530		
Lime, gray, soft	530	610
Lime, gray, hard	610	640
Lime, gray, soft	640	650
Lime, dark-brown, hard	650	690
Lime, hard, brown	690	700
Lime, gray, hard	700	750
Lime, dark-blue, soft	750	850
Lime, dark-blue or black, soft	850	880
Pencil Cave, green (2' soft)	880	885
Lime, brown, hard	885	960
Lime, gray, hard	960	1000
Lime, brown, hard	1000	1010
Lime, brown, soft	1010	1015

Bethpage Oil & Gas Co., CORRIGAN-WOMACK No. 1

(Map Number—7)

Location: NW SE SE Sec. 24, A—39E

Elevation: 564'

Date: 1938

Total depth: 1014'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	4
Gray lime	4	19
Water sand	19	20
Gray lime	20	101
Set 6" casing		
Dark lime	101	142
Gas		
Gray lime	142	220
Brown lime	220	250
Dark lime	250	262
Light sand	262	267
Gas		
Dark lime	267	298
Brown, flinty lime	298	300
Light, flinty lime	300	303
Dark, flinty lime	303	310
Brown, flinty lime	310	325
Dark, flinty lime	325	338
Brown, flinty lime	338	365
Gray, flinty lime	365	400
Dark lime	400	420
Gray lime	420	430
Lime	430	477
Flinty cap	477	502
Gray rock	502	503
Hard rock	503	600
Sandy lime	600	817
Gas		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gray and brown lime	900	913
White sand	913	916
Gray lime	916	921
Brown lime	921	925
Gray lime	925	947

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray	602	608
Limestone, gray (dark-gray limestone)	608	611
Limestone, gray (iron stain)	611	614
Limestone, gray-blue	614	617
Limestone, white, calcite crystals	617	620
Limestone, white, blue-gray, calcite crystals	620	623
Limestone, white and blue-gray	623	626
Limestone, gray to blue-gray	626	629
Limestone, white-gray (shale particles)	629	631
Limestone, white	631	634
Limestone, blue-gray, iron stains	634	637
Limestone, white to blue-gray (iron stains)	637	640
Limestone, white (iron stain)	640	643
Limestone, white	643	646
Limestone, dark-gray	646	655
Limestone, light blue-gray, calcite crystals	655	658
Limestone, gray, possibly particles of chert	658	661
Limestone, blue-gray, shell fragments	661	664
Limestone, blue-gray	664	670
Limestone, gray and blue-gray	670	673
Limestone, blue-gray	673	709
Same (some gray limestone)	709	712
Limestone, blue-gray	712	715
Same (some gray limestone)	715	718
Limestone, gray	718	721
Limestone, blue-gray, small particles are gray limestone	721	724
Limestone, gray, particles stained with iron	724	727
Limestone, gray and blue-gray, iron stains	727	730
Limestone, dark-gray	730	736
Limestone, gray and dark-gray	736	739
Limestone, dark-gray	739	742
Limestone, dark-gray to blue-gray	742	745
Limestone, blue-gray	745	748
Limestone, gray	748	751
Limestone, dark-gray	751	760
Same (iron stains present)	760	763
Limestone, dark-gray and blue-gray	763	766
Limestone, dark-gray	766	769
Limestone, gray to dark-gray, calcite crystals present	769	771
Limestone, blue-gray	771	774
Limestone, dark-gray	774	777
Limestone, dark to blue-gray	777	780
Limestone, dark blue-gray	780	783
Limestone, blue-gray	783	786
Same. Ostracod shell (?)	786	789
Limestone, blue-gray	789	795
Limestone, dark-gray to blue-gray	795	798
Limestone, blue-gray	798	801
Limestone, gray	801	804
Same (fine grains)	804	810
Same, white particles	810	813
Limestone, dark-gray (fine particles), iron stains	813	816
Limestone, dark-gray (medium)	816	819
Same (medium to coarse)	819	825

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, gray (fine grains)	825	828
Limestone, blue-gray (coarse)	828	831
Limestone, gray and blue-gray (medium and coarse)	831	840
Same (medium)	840	846
Limestone, blue-gray (coarse)	846	852
Same (very coarse)	852	855
Same (coarse), iron stain present	855	858
Limestone, gray to blue-gray (fine to medium grains)	858	861
Limestone, gray (medium to fine), iron stains	861	864
Limestone, gray to dark-gray, iron stains present (fine to medium)	864	866
Limestone, gray, white (fine)	866	867
Limestone, white to dark-gray (fine to medium)	867	868
Limestone, gray, fine to medium	868	869
Limestone, dark-gray, fine to medium	869	873
Limestone, dark-gray to blue-gray, iron stain (fine to medium)	873	876
Limestone, dark to blue-gray (medium to coarse)	876	879
Limestone, dark-gray, medium-white particles	879	882
Limestone, dark-gray, medium- to coarse-grained	882	888
Limestone, gray to dark-gray, fine to medium	888	891
Limestone, dark-gray to blue-gray, fine to medium	891	896
Limestone, gray to dark-gray, fine to medium	896	898
Limestone, white to gray, iron stains common, fine to medium	898	900
Limestone, gray, iron stains present, fine to medium	900	910

Dana L. Johnson, CURTIS MANDRELL No. 1

(Map Number—8)

Location: NE SE NE Sec. 13, B—38E

Elevation: 784'

Date: 1946

Total depth: 1100'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Top soil	0	27
Lime, blue, soft	27	54
Lime, gray, hard	54	56
Lime, brown	56	60
Lime, light-gray, hard	60	65
Lime, gray	65	75
Water @ 65-70		
Lime, dark-gray	75	85
Lime, dark-gray, hard	85	125
Lime, gray, light	125	135
Lime, gray	135	140
Lime, gray, hard	140	150
Lime, light-gray, hard	150	220
Lime, dark-gray, soft	220	225
Lime, green	225	240
Lime, green, medium	240	255
Lime, green, hard	255	260
Lime, green, medium	260	270
Shale, green, medium	270	275
Shale, black, medium	275	325
Lime, gray, hard	325	340
6 5/8" pipe @ 331		
Lime, dark-gray, hard	340	345
Lime, light-gray, hard	345	350

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, dark-gray, hard	350	360
Lime, light-gray, hard	360	385
Lime, light-brown, hard	385	390
Lime, brown, hard	390	400
Lime, light-gray, hard	400	415
Lime, sandy, light-gray, hard	415	420
Gas @ 418		
Lime, light-pink, hard	420	425
Lime, light-gray, hard	425	435
Lime, gray, hard	435	458
Lime, light-gray, hard	458	473
Lime, gray, hard	473	478
Lime, sandy, gray, medium	478	485
Lime, shaly, gray, blue, soft	485	490
Shale, gray and red, soft (red @ 494)	490	495
Shale, red, soft	495	499
Lime and chert, gray, hard	499	513
Lime, gray, hard	513	530
Lime, dark-gray, hard	530	560
Lime, dark-gray, medium	560	580
Lime, gray, medium	580	650
Lime, gray, hard	650	695
Lime, gray, medium	695	810
Lime, gray and pink	810	815
Lime, light-gray, hard	815	820
Lime, brown, hard	820	825
Lime, salt and pepper, hard	825	835
Lime, dark-gray, medium	835	855
Lime, gray, medium	855	910
Lime, brown, hard	910	930
Lime, gray, hard	930	935
Lime, brown and gray, hard	935	940
Lime, gray, hard	940	950
Lime, brown and gray, hard	950	955
Lime, dark-brown, hard	955	980
Lime, brown, hard	980	985
Lime, gray, hard	985	990
Lime, gray, medium	990	995
Lime, gray, hard	995	1005
Lime, brown and gray, hard	1005	1010
Lime, gray, hard	1010	1030
Lime, dark-gray, hard	1030	1035
Lime, dark-gray, medium	1035	1060
Lime, dark-gray, hard	1060	1070
Lime, dark-gray, medium	1070	1090
Lime, light-gray, hard	1090	1095
Lime, gray, hard	1095	1100

W. B. Dye, LAKE POTTS No. 1

(Map Number—9)

Location: NE NE NW Sec. 13, B—38E

Elevation: 707'

Date: 1946

Total depth: 465'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	8
8¼" casing @ 7		
Lime, blue	8	18
Lime, brown	18	77
6¼" casing @ 44½		
Gas @ 55 and 77		
Lime, gray	77	90
Lime, white, hard	90	105
Lime, sandy, gray	105	180
Gas @ 177		
Shale, green	180	242
Shale, black	242	292
Salt water @ 275—25 gal. per hr.		
Lime-cap, light-gray	292	300
Lime, sandy, dark	300	304
Lime, sandy light	304	309
Lime-shale, blue	309	315
Lime-shale, light-brown	315	330
Sand, white, hard	330	350
Lime, sandy, brown	350	365
Lime, white, sandy	365	390
Lime, light-blue, sandy	390	400
Saturation from 390-445		
Shale, blue	400	405
Lime, light-gray, sandy	405	410
Acidized		
Lime, brown, sandy	410	415
Lime, gray, sandy	415	425
Sand, white	425	435
Lime, blue-green	435	447
Shale, blue	447	453
Shale, red rock	453	465

J. W. Cook, FEE No. 1

(Map Number—10)

Location: NW SW SW Sec. 10, B—39E

Elevation: 671'

Date: 1948

Total depth: 118'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	0	80
Questionable sample. Chattanooga shale and light-colored, fine-grained limestone	80	85

Samples beneath Chattanooga shale are numbered, in descending order, by screws. Screws were 2½ to 5 ft.

	<i>Sample No.</i>
Dolomite, light-colored, medium-grained and medium-coarse grained, with some medium-grained limestone....	1
Dolomite, light-colored, medium-grained	2

<i>Lithology</i>	<i>Sample No.</i>
Same, calcareous	3
Dolomite, light-colored, medium-grained to fine- and medium-grained, with some gray, fine-grained	4
Slight show of oil	
Dolomite, light-tan, medium-grained	5
Dolomite, tan, medium-grained and medium-coarse grained	6
Very slight show of oil	
Dolomite, light-brown, medium-grained	7
Same, sample contains calcite crystals	8
Dolomite, brown, medium-grained, with calcite crystals	9
Same	10
Dolomite, brown, fine- to medium-grained and medium-coarse grained, good porosity. Sample contains scattered quartz crystals.	
Slight show of oil	11
Dolomite, brown, medium-grained and medium- to coarse-grained, with scattered clusters of quartz crystals.	
Slight show of oil	12

J. W. Cook, FEE No. 2

(Map Number—11)

Location: SW SW NW Sec. 10, B—39E

Elevation: 667'

Date: 1948

Total depth: 209'

<i>Lithology</i>	SAMPLE DESCRIPTION	
	<i>From</i>	<i>To</i>
Limestone, medium- to coarse-grained, cream-colored, calcite crystals	83	86
Limestone, medium- to coarse-grained, cream-colored, dolomitic	86	89
Dolomite, fine- to medium-grained, light-gray, calcareous	89	92
Dolomite, fine- to medium-grained, light-tan	92	95
Dolomite, fine- to medium-grained, light-tan and light-gray, argillaceous, slightly calcareous	95	98
Dolomite, medium-grained, light-tan to light-gray, some porosity, slightly argillaceous	98	101
Dolomite, fine- to medium-grained, light-tan, very slightly argillaceous	101	104
Dolomite, fine- to medium-grained, light-tan, slightly argillaceous	104	107
Dolomite, fine- to medium-grained, light-tan and light-gray, greenish tinged	107	110
Dolomite, fine- to medium-grained, cream and green, slightly vugular	110	113
Dolomite, fine- to medium-grained, light-tan and light-gray, vugular	113	116
Dolomite, fine- to medium-grained, light-gray, light-tan, pink-flecked calcite, calcareous, slightly porous	116	119
Limestone, medium- to coarse-grained, cream-colored, pink-flecked, dolomitic	119	122
Limestone, medium- to coarse-grained, cream-colored to light-gray, pink-flecked, dolomitic	122	125
Limestone, coarse-grained, cream to pink, slightly dolomitic, slightly porous	125	137
Dolomite, medium- to coarse-grained, light-gray, pink-flecked, calcareous, slightly porous	137	140
Dolomite, medium- to coarse-grained, light-gray, calcareous, slightly argillaceous	140	143

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, medium-grained, light-gray, slightly argillaceous, slightly porous	143	146
Dolomite, medium-grained, light-gray, calcareous	146	149
Dolomite, medium-grained, light-gray, greenish tinged, calcareous, argillaceous	149	152
Dolomite, fine- to medium-grained, light-tan and light-gray, calcareous, slightly porous	152	155
Dolomite, fine- to medium-grained, light-tan and light-gray, greenish tinged, argillaceous	155	158
Shale, light-gray, greenish tinged, dolomitic (Waldron shale)	158	161
Dolomite, medium-grained, tan and gray, oolitic, argillaceous (top of Laurel)	161	164
Dolomite, fine- to medium-grained, light-tan, calcareous, argillaceous	164	167
Dolomite, fine- to medium-grained, light-tan, very calcareous	167	170
Same, glauconitic	170	173
Dolomite, fine- to medium-grained, light-tan to light-gray, very calcareous, slightly argillaceous	173	176
Dolomite, fine- to medium-grained, light-tan to light-gray, slightly calcareous, argillaceous, glauconitic	176	179
Dolomite, fine- to medium-grained, light-tan, slightly calcareous, argillaceous, glauconitic	179	182
Dolomite, fine- to medium-grained, light-tan, calcareous, slightly argillaceous, glauconitic	182	185
Dolomite, fine- to medium-grained, light-tan to light-gray, calcareous, argillaceous	185	188
Dolomite, fine- to medium-grained, light-gray, pink-flecked, calcareous, slightly argillaceous	188	191
Limestone, coarse-grained, light-gray to cream to pink, dolomitic	191	194
Limestone, medium- to coarse-grained, light-gray, cream, and pink, dolomitic	194	197
Dolomite, medium-grained, light-gray, greenish tinged, argillaceous	197	200
Dolomite, medium-grained, light-tan and light-gray, argillaceous	200	203
Dolomite, fine- to medium-grained, light-tan and light-gray, very argillaceous	203	206
Shale, light-tan to light-gray, greenish tinged, very dolomitic (top of Osgood shale?)	206	209

Note: Depths of each screw were averaged at three feet, because true depths were not kept as cuttings were taken from well. Top of the Osgood shale is accurate, as well as the base and top of the Chattanooga black shale (42-83).

J. W. Cook, FEE No. 3

(Map Number—12)

Location: SE SE NE Sec. 9, B—39E

Elevation: 674'

Date: 1949

Total depth: 205'

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chattanooga shale (reported)	50	90
Limestone, light, medium to medium-coarse grained	90	100
Trace of oil		
Dolomite, tan, fine- to medium-grained	100	110

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, tan, medium-fine and medium-grained, with some limestone	110	120
Limestone, very light, pink-flecked medium-coarse grained, with some fine-grained dolomite	120	125
Very slight show of oil		
Limestone, very light, pink-flecked, coarse-grained	125	135
Porosity is good, show of oil @ 130-135		
Limestone, same	135	140
Very slight show of oil		
Dolomite, gray-brown, coarse-grained	140	145
Good show of oil		
Samples missing	145	150
Dolomite, light-gray, coarse-grained	150	155
Good show of oil		
Dolomite, light and gray-green, medium-coarse grained	155	160
Very slight show of oil		
Dolomite, same, and coarse-grained, calcareous	160	165
Dolomite, gray-green, medium-grained, with some green shale	165	170
Dolomite, brown, medium-grained, calcareous, scattered pieces are oolitic	170	175
Samples missing	175	180
Limestone, brown, medium and medium-fine grained, slightly dolomitic	180	185
Very slight show of oil		
Dolomite, gray, medium-grained	185	190
Slight show of oil		
Samples missing	190	195
Dolomite, tan, medium-grained	195	200
Very slight show of oil		
Dolomite, same	200	205
Slight show of oil		

Leeson & Miller, MISS NEELY No. 1
(Map Number—13)

Location: SE SW NW Sec. 9, B—39E

Elevation: 782'

Date: 1949

Total depth: 249'

<i>Lithology</i>	<i>From</i>	<i>To</i>
Reported-base of Chattanooga shale @ 197		
Dolomite, tan, fine-grained, calcareous, slightly sandy	197	202
Show of oil		
Dolomite, light, fine-grained, calcareous	202	206
Dolomite, tan, medium-grained, contains some gypsum	206	211
Dolomite, light-brown, medium-grained, in part silty	211	224
Dolomite, light, fine-grained, with some coarse-grained limestone	224	234
Slight show of oil @ 229-234		
Limestone, light with pink flecks, coarse-grained, with some fine-grained dolomite	234	244
Slight show of oil		
Dolomite, light with pink, coarse-grained, calcareous, friable	244	249
Slight show of oil		

Leeson & Miller, MISS NEELY No. 2

(Map Number—14)

Location: SW SE NW Sec. 9, B—39E

Elevation: 767'

Date: 1949

Total depth: 272' ±

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Not examined	0	147
Chattanooga shale	147	189
Dolomite, light, coarse-grained, sandy	189	190
Show of oil		
Samples missing	190	215
Dolomite, tan, fine and medium-fine grained, with gypsum	215	220
Limestone, light, with pink and green flecks of fine-grained material, friable, with gypsum	220	240
Limestone, light, medium-coarse grained, dolomitic, with some chert, iron-stained	240	245
Limestone, greenish, medium-grained, dolomitic, iron-stained	245	250
Samples missing	250	255
Dolomite, gray, medium-grained, argillaceous, silty	255	260
Dolomite, light-green, tan, and brown, fine-, medium-, and coarse-grained	260	263
Limestone, tan, fine-grained	263	265
Dolomite, light-brown, medium-grained, calcareous	265	272

Duplicate samples marked from 240-250 appear to be same as 220-240 interval.

Leeson & Miller, MISS NEELY No. 3

(Map Number—15)

Location: NE NW SW Sec. 9, B—39E

Elevation: 780'

Date: 1949

Total depth: 240'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone	0	162
Chattanooga shale	162	205
Casing set in shale	205	207
Cap rock	207	212
Limestone	212	232
Oil	232	240

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing (reported Chattanooga shale @ 162-205)	0	207
Dolomite, light-gray, fine-grained, contains scattered quartz crystals	207	212
Very slight show of oil		
Dolomite, tan, medium-grained, contains pieces of calcite, gypsum, green shale, and quartz crystals	212	217
Dolomite, brown to gray-brown, medium and medium-coarse grained, contains gypsum and small sand grains	217	227
Dolomite, tan, fine-grained, contains gypsum and small sand grains or silt	227	232
Limestone, light-tan, coarse-grained; dolomite, vugular, pale-green, fine-grained	232	240
Show of oil in dolomite		

Leeson & Miller, MISS NEELY No. 4

(Map Number—16)

Location: NE NW SW Sec. 9, B—39E

Elevation: 770'

Date: 1949

Total depth: 273'±

<i>Lithology</i>	SAMPLE DESCRIPTION	
	<i>From</i>	<i>To</i>
Not examined	0	149
Chattanooga shale	149	193
Limestone, light-tan, coarse-grained	193	194
Dolomite, light-green, fine-grained and tan, coarse-grained, with some chert, argillaceous	194	198
Show of oil		
Dolomite, brown, medium-fine grained	198	208
Dolomite, gray-brown, medium-grained, sucrose	208	213
Limestone, light with some greenish, fine-grained	213	220
Limestone, light, pink- and green-flecked, coarse-grained	220	228

Allen Oil Co., MARY SCOTT No. 1

(Map Number—17)

Location: SW SE NE Sec. 8, B—38E

Elevation: 850'

Date: 1949

Total depth: 665'

<i>Lithology</i>	SAMPLE DESCRIPTION	
	<i>From</i>	<i>To</i>
Samples missing	0	335
Chattanooga shale (from driller's log)	312	355
Dolomite, light-tan, medium-fine grained, silty, sandy	355	360
Dolomite, and limestone, brownish-gray, fine to medium-fine grained, argillaceous	360	365
Dolomite, light brownish-gray, medium-fine grained, calcareous, few green tinted particles	365	370
Dolomite, light-gray with a little greenish tint, medium-fine grained, argillaceous	370	380
Dolomite, gray, medium-fine grained, very argillaceous, calcareous	380	405
Dolomite, tan to light-gray, fine to medium-fine grained, argillaceous, calcareous	405	430
Dolomite, brown, medium-fine grained, very silty, calcareous, few shale particles near bottom	430	445
Dolomite, very light tan, fine-grained, calcareous	445	450
Limestone, very light red, fine to medium-fine grained, dolomitic	450	460
Dolomite, light-gray, fine to medium-fine grained, calcareous, few shale particles	460	470
Dolomite, light-gray, medium-fine grained to medium-grained, argillaceous, slightly calcareous	470	480
Dolomite, gray, medium-fine grained, very argillaceous	480	490
Dolomite, light-tan, fine to medium-fine grained, slightly silty and argillaceous	490	510
Dolomite, light-tan to very light tan, medium-fine grained, very calcareous, pyritic	510	530
Dolomite, gray, medium-fine grained, calcareous, pyritic	530	540
Shale, gray, dolomitic	540	545
Shale, maroon, black, and green, dolomitic and calcareous	545	560
Samples missing	560	565

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, very light gray, fine to medium-fine grained, slightly dolomitic, few green shale particles	565	570
Limestone, very light gray, fine-grained, few black shale particles	570	575
Samples missing	575	580
Limestone, very light gray, fine-grained	580	585
Limestone, light-gray, fine to medium-fine grained, argillaceous, slightly pyritic	585	590
Samples missing	590	595
Limestone, gray, fine-grained, very argillaceous	595	600
Samples missing	600	605
Limestone, gray, fine to medium-fine grained, argillaceous	605	610
Samples missing	610	615
Dolomite, light-gray, fine-grained, sandy	615	620
Limestone, gray, fine to medium-fine grained, argillaceous	620	630
Limestone, dark-gray, medium-fine grained to medium-grained, very argillaceous, dolomitic (spotty, resembling a granite)	630	660
Dolomite, gray, medium-fine grained to medium-grained, argillaceous, calcareous	660	665

W. B. Dye, MARY SCOTT No. 1

(Map Number—18)

Location: NW NE SE Sec. 8, B--38E

Elevation: 839'

Date: 1949

Total depth: 500'

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mississippian		
Chattanooga black shale	310	351
Devonian		
Limestone, coarse-grained, cream-colored	351	355
Show of oil		
Silurian		
Bledsoe or Louisville		
Dolomite, medium-grained, tan, slightly porous	355	360
Show of oil		
Limestone, medium-gray, medium-grained, dolomitic, argillaceous	360	380
Samples missing	380	385
Dolomite, gray-tan, medium-grained, calcareous	385	390
Samples missing	390	395
Limestone, light-tan, coarse-grained, slightly oolitic	395	405
Small shows of oil		
Dolomite, gray-green, fine- and medium-grained, slightly argillaceous and calcareous in places	405	435
Dolomite, light-tan, medium-grained, calcareous	435	440
Dolomite, pink-flecked in lower part, medium-grained, with some coarse-grained dolomite and lime	440	450
Dolomite, gray-green, fine- to medium-grained, calcareous, vitreous chert present	450	460
Dolomite, light-tan, medium-grained, with coarse-grained dolomite and some coarse lime, slightly argillaceous stringers	460	478
Limestone, cream-colored, pink-flecked, coarse-grained, slightly dolomitic	478	500

(Waldron shale would probably have been drilled at approximately 518)

J. W. Cook, ED CALDWELL No. 1

(Map Number—19)

Location: NE NE SW Sec. 9, B—39E

Elevation: 701'

Date: 1949

Total depth: 185'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, dark-gray, fine-grained	140	142
Limestone, light-gray, fine-grained	142	145
Show of oil		
Limestone, same, dolomitic, calcite crystals	145	150
Trace of oil		
Dolomite, light-gray, fine to medium-fine grained, calcareous, crystalline	150	160
Dolomite, light-tan, medium-fine grained, calcareous, white gypsum	160	165
Dolomite, tan, medium-fine grained to medium-grained, calcareous	165	170
Dolomite, light-tan, medium-fine grained to medium-grained, calcareous, crystalline	170	175
Dolomite, light-gray, fine-grained, calcareous, calcite crystals	175	180
Limestone, light-gray, fine-grained, dolomitic, calcite crystals	180	185

Red River Oil Co., H. P. TITLE No. 1

(Map Number—20)

Location: SE NW NW Sec. 10, 3S—36E

Elevation: 455'

Date: 1949

Total depth: 520'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, white, hard	0	27
Sulphur water @ 27		
Limestone, black, soft	27	48
Light gas @ 40		
Shale, and lime, black, soft	48	75
Shale, black, soft	75	85
Limestone, gray, hard	85	105
Limestone, brown, hard	105	207
Heavy water (good water @ 141)		
Set 6 1/4" @ 150		
Limestone, blue, medium	207	250
Shale and lime, blue, medium	250	280
Limestone, blue, medium	280	305
Limestone, blue, hard	305	338
Limestone, blue, gray, hard	338	345
Limestone, brown, hard	345	390
Limestone, gray, hard	390	420
Limestone, blue, gray, medium	420	430
Limestone, blue, medium	430	445
Sandy lime, brown, medium	445	455
Limestone, blue-gray, medium	455	470
Limestone, brown, medium	470	505
Limestone, gray, medium	505	510
Limestone, brown, hard	510	520

Abandoned at 520.

Plugged back to 160—now used as fresh water well.

Bruno Borger, MERCER No. 1

(Map Number—21)

Location: NE NE SW Sec. 3, 2S—34E

Elevation: 631'

Date: 1951

Total depth: 130'

DRILLER'S LOG

Lithology	From	To
Gray lime	0	10
Blue shale	10	15
Black shale	15	40
Gray lime; soapstone @ 60-65	40	90
Shaly gray lime	90	105
Gray lime and flint	105	115
First water from 10-15 feet. Bottom black shale 37 feet. Set 6 $\frac{5}{8}$ " at 40 feet. Top black shale at 17 feet. Gas from 80 to 85 feet.		

SAMPLE DESCRIPTION

Lithology	From	To
Soil	0	15
Chattanooga shale	15	38
Limestone, light, coarse-grained	38	40
Limestone, tan, medium-grained and medium-coarse grained, dolomitic	40	58
Dolomite, greenish, medium-grained, slightly silty, contains some gypsum	58	65
Show of oil	65	70
Limestone, light, fine-grained	70	75
Limestone, light, pink-flecked, coarse-grained, with green shale	75	81
Dolomite, greenish-gray, medium-fine grained	81	91
Limestone, light, pink-flecked, fine- and coarse-grained, slightly argillaceous	91	104
Limestone, light, coarse-grained, Slight show of oil @ 95-100; show of oil @ 100-104	104	110
Limestone, brown, coarse-grained, with blue and green chert	110	115
Limestone, yellow and tan, medium-grained and medium-coarse grained, argillaceous, silty, cherty	115	
Very slight show of oil		

Bruno Borger, MERCER No. 2

(Map Number—22)

Location: SW SE NW Sec. 3, 2S—34E

Elevation: 633'

Date: 1951

Total depth: 108'

SAMPLE DESCRIPTION

Lithology	From	To
Soil	0	15
Chattanooga shale	15	43
Limestone, tan and brown, fine-grained	43	60
Dolomite, greenish, medium-fine grained, calcareous	60	66
Slight show of oil		
Dolomite, brown and greenish, medium-grained and medium-fine grained with some coarse-grained limestone	66	75
Limestone, light, pink- and green-flecked coarse- and fine-grained with some fine-grained dolomite	75	103
Dolomite, greenish-gray, medium-grained and medium-coarse grained, with some coarse-grained limestone	103	108

R. A. Mitchell et al, AUBREY CREASEY No. 1

(Map Number—23)

Location: SW SE NE Sec. 15, B—40E

Elevation: 810'

Date: 1951

Total depth: 341'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing (Chattanooga shale reported @ 132-156)	0	156
Dolomite, light, fine and medium-grained, calcareous, with scattered quartz grains	156	164
Dolomite, gray-brown, medium-fine and medium-grained, calcareous, contains gypsum	164	186
Show of oil		
Dolomite, brown, medium-fine and medium-grained, calcareous	186	216
Limestone, light, medium-fine grained, lower 20' is pink and green-flecked	216	246
Limestone, gray-brown, medium-grained, dolomitic	246	262
Dolomite, brown, medium-grained, calcareous	262	269
Dolomite, green, medium-grained, and limestone, brown, coarse-grained, oolitic, dolomitic	269	276
Limestone, gray-brown, fine-medium and medium-grained, dolomitic	276	300
Limestone, light with pink and green flecks, coarse-grained, dolomitic	300	306
Dolomite, brown, medium-grained	306	310
Dolomite, green, medium-fine grained, argillaceous, with considerable pyrite	310	315
Red rock with some medium-fine grained dolomite	315	320
Dolomite and limestone, light and dark-flecked, coarse-grained and medium-coarse grained, argillaceous, with speckled chert	320	331
Limestone, light and dark-flecked, medium-coarse and coarse-grained, argillaceous, dolomitic	331	341

R. E. Niblack et al, T. GARRISON No. 1

(Map Number—24)

Location: NW NW SW Sec. 22, B—39E

Elevation: ?

Date: 1952

Total depth: 400'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mantle, loose, soft		
Rock and white dirt	0	6
Limestone, buff, hard, cherty	6	25
Water @ 20		
Limestone, bluish-green, hard and cherty	25	65
Shale and limestone, green, hard	65	100
Fossiliferous limestone, green, medium-hard	100	107
Shale, black, soft	107	141
Crystalline limestone, gray, hard	141	146
Limestone, light-gray, medium-hard	146	151
Limestone, brownish, gray, soft	151	161
Gas odor		
Crystalline limestone, gray, soft	161	166
Limestone, brownish-gray, medium-hard	166	181
Gas odor		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light-gray, soft	181	186
Limestone, white, hard	186	201
Limestone, gray, hard	201	206
Shale, blue, soft	206	211
Limestone, blue, soft	211	221
Limestone, brown, hard	221	226
Gas odor		
Limestone, light-gray, soft	226	231
Limestone, white, hard	231	236
Limestone, light-gray, medium-hard	236	241
Shale, blue, soft	241	242
Limestone, brownish, hard	242	247
Gas odor		
Limestone, gray, hard	247	252
Limestone, white, hard	252	255
Limestone, brownish-gray, soft, numerous particles of pyrite (?)	255	258
Limestone, gray, coarse; particles of pyrite and white clay balls	258	260
Shale, blue, soft	260	265
Strong odor of gas		
Shale, pink, soft	266	276
Limestone, white, cherty	276	281
Limestone, brownish, soft, gray	281	286
Shale, blue, soft	286	294
Limestone, blue, soft	294	302
Limestone, dark-gray, medium-hard	302	315
Limestone, crystalline, light-gray, medium-hard	315	330
Limestone, dark, gray, hard	330	345
Shaly limestone, dark-gray, hard	345	380
Shaly limestone, dark-gray, medium-hard	380	399

TIPTON COUNTY

Tipton Drilling Company, L. G. BEAVER No. 1

(Map Number—1)

Location: NE NW SE Sec. 24, 12S—4W

Elevation: 315'

Date: 1936

Total depth: 1835'

No record available. Well abandoned at 1835 feet. "Gumbo" reported at 1795 feet may represent the top of the Porters Creek.

The Pure Oil Company, R. R. MCGREGOR No. 1

(Map Number—2)

Location: SE SE SW Sec. 14, 11S—2W

Elevation: 270'

Date: 1940

Total depth: 2753'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay and sand	0	45
Sand and shells	45	454
Sand	454	640

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand and shells	640	936
Shale and sand	936	966
Sand	966	997
Shale and sand	997	1384
Shale and shells	1384	1770
Shale	1770	1831
Sand	1831	1836
Shale	1836	1883
Shale and shells	1883	1900
Sand	1900	1940
Sand, shale, shells	1940	2158
Sand, soft	2158	2189
Shale	2189	2240
Shale, sand, shells	2240	2305
Shale and shells	2305	2571
Lime	2571	2753

CASING RECORD:

Set 9% @ 884; cemented with 300 sacks.

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Clay, brown, sandy	0	40
Sand, clear, coarse- to medium-grained, subrounded	40	80
Sand, clear, fine- to coarse-grained	80	100
Sand, clear, generally coarse-grained	100	210
Sand, clear, medium-grained, with some gray clay	210	270
Sand, clear, medium- to coarse-grained, with some clay	270	360
Sand, clear, generally fine-grained, with some lignitic clay	360	390
Sand, clear, coarse-grained	390	450
Sand, clear, coarse- to medium-grained, subrounded	450	480
Sand, clear, fine- to medium-grained	480	630
Sand, clear, fine- to coarse-grained, rounded	630	690
Sand, clear, fine-grained, subangular	690	750
Sand, clear, medium-grained, subrounded	750	810
Sand, clear, fine- to medium-grained, with some gray clay	810	840
Sand, clear, fine- to medium-grained, subrounded	840	870
Sand, clear, fine- to medium-grained, subangular, with a few flakes of muscovite	870	930
Clay, tan, with large, clear to milky, rounded and polished quartz grains	930	960
Sand, clear, coarse-grained, rounded, with some tan clay	960	990
Sand, clear to milky, coarse-grained, rounded and polished, with small amount of tan clay	990	1170
Clay, buff, with coarse, clear, rounded sand	1170	1230
Sand, clear, subangular to rounded, medium- and coarse-grained, with tan clay	1230	1290
Clay, gray, tan, and buff, with a considerable amount of clear, coarse-grained, rounded and polished sand	1290	1320
Clay, tan and buff, with small amount of rounded and polished, coarse sand and some lignite	1320	1350
Clay, gray to tan, with small amount of rounded, clear, coarse sand	1350	1410
Clay, tan and dark-gray	1410	1425
Clay, tan, with some dark-gray, lignitic clay	1425	1470
Clay, dark-gray, somewhat micaceous	1470	1530
Clay, tan to gray	1530	1560
Clay, dark-gray	1560	1710
Clay, dark-gray, with some tan, micaceous clay	1710	1830
Clay, dark-gray, with some tan, micaceous, glauconitic clay	1830	1860
Clay, dark-gray, with some tan, micaceous shale	1860	1890

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, variegated, medium-grained, subrounded, with a small amount of coarse-grained, glauconitic limestone . . .	1890	1905
Clay, reddish-brown, with well-rounded sand . . .	1905	1920
Sand, variegated, medium-grained, with some reddish-brown clay . . .	1920	1935
Sand, variegated, medium-grained . . .	1935	1950
Sand, variegated, medium-grained, rounded, with some reddish-brown clay . . .	1950	2100
Sand, variegated, medium to fine, rounded, with a few fragments of grayish-green, micaceous shale . . .	2100	2160
Sand, variegated, medium-grained, rounded . . .	2160	2295
Same, glauconitic . . .	2295	2350
Sand, glauconitic, micaceous, fine-grained, calcareous, fossiliferous . . .	2350	2515
Sand, clear, fine- to coarse-grained, glauconitic . . .	2515	2530
Sand, clear, fine- to coarse-grained, rounded . . .	2530	2550
Igneous rock, more or less weathered, composed essentially of orthoclase and ferromagnesian minerals associated with a white limestone @ 2590 and a coarse-grained variegated limestone @ 2615 . . .	2550	2647½

TROUSDALE COUNTY

F. E. Hipple et al, HART REEVES No. 1

(Map Number—1)

Location: SE NE NW Sec. 11, 2S—40E

Elevation: ?

Date: ?

Total depth: 750'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone	0	215
Sandstone	215	218
Show of oil		
Limestone	218	315
Sandstone	315	317
Show of gas		
Limestone	317	750
Casinghead considered to be 125 feet below black shale.		

Ohio Oil Company, IDA GOAD No. 1

(Map Number—2)

Location: C NW NW Sec. 25, 1S—42E

Elevation: ?

Date: 1927

Total depth: 712'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	8
Dark lime	8	55
White lime	55	68
Blue shale	68	70
Brown lime	70	80

<i>Lithology</i>	<i>From</i>	<i>To</i>
White lime	80	85
Brown lime	85	130
Gray lime	130	132
Brown lime	132	136
Gray lime	136	145
Brown lime	145	196
Pencil Cave @ 171-171½		
White shale	196	198
Gray lime	198	205
Brown lime	205	215
Gray lime	215	265
Brown lime	265	495
Blue lime	495	520
Gray lime	520	540
Brown lime	540	585
Black lime	585	712

Ohio Oil Company, AGNES CARR No. 1

(Map Number—3)

Location: SW SW SE Sec. 12, 1S—40E

Elevation: ?

Date: 1927

Total depth: 568'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, blue, soft	0	140
Lime, gray, hard	140	160
Lime, brown, hard	160	215
Pencil Cave	215	273
Lime, hard, gray	273	365
Lime, brown	365	373
Sand, brown	373	385
Lime, brown	385	453
Lime, gray	453	477
Lime, brown	477	497
Lime, blue	497	520
Lime, brown	520	532
Sand, white	532	540
Salt water		
Lime, brown	540	568

Well dry; plugged and abandoned.

VAN BUREN COUNTY

U. S. Government, SPENCER ARTILLERY RANGE No. 3

(Map Number—1)

Location: SW SW NE Sec. 8, 12S—49E

Elevation: ?

Date: ?

Total depth: 650'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Silt, buff, soft, with quartz, white, medium-grained, angular, vitreous, unindurated, limonitic	0	30
Sand, light-gray, soft, quartz, white, angular, frosted, fine- to medium-grained, unindurated	30	40
Quartz, yellow, aggregates, medium-grained, vitreous, rich in iron; quartz, reddish-purple, aggregates, medium-grained; quartz, light-gray, aggregates (varicolored sandstone horizon)		45
Quartz, medium-grained, vitreous, angular, aggregates; shale, dark-gray, carbonaceous and coaly	40	50
Quartz, white, fine- to medium-grained, vitreous, angular, uncemented; quartz, yellow, sideritic and carbonaceous, stained with iron oxide	50	80
Quartz, white, medium-grained, vitreous, aggregates (50%); shale, dark-gray to black, carbonaceous, silty (50%)	80	90
Shale, dark-gray to black, carbonaceous, argillaceous, silty	90	100
Shale, dark-gray to black, carbonaceous, argillaceous, silty, with quartz, gray, fine-grained, aggregates	100	110
Shale, dark-gray to black, carbonaceous, silty	110	140
Shale, same, with shale, fine-grained, arenaceous, and coal	140	150
Shale, dark-gray, arenaceous, and coal	150	160
Shale, dark-gray, arenaceous; quartz, white, fine- to medium-grained, vitreous, unindurated; 50% coal	160	170
Shale, dark-gray, arenaceous (70%); quartz, vitreous, fine- to medium-grained, aggregates (30%); quartz, pink, medium-grained, aggregates	170	180
Sandstone, dirty-white, fine- to medium-grained, blotchy, vitreous; shale, dark-gray, arenaceous (70%)	180	190
Sandstone, same (90%); shale, same (10%)	190	200
Quartz, white, fine- to medium-grained, vitreous, aggregates (80%); shale, black, very carbonaceous (20%)	200	210
Quartz, coarse-grained, vitreous to frosted, angular, uncemented (80%); shale, very carbonaceous, gray, arenaceous	210	230
Quartz, coarse-grained, vitreous to frosted, angular, uncemented (80%); shale, very carbonaceous and shale, gray, arenaceous (20%)	230	240
Quartz, coarse, angular, frosted to vitreous; sandstone, medium-grained, carbonaceous, indurated, aggregates (50%)	240	250
Quartz, white, coarse-grained, vitreous to frosted, uncemented (90%); shale, dark-gray, arenaceous (20%)	250	290
Quartz, white, medium- to coarse-grained, vitreous to frosted, uncemented (99%)	290	320
Quartz, white, medium- to coarse-grained, vitreous to frosted, uncemented; shale, dark-gray, arenaceous (30%)	320	330
Quartz, same (99%)	330	340
Quartz, coarse-grained, vitreous and frosted (90%); shale, dark-gray, carbonaceous	340	350

<i>Lithology</i>	<i>From</i>	<i>To</i>
Quartz, medium- to coarse-grained (90%); shale, dark-gray, carbonaceous	350	360
Shale, dark-gray, very argillaceous, silty	360	400
Shale, gray, arenaceous (60%); shale, black, carbonaceous, argillaceous (40%)	400	410
Shale, dark-gray to black, silty, argillaceous, carbonaceous	410	420
Shale, dark-gray, arenaceous, carbonaceous	420	430
Shale, dark-gray, silty and arenaceous (80%); quartz, coarse-grained, subangular, vitreous and frosted, uncemented; very sideritic	430	440
Shale, same (99%); quartz, same	440	450
Shale, gray, arenaceous, and sandstone, fine-grained	450	460
Same (50%), with shale, black, very carbonaceous (coaly)	460	470
Quartz, rounded, weathered, uncemented; quartz, medium-grained, vitreous, aggregates; shale, pale-green; shale, sideritic, carbonaceous; and coal	470	480
Shale, pale-green and red; coal; sandstone, fine-grained, quartzitic, vitreous; shale, black, carbonaceous		485
Shale, pale-green and red; coal; sandstone, fine- to medium-grained, vitreous, quartzitic	480	500
Shale, brownish-red; shale, yellowish-brown; shale, light- to dark-gray; quartz, vitreous to frosted	500	520
Shale, gray; shale, brownish-red; quartz, rounded; quartzite, brown, white, frosted	520	530
Limestone, tan, fine-grained, argillaceous; shale, gray and green	530	550
Limestone, same; shale, same, coaly, fossiliferous	550	560
Limestone, tan to gray, fine- to medium-grained, fossiliferous, siliceous	560	570
Limestone, same, with shale, black, carbonaceous	570	590
Shale, pale-green (90%); limestone, light-gray, fine-grained, siliceous (10%)	590	600
Limestone, light-gray to brownish, fine-grained, nonfossiliferous; shale, carbonaceous; shale, green	600	620
Shale, red (60%); shale, greenish (15%); limestone, gray to brownish (15%); shale, yellow (5%)	620	630
Limestone, red, gray, yellow, green, brown-gray, silty	630	640
Shale, gray to black (80%); shale, green; shale, red; shale, brownish	640	650

Pike Oil Co., VIOLA GRISSOM No. 1

(Map Number—2)

Location: NW SE NW Sec. 2, 10S—48E

Elevation: 935'

Date: 1940

Total depth: 2655'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	6
Lime, gray	6	45
Mud, yellow	45	50
Lime, gray	50	73
Flint, gray, hard	73	80
Lime, sandy, dark, hard	80	175
Lime, sandy, lighter	175	262
Lime, brown	262	265
Show of oil		
Lime, sandy, light, hard	265	290
Lime, sandy, blue, hard	290	320

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, sandy, green	320	335
Shale, black (Chattanooga)	335	368
Lime, dark-gray	368	650
Gas show 410 and 495		
Lime, brown	650	760
Show of gas 750		
Lime, dark-gray	760	812
Slate, green (Pencil Cave?)	812	815
Lime, green	815	839
Slate, gray	839	841
Lime, brown	841	940
Lime, dark-gray	940	1030
Lime, brown	1030	1195
Lime, gray	1195	1225
Lime, brown	1225	1360
Lime, dark-gray	1360	1630
Gas show @ 1396-1400		
Steel line measurement		
Gas show		
Lime, light-gray	1630	1670
Lime, brown	1670	1710
Show of oil @ 1675		
Lime, sandy, light-gray	1680	1760
Lime, sandy, dark-gray	1710	1760
Lime, sandy, light-gray	1760	1860
Lime, light-gray, hard	1860	1955
Lime, darker, hard	1955	1975
Lime, sandy, light-gray, medium-hard	1975	2015
Little water @ 1985		
Lime, light-gray, hard	2015	2050
Lime, sandy, light-gray	2050	2100
Little water @ 2070		
Lime, sandy, darker, hard	2100	2145
Lime, sandy, brown	2145	2150
Lime, sandy, light-gray	2150	2350
Crevice @ 2295		
Sand, light-gray	2350	2450
Lime, sandy, darker	2450	2505
Sand, light-gray	2505	2595
Sand, brown, hard	2595	2655

Godfrey L. Cabot, Inc., ROCKY RIVER No. 1

(Map Number—3)

Location: NE SE SW Sec. 5, 12S—49E

Elevation: 1798'

Date: Mar. 1956 - Jan. 1957

Total depth: 5065'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	0	14
Sand	14	42
Shale	42	80
Sand	80	210
Water 207 (hole full)		
Shale	210	218
Sand	218	231
Coal	231	237
Shale	237	248
Sand and shale	248	265

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, red	265	280
Sand (top of Mississippian)	280	295
Lime	295	368
Lime and shale, green	368	388
Red shale	388	404
Lime	404	412
Sand	412	430
Lime	430	503
Shale (soft)	503	510
Lime	510	531
Shale, red	531	545
Lime	545	745
Sand (Cypress)	745	761
Lime	761	933
Lime and chert	933	1065
Lime, some green shale interbedded	1065	1268
Chert (Ft. Payne); 80% light-gray chert, 20% lime	1268	1383
Shale, dark-brown (Chattanooga)	1383	1418
Lime	1418	1541
Lime, fossiliferous (Ordovician ?)	1541	1971
Pencil Cave, green shale	1971	1973
Lime	1973	2851
Oil show 2832-42		
Dolomite (top of Knox)	2851	3975
Crevice @ 3367		
Gas show 3389-97		
Salt water 3654-75; filled to 2000'		
Chert and sand	3975	4052
Dolomite and chert, tan	4052	4170
S.L.M. 4170=4140		
Chert (oolitic), brown	4170	4178
Dolomitic lime and chert, white	4178	4473
S.L.M. 4473=4432		
Dolomitic lime, brown	4473	4486
S.L.M. 4486=4466		
Dolomitic lime and chert, white	4486	4833
Salt water 4586-91 (hole full), 4705-14 (hole full)		
Chert, dolomitic	4833	4882
Dolomite, brownish-gray	4882	4904
Salt water 4892-4904; 2½ bbls. hr.		
Dolomite, light-gray	4904	4992
Dolomite and chert, brownish-gray	4992	5065
Salt water 5015-26 (hole full)		

NOTE: 7" casing was set, pulled and hole reamed. 7" set at 4463, 4666 and 4857.

¹ Steel line measurement.

WARREN COUNTY

W. M. POWELL No. 1

(Map Number—1)

Location: SE Sec. 8, 11S—46E

Elevation: 886'

Date: Before Civil War

Total depth: ?

NOTE:

This well was dug some time before the Civil War. The intention was to obtain salt, but the well filled up with salt water and oil. No figures as to depth, horizons, etc. have been obtained.

STATUS OF WELL (JUNE 1, 1930):

Well abandoned.

Location marked by 10-inch drive pipe sticking out of ground.

Large crater around pipe.

J. W. OVERALL No. 1

(Map Number—2)

Location: SE NE SE Sec. 23, 10S—44E

Elevation: 940'±

Date: 1920

Total depth: 750'

Well was drilled to 750, at which depth a strong flow of gas was encountered.

A large section of telegraph pole was used as a plug and driven several hundred feet into the hole. The hole was then filled with concrete.

Casing was pulled and well plugged.

May 1929: Gas now issuing from around the casinghead and through surface soil; will burn.

Cumberland Oil & Gas Co., CLARENCE KENNEDY No. 1

(Map Number—3)

Location: 10S—46E

Elevation: 900'±

Date: 1920

Total depth: 323'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Unconsolidated material	0	60
Red clay and chert	60	279
Chattanooga shale	279	323
Heavy flow of gas, raising casing and letting in mud and water @ 323		

NOTE:

Letter in Survey Oil Files, of date Nov. 17, 1920, from H. B. Gulick, McMinnville, Tenn., states that the gas was found at 328 instead of 323 feet.

STATUS OF WELL (June 1, 1930):

Plugged and abandoned.

CASING:

6¼" @ 223

Cumberland Oil & Gas Co., JUDGE SMALLMAN No. 1

(Map Number—4)

Location: SW NW Sec. 21, 10S—45E

Elevation: 876'

Date: 1920-21

Total depth: 771'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Earth	0	4
Yellow shale	4	9
Flint and lime	9	41
Flint	41	47
White sandstone	47	59
Flint	59	63
Crevice @ 63		
White lime	63	93
Black lime	93	100
Gas and sulphur water @ 93		
Sandstone	100	106
Salt water, 13% @ 102		
Flint and lime	106	140
Sandstone, brown	140	158
Brown shale	158	167
Good trace of oil @ 158		
Green shale	167	172
Black shale	172	206
Show of oil @ 206		
Shale and lime	206	270
Sandstone, brown	270	278
Show of oil @ 278		
Lime and shale	278	328
Shale and lime	328	365
Shale, brown, limy	365	386
Shale and lime	386	410
Brown sandstone	410	420
Black shale, chunky	420	430
Sandstone, light-brown, limy	430	461
Shale and lime	461	480
Hard, micaceous, ferruginous sandstone	480	487
Limestone	487	515
Sandstone	515	519
Blue limestone	519	546

NOTES:

Chattanooga black shale @ 172-206

Last water was @ 224

Gas blowout @ 300

Strong flow gas @ 375

Gas forced water out of casing @ 386

Strong gas flows @ 478, 500, 546

Cumberland Oil & Gas Co., H. B. GULICK No. 1

(Map Number—5)

Location: SE SW NW Sec. 21, 10S—45E

Elevation: 912'

Date: 1920-21

Total depth: 1687'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Earth	0	4
Yellow sandstone	4	18
Cherty limestone	18	170
Chattanooga shale	170 (?)	202 (?)
Shale, brown, sandy	202	220
Limestone	220	268
Gas @ 268		
Shale and lime	268	355
Sandstone, brown	355	424
Shale and lime	424	432
Sandstone	432	437
Shale	437	470
Gas @ 438		
Oil @ 498		
Pencil Cave; green shale	498	502
Shale, brown	502	608
Sandstone	608	616
Shale	616	664
Sandstone	664	684
Limestone	684	690
Oil show @ 690		
Sandstone, brown	690	697
Shale	697	717
Sandstone	717	729
Sand, fine, brown	729	741
Shale, brown, sandy	741	757
Oil show @ 750		
Lime and sand	757	764
Lime, fine, brown	764	819
Shale, green	819	869
Lime and shale	869	1247
Lime, gray	1247	1294
Sandstone	1294	1356
Show of oil		
Lime	1356	1400
Sandstone	1400	1408
Limestone	1408	1454
Shale and thin layers lime	1454	1638

NOTE:

Three formations between 500 and 800 feet yield gas. Best show of oil at 1340-1402, reported by driller to be good for 15 bbls. daily (?)

Consolidated Drilling Co., HOWARD COPE No. 1

(Map Number—6)

Location: SW NW SE Sec. 6, 12S-46E

Elevation: 1050'±

Date: 1921

Total depth: 700'±

NOTE:

Following bits of information obtained by W. F. Bailey from sources indicated:

Letters from C. R. Heater:

Just above Chattanooga shale is green sandy shale two feet thick. W. A. Nelson reports this probably equivalent to the Beaver sand of Kentucky.

Gas at 160 and 170

Cuttings sent to Survey from 657', reported by W. A. Nelson to be "soft, shaly, clayey limestone, with very small quantities of iron, magnesia and phosphate." Mr. Heater reported a showing of oil at this horizon.

Information from Mr. B. C. Cope, Cope's store:

Several small oil shows, and lots of gas.

Total depth somewhere between 700 and 1000 feet.

Howard Cope has been using the gas in his house since the completion of the well.

Information from A. V. Walker:

Well was bought in July 1929, by Walker Oil & Gas Co. of McMinnville.

Chattanooga shale at about 240 feet.

Had original gas pressure of 171 pounds.

Had line pressure of 73 pounds.

March 12, 1930: connected to pipe line and furnishing gas to 83 customers in McMinnville. Line pressure: 80-100 pounds.

May 8, 1930: Rock pressure: 42 pounds, from 6¼-inch opening, after 30 minutes open flow. Volume: 55,000 cubic feet per 24 hours (Pitot tube).

Note: Well has a complete string of tools in bottom of hole.

June 1, 1930: Only well connected to pipeline.

NOTE:

The following log was sent by letter from Mr. Frier, driller, to Mr. Geo. W. Daniels, trustee, of Philadelphia, and was furnished the Division of Geology by Mr. Garnett Andrews of Nashville, Tennessee.

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Commenced drilling March 28, 1921		
Earth		
Broken lime	0	8
Clay	8	50
Black flint	50	52
Lime and sand	52	85
Gas @ 160 and 170	85	216
Oil show @ 182		
Set 6¼" casing to 216		
Brown sand	216	
Green shale	222	221
(Gas at top of green shale)		223
Chattanooga shale		
Sand and lime	223	250
Gas @ 318 (40' sand)	250	385
Black lime		
Slate and blue lime	385	445
Lime, soft, blue	445	465
	465	475

Consolidated Drilling Co., H. T. DOTSON No. 1

(Map Number—7)

Location: Sec. 25 (?), 10S—46E

Elevation: 939'

Date: 1921-22

Total depth: 725'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Loose material	0	40
Red clay and chert	40	100
Lime and chert	100	337
Chattanooga black shale	337	372
Gas—heavy flow @ 372		
Lime and shale	372	612
Pencil Cave	612	618
Shale, soft, gray	618	725

Well left standing open and abandoned.

STATUS OF WELL (June 1, 1930):

Mr. A. V. Walker reports this well now standing full of water. Gas escaping through water, but not being used.

Barnsdall Oil Co., BILL MARTIN No. 1

(Map Number—8)

Location: SW NW NE Sec. 6, 12S—46E

Elevation: 945'

Date: 1922

Total depth: 1100'±

The following information was obtained from Mr. Garnett Andrews, of Nashville, Tenn.

A letter from Mr. Frier, driller, to Mr. Geo. W. Daniels reports the following:

Sand @ about 400 (57' thick); no water.
Gas in above sand, gauged 400,000 cu. ft.

Telegram from Frier to Daniels reports:

Dec. 23, 1923:

Chattanooga shale @ 295-329

Gas in 5' of sand @ 405 gauge 106,000 cu. ft.

Feb. 14, 1924:

Gas @ 880

In July, 1929, this well was bought by Walker Oil & Gas Co., of McMinnville.

March 12, 1930:

Well connected to pipeline.

Volume—180,000 cu. ft.

Line pressure—45-50 lbs.

Reported by A. V. Walker to have total depth of about 1100 feet.

Well has a complete string of tools in the hole.

May 8, 1930:

Volume—31,175 cu. ft. per 24 hrs. after 10 minutes open flow (Pitot tube).

Rock pressure—35 lbs., 8" opening, after 10 minutes open flow (steam gauge).

June 1, 1930:

Well capped. Not on line.

Florida Company, W. E. FOSTER No. 1

(Map Number—9)

Location: SW SE SW Sec. 4, 10S—45E

Elevation: ?

Date: 1925

Total depth: 500'

Had a light show of oil; depth not known.

Had show of gas at about 17'; considerable gas @ 320.

Oct. 28, 1925:

Mr. Hood reported that well was visited by him, that water was flowing from between the drive-pipe and 6¼" casing, and the gas was being used in nearby dwelling.

May 11, 1928:

Mr. J. G. Smith reported to W. F. Bailey that the gas was being used in a nearby dwelling, and to run a good sized incubator.

June 1, 1930:

Mr. A. V. Walker reported to W. F. Bailey that the gas was being used to run a good sized incubator and had a little pressure (2") of 40 pounds.

Dome Oil & Gas Co., GILLIAM SMITH No. 1

(Map Number—10)

Location: E/2 SE NE Sec. 12, 10S—45E

Elevation: 900'±

Date: 1925

Total depth: 1618'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Unconsolidated material	0	40
Lime and flint	40	240
Fresh water @ 125		
Black sulphur water @ 168		
Chattanooga black shale	240	277
Lime, white and brown	277	720
Show oil @ 460		
Pencil Cave	720	722
Lime	722	1050
Brown sand	1050	1054
Lime, brown	1054	1606

STATUS OF WELL (June 1, 1959):

Well capped, temporarily abandoned.

Old standard rig, half rotted down, standing on location.

NOTE:

Mr. A. V. Walker reports the following figures about this well:

Fresh water @ 89

Sulphur water @ 147

Strong salt water @ 200

Gas @ 323 (this gas raised the casing and let in mud and water)

R. S. Lord, FRANK S. McGEE No. 1

(Map Number—11)

Location: SW Sec. 17, 10S—46E

Elevation: 910'

Date: 1928

Total depth: 684'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red and yellow clay	0	67
Lime, soft, gray	67	110
Flint, white	110	120
Lime, gray and brown, soft	120	210
Crevice carrying water @ 140		
Lime, gray and brown, very hard	210	300
Lime, dark, shaly	300	304
Chattanooga shale	304	338
Lime, dark-gray, soft	338	448
Show of gas @ 409		
Gas—40,000 cu. ft. @ 447	448	472
Lime, dark-brown, soft		
Gas—220,000 cu. ft., 163 pounds pressure @ 470	472	546
Lime, dark-gray, soft		
Gas show @ 526	546	668
Lime, dark-brown, soft		
Gas show @ 662	668	684
Lime, light-gray, soft		
Pencil Cave (2' thick) @ 674		

NOTE:

This well first drilled to 482, then deepened to 684; then shot with dynamite at 466 and 475 without noticeably increasing flow of gas. Decrease in gas from 28,000 cu. ft., after shot, to 5,000 cu. ft.
Casing pulled except last 3 joints.

CASING:

8¼" @ 69 (left in well)
6⅝" @ 230-292 (shot off and left in well)

PLUGGED:

330-350: Bridged with pine plug, 20' clay and cuttings.
475-495: Bridged with pine plug, 20' clay and cuttings.

This hole can be deepened by spearing out 6⅝" casing and drilling out plugs. The 6⅝" casing should then be reset to 292.

JUNE 1, 1930:

Well abandoned; no sign of gas around casinghead.

Walker Oil & Gas Co., E. T. McGEE No. 1

(Map Number—12)

Location: SE SE NE Sec. 8, 11S—46E

Elevation: 946'

Date: 1928

Total depth: 1506'

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sulphur water and a little gas @ 30		
Gas blowout @ 100		
Limestone, white to light-gray, many fragments of glassy quartz, and specks of iron oxide. Large amount white and gray milky chert or flint	135	140
Limestone, same	140	145

<i>Lithology</i>	<i>From</i>	<i>To</i>
Samples missing	145	150
Limestone, same as above	150	165
Limestone, same as above, with large fragments dark-gray chert or flint and large crystals of yellow native sulphur	165	170
Limestone, same as above	170	180
Gas blew out @ 175 and spouted black sulphur water from well for about 10 hrs.		
Limestone, same	180	190
Limestone, same, very cherty, with a large amount of iron oxide	190	195
Limestone, same as above	195	200
Limestone, light-gray to bright-green, dense, and shaly. Considerable white, milky chert	200	205
Limestone, same	205	230
Shale, coal-black, carbonaceous (Chattanooga)	230	265
Limestone, dark blue-gray, coarsely crystalline, with numerous shell fragments (top of Ordovician)	265	270
Samples missing	270	295
Limestone, same as above	295	300
Limestone, same	300	305
Samples missing	305	315
Limestone, same as above	315	330
Samples missing	330	350
Limestone, dark-blue gray, coarsely crystalline	350	405
Limestone (14 samples), dark-blue gray, coarsely crystalline, numerous shell fragments	405	500
Limestone (15 samples), dark-blue gray, fine to coarsely crystalline	500	600
Limestone (18 samples), same	600	665
Limestone (3 samples), light-gray, finely crystalline to dense	665	680
Shale, bright-green, siliceous, with numerous flakes biotite mica ("Pencil Cave")	680	685
Limestone, dark blue-gray or olive-drab, finely crystalline to dense	685	700
Limestone (17 samples), same. Occasional fine particle of tarnished or rusty pyrite	700	790
Limestone (2 samples), light-gray, fine to coarsely crystalline. Numerous shell fragments	790	800
Limestone (20 samples), dark blue-gray or olive-drab, finely crystalline to dense	800	900
Limestone (20 samples), dark blue-gray to nearly black, finely crystalline to very dense. Occasional shell fragment	900	1000
Limestone (18 samples), dark olive-drab, very finely crystalline to dense	1000	1080
Limestone, dark blue-gray, finely crystalline to dense	1080	1085
Chem. anal.: CaCO ₃ -89.22% MgCO ₃ -3.26%		
Limestone, same	1085	1090
Limestone, dark olive-drab, very dense	1090	1095
Chem. anal.: CaCO ₃ -93.98% MgCO ₃ -2.88%		
Limestone, same, at		1101
Chem. anal.: CaCO ₃ -92.80% MgCO ₃ -2.90%		
Limestone, same, at		1107
Chem. anal.: CaCO ₃ -91.95% MgCO ₃ -3.04%		
Limestone (19 samples), dark blue-gray or olive-drab, very finely crystalline to dense	1107	1200
Limestone (8 samples), very dark gray to nearly black, very finely crystalline to dense	1200	1240

Lithology	From	To
Limestone. This sample is represented by a few large fragments of light-gray, coarsely crystalline, somewhat shaly limestone. On two of the fragments are good impressions of brachiopod ribs	1240	1245
Limestone, dark blue-gray to nearly black, very finely crystalline to dense. This sample also contains several large fragments of limestone like that described above	1245	1250
Limestone, dark blue-gray to nearly black, very finely crystalline to dense	1250	1255
Limestone, very dark drab, dense. Also contains a large piece of light-gray limestone, like that above, on which is an excellent <i>Rafinesquina</i> . Numerous fragments of "Pencil Cave" in the sample probably came from above	1255	1260
Limestone (30 samples), dark blue-gray or olive-drab, very finely crystalline to dense	1260	1410

Later drilled to 1506—no cuttings obtained.

CASING:

6 1/4" @ 265

STATUS OF WELL (June 1, 1930):

Well capped

Rock pressure—20 lbs. from 6 1/4" opening after 10 min. open flow (steam gauge).

Volume—79,700 cu. ft. per 24 hrs. (Pitot tube)

Gas being used in nearby farmhouse.

Walker Oil & Gas Co., E. T. McGEE No. 2

(Map Number—13)

Location: NE SE NE Sec. 8, 11S—46E

Elevation: 906'

Date: 1928

Total depth: 876'

DRILLER'S LOG

Lithology	From	To
Strong salt water and small show of oil. Pumped with 3" barrel for 8 days and nights without sign of decrease of volume		158
Chattanooga shale	255	290
Gas, with 17 lbs. rock pressure @ 295		645
Pencil Cave		

STATUS OF WELL (June 1, 1930):

Well capped

Rock pressure—24-25 lbs., from 6 1/4" opening, after 10 min. open flow.

Volume—23,500 cu. ft. per 24 hrs. (Measured by A. V. Walker with Pitot tube)

NOTE:

Gas blows out from around outside casing about every 4 months from 158'. This has formed a large crater around casinghead.

Riverside Oil & Gas Co., W. M. POWELL No. 1

(Map Number—14)

Location: NE SW SE Sec. 8, 11S—46E

Elevation: 871'

Date: 1928

Total depth: 755'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Unconsolidated material	0	10
Lime and flint	10	200
Mr. A. V. Walker reports total depth by steel tape measurement to be 194'		
Small amount of gas encountered.		
Well abandoned.		
This well and lease taken over in 1928 by the Walker Oil & Gas Co., of McMinnville.		
Well was cleaned out and deepened to 755. In cleaning out well, some oil was brought up in the bailer. This oil is thought to come above 194', and has a gravity of 38° Baume.		
Chattanooga shale	235	274
Gas @ 275, 545, and 705.		

This gas came in with a rock pressure of 82 lbs. (steam gauge).

MARCH 14, 1930: Connected to line, with line pressure of 31 lbs.

STATUS OF WELL (June 1, 1930):

Capped, not connected to line.

Rock pressure—28 lbs. from a 6¼" opening, after 10 min. open flow.

Volume—29,112 cu. ft. per 24 hrs. (Pitot tube measurement).

R. S. Lord, JIM HIGGENBOTTOM No. 1

(Map Number—15)

Location: NE Sec. 24, 10S—46E

Elevation: 925'

Date: 1928

Total depth: 240'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Subsoil, reddish-yellow clay	0	37
Lime, boulder and flint	37	65
Lost 10" bit in crevice		
Flint, black	65	75
Lime, hard, brown	75	85
Fresh water		
Lime, hard, white	85	95
Little gas @ 90		
Lime, hard, gray	95	100
Lime, hard, white	100	105
Lime, hard, gray	105	115
Lime, hard, brown	115	147
Sulphur water and gas @ 129		
Lime, white, hard	147	150
Lime, hard, brown	150	167
Oil odor @ 153-167		
Chattanooga shale	167	194
Lime, gray	194	234
Show of gas @ 202		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, black	234	237
Gas (volume—150,000 cu. ft.; pressure—75 lbs.)		
Lime, gray	237	240

CASING:

- 8 1/4" @ 37
- 6 5/8" @ 158
- 2" tubing set @ 240
- 6 5/8" Anchor packer set @ 229

Well capped, tubed, and anchor packer set.

NOTE: In June 1929, this well was bought by the Walker Oil & Gas Co., of McMinnville, Tennessee. During March 1929, the well was connected to the pipeline with a line pressure (2") of 35 lbs.

STATUS OF WELL (June 1, 1930):

Well capped, not on line.
 Rock pressure—20 lbs. on 2" opening, after 30 min. open flow (steam gauge).
 Volume—23,760 cu. ft. per 24 hrs. (Pitot tube).

Walker Oil & Gas Co., O. B. WISEMAN No. 1

(Map Number—16)

Location: NW SW SW Sec. 9, 11S—46E

Elevation: 924'

Date: 1928

Total depth: 852 1/2'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sulphur water, strong flow @ 90		
Chattanooga shale	375	412
Steel tape measurement	852 1/2	

NOTE: Well was shot at bottom with 2 cases (200 sticks) of dynamite, without noticeable improvement.

CASING:

- 6 1/4" @ 300

Well plugged and abandoned.

Walker Oil & Gas Co., BILL BOTTOMS No. 1

(Map Number—17)

Location: SE NE SE Sec. 8, 11S—46E

Elevation: 921'

Date: 1928

Total depth: 555'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sulphur water @ 90		
Chattanooga shale	375	412
Gas, and salt water		555

NOTE: Bailed off water in half a day and after 2 hrs., gas pressure had built up to 82 lbs. on steam gauge.

Too much water to use the gas.

Casing pulled, well plugged and abandoned.

Walker Oil & Gas Co., JIM BOTTOMS No. 1

(Map Number—18)

Location: NE NW NE Sec. 8, 11S—46E

Elevation: 976'

Date: 1928

Total depth: 845'

DRILLER'S LOG		
<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	50
Soft, broken rock	65	80
Fresh water @ 95		
Black limestone		115
Dark-gray limestone		215
Sulphur water and gas @ 215		
Hard, sandy formation	250	255
Chattanooga shale	280	312
Gas, small puff, @ 445 and 480		
Dark-gray limestone		720
Pencil Cave		721
Gas, blew for 5 hrs., @ 820		

STATUS OF WELL (June 1, 1930):

Well plugged, abandoned, casing pulled. Location marked by drive-pipe sticking out of the ground. No odor of gas.

Walker Oil & Gas Co., MAX STUBBLEFIELD No. 1

(Map Number—19)

Location: SE NE NE Sec. 14, 11S—46E

Elevation: 912'

Date: 1929

Total depth: 364'

DRILLER'S LOG		
<i>Lithology</i>	<i>From</i>	<i>To</i>
Chattanooga shale	242	289
Salt water @ 289		
Gas @ 364		

MARCH 1, 1930: Well capped.

141 lbs. rock pressure (steam gauge).

1,440,000 cu. ft. gas volume (Pitot tube).

STATUS OF WELL (June 1, 1930):

Well capped.

Rock pressure—66 lbs., from 6¼" opening, after 40 min. open flow (steam gauge).

Volume—786,000 cu. ft. gas (Pitot tube).

Jervian Corporation, GORDON McCORKLE No. 1

(Map Number—20)

Location: SW NW SE Sec. 18, 11S—45E

Elevation: 1041'

Date: 1930

Total depth: 2630'

SAMPLE DESCRIPTION		
<i>Lithology</i>	<i>From</i>	<i>To</i>
Mississippian system		
St. Louis limestone (lower part)		
Surface, soil	0	2
Limestone, light-gray, crystalline		
Warsaw and Ft. Payne formations		
Limestone, light-gray, siliceous, cherty, at		167
Chattanooga black shale	337	381

<i>Lithology</i>	<i>From</i>	<i>To</i>
Ordovician system		
Limestone, light and dark blue-gray, fine-grained to coarsely crystalline or shaly	381	636
Puff of gas @ 632 measured 94,000 cu. ft. on Pitot tube.		
Limestone, dark blue-gray, fine-grained to dense	636	731
Limestone, light blue-gray to dark olive-drab, dense	731	760
Pencil Cave, bright-green, bentonitic clay with black mica	760	762
Limestone, very dark blue-gray or olive-drab, very fine grained to dense	762	1180
Limestone, light-gray or olive-drab, very dense	1180	1198
Limestone, dark, blue-gray, very fine grained to dense	1198	1424
Set 8 1/4" casing @ 1200		
Limestone, light blue-gray, finely crystalline	1424	1436
Limestone, very dark blue-gray to nearly black, very fine crystalline to dense	1436	1498
Driller reports top of very light gray, finely granular, very hard limestone was encountered at about 1600'. Salt water @ 2150' filled the hole to within 300' of top.		
Limestone, very light gray to milky-white, magnesian, with a few angular, glassy quartz fragments, at		1820
Limestone, very light gray to white, magnesian, finely granular or sugary, with a few particles of milky-white chert, at		2400
Limestone, same, with an abundance of milky-white chert, and a few grains of glassy quartz, at		2508
Abandoned, with salt water standing to within 300' of top of hole.		

L. C. Young et al, S. W. ASKEW No. 1

(Map Number—21)

Location: NE NW NW Sec. 16, 10S—45E

Elevation: 952'

Date: 1938 - 39

Total depth: 1885'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Hard, flinty limestone	0	150
Beaver Sand	150	172
Black shale	172	213
Gray, hard lime	217	488
Brown formation	488	540
Dark lime (Sunnybrook)	540	555
Dark lime	560	590
Gas @ 560 and 590		
Gray lime	590	605
Pencil Cave at	610	
Sunnybrook formation	610	715
Gas @ 715		
Sunnybrook sand	715	830
Brown, hard sand	830	900
Mixed sand and lime	900	950
Extra hard lime	950	1050
Hard lime and sand	1050	1100
Soft, gray lime	1100	1160
Gray, hard lime	1160	1350
Brown Trenton Sand	1350	1416
Blue sand	1416	1445
Hard, brown sand	1445	1460

<i>Lithology</i>	<i>From</i>	<i>To</i>
White sand	1460	1472
Gray sand	1472	1480
Brown sand	1480	1490
White sand (extra hard)	1490	1500
White water sand (extra hard)	1500	1504
Gray sand (extra hard)	1504	1512
Brown sand (extra hard)	1512	1525
White sand	1525	1530

Analysis of material at 1480 showed we were already into Knox Dolomite at this point. The very small showing of oil came at 1490-1504.

<i>Lithology</i>	SAMPLE DESCRIPTION	
	<i>From</i>	<i>To</i>
Limestone, light-gray to light-brown, medium- to coarse-crystalline; few fragments of pure white calcite; very angular, white chert. In several cases the limestone encloses rounded quartz grains. Many of these quartz grains are fractured across the grains, showing typical conchoidal fracture. Some of the coarse-crystalline limestone seems to be rather porous	1480	1490
Limestone, white to gray, medium-crystalline, reacts with acid in much the same manner as the sample above. Some white chert and some oolitic chert. (Oolites look transparent, the matrix white.) The sample contains a few particles of black shale	1490	1500
Limestone, light- to dark-gray, medium- to coarse-crystalline. One fragment looks like dolomite crystals in a ground mass of calcite. The chert is similar to the above cherts except that there is no oolitic chert present. One fragment of light-green calcite	1500	1504
Limestone, light-brown, finely crystalline. This sample is dull and lustreless. There are very few chert particles present. A few crystals which exhibit the crystalline habit of dolomite	1504	1510
Limestone, medium- to coarse-crystalline, white to gray and light-brown. Some of the limestone looks dolomitic. There is considerable white chert present, some of the chert is oolitic and banded. Some of the chert has included dolomite (?) crystals. Some of the chert fragments have a bluish cast and are very angular. This sample carries considerable oolitic white chert	1510	1515
Limestone, light-gray to brown, fine- to medium-crystalline. Some shale fragments. Has only a small amount of white to yellow chert; no banding is apparent. All of the samples so far have effervesced in essentially the same manner	1515	1520
Limestone, white to light-brown, fine- to medium-crystalline. This sample has probably 40% of white to milky, angular, banded and dolocastic chert; this sample is very characteristic of some of the upper Knox cherts	1520	1525
Limestone, white to light-brown, medium- to coarse-crystalline. Probably 50% of this sample is white to milky, angular chert, some of the chert is banded and some is oolitic. Few fragments of calcite in a dolomitic ground mass	1525	1530

CORRELATION

The above eight samples exhibit the same characteristics as the samples of Knox dolomite from the Upper Cumberland District. The limestone is probably magnesian, but not high enough in magnesium content to be classed as a dolomite.

The above samples are probably from the upper part (100'±) of the Knox dolomite.

The banded and oolitic cherts are particularly characteristic of the upper part of the Knox in the area north of this well.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, gray, medium-crystalline, granular; some gray to light-gray bentonitic material	1530	1535
Dolomite, same, but coarser; banded white cherts	1535	1540
Dolomite, gray, medium-crystalline, granular	1540	1545
Wet sample	1545	1555
Dolomite, gray, fine-crystalline, and few fragments of pyrite	1555	1560
Dolomite, gray, coarse-crystalline and bentonitic; shale, gray; and few quartz grains (rounded)	1560	1565
Dolomite, gray, coarse-crystalline, and some oolitic chert	1565	1570
Dolomite, same, some chert, dark, and some chert, oolitic	1570	1575
Dolomite, same	1575	1580
Dolomite, gray to light-brown, fine- to medium-crystalline and some calcite, white; amorphous ground mass and dolomitic crystals	1580	1585
Dolomite, typical, white, fine-grained, and some chert, oolitic	1585	1590
Dolomite, gray to light-brown, coarse-crystalline; pyrite; and bentonite, green	1590	1595
Dolomite, gray to light-brown, fine-grained	1595	1599
Dolomite, gray to light-brown, coarse-crystalline	1599	1602
Wet sample	1602	1611
Dolomite, gray to white, and some chert, oolitic	1611	1615

WAYNE COUNTY

Tenn. Valley Iron & Railroad Co., FEE No. 1

(Map Number—1)

Location: Sec. 25 (P), 16S—22E

Elevation: 1050'

Date: 1919

Total depth: 1512'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chert	0	200
White lime	200	210
Sandy lime	210	240
Featherstone, brownish color	240	265
Black, sandy, flinty lime	265	380
Green shale	380	400
Gray lime	400	500
White lime	500	600
Black shale	600	650
Black lime	650	800
Grayish lime, alternating streaks of green shale 8' thick	800	1060
White, flinty lime	1060	1065
Grayish-brown lime	1065	1250
Sandy lime	1250	1350
Good white and blue sand	1350	1470
Brown and white sand	1470	1510
Water		

CASING:

10" 42# drive pipe @ 200
8" 24# drive pipe @ 265
6½" 17# drive pipe @ 500

No water after 265 except a 3-gallon per hour stream of sulphur water at 870.

Western Oil & Gas Co., WAYNE LAND CO. No. 1

(Map Number—2)

Location: NW SE SE Sec. 24, 14S—23E

Elevation: 985'

Date: 1930

Total depth: 1808'

Lithology	SAMPLE DESCRIPTION	
	From	To
Mississippian system		
Ft. Wayne formation		
Chert, light-gray to white	0	123
Strong flow fresh water @ 120		
Set 10" casing @ 123		
Chattanooga black shale (not present)		
Silurian system		
Decatur formation		
Limestone, dark-gray, granular, with numerous well-rounded quartz grains	123	152
Brownsport formation		
Limestone, dark blue-gray, granular, with abundant milky quartz grains	152	167
Chert, milky-white, porous, and dark blue-gray, granular limestone	167	209
Limestone, very dark gray to black, pyritic, with abundant chert	209	223
Limestone, light-gray and pink, coarsely crystalline, pyritic	223	293
Limestone, dark-gray, granular, with pink and white chert and angular, glassy quartz fragments	293	295
Wayne formation		
Limestone, dark blue-gray, granular, somewhat shaly	295	303
Shale, dark-blue, calcareous	303	320
Limestone, dark blue-gray to yellowish-brown, crystalline, fossiliferous	320	338
Shale, dark blue-gray, calcareous	338	391
Smell of gas @ 346-391		
Limestone, reddish, yellowish, gray, and brown, cherty, fossiliferous	391	417
Brassfield formation		
Limestone, dark blue-gray, crystalline, pyritic, cherty, fossiliferous, with large fragments selenite gypsum	417	466
Ordovician system		
Yellow ocher clay, a few inches		
Limestone, yellowish-brown, shaly	466	483
Limestone, reddish-brown, shaly, with abundant shell fragments	483	509
Limestone, dark blue-gray, shaly, fine-grained, pyritic	509	600
Limestone, very light gray to white, chalky	600	713
Limestone, dark blue-gray, granular	713	723
Limestone, very light gray to white, chalky	723	760
Limestone, light blue-gray, fine-grained to dense	760	810
Limestone, light to dark blue-gray, granular, fossiliferous	810	815
Stones River limestone group (top?)		
Limestone, light-to dark-gray or olive-drab, fine-grained to dense	815	925
Limestone, light-gray to white, finely crystalline	925	935
Pencil Cave, bright-green, shaly lime	935	940
Limestone, dark blue-gray or olive-drab, fine-grained to dense	940	983
Limestone, light-gray or drab, dense	983	1004
Limestone, light blue-gray, finely granular, magnesian	1004	1292

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, light greenish-gray, finely granular or shaly . . .	1292	1375
Limestone, white, granular, with abundant well-rounded quartz grains	1375	1408
Salt water @ 1380		
Knox dolomite formation (top?)		
Limestone, white, granular, magnesian, with abundant milky-white quartz grains and pyrite	1408	1580
Fresh water @ 1530-1535		
Limestone, light-gray to buff, finely granular, with numerous fragments brown chert	1580	1585
Limestone, white, finely granular, dolomitic	1585	1808

F. E. Waldrop et al, SAM STOOKSBERRY No. 1

(Map Number—3)

Location: Sec. 11, 16S—22E

Elevation: 1048'

Date: 1939

Total depth: 455'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Red chert	0	63
Chert	63	175
Water seep	175	176
White chalk, very hard	176	203
Set 6 $\frac{5}{8}$ " casing 203-205		
Very hard, gray lime	205	240
Very hard, dark lime	240	345
Gas show		
White and yellow, soft lime	345	350
Chalky, hard lime	350	390
Blue, shaly lime	390	405
Blue, shaly lime	405	425
Gray and red lime	425	440
Hard, red lime	440	455
Blue shale		
Gas showing		

Hassell & Associates, MARVIN STEELE No. 1

(Map Number—4)

Location: SW SW SW Sec. 3, 14S—19E

Elevation: 363'

Date: 1941

Total depth: 1125'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	23
Trenton lime, dark-gray, soft	23	156
Water @ 40		
Lime, brown, hard	156	215
Lime, blue, soft	215	220
Lime, blue, soft	220	235
Lime, gray, hard	235	240
Lime, blue, medium	240	439
Lime, brown, hard	439	444
Shaly lime, blue, soft	444	450
Lime, brown, hard	450	456
Lime, blue, soft	456	530
Lime, brown, medium	530	540
Lime, dark-gray, hard (cuttings fine)		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray, hard		
Sand, gray, medium	540	636
Lime, dark-gray, hard	636	642
Lime, light-gray, hard	642	676
Lime, dark-gray, hard	676	681
Lime, gray, hard	681	696
Lime, brown, hard	696	707
Lime, gray, medium, sandy	707	723
Sand, gray, medium	723	773
Lime, blue, medium, sandy	773	785
Sand, white, medium (St. Peter—no water)	785	809
Lime, blue, medium, sandy	809	815
Lime, blue, medium	815	827
Sand, brown, hard	827	900
Sand, white, hard	900	905
Lime, brown, hard, sandy	905	953
Sand, white, hard	953	1015
Hole full of water	1015	1040
Lime, white		
Lime, brown	1040	1052
Lime, gray	1052	1109
White water sand	1109	1115
Water ran over top of casing	1115	1125

C. W. Alworth, FRANK BROWN No. 1

(Map Number—5)

Location: NE NW NE Sec. 24, 14S—19E

Elevation: 494'

Date: 1941

Total depth: 1503'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface		
Red rock, soft	0	9
Trenton lime, blue, soft	9	23
Brown lime, medium	23	280
Water sand, brown, medium	280	290
Lime, brown, medium	290	300
Lime, gray, medium	300	330
Lime, brown, hard (cuttings fine)	330	365
Water sand, brown	365	420
Lime, brown (cuttings fine)	420	430
Water sand, brown	430	440
Lime, brown, hard	440	485
Lime, brown (cuttings fine)	485	495
Lime, brown, hard	495	500
Water sand, gray	500	515
Lime, brown, medium	515	545
Lime, dark-gray, soft	545	630
Lime, gray, medium	630	797
Lime, brown, medium	797	809
Lime, dark-gray, medium	809	814
Lime, gray, medium	814	822
Lime, brown, medium	822	827
Lime, gray, medium	827	832
Lime, light-brown, medium	832	842
Lime, dark-brown, medium	842	846
Lime, light-gray, medium, sandy	846	851
Lime, light-brown, medium, sandy	851	856
	856	861

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, light-gray, medium, sandy	861	871
Lime, brown, hard	871	935
Water sand, white, hard	935	960
Lime, gray, hard	960	1051
Lime, brown, hard	1051	1085
Lime, light-brown, hard	1085	1105
Lime, gray, hard	1105	1147
Lime, brown, hard	1147	1201
Lime, light-brown, hard	1201	1210
Lime, gray, hard	1210	1245
Lime, white, hard	1245	1255
Lime, gray, hard	1255	1310
Lime, light-brown, hard	1310	1340
Lime, white, soft, chalky	1340	1380
Lime, white, soft	1380	1425
Lime, brown, hard	1425	1430
Lime, gray, hard	1430	1444
Lime, brown, hard	1444	1449
Lime, gray, hard	1449	1459
Lime, light-brown, hard	1459	1465
Lime, gray, hard	1465	1475
Lime, brown, hard	1475	1503

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Shale, blue-gray, medium-grained, micaceous, calcareous	23	270
Shale, same (50%); limestone, light-gray, medium-grained (50%)	270	280
Limestone, same	280	285
Limestone, same (cuttings much smaller than preceding sample)	285	290
Samples missing	290	300
Limestone, light-gray, medium-grained	300	320
Limestone, light-gray, medium- to coarse-grained	320	325
Limestone, gray, coarse-grained, with small amounts of light-gray chert	325	330
Limestone, dove-gray, fine-grained pyritic	330	335
Limestone, dove-gray, fine-grained	335	340
Limestone, light-gray, fine-grained	340	345
Limestone, light-gray, medium-grained, pyritic	345	360
Limestone, same, and some light-gray chert	360	370
Limestone, light-gray, fine-grained, pyritic, and some light-gray chert	370	375
Limestone, same	375	400
Limestone, same and some chert	400	410
Limestone, same, cherty	410	413
Limestone, tan, fine-grained, cherty (95%); shale, blue-gray (5%)	413	430
Limestone, dove-gray, fine-grained	430	485
Limestone, gray, medium-grained	485	490
Limestone, gray, coarse-grained	490	495
Limestone, light-gray, fine-grained	495	500
Limestone, light-gray, medium-grained	500	505
Limestone, gray, medium- to coarse-grained	505	510
Limestone, gray, medium-grained	510	515
Limestone, light-gray, medium-grained	515	520
Limestone, white, medium-grained	520	535
Limestone, white, medium- to coarse-grained	535	540
Limestone, white to light-tan, coarse-grained	540	545
Samples missing	545	548
Limestone, same as above	548	550

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, same, highly dolomitic and fossiliferous	550	555
Limestone, light-gray, medium-grained, highly oolitic	555	560
Limestone, light-gray, fine-grained, oolitic	560	565
Limestone, light-gray, fine-grained, slightly oolitic	565	570
Limestone, same, containing coarse-crystalline calcite	570	575
Limestone, dove-gray, fine-grained	575	580
Limestone, same (50%); limestone, gray, medium-grained (50%)	580	585
Limestone, gray, medium-grained (80%); limestone, dove-gray, fine-grained (20%)	585	590
Limestone, gray, fine-grained	590	742
Samples missing	742	744
Limestone, gray, fine-grained	744	796
Limestone, same, (20%); limestone, dove-gray, fine-grained (80%)	796	801
Limestone, light-gray, fine-grained	801	806
Limestone, gray, fine-grained	806	816
Limestone, dove-gray, fine-grained, dolomitic	816	821
Limestone, gray, fine-grained	821	826
Dolomite, light-gray, sucrose, limy	826	836
Limestone, light-gray, fine-grained	836	841
Limestone, same, dolomitic, and some dolomite, sucrose, limy	841	846
Dolomite, light-gray to white, sucrose, limy	846	866
Limestone, light-gray, fine-grained, dolomitic	866	876
Dolomite, light-gray, sucrose, limy	876	891
Dolomite, same, and limestone, fine-grained, dolomitic	891	901
Dolomite, light-gray, sucrose	901	923
Dolomite, light-gray and brown, sucrose	923	928
Limestone, dove-gray, fine-grained, dolomitic	928	933
Dolomite, white, medium-grained, few rounded and frosted quartz grains (cuttings fine)	933	944
Dolomite, white, sucrose (cuttings fine)	944	955
Dolomite, dull-white, sucrose	955	965
Dolomite, light-gray, sucrose	965	970
Dolomite, light-gray to tan, sucrose	970	976
Dolomite, light-gray, sucrose, and small amounts green shale	976	981
Dolomite, dull-white, sucrose	981	998
Dolomite, same, and small amounts green shale	998	1003
Dolomite, same, and small amounts rounded and frosted quartz grains	1003	1011
Dolomite, same	1011	1025
Dolomite, light-gray, sucrose; some green shale; frosted and rounded quartz grains	1025	1030
Dolomite, dull-white, sucrose	1030	1040
Dolomite, same, and frosted and rounded quartz grains	1040	1046
Dolomite, light-gray, sucrose (St. Peter zone?). Abundant frosted and rounded quartz grains	1046	1051
Dolomite, gray to light-brown, fine-grained	1051	1056
Dolomite, gray, fine-grained	1056	1070
Dolomite, same, small amounts dead-white chert; and pale-green shale studded with rounded and frosted sand	1070	1076
Dolomite, same, and rounded and frosted quartz grains	1076	1081
Dolomite, same	1081	1107
Dolomite, same, and one piece doloclastic, pale-green shale	1107	1116
Dolomite, gray, medium-grained	1116	1126
Dolomite, gray, fine-grained	1126	1131
Dolomite, gray, medium-grained	1131	1136
Dolomite, light-gray, sucrose	1136	1142
Dolomite, light-gray, medium-grained	1142	1147
Dolomite, light-tan, medium-grained	1147	1152
Dolomite, same, and small amounts smooth, milky chert	1152	1157

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, light-tan, sucrose	1157	1165
Dolomite, light-gray, sucrose	1165	1190
Dolomite, light-tan, sucrose	1190	1201
Dolomite, light-gray, sucrose	1201	1222
Dolomite, light-gray and gray, sucrose	1222	1227
Dolomite, light-gray, medium-grained	1227	1233
Dolomite, dull-white, medium-grained	1233	1238
Dolomite, dull-white, fine-grained, and small amounts of pale-green shale	1238	1256
Dolomite, light-tan, sucrose	1256	1261
Dolomite, light-gray, sucrose; small amounts pale-green shale; and smooth chert	1261	1266
Dolomite, light-gray, sucrose	1266	1273
Dolomite, light-gray, medium-grained	1273	1278
Dolomite, light-gray, fine-grained, and small amounts pale-green shale	1278	1283
Dolomite, light-tan, fine-grained	1283	1288
Dolomite, light-gray, fine-grained and small amounts pale-green shale	1288	1300
Dolomite, light-gray, medium-grained, and small amounts pale-green shale	1300	1305
Dolomite, light-gray, sucrose; rounded and frosted quartz grains; and pale-green shale	1305	1310
Dolomite, light-tan, medium-grained	1310	1315
Dolomite, light-gray, medium-grained, and some smooth, milky chert	1315	1327
Dolomite, light-gray, fine-grained	1327	1333
Dolomite, dull-white, fine-grained	1333	1340
Dolomite, same, limy	1340	1345
Limestone, dull-white, fine-grained, dolomitic	1345	1351
Limestone, light-gray, fine-grained, dolomitic	1351	1356
Limestone, white, fine-grained, dolomitic, and small amounts green shale	1356	1375
Limestone, same	1375	1390
Dolomite, light-gray, sucrose	1390	1395
Limestone, white, fine-grained, dolomitic (50%); dolomite, light-gray, sucrose (50%)	1395	1412
Limestone, same	1412	1424
Limestone, light-gray, fine-grained, dolomitic	1424	1435
Dolomite, light-gray, medium- to coarse-grained	1435	1444
Dolomite, tan, medium- to coarse-grained	1444	1455
Dolomite, light-gray, medium- to coarse-grained, dolomitic	1455	1460
Limestone, light-gray, fine-grained, dolomitic	1460	1465
Limestone, same, and small amounts pale-green shale	1465	1480
Limestone, same, and dolomite, medium-grained	1480	1485
Samples missing	1485	1490
Dolomite, tan, medium- to coarse-grained	1490	1503

C. R. Craft, TENNESSEE PRODUCTS CO. No. 1

(Map Number—6)

Location: NE NE SE Sec. 19, 15S—22E

Elevation: 1014'

Date: 1951

Total depth: 3003'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Chert bed, yellow, broken	0	145
Chert, white, rotten	145	150
Strong flow water, caves like sand		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, black, flinty	150	165
Lime, black, gray, soft	165	167
Show live oil		
Lime, dark, hard; cherty, sharp	167	295
Lime, shaly, blue, soft	295	310
Lime, gray mud	310	340
Lime, shaly, blue, soft	340	360
Shale, blue, mud	360	373
Lime, shaly, gray, mud	373	380
Lime, gray, hard	380	385
Lime, broken, gray, mud	385	410
Shale, blue	410	415
Lime, broken	415	425
Shale, blue	425	430
Shale, dark	430	443
Shale, blue	443	448
Lime, shaly, gray	448	475
Lime, gray, mud	475	480
Shale, blue, mud	480	485
Lime, gray, hard	485	505
Lime, gray, mud	505	515
Shale, limy, dark	515	533
Shale, blue	533	540
Shale, dark	540	560
Lime, dark-gray, hard	560	570
Shale, dark	570	605
Lime, dark, broken	605	615
Rainbows		
Lime, dark, broken	615	650
Lime, dark, mud	650	655
Lime, gray, hard	655	680
Lime, brown, hard	680	690
Lime, gray, mud	690	710
Lime, gray, soft	710	725
Lime, gray, hard	725	760
Lime, gray, mud	760	784
Lime, brown, hard	784	810
Lime, gray, mud	810	820
Lime, gray, hard	820	840
Lime, brown and gray, hard mud and strata	840	895
Lime, light, soft	895	915
Strong odor and rainbows		
Lime, brown and gray, hard and soft strata	915	1030
Lime, gray, hard	1030	1235
Lime, light-gray, very hard (1' per hr.)	1235	1245
Lime, dark, gray, medium	1245	1250
Lime, light-gray, very hard	1250	1310
Lime, light-gray, medium	1310	1320
Lime, shaly, blue, soft	1320	1373
Show of gas 1350 (burns at hole)		
Lime, blue, hard	1373	1375
Lime, shaly, blue, medium	1375	1380
Lime, light-gray, hard	1380	1395
Lime, white, very hard	1395	1420
25 gal. sulphur per hr. @ 1410		
Lime, light-gray, hard	1420	1495
Water 1445-500' water in 10 hrs.		
Lime, white, very hard	1495	1510
Lime, brown, hard	1510	1517
1000' water 24 hrs.		

<i>Lithology</i>	<i>From</i>	<i>To</i>
Lime, gray	1517	1587
Water level 650'		
Lime, light-brown, medium	1587	1600
Show gas 1587		
Lime, light-gray, hard (soft breaks)	1600	1705
Lime, brown, very hard	1705	1710
Lime, gray, medium to hard	1710	1745
Lime, brown, medium	1745	1750
Lime, gray, hard	1750	1765
Lime, brown, medium	1765	1775
Lime, gray, hard	1775	1795
Lime (?), brown, very hard, cherty	1795	1912
Reacts slowly to sulphuric acid, seems small percentage lime; eats up bits		
Lime, light, soft	1912	1915
Heavy rainbow		
Lime (?), brown, very hard, cherty	1915	1927
Lime, gray, mud	1945	1947
Rainbow, heavy		
Lime, gray, very hard	1947	1955
Shale, white	1955	1956
Lime, gray, hard	1956	1997
Sandy lime, light, hard, sharp	1997	2005
Lime, gray, mud	2005	2010
Sand, dark, soft	2010	2015
Water rose 1600'		
Lime, brown, mud	2015	2030
Reamed pipe to 2021		
Lime, light, mud, sandy	2030	2045
Sand, white, mud	2045	2060
Water (fresh)		
Lime, salt and pepper, very hard	2060	2225
Sharp bit each 5'		
Lime, gray, mud	2225	2325
Rainbow and odor of oil @ 2225-2310		
Lime, brown, hard	2325	2335
Lime, gray, hard	2335	2340
Shaly lime, gray, soft	2340	2347
Lime, brown, hard	2347	2365
Lime, gray, soft	2365	2374
More water (?)		
Lime, light-brown, hard	2374	2387
Shale, white, soft	2387	2388
Lime, gray, mud	2388	2395
Lime, light-brown, hard	2395	2425
Lime, gray, mud	2425	2470
Lime, brown, hard	2470	2490
Shale	2490	2491
Lime, gray, hard	2491	2497
Lime, brown, very hard	2497	2580
Lime, gray, hard	2580	2600
Lime, brown, hard	2600	2605
Lime, sandy, gray, mud	2605	2635
Lime, brown, medium	2635	2645
Lime, brown, very hard	2645	2650
Shale, blue	2650	2651
Lime, white, medium	2651	2665
Lime, light-brown, medium	2665	2670
Lime, gray, very hard	2670	2730
Lime, gray, soft	2730	2732
Rainbow		

Lithology

	<i>From</i>	<i>To</i>
Lime, brown, hard	2732	2750
Lime, light, hard (glossy white fragments sharp)	2750	2760
Lime, light-brown, very hard	2760	2765
Lime, dark-gray, hard	2765	2795
Lime, light-brown, very hard	2795	2800
Lime, gray, hard	2800	2815
Lime, brown, hard	2815	2821
Lime, gray, hard	2821	2835
Shale, light	2835	2837
Lime, gray	2837	2860
Lime, brown, very hard	2860	2880
Lime, gray, hard	2880	2890
Chalky shale, light	2890	2897
Lime, gray, medium	2897	2930
Lime, gray, very hard	2930	2950
Lime, gray, sandy, hard streaks	2950	3003

C. R. Craft, LUTHER LAY No. 1

(Map Number—7)

Location: SE SW NE Sec. 7, 16S—21E

Elevation: 890'

Date: 1952

Total depth: 1600'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Gravel and dirt	0	6
Red beds	6	25
Red rock	25	50
Broken, light sand	50	100
Gravel and sand	100	130
Water		
Gravel and lime shells	130	131
Lime, hard, black and gray	131	134
Chert, black, hard	134	140
Lime, black, hard	140	250
Lime, gray	250	255
Slate, blue	255	275
Lime and slate, gray	275	290
Lime, gray	290	310
Lime, brown	310	320
Lime, shale, gray	320	337
Lime, light, hard	337	345
Lime, brown, hard	345	355
Lime, cherty	355	375
Sand, hard	375	385
Lime, gray and soft	385	395
Red rock, soft	395	400
Lime, gray, hard	400	420
Shale, brown and gray, sandy	420	435
Shale, blue, lime shells	435	500
Lime, dark, hard	500	565
Shale, dark, sandy	565	570
Lime, sandy, dark, hard	570	595
Lime, dark, hard	595	605
Lime, sandy, dark, hard	605	635
Lime, dark	635	640
Shale, white	640	642
Sand, dark	642	657
Shale, sandy	657	685

<i>Lithology</i>	<i>From</i>	<i>To</i>
Sand, brown, hard	685	710
Sand, gray, soft	710	715
Sand, dark, hard	715	720
Lime, gray, hard	720	735
Slate, gray	735	745
Lime, brown, hard	745	760
Sand, gray	760	773
1 bailer water		
Shaly, break, soft	773	780
Lime, brown, hard	780	820
Sand, brown, hard	820	840
Shale, blue	840	841
Lime, gray	841	875
Sand, dark, gray, soft	875	880
Lime, brown, hard	880	915
Sand, light, soft	915	920
Sandy shale, black	920	930
Lime, light	930	985
Lime, dark, soft	985	990
Lime, brown, hard	990	1030
Lime, gray	1030	1035
Lime, dark, hard	1035	1090
Lime, sandy, soft	1090	1095
Lime, dark, hard	1095	1149
Lime, brown, medium	1149	1190
Lime, gray	1190	1227
Lime, brown, very hard	1227	1245
Lime, gray, very hard	1245	1265
Sand, light, medium	1265	1290
Lime, gray	1290	1300
Lime, sandy, gray, hard	1300	1314
Lime, light, medium, sandy	1314	1320
Sandy slate, blue, soft	1320	1358
Shale, sandy, blue	1358	1363
Shale, gray	1363	1372
Shale, brown, soft	1372	1375
Lime, shaly, blue, medium	1375	1420
Lime, white, very hard	1420	1428
Lime, brown, very hard	1428	1440
Lime, sandy, gray	1440	1445
Lime, gray, hard	1445	1478
Lime, sandy, gray	1478	1500
Lime, brown, gray, hard	1500	1507
Lime, gray, hard	1507	1546
Lime, brown, hard	1546	1548
Lime, gray	1548	1566
Lime, sandy, brown	1566	1578
Lime, light and black	1578	1592
Lime, light, sandy	1592	1600

CASING:

8" surface pipe @ 150

WHITE COUNTY

Hickory Valley Oil & Gas Co., JAMES HATFIELD No. 1

(Map Number—1)

Location: NW SW NE Sec. 13, 8S—49E

Elevation: ?

Date: ?

Total depth: 405' (?)

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dark-gray lime	150	155
Darker gray lime	155	160
Dark-gray lime, small amounts of shale	160	165
Dark, shaly limestone	165	170
Dark-gray, calcareous shale with some limestone	170	175
Medium dark-gray limestone, some shale and some chert	175	180
Dark-brown, gray, cherty sand, fine cuttings, gritty, no oil	180	185
Lighter gray, fine cut, chert sand with some oil smell	185	190
Medium dark-gray limestone with some light-gray chert, and dark shale	190	205
Dark-gray limestone with some light-gray chert and dark shale	205	210
Medium dark-gray limestone with brownish chert grains, fine cuttings	210	215
Dark-gray limestone with clear, glassy, crystalline limestone and some chert	215	220
Gray-brown limestone with glassy, crystalline limestone and chert	220	230
Same	240	250
Cherty, brownish-gray limestone	250	260
Dark, hard, gray limestone	260	270
Same, fine and compact	270	280
Same	280	300
Fine-grained, gray limestone with some gray specks	300	310
Lead-gray, cherty limestone with some light and brown patches	310	320
Fine-grained, light-gray dove limestone with some rust patches	320	330
Fine-grained, light-gray dove limestone, crystalline and glassy	330	348
Strong black sulphur water @ 335-348		
Brown fine-grained, highly siliceous limestone and some quartz	348	350
Black shale, Chattanooga		370
Same		380
Same		385
Dark, gray, fine, green, calcareous shale		385
Very dark, brownish, nearly black, shale, similar to Chattanooga		390
Fine-grained, greenish, calcareous shale		395
Dark-gray shale and limestone, fine cuttings		400
Same		405

Tenn. Oil & Gas Co., J. T. KEITHLEY No. 1
(Map Number—2)

Location: SE NE NE Sec. 9, 8S—49E

Elevation: 1005'

Date: 1930

Total depth: 2485'

Lithology	SAMPLE DESCRIPTION	
	From	To
Mississippian system		
St. Louis limestone formation		
Limestone, light-gray, coarsely crystalline	0	40
Set 13" casing @ 26		
Warsaw and Ft. Payne formations		
Limestone, light, blue-gray, dense, with abundant light-gray chert	40	404
Strong flow fresh water @ 110		
Small puff gas @ 309 and 314		
Set 10" casing @ 355		
Chert, light-gray to milky-white and glassy, with abundant shiny pyrite	404	420
Chattanooga black shale		
Shale, black, carbonaceous, full of shiny pyrite	420	442
Ordovician system (undifferentiated)		
Limestone, dark blue-gray, soft, coarsely crystalline	442	464
Limestone, light-gray, hard, fine-grained	464	477
Limestone, dark blue-gray, coarse-grained, fossiliferous	477	572
Limestone, dark blue-gray and black, fine-grained	572	638
Limestone, dark blue-gray, fine-grained to dense	638	745
Limestone, light and dark blue-gray and brownish-gray, fine-grained to dense	745	853
Small puff of gas @ 820 and 845		
Limestone, light-gray or olive-drab, dense	853	886
Limestone, very dark gray or olive-drab, dense	886	940
Pencil Cave, bright-green and grayish-green, bentonitic clay with black mica flakes	940	946
(The Pencil Cave horizon was reported by the driller to have occurred @ 890-894, but was not present in the cuttings until 940)		
Limestone, very dark gray or olive-drab, fine-grained to dense	946	1096
Limestone, light brownish-gray or olive-drab, very dense	1096	1112
Limestone, dark blue-gray or olive-drab, fine-grained to dense	1112	1250
Reduced 10" hole to 8" @ 1156		
Limestone, light blue-gray, fine-grained to dense	1250	1308
Limestone, light to dark blue-gray, shaly	1308	1344
Limestone, dark-blue, fine-grained	1344	1375
Limestone, light blue-gray, shaly	1375	1400
Limestone, very dark blue-gray or olive-drab to black, very dense	1400	1687
Limestone, light blue-gray or olive-drab, very dense	1687	1702
Limestone, dark blue-gray or olive-drab, very dense	1702	1722
Limestone, light blue-gray or drab, very dense	1722	1754
Limestone, dark olive-drab, dense	1754	1763
Limestone, very light gray, fine-grained to dense	1763	1785
Limestone, dark olive-drab, dense	1785	1798
"Green lime" formation (?)		
Limestone, very light gray, finely granular, with few particles of green, shaly limestone	1798	1960

<i>Lithology</i>	<i>From</i>	<i>To</i>
Limestone, very light gray to white, finely crystalline or granular, with occasional well-rounded, milky-white, frosted or glassy quartz grains	1960	2110
"St. Peter sandstone" (?)		
Sandstone, white, glassy, well-rounded grains of quartz in white limestone matrix	2110	2122
Limestone, very light gray to white, finely crystalline or granular, dolomitic (?), pyritic, with an occasional well-rounded, milky-white or glassy quartz grain	2122	2300
Salt water reported by driller @ 2145 and 2240		
No samples	2300	2400
Limestone, same as above	2400	2428
1840 feet salt water standing in hole		

WILLIAMSON COUNTY

Uncle Jeff Oil Co., J. B. JACKSON No. 1

(Map Number—1)

Location: NW SE NW Sec. 21, 6S—28E

Elevation: 785'

Date: 1919

Total depth: 1200'

DRILLER'S LOG¹

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dirt	0	38
Lime	38	189
Beaver Sand	189	197
Shale, black (Chattanooga)	197	227
Hard cap rock	227	235
Oil show @ 239		
Sand	250	265
Blue lime	350	720
Brown lime	720	794
Blue lime	794	920
Brown lime	920	975
Blue lime	975	1085
Brown lime	1085	1105
Rainbow @ 1095		
Gray lime	1105	1116

Uncle Jeff Oil Co., W. T. LADD No. 1

(Map Number—2)

Location: NE SW NE Sec. 21, 6S—28E

Elevation: 777'

Date: 1920

Total depth: 318'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Soil	10	30
Blue lime	30	115
Blue flint	115	125
Blue limestone	125	138

¹ From notebook of L. C. Glenn.

<i>Lithology</i>	<i>From</i>	<i>To</i>
Blue flint	138	140
Blue limestone	140	193
Green shale	193	210
Black shale	210	228
Hard, fine-grained limestone	228	238
Sand	238	249
Black shale	249	254
Lime	254	288
Brown limestone	288	299

CASING:

8" @ 152

J. H. Frost et al, HUTCH CARUTHERS No. 1

(Map Number—3)

Location: NW SE NW Sec. 21, 6S—28E

Elevation: 746'

Date: 1936

Total depth: 225'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Surface	0	8
Lime, broken	8	40
Lime, hard	40	92
Water	92	92
Lime, hard	92	172
Shale, black (Chattanooga)	172	191
Cap rock	191	205
Sand, hard	205	220
Lime, green	220	225

CASING:

6¼" @ 104

WILSON COUNTY

Curtis-Kinard, TALLEY No. 1

(Map Number—1)

Location: SW SW NW Sec. 7, 4S—40E

Elevation: 603'

Date: 1948

Total depth: 2003'

DRILLER'S LOG

<i>Lithology</i>	<i>From</i>	<i>To</i>
Carters and Lebanon lime, gray	92	
Water sand	188	
Sulphur water	190	
Gas		
Set 8" @ 197 and reamed down to 224		
Lime, gray	205	
Salt water		
Lime and flint	245	
Gas pocket	232	
Drilling very good	245	255
Lime, brown	255	275

<i>Lithology</i>	<i>From</i>	<i>To</i>
Mixed lime	275	280
Lime, brown	280	300
Lime, brown	300	305
Gas pocket	305	
Lime, brown	315	390
Lime, gray	390	415
Salt water @ 395		
Lime, dark	415	465
Lime	465	495
Lime, dark	495	520
Lime, brown	520	570
Lime, gray	570	665
Lime and dolomite (Knox)	665	685
Set 6 $\frac{3}{8}$ " @ 685		
Chert and dolomite	685	710
Sand, white	710	720
Water		
Lime, gray and brown	720	745
Pulled and reset 6 $\frac{3}{8}$ " @ 735		
Lime, gray	745	790
Lime, brown and gray	790	810
Lime	810	830
Lime, white	830	840
Lime, gray	840	880
Lime, gray and brown	880	900
Lime, gray	900	970
Lime, gray and brown	970	995
Lime, gray	995	1085
Lime, gray and brown	1085	1115
Lime, gray	1115	1180
Lime, gray and brown	1180	1200
Lime, gray	1200	1270
Lime, brown	1270	1290
Lime, brown and gray	1290	1310
Lime, brown	1310	1330
Lime, gray and brown	1330	1350
Heavy water 1335 (light sulphur)		
Lime, mixed	1350	1365
Lime, gray	1365	1385
Lime, brown and gray, soft	1385	1465
Lime, gray and brown	1465	1480
Lime, gray	1480	1500

Steel line measurement—1500—1501

CASING:

- 8" pipe @ 200
- 6 $\frac{3}{8}$ " pipe @ 735

SAMPLE DESCRIPTION

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, tan, fine- to medium-grained, crystalline, with colorless blue and tan translucent chert	1160	1210
Chert, white, opaque to blue, translucent; some imbedded with quartz grains. Dolomite, light-brown and tan, medium-grained, crystalline	1210	1220
Dolomite, light- and dark-brown, medium- and coarse-grained, crystalline, and slightly cherty	1220	1250
Dolomite, gray to tan, medium-fine grained and medium-grained, slightly silty and cherty	1250	1270
Dolomite, gray to tan, medium-grained, slightly silty; chert, blue and tan, translucent, some having oolitic texture...	1270	1280

<i>Lithology</i>	<i>From</i>	<i>To</i>
Dolomite, tan, medium-grained, crystalline, with some white opaque, blue and tan translucent chert	1280	1290
Dolomite, dull-gray, fine-grained	1290	1310
Dolomite, light-brown, medium-grained, crystalline	1310	1320
Dolomite, tan and gray to dark-brown, medium-fine grained and medium-grained, crystalline and cherty. Chert, blue and tan translucent and white opaque, some doloclastic and sandy	1320	1400
Dolomite, light-brown, medium-coarse grained to fine-grained, argillaceous and cherty. Chert is white opaque, doloclastic and oolitic, with some tan and translucent ..	1400	1410
Dolomite, light-brown, fine-grained, silty and argillaceous ..	1410	1420
Samples missing	1420	1430
Dolomite, tan, fine-grained, calcareous, argillaceous, and slightly cherty; shale, brown and green, some pyritic. Chert is white, dark-brown, and tan opaque, some doloclastic and some translucent	1430	1450
Dolomite, dark-brown and white to gray, medium-fine grained and fine-grained, slightly calcareous and cherty ..	1450	1480
Chert, tan opaque, doloclastic; blue and gray to tan translucent, and speckled; with brown, fine-grained dolomite. .	1480	1490
Dolomite, tan, fine-grained and medium-fine grained, cherty. Chert as in above sample	1490	1500

COUNTY INDEX¹

ANDERSON COUNTY

	Page
Berry Stoll et al, R. M. MAPLES #1 (D).....	1
Greenup, David, et al, COAL CREEK MINING & MFG. #1 (DS).....	2
Nelson Oil & Gas Co., HATTIE BOOS #1 (D).....	4
Columbian Carbon Co., TENNESSEE MINING & MFG. CO. #1 (D).....	5

BEDFORD COUNTY

Bedford Oil & Gas Co., F. L. MORTON #1 (S).....	7
---	---

BENTON COUNTY

Jack Read & S. H. Massey, I. G. WILSON #1 (S).....	8
--	---

BLEDSoE COUNTY

Pike Oil & Gas Co., ROE ROBERSON #1 (D).....	8
Pike Oil & Gas Co., POPE #1 (D).....	9
Sun Oil Co., CLEMMER-ROBERSON #1 (D).....	10

CAMPBELL COUNTY

T. E. B. Siler Oil & Gas Co., ELLEN MEREDITH #1 (DS).....	12
Berry Stoll et al, N. A. SHOUN #1 (DS).....	13
Columbian Carbon Co., EAST TENN. IRON & COAL CO. #1 (D).....	18

CANNON COUNTY

South Penn Oil Co., J. B. McFARREN #1 (D).....	20
J. F. Adams, FEE #1 (D).....	20
Dr. Gant Gaither, HOOVER #1 (D).....	21
Howard Youree, FEE #1 (S).....	22
Hoyt Bryson et al, CHARLES BELL #1 (D).....	23
Hoyt Bryson et al, CHARLES BELL #2 (D).....	24
Magnolia Petroleum Co., M. B. GAITHER #1 (S).....	25

CARROLL COUNTY

Tennessee Property Co., FEE #1 (D).....	27
Johnson Oil & Refining Co., JOHN F. VICKERS #1 (D).....	28
Louisville & Nashville Railroad, FEE #1 (D).....	28

CHEATHAM COUNTY

Faiery, White, Youree, W. T. DUNN #1 (S).....	29
_____ J. H. JUDD #1.....	41
Sewanee Oil & Gas Co., J. N. HUMPHREYS #1 (D).....	42
Sewanee Oil & Gas Co., C. W. CLIFTON #1 (D).....	42
Sewanee Oil & Gas Co., R. O. DAVIS #1 (D).....	42
B. E. Guibert, J. M. SEARS #1 (S).....	42
T. J. Newall Oil Co., ED KING #1 (D).....	44
T. J. Newall Oil Co., J. E. HIGGINS #1 (D).....	44
Young & Ellis, J. H. UNSELD #1 (S).....	44
Cagle Bros., JOHN CAGLE #1 (D).....	46
Cagle Bros., JOHN CAGLE #2 (D).....	47

CHESTER COUNTY

Gilmore & Shreve, J. A. SCOTT #1 (DS).....	47
--	----

¹ (D) is Driller's Log.

(S) is Sample Description.

Where no such parenthetical reference is made, data are mostly in the form of notes or correspondence, with occasional company data such as information releases, etc.

	Page
CLAIBORNE COUNTY	
Thornburgh et al, J. H. PEARSON # 1 (D)	52
CLAY COUNTY	
Overstreet & Miller, C. HULL # 1 (D)	53
Coleman & Beckerle, F. HILL # 1 (D)	54
W. O. Allen, JAKE JENKINS # 1 (S)	55
Overstreet & Sparks, STEPHENS # 1 (D)	58
Overstreet & Sparks, A. B. DAVIS # 1 (D)	59
Moland Oil Co., W. COOK # 1 (D)	59
Mid-Eastern Oil Corp., CARL COLLINS # 1 (D)	60
Popkins & Gwyn, J. SCOTT # 1 (S)	62
COFFEE COUNTY	
Tennessee Oil & Gas Co., C. E. PRICE # 1	63
Tennessee Oil & Gas Co., C. E. PRICE # 2 (D)	63
Tennessee Oil & Gas Co., C. E. PRICE # 3 (D)	64
Southern Exploration Co., C. H. HUTTON # 1 (D)	65
CUMBERLAND COUNTY	
Rackow, Zimmerlee & Co., FORBES # 1 (D)	66
Peavine Coal Co., PEAVINE MOUNTAIN # 1 (D)	66
Crab Orchard Oil Co., PEAVINE COAL CO. # 1 (D)	67
Indian Refining Co., PHILLIPSBURG # 1 (D)	68
Waldensia Coal & Coke Co., WALDENSIA WELLS # 1 (D)	70
Waldensia Coal & Coke Co., WALDENSIA WELLS # 2 (D)	70
Waldensia Coal & Coke Co., WALDENSIA WELLS # 3 (D)	71
Waldensia Coal & Coke Co., WALDENSIA WELLS # 4 (D)	71
Waldensia Coal & Coke Co., WALDENSIA WELLS # 5 (D)	72
Waldensia Coal & Coke Co., WALDENSIA WELLS # 6 (D)	73
Benedum-Trees Oil Co., TENN. MINERAL-LUMBER CO. # 1 (DS)	73
Benedum-Trees Oil Co., TENN. MINERAL & LUMBER CO. # 2 (D)	75
Benedum-Trees Oil Co., TENN. MINERAL & LUMBER CO. # 3 (D)	76
Kingwood, HARRISON # 1 (DS)	77
Shell Oil Co., PETERSON # 1	80
DAVIDSON COUNTY	
Daniel Lindsay et al, ARTHUR STEPHENS # 1 (D)	82
G. P. Williams, E. D. JOHNSON # 1 (S)	83
Vultee Aircraft, FEE # 1 (DS)	84
DECATUR COUNTY	
Sardis Oil & Gas Co., J. J. SHANNON # 1 (D)	86
Standard Oil Co. of Louisiana, C. W. WYATT # 1 (DS)	87
Chester County Oil Co., J. A. MONTGOMERY # 1 (S)	90
C. M. Pierce et al, J. A. MONTGOMERY # 1 (D)	95
Memphis Equipment Co., HEYWOOD CORDLE # 1 (S)	96
DE KALB COUNTY	
Bethel Oil Co., J. W. OVERALL # 1 (S)	97
C. L. Williams, W. F. BURTON # 1 (D)	97
DICKSON COUNTY	
J. B. Weems et al, OAKLEY # 1 (DS)	99
STARK # 1 (D)	100
Tuxbury Oil Company, EMMA WALL # 1 (D)	101
LYLE PETTY # 1 (D)	101
Tennessee Central Oil Co., HENRY TAYLOR # 1 (DS)	102
Schutte & Kenyon, CLAUDE HOOPER # 1 (S)	102
	104

	<i>Page</i>
E. H. Crow et al, B. Y. BROWN # 1 (D)	105
T. J. Newall et al, W. R. OAKLEY # 1 (S)	106
R. W. Grimes et al, W. R. OAKLEY # 1 (S)	107
R. A. Lindsay et al, BEN SENSING # 1 (D)	108
Glenn D. Rose et al, F. M. LUCAS # 1 (DS)	109
McClung, B. MYATT # 1 (S)	110
Hoosier Drilling Co., GILBERT LYLE # 1 (D)	112
Owen Hembree et al, JOHN LOGGINS # 1 (D)	112

DYER COUNTY

Henderson Oil Company, JOHN FIELDS # 1 (DS)	113
Henderson Oil Company, JOHN E. RICE # 1 (D)	115

FAYETTE COUNTY

M. J. Kissick, J. B. CLAXTON # 1 (D)	116
Hay-Fay Oil Co., BAILEY MORRISON # 1 (DS)	117
Anderson & Kerr Drilling Co., P. P. BEASLEY # 1-A (DS)	119
Anderson & Kerr Drilling Co., P. P. BEASLEY # 1-B (DS)	120
U. S. G. S. & Tenn. Div. of Geology, T-1-F (S)	121
Lazarov & Robilio Oil Co., BEASLEY # 1 (S)	123

FENTRESS COUNTY

B. J. Burnes et al, COMPTON # 1 (D)	124
Forest Oil Co., RUGBY LAND # 3 (D)	125
Flint & Strother, ANDERSON # 1 (D)	126
Norwood P. Johnson, GERNT # 1 (D)	126
Norwood P. Johnson, GERNT # 2 (D)	127
WILL WRIGHT # 1 (D)	127
S. P. Lalor et al, COBB HEIRS # 1 (D)	129
S. P. Lalor et al, P. P. BEATY # 1 (D)	130
S. P. Lalor et al, P. P. BEATY # 2 (D)	130
S. P. Lalor et al, P. P. BEATY # 3 (D)	131
W. M. Johnson, FEE # 2 (D)	131
Brandon Development Co., MATILDA COOPER # 2 (D)	132
Brandon Development Co., MATILDA COOPER # 3 (D)	133
S. P. Lalor, H. A. Cotton, et al, GRANVILLE COOPER # 1 (DS)	134
Travis Smith et al, PORTER WOODS # 1 (D)	137
Brandon Development Corp., MATILDA COOPER # 4 (D)	138
Travis Smith et al, T. C. WRIGHT # 1 (D)	140
Travis Smith et al, T. C. WRIGHT # 2 (D)	140
Travis Smith et al, T. C. WRIGHT # 4 (D)	141
Travis Smith et al, L. F. CHOATE # 1 (D)	142
Travis Smith et al, W. C. SMITH # 1 (D)	143
Travis Smith et al, G. W. SMITH # 1 (D)	144
Joe Young, FEE # 1 (D)	145
Joe Young, FEE # 2 (D)	146
Joe Young, FEE # 3 (D)	146
Joe Young, FEE # 4 (D)	147
Travis Smith et al, T. C. WRIGHT # 5 (D)	148
Travis Smith et al, BEATY & HARRIS # 1 (D)	149
Andre & Peterson, J. B. REAGAN # 1 (D)	150
Andre & Peterson, J. B. REAGAN # 2 (D)	151
A. C. York et al, A. C. YORK # 1, Tract 2 (S)	151
A. C. York et al, A. C. YORK # 2, Tract 2 (S)	153
Burns et al, COMPTON # 2 (D)	155
Alvin C. York, MARTHA SMITH # 1 (S)	155
Whitcher, Taylor & Abbott, JOHN GREER # 1 (D)	157
A. L. Peterson, TANYARD # 1 (D)	158
Compton Heirs, CARTHY KING # 1 (D)	159
Dewey Carr, BOWDEN HEIRS # 1 (D)	160

	<i>Page</i>
Turner & Shaner, F. JOHNSON # 1 (D).....	161
E. Whitcher, ALONZO HINDS # 1 (D).....	162
Young, Brandon & Kincheloe, FRED MULLINEX # 2 (D).....	163
Huston St. Clair, EDISON FROGGE # 1 (D).....	164
Young, Brandon & Kincheloe, MULLINEX # 3 (D).....	165
Guy Williams, WM. PYLE # 1 (D).....	165
Guy Williams, WM. PYLE # 2 (D).....	166
Jerman & Whitcher, O. G. DUNCAN # 1 (D).....	167
 FRANKLIN COUNTY	
..... J. C. HALE # 1.....	168
..... BEN HEICKEN # 1.....	168
Johnson et al, S. M. SHELLY # 1.....	168
Franklin Oil & Fuel Co., J. A. SHADOW # 1.....	168
..... J. L. HAYNES # 1.....	169
Tennessee-Kentucky Oil & Gas Co., TRIGG # 1 (D).....	169
Tennessee-Kentucky Oil & Gas Co., TRIGG # 2 (D).....	169
Tennessee-Kentucky Oil & Gas Co., RICHARD MURRAY # 1.....	170
Tennessee-Kentucky Oil & Gas Co., CUMBERLAND CEMENT CO # 1 (D).....	170
Tennessee-Kentucky Oil & Gas Co., DICK TAYLOR # 1.....	170
Tennessee-Kentucky Oil & Gas Co., WEINGER # 1.....	171
Southern Exploration Co., WEBB # 1.....	171
Southern Exploration Co., WILKINS # 1.....	171
 GIBSON COUNTY	
Dyer Oil & Gas Company, VANCE HOLT # 1 (D).....	171
 GILES COUNTY	
J. M. Young et al, JOHN SPEARS # 1 (S).....	173
The California Company, E. W. BEELER # 1.....	174
Ben H. Putnam, ZUCCARELLO # 1 (S).....	176
 GRUNDY COUNTY	
Sequatchie Gas Company, SEWANEE FUEL & IRON CO # 1 (D).....	178
Magnolia Petroleum Co., W. H. PATTERSON # 1.....	179
 HARDEMAN COUNTY	
City of Bolivar, FEE # 1 (Water) (D).....	180
Western State Hospital, FEE # 1 (DS).....	180
Spring Creek Development Co., E. B. SAIN # 1 (D).....	181
Nance & Vivadelli, J. B. DONALDSON # 1 (S).....	184
 HARDIN COUNTY	
Wingfield & Dobie, WILL STRICKLAND # 1 (DS).....	187
 HAYWOOD COUNTY	
E. R. Henderson et al, J. H. JARRETT # 1-B (DS).....	192
 HENDERSON COUNTY	
City of Lexington Water Well (D).....	194
 HENRY COUNTY	
Louisville & Nashville Railroad, WATER WELL # 4 (D).....	195
 HICKMAN COUNTY	
Overby et al, FRANK OVERBY # 1 (S).....	195

HOUSTON COUNTY

Page

B. A. Eubanks, C. N. PHILLIPS # 1 (DS) 196

HUMPHREYS COUNTY

Humphreys Oil & Gas Co., M. W. PLANT # 1 (D)..... 200
 Tennessee Oil & Gas Co., G. T. & J. W. ANDERSON # 1 (D)..... 201

JACKSON COUNTY

Ohio Oil Company, J. T. QUARLES # 1 (D) 202
 Ohio Oil Company, G. M. FLYNN # 1 (D) 202
 Celina Oil & Gas Co., RAD HAWKINS # 7 (D)..... 203
 Ohio Oil Company, N. P. REED # 1 (D)..... 204
 Wittmer Oil & Gas Co., J. J. FUQUA (S)..... 204
 White Plains Oil Co., SMITH CARVER # 1 (D)..... 204
 Wittmer Oil & Gas Co., CLAY BURNS # 1 (D)..... 205
 J. R. Medlen Oil Co., R. L. MEADOWS # 1 (DS)..... 205
 S. G. Kennedy & Co., J. G. MONTGOMERY # 1 (D)..... 206
 W. F. Carter et al, THOMAS SCANTLAND # 1 (DS)..... 207
 W. F. Carter et al, R. L. GOOLSBY # 1 (D)..... 211
 W. F. Carter; Sam Weil, CLAY RICHARDSON # 1 (D)..... 212
 Welsh et al, G. C. MERCER # 1 (D)..... 213
 W. L. McKee et al, SMITH KEELING # 1 (D)..... 214
 C. W. Marxer et al, H. S. DAVIS & J. J. CLARK # 1 (S)..... 215
 Dean Roland et al, CARL ANDERSON # 1 (D)..... 215
 W. H. Parks, G. H. LYNN # 1 (D) 216
 Abercrombie et al, G. W. JONES # 1 (D)..... 217
 W. E. Adams, EMMER WARREN # 2 (D)..... 217

KNOX COUNTY

Golden Rule Oil Co., GEORGE CALLAHAN # 1 (D)..... 218

LAKE COUNTY

Reelfoot-Ranger Oil Co., ETHELBERT ROGERS # 1 (D)..... 219
 Reelfoot Dome Oil Co., KATE WRIGHT # 1 (D)..... 220
 Henderson Oil Co., LINDA MORRIS # 1-A (DS)..... 221
 Henderson Oil Co., LINDA MORRIS # 1-C (S)..... 223
 Henderson Oil Co., LINDA MORRIS # 1-D (D)..... 224
 Henderson Oil Co., A. E. MARKHAM # 1 (DS)..... 225
 Benz, J. E. VAUGHN # 1..... 230

LAUDERDALE COUNTY

Raymond Gear, DYER BROS. # 1 (DS)..... 233
 Raymond Gear, T. A. LEE # 1 (DS)..... 235
 Pure Oil Co., C. W. GRAY # 1 (DS)..... 237

LAWRENCE COUNTY

T. L. Moran, J. H. STRIBLING # 1 (D) 239
 T. L. Moran, J. H. STRIBLING # 2 (D) 240
 T. L. Moran, J. H. STRIBLING # 3 (D) 241
 T. L. Moran, J. H. STRIBLING # 4 (D) 241

LEWIS COUNTY

H. W. MANN # 1 (S)..... 241

LINCOLN COUNTY

Chattanooga Gas Co., M. F. CHILDRESS # 1 (D)..... 243
 Chattanooga Gas Co., LEWIS DICKEY # 2 (D)..... 244
 Middle Tennessee Oil & Gas Co., ROBERT GRAY # 1 (D)..... 244

	<i>Page</i>
Bull Brown et al, M. J. ROWELL #1 (D)	245
Local Interests at Kelso, V. H. TARKINGTON #1 (D)	246
Young Development Co., E. W. PITTS #1 (D)	247
Fayetteville Natural Gas Co., W. G. COWAN #1 (S)	247
Fayetteville Natural Gas Co., A. H. HATCHER #1 (S)	248
Chattanooga Gas Co., ARTHUR THOMPSON #1 (D)	249
Elk Hills Petroleum & Gas Co., GEORGE WARD #1 (S)	250
Chattanooga Gas Co., CHARLES NIX #1 (D)	251
Elk Hills Petroleum & Gas Syn., D. T. HARDIN #1 (S)	252
United Light & Power Co., R. D. CROWLEY #1 (D)	252
Chattanooga Gas Co., HUGH SYLER #1 (D)	254
Chattanooga Gas Co., W. M. CRAWFORD #1 (D)	255
Chattanooga Gas Co., LEWIS DICKEY #1 (D)	256
Chattanooga Gas Co., J. A. DICKEY #2 (D)	257
Chattanooga Gas Co., B. E. HOLMAN #1 (D)	258
United Light & Power Co., JOHN CALDWELL #1 (D)	258
Chattanooga Gas Co., DORA CALDWELL #1 (D)	259
Chattanooga Gas Co., DORA CALDWELL #2 (D)	260
Chattanooga Gas Co., TOM KEITHLER #1 (D)	261
Chattanooga Gas Co., W. M. CRAWFORD #2 (D)	261
Chattanooga Gas Co., SAM TIGERT #1 (D)	262
Chattanooga Gas Co., SAM TIGERT #2 (D)	263
Chattanooga Gas Co., SAM TIGERT #3 (D)	264
Elk Cotton Mills, FEE #1 (Water) (D)	265
Chattanooga Gas Co., HENRY MARR #1 (D)	266
Sam Hall et al, J. M. HILL #3 (D)	267

MACON COUNTY

G. W. Carson, F. D. HAYNES #1 (D)	268
Ohio Oil Co., IDA GOAD #1 (D)	269
J. H. McClurkin et al, W. W. TUCKER #1 (D)	269
Macon County Development Co., J. M. COOPER #1 (D)	270
C. F. West et al, R. B. FREEMAN #1 (D)	271
R. A. Leslie, FEE #1 (S)	271
W. E. Adams & Son, WILLIE VANCE #1 (D)	273

MADISON COUNTY

City of Jackson, ARTESIAN WELL (S)	275
Bemis Bros. Bag Co., BEMIS #1 (D)	276
W. J. Baum et al, W. J. BAUM #1 (D)	276
Semte Oil Co., J. B. HOWARD #1 (D)	277
U. S. Geological Survey, T-1-M (S)	278
U. S. Geological Survey, T-2-M (S)	280

MARSHALL COUNTY

Faust et al, R. A. MANIER #1 (D)	281
W. H. Moores Oil Co., G. W. GOWER #1 (D)	281
City of Petersburg, MORGAN SCHOOL #1 (WATER) (DS)	282

McNAIRY COUNTY

Stephens Petroleum Co., PETRIE #1 (S)	284
---------------------------------------	-----

MEIGS COUNTY

Freeman—Sport, ROBERTS #1 (D)	300
-------------------------------	-----

MONTGOMERY COUNTY

Tuxbury Oil & Refining Co., JOHN H. JONES #1 (D)	301
Young & Ellis, J. H. UNSELD #1 (D)	302
E. E. Rehn, L. E. BARNETT #1 (D)	303
E. E. Rehn, WADE BROTHERS #1 (D)	304

MOORE COUNTY

	<i>Page</i>
Farnham Brothers, LEM MOTLOW # 1 (Tract 1) (D).....	305
Farnham Brothers, LEM MOTLOW # 1 (Tract 2) (D).....	305

MORGAN COUNTY

Benedum-Trees Oil Co., HENDREN # 1 (D).....	306
Forest Oil Co., RUGBY LAND COMPANY # 2 (D).....	307
State of Tennessee, STATE PRISON # 1 (D).....	308
Ohio Oil Co., WILLIAM MATTHEWS # 1 (D).....	309
Russell Producing Co., DRAKE # 1 (D).....	309
White et al, LUTHER GRIFFITH # 1 (D).....	310
Russell Producing Co., D. B. ASHE # 1 (D).....	311
Holly Oil Co., D. B. ASHE # 1 (D).....	312
Russell Producing Co., RUSSELL FEE # 1 (D).....	313
Russell Producing Co., RUSSELL FEE # 2 (D).....	314
Russell Producing Co., RUSSELL FEE # 3 (D).....	314
Russell Producing Co., DRAKE # 2 (D).....	315
Payne et al, SAM GALLOWAY # 1 (D).....	316
Johnson-Messer Oil Co., H. W. SUMMERS # 1 (D).....	317
Johnson-Messer Oil Co., GILREATH # 1 (DS).....	317
Johnson-Messer Oil Co., BECK # 1 (DS).....	320
Grady Clark Oil Co., JIM SEIBOLT # 1 (D).....	322
Russell Producing Co., DRAKE # 4 (D).....	322
Rock Creek Oil Co., W. S. OWENS # 1 (DS).....	323
Rock Creek Oil Co., J. A. BRADFORD # 1 (S).....	326
Benedum-Trees Oil Co., H. R. STUMP # 2 (D).....	327
Russell Producing Co., STUMP # 2 (D).....	328
Russell Producing Co., STUMP # 3 (D).....	329
Benedum-Trees Oil Co., E. W. SEDMAN # 1 (D).....	330
Benedum-Trees Oil Co., HALL & DAVIS # 1 (DS).....	330
Benedum-Trees Oil Co., F. S. ANDERSON # 1 (D).....	332
East Tennessee Oil Co., ANGELINE RITTER # 1 (D).....	333
Russell Producing Co., J. A. BRADFORD # 1 (D).....	333
Tenn.-Ohio Oil & Supply Co., H. K. JONES # 1 (D).....	334
Tenn.-Ohio Oil Co., W. H. GALLOWAY # 1 (D).....	335
Russell Producing Co., MARKLEY # 1 (S).....	336
Tenn-Tex Oil Co., GEORGE CALDWELL # 1 (D).....	337
Tenn-Tex Oil Co., G. CALDWELL # 2 (S).....	338
Russell Producing Co., FEE # 1 (D).....	340
Russell Producing Co., FEE # 2 (DS).....	341
Russell Producing Co., FEE # 3 (D).....	344
Taylor & Shoemaker, RUSSELL PRODUCING CO. # 1 (D).....	345
S. D. Jarvis, ZYNN HONEYCUTT # 1 (S).....	347
S. D. Jarvis, G. E. HARRISON # 1 (D).....	348
U. S. Oil Co., G. E. HARRISON # 1 (DS).....	349
U. S. Oil Co., G. E. HARRISON # 2 (D).....	351
Ben Tate et al, BAKER-PEMBERTON # 1.....	352

OBION COUNTY

J. W. Scott et al, A. M. RAINS # 1 (D).....	353
Reelfoot-Ranger Oil Co., O. T. WOLLASTON # 1 (D).....	354
Reelfoot-Ranger Oil Co., ETHELBERT ROGERS # 1 (S).....	355
Trimble Oil & Gas Co., M. A. GAULDIN # 1 (D).....	356
Ira T. Johnson Oil Co., S. L. BRADSHAW # 1 (DS).....	357
Henderson Oil Company, F. B. CARROLL # 1 (DS).....	362
Henderson Oil Company, S. J. BRADSHAW # 1 (D).....	366

OVERTON COUNTY

	<i>Page</i>
Spring Creek Development Co., F. T. MOORE # 1 (D)	367
Spring Creek Development Co., BREEDING # 1 (D)	367
Empire Oil & Gas Co., J. F. MARTIN # 2 (D)	368
South Penn Oil Co., L. D. BOHANAN # 1 (D)	368
John Elder et al, WILLIE D. CLARK # 1 (D)	369
Duncan et al, JAMES BROWN # 1 (D)	370
A. H. Heisey & Co., JOHN (SHIRLEY) ROBBINS # 1 (D)	371
Bernstein et al, EMMETT SMITH # 1 (D)	372
Spring Creek Development Co., F. T. MOORE # 1 (D)	373
Spring Creek Development Co., F. T. MOORE # 2 (D)	373
Spring Creek Development Co., F. T. MOORE # 3 (D)	374
Spring Creek Development Co., F. T. MOORE # 4 (D)	374
Ohio Oil Co., W. L. MAINARD NEW WELL # 1 (D)	375
Ohio Oil Co., J. E. SULLIVAN # 1 (D)	376
Empire Oil & Gas Co., J. F. MARTIN # 2 (D)	377
Spring Creek Development Co., JOHNSON # 1 (D)	377
Moore Oil Co., J. C. McCULLLEY # 1 (S)	378
Morgan Petroleum Co., ALLEN SELLS # 1 (D)	380
Morgan Petroleum Co., J. D. HAYES # 1 (D)	380

PERRY COUNTY

H. L. White et al, SHEPARD HEIRS # 1 (DS)	381
---	-----

PICKETT COUNTY

New Domain Oil & Gas Co., S. L. RICH # 1 (D)	389
New Domain Oil & Gas Co., J. H. PENDERGRASS # 1 (D)	389
New Domain Oil & Gas Co., J. P. HARRISON # 1 (D)	390
New Domain Oil & Gas Co., G. B. LITTLE # 1 (D)	390
New Domain Oil & Gas Co., M. V. PHILLIPS # 1 (D)	391
New Domain Oil & Gas Co., A. PHILLIPS # 1 (D)	392
New Domain Oil & Gas Co., JOHN MARTIN # 1 (D)	392
New Domain Oil & Gas Co., W. T. RAMSEY # 1 (D)	393
New Domain Oil & Gas Co., A. B. WALKER # 1 (D)	394
New Domain Oil & Gas Co., R. J. HEMBREE # 1 (D)	394
Koger & Parrott, ALLARD PARROTT # 1 (D)	394
Koger & Parrott, ALLARD PARROTT # 2 (D)	395
Robinson Oil Co., A. PHILLIPS # 1 (D)	395
Jesse Ashby et al, CINDA SELLS # 1 (D)	396
W. P. Clements et al, ALBERT KEISLING # 1 (D)	397
Dutch Creek Oil Co., JOUETT AMONETT # 1 (D)	397
Tennessee Oil and Refining Co., CORA RAINS # 1 (D)	398
A. C. York, WILL MATTHEWS # 1 (D)	399
W. D. Morton et al, CLINTON STORIE # 1 (D)	400
S. W. Bardill (Peters), FLOYD PILE # 1 (D)	401
I. J. Vauter, W. PRICHARD # 1 (S)	401
Alvin C. York, PRINT HUFF # 2 (S)	405
Myers et al, MRS. ED STORIE # 1 (DS)	406
Clarence Eleson, B. C. ARNEY # 1 (D)	407
C. L. Eleson, P. T. COPELAND # 1 (D)	408
Clarence Eleson, RAYMOND NEAL # 1 (D)	408
C. L. Eleson, J. AMONETT # 1 (D)	409
Clarence Eleson, JOUETT AMONETT # 2 (D)	410
Clarence Eleson, JOUETT AMONETT # 3 (D)	411
Bisset & Dillon Heirs, STORIE # 1 (S)	411
John Buckner, J. P. UPCHURCH # 1 (D)	412
John Buckner et al, GEORGE BEATY # 1 (D)	413
Claud B. Hamill et al, PRINT HUFF # 1 (D)	414

PUTNAM COUNTY

	<i>Page</i>
J. F. TUCKER #1 (D).....	415
Carolina-Tenn. Oil & Gas Co., RIPPITOE #1 (D).....	415
South Penn Oil Co., M. V. LEWIS #1 (D).....	416
Butler & Newman, JOE JARED #1 (D).....	416
Butler & Newman, E. H. MADDUX #1 (D).....	418
Wittmer Oil & Gas Co., C. P. JERNIGAN #1 (D).....	419
Butler & Newman, JESSE RITTENBERRY #1 (D).....	419
Carolina-Tennessee Oil & Gas Co., HARVEY SHIPLEY #1 (D).....	420
Carolina-Tenn. Oil & Gas Co., GEORGE GENTRY #1 (D).....	420
Nathaniel Berthoff et al, O. K. HOLLADAY #1 (D).....	421
Stanolind Oil & Gas Co., W. H. HYDER #1 (D).....	422

RHEA COUNTY

Richland Oil & Gas Co., R. P. THOMISON #1 (D).....	424
Richland Oil & Gas Co., R. P. THOMISON #2 (D).....	424
Richland Oil & Gas Co., R. P. THOMISON #3 (D).....	425

ROBERTSON COUNTY

W. A. Batten et al, W. H. HEATHERLY #1 (D).....	425
W. A. Batten et al, ARCH MASON #1 (D).....	426
R. D. Wright et al, JOE GROVES #1 (DS).....	426
M. E. Morrison et al, L. M. MERRIT #1 (D).....	427
Tulsa-Texas Oil Co., W. S. HOLMAN #1 (D).....	427
Sewanee Oil & Gas Co., FELIX EWING #1 (D).....	428
M. E. Morrison et al, PAYNE BROS. #1 (D).....	428
LESLIE TAYLOR #1 (D).....	429
W. A. Batten, R. W. BENSON #1 (D).....	429
A. F. Engle et al, R. L. MATTHEWS #1 (D).....	429
A. F. Engle et al, R. B. McINTOSH #1 (DS).....	430
Leeper Oil Co., CLAUDE BARBEE #1 (DS).....	432
Draughon Bros., FEE (PITT) #1 (S).....	433
Draughon Bros., FEE (JOYNER) #1 (S).....	434
Draughon Bros., FEE (JOYNER) #2 (S).....	435
W. E. Fennell, CLAUDE BARBEE #1 (S).....	436
Draughon Bros., FEE (PITT) #2 (S).....	436
W. C. Jackson et al, D. L. GOAD #1 (D).....	437
W. C. Jackson et al, J. S. HOLLINGSWORTH #1 (D).....	438
W. C. Jackson et al, C. CLINARD #1 (D).....	439
W. C. Jackson et al, CLINARD #2 (D).....	440
W. C. Jackson, C. CLINARD #3 (S).....	441
W. C. Jackson, C. CLINARD #4 (S).....	441

RUTHERFORD COUNTY

Franklin Fuel Oil Co., J. M. ALSUP #1 (S).....	442
City of Murfreesboro, FEE #9 (D).....	443
Carnation Milk Co., FEE (WATER) #13 (D).....	444

SCOTT COUNTY

Benedum-Trees, YELLOW CLIFF #2 (D).....	444
Syndicate Oil & Gas, TOOMEY (WHITCOMB) #1 (DS).....	445
Bear Creek Oil & Gas Co., DOUGLAS WELL #1 (D).....	446
Russell Producing Co., RUGBY LAND #1 (S).....	446
Whitcomb Oil & Gas Co., J. R. WEST #1 (S).....	447
McCormick et al, HARRIS THOMAS #1 (D).....	448
Oneida Oil & Gas Co., JOEL REED #1 (D).....	449
Oneida Oil & Gas Co., ANDERSON #1 (D).....	449
Ohio Fuel Co., JOEL McCART #1.....	450
White Bros. Oil & Gas Co., G. A. CHANDLER #1 (D).....	450
W. G. Strubbe et al, BOARD OF AID #1 (D).....	451
Forest Oil Co., RUGBY LAND CO. #1 (D).....	452

	<i>Page</i>
Whitcomb Oil Co., HENDREN # 1 (DS)	453
Easter Oil & Gas Co., CROSS # 1 (D)	454
Charles W. Whitcomb, WEST # 1 (D)	455
Benedum-Trees, YELLOW CLIFF # 1 (D)	456
Chas. W. Whitcomb, TOOMEY # 1 (D)	457
Whitcomb Oil & Gas Co., TOOMEY # 3 (D)	458
Russell Producing Co., GATEWOOD PEMBERTON # 1 (D)	458
Ohio Fuel Co., HAGEMEYER # 1 (D)	459
Ohio Oil Co., WILLIAMS # 1 (D)	460
Ohio Oil Co., WILLIAMS # 2 (D)	461
Rugby Land Co., C. E. & W. L. RUSSELL # 1 (D)	462
Russell Producing Co., ANNA PEMBERTON # 1 (D)	463
Fisher Oil Co., ANNA PEMBERTON # 1 (D)	464
Russell Producing Co., ANNA PEMBERTON # 2 (D)	465
McCurdy & Co., ROUND MTN. LUMBER & COAL CO. # 1 (D)	465
Fisher Oil Co., J. R. McCART # 1 (D)	466
Russell Producing Co., WILLIAM TODD # 1 (D)	467
Russell Producing Co., WILLIAM TODD # 2 (D)	468
Russell Producing Co., WILLIAM TODD # 3 (D)	469
Russell Producing Co., WILLIAM TODD # 4 (D)	470
Russell Producing Co., LIVONIA STONECIPHER # 1 (D)	470
Fisher Oil Co., J. R. McCART # 2 (D)	471
Russell Producing Co., GATEWOOD PEMBERTON # 2 (D)	472
Russell Producing Co., GATEWOOD PEMBERTON # 3 (D)	472
Russell Producing Co., GATEWOOD PEMBERTON # 4 (D)	473
Russell Producing Co., ANNA PEMBERTON # 3 (D)	474
Russell Producing Co. & Carl L. Russell & Assoc., I. M. GRIFFITH # 1 (D)	475
John Toomey et al, RIDGEWAY SPRANKLE CO. (HELENWOOD) # 1 (D)	475
Russell Producing Co., RUGBY LAND # 2 (D)	476
Superior Oil Corp., HINES # 1 (D)	477
Russell Producing Co., GATEWOOD PEMBERTON # 5 (D)	478
Russell Producing Co., GATEWOOD PEMBERTON # 6 (D)	478
Russell Producing Co., GATEWOOD PEMBERTON # 7 (D)	479
Russell Producing Co., GATEWOOD PEMBERTON # 8 (D)	480
Russell Producing Co., GATEWOOD PEMBERTON # 9 (D)	480
Russell Producing Co., GATEWOOD PEMBERTON # 10 (D)	481
Russell Producing Co., GATEWOOD PEMBERTON # 11 (D)	481
Russell Producing Co., GATEWOOD PEMBERTON # 12 (D)	482
Russell Producing Co., GATEWOOD PEMBERTON # 13 (D)	482
Superior Oil Corp., HINES # 2 (D)	483
Russell Producing Co., RUGBY LAND # 3 (D)	483
Russell Producing Co., GATEWOOD PEMBERTON # 14 (D)	484
McCurdy & Co., ISAAC RISDEN # 1 (D)	484
Superior Oil Corp., L. E. BRYANT # 1 (D)	485
Russell Producing Co., GEORGE TODD # 1 (D)	486
Russell Producing Co., RUGBY LAND # 4 (D)	487
Superior Oil Corp., REED # 1 (D)	488
Superior Oil Corp., ABBOTT LASWELL # 1 (D)	488
Oneida Improvement Co., COOPER # 1 (DS)	489
Tenn.-Tex. Oil Co., YELLOW CLIFF # 1 (D)	494
Clock Oil Co., FATE COOPER # 1 (D)	495
C. S. Beck, ROSA TERRY # 1 (D)	496
Charles S. Beck, TERRY # 2 (D)	497
Clock Oil Co., COOPER # 1 (D)	499
Clock Oil Co., COOPER # 2 (D)	500
Howard Baker; Olds Oil Co., PAYNE # 1 (S)	503
Russell Producing Co., FEE # 1 (D)	504
S. D. Jarvis, COLDITZ # 1 (D)	505
Bill Arnn, O & W RAILROAD # 1 (D)	507
Russell Producing Co., BRANCE KEETON # 1 (D)	508
Russell Producing Co., GATEWOOD PEMBERTON # 16 (D)	509

SHELBY COUNTY

	<i>Page</i>
Memphis Artesian Water Dept., # 25 (D)	510
Memphis Water Dept., # 109 (D)	512
Memphis Natural Gas & Oil Co., GLASSCOCK & BENNETT # 2 (D)	513
Memphis Natural Gas & Oil Co., OVERTON # 1 (D)	514
Memphis Natural Gas & Oil Co., GLASSCOCK & BENNETT # 3 (D)	515
Arlington Oil & Gas Co., GARRETT # 1 (D)	516
Lion Oil Co., BATEMAN # 1 (DS)	518
E. R. Owen, CRUMPLER # 1	520

SMITH COUNTY

Kirkwood & Campbell, JIM TURNER # 1 (D)	520
Haynes Oil & Gas Co., ALEX ALLEN # 4 (D)	521
E. A. Haynes et al, DIXON SPRINGS WELL (D)	522
Macyopia Oil Co., J. Y. PHILLIPS # 1 (D)	522
Ohio Oil Co., JOE BALLARD # 1 (D)	523
REYNOLDS # 1 (D)	523
Kirkwood & Campbell, J. E. HIGH # 1 (D)	525

STEWART COUNTY

Midwest Tenn. Oil Co., A. J. GRAY # 1 (D)	526
Midwest Tenn. Oil Co., MARVIN MILTON # 1 (D)	526
W. W. Dameron, L. H. PAGE # 1-D (DS)	527
S. P. Berry et al, A. J. GRAY # 1 (DS)	531
Yandell Oil Co., MOORE # 1 (S)	535

SUMNER COUNTY

Davenport & Harper, PAUL CRAFTON # 1 (S)	536
White & Moore, ALBRIGHT # 1 (D)	537
Jones & Huffman, E. E. COLE # 1 (S)	538
Tennessee Fuel Gas Syn., HUB PERDUE # 1 (S)	539
C. F. West et al, O. L. McDOLE # 1 (D)	540
Shwab, Hurt; Taggart & Read, JESSE SLAYTON # 1 (D)	541
Bethpage Oil & Gas Co., CORRIGAN-WOMACK # 1 (DS)	541
Dana L. Johnson, CURTIS MANDRILL # 1 (D)	543
W. B. Dye, LAKE POTTS # 1 (D)	545
J. W. Cook, FEE # 1 (S)	545
J. W. Cook, # 2 (S)	546
J. W. Cook, FEE # 3 (S)	546
Leeson & Miller, MISS NEELY # 1 (S)	548
Leeson & Miller, MISS NEELY # 2 (S)	549
Leeson & Miller, MISS NEELY # 3 (DS)	549
Leeson & Miller, MISS NEELY # 4 (S)	550
Allen Oil Co., MARY SCOTT # 1 (S)	550
W. B. Dye, MARY SCOTT # 1 (S)	551
J. W. Cook, ED CALDWELL # 1 (S)	552
Red River Oil Co., H. P. TITTLE # 1 (D)	552
Bruno Borger, MERCER # 1 (DS)	553
Bruno Borger, MERCER # 2 (S)	553
R. A. Mitchell et al, AUBREY CREASEY # 1 (S)	554
R. E. Niblack et al, T. GARRISON # 1 (D)	554

TIPTON COUNTY

Tipton Drilling Company, L. G. BEAVER # 1	555
The Pure Oil Company, R. R. MCGREGOR # 1 (DS)	555

TROUSDALE COUNTY

F. E. Hipple et al, HART REEVES # 1 (D)	557
Ohio Oil Company, IDA GOAD # 1 (D)	557
Ohio Oil Company, AGNES CARR # 1 (D)	558

VAN BUREN COUNTY

	<i>Page</i>
U. S. Government, SPENCER ARTILLERY RANGE # 3 (S).....	559
Pike Oil Co., VIOLA GRISSOM # 1 (D).....	560
Godfrey L. Cabot, Inc., ROCKY RIVER # 1 (D).....	561

WARREN COUNTY

_____ W. M. POWELL # 1	563
_____ J. W. OVERALL # 1	563
Cumberland Oil & Gas Co., CLARENCE KENNEDY # 1 (D).....	563
Cumberland Oil & Gas Co., JUDGE SMALLMAN # 1 (D).....	564
Cumberland Oil & Gas Co., H. B. GULICK # 1 (D).....	565
Consolidated Drilling Co., HOWARD COPE # 1 (D).....	566
Consolidated Drilling Co., H. T. DOTSON # 1 (D).....	567
Barnsdall Oil Co., BILL MARTIN # 1	567
Florida Company, W. E. FOSTER # 1	568
Dome Oil & Gas Co., GILLIAM SMITH # 1 (D).....	568
R. S. Lord, FRANK S. McGEE # 1 (D).....	569
Walker Oil & Gas Co., E. T. McGEE # 1 (S).....	569
Walker Oil & Gas Co., E. T. McGEE # 2 (D).....	571
Riverside Oil & Gas Co., W. M. POWELL # 1 (D).....	572
R. S. Lord, JIM HIGGENBOTTOM # 1 (D).....	572
Walker Oil & Gas Co., O. B. WISEMAN # 1 (D).....	573
Walker Oil & Gas Co., BILL BOTTOMS # 1 (D).....	573
Walker Oil & Gas Co., JIM BOTTOMS # 1 (D).....	574
Walker Oil & Gas Co., MAX STUBBLEFIELD # 1 (D).....	574
Jervian Corporation, GORDON McCORKLE # 1 (S).....	574
L. C. Young et al, S. W. ASKEW # 1 (DS).....	575

WAYNE COUNTY

Tenn. Valley Iron & Railroad Co., FEE # 1 (D).....	577
Western Oil & Gas Co., WAYNE LAND CO. # 1 (S).....	578
F. E. Waldrop et al, SAM STOOKSBERRY # 1 (D).....	579
Hassell & Associates, MARVIN STEELE # 1 (D).....	579
C. W. Alworth, FRANK BROWN # 1 (DS).....	580
C. R. Craft, TENNESSEE PRODUCTS CO. # 1 (D).....	583
C. R. Craft, LUTHER LAY # 1 (D).....	586

WHITE COUNTY

Hickory Valley Oil & Gas Co., JAMES HATFIELD # 1 (S).....	588
Tenn. Oil & Gas Co., J. T. KEITHLEY # 1 (S).....	589

WILLIAMSON COUNTY

Uncle Jeff Oil Co., J. B. JACKSON # 1 (D).....	590
Uncle Jeff Oil Co., W. T. LADD # 1 (D).....	590
J. H. Frost et al, HUTCH CARUTHERS # 1 (D).....	591

WILSON COUNTY

Curtis-Kinard, TALLEY # 1 (DS).....	591
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