

STATE OF ARKANSAS  
Arkansas Resources and Development Commission  
Arthur M. Emmerling, Executive Director  
DIVISION OF GEOLOGY  
Norman F. Williams, Director

INFORMATION CIRCULAR No. 17

SAMPLE DESCRIPTIONS AND CORRELATIONS  
FOR SELECTED WELLS IN NORTHERN ARKANSAS

---

Compiled by  
Mary G. Sheldon  
U. S. Geological Survey

Published by agreement with the  
U. S. Geological Survey  
Little Rock  
1954  
Reprinted 1986



STATE OF ARKANSAS

Orval E. Faubus, Governor

Arkansas Resources and Development Commission

Arthur M. Emmerling, Executive Director

COMMISSIONERS

Leroy Carter - - - - - Leachville  
Jack Pickens - - - - - Little Rock  
\*Emil Pouzar - - - - - North Little Rock  
Hugh Sample - - - - - El Dorado  
Fred Troutt - - - - - Jonesboro  
John Morrow - - - - - Batesville  
Homer Towns - - - - - Forrest City

\* Deceased

DIVISION OF GEOLOGY

Norman F. Williams, Director





## CONTENTS

Introduction .....	1
Area studied and purpose of report.....	1
Previous reports presenting basic subsurface data.....	1
Acknowledgments .....	1
Sample examination procedure .....	2
Outline of stratigraphy .....	2
Possible oil and gas reservoirs .....	3
Sample descriptions .....	3
Baxter County .....	6
Benton County .....	10
Boone County .....	17
Carroll County .....	21
Cleburne County .....	29
Conway County .....	36
Crawford County .....	44
Franklin County .....	64
Fulton County .....	91
Independence County .....	93
Jackson County .....	97
Johnson County .....	99
Logan County .....	110
Madison County .....	118
Pope County .....	128
Scott County .....	149
Searcy County .....	155
Sebastian County .....	163
Van Buren County .....	171
Washington County .....	177
White County .....	199
Yell County .....	216

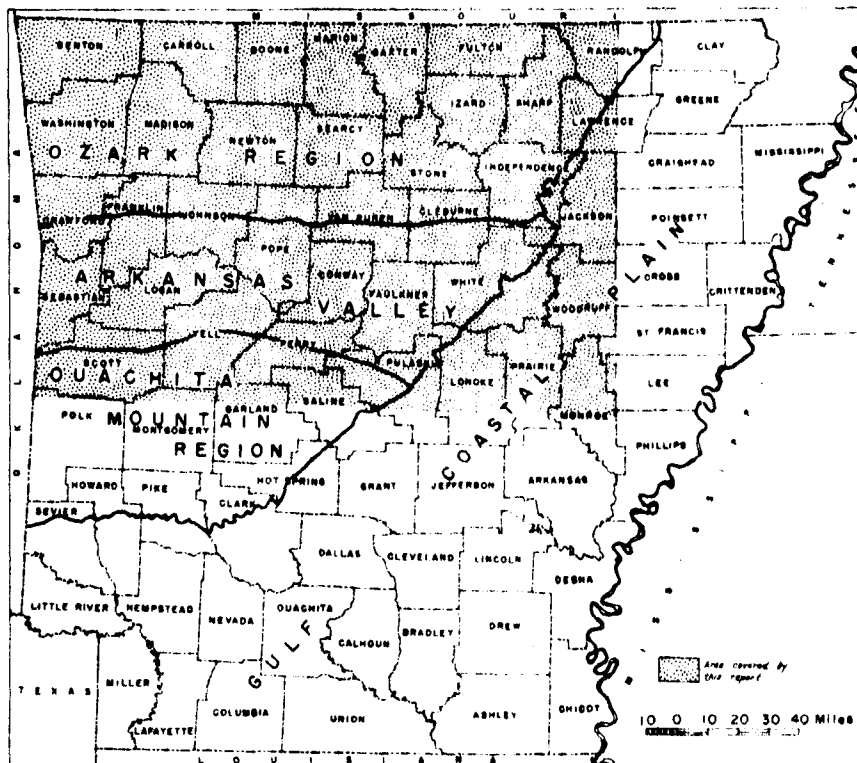


Fig. 1. Index map of Arkansas showing area of this report in relation to physiographic regions.

## INTRODUCTION

by

John C. Maher

U. S. Geological Survey

### AREA STUDIED AND PURPOSE OF REPORT

Stratigraphic investigations designed to assist in the search for oil and gas in northern Arkansas (see fig. 1) were begun in the fall of 1949 by the Geological Survey, U. S. Department of the Interior, with the active support and collaboration of the Division of Geology, Arkansas Resources and Development Commission. These investigations are planned to determine the lithologic character and areal extent of the formations of Paleozoic age throughout northern Arkansas, particularly in the subsurface of the Arkansas Valley. Studies of both the surface and the subsurface have been in progress concurrently in order to correlate the rocks penetrated by wells in the Arkansas Valley with the surface exposures in the Ozark region (see fig. 1). Previous publications resulting from these studies include the correlation and detailed description of formations cored in a key well in Franklin County (Lantz, 1950), detailed descriptions of formations of Paleozoic age at Gilbert, Carver, and Marshall (Maher and Lantz, 1952), detailed descriptions of the St. Peter sandstone and Everton formation in Newton County (Glick and Frezon, 1953), a report on the geology of the Gilbert area (Maher and Lantz, 1953a), and subsurface cross sections of pre-Atoka rocks in the Arkansas Valley (Maher and Lantz, 1953b). Thickness, structure, and lithofacies maps of the pre-Atoka rocks in northern Arkansas are now in preparation, and similar maps for the Atoka formation are planned at a later date.

This report presents detailed descriptive logs, which have been prepared by microscopic examination of samples from wells in northern Arkansas, and which are used in the investigations discussed above. These logs are published so that other interpretations of correlative units, reservoir characteristics, and oil and gas possibilities can be made by the reader without investing months or years of work in repeating these sample examinations. Many of the correlations in this report are offered only tentatively—as the

seemingly most logical interpretation at this time and with these data.

### PREVIOUS REPORTS PRESENTING BASIC SUBSURFACE DATA

A similar report presenting drillers logs of selected wells in eastern Arkansas was published in 1949 as Bulletin 14 of the Division of Geology, Arkansas Resources and Development Commission (Renfroe, 1949). The information in this report overlaps Bulletin 14 only to the extent that drillers logs of the Fitzpatrick No. 1 Pryor (Center of SE $\frac{1}{4}$  SE $\frac{1}{4}$  Sec. 32, T. 13 N., R. 6W.) in Independence County and the Killam and McMillan No. 1 Curl (Center of NE $\frac{1}{4}$  SW $\frac{1}{4}$  Sec. 10, T. 9 N., R. 5 W.) in White County are given in Bulletin 14 and sample logs for the same wells are given in this report. Another report entitled "List of Arkansas oil and gas wells" was published as Information Circular 10 of the Arkansas Geological Survey and lists wells drilled in the State prior to 1937. Drillers logs and numerous descriptions of outcrops of Paleozoic rocks are included in Bulletin 3 of the Arkansas Geological Survey (Croneis, 1930). Useful descriptions of samples and cores from wells drilled in the Clarksville gas field in Johnson County have been included in a mimeographed report by Breedlove (1951).

### ACKNOWLEDGMENTS

The samples examined in this investigation were generously loaned by the Arkansas Division of Geology, the Missouri Geological Survey, the Arkansas-Oklahoma Gas Co., the Arkansas-Louisiana Gas Co., the Arkansas-Western Gas Co., the Lion Oil Co., the Pure Oil Co., the Sinclair Oil & Gas Co., the Phillips Petroleum Co., the Atlantic Refining Co., the Carter Oil Co., the Blackwell Oil & Gas Co., and the University of Tulsa. Particular acknowledgment is due to the following persons, who contributed in many ways: J. L. McDonnell, Brun Johnson, J. C. Templeton, R. A. Brant, J. E. Upp, J. R. Kyle, C. A.

Renfroe, L. G. Henbest, G. A. Northrip, E. F. Shea, H. L. Scott, W. C. Dennis, E. L. Caster, J. M. Clark, J. H. Webb, J. L. Cummings, Jr., P. L. Applin, and Howard Clark.

### SAMPLE EXAMINATION PROCEDURE

All lithologic descriptions used in this report are based on detailed microscopic examination of samples. The samples were examined with a binocular microscope using 6.3 magnification for mass character and 18 or 27 magnification for special minute features. The lithology was plotted in color on a log strip; symbols were used to indicate details of the lithology; and detailed descriptions of the rocks were lettered along the side of the log at the corresponding depth. The detailed descriptions include the color; hardness; texture (including crystallinity, size, shape, and degree of sorting and abrasion); mineral composition; cementing material of the rock; and the type and characteristics of inclusions, such as chert, oolites, casts, microfossils, glauconite, pyrite, calcite, siderite, and sphalerite. The characteristics of some of these rocks are so distinctive that thin beds may be traced over great distances. These key beds assist in the recognition of large sequences of less distinctive or less persistent strata.

Some of the wells have been drilled by rotary methods, which do not permit accurate sampling of the formations penetrated except where cores are procured. Each sample of rotary cuttings contains fragments of many different kinds of rock, most of which have been cut at shallower depth than that at which the sample is collected. Usually only a small portion of the sample represents the rock actually drilled at the depth marked on the sample container. Therefore the logging of such samples consists in describing for a given interval only the type of rock that has not appeared in the samples at shallower depth and that the geologist believes may have come from the given interval. Therefore, logs prepared from rotary cuttings are subject to the personal equation of the geologist, and complete agreement on details cannot be expected.

In recent years it has become accepted practice to run electric logs for most wells. This practice has led to the development of a technique of sample examination resulting in a composite interpretative log—the concurrent examination of samples under the microscope, correction of

depth from the electric log, and interpretation of lithology and reservoir content from the electric log. Usually it is necessary to reduce the electric log photostatically to the scale of the sample log so that the microscopist may lay a straightedge across the electric and sample logs in order to follow the bed-for-bed succession. Radioactivity and drilling-time logs are also used when available. Most of the logs for recent wells in this report have been prepared in this fashion.

### OUTLINE OF STRATIGRAPHY

The surface exposures of the Paleozoic rocks in the Ozark region of Arkansas have been mapped and described in detail by many geologists, including Adams and Ulrich (1905), Purdue (1907), Purdue and Miser (1916), Croneis (1930), McKnight (1935), Gordon and Kinney (1944), Straczek and Kinney (1950), and Maher and Lantz (1952). The subsurface equivalents of some of these rocks are not well known in the Arkansas Valley, particularly in the southern and eastern parts, where facies changes make correlations difficult. The names and thicknesses of Paleozoic formations tentatively identified in wells selected for this report are listed in Table 1.

Lower Pennsylvanian and older rocks that crop out in the Ozark region of northern Arkansas dip southward under thick Atoka and younger Pennsylvanian rocks in the Arkansas Valley and reappear much thicker at the surface in the Ouachita Mountain region (see fig. 1). The outcrops in the Ozark region are mostly limestone, dolomite, and shale beds whereas the rocks exposed in the Ouachita Mountain region are mostly sandstone and shale. All the pre-Atoka rocks penetrated by the wells in the northern and western parts of the Arkansas Valley resemble the rocks of the Ozark section. Most of their equivalents in wells in the southern and eastern parts of the Valley resemble the clastic rocks of the Ouachita section. The pre-Atoka rocks increase in thickness both southward and eastward. In the Ozark region they are less than 5,000 feet thick; in the Ouachita Mountains they are in excess of 20,000 feet thick, according to the stratigraphic column on the geologic map of Arkansas (Arkansas Geol. Survey, 1929).

Atoka and younger Pennsylvanian rocks are exposed throughout the Arkansas Valley. The Atoka formation, which is mainly sandstone and

shale, increases in thickness southward from less than 1,500 feet in the Ozark region to more than 9,400 feet in the Arkansas Valley near Perryville (Croneis, 1930, p. 118). Insufficient data are at hand now to correlate beds within the Atoka formation for any considerable distance and the facies changes that may exist are not well understood at this time.

#### POSSIBLE OIL AND GAS RESERVOIRS

Although no commercial quantities of oil have been discovered in northern Arkansas, natural gas has been produced from sandstones of the Atoka formation for many years and from the Kessler and Brentwood limestone members of the Bloyd shale, and the Prairie Grove member of the Hale formation in recent years. In addition small supplies of gas have been developed from the Boone formation for farm use in northwestern Arkansas.

The possible oil and gas reservoirs in the Pennsylvanian rocks are sandstones of the Atoka formation, Kessler and Brentwood limestone members of the Bloyd shale, and the Prairie Grove member of the Hale formation. The limestone members of the Bloyd shale and the Prairie Grove member of the Hale formation thicken and grade into sandstone southeastward; the thickness and sand content of the Cane Hill member of the Hale formation increase in the same direction. Of these, the Prairie Grove member probably offers the best possibilities for oil and gas production. Oil seeps and residues have been reported in this member and in the Atoka formation (Croneis, 1930, p. 357).

The possible oil and gas reservoirs in the Mississippian rocks are the Pitkin limestone, the Wedington sandstone member of the Fayetteville shale, the Batesville sandstone, the Moorefield formation, and the basal sandstone of the Boone formation. Fractures in the Boone formation are possible but less likely reservoirs. Oil seeps have been reported in the Pitkin limestone, the Wedington sandstone member, the Fayetteville shale, and the Batesville sandstone (Croneis, 1930, pp. 356-357). Petroleum odors have been commonly noted on fresh fractures of rocks from the Pitkin, Batesville, and Moorefield formations.

The Penters chert of Devonian age is not regarded as a reservoir rock, but fracture systems

in this rock could, of course, retain oil. The St. Clair and Brassfield limestones appear to be sufficiently coarse grained at places to serve as reservoir rocks. In addition they have been beveled by unconformities in such a manner as to provide good possibilities of stratigraphic trapping of oil.

The principal sandstones of the Ordovician and Cambrian rocks are in the St. Peter sandstone, Everton formation, Roubidoux formation, and the Van Buren formation (Gunter sandstone member). The first two formations have been generally regarded as the deepest objectives in drilling in the Arkansas Valley. In many places sandstone beds of both the St. Peter and Everton have been found to be tightly cemented with quartz. Although a small show of gas was reported from the St. Peter sandstone in a recent well in northeastern Arkansas and a small oil seep has been reported without confirmation from the Everton formation in Marion County, no oil shows have been noted in the Ordovician and Cambrian rocks in wells.

#### SAMPLE DESCRIPTIONS

The following sample logs are arranged by counties in alphabetical order. Within the counties, the logs are arranged by township and range and numbered in that order. The well data other than sample descriptions and correlations have come from different sources. Conflicting data from different sources have been reconciled as well as possible without checking in the field. Generally information from the operator of the particular well has been considered more accurate than that from other sources. All elevations are assumed to refer to mean sea level. Some of the elevations listed have been estimated by the operator from topographic quadrangle maps, others have been obtained from barometric surveys, and a few have been determined by plane table surveying. If the origin is known, it is indicated by the abbreviations (Topo.), (Baro.), or (P.T.) after the figure. Those estimated by unknown means are marked (Est.); the remainder cannot be qualified.

Most of the samples were examined by S. E. Frezon, E. E. Glick, and R. J. Lantz; some were examined by J. C. Maher, W. A. Chisholm, and E. R. Applin. Individual acknowledgment is made on each log.

The terminology used in the descriptions of the samples is essentially that used by most geologists in the midcontinent region making microscopic examinations of well samples. A limestone or dolomite is called "crystalline" if the texture is rough and crystal faces can be seen, "granular" if the texture is rough and crystal faces cannot be seen, and "dense" if the texture is smooth. A carbonate rock that leaves a large residue of silt after digestion in acid is called "silty"; one containing indeterminate, round or ovoid particles about the size of oolites is termed

"oolitoid." Sandstone with siliceous cement is called "quartzitic" if it breaks across the sand grains. The terms given below are used in accordance with the Wentworth Grade Scale:

Silt, 0.0039 to 0.062 mm. in diameter.

Very fine grained sandstone, 0.062 to 0.125 mm. in diameter.

Fine-grained sandstone, 0.125 to 0.25 mm. in diameter.

Medium-grained sandstone, 0.25 to 0.50 mm. in diameter.

Coarse-grained sandstone, 0.50 to 1.00 mm. in diameter.

Very coarse grained sandstone, 1.00 to 2.00 mm. in diameter.

## REFERENCES

- Adams, G. I., and Ulrich, E. O., 1905, U. S. Geol. Survey Geol. Atlas, Fayetteville folio (no. 119), 6 pp.
- Arkansas Geological Survey, 1929, Geologic map of Arkansas.
- Arkansas Geological Survey, 1937, List of Arkansas oil and gas wells: Information Circ. 10, 103 pp.
- Breedlove, R. L., 1951, Clarksville field, Johnson county, Arkansas: Arkansas Div. Geology, pp. 8-28.
- Cronsis, C. G., 1930, Geology of the Arkansas Paleozoic area, with especial reference to oil and gas possibilities: Arkansas Geol. Survey Bull. 3, 457 pp.
- Glick, E. E., and Frezon, S. E., 1953, Lithologic character of the St. Peter sandstone and the Everton formation in the Buffalo River Valley, Newton County, Arkansas: U. S. Geol. Survey Circ. 249, 39 pp.
- Gordon, Mackenzie, Jr., and Kinney, D. M., 1944, Geologic map and structure sections of the Batesville district, Independence County, Ark.: U. S. Geol. Survey Oil and Gas Inv. Prelim. Map 12.
- Lantz, R. J., 1950, Geological formations penetrated by the Arkansas-Louisiana Gas Company No. 1 Barton well on the Cecil anticline, Franklin County, Ark.: Arkansas Div. Geology Bull. 18, 26 pp.
- Maher, J. C., and Lantz, R. J., 1952, Described sections and correlation of Paleozoic rocks at Gilbert, Carver, and Marshall, Ark.: U. S. Geol. Survey Circ. 160, 21 pp.
- Maher, J. C., and Lantz, R. J., 1953a, Geology of the Gilbert area, Searcy County, Ark.: U. S. Geol. Survey Oil and Gas Inv. Map OM 132.
- Maher, J. C., and Lantz, R. J., 1953b, Correlation of pre-Atoka rocks in the Arkansas Valley, Arkansas: U. S. Geol. Survey Oil and Gas Inv. Chart OC 51.
- McKnight, E. T., 1935, Zinc and lead deposits of northern Arkansas: U. S. Geol. Survey Bull. 853, 311 pp.
- Purdue, A. H., 1907, U. S. Geol. Survey Geol. Atlas, Winslow folio (no. 154), 6 pp.
- Purdue, A. H., and Miser, H. D., 1916, U. S. Geol. Survey Geol. Atlas, Eureka Springs-Harrison folio (no. 202), 22 pp.
- Renfroe, C. A., 1949, Petroleum exploration in eastern Arkansas with selected well logs: Arkansas Div. Geology Bull. 14, 159 pp.
- Straczek, J. A., and Kinney, D. M., 1950, Geologic map of the central part of the Batesville manganese district, Independence and Izard Counties, Ark.: U. S. Geol. Survey Min. Inv. Field Studies Map MF 1.

TABLES

Table 1. Geologic units penetrated in selected wells in northern Arkansas

System	Formation	Member	Thickness in Feet	Remarks	
PENNSYLVANIAN	Hartshorne ss.		55-160		
	Atoka fm.		4392-4635	Surface thicknesses ranging from 1,500 to 9,400 feet are reported by Croneis (1930, p. 118).	
	Bloyd sh. (Morrow group)		Kessler limestone member	0-628	Kessler ls., Brentwood ls., and Prairie Grove member of Hale fm. thicken and grade into sandstone south-eastward where the equivalents have generally been included in the Atoka fm.
			Brentwood limestone member	0-105	
				0-90	
Hale fm. (Morrow group)		Prairie Grove member	70-307	Cane Hill member approximately equivalent to Jackfork sandstone in White, Cleburne, and Jackson Counties.	
		Cane Hill member	0-745		
MISSISSIPPIAN	Pitkin ls.		0-219	Pitkin limestone grades into a black shale sequence included in the Fayetteville shale in Pope, Van Buren, and Cleburne Counties.	
	Fayetteville sh.		43-297		
	Batesville ss. Ruddell sh. Moorefield fm.			7-457	Batesville ss., Ruddell sh., and Moorefield fm. generally cannot be differentiated in well samples.
Boone fm.		52-388	Stanley shale in wells 1 and 2 in White County and in well 1 in Jackson County appears to represent all Mississippian rocks, including the Boone fm. and the Chattanooga sh.		
MISS. AND DEV.	Chattanooga sh.		0-70		
DEVONIAN	Penters chert		0-260		
SILURIAN	Lafferty ls. St. Clair ls. Brassfield ls.		0-254	Silurian rocks are generally not differentiated in well samples.	
ORDOVICIAN	Cason sh.		0-57	Rocks below Fernvale ls. and above St. Peter ss. are generally included in Plattin ls. due to correlation uncertainties in wells.	
	Fernvale ls.		0-108		
	Kimmswick ls.		0-400		
	Plattin ls.			St. Peter ss. and Everton fm. are generally correlated with the Simpson group of Oklahoma.	
	Joachim dol. St. Peter ss.		0-117? 0-158		
	Everton fm.		0-1180	Ordovician rocks below the Everton fm. are generally correlated with the Arbuckle group of Oklahoma.	
	Powell dol.		0-210		
	Cotter dol.		357-400		
	Jefferson City dol. Roubidoux fm. Gasconade dol.		365-433 184-231		
	Van Buren fm.		360-460		
CAMBRIAN	Eminence dol. Bonneterre dol. (?) Lamotte ss.		307-350 (?) 0- 60 (?) 0- 85	Lamotte ss. is correlated with Reagan ss. of Okla.	
PRE-CAMBRIAN					

## BAXTER COUNTY (1)

Operator: City of Cotter	Elevation: 800 ft. (Topo.)
Well No.: 1	Total depth: 1,090 ft.
Water Well	Completion date ?
Location: NE ¼ SE ¼ SW ¼ sec. 31, T. 19 N., R. 14 W.	Logged by: E. E. Glick

### Formation tops

	Depth (ft.)
Roubidoux formation	720 (?)
Gasconade dolomite	940 (?)

Depth in feet	Sample description
0- 40	Clay, reddish-brown; trace of light-gray smooth chert (this sample weathered dolomite)
40- 50	Dolomite, light brownish-gray, slightly silty, finely granular; quartz crystals
50- 60	Dolomite, medium-gray, slightly silty, finely granular; trace of quartz crystals
60- 65	Dolomite, light brownish-gray, slightly silty, slightly sandy; cream-colored chert
65- 70	Dolomite, light-gray, finely granular; light gray to light-brown translucent chert
70- 85	As above and trace of quartz crystals
85- 100	Dolomite, light brownish-gray, finely granular; light-gray translucent chert; quartz crystals
100- 105	Dolomite, light brownish-gray, slightly silty, very finely crystalline; white translucent chert
105- 110	Dolomite, light brownish-gray, sandy, finely granular; cream-colored smooth chert; quartz crystals
110- 115	Dolomite, light bluish-gray, silty, slightly sandy
115- 125	Dolomite, light brownish-gray, slightly silty, medium-crystalline; light-gray dolomitic chert
125- 135	Dolomite, cream-colored, silty, slightly sandy, finely granular to finely crystalline; quartz crystals
135- 140	Dolomite, cream-colored, slightly sandy, finely granular to finely crystalline
140- 145	Dolomite, medium-gray, slightly sandy, medium-crystalline; trace of dolomitic chert
145- 150	Dolomite, cream-colored, finely granular; cream-colored translucent chert
150- 155	Dolomite, cream-colored, slightly sandy, medium- to coarsely crystalline; white dolomitic chert; gray smooth chert
155- 165	Dolomite, light-gray, finely crystalline; white dolomitic chert; light-gray smooth chert; quartz crystals
165- 170	Dolomite, medium-gray, silty, finely granular; light-gray translucent chert
170- 180	Dolomite, light-gray, sandy, finely granular; cream-colored oolitic chert; medium-brown smooth chert
180- 185	Dolomite, light-gray, slightly silty, sandy, finely granular; cream-colored oolitic chert
185- 190	Dolomite, medium-gray, slightly silty, finely granular; white chert; quartz crystals
190- 195	Dolomite, medium-gray, slightly sandy, finely granular to medium-crystalline; light-gray dolomitic chert
195- 200	Dolomite, medium-gray, silty, finely granular; trace of light-brown chert
200- 205	Dolomite, light brownish-gray, sandy, very finely crystalline; light-gray chert; quartz crystals
205- 220	Dolomite, cream-colored, slightly silty, sandy, finely granular to finely crystalline; cream-colored dolomitic chert; quartz crystals
220- 225	Dolomite, medium-gray, silty, sandy, finely granular
225- 230	Dolomite, medium-gray, silty, finely granular; quartz crystals
230- 235	Dolomite, light-gray, slightly sandy, silty, finely granular
235- 240	Dolomite, light gray, silty, finely granular; brown chert
240- 245	Dolomite, light-gray, sandy, silty, finely granular; light-brown chert
245- 250	Dolomite, light-gray, sandy, silty, finely granular
250- 255	Dolomite, cream-colored, sandy, finely granular; cream-colored translucent chert; quartz crystals
255- 260	Dolomite, light-gray, finely granular; medium-gray smooth chert; cream-colored slightly oolitic chert
260- 265	Dolomite, cream-colored, slightly silty, slightly sandy, finely to medium-crystalline; cream-colored dolomitic chert
265- 270	Dolomite, cream-colored, silty, coarsely crystalline
270- 275	Dolomite, medium-gray, finely granular; trace of white smooth chert



Depth in feet	Sample description
275- 280	Dolomite, medium-gray, slightly silty, finely granular
280- 285	Dolomite, light-gray, sandy, slightly silty, very finely crystalline; light-gray chert
285- 290	Dolomite, light-gray, slightly silty, very finely crystalline; light-gray smooth chert
290- 295	Dolomite, light-gray, sandy, slightly silty, very finely crystalline
295- 300	Dolomite, light brownish-gray, sandy, silty, medium-crystalline
300- 310	Dolomite, light-gray, sandy, finely granular; cream-colored translucent chert; trace of light-brown oolitic chert; free brown and white oolites; quartz crystals
310- 315	Dolomite, light-gray, finely granular; light-gray smooth chert
315- 320	Dolomite, light-gray, slightly sandy, finely granular; brown chert; quartz crystals
320- 325	Dolomite, cream-colored, finely granular; light-brown smooth chert; quartz crystals
325- 330	Dolomite, cream-colored, finely granular; light-brown smooth chert; cream-colored sandy chert
330- 335	Dolomite, cream-colored, slightly sandy, finely granular; light-gray smooth chert
335- 340	Dolomite, cream-colored, silty, finely granular; light-gray translucent chert
340- 350	Dolomite, light brownish-gray, very finely crystalline; cream-colored smooth slightly dolomitic chert; quartz crystals; clear sandy chert
350- 355	Dolomite, medium-gray, silty, sandy, finely granular; brown oolitic chert
355- 360	Dolomite, medium-gray, sandy, silty, finely granular; sandy chert and dolomitic chert
360- 370	Dolomite, medium-gray, sandy, silty, finely granular; trace of light-brown oolitic chert
370- 375	Dolomite, brownish-gray, sandy, silty, finely crystalline; light-gray smooth chert
375- 380	Dolomite, medium-gray, sandy, silty, finely granular
380- 385	Dolomite, medium-gray, sandy, finely granular; cream-colored chert with brown oolites; cream-colored smooth chert
385- 400	Dolomite, medium-gray, sandy, silty, finely granular; white dolomitic chert
400- 415	Dolomite, light-gray, sandy, silty, finely granular; light-gray dolomitic chert
415- 440	Dolomite, cream-colored, sandy, silty, finely granular; white dolomitic chert and light-gray smooth chert
440- 445	Dolomite, light-gray, silty, finely granular; cream-colored dolomitic chert; quartz crystals
445- 450	Dolomite, light brownish-gray, finely crystalline; gray chert; cream-colored dolomitic chert
450- 470	Dolomite, light brownish-gray, finely granular to finely crystalline; cream-colored dolomitic chert; smoky gray chert; quartz crystals
470- 475	Dolomite, light-gray, sandy, finely granular; cream-colored dolomitic chert; quartz crystals
475- 480	Dolomite, light-gray, silty, finely granular; dark-brown chert
480- 485	Dolomite, light-gray, finely granular; cream-colored dolomitic chert; quartz crystals
485- 490	Dolomite, light-gray, finely granular; cream-colored dolomitic chert; cream-colored smooth chert
490- 500	Dolomite, light-gray, finely granular; cream-colored smooth chert; quartz crystals
500- 510	Dolomite, light brownish-gray, slightly sandy, very finely crystalline; cream-colored dolomitic chert
510- 520	Dolomite, medium-gray, silty, finely granular; trace of light-brown translucent chert
520- 525	Dolomite, light-gray, silty, finely granular; clear white chert
525- 530	Dolomite, light-gray, silty, finely granular; cream-colored to light-brown chert
530- 535	Dolomite, medium-gray, silty, finely granular; light- to medium-brown smooth chert
535- 545	Dolomite, light-gray, silty, finely granular; cream-colored translucent slightly oolitic and sandy chert
545- 555	Dolomite, medium-gray, finely granular; light-gray slightly oolitic and sandy, smooth chert
555- 560	Dolomite, light-gray, finely granular; cream-colored smooth to dull chert
560- 565	Dolomite, medium-gray, silty, finely granular; white smooth to dull chert
565- 575	Dolomite, light-gray, silty, slightly sandy, finely granular
575- 585	Dolomite, light-gray, silty, sandy, finely granular; brown chert
585- 590	Dolomite, light-gray, silty, sandy, finely granular; free white oolites
590- 600	Dolomite, light-gray, sandy, silty, finely granular; cream-colored oolitic chert; free white oolites, sandy chert
600- 605	Dolomite, light-gray, finely granular; medium-gray smooth chert
605- 610	Dolomite, light-gray, silty, sandy, finely granular; medium-gray smooth chert
610- 620	Dolomite, light-gray, silty, sandy, finely granular; brown chert; quartz crystals
620- 625	Dolomite, light-gray, silty, finely granular
625- 630	Dolomite, light-gray, finely granular; cream-colored dolomitic chert; cream-colored chert
630- 635	Dolomite, medium-gray, finely granular; white smooth chert
635- 640	Dolomite, light brownish-gray, finely to medium-crystalline
640- 645	Dolomite, brownish-gray, sandy, medium-crystalline; cream-colored dolomitic chert; brown chert

Depth in feet	Sample description
645- 650	Dolomite, light brownish-gray, finely crystalline; brown and cream-colored chert; cream-colored dolomitic chert
650- 670	Dolomite, cream-colored, silty, sandy, finely crystalline; cream-colored dolomitic chert
670- 680	Dolomite, cream-colored, slightly silty, sandy, medium- to coarsely crystalline; white and cream-colored smooth chert; white dolomitic chert; trace of pyrite
680- 700	Dolomite, cream-colored, slightly silty, sandy, medium- to coarsely crystalline; cream-colored smooth chert; quartz crystals; pyrite
700- 715	Dolomite, light brownish-gray, silty, sandy, finely to medium-crystalline; cream-colored smooth chert
715- 720	Dolomite, light-gray, slightly sandy, very finely crystalline; light-gray smooth chert; cream-colored dolomitic chert
720- 725	Dolomite, light-gray, sandy, very finely crystalline; cream-colored sandy chert; cream-colored dolomitic chert
725- 735	Dolomite, cream-colored, slightly sandy, finely granular; white and cream-colored smooth chert; white dolomitic chert; trace of quartz crystals
735- 740	Dolomite, cream-colored, slightly sandy, finely to medium-crystalline; white and cream-colored smooth chert
740- 745	Dolomite, medium-gray, slightly sandy, slightly silty, finely to coarsely crystalline; white to cream-colored smooth chert; pyrite
745- 750	Dolomite, cream-colored, slightly sandy, finely to medium-crystalline; light-gray chert; white dolomitic chert
750- 755	Dolomite, cream-colored, sandy, finely to medium-crystalline; light-gray smooth chert; clear sandy chert
755- 760	Dolomite, light-gray, sandy, finely crystalline; light-gray smooth chert; clear sandy chert
760- 770	Dolomite, light-gray, sandy, finely crystalline; light-gray smooth chert; clear sandy chert; white oolitic chert
770- 775	Dolomite, cream-colored, sandy, finely to medium-crystalline; sandy chert; cream-colored smooth chert
775- 785	Dolomite, cream-colored, sandy, slightly silty, medium-crystalline; light- to medium-gray smooth chert; cream-colored oolitic and sandy chert; pyrite
785- 790	Dolomite, cream-colored, sandy, finely crystalline; light-gray chert; clear sandy chert; quartz crystals
790- 800	Dolomite, cream-colored, sandy, finely to medium-crystalline; clear light-gray and sandy slightly oolitic smooth chert
800- 810	Dolomite, cream-colored, sandy, slightly silty, medium-crystalline; white sandy chert; light-gray smooth chert
810- 815	Dolomite, cream-colored, sandy, medium-crystalline; trace of cream-colored smooth chert
815- 820	Dolomite, cream-colored, sandy, finely to medium-crystalline; cream-colored chert; sandy chert; white oolitic chert
820- 825	Dolomite, cream-colored, sandy, medium-crystalline; cream-colored chert and white dolomitic chert
825- 840	Dolomite, cream-colored, sandy, finely to medium-crystalline; white dolomitic chert; white smooth chert
840- 850	Dolomite, cream-colored, sandy, finely to medium-crystalline; white slightly sandy chert
850- 865	Dolomite, light-gray, slightly sandy, finely granular to finely crystalline; white smooth chert; white dolomitic chert; quartz crystals
865- 870	Dolomite, cream-colored, sandy, finely crystalline; sandy chert; white oolitic chert
870- 875	Dolomite, cream-colored, sandy, finely crystalline; sandy chert; white dolomitic chert
875- 885	Dolomite, cream-colored, sandy, finely crystalline; sandy chert; white smooth chert
885- 890	Dolomite, cream-colored, sandy, finely granular; white dolomitic chert
890- 895	Dolomite, cream-colored, slightly sandy, finely to medium-crystalline; white dolomitic chert and white smooth chert
895- 900	Sandstone, light-gray, dolomitic, fine- to medium-grained
900- 905	Dolomite, cream-colored, very sandy, finely crystalline
905- 910	Dolomite, cream-colored, sandy, finely crystalline; clear sandy chert and cream-colored smooth chert
910- 920	Dolomite, cream-colored, very sandy, finely to medium-crystalline; clear sandy chert
920- 940	Dolomite, light-gray, sandy, finely crystalline; white smooth sandy chert and white dull chert
940- 945	Dolomite, light-gray, sandy, finely granular; light-gray sandy chert and white oolitic chert
945- 960	Dolomite, light-gray, sandy, finely granular; white dull to smooth chert
960- 965	Dolomite, light-gray, sandy, medium-crystalline; white dull to smooth slightly sandy chert
965- 975	Dolomite, light-gray, sandy, finely crystalline; cream-colored smooth to quartzose oolitic chert

Depth in feet	Sample description
975- 985	Dolomite, cream-colored, sandy, medium-crystalline; white dull chert and cream-colored quartzose chert; quartz crystals
985-1000	Dolomite, cream-colored, sandy, medium-crystalline; white dull to quartzose chert; quartz crystals
1000-1010	Dolomite, light-gray, finely crystalline; medium-gray smooth to quartzose chert; trace of quartz crystals; pyrite
1010-1015	Dolomite, white, slightly sandy, medium-crystalline; medium-gray smooth to quartzose chert
1015-1030	Dolomite, white, medium-crystalline; medium-gray smooth to quartzose chert; trace of pyrite
1030-1040	Dolomite, light-gray, sandy, finely granular to finely crystalline; trace of white slightly sandy smooth chert; trace of free brown oolites
1040-1050	Dolomite, white, finely crystalline; light-gray quartzose chert
1050-1055	Dolomite, cream-colored, slightly sandy, medium-crystalline; gray smooth slightly oolitic chert; white dolomitic chert
1055-1060	Dolomite, white, finely to medium-crystalline; white smooth and chalky chert
1060-1065	Dolomite, white, coarsely crystalline; medium-gray quartzose chert
1065-1075	Dolomite, white, coarsely crystalline; white translucent to chalky chert; quartz crystals
1075-1080	Dolomite, white, coarsely crystalline; medium-gray quartzose chert; pyrite
1080-1090	Dolomite, cream-colored, medium-crystalline; white smooth chert
1090	TOTAL DEPTH

## BENTON COUNTY (1)

Operator: Ozark Production Co.	Elevation: 1190 ft.
Well No.: 1	Total depth: 2236 ft.
Lease: E. W. Curry	Completion date: Oct. 24, 1948
Location: SW ¼ SW ¼ sec. 33, T. 18 N., R. 33 W.	Logged by: S. E. Frezon

### Formation tops

	Depth (ft.)
Powell dolomite	380(?)
Cotter dolomite and Jefferson City dolomite, undifferentiated	446
Roubidoux formation	1195
Gasconade dolomite and Van Buren formation, undifferentiated	1400
Eminence dolomite	1760
Bonneterre dolomite (?)	2110(?)
Lamotte sandstone	2170
Pre-Cambrian rocks	2205

Depth in feet	Sample description
0- 365	(No samples)
365- 375	Sandstone, white to very light gray, fine- to medium-grained; round and frosted sand grains with quartz added
375- 380	(No samples)
380- 390	Dolomite, light-gray, very finely granular to finely crystalline; trace of pyrite and light-gray mottled chert
390- 400	Dolomite as above
400- 405	Dolomite, light-gray, very finely granular; trace of pyrite and silt
405- 415	Dolomite, light-gray and medium light gray, finely crystalline to finely granular; pyrite and greenish-gray dolomitic shale
415- 425	Dolomite, light-gray, finely crystalline to very finely granular; greenish-gray dolomitic pyritic shale
425- 435	Dolomite, yellowish-gray to light-gray, finely crystalline to finely granular; trace of pyrite and greenish-gray shale
435- 446	Dolomite, yellowish-gray to light-gray, finely crystalline to finely granular; trace of pyrite and silt
446- 460	Dolomite, light-gray, very finely granular to finely crystalline; greenish gray dolomitic pyrite shale and white dense and translucent oolitic chert
460- 475	Dolomite, light-gray, very finely granular to finely crystalline; dense, opaque and translucent chert and white porous chert; yellowish-orange dense and porous chert
475- 500	Dolomite, very light gray to light-gray, finely crystalline to finely granular; white dense and translucent chert and yellowish-orange porous leached chert
500- 510	(No samples)
510- 525	Dolomite, light-gray to yellowish-gray, finely crystalline to finely granular; white to light-gray dense chert; some yellow porous chert
525- 535	Dolomite, yellowish-gray, very finely granular to finely crystalline; white to gray dense and porous chert
535- 540	Dolomite as above; sand and sandy chert
540- 545	Dolomite, very light gray to yellowish-gray, finely granular to medium-crystalline; white to light-gray dense chert; porous chert
545- 550	Dolomite and chert as above; oolitic chert
550- 560	Dolomite, light-gray to yellowish-gray, very finely granular to medium-crystalline; trace of pyrite
560- 565	Dolomite, light-gray to yellowish-gray, very finely granular to finely crystalline; trace of pyrite, greenish-gray shale and white to light-gray dense and translucent chert
565- 570	Dolomite, chert, and shale as above; sandy chert

Depth in feet	Sample description
570- 576	Dolomite, light-gray to light yellowish-gray, very slightly sandy, very finely granular to finely crystalline; white to light-gray dense chert; sandy chert
576- 600	(No samples)
600- 610	Dolomite, very light gray to yellowish-gray, sandy, very finely granular to finely crystalline; light-gray to white slightly sandy, dense and porous chert
610- 615	Dolomite, sand, and chert as above except no sandy chert
615- 620	Dolomite as above except no sandy dolomite; no sandy chert
620- 635	Dolomite, yellowish-gray to light-gray, finely granular to finely crystalline; small amount of white to light-gray dense and porous chert; trace of greenish-gray shale
635- 950	(No samples)
950- 960	Dolomite, light-gray to light olive-gray, silty, finely granular to finely crystalline; dark-gray to brown shale and light-gray to gray chert; porous chert
960- 970	As above with less chert
970- 980	Dolomite, light-gray to light olive-gray, silty, finely granular to finely crystalline
980- 985	Dolomite as above; trace of light- to dark-gray dense chert
985- 990	Dolomite and chert as above; scattered fine round and frosted sand grains
990-1000	Dolomite, light-gray to light olive-gray, silty, finely granular to finely crystalline; white to gray dense chert and white porous chert
1000-1005	Dolomite, light-gray to light olive-gray, silty, finely granular to finely crystalline
1005-1010	Dolomite as above; light-gray dense chert
1010-1020	Dolomite, very light gray to white, finely granular to finely crystalline; white granular and dense chert
1020-1030	Dolomite, gray to light olive-gray, silty, very finely granular to finely crystalline; gray and olive-gray dense chert
1030-1040	Dolomite, light-gray to yellowish-gray, finely granular to finely crystalline; light-gray to gray dense chert
1040-1060	(No samples)
1060-1068	Dolomite, very light gray to yellowish-gray, very finely granular to finely crystalline; white to very light gray dense and porous chert; trace of sandy chert
1068-1070	(No samples)
1070-1075	Dolomite and chert as above
1075-1080	Dolomite and chert as above; dolomitic chert
1080-1090	Dolomite, light-gray to very light gray, very finely granular to finely crystalline; white to light-gray dense and porous chert; sandy chert
1090-1100	Dolomite, light-gray to very light gray, sandy, finely granular to finely crystalline; white to very light gray dense chert; sandy chert
1100-1105	Dolomite, very light gray, finely granular, finely crystalline; white to light-gray dense chert
1105-1110	Dolomite, light-gray to yellowish-gray, very finely granular to finely crystalline; chert as above
1110-1115	Dolomite, very light gray, sandy, finely granular to finely crystalline; chert as above
1115-1120	Dolomite, light-gray to light yellowish-gray, finely granular to finely crystalline; chert as above
1120-1125	Dolomite as above with less amount of chert
1125-1130	Dolomite as above with scattered round and frosted sand grains; chert as above
1130-1135	Dolomite, light-gray to light yellowish-gray, finely granular to finely crystalline; chert as above; crystalline quartz
1135-1150	Dolomite, light-gray to light olive-gray, very finely granular to medium- to finely crystalline; light-gray to yellowish-gray dense chert
1150-1160	Dolomite as above; trace of chert
1160-1165	Dolomite, light-gray to light olive-gray, sandy, finely granular to finely crystalline; small amount of chert
1165-1170	Dolomite, light-gray to light olive-gray, finely granular to finely crystalline; white to light-gray dense and porous chert
1170-1180	Dolomite, white to light yellowish-gray, very finely granular to finely crystalline; trace of chert
1180-1195	Dolomite as above
1195-1200	Dolomite, light-gray to yellowish-gray, sandy, finely crystalline to granular; light-gray slightly sandy dense and porous chert
1200-1210	Dolomite and chert as above; no sand
1210-1220	Dolomite, light-gray to yellowish-gray, very finely granular to finely crystalline; white to light-gray chert
1220-1230	Dolomite, light-gray to light olive-gray, sandy, very finely granular to finely crystalline; white to light-gray dense chert; trace of black shale

Depth in feet	Sample description
1230-1235	(No samples)
1235-1260	Dolomite, light-gray to very light gray, sandy, finely granular to very finely crystalline; white to very light gray dense chert
1260-1265	Dolomite and chert as above; sandy chert
1265-1278	Dolomite, light-gray to yellowish-gray, sandy in places; finely granular to finely crystalline; chert as above
1278-1290	Dolomite, very light gray to light-gray, slightly sandy, finely granular to finely crystalline; white to light-gray dense chert; dolomitic chert
1290-1297	Dolomite as above; sandy chert
1297-1300	Sandstone, white to very light gray, fine- to medium-grained
1300-1305	Dolomite, very light gray to yellowish-gray, finely granular and crystalline; white to gray dense chert; sandy chert
1305-1310	Dolomite and chert as above; oolitic chert
1310-1320	Dolomite, white to yellowish-gray, very finely granular to finely crystalline; white to light-gray dolomitic dense and finely granular chert
1320-1330	Dolomite, light-gray to yellowish-gray, very finely granular to finely crystalline; white to gray dense and porous chert
1330-1340	Dolomite, very light gray, sandy, finely granular to finely crystalline; white to light-gray slightly sandy dense and porous chert
1340-1350	Dolomite, light-gray, very finely granular to finely crystalline; trace of white to light-gray dense and porous chert
1350-1360	Dolomite, very light gray to yellowish-gray, sandy finely granular to finely crystalline; quartz crystals; white to light-gray dense and granular chert
1360-1370	Dolomite, very light gray to yellowish-gray sandy, very finely granular to finely crystalline; trace of light-gray to white dense and finely granular chert
1370-1380	Dolomite and chert as above; crystalline quartz
1380-1390	Dolomite, very light gray to yellowish-gray, sandy, finely granular to finely crystalline; trace of greenish-gray pyritic shale
1390-1400	Dolomite as above; trace of light-gray dense chert
1400-1410	Dolomite, light-gray to yellowish-gray, finely granular to finely crystalline
1410-1420	Dolomite as above; trace of gray shale
1420-1440	Dolomite, very light gray to yellowish-gray, very finely granular to medium-crystalline
1440-1460	Dolomite, white to light-gray, finely granular to medium-crystalline; trace of pyrite
1460-1470	Dolomite, white to light-gray, finely granular to medium-crystalline; light-gray dense oolitic chert; white to light-gray dense chert
1470-1480	(No samples)
1480-1490	Dolomite, very light gray to yellowish-gray, finely granular to finely crystalline; white to light-gray dense chert
1490-1500	Dolomite, very light gray to yellowish-gray, finely granular to medium-crystalline; light-gray dense chert; crystalline quartz
1500-1510	Dolomite, white to very light gray, finely granular to finely crystalline; light-gray dense chert
1510-1520	Dolomite as above; light-gray to gray dense chert
1520-1530	Dolomite, white to very light gray, finely granular to medium-crystalline; trace of light-gray dense chert
1530-1540	Dolomite, very light gray to yellowish-gray, finely granular to medium-crystalline; white to light-gray dense chert
1540-1550	Dolomite, very light gray, gray, yellowish-gray, finely granular to finely crystalline; white to gray, silty, dense chert, mottled in part
1550-1560	Dolomite as above; abundant chert as above; sandy chert; pyrite
1560-1570	Dolomite, white to very light gray, finely granular to finely crystalline; milky white to light-gray dense chert; oolitic chert
1570-1580	Dolomite, light-gray to yellowish-gray, finely granular to medium-crystalline; white to yellowish-gray dense and finely granular chert; some floating sand grains
1580-1590	Dolomite, very light gray to yellowish-gray, finely granular to finely crystalline; white to light-gray dense chert; trace of pyrite and crystalline quartz
1590-1600	Dolomite, very light gray and yellowish-gray, finely granular to medium-crystalline; white to very light gray dense and granular chert; trace of pyritic chert and crystalline quartz
1600-1610	(No samples)

Depth in feet	Sample description
1610-1620	Dolomite, very light gray to yellowish-gray, finely granular to finely crystalline; white to light-gray dense and granular chert
1620-1630	Dolomite, light-gray, finely granular to medium-crystalline; white granular chert and very light gray dense chert
1630-1640	Dolomite and chert as above; gray oolitic chert
1640-1650	Dolomite, light-gray, finely granular to medium-crystalline; trace of white granular chert
1650-1660	Dolomite, very light gray, to yellowish-gray, finely granular to finely crystalline; white porous chert; trace of pyrite
1660-1670	Dolomite, very light gray, finely granular to finely crystalline; white granular chert; trace of pyrite
1670-1680	Dolomite, very light gray to yellowish-gray, finely granular to finely crystalline; trace of white dense and granular chert
1680-1685	(No samples)
1685-1690	Dolomite and chert as above
1690-1700	Dolomite, light-gray, finely granular to medium-crystalline; trace of white chert
1700-1710	Dolomite, light-gray, finely granular to finely crystalline; with white dense and finely granular chert; trace of pyritic chert
1710-1720	Dolomite, light-gray to yellowish-gray, finely granular to finely crystalline; trace of white dense and finely granular chert
1720-1730	Dolomite and chert as above; pyrite
1730-1740	Dolomite, light-gray to yellowish-gray, finely granular to finely crystalline; white dense and granular chert
1740-1745	(No samples)
1745-1747	Dolomite and chert as above
1747-1760	Dolomite, light-gray to yellowish-gray, finely sandy, finely granular to finely crystalline; white granular and dense chert
1760-1770	Dolomite, light-gray, sandy, finely granular to finely crystalline; siliceous oolites with sand centers; sandy chert
1770-1780	Dolomite, light-gray, sandy, finely granular to finely crystalline
1780-1790	(No samples)
1790-1800	Dolomite, light-gray, finely granular to medium-crystalline; coarsely to very coarsely crystalline mineral dolomite; trace of pyrite
1800-1810	Dolomite as above
1810-1820	Dolomite as above; trace of pyrite
1820-1830	Dolomite, light-gray, finely granular to medium-crystalline; trace of white dense and granular chert
1830-1840	Dolomite and chert as above
1840-1850	Dolomite, light-gray, very finely granular to medium-crystalline; coarsely crystalline mineral dolomite
1850-1870	(No samples)
1870-1890	Dolomite, light-gray, finely to coarsely crystalline; pyrite
1890-1910	Dolomite, light-gray, finely to coarsely crystalline
1910-1930	Dolomite, light-gray, finely granular to coarsely crystalline; mineral dolomite
1930-1940	Dolomite, light-gray, very finely granular to coarsely crystalline; trace of light-gray dense chert and green shale
1940-1950	Dolomite, chert, and shale, as above; trace of pyrite
1950-1960	Dolomite, light-gray, finely granular to finely crystalline; trace of greenish-gray shale
1960-1970	Dolomite and shale as above; trace of glauconite
1970-1990	Dolomite, light-gray, slightly pyritic, finely granular to finely to medium-crystalline; trace of glauconite
1990-2010	(No samples)
2010-2020	Dolomite, light-gray to light yellowish-gray, slightly pyritic, finely granular to medium-crystalline; light-gray to white dense chert; sandy chert
2020-2030	Dolomite as above; light-gray to white dense chert
2030-2040	Dolomite, dark-gray to light yellowish-gray, finely granular to medium-crystalline; coarsely crystalline mineral dolomite; light-gray chert
2040-2050	Dolomite, light-gray to gray, silty, finely granular to medium-crystalline; trace of light-gray dense chert
2050-2060	Dolomite, gray and brownish-gray, silty, finely granular to finely crystalline; trace of light-gray chert
2060-2065	Dolomite and chert as above
2065-2070	Dolomite as above

Depth in feet	Sample description
2070-2080	Dolomite, light-gray to brownish-gray, silty, finely granular to finely crystalline; trace of light-gray chert
2080-2100	Dolomite and chert as above; oolitic chert
2100-2110	Dolomite, light-gray and light brownish-gray, silty, finely granular to finely crystalline; trace of pyrite
2110-2130	Dolomite, light-gray to yellowish-gray, finely granular to finely crystalline; glauconite; pyrite
2130-2140	Dolomite, light-gray to light yellowish-gray, finely granular to finely crystalline; pyrite; glauconite; black shale grains; white to light-gray dense chert
2140-2145	As above with scattered round and frosted sand grains with secondary quartz
2145-2150	(No samples)
2150-2170	Dolomite, light-gray to light yellowish-gray, sandy, pyritic, glauconitic, finely granular to medium-crystalline; white dense chert
2170-2190	Sandstone, white, to very light gray, fine- to medium-grained
2190-2200	Sandstone, white to very light gray, medium-grained
2200-2205	Sandstone, white, medium-grained; quartz
2205-2210	Igneous rock, grayish-white, yellow-stained, finely granular
2210-2222	Igneous rock, pink, including feldspar and quartz
2222-2236	(No samples)
2236	TOTAL DEPTH



## BENTON COUNTY (2)

Operator: Anderson	Elevation: 1175 ft. (Topo.)
Well No.: 1	Total depth: 325 ft.
Lease: Cecil Diem	Completion date: ?
Location: SW ¼ SW ¼ NW ¼ sec. 34, T. 18 N., R. 33 W.	Logged by: S. E. Frezon

### Formation tops

	Depth (ft.)
Chattanooga shale	279

Depth in feet	Sample description
0- 70	(No samples)
70-150	Chert, white, limy, finely granular, very soft
150-196	Chert, white to very light gray, limy, dense to finely granular; trace of dark-gray to gray mottling on lighter-colored chert
196-207	(No samples)
207-236	Chert, light-gray to gray, limy, dense to finely granular; trace of dark-gray finely crystalline to finely granular limestone
236-247	Limestone, very light gray to dark-gray, finely granular to coarsely crystalline, white dense chert; crinoids; trace of green shale
247-256	Chert, very light gray to gray, limy, dense to very finely granular; trace of gray finely granular to coarsely crystalline limestone
256-268	Limestone, very light gray to gray, finely granular to coarsely crystalline; white dense chert; trace of pyrite; crinoids
268-273	(No samples)
273-279	Limestone, gray to dark-gray, very silty, finely granular to coarsely crystalline
279-289	Shale, black, pyritic
289-295	(No samples)
295-325	Shale, black, pyritic
325	TOTAL DEPTH

## BENTON COUNTY (3)

Operator: Carnation Milk Co.

Elevation: 1350 ft. (Est.)

Well No.: 1

Total depth: 450 ft.

Lease: Water well

Completion date: ?

Location: SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  sec. 18, T. 19 N.,  
R. 29 W.

Logged by: E. E. Glick

### Formation tops

	Depth (ft.)
Chattanooga shale	290
Powell dolomite	338
Cotter dolomite	350

Depth in feet	Sample description
0- 57	Chert, reddish-brown, tripolitic, badly weathered; crinoids and brachiopods
57- 60	Limestone, light-gray, finely to medium-crystalline; light-gray, cream-colored, and red, rough chert
60- 65	Limestone, light-gray, finely crystalline; light-gray and buff rough chert
65- 70	Limestone, light-gray, very cherty, finely crystalline; light-gray rough chert
70- 75	Limestone, light-gray, finely crystalline; buff and gray rough chert
75-160	Limestone, light-gray, very cherty, finely granular; very light gray to white limy chert
160-200	Limestone, light-gray, very cherty, finely granular; light-gray to buff, dense to limy chert
200-225	Limestone, medium-gray, very cherty, finely granular; medium-gray smooth chert and light-brown rough chert
225-230	Limestone, medium-gray, very cherty, finely granular; light-gray limy chert and light-gray smooth chert
230-235	Limestone, medium bluish-gray, very silty; pyrite
235-250	Limestone, light-gray, slightly silty, finely granular to finely crystalline; crinoids and pyrite
250-270	Limestone, light-gray, finely granular to finely crystalline; crinoids
270-275	Limestone, medium-gray, very silty, finely granular
275-280	Limestone, light-gray, slightly silty, finely granular to finely crystalline; crinoids
280-290	Limestone, light-gray, silty, shaly, finely granular; light-gray chert; pyrite
290-334	Shale, black, finely micaceous; pyrite
334-338	Sandstone, dark grayish-brown, silty, fine- to medium-grained; pyrite; glauconite
338-350	Dolomite, light-gray, silty, very finely granular
350-355	Dolomite, light-gray, silty, very finely granular; brown smooth chert
355-360	Dolomite, light-gray, finely granular; white and buff smooth chert
360-370	Dolomite, light-gray, silty, finely granular; brown oolitic chert
370-380	Dolomite, light-gray, slightly sandy, finely granular to finely crystalline; white smooth chert; trace of sandy chert; pyrite
380-385	Dolomite, light-gray, slightly silty, finely granular; light-gray smooth chert
385-400	Dolomite, light-gray, slightly silty, slightly sandy, finely granular; white smooth chert; pyrite
400-410	Dolomite, white, slightly silty, slightly sandy, finely granular; white smooth chert; white dolomitic chert
410-420	Dolomite, light-gray, finely granular; white smooth to rough slightly oolitic chert; free oolites; trace of sandy chert
420-425	Dolomite, light-gray, finely granular; white smooth oolitic chert; free white oolites; brown chert
425-430	Dolomite, light-gray, slightly silty, slightly sandy, finely granular; white smooth to rough chert
430-435	Dolomite, light-gray, finely granular; white to cream-colored smooth chert; trace of white oolitic and sandy chert
435-440	Dolomite, light brownish-gray, slightly sandy, finely granular; white and cream-colored smooth chert
440-450	Dolomite, light brownish-gray, slightly sandy, finely granular; white chert
450	TOTAL DEPTH

## BOONE COUNTY (1)

Operator: W. S. King

Elevation: 2186 ft.

Well No.: 1

Total depth: 1451 ft.

Lease: Lee

Completion date: ?

Location: NE ¼ SW ¼ sec. 24, T. 18 N.,  
R. 22 W.

Logged by: E. E. Glick

### Formation tops

	Depth (ft.)
Hale formation	158
Fayetteville shale	321
Batesville sandstone, Ruddell shale, and Moorefield formation undifferentiated	605
Boone formation	680
Everton formation	1055
Powell dolomite	1255
Cotter dolomite	1425

Depth  
in feet

Sample description

0-	17	Shale, yellowish-gray, fissile; ironstone
17-	20	Sandstone, reddish-brown, fine; fine quartz pebbles
20-	30	Shale, black, fissile
30-	48	Sandstone, yellowish-brown, very fine to very coarse grained, angular
48-	56	Shale, black
56-	60	Sandstone, light brownish-gray, angular, fine-grained, free drilling; quartz granules
60-	70	Sandstone, light brownish-gray, fine- to medium-grained, angular; quartz granules; mica; limonite and hematite; glauconite
70-	85	Sandstone, light brownish-yellow, angular, very fine to coarse-grained; quartz granules; limonite; glauconite
85-	100	Sandstone, cream-yellow, angular, very fine to coarse-grained; limonite; quartz granules
100-	120	Sandstone, white to cream-colored, siliceous, very fine to medium-grained, angular; limonite; quartz granules
120-	158	Sandstone, white to cream-colored, siliceous, angular, very fine to coarse-grained; limonite; quartz granules; mica; free drilling
158-	163	Limestone, medium-gray, very fossiliferous, finely granular; brachiopods; bryozoa; coral
163-	170	Sandstone, yellowish-brown to red, iron-stained, angular, medium-grained; quartz granules; drills free
170-	180	Limestone, light brownish-gray to medium-gray, very fossiliferous, finely granular; brachiopods; pelecypods; bryozoa; ostracods
180-	185	Sandstone, light brownish-red, limy, very fine to coarse-grained; brachiopods; glauconite
185-	190	Sandstone, cream-colored to light-brown, very limy, fine- to medium-grained; glauconite
190-	200	Limestone, cream-colored, very sandy, glauconitic, limonitic, finely granular
200-	210	Limestone, cream-colored, sandy, finely granular; fine to medium sand grains and quartz granules; crinoids; bryozoa; glauconite
210-	216	Limestone as above; no fossils or glauconite
216-	220	Sandstone, light brownish-gray, iron-stained, limy, medium-grained, free drilling
220-	230	Sandstone as above; medium- to dark-gray shale; mica
230-	238	Sandstone, buff, iron-stained, limy, medium-grained, free drilling; crinoids
238-	242	Shale, medium-gray, finely micaceous
242-	249	Sandstone, buff, iron-stained, limy, angular, medium-grained, free drilling; quartz granules

Depth in feet	Sample description
249- 250	Shale, medium-gray, finely micaceous
250- 270	Sandstone, buff, iron-stained, limy, angular, medium-grained; quartz granules; crinoids
270- 279	Sandstone, light-gray to buff, iron-stained, limy, angular, medium-grained, free drilling
279- 280	Shale, medium-gray, finely micaceous
280- 284	Sandstone as above; crinoids
284- 290	Shale, dark-gray, finely micaceous, sandy
290- 321	Sandstone, buff, iron-stained, limy, angular, medium-grained, free drilling; trace black micaceous shale
321- 330	Siltstone, dark brownish-gray, very finely sandy, finely micaceous
330- 340	Shale, dark brownish-gray, finely micaceous, silty
340- 350	Shale, dark-gray, finely micaceous
350- 360	Shale, dark-gray, silty, limy in part; dark-brown limy shale
360- 390	Shale, dark brownish-gray to black, silty, slightly limy in part; mica
390- 400	Shale, dark-gray, silty, finely micaceous
400- 450	Shale, dark-gray, silty, finely micaceous; chocolate-brown siliceous dolomitic limy shale; pyrite
450- 455	Shale, dark-gray, finely micaceous; chocolate-brown slightly dolomitic siliceous shale
455- 500	Shale, dark-gray to dark brownish-gray, finely micaceous, slightly dolomitic in part
500- 545	Shale, dark-gray to dark brownish-gray
545- 560	Shale, dark-gray to black, limy in part
560- 600	Shale, black, limy in part; pyrite
600- 605	Siltstone, dark-gray, limy, finely sandy
605- 610	Sandstone, light-gray, limy, fine-grained
610- 615	Sandstone, white to cream-colored, very fine to fine-grained, very limy
615- 630	Sandstone, white to cream-colored, angular, very fine grained, limy, free drilling
630- 638	Limestone, cream-colored to white, very finely sandy, finely granular; large oolites; glauconite
638- 656	Sandstone, white, very fine grained, limy; pyrite; glauconite
656- 660	Limestone, white to cream-colored, very sandy, finely granular; crinoids; pyrite
660- 673	Sandstone, light-gray, limy, very fine grained
673- 680	Limestone, cream-colored, sandy, oolitic, crinoidal, finely granular
680- 685	Limestone, brownish-gray, finely crystalline, cherty; white and brown dense chert; limy chert; crinoids
685- 710	Limestone, cream-colored, finely granular to finely crystalline; white, limy chert; crinoids
710- 730	Limestone, cream-colored to light-gray, oolitic, finely crystalline; fossiliferous chert; crinoids; glauconite
730- 750	Limestone, cream-colored, finely crystalline; white limy chert
750- 790	Limestone, cream-colored, finely to medium-crystalline; white limy chert; crinoids; brachiopods
790- 800	Limestone, cream-colored, finely to medium-crystalline; white limy chert; crinoids
800- 815	Limestone, cream-colored, finely crystalline; white limy chert; crinoids
815- 835	Limestone, cream-colored, finely to medium-crystalline; white limy chert and white spicular dense chert; crinoids; brachiopods
835- 850	Limestone, cream-colored to light-gray, finely granular to finely crystalline; white dense chert and white granular chert
850- 865	Limestone, cream-colored, finely crystalline; white to light-gray dense chert; trace of limy chert; bluish-gray chert; pyrite
865- 875	Limestone, cream-colored, crinoidal, finely crystalline; white to light-gray translucent dense chert; trace of white limy chert; crinoids; pyrite
875- 890	Limestone, cream-colored to light-gray, crinoidal; finely granular; white and light-gray dense translucent chert; trace of white limy chert
890- 905	Limestone, cream-colored, finely granular; milky white chert; light-gray translucent chert; limy chert; pyrite
905- 925	Limestone, cream-colored, finely granular; much smoky gray dense chert; white porous chert
925- 940	Limestone, light-gray, finely granular; light and dark smoky gray dense chert; trace of white limy chert
940- 975	Limestone, medium-gray, finely granular; light to dark smoky grayish-brown chert; white limy chert
975- 995	Limestone, cream-colored and pink, crinoidal, finely granular to finely crystalline
995-1000	Limestone, cream-colored, finely granular; medium-gray very silty finely granular limestone; crinoids
1000-1010	Limestone, light-gray to reddish-brown, slightly silty, crinoidal, finely granular to finely crystalline; glauconite
1010-1020	Limestone, cream-colored, pink in part, crinoidal, finely crystalline; trace of glauconite
1020-1080	Limestone as above; gray silty limestone

Depth in feet	Sample description
1080-1052	Limestone, cream-colored to medium-gray, slightly silty, finely crystalline; crinoids
1052-1055	Sandstone, light brownish-gray, limy, glauconitic, pyritic, phosphatic, fine-grained
1055-1070	Sandstone, white, fine- to medium-grained, siliceous; quartz growth
1070-1085	Sandstone, light yellowish-gray, very fine to medium-grained, siliceous; free drilling in part
1085-1090	Sandstone as above but limy in part
1090-1110	Sandstone, yellowish-gray, fine- to medium-grained
1110-1115	Limestone, light- to medium-gray, slightly sandy, finely granular
1115-1118	Sandstone, white to yellowish-gray, limy, fine- to medium-grained
1118-1120	Limestone, light brownish-gray, dense
1120-1130	Limestone, cream-colored, very finely granular; large white free oolites
1130-1136	Limestone, cream-colored, finely to medium sandy, very finely granular; blue shale
1136-1140	Sandstone, light yellowish-gray, slightly limy, fine- to medium-grained, free drilling
1140-1165	Limestone, cream-colored, slightly sandy, very finely granular
1165-1170	Limestone, cream-colored, sandy, very finely granular; white chert with fine sand grains
1170-1176	Dolomite, light brownish-gray, finely granular
1176-1180	Limestone, cream-colored to light brownish-gray, finely granular
1180-1196	Limestone, cream-colored, slightly sandy, very finely granular
1196-1200	Dolomite, light brownish-gray, sandy, finely granular
1200-1206	Limestone, cream-colored, sandy, finely granular
1206-1210	Dolomite, light brownish-gray, very finely crystalline; trace of white translucent oolitic chert
1210-1220	Dolomite, light brownish-gray to medium-gray, slightly silty, finely granular; white and gray translucent chert; fine to medium quartz crystals
1220-1225	As above but less chert and less sand
1225-1235	Dolomite, cream-colored to light-gray, silty, finely granular
1235-1238	Dolomite, light-gray to dark brownish-gray, silty, finely granular; white dense chert
1238-1240	Shale, grayish-green
1240-1250	Dolomite, light grayish-brown, silty, slightly sandy, finely granular; white, light-gray and light-brown dense chert; quartz crystals
1250-1255	Dolomite, light brownish-gray, very finely crystalline; white and light-brown dense and oolitic chert
1255-1266	Dolomite, light brownish-gray, finely granular
1266-1270	Shale, dark-brown and greenish-gray, very dolomitic
1270-1282	Dolomite, brownish-gray, silty; finely crystalline; pyrite
1282-1287	Shale, bluish-gray, dolomitic
1287-1290	Dolomite, brownish-gray, finely crystalline; quartz crystal masses
1290-1303	Dolomite, cream-colored, very finely granular
1303-1307	Shale, bluish-gray, dolomitic
1307-1311	Dolomite, cream-colored, finely granular; pyrite
1311-1315	Shale, dark-gray, dolomitic
1315-1320	Dolomite, light brownish-gray, silty, finely crystalline
1320-1335	Dolomite, light brownish-gray, slightly silty; finely granular to finely crystalline; pyrite
1335-1350	Dolomite, light-gray, silty, finely granular
1350-1360	Dolomite, dark brownish-gray, very silty, finely granular
1360-1370	Dolomite, brownish-gray, silty, finely crystalline; white and light-brown dense chert
1370-1375	Dolomite, light-gray, silty, finely granular
1375-1385	Dolomite, light brownish-gray, silty, finely granular; dark-brown mottled dense chert
1385-1395	Dolomite, cream-colored, slightly silty, very finely granular; white and light-brown dense chert
1395-1400	As above and trace of scattered sand grains
1400-1410	Dolomite, cream-colored, slightly silty, finely granular to finely crystalline; trace of light-brown dense chert; quartz crystals
1410-1425	Dolomite, light brownish-gray, finely granular
1425-1445	Dolomite, light brownish-gray, finely crystalline; white chert with brown dolomite crystals; white dense chert
1445-1451	Dolomite, grayish-brown, slightly silty, finely granular; light-brown dense chert
1451	TOTAL DEPTH

## BOONE COUNTY (2)

Operator: ?	Elevation: 1275 ft. (Topo.)
Well No.: 1	Total depth: 310 ft.
Lease: Frank Andrews	Completion date: ?
Location: Center of NW ¼ NW ¼ sec. 26, T. 21 N., R. 21 W.	Logged by: E. E. Glick

### Formation tops

	Depth (ft.)
Powell dolomite	228
Cotter dolomite	250

Depth in feet	Sample description
0- 55	(No samples)
55- 70	Limestone, light-gray, finely granular; white dense chert; white limy chert
70- 85	Limestone, light-gray, finely granular; white, light-brown, and smoky gray dense chert; white limy chert
85- 90	(No samples)
90-120	Limestone and chert as above
120-125	Limestone, cream-colored, crinoidal, finely crystalline
140-160	Limestone, light-gray, crinoidal, finely crystalline; white, light-gray, and smoky gray dense chert
160-170	Limestone and chert as above; reddish-brown dense chert
170-190	Limestone, light-gray to reddish-brown, crinoidal, finely granular
190-195	Limestone, medium-gray to brownish-gray, silty, crinoidal, very finely crystalline
195-200	Limestone as above; trace of glauconite
200-210	Limestone, cream-colored, crinoidal, finely granular; greenish-gray very silty limestone
210-220	Limestone, cream-colored, crinoidal, finely granular; pyrite
220-228	Sandstone, light-gray, slightly limy, medium-grained; pyrite
228-235	Dolomite, light-gray to light bluish-gray, silty, finely granular
235-245	Dolomite, light-gray, silty, sandy, finely granular to very finely crystalline; bluish-gray very silty finely granular dolomite
245-250	Dolomite, light brownish-gray, finely granular; pyrite
250-255	Dolomite, light-gray, finely granular; cream-colored dense chert
255-265	Dolomite, light-gray, finely granular; bluish-green silt; cream-colored and light-gray dense chert
265-275	Dolomite, light brownish-gray, finely granular to very finely crystalline; cream-colored oolitic chert
275-280	As above and round and frosted medium sand grains; pyrite
280-285	Dolomite, light brownish-gray, slightly silty, finely crystalline
285-295	Dolomite, light brownish-gray, finely granular to finely crystalline; light-gray and light-brown dense chert
295-300	As above; fine to medium round and frosted sand grains
300-310	Dolomite, light brownish-gray, slightly silty, finely granular to very finely crystalline; light-gray translucent chert; trace of round and frosted fine to medium sand grains
310	TOTAL DEPTH

## CARROLL COUNTY (1)

Operator: W. S. King	Elevation: 1375 ft. (Topo.)
Well No.: ?	Total depth: 553 ft.
Lease: ?	Completion date: ?
Location: SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T. 19 N., R. 22 W.	Logged by: E. E. Glick

### Formation tops

	Depth (ft.)
Batesville sandstone, Ruddell shale, and Moorefield formation undifferentiated	17
Boone formation	147
Chattanooga shale	522
Everton formation	528

Depth in feet	Sample description
0- 4	Sandstone, weathered, brown, fine-grained
4- 17	Shale, black
17- 30	Limestone, light-gray, slightly sandy, dolomitic, slightly oolitic, finely granular to finely crystalline; glauconite; crinoids, bryozoa; pyrite
30- 36	Limestone, light dirty gray, very fossiliferous, finely granular to finely crystalline; brachiopods; crinoids; bryozoa
36- 40	Limestone as above: light grayish-green silty streak; chert; brachiopods; crinoids; bryozoa
40- 45	Limestone, light-gray, silty, very finely sandy; finely granular; glauconite
45- 50	Limestone, medium- to dark-gray, finely sandy, very silty; crinoids
50- 55	Limestone, light-gray, very sandy, finely granular; dark-gray limy shale bed; crinoids
55- 60	(No samples)
60- 63	Limestone, light-gray, very finely sandy, finely to medium-crystalline; glauconite; crinoids; bryozoa; oolites
63- 67	Limestone, white, very cherty, finely granular to finely crystalline; white smooth and dull chert
67- 70	Limestone, dark-gray, very silty
70- 72	Shale, dark-gray, limy
72- 82	Limestone, light-gray, very finely sandy, finely granular; glauconite; ostracods; pyrite
82- 86	Limestone, brownish-gray, silty, slightly oolitic, finely granular to finely crystalline; green silt
86- 91	Sandstone, light-gray, silty, glauconitic, limy, very fine grained
91-102	Limestone, medium-gray, silty, very shaly, dolomitic, finely granular
102-112	Limestone, light-gray, silty, finely sandy, finely granular; glauconite; bryozoa; large oolites
112-118	Limestone, light-gray, finely granular; white smooth chert and limy chert
118-123	Limestone, medium- to dark-gray, very silty, very fossiliferous, finely granular; brachiopods; bryozoa
123-129	Limestone, light-gray, very finely sandy, finely granular; glauconite; bryozoa
129-134	Limestone, brownish-gray, oolitic, finely granular; brachiopods; bryozoa
134-140	Limestone, white, finely granular; very limy chert
140-144	As above and white smooth slightly spicular chert
144-147	Sandstone, medium-gray, limy, silty, very fine grained; glauconite
147-156	Limestone, white, finely granular to finely crystalline, cherty; spicular and bryozoan chert
156-159	Limestone, white, finely granular to finely crystalline; glauconite; trace of dark-gray shale
159-171	Limestone, white to light-gray, finely granular; white to light-gray smooth chert; white very limy chert
171-175	Limestone, light-gray, finely to medium-crystalline, slightly oolitic; glauconite
175-185	Limestone, light-gray, finely crystalline; light-gray smooth chert
185-190	Limestone, light-gray, finely granular; light-gray smooth and dull chert; glauconite
190-193	Limestone, light-gray, finely granular; trace of white smooth chert

Depth in feet	Sample description
193-205	Limestone, light-gray, very oolitic, finely granular; light brownish-gray medium-sized oolites
205-222	Limestone, white to light-gray, finely granular; light-gray very finely mottled very limy chert
222-228	Limestone, light-gray, finely crystalline to finely granular; trace of limy chert; trace of glauconite
228-233	Limestone, light-gray, finely granular; light-gray finely mottled very limy chert
233-238	Limestone, light-gray, finely to medium-crystalline; light-gray very limy chert
238-253	Limestone, light-gray, finely mottled, finely granular; light-gray very limy chert; trace of glauconite
253-268	As above and finely to medium-crystalline limestone
268-274	Limestone, light-gray, finely granular; light-gray very limy chert; brachiopods
274-285	Limestone, light-gray, finely crystalline; light-gray very limy chert
285-297	Limestone and chert as above; crinoids
297-308	Limestone, light-gray, finely mottled, finely granular; very limy chert; crinoids
308-313	Chert, light-gray, very limy, finely granular; white smooth oolitic chert
313-323	Chert, light-gray, very limy, finely granular; white smooth and rough chert with dark specks
323-333	Limestone, white to light-gray, very cherty; white smooth and dull chert; trace of glauconite
333-340	Limestone and chert as above; medium smoky gray smooth spicular chert
340-345	Limestone, medium brownish-gray, finely granular; dull white limy chert; medium-gray chert
345-350	Limestone and chert as above; white smooth chert
350-355	Limestone, light dirty gray, cherty, finely granular; smoky gray smooth chert
355-365	Limestone, light-gray, finely granular; light smoky gray smooth chert
365-385	Limestone, light- to medium-gray, finely granular; light- to medium smoky gray chert; pyrite in lower part
385-400	Limestone and chert as above; medium greenish-gray soft limy shale; pyrite
400-405	Limestone, light-gray, very cherty, finely granular; smooth smoky gray chert
405-413	Limestone and chert as above; greenish-gray soft limy shale
413-435	Limestone, medium-gray, silty, finely granular; light- to medium-gray smooth chert
435-450	Limestone, light brownish-gray, finely granular; cream-colored to medium-gray smooth chert
450-460	Limestone, light- to medium-gray, silty, siliceous, finely granular; light-gray chert; smoky gray translucent chert
460-465	Limestone, light brownish-gray, finely granular; light- to medium-gray smooth chert
465-470	Limestone and chert as above; medium-gray limy shale
470-475	Limestone, light-gray, finely granular; medium-gray smooth chert
475-481	Limestone, light-gray, oolitic, finely granular to finely crystalline
481-495	Limestone, light-gray to reddish-brown, crinoidal, finely granular to finely crystalline
495-505	Limestone, reddish-brown, silty, finely granular
505-515	Limestone, white to cream-colored, finely granular to finely crystalline; green silty limestone
515-522	Limestone as above; crinoids and pyrite
522-527	Shale, black; pyrite
527-528	Sandstone, light- to dark-gray, limy, silty, fine- to medium-grained; pyrite
528-543	Dolomite, dull light- to medium-gray, slightly bluish-gray in part, silty, finely granular; pyrite
543-550	Sandstone, white, fine- to coarse-grained
550-553	Sandstone, white, fine- to medium-grained
553	TOTAL DEPTH



## CARROLL COUNTY (2)

Operator: City of Green Forest

Elevation: 1349 ft.

Well No.: ?

Total depth: 1587 ft.

Lease: Water well

Completion date: ?

Location: NE $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 4, T. 19 N.,  
R. 23 W.

Logged by: E. E. Glick

### Formation tops

	Depth (ft.)
Boone formation	127
Chattanooga shale	515
Everton formation	530
Powell dolomite	545
Cotter dolomite	640
Jefferson City dolomite	1040
Roubidoux formation	1413

Depth in feet	Sample description
0- 50	Sandstone, light-gray, silty, very limy, very fine grained; trace of bluish-gray shale (50 ft. sample)
50- 77	Sandstone, light-gray, finely micaceous, very limy, very fine to fine-grained; bluish-gray to dark-green shale (25 ft. sample)
77- 100	Limestone, light brownish-gray, oolitic, finely crystalline; large free oolites
100- 127	Limestone, light brownish-gray, oolitic, sandy, finely granular; large free oolites; trace of grayish-green shale (25 ft. sample)
127- 200	Limestone, cream-colored, finely granular; white to light-gray smooth to dull chert
200- 300	Limestone, light-gray, finely granular; white to cream-colored smooth to dull limy chert; crinoidal chert (100 ft. sample)
300- 330	Limestone, light-gray, finely granular; light-gray to cream-colored smooth chert; white dull chert (30 ft. sample)
330- 410	Limestone, light-gray, finely granular; smoky gray translucent chert; cream-colored dull chert (80 ft. sample)
410- 430	Limestone, light-gray, finely granular; smoky gray translucent chert; cream-colored to buff dull chert
430- 440	Limestone, light-brown, crinoidal, finely crystalline
440- 460	Limestone, cream-colored, light-gray, and reddish-brown, slightly silty, crinoidal, finely granular to finely crystalline (20 ft. sample)
460- 500	Limestone, cream-colored, pink, and reddish-brown, crinoidal, finely granular to finely crystalline (40 ft. sample)
500- 515	Limestone, light-gray, cream-colored, and pink, crinoidal, slightly silty, finely granular to finely crystalline
515- 526	Shale, black, finely micaceous; pyrite
526- 528	Shale, black; pyrite
528- 530	Shale, black, limy, very sandy
530- 540	Limestone, cream-colored to light-gray, sandy, finely granular; trace of bluish-gray shale
540- 545	Limestone, cream-colored, very sandy, finely granular
545- 575	Dolomite, light-gray to light brownish-gray, slightly sandy, finely granular; cream-colored, light-gray, and milky white slightly oolitic dense chert; bluish-green shale (30 ft. sample)
575- 580	Dolomite, medium-gray and light brownish-gray, silty, finely granular; cream-colored quartzose chert
580- 620	Dolomite, cream-colored to light brownish-gray, silty, slightly sandy, finely granular; trace of bluish-gray and dark-gray shale; trace of cream-colored dense chert
620- 625	Dolomite, medium-gray, silty, slightly sandy, very finely granular
625- 636	Dolomite, cream-colored, silty, finely granular; white dense chert

Depth in feet	Sample description
636- 640	Shale, light-gray to light brownish-gray, very dolomitic, silty
640- 665	Dolomite, cream-colored, slightly sandy, slightly silty, finely granular to finely crystalline; white, cream-colored, and light-brown smooth chert; white dolomitic chert; trace of bluish-gray shale
665- 670	Dolomite, cream-colored, slightly sandy, finely crystalline; white and cream-colored dense chert; pyrite
670- 680	As above and trace of dark-gray shale
680- 685	Dolomite, light-gray, finely granular; white and cream-colored translucent chert and quartz crystals
685- 695	Dolomite, light brownish-gray, slightly sandy, finely granular; white and cream-colored translucent chert and quartz crystals; trace of dark shale
695- 700	Dolomite, light- to medium-gray, very silty, finely granular; bluish-gray shale; white chert
700- 720	Dolomite, cream-colored to light-gray, silty, finely granular; white smooth chert; trace of cream-colored oolitic chert (20 ft. sample)
720- 738	Dolomite, light brownish-gray, finely granular; cream-colored to white smooth chert; translucent sandy chert; trace of dark-gray shale (18 ft. sample)
738- 752	Dolomite, medium brownish-gray, finely granular; cream-colored to light-brown oolitic chert; white smooth chert; quartz crystals (14 ft. sample)
752- 760	Dolomite, light brownish-gray, slightly sandy, finely granular; bluish-green shale; trace of white and cream-colored dense chert
760- 798	Dolomite, light brownish-gray, sandy, finely granular; white and cream-colored dense chert, trace of bluish-green shale and white dolomitic chert (38 ft. sample)
798- 800	Dolomite, light brownish-gray, sandy, finely crystalline; white smooth chert
800- 805	Dolomite, light-gray, slightly silty, finely crystalline
805- 810	Dolomite, cream-colored, sandy, finely crystalline; white translucent slightly sandy oolitic chert
810- 830	Dolomite, cream-colored, sandy, finely crystalline; white rough slightly sandy chert; quartz crystals (20 ft. sample)
830- 845	Dolomite, light-gray to cream-colored, sandy, finely crystalline; trace of white smooth chert; quartz crystals (15 ft. sample)
845- 865	Dolomite, light brownish-gray, sandy, finely crystalline; pyrite; light-brown dolomitic chert
865- 870	Dolomite, light-gray finely granular; white and cream-colored dense chert, white dull slightly oolitic chert
870- 892	Dolomite, light-gray, slightly sandy, finely granular; white and cream-colored slightly oolitic dense chert; clear quartzose chert
892- 905	Dolomite, light-gray, finely granular; dark-gray shale; cream-colored dull slightly dolocastic chert; cream-colored smooth dense chert; clear quartzose chert
905- 910	Dolomite, light brownish-gray, slightly sandy, silty, finely crystalline; cream-colored dense chert
910- 915	Dolomite, light brownish-gray, sandy, finely granular to finely crystalline; white sandy chert
915- 925	Dolomite, cream-colored, finely granular; cream-colored and white dense chert; light-brown very sandy chert
925- 930	Dolomite, light-gray, silty, finely granular; quartzose chert
930- 940	Dolomite, brownish-gray, finely granular; light-brown chert with brown oolites; free brown oolites
940- 945	Dolomite, brownish-gray, silty, slightly sandy, finely granular; dense chert
945- 950	Dolomite, light-gray, finely granular; light-gray oolitic chert; free oolites
950- 955	Dolomite, light brownish-gray, silty, finely granular; quartzose chert; quartz crystals
955- 960	Dolomite, light brownish-gray, finely granular to finely crystalline; brown dense chert; finely dolomitic chert; quartz crystals
960- 965	Dolomite, light brownish-gray, finely crystalline; light-brown oolitic dense chert; quartz crystals
965- 970	Dolomite, light brownish-gray, slightly sandy, finely crystalline; light-gray sandy chert
970- 975	Dolomite, light brownish-gray, slightly sandy, finely crystalline; cream-colored to buff finely oolitic dense chert
975- 980	Dolomite, light-gray, finely granular; cream-colored dense chert; clear quartzose chert; dolomitic chert
980- 985	Dolomite, light brownish-gray, sandy, finely granular; light-gray sandy chert
985- 990	Dolomite, light brownish-gray, finely granular; light brownish-gray dense chert; light-gray quartzose chert
990-1000	Dolomite, light brownish-gray, silty, finely granular; light-gray dense chert
1000-1010	Dolomite, light brownish-gray, silty, finely crystalline; gray dense chert
1010-1015	As above; trace of dark-gray shale and quartz crystals
1015-1020	Dolomite, brownish-gray, slightly silty, finely granular; trace of gray dense chert
1020-1025	As above and clear quartzose chert
1025-1030	Dolomite, brownish-gray, finely granular; trace of gray dense chert and quartz crystals

Depth in feet	Sample description
1030-1035	Dolomite, brownish-gray, slightly sandy, finely granular
1035-1040	Dolomite, brownish-gray, silty, finely granular
1040-1050	Dolomite, light- to medium-gray, silty, finely granular; trace of dark-gray dense chert
1050-1055	Dolomite, light brownish-gray, finely granular; milky white dense chert; clear sandy chert
1055-1060	Dolomite, light brownish-gray, silty, finely crystalline; light-brown dense chert
1060-1065	Dolomite, light brownish-gray, finely granular to finely crystalline; light-gray dense and rough chert
1065-1075	Dolomite, light-gray, finely crystalline to finely granular; smoky gray chert; light-brown translucent sandy chert; white sandy to finely oolitic chert
1075-1080	As above and slightly sandy
1080-1085	Dolomite, light brownish-gray, finely crystalline; buff dense chert; abundant quartz crystals
1085-1090	Dolomite, light-gray, slightly sandy, finely crystalline; cream-colored dense chert, oolitic and sandy in part
1090-1095	Dolomite, light-gray, silty, slightly sandy, finely crystalline; trace of dense chert
1095-1100	Dolomite, light brownish-gray, sandy, finely granular; clear sandy chert
1100-1105	Dolomite, brownish-gray, silty, slightly sandy, finely crystalline
1105-1115	Dolomite, light brownish-gray, finely crystalline
1115-1120	Dolomite, light brownish-gray, finely crystalline; buff dense chert and quartz crystals
1120-1125	Dolomite, brownish-gray, finely crystalline, silty; buff dense chert
1125-1130	Dolomite, brownish-gray, finely crystalline; medium-brown slightly oolitic chert
1130-1135	Dolomite, light brownish-gray, finely granular to finely crystalline; trace of oolitic dense chert
1135-1140	Dolomite, light brownish-gray, slightly silty, finely granular to finely crystalline; gray dense chert; quartz crystals
1140-1150	Dolomite, light brownish-gray, silty, finely granular
1150-1155	Dolomite, light brownish-gray, finely crystalline; cream-colored smooth to quartzose slightly oolitic chert
1155-1160	Dolomite, light-gray, sandy, finely granular; white smooth chert
1160-1170	Dolomite, brownish-gray, slightly silty, finely crystalline; trace of white smooth chert
1170-1180	Dolomite, light-brown, slightly silty, finely crystalline to finely granular; cream-colored to light-brown dense chert with brown oolites
1180-1185	Dolomite, cream-colored and brownish-gray, slightly silty, finely granular; brown chert with brown oolites
1185-1190	Dolomite, light-gray, slightly silty, finely crystalline; brown chert with brown oolites
1190-1200	Dolomite, light brownish-gray, finely granular; brown oolitic and sandy chert
1200-1207	Dolomite, light brownish-gray, slightly silty, finely crystalline; clear quartzose chert
1207-1210	Dolomite, cream-colored, sandy, finely granular; cream-colored slightly sandy and oolitic dense chert
1210-1215	Dolomite, cream-colored, very sandy, finely granular; cream-colored oolitic chert
1215-1220	Dolomite, cream-colored, finely granular; buff dense chert
1220-1226	Dolomite, light brownish-gray, silty, finely crystalline; white smooth slightly oolitic chert
1226-1230	Dolomite, light-brown, silty, slightly sandy, very finely crystalline; light-brown smooth slightly oolitic chert; quartz
1230-1235	Dolomite, cream-colored, slightly sandy, finely granular; cream-colored and white slightly oolitic dense chert; quartz crystals
1235-1240	Dolomite, cream-colored, slightly sandy, finely granular; buff smooth chert; black shale; quartz crystals
1240-1245	Dolomite, light brownish-gray, slightly sandy, finely crystalline; cream-white finely to medium-dolocastic chert; cream-colored dense chert; quartz crystals
1245-1250	Dolomite, cream-colored, finely crystalline; white smooth chert; quartz crystals
1250-1255	Dolomite, cream-colored, finely granular; cream-colored smooth chert
1255-1260	Dolomite, light-gray, slightly silty, finely crystalline; buff smooth chert
1260-1265	Dolomite, light-gray, finely crystalline; cream-colored and white dolomitic chert; cream-colored to white smooth chert
1265-1275	Dolomite, light-gray, silty, sandy, finely crystalline
1275-1280	Dolomite, light-gray, slightly sandy and silty, finely granular; white smooth chert
1280-1290	Dolomite, light-gray, slightly silty, finely granular; white smooth chert; clear sandy quartzose chert
1290-1300	Dolomite, light-gray, slightly silty, very finely to medium sandy, finely granular; cream-colored slightly sandy dense chert; cream-colored dolomitic chert
1300-1305	Dolomite, light brownish-gray, slightly sandy, finely crystalline; light-brown dolomitic chert; clear quartzose chert
1305-1310	Dolomite, light brownish-gray, slightly silty, slightly sandy, finely crystalline; buff slightly oolitic chert
1310-1315	Dolomite, light brownish-gray, medium-crystalline; buff dense chert

Depth in feet	Sample description
1315-1325	Dolomite, light brownish-gray, slightly sandy, finely to medium-crystalline; white dense chert; buff slightly oolitic dense chert
1325-1330	Dolomite, cream-colored, slightly sandy, medium-crystalline; white dull chert and cream-colored slightly dolomitic dense chert
1330-1335	As above and light-gray smooth chert
1335-1340	Dolomite, light-gray, medium-crystalline; buff slightly dolomitic and oolitic dense chert; quartz crystals
1340-1350	Dolomite, light brownish-gray, medium-crystalline; cream-colored slightly oolitic dense chert; buff to white dolomitic chert; quartz crystals
1350-1355	Dolomite, light brownish-gray, medium-crystalline; cream-colored dense chert; clear quartzose chert
1355-1367	Dolomite, cream-colored, medium-crystalline; white oolitic slightly sandy dense chert
1367-1373	Dolomite, cream-colored, slightly sandy, medium-crystalline; white smooth dolomitic chert; white dense and rough chert
1373-1380	Dolomite, cream-colored, finely to medium-crystalline; white to light-gray smooth chert
1380-1390	As above and light-gray to white dolomitic chert
1390-1400	Dolomite, cream-colored to light-gray, sandy, finely to medium-crystalline; milky white smooth chert; clear sandy and oolitic chert; quartz crystals; pyrite
1400-1410	Dolomite, cream-colored, slightly sandy, finely to medium-crystalline; white smooth chert; sandy chert; quartz crystals; pyrite
1410-1413	Dolomite, cream-colored, finely crystalline; white smooth chert; white sandy chert
1413-1415	Sandstone, dolomitic, fine- to medium-grained
1415-1420	Sandstone, white, dolomitic, very fine to medium-grained; trace of white oolitic chert
1420-1425	Dolomite, cream-colored, very sandy, finely granular; cream-colored quartzitic oolitic chert; free brown and white oolites
1425-1432	Sandstone, white, dolomitic, angular, fine- to medium-grained; free oolites with sand centers
1432-1435	Dolomite, very cherty; white smooth and quartzose chert
1435-1440	Dolomite, cream-colored, sandy, finely granular; white smooth slightly sandy and oolitic chert; white free oolites
1440-1446	Sandstone, white, dolomitic, siliceous, fine- to medium-grained
1446-1450	Dolomite, cream-colored, finely granular; white smooth slightly sandy and oolitic chert
1450-1455	Dolomite, cream-colored, sandy, finely granular; white smooth sandy chert
1455-1460	Dolomite, cream-colored, slightly sandy, finely granular; milky white smooth chert
1460-1466	Sandstone, white, dolomitic, very fine to fine-grained
1466-1470	Dolomite, cream-colored, very sandy, finely crystalline
1470-1480	As above and clear to white sandy chert
1480-1490	Dolomite, cream-colored, sandy, finely granular; white sandy chert; light-gray dense chert
1490-1495	Dolomite, cream-colored, slightly sandy, finely granular to finely crystalline; light-gray smooth chert; dolomitic chert
1495-1500	As above and white dull chert
1500-1505	Dolomite, cream-colored, finely crystalline; light-gray smooth chert; white sandy chert; white dolomitic chert
1505-1510	Dolomite, cream-colored, slightly sandy, finely crystalline; light-gray smooth chert; white dolomitic chert
1510-1515	Dolomite, cream-colored, sandy, finely crystalline; light-gray to white smooth sandy and oolitic chert
1515-1520	Dolomite, cream-colored, slightly sandy, finely to medium-crystalline; light-gray smooth chert; white dolomitic chert
1520-1525	As above and gray oolitic and sandy dense chert
1525-1530	Dolomite, cream-colored, sandy, finely crystalline; white oolitic and sandy dense chert; dull-banded chert
1530-1535	Dolomite, light-gray, sandy, finely crystalline; white dolomitic chert
1535-1540	Dolomite, light-gray, sandy, finely crystalline
1540-1550	As above and large white free oolites
1550-1560	Sandstone, light-gray, dolomitic, very siliceous, fine- to medium-grained; trace of clear and white sandy chert
1560-1565	Sandstone, light-gray, dolomitic, fine- to medium-grained
1565-1570	Dolomite, cream-colored, finely to medium sandy, finely crystalline; white smooth chert
1570-1575	Dolomite, light brownish-gray, finely to medium sandy, finely crystalline; light-gray sandy chert
1575-1580	Dolomite, light brownish-gray, finely to coarsely sandy, finely crystalline
1580-1587	Dolomite, cream-colored to light brownish-gray, slightly sandy, finely to medium-crystalline
1587	TOTAL DEPTH

## CARROLL COUNTY (3)

Operator: Baker Hospital	Elevation: 1461 (?) ft.
Well No.: ?	Total depth: 555 ft.
Lease: Water well	Completion date: ?
Location: SW 1/4 NE 1/4 NW 1/4 sec. 15, T. 20 N., R. 26 W.	Logged by: E. E. Glick

### Formation tops

	Depth (ft.)
Chattanooga shale	143
Cotter dolomite	160(?)

Depth in feet	Sample description
0-130	(No samples)
130-143	Limestone, light-gray to pink, silty, crinoidal
143-147	Shale, black, finely micaceous; pyrite
147-151	Sandstone, buff, slightly limy, fine- to medium-grained
151-160	(No samples)
160-170	Dolomite, cream-colored, finely granular, slightly silty, slightly sandy; white to buff, smooth to rough chert; trace of oolitic chert
170-180	Dolomite, cream-colored, slightly silty, slightly sandy, finely granular; light brownish-gray very oolitic smooth chert; clusters of brown and white oolites
180-185	(No samples)
185-200	Dolomite, light-gray, slightly silty, slightly sandy, finely granular to finely crystalline; light-gray to brown smooth chert
200-210	Dolomite, light-gray, slightly sandy, slightly silty, finely granular; white to light-brown rough chert; white smooth chert
210-235	(No samples)
235-245	Dolomite, brownish-gray, slightly sandy, slightly siliceous; white smooth to rough chert; light-brown oolitic chert; brown and white free oolites
245-250	Dolomite, light brownish-gray, slightly sandy, slightly silty, finely granular; white smooth chert; white dull chert
250-270	(No samples)
270-275	Dolomite, light-gray, slightly sandy, finely granular; sandy chert; white smooth chert
275-285	Dolomite, cream-colored to light-brown, slightly sandy, slightly silty, finely crystalline; white smooth oolitic chert; clear quartz crystals
285-300	Dolomite, light-gray, slightly sandy, finely granular; white smooth chert
300-310	(No samples)
310-315	Dolomite, light-gray, slightly silty, slightly sandy, finely granular; white smooth chert; cream-colored rough chert
315-325	Dolomite, light-gray, slightly sandy, finely granular; white smooth oolitic chert
325-335	Dolomite, light-gray, finely granular; quartz crystals
335-345	Dolomite, light-gray, slightly sandy, finely granular to finely crystalline; white rough chert
345-355	Dolomite, light-gray, slightly sandy, finely granular; white smooth chert; pyrite
355-365	(No samples)
365-375	Dolomite, light-gray, slightly sandy, slightly silty, finely granular; trace of white free oolites
375-395	(No samples)
395-405	Dolomite, light-gray, silty, finely granular; white and light-brown smooth chert; oolitic chert; clear quartz crystals
405-415	Dolomite, light-gray, slightly sandy, slightly silty, finely granular; quartz crystals; white to light-brown oolitic chert

Depth in feet	Sample description
415-425	Dolomite, white to light-gray, slightly sandy, finely granular; white smooth chert; light-brown smooth oolitic and sandy chert; trace of light-gray dolomitic chert
425-435	Dolomite, light-gray, slightly sandy, slightly silty, finely granular; light-brown translucent chert; quartz crystals; trace of light-gray dolomitic chert; pyrite
435-445	Dolomite, light-gray, silty, finely granular; white smooth slightly oolitic chert
445-455	As above and slightly sandy
455-465	Dolomite, light-gray, slightly sandy, silty, finely granular; quartz crystals
465-475	Dolomite, cream-colored to light-gray, slightly sandy, slightly silty, finely granular; white smooth chert; quartz crystals
475-485	Dolomite, cream-colored to light-gray, slightly silty, finely granular; quartz crystals; trace of white smooth chert
485-500	(No samples)
500-505	Dolomite, cream-colored, slightly sandy, very finely crystalline; light-gray slightly oolitic chert; quartz crystals; white dolomitic chert
505-510	Dolomite, light-gray, finely granular to finely crystalline; light-gray dolomitic chert
510-520	(No samples)
520-530	Dolomite, light-gray, finely granular to very finely crystalline; clear quartz crystals; white and brown oolitic chert
530-540	Dolomite, light brownish-gray, slightly sandy, finely granular to finely crystalline; quartz crystals; white oolitic chert
540-555	Dolomite, light-gray, slightly sandy, slightly silty, finely granular; quartz crystals; trace of light-gray smooth chert
555	TOTAL DEPTH

Depth in feet	Sample description
2150-2200	Alternating beds of dark-gray sandy shale and shaly fine-grained sandstone
2200-2210	Sandstone, dark brownish-gray, very fine grained; black shale
2210-2230	Shale, black; sandy shale; light brownish-gray fine-grained sandstone
2230-2250	Shale and sandstone as above; containing fragments of dark brownish-gray very sandy slightly fossiliferous limestone
2250-2280	Shale, black, limy, slightly pyritic, granular; fossils
2280-2300	Shale, brownish-black; trace of fossils
2300-2320	Shale as above grading downward into white fine-grained sandstone
2320-2350	Sandstone, light- and dark-gray, fine-grained; shaly sandstone
2350-2380	Shale, black, granular
2380-2490	Shale, black
2490-2520	Sandstone, light-gray, fine-grained, free drilling; few fragments of white sandy limestone
2520-2530	Sandstone, medium-grained; light-gray limestone fragments as above
2530-2550	Sandstone, dark and light brownish-gray, very fine to fine-grained
2550-2560	Sandstone, light colored, loose
2560-2570	Shale, black; trace of white fine-grained sandstone fragments
2570-2620	Alternating beds of white fine-grained sandstone and shale
2620-2700	Shale, black, fissile
2700-2720	Limestone, light brownish-gray, very sandy, slightly fossiliferous
2720-2760	Sandstone, white, free-drilling
2760-2770	Shale, black; white fine-grained sandstone
2770-2810	Shale, black; white very fine grained sandstone
2810-2820	Sandstone, white, fine-grained; black shale
2820-2900	Sandstone, white, fine-grained
2900-2930	Sandstone, dark-gray, shaly, very fine grained
2930-3035	Sandstone, white, medium-grained
3035-3040	Sandstone, white, fine-grained; clear quartz grains; black shale
3040-3100	Sandstone, white, very fine grained; trace of black shale
3100-3121	Sandstone, gray, micaceous, slightly pyritic, very fine grained
3121-3150	Sandstone, light- to dark-gray, shaly, slightly micaceous, pyritic, very fine grained
3150-3153	Shale, black; gray fine-grained sandstone
3153-3156	Sandstone, white, fine-grained; clear quartz grains
3156-3170	Sandstone, white, medium-grained; worn fossil fragments
3170-3184	Sandstone, gray, shaly, pyritic, very fine grained
3184-3192	Sandstone, dark-brown and black, very fine grained; black shale; pyrite
3192-3200	Sandstone, dark-brown and black, very fine grained; dark-gray medium-grained sandstone
3200-3208	Sandstone, gray, very fine grained
3208-3214	Sandstone as above; black shale
3214-3222	Sandstone, light-gray, very fine grained; black shale
3222-3242	Sandstone, dark-gray, shaly, very fine grained
3242-3251	Sandstone, light-gray, medium-grained
3251-3269	Sandstone, dark-gray, very fine grained
3269-3316	Sandstone, dark-gray, slightly micaceous, very fine grained
3316-3321	Sandstone as above; black shale
3321-3328	Shale, dark-gray; sandy shale; gray shaly fine-grained sandstone
3328-3342	Sandstone, gray, shaly, micaceous, very fine grained
3342-3360	Sandstone, gray, shaly, fine-grained
3360-3368	Sandstone as above; black shale
3368-3389	Sandstone, dark-gray, shaly, fine-grained
3389-3400	Sandstone as above; black shale
3400-3436	Shale, black, sandy
3436-3445	Shale, black
3445-3453	Shale, black, sandy; fine-grained sandstone
3453-3463	Sandstone, dark-gray, slightly shaly, very fine grained
3463-3493	Shale, black, slightly sandy
3493-3530	Shale, black

## CLEBURNE COUNTY (1)

Operator: Cosden Oil Co.	Elevation: 750 ft.
Well No.: 1	Total depth: 4360 ft.
Lease: Donaphan Lumber Co.	Completion date: Oct. 17, 1930(?)
Location: SW ¼ SE ¼ sec. 19, T. 9 N., R. 10 W.	Logged by: E. R. Applin

### Formation tops

	Depth (ft.)
Rocks of Morrow group	2150
Jackfork sandstone	3035 (?)
Stanley shale	3724

Depth in feet	Sample description
At 157	Sandstone, light-gray, slightly micaceous, fine-grained
157- 175	(No samples) ?
175- 195	Sandstone, dark-gray and brownish-gray, slightly micaceous, fine-grained; dark gray shale
195- 205	Sandstone, very light gray, fine-grained; black shale
205- 210	(No samples)
210- 390	Sandstone, light-gray to white, fine-grained
390- 460	Sandstone, light- to dark-gray, very fine grained
460- 500	Sandstone, brownish-gray, shaly, micaceous, very fine grained
500- 515	Sandstone, light-gray, fine-grained
515- 565	Sandstone, dark brownish-gray and black, fine-grained; black shaly very fine grained sandstone at base
565- 635	Sandstone, gray, slightly shaly, micaceous, fine-grained, free drilling in part
635- 695	Sandstone, dark-gray, shaly, very fine grained
695- 715	Sandstone as above; black shale; clay ironstone
715- 725	Sandstone, light-gray; shale
725- 753	Shale, black, slightly sandy; numerous pebbles of clay ironstone
753-1270	Shale, black; sandy shale; clay ironstone pebbles; pyrite
1270-1290	Shale as above; light-gray fine-grained sandstone
1290-1360	Shale as above; gray and brownish-gray very fine grained sandstone; shaly sandstone
1360-1420	Shale, black
1420-1440	Shale, black; coarse-grained free-drilling sandstone; brownish-gray fine-grained sandstone
1440-1480	Shale, black
1480-1500	Shale as above; brown fine-grained sandstone
1500-1650	Shale, black
1650-1660	Shale as above; fragments of white sandy ash
1660-1770	Sandstone, light- to dark-gray, very fine grained
1770-1780	Shale, black, very slightly sandy; trace of brown dense shale
1780-1790	Sandstone, dark-gray, slightly micaceous, very fine grained
1790-1830	Alternating beds of dark-gray and light-gray very fine to fine-grained sandstone
1830-1870	Alternating beds of black shale and shaly very dark gray very fine grained sandstone
1870-1880	Sandstone, light-gray, fine-grained
1880-1900	Sandstone as above; dark-gray to black shale, sandy shale
1900-2030	Sandstone, light-gray, medium-grained; dark- to light brownish-gray fine-grained sandstone in middle of interval
2030-2040	(No samples)
2040-2080	Sandstone, dark brownish-gray, shaly, micaceous; sandy shale containing worn fossil fragments
2080-2110	Sandstone, light-gray, slightly shaly, very fine grained; fossil fragments as above
2110-2150	Sandstone, light-gray, medium-grained



Depth in feet	Sample description
3530-3532	Shale, black; trace of dark-brown sandy shale
3532-3558	Shale, black; dark-gray very fine grained sandstone increasing downward
3558-3563	Sandstone, gray, shaly, fine-grained
3563-3570	Sandstone, dark-gray, fine-grained
3570-3573	Sandstone, gray, slightly shaly, very fine grained
3573-3588	Sandstone, light-gray, fine-grained, free-drilling
3588-3611	Sandstone, light-gray, very fine grained
3611-3625	Shale, black
3625-3627	Shale, black; trace of brownish-gray very fine grained sandstone
3627-3640	Shale, black; trace of fossils; trace of dark-gray fine-grained sandstone and dark-brown sandy limestone fragments
3640-3651	Sandstone, dark-gray, shaly, fine-grained; dark-gray shale
3651-3688	Sandstone, dark-gray, shaly, medium-grained; dark-gray shale
3688-3699	Sandstone, light-gray, very fine grained; black shale
3699-3724	Sandstone, light-gray, very fine to coarse-grained; black shale
3724-3733	Shale, brownish-gray; very fine grained sandstone
3733-3756	Shale, black; brownish-gray shaly very fine grained sandstone
3756-3817	Shale, black, very finely sandy
3817-3845	Shale, black, very finely sandy; dark brownish-gray ironstone
3845-3910	Shale, black, slightly micaceous, carbonaceous; trace of pyrite
3910-3945	Shale as above; trace of very fine grained sandstone; trace of pyrite and fossils
3945-3950	Sandstone, dark-gray, very fine grained
3950-3988	Shale, black; trace of pyrite and fossils
3988-4025	Shale, black; trace of sand and pyrite
4025-4115	Shale, black
4115-4153	Shale, black; trace of pyrite and fossils
4153-4360	Shale, black (from drillers log)
4360	TOTAL DEPTH

## CLEBURNE COUNTY (2)

Operator: Donnelly, et al.	Elevation: 870 ft.
Well No.: 1	Total depth: 3790 ft.
Lease: Donaphan Lumber Co.	Completion date: Nov. 16, 1931
Location: SE ¼ SE ¼ NW ¼ sec. 33, T. 11 N., R. 9 W.	Logged by: E. E. Glick

### Formation tops

	Depth (ft.)
Rocks of Morrow group	467 (?)
Jackfork sandstone	1230 (?)
Stanley shale	1616
Boone formation equivalent	3000 (?)
Chattanooga shale equivalent	3230
Penters chert	3268
Silurian rocks undifferentiated	3359
Fernvale limestone	3378
Kimmswick (?) and Plattin limestones undifferentiated	3430
Joachim dolomite (?)	3660
St. Peter sandstone	3723

Depth  
in feet

#### Sample description

0-	20	Sandstone, white, very fine grained, free-drilling
20-	30	Sandstone, white to yellowish-gray, slightly dolomitic, very fine grained
30-	40	Sandstone, yellowish-gray, slightly dolomitic, fine-grained; limonite and mica
40-	50	Sandstone, medium- to dark-gray, finely micaceous, silty, slightly dolomitic, very fine grained
50-	60	Sandstone, medium- to light-gray, very fine to fine-grained
60-	75	Sandstone, light-gray, slightly dolomitic, fine-grained; trace of mica
75-	84	Shale, dark-gray, finely micaceous
84-	90	Sandstone, medium-gray, silty, siliceous, very fine to fine-grained
90-	100	Sandstone as above but slightly dolomitic
100-	110	Sandstone, medium-gray, slightly dolomitic, slightly silty, fine- to medium-grained
110-	113	Shale, dark-gray
113-	120	Sandstone, medium-gray, slightly silty, fine- to medium-grained; trace of glauconite
120-	130	Sandstone, white to cream-colored, slightly dolomitic, fine-grained, free-drilling
130-	140	Siltstone, medium-gray, micaceous; streaks of very fine grained sandstone
140-	145	Sandstone, light-gray to cream-colored, slightly dolomitic, very fine to fine-grained; mica
145-	150	Sandstone, white to cream-colored, slightly dolomitic, fine-grained, free drilling
150-	160	Sandstone, light-gray, slightly silty, slightly dolomitic, very fine to fine-grained; black shale
160-	170	Sandstone, light-gray to cream-colored, slightly limy and dolomitic, very fine grained
170-	190	Sandstone, white to cream-colored, slightly dolomitic, fine-grained
190-	203	Siltstone, dark-gray, micaceous
203-	210	Sandstone, light-gray, slightly dolomitic, medium- to very coarse grained
210-	220	Shale, dark-gray
220-	230	Shale, dark, micaceous
230-	240	Siltstone, dark-gray, micaceous
240-	260	Siltstone as above, and dolomitic

Depth in feet	Sample description
260- 270	Sandstone, cream-colored, slightly dolomitic, fine-grained
270- 285	Sandstone as above; dark-gray shale streaks
285- 305	Sandstone, cream-colored, slightly dolomitic, fine-grained; black shale streaks (20 ft. sample)
305- 350	Shale, dark-gray, slightly dolomitic, micaceous, silty (45 ft. sample)
350- 400	Sandstone, cream-colored, slightly dolomitic, fine-grained (50 ft. sample)
400- 480	Shale, black (30 ft. sample)
480- 487	Sandstone, cream-colored, limy, fine-grained (35 ft. sample)
487- 580	Shale, dark-gray to black (115 ft. sample)
580- 595	Sandstone, white, slightly dolomitic, fine-grained (15 ft. sample)
595- 600	Sandstone, white, slightly dolomitic, very fine to fine-grained
600- 604	Shale, dark-gray
604- 615	Sandstone, white, slightly dolomitic, very fine to fine-grained
615- 620	Sandstone, white, limy, fine- to medium-grained
620- 630	Shale, dark-gray
630- 635	Sandstone, white to light-gray, very fine to fine-grained
635- 670	Sandstone, white to light-gray, slightly dolomitic, fine- to medium-grained (35 ft. sample)
670- 680	(No samples)
680- 690	Sandstone, white, slightly dolomitic, fine- to medium-grained, free drilling
690- 715	Shale, dark-gray to black (25 ft. sample)
715- 725	(No samples)
725- 750	Sandstone, white to cream-colored, limy, dolomitic, fine- to medium-grained (25 ft. sample)
750- 760	Sandstone, light-gray, slightly dolomitic, very fine to fine-grained
760- 770	Siltstone, medium- to dark-gray, slightly dolomitic
770- 785	(No samples)
785- 805	Siltstone, medium-gray, very finely sandy, dolomitic
805- 810	Sandstone, cream-colored to buff, slightly dolomitic, fine- to medium-grained, free drilling
810- 815	Sandstone, cream-colored to buff, limy, dolomitic, fine-grained, free drilling
815- 835	Sandstone, light-gray, slightly dolomitic, fine-grained, free drilling
835- 845	Sandstone, light-gray, slightly limy, fine-grained, free drilling
845- 855	Sandstone, light-gray, slightly limy, fine- to medium-grained, free drilling
855- 865	Sandstone, light-gray, slightly limy and dolomitic, fine- to medium-grained
865- 870	Sandstone, cream-colored, dolomitic, fine- to medium-grained, free drilling
870- 900	Sandstone, light-gray, very limy, fine- to medium-grained; gray dense limestone streaks (15 ft. sample)
900- 920	Sandstone, cream-colored, very limy, fine- to medium-grained
920- 930	Sandstone, light-gray to cream-colored, very limy, fine- to medium-grained; gray dense limestone
930- 932	(No samples)
932- 960	Sandstone, white to cream-colored, slightly dolomitic, fine-grained
960- 970	Shale, dark-gray, finely micaceous
970-1005	Siltstone, dark, finely micaceous; very fine grained sandstone
1005-1118	Sandstone, cream-colored, slightly dolomitic, fine- to medium-grained
1118-1135	Siltstone, medium-gray, finely micaceous
1135-1160	Siltstone, medium-gray, finely micaceous; dark-gray shale
1160-1185	Sandstone, white to light-gray, dolomitic, limy, fine- to medium-grained
1185-1200	Sandstone, white, dolomitic, fine-grained
1200-1220	Sandstone, white, dolomitic, very fine to fine-grained
1220-1230	Sandstone, white, slightly dolomitic, very fine grained
1230-1270	Siltstone, medium- to dark-gray, finely micaceous, very finely sandy
1270-1300	Sandstone, medium- to light-gray, finely micaceous, silty, very fine grained
1300-1316	Sandstone, medium- to light-gray, finely micaceous, silty, limy, very fine grained
1316-1346	Shale, dark, finely micaceous
1346-1358	(No samples)
1358-1380	Sandstone, cream-colored, slightly dolomitic, very fine grained
1380-1396	Shale, dark-gray, finely micaceous
1396-1400	Sandstone, light-gray, very fine grained
1400-1415	Shale, dark-gray
1415-1445	Sandstone, light-gray, limy, dolomitic, very fine grained, free drilling

Depth in feet	Sample description
1445-1455	Sandstone, light-gray, slightly dolomitic, fine-grained; black shale streak
1455-1460	Sandstone, light-gray, slightly limy and dolomitic, very fine grained
1460-1470	Sandstone, white, fine-grained, free drilling
1470-1480	Sandstone, light- to medium-gray, silty, slightly dolomitic, fine- to medium-grained
1480-1490	Sandstone, cream-colored, fine-grained, free drilling
1490-1505	Sandstone, cream-colored, dolomitic, very fine grained
1505-1510	Sandstone, light-gray, slightly dolomitic, very fine grained
1510-1515	Sandstone, cream-colored, slightly dolomitic, slightly limy, fine-grained
1515-1530	Sandstone, cream-colored, slightly dolomitic, fine-grained (15 ft. sample)
1530-1535	Siltstone, dark-gray, finely micaceous
1535-1560	Shale, dark-gray, finely micaceous (25 ft. sample)
1560-1600	Sandstone, cream-colored, slightly dolomitic, very fine to fine-grained, free drilling
1600-1616	Sandstone, white to cream-colored, fine-grained, free drilling
1616-1620	Siltstone, light- to medium-gray, very finely sandy
1620-1650	Siltstone, medium-gray
1650-1685	Siltstone, medium-gray, finely micaceous; black shale streaks
1685-1700	Shale, dark-gray, fissile
1700-1725	Shale as above (25 ft. sample)
1725-1760	Shale, dark-gray, finely micaceous (35 ft. sample)
1760-1778	Shale, dark-gray; medium-gray finely micaceous siltstone
1778-1860	Shale, black, fissile (80 ft. sample)
1860-1875	(No samples)
1875-1950	Shale, black, fissile; pyrite (75 ft. sample)
1950-2085	Shale, dark-gray to black, fissile (135 ft. sample)
2085-2130	Shale, black, fissile
2130-2180	Shale, black, fissile (50 ft. sample)
2180-2255	Shale, black, fissile (25 ft. sample)
2255-2465	Shale, black, slightly pyritic
2465-2585	Shale, black; brachiopod(?) fragments; pyrite
2585-2610	Shale, black; dark-gray siltstone; pyrite
2610-2680	Shale, black
2680-2790	Shale, black; dark-gray finely micaceous siltstone; trace of pyrite
2790-2820	Shale, black; pyrite
2820-2930	Shale, black
2930-2950	Shale, black; light-gray siltstone
2950-2960	Shale, black; trace of light-gray siltstone
2960-3000	Shale, black
3000-3020	Shale, black; medium- to dark-gray limy siltstone
3020-3040	Siltstone, medium-gray, very limy
3040-3055	Shale, black
3055-3065	Shale, dark-gray, limy, silty
3065-3075	Shale, dark-gray, slightly limy
3075-3085	Shale, dark-gray, limy, silty
3085-3100	Limestone, light brownish-gray; abundant white to light-gray spicular dense chert; light grayish-brown porous chert
3100-3105	Limestone, light-gray, very cherty; white dense spicular chert; dolocastic chert
3105-3110	As above and much light-gray and medium-gray mottled dolocastic chert
3110-3135	Limestone, light-gray, very cherty; white dense spicular chert; light grayish-brown dolocastic chert; black shale
3135-3140	As above and pyritic chert
3140-3160	Limestone, light-gray, very cherty, slightly dolomitic; mottled light-gray and medium-gray limy and dolomitic chert; white dense chert; black shale
3160-3170	As above and mottled spicular limy chert
3170-3210	Limestone, light-gray, very cherty; light- and medium-gray mottled limy chert; light-gray limy chert; black shale
3210-3230	Limestone, light- to medium-gray, very cherty; trace of black shale

Depth in feet	Sample description
3230-3233	Shale, grayish-green, slightly limy
3233-3240	Shale, black, very siliceous in part
3240-3268	Shale, black, siliceous in part; black chert
3268-3278	Limestone, light brownish-gray; white, cream-colored, and gray dense chert; trace of porous chert; quartz crystals
3278-3300	Limestone, brownish-gray, cherty; white, cream-colored, and gray translucent chert; black shale
3300-3330	Shale, dark-gray to black, slightly limy; grayish-brown translucent chert; dark-gray to black chert; pyrite
3330-3359	As above and medium-gray cherty limestone
3359-3361	Limestone, pink and white, medium- to coarsely crystalline; crinoid (?) fragments
3361-3373	Limestone, pink and white and very light gray, medium-crystalline; crinoids; ostracods; pyrite
3373-3378	Sandstone, light-gray, limy, very pyritic, very fine grained; glauconite
3378-3380	Limestone, pinkish-white, medium-crystalline
3380-3400	Limestone, pink and white, medium- to coarsely-crystalline; glauconite; crinoids; pyrite
3400-3405	Limestone, pinkish-white to very light gray, medium-crystalline
3405-3410	Limestone as above
3410-3430	Limestone, pinkish-white to very light gray, medium-crystalline; pyrite
3430-3440	Limestone, very light gray to white, finely granular to finely crystalline; trace of smoky gray dense chert
3440-3445	Limestone, cream-colored, very finely granular; milky white smoky dense chert; pyrite
3445-3450	Limestone, light-gray, very finely granular to finely crystalline; smoky dense chert
3450-3465	Limestone, light-gray and medium-gray mottled, medium-crystalline; crinoids
3465-3475	Limestone, light brownish-gray, very finely granular; ostracods
3475-3490	Limestone, brownish-gray, very finely granular to dense
3490-3505	Limestone, brownish-gray, very finely granular to dense; cream-colored and gray dense chert; pyrite
3505-3520	Limestone, brownish-gray, very finely granular; trace of light-gray translucent chert
3520-3525	Limestone, medium-gray to brownish-gray, finely to medium-crystalline
3525-3530	Limestone, light brownish-gray, very finely crystalline; crinoids
3530-3545	Limestone, light- to medium-gray, very finely granular
3545-3560	Limestone, medium-gray, very finely granular to dense
3560-3575	Limestone, grayish-brown, very silty, finely crystalline; pyrite
3575-3590	Limestone as above; light brownish-gray very finely granular to dense limestone
3590-3610	Limestone, medium-gray, very finely granular; trace of grayish-brown very silty limestone
3610-3630	Limestone, light- to medium-gray, very finely granular; pyrite
3630-3640	Limestone, medium-gray, very finely granular to dense; pyrite
3640-3655	Limestone, light- to medium-gray, very finely granular to dense; pyrite
3655-3660	Shale, light greenish-gray, coarsely sandy; pyrite
3660-3670	Dolomite, light-gray, very finely crystalline, limy, slightly sandy
3670-3680	Dolomite, light-gray to yellowish-gray, coarsely sandy, very finely crystalline
3680-3690	Dolomite, cream-colored to light-gray, coarsely sandy, finely granular to very finely crystalline
3690-3695	Dolomite, cream-colored, very finely granular; pyrite
3695-3705	Dolomite, cream-colored, medium sandy, very finely crystalline to finely granular
3705-3723	Dolomite, medium-gray, medium sandy, finely granular
3723-3736	Sandstone, white to light-gray, dolomitic, fine- to medium-grained, free drilling in part
3736-3750	Dolomite, light-gray, finely to medium sandy, finely granular
3750-3760	Dolomite, light brownish-gray, finely to medium sandy, finely granular
3760-3777	Sandstone, light brownish-gray, very dolomitic, fine- to medium-grained
3777-3781	Dolomite, light brownish-gray, finely to medium sandy
3781-3785	Sandstone, light-gray to white, dolomitic, siliceous, very fine to medium-grained
3785-3790	Sandstone, white, siliceous
3790	TOTAL DEPTH

## CONWAY COUNTY (1)

Operator: Bergstrom-Butler Assoc.	Elevation: 350 ft.
Well No.: 1	Total depth: 5122 ft.
Lease: Sadler	Completion date: Oct. 5, 1952
Location: SE ¼ SE ¼ NW ¼ sec. 5, T. 5 N., R. 17 W.	Logged by: S. E. Frezon

Depth in feet	Sample description
0- 35	(No samples)
35- 40	Mud, pale yellowish-brown, medium to coarsely sandy
40- 55	Sand, light-gray to light yellowish-gray, medium to very coarse, feldspathic
55- 65	Shale, dark-gray, micaceous, silty
65- 95	Shale, dark-gray, finely micaceous, silty
95- 100	Shale as above with pelecypods
100- 120	Shale, dark-gray, very finely micaceous
120- 121	Coal
121- 125	Shale, dark-gray, finely to medium sandy, finely micaceous
125- 180	Shale, dark-gray, finely micaceous
180- 210	Shale, dark-gray to black, very finely micaceous
210- 370	Shale, dark-gray, finely micaceous, silty
370- 450	Shale, dark-gray, very finely micaceous
450- 538	Shale, dark-gray, finely micaceous, silty
538- 543	Shale as above; slightly pyritic
543- 600	Shale, dark-gray, very finely micaceous; some silty zones
600- 618	Shale, dark-gray, finely micaceous
618- 622	Shale as above; thin stringers of pyritic coal
622- 630	Shale, dark-gray, finely micaceous, very finely to finely sandy, silty
630- 652	Shale, dark-gray, very finely micaceous, silty
652- 655	Limestone, very light gray, finely granular to medium-crystalline
655- 745	Shale, dark-gray, micaceous
745- 770	Shale as above; trace of very fine to fine-grained sandstone
770- 830	Shale, dark-gray, micaceous
830- 835	Shale, dark-gray, micaceous, very finely to finely sandy
835- 885	Shale, dark-gray, finely micaceous, slightly silty; very thin stringers of coal 75-80 ft.
885- 895	Shale, dark-gray, finely micaceous; very light gray finely granular to finely crystalline dolomite
895-1020	Shale, dark-gray, finely micaceous, slightly silty
1020-1025	Shale as above; trace of light-gray very fine to fine-grained sandstone
1025-1180	Shale, dark-gray, very finely micaceous
1180-1205	Sandstone, gray to very light gray, very fine to fine-grained, silty, micaceous; dark-gray finely micaceous shale stringers
1205-1216	Shale, dark-gray, finely micaceous
1216-1226	Sandstone, dark-gray, silty, finely micaceous, very fine to fine-grained; dark-gray finely micaceous shale stringers
1226-1250	Shale, dark-gray, finely micaceous
1250-1260	Shale as above; dark-gray very fine to fine-grained sandstone
1260-1565	Shale, dark-gray and black, finely micaceous, slightly silty in part
1565-1580	Shale as above; trace of coarsely crystalline calcite
1580-1600	Shale, dark-gray, finely micaceous
1600-1610	Shale, dark-gray; trace of fine mica
1610-1655	Shale, dark-gray, micaceous
1655-1659	Limestone, pale-olive, slightly silty, finely granular to finely crystalline
1659-1700	Shale, dark-gray, finely micaceous, slightly silty
1700-1710	Shale as above, slightly limy
1710-1880	Shale, dark-gray, finely micaceous

Depth in feet	Sample description
1880-1885	(No samples)
1885-1975	Shale, dark-gray, finely micaceous
1975-2000	Sandstone, gray, silty, fine-grained
2000-2029	Sandstone, gray to dark-gray and green, micaceous; dark-gray micaceous shale stringers
2029-2223	Shale, dark-gray, micaceous, silty
2223-2230	(No samples)
2230-2240	Shale as above
2240-2260	Sandstone, dark-gray, silty, micaceous, very fine grained
2260-2290	Sandstone, dark-gray, silty, micaceous, very fine grained; dark-gray silty micaceous shale
2290-2308	Shale, dark-gray, finely micaceous, very silty; dark-gray micaceous very fine to fine-grained sandstone
2308-2470	Shale, dark-gray, finely micaceous
2470-2480	Shale, dark-gray to black, finely micaceous, silty; silty very fine grained sandstone
2480-2735	Shale, dark-gray, finely micaceous, silty
2735-2740	Shale, dark-gray; trace of very fine mica
2740-2760	Shale, dark-gray, finely micaceous
2760-2775	Shale, dark-gray, finely micaceous interbedded with gray very fine to fine-grained sandstone
2775-2795	Shale and sandstone as above; coal stringers
2795-2820	Shale, dark-gray, finely micaceous, silty; gray to dark-gray micaceous silty very fine to fine-grained sandstone
2820-2850	Shale, dark-gray, silty, micaceous, interbedded with gray to dark-gray silty very fine to fine-grained sandstone
2850-2860	Sandstone, gray, silty, very fine to fine-grained
2860-2865	Shale, dark-gray, finely micaceous, silty
2865-2880	Shale as above, and sandy; very fine to fine-grained sandstone
2880-2900	Shale, dark-gray, finely micaceous, silty
2900-2930	Shale, dark-gray, micaceous, silty; dark-gray micaceous very fine to fine-grained sandstone
2930-2950	Shale, dark-gray, finely micaceous, silty
2950-3021	Sandstone, dark-gray, micaceous, silty, very fine to fine-grained; thin beds of dark-gray micaceous silty shale
3021-3125	Shale, dark-gray, finely micaceous, very silty
3125-3140	Shale as above; light-gray to white finely granular to medium-crystalline mineral dolomite
3140-3150	Shale, dark-gray, finely micaceous, slightly silty
3150-3180	Shale, dark-gray, finely micaceous, very silty; trace of very fine to fine-grained sandstone
3180-3227	Shale, dark-gray, finely micaceous, slightly silty
3227-3232	Dolomite, light-gray to very light gray, finely granular to finely crystalline
3232-3577	Shale, dark-gray, finely micaceous, slightly silty
3577-3590	Sandstone, gray, finely micaceous, silty, very fine grained; dark-gray finely micaceous silty shale
3590-3615	Shale, dark-gray, finely micaceous, very silty; gray silty very fine grained sandstone
3615-3685	Shale, dark-gray, finely micaceous, slightly silty
3685-3694	Shale as above; trace of dark-gray very fine grained sandstone
3694-3700	Shale, dark-gray, finely micaceous, slightly silty
3700-3760	Shale, dark-gray, finely micaceous, very silty, dark-gray very fine grained sandstone
3760-3770	Sandstone, gray, very silty, micaceous, very fine grained
3770-3790	Shale, dark-gray, very silty, finely micaceous, slightly sandy
3790-3808	Shale, dark-gray, very silty, finely micaceous
3808-3816	Shale as above; silty, very fine grained sandstone
3816-3841	Sandstone, dark-gray, micaceous, very silty, very fine to fine-grained; dark-gray finely micaceous shale stringers
3841-3847	Shale, dark-gray, finely micaceous, very silty, slightly sandy
3847-3856	Sandstone, dark-gray, finely micaceous, very silty; very fine to fine-grained; dark-gray finely micaceous shale
3856-3890	Shale, dark-gray, finely micaceous, very silty
3890-4000	Sandstone, dark-gray, very silty; very fine grained; dark-gray finely micaceous silty shale
4000-4032	Sandstone, dark-gray, micaceous, silty, very fine to fine-grained; dark-gray, finely micaceous, silty shale
4032-4039	(No samples)
4039-4125	Sandstone and shale as above

Depth in feet	Sample description
4125-4135	Shale, dark-gray, finely micaceous, very silty, very finely to finely sandy
4135-4150	Sandstone, dark-gray, micaceous, slightly silty, very fine to fine-grained; shale as above
4150-4182	Shale as above
4182-4244	Sandstone, gray to dark-gray, micaceous, silty, very fine grained; dark-gray micaceous silty shale
4244-4249	(No samples)
4249-4272	Sandstone and shale as above
4272-4277	(No samples)
4277-4290	Sandstone and shale as above
4290-4328	Sandstone, dark-gray, micaceous, silty, very fine grained; dark-gray micaceous silty shale
4328-4358	Shale, dark-gray, finely micaceous, very silty; micaceous silty very fine grained sandstone
4358-4370	Shale, dark-gray, finely micaceous, very silty; gray silty very fine grained sandstone
4370-4400	Shale, dark-gray, finely micaceous, very silty
4400-4420	Shale as above; dark-gray silty finely micaceous very fine grained sandstone
4420-4428	Sandstone as above
4428-4425	Shale, dark-gray, finely micaceous, very silty
4425-4430	(No samples)
4430-4463	Sandstone and shale as above
4463-4465	(No samples)
4465-4540	Shale, dark-gray, finely micaceous, very silty; dark-gray silty very fine grained sandstone
4540-5122	Shale, dark-gray, finely micaceous, slightly silty
5122	TOTAL DEPTH



## CONWAY COUNTY (2)

Operator: Carter Oil Co.	Elevation: 814 ft.
Well No.: 1	Total depth: 3794 ft.
Lease: C. T. Williams	Completion date: Nov. 5, 1953
Location: NW ¼ SE ¼ sec. 1, T. 9 N., R. 16 W.	Logged by: W. A. Chisholm

### Formation tops

	Depth (ft.)
Bloyd shale	770
Kessler limestone member of the Bloyd shale	902
Brentwood limestone member of the Bloyd shale	1147
Prairie Grove member of the Hale formation	1347
Cane Hill member of the Hale formation	1622
Fayetteville shale (Top of Stanley shale equivalent)	1952
Batesville sandstone, Ruddell shale, and Moorefield formation	2696
Boone formation	2800(?)
Chattanooga shale	3190
Penters chert	3208
Silurian rocks undifferentiated	3370
Cason shale(?)	3492
Fernvale limestone(?)	3494
Kimmswick(?) and Plattin limestones	3550
Joachim dolomite(?)	3654
St. Peter sandstone	3670
Everton formation	3780

Depth in feet	Sample description
0- 10	Sandstone, light-gray, fine- to coarse-grained
10- 20	Sandstone, light-gray, very fine to medium-grained; medium-gray siltstone
20- 30	Shale, dark-gray; light-gray very fine to fine-grained sandstone; medium dark-gray siltstone
30- 40	Shale, dark-gray; light-gray fine- to coarse-grained sandstone
40- 50	Shale, dark-gray
50- 60	Shale, dark-gray; light-gray very fine to fine-grained sandstone
60- 70	Sandstone, light-gray, very fine to coarse-grained; dark-gray shale
70- 80	Sandstone, light-gray, very fine to medium-grained; dark-gray shale
80- 270	(No samples)
270- 279	Shale, dark-gray
279- 281	Sandstone, light-gray, very fine to fine-grained
281- 290	Shale, dark-gray
290- 296	Sandstone, very light gray, fine-grained
296- 302	Shale, dark-gray
302- 310	Sandstone, very light gray, fine-grained
310- 337	Sandstone as above; dark-gray shale

Depth in feet	Sample description
337- 346	Shale, dark-gray
346- 349	Sandstone, light-gray, very fine grained
349- 350	Shale, dark-gray
350- 360	Shale, dark-gray; light-gray siltstone
360- 380	Shale, dark-gray
380- 384	Sandstone, medium light gray, fine-grained
384- 385	Shale, dark-gray
385- 386	Sandstone, medium light gray, fine-grained
386- 400	Shale, dark-gray
400- 410	(No samples)
410- 470	Shale, dark-gray
470- 490	(No samples)
490- 540	Shale, dark-gray
540- 545	Shale, dark-gray; trace of pyrite and very fine grained sandstone
545- 603	Shale, dark-gray
603- 614	Sandstone, very light to medium-gray, silty, very fine to fine-grained; trace of pyrite
614- 710	Shale, dark-gray
710- 720	Sandstone, light-gray, slightly limy, silty, very fine to fine-grained
720- 730	Sandstone, light-gray, fine-grained
730- 740	Sandstone, light- to medium-gray, very fine to fine-grained; dark-gray shale
740- 750	Sandstone, medium light gray, very fine to fine-grained; dark-gray shale
750- 760	Sandstone, light-gray, fine-grained
760- 770	Sandstone, light-gray, very fine to fine-grained
770- 773	Shale, dark-gray
773- 778	Shale, dark-gray; dark-gray sandy siltstone
778- 780	(No samples)
780- 785	Shale and siltstone as above
785- 795	Shale, dark-gray
795- 800	Shale, dark-gray; light-gray fine-grained sandstone
800- 805	Shale, dark-gray
805- 810	Shale and sandstone as above
810- 820	Sandstone, light- to medium light gray, very fine to fine-grained; dark-gray shale
820- 825	Shale, dark-gray
825- 830	Siltstone, brownish-gray, very limy
830- 835	Siltstone, dark-gray, very finely sandy
835- 838	Sandstone, silty, very fine grained
838- 844	Siltstone, dark-gray, very finely sandy
844- 875	Shale, dark-gray
875- 880	Siltstone, medium-gray, very finely sandy
880- 902	Shale, dark-gray
902- 910	Limestone, dark brownish-gray, very sandy, finely to medium-crystalline; spines and brachiopod fragments
910- 920	Sandstone, medium-gray, very limy, very fine to fine-grained
920- 930	Sandstone as above; dark-gray shale
930- 940	Limestone, medium dark brownish-gray, very sandy, finely to medium-crystalline; crinoid fragments; spines
940- 950	As above, with brachiopod fragments
950- 953	Limestone
953- 962	Shale, dark-gray
962- 987	Sandstone, very light gray, very fine to fine-grained
987- 995	Shale, dark-gray
995-1000	Sandstone, very light gray, very fine to coarse-grained
1000-1005	Siltstone, olive-gray
1005-1037	Shale, dark-gray
1037-1042	Sandstone, very light gray, very fine grained
1042-1050	Shale, dark-gray
1050-1051	Sandstone, light-gray, very fine grained

Depth in feet	Sample description
1051-1060	Shale, dark-gray
1060-1070	Shale, dark-gray; dark-gray siltstone
1070-1120	Shale, dark-gray
1120-1130	(No samples)
1130-1147	Shale, dark-gray
1147-1150	Limestone, dark brownish-gray, very silty, finely to medium-crystalline
1150-1160	Limestone, medium light brown to dark-brown, silty, finely to medium-crystalline; crinoid fragments
1160-1170	Sandstone, light-gray, limy, very fine grained
1170-1180	(No samples)
1180-1190	Siltstone, medium light gray, very finely sandy
1190-1200	Shale, dark-gray
1200-1220	Sandstone, light brownish-gray, limy, very fine to fine-grained
1220-1260	Alternating beds of light brownish-gray limy fine-grained sandstone and dark-gray shale
1260-1270	Sandstone, medium light gray, limy, very fine to fine-grained
1270-1280	Sandstone as above; dark-gray shale
1280-1290	Sandstone, medium-gray, limy, very fine grained; dark-gray shale
1290-1300	Siltstone, medium light gray, slightly limy
1300-1306	Shale, dark-gray
1306-1310	Siltstone, medium-gray, very finely sandy
1310-1347	Shale, dark-gray
1347-1360	Sandstone, medium light gray, very limy, very fine grained; glauconite
1360-1370	Sandstone, medium light gray, very limy, very fine grained
1370-1400	Sandstone, medium light gray, slightly limy, very fine grained
1400-1410	Sandstone, medium light gray, slightly limy, very fine to fine-grained
1410-1420	Sandstone, medium light gray, slightly limy, very fine to fine-grained; trace of glauconite
1420-1440	Sandstone, medium light gray, limy very fine to fine-grained; glauconite; dark-gray shale
1440-1447	Siltstone, medium light gray to medium gray, very finely sandy, slightly limy
1447-1453	Shale, dark-gray
1453-1456	Siltstone, medium- to dark-gray, sandy
1456-1460	Sandstone, medium- to medium light gray, very fine to fine-grained; glauconite
1460-1490	Sandstone, medium light gray, slightly limy, very fine to fine-grained; glauconite
1490-1500	Sandstone, medium light gray, slightly limy, very fine to medium-grained
1500-1510	Sandstone, light-gray, slightly limy, fine- to very coarse grained
1510-1520	Sandstone, light-gray, slightly limy, fine- to very coarse grained
1520-1530	Sandstone, light-gray, limy, very fine to coarse-grained
1530-1548	Sandstone, medium light gray, limy, very fine to fine-grained
1548-1558	Shale, dark-gray
1558-1570	Sandstone, light-gray, very fine to medium-grained
1570-1580	Sandstone, light-gray, slightly limy, fine- to medium-grained; pyrite
1580-1590	Sandstone, light-gray, fine- to medium-grained; pyrite
1590-1622	Sandstone, light brownish-gray, limy, very fine to fine-grained
1622-1635	Shale, dark-gray
1635-1640	Siltstone, light-gray, very finely sandy
1640-1645	Siltstone, medium light gray to medium-gray
1645-1652	Siltstone, medium light gray to medium-gray; trace of dark-gray shale
1652-1663	Shale, dark-gray
1668-1668	Siltstone, medium light gray
1668-1923	Shale, dark-gray
1923-1952	Sandstone, light-gray, slightly limy, very fine to fine-grained
1952-1968	Shale, dark-gray
1968-1974	Sandstone, medium light gray, slightly limy, very fine to fine-grained
1974-2006	Shale, dark-gray
2006-2010	Sandstone, medium-gray, very fine to fine-grained
2010-2017	Sandstone, medium-gray, very silty, very fine grained
2017-2370	Shale, dark-gray
2370-2380	Shale, dark-gray; trace of pyrite

Depth in feet	Sample description
2380-2410	Shale, dark-gray
2410-2420	Shale, dark-gray, slightly limy
2420-2430	Shale, dark-gray
2430-2480	Shale, dark-gray, slightly limy
2480-2490	Shale, dark-gray, slightly limy; dark-gray limestone lenses; pyrite
2490-2520	Shale, dark-gray, slightly limy
2520-2540	Shale, dark-gray
2540-2550	Shale, dark-gray, limy
2550-2570	Shale, dark-gray, slightly limy
2570-2580	Shale, dark-gray
2580-2590	Shale, dark-gray, limy; thin beds of dark brownish-gray, silty limestone; pyrite
2590-2610	Shale, dark-gray, limy
2610-2620	Shale, dark-gray, slightly limy
2620-2630	Shale, dark-gray
2630-2690	(No samples)
2690-2696	Shale, dark-gray, slightly limy
2696-2700	Shale, dark-gray, slightly limy; very dark gray slightly limy sandstone in matrix of shale
2700-2720	Limestone, medium light gray to medium-gray, silty, oolitic, very finely granular; brachiopod and crinoid fragments
2720-2740	Shale, dark-gray, limy
2740-2760	Shale, dark-gray, slightly limy
2760-2770	Shale, dark-gray, slightly limy, silty
2770-2800	Shale, dark-gray, limy; trace of limestone
2800-2820	(No samples)
2820-2870	Limestone, light brownish-gray, siliceous, very finely granular; light brownish-gray dense chert
2870-2900	Limestone and chert as above; crinoid fragments
2900-2910	Limestone, light-gray to brownish-gray, siliceous, very finely granular; light brownish-gray dense chert; crinoid fragments
2910-2920	Limestone, medium light gray to brownish-gray, very finely granular; light brownish-gray to brownish-gray chert
2920-2925	Limestone, light brownish-gray, very finely granular; light brownish-gray chert
2925-2930	Limestone, medium light brownish-gray to brownish-gray, siliceous, very finely granular
2930-2940	Limestone as above; light brownish-gray chert; crinoid fragments 2930-35 ft.
2940-2950	Limestone, light brownish-gray to brownish-gray, mottled, siliceous, finely granular; chert as above
2950-2970	Limestone as above; dark brownish-gray chert; crinoid fragments
2970-2990	Limestone, light brownish-gray, finely crystalline
2990-3000	Limestone, light brownish-gray to brownish-gray, finely granular; trace of smoky gray chert
3000-3035	Limestone, light to medium brownish-gray, finely granular
3035-3040	Limestone, light to medium brownish-gray, finely granular; trace of brownish-gray dense chert
3040-3080	Limestone as above; chert as above but more abundant
3080-3150	Limestone, light-gray to brownish-gray, finely granular; light brownish-gray to smoky gray dense chert
3150-3170	Limestone, light brownish-gray to medium-gray, finely granular; brownish-gray dense chert
3170-3190	Limestone, light brownish-gray, finely granular; light brownish-gray and smoky gray dense chert, increasing downward
3190-3200	Shale, dark-gray; trace of pyrite; light greenish-gray slightly limy siltstone
3200-3208	Shale, dark-gray
3208-3230	Chert, very dark gray, slightly limy, dense
3230-3240	Chert, very dark brownish-gray, slightly limy, dense; trace of quartz crystals
3240-3248	Chert, dark-gray, very dolomitic
3248-3275	Chert, very dark brownish-gray, limy, dense
3275-3295	Chert, medium brownish-gray, dense; medium light gray finely granular limestone
3295-3300	Chert, medium brownish-gray to medium light brownish-gray, dense; medium light gray finely granular limestone
3300-3310	Chert, medium light brownish-gray, dense
3310-3352	Chert, medium light brownish-gray to medium light smoky gray, dense
3352-3355	Limestone, light-gray, finely granular; chert as above

Depth in feet	Sample description
3355-3370	Limestone, light-gray to medium light gray, finely granular; chert as above
3370-3382	Limestone, light- to medium-gray, dolomitic, silty, finely granular; trace of pyrite
3382-3390	Limestone as above; brachiopod fragment
3390-3440	Limestone as above
3440-3450	Limestone, light brownish-gray, finely granular, with pink rhombs; light brownish-gray to red brownish-gray finely granular limestone
3450-3460	Limestone, light brownish-gray to red brownish-gray, finely granular
3460-3475	Limestone, medium light brownish-gray, finely granular, with pink rhombs; light-gray finely granular limestone
3475-3480	Limestone, light-gray to light pinkish-gray, finely granular to finely crystalline, with pink rhombs
3480-3485	Limestone as above; crinoid fragments
3485-3490	Limestone, very light gray, finely granular; numerous pink calcite patches and rhombs
3490-3492	Limestone, reddish-brown, silty, finely granular
3492-3494	Siltstone, green, limy
3494-3520	Limestone, very light gray, finely crystalline, with pink crystals
3520-3525	Limestone, white, finely crystalline
3525-3530	Limestone, medium light gray, finely granular
3530-3545	Limestone, light-gray to medium light brownish-gray, very finely to finely granular
3545-3550	Limestone, very light gray, finely granular
3550-3560	Limestone, dark brownish-gray, very finely granular
3560-3565	Limestone, dark brownish-gray, slightly oolitic, very finely granular; brachiopod fragments
3565-3570	Limestone, medium dark brownish-gray, very finely granular; pyrite crystals
3570-3575	Limestone, medium dark brownish-gray, very finely granular
3575-3580	Limestone, medium dark brownish-gray, slightly oolitic, very finely granular
3580-3585	Limestone, brownish-gray, very finely granular
3585-3600	Limestone, medium dark gray, very finely granular
3600-3605	Limestone, medium dark gray, very finely granular; medium-gray dense chert containing pyrite
3605-3610	Limestone, medium dark gray, very finely granular; smoky gray dense chert
3610-3640	Limestone, medium dark gray, very finely granular
3640-3646	Dolomite, medium light gray, finely granular
3646-3654	Limestone, medium-gray, very finely granular
3654-3670	Dolomite, light- to medium-gray, finely to medium sandy, finely granular
3670-3680	Sandstone, medium light gray, dolomitic, fine- to medium-grained
3680-3690	Sandstone, white to light-gray, slightly dolomitic, fine- to medium-grained
3690-3715	Sandstone, very light gray, medium-grained
3715-3770	Sandstone, very light gray, fine- to medium-grained; trace of pyrite crystals 3715-20 ft.
3770-3775	Sandstone, medium light gray, fine-grained
3775-3777	Dolomite, medium dark gray, very finely granular
3777-3780	Sandstone, medium light gray, fine-grained
3780-3790	Dolomite, medium dark gray, fine-grained; patches of clear calcite crystals
3790-3794	Dolomite, medium dark gray, finely crystalline
3794	TOTAL DEPTH

**CRAWFORD COUNTY (1)**

<b>Operator:</b> Industrial Oil and Gas Co.	<b>Elevation:</b> 470 ft.
<b>Well No.:</b> 3	<b>Total depth:</b> 6576 ft.
<b>Lease:</b> Williams	<b>Completion date:</b> July 15, 1941
<b>Location:</b> NE ¼ NW ¼ sec. 6, T. 8 N., R. 30 W.	<b>Logged by:</b> R. J. Lantz

**Formation tops**

	Depth (ft.)
Bloyd shale	5225
Kessler limestone member of the Bloyd shale	5262 (?)
Brentwood limestone member of the Bloyd shale	5423
Prairie Grove member of the Hale formation	5529
Cane Hill member of the Hale formation	5608
Pitkin limestone	5778
Fayetteville shale	5963
Batesville sandstone, Ruddell shale, and Moorefield formation undifferentiated	6082
Boone formation	6160
Chattanooga shale	6382
Penters chert	6408
Silurian rocks undifferentiated	6479 (?)

Depth in feet	Sample description
0-4610	(No samples)
4610-4615	Siltstone, gray, shaly, finely micaceous
4615-4617	Shale, black, finely micaceous
4617-4620	Sandstone, fine-grained, free drilling; grayish-white silt
4620-4632	Shale, black, finely micaceous
4632-4636	Sandstone, light-gray, fine-grained
4636-4640	Shale, black, finely micaceous
4640-4641	Sandstone, gray, fine-grained
4641-4657	Shale, black, finely micaceous
4657-4658	Sandstone, gray to light-gray, very fine to fine-grained
4658-4666	Shale, black, finely micaceous
4666-4670	Siltstone, gray, micaceous to fine, free drilling in part
4670-4680	Sandstone, gray to light-gray, very fine to fine-grained, free drilling
4680-4701	Sandstone, fine-grained, free drilling in part; gray siltstone
4701-4707	Shale, black, micaceous, silty
4707-4713	Siltstone, dark-gray, micaceous, shaly
4713-4714	Shale, gray
4714-4724	Siltstone, gray, micaceous; fine-grained silty free drilling sandstone
4724-4725	Shale, black
4725-4728	Silt, light-gray; fine-grained free drilling sandstone
4728-4730	Shale, black
4730-4734	Silt, light-gray; fine-grained sandstone
4734-4737	Shale, black
4737-4744	(No samples)

<b>Depth in feet</b>	<b>Sample description</b>
4744-4757	Siltstone, gray, slightly micaceous; very fine grained free drilling sandstone
4757-4776	Shale, black, very finely micaceous
4776-4779	Siltstone, gray, micaceous
4779-4786	Shale, black, very finely micaceous
4786-4789	Siltstone, gray, micaceous; very fine grained sandstone
4789-4793	Shale as above
4793-4797	Sandstone, white, fine-grained, free drilling in part
4797-4801	Shale as above
4801-4802	(No samples)
4802-4809	Shale as above
4809-4811	Siltstone, light-gray; fine-grained free drilling sandstone
4811-4812	Shale as above
4812-4830	Siltstone, light-gray; fine-grained sandstone
4830-4835	Shale, black, slightly silty, micaceous
4835-4860	Shale, black, very finely micaceous
4860-4882	Alternating beds of black very finely micaceous shale and white very fine to fine-grained sandstone
4882-4887	Siltstone, light-gray, micaceous; fine-grained sandstone, free drilling in part
4887-4895	Siltstone, light-gray, micaceous; fine-grained sandstone
4895-4908	Siltstone, white; fine-grained free drilling sandstone
4908-4915	Shale, black, micaceous, silty
4915-4921	Shale, black, very finely micaceous
4921-4935	Siltstone, white, micaceous; fine-grained sandstone
4935-4960	Alternating beds of black finely micaceous shale, white micaceous siltstone, and fine-grained sandstone
4960-4966	Siltstone, white, micaceous; fine-grained sandstone, free drilling in part
4966-4967	Shale, black, micaceous
4967-4990	Siltstone, white, micaceous, fine-grained sandstone
4990-5000	Siltstone, white, micaceous; fine-grained sandstone
5000-5018	Siltstone, white; fine-grained free drilling sandstone
5018-5035	Sandstone, fine- to medium-grained, free drilling in part
5035-5077	Siltstone, light-gray to white; slightly shaly fine-grained sandstone
5077-5078	Shale, black, micaceous
5078-5087	Siltstone, light-gray to white; slightly shaly fine-grained sandstone
5087-5100	Shale, black, micaceous, slightly silty
5100-5184	Shale, black, very finely micaceous
5184-5202	Alternating beds of black very finely micaceous shale and light-gray limy medium-grained sandstone
5202-5211	Shale, black, slightly limy, silty
5211-5217	Sandstone, white, fine- to medium-grained
5217-5218	Limestone
5218-5220	Sandstone, white, slightly limy, fine- to very coarse grained
5220-5225	(No samples)
5225-5242	Shale, black, slightly silty, micaceous
5242-5262	(No samples)
5262-5270	Limestone, gray, finely to medium sandy, finely crystalline; crinoid and brachiopod fragments
5270-5288	Limestone, gray, finely to medium sandy, finely crystalline
5288-5292	Limestone, gray, finely crystalline; large black oolites or ooliteoids with white centers
5292-5334	Shale, black
5334-5336	Limestone, gray to dark-gray, finely crystalline; crinoids
5336-5400	(No samples)
5400-5423	Shale, black
5423-5435	Limestone, light-gray, shaly and dirty in part, finely crystalline; black oolites; crinoids, brachiopods, bryozoa
5435-5436	Shale, black
5436-5444	Limestone, oolites, and fossils as in 5423-35 ft.
5444-5445	Shale, black
5445-5454	Limestone, oolites, and fossils as in 5423-35 ft.
5454-5456	Shale, black

Depth in feet	Sample description
5456-5458	Limestone, oolites, and fossils as in 5423-35 ft.
5458-5462	(No samples)
5462-5466	Shale, black, rough, limy; crinoids
5466-5474	Shale, black, rough, limy
5474-5482	(No samples)
5482-5505	Shale, black
5505-5513	(No samples)
5513-5525	Shale, black
5525-5529	(No samples)
5529-5538	Limestone, dark-gray to gray, finely crystalline; black oolites or oolitoids; crinoids
5538-5541	(No samples)
5541-5545	Limestone as above
5545-5554	(No samples)
5554-5557	Limestone, light-gray and dark-gray mottled, finely crystalline; crinoids; oolites or oolitoids
5557-5560	Sandstone, gray, limy, dirty, medium- to coarse-grained
5560-5565	Limestone, gray mottled, sandy, finely crystalline
5565-5578	(No samples)
5578-5584	Limestone, gray, medium sandy, very crinoidal, finely crystalline; fossil fragments
5584-5590	Sandstone, light-gray, limy, medium- to coarse-grained
5590-5596	(No samples)
5596-5601	Limestone, gray, crinoidal, medium to coarsely sandy; fossil fragments
5601-5608	(No samples)
5608-5610	Sandstone, light-gray, limy, medium- to coarse-grained
5610-5638	Shale, black
5638-5650	Siltstone, gray, micaceous, very fine
5650-5715	Siltstone, gray, micaceous; fine-grained sandstone
5715-5720	Siltstone, gray; fine- to medium-grained sandstone
5720-5725	Sandstone, light-gray, fine- to medium-grained
5725-5778	Sandstone, white, fine- to medium-grained, free drilling
5778-5785	Limestone, gray, finely crystalline; oolites or oolitoids; crinoid fragments
5785-5794	Limestone, gray, finely crystalline; oolites or oolitoids; fossil fragments
5794-5803	Shale, black
5803-5820	Limestone, grayish-buff, very finely crystalline
5820-5826	Limestone, dark grayish-buff, very finely crystalline; trace of fine pyrite; crinoid fragments
5826-5830	Limestone, dark grayish-black, shaly; fine black oolites or oolitoids; fossil fragments
5830-5836	Limestone, dark grayish-black to gray, very finely crystalline; oolites; fossil fragments
5836-5865	Limestone, gray, finely crystalline; fine to coarse black oolites; fossil fragments
5865-5870	Limestone, brown, finely to medium oolitic; fossil fragments
5870-5874	Limestone, gray, very finely to finely crystalline; some fine dark oolites
5874-5880	Limestone, dark grayish-black, very finely to finely crystalline; crinoid fragments
5880-5890	Limestone, dark grayish-black very finely to finely crystalline
5890-5900	Limestone, grayish-buff, very finely crystalline; pyrite crystals
5900-5910	Limestone, grayish-buff to grayish-black, very finely crystalline
5910-5915	Limestone, light-gray to grayish-buff, finely to medium oolitic, fossiliferous
5915-5920	Limestone, light-gray to grayish-buff, finely to medium oolitic
5920-5930	Limestone, brownish-gray to dark-gray, very finely to finely crystalline; trace of oolites
5930-5936	Limestone, dark-gray, very finely crystalline; trace of oolites; crinoids
5936-5963	Limestone, dark-gray, very finely crystalline; trace of oolites
5963-5987	Shale, black
5987-5990	Limestone, black to brownish-black, shaly, finely crystalline; crinoids
5990-6006	Siltstone, gray, shaly, pyritic
6006-6048	Shale, black; trace of pyrite
6048-6053	Siltstone, black, shaly, limy, very pyritic
6053-6080	Shale, black; trace of pyrite
6080-6082	Shale, black; pyrite
6082-6090	Limestone, gray to dark-gray, light-gray mottling, finely crystalline to finely granular; oolites



Depth in feet	Sample description
6090-6102	Limestone, gray, very finely to finely crystalline; black medium to coarse oolites; crinoids
6102-6107	(No samples)
6107-6120	Siltstone, black, shaly, slightly limy
6120-6130	(No samples)
6130-6148	Shale, black, micaceous, slightly limy, silty
6148-6160	(No samples)
6160-6165	Limestone, gray to dark-gray, very finely crystalline
6165-6169	(No samples)
6169-6192	Limestone, gray to dark-gray, micaceous, silty, finely granular; mica
6192-6196	(No samples)
6196-6216	Limestone, light-gray to dark grayish-black, silty, micaceous, finely crystalline
6216-6220	(No samples)
6220-6224	Limestone as above
6224-6227	As above (?), pulverized
6227-6239	Limestone as above; black dense chert
6239-6249	Limestone, black, silty, micaceous, shaly, finely crystalline
6249-6256	(No samples)
6256-6267	Limestone as above
6267-6278	Limestone, white to gray, coarsely crystalline; crinoids; spines; calcite; barrel-shaped crinoids
6278-6282	(No samples)
6282-6303	Limestone as above; crinoids
6303-6311	White to smoky chalcedonic chert; little dark-gray to black finely crystalline limestone; dark-gray slightly pyritic finely crystalline limestone
6311-6320	Limestone, white, finely granular; white dense chert
6320-6359	Limestone, white to gray, silty, finely granular; white dense chert
6359-6367	Limestone, gray, finely crystalline; light-gray to buff chalcedonic chert
6367-6376	Limestone, white to light-gray, finely granular; light-buff chalcedonic chert
6376-6382	Limestone, gray, finely granular to finely crystalline; white to gray dense chert
6382-6384	Chert, gray, dense, figured and freckled
6384-6387	Shale, black, slightly finely micaceous, hard
6387-6392	(No samples)
6392-6404	Shale, black; trace of pyrite
6404-6408	Shale, black; white to light-gray chert
6408-6415	White to light-gray chalcedony to dense chert; few scattered glassy sand grains
6415-6459	As above; trace of white to gray finely granular limestone; bone-white dense chert at 6425 ft.
6459-6479	As above
6479-6555	(No samples)
6555-6565	Limestone, white, finely granular
6565-6576	Limestone, white, finely crystalline
6576	TOTAL DEPTH

## CRAWFORD COUNTY (2)

Operator: Industrial Oil and Gas Co.	Elevation: 492 ft.
Well No.: 1	Total depth: 5087 ft.
Lease: Brownlee	Completion date: July 31, 1942
Location: Sec. 22, T. 9 N., R. 31 W.	Logged by: E. E. Glick

### Formation tops

	Depth (ft.)
Bloyd shale	3570
Prairie Grove member of the Hale formation	3808
Cane Hill member of the Hale formation	3896
Pitkin limestone	4018
Fayetteville shale	4218
Batesville sandstone, Ruddell shale and Moorefield formation undifferentiated	4295
Boone formation	4390
Chattanooga shale	4575
Penters chert	4598
Silurian rocks undifferentiated	4652
Cason shale	4870
Fernvale limestone	4905
Plattin limestone	4935
St. Peter sandstone and Everton formation undifferentiated	4995

Depth in feet	Sample description
0- 140	(No samples)
140- 150	Siltstone, dark-gray
150- 175	Shale, dark-gray to black, micaceous
175- 200	Siltstone, dark-gray, siliceous, shaly in part
200- 231	Shale, dark-gray, silty, micaceous
231- 260	Siltstone, dark-gray
260- 280	Siltstone, dark-gray, micaceous, slightly limy
280- 300	Siltstone, dark-gray to medium-gray, very finely sandy, slightly limy; dark-gray shaly siltstone
300- 374	(No samples )
374- 405	Sandstone, light- to medium-gray, siliceous, slightly limy, fine-grained; trace of dark-gray silty shale
405- 450	Sandstone, light- to medium-gray, silty, siliceous, fine-grained; trace of dark-gray shale and siltstone
450- 480	Siltstone, dark-gray, micaceous, shaly, slightly limy; trace of light-gray siliceous fine-grained sandstone
480- 500	Shale, dark-gray, finely micaceous, silty
500- 550	Shale, dark-gray, finely micaceous, very slightly limy, silty
550- 580	Siltstone, medium-gray; dark-gray shale streaks
580- 630	Shale, medium to dark brownish-gray, micaceous, silty
630- 665	Shale, dark-gray to black, slightly silty, slightly limy
665- 700	Shale, dark-gray, finely micaceous; thin beds of coal
700- 770	Shale, dark-gray, finely micaceous, very slightly limy, silty
770- 790	Sandstone, medium-gray, siliceous, silty, slightly limy, very fine grained; dark-gray finely micaceous shale

Depth in feet	Sample description
790- 870	Shale, dark-gray to black, finely micaceous, slightly limy
870- 878	Sandstone, medium-gray, limy, very silty, very fine grained
878- 880	Shale, black
880- 947	Siltstone, dark-gray, micaceous, slightly limy
947-1060	Shale, dark-gray to black, silty
1060-1110	Siltstone, dark-gray, micaceous, shaly in part, very slightly limy
1110-1120	(No samples)
1120-1150	Siltstone, dark-gray, micaceous, slightly limy
1150-1176	Siltstone, medium-gray, slightly limy, very finely sandy
1176-1192	Shale, dark-gray, micaceous, slightly limy, silty
1192-1197	Siltstone, medium-gray, slightly limy, very finely sandy
1197-1300	Shale, dark-gray to black, micaceous, silty
1300-1310	Shale, black
1310-1340	Shale, dark-gray, micaceous
1340-1860	Shale, dark-gray, micaceous, silty; trace of medium-gray siliceous silty very fine grained sandstone
1360-1380	Shale, dark-gray, micaceous, silty
1380-1390	Sandstone, medium-gray, silty, limy, fine-grained
1390-1455	Shale, dark-gray to black, finely micaceous, silty in part
1455-1496	Sandstone, light- to medium-gray, micaceous, silty, limy, very fine grained
1496-1510	Shale, dark-gray, micaceous, silty
1510-1520	Siltstone, dark-gray, slightly limy, shaly
1520-1580	Shale, dark-gray, micaceous, silty
1580-1545	Siltstone, dark-gray, slightly limy, shaly
1545-1568	Shale, dark-gray, micaceous, silty
1568-1580	Shale, dark-gray, micaceous, silty; thin beds of light-gray siliceous silty very fine grained sandstone
1580-1590	Shale as above
1590-1596	Sandstone, light-gray, siliceous, silty, very fine grained
1596-1610	Shale, dark-gray, micaceous, silty
1610-1640	Sandstone, medium-gray, shaly, silty, slightly limy, very fine grained
1640-1680	Shale, dark-gray, silty; pyrite
1680-1705	Sandstone, light- to medium-gray, silty, siliceous, very fine grained; thin limestone stringers
1705-1710	Sandstone as above; thin bed of light brownish-gray finely crystalline fossiliferous limestone; crinoids; brachiopods
1710-1720	Siltstone, medium brownish-gray, limy
1720-1735	Sandstone, light- to medium-gray, limy, silty, very fine grained
1735-1744	Shale, dark-gray, finely micaceous, silty
1744-1776	Siltstone, medium- to dark-gray, very finely sandy, limy
1776-1810	Shale, black, micaceous
1810-1816	Siltstone, medium- to dark-gray, slightly limy, very finely sandy
1816-1849	Sandstone, light-gray, siliceous, silty
1849-1852	Coal
1852-1860	Shale, dark-gray, silty
1860-1870	Sandstone, light-gray, silty, limy, fine-grained; trace of very coarse sand
1870-1890	Shale, dark-gray, silty; bed of light-gray fine-grained sandstone
1890-1930	Shale, dark-gray to black, finely micaceous
1930-1950	Shale, dark brownish-gray, finely micaceous
1950-1960	Sandstone, light-gray to brownish-gray, silty, limy, fine-grained
1960-1976	Siltstone, dark-gray, micaceous
1976-2010	Shale, dark-gray to black, micaceous
2010-2018	Shale, dark-gray to black, silty; pyrite
2018-2020	Sandstone, white to light-gray, silty, fine-grained
2020-2085	Shale, dark-gray, finely micaceous
2085-2096	Sandstone, light-gray to brown, slightly limy, silty, very fine grained
2096-2100	Shale, dark-gray
2100-2116	Sandstone, medium-gray, limy, very silty, very fine grained
2116-2126	Shale, dark-gray

Depth in feet	Sample description
2126-2130	Limestone, light-gray, finely granular; crinoids; brachiopods
2130-2148	Shale, dark-gray to black; crinoids
2148-2150	Limestone, light-gray, finely granular; crinoids; brachiopods
2150-2160	Shale, dark-gray to black; crinoids
2160-2167	Shale, dark-gray to black
2167-2180	Sandstone, medium-gray, slightly limy, siliceous, silty, very fine grained
2180-2200	Sandstone, medium- to dark-gray, slightly limy, very silty, very fine grained
2200-2210	Siltstone, dark-gray, slightly limy, very finely sandy
2210-2240	Sandstone, medium- to dark-gray, slightly limy, very silty, very fine grained
2240-2250	Sandstone as above; brachiopods
2250-2280	Sandstone as above; crinoids and brachiopods
2280-2300	Sandstone as above
2300-2320	Shale, black; thin beds of medium-gray silty very fine grained sandstone; brachiopods
2320-2350	Siltstone, medium- to dark-gray, slightly limy, very finely sandy; crinoids
2350-2360	Siltstone as above; fine-grained sandstone; crinoids
2360-2380	Shale, dark-gray, silty
2380-2390	Sandstone, light-gray, slightly limy, siliceous, fine-grained
2390-2393	Shale, black
2393-2410	Sandstone, light-gray, slightly limy, siliceous, fine-grained; trace of very coarse sand
2410-2450	Sandstone, light- to medium-gray, slightly limy, silty, fine- to coarse-grained
2450-2500	Shale, dark-gray to black, silty in part
2500-2508	Siltstone, dark-gray, shaly; crinoids
2508-2510	Sandstone, very fine grained
2510-2520	Siltstone, dark-gray, shaly
2520-2530	Siltstone as above; very fine grained sandstone
2530-2540	Siltstone as above
2540-2570	Siltstone as above, very finely sandy
2570-2580	Shale, dark-gray, finely micaceous, silty
2580-2586	Sandstone, light-gray, silty, siliceous, fine-grained
2586-2605	Shale, dark-gray, finely micaceous, silty
2605-2610	Sandstone, light- to medium-gray, slightly silty and limy, fine-grained
2610-2630	Shale, dark-gray to black, micaceous
2630-2700	Shale, dark-gray, silty, micaceous; light-gray siliceous fine-grained sandstone; crinoids
2700-2720	Sandstone, medium- to dark-gray, silty, shaly, very fine grained
2720-2730	Sandstone as above; dark-gray to black shale
2730-2745	Shale, dark-gray to black
2745-2800	Sandstone, light- to medium-gray, slightly limy, silty, siliceous, very fine to fine-grained
2800-2840	Sandstone, medium- to dark-gray, silty, slightly limy in part, siliceous, fine-grained
2840-2850	Siltstone, dark-gray, micaceous, very finely sandy
2850-2880	Shale, dark-gray to black
2880-2900	Shale, dark-gray to black, silty
2900-2920	Shale, dark-gray, silty; trace of silty very fine grained sandstone
2920-2950	Siltstone, dark-gray, very finely sandy
2950-2980	Shale, dark-gray, silty
2980-3050	Shale, dark-gray, silty; trace of light-gray very fine grained sandstone
3050-3130	Shale, dark-gray, silty
3130-3140	Sandstone, medium-gray, siliceous, silty, very fine grained
3140-3180	Siltstone, medium-gray, micaceous, siliceous
3180-3210	Siltstone, medium- to dark-gray, very finely sandy
3210-3220	Shale, dark-gray, slightly silty; crinoids; brachiopods
3220-3230	Shale, dark-gray, slightly silty
3230-3240	Shale, dark-gray, slightly silty; crinoids
3240-3300	Shale, dark-gray, silty; siliceous in part; crinoids
3300-3330	Shale, dark-gray, silty, siliceous in part
3330-3340	Sandstone, light- to medium-gray, silty, siliceous, very fine grained
3340-3430	Siltstone, medium- to dark-gray, shaly

Depth in feet	Sample description
3430-3480	Shale, black, fissile
3480-3506	Shale, dark-gray, silty, siliceous
3506-3515	Sandstone, medium-gray, limy, silty, fine- to medium-grained
3515-3525	Shale, black
3525-3550	Sandstone, light-gray, slightly limy, siliceous, silty, fine-grained; trace of gypsum
3550-3560	Sandstone, light- to medium-gray, siliceous, silty, limy, fine- to medium-grained
3560-3570	Sandstone, light-gray, slightly silty, very limy, fine- to medium-grained
3570-3596	Limestone, light- and dark-gray mottled, slightly oolitic, silty, finely granular; dark-gray oolites
3596-3646	Shale, dark-gray, siliceous, silty
3646-3670	Limestone, light- and medium-gray mottled, slightly oolitic, very silty, finely granular; crinoids 3646-55 ft.
3670-3712	Shale, dark-gray to black, slightly silty in part
3712-3735	Limestone, light- and medium-gray mottled, very silty, finely granular
3735-3748	Limestone, medium-gray, silty, finely granular; dark-gray oolites; crinoids
3748-3808	Shale, dark-gray to black, slightly silty
8808-3815	Limestone, light-gray and medium-gray mottled, very silty, finely granular; crinoids; gastropods
3815-3820	Limestone, light-gray and medium-gray mottled, very silty, finely granular
3820-3830	Limestone as above; crinoids
3830-3840	Limestone as above; dark-gray oolites; crinoids
3840-3850	Limestone, light-gray to medium-gray, silty, slightly finely sandy, finely granular to finely crystalline; glauconite
3850-3856	Sandstone, medium-gray, very silty and very limy, very fine to fine-grained; glauconite
3856-3865	Limestone, medium-gray, very silty and finely sandy, finely granular; glauconite
3865-3870	Limestone, light-gray, finely sandy, finely granular; glauconite
3870-3884	Shale, dark-gray to black, slightly silty
3884-3896	Sandstone, medium- to dark-gray, very silty, slightly limy, fine-grained
3896-3937	Shale, medium- to dark-gray, micaceous, silty, hard
3937-3980	Siltstone, medium-gray, very finely sandy, slightly limy
3980-4018	Sandstone, medium-gray, very silty, slightly limy, very fine grained
4018-4050	Limestone, light- and medium-gray mottled, very silty, slightly oolitic, finely granular; dark-gray oolites; crinoids
4050-4070	Limestone, light-gray to light brownish-gray, silty, finely granular; thin shale streaks
4070-4090	Limestone, light- and medium-gray mottled, oolitic, silty, finely granular; small and large dark-gray oolites
4090-4095	Shale, black, limy
4095-4100	Limestone as above
4100-4110	Limestone, light brownish-gray to medium-gray, silty, oolitic; crinoids
4110-4115	Shale, black, limy
4115-4140	Limestone, medium-gray, oolitic, very silty, finely granular
4140-4160	Limestone, medium-gray, slightly oolitic, very silty, finely granular
4160-4170	Limestone, medium-gray, oolitic, very silty, finely granular; brachiopods
4170-4182	Limestone as above, very oolitic; brachiopods
4182-4200	Limestone, medium-gray, very silty, finely granular
4200-4208	Shale, dark-gray, slightly limy
4208-4218	Limestone, medium-gray, very silty, finely granular
4218-4230	Shale, dark-gray, slightly limy, silty
4230-4270	Shale, dark-gray to black, slightly silty in part
4270-4295	Shale, dark-gray to black, silty, hard
4295-4300	Limestone, medium-gray, very silty, finely granular
4300-4320	Limestone, light- and medium-gray mottled, silty, fossiliferous, oolitic in part, finely granular to medium-crystalline; crinoids, brachiopods, bryozoa
4320-4325	Shale, dark-gray, limy, silty
4325-4340	Siltstone, medium- to dark-gray, limy, shaly
4340-4355	Shale, dark-gray, limy, silty
4355-4368	Limestone, dark-gray, very silty, shaly, finely granular
4368-4390	Siltstone, dark-gray, very limy, siliceous in part
4390-4425	Limestone, light- to medium-gray, very silty, finely granular
4425-4440	Limestone, medium-gray, silty, finely granular; light-gray to smoky gray smooth chert

Depth in feet	Sample description
4440-4450	Limestone, light- to medium-gray, very silty, siliceous, finely granular
4450-4490	Limestone, medium- to dark-gray, very silty, siliceous, finely granular
4490-4515	Limestone, dark-gray to black, very silty, shaly, siliceous, finely granular
4515-4540	Limestone, medium-gray to light brownish-gray, silty, finely granular; light-gray, light brownish-gray, and smoky gray subtranslucent chert
4540-4555	Limestone, light-gray, silty, finely granular; light-gray, translucent smoky gray, and light brownish-gray chert; light-gray chert in black siliceous limestone
4555-4565	Limestone, light- to medium-gray, silty siliceous, finely granular; light brownish-gray and translucent light-gray smooth chert
4565-4570	Limestone, light-gray, finely granular to finely crystalline; light brownish-gray and smoky gray chert
4570-4575	Limestone and chert as above; medium-gray mottled siliceous finely granular limestone; trace of medium- to coarsely crystalline limestone
4575-4595	Shale, black; pyrite
4595-4598	Sandstone, light- to medium-gray, silty, limy, very fine to medium-grained
4598-4610	Siltstone, medium-gray, very finely sandy, limy; white translucent chert
4610-4615	Siltstone as above, and slightly dolomitic; fine sand; chert as above
4615-4625	Siltstone, light- to medium-gray, finely sandy, limy, dolomitic; white chert; quartz crystals and quartzose chert
4625-4652	Siltstone, light-gray and dark-gray, finely mottled, dolomitic, limy, finely sandy; milky white chert; quartzitic chert; bluish-gray silty chert; trace of fine pyrite
4652-4655	Limestone, light-gray, finely to medium-crystalline
4655-4680	Limestone, light-gray, medium- to coarsely crystalline; trace of very fine dolomite crystals
4680-4710	Limestone, light-gray, medium- to coarsely crystalline; trace of pink crystals; trace of fine dolomite crystals
4710-4720	Limestone as above and slightly silty
4720-4730	Limestone, light-gray, slightly silty in part, coarsely crystalline; trace of pink crystals; trace of very fine dolomite crystals
4730-4740	Limestone, white, finely crystalline; trace of very fine dolomite crystals
4740-4760	Limestone, white, medium- to coarsely crystalline; trace of pink crystals; trace of black silt; trace of fine dolomite crystals
4760-4770	Limestone, white, slightly silty and slightly dolomitic, finely to medium-crystalline
4770-4800	Limestone, white, slightly dolomitic, finely to medium-crystalline; trace of pink crystals
4800-4810	Limestone, white, dolomitic, finely crystalline; ostracods
4810-4820	Limestone, white, dolomitic, finely to medium-crystalline; trace of black silt
4820-4840	Limestone, white, dolomitic, finely crystalline; black silt streaks
4840-4865	Limestone, white, dolomitic, finely to medium-crystalline; trace of pink crystals; trace of black silt
4865-4870	Limestone as above and light-gray chert with coarse oolites and free siliceous oolites
4870-4880	Shale, greenish-gray, dolomitic; pyrite; light-gray translucent chert
4880-4905	Shale, dark-gray to black, slightly dolomitic
4905-4910	Limestone, light- to medium-gray, medium-crystalline
4910-4935	Limestone, medium-gray, silty, shaly, slightly dolomitic, finely to medium-crystalline; trace of medium to gray shale
4935-4960	Limestone, brownish-gray to dark brownish-gray, finely granular to dense
4960-4980	Limestone, medium- to dark-gray, silty, finely granular to finely crystalline; brownish-gray dense limestone
4980-4990	Limestone, medium- to dark-gray, dolomitic, silty, finely crystalline; light-gray finely crystalline limestone and brownish-gray dense limestone
4990-4995	Limestone, medium-gray, silty and finely sandy, dolomitic
4995-5000	Sandstone, light- to medium-gray, silty, dolomitic fine- to medium-grained
5000-5018	Sandstone, white to light-gray, dolomitic, fine-grained; light- to medium-gray finely granular dolomite
5018-5028	Shale, medium-gray to greenish-gray, slightly dolomitic
5028-5035	Sandstone, white to light-gray, dolomitic, fine-grained; pyrite
5035-5040	Sandstone, light-gray, slightly dolomitic, fine- to medium-grained; silt
5040-5045	Sandstone, white to light-gray, siliceous, slightly silty, fine-grained
5045-5060	Sandstone, white to light-gray, dolomitic, slightly silty, fine-grained
5060-5067	Sandstone, white to light-gray, dolomitic, slightly silty, fine-grained
5067-5080	Dolomite, light- to medium-gray, finely sandy, finely granular to finely crystalline
5080-5087	Dolomite as above; finely to medium-crystalline dolomite
5087	TOTAL DEPTH

**CRAWFORD COUNTY (3)**

Operator: Citizens Gas Co.

Elevation: 806 ft.

Well No.: 1

Total depth: 2380 ft.

Lease: Greenstreet

Completion date: ?

Location: NE ¼ SW ¼ NE ¼ sec. 18, T. 9 N.,  
R. 32 W.

Logged by: S. E. Frezon

**Formation tops**

	Depth (ft.)
Bloyd shale	1530
Prairie Grove member of the Hale formation	1770
Cane Hill member of the Hale formation	1860
Pitkin limestone	1910
Fayetteville shale	2005
Batesville sandstone, Ruddell shale, and Moorefield shale undifferentiated	2050
Boone formation	2070
Chattanooga shale	2310
Penters chert	2332

Depth  
in feet

Sample description

0- 324	(No samples)
324- 328	Shale, dark-gray to black, finely micaceous, silty
328- 335	Sandstone, gray to light-gray, fine- to medium-grained, very slightly limy; dark-brown sandy dolomite
335- 343	(No samples)
343- 355	Sandstone, white to very light gray, fine- to medium-grained
355- 358	Sandstone, dark-gray, fine-grained, very silty
358- 365	Shale, dark-gray to black, slightly silty
365- 380	(No samples)
380- 430	Shale, dark grayish-black, slightly silty, sandy; trace of dark-gray very fine to fine-grained sandstone
430- 435	(No samples)
435- 442	Shale, dark-gray to black, finely micaceous
442- 457	Sandstone, dark-gray, very fine to fine-grained, very silty
457- 480	Shale, dark-gray to black, finely micaceous
480- 486	Shale, dark-gray to black, finely micaceous, silty, slightly sandy
486- 500	(No samples)
500- 540	Shale, dark-gray to black, very finely micaceous, silty
540- 575	Shale, dark-gray to black, finely micaceous, silty, sandy; dark-gray very fine to fine-grained sandstone
575- 583	(No samples)
583- 590	Shale, dark-gray to black, finely micaceous
590- 600	Sandstone, dark-gray, very silty, slightly micaceous, very fine to fine-grained
600- 645	Shale, dark-gray to black, very finely micaceous, silty
645- 650	(No samples)
650- 688	Shale, dark-gray to black, finely micaceous, very silty, sandy; trace of gray to dark-gray very fine to fine-grained sandstone
688- 695	Sandstone, dark-gray, very silty, very fine to fine-grained
695- 750	Shale, dark-gray to black, very finely micaceous, slightly silty, sandy; gray to dark-gray very fine to fine-grained sandstone

Depth in feet	Sample description
750- 775	Shale, dark-gray to black; trace of dark-gray very fine to fine-grained sandstone
775- 780	(No samples)
780- 816	Shale, dark-gray to black
816- 836	Sandstone, gray to dark-gray, silty, micaceous, very fine to fine-grained; stringers of dark-gray to black finely micaceous shale
836- 845	Shale, dark-gray to black, finely micaceous
845- 858	(No samples)
858- 875	Shale as above
875- 890	Sandstone, dark-gray to black, very silty, micaceous, very fine to fine-grained
890- 912	Shale, dark-gray to black; gray to dark-gray silty very fine to fine-grained sandstone
912- 945	(No samples)
945- 961	Siltstone, gray, finely micaceous
961- 970	(No samples)
970- 980	Shale, dark-gray, finely micaceous, sandy; very fine to fine-grained sandstone
980- 990	(No samples)
990-1020	Shale, dark-gray to black, finely micaceous, slightly sandy; gray to dark-gray very fine to fine-grained sandstone
1020-1060	Shale, dark-gray to black, finely micaceous
1060-1069	Sandstone, white to very light gray, very fine to coarse-grained
1069-1073	Sandstone, gray to dark-gray, silty, very fine to fine-grained
1073-1077	Shale, dark-gray to black, finely micaceous
1077-1106	Sandstone, gray, silty, very fine to fine-grained
1106-1110	Shale, dark-gray to black, finely micaceous
1110-1123	Siltstone, gray, micaceous
1123-1125	Shale, black
1125-1148	Sandstone, white to very light gray, very fine to fine-grained
1148-1160	Sandstone, gray to dark-gray, very silty, very fine grained
1160-1176	Sandstone, white to very light gray, slightly micaceous, very fine to fine-grained
1176-1190	Shale, black
1190-1200	Shale, dark-gray to black, micaceous, silty
1200-1238	Sandstone, light-gray, non-limy, and dark-brown limy, fine- to very coarse grained; crinoids; ostracods 1200-10 ft.
1238-1250	Sandstone, white to very light gray, fine-grained
1250-1257	Sandstone, light- to dark-gray, silty, fine-grained
1257-1260	Sandstone, light-gray, fine-grained
1260-1270	(No samples)
1270-1290	Sandstone, gray to dark-gray, very silty, very fine to fine-grained; trace of dark-gray to black finely micaceous shale
1290-1300	Shale, dark-gray to black, finely micaceous, sandy; very fine to fine-grained sandstone
1300-1340	Shale, dark-gray to black
1340-1370	Shale, dark-gray to black; trace of dark-gray very fine to fine-grained sandstone
1370-1380	Sandstone, dark-gray, very silty, very fine to fine-grained; dark-gray to black shale
1380-1390	Sandstone, gray to dark-gray, slightly silty, very fine to fine-grained
1390-1415	Sandstone, gray to dark-gray, silty, very fine to fine-grained; dark-gray finely micaceous shale
1415-1503	Shale, dark-gray to black, finely micaceous, slightly silty
1503-1510	Sandstone, white to light-gray, slightly limy, very fine to fine-grained
1510-1520	Sandstone, black, dark-gray and greenish-gray, slightly glauconitic, very silty, very fine to medium-grained; dark grayish-black shale
1520-1526	Sandstone, very light-gray, very fine to medium-grained, slightly limy
1526-1530	Sandstone, gray, silty, very fine to medium-grained
1530-1540	Sandstone, dark grayish-black
1540-1565	Limestone, dark-gray and brownish-gray, dense to very finely granular; light-gray finely granular limestone; dark-gray finely micaceous shale; trace of greenish-gray shale
1565-1597	Shale, dark-gray to black
1597-1615	Limestone, light-gray to dark-gray, silty, finely granular to coarsely crystalline
1615-1630	Limestone, dark-gray to black, finely granular; interbedded with dark-gray to black finely micaceous shale



Depth in feet	Sample description
1630-1660	Shale, dark-gray to black, very finely micaceous; thin beds of gray to dark-gray, silty, finely granular to finely crystalline limestone, decreasing toward base
1660-1671	Shale, dark-gray to black
1671-1675	(No samples)
1675-1700	Limestone, gray to dark-gray, silty, slightly sandy, finely granular to coarsely crystalline; brownish-gray slightly sandy dolomite
1700-1710	Limestone, light- to dark-gray, slightly silty, finely granular to coarsely crystalline; dark-gray oolites in light-gray finely granular limestone
1710-1730	Shale, dark-gray to black, slightly limy; trace of dark-gray finely granular to coarsely crystalline limestone and gray to dark-gray, slightly limy, fine- to very fine grained sandstone
1730-1750	(No samples)
1750-1770	Shale, dark-gray to black, very finely micaceous; trace of gray to dark-gray finely granular to coarsely crystalline limestone
1770-1780	Limestone, gray to dark-gray, slightly silty, finely granular to coarsely crystalline; crinoids; gastropods
1780-1790	Shale, dark-gray to black; dark-gray finely granular to coarsely crystalline limestone
1790-1800	(No samples)
1800-1820	Limestone, light- to dark-gray, silty, slightly oolitic, sandy, finely granular to coarsely crystalline; bryozoa in upper half
1820-1830	Shale, dark-gray to black, finely micaceous, silty
1830-1860	Sandstone, light-gray, slightly limy, micaceous, very fine to fine-grained
1860-1865	Sandstone, dark-gray to black, micaceous, silty, very fine to fine-grained
1865-1870	Shale, dark-gray to black, micaceous
1870-1875	Sandstone, dark-gray to black, very silty, very fine to fine-grained
1875-1885	Shale, dark-gray to black, silty, sandy, micaceous
1885-1890	Shale as above but more sandy
1890-1910	Sandstone, dark-gray, very silty, very fine to fine-grained
1910-1930	Limestone, light- to very dark gray, very silty, finely granular to coarsely crystalline; dark-gray oolites; thin beds of dark-gray to black shale
1930-1940	Limestone, very dark gray, silty, dense; shale beds
1940-1950	Limestone as above; trace of light-gray oolitic limestone; shale beds
1950-1960	Limestone, light- to dark-gray, silty, dense, finely granular to coarsely crystalline; dark-gray oolites
1960-1975	Limestone, light-gray to dark-gray, silty, dense, finely crystalline
1975-1985	Limestone, light-gray to gray, slightly silty, finely granular to coarsely crystalline
1985-2005	Limestone, gray to dark-gray, silty, dense, finely granular to coarsely crystalline; dark-gray to black shale beds
2005-2050	Shale, dark-gray to black, limy; trace of dark-gray dense to finely granular limestone
2050-2060	Shale, dark-gray to black, very finely micaceous; thin stringers of dark-gray very silty finely granular limestone
2060-2070	Limestone, light- to dark-gray, oolitic, finely crystalline to finely granular; shale as above
2070-2080	Limestone, light- to dark-gray, silty, slightly oolitic, finely granular to finely crystalline
2080-2100	Limestone, dark- to light-gray, silty, finely granular to coarsely crystalline; dark-gray to black very finely micaceous shale
2100-2113	Limestone, light- to dark-gray, slightly silty, finely granular to finely crystalline; white, with black mottling, and very light gray dense chert
2113-2130	Limestone, very dark gray to white, finely granular to coarsely crystalline; white and very light gray chert as above
2130-2160	Limestone, dark-gray, white-mottled, slightly silty; white to very light gray chert with dark-gray mottling
2160-2190	Chert, white to light-gray and dark-gray mottling, limy
2190-2199	(No samples)
2199-2220	Chert, very light gray and dark-gray, mottled, limy, finely granular to dense
2220-2235	Limestone, dark-gray with light-gray mottling, silty, siliceous; light-gray to white dense chert
2235-2268	Chert, white to very light gray, mottled, dense; dark-gray limy dense chert
2268-2278	(No samples)
2278-2290	Chert, finely mottled yellowish-gray and light-gray, limy
2290-2297	Limestone, dark-gray, white to light-gray, mottled, very silty, siliceous
2297-2300	Chert, light- to dark-gray, mottled, limy

<b>Depth in feet</b>	<b>Sample description</b>
2300-2310	Chert as above; trace of black dense chert
2310-2332	Shale, black, pyritic
2332-2365	Chert, bone-white, slightly limy, dense; gray to white very fine to coarse-grained sandstone
2365-2380	Chert and sandstone as above; white to light-gray mottled chert
2380	TOTAL DEPTH

## CRAWFORD COUNTY (4)

Operator: Arkansas-Oklahoma Gas Co.	Elevation: 768 ft.
Well No.: 1	Total depth: 2045 ft.
Lease: Morrison	Completion date: Nov. 14, 1951
Location: Center of N $\frac{1}{2}$ S $\frac{1}{2}$ NE $\frac{1}{4}$ sec. 29, T. 10 N., R. 31 W.	Logged by: S. E. Frezon

### Formation Tops

	Depth (ft.)
Bloyd shale	1740
Kessler limestone member of the Bloyd shale	1740

Depth in feet	Sample description
0- 390	(No samples)
390- 422	Shale, dark-gray, micaceous, very finely to finely sandy
422- 440	Sandstone, light-gray, slightly limy, very fine to medium-grained, with light-gray and greenish-gray shale grains; crinoids
440- 450	Sandstone, light-gray, slightly limy, very fine to medium-grained
450- 460	Sandstone, light-gray, slightly limy, very fine to medium-grained, with light-gray and greenish-gray shale grains
460- 475	Sandstone, light-gray, slightly limy, very fine to medium-grained
475- 495	Shale, dark-gray, very finely micaceous
495- 502	Sandstone, dark-gray, brown, black, limy, fine- to medium-grained, with shale grains
502- 540	Shale, dark-gray, very finely micaceous
540- 545	Sandstone, light-gray, slightly limy, fine- to medium-grained; brownish-gray, brown, and black, fine- to medium-grained limy sandstone with shale grains
545- 556	Sandstone, light-gray, slightly limy, fine- to medium-grained; brownish-gray, brown, and black, limy, fine- to medium-grained sandstone
556- 590	Shale, dark-gray, very finely micaceous, silty, sandy in upper part
590- 660	Shale, dark-gray, finely micaceous; fine- to medium-grained sandstone
660- 692	Shale as above but more sandstone
692- 719	Alternating layers of fine- to medium-grained sandstone and dark-gray shale
719- 730	Shale, dark-gray, finely micaceous
730- 770	Shale, dark-gray, finely micaceous, siliceous and finely sandy in part
770- 790	Shale as above but less sandy
790- 812	Shale, dark-gray, very finely micaceous; fine- to medium-grained sandstone
812- 820	Sandstone, light-gray, brownish-gray, limy, fine- to medium-grained, with gray and greenish-gray shale grains
820- 832	Shale, dark-gray, finely micaceous, siliceous and sandy in part
832- 834	Sandstone, siliceous
834- 837	Shale, dark-gray, finely micaceous, siliceous and sandy in part
837- 840	Sandstone, siliceous
840- 860	Shale, hard, siliceous
860- 870	Shale, dark-gray, finely micaceous, with siliceous sandstone grains
870- 880	Shale, hard, siliceous
880- 890	Shale, dark-gray, finely micaceous, with siliceous sandstone grains
890- 900	Shale, hard, siliceous
900- 922	Shale, dark-gray to black, very finely micaceous
922- 930	Sandstone, gray to light-gray, slightly silty, fine-grained
930- 940	Shale, dark-gray to black, very finely micaceous
940- 960	Sandstone, light- to dark-gray, silty, very siliceous, very fine to fine-grained

Depth in feet	Sample description
960- 990	Alternating beds of dark-gray finely micaceous silty shale and light grayish-green very fine to fine-grained sandstone
990-1020	Alternating beds of dark-gray very finely micaceous shale and gray micaceous very fine to fine-grained sandstone
1020-1025	Shale, dark-gray, very finely micaceous, siliceous in part
1025-1040	Shale, dark-gray, very finely micaceous
1040-1045	Shale, dark-gray, very finely micaceous, siliceous in part
1045-1050	Shale, dark-gray, very finely micaceous
1050-1070	Shale, dark-gray, very finely micaceous, siliceous in part
1070-1110	Sandstone, gray to dark-gray, micaceous, silty, very fine grained; dark-gray micaceous shale
1110-1135	Shale, dark-gray to black, very finely micaceous
1135-1138	Shale, dark-gray, finely micaceous
1138-1263	Alternating beds of gray to dark-gray finely micaceous very fine to fine-grained sandstone and dark-gray finely micaceous shale
1263-1264	Sandstone, light-gray to gray, very fine to fine-grained
1264-1266	Shale, dark-gray, finely micaceous
1266-1269	Sandstone, light-gray to gray, very fine to fine-grained
1269-1270	Shale, dark-gray, finely micaceous
1270-1280	Shale, dark-gray, finely micaceous, very silty and sandy
1280-1320	Sandstone, gray, silty, fine- to medium-grained; dark-gray micaceous shale stringers
1320-1340	Sandstone, light-gray, very fine to fine-grained
1340-1350	Sandstone, dark-gray, silty, very fine to fine-grained
1350-1380	Shale, dark-gray, finely micaceous, siliceous and hard
1380-1415	Shale, dark-gray, micaceous; siliceous hard very fine to fine-grained sandstone increasing in quantity downward
1415-1486	Sandstone, light- to dark-gray, very silty, slightly limy, very fine to fine-grained, with shale grains at top
1486-1445	Shale, dark gray to black, micaceous
1445-1470	Shale, dark-gray to black, micaceous, slightly sandy
1470-1480	Shale, dark-gray to black, micaceous
1480-1502	Shale, dark-gray to black, micaceous, very slightly sandy
1502-1532	Sandstone, gray to brownish-gray, silty, very fine grained
1532-1545	Sandstone, light-gray, very fine grained
1545-1550	Sandstone, gray, very silty, very fine grained
1550-1590	Sandstone, light-gray, very fine grained
1590-1600	Sandstone, gray, silty, micaceous, very fine grained
1600-1610	Sandstone, dark-gray, very silty, micaceous, very fine grained; dark-gray micaceous shale
1610-1660	Shale, medium- to dark-gray, very finely micaceous
1660-1675	Shale, medium- to dark-gray, very finely micaceous, slightly sandy to sandy downward
1675-1690	Sandstone, gray, limy at top, silty, very fine to fine-grained
1690-1700	Shale, dark-gray, very finely micaceous; dark-gray to gray very fine grained sandstone
1700-1703	Sandstone, gray to dark-gray, very fine to fine-grained
1703-1705	Shale, black, finely micaceous, limestone and bryozoa fragments
1705-1710	Sandstone, gray to dark-gray, very fine to fine-grained
1710-1712	Shale, black, finely micaceous; limestone fragments
1712-1740	Sandstone, dark-gray, slightly limy, very silty, very fine to fine-grained; dark-gray micaceous shale stringers
1740-1780	Limestone, dark-gray, silty, slightly sandy, finely granular to very finely crystalline; light-gray slightly sandy finely granular limestone with dark-gray oolites
1780-1835	Shale, dark-gray, very finely micaceous, slightly silty
1835-1845	Shale, dark-gray, very finely micaceous, slightly silty, slightly limy
1845-1860	Limestone, light-gray, very finely granular, with black oolites; dark brownish-gray, silty, finely granular to finely crystalline limestone; bryozoa, crinoids; foraminifera
1860-1880	Shale, dark-gray to black, very finely micaceous; dark-gray silty finely granular to very finely crystalline limestone

Depth in feet	Sample description
1880-1885	Limestone, light-gray, finely granular, with very dark gray oolites; dark-gray, very silty finely granular to finely crystalline limestone; dark-gray and greenish-gray shale
1885-1910	Limestone and shale as above; crinoids and bryozoa
1910-1917	Limestone, light-gray, finely granular, with very dark gray oolites
1917-1933	Shale, dark-gray, very finely micaceous, slightly limy
1933-1937	Limestone, light-gray, finely granular; dark-gray finely granular to finely crystalline fossiliferous limestone; crinoids; bryozoa
1937-1939	Shale, dark-gray, micaceous
1939-1943	Limestone as in 1933-37 ft.
1943-1972	Alternating beds of dark-gray micaceous shale and light-gray finely granular limestone
1972-1980	Limestone, light-gray, oolitic, finely granular; oolites have sand grain in center
1980-2000	Sandstone, white to very light gray, very limy, very fine to fine-grained
2000-2015	Limestone, light-gray, finely to medium sandy, finely granular to finely crystalline
2015-2038	Limestone, light-gray, slightly silty and sandy, finely granular to finely crystalline
2038-2040	Shale, black
2040-2045	Sandstone, light-gray, fine- to medium-grained
2045	TOTAL DEPTH

## CRAWFORD COUNTY (5)

Operator: Trumbo	Elevation: 775 ft.
Well No.: 1	Total depth: 1893 ft.
Lease: Craddock	Completion date: June 9, 1936
Location: Center of NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 3, T. 11 N., R. 30 W.	Logged by: E. E. Glick

### Formation Tops

	Depth (ft.)
Bloyd shale	107
Kessler limestone member of the Bloyd shale	154
Brentwood limestone member of the Bloyd shale	300
Prairie Grove member of the Hale formation	381
Cane Hill member of the Hale formation	460
Pitkin limestone	555
Fayetteville shale	694
Batesville sandstone, Ruddell shale, and Moorefield formation undifferentiated	880
Boone formation	992
Penters chert	1212
Silurian rocks undifferentiated	1250
Cason shale	1432
Fernvale limestone	1465
Plattin limestone	1475
Everton formation	1528

Depth in feet	Sample description
0- 20	Sandstone, yellowish-brown, silty, siliceous, very fine to fine-grained
20- 30	Shale, black, fissile
30- 44	Shale, black; thin beds of yellowish-brown, silty, siliceous, very fine to fine-grained sandstone
44- 65	Shale, black, fissile
65- 75	Sandstone, light- to medium-gray, silty, limy, fine-grained
75- 85	Sandstone, light- to medium-gray, very silty, slightly limy, very fine to fine-grained
85- 95	Sandstone, light- to medium-gray, silty, shaly, very fine grained
95- 107	Siltstone, light- to medium-gray, very finely sandy, siliceous
107- 148	Shale, black
148- 154	Sandstone, medium- to dark-gray, very silty, limy, fine- to coarse-grained; crinoids
154- 163	Limestone, light brownish-gray to medium-gray, dense to very finely granular
163- 171	Limestone, light- to medium-gray, very finely sandy, fossiliferous, slightly oolitic, finely granular
171- 191	Shale, dark-gray to black
191- 195	(No samples)
195- 225	Shale, dark-gray to black, finely micaceous
225- 240	Sandstone, light- to dark-gray, very limy, silty, fine-grained
240- 245	Limestone, light- to dark-gray, silty, sandy
245- 247	Shale, dark-gray
247- 250	(No samples)
250- 260	Shale, dark-gray, micaceous

Depth in feet	Sample description
260- 270	Shale, dark-gray to black, finely micaceous; pyrite
270- 300	Shale, dark-gray to black, finely micaceous
300- 310	Limestone, medium-gray, slightly oolitic, finely to medium-crystalline; crinoids; bryozoa; brachiopods
310- 316	Shale, dark-gray, slightly micaceous
316- 325	Limestone, dark-gray, silty, slightly oolitic, fossiliferous, finely granular; crinoids; brachiopods
325- 330	Limestone, light- to medium-gray, fossiliferous, finely crystalline; pyrite; crinoids; brachiopods
330- 340	Limestone, light- to medium-gray, fossiliferous; finely crystalline; crinoids; brachiopods
340- 343	Limestone
343- 350	Shale, dark-gray to black
350- 355	Limestone, dark-gray, silty, slightly finely sandy, finely crystalline; pyrite
355- 365	Limestone, dark-gray, silty, finely granular; crinoids
365- 369	Limestone, dark-gray, silty, oolitic in part, finely granular to medium-crystalline; crinoids; pyrite
369- 381	Shale, dark-gray to black
381- 388	Limestone, medium- to dark-gray, fossiliferous, finely to medium-crystalline; crinoids, brachiopods, bryozoa
388- 397	Limestone, dark-gray, silty, slightly sandy, finely granular to finely crystalline; crinoids; glauconite
397- 400	Limestone, medium- to dark-gray, silty, very finely sandy, slightly oolitic, finely granular; brachiopods
400- 410	Limestone, dark-gray, silty, finely sandy, finely granular; dark-gray limy sandy shale; crinoids
410- 415	Shale, dark-gray, slightly sandy, limy
415- 422	Limestone, medium- to dark-gray, slightly oolitic, sandy, fossiliferous, finely granular; crinoids, bryozoa
422- 430	Sandstone, medium- to light brownish-gray, very limy, fine- to medium-grained
430- 435	Sandstone, medium-gray, limy, silty, very fine to fine-grained; glauconite
435- 445	Sandstone, medium-gray, limy, silty, siliceous, very fine to fine-grained
445- 460	Sandstone, medium-gray, limy, silty, siliceous, fine-grained; glauconite; dark-gray shale layers
460- 470	Shale, dark-gray to black; sandstone as above
470- 492	Shale, dark-gray to black
492- 497	Limestone, light yellowish-gray to medium-gray, finely to medium sandy; crinoids; bryozoa
497- 500	Siltstone, dark-gray, very shaly, siliceous
500- 530	Sandstone, light-gray, slightly limy, siliceous, very fine grained; medium- to dark-gray micaceous siltstone
530- 536	Sandstone, light-gray, slightly limy, very fine to fine-grained
536- 540	Limestone, medium yellowish-gray, silty, fossiliferous, finely granular to finely crystalline; crinoids; bryozoa
540- 545	Shale, black
545- 548	Sandstone, white, slightly limy, fine-grained
548- 555	Limestone, medium yellowish-gray, slightly sandy, slightly oolitic, crinoidal; glauconite
555- 569	Shale, dark-gray to black, slightly limy
569- 570	Limestone, medium- to dark-gray, coarsely oolitic, silty, shaly, finely granular
570- 571	Shale, dark brownish-gray, siliceous
571- 575	Limestone, medium- to dark-gray, coarsely oolitic, silty, shaly, finely granular
575- 580	Limestone, light- to medium-gray, coarsely oolitic, silty, finely granular; pyrite
580- 605	Limestone, medium- to dark-gray, finely to coarsely oolitic, silty, shaly; black and brown oolites; pyrite
605- 610	Limestone, light- to medium-gray, very oolitic, silty, finely granular; dark-gray shale
610- 615	Limestone, dark-gray, silty, finely granular; dark-gray shale; brachiopods
615- 645	Limestone, medium- to dark-gray, very oolitic, silty, finely granular; dark-gray shale; crinoids and brachiopods
645- 655	Limestone, medium brownish-gray, slightly crinoidal, finely granular
655- 694	Limestone, medium- to dark-gray, silty, slightly oolitic, finely granular to finely crystalline; crinoids, brachiopods, and bryozoa
694- 702	Shale, black, finely micaceous, slightly limy; brachiopods
702- 710	Sandstone, medium-gray, silty, siliceous, slightly sandy, very fine grained; bryozoa
710- 720	Siltstone, medium-gray, slightly limy, very finely sandy
720- 723	Shale, black
723- 725	Shale, medium-gray, slightly limy
725- 729	Sandstone, light-gray, slightly limy, very fine to fine-grained
729- 730	Shale, black
730- 746	Sandstone, light to medium dirty gray, silty, slightly limy, siliceous, fine-grained

Depth in feet	Sample description
746- 755	Siltstone, medium-gray, slightly limy, shaly, siliceous
755- 760	Shale, dark-gray, slightly limy, finely micaceous
760- 815	Shale, dark-gray, finely micaceous, very slightly limy
815- 880	Shale, dark-gray to black, very slightly limy; pyrite
880- 910	Limestone, medium brownish-gray, oolitic, silty, finely granular; crinoids
910- 917	Limestone, light- to medium-gray, mottled, slightly oolitic, silty, finely granular; crinoids; brachiopods
917- 923	Siltstone, dark-gray, limy, slightly dolomitic
923- 926	Limestone, light- to medium-gray, mottled, slightly oolitic, silty, finely granular
926- 945	Shale, medium dark gray, limy, slightly dolomitic, silty
945- 963	Shale, dark-gray, micaceous, limy, dolomitic; pyrite
963- 969	(No samples)
969- 972	Limestone, light- and dark-gray mottled, silty, finely crystalline; pyrite; glauconite
972- 979	Limestone, white to light-gray, slightly silty, slightly oolitic in part, finely crystalline; glauconite
979- 985	(No samples)
985- 992	Limestone, white to light-gray, slightly silty, finely to medium-crystalline; pyrite; glauconite
992- 996	Limestone, white to cream-colored, finely granular; white slightly limy chert; pyrite
996-1004	(No samples)
1004-1009	Chert, light-gray, slightly porous, limy
1009-1014	(No samples)
1014-1040	Limestone, light brownish-gray, finely granular; white smooth chert
1040-1050	As above and white earthy chert; very little limestone
1050-1060	Limestone, light-gray to light brownish-gray, finely granular; white smooth to dull chert; pyrite
1060-1070	As above; very little limestone
1070-1100	Limestone, white, dull, very cherty; pyrite
1100-1110	Limestone, light-gray, finely granular; light-gray smooth to dull chert
1110-1170	Limestone, dull, light-gray, finely mottled, very cherty
1170-1190	Limestone, white to cream-colored, dull, very cherty, very finely granular
1190-1208	Limestone, cream-colored, dull, very cherty
1208-1210	Limestone, light brownish-gray, finely granular; light-gray dull limy chert; pyrite; glauconite
1210-1212	Sandstone, clear, siliceous, fine- to medium-grained; pyrite; glauconite
1212-1225	Limestone, light-gray, slightly sandy, finely granular; white smooth chert with dolomite rhombs and spicules
1225-1230	Limestone, medium-gray, silty, dolomitic, finely sandy, finely granular; white smooth chert
1230-1238	Sandstone, light yellowish-gray, slightly limy, siliceous, fine- to coarse-grained
1238-1247	Limestone, white, slightly sandy, finely to medium-crystalline
1247-1250	Limestone, white, slightly sandy, finely crystalline
1250-1253	Dolomite, white, coarsely crystalline; trace of bright fine sand
1253-1260	Dolomite, light-gray, finely crystalline; quartz crystals
1260-1280	Dolomite, white, medium- to coarsely-crystalline
1280-1300	Dolomite, white, finely to medium-crystalline
1300-1305	Dolomite as above and slightly limy
1305-1310	Dolomite, white to pinkish-white, limy, finely to medium-crystalline
1310-1345	Dolomite, white to pinkish-white, limy, finely to medium-crystalline; streaks of white finely to medium-crystalline limestone
1345-1350	Limestone, white, dolomitic, finely to medium-crystalline
1350-1415	Dolomite, white, limy, finely crystalline
1415-1420	Dolomite, white to pinkish, limy, finely crystalline
1420-1432	Limestone, pinkish-white, dolomitic, finely crystalline; pink limestone crystals in upper half
1432-1445	Shale, greenish-gray, very dolomitic, silty, slightly waxy; pyrite
1445-1460	Shale, medium dark-gray, dolomitic, finely silty; pyrite
1460-1465	Shale, dark-gray, waxy, dolomitic, very limy in lower part; pyrite
1465-1470	Limestone, light-gray, medium- to coarsely crystalline; pyrite
1470-1475	Limestone, light brownish-gray, finely to medium-crystalline; pyrite
1475-1490	Limestone, medium brownish-gray, finely granular; clear calcite crystals
1490-1500	Limestone, gray to light brownish-gray, finely granular to dense; clear calcite crystals
1500-1505	Limestone, cream-colored and gray, finely granular



Depth in feet	Sample description
1505-1510	Limestone, light brownish-gray, dolomitic, finely granular to finely crystalline; pyrite
1510-1518	Limestone, medium-gray, dense to finely granular
1518-1528	Limestone, light- to medium-gray, dolomitic, silty, finely sandy, finely granular to finely crystalline; finely mottled gray rough chert; black smooth chert
1528-1540	Sandstone, white, fine- to medium-grained, free drilling; trace of bluish-green shale
1540-1546	As above and light- to medium-gray dolomitic slightly sandy shale
1546-1550	Sandstone, white, fine -to medium-grained
1550-1552	Sandstone, white, dolomitic, fine- to medium-grained
1552-1555	(No samples)
1555-1560	Sandstone, white, dolomitic, very fine to medium-grained; trace of bluish-green shale
1560-1564	Shale, medium-gray, slightly dolomitic
1564-1575	Sandstone, white slightly dolomitic, fine- to medium-grained, free drilling
1575-1580	As above and streaks of finely granular to finely crystalline dolomite
1580-1590	Sandstone, white to gray, dolomitic, fine- to medium-grained
1590-1605	Sandstone, white to light-gray, fine- to medium-grained, free drilling
1605-1640	Sandstone, light- to medium-gray, dolomitic, fine- to medium-grained, free drilling
1640-1645	Sandstone, white, very fine to medium-grained
1645-1660	Sandstone, light-gray, dolomitic, fine- to medium-grained
1660-1670	Sandstone as above, and medium-gray silty slightly sandy finely granular dolomite
1670-1675	Sandstone, light-gray, dolomitic, very fine to medium-grained
1675-1720	Sandstone, white, fine- to medium-grained, free drilling
1720-1730	Sandstone as above; coarse round and frosted sand grains
1730-1740	Sandstone, white, fine- to coarse-grained, free drilling
1740-1750	Sandstone, white, very fine to fine-grained, free drilling
1750-1775	Sandstone, white, fine- to medium-grained, free drilling
1775-1827	Sandstone, white, very fine to medium-grained, free drilling
1827-1830	Limestone, light-gray, very sandy, finely granular; trace of bluish-green shale
1830-1842	Limestone as above and dolomitic in part
1842-1847	Sandstone, light-gray, limy, dolomitic, fine- to coarse-grained; trace of bluish-green shale
1847-1858	Limestone, light-gray, finely to medium sandy, slightly dolomitic, finely granular; bluish-green shale
1858-1860	Sandstone, white, fine- to medium-grained
1860-1865	Sandstone, white, slightly limy, very fine to medium-grained, free drilling
1865-1877	Sandstone, white, very fine to medium-grained, free drilling
1877-1885	Dolomite, light- to medium-gray, very sandy, finely to medium-crystalline
1885-1893	Dolomite, light-gray to light brownish-gray, sandy to slightly sandy, finely to medium-crystalline
1893	TOTAL DEPTH

## FRANKLIN COUNTY (1)

Operator: Arkansas-Louisiana Gas Co.    Elevation: 815 ft.  
 Well No.: 1    Total depth: 6650 ft.  
 Lease: Barton    Completion date: Sept. 26, 1949  
 Location: SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 9    Logged by: R. J. Lantz  
           N., R. 28 W.

### Formation Tops

	Depth (ft.)
Atoka formation	55
Bloyd shale	4447
Kessler limestone member of the Bloyd shale	4528 (?)
Brentwood limestone member of the Bloyd shale	4724
Prairie Grove member of the Hale formation	4792
Cane Hill member of the Hale formation	4930
Pitkin limestone	5181
Fayetteville shale	5400
Moorefield formation	5567
Boone formation	5760
Chattanooga shale	5812
Penters chert	5852
Silurian rocks undifferentiated	5910
Cason shale	6164
Fernvale limestone	6210
Kimmswick (?) and Plattin limestones undifferentiated	6239
St. Peter sandstone	6310
Everton formation	6410

Depth  
in feet

Sample description

0-	50	Sandstone, white, micaceous, fine-grained; some red and brown iron-staining; few magnetite grains
50-	55	Sandstone, gray, micaceous, shaly, very fine grained, subangular
55-	80	Shale, dark-gray to black, slightly fissile, micaceous; ironstone concretions
80-	96	Shale, dark-gray to black, slightly fissile, micaceous; fine pyrite crystals
96-	110	Shale, dark-gray to black, slightly fissile, micaceous
110-	115	Shale, dark-gray, very micaceous, very finely sandy
115-	120	Shale, dark-gray, micaceous, very finely sandy
120-	124	Siltstone, dark-gray to gray, micaceous, shaly; to very fine grained sandstone
124-	128	Siltstone, gray, micaceous, slightly shaly; to very fine grained sandstone
128-	130	Siltstone, gray to dark-gray, micaceous, shaly; to very fine grained sandstone
130-	238	Shale, dark-gray to black, slightly fissile, micaceous
238-	250	Sandstone, dark-gray to gray, very micaceous, shaly, very fine grained
250-	280	Siltstone, dark-gray, micaceous, shaly; to very fine grained sandstone
280-	300	Siltstone, dark-gray to gray, slightly micaceous, shaly; to very fine grained sandstone
300-	309	Siltstone, gray, micaceous, slightly shaly; to very fine grained sandstone
309-	311	Shale, dark-gray to black, micaceous, slightly silty to very finely sandy

**Depth  
in feet**

**Sample description**

311- 327	Siltstone, gray, micaceous, slightly shaly; to very fine grained sandstone
327- 330	Shale, dark-gray to black, micaceous, silty to very finely sandy
330- 333	Sandstone, gray, micaceous, slightly shaly and silty, very fine grained
333- 335	Shale, dark-gray to black, micaceous, silty to very finely sandy
335- 367	Sandstone, gray, micaceous, slightly shaly and silty, very fine to fine-grained
367- 370	Shale, dark-gray to black, micaceous, slightly silty
370- 379	Sandstone, gray, micaceous, slightly shaly and silty, very fine to fine-grained
379- 381	Shale, dark-gray to black, micaceous, silty
381- 383	Sandstone, gray, micaceous, slightly shaly and silty, very fine to fine-grained
383- 390	Shale, dark-gray to black, micaceous, silty
390- 393	Siltstone, dark-gray, micaceous, shaly; to very fine grained sandstone
393- 396	Sandstone, gray, micaceous, slightly shaly and silty, very fine grained
396- 398	Siltstone, dark-gray, micaceous, shaly; to very fine grained sandstone
398- 402	Shale, dark-gray, micaceous, very silty
402- 408	Sandstone, light-gray, slightly micaceous, very slightly shaly, fine-grained; drills free
408- 412	Shale, dark-gray to black, micaceous, very silty
412- 422	Sandstone, light-gray, slightly micaceous, very slightly shaly, fine-grained; drills free
422- 437	Sandstone, gray, micaceous, shaly and silty, very fine to fine-grained
437- 445	Shale, gray, micaceous, silty
445- 449	Sandstone, dark-gray, shaly and silty, very fine grained
449- 454	Shale, dark-gray to black, micaceous, finely pyritic, silty
454- 461	Sandstone, gray and dark-gray, micaceous, shaly and silty, very fine grained
461- 475	Shale, dark-gray to black, micaceous, silty
475- 476	Sandstone, light-gray, micaceous, very fine grained
476- 479	Shale, dark-gray to black, micaceous, silty
479- 480	Sandstone, gray, micaceous, silty, very fine grained
480- 482	Shale, dark-gray to black, micaceous, silty
482- 483	Sandstone, gray, micaceous, silty, very fine grained
483- 485	Shale, dark-gray to black, micaceous, silty
485- 486	Sandstone, gray, micaceous, silty, very fine grained
486- 488	Shale, dark-gray to black, micaceous, silty
488- 489	Sandstone, gray, micaceous, silty, very fine grained
489- 493	Shale, dark-gray to black, micaceous, silty
493- 494	Sandstone, gray, micaceous, silty, very fine grained
494- 499	Shale, dark-gray to black, micaceous, silty
499- 504	Sandstone, gray, micaceous, silty, very fine grained
504- 510	Shale, dark-gray to black, micaceous, silty
510- 513	Sandstone, gray, micaceous, silty, very fine grained
513- 526	Shale, black, very micaceous, fissile, silty
526- 529	Sandstone, gray, micaceous, silty, very fine grained
529- 533	Shale, black, very micaceous, fissile, silty
533- 535	Sandstone, gray, micaceous, silty, very fine grained
535- 540	Shale, dark-gray to black, micaceous, silty to very finely sandy
540- 552	Shale, black, slightly micaceous, fissile
552- 562	Shale, dark-gray to black, micaceous, slightly pyritic, silty to very finely sandy
562- 565	Sandstone, dark-gray, micaceous, very shaly and silty, very fine grained
565- 568	Shale, dark-gray to black, micaceous, silty to very finely sandy
568- 576	Shale, dark-gray to black, micaceous, slightly silty to very finely sandy
576- 579	Shale, dark-gray to black, micaceous, silty to very finely sandy
579- 582	Sandstone, dark-gray, micaceous, shaly and silty, very fine grained
582- 585	Shale, dark-gray to black, micaceous, silty to very finely sandy
585- 594	Shale, black, micaceous, slightly silty
594- 596	Shale, dark-gray to black, slightly micaceous, silty
596- 606	Shale, black, slightly micaceous, slightly silty
606- 608	Shale, dark-gray to black, slightly micaceous, very silty
608- 621	Shale, black, slightly micaceous, slightly silty

Depth in feet	Sample description
621- 624	Shale, dark-gray, micaceous, silty to very finely sandy
624- 629	Sandstone, gray, micaceous, shaly, very fine to fine-grained
629- 632	Sandstone, light-gray to white, fine-grained
632- 635	Sandstone, gray, micaceous, shaly, very fine to fine-grained
635- 636	Shale, dark-gray, micaceous, silty
636- 639	Sandstone, gray, micaceous, shaly, very fine grained
639- 641	Shale, dark-gray, micaceous, silty
641- 645	Sandstone, gray, micaceous, shaly and silty, very fine to fine-grained
645- 651	Shale, dark-gray, slightly micaceous, silty
651- 670	Shale, black, micaceous
670- 702	Shale, dark-gray to black, micaceous, silty
702- 706	Shale, dark-gray to black, micaceous, very silty
706- 708	Sandstone, dark-gray, micaceous, shaly and silty, very fine grained
708- 713	Shale, dark-gray to black, micaceous, silty
713- 715	Shale, dark-gray to black, micaceous, very silty
715- 718	Shale, dark-gray to black, micaceous, silty
718- 719	Sandstone, dark-gray, micaceous, shaly and silty, very fine grained
719- 730	Shale, dark-gray, micaceous
730- 732	Shale, dark-gray, very micaceous, silty
732- 736	Shale, dark-gray, micaceous
736- 739	Shale, dark-gray, very micaceous, silty
739- 743	Sandstone, gray, micaceous, shaly and silty, very fine grained
743- 801	Shale, black, micaceous
801- 820	Shale, dark-gray to black, micaceous, finely pyritic
820- 830	Shale, dark-gray to black, silty to very finely sandy
830- 840	(No samples)
840- 841	Shale, dark-gray, micaceous, very finely sandy
841- 847	Sandstone, light-gray to white, micaceous, very fine to fine-grained
847- 851	Shale, dark-gray, micaceous, very finely sandy
851- 871	Sandstone, light-gray to white, micaceous, poorly sorted, very fine to medium-grained
871- 945	Shale, dark-gray to black, micaceous, silty
945- 955	Siltstone, gray, micaceous, shaly; to very fine grained sandstone
955- 973	Shale, dark-gray to black, micaceous, silty
973- 979	Sandstone, gray, micaceous, slightly shaly, fine- to medium-grained
979- 990	Sandstone, light gray to white, micaceous, fine- to medium-grained
990- 994	Siltstone, gray, micaceous, shaly; to very fine grained sandstone
994- 997	Shale, dark-gray, micaceous, silty to very finely sandy
997- 999	Siltstone, gray, micaceous, shaly; to very fine grained sandstone
999-1005	Shale, dark-gray, micaceous, silty to very finely sandy
1005-1007	Siltstone, gray, micaceous, shaly; to very fine grained sandstone
1007-1011	Shale, dark-gray, micaceous, silty
1011-1012	Siltstone, dark-gray, micaceous, shaly; to very fine grained sandstone
1012-1018	Shale, dark-gray to black, micaceous, silty
1018-1019	Siltstone, dark-gray, micaceous, shaly; to very fine grained sandstone
1019-1026	Shale, dark-gray to black, micaceous, silty
1026-1028	Sandstone, gray, slightly shaly, fine- to medium-grained; drills free
1028-1047	Sandstone, light-gray to white, fine- to medium-grained; drills free
1047-1058	Sandstone, gray to dark-gray, micaceous, shaly, very fine grained
1058-1062	Siltstone, light-gray, micaceous; to very fine grained sandstone
1062-1072	Shale, dark-gray to black, micaceous
1072-1075	Siltstone, gray, micaceous, slightly shaly; to very fine grained sandstone
1075-1083	Shale, dark-gray to black, micaceous, silty
1083-1090	Sandstone, light-gray to white, slightly micaceous, very fine to fine-grained
1090-1093	Shale, dark-gray, micaceous, silty
1093-1113	Sandstone, light-gray to white, micaceous, silty, very fine to fine-grained
1113-1120	Shale, dark-gray, micaceous, silty to very finely sandy

Depth in feet	Sample description
1120-1127	Sandstone, light-gray to gray, micaceous, shaly and silty, very fine to fine-grained
1127-1129	Shale, dark-gray, micaceous, very silty
1129-1138	Siltstone, gray to dark-gray, micaceous, shaly; to very fine grained sandstone
1138-1144	Siltstone, dark-gray, micaceous, very shaly; to very fine grained sandstone
1144-1152	Shale, dark-gray, micaceous, silty
1152-1166	Shale, black, micaceous
1166-1173	Sandstone, gray, micaceous, shaly, very fine grained
1173-1192	Shale, dark-gray to black, micaceous, silty
1192-1211	Shale, black, micaceous
1211-1216	Shale, black, micaceous, finely pyritic
1216-1231	Shale, black, micaceous
1231-1235	Shale, dark-gray to black, micaceous, silty
1235-1240	Sandstone, gray to light-gray, micaceous, very fine to fine-grained
1240-1243	Sandstone, gray to light-gray, micaceous, very fine to fine-grained; free drilling in part
1243-1259	Sandstone, light-gray to white, micaceous, very fine to fine-grained; free drilling in part
1259-1264	Shale, dark-gray, micaceous, silty to very finely sandy
1264-1274	Siltstone, gray, micaceous, shaly; to very fine grained sandstone
1274-1281	Sandstone, light-gray to white, micaceous, silty, very fine to fine-grained; grains drill free
1281-1302	Sandstone, light-gray, micaceous, silty, very fine to fine-grained
1302-1313	Siltstone, gray, grading downward to dark-gray, micaceous, shaly; to very fine grained sandstone
1313-1318	Shale, dark-gray to black, micaceous, slightly very finely sandy
1318-1323	Siltstone, gray, micaceous, shaly; to very fine grained sandstone
1323-1326	Shale, dark-gray, micaceous, very finely sandy
1326-1332	Shale, black, micaceous, slightly silty
1332-1337	Shale, dark-gray, micaceous, silty to very finely sandy
1337-1345	Shale, dark-gray to black, micaceous, slightly silty
1345-1347	Shale, dark-gray, micaceous, silty to very finely sandy
1347-1386	Shale, black, micaceous
1386-1395	Shale, dark-gray, micaceous, silty to very finely sandy
1395-1401	Shale, black, micaceous
1401-1405	Siltstone, gray to light-gray, micaceous, slightly shaly; to very fine grained sandstone
1405-1408	Sandstone, light-gray to white, micaceous, very fine grained
1408-1411	Sandstone, gray, micaceous, slightly shaly, very fine grained
1411-1423	Shale, gray to dark-gray, micaceous, silty to very finely sandy
1423-1434	Shale, dark-gray to black, micaceous, slightly silty
1434-1436	Shale, gray, micaceous, silty to very finely sandy
1436-1440	Sandstone, light-gray, micaceous, very fine to fine-grained
1440-1442	Shale, gray, micaceous, silty to very finely sandy
1442-1447	Shale, dark-gray to black, micaceous
1447-1448	Shale, dark-gray, micaceous, slightly silty
1448-1495	Shale, black, micaceous
1495-1508	Siltstone, light-gray to white; to very fine grained sandstone; drills free
1508-1522	Shale, dark-gray, micaceous, silty to very finely sandy
1522-1536	Siltstone, gray, micaceous, shaly; to very fine grained sandstone
1536-1540	Shale, dark-gray, micaceous, very finely sandy
1540-1541	Siltstone, light-gray, micaceous; to very fine grained sandstone
1541-1542	Shale, dark-gray, micaceous, silty
1542-1545	Siltstone, light-gray, micaceous; to very fine grained sandstone
1545-1556	Shale, dark-gray to black, micaceous, silty
1556-1560	Sandstone, light-gray, micaceous, slightly shaly, very fine grained
1560-1562	Shale, dark-gray, micaceous, silty
1562-1571	Sandstone, light-gray to white, micaceous, very fine to fine-grained; free drilling in part
1571-1579	Sandstone, gray, micaceous, slightly shaly, very fine to fine-grained
1579-1592	Shale, dark-gray to black, micaceous, silty
1592-1603	Shale, black, micaceous
1603-1604	Sandstone, gray, micaceous, shaly, very fine grained

Depth in feet	Sample description
1604-1608	Shale, black, micaceous
1608-1610	Sandstone, gray, micaceous, shaly, very fine grained
1610-1616	Shale, black, micaceous
1616-1617	Sandstone, gray, micaceous, shaly, very fine grained
1617-1638	Shale, black, micaceous
1638-1640	Sandstone, gray, micaceous, shaly, very fine grained
1640-1684	Shale, black, micaceous
1684-1688	Shale, black, micaceous, finely pyritic
1688-1705	Shale, black, micaceous
1705-1713	Siltstone, light-gray to white, micaceous; to very fine grained sandstone
1713-1720	Shale, black, micaceous
1720-1727	Sandstone, light grayish-green, micaceous, very fine to fine-grained
1727-1731	Shale, black, micaceous
1731-1733	Siltstone, light grayish-green, micaceous; to very fine grained sandstone
1733-1735	Shale, black, micaceous
1735-1740	Sandstone, white, micaceous, fine-grained; drills free
1740-1750	Sandstone, white, micaceous, fine- to medium-grained; drills free
1750-1752	Sandstone, light-gray, micaceous, shaly, very fine to fine-grained
1752-1753	Shale, black, micaceous
1753-1761	Sandstone, light-gray, micaceous, shaly, very fine to fine-grained
1761-1788	Shale, dark-gray, micaceous
1788-1800	Shale, dark-gray, micaceous, very finely sandy
1800-1814	Siltstone, gray, micaceous, shaly; to very fine grained sandstone
1814-1818	Shale, dark-gray, micaceous, very finely sandy
1818-1842	Shale, maroon, micaceous, silty
1842-1845	Shale, maroon, micaceous, very finely sandy
1845-1922	Shale, dark-gray, slightly micaceous
1922-1924	Shale, dark-gray, very finely sandy
1924-1972	Shale, dark-gray, slightly micaceous
1972-1979	Siltstone, gray, shaly; to very fine grained sandstone
1979-1984	Shale, dark-gray, slightly micaceous
1984-2006	Sandstone, white, micaceous, very fine grained; free drilling in part
2006-2048	Shale, black, micaceous, fissile
2048-2052	Shale, dark-gray, very finely sandy
2052-2075	Shale, black, micaceous, fissile
2075-2083	Sandstone, gray to light-gray, micaceous, very fine grained
2083-2090	Shale, black, micaceous, fissile
2090-2098	Sandstone, white, micaceous, very fine grained; drills free
2098-2106	Sandstone, white, micaceous, very fine to fine-grained; drills free
2106-2113	Sandstone, white, micaceous, very fine to fine-grained
2113-2136	Sandstone, white, micaceous, very fine to fine-grained; free drilling in part
2136-2140	Sandstone, gray, micaceous, shaly, very fine to fine-grained
2140-2142	Shale, dark-gray, micaceous
2142-2148	Sandstone, gray, micaceous, shaly, very fine grained
2148-2152	Shale, dark-gray, micaceous
2152-2154	Shale, gray, micaceous, very finely sandy
2154-2167	Sandstone, light-gray, micaceous, slightly shaly, very fine grained
2167-2172	Shale, dark-gray, micaceous
2172-2174	Shale, dark-gray, micaceous, silty
2174-2177	Siltstone, gray, micaceous, shaly; to very fine grained sandstone
2177-2179	Shale, dark-gray, micaceous, silty
2179-2191	Shale, black, micaceous
2191-2194	Siltstone, white, micaceous; to very fine grained sandstone
2194-2196	Shale, black, micaceous
2196-2201	Siltstone, light-gray to white, micaceous; to very fine grained sandstone
2201-2211	Sandstone, light-gray to gray, micaceous, slightly shaly, very fine to fine-grained

Depth in feet	Sample description
2211-2220	Shale, black, micaceous, very finely sandy
2220-2235	Shale, black, micaceous
2235-2238	Shale, dark-gray, micaceous, silty
2238-2259	Sandstone, light-gray, micaceous, slightly shaly, very fine to fine-grained
2259-2266	Sandstone, white, micaceous, very fine to fine-grained
2266-2298	Shale, dark-gray to black, micaceous
2298-2322	Sandstone, light-gray, silty, very fine to fine-grained
2322-2338	Sandstone, white, micaceous, very fine to fine-grained; drills free
2338-2356	Sandstone, white, micaceous, fine-grained; drills free
2356-2359	Shale, black, micaceous
2359-2366	Sandstone, white, micaceous, very fine to fine-grained; drills free
2366-2370	Shale, black, micaceous
2370-2375	Sandstone, white, micaceous, very fine grained
2375-2378	Shale, black, micaceous
2378-2382	Siltstone, light-gray, micaceous, slightly shaly; to very fine grained sandstone
2382-2393	Shale, black, micaceous
2393-2395	Shale, dark-gray, very finely sandy
2395-2401	Shale, black, micaceous
2401-2403	Shale, dark-gray, very finely sandy
2403-2437	Shale, black, micaceous, slightly silty
2437-2452	Shale, dark-gray, micaceous, very finely sandy
2452-2477	Shale, black, micaceous
2477-2479	Shale, dark-gray, micaceous, very finely sandy
2479-2497	Shale, black, micaceous
2497-2503	Sandstone, white, micaceous, very fine grained
2503-2508	Shale, black, micaceous, silty
2508-2511	Sandstone, white, micaceous, very fine grained
2511-2514	Shale, black, micaceous, silty
2514-2518	Sandstone, white, micaceous, very fine grained
2518-2520	Shale, black, micaceous
2520-2527	Siltstone, white to light-gray, slightly shaly; to very fine grained sandstone
2527-2534	Shale, black, micaceous
2534-2539	Siltstone, light-gray, slightly shaly; to very fine grained sandstone
2539-2542	Shale, black, micaceous
2542-2550	Siltstone, light-gray, slightly shaly; to very fine grained sandstone
2550-2552	Shale, dark-gray, micaceous, slightly silty
2552-2562	Siltstone, light-gray, micaceous, slightly shaly; to very fine grained sandstone
2562-2565	Shale, dark-gray, micaceous
2565-2567	Sandstone, white, micaceous, very fine grained
2567-2569	Shale, dark-gray, micaceous
2569-2572	Sandstone, white, micaceous, very fine grained
2572-2574	Shale, dark-gray, micaceous
2574-2586	Sandstone, white, micaceous, very fine grained
2586-2590	Shale, dark-gray, micaceous
2590-2592	Siltstone, light-gray, micaceous; to very fine grained sandstone
2592-2596	Shale, dark-gray, micaceous
2596-2600	Sandstone, white, micaceous, very fine grained
2600-2603	Shale, dark-gray, micaceous
2603-2604	Sandstone, white, micaceous, very fine grained
2604-2607	Shale, dark-gray, micaceous
2607-2609	Sandstone, light-gray, micaceous, slightly shaly, very fine grained
2609-2632	Shale, dark-gray, micaceous, slightly very finely sandy
2632-2648	Shale, black, micaceous
2648-2650	Siltstone, gray, micaceous, slightly shaly; to very fine grained sandstone
2650-2663	Sandstone, white, slightly micaceous, very fine grained
2663-2672	Shale, dark-gray, micaceous, silty to very finely sandy

Depth in feet	Sample description
2672-2684	Shale, black, micaceous
2684-2693	Sandstone, white, slightly micaceous, very fine to fine-grained
2693-2698	Shale, dark-gray, micaceous, silty
2698-2705	Shale, black, micaceous
2705-2711	Sandstone, gray, micaceous, slightly shaly, very fine grained
2711-2716	Shale, black, micaceous
2716-2722	Sandstone, white, micaceous, very fine to fine-grained
2722-2725	Shale, black, micaceous
2725-2731	Sandstone, white, micaceous, very fine to fine-grained
2731-2737	Shale, dark-gray, micaceous, very finely sandy
2737-2741	Siltstone, white, micaceous; to very fine grained sandstone
2741-2768	Siltstone, light-gray, micaceous, slightly shaly; to very fine grained sandstone
2768-2773	Shale, black, micaceous
2773-2780	Sandstone, white, micaceous, very fine to fine-grained
2780-2784	Shale, dark-gray, micaceous
2784-2790	Sandstone, gray, micaceous, shaly, very fine to fine-grained
2790-2805	Shale, black, micaceous, slightly silty
2805-2809	Sandstone, light-gray, micaceous, very fine to fine-grained
2809-2854	Shale, black, micaceous
2854-2856	Sandstone, light-gray, slightly micaceous, slightly shaly, fine-grained
2856-2881	Sandstone, white, slightly micaceous, fine-grained
2881-2904	Shale, black, micaceous, slightly silty
2904-2906	Sandstone, gray, micaceous, shaly, very fine grained
2906-2915	Sandstone, white, micaceous, very fine to fine-grained
2915-2925	Sandstone, dark-gray, micaceous, silty
2925-2934	Sandstone, white, micaceous, very fine to fine-grained
2934-2940	Shale, black, micaceous
2940-2943	Sandstone, white, micaceous, very fine to fine-grained
2943-2945	Shale, black, micaceous
2945-2952	Sandstone, white, micaceous, very fine to fine-grained
2952-2991	Shale, black, micaceous, fissile, jointed; light grayish-green silty furoid marks
2991-2992	Shale, black, fissile, jointed
2992-3007	Shale, black, micaceous, fissile, jointed; light grayish-green silty furoid marks
3007-3040	Shale, black, micaceous, fissile, jointed; very thin silty streaks
3040-3051	Siltstone, dark-gray to gray, micaceous, shaly; to very fine grained sandstone; shale fragments
3051-3062	Sandstone, light-gray, furoidal, very fine to fine-grained
3062-3062½	Shale, black, micaceous, fissile
3062½-3074	Sandstone, light-gray, furoidal, very fine to fine-grained
3074-3075	Shale, black, micaceous, fissile, jointed
3075-3087	Sandstone, light-gray, furoidal, very fine to fine-grained; "Taonurus-like markings" at 3,078 feet
3087-3088	Shale, black, micaceous, fissile, jointed
3088-3090	Sandstone, dark-gray, micaceous, shaly, very fine to fine-grained
8090-3110	Shale, black, micaceous, fissile, slightly furoidal
8110-3127	Shale, black, micaceous, fissile, jointed
3127-3148	Siltstone, gray to light-gray, micaceous, shaly; to very fine grained sandstone
3148-3166	Siltstone, gray to light-gray, micaceous, furoidal, slightly shaly; to very fine grained sandstone
3166-3175	Siltstone, light-gray, micaceous; to very fine grained sandstone
3175-3191	Siltstone, light-gray to gray, slightly shaly; to very fine grained sandstone; shale fragments and thin shale partings
3191-3206	Siltstone, gray to dark-gray, very shaly; to very fine grained sandstone; thin shale partings
3206-3215	Shale, black, micaceous, furoidal, silty
3215-3218	Alternating thin beds of black micaceous shale and light-gray siltstone
3218-3240	Siltstone, gray to light-gray, micaceous, furoidal, slightly shaly
3240-3243	Siltstone, dark-gray, micaceous, very furoidal, shaly
3243-3265	Siltstone, dark-gray, micaceous, furoidal, shaly; to very fine grained sandstone; thin shale partings
3265-3276	Shale, dark-gray, micaceous, silty



Depth in feet	Sample description
3276-3286	Shale, black, micaceous, fissile
3286-3291	Sandstone, brown, micaceous, slightly limy, very fine to fine-grained; small fragments of crinoids, bryozoa, and brachiopods
3291-3335	Shale, black, micaceous, fissile, jointed, slightly fucoidal
3335-3340	Sandstone, gray to grayish-brown, micaceous, very fine to fine-grained
3340-3345½	Sandstone, grayish-brown, micaceous, slightly limy, very fine to fine-grained; many crinoid fragments
3345½-3348	Sandstone, grayish-brown, micaceous, very fine to fine-grained
3348-3354	Shale, black, micaceous, fucoidal, silty
3354-3371	Shale, black, micaceous, fissile, jointed, silty
3371-3380½	Sandstone, light-gray, fucoidal, very slightly limy, very fine to fine-grained
3380½-3389	Shale, black, micaceous, fucoidal, silty
3389-3402	Siltstone, white, very slightly limy; to very fine grained sandstone
3402-3403	Siltstone, black, fucoidal, very shaly
3403-3406	Siltstone, white, very slightly limy; to very fine grained sandstone
3406-3410	Shale, black, micaceous, fucoidal, silty
3410-3418	Siltstone, dark-gray, micaceous, shaly; to very fine grained sandstone
3418-3429	Siltstone, gray, micaceous, slightly shaly; to very fine grained sandstone; thin black shale partings
3429-3442	Shale, black, micaceous, fissile, jointed, slightly fucoidal
3442-3443½	Siltstone, dark-gray, micaceous, shaly; to very fine grained sandstone
3443½-3478	Shale, black, micaceous, fissile, jointed
3478-3481	Siltstone, dark-gray, micaceous, fucoidal, shaly
3481-3484	Shale, black, micaceous, fissile; few thin layers of light-gray siltstone
3484-3494	Siltstone, dark-gray, micaceous, shaly; to very fine grained sandstone; thin black shale partings
3494-3498	Shale, black, micaceous, fissile, jointed
3498-3518	Siltstone, light-gray, micaceous; to very fine grained sandstone; worm burrows
3518-3519	Siltstone, dark-gray, micaceous, shaly; to very fine grained sandstone
3519-3521	Siltstone, light-gray, micaceous; to very fine grained sandstone
3521-3522	Shale, black, micaceous, fissile, jointed
3522-3525	Siltstone, light-gray, micaceous; to very fine grained sandstone
3525-3526	Shale, black, micaceous, fissile, jointed
3526-3530	Siltstone, gray to light-gray, micaceous, fucoidal; to very fine grained sandstone
3530-3545	Shale, black, micaceous, fissile, jointed
3545-3560	Sandstone, gray, very fine to fine-grained; thin black micaceous shale partings
3560-3563	Sandstone, dark-gray, shaly, very fine to fine-grained
3563-3576	Sandstone, gray, very fine to fine-grained
3576-3577	Sandstone, dark-gray, shaly, very fine to fine-grained
3577-3590	Sandstone, gray, very fine to fine-grained
3590-3595	Sandstone, dark-gray, shaly, very fine grained
3595-3641	Siltstone, grayish-green, micaceous, fucoidal, slightly shaly
3641-3649	Siltstone, dark-gray, micaceous, fucoidal, shaly
3649-3654	Shale, black, micaceous, fissile, jointed
3654-3664	Shale, gray, micaceous, fucoidal, silty
3664-3724	Shale, black, micaceous, fissile, jointed
3724-3743	Shale, dark-gray, micaceous, fucoidal, silty
3743-3803	Shale, black, micaceous, fissile, jointed
3803-3805	Siltstone, gray, micaceous; black shale fragments
3805-3812½	Shale, black, micaceous, fissile, jointed, slightly fucoidal
3812½-3814	Siltstone, light-gray, micaceous
3814-3838	Siltstone, light-gray, slightly limy; to very fine grained sandstone; few small black shale fragments; small cavities; few plant remains
3838-3844	Shale, black, micaceous, fissile, jointed, slightly fucoidal
3844-3853	Sandstone, gray, micaceous, slightly shaly, very fine grained
3853-3857	Siltstone, light-gray, fucoidal; thin black shale partings
3857-3860	Shale, black, micaceous, fissile, jointed
3860-3864	Siltstone, gray, fucoidal
3864-3867	Shale, black, micaceous, fissile, jointed, slightly fucoidal

Depth in feet	Sample description
3867-3871	Shale, black, micaceous, fissile, jointed
3871-3872	Shale, black, micaceous, fucoidal
3872-3880	Shale, black, micaceous, fissile, jointed
3880-3881	Shale, black, micaceous, fucoidal
3881-3891	Shale, black, micaceous, fissile, jointed
3891-3908	Siltstone, light-gray to white; to very fine grained sandstone
3908-3913	Siltstone, white; to very fine grained sandstone; large black micaceous shale fragments included
3913-3920	Shale, black, micaceous, fissile, jointed
3920-3931	Siltstone, gray, very slightly limy; to very fine grained sandstone
3931-3934½	Siltstone, gray, micaceous; to very fine grained sandstone; few small black shale fragments included
3934½-3943	Siltstone, gray, micaceous, fucoidal, shaly
3943-3967	Shale, black, micaceous, fissile, fucoidal, silty
3967-3971	Alternating thin beds of black micaceous fissile shale and gray siltstone
3971-3972	Siltstone, gray, micaceous, fucoidal, shaly
3972-3974	Siltstone, light-gray, micaceous, very slightly limy; to very fine grained sandstone; few small shale fragments included
3974-3976	Alternating thin beds of black micaceous fissile shale and light-gray siltstone
3976-4015	Shale, black, micaceous, fissile, jointed
4015-4021	Siltstone, light-gray, very slightly limy; to very fine grained sandstone
4021-4022	Siltstone, gray, fucoidal, shaly
4022-4024	Siltstone, light-gray, very slightly limy
4024-4025	Siltstone, gray, fucoidal, shaly
4025-4026	Siltstone, light-gray, very slightly limy
4026-4029	Siltstone, gray, fucoidal, shaly
4029-4045	Shale, black, micaceous, fucoidal, silty
4045-4069	Shale, black, micaceous, fissile, jointed
4069-4076	Siltstone, light-gray, micaceous; to very fine grained sandstone
4076-4077	Siltstone, white, slightly micaceous, slightly limy; to very fine grained sandstone
4077-4078	Siltstone, light-gray, micaceous; to very fine grained sandstone
4078-4079	Siltstone, white, very slightly limy; to very fine grained sandstone
4079-4081	Alternating thin beds of gray and white micaceous siltstone and very fine grained sandstone
4081-4107	Siltstone, white, micaceous, very slightly limy; to very fine grained sandstone; thin black shale partings
4107-4112	Shale, gray, micaceous, silty
4112-4183	Shale, black, micaceous, fissile, fucoidal, silty
4183-4231	Siltstone, gray, micaceous, fucoidal, shaly; thin black micaceous shale partings
4231-4232	Shale, black, micaceous, fissile, jointed
4232-4240	Siltstone, light-gray, micaceous; to very fine grained sandstone; thin black micaceous shale partings
4240-4266	Siltstone, gray, micaceous, fucoidal, shaly
4266-4270	Shale, black, micaceous, slightly fucoidal, silty
4270-4401	Shale, black, micaceous, fissile, jointed; finely pyritic in part
4401-4406	Siltstone, gray, micaceous, shaly; to very fine grained sandstone
4406-4433	Shale, black, micaceous, fissile
4433-4447	Sandstone, gray, limy, shaly, very fine to fine-grained
4447-4454	Shale, black, micaceous, fissile
4454-4455	Siltstone, light-gray, micaceous
4455-4457	Shale, black, micaceous, fissile
4457-4458	Siltstone, light-gray, micaceous
4458-4470	Shale, black, micaceous, fissile
4470-4480	(No samples)
4480-4490	Sandstone, gray to dark-gray, shaly, very fine to fine-grained
4490-4530	(No samples)
4530-4551	Limestone, gray to grayish-buff, finely sandy, coarsely crystalline, with dark-gray medium-sized oolites; small fragments of brachiopods, bryozoa, and crinoids
4551-4555	Sandstone, light-gray, limy, fine-grained; little green shale
4555-4561½	Sandstone, gray to dark-gray, slightly limy, shaly, fine-grained; little grayish-green shale
4561½-4568	Shale, black, fissile

Depth in feet	Sample description
4568-4579	Shale, black, finely pyritic, fissile
4579-4580	Sandstone, light-gray, very fine grained
4580-4582	Shale, black, fissile
4582-4583	Sandstone, light-gray, very fine grained
4583-4648	Shale, black, fissile, slightly silty
4648-4693	Shale, black, fissile
4693-4707	Siltstone, light-gray, micaceous, slightly limy; to very fine grained sandstone
4707-4708½	Siltstone, light-gray, micaceous, slightly limy; to very fine grained sandstone; brown pebbles up to ¼-inch in diameter; crinoid fragments
4708½-4711	Limestone, dark-gray, finely crystalline; small fragments of crinoids, bryozoa, and brachiopods
4711-4715	Siltstone, gray, micaceous, slightly limy; to very fine grained sandstone
4715-4724	Shale, dark-gray, micaceous, silty
4724-4732	Limestone, dark grayish-black, silty, finely crystalline; crinoid fragments
4732-4737	Shale, black, micaceous, fissile, jointed; few thin streaks of black crinoidal finely crystalline limestone
4737-4743	Limestone, black, silty, finely crystalline; crinoid fragments; <i>Bairdia</i> sp., <i>Kellettina</i> sp., <i>Ectodemites</i> (?), and <i>Healdia</i> (?) at 4,740 feet.
4743-4748	Shale, black, micaceous, fissile, jointed
4748-4752	Limestone, black, silty, finely crystalline; crinoid fragments
4752-4754	Shale, black, slightly limy
4754-4761	Limestone, black, silty to shaly, finely crystalline; crinoid fragments; thin black shale partings
4761-4789	Shale, black, micaceous, fissile, jointed
4789-4792	Siltstone, light-gray, micaceous
4792-4810	Limestone, dark grayish-buff, medium-crystalline, with dark medium-sized oolites; brachiopod spines and shell fragments
4810-4815	(No samples)
4815-4821	Shale, black, micaceous, fissile
4821-4840	Limestone, grayish-buff to buff and tan mottled, medium-crystalline, with dark medium-sized oolites; little pyrite
4840-4850	Limestone, grayish-buff to buff mottled, medium-crystalline, with dark medium-sized oolites; little glauconite
4850-4853	Shale, black, micaceous, fissile
4853-4860	Limestone, cream-colored, very finely to finely sandy, finely to medium-crystalline, with medium-sized oolites
4860-4873	Shale, black, micaceous, fissile
4873-4879	Siltstone, white, slightly limy; to very fine grained sandstone
4879-4894	Limestone, gray to dark grayish-buff, coarsely crystalline, very fossiliferous; fragments of brachiopods, crinoids, corals, and many bryozoa; <i>Meekopora</i> (?), <i>Ramiporalia</i> (?), stenoporoids, <i>Streblotrypa</i> (?), <i>Rhombopora angusta</i> Ulrich (?), and other indeterminate rhomboporoids, <i>Fenestella</i> sp., <i>Sulcoretepora</i> sp., <i>Paraparchites</i> sp., <i>Bairdia</i> sp., and <i>Bythocypris</i> sp., at 4,884 feet; <i>Meekopora</i> (?), <i>Streblotrypa</i> , rhomboporoids, <i>Fenestella</i> sp. possibly <i>F. multispinosa</i> Ulrich, <i>Polypora</i> , <i>Thamniscus</i> (?), <i>Sulcoretepora</i> cf. <i>S. simulans</i> (Ulrich), <i>Bythocypris</i> sp., <i>Bairdia</i> sp., <i>Silenites</i> sp., and <i>Haploprimitia</i> (?) at 4,891 feet
4894-4896	Sandstone, light-gray, limy, very fine grained
4896-4905	Limestone, gray to dark grayish-buff, coarsely crystalline, very fossiliferous, with medium-sized oolites; fragments of brachiopods, crinoids, corals, and many bryozoa
4905-4930	Sandstone, white, porous, slightly limy, very fine grained; brown phosphatic conglomeratic zone, 4 inches thick, at base
4930-4959	Shale, black, micaceous, fissile, fucoidal, silty
4959-4965	Siltstone, light-gray, micaceous, shaly
4965-5001	Shale, black, micaceous, fissile, fucoidal, silty
5001-5012	Siltstone, dark-gray, micaceous, fucoidal, shaly
5012-5015	Shale, black, micaceous, fissile
5015-5031	Shale, black, micaceous, fissile, fucoidal, silty
5031-5032	Siltstone, dark-gray, micaceous, shaly
5032-5037	Alternating thin beds of black micaceous fucoidal shale and gray micaceous fucoidal siltstone
5037-5066	Shale, black, micaceous, fissile, fucoidal
5066-5068	Siltstone, gray, micaceous

Depth in feet	Sample description
5068-5096	Shale, black, micaceous, fissile, slightly fucoidal
5096-5100	Siltstone, dark-gray, micaceous, slightly fucoidal, shaly
5100-5108	Shale, black, micaceous, fissile
5108-5110	Limestone, dark-gray, shaly, finely crystalline; many brachiopod fragments
5110-5181	Shale, black, slightly micaceous, fissile, jointed
5181-5185	Limestone, brownish-buff, coarsely oolitic
5185-5187	Limestone, brownish-buff, silty, finely crystalline; large coral fragments
5187-5194	Limestone, dark-gray to black, finely crystalline; many crinoid fragments
5194-5195	Shale, dark-gray, micaceous, fissile
5195-5201	Limestone, dark-gray to black, finely crystalline; many crinoid fragments
5201-5205	Shale, black, micaceous, slightly limy; brachiopod and crinoid fragments
5205-5207	Limestone masses, irregular, dark-brown, finely crystalline, in black micaceous slightly limy siltstone
5207-5220	Limestone, dark-brown to black, finely crystalline; crinoid fragments; thin black micaceous shale partings
5220-5222	Shale, black, micaceous, fissile
5222-5234	Limestone, dark-brown to black, finely crystalline; crinoid fragments; thin black micaceous shale partings
5234-5236	Shale, black, micaceous, fissile
5236-5266	Limestone, dark brownish-buff, finely oolitic
5266-5298	Limestone, dark-brown, finely crystalline; crinoid and brachiopod fragments
5298-5300	Shale, black, micaceous, slightly limy
5300-5308	Limestone, black, very finely crystalline
5308-5310	Limestone, dark-brown, coarsely oolitic; crinoid and brachiopod fragments
5310-5311	Shale, black, micaceous, fissile
5311-5313	Limestone, dark-brown, coarsely oolitic; crinoid and brachiopod fragments
5313-5315	Shale, black, silty
5315-5322	Limestone, brownish-buff, slightly oolitic
5322-5324	Shale, black, micaceous, fissile
5324-5365	Limestone, brownish-buff to dark-brown, with medium-sized oolites; few thin black micaceous shale partings; " <i>Spirifer</i> " cf. <i>S. keokuk</i> Hall at 5,357 feet
5365-5366	Shale, black, fissile, slightly limy
5366-5386	Limestone, grayish-buff, very finely crystalline; few crinoid and brachiopod fragments; thin black micaceous shale partings
5386-5394	Shale, black, hard, slightly limy; <i>Dictyoclostus</i> cf. <i>D. inflatus</i> (McChesney) ? at 5,390 feet
5394-5400	Limestone, black, slightly shaly, finely crystalline; crinoid and brachiopod fragments
5400-5405	Shale, black, hard, slightly limy
5405-5554	Shale, black, micaceous, fissile, jointed
5554-5557	Limestone, dark-brown to brownish-buff mottled, medium-crystalline
5557-5567	Shale, black, micaceous, fissile, jointed
5567-5572	Limestone, dark-gray to buff mottled, finely to medium-crystalline; few capsule-shaped oolites
5572-5575	Limestone, dark-gray, silty, finely crystalline
5575-5594	Shale, black, hard, slightly limy
5594-5615	Shale, dark-gray, slightly limy, silty; <i>Leiorhynchus carboniferum</i> Girty, <i>Moorefieldella</i> aff. <i>M. eurekaensis</i> (Walcott) at 5,607 feet
5615-5714	Siltstone, dark-gray to black, limy, slightly shaly; <i>Leiorhynchus carboniferum</i> Girty, <i>Moorefieldella</i> aff. <i>M. eurekaensis</i> (Walcott) at 5,646 feet; <i>Leiorhynchus carboniferum</i> Girty, <i>Moorefieldella</i> aff. <i>M. eurekaensis</i> (Walcott) at 5,655 feet
5714-5717	Shale, black, slightly limy, silty
5717-5748	Siltstone, dark-gray to black, limy, slightly shaly; <i>Martinia</i> sp. at 5,721 feet; <i>Orbiculoidea</i> sp., <i>Productella</i> cf. <i>P. hirsutiformis</i> Walcott at 5,740 feet
5748-5759	Shale, black, micaceous, limy
5759-5760	Conglomerate, black, very glauconitic, chert, pebble
5760-5762	Limestone, black, slightly silty, finely to medium-crystalline; black to brown, fractured dense chert; streaks of pyrite in chert
5762-5771	Limestone, grayish-buff, medium-crystalline; gray to light-gray dense chert
5771-5773	Shale, black, micaceous, limy
5773-5783	Limestone, light grayish-buff, very finely crystalline; gray dense chert
5783-5785	Limestone, dark-gray to black, very finely crystalline; little pyrite; cream-colored chalcedonic chert

Depth in feet	Sample description
5785-5790	Chert, cream-colored chalcedonic; light-gray finely crystalline limestone
5790-5802	Chert, light-gray, chalcedonic; little light-gray finely crystalline limestone
5802-5808	Limestone, dark-gray, finely crystalline; cream-colored chalcedonic chert
5808-5812	Limestone, black, finely crystalline; cream-colored chalcedonic chert
5812-5815	Shale, black, slightly limy; little pyrite
5815-5846	Shale, black, slightly micaceous; little pyrite
5846-5848	Sandstone, light-gray, slightly limy, fine-grained
5848-5852	Shale, black, slightly micaceous; little pyrite
5852-5856	Chert, light-gray, chalcedonic; little gray limy siltstone
5856-5862	Chert, milky, chalcedonic; little gray limy siltstone to very fine grained sandstone
5862-5866	Chert, cream-colored, translucent; little gray limy siltstone
5866-5868	Shale, black, slightly limy
5868-5872	Chert, cream-colored, translucent; little gray limy siltstone
5872-5881	Chert, milky, chalcedonic; little light-gray to gray mottled limy siltstone
5881-5883	Shale, black
5883-5885	Chert, milky, chalcedonic; little light-gray and dark-gray mottled, limy siltstone
5885-5896	Limestone, white, dark-mottled, medium- to coarsely crystalline; brachiopod fragments; little light-gray chalcedonic chert
5896-5898	Limestone, white to light-gray, coarsely crystalline; black shale between calcite crystals
5898-5906	Limestone, white to light-gray, coarsely crystalline, with interstitial black shale and scattered pink calcite crystals
5906-5910	Shale, black
5910-5921	Limestone, white, finely crystalline
5921-5941	Limestone, white, silty, very finely granular
5941-5943	Shale, black, slightly limy
5943-5956	Limestone, white, silty, very finely granular
5956-5958	Shale, black, slightly limy
5958-5973	Limestone, white to light-gray, finely to medium-crystalline, slightly silty; scattered small dolomite rhombs; pale pinkish-purple chalcedonic chert
5973-5986	Limestone, pink to pinkish-gray, finely to medium-crystalline
5986-6012	Limestone, light-gray, finely to medium-crystalline; small dolomite rhombs in limestone
6012-6021	Limestone, light-gray, finely to medium-crystalline; scattered pink calcite crystals; small dolomite rhombs in limestone
6021-6024	Limestone, light-gray, finely to medium-crystalline; small dolomite rhombs in limestone
6024-6025	Shale, black
6025-6028	Limestone, light-gray, finely to medium-crystalline; scattered dolomite rhombs in limestone
6028-6029	Shale, black
6029-6057	Limestone, light-gray, finely to medium-crystalline; small dolomite rhombs in limestone
6057-6072	Limestone, light-gray, finely to medium-crystalline; pink calcite crystals; small dolomite rhombs in limestone
6072-6093	Limestone, light-gray, finely to medium-crystalline; small dolomite rhombs in limestone
6093-6099	Limestone, light-gray to white, finely to medium-crystalline; pink calcite crystals; small dolomite rhombs in limestone
6099-6116	Limestone, white, finely to medium-crystalline; small dolomite rhombs in limestone
6116-6117	Shale, black
6117-6122	Limestone, white, finely to medium-crystalline; small dolomite rhombs in limestone
6122-6123	Shale, black
6123-6164	Limestone, reddish-gray, medium-crystalline; small dolomite rhombs in limestone; reddish-orange calcite crystals give the light-gray limestone a reddish-gray color
6164-6169	Shale, gray, silty
6169-6178	Shale, green, silty, slightly dolomitic; light-gray to smoky chalcedonic chert; little pyrite
6178-6183	Shale, dark-gray, silty, slightly dolomitic
6183-6185	Shale, green, silty, slightly dolomitic
6185-6210	Shale, dark-gray, silty, slightly dolomitic
6210-6212	Limestone, gray, medium-crystalline
6212-6213	Shale, gray

Depth in feet	Sample description
6213-6222	Limestone, gray, medium-crystalline
6222-6223	Shale, gray, silty
6223-6233	Limestone, gray, medium-crystalline
6233-6234	Shale, gray, silty
6234-6238	Limestone, gray, medium-crystalline; little gray dense limestone
6238-6239	Shale, gray, silty
6239-6242	Limestone, gray to light-gray, finely to medium-crystalline
6242-6247	Limestone, light-gray, finely crystalline; smoky chalcedonic chert
6247-6251	Limestone, light-gray to gray, finely crystalline; dark-brown to black chalcedonic chert
6251-6265	Limestone, dark-gray, finely crystalline; little pyrite
6265-6269	Shale, black
6269-6280	Limestone, dark-gray to black, silty, finely crystalline; little black dense chert and pyrite
6280-6282	Limestone, gray, finely crystalline
6282-6288	Limestone, dark-gray, finely crystalline
6288-6293	Limestone, black, dense
6293-6296	Limestone, dark-gray, silty
6296-6301	Limestone, dark-gray, silty; little black dense chert
6301-6302	Shale, black
6302-6308	Limestone, light-gray, very finely crystalline to dense
6308-6310	Limestone, gray, finely to medium-sandy, dense
6310-6316	Sandstone, white, fine- to medium-grained; mostly subangular to subround grains; some round grains; little gray silty limestone cement
6316-6325	Sandstone, white, medium-grained, tightly cemented; subround to round, frosted grains; little gray very finely granular silty dolomite cement
6325-6327	Shale, black
6327-6339	Sandstone, white, fine- to medium-grained, tightly cemented; subround to round, frosted grains; gray to light-gray silty very finely granular dolomite cement
6339-6341	Shale, black
6341-6347	Sandstone, white, fine- to medium-grained, tightly cemented; subround to round, frosted grains; gray to light-gray silty very finely granular dolomite cement
6347-6350	Dolomite, black, silty, very finely granular; finely pyritic
6350-6356	Sandstone, gray, dolomitic, fine- to medium-grained; subround to round, frosted grains
6356-6362	Dolomite, gray, very finely crystalline to very finely granular
6362-6374	Sandstone, light-gray to white, dolomitic, fine- to medium-grained; subround to round, frosted grains
6374-6376	Shale, black, dolomitic
6376-6384	Sandstone, white, fine- to medium-grained; subround to round, frosted grains; gray silty very finely granular dolomite cement
6384-6385	Shale, black
6385-6396	Sandstone, white, fine- to medium-grained; subround to round, frosted grains; gray silty very finely granular dolomite cement
6396-6400	Dolomite, gray, silty, very finely granular
6400-6404	Sandstone, white, fine- to medium-grained; subround to round, frosted grains; gray silty very finely granular dolomite cement
6404-6405	Shale, black
6405-6410	Sandstone, white, fine- to medium-grained; subround to round, frosted grains; gray silty very finely granular dolomite cement
6410-6427	Shale, gray to slightly greenish-gray, hard, finely pyritic
6427-6445	Sandstone, white, fine- to medium-grained; subround to round, frosted grains; gray silty very finely granular dolomite cement
6445-6447	Shale, black
6447-6461	Sandstone, white, fine- to medium-grained; subround to round, frosted grains; gray silty very finely granular dolomite cement
6461-6466	Dolomite, light-gray, very silty, very finely granular
6466-6469	Shale, gray to slightly greenish-gray, hard
6469-6486	Dolomite, light-gray to gray, silty, very finely granular; scattered fine to medium, subround to round, frosted sand grains

Depth in feet	Sample description
6486-6498	Sandstone, white, fine- to medium-grained; subround to round, frosted grains; gray silty very finely granular dolomite cement
6498-6499	Shale, black
6499-6509	Dolomite, light-gray to gray, silty, very finely granular; scattered fine to medium, subround to round, frosted sand grains
6509-6510	Shale, black, dolomitic
6510-6529	Dolomite, light-gray to gray, silty, very finely granular; scattered fine to medium, subround to round, frosted sand grains
6529-6531	Shale, black
6531-6534	Sandstone, gray, fine- to medium-grained; subround to round, frosted grains; gray silty very finely granular dolomite cement
6534-6535	Shale, black
6535-6551	Dolomite, gray, silty, very finely granular; scattered fine to medium, subround to round, frosted sand grains
6551-6556	Sandstone, gray, dolomitic, fine- to medium-grained; subround to round, frosted grains
6556-6561	Dolomite, gray, silty, very finely granular; scattered fine to medium, subround to round, frosted sand grains
6561-6565	Sandstone, gray, dolomitic, fine- to medium-grained; subround to round, frosted grains
6565-6569	Dolomite, gray, silty, sandy, very finely granular
6569-6580	Dolomite, gray, silty, very finely granular; scattered fine to medium, subround to round, frosted sand grains
6580-6589	Dolomite, gray, silty, sandy, very finely granular
6589-6619	Sandstone, white, fine- to medium-grained; subround to round, frosted grains; gray silty very finely granular dolomite cement
6619-6621	Shale, black
6621-6630	Dolomite, gray, silty, sandy, very finely granular
6630-6632	Dolomite, gray, silty, very finely granular; scattered fine to medium, subround to round, frosted sand grains
6632-6634	Dolomite, dark-gray to black, silty, very finely granular
6634-6639	Shale, black
6639-6647	Dolomite, dark-gray to black, silty, very finely granular
6647-6650	Shale, black
6650	TOTAL DEPTH

## FRANKLIN COUNTY (2)

Operator: Arkansas-Oklahoma Gas Co.	Elevation: 776 ft.
Well No.: 1	Total depth: 5008 ft.
Lease: Lain Morris	Completion date: Jan. 21, 1952
Location: Center of NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 9 N., R. 29 W.	Logged by: E. E. Glick

Depth in feet	Sample description
0- 300	(No samples)
300- 312	Shale, dark-gray, finely micaceous
312- 360	Sandstone, medium-gray, silty, micaceous, very fine grained
360- 370	Sandstone, medium-gray, silty, micaceous, siliceous, very fine to fine-grained
370- 390	Sandstone, medium-gray, very silty, micaceous, very fine to fine-grained
390- 406	Sandstone, light- to medium-gray, slightly limy, silty, micaceous, very fine to fine-grained
406- 585	Shale, medium- to dark-gray, finely micaceous, silty
585- 615	Sandstone, medium-gray, silty, micaceous, very fine to fine-grained; pyrite
615- 800	Shale, medium dark-gray, finely micaceous, silty
800- 805	Sandstone, medium-gray, micaceous, silty, fine-grained
805- 850	Sandstone, light-gray, micaceous, very fine to fine-grained; free drilling
850- 945	Shale, dark-gray, finely micaceous; trace of pyrite
945- 970	Sandstone, light-gray, micaceous, silty, very fine to fine-grained, free drilling
970- 980	Sandstone, light- to medium-gray, silty, very fine-grained
980-1010	Shale, medium-gray, silty, micaceous
1010-1050	Sandstone, medium-gray, micaceous, very silty, very fine grained
1050-1070	Shale, dark-gray, micaceous; light-gray micaceous silty fine-grained sandstone
1070-1100	Sandstone, light-gray, micaceous, silty, very fine to fine-grained
1100-1205	Shale, dark-gray, finely micaceous; pyrite
1205-1210	Sandstone, light-gray, micaceous, very silty, very fine grained
1210-1220	Shale, dark-gray, finely micaceous, silty
1220-1250	Sandstone, light-gray, micaceous, silty, very fine to fine-grained, free drilling
1250-1270	Shale, dark-gray, micaceous; light-gray micaceous silty fine-grained sandstone
1270-1310	Shale, dark-gray, finely micaceous
1310-1320	Sandstone, medium-gray, micaceous, very silty, very fine to fine-grained
1320-1330	Sandstone as above; thin beds of dark-gray finely micaceous shale
1330-1350	Shale, dark-gray, finely micaceous, silty
1350-1380	Shale, medium-gray, silty to very finely sandy
1380-1400	Shale, medium- to dark-gray, finely micaceous, silty
1400-1405	Sandstone, light-gray, silty, very fine to fine-grained
1405-1410	Shale, dark-gray, finely micaceous
1410-1416	Sandstone, light-gray, silty, very fine to fine-grained
1416-1420	Shale, dark-gray, finely micaceous
1420-1440	Sandstone, light-gray, fine-grained
1440-1460	Sandstone, medium-gray, silty, very fine grained
1460-1480	Sandstone, light-gray, silty, fine-grained, free drilling in part
1480-1490	Shale, dark-gray, micaceous, silty
1490-1540	Shale, dark-gray, finely micaceous; trace of pyrite
1540-1620	Shale, dark-gray, micaceous, silty
1620-1650	Sandstone, light-gray, silty, fine-grained, free drilling; mica
1650-1720	Shale, dark-gray, finely micaceous
1720-1750	Shale, medium-gray, silty
1750-1843	Shale, dark-gray, micaceous; pyrite
1843-1845	Shale, dark-gray, micaceous, slightly sandy
1845-1870	Sandstone, light-gray, silty, fine-grained
1870-1900	Shale, dark-gray, finely micaceous; trace of light-gray silty fine-grained sandstone (30 ft. sample)



Depth in feet	Sample description
1900-1910	Shale, dark-gray, slightly sandy
1910-1940	Shale, dark-gray, finely micaceous
1940-1950	Sandstone, light-gray, slightly silty, very fine to fine-grained
1950-1960	Sandstone, medium-gray, very silty, very fine grained
1960-1990	Sandstone, light-gray, slightly silty, fine-grained
1990-2000	(No samples)
2000-2020	Sandstone, light- to medium-gray, silty, very fine grained; trace of black shale
2020-2080	Sandstone, white to light-gray, very fine grained, siliceous
2080-2040	Sandstone, light to medium-gray, silty, very fine to fine-grained; black shale
2040-2050	Shale, medium- to dark-gray, silty
2050-2070	Shale, medium-gray, silty, very finely sandy
2070-2100	Sandstone, light-gray, silty, very fine to fine-grained
2100-2215	(No samples)
2215-2270	Sandstone, light grayish-buff, fine- to medium-grained, slightly silty; trace of quartz granules
2270-2280	Shale, black
2280-2300	Shale, black, finely micaceous, hard, slightly siliceous
2300-2310	(No samples)
2310-2390	Shale as above; tiny pelecypods
2390-2400	Shale, medium-gray, siliceous, silty
2400-2405	(No samples)
2405-2520	Shale, dark-gray, finely micaceous
2520-2540	Shale, medium-gray, silty, very finely sandy
2540-2555	Shale, dark-gray, finely micaceous, silty
2555-2560	Shale, medium-gray, finely sandy, silty
2560-2580	Shale, dark-gray, finely micaceous
2580-2585	Shale, dark-gray, silty, finely sandy
2585-2591	Sandstone, light-gray, siliceous, fine-grained
2591-2600	Shale, black, finely micaceous
2600-2605	Shale, medium- to dark-gray, slightly sandy
2605-2615	Shale, dark-gray, silty, finely micaceous
2615-2625	Shale, medium- to dark-gray, silty, finely sandy
2625-2632	Sandstone, medium-gray, silty, very fine to fine-grained
2632-2637	Shale, medium-gray, silty, finely sandy
2637-2646	Sandstone, medium-gray, silty, siliceous, fine-grained
2646-2654	Shale, black; pyrite
2654-2668	Sandstone, medium-gray, silty, siliceous, very fine to fine-grained
2668-2698	Shale, dark-gray, finely sandy
2698-2704	Sandstone, medium-gray, silty, siliceous, very fine grained
2704-2709	Shale, black
2709-2717	Sandstone, medium-gray, silty, siliceous, very fine grained
2717-2720	(No samples)
2720-2785	Shale, black
2785-2792	Sandstone, medium-gray, silty, siliceous, fine-grained
2792-2815	Shale, black
2815-2830	Sandstone, medium-gray, silty, siliceous, very fine grained
2830-2915	Shale, medium-gray, finely micaceous, very finely sandy
2915-2970	Shale, black, smooth; medium-gray silty shale
2970-3015	Shale, dark-gray, finely micaceous, silty
3015-3050	Shale, dark-gray, finely micaceous, slightly sandy; pyrite
3050-3057	Sandstone, medium-gray, micaceous, silty, slightly limy, very fine grained
3057-3140	Siltstone, light- to medium-gray, shaly, very finely sandy
3140-3160	Sandstone, medium-gray, micaceous, silty, very fine grained; black shale
3160-3180	Siltstone, medium-gray, very finely sandy; black shale
3180-3200	Shale, medium- to dark-gray, silty; trace of silty very fine grained sandstone
3200-3208	Shale, black
3208-3220	Sandstone, light- to medium-gray, silty, very fine grained

Depth in feet	Sample description
3220-3305	Siltstone, medium-gray, finely micaceous, very finely sandy
3305-3310	Sandstone, medium-gray, very silty, very fine grained
3310-3330	Siltstone, medium-gray, finely micaceous, very finely sandy
3330-3390	Shale, medium- to dark-gray, finely micaceous, silty
3390-3395	(No samples)
3395-3400	Shale as above
3400-3510	Shale, medium- to dark-gray, finely micaceous, silty, slightly limy
3510-3530	Shale, black
3530-3536	Shale, medium-gray, finely micaceous, silty
3536-3540	Sandstone, light- to medium-gray, silty, very fine to fine-grained
3540-3550	Shale, medium-gray, silty, very finely sandy
3550-3556	Sandstone, light-gray, silty, very fine grained
3556-3566	Siltstone, light-gray, finely micaceous, very finely sandy
3566-3570	(No samples)
3570-3600	Siltstone as above
3600-3633	Shale, black
3633-3640	Sandstone, light-gray, silty, very fine grained
3640-3645	(No samples)
3645-3667	Siltstone, light-gray, finely micaceous, very finely sandy
3667-3700	Siltstone as above; black shale
3700-3706	(No samples)
3706-3710	Shale, black, finely micaceous
3710-3743	Shale, black
3743-3775	Siltstone, light-gray, finely micaceous, very finely sandy; black shale
3775-3810	Shale, black, fissile
3810-3820	Siltstone, medium-gray, finely micaceous, very finely sandy
3820-3840	Shale, medium- to dark-gray, finely micaceous, silty
3840-3845	Shale, medium- to dark-gray, finely micaceous, silty; trace of fine-grained sandstone
3845-3850	(No sample)
3850-3870	Shale, dark-gray, finely micaceous and silty in part
3870-3880	Shale, black, fissile
3880-3920	Shale, black, fissile; dark-gray silty shale
3920-3925	Shale as above; pyrite
3925-3938	Shale, black
3938-3942	Siltstone, medium-gray, siliceous, very finely sandy
3942-3952	Sandstone, medium-gray, very limy, fine-grained; crinoids
3952-3958	Sandstone, medium-gray, siliceous, slightly limy, very fine grained
3958-3973	(No samples)
3973-3978	Sandstone, medium-gray, siliceous, slightly limy, very fine to fine-grained
3978-3985	Shale, medium- and dark-gray banded
3985-4000	Shale, black
4000-4005	Shale, black; pyrite
4005-4016	(No samples)
4016-4017	Shale, black
4017-4023	Sandstone, dark-gray, silty, slightly limy, fine-grained
4023-4032	Shale, black
4032-4039	Sandstone, medium-gray, siliceous, silty, very fine grained
4039-4043	(No sample)
4043-4055	Shale, dark-gray, finely micaceous, silty, siliceous
4055-4075	Shale, medium-gray, finely micaceous, silty; fissile black shale partings (20 ft. core sample)
4075-4082	Shale, dark-gray, fissile
4082-4088	Siltstone, medium-gray, finely micaceous, very finely sandy
4088-4090	Shale, dark-gray, fissile
4090-4095	Siltstone, medium-gray, finely micaceous, very finely sandy
4095-4100	(No sample)
4100-4110	Shale, dark-gray, slightly silty

Depth in feet	Sample description
4110-4125	Shale, black
4125-4135	Shale, black, sandy
4135-4155	(No samples)
4155-4178	Shale, black
4178-4183	Sandstone, medium- to dark-gray, siliceous, silty, very fine grained
4183-4232	Siltstone, medium- to dark-gray, siliceous, finely micaceous, very finely sandy
4232-4275	Shale, black
4275-4281	Siltstone, dark-gray, siliceous, finely micaceous, very finely sandy
4281-4282	Shale, black
4282-4298	Siltstone, dark-gray, siliceous, finely micaceous, very finely sandy
4298-4299	Sandstone, dark-gray, siliceous, fine-grained
4299-4304	(No sample)
4304-4307	Sandstone, medium-gray, siliceous, very fine grained
4307-4334	(No samples)
4334-4350	Shale, dark-gray, siliceous, finely micaceous, silty
4350-4365	Shale, black, finely micaceous
4365-4385	(No samples)
4385-4420	Alternating beds of black shale and medium-gray siliceous very finely sandy siltstone
4420-4430	(No samples)
4430-4450	Shale, black; trace of medium-gray slightly limy very fine to fine-grained sandstone
4450-4455	(No sample)
4455-4467	Shale, black
4467-4469	Sandstone, medium-gray, slightly limy, very fine grained
4469-4470	Shale, black
4470-4475	(No sample)
4475-4513	Shale, black; trace of medium-gray slightly limy very fine grained sandstone
4513-4530	Limestone, medium-gray, silty, finely granular; medium dark-gray oolites; crinoids
4530-4560	Limestone, light- to medium-gray, oolitic; finely granular, crinoids
4560-4570	Limestone, brown, very finely oolitic; black shale
4570-4640	Limestone, grayish-buff to brown, oolitic; black shale
4640-4662	Limestone, brown to black, medium-crystalline
4662-4680	Shale, black; pyrite
4680-4690	Shale, black; pyrite; trace of silty very fine grained sandstone
4690-4706	Shale, dark-gray to black; trace of medium-gray siltstone
4706-4720	Shale, black; trace of medium-gray silty very fine grained sandstone
4720-4760	Shale, black, slightly silty; trace of medium-gray siltstone
4760-4775	Shale, black
4775-4792	Shale, black, slightly limy in part
4792-4795	Shale, black, very limy in part
4795-4805	Limestone, medium-gray, mottled, silty, oolitic; crinoids and brachiopods
4805-4810	Shale, dark-gray, slightly limy
4810-4820	Shale, dark-gray, limy; medium-gray silty slightly oolitic limestone; crinoids and brachiopods
4820-4850	Limestone, medium- to dark-gray, very silty, finely granular
4850-4894	Limestone, grayish-black, very silty; trace of black shale
4894-4900	Shale, black
4900-4912	Limestone, gray, silty
4912-4920	Shale, black
4920-4940	Shale, black; grayish-black hard fine-grained sandstone
4940-4950	(No samples)
4950-4955	Shale, black, very limy, silty
4955-4976	Siltstone, medium-gray, very limy
4976-4977	Limestone, light-gray, finely crystalline
4977-4980	Chert, milky white and clear, limy; glauconite
4980-4982	Chert, light-gray; dark-gray finely crystalline limestone
4982-4993	Chert, black, with scattered very fine calcite crystals
4993-4995	Chert, light-gray; scattered very fine calcite crystals
4995-5008	(No samples)
5008	TOTAL DEPTH

### FRANKLIN COUNTY (3)

Operator: Ozark Natural Gas Co.	Elevation: 500 ft. (Topo.)
Well No.: 1	Total depth: 5755 ft.
Lease: Edna Self	Completion date: Oct. 30, 1942
Location: Center of SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 10 N., R. 26 W.	Logged by: S. E. Frezon

#### Formation Tops

	Depth (ft.)
Kessler limestone member of the Bloyd shale	4075 (?)
Brentwood limestone member of the Bloyd shale	4265
Prairie Grove member of the Hale formation	4350
Cane Hill member of the Hale formation	4497
Pitkin limestone	4610
Fayetteville shale	4805
Batesville sandstone, Ruddell shale, and Moorefield formation undifferentiated	4990
Boone formation	5050
Chattanooga shale	5205
Penters chert	5255
Silurian rocks undifferentiated	5360
Kimmswick (?) and Plattin limestones undifferentiated	5540
St. Peter sandstone	5644

Depth in feet	Sample description
0-4000	(No samples)
4000-4025	Shale, black, slightly sandy, micaceous
4025-4045	(No samples)
4045-4070	Shale, black, very slightly sandy, slightly micaceous
4070-4075	(No samples)
4075-4086	Limestone, light- to dark-gray, silty, finely granular to finely crystalline; black shale
4086-4091	Shale, black, sandy, micaceous
4091-4098	(No samples)
4098-4106	Shale as above
4106-4129	Sandstone, gray to dark-gray, micaceous, silty, very fine to fine-grained
4129-4190	Shale, black, finely sandy, micaceous
4190-4215	Shale, black, micaceous
4215-4234	(No samples)
4234-4240	Shale, black, micaceous
4240-4250	(No samples)
4250-4265	Shale, black, micaceous
4265-4268	Limestone, light- to dark-gray and black, silty, finely granular to finely crystalline
4268-4271	Shale, black
4271-4278	Limestone, light- to dark-gray and black, silty, sandy, finely granular to finely crystalline
4278-4280	Shale, black
4280-4289	Limestone, light- to dark-gray, finely granular to finely crystalline; crinoids and bryozoa

Depth in feet	Sample description
4289-4292	Shale, black
4292-4300	Limestone, light- to dark-gray, finely granular to finely crystalline
4300-4304	(No sample)
4304-4310	Limestone, white to gray, silty, finely granular to finely crystalline
4310-4312	Shale, black, micaceous
4312-4318	Limestone, light- to dark-gray, silty, finely granular to finely crystalline
4318-4320	Shale, black, micaceous
4320-4324	Limestone, light- to dark-gray, silty, finely granular to finely crystalline
4324-4325	Shale, black, micaceous
4325-4330	Limestone, light- to dark-gray, silty, finely granular to finely crystalline
4330-4340	Shale, black, very limy
4340-4343	Limestone, black to gray, silty, finely crystalline to finely granular
4343-4350	Shale, black, very limy
4350-4365	Limestone, light-gray to gray, sandy, finely granular to finely crystalline; black limy shale
4365-4370	Limestone, light-gray, sandy, finely crystalline to finely granular
4370-4380	Limestone, yellowish-gray, silty, sandy, dense to finely granular; black shale
4380-4400	Sandstone, light-gray, very limy, fine- to medium-grained
4400-4434	Limestone, light-gray to gray, finely sandy, finely granular to finely crystalline; crinoids 4400-10 ft. 4430-34 ft.
4434-4442	Sandstone, light-gray and light olive-gray, very limy, fine-grained
4442-4465	Shale, very dark gray to black, finely micaceous, slightly sandy
4465-4472	Sandstone, dark-gray and dark olive-gray, silty, fine-grained
4472-4475	Shale, black, micaceous
4475-4480	Sandstone, dark-gray and dark olive-gray, silty, fine-grained
4480-4488	Sandstone, light-gray to gray, silty, fine-grained
4488-4490	Shale, black, micaceous
4490-4497	Sandstone, light-gray to gray, silty, fine-grained
4497-4525	Shale, black, finely sandy
4525-4550	Shale, black, very slightly sandy, micaceous
4550-4570	Shale, black, micaceous
4570-4610	Shale, black, micaceous; dark-gray silty finely granular to finely crystalline limestone stringers
4610-4615	Limestone, light-gray; black oolites; black micaceous shale
4615-4620	Limestone, dark-gray to black
4620-4650	Limestone, light- to dark-gray, silty, finely granular to finely crystalline, alternating with beds of black micaceous slightly pyritic shale
4650-4653	(No samples)
4653-4700	Limestone, light-gray, dark-gray, black, silty, finely granular to finely crystalline
4700-4760	Limestone, light- to dark-gray, black, silty, finely granular to finely crystalline; black micaceous shale; oolitic limestone in top 5 ft.; coal at 4710 ft.
4760-4805	Limestone, light-gray to black, silty, finely granular to finely crystalline; black micaceous shale stringers
4805-4810	Shale, black, finely micaceous
4810-4815	(No samples)
4815-4990	Shale, black, finely micaceous; trace of sand at 4840-50 ft.
4990-5000	Limestone, light-gray to black, silty, finely granular to finely crystalline; black micaceous shale
5000-5050	Shale, black, slightly limy, slightly micaceous
5050-5080	Limestone, black, very silty, finely crystalline to finely granular; thin beds of black slightly micaceous shale
5080-5090	Limestone, grayish-black, very silty, finely granular to finely crystalline; black slightly micaceous shale; trace of translucent smoky gray chert
5090-5100	Limestone, olive-gray, finely granular, silty; olive-gray translucent and opaque dense chert, increasing downward
5100-5130	Limestone, dark-gray to black, silty, finely granular to finely crystalline; gray to black translucent to opaque chert slightly limy in part
5130-5145	Limestone, light-gray, finely granular to finely crystalline; chert as above; dark-gray "smoky" chert 5,132-36 ft.

Depth in feet	Sample description
5145-5170	Limestone, very light to dark-gray, finely granular to finely crystalline; light-gray milky and translucent chert decreasing in quantity downward
5170-5180	Limestone, light-gray and light olive-gray, finely granular to finely crystalline; light olive-gray to gray opaque and translucent chert; trace of spicular chert
5180-5200	Limestone as above; yellowish-gray limestone; light- to dark-gray and black chert
5200-5205	Limestone, light- to dark-gray and yellowish-gray, finely granular to finely crystalline; light- to dark-gray and yellowish-gray translucent and opaque chert
5205-5255	Shale, black, finely micaceous
5255-5285	Limestone, light-gray to yellowish-gray, finely granular to finely crystalline; milky light-gray and yellowish-gray chert
5285-5303	Chert, white to light-gray, and light yellowish-gray, slightly limy, translucent and opaque
5303-5310	Limestone, yellowish-gray, finely granular; trace of white dense chert
5310-5330	Limestone, light-gray to white, finely granular, crumbly; trace of white chert
5330-5360	Limestone as above
5360-5370	Limestone, white to light-gray, finely granular to finely crystalline
5370-5380	Limestone as above; black silt
5380-5390	Limestone as above
5390-5400	Limestone, white to very light gray, finely granular to finely crystalline; coarsely to very coarsely crystalline mineral calcite
5400-5433	Limestone, white and very light gray, finely granular to finely crystalline; light-pink crystalline limestone
5433-5455	Limestone, light-gray to gray, finely granular to finely crystalline
5455-5500	Limestone as above; pink limestone crystals; pinkish-purple limestone
5500-5540	Limestone, very light gray to white, finely granular to finely crystalline; pink and pinkish-purple calcite crystals
5540-5545	Limestone as above; white dense and milky chert
5545-5555	Limestone, light-gray and yellowish-gray, finely granular to finely crystalline; smoky chert
5555-5570	Limestone, gray to light-gray; smoky chert, decreasing in quantity downward
5570-5585	Limestone, light-gray to gray, silty, finely granular to medium-crystalline; black and greenish-gray shale, smoky gray dense chert
5585-5595	Limestone, white to very light gray, finely granular to finely crystalline; trace of white to light-gray chert at top
5595-5613	Limestone, white to very light gray, finely granular to medium-crystalline; scattered milky chert
5613-5623	Limestone, gray to light-gray, slightly dolomitic, finely granular to finely crystalline; smoky gray dense chert
5623-5644	Limestone, gray to light-gray, finely granular to finely crystalline; smoky gray dense chert; bluish-gray dense chert at base
5644-5650	Sandstone, white to light-gray, fine-grained
5650-5669	Dolomite, gray, silty, finely granular to finely crystalline; scattered fine to medium sand grains and light-gray slightly pyritic sandy waxy shale particles
5669-5676	Sandstone, light-gray to white, dolomitic, fine- to medium-grained; light-gray waxy shale
5676-5677	Dolomite
5677-5687	Shale, light-gray, waxy, slightly dolomitic, pyritic
5687-5695	(No samples)
5695-5700	Shale, light-gray, waxy, very finely pyritic
5700-5730	Sandstone, light-gray to white, dolomitic, fine-grained; trace of black shale
5730-5733	Dolomite
5733-5740	Sandstone, light-gray to white, dolomitic, fine-grained
5740-5755	Sandstone, light-gray, fine-grained; dark-gray silty dolomite
5755	TOTAL DEPTH

## FRANKLIN COUNTY (4)

Operator: Arkansas-Western Gas Co.	Elevation: 830 ft.
Well No.: 1	Total depth: 4160 ft.
Lease: H. T. Peters	Completion date: May 15, 1950
Location: Center of SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 11 N., R. 29 W.	Logged by: S. E. Frezon

### Formation Tops

	Depth (ft.)
Bloyd shale	2256
Kessler limestone member of the Bloyd shale	2290
Brentwood limestone member of the Bloyd shale	2453
Prairie Grove member of the Hale formation	2535 (?)
Cane Hill member of the Hale formation	2618
Pitkin limestone	2784
Fayetteville shale	2970
Batesville sandstone, Ruddell shale, and Moorefield formation undifferentiated	3150
Boone formation	3200
Chattanooga shale	3475
Penters chert	3488
Silurian rocks undifferentiated	3520
Cason shale	3772
Fernvale limestone	3809
Kimmswick (?) and Plattin limestones undifferentiated	3827
St. Peter sandstone	3875
Everton formation	3957 (?)

Depth in feet	Sample description
0- 20	Sandstone, light olive-gray, very fine to fine-grained; trace of black micaceous silt
20- 38	Sandstone, gray very silty, very fine to fine-grained
38- 52	Shale, dark-gray, very finely micaceous; trace of dark-gray to gray very fine to fine-grained sandstone
52- 67	Sandstone, gray, slightly limy, silty, very fine to fine-grained
67- 110	Shale, very dark gray, very finely micaceous
110- 156	Sandstone, light-gray and light yellowish-gray, micaceous, very fine to fine-grained; stringers of dark-gray slightly limy finely micaceous shale
156- 190	Shale, dark-gray, very finely micaceous, finely sandy, silty; dark-gray limestone
190- 205	Shale, dark-gray, finely sandy, silty, finely micaceous
205- 215	Shale, dark-gray, slightly sandy, very finely micaceous; dark-gray limestone
215- 225	Shale, dark-gray, finely micaceous
225- 250	Shale, dark-gray, finely micaceous; very fine to fine-grained sandstone
250- 268	Sandstone, light-gray, slightly silty, very fine to fine-grained
268- 330	Shale, dark-gray, finely micaceous, finely sandy
330- 350	Shale, dark-gray, finely micaceous
350- 375	Shale, dark-gray, micaceous, sandy

Depth in feet	Sample description
375- 385	Sandstone, dark-gray, silty, slightly limy, very fine to fine-grained
385- 400	Shale, dark-gray, finely micaceous, finely sandy
400- 415	Sandstone, dark-gray to gray, silty, micaceous, very fine to fine-grained; quartzite
415- 470	Sandstone, light-gray, very fine to fine-grained
470- 475	Sandstone, brownish-gray, limy, fine- to medium-grained, with gray to light-gray shale grains; trace of glauconite
475- 490	(No samples)
490- 507	Sandstone, gray to light-gray, very fine grained
507- 517	Shale, dark-gray, finely micaceous, sandy in lower part
517- 520	Sandstone, light-gray to white, slightly limy, very fine to fine-grained
520- 530	Sandstone as above; trace of brown limy quartzitic sandstone
530- 540	Sandstone, light-gray to white, very slightly limy, fine- to medium-grained
540- 600	Shale, dark-gray, finely micaceous, silty; stringers of very fine to fine-grained sandstone
600- 629	Sandstone, light-gray to white, very fine to fine-grained, friable
629- 730	Shale, dark-gray, very finely micaceous, slightly silty; trace of very fine to fine-grained sandstone
730- 830	Sandstone, gray to light-gray, silty, very fine to fine-grained; dark-gray finely micaceous shale
830- 876	Sandstone, light-gray to light yellowish-gray, fine- to coarse-grained, light greenish-gray limestone fragments; crinoids; brownish-gray sandstone with greenish-gray shale grains
876- 884	(No samples)
884- 905	Sandstone, gray, very fine grained, silty, finely micaceous; dark-gray very silty sandstone
905- 921	Sandstone, very light-gray, slightly micaceous, fine-grained, with black shale grains
921- 922	Sandstone, brownish-gray, slightly micaceous, fine- to coarse-grained
922- 950	Sandstone, gray, slightly micaceous, silty, very fine to fine-grained, black shale
950-1015	Sandstone, very light gray to white, fine- to coarse-grained, with dark-gray shale grains
1015-1033	Sandstone, very light gray to white, slightly micaceous, fine-grained, with scattered black shale grains
1033-1060	Sandstone, very light gray to white, fine- to medium-grained with scattered dark-gray to black shale grains
1060-1074	Sandstone, very light gray to white, fine-grained, with dark-gray to black shale grains
1074-1122	Sandstone, gray to dark-gray, slightly micaceous, silty, very fine to fine-grained; dark-gray finely micaceous shale
1122-1150	Shale, dark-gray, finely micaceous; dark-gray silty very fine to fine-grained sandstone
1150-1165	Sandstone, dark-gray, slightly micaceous, very silty, very fine to fine-grained; dark-gray finely micaceous shale
1165-1170	Shale, dark-gray to black, finely micaceous, finely sandy
1170-1185	Sandstone, dark-gray, finely micaceous, very silty, very fine to fine-grained; dark-gray finely micaceous shale
1185-1200	Sandstone, gray, slightly silty, slightly micaceous, very fine to fine-grained
1200-1214	Sandstone, gray, very silty, slightly micaceous, very fine to fine-grained; dark-gray finely micaceous shale stringers
1214-1217	Shale, dark-gray, finely micaceous
1217-1250	Sandstone and shale stringers as above
1250-1290	Shale, dark-gray, finely micaceous, silty; very fine to fine-grained sandstone
1290-1310	Sandstone, gray to dark-gray, finely micaceous, silty, very fine to fine-grained
1310-1320	Sandstone, very light gray and brownish-gray, slightly micaceous, very fine to fine-grained
1320-1333	Sandstone, very light gray, slightly micaceous, very fine to fine-grained
1333-1350	Shale, dark-gray to gray, finely micaceous; dark-gray very fine to fine-grained sandstone
1350-1360	Sandstone, gray to light olive-gray, slightly micaceous, slightly silty, very fine to fine-grained
1360-1380	Shale, dark-gray to black, finely micaceous, slightly silty
1380-1385	Sandstone, dark-gray, silty, very fine to fine-grained; crinoids
1385-1408	Sandstone, light-gray to yellowish-gray, very fine to fine-grained
1408-1417	Sandstone, gray to brownish-gray, slightly silty, very fine to fine-grained
1417-1439	Sandstone, dark-gray to black, slightly micaceous, very silty, very fine to fine-grained
1439-1446	Shale, dark-gray, finely micaceous; very fine to fine-grained sandstone
1446-1472	Shale, dark-gray, finely micaceous
1472-1475	(No samples)
1475-1496	Shale, dark-gray, finely micaceous, silty; very fine to fine-grained sandstone



<b>Depth in feet</b>	<b>Sample description</b>
1496-1510	Shale, dark-gray, finely micaceous, slightly silty
1510-1528	Sandstone, gray, finely micaceous, silty, very fine to fine-grained
1528-1542	Sandstone, gray and brownish-gray, slightly limy, very fine to medium-grained; crinoids
1542-1545	Shale, dark-gray to black, very finely micaceous
1545-1560	Sandstone, light-gray, slightly micaceous, very fine to fine-grained
1560-1600	Shale, dark-gray, very finely micaceous, silty; very fine to fine-grained sandstone
1600-1627	Shale, dark-gray, finely micaceous, slightly silty and sandy
1627-1635	Shale as above, slightly more sandy
1635-1670	Shale, dark-gray, finely sandy, very finely micaceous; very fine to fine-grained sandstone
1670-1680	Shale as above, slightly more sandy
1680-1709	Shale, dark-gray, very finely micaceous
1709-1730	Shale as above, sandy
1730-1756	Sandstone, very light gray, very fine to fine-grained
1756-1775	Sandstone, light olive-gray, slightly micaceous, slightly quartzitic and silty, very fine grained
1775-1785	Sandstone as above, slightly limy
1785-1820	Shale, dark-gray, finely sandy, very finely micaceous; silty, very fine to fine-grained sandstone
1820-1834	Sandstone, light- to dark-gray, micaceous, very fine to fine-grained
1834-1838	(No samples)
1838-1845	Sandstone, light-gray, micaceous, very fine to fine-grained; gray slightly micaceous slightly limy silty very fine to fine-grained sandstone
1845-1858	Shale, dark-gray, finely sandy, very finely micaceous; very fine grained sandstone
1858-1868	Shale, dark-gray to black, very finely micaceous
1868-1890	Shale, dark-gray to black, very finely micaceous; thin beds of gray to light-gray fine- to medium-grained sandstone
1890-1904	Shale, dark-gray to black, very finely micaceous
1904-1940	Sandstone, very light gray, very fine to fine-grained; trace of black silt stringers
1940-1965	Sandstone, light-gray to gray, slightly micaceous, very fine to fine-grained; silt in gray sandstone; trace of glauconite between 1940-50 ft.
1965-2010	Sandstone, light-gray, slightly micaceous, very fine to fine-grained
2010-2030	Sandstone, yellowish-gray to gray, silty, finely micaceous, very fine to fine-grained
2030-2106	Shale, dark-gray to black, very finely micaceous
2106-2130	Sandstone, gray to light-gray, silty, very fine to medium-grained
2130-2165	Sandstone, light-gray to gray, silty, slightly micaceous, very fine to fine-grained
2165-2180	Sandstone, gray to dark-gray, very silty
2180-2190	Shale, dark-gray to black, finely sandy, very finely micaceous; very fine to fine-grained sandstone
2190-2200	Shale, dark-gray to black, very finely micaceous
2200-2206	(No sample)
2206-2215	Sandstone, gray to light olive-gray, micaceous, slightly limy, very fine to fine-grained; dark-gray silt and shale
2215-2226	Shale, dark-gray, finely micaceous
2226-2256	Sandstone, gray to light-gray, silty, very slightly limy, very fine to fine-grained; black silt and shale stringers
2256-2290	Shale, dark-gray to black, finely micaceous
2290-2300	Limestone, yellowish-gray to olive-gray, and dark-gray, silty, finely granular to finely crystalline; bry- ozoa and crinoids
2300-2309	Limestone, light-gray to gray, slightly silty, finely granular to finely crystalline
2309-2350	Shale, dark-gray to black, very finely micaceous; thin stringers of light- to dark-gray, slightly limy, very fine to fine-grained sandstone
2350-2375	Shale, dark-gray to black, finely sandy, very finely micaceous; gray to dark-gray, very fine to fine-grain- ed sandstone
2375-2390	(No samples)
2390-2415	Shale, dark-gray to black, finely micaceous, slightly silty
2415-2420	(No samples)
2420-2425	Sandstone, dark-gray to gray, micaceous, silty, very fine to fine-grained; dark-gray to black finely mica- ceous shale
2425-2443	(No samples)

Depth in feet	Sample description
2443-2445	Shale, dark-gray to black, very finely micaceous
2445-2447	Sandstone, dark-gray to greenish-gray, very fine to fine-grained
2447-2453	Shale, dark-gray to black, very finely micaceous
2453-2470	Limestone, light- to dark-gray, very silty; finely granular to finely crystalline; fine- to medium-grained sandstone; black shale; coarsely to very coarsely crystalline limestone
2470-2500	Limestone, light- to dark-gray, silty, finely granular to finely crystalline; black shale stringers
2500-2509	Limestone, light-gray to gray, silty, finely granular to finely crystalline; coarsely to very coarsely crystalline limestone
2509-2519	Shale, dark-gray, finely micaceous, finely sandy, slightly limy
2519-2528	Limestone, light-gray to gray, finely granular to finely crystalline; crinoids
2528-2535	(No samples)
2535-2547	Sandstone, dark-gray to black, silty, very fine to fine-grained
2547-2551	Limestone, light-gray, finely granular, oolitic with sand grains in oolites; brachiopods, crinoids, bryozoa
2551-2564	Sandstone, very light gray, limy, fine-grained
2564-2570	Limestone, light-gray, finely sandy, finely crystalline to finely granular
2570-2575	Limestone, dark-gray to black, silty, finely granular to finely crystalline
2575-2590	Limestone, light-gray to gray, finely sandy, finely granular to very finely crystalline
2590-2596	Limestone, yellowish-gray, finely sandy, finely granular to finely crystalline
2596-2602	(No samples)
2602-2618	Sandstone, light-gray, very limy, fine- to medium-grained
2618-2625	Shale, grayish-black
2625-2633	Sandstone, gray, slightly limy, very fine to fine-grained
2633-2660	Shale, dark-gray to black, very finely micaceous, very slightly silty
2660-2686	Shale, dark-gray to black, finely sandy, very finely micaceous; gray to dark-gray, very fine to fine-grained sandstone
2686-2705	Sandstone, gray to dark-gray, silty, slightly limy, very fine to fine-grained; dark-gray shale
2705-2715	(No samples)
2715-2717	Sandstone as above
2717-2719	(No samples)
2719-2721	Sandstone as above
2721-2740	Shale, dark-gray, finely micaceous, finely sandy; gray to dark-gray very fine to fine-grained sandstone
2740-2748	Limestone, light-gray to yellowish-gray, finely granular to finely crystalline
2748-2758	Shale, dark-gray to black, finely micaceous; limy very fine to fine-grained sandstone
2758-2764	Limestone, light- to dark-gray, silty, finely granular to finely crystalline; oolites at top
2764-2784	Shale, dark-gray to black, finely micaceous; limy very fine to fine-grained sandstone and silty finely granular to finely crystalline limestone
2784-2827	Shale, dark-gray to black, finely micaceous; stringers and thin beds of gray to dark-gray silty finely granular to finely crystalline limestone
2827-2850	Limestone, light- to dark-gray, silty, oolitic, finely granular to finely crystalline
2850-2860	(No samples)
2860-2893	Limestone, light- to dark-gray, silty, oolitic, finely granular to finely crystalline; dark-gray finely micaceous shale stringers
2893-2898	(No samples)
2898-2910	Limestone, gray to dark-gray, very silty, finely granular to very finely crystalline
2910-2920	Limestone, gray to dark-gray, slightly silty and oolitic, finely granular to very finely crystalline
2920-2928	Limestone, light-gray to gray, silty, finely granular to very finely crystalline
2928-2930	(No samples)
2930-2937	Limestone, light- to dark-gray, silty, oolitic, very finely granular to finely crystalline
2937-2944	(No sample)
2944-2970	Limestone, light- to dark-gray, slightly silty, finely granular to finely crystalline; crinoids 2,944-50 ft.
2970-2974	Shale, black, finely sandy, very finely micaceous
2974-2979	Shale, gray to dark-gray, finely sandy, very finely micaceous
2979-2990	Sandstone, light-gray to gray, slightly limy, very fine to fine-grained
2990-3000	Shale, dark-gray to black, very finely micaceous, finely sandy
3000-3003	(No sample)
3003-3019	Sandstone, light-gray, very fine to fine-grained; thin beds of dark-gray to black very finely micaceous shale

Depth in feet	Sample description
3019-3023	(No sample)
3023-3040	Shale, dark-gray to black, very finely micaceous, silty; very fine to fine-grained sandstone
3040-3050	Shale as above
3050-3057	Shale and sandstone as above
3057-3067	(No samples)
3067-3100	Shale, dark-gray to black, very finely micaceous
3100-3125	Shale, dark-gray to black, very finely micaceous; dark-gray to black very silty dense limestone
3125-3150	Shale and limestone as above; trace of gray finely granular limestone
3150-3170	Limestone, light-gray and dark-gray, very finely crystalline to finely granular; crinoids; bryozoa
3170-3187	Limestone, light- to dark-gray, slightly silty, finely granular to finely crystalline
3187-3200	Shale, very dark gray to black, micaceous, silty, limy
3200-3209	Chert, very light gray to gray, limy, dense to translucent; trace of grayish- black mottled finely granular limestone
3209-3212	(No sample)
3212-3215	Chert and limestone as above
3215-3219	(No sample)
3219-3229	Limestone, light-gray to gray, finely granular to finely crystalline; white milky dense chert
3229-3249	Chert, white to light-gray, dense to translucent; black mottled chert; limestone as above
3249-3260	Chert, white to light-gray, limy, dense; gray to dark-gray finely granular to finely crystalline limestone
3260-3310	Chert, white to light-gray, slightly limy, dense to finely granular; trace of white to gray finely granular to finely crystalline limestone
3310-3320	Chert, light-gray to gray, limy, finely granular to dense
3320-3329	Chert, light olive-gray, limy, dense
3329-3335	Chert, light-gray, limy, finely granular to dense; light-gray finely granular limestone
3335-3347	Chert, white to very light gray, milky and translucent; white siliceous finely granular limestone
3347-3363	Limestone, light-gray, light olive-gray, and gray, very finely granular to finely crystalline; dense chert
3363-3368	(No samples)
3368-3378	Chert and limestone as above
3378-3400	Chert, white to very light gray, limy, finely granular to dense; siliceous very finely crystalline to finely granular limestone
3400-3413	Chert, gray to light-gray, mottled, limy, dense; thin bands of siliceous finely granular to finely crystalline limestone
3413-3426	Chert, white to very light gray, limy, dense to finely granular; very siliceous finely granular to finely crystalline limestone
3426-3433	(No samples)
3433-3438	Chert and limestone as above
3438-3443	(No samples)
3443-3470	Chert, light- to very light gray, translucent; milky dense chert; white siliceous finely granular to finely crystalline limestone
3470-3475	Chert, gray, smoky; gray very finely to finely crystalline limestone
3475-3485	Shale, dark-gray to black, very finely micaceous
3485-3488	Sandstone, white to light-gray, very fine to fine-grained
3488-3495	Chert, white to very light gray, milky and translucent, dense; quartzitic, very fine to coarse-grained sandstone
3495-3501	(No samples)
3501-3520	Sandstone, white to very light gray, quartzitic in part, very fine to fine-grained
3520-3530	Limestone, white to very light gray, medium to finely sandy at base, finely granular to very finely crystalline
3530-3538	Limestone, light-gray, medium to finely sandy, finely granular to finely crystalline
3538-3550	Limestone, light-gray to white, finely granular to coarsely crystalline
3550-3560	Limestone, white to very light gray, finely granular to finely crystalline; pink coarse calcite crystals
3560-3580	Limestone, white to very light gray, coarsely crystalline; pink calcite crystals
3580-3600	Limestone, white to very light gray, finely to coarsely crystalline
3600-3640	Limestone, white to very light gray, finely to coarsely crystalline; pink calcite crystals
3640-3660	Limestone as above; pink calcite crystals
3660-3670	Limestone, white to very light gray, finely granular to medium-crystalline; pink limestone crystals

Depth in feet	Sample description
3670-3750	Limestone, white to very light gray, finely granular to medium-crystalline
3750-3772	Limestone, light-gray, finely granular to medium-crystalline; orange crystals
3772-3785	Shale, greenish-gray, very slightly limy and pyritic
3785-3809	Shale, dark-gray to black, limy
3809-3824	Limestone, light-gray to gray, finely granular to coarsely crystalline; crinoids
3824-3827	Limestone, gray to light-gray, finely granular to finely crystalline
3827-3839	Limestone, gray to light-gray, finely granular to finely crystalline; brownish-gray dense chert
3839-3850	Limestone as above; trace of brownish-gray oolitic chert
3850-3859	Limestone, light- to dark-gray, dolomitic, finely granular to finely crystalline; black dense chert
3859-3875	Limestone, light- to dark-gray and black, silty, finely granular to finely crystalline
3875-3878	Sandstone, white, fine- to medium-grained
3878-3881	Shale, light-gray, very finely micaceous
3881-3885	Dolomite, light-gray, finely sandy
3885-3905	Sandstone, light-gray, fine- to medium-grained
3905-3913	Dolomite, dark-gray, silty, finely granular
3913-3916	Sandstone, white, fine- to medium-grained
3916-3919	Dolomite, dark-gray, silty, finely granular
3919-3930	Sandstone, white to light-gray, very fine to fine-grained
3930-3933	Sandstone, light-gray, slightly dolomitic
3933-3936	Shale, greenish-gray
3936-3940	Sandstone, light-gray, fine- to medium-grained
3940-3945	Dolomite, gray, rhombic, finely to medium-crystalline
3945-3950	Dolomite, light-gray to gray, silty, finely granular to finely crystalline
3950-3957	Sandstone, light-gray, dolomitic, fine- to medium-grained
3957-3960	Dolomite, gray, silty, finely granular to finely crystalline
3960-3974	Dolomite, light-gray, finely to medium sandy, finely granular to finely crystalline
3974-3998	Sandstone, white to very light gray, very fine to coarse-grained
3998-4000	(No sample)
4000-4014	Dolomite, light-gray, finely to medium sandy, finely granular to finely crystalline
4014-4030	Sandstone, white to light-gray, fine- to medium-grained; thin beds of light-gray to gray finely granular dolomite
4030-4040	Sandstone, white to very light gray, very fine to fine-grained
4040-4054	Sandstone, light-gray, very fine to fine-grained; gray sandy finely granular dolomite stringers
4054-4060	Dolomite, gray, finely granular to crystalline with floating sand grains
4060-4065	(No sample)
4065-4066	Dolomite
4066-4070	Sandstone, slightly dolomitic
4070-4080	Dolomite, dark-gray to black, sandy, finely granular to crystalline
4080-4085	Dolomite, gray, very silty, finely granular to finely crystalline
4085-4160	(No samples)
4160	TOTAL DEPTH

## FULTON COUNTY (1)

Operator: City of Mammoth Springs  
 Well No.: ?  
 Lease: Water well  
 Location: Sec. 7, T. 21 N., R. 5 W.

Elevation: 573 ft.  
 Total depth: 350 ft.  
 Completion date: ?  
 Logged by: E. E. Glick

Depth in feet	Sample description
0- 50	(No samples)
50- 60	Chert, light-gray to light brownish-gray, translucent (weathered cherty dolomite)
60- 65	Dolomite, light-gray, finely granular; smoky gray and light brownish-gray chert; white dull chert
65- 75	Dolomite, light-gray, finely granular; smoky gray and light brownish-gray chert; light-gray slightly oolitic chert
75- 80	Dolomite, light-gray, finely granular; white dolomitic chert
80- 85	Dolomite, light-gray, finely granular; light-gray to white dull chert; white dolomitic chert
85- 90	Dolomite, light-gray, slightly sandy, finely granular; light-gray to white dull chert
90-100	Dolomite, light-gray, slightly sandy, finely crystalline; light-gray and light brownish-gray slightly oolitic chert
100-110	Dolomite, light brownish-gray, slightly sandy, finely crystalline; white smooth chert and white dull dolomitic chert
110-115	Dolomite, light brownish-gray, finely to medium-crystalline; light-gray dull slightly dolomitic chert
115-120	Dolomite, light brownish-gray, slightly sandy, finely granular to finely crystalline; light-gray oolitic smooth sandy chert
120-130	Dolomite, cream-colored, sandy, finely granular; clear sandy chert and white dull chert
130-135	Dolomite, cream-colored, very sandy, finely granular; light-gray oolitic and sandy chert
135-145	Dolomite, cream-colored, very sandy, finely granular; light-gray sandy chert; trace of white smooth chert
145-150	Dolomite, light-gray, very sandy, finely granular; light-gray smooth chert; white chert
150-160	Dolomite, light-gray, very sandy, finely granular; clear sandy chert; light-gray oolitic chert
160-167	Sandstone, cream-colored, dolomitic, very fine to medium-grained
167-175	Dolomite, light brownish-gray, sandy, finely crystalline; white dolomitic chert and trace of light-gray smooth chert
175-185	Dolomite, light brownish-gray, sandy, finely to medium-crystalline; trace of light-gray smooth chert
185-190	Dolomite, light brownish-gray, sandy, finely to medium-crystalline; clear sandy chert
190-195	Dolomite, cream-colored, slightly sandy, finely granular to finely crystalline; white smooth chert
195-200	Dolomite, cream-colored, slightly sandy, finely granular
200-220	Dolomite, cream-colored, sandy, finely crystalline; light-gray smooth chert
220-230	Dolomite, light-gray, sandy, finely granular to finely crystalline; light-gray and white slightly oolitic and sandy chert
230-240	Dolomite, cream-colored, sandy, finely granular and finely crystalline; white smooth chert; white to clear slightly sandy chert
240-250	Dolomite, cream-colored, sandy, finely crystalline; light-gray smooth chert; white dolomitic chert; clear sandy chert
250-255	Dolomite, cream-colored, sandy, finely granular to finely crystalline; trace of light-gray sandy chert
255-260	Dolomite, cream-colored, sandy, finely granular to finely crystalline; light-brown smooth chert
260-265	Dolomite, cream-colored, sandy, finely granular to finely crystalline; light-gray dolomitic chert
265-270	Dolomite, light brownish-gray, slightly sandy, finely granular; white smooth chert
270-275	Dolomite, cream-colored, slightly sandy, finely granular; trace of white chert
275-280	Dolomite, cream-colored, sandy, finely granular; trace of light-gray dense oolitic and sandy chert
280-285	Dolomite, cream-colored, slightly sandy, finely granular; white and buff smooth chert
285-290	Dolomite, light brownish-gray, sandy, finely granular; trace of light-gray chert
290-300	Dolomite, light brownish-gray, sandy, finely granular; white smooth chert; trace of sandy chert
300-305	Dolomite, cream-colored, slightly sandy, finely crystalline; white smooth to dull chert
305-320	Dolomite, light brownish-gray, sandy, finely crystalline; white smooth chert
320-325	Dolomite, cream-colored, sandy, finely granular; light-gray smooth chert

Depth in feet	Sample description
325-330	Dolomite, cream-colored, sandy, finely granular; light-gray smooth chert; free brown oolites
330-335	Dolomite, cream-colored, sandy, finely granular; white dolomitic chert
335-340	As above and trace of free brown oolites
340-350	Dolomite, cream-colored, sandy, finely granular; white dolomitic chert; light-gray smooth slightly sandy chert; trace of free brown oolites
350	TOTAL DEPTH

## INDEPENDENCE COUNTY (1)

Operator: Jack Fitzpatrick	Elevation: 387 ft.
Well No.: 1	Total depth: { 1876 ft. ? 1926 ft. ?
Lease: W. W. Pryor	Completion date: Nov. 9, 1941
Location: Center of SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 18 N., R. 6 W.	Logged by: R. J. Lantz

### Formation Tops

	Depth (ft.)
Ruddell shale	60
Moorefield formation	298
Boone formation	457
Chattanooga shale	588(?)
Penters chert	609(?)
Silurian rocks undifferentiated	688(?)
Fernvale limestone	750(?)
Kimmswick (?) and Plattin limestones undifferentiated	811
Joachim dolomite	1052(?)
St. Peter sandstone	1143(?)
Everton formation	1263

Depth in feet	Sample description
0- 50	Sandstone, white, slightly limy in part, fine- to coarse-grained; free drilling in part
50- 55	Sandstone, light grayish-white, slightly limy, fine- to medium-grained, free drilling in part
55- 60	Sandstone, light grayish-white to light-gray, slightly limy, free drilling in part
60- 65	Siltstone, light-gray, slightly limy, finely sandy
65- 80	Siltstone, gray, slightly limy; brachiopod fragments in lower half
80- 85	Siltstone, gray, shaly, slightly limy
85- 115	Shale, gray, slightly limy, silty
115- 131	Alternating beds of gray and tan shale
131- 133	Shale, brown, hard
133- 143	Shale, gray, limy
143- 145	Shale, dark-brown, slightly limy
145- 150	Shale, gray
150- 175	Shale, black
175- 220	Sandstone, gray, limy, micaceous, very fine to fine-grained
220- 250	Shale, gray, micaceous, silty, very slightly limy
250- 261	Siltstone, gray, micaceous, very slightly limy
261- 266	Shale, black
266- 270	Sandstone, gray, micaceous, very fine to fine-grained, slightly limy
270- 298	Shale, black, micaceous, slightly limy, silty
298- 310	Limestone, dark-gray to gray, to gray and light-gray mottled, silty in part, finely crystalline
310- 337	Limestone, grayish-buff to dark grayish-buff, finely crystalline
337- 348	Siltstone, black, very limy
348- 358	Limestone, gray to light-gray, very silty
358- 860	Siltstone, light-gray, limy

Depth in feet	Sample description
360- 370	Siltstone, black, limy
370- 386	(No samples)
386- 420	Siltstone, black, limy; brachiopods 410-15 ft.
420- 435	Siltstone, black, limy, micaceous, shaly
435- 444	Siltstone, dark-gray to gray, micaceous, limy, shaly
444- 452	Siltstone, as above; dark-gray siliceous siltstone
452- 457	Siltstone, black, micaceous, shaly, limy; glauconite
457- 467	Limestone, gray to buff and cream-colored, mottled, finely to medium-crystalline; gray dense spicular chert
467- 551	(No sample)
551- 588	Limestone, white to gray, finely crystalline; gray dense chert
588- 593	(No sample)
593- 599	Shale, black, micaceous, hard, slightly limy
599- 600	(No sample)
600- 609	Shale as above
609- 610	Limestone, black, finely crystalline
610- 629	(No sample)
629- 650	Limestone, grayish-buff, finely crystalline; gray to brown dense spicular chert
650- 660	Limestone, grayish-brown, finely crystalline; gray to grayish-brown dense translucent chert
660- 681	(No samples)
681- 688	Limestone, light-gray, finely crystalline; light-gray translucent to dense chert
688- 692	(No sample)
692- 694	Shale, green, pyritic
694- 699	(No sample)
699- 712	Limestone, maroon and cream mottled, medium-crystalline
712- 726	Limestone, cream, maroon-spotted, glauconitic, medium- to coarsely crystalline
726- 735	(No sample)
735- 736	Limestone, white, coarsely crystalline
736- 752	(No samples)
752- 761	Limestone, white, medium- to coarsely crystalline; pink crystals; pyrite
761- 781	(No samples)
781- 788	Limestone, white, finely to medium-crystalline
788- 800	(No samples)
800- 811	Limestone, white, coarsely crystalline
811- 816	Limestone, buff to grayish-buff, very finely crystalline to dense
816- 828	(No samples)
828- 829	Limestone, gray to brownish-gray, very finely crystalline to dense
829- 831	(No sample)
831- 832	Limestone, brown to buff, very finely crystalline to dense
832- 840	(No samples)
840- 846	Limestone, cream-colored, very finely crystalline
846- 865	(No samples)
865- 874	Limestone, brownish-gray, very finely crystalline to dense
874- 886	(No samples)
886- 896	Limestone, dark-gray, silty, to finely sandy
896- 901	(No samples)
901- 902	Limestone, light-gray, very finely crystalline to dense
902- 919	(No samples)
919- 920	Limestone, light-gray, very finely crystalline to dense; dark-gray silty finely sandy limestone
920- 926	(No samples)
926- 927	Limestone, cream-colored to light-buff, very finely crystalline to dense
927- 937	(No samples)
937- 940	Limestone, light-gray, very finely crystalline to dense
940- 947	Limestone, light grayish-white, silty to finely sandy; grayish-brown very finely crystalline to dense limestone
947- 955	(No samples)
955- 965	Limestone, light-gray to light-buff, very finely crystalline to dense



Depth in feet	Sample description
965- 975	Limestone, light-buff, dense
975- 990	Limestone, light-gray, slightly silty in part, very finely crystalline to dense
990- 996	Limestone, light-gray to dark-brown, very finely crystalline to dense
996-1004	(No samples)
1004-1005	Limestone, light-gray to dark-brown, very finely crystalline to dense
1005-1018	Limestone, light-gray, dense, finely pyritic
1018-1025	(No samples)
1025-1040	Limestone, brownish-gray, dense
1040-1045	Limestone, cream-colored to light-buff, dense
1045-1052	Limestone, cream-colored, dense, finely pyritic
1052-1066	(No samples)
1066-1067	Dolomite, white, finely granular
1067-1071	(No samples)
1071-1072	Dolomite, white, finely granular, containing sand grains
1072-1115	(No samples)
1115-1129	Dolomite, white, silty, finely granular, containing medium to coarse sand grains
1129-1143	(No samples)
1143-1157	Sandstone, white, medium- to coarse-grained, cemented with light-gray finely granular dolomite
1157-1161	(No samples)
1161-1179	Sandstone, white, medium- to coarse-grained, free drilling
1179-1187	(No samples)
1187-1256	Sandstone as above
1256-1263	(No samples)
1263-1273	Sandstone as above
1273-1284	Dolomite, white, finely crystalline, containing medium to coarse sand grains
1284-1290	Dolomite, white, medium-crystalline
1290-1300	Dolomite, white to gray, finely crystalline
1300-1310	Dolomite, white, finely crystalline
1310-1311	Shale, green
1311-1318	Sandstone, white, medium-grained
1318-1327	Dolomite, light-gray, very finely to finely crystalline
1327-1329	Sandstone, white, medium-grained
1329-1340	Dolomite, white, finely to medium-crystalline, containing sand grains
1340-1351	Dolomite, brown, finely crystalline
1351-1359	Limestone, brown to brownish-buff, very finely crystalline to dense
1359-1361	Sandstone, white, medium-grained
1361-1374	Dolomite, light-brown, finely crystalline
1374-1384	Limestone, brown, very finely crystalline to dense
1384-1386	Shale, dark-gray, smooth
1386-1390	Sandstone, white, medium-grained
1390-1391	Shale, dark-gray, smooth
1391-1395	Dolomite, white, finely crystalline, containing medium to coarse sand grains
1395-1400	Dolomite, white to light grayish-buff, finely crystalline, containing medium to coarse sand grains
1400-1410	Dolomite, light grayish-brown, finely crystalline
1410-1418	Dolomite, light grayish-white, medium sandy, finely crystalline
1418-1440	Dolomite, brown, finely crystalline
1440-1445	Dolomite, brown to white, finely crystalline
1445-1450	Dolomite, light-brown
1450-1460	Dolomite, light-brown to light-gray, finely crystalline
1460-1469	Dolomite, white, finely crystalline
1469-1476	Sandstone, white, medium-grained
1476-1479	Dolomite, light-buff, finely crystalline
1479-1490	(No samples)
1490-1497	Dolomite, light grayish-white, finely crystalline, containing many sand grains
1497-1510	Dolomite, gray to dark-gray, finely crystalline
1510-1517	Dolomite, light-gray, sandy, finely crystalline

Depth in feet	Sample description
1517-1520	Dolomite, light-gray, finely crystalline
1520-1525	Dolomite, buff, finely crystalline
1525-1533	Dolomite, white, sandy, finely crystalline
1533-1545	Sandstone, white, medium- to coarse-grained, dolomitic
1545-1557	Dolomite, white, sandy, finely crystalline
1557-1560	Limestone, light-buff, dense; fine pyrite crystals; ostracods (?)
1560-1566	Limestone as above
1566-1580	Dolomite, light-buff to grayish-brown, finely crystalline, containing sand grains
1580-1585	Dolomite, buff, finely crystalline, containing sand grains
1585-1590	Dolomite, light grayish-white, finely crystalline
1590-1594	Dolomite, white, finely crystalline
1594-1600	Dolomite, white, finely crystalline, containing sand grains; light grayish-buff dense limestone fragments
1600-1610	Dolomite, white, finely crystalline
1610 to total depth	(No samples)
1876? }	TOTAL DEPTH
1926? }	

## JACKSON COUNTY (1)

Operator: Deardorf Oil Co.	Elevation: 215 ft.
Well No.: 1	Total depth: 3029 ft.
Lease: Doggett	Completion date: Aug. 13, 1953
Location: Center of NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 10 N., R. 3 W.	Logged by: S. E. Frezon

### Formation Tops

	Depth (ft.)
Kimmswick (?) and Plattin limestones undifferentiated	2156
Joachim (?) dolomite	2540
St. Peter sandstone	2638 (?)
Everton formation	2690

Depth in feet	Sample description
0- 605	(No samples)
605- 710	Shale, gray to dark-gray, silty, slightly micaceous; trace of very fine to fine-grained sandstone
710- 740	(No samples)
740- 760	Shale, dark-gray, very finely micaceous
760- 800	Shale, dark-gray, slightly micaceous, silty, and finely sandy
800- 960	Shale, dark-gray, slightly micaceous
960- 990	Shale, dark-gray, slightly micaceous; very fine to fine-grained sandstone
990-1100	Shale, dark-gray to black, slightly micaceous
1100-1200	Shale, dark-gray, very finely micaceous, very slightly limy
1200-1210	Shale, dark-gray to black, very finely micaceous, slightly limy
1210-1220	Shale as above; crinoids
1220-1285	Shale, dark-gray, very finely micaceous, very slightly silty, slightly limy
1285-1294	Sandstone, gray to white, limy, silty at top and base, very fine to fine-grained
1294-1586	Shale, dark-gray, very finely micaceous
1586-1600	Shale, dark-gray to black, finely micaceous
1600-1629	Shale, dark-gray to black, finely micaceous, slightly limy
1629-1630	Limestone, dark-gray, silty, finely granular; crinoids
1630-1660	Shale, dark-gray to black, very finely micaceous; slightly limy
1660-1667	Shale, dark-gray, very finely micaceous; medium-crystalline mineral dolomite
1667-1720	Shale, dark-gray to black, very finely micaceous
1720-1730	Shale as above; dark-gray fine-grained sandstone
1730-1815	Shale, dark-gray to black, very finely micaceous
1815-1820	Shale as above; dark-gray very fine to fine-grained sandstone
1820-2040	Shale, dark-gray, very finely micaceous
2040-2050	Shale as above; trace of dark olive-gray limestone
2050-2060	Shale, dark-gray, very finely micaceous
2060-2080	Shale, black, limy, finely micaceous, finely sandy
2080-2105	Shale, dark-gray to black, very finely micaceous
2105-2145	Shale, dark-gray, silty, limy, finely micaceous; dark-gray limy finely micaceous siltstone
2145-2156	Siltstone, dark-gray, finely micaceous, very limy
2156-2160	Limestone, light-gray to gray, oolitic, finely granular to finely crystalline; light-gray and smoky chert
2160-2168	Limestone, light-gray, finely granular to medium-crystalline; trace of white smoky chert
2168-2180	Limestone, white to very light gray, finely crystalline to finely granular
2180-2190	Limestone, very light gray, medium-crystalline to finely granular; light olive-gray limestone; white and smoky translucent chert

Depth in feet	Sample description
2190-2200	Limestone, light-gray to white, medium to coarsely sandy, finely granular to finely crystalline; light-gray smoky translucent chert
2200-2235	Limestone, light-gray to yellowish-gray, and very light gray, finely granular to finely crystalline; gray and olive-gray translucent chert
2235-2245	Limestone as above; less abundant chert
2245-2285	Limestone, very light gray to yellowish-gray, finely granular to medium-crystalline; trace of light-gray to gray translucent chert
2285-2414	(No samples)
2414-2425	Limestone, dark-gray, very silty, finely granular to finely crystalline; dark-gray to black shale
2425-2430	Limestone, gray to light-gray, slightly pyritic, dense to finely granular
2430-2435	Limestone, gray to light-gray, finely to medium sandy, dense to finely granular
2435-2440	Limestone, gray to light-gray, dense to finely granular
2440-2445	Limestone as above, and sandy
2445-2452	Limestone, dark-gray, finely granular to finely crystalline
2452-2470	Limestone as above, and sandy
2470-2503	Limestone, light-gray, finely granular; dark-gray very finely granular to dense limestone
2503-2506	Limestone as above, slightly glauconitic
2506-2518	Limestone as above; trace of greenish-gray shale
2518-2540	Limestone as above, and medium sandy
2540-2560	Dolomite, light-gray to white, granular to finely crystalline
2560-2578	Dolomite, light-gray, finely granular to finely crystalline; trace of gray to light-gray limestone
2578-2588	Dolomite, gray to light-gray, medium sandy, finely granular to finely crystalline
2588-2595	Limestone, light-gray, medium sandy, finely granular; gray to light-gray medium sandy dense to finely granular
2595-2600	Limestone, gray to light-gray, dense
2600-2605	Limestone, gray to light-gray, dolomitic, finely granular to finely crystalline
2605-2619	Dolomite, light-gray to very light gray, finely sandy, finely granular to finely crystalline
2619-2624	Dolomite, light-gray to very light gray, finely granular to finely crystalline
2624-2670	(No samples)
2670-2672	Dolomite, very light gray to white, medium sandy, finely granular to finely crystalline
2672-2676	Dolomite, very light gray, sandy, finely granular to finely crystalline
2676-2680	Sandstone, white to very light gray, fine- to medium-grained
2680-2690	Sandstone as above, slightly dolomitic and quartzitic
2690-2702	Limestone, gray to light-gray, finely granular to finely crystalline
2702-2727	Dolomite, gray to light-gray, finely to medium sandy, very finely granular to finely crystalline
2727-2736	Limestone, light-gray to gray, finely granular to finely crystalline
2736-2740	Dolomite, light-gray to gray, finely granular to finely crystalline
2740-2756	Limestone, light-gray to gray, slightly pyritic, finely granular to dense
2756-2770	Dolomite, light-gray to very light gray, finely sandy, finely granular to finely crystalline; quartzitic sandstone
2770-2790	Dolomite, gray to light-gray, finely sandy, finely pyritic, very finely granular to finely crystalline
2790-2798	Limestone, gray, dense; light-gray finely granular to finely crystalline limestone
2798-2802	Dolomite, brownish-gray, finely granular to finely crystalline
2802-2808	Sandstone, white to very light gray, dolomitic, fine- to medium-grained
2808-2854	Dolomite, light-gray to brownish-gray, finely granular to finely crystalline
2854-2858	Dolomite, light-gray, very finely crystalline to finely granular
2858-2870	Dolomite as above; greenish-gray pyritic dolomite
2870-2880	Dolomite, gray to light-gray, finely granular to finely crystalline
2880-2885	Dolomite, light-gray to light olive-gray, finely granular to finely crystalline
2885-2910	Dolomite, white to very light gray, finely to medium sandy, finely granular to finely crystalline
2910-2943	Dolomite, light-gray to very light gray, finely granular to very finely crystalline
2943-2950	Dolomite as above, and finely to medium sandy
2950-2960	Dolomite, white to light-gray, finely granular to finely crystalline
2960-2995	Dolomite, light-gray to light olive-gray, finely to medium sandy, finely granular to finely crystalline
2995-3005	Dolomite, white to very light gray, finely granular
3005-3015	Dolomite, light-gray to light olive-gray, finely to medium sandy, finely granular to finely crystalline
3015-3029	Dolomite as above; olive-gray sandy dense dolomite
3029	TOTAL DEPTH

## JOHNSON COUNTY (1)

Operator: Arkansas-Louisiana Gas Co.	Elevation: 747 ft.
Well No.: 1	Total depth: 6135 ft.
Lease: S. M. Hudson	Completion date: Dec. 27, 1944
Location: NW $\frac{1}{4}$ , SE $\frac{1}{4}$ , NE $\frac{1}{4}$ sec. 15, T. 10 N., R. 24 W.	Logged by: R. J. Lantz

### Formation Tops

	Depth (ft.)
Chattanooga shale	4580
Penters chert	4633
Silurian rocks undifferentiated	4870
Fernvale limestone	5048
Kimmswick (?) and Platin limestones undifferentiated	5128
St. Peter sandstone	5170
Everton formation	5282
Powell dolomite	5782
Cotter dolomite	5992

Depth in feet	Sample description
0-4390	(No samples)
4390-4400	Limestone, white, finely crystalline; white to gray chalcedonic and dense chert
4400-4460	Limestone, gray, finely crystalline; milky to translucent chert
4460-4470	(No samples)
4470-4550	Limestone, gray, finely crystalline; white finely black spotted dense chert
4550-4580	Limestone, gray to dark-gray, finely crystalline; smoky to gray chalcedonic chert
4580-4633	Shale, black; trace of pyrite
4633-4660	Limestone, gray, slightly sandy; finely crystalline; white dense chert
4660-4680	Limestone, gray, very finely crystalline; white dense chert
4680-4720	Limestone, gray, dense to very finely crystalline; white dense chert, decreasing in quantity downward
4720-4730	Chert, white, dense, spicular; trace of gray dense finely crystalline limestone
4730-4760	As above; quartz crystals
4760-4770	Chert, light-tan, translucent; dark-gray finely crystalline limestone
4770-4800	Chert, white, translucent and dense; dark-gray, finely crystalline limestone
4800-4815	Limestone, light-gray and gray, silty, finely granular; buff translucent chert
4815-4830	Limestone, light-gray, finely crystalline; light-buff chalcedonic chert
4830-4840	Limestone, gray, finely crystalline; buff dense to chalcedonic chert
4840-4870	Limestone, gray, slightly silty, finely crystalline; buff chalcedonic to dense chert
4870-4895	Limestone, gray, finely crystalline to finely granular
4895-4900	Limestone, gray, finely crystalline
4900-4920	Limestone, gray, slightly silty, finely crystalline
4920-4960	Limestone, gray to light-gray, slightly silty, finely crystalline
4960-4970	Limestone, maroon, slightly silty, finely crystalline to finely granular
4970-4980	Limestone, orange, slightly silty, finely crystalline to finely granular
4980-4990	Limestone, dark-maroon, slightly silty, finely crystalline to finely granular
4990-5010	Limestone, light-gray, slightly silty, finely granular
5010-5025	Limestone, light-gray, slightly silty, finely granular; trace of pyrite
5025-5048	Limestone, light-gray (with pink to orange spots), finely crystalline

Depth in feet	Sample description
5048-5100	Limestone, light-gray, medium- to coarsely crystalline; pink spots and crystals
5100-5110	Limestone, light-gray, medium sandy, medium-crystalline; trace of pink crystals
5110-5128	Limestone, light grayish-white, medium-crystalline; trace of pink crystals
5128-5140	Limestone, light-buff, medium-crystalline; light grayish-white dense chert
5140-5150	Limestone, dark-gray to black, medium-crystalline; black dense chert
5150-5170	Limestone, gray, slightly sandy, very finely granular to dense
5170-5184	Sandstone, white, fine- to coarse-grained; gray silty dolomitic cement
5184-5190	Shale, black
5190-5205	Sandstone, fine-grained; quartz crystals
5205-5250	Sandstone, white, fine-grained, cemented with gray silty dolomite
5250-5282	Sandstone, white, fine-grained, cemented with silica
5282-5290	Dolomite, gray, sandy
5290-5300	Dolomite, gray, silty, finely sandy
5300-5320	Dolomite, dark-gray, silty, finely crystalline
5320-5330	Dolomite, dark-gray, silty, finely sandy, finely crystalline
5330-5340	Dolomite, light-gray, very finely crystalline to dense
5340-5350	Dolomite, light-gray, sandy, finely crystalline to dense
5350-5360	Dolomite, light-gray, silty, finely crystalline
5360-5370	Dolomite, light-gray, finely to medium sandy, finely crystalline
5370-5378	Dolomite, light-gray, finely sandy, finely crystalline
5378-5379	Shale, black
5379-5400	Dolomite, light-gray, finely sandy, finely crystalline
5400-5432	Sandstone, light-gray, dolomitic, medium-grained
5432-5450	Dolomite, dark-gray, silty, finely crystalline
5450-5462	Dolomite, gray, slightly pyritic, finely crystalline
5462-5500	Sandstone, light-gray, slightly limy, fine- to coarse-grained
5500-5510	Sandstone, light-gray, very slightly limy, medium- to coarse-grained
5510-5520	Sandstone, gray to very dark gray, dolomitic, medium- to coarse-grained
5520-5555	Sandstone, light-gray, slightly dolomitic, medium- to coarse-grained
5555-5560	Sandstone, white, medium- to coarse-grained; grayish-buff lime cement
5560-5570	Limestone, gray, finely crystalline
5570-5591	Limestone, gray, finely to medium sandy, finely crystalline
5591-5600	Sandstone, light-gray, dolomitic, medium-grained
5600-5606	Sandstone, light-gray, limy, medium-grained
5606-5616	Dolomite, dark-gray, finely to medium-crystalline
5616-5622	Limestone, light-gray, very finely crystalline
5622-5646	Sandstone, white, medium-grained
5646-5651	Dolomite, gray, medium sandy, finely crystalline
5651-5660	Sandstone, white, dolomitic, medium-grained
5660-5675	Dolomite, gray, very finely crystalline
5675-5685	Dolomite, dark-gray, very finely crystalline
5685-5709	Sandstone, light-gray, dolomitic, medium-grained
5709-5721	Dolomite, gray to dark-gray, finely crystalline
5721-5738	Sandstone, white
5738-5760	Dolomite, dark-gray, very finely to finely crystalline
5760-5769	Dolomite, light-gray, very finely crystalline
5769-5782	Sandstone, white, slightly dolomitic, medium-grained
5782-5794	Dolomite, light-gray, very finely to finely crystalline
5794-5800	Dolomite, light-gray to gray, slightly sandy, very finely to finely crystalline
5800-5820	Dolomite, gray, very finely crystalline
5820-5840	Dolomite, dark-gray, finely crystalline
5840-5850	Dolomite, dark-gray to gray, very finely to finely crystalline
5850-5860	Dolomite, light grayish-buff, finely crystalline
5860-5870	Dolomite, gray, finely crystalline
5870-5884	Dolomite, light-gray, finely to medium sandy, finely crystalline
5884-5891	Dolomite, light-gray, finely crystalline; light-gray to white dense chert

Depth in feet	Sample description
5891-5900	Dolomite, light-gray, silty, finely granular
5900-5910	Dolomite, dark-gray, finely crystalline
5910-5920	Dolomite, light-gray, finely crystalline
5920-5930	Dolomite, dark-gray, finely crystalline
5930-5945	Dolomite, dark-gray to black, finely crystalline
5945-5950	Dolomite, light-gray, finely crystalline
5950-5970	Dolomite, light grayish-buff, finely to medium-crystalline
5970-5980	Dolomite, light grayish-buff, silty
5980-5992	Dolomite, light-gray, silty
5992-6002	Dolomite, light-gray; white, dense to milky chalcedonic chert
6002-6010	Dolomite, light-gray, very finely crystalline
6010-6020	Dolomite, light-gray, very finely to finely crystalline
6020-6045	Dolomite, light-gray, finely crystalline; trace of milky chalcedonic chert
6045-6060	Dolomite, light-gray, finely crystalline; milky chalcedonic chert
6060-6070	Dolomite, gray, finely crystalline
6070-6080	Dolomite, light grayish-buff, very finely crystalline
6080-6088	Dolomite, light grayish-buff, finely sandy, very finely crystalline
6088-6100	Dolomite, light grayish-buff, very finely crystalline; milky chalcedonic chert
6100-6110	Dolomite, light-buff, very finely crystalline; white dense chert
6110-6120	Dolomite, light-buff, very finely crystalline; milky to slightly smoky chalcedonic chert; dark medium oolites
6120-6135	(No samples)
6135	TOTAL DEPTH

## JOHNSON COUNTY (2)

Operator: Pure Oil Co.	Elevation: 2050 ft.
Well No.: 1	Total depth: 3945 ft.
Lease: Low Gap Unit	Completion date: April 9, 1951
Location: NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 11 N., R. 24 W.	Logged by: R. J. Lantz (0-2750 ft.); J. C. Maher (2750-3945 ft.)

### Formation Tops

	Depth (ft.)
Bloyd shale	1736
Kessler limestone member of the Bloyd shale	1812
Brentwood limestone member of the Bloyd shale	1989
Prairie Grove member of the Hale formation	2084
Cane Hill member of the Hale formation	2170
Pitkin limestone	2365
Fayetteville shale	2558
Batesville sandstone, Ruddell shale, and Moorefield formation undifferentiated	2738
Boone formation	2791
Penters chert	3082
Silurian rocks undifferentiated	3235
Cason shale	3414
Fernvale limestone	3424
Kimmswick (?) and Plattin limestones undifferentiated	3460
St. Peter sandstone	3465
Everton formation	3573

Depth in feet	Sample description
0- 11	Sandstone, light-gray to gray, medium- to coarse-grained
11- 21	Alternating beds of black micaceous shale and light-gray to gray, medium- to coarse-grained sandstone
21- 34	Alternating beds of dark-gray to gray, very silty, micaceous, very fine grained sandstone and black mica- ceous silty shale
34- 57	Sandstone, gray to light-gray, shaly, micaceous, medium-grained
57- 65	Shale, smooth, black, slightly micaceous
65- 70	Shale, black, rough, micaceous, slightly pyritic
70- 79	Shale, black, silty to very finely sandy, micaceous, slightly pyritic
79- 85	Sandstone, gray to brown, siliceous in part, silty, very fine to fine-grained
85- 95	Sandstone, gray, yellowish-brown, and maroon, medium- to coarse-grained, cemented with hematite
95- 100	Sandstone, yellow and maroon, medium- to coarse-grained, cemented with calcite
100- 104	Sandstone, tan, medium- to coarse-grained, free drilling in part
104- 130	Shale, black, micaceous, silty to very finely sandy in part; pyrite
130- 150	Shale, black, micaceous, slightly silty
150- 180	Shale, black, very micaceous, slightly silty, rough
180- 190	Shale, black, micaceous, slightly silty in part



Depth in feet	Sample description
190- 215	Shale, black, very micaceous
215- 220	Sandstone, light-gray to gray, fine-grained
220- 230	Sandstone, gray, fine-grained, to dark-gray, very silty, very fine grained
230- 235	Shale, dark-gray to black, micaceous, silty in part
235- 240	Shale, black, micaceous
240- 245	Shale, black, micaceous, silty; trace of pyrite
245- 250	Siltstone, black to dark-gray, very finely sandy, micaceous
250- 256	Shale, black, micaceous, silty
256- 262	Sandstone, gray, very fine grained
262- 267	Shale, black, very finely micaceous
267- 268	Sandstone, gray, very fine grained
268- 285	Shale, black, very finely micaceous
285- 290	Sandstone, gray to light-gray, medium- to coarse-grained; green shale fragments
290- 297	Sandstone, brown, medium- to coarse-grained, slightly limy and limonitic
297- 304	Sandstone, tan to maroon, medium- to coarse-grained
304- 310	Sandstone, gray, very slightly limy, medium- to coarse-grained
310- 321	Sandstone, light-gray, slightly limy, fine- to medium-grained
321- 325	Shale, black
325- 330	Sandstone, black, shaly, fine- to medium-grained; light-gray fine-grained sandstone
330- 355	Sandstone, light-gray, medium- to coarse-grained, free drilling in part
355- 360	Sandstone, light-gray, fine-grained
360- 365	Sandstone, white, fine- to medium-grained, free drilling
365- 376	Sandstone, light-gray, fine- to medium-grained
376- 391	Shale, black
391- 400	Sandstone, white, medium- to coarse-grained, free drilling in part
400- 435	Sandstone, white, medium- to coarse-grained, free drilling
435- 440	Sandstone as above; trace of pyrite
440- 445	Sandstone, white, medium- to coarse-grained; gray shaly micaceous siltstone
445- 450	Sandstone, white, medium- to coarse-grained, free drilling; trace of large mica flakes
450- 460	Sandstone, white, medium- to coarse-grained, free drilling in part
460- 465	Sandstone, white to gray, shaly, medium- to coarse-grained; pyrite
465- 470	Sandstone, white, fine- to medium-grained
470- 475	Sandstone, white to gray, shaly, fine- to medium-grained; shaly streaks
475- 485	Sandstone, white, fine- to medium-grained
485- 490	Sandstone, white to light-gray, micaceous, fine- to medium-grained
490- 497	Sandstone, light- to dark-gray, fine- to medium-grained
497- 498	Shale, black, micaceous
498- 550	Alternating beds of gray to dark-gray micaceous very fine to medium-grained sandstone and black micaceous shale
550- 555	Sandstone, gray to white, fine- to medium-grained
555- 560	Sandstone, white to light-gray, fine-grained
560- 570	Sandstone, white, finely micaceous
570- 577	Sandstone, white, medium- to coarse-grained
577- 580	Shale, black
580- 590	Shale, black, rough, finely micaceous
590- 597	Shale, black, micaceous
597- 600	Sandstone, shaly, fine-grained
600- 615	Sandstone, dark-gray to gray, micaceous, very fine to fine-grained
615- 634	Sandstone, dark- to light-gray, fine- to medium-grained
634- 641	Shale, dark-gray to black
641- 644	Sandstone, as above
644- 646	Shale, dark-gray to black
646- 651	Sandstone, as above
651- 662	Shale, dark-gray to black, micaceous
662- 687	Sandstone, dark-gray to gray, micaceous, very fine to fine-grained
687- 692	Shale, dark-gray to black, micaceous

Depth in feet	Sample description
692- 705	Sandstone, dark to light-gray, micaceous, very fine to medium-grained
705- 711	Shale, black, smooth, finely micaceous
711- 716	Sandstone, gray to grayish-green, medium- to coarse-grained and green shale fragments, cemented with silica
716- 730	Sandstone, gray to dark-gray, fine-grained
730- 734	Shale, black, micaceous
734- 749	Sandstone as above
749- 752	Shale, black, micaceous
752- 760	Sandstone as above
760- 770	Sandstone, light-gray, micaceous, fine-grained
770- 785	Sandstone, gray, micaceous, fine-grained
785- 793	Sandstone, gray to light-gray, micaceous, fine-grained
793- 800	Shale, black, finely micaceous
800- 805	Shale, dark-gray, micaceous, silty
805- 814	Siltstone, gray, micaceous; very fine-grained sandstone
814- 827	Sandstone, white, medium- to coarse-grained; green shale fragments
827- 832	Shale, black, micaceous
832- 837	Siltstone, dark-gray to black, micaceous, shaly; pyrite
837- 841	Shale, black, micaceous
841- 846	Siltstone as above
846- 857	Shale, black, micaceous
857- 870	Shale, black, micaceous, silty
870- 877	Shale, black, micaceous
877- 882	Sandstone, white, medium- to coarse-grained
882- 900	Sandstone, dark-gray to black, micaceous, very fine to fine-grained
900- 904	Sandstone, gray, fine- to coarse-grained, cemented with silica
904- 915	Shale, black
915- 920	Sandstone, gray, micaceous, very fine to coarse-grained
920- 947	Sandstone, gray to dark-gray, micaceous, very silty, very fine grained
947- 975	Alternating beds of black micaceous shale and dark-gray micaceous siltstone
975- 995	Sandstone, white, fine- to medium-grained; brown sandstone with siliceous cement at top
995-1000	Shale, black, micaceous, silty in part
1000-1012	Shale, black, micaceous, silty
1012-1023	Sandstone, dark-gray, micaceous, very silty, very fine grained
1023-1050	Shale, black, micaceous, smooth
1050-1068	Shale, black, smooth, finely micaceous
1068-1072	Sandstone, brown to gray, fine- to coarse-grained; green shale fragments; cemented with silica
1072-1092	Shale, black, smooth, finely micaceous, platy
1092-1100	Sandstone, gray to white, finely micaceous
1100-1107	Shale, black, micaceous, silty
1107-1116	Sandstone, dark-gray to brown, fine- to coarse-grained; tan shale fragments
1116-1120	Shale, black, micaceous, finely sandy to silty
1120-1139	Shale, black, micaceous, silty
1139-1160	Sandstone, black, micaceous, shaly, fine-grained
1160-1190	Shale, black, micaceous, silty to finely sandy
1190-1220	Shale, black, micaceous, smooth
1220-1225	Shale, black, micaceous, silty to finely sandy
1225-1251	Shale, black, finely micaceous, smooth
1251-1254	Sandstone, black, shaly, fine-grained
1254-1288	Shale, as above
1288-1296	Sandstone, light-gray to white, coarse-grained, free drilling
1296-1300	Sandstone, gray to light-gray, medium- to coarse-grained, free drilling in part
1300-1305	Sandstone, dark-gray, shaly, very silty, pyritic, fine-grained
1305-1340	Sandstone, black, shaly, micaceous, fine-grained
1340-1350	Sandstone, black to gray, shaly, micaceous, fine-grained
1350-1355	Sandstone, light-gray to white, fine- to medium-grained

Depth in feet	Sample description
1355-1365	Sandstone, light-gray to gray, very silty, medium-grained
1365-1388	Sandstone, gray to dark-gray, shaly, very silty, fine-grained
1388-1429	Shale, black, finely micaceous, smooth
1429-1430	Sandstone, white, fine- to coarse-grained, free drilling
1430-1450	Sandstone, white, slightly limy, medium- to very coarse grained, free drilling
1450-1483	Alternating beds of black finely micaceous smooth shale and black shaly very fine to fine-grained sandstone
1483-1498	Siltstone, dark-gray to gray, finely sandy, siliceous
1498-1502	Shale, black, micaceous
1502-1515	Sandstone, dark- to light-gray, fine- to medium-grained, cemented with silica
1515-1534	Sandstone, black to gray, siliceous in part, shaly, micaceous, fine-grained
1534-1540	Sandstone, black to light-gray, siliceous, fine- to medium-grained
1540-1550	Sandstone, black, shaly, siliceous in part, fine-grained
1550-1594	Alternating beds of black finely micaceous shale and black fine-grained sandstone
1594-1600	Sandstone, brown to white, slightly limy, fine- to medium-grained; green shale fragments
1600-1610	Sandstone, white to dark-gray, fine-grained
1610-1625	Sandstone, white, slightly limy in part, fine- to medium-grained; trace of glauconite
1625-1630	Sandstone, white to dark-gray, fine-grained
1630-1635	Shale, black, micaceous
1635-1704	Alternating beds of black, micaceous, shaly, very fine grained sandstone and black micaceous shale
1704-1705	Sandstone, black, very fine to fine-grained
1705-1711	Shale, black, micaceous
1711-1720	Sandstone, gray to light-gray, very slightly limy, medium-grained
1720-1725	Sandstone, light-gray to brown, very slightly limy, medium- to very coarse grained
1725-1730	Sandstone, gray to light grayish-white, very slightly limy in part, medium- to very coarse grained
1730-1736	Sandstone, white, very slightly limy, very coarse grained
1736-1740	Shale, black, micaceous, platy, blocky
1740-1745	Shale, black, micaceous
1745-1750	Sandstone, black, micaceous, shaly, very fine grained
1750-1780	Sandstone, black to light-gray, micaceous, shaly, very fine grained
1780-1800	Shale, black, finely micaceous, platy
1800-1812	Shale, black, micaceous
1812-1825	Limestone, gray to grayish-buff; bryozoa, crinoid fragments, and trace of glauconite in lower half
1825-1900	Sandstone, black to dark-gray, micaceous, shaly, very silty, very fine grained
1900-1910	Shale, black, micaceous, silty
1910-1926	Shale, black, micaceous, smooth
1926-1932	Sandstone, gray to light-gray, slightly limy, medium-grained; crinoid fragments
1932-1936	Sandstone, white, medium- to coarse-grained, free drilling
1936-1940	Sandstone, white, coarse-grained; dark-gray micaceous shaly siltstone
1940-1950	Sandstone, white, medium- to very coarse grained, free drilling; trace of glauconite
1950-1958	Sandstone, white, slightly limy, medium-grained; trace of glauconite
1958-1980	Shale, dark grayish-black, micaceous
1980-1989	Shale, black, silty, micaceous
1989-1996	Limestone, gray, brown and buff mottled, medium to coarsely sandy; bryozoa, brachiopod, and crinoid fragments; shale fragments; black ooliteoids
1996-2001	Sandstone, black, limy, medium-grained
2001-2008	Shale, black
2003-2020	Limestone, black to dark-gray, medium sandy; black medium-sized ooliteoids; fossil fragments
2020-2026	Limestone, dark to light-gray, finely to very finely crystalline; fossil fragments
2026-2035	Sandstone, light grayish-brown, limy, fine- to medium-grained; black ooliteoids
2035-2040	Sandstone, gray to black, slightly limy, shaly, fine- to medium-grained; trace of glauconite
2040-2084	Shale, black
2084-2086	Limestone, brown, finely crystalline; fossil fragments; glauconite
2086-2096	Shale, black, limy; fossil fragments
2096-2100	Limestone, dark-gray, fossiliferous
2100-2106	Limestone, dark-gray, fossiliferous; large black oolites in white finely crystalline mass
2106-2121	Shale, black, slightly limy, silty, pyritic; trace of glauconite

Depth in feet	Sample description
2121-2128	Sandstone, gray, shaly, micaceous, slightly limy, fine-grained
2128-2141	Shale, dark-gray to black, finely micaceous
2141-4150	Limestone, light-buff to cream-colored, gray mottled, fossiliferous; brachiopods, bryozoa, crinoids; dark-gray oolitic; fossil fragments
2150-2155	As above, slightly medium sandy
2155-2161	As above, medium to coarsely sandy
2161-2165	Sandstone, white to light-brown, very limy, fine- to coarse-grained; fossil fragments; trace of glauconite
2165-2170	Sandstone, white to brown, very limy, medium- to very coarse grained; fossil fragments; trace of glauconite
2170-2180	Shale, black, micaceous, silty, pyritic
2180-2200	Shale, black, micaceous, pyritic
2200-2215	Shale, black, micaceous, slightly pyritic
2215-2220	Shale, black, micaceous, slightly silty
2220-2230	Shale, black, micaceous, pyritic
2230-2260	Shale, black, micaceous, silty
2260-2291	Shale, black, micaceous
2291-2293	Sandstone, brown, cemented with siderite
2293-2310	Shale, black, micaceous, silty
2310-2318	Shale, black, micaceous
2318-2320	Sandstone, dark-brown, fine- to medium-grained, cemented with siderite; crinoid fragments
2320-2335	Sandstone, dark-gray, shaly, slightly limy, fine-grained; trace of crinoid fragments
2335-2337	Limestone, dark-gray, gray mottled, crinoidal
2337-2348	Shale, black, micaceous, silty
2348-2350	Limestone, dark-gray, shaly, crinoidal
2350-2365	Shale, black, micaceous
2365-2370	Limestone, brown, finely to medium-crystalline
2370-2375	Limestone, dark-gray to brownish-buff, fossiliferous; large black oolites in white finely crystalline cement
2375-2380	Limestone, gray to buff; black and brown oolites; colonial corals
2380-2385	Limestone, gray to buff, coarsely oolitic; crinoids
2385-2397	Limestone, light grayish-buff, finely to coarsely oolitic; grayish-buff finely crystalline limestone
2397-2403	Limestone, gray, slightly oolitic, medium-crystalline; crinoids
2403-2410	Limestone, dark-gray to black, shaly, crinoidal
2410-2415	Limestone, dark-gray to black, finely crystalline; few crinoid fragments
2415-2425	As above; trace of coarse black oolites; large horn coral in upper half
2425-2427	Limestone, dark-gray to dark grayish-buff, finely crystalline
2427-2430	Shale, black
2430-2447	Limestone, dark grayish-buff to brown, finely crystalline; trace of fine brown oolites; crinoid fragments
2447-2458	Limestone, dark-gray, very oolitic; medium to coarse oolites; oblong oolites; crinoids at top
2458-2461	Shale, black
2461-2470	Limestone, black, shaly, finely crystalline
2470-2475	Limestone, black, finely crystalline
2475-2480	Limestone, gray to buff, finely to medium-crystalline; trace of medium-sized brown oolites; crinoids
2480-2490	Limestone, buff, oolitic, finely to medium-crystalline; crinoids
2490-2515	Limestone, buff, oolitic; finely to medium-crystalline; crinoid fragments
2515-2520	Limestone, brown, finely to medium-crystalline; brown oolites; trace of crinoids
2520-2530	Limestone, light grayish-buff, finely to coarsely crystalline; fossil fragments; trace of oolites
2530-2545	Limestone, gray to dark-gray, black and shaly in part, buff mottling, crinoidal
2545-2550	Limestone, gray to dark-gray, shaly and black in part, very finely to finely crystalline
2550-2558	Limestone, gray to dark-gray, very finely to finely crystalline
2558-2565	Shale, black, rough, silty
2565-2577	Shale, black
2577-2580	Sandstone, dark-gray, micaceous, pyritic, very silty, very fine grained
2580-2583	Shale, black
2583-2584	Sandstone as above
2584-2590	Shale, black
2590-2610	Shale, black, micaceous, silty; pyrite

Depth in feet	Sample description
2610-2620	Shale, black, micaceous, slightly silty
2620-2670	Shale, black, finely micaceous, smooth; pyrite; trace of brown hard shale
2670-2680	Shale, black; pyrite; fossil fragments; trace of brown hard shale
2680-2711	Shale, black; trace of brown hard shale; pyrite
2711-2712	Sandstone, black, shaly, pyritic
2712-2713	Limestone, black, pyritic, finely crystalline
2713-2715	Shale, black
2715-2718	Siltstone, black, limy
2718-2725	Shale, black, blocky; pyrite
2725-2738	Shale, black, pyritic
2738-2746	Limestone, dark-gray, very finely crystalline
2746-2753	Limestone, dark-gray, very finely crystalline; black shaly limestone
2753-2762	Limestone, dark grayish-buff, mottled, fossiliferous; brachiopods; bryozoa
2762-2785	Shale, black, silty
2785-2791	Siltstone, black; silty shale
2791-2795	Limestone, grayish-buff, pyritic, finely crystalline
2795-2800	Limestone, light-buff, finely crystalline
2800-2805	Limestone, buff, finely to medium-crystalline; pyrite
2805-2832	Limestone, buff, finely to medium-crystalline
2832-2850	Limestone, dark-buff, finely to medium-crystalline; pyrite and glauconite
2850-2855	Limestone, cream-colored, finely crystalline; milky finely figured chert
2855-2862	Limestone, cream-colored, finely crystalline
2862-2868	Limestone, buff, finely crystalline
2868-2872	Limestone, cream-colored, finely crystalline; dull-white figured chert; white dense chert
2872-2890	Limestone, cream-colored, finely crystalline; dull-white figured chert
2890-2910	Limestone, cream-colored, finely crystalline; dull-white figured chert; some tan-mottled white dense chert; pyrite
2910-2915	Limestone, cream-colored, finely crystalline; dull-white figured chert; white dense pyritic chert
2915-2925	Limestone, cream-colored, finely crystalline; dull-white figured chert; white and gray banded dense chert
2925-2929	Limestone, cream-colored, finely crystalline
2929-2950	Limestone, cream-colored, finely crystalline; cream-colored to white dense chert
2950-2970	Limestone, cream-colored, finely crystalline; white to light cream-colored finely figured dense chert
2970-2972	Limestone, cream-colored, finely crystalline; white chalcedonic chert
2972-2978	Limestone, buff, finely crystalline; light-gray dense chert
2978-3038	Limestone, cream-colored, finely crystalline; white dense chert
3038-3042	Limestone, cream-colored, finely crystalline; light-gray dense chert
3042-3060	Limestone, cream-colored, finely crystalline; light-gray subtranslucent chert
3060-3065	Limestone, dark-buff, finely crystalline; trace of pyrite
3065-3070	Limestone, dark-buff, finely crystalline
3070-3072	Shale, dark-green
3072-3082	Limestone, buff, pink to red mottled; finely to medium-crystalline; crinoids; brachiopods
3082-3090	Sandstone, gray, limy, pyritic, silty, very fine grained, gray subtranslucent chert
3090-3099	Sandstone, gray, cherty, limy, very fine grained; white spicular chert; gray subtranslucent chert
3099-3105	Limestone, cream-colored, finely crystalline; abundant chert; bone-white chert
3105-3174	Limestone and chert as above; pyrite
3174-3200	Chert, white and gray, dense
3200-3210	Limestone, grayish-buff, finely crystalline; buff subtranslucent chert
3210-3220	Limestone, grayish-buff, finely crystalline; white finely figured dense chert
3220-3235	Limestone as above; light-gray dense chert
3235-3240	Limestone, white, finely crystalline
3240-3250	Limestone, white, finely granular
3250-3260	Limestone, gray, silty, finely granular; pyrite
3260-3268	Limestone, grayish-buff, finely crystalline; pyrite
3268-3278	Limestone, gray, silty, finely granular; pyrite
3278-3283	Limestone, gray, silty, finely granular
3283-3290	Limestone, grayish-buff, finely crystalline

Depth in feet	Sample description
3290-3310	Limestone, grayish-buff, finely crystalline; white finely granular limestone
3310-3332	Limestone as above; pyrite
3332-3344	Limestone, grayish-buff, finely granular
3344-3348	Limestone, light-gray with pink spots, mealy
3348-3352	Limestone, white, mealy; pink calcite crystals
3352-3400	Limestone, white, mealy; pink calcite crystals
3400-3405	Limestone, dark grayish-buff, dense
3405-3414	Limestone, light-gray, finely granular
3414-3424	Shale, greenish-gray, limy
3424-3432	Limestone, grayish-buff, crinoidal, coarsely crystalline; pink calcite
3432-3450	Limestone, grayish-buff, coarsely crystalline
3450-3460	Limestone, cream-colored, sandy, mealy, finely crystalline
3460-3464	Limestone, cream-colored, mealy, finely crystalline; black dense chert; gray sandy chert
3464-3465	Shale, green
3465-3470	Sandstone, greenish-white, subround, fine-grained
3470-3477	Sandstone, white, limy, fine- to medium-grained, cemented with calcite
3477-3480	Dolomite, brownish-black, finely crystalline; brown finely granular dolomite
3480-3484	Shale, grayish-black
3484-3486	Sandstone, white, subround, fine-grained
3486-3490	Dolomite, brown, finely crystalline
3490-3496	Sandstone, white, subround, fine-grained
3496-3498	Shale, grayish-black
3498-3502	Sandstone, grayish-white, fine-grained
3502-3506	Dolomite, grayish-brown, sandy, dense
3506-3510	Dolomite, grayish-brown, dense
3510-3517	Shale, grayish-black
3517-3519	Sandstone
3519-3520	Shale, grayish-black
3520-3523	Dolomite, gray, silty
3523-3526	Sandstone
3526-3530	Dolomite, grayish-black, sandy, dense
3530-3536	Sandstone, gray, dolomitic, fine-grained
3536-3540	Shale, grayish-black, sandy
3540-3543	Sandstone
3543-3557	Shale, gray to grayish-green, sandy
3557-3563	Sandstone, white, fine- to medium-grained
3563-3573	Sandstone, white, fine- to medium-grained
3573-3576	Sandstone, gray, very limy, fine-grained
3576-3580	Limestone, gray, very sandy
3580-3584	Sandstone, gray, very limy
3584-3589	Limestone, gray, finely granular
3589-3592	Sandstone, white, limy, fine-grained
3592-3596	Limestone, gray, granular, containing round sand grains
3596-3600	Dolomite, gray, medium- to coarsely crystalline
3600-3605	Dolomite, grayish-buff, finely granular
3605-3611	Dolomite, grayish-black, finely granular; pyrite
3611-3613	Shale, gray
3613-3615	Limestone, grayish-black, dolomitic, finely crystalline
3615-3620	Sandstone, white, limy, fine-grained
3620-3626	Sandstone, gray, limy, fine-grained
3626-3630	Dolomite, grayish-black, sandy
3630-3636	Dolomite, gray, finely granular
3636-3637	Sandstone, white
3637-3639	Shale, gray
3639-3650	Dolomite, gray, finely granular
3650-3656	Sandstone, gray, dolomitic, fine-grained

Depth in feet	Sample description
3656-3658	Shale, gray
3658-3660	Sandstone, white, fine-grained
3660-3663	Dolomite, gray, medium-crystalline
3663-3671	Sandstone, white, fine-grained; trace of milky chert
3671-3678	Sandstone, white, fine- to medium-grained
3678-3680	Shale, grayish-green
3680-3687	Sandstone, gray, limy, fine-grained
3687-3697	Dolomite, gray, finely crystalline
3697-3700	Dolomite, gray, sandy, finely crystalline
3700-3706	Dolomite, gray, finely crystalline
3706-3708	Sandstone, white, fine-grained
3708-3710	Dolomite, gray, sandy
3710-3715	Dolomite, black, finely granular
3715-3720	Dolomite, gray, sandy, finely crystalline
3720-3728	Dolomite, black, finely granular
3728-3730	Dolomite, gray, sandy
3730-3738	Dolomite, dark-gray, finely granular
3738-3740	Dolomite, dark-gray, sandy, finely granular
3740-3745	Dolomite, dark-gray, finely granular
3745-3750	Sandstone, gray, dolomitic, fine-grained
3750-3751	Dolomite
3751-3753	Sandstone, white, fine-grained
3753-3760	Dolomite, grayish-black, sandy
3760-3766	Dolomite, gray, sandy
3766-3771	Sandstone, white, fine-grained
3771-3780	Dolomite, gray, sandy
3780-3784	Dolomite, gray, finely crystalline
3784-3790	Dolomite, gray, sandy; pyrite
3790-3800	Dolomite, gray, sandy
3800-3802	Sandstone, white, fine-grained
3802-3814	Dolomite, gray, sandy
3814-3818	Sandstone, gray, dolomitic, fine-grained
3818-3824	Dolomite, gray, sandy
3824-3830	Sandstone, gray, dolomitic
3830-3836	Dolomite, gray, finely granular
3836-3847	Dolomite, gray, sandy; finely granular
3847-3855	Sandstone, gray, very dolomitic, fine- to medium-grained
3855-3860	Sandstone, gray, dolomitic, fine- to medium-grained
3860-3864	Dolomite, grayish-black, finely granular
3864-3874	Dolomite, grayish-black, sandy, finely granular
3874-3880	Sandstone, gray, dolomitic, very fine grained
3880-3887	Dolomite, sandy
3887-3890	Sandstone, white, fine-grained
3890-3930	Sandstone, white, fine- to medium-grained
3930-3935	Sandstone, white, dolomitic, fine- to medium-grained
3935-3940	Sandstone, white, dolomitic, fine- to medium-grained; pyrite
3940-4942	Shale, gray
3942-3945	Sandstone, white, fine- to medium-grained
3945	TOTAL DEPTH

## LOGAN COUNTY (1)

Operator: Arkansas-Oklahoma Gas Co.    Elevation: 640 ft. (Topo.)  
 Well No.: 1    Total depth: 4,777 ft.  
 Lease: S. B. Wall    Completion date: Aug. 24, 1948  
 Location: NW $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 29, T. 5 N.,    Logged by: S. E. Frezon  
           R. 27 W.

Depth in feet	Sample description
0- 50	Sandstone, gray, slightly micaceous, very fine to fine-grained; trace of dark-gray very finely micaceous shale
50- 120	Sandstone, gray, slightly micaceous, very fine to fine-grained; dark-gray finely micaceous shale stringers and partings
120- 140	Shale, gray to black, silty, hard; thin stringers of gray very fine to fine-grained sandstone
140- 148	Sandstone, gray, very fine to fine-grained; trace of dark-gray micaceous shale
148- 220	Shale, dark-gray to black, finely micaceous, silty; trace of dark-gray to gray very fine to fine-grained sandstone
220- 240	Shale, dark-gray, very finely micaceous, silty
240- 260	Shale, dark-gray to black, finely micaceous, silty; dark-gray to gray micaceous very fine to fine-grained sandstone
260- 290	Shale, dark-gray, very finely micaceous, silty
290- 315	Shale as above; trace of very fine to fine-grained sandstone
315- 500	Shale, dark-gray, very finely micaceous
500- 700	Shale, dark-gray, very finely micaceous, slightly silty
700- 785	Shale, dark-gray to black, very finely micaceous, very slightly silty
785- 790	Sandstone, gray, slightly micaceous, very fine to fine-grained
790- 805	Sandstone, gray to very light gray, slightly micaceous, very fine to fine-grained
805- 830	Sandstone, gray, slightly micaceous, very fine to fine-grained; trace of dark-gray finely micaceous shale
830- 840	Sandstone, light-gray to gray, slightly micaceous, very fine to fine-grained
840- 900	Sandstone, gray to light olive-gray, slightly micaceous, very fine to fine-grained; trace of dark-gray micaceous shale
900- 940	Sandstone, gray, slightly micaceous, silty, very fine to fine-grained; dark-gray finely micaceous silty shale
940-1020	Sandstone, gray, silty, micaceous; very fine to fine-grained; trace of dark-gray finely micaceous shale
1020-1040	Sandstone, gray to brownish-gray, slightly micaceous, very fine to fine-grained; trace of dark-gray finely micaceous shale
1040-1065	Shale, dark-gray, finely micaceous, silty
1065-1105	Shale, dark-gray, very finely micaceous, silty; trace of gray to dark-gray very fine to fine-grained sandstone
1105-1215	Shale, dark-gray to black, very finely micaceous, silty, with hard siliceous streaks
1215-1265	Shale as above; trace of gray very fine grained sandstone
1265-1290	Shale, dark-gray to black, very finely micaceous, silty, with hard siliceous streaks
1290-1310	Sandstone, dark-gray, very fine to fine-grained, silty, micaceous; trace of dark-gray micaceous silty shale
1310-1410	Shale, dark-gray to black, micaceous, very silty, sandy; gray very fine to fine-grained sandstone
1410-1465	Shale, dark-gray, finely micaceous, silty; trace of dark-gray very fine to fine-grained sandstone
1465-1500	Shale, dark-gray to black, finely micaceous, silty
1500-1565	Shale, dark-gray to black, very finely micaceous, silty
1565-1612	Shale, dark-gray to black, very finely micaceous, silty; trace of dark-gray very fine grained sandstone
1612-1623	Sandstone, gray to dark-gray, very silty, very fine to fine-grained; dark-gray to black finely micaceous shale
1623-1655	Shale, dark-gray to black, very finely micaceous; gray to dark-gray very fine to fine-grained sandstone
1655-1700	Shale, dark-gray to black, finely micaceous, slightly silty
1700-1900	Shale, dark-gray to black, very finely micaceous, slightly silty
1900-2000	Shale, dark-gray, silty, micaceous
2000-2200	Shale, dark-gray to black, micaceous, silty
2200-2370	Shale, dark-gray to black, finely micaceous, silty



Depth in feet	Sample description
2370-2375	Shale, dark-gray to black, finely micaceous, silty, very finely sandy
2375-2390	Shale, dark-gray to black, micaceous, silty, very finely sandy
2390-2400	Shale, dark-gray to black, micaceous, silty, very finely sandy
2400-2405	Shale, dark-gray to black, micaceous, silty, slightly sandy
2405-2500	Shale, dark-gray to black, very finely micaceous, slightly silty
2500-2600	Shale, dark-gray to black, micaceous, slightly silty
2600-2745	Shale, dark-gray to black, finely micaceous, silty
2745-2765	Shale, dark-gray to black; trace of gray very fine grained sandstone
2765-2885	Shale, dark-gray to black, very finely micaceous, slightly silty
2885-2895	Shale as above; trace of very fine grained sandstone
2895-3000	Shale, dark-gray to black, very finely micaceous
3000-3200	Shale, dark-gray to black, very finely micaceous, slightly silty
3200-3900	Shale, dark-gray to black, very finely micaceous
3900-4085	Shale, dark-gray to black, very finely micaceous, slightly silty
4085-4095	Shale, dark-gray, finely micaceous, silty; thin beds of gray to light-gray fine-grained sandstone
4095-4110	Shale, dark-gray to black, finely micaceous; trace of fine-grained sandstone
4110-4120	Sandstone, light-gray to gray, fine- to medium-grained; trace of dark-gray micaceous shale
4120-4128	Sandstone, white to very light gray, fine- to coarse-grained
4128-4175	Shale, dark-gray to black, finely micaceous, silty; thin beds of gray to light-gray fine- to coarse-grained sandstone
4175-4220	Shale, dark-gray to black, finely micaceous, silty; trace of dark-gray fine-grained sandstone
4220-4309	Shale, dark-gray to black, finely micaceous, silty; fine-grained sandstone
4309-4325	Shale, dark-gray to black, micaceous, silty; abundant fine-grained sandstone
4325-4345	Shale, dark-gray to black, finely micaceous, silty
4345-4417	Shale, dark-gray to black, finely micaceous; stringers and thin beds of gray to dark-gray fine- to medium-grained sandstone
4417-4434	Shale, dark-gray to black, finely micaceous; very fine to fine-grained sandstone
4434-4450	Shale, dark-gray to black, finely micaceous, silty
4450-4585	Shale, dark-gray to black, very finely micaceous, very slightly silty
4585-4630	Shale, dark-gray to black, very finely micaceous, very slightly silty; very fine to fine-grained sandstone
4630-4700	Shale, dark-gray to black, very finely micaceous
4700-4715	Shale, dark-gray to black, very finely micaceous, silty; fine- to medium-grained sandstone
4715-4770	Shale, dark-gray to black, finely micaceous
4770-4777	Shale as above; fine-grained sandstone
4777	TOTAL DEPTH

## LOGAN COUNTY (2)

Operator: Arkansas-Oklahoma Gas Co.	Elevation: 446 ft. (P. T.)
Well No.: 1	Total depth: 6,535 ft.
Lease: N. C. Biggs	Completion date: June 17, 1946
Location: Center of SE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 7 N., R. 27 W.	Logged by: S. E. Frezon

### Formation Tops

	Depth (ft.)
Hartshorne sandstone	1246
Atoka formation	1423

Depth in feet	Sample description
0- 4	(No sample)
4- 20	Shale, dark-gray to black, weathering buff and reddish-brown, very finely micaceous; trace of white finely granular to medium-crystalline gyp
20- 50	Shale, dark-gray to black, very finely micaceous; trace of gyp as above
50- 83	Shale, dark-gray to black, very finely micaceous
83- 130	Sandstone, light-gray to gray, finely micaceous, slightly silty, fine-grained; thin beds of dark-gray to black very finely micaceous shale
130- 150	Sandstone, gray to light-gray, micaceous, very slightly silty, fine-grained
150- 165	Sandstone, light-gray to light olive-gray, fine-grained, containing dark-gray shale grains
165- 200	Sandstone, light-gray to light olive-gray, fine- to medium-grained, free drilling in part
200- 210	Sandstone, light-gray to light olive-gray, fine-grained, containing dark-gray shale grains
210- 215	Sandstone as above, free drilling in part
215- 236	Sandstone, white to very light gray, very fine to fine-grained, free drilling
236- 249	Sandstone, white, micaceous, very fine grained, free drilling
249- 252	(No samples)
252- 274	Sandstone, light-gray to light brownish-gray, very slightly micaceous, very fine to fine-grained; scattered dark-gray shale grains; trace of very coarsely crystalline calcite
274- 280	Sandstone, white to very light gray, very fine to fine-grained, free drilling
280- 290	Sandstone, gray to light-gray, micaceous, slightly silty, fine-grained; thin stringers of dark-gray finely micaceous shale
290- 320	Sandstone, light-gray, micaceous, slightly silty, fine-grained; trace of dark-gray shale
320- 330	Sandstone, gray to light-gray, micaceous, slightly silty, very fine to fine-grained
330- 335	Sandstone as above; dark-gray finely micaceous shale
335- 345	Shale, dark-gray to black, finely micaceous; thin beds of gray to dark-gray micaceous very fine to fine-grained sandstone
345- 350	Shale, dark-gray, finely micaceous
350- 385	Shale, dark-gray to black, very finely micaceous; trace of dark-gray to gray very fine to fine-grained sandstone
385- 390	Shale, dark-gray to black, finely micaceous, interbedded with gray to light-gray micaceous very fine to fine-grained sandstone
390- 505	(No samples)
505- 515	Shale and sandstone as above
515- 600	Shale, dark-gray to black, finely micaceous; trace of dark-gray to gray micaceous very fine to fine-grained sandstone
600- 610	Shale, dark-gray to black, very finely micaceous
610- 645	Shale as above; trace of dark-gray to gray slightly micaceous very fine to fine-grained sandstone
645- 665	Shale, dark-gray to black, very finely micaceous
665- 700	Shale as above; trace of dark-gray to gray slightly micaceous very fine to fine-grained sandstone

Depth in feet	Sample description
700- 855	Shale as above; trace of dark-gray to gray very fine to fine-grained sandstone
855- 860	Shale, dark-gray to black, finely micaceous, silty
860- 895	Alternating beds of dark-gray to black finely micaceous silty shale and dark-gray to gray micaceous very fine to fine-grained sandstone
895- 912	Sandstone, dark-gray to gray, micaceous, silty, slightly limy, very fine to fine-grained; dark-gray to black micaceous shale
912- 918	Sandstone as above
918- 945	Shale, dark-gray to black, micaceous, silty; trace of gray and brownish-gray micaceous very fine to fine-grained sandstone
945- 965	Shale, dark-gray, micaceous, silty; trace of sandstone as above
965-1055	Shale, dark-gray to black, micaceous, silty; trace of sandstone as above
1055-1095	Shale, dark-gray to black, very finely micaceous, slightly silty; trace of dark-gray very fine grained sandstone
1095-1125	Shale, dark-gray to black, very slightly silty
1125-1175	Shale, dark-gray to black, very finely micaceous, silty in part; trace of dark-gray very fine to fine-grained sandstone
1175-1246	Shale, dark-gray to black, micaceous, silty; sandstone as above
1246-1268	Sandstone, dark-gray to gray and brownish-gray, micaceous, fine-grained; thin beds of dark-gray to black silty micaceous shale
1268-1300	Sandstone, gray to light-gray and light olive-gray, micaceous, fine-grained; thin stringers of dark-gray finely micaceous silty shale
1300-1325	Sandstone, light-gray and light olive-gray, micaceous, fine-grained; trace of dark-gray shale
1325-1342	Sandstone, white to very light gray, slightly micaceous, very fine to fine-grained, free drilling
1342-1368	Sandstone, light-gray to yellowish-gray, slightly micaceous, very slightly silty, very fine to fine-grained; trace of black shale
1368-1373	(No samples)
1373-1375	Sandstone, very light gray to yellowish-gray, slightly micaceous, very fine to fine-grained
1375-1390	Sandstone, very light gray, very slightly silty, very fine to fine-grained, free drilling in part
1390-1410	Sandstone, dark-gray to gray, micaceous, silty, very fine to fine-grained; dark-gray micaceous shale
1410-1423	Sandstone and shale as above; scattered medium sand grains
1423-1440	Shale, dark-gray to black, very finely micaceous; trace of dark- to light-gray very fine to fine-grained sandstone
1440-1442	Sandstone, dark- to light-gray, very fine to fine-grained
1442-1480	Shale, dark-gray to black, very finely micaceous; trace of sandstone as above
1480-1580	Shale, dark-gray to black, very finely micaceous
1580-1630	Sandstone, gray to light yellowish-gray, silty, micaceous, very fine grained; dark-gray finely micaceous finely sandy shale, increasing downward
1630-1645	Shale, dark-gray to black, micaceous, silty, sandy; dark-gray to gray very fine to fine-grained sandstone
1645-1695	Sandstone, dark-gray to gray, micaceous, very fine grained; dark-gray to black micaceous silty shale
1695-1715	Shale, dark-gray to black, very finely micaceous; dark-gray to gray very fine to fine-grained sandstone
1715-1755	Shale, dark-gray to black, finely micaceous
1755-1775	Shale as above; dark-gray to gray micaceous very fine grained sandstone
1775-1779	Sandstone, gray, silty, finely micaceous, very fine to fine-grained
1779-1800	(No samples)
1800-1840	Shale, dark-gray to black, very finely micaceous; thin beds of sandstone, becoming thicker downward
1840-1870	Sandstone, very light gray, fine- to coarse-grained, free drilling in part; dark-gray finely micaceous shale
1870-1880	Sandstone, light-gray, slightly silty, fine- to medium-grained; dark-gray to black finely micaceous shale
1880-1902	Sandstone, white to very light gray, very fine to fine-grained, free drilling in part
1902-1920	Sandstone, light-gray, micaceous, slightly silty, very fine grained
1920-1933	Sandstone, dark- to light-gray, very silty, very fine to fine-grained; trace of dark gray to black finely micaceous shale
1933-1950	Sandstone, gray, slightly silty, fine-grained
1950-1980	Sandstone, light- to dark-gray, micaceous, slightly silty, very fine to fine-grained; dark-gray to black finely micaceous shale
1980-1990	Sandstone, light-gray to gray, micaceous, slightly silty, fine- to coarse-grained

Depth in feet	Sample description
1990-2015	Sandstone, light-gray to gray, micaceous, slightly silty, very fine to fine-grained; trace of dark-gray to black shale
2015-2043	Sandstone, light- to dark-gray, micaceous, silty, very fine to fine-grained; dark-gray to black shale
2043-2061	Sandstone, white to very light gray, very fine to fine-grained, free drilling
2061-2064	Sandstone, light-gray, slightly silty, very fine to fine-grained
2064-2082	Sandstone, white to very light gray, very fine to fine-grained, free drilling
2082-2100	Sandstone, light-gray to gray, slightly micaceous, very fine to fine-grained, free drilling in part
2100-2130	Sandstone, light-gray, slightly micaceous, slightly silty, very fine to fine-grained
2130-2135	Sandstone, dark-gray to gray, silty, shaly, very fine to fine-grained
2135-2190	Shale, dark-gray to black, finely micaceous, silty; trace of light-gray very fine to fine sand grains
2190-2213	Shale, dark-gray to black, finely micaceous, silty, very finely sandy
2213-2222	(No samples)
2222-2255	Shale as above
2255-2262	Shale, dark-gray to black, finely micaceous, very silty, finely sandy; very fine to fine-grained sandstone
2262-2275	Sandstone, dark-gray to gray, micaceous, very silty, very fine to fine-grained; dark-gray to black finely micaceous shale, decreasing downward
2275-2277	Shale as above
2277-2285	(No samples)
2285-2298	Sandstone, light-gray to gray, micaceous, silty, very fine to fine-grained; dark-gray to black finely micaceous shale
2298-2310	Sandstone, gray, slightly silty, very fine to fine-grained; trace of shale
2310-2320	Sandstone, white to very light gray, very fine to fine-grained
2320-2325	Shale, dark-gray to black; gray very fine to fine-grained sandstone
2325-2328	Sandstone, white, very fine to fine-grained
2328-2335	Sandstone, white, very fine to fine-grained; dark-gray finely micaceous shale
2335-2350	Sandstone, gray, slightly micaceous, silty, very fine to fine-grained, containing dark-gray shale grains
2350-2368	Sandstone, gray, slightly micaceous, very fine to fine-grained
2368-2396	(No samples)
2396-2406	Sandstone, gray, slightly silty, very fine to fine-grained, free drilling
2406-2416	Sandstone, gray, finely micaceous, silty, very fine to fine-grained; dark-gray to black finely micaceous shale
2416-2426	Sandstone, light-gray, very fine to fine-grained, free drilling
2426-2466	Sandstone, gray, silty, shaly, micaceous, very fine to fine-grained; dark-gray to black finely micaceous shale
2466-2490	Shale, dark-gray to black, finely micaceous, silty, sandy; very fine to fine-grained sandstone
2490-2510	Sandstone, dark-gray to gray, silty, very shaly, micaceous, very fine to fine-grained
2510-2536	Sandstone, dark-gray to gray, slightly micaceous, silty, very fine to fine-grained; dark-gray finely micaceous shale
2536-2606	Shale, dark-gray to black, micaceous, silty, very sandy; dark-gray micaceous very fine to fine-grained sandstone, decreasing downward
2606-2745	Shale, dark-gray to black, very finely micaceous, silty, slightly sandy
2745-2780	Shale, dark-gray to black, very finely micaceous
2780-2792	Sandstone, light-gray, finely micaceous, very fine to fine-grained; trace of dark-gray micaceous shale
2792-2809	Sandstone, light- to dark-gray, finely micaceous, slightly silty, very fine to fine-grained; dark-gray to black finely micaceous shale in stringers and thin beds
2809-2819	Shale, dark-gray to black, silty, sandy, finely micaceous
2819-2838	Shale, dark-gray to black, finely micaceous, silty
2838-2875	Sandstone, light- to dark-gray, micaceous, silty, very fine to fine-grained; thin beds of light- to dark-gray silty micaceous shale, increasing downward
2875-2890	Shale, dark-gray to black, micaceous, silty, sandy
2890-2940	Shale as above; very thin beds of dark-gray to gray very fine to fine-grained micaceous sandstone
2940-2965	Shale, dark-gray to black, micaceous, silty, sandy; thin beds of dark-gray to gray micaceous silty very fine to fine-grained sandstone
2965-2993	Shale, dark-gray to black, finely micaceous, silty, sandy
2993-3007	(No samples)
3007-3100	Shale, dark-gray to black, very finely micaceous, silty

Depth in feet	Sample description
3100-3143	Shale, dark-gray to black, finely micaceous, silty; trace of dark-gray to gray very fine grained sandstone
3143-3147	(No samples)
3147-3170	Shale and sandstone as above
3170-3180	Sandstone, gray, silty, micaceous, very fine to fine-grained
3180-3195	Sandstone, gray, silty, micaceous, very fine to fine-grained; dark-gray to black finely micaceous shale
3195-3202	Shale as above
3202-3225	Sandstone, gray, silty, micaceous, very fine to fine-grained; shale as above
3225-3232	Shale as above
3232-3300	Sandstone, gray, silty, micaceous, very fine to fine-grained; shale as above
3300-3348	Sandstone, dark-gray to gray, micaceous, silty, very fine to fine-grained; dark-gray to black finely micaceous silty shale in stringers and thin beds
3348-3360	Shale, dark-gray to black, finely micaceous, silty, finely sandy
3360-3362	Sandstone, dark-gray to gray, micaceous, very fine to fine-grained
3362-3382	Shale, dark-gray to black, finely micaceous, silty, finely sandy
3382-3400	Sandstone, dark-gray to gray, silty, shaly, very fine to fine-grained; dark-gray to black micaceous shale
3400-3500	Shale, dark-gray to black, micaceous, very silty, sandy; gray very fine to fine-grained sandstone, decreasing toward the base
3500-3510	Shale, dark-gray to black, micaceous, finely sandy
3510-3516	Shale, dark-gray to black, micaceous
3516-3534	(No samples)
3534-3550	Shale, dark-gray to black, micaceous, finely sandy
3550-3554	Shale, dark-gray to black, micaceous
3554-3560	(No samples)
3560-3570	Shale, dark-gray to black, micaceous, silty, finely sandy
3570-3575	(No samples)
3575-3590	Shale, dark-gray to black, micaceous, silty, finely sandy
3590-3610	Sandstone, gray to light-gray, very silty and shaly, very fine to fine-grained
3610-3630	Shale, dark-gray to black, micaceous, silty, finely sandy; very fine to fine-grained sandstone
3630-3693	Shale, dark-gray to black, very finely micaceous, slightly silty, finely sandy; trace of dark-gray to gray very fine to fine-grained sandstone
3693-3730	Sandstone, gray to light-gray, micaceous, very fine to fine-grained; interbedded with dark-gray very finely micaceous silty sandy shale
3730-3750	Sandstone, dark-gray to gray, very silty, micaceous, very fine to fine-grained; dark-gray to black finely micaceous silty shale
3750-3758	Shale as above
3758-3760	Sandstone, dark-gray to gray, very silty, micaceous, very fine to fine-grained
3760-3763	Shale, dark-gray to black, finely micaceous, silty
3763-3777	Sandstone, gray, finely micaceous, slightly silty, very fine to fine-grained; thin beds of dark-gray finely micaceous silty shale
3777-3784	Shale as above
3784-3790	Sandstone, gray, finely micaceous, slightly silty, very fine to fine-grained
3790-3796	Shale, dark-gray to black, finely micaceous, silty, sandy
3796-3798	Sandstone, dark-gray to gray, micaceous, very fine to fine-grained
3798-3810	Shale, dark-gray to black, finely micaceous, silty, sandy
3810-3813	Sandstone, dark-gray to gray, micaceous, very fine to fine-grained
3813-3830	Shale, dark-gray to black, finely micaceous, silty, sandy
3830-3860	(No samples)
3860-3920	Shale, dark-gray to black, very finely micaceous, fissile
3920-3940	Shale, dark-gray to black, very finely micaceous, slightly silty; dark-gray to gray very fine to fine-grained sandstone
3940-4000	Shale, dark-gray to black, very finely micaceous, slightly silty, interbedded with dark-gray to gray very fine to fine-grained sandstone
4000-4075	Shale, dark-gray to black, very finely micaceous, slightly silty, finely sandy, interbedded with dark-gray to gray micaceous very fine to fine-grained sandstone
4075-4090	Shale, dark-gray to black, finely micaceous, silty, sandy; very fine to fine-grained sandstone
4090-4114	Shale, dark-gray to black, silty

Depth in feet	Sample description
4114-4118	Sandstone, dark-gray to gray, silty, shaly, very fine to fine-grained
4118-4120	Shale, dark-gray to black, silty
4120-4127	Sandstone, dark-gray to gray, silty, shaly, very fine to fine-grained
4127-4140	Shale, dark-gray to black, very finely micaceous, silty, finely sandy
4140-4245	Shale, dark-gray to black, very finely micaceous
4245-4330	Sandstone, very light-gray to gray, slightly micaceous, slightly silty, very fine to fine-grained, interbedded with thin beds of dark-gray to black very finely micaceous shale, increasing in quantity toward base
4330-4345	Sandstone, dark- to light-gray, very fine to fine-grained; dark-gray shale stringers
4345-4540	Shale, dark-gray to black, smooth, very finely micaceous, silty, sandy; trace of light- to dark-gray very fine to fine-grained sandstone
4540-4600	Shale, dark-gray to black, very finely micaceous, smooth, silty, sandy in part
4600-4660	Shale, dark-gray, finely micaceous, silty, sandy; trace of very fine to fine-grained sandstone, decreasing in quantity downward
4660-4710	Shale, dark-gray to black, silty, very finely micaceous
4710-4760	Shale as above; trace of dark- to light-gray very fine to fine-grained sandstone
4760-5000	Shale, dark-gray to black, very finely micaceous, slightly silty
5000-5140	Sandstone, dark- to very light gray, micaceous, slightly silty, very fine grained, interbedded with dark-gray to black micaceous shale increasing toward base
5140-5150	Sandstone, dark-gray to gray, very fine to fine-grained; micaceous siltstone; dark-gray to black shale
5150-5160	Sandstone as above
5160-5170	(No samples)
5170-5260	Shale, dark-gray to black, finely micaceous, silty; dark-gray to gray very fine to fine-grained sandstone
5260-5290	Shale, dark-gray to black, very finely micaceous, slightly silty; trace of dark-gray to gray very fine to fine-grained sandstone
5290-5299	Shale, dark-gray to black, finely micaceous, sandy, silty
5299-5303	Sandstone, dark-gray to gray, very fine to fine-grained
5303-5310	Shale, dark-gray to black, finely micaceous, sandy, silty
5310-5311	Sandstone, dark-gray to gray, very fine to fine-grained
5311-5360	Shale, dark-gray to black, finely micaceous, sandy, silty, with sand content increasing downward
5360-5520	Shale, dark-gray to black, finely micaceous, slightly silty; trace of very fine to fine-grained sandstone
5520-5585	Shale, dark-gray to black, finely micaceous, slightly silty
5585-5590	Sandstone, dark- to light-gray, micaceous, silty, very fine grained
5590-5599	Shale, dark-gray to black, finely micaceous, silty
5599-5600	Sandstone, dark- to light-gray, micaceous, silty, very fine grained
5600-5604	Shale, dark-gray to black, finely micaceous, silty
5604-5617	Sandstone, dark- to light-gray, micaceous, silty, very fine grained
5617-5622	Shale, dark-gray to black, finely micaceous, silty; dark- to light-gray micaceous silty very fine grained sandstone
5622-5630	Shale as above
5630-5640	Sandstone, dark- to light-gray, micaceous, silty, very fine grained
5640-5650	Sandstone as above; dark-gray to black finely micaceous silty shale
5650-5655	Shale as above
5655-5663	Sandstone, dark- to light-gray, micaceous, silty, very fine grained
5663-5680	Shale, dark-gray to black, very finely micaceous, silty, slightly sandy; very fine to fine-grained sandstone
5680-5750	Sandstone, light-gray to gray, very silty, finely micaceous, very fine grained; dark-gray to black finely micaceous shale in thin beds
5750-5885	Sandstone, light-gray to gray, very silty, finely micaceous, very fine grained; beds of dark-gray to black finely micaceous shale
5885-5932	Siltstone, light-gray to gray, finely sandy, micaceous; stringers of dark-gray to black finely micaceous shale
5932-5947	Shale, dark-gray to black, finely micaceous, silty, slightly sandy
5947-5957	Sandstone, light-gray to gray, silty, micaceous, very fine grained
5957-5967	Shale, dark-gray to black, finely micaceous
5967-6030	Sandstone, light-gray to gray, micaceous, silty, very fine grained; shale as above
6030-6055	Shale, dark-gray to black, finely micaceous, silty, very finely sandy

Depth in feet	Sample description
6055-6094	Shale, dark-gray to black, finely micaceous, silty
6094-6150	Sandstone, light-gray to gray, micaceous, silty, very fine grained; thin beds of dark-gray to black finely micaceous shale, increasing in thickness downward
6150-6170	Shale, dark-gray to black, finely micaceous, slightly silty and sandy; dark- to light-gray very fine grained sandstone
6170-6203	Sandstone, light-gray to gray, finely micaceous, very fine grained; micaceous siltstone; thin beds of dark-gray finely micaceous shale
6203-6223	Shale, dark-gray to black, very finely micaceous, slightly silty
6223-6230	Sandstone, light-gray to gray, micaceous, slightly silty, very fine grained; light-gray siltstone
6230-6251	Shale, dark-gray, finely micaceous; sandstone and siltstone as above
6251-6265	Shale, dark-gray to black, finely micaceous, slightly silty
6265-6311	Sandstone, light-gray to gray, micaceous, slightly silty, very fine grained; light-gray siltstone; shale as above
6311-6320	Shale, dark-gray to black, finely micaceous, silty
6320-6350	Sandstone, light-gray to gray, micaceous, slightly silty, very fine grained; light-gray siltstone; shale as above
6350-6360	Shale, dark-gray to black, finely micaceous, silty
6360-6370	Sandstone, light-gray to gray, micaceous, slightly silty, very fine grained; shale as above
6370-6390	Shale, dark-gray to black, slightly silty
6390-6420	Sandstone, light-gray to gray, micaceous, very fine grained; micaceous siltstone; dark-gray to black finely micaceous slightly silty shale in thick and thin beds
6420-6460	Sandstone, white to light-gray, finely micaceous, very fine to fine-grained; finely micaceous siltstone; beds of dark-gray to black finely micaceous shale
6460-6480	Shale and sandstone as above in alternating beds
6480-6490	Sandstone, light- to dark-gray, very fine to fine-grained; micaceous siltstone; thin beds of dark-gray shale
6490-6497	Shale as above
6497-6518	Sandstone, light- to dark-gray, very fine to fine-grained; micaceous siltstone; very thin beds of dark-gray shale
6518-6535	(No samples)
6535	TOTAL DEPTH

## MADISON COUNTY (1)

Operator: J. V. McAllister	Elevation: 1,384 ft.
Well No.: 1	Total depth: 1,100 ft.
Lease: M. Sisemore	Completion date: April 18, 1948
Location: NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 15 N., R. 27 W.	Logged by: R. J. Lantz

### Formation Tops

	Depth (ft.)
Boone formation	614
Chattanooga shale	960
Penters chert	983
Everton formation	1013

Depth in feet	Sample description
0- 575	(No samples)
575- 582	Shale, black
582- 590	Shale, black; black siltstone
590- 595	Shale, black; trace of pyrite
595- 614	Shale, black
614- 620	Limestone, light-gray to gray, finely to medium-crystalline; brachiopod fragments; cream-colored dense chert
620- 627	Limestone, gray, medium-crystalline; white black-mottled medium-crystalline limestone
627- 634	Limestone as above; white siliceous limestone
634- 640	Limestone, cream-colored, finely crystalline
640- 647	Limestone, gray, with fine black spots, finely crystalline
647- 653	Chert, white, very finely granular
653- 660	Limestone, gray, finely crystalline; gray finely black spotted medium-crystalline limestone; white very finely granular chert
660- 675	Limestone, white, siliceous
675- 690	Limestone, white, finely granular
690- 695	Limestone, white, finely to medium-crystalline; white dense chert
695- 700	Limestone, white to cream-colored, finely crystalline; white to bluish-gray dense chert
700- 725	Limestone, white to cream-colored finely crystalline
725- 735	Limestone, white, medium- to coarsely crystalline; white to bluish-gray, dense to semitranslucent chert
735- 740	Limestone, white, medium- to coarsely crystalline; white dense chert
740- 745	Chert, white, dense; white medium- to coarsely crystalline limestone
745- 750	Limestone, white, finely to medium-crystalline; white translucent chert
750- 756	Limestone, white, medium, to coarsely crystalline; trace of chert
756- 770	Limestone, white, medium- to coarsely crystalline
770- 780	Limestone, white, medium- to coarsely crystalline; white dense chert, decreasing in quantity downward
780- 790	Limestone, white, medium- to coarsely crystalline
790- 800	Limestone, white, medium- to coarsely crystalline; bluish-white slightly spicular, dense to semitranslucent chert
800- 810	Limestone, white, medium- to coarsely crystalline
810- 815	Limestone, white, finely to medium-crystalline; bluish-gray dense chert
815- 820	Limestone, white, finely to medium-crystalline; bluish-gray dense to translucent chert
820- 825	Limestone, white, finely to medium-crystalline
825- 830	Limestone, white, medium- to coarsely crystalline; light bluish-gray dense chert
830- 835	Limestone, white to greenish-buff; bluish-gray semi-translucent chert



Depth in feet	Sample description
835- 838	Shale, green
838- 840	Limestone, white, finely crystalline; bluish-gray translucent chert
840- 845	Limestone, white, finely crystalline; bluish-gray translucent chert
845- 860	Limestone, greenish-buff, finely crystalline; bluish-gray dense chert
860- 865	Limestone, buff, finely to medium-crystalline; smoky gray dense chert; crinoids
865- 870	Limestone, greenish-buff, finely crystalline; gray dense chert
870- 880	Limestone, greenish-buff to cream-colored, finely to medium-crystalline; gray to cream-colored dense chert
880- 890	Chert, cream-colored, dense; little cream-colored, finely crystalline limestone
890- 895	Limestone, cream-colored, finely crystalline; white semitranslucent chert
895- 900	Limestone, cream-colored, finely crystalline; cream-colored to white dense chert
900- 915	Limestone, cream-colored, finely crystalline; orange dense chert, decreasing in quantity downward
915- 920	Limestone, greenish-buff to cream-colored, finely crystalline
920- 925	Limestone, greenish-buff to cream-colored, finely to medium-crystalline
925- 930	Limestone, greenish-buff to cream-colored, mottled, finely to coarsely crystalline; crinoids; light-green dense chert
930- 937	Limestone, cream-colored to gray, finely to coarsely crystalline; crinoids
937- 940	Shale, grayish-green, limy
940- 945	Limestone, grayish-green shaly
945- 958	Shale, grayish-green, limy
958- 960	Limestone, buff, finely to medium-crystalline
960- 965	Shale, black; trace of pyrite
965- 973	Shale, black, micaceous; trace of pyrite
973- 983	Chert, white, brown, and gray mottled, slightly limy, spicular, dense; brown dolomitic sandstone; trace of glauconite
983-1013	Chert, gray to brown, spicular, dense; trace of brown dolomitic glauconitic sandstone
1013-1020	Sandstone, white, medium-grained; trace of brown dense dolomite
1020-1030	Sandstone, white, fine- to medium-grained; trace of brown dense dolomite
1030-1031	Shale, green
1031-1040	Sandstone, light-gray to white, slightly limy, medium-grained, free drilling
1040-1044	Sandstone, light-brown, limy, medium-grained
1044-1046	Limestone, brown, dense
1046-1050	Sandstone, white, slightly limy, medium-grained, free drilling
1050-1055	Sandstone, gray, slightly dolomitic, medium-grained
1055-1070	Sandstone, white, fine- to medium-grained, free drilling
1070-1080	Sandstone, white to light-gray, slightly dolomitic, medium- to coarse-grained
1080-1085	Sandstone, white, medium-grained, free drilling
1085-1100	Sandstone, buff, slightly dolomitic, medium-grained, free drilling in part
1100	TOTAL DEPTH

## MADISON COUNTY (2)

Operator: J. V. McAllister	Elevation: 1,500 ft. (Est.)
Well No.: 1	Total depth: 710 ft.
Lease: J. Sisemore	Completion date: Jan. 8, 1949
Location: SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 15 N., R. 27 W.	Logged by: R. J. Lantz

### Formation Tops

	Depth (ft.)
Bloyd shale	190
Prairie Grove member of the Hale formation	318
Cane Hill member of the Hale formation	397
Pitkin limestone	491
Fayetteville shale	562

Depth in feet	Sample description
0- 30	(No samples)
30- 32	Sandstone, white, very fine grained
32- 37	Shale, black, micaceous, silty
37- 41	Shale, black, micaceous
41- 47	Sandstone, light-gray, slightly limy, fine- to coarse-grained
47- 50	Shale, black, very micaceous, waxy, platy
50- 58	Siltstone, gray to light-gray, finely sandy
58- 61	Shale, black, micaceous, waxy, platy
61- 80	Sandstone, light-gray to white, slightly limy, silty, fine-grained
80- 85	Sandstone, light-gray to white, silty, fine-grained
85- 87	Siltstone, light grayish-green
87- 89	Shale, black, micaceous
89- 90	Siltstone, light grayish-green
90- 91	Shale, black, micaceous
91-102	Sandstone, gray to white, slightly limy, micaceous, fine-grained; trace of glauconite
102-105	Shale, black, silty, micaceous
105-120	Shale, black, soft, flaky; trace of pyrite
120-130	Shale, black, slightly micaceous
130-150	Shale, black, slightly micaceous, soft, flaky
150-187	Conglomerate, brown, slightly limy; green glauconitic shale fragments; fine to medium sand grains and phosphate pebbles; alternating with beds of black soft flaky slightly micaceous shale
187-190	Conglomerate, brown, limy; green glauconitic shale fragments; fine to medium sand grains and phosphate pebbles; pink crinoid fragments
190-208	Limestone, buff, very fossiliferous, slightly sandy, abundant bryozoa and crinoids
208-210	Shale, black, micaceous
210-252	Shale, black, micaceous; trace of pyrite
252-262	Sandstone, white, limy, medium- to very coarse grained; trace of glauconite
262-263	Shale, black, micaceous
263-264	Siltstone, grayish-green
264-265	Shale, black, micaceous
265-266	Siltstone, grayish-green
266-281	Sandstone, white, slightly limy, medium- to very coarse grained, free drilling; trace of glauconite
281-287	Limestone, brownish-buff, medium sandy, very fossiliferous; crinoids; abundant bryozoa
287-289	Shale, black, micaceous, silty

Depth in feet	Sample description
289-292	Siltstone, grayish-green, micaceous
292-300	Limestone, brown to brownish-buff, slightly sandy, very fossiliferous; brachiopods; crinoids; abundant bryozoa; trace of glauconite
300-306	Limestone, grayish-buff, finely to medium sandy; crinoids; brachiopods; abundant bryozoa
306-309	Sandstone, gray, glauconitic, very fine grained
309-310	Shale, black
310-313	Sandstone
313-314	Shale, black
314-318	Sandstone
318-325	Limestone, gray, glauconitic, finely sandy, fossiliferous; brachiopods; bryozoa; crinoids
325-340	Limestone, gray to brownish-buff, very finely crystalline to dense; brachiopod fragments 325-30 ft.
340-345	Limestone, cream-colored, slightly glauconitic, finely sandy, fossiliferous; bryozoa; crinoids
345-350	Limestone, cream-colored, very glauconitic, finely sandy, fossiliferous; bryozoa; crinoids; brachiopods
350-355	Limestone, buff, slightly glauconitic, finely sandy, fossiliferous; bryozoa; crinoids; brachiopods
355-360	Limestone, buff, medium to coarsely sandy, fossiliferous
360-366	Sandstone, light-brown, limy, medium-grained
366-368	Limestone, buff, medium sandy, fossiliferous; bryozoa; crinoids; brachiopods
368-370	Shale, black
370-374	Sandstone, gray, slightly limy, very fine to fine-grained
374-380	Limestone, buff, very finely crystalline to dense
380-390	Sandstone, white, slightly limy, medium- to very coarse grained; trace of glauconite
390-397	Sandstone, gray to grayish-green, silty, micaceous, very fine grained
397-400	Shale, black, micaceous, slightly silty
400-411	Shale as above; trace of pyrite
411-418	Conglomerate, brown, slightly glauconitic; phosphatic medium- to very coarse grained sandstone; limestone fragments
418-422	Shale, gray to grayish-green, very micaceous, silty
422-426	Siltstone, grayish-green, micaceous
426-437	Shale, dark-gray, micaceous, silty; grayish-green micaceous siltstone
437-440	Sandstone, white, fine-grained
440-455	Sandstone, white, very slightly limy, micaceous, very fine to fine-grained
455-460	Sandstone, brown, phosphatic, glauconitic, siliceous, fine-grained
460-463	Sandstone
463-472	Shale, dark-gray to grayish-green, silty, micaceous
472-476	Siltstone, light grayish-green
476-488	Alternating beds of black shale and siltstone
488-491	Sandstone, white, very slightly limy, very fine to fine-grained
491-498	Limestone, buff, very oolitic
498-500	Limestone as above, grading in to gray very finely crystalline limestone
500-510	Limestone, buff, very finely crystalline
510-514	Shale, greenish-gray, waxy
514-520	Limestone, gray, finely crystalline, oolitic
520-530	Limestone, light grayish-buff, fossiliferous, oolitic; spines; bryozoa; crinoids; brachiopods
530-535	(No samples)
535-540	Limestone, dark-gray, shaly, finely crystalline; crinoid and brachiopod fragments
540-545	(No samples)
545-550	Limestone, dark-gray, shaly, finely crystalline; crinoid and brachiopod fragments
550-555	Limestone as above, grading into brown very finely crystalline to dense limestone
555-562	Limestone, light-buff, very finely sandy, fossiliferous; crinoids; brachiopods
562-567	Shale, black, limy, silty
567-570	Shale, black; trace of pyrite
570-577	Shale, black, waxy, fissile
577-579	Limestone, dark-gray; brachiopods; bryozoa; crinoids
579-590	Shale, black; trace of pyrite
590-596	Limestone, dark-gray, fossiliferous; brachiopods; crinoids
596-600	Shale, black

Depth in feet	Sample description
600-608	Limestone, black, shaly, fossiliferous, oolitic; brachiopod fragments; crinoids
608-623	Shale, black, soft
623-629	Sandstone, white, very slightly limy, very fine to fine-grained
629-636	Shale, black, soft
636-639	Shale, brown, dense, hard
639-645	Shale, black
645-647	Shale, brown, dense, hard
647-650	Shale, black
650-665	Shale, black; trace of brown shale as above
665-695	Shale, black
695-710	(No samples)
710	TOTAL DEPTH

## MADISON COUNTY (3)

Operator: Independent Oil and Gas Co.	Elevation: 1,545 ft.
Well No.: 1	Total depth: 2,515 ft.
Lease: Banks	Completion date: June 19, 1929
Location: NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 16 N., R. 27 W.	Logged by: R. J. Lantz

### Formation Tops

	Depth (ft.)
Chattanooga shale	316
Penters chert	360(?)
Everton formation	370
Powell dolomite	628
Cotter dolomite	735
Jefferson City dolomite	1110
Roubidoux formation	1486
Gasconade dolomite and Van Buren formation undifferentiated	1630
Eminence dolomite	2090
Pre-Cambrian rocks	2397

**Depth  
in feet**

**Sample description**

20-	27	Limestone, white to light-gray, silty; weathered chert
27-	35	Limestone, white, medium-crystalline; interstitial black silt; weathered chert
35-	40	Limestone, light grayish-white, finely crystalline, finely sandy; trace of weathered chert
40-	50	Limestone, white, finely to medium-crystalline; interstitial black silt; weathered chert
50-	60	Limestone, cream-colored, siliceous
60-	70	Limestone, white, medium-crystalline; interstitial black silt
70-	80	Limestone
80-	85	Limestone; white dense chert
85-	120	Limestone, white, siliceous; white dense chert
120-	185	Limestone, white, finely crystalline; white dense chert
185-	160	Limestone, white, medium-crystalline; trace of white dense chert
160-	170	Limestone, white, medium- to coarsely crystalline; trace of white dense chert
170-	180	Limestone, white, medium- to coarsely crystalline
180-	210	Limestone, white, medium- to coarsely crystalline; trace of white dense chert
210-	216	Shale, black; trace of pyrite
216-	235	Limestone, white, medium-crystalline; trace of white dense to semi-chalcedonic chert
235-	255	Limestone, white, medium-crystalline; pink crystals; milky semi-chalcedonic chert
255-	261	Limestone; chert
261-	265	Limestone, light greenish-buff, medium-crystalline; green slightly pyritic shale
265-	285	Limestone, light-buff to white, medium-crystalline
285-	300	Limestone, light-buff to white, medium-crystalline; gray semi-chalcedonic chert
300-	305	Limestone, light-brown, medium-crystalline; pyrite
305-	316	Limestone, brown, medium-crystalline
316-	320	Shale, black
320-	346	Shale, black; pyrite
346-	360	(No samples)

Depth in feet	Sample description
360- 365	Dolomite, brown, finely rhombic, porous; light-gray and tan mottled spicular chert
365- 370	Sandstone, dolomitic, medium-grained
370- 377	Sandstone, white, slightly dolomitic, fine- to medium-grained
377- 380	(No samples)
380- 425	Sandstone, white, fine- to medium-grained, free drilling
425- 430	(No samples)
430- 438	Sandstone as above
438- 444	Dolomite, gray, finely to medium sandy, finely to medium-crystalline
444- 445	Shale, green
445- 454	Sandstone, white, fine- to medium-grained, free drilling
454- 462	Shale, green, finely sandy, slightly dolomitic
462- 470	Sandstone, white, fine- to medium-grained, free drilling
470- 480	Sandstone, white, fine-grained, free drilling
480- 510	Sandstone, white, fine- to coarse-grained, free drilling
510- 530	Sandstone
530- 540	Sandstone, white, fine- to medium-grained, free drilling
540- 545	Sandstone, white, limy, medium-grained, free drilling
545- 550	Sandstone, white, dolomitic, medium-grained, free drilling
550- 610	Sandstone, white, medium-grained, free drilling
610- 628	Sandstone, white, slightly dolomitic, medium-grained, free drilling
628- 640	Dolomite, light-gray, silty, finely crystalline
640- 650	Dolomite, light-gray to gray, silty, finely crystalline
650- 670	Dolomite, light-gray to gray, finely crystalline
670- 674	Dolomite, light-gray to grayish-buff, finely crystalline
674- 682	Dolomite, green, silty, very finely granular to dense
682- 685	Dolomite, buff, finely to medium-crystalline
685- 690	Dolomite, light-gray, very finely crystalline
690- 700	Dolomite, light-green, very finely crystalline
700- 705	Dolomite, buff, very finely crystalline
705- 720	Dolomite, buff and light-green, very finely crystalline
720- 725	Dolomite, dark grayish-buff, very finely crystalline
725- 735	Dolomite, light grayish-white, very finely crystalline
735- 746	Dolomite, light grayish-white and green, very finely crystalline; white semi-chalcedonic to oolitic dense chert
746- 748	Shale, green, pyritic
748- 750	Dolomite, light-gray, very finely crystalline; light-gray chalcedonic chert
750- 755	Dolomite, light-gray, very finely crystalline; light-gray to white dense chert
755- 760	Dolomite, gray, very finely crystalline; white dense chert
760- 765	Dolomite, buff, finely crystalline; white dense chert
765- 770	Dolomite, light-gray, very finely crystalline; trace of light-gray dense chert
770- 775	Dolomite, light-gray, very finely crystalline
775- 782	Sandstone, light-gray, dolomitic, medium-grained, free drilling; trace of light-gray dense chert at base
782- 787	Dolomite, light-buff, very finely crystalline; trace of light-gray dense chert at top
787- 793	Shale, grayish-green, dolomitic
793- 800	Dolomite, light-gray, very finely crystalline; white dense chert
800- 820	Dolomite, light-buff, very finely crystalline; white dense chert
820- 830	Dolomite, buff, very finely crystalline; white to light-buff dense chert
830- 835	Dolomite, gray and buff, very finely crystalline
835- 850	Dolomite, light-buff, very finely crystalline
850- 880	Dolomite, light-buff, very finely crystalline; white semi-chalcedonic to dense chert
880- 900	Dolomite, light-buff, very finely crystalline
900- 905	Dolomite, buff, finely crystalline
905- 910	Dolomite, buff, finely crystalline; white dense to milky chalcedonic chert
910- 915	Dolomite, buff, finely crystalline
915- 925	Dolomite, cream-colored, finely crystalline, rhombic; white to milky dense chert; white very finely oolitic chert

Depth in feet	Sample description
925- 930	Dolomite, light-gray, very finely crystalline; white dense chert
930- 940	Dolomite, buff, finely crystalline to finely granular; white dense chert
940- 950	Dolomite, buff, very finely crystalline
950- 970	Dolomite, cream-colored, very finely crystalline to very finely granular
970- 980	Dolomite, light-gray to cream-colored, very finely to finely crystalline; white dense chert
980- 985	Dolomite, light-gray, very finely crystalline; white dense chert
985- 995	Dolomite, light-gray to cream-colored, very finely to finely crystalline; white dense to finely oolitic chert
995-1000	Dolomite, light-gray to gray, very finely crystalline; scattered sand grains; white dense chert
1000-1001	Shale, green
1001-1005	Dolomite, cream-colored, very finely granular
1005-1010	Dolomite, brown, finely to medium-crystalline; trace of crystalline pyrite
1010-1016	Dolomite, cream-colored, very finely to finely crystalline
1016-1019	Chert, white, medium-oolitic, sandy, dense
1019-1020	Dolomite, gray, very finely crystalline
1020-1025	Dolomite, cream-colored, very finely crystalline
1025-1030	Dolomite, light-gray, very finely to finely crystalline; white dense chert
1030-1040	Dolomite, cream-colored, medium sandy, finely crystalline; white finely oolitic chert
1040-1055	Dolomite, grayish-buff, finely crystalline; white to translucent chert; quartz fragments
1055-1060	Dolomite, buff to brown, very finely to finely crystalline; white to translucent chert; sand grains
1060-1080	Dolomite, cream-colored to white, finely granular; white to translucent chert
1080-1090	Dolomite, buff, very finely crystalline; dark gray shaly dolomite at base
1090-1093	Sandstone, gray, pyritic medium-grained
1093-1100	Dolomite, light grayish-buff, finely crystalline
1100-1110	Dolomite, light grayish-white, finely sandy to silty
1110-1130	Dolomite, cream-colored, very finely to finely crystalline; white finely oolitic dense chert
1130-1140	Dolomite, brown, finely crystalline; white dense chert
1140-1150	Dolomite, brown to buff, very finely crystalline to dense; white very finely oolitic dense to finely granular chert
1150-1160	Dolomite, gray to cream-colored, very finely crystalline; white dense chert
1160-1172	Dolomite, light grayish-white, finely sandy, finely granular
1172-1173	Shale, black
1173-1185	Dolomite, buff, finely crystalline; brown medium-crystalline dolomite; pyrite
1185-1193	Dolomite, brown, finely to medium-crystalline
1193-1197	Dolomite, gray, shaly; light-gray very finely crystalline dolomite
1197-1200	Chert, white, dense
1200-1215	Dolomite, light-buff, very finely to finely crystalline; white dense chert
1215-1225	Dolomite, light grayish-buff, medium sandy, very finely crystalline
1225-1235	Dolomite, brown, finely crystalline; white dense chert
1235-1245	Dolomite, light-gray to gray, finely granular
1245-1255	Dolomite, buff, very finely granular; white oolitic dense chert; cream-colored chalcedonic chert
1255-1265	Dolomite, light grayish-buff, finely granular
1265-1270	Dolomite, brown, finely crystalline; white to buff dense chert
1270-1277	Dolomite, buff, very finely crystalline; white to buff medium sandy dense chert
1277-1285	Dolomite, light-gray to grayish-buff, finely granular; white to grayish-buff dense chert
1285-1295	Dolomite as above
1295-1300	Dolomite, buff to gray, very finely granular; white to buff dense chert
1300-1305	Dolomite, buff to gray, very finely granular; buff dolomitic rhombs in chert
1305-1315	Dolomite, light grayish-white, very finely granular; white dense chert
1315-1320	Dolomite, cream-colored to buff, very finely crystalline; white dense chert
1320-1330	Dolomite, light-gray to gray, very finely to finely granular
1330-1335	Dolomite, gray to tan, finely granular; white dense chert
1335-1345	Dolomite, light grayish-white, finely granular; scattered sand grains; white dense chert
1345-1350	Dolomite, light grayish-white, finely granular; scattered sand grains; white sandy chert
1350-1355	Dolomite, cream-colored, finely crystalline; white to cream-colored dense chert with dolomite rhombs
1355-1365	Dolomite, light grayish-white, finely granular; white dense chert
1365-1370	Dolomite, cream-colored, finely to medium-crystalline

Depth in feet	Sample description
1370-1375	Dolomite, buff, medium-crystalline; white weathered (?) chert
1375-1385	Dolomite, cream-colored, medium-crystalline; white dense to weathered chert; scattered medium sand grains
1385-1390	Dolomite, brownish-buff, finely crystalline; white to cream-colored dense chert
1390-1400	Dolomite, buff, finely to medium-crystalline
1400-1405	Dolomite, grayish-buff, finely to medium-crystalline; white dense chert
1405-1416	Dolomite, buff, finely to medium-crystalline; white dense chert
1416-1430	Dolomite, light grayish-buff, medium-crystalline
1430-1445	Dolomite, light grayish-buff, medium-crystalline; white coarsely oolitic dense to medium granular chert
1445-1450	Dolomite, brown to dark-brown, finely crystalline; white dense chert
1450-1460	Dolomite, buff to grayish-buff, finely crystalline; white dense chert
1460-1480	Dolomite, buff to grayish-buff, finely crystalline; white to cream-colored dense chert
1480-1486	Dolomite, grayish-buff, medium-crystalline; white dense chert
1486-1501	Sandstone, light grayish-white, dolomitic, medium-grained; white dense chert
1501-1510	Dolomite, gray, finely crystalline; white medium sandy dense chert
1510-1520	Dolomite, light grayish-buff, finely to medium-crystalline; white dense chert
1520-1530	Dolomite, cream-colored, very finely to finely crystalline; white to cream-colored dense chert
1530-1535	Dolomite, cream-colored, very finely to finely crystalline; white to cream-colored medium sandy dense chert
1535-1550	Dolomite, cream-colored, very finely to finely crystalline; medium sand grains; white dense chert
1550-1555	Dolomite, grayish-buff, finely to medium-crystalline; white dense chert
1555-1560	Dolomite, grayish-buff, finely to medium-crystalline; scattered medium sand grains; white dense chert
1560-1565	Dolomite, light grayish-buff, finely crystalline; light-gray dense chert
1565-1575	Dolomite, cream-colored, finely crystalline; scattered sand grains; light-gray dense chert
1575-1585	Dolomite, cream-colored, medium sandy, finely crystalline; light-gray dense chert
1585-1590	Dolomite, cream-colored, medium sandy, finely to medium-crystalline
1590-1600	Dolomite, cream-colored to white, finely to medium-crystalline; gray dense chert
1600-1610	Dolomite, cream-colored, coarsely crystalline; white finely to medium oolitic chert
1610-1620	Dolomite, cream-colored, coarsely crystalline
1620-1630	Dolomite, cream-colored to white, sandy, medium crystalline; white dense chert
1630-1640	Dolomite, grayish-buff, medium- to coarsely crystalline; white medium sandy chert
1640-1660	Dolomite, cream-colored, medium sandy, medium-crystalline; white dense chert
1660-1665	Dolomite, grayish-buff, finely to medium-crystalline; scattered medium sand grains
1665-1670	Dolomite, grayish-buff to gray, finely to medium-crystalline
1670-1685	Dolomite, cream-colored, medium- to coarsely crystalline
1685-1715	Dolomite, cream-colored, medium sandy, medium-crystalline
1715-1720	Dolomite, cream-colored, medium-crystalline; gray finely crystalline dolomite
1720-1745	Dolomite, cream-colored, medium-crystalline
1745-1820	Dolomite, cream-colored, medium-crystalline; white to gray dense chert
1820-1830	Dolomite, cream-colored to purple, finely to medium-crystalline; white dense chert with very small drusy quartz crystals
1830-1850	Dolomite, cream-colored, finely to medium-crystalline; white dense chert
1850-1870	Dolomite, light grayish-buff, medium-crystalline; white dense chert; drusy quartz crystals
1870-1880	Dolomite, grayish-buff, medium-crystalline; white oolitic dense chert
1880-1890	Dolomite, grayish-buff, medium-crystalline; white dense chert
1890-1900	Dolomite, grayish-green, medium-crystalline; white dense chert
1900-1910	Dolomite, grayish-buff, medium-crystalline; pyrite; white dense chert
1910-1920	Dolomite, grayish-buff, medium-crystalline; white dense chert
1920-1930	Dolomite, gray to grayish-buff, medium-crystalline; white dense chert containing dolomite crystals
1930-1945	Dolomite, grayish-buff, medium-crystalline; white dense chert; dolomite crystals
1945-1955	Dolomite, grayish-buff, medium-crystalline; white dense chert
1955-1960	Dolomite, buff, medium-crystalline; white to light-buff dense chert
1960-1970	Dolomite, grayish-buff, medium-crystalline; white to grayish-buff dense chert
1970-1980	Dolomite, light-gray, medium-crystalline; light-gray to white dense chert
1980-2000	Dolomite, gray to grayish-buff, finely to medium-crystalline; white to light-gray dense chert
2000-2020	Dolomite, light-gray, finely to medium-crystalline; white dense chert; interstitial chert
2020-2040	Dolomite, grayish-buff, medium- to coarsely crystalline; white dense chert



Depth in feet	Sample description
2040-2050	Dolomite, cream-colored, finely to medium-crystalline; scattered coarse sand grains; cream-colored to white dense chert with sand grains
2050-2055	Sandstone, white, medium- to coarse-grained, free drilling
2055-2080	Sandstone, white, medium- to coarse-grained
2080-2090	Sandstone, white, medium- to very coarse grained, free drilling
2090-2100	Dolomite, gray, medium-crystalline; scattered medium to coarse sand grains
2100-2110	Dolomite, light grayish-buff, finely to medium-crystalline; scattered sand grains
2110-2115	Dolomite, light grayish-buff to light-gray, finely granular, finely crystalline; sand grains; chert
2115-2130	Dolomite, cream-colored, finely crystalline; scattered medium sand grains
2130-2170	Dolomite, cream-colored, finely crystalline; white dense chert
2170-2230	Dolomite, cream-colored, finely crystalline
2230-2240	Dolomite, cream-colored, finely crystalline; cream-colored dense chert
2240-2260	Dolomite, cream-colored to white, finely crystalline; sand grains; grayish-buff dense chert
2260-2300	Dolomite, cream-colored to white
2300-2340	Dolomite, cream-colored to white, finely to medium-crystalline
2340-2350	Dolomite, gray, finely crystalline
2350-2380	Dolomite, cream-colored to white, finely crystalline
2380-2390	Dolomite, gray, finely crystalline
2390-2397	Dolomite, gray, medium-crystalline
2397-2440	Igneous rock, gray, hard, very finely granular (rhyolite?)
2440-2504	Igneous rock, red, very finely granular; red feldspar, hornblende?
2504-2515	(No samples)
2515	TOTAL DEPTH

POPE COUNTY (1)

Operator: Stanolind Oil and Gas Co.  
 Well No.: 1  
 Lease: Maxwell  
 Location: SE $\frac{1}{4}$ , SE $\frac{1}{4}$ , SE $\frac{1}{4}$  sec. 18,  
 T. 8 N., R. 18 W.

Elevation: 682 ft.  
 Total depth: 4847 ft.  
 Completion date: April 9, 1945  
 Logged by: J. C. Maher, 660-2130  
 ft.; R. J. Lantz, 3000-4847 ft.

Depth in feet	Sample description
0- 660	(No samples)
660- 730	Shale, black, very micaceous to silty
730- 790	Shale, black, very finely sandy, silty
790-1000	Shale, black, sandy in part
1000-1030	Sandstone, buff, hard, fine-grained
1030-1061	Sandstone, gray, fine-grained, with carbonaceous material
1061-1110	Shale, black, sandy in part
1110-1120	Sandstone, grayish-black, very silty, very fine grained
1120-1170	Shale, black, sandy in part
1170-1180	Sandstone, very silty
1180-1227	Shale, black, sandy in part
1227-1230	Sandstone
1230-1390	Shale, black, sandy in part
1390-1400	Sandstone, very silty
1400-1570	Shale, black
1570-1600	Sandstone, grayish-black, silty, fine-grained
1600-1660	Sandstone, gray, hard, micaceous, fine-grained
1660-1670	Sandstone, grayish-black, silty, fine-grained
1670-1760	Shale, black, finely sandy to silty
1760-1805	Shale, black, sandy in part
1805-1834	Sandstone, grayish-black, silty, fine-grained
1834-1840	Shale, black, silty to finely sandy
1840-1843	Sandstone, gray, quartzitic, fine-grained
1843-1853	Shale, black, finely sandy
1853-1857	Shale, black
1857-1861	Sandstone, gray, hard, quartzitic, fine-grained
1861-1870	Shale, black, sandy
1870-1908	Sandstone, silty
1908-1910	Shale, black
1910-1925	Sandstone, silty
1925-1930	Shale, black, sandy
1930-1942	Sandstone, silty
1942-1950	Sandstone, gray, hard, quartzitic, fine-grained
1950-1995	Sandstone, grayish-black, silty, fine-grained
1995-2000	Shale, black, finely sandy
2000-2020	Sandstone, grayish-black, silty, fine-grained
2020-2065	Shale, black
2065-2075	Sandstone, black, silty, very fine grained
2075-2085	Sandstone, gray, silty, very fine grained
2085-2095	Shale, black
2095-2130	Sandstone, gray, quartzitic, fine- to medium-grained; milky white coarse to very coarse quartz grains at base
2130-3000	(No samples)
3000-3008	Shale, black, micaceous
3008-3023	Sandstone, black, micaceous, shaly, silty, very fine grained
3023-3111	Alternating beds of black, micaceous shale and black, micaceous, shaly siltstone

<b>Depth in feet</b>	<b>Sample description</b>
3111-3134	Shale, black, micaceous
3134-3140	Sandstone, light-gray, fine-grained
3140-3145	Sandstone, light- to dark-gray, fine-grained
3145-3157	Sandstone, dark-gray, shaly, fine-grained
3157-3163	Shale, black micaceous
3163-3171	Siltstone, dark-gray to black, micaceous, shaly
3171-3184	Shale, black, micaceous
3184-3200	Siltstone, dark-gray to black, micaceous, shaly
3200-3228	Sandstone, gray, micaceous, silty, very fine grained
3228-3303	Shale, black, micaceous
3303-3315	Sandstone, light-gray to gray, silty, micaceous, very fine grained
3315-3360	Siltstone, gray, shaly, micaceous
3360-3370	Shale, black, micaceous
3370-3400	Shale, black, micaceous, silty
3400-3430	Shale, black, micaceous; smooth shale
3430-3440	Shale, black, micaceous, silty
3440-3470	Sandstone, light-gray, fine-grained
3470-3480	Sandstone, gray, micaceous, fine-grained
3480-3490	Shale, black, micaceous; very dark maroon to brown and black siliceous shale
3490-3510	Shale, black, micaceous
3510-3520	Shale, black, micaceous, silty
3520-3530	Shale, black, micaceous; smooth shale
3530-3550	Shale, black, micaceous, smooth; pyrite
3550-3560	Shale, black, micaceous, silty; pyrite
3560-3703	Shale, black, micaceous
3703-3711	Sandstone, light-gray to gray, micaceous, very fine to fine-grained
3711-3718	Shale, black, micaceous
3718-3721	Sandstone, gray, micaceous, very fine to fine-grained
3721-3726	Shale, black, micaceous
3726-3730	Sandstone, gray, micaceous, very fine to fine-grained
3730-3736	Shale, black, micaceous
3736-3740	Sandstone, dark-gray, micaceous, very fine to fine-grained
3740-3750	Shale, black, micaceous, silty
3750-3760	Sandstone, dark-gray, micaceous, fine-grained
3760-3766	Sandstone, dark-gray to gray, siliceous, fine- to very coarse grained; black siliceous shale
3766-3797	Shale, black, micaceous, silty
3797-3810	Sandstone, light-gray to gray, fine- to coarse-grained; siliceous fine-grained sandstone
3810-3838	Sandstone, light-gray to white, siliceous, fine-grained
3838-3904	Alternating beds of black micaceous shale and gray micaceous siltstone
3904-3911	Sandstone, white, very fine to fine-grained
3911-3916	Shale, black, micaceous
3916-3921	Sandstone, gray, silty, very fine grained
3921-4060	Alternating beds of black micaceous shale and dark-gray micaceous siltstone
4060-4080	(No samples)
4080-4100	Shale, black, micaceous
4100-4130	Shale, black, micaceous, silty
4130-4160	Shale, black, micaceous
4160-4177	Shale, black, micaceous, smooth, platy
4177-4193	Sandstone, dark-gray to gray, very fine to fine-grained
4193-4248	Shale, black, micaceous, smooth, platy
4248-4252	Sandstone, black to dark-gray, micaceous, very fine to fine-grained
4252-4264	Shale, black, micaceous
4264-4267	Sandstone, dark-gray, micaceous, very fine to fine-grained
4267-4273	Shale, black, micaceous
4273-4277	Sandstone, dark-gray, micaceous, very fine to fine-grained

<b>Depth in feet</b>	<b>Sample description</b>
4277-4280	Shale, black, micaceous
4280-4300	Shale, black, micaceous, silty
4300-4370	Shale, black, micaceous
4370-4440	Shale, black, micaceous, silty, pyritic
4440-4597	Shale, black, micaceous
4597-4602	Shale, khaki-colored with green shale fragments and fine to medium sand grains imbedded
4602-4604	Sandstone, light-gray to white, fine-grained
4604-4614	Shale, black, micaceous
4614-4616	Sandstone, light-gray to white, fine-grained
4616-4628	Shale, black, micaceous
4628-4632	Sandstone, light-gray to white, fine-grained
4632-4700	Shale, black, micaceous
4700-4847	Shale, black, micaceous, slightly silty to silty
4847	TOTAL DEPTH

## POPE COUNTY (2)

Operator: Cosden Oil Co.	Elevation: 765 ft.
Well No.: 1	Total depth: 4910 ft.
Lease: Shackelford	Completion date: July 31, 1930
Location: NW¼ SE¼ sec. 13, T. 9 N., R. 19 W.	Logged by: J. C. Maher

### Formation Tops

	Depth (ft.)
Bloyd shale	2115
Prairie Grove member of the Hale formation	2590
Cane Hill member of the Hale formation	2798
Fayetteville shale	2900
Batesville sandstone, Ruddell shale, and Moorefield formation undifferentiated	3197
Boone formation	3280
Chattanooga shale	3552
Penters chert	3580
Silurian rocks undifferentiated	3803
Cason shale	3988
Fernvale limestone	4003
Kimmswick (?) and Plattin limestones undifferentiated	4040
Joachim dolomite (?)	4130
St. Peter sandstone	4156
Everton formation	4260
Powell dolomite	4882 (?)

Depth in feet	Sample description
0- 150	(No samples)
150- 190	Shale, grayish-black, sandy to silty, finely micaceous
190- 215	Shale, grayish-black, finely micaceous
215- 222	Shale, grayish-black, sandy to silty, finely micaceous
222- 250	Sandstone, gray, silty, fine-grained
250- 270	Sandstone, gray, silty, fine-grained, becoming more silty downward
270- 280	Shale, grayish-black, silty
280- 290	Shale, black
290- 317	Shale, black, silty
317- 330	Sandstone, white, fine-grained
330- 400	Sandstone, grayish-black, silty, fine-grained
400- 430	Shale, black, slightly silty
430- 440	Shale, black
440- 443	Shale, black, silty
443- 452	Shale, black
452- 488	Sandstone, gray, silty, fine-grained
488- 490	Shale, black

<b>Depth in feet</b>	<b>Sample description</b>
490- 510	Sandstone, gray, silty, fine-grained
510- 512	Shale, black
512- 535	Sandstone, gray, silty, fine-grained
535- 537	Shale, black
537- 544	Sandstone, gray, very silty, fine-grained
544- 560	Shale, black, silty to finely sandy
560- 606	Sandstone, gray, silty, fine-grained
606- 610	Shale, black, finely sandy
610- 675	Shale, black
675- 680	Sandstone, gray, fine-grained
680- 700	Shale, black, finely sandy
700- 707	Shale, black
707- 708	Sandstone, gray, fine-grained
708- 737	Shale, black
737- 773	Sandstone, light-gray, slightly limy, fine-grained, free drilling
773- 827	Shale, black; shaly fine-grained sandstone
827- 837	Shale, black; clear fine-grained free-drilling sandstone
837- 842	Sandstone, shaly, very fine grained
842- 990	Shale, black
990-1025	Sandstone, light-gray, very fine grained; very fine grained free-drilling sandstone with clear quartz grains; dark brownish-gray sandstone
1025-1052	Sandstone, dark-gray, shaly, fine-grained
1052-1106	Sandstone, light-gray to white, and brownish-gray, fine-grained, free drilling in part
1106-1145	Sandstone, white, slightly limy, fine- to medium-grained
1145-1157	Shale, black, sandy
1157-1159	Sandstone
1159-1175	Shale, black, sandy
1175-1322	Shale, black
1322-1327	Sandstone, grayish-white, slightly limy, medium-grained; white cement
1327-1335	Sandstone
1335-1339	Sandstone, slightly limy
1339-1342	Shale, black
1342-1350	Sandstone, slightly limy
1350-1352	Sandstone
1352-1418	Shale, black
1418-1420	Sandstone, gray, silty, very fine grained
1420-1433	Shale, black
1433-1434	Sandstone, gray, silty, very fine grained
1434-1435	Shale, black
1435-1436	Sandstone, gray, silty, very fine grained
1436-1456	Shale, black
1456-1458	Sandstone, hard, fine-grained
1458-1460	Shale, black
1460-1470	Shale, black, slightly sandy
1470-1480	Shale, black
1480-1481	Sandstone
1481-1490	Shale, black
1490-1507	Shale, black, silty
1507-1513	Shale, black, silty; trace of quartzitic sandstone
1513-1635	Shale, black, silty
1635-1641	Sandstone, gray, quartzitic, fine-grained
1641-1660	Shale, black, very finely sandy
1660-1706	Shale, black
1706-1708	Shale, tan, waxy, with black inclusions
1708-1710	Sandstone, tan, limy

Depth in feet	Sample description
1710-1712	Shale, tan, waxy, with black inclusions
1712-1730	Shale, black
1730-1733	Sandstone, white, slightly limy, medium-grained
1733-1755	Sandstone, white, medium-grained, free drilling
1755-1765	Shale, black, slickensided in part
1765-1775	Sandstone, white to gray, hard, fine-grained
1775-1780	Sandstone, white to gray, hard, slightly limy, fine-grained
1780-1781	Shale, black
1781-1787	Sandstone, white to gray, hard, limy, fine-grained
1787-1799	Sandstone, gray, quartzitic, slightly limy
1799-1807	Shale, black
1807-1817	Shale, black, sandy
1817-1824	Sandstone, black, limy, silty
1824-1825	Shale, black
1825-1830	Sandstone, grayish-buff, hard, fine-grained
1830-1840	Sandstone, grayish-buff, limy, fine-grained, free drilling
1840-1848	Sandstone, grayish-buff, limy, fine-grained
1848-1855	Sandstone, grayish-buff, limy, fine-grained
1855-1890	Shale, black
1890-1892	Sandstone
1892-1900	Shale, black, silty
1900-1915	Shale, black, limy
1915-1950	Shale, black, limy, silty
1950-1975	Shale, black
1975-1985	(No samples)
1985-1990	Limestone, gray, fossiliferous; crinoids; gastropods
1990-1960	Shale, black
1960-1970	Sandstone, buff, limy, very fine grained
1970-1990	Shale, black, limy
1990-1997	Shale, black
1997-2105	Sandstone, white to gray, limy, fine-grained
2105-2108	Sandstone as above; black shale
2108-2115	Sandstone as above
2115-2145	Shale, black
2145-2155	(No samples)
2155-2164	Shale, black
2164-2167	Sandstone, gray, fine-grained
2167-2170	Limestone, gray, oolitic; limy fine-grained sandstone
2170-2190	Sandstone, gray, limy, fine-grained
2190-2205	Sandstone and black shale in alternating beds
2205-2244	Shale, black
2244-2247	Sandstone, gray, limy, fine-grained
2247-2256	Shale, black
2256-2257	Sandstone
2257-2260	Shale, black
2260-2287	Sandstone, gray, limy, fine-grained
2287-2343	Shale, black
2343-2376	Sandstone, gray, hard, limy, fine-grained
2376-2421	Shale, black
2421-2436	Sandstone, gray, hard, limy, fine-grained
2436-2440	Shale, black
2440-2450	Sandstone, gray, hard, limy, fine-grained
2450-2460	Sandstone as above; white calcite crystals
2460-2496	Sandstone, gray, hard, limy, fine-grained
2496-2499	Shale, black
2499-2527	Sandstone as above

Depth in feet	Sample description
2527-2535	Shale, black
2535-2548	Shale, black, sandy, micaceous
2548-2556	Sandstone, black, silty, micaceous, fine-grained
2556-2568	Sandstone, black, silty, fine-grained
2568-2575	Shale, black, sandy
2575-2580	Shale, black
2580-2590	Shale, black, sandy
2590-2596	Sandstone, gray, hard, slightly limy, fine-grained
2596-2597	Shale, black
2597-2600	Sandstone, gray, hard, quartzitic, very fine grained
2600-2694	Shale, black
2694-2705	Sandstone, tan, limy, very fine grained
2705-2715	Limestone, gray, sandy; crinoids
2715-2726	Limestone, gray, black-spotted; black pellets or oolites; fossils; crinoids; bryozoa
2726-2735	Limestone, sandy
2735-2768	Sandstone, gray, limy, fine-grained
2768-2770	Shale, black
2770-2784	Sandstone, gray, limy, fine-grained
2784-2786	Shale, black
2786-2798	Sandstone, gray, hard, quartzitic, fine-grained
2798-2809	Shale, black, silty
2809-2820	Sandstone, limy
2820-2860	Shale, black, silty
2860-2875	Shale, black
2875-2900	Shale, black, silty to sandy
2900-2910	Shale, black
2910-2913	Limestone, brown, finely crystalline
2913-3025	Shale, black; pelecypods at 2955-60 ft. and 3015-25 ft.
3025-3095	Shale, black, slightly pyritic in part
3095-3110	Shale, black; pelecypods and gastropods
3110-3165	Shale, black, pyritic in part
3165-3170	Shale, black, with limy pellets
3170-3197	Shale, black; conodonts in upper part
3197-3200	Limestone, black to brown, oolitic
3200-3220	Shale, black
3220-3227	Limestone, black, oolitic, pyritic at base
3227-3230	Shale, black; pyrite; crinoids
3230-3235	Shale, black
3235-3247	Limestone, gray to black, oolitic; pyritic in upper half
3247-3257	Limestone as above; black shale
3257-3263	Silt, black, shaly
3263-3270	Limestone, black, silty; crinoids in upper part
3270-3276	Shale, gray, limy
3276-3277	Limestone
3277-3280	Shale, gray, limy
3280-3283	Limestone, gray, finely granular
3283-3284	Shale, gray, limy
3284-3298	Limestone, grayish-black, silty
3298-3300	Shale, black
3300-3309	Limestone, buff, finely crystalline; light-tan subtranslucent dense chert
3309-3310	Shale, black
3310-3330	Limestone, gray, finely crystalline; light-tan mottled subtranslucent chert; interbedded with thin layers of black shale
3330-3340	Limestone, gray, finely crystalline; smoky gray finely spotted chert; interbedded with black shale
3340-3363	Limestone, gray to brown, finely crystalline; brown dense chert; interbedded with black shale
3363-3408	Limestone, gray to black, silty, finely crystalline; black dense chert; interbedded with black shale



Depth in feet	Sample description
3408-3470	Limestone, gray to black, silty; finely crystalline; brown to black dense chert; interbedded with thin layers of black shale
3470-3484	Limestone, grayish-brown, finely crystalline; gray to tan chert
3484-3530	(No samples)
3530-3552	Limestone, grayish-black, finely crystalline; tan subtranslucent dense chert
3552-3570	Shale, black
3570-3580	Shale, black; pyrite
3580-3586	Chert, black, dense
3586-3600	Chert, gray, black-spotted, dense; limestone
3600-3610	Chert, gray, black-spotted, dense; gray finely crystalline limestone
3610-3615	Chert, black, dense
3615-3627	Chert, black, dense; gray granular dolomite
3627-3630	Shale, hard, grayish-green; chert
3630-3640	Limestone, gray, finely crystalline; gray mottled dense chert
3640-3643	Chert, black, dense
3643-3645	Shale, grayish-green
3645-3655	Chert, black, dense
3655-3657	Shale, grayish-black
3657-3662	Chert, grayish-black, dense
3662-3667	Shale, gray, silty
3667-3725	Alternating thin beds of gray to white milky chert and grayish-black shale
3725-3730	Chert, grayish-white, milky; gray finely crystalline to granular limestone
3730-3800	Limestone, gray, finely crystalline to granular
3800-3803	Shale, black
3803-3815	Limestone, grayish-white, granular
3815-3852	Limestone, buff, finely crystalline to granular; trace of gray chert at base
3852-3858	Limestone, dark-buff to brown, finely crystalline
3858-3882	Limestone, dark-buff to brown, finely crystalline; dullish-tan chert, decreasing in amount downward
3882-3896	Dolomite, gray, finely granular
3896-3908	Limestone, gray, finely crystalline
3908-3915	Limestone, gray, dolomitic, finely granular
3915-3920	Dolomite, gray, finely granular
3920-3940	Dolomite, gray, limy, finely granular
3940-3956	Limestone, grayish-black, finely crystalline
3956-3985	Limestone, buff, finely granular
3985-3988	Limestone, gray, finely crystalline; pink calcite crystals
3988-3998	Shale, green, slightly sandy; pyrite
3998-4000	Sandstone, green, pyritic, very fine grained
4000-4003	Shale, green, slightly sandy
4003-4010	Limestone, cream-white, medium-crystalline; pink calcite spots
4010-4040	Limestone, cream-white, medium-crystalline
4040-4046	Limestone, buff, finely crystalline; buff spotted dense chert
4046-4050	Limestone, buff, finely crystalline
4050-4062	Limestone, grayish-buff, finely crystalline
4062-4125	Limestone, brown to almost black, dense
4125-4130	Limestone, brown, dense, containing quartz grains
4130-4148	Dolomite, dark-buff to brown, finely granular
4148-4156	Dolomite, dark-buff, sandy
4156-4186	Sandstone, white, fine- to medium-grained
4186-4190	Sandstone, white, fine-grained
4190-4212	Sandstone, white, fine- to medium-grained
4212-4260	Sandstone, white, very fine grained
4260-4268	Dolomite, gray, finely sandy
4268-4270	Limestone, gray, red-tinged, dense
4270-4275	Dolomite, gray, very finely granular
4275-4278	Sandstone

Depth in feet	Sample description
4278-4280	Dolomite, gray, very finely granular
4280-4286	Sandstone
4286-4288	Shale, gray, dolomitic
4288-4290	Dolomite, gray, finely crystalline
4290-4295	Dolomite, dark-gray, sandy
4295-4297	Sandstone, fine-grained
4297-4300	Dolomite, dark-gray, sandy, granular
4300-4308	Dolomite, sandy
4308-4313	Sandstone, white, fine-grained
4313-4318	Dolomite, gray to grayish-black, finely pyritic
4318-4335	Dolomite, gray, finely granular
4335-4340	Sandstone
4340-4343	Sandstone, dolomitic
4343-4350	Dolomite, gray, finely granular
4350-4351	Sandstone
4351-4357	Dolomite, gray, finely granular
4357-4360	Dolomite, gray, sandy
4360-4370	Dolomite, gray, finely granular
4370-4375	Sandstone, white, fine- to medium-grained
4375-4382	Sandstone, white, slightly dolomitic, fine- to medium-grained
4382-4386	Dolomite, gray, finely granular
4386-4390	Sandstone
4390-4400	Dolomite, gray, finely sandy
4400-4408	Dolomite, gray
4408-4415	Dolomite, light-gray, sandy
4415-4422	Dolomite, light-gray, finely granular
4422-4428	Dolomite, dark-gray, sandy
4428-4430	Sandstone
4430-4435	Dolomite, gray, very finely granular
4435-4440	Sandstone, gray, dolomitic, fine- to medium-grained
4440-4445	Dolomite, dark-gray to black, slightly sandy, finely granular
4445-4453	Dolomite, dark-gray to black, finely granular
4453-4455	Sandstone
4455-4460	Dolomite, gray, sandy
4460-4462	Dolomite, gray
4462-4463	Shale, black
4463-4466	Sandstone, white, fine-grained
4466-4470	Dolomite, dark-gray, sandy
4470-4475	(No samples)
4475-4478	Shale, dark-gray, dolomitic
4478-4480	Dolomite, gray, finely granular
4480-4485	Dolomite, grayish-black, silty
4485-4495	Dolomite, light-gray, sandy
4495-4500	Dolomite, dark-gray, sandy
4500-4510	Dolomite, gray, sandy
4510-4522	Dolomite, gray, finely granular
4522-4524	Sandstone
4524-4533	Dolomite, gray, sandy
4533-4540	Dolomite, gray, very finely granular
4540-4543	Sandstone
4543-4550	Dolomite, gray, sandy
4550-4558	Dolomite, gray, finely granular
4558-4560	Sandstone
4560-4567	Dolomite, gray, finely granular
4567-4569	Sandstone, white, fine-grained
4569-4624	Dolomite, gray, finely granular; interbedded with gray sandy dolomite

Depth in feet	Sample description
4624-4626	Sandstone
4626-4638	Dolomite, dark-gray, finely granular
4638-4640	Sandstone
4640-4660	Dolomite, light- to dark-gray, sandy
4660-4664	Sandstone, white, very fine grained
4664-4670	(No samples)
4670-4679	Dolomite, gray, sandy
4679-4681	Sandstone
4681-4695	Dolomite, gray
4695-4717	Dolomite, gray, sandy
4717-4720	Sandstone
4720-4722	Dolomite, gray, sandy
4722-4736	Sandstone, white, very fine grained
4736-4739	Shale, gray
4739-4750	Sandstone, white, angular, very fine grained
4750-4755	Sandstone, white, angular, fine-grained
4755-4780	Sandstone, white, angular, very fine grained
4780-4798	(No samples)
4798-4815	Sandstone as above
4815-4828	Dolomite, sandy
4828-4838	Sandstone, white, slightly dolomitic, very fine grained
4838-4846	Dolomite, black, finely crystalline
4846-4848	Sandstone
4848-4854	Dolomite, gray, finely crystalline
4854-4860	Sandstone, white, fine-grained
4860-4870	Dolomite, gray, sandy
4870-4873	Dolomite, grayish-black
4873-4876	Sandstone, white, very fine grained
4876-4882	Dolomite, gray, finely sandy
4882-4892	Dolomite, grayish-black, finely crystalline
4892-4894	Limestone? (finely drilled); gray fine-grained sandstone
4894-4910	Dolomite, grayish-black, finely crystalline interbedded with a thin layer of limestone and sandstone as above
4910	TOTAL DEPTH

### POPE COUNTY (3)

Operator: Stanolind Oil and Gas Co.	Elevation: 670 ft. (Topo.)
Well No.: 1	Total depth: 2095 ft.
Lease: Brinkman	Completion date: Nov. 2, 1948
Location: SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 10 N., R. 20 W.	Logged by: R. J. Lantz

#### Formation Tops

	Depth (ft.)
Bloyd shale	106
Kessler limestone member of the Bloyd shale	129
Prairie Grove member of the Hale formation	460
Fayetteville shale	643
Batesville sandstone, Ruddell shale, and Moorefield formation undifferentiated	927
Boone formation	1087
Chattanooga shale	1407
Penters chert	1431
Silurian rocks undifferentiated	1692
Cason shale	1841
Fernvale limestone	1843
Kimmswick (?) and Plattin limestones undifferentiated	1887
St. Peter sandstone	1963
Everton formation	2071

Depth  
in feet

#### Sample description

0-	30	(No samples)
30-	40	Sandstone, dark-gray and light-gray, shaly, silty, very micaceous, fine- to medium-grained
40-	48	Sandstone, dark grayish-green, shaly, very micaceous, silty, very fine grained
48-	58	Shale, gray
58-	72	Shale, black
72-	84	Sandstone, gray, fine- to medium-grained
84-	95	Shale, black
95-	105	Sandstone, light-gray, fine- to medium-grained
105-	113	Siltstone, grayish-green
113-	114	Shale, black
114-	120	Sandstone, light-gray, limy, fine- to medium-grained
120-	129	Sandstone, light-gray to white, slightly limy, very fine grained, free drilling in part
129-	141	Limestone, gray, finely sandy, dense
141-	150	Sandstone, light-gray, limy, very fine grained, free drilling
150-	157	Sandstone, white, slightly limy, fine-grained
157-	164	Sandstone, black, shaly, fine-grained
164-	173	Shale, black, silty, hard
173-	182	Sandstone, black shaly, limy, very fine to fine-grained; pyrite
182-	193	Shale, black
193-	200	Sandstone, dark-gray, very fine grained; grayish-green to white siltstone

Depth in feet	Sample description
200- 210	Sandstone, light-gray to white, slightly limy, silty, very fine grained, free drilling
210- 218	Sandstone, gray, fine- to medium-grained, very slightly limy; trace of glauconite
218- 226	Shale, black
226- 233	Siltstone, grayish-green, slightly limy
233- 242	Shale, black
242- 245	Siltstone, grayish-green to light-gray
245- 250	Sandstone, dark-gray, shaly, slightly limy, fine- to medium-grained; trace of glauconite
250- 256	Sandstone, light-gray, very slightly limy, fine-grained
256- 259	Shale, black
259- 265	Sandstone, light-gray, slightly limy, fine-grained
265- 270	Limestone, light grayish-buff, finely sandy, medium-crystalline; glauconite; crinoids; bryozoa
270- 280	Limestone, brownish-buff, coarsely crystalline; crinoids
280- 290	(No samples)
290- 296	Sandstone, black, limy, shaly, silty, very fine grained
296- 300	Shale, black, limy
300- 336	Shale, black
336- 350	Sandstone, black, shaly, limy, fine- to medium-grained; trace of glauconite
350- 356	Sandstone, as above
356- 358	Shale, black
358- 360	Sandstone, gray, limy, fine- to medium-grained
360- 369	Shale, black
369- 385	Sandstone, gray to white, limy, fine- to medium-grained, free drilling in part
385- 387	Shale, black
387- 400	Sandstone, white, limy, fine- to medium-grained, free drilling in part; trace of pyrite and glauconite
400- 407	Sandstone, white, fine- to coarse-grained, limy; free drilling
407- 408	Shale, black
408- 415	Sandstone, as above
415- 419	Shale, black; pyrite
419- 422	Siltstone, white; glauconite
422- 430	Shale, black, silty; pyrite
430- 436	Shale, black
436- 440	Sandstone, dark-gray, silty, very fine grained
440- 442	Shale, black
442- 450	Sandstone, light-gray, silty, fine-grained, free drilling in part
450- 454	Sandstone, dark-gray, shaly, fine-grained
454- 460	Shale, black
460- 465	Sandstone, light-gray, very slightly limy, fine-grained
465- 480	Sandstone, light-gray, silty, fine-grained
480- 490	Sandstone, as above; slightly limy
490- 500	Sandstone, gray to dark-gray, shaly, silty, fine-grained, free drilling
500- 507	Sandstone
507- 509	Shale, dark-gray to black, slightly dolomitic
509- 514	Sandstone, white, limy, silty, fine-grained
514- 515	Shale, black
515- 520	Siltstone, white, slightly limy, finely sandy; light-gray silty very fine grained sandstone
520- 528	Shale, black, micaceous
528- 530	Siltstone, light-gray, slightly dolomitic
530- 568	Shale, black, silty, alternating with beds of light-gray siltstone
568- 572	Shale, black, micaceous
572- 575	Sandstone, light-gray to white, slightly limy, very fine to fine-grained
575- 580	Sandstone, white, limy, fine-grained
580- 585	Sandstone, white, limy, fine-grained; crinoids; bryozoa
585- 589	Sandstone, light-gray, limy, fine-grained; crinoids; bryozoa fragments; brachiopods
589- 590	Limestone, finely sandy
590- 598	Limestone, grayish-buff, finely sandy, finely crystalline; bryozoa; crinoid fragments
598- 605	Sandstone, light-gray, limy, fine-grained

Depth in feet	Sample description
605- 610	Sandstone, white, slightly limy, very fine to fine-grained
610- 624	Sandstone, white, slightly limy, very fine to fine-grained, free drilling
624- 625	Shale, black
625- 628	Sandstone, gray, very slightly limy, silty, very fine grained
628- 630	Shale, black
630- 633	Sandstone, white, very slightly limy, very fine grained
633- 634	Shale, black
634- 638	Sandstone, gray, very slightly limy, silty, very fine grained
638- 639	Shale, black
639- 643	Sandstone, gray, very slightly limy, silty, very fine grained
643- 649	Shale, black
649- 650	Siltstone, light gray
650- 664	Shale, black
664- 669	Sandstone, gray, very fine to fine-grained
669- 674	Shale, black
674- 676	Siltstone, light-gray
676- 680	Shale, black
680- 688	Shale, black; silty streaks
688- 695	Siltstone, light-gray; black shaly siltstone
695- 705	Shale, black; silty streaks
705- 780	Shale, black; black dense chert
780- 790	Shale, black, slightly silty; black dense chert
790- 808	Shale, black; trace of pyrite
808- 810	Breccia or conglomerate, cemented with limestone
810- 824	Shale, black; trace of pyrite
824- 830	(No samples)
830- 834	Shale, black
834- 852	Limestone, black, shaly, dense
852- 864	Shale, black, slightly limy
864- 872	Limestone, black, shaly, dense
872- 896	Shale, black
896- 900	Limestone, black and cream-colored, mottled, dense; crinoids
900- 915	Shale, black, slightly limy
915- 927	Shale, black
927- 944	Limestone, black and light-buff, mottled, crinoidal; brachiopod fragments
944- 962	Shale, black; trace of pyrite
962- 968	Limestone, black, finely crystalline
968-1000	Shale, black, very hard
1000-1035	Shale, black
1035-1045	Limestone, dark-gray and buff, mottled, finely crystalline; dark medium to coarse oolites; crinoid and brachiopod fragments
1045-1056	Limestone, dark-gray and buff, mottled, finely crystalline; dark medium to coarse oolites
1056-1073	Shale, black silty, limy
1073-1087	Shale, black, limy
1087-1090	Limestone, dark-gray, finely crystalline
1090-1095	Limestone, dark- to light-gray, finely crystalline; brachiopods; crinoids
1095-1100	Limestone, light-gray to cream-colored medium-crystalline
1100-1110	Limestone, light-gray, finely crystalline; light-gray chalcudonic dense chert
1110-1125	Limestone, light-gray, very finely to finely crystalline; light-gray to white dense chert
1125-1130	Limestone, light-gray to gray, very finely crystalline; light-gray to gray dense chert
1130-1140	Limestone, light-gray, very finely crystalline; trace of light-gray and white dense chert
1140-1145	Limestone, light-gray, finely crystalline
1145-1150	Limestone, light grayish-buff, very finely to finely crystalline; trace of light-gray dense chert
1150-1155	Limestone, light grayish-buff, finely crystalline; grayish-buff dense limestone
1155-1160	Limestone, light-gray, finely crystalline to finely granular
1160-1165	Limestone, gray, silty, cherty, finely granular

Depth in feet	Sample description
1165-1170	Limestone, light-gray, silty, finely granular; gray finely crystalline limestone; chert
1170-1175	Limestone, grayish-buff, finely crystalline; chert
1175-1180	Limestone, light-gray, silty, finely granular; white dense chert
1180-1185	Limestone, light-gray to gray, silty, cherty
1185-1190	Limestone, light-gray, finely granular, silty, cherty
1190-1200	Limestone, light-gray, finely black mottled, silty, cherty, finely granular; light-gray to white dense chert
1200-1205	Limestone, light-gray, finely granular, silty, cherty; abundant light-gray to white dense chert
1205-1210	Limestone, light-gray to gray, finely crystalline; abundant light-gray to white dense chert
1210-1220	Limestone, dark grayish-buff, finely crystalline; abundant gray to smoky-gray dense chert
1220-1230	Limestone, light grayish-white, finely crystalline; light-gray finely black-spotted dense chert
1230-1250	Limestone, light grayish-white, finely crystalline; light-gray to smoky-gray dense chert
1250-1255	Limestone, dark-gray, very finely crystalline; light- to dark-gray dense chert
1255-1260	Limestone, light-gray, finely crystalline; light- to dark-gray dense chert
1260-1265	Limestone, light- to dark-gray, finely crystalline; black and gray dense chert
1265-1270	Limestone, light-gray to grayish-buff, finely crystalline; gray and smoky-brown dense chert
1270-1275	Limestone, gray, silty, finely granular; black, dark-gray, gray, and white, dense chert
1275-1280	Limestone, light gray, silty, finely granular; gray and light-gray dense chert
1280-1290	Limestone, gray, finely granular to finely crystalline; light-gray and gray dense chert
1290-1308	Limestone, light-gray, finely crystalline; light-gray finely black spotted chert
1308-1309	Shale, black
1309-1315	Limestone, light-gray, finely crystalline; brown to smoky dense chert
1315-1320	Limestone, gray, finely crystalline; smoky chalcedonic chert
1320-1325	Limestone, gray to light-gray, finely crystalline; gray and light-gray dense chert
1325-1330	Limestone, light-gray, coarsely crystalline; gray and black dense chert; crinoids; brachiopods
1330-1335	Limestone, dark grayish-buff, finely crystalline; black and dark smoky chert
1335-1340	Limestone, dark grayish-buff, finely crystalline; smoky-gray finely black spotted chert
1340-1350	Limestone, gray, finely crystalline; gray finely black spotted dense chert
1350-1360	Limestone, gray, finely to medium-crystalline; gray dense chert
1360-1370	Limestone, cream-colored, finely crystalline; light-gray to gray chalcedonic dense chert
1370-1375	Limestone, light-gray to light grayish-buff, finely crystalline; white and buff finely mottled chert
1375-1380	Limestone, buff, black mottled, finely crystalline; buff dense chert
1380-1390	Limestone, gray to dark-gray, finely crystalline; buff dense chert
1390-1407	Limestone, light-buff to cream-colored, finely crystalline; light-buff dense chert
1407-1431	Shale, black
1431-1436	Sandstone, white, slightly dolomitic, very fine grained; light-gray finely crystalline limestone; white to light-gray chalcedonic chert
1436-1445	Sandstone, gray, very slightly dolomitic, very fine grained; abundant white to light-gray chalcedonic dense chert
1445-1450	Sandstone, gray, very slightly dolomitic, very fine grained; white to gray chalcedonic dense chert
1450-1455	Sandstone, gray, very slightly dolomitic, very fine grained; white and gray dense chert with fine black spots
1455-1495	As above, and very small scattered water-clear quartz crystals
1495-1500	Sandstone, gray, slightly dolomitic; black chert; white to light-gray black finely spotted dense chert
1500-1520	Sandstone, dark-gray, slightly dolomitic, very fine grained; black, smoky-brown, and gray chalcedonic chert
1520-1525	Sandstone, dark-gray, slightly dolomitic, very fine grained; smoky-brown chalcedonic chert with fine black inclusions
1525-1540	Dolomite, dark-gray, finely crystalline; smoky-brown chalcedonic chert with fine black inclusions
1540-1555	Dolomite, dark-gray, finely crystalline; smoky-brown chalcedonic chert with fine black inclusions; trace of black dense chert
1555-1565	As above; white to milky chert with fine black inclusions
1565-1580	Dolomite, dark-gray, finely crystalline; dark-gray to black chalcedonic dense chert
1580-1588	Dolomite, dark-gray, finely crystalline; white dense to light smoky chalcedonic chert
1588-1600	Limestone, white, silty, finely granular; milky chalcedonic chert
1600-1610	Limestone, gray, silty, finely granular; milky chalcedonic chert; gray to dark-gray dense chert
1610-1624	Limestone, light-gray, silty; finely granular; milky to light-gray chalcedonic chert with fine black inclusions
1624-1660	Limestone, gray, silty; very finely granular; trace of smoky finely black-spotted chert
1660-1680	Limestone, gray, silty; very finely granular; gray dense chert

Depth in feet	Sample description
1680-1692	Limestone, gray, silty; very finely granular; black dense chert with gray banding
1692-1755	Limestone, gray to white, silty, very finely granular
1755-1764	Limestone, pink to pinkish-gray, slightly silty, very finely granular
1764-1770	(No samples)
1770-1786	Dolomite, maroon-red, slightly silty, very finely granular
1786-1810	Limestone, maroon, slightly silty, very finely granular
1810-1812	Limestone, maroon and gray, silty, very finely granular
1812-1820	Limestone, pink to pinkish-gray, slightly silty, very finely granular
1820-1825	Limestone, pink to pinkish-gray and gray, very finely granular
1825-1830	Limestone, light-pink to cream-white, silty, very finely granular
1830-1841	Limestone, light grayish-white, very finely granular to medium-crystalline; pink crystals
1841-1843	Shale, black, hard
1843-1845	Limestone, cream-colored to light-pink, medium-crystalline; black shale
1845-1855	Limestone, light-gray, medium-crystalline; pink crystals
1855-1868	Limestone, light greenish-gray, medium- to coarsely crystalline; pink crystals; pyrite; fossil fragments
1868-1869	Shale, black
1869-1887	Limestone, light greenish-gray, medium- to coarsely crystalline, trace of pink crystals; pyrite; fossil fragments
1887-1890	Shale, black
1890-1897	Limestone, grayish-buff, very finely crystalline; trace of light-gray dense chert
1897-1898	Shale, black
1898-1900	Limestone, grayish-buff to light-gray, very finely to finely crystalline
1900-1906	Limestone, light-gray, medium-crystalline; trace of milky chert
1906-1912	Shale, black
1912-1915	Limestone, brownish-buff, dense; trace of white dense chert
1915-1920	Limestone, grayish-buff, dense
1920-1932	Limestone, gray, dense
1932-1936	Limestone, gray, dense; white dense to yellow weathered chert
1936-1940	Limestone, gray, dense
1940-1950	Limestone, gray, dense; trace of white to milky chert
1950-1963	Limestone, grayish-buff, dense
1963-1970	Sandstone, white, light-buff, dolomitic, fine- to medium-grained, free drilling in part
1970-1975	Sandstone, white, fine- to medium-grained, cemented with gray finely granular dolomite
1975-1981	Sandstone, white, fine- to medium-grained, free drilling
1981-1982	Shale, black
1982-2001	Sandstone, white, fine- to medium-grained, free drilling
2001-2004	Shale, black
2004-2015	Sandstone, white, slightly limy, fine- to medium-grained, free drilling
2015-2020	Sandstone, white, fine- to medium-grained, free drilling, cemented with gray finely granular dolomite
2020-2035	Sandstone, white, fine- to medium-grained, free drilling
2035-2038	Shale, black
2038-2043	Sandstone, white, fine- to medium-grained, free drilling, cemented with gray finely granular dolomite
2043-2050	Sandstone; small white fragments of sand grains
2050-2055	Sandstone, white, fine- to medium-grained, free drilling
2055-2065	Sandstone; small, white fragments of sand grains
2065-2071	Sandstone, white, fine- to medium-grained, free drilling, cemented with gray very finely granular to dense dolomite
2071-2076	Sandstone, gray, dolomitic, fine- to medium-grained; gray, finely to medium sandy dolomite
2076-2080	Sandstone, gray, dolomitic, fine- to medium-grained
2080-2084	Dolomite, gray, very finely granular; scattered medium sand grains
2084-2095	Sandstone, gray, dolomitic, fine- to medium-grained
2095	TOTAL DEPTH





Depth in feet	Sample description
469- 475	Shale, black
475- 478	Sandstone
478- 480	Shale, black
480- 484	Sandstone
484- 495	Shale, black
495- 505	Shale, black, slightly sandy
505- 535	Shale, black, silty
535- 550	Shale, black
550- 564	Sandstone, grayish-black, silty, fine-grained
564- 579	Shale, black, silty
579- 580	Shale, dull maroon
580- 607	Shale, black
607- 610	Shale, black, silty
610- 660	Shale, black
660- 664	Sandstone, gray, very fine grained
664- 665	Shale, grayish-black
665- 680	Sandstone, buff, very fine grained
680- 683	Shale, black
683- 695	Sandstone, brownish-gray, hard, fine-grained
695- 697	Shale, grayish-black
697- 700	Sandstone, brownish-gray, hard, fine-grained
700- 710	Sandstone, brownish-gray, hard, fine-grained, shaly
710- 715	Sandstone, brownish-gray, hard, fine-grained
715- 730	Sandstone, brownish-gray, hard, fine-grained, shaly
730- 764	Shale, black
764- 787	Sandstone, black, very silty, very fine grained
787- 797	Shale, black, sandy, silty
797- 808	Shale, black
808- 811	Sandstone, black, silty, very fine grained
811- 816	Shale, black
816- 856	Sandstone, grayish-black, limy, fine-grained
856- 860	Shale, black, very finely sandy, silty
860- 865	Shale, black
865- 885	Shale, black, very finely sandy, silty
885- 906	Shale, black
906- 915	Sandstone, black, hard, silty, shaly, fine-grained
915- 950	Sandstone, tannish-white, fine-grained
950-1010	Sandstone, tannish-white, fine- to medium-grained
1010-1038	Sandstone, black, hard, silty, very fine grained
1038-1046	Shale, black, slightly micaceous
1046-1094	Sandstone, black, hard, silty, very fine grained
1094-1114	Shale, black
1114-1118	Sandstone
1118-1120	Shale, black
1120-1145	Sandstone, grayish-black, quartzitic
1145-1155	Shale, black
1155-1160	Sandstone
1160-1189	Alternating beds of black shaly sandstone and black shale
1189-1191	Sandstone
1191-1225	Shale, black
1225-1250	Sandstone, gray, medium-grained
1250-1268	Sandstone, brown, fine- to medium-grained
1268-1280	Sandstone, black, hard, silty, very fine grained
1280-1320	Sandstone, dark-brown, fine-grained
1320-1325	Sandstone, dark-brown, silty, very fine grained
1325-1327	Shale, black

Depth in feet	Sample description
1327-1335	Sandstone, dark-brown, silty, very fine grained
1335-1340	Sandstone, dark-brown, fine-grained
1340-1360	Sandstone, grayish-white, medium-grained
1360-1488	Sandstone, brownish-black, hard, silty, very fine grained
1488-1500	Sandstone, grayish-white, medium-grained
1500-1618	Sandstone, grayish-black, silty, very fine grained
1618-1620	Shale, black
1620-1640	Sandstone, grayish-black, silty, very fine grained
1640-1650	Shale, black, finely sandy, silty
1650-1660	Sandstone, gray, hard, fine-grained
1660-1688	Shale, black, silty
1688-1690	Sandstone
1690-1700	Shale, black, silty
1700-1710	Shale, black
1710-1720	Sandstone, grayish-black, fine-grained
1720-1730	Sandstone, grayish-black, slightly silty, fine-grained
1730-1750	Sandstone, grayish-black, silty, fine-grained
1750-1759	Shale, black
1759-1760	Sandstone
1760-1790	Shale, black
1790-1820	Sandstone, black, silty, very fine grained
1820-1837	Siltstone, black, micaceous
1837-1848	Sandstone, gray, very fine grained
1848-1854	Siltstone, grayish-black
1854-1866	Shale, black, sandy
1866-1875	Sandstone, brown, fine- to medium-grained
1875-1905	Sandstone, grayish-white, fine- to medium-grained
1905-1920	Sandstone, grayish-black, silty, very fine grained
1920-1930	Sandstone, brown, very fine grained
1930-1932	Shale, black
1932-1938	Sandstone, brown, silty, very fine grained
1938-1940	Shale, black
1940-1950	Sandstone, black, silty, very fine grained
1950-1953	Sandstone
1953-1960	Shale, black
1960-1965	Shale, black, silty
1965-1972	Shale, black
1972-1980	Shale, black, silty to very finely sandy
1980-1990	Sandstone, black, hard, very fine grained
1990-2010	(No samples)
2010-2016	Shale, black
2016-2020	Siltstone, black
2020-2030	Shale, black
2030-2038	Shale, black, sandy
2038-2080	Sandstone, grayish-white, very fine grained
2080-2108	Sandstone, black, silty, fine-grained
2108-2114	Shale, black
2114-2115	Sandstone
2115-2118	Shale, black
2118-2120	Sandstone
2120-2130	Sandstone, black, silty, fine-grained
2130-2132	Shale, black
2132-2139	Sandstone, black, silty, fine-grained
2139-2141	Shale, black
2141-2150	Sandstone, black, silty, fine-grained
2150-2153	Sandstone

Depth in feet	Sample description
2153-2187	Shale, black
2187-2190	Sandstone
2190-2274	Alternating thick beds of black silty very fine grained sandstone and black shale
2274-2320	Shale, black, micaceous, very finely sandy in part
2320-2323	Shale, black, micaceous
2323-2335	Sandstone, black, shaly, very silty, very finely micaceous
2335-2344	Shale, black
2344-2365	Sandstone, gray, shaly, very fine grained
2365-2376	Sandstone, gray, slightly shaly and limy, fine- to medium-grained; small black shale fragments
2376-2390	Shale, black, blocky
2390-2430	Shale, black
2430-2440	Shale, black, silty
2440-2481	Shale, black
2481-2533	Alternating thick beds of light-gray micaceous siltstone and black shale
2533-2570	Shale, black
2570-2592	Sandstone, light- to dark-gray, shaly, fine-grained
2592-2621	Shale, black, silty
2621-2646	Siltstone, light-gray, slightly shaly
2646-2648	Shale, black
2648-2650	Sandstone, fine-grained
2650-2662	Shale, black; containing thin beds of fine-grained sandstone
2662-2670	Sandstone, light-gray, fine-grained, free drilling in part
2670-2678	Sandstone, light- to dark-gray, fine-grained
2678-2690	Shale, black
2690-2700	Shale, black, finely to medium sandy
2700-2721	Shale, black
2721-2734	Sandstone, black, shaly, fine-grained
2734-2750	Shale, black, containing thin beds of gray fine-grained sandstone
2750-2765	Shale, black
2765-2785	Shale, black, containing thin beds of gray fine-grained sandstone
2785-2795	Shale, black
2795-2806	Sandstone, gray, slightly shaly, slightly limy, fine- to medium-grained; pyrite
2806-2822	Shale, black
2822-2837	Sandstone, dark-gray, fine- to medium-grained, cemented with silica; shale
2837-2851	Shale, black
2851-2860	Sandstone, dark-gray, shaly, micaceous, silty, very fine grained
2860-2874	Sandstone, brown, micaceous, very fine grained; shale
2874-2884	Shale, black
2884-2898	Shale, black, micaceous, silty
2898-2920	Sand, light-gray, medium, free drilling
2920-2935	Sand, white, coarse, free drilling
2935-2950	Shale, black
2950-2956	Shale, brown, silty
2956-2960	Sandstone, brown, silty
2960-2970	Sandstone, gray, limy, medium- to very coarse grained, free drilling in part
2970-2988	Shale, black, micaceous
2988-2990	Shale, black, micaceous, limy
2990-2995	Limestone, cream-colored, medium to coarsely sandy, finely to medium-crystalline; crinoids; spines
2995-3000	Shale, black
3000-3020	(No samples)
3020-3062	Shale, black, micaceous; pyrite
3062-3070	Siltstone, gray, micaceous
3070-3080	(No samples)
3080-3092	Shale, brown, silty
3092-3140	Shale, black, micaceous
3140-3150	(No samples)

Depth in feet	Sample description
3150-3165	Shale, black, micaceous
3165-3174	Sandstone, white, limy, medium-grained
3174-3182	Limestone, light-gray, medium to finely sandy, crinoidal; cephalopod; oolites
3182-3198	Sandstone, light-gray, fine- to medium-grained; crinoids
3198-3210	Limestone, gray, finely to medium sandy, crinoidal
3210-3229	Sandstone, brown, slightly limy, fine- to medium-grained, free drilling in part
3229-3237	Siltstone, white, micaceous
3237-3250	Sandstone, light-gray, limy, fine- to medium-grained; crinoids
3250-3253	Sandstone
3253-3338	Shale, black
3338-3343	Sandstone, brown, shaly, siliceous, fine- to medium-grained
3343-3350	(No samples)
3350-3360	Sandstone, light-gray, limy, fine- to medium-grained; crinoids
3360-3370	Sandstone, light-gray, slightly limy, fine- to medium-grained, free drilling in part; crinoids
3370-3379	Sandstone, light-gray, limy, fine- to medium-grained; crinoids
3379-3389	Shale, black
3389-3395	Sandstone, light-gray, very silty, very fine grained
3395-3420	Shale, black, micaceous, silty
3420-3428	Sandstone, dark-gray, shaly, fine- to medium-grained; (slickensided shale?)
3428-3447	Shale, black
3447-3470	Sandstone, gray, limy, medium- to coarse-grained; crinoids
3470-3480	Sandstone, gray to dark-gray, shaly, siliceous, fine-grained
3480-3496	Sandstone, light-gray, slightly limy, fine-grained
3496-3528	Siltstone, dark grayish-black, micaceous, shaly
3528-3570	Shale, black, silty
3570-3610	Shale, black
3610-3620	Shale, black, silty, micaceous
3620-3627	Sandstone, dark-gray, shaly, fine-grained
3627-3633	Shale, black, micaceous, silty
3633-3639	Sandstone, dark-gray, shaly, fine-grained
3639-3665	Siltstone, black, shaly, micaceous
3665-3676	Shale, brown
3676-3699	Shale, black
3699-3710	Sandstone, light-gray, slightly limy, fine-grained, free drilling in part
3710-3716	Shale, black
3716-3724	Sandstone, light-gray, very slightly limy, fine-grained
3724-3725	Shale, grayish-black
3725-3738	Sandstone, dark grayish-black, shaly, fine-grained
3738-3740	Shale, black
3740-3750	(No samples)
3750-3755	Shale, black
3755-3773	(No samples)
3773-3794	Shale, black
3794-3799	Sandstone, dark-gray, shaly, fine-grained
3799-3805	Shale, black
3805-3810	Sandstone, dark-gray, shaly, fine-grained
3810-3849	Shale, black, finely sandy
3849-3858	Sandstone, dark-gray, shaly, fine-grained
3858-3882	Shale, black, finely sandy
3882-3887	Sandstone, black, shaly, fine-grained
3887-3910	Shale, black
3910-3940	Shale, black, silty
3940-3950	Shale, black; pyrite
3950-3958	Shale, black
3958-3960	Limestone, black; crinoids; brachiopods
3960-3965	Shale, black

Depth in feet	Sample description
3965-3968	Limestone, black; crinoids; brachiopods
3968-3980	Shale, limy
3980-3981	Limestone, black, finely crystalline; black oolites
3981-3995	Shale, black, limy
3995-3999	Limestone, black, oolitoid
3999-4010	Shale, black, limy
4010-4018	Limestone, black, oolitoid
4018-4038	Shale, black, limy
4038-4068	Shale, black
4068-4079	Limestone, black, finely to coarsely crystalline; crinoids; brachiopods; black pellets
4079-4085	Shale, black
4085-4105	Shale, black, limy
4105-4110	Limestone, gray, coarsely crystalline, glauconitic; crinoids
4110-4120	Limestone, white with fine black spots, finely crystalline; cream-colored finely crystalline limestone; trace of pale smoky chalcedony
4120	TOTAL DEPTH

## SCOTT COUNTY (1)

Operator: Residue Co.

Elevation: 680 ft.

Well No.: 1

Total depth: 8675 ft.

Lease: Mansfield Gas Co.

Completion date: ?

Location: NW $\frac{1}{4}$  SE $\frac{1}{4}$  NW $\frac{1}{4}$  sec. 6, T. 4 N.,  
R. 30 W.

Logged by: S. E. Frezon

Depth in feet	Sample description
0- 30	Shale, dark-gray, finely micaceous; trace of silt
30- 185	Shale, dark-gray, finely micaceous
185- 210	(No samples)
210- 226	Shale, dark-gray, finely micaceous, containing brownish-black hard pyritic very dolomitic zones
226- 261	(No samples)
261- 270	Sandstone, gray to light-gray, limy, fine-grained
270- 367	(No samples)
367- 380	Shale, dark-gray, finely micaceous, very silty, very finely sandy
380- 409	Shale, dark-gray, finely micaceous, silty
409- 414	(No samples)
414- 417	Shale as above
417- 421	(No samples)
421- 510	Shale as above
510- 535	Shale as above, and finely sandy
535- 581	(No samples)
581- 630	Shale, dark-gray, finely micaceous, silty
630- 650	(No samples)
650- 686	Shale, dark-gray, finely micaceous, slightly silty
686- 748	(No samples)
748- 790	Shale, dark-gray, finely micaceous
790- 795	(No samples)
795- 807	Shale as above
807- 833	(No samples)
833- 840	Shale, dark-gray to grayish-black, very finely micaceous
840- 870	Shale, dark-gray, finely micaceous, silty
870- 904	Shale, dark-gray, finely micaceous, silty, very finely sandy
904- 933	Sandstone, light-gray, micaceous, very fine grained; dark-gray micaceous shale partings
933- 950	Shale, black, micaceous, silty
950- 990	Sandstone, light-gray, micaceous, very fine grained; dark-gray micaceous shale partings
990-1010	Sandstone, light-gray, micaceous, very fine to fine-grained
1010-1030	Sandstone, gray to light-gray, micaceous, very fine to fine-grained; dark-gray micaceous shale partings
1030-1048	Shale, dark-gray, micaceous, silty
1048-1070	Sandstone, gray, micaceous, very fine to fine-grained; black micaceous shale partings
1070-1093	Shale, dark-gray, finely micaceous, very silty and very finely sandy
1093-1099	(No samples)
1099-1111	Sandstone, light-gray, micaceous, very fine to fine-grained; dark-gray micaceous shale partings
1111-1130	(No samples)
1130-1140	Sandstone, gray to light-gray, micaceous, shaly, very fine to fine-grained
1140-1160	Sandstone, light-gray, micaceous, very slightly silty, very fine to fine-grained
1160-1177	Sandstone, light-gray, micaceous, very fine to fine-grained
1177-1200	Sandstone, gray to light-gray, micaceous, very fine to fine-grained; dark-gray micaceous shale partings
1200-1210	Sandstone, light-gray, micaceous, very fine to fine-grained
1210-1219	Sandstone as above; dark-gray micaceous shale partings
1219-1235	Shale, dark-gray, finely micaceous, sandy at top, silty
1235-1298	Shale, dark gray, finely micaceous
1298-1330	(No samples)

Depth in feet	Sample description
1330-1340	Shale, gray to dark-gray, finely micaceous, very finely sandy
1340-1350	Sandstone, gray, micaceous, shaly, very fine to fine-grained
1350-1380	Sandstone, light- to very light gray, micaceous, slightly shaly, very fine to fine-grained
1380-1389	Sandstone, light-gray, very fine to fine-grained, friable
1389-1395	(No samples)
1395-1400	Sandstone as above
1400-1428	Shale, dark gray, micaceous, silty, very finely to finely sandy in part
1428-1450	(No samples)
1450-1502	Shale, dark-gray, finely micaceous, silty; quartzitic, very fine grained sandstone
1502-1531	(No samples)
1531-1605	Shale, dark-gray, micaceous, silty
1605-1628	(No samples)
1628-1655	Shale, dark-gray, finely micaceous, silty
1655-1660	Shale dark-gray, finely micaceous, silty, very finely sandy
1660-1670	(No samples)
1670-1685	Shale, dark-gray, finely micaceous, silty
1685-1690	Shale as above; very fine grained sandstone
1690-1710	Sandstone, gray, silty, shaly, very fine to fine-grained
1710-1725	(No samples)
1725-1772	Sandstone, gray, micaceous, silty, shaly, very fine to fine-grained
1772-1801	(No samples)
1801-1852	Shale, dark-gray, finely micaceous, very silty
1852-1875	(No samples)
1875-1936	Shale, gray, finely micaceous, very silty, very finely sandy
1936-1955	(No samples)
1955-1981	Shale, dark-gray, finely micaceous, silty, very finely sandy in part
1981-1990	(No samples)
1990-2021	Shale, dark-gray, finely micaceous, silty
2021-2040	(No samples)
2040-2120	Shale, dark-gray, micaceous, silty
2120-2130	(No samples)
2130-2145	Shale as above
2145-2181	(No samples)
2181-2254	Shale, dark-gray, finely micaceous, slightly silty
2254-2288	(No samples)
2288-2317	Shale, dark-gray, finely micaceous, silty
2317-2340	(No samples)
2340-2406	Shale, dark-gray, finely micaceous, slightly silty
2406-2445	(No samples)
2445-2517	Shale as above
2517-2545	(No samples)
2545-2580	Shale as above
2580-2590	Shale as above, very finely to finely sandy
2590-2600	Shale, dark-gray, finely micaceous, slightly silty
2600-2641	(No samples)
2641-2691	Shale, dark-gray, finely micaceous, silty
2691-2708	(No samples)
2708-2720	Shale, dark-gray, finely micaceous, slightly silty
2720-2734	(No samples)
2734-2762	Shale as above; gray to dark-gray, finely crystalline to finely granular limestone
2762-2790	(No samples)
2790-2824	Shale, dark-gray, finely micaceous, slightly silty; trace of anhydrite(?)
2824-2829	(No samples)
2829-2870	Shale, dark-gray, micaceous, slightly silty; trace of anhydrite
2870-2885	(No samples)
2885-3000	Shale, dark-gray, finely micaceous, slightly silty



Depth in feet	Sample description
3000-3150	Shale, dark-gray, finely micaceous
3150-3180	Shale, dark-gray, micaceous, silty, very finely sandy
3180-3290	Shale, dark-gray, micaceous, silty
3290-3320	Shale, dark-gray
3320-3630	Alternating thick beds of dark-gray finely micaceous silty shale and dark-gray, finely micaceous, silty, very finely sandy shale
3630-3700	Shale, dark-gray, micaceous, silty
3700-3840	Shale, dark-gray, slightly silty, finely micaceous
3840-3860	Shale, dark-gray, slightly silty, very finely to finely sandy, finely micaceous
3860-4000	Shale, dark-gray, slightly silty, finely micaceous
4000-4010	Shale, dark-gray, silty, finely micaceous
4010-4020	Shale as above, very finely to finely sandy in part
4020-4205	Shale, dark-gray, silty, finely micaceous
4205-4250	Shale, dark-gray, finely micaceous
4250-4260	Shale, dark-gray, silty, finely micaceous, very finely sandy
4260-4410	Shale, dark-gray, silty, finely micaceous
4410-4435	Shale, dark-gray, finely micaceous
4435-4500	Shale, dark-gray, silty, finely micaceous
4500-4510	Shale as above; trace of gray, finely crystalline to finely granular limestone
4510-4750	Shale, dark-gray, finely micaceous, silty
4750-4760	Shale, dark-gray, finely micaceous, silty, very finely to finely sandy
4760-5000	Shale, dark-gray, finely micaceous, silty
5000-5100	Shale, dark-gray, very finely micaceous, slightly silty
5100-5160	Shale, dark-gray, very finely micaceous
5160-5170	Shale, dark-gray, very finely micaceous, very finely sandy
5170-5218	Shale, dark-gray, very finely micaceous
5218-5223	Shale, dark-gray, very finely micaceous, very finely sandy
5223-5338	Shale, dark-gray, finely micaceous
5338-5343	Shale, dark-gray, finely micaceous, finely sandy
5343-5379	Shale, dark-gray, finely micaceous
5379-5386	Sandstone, light-gray, micaceous, fine grained
5386-5410	Shale, dark-gray, finely micaceous, slightly silty
5410-5453	Alternating beds of gray to light-gray micaceous fine-grained sandstone and dark-gray, finely micaceous, slightly silty shale
5453-5500	Shale, dark-gray, micaceous, silty
5500-5505	Shale, dark-gray, micaceous, very silty, very finely to finely sandy
5505-5530	Shale, dark-gray, micaceous, very silty
5530-5540	Shale, dark-gray, micaceous, very silty, very finely to finely sandy
5540-5550	Shale, dark-gray, micaceous, very silty
5550-5556	Shale, dark-gray, very finely micaceous
5556-5570	Sandstone, light-gray, slightly micaceous, very fine grained
5570-5593	Shale, dark-gray, finely micaceous, silty
5593-5598	Sandstone, light-gray, very fine to fine-grained
5598-5607	Shale, dark-gray, finely micaceous
5607-5610	Sandstone, light-gray, very fine to fine-grained
5610-5640	Shale, dark-gray, finely micaceous, silty, sandy
5640-5646	Sandstone, light-gray, very fine to fine-grained
5646-5665	Shale, dark-gray, finely micaceous, silty
5665-5675	Shale, dark-gray, finely micaceous, silty, very finely to finely sandy
5675-5690	Shale, dark-gray, finely micaceous, silty
5690-5700	Shale, dark-gray, finely micaceous, silty, very finely to finely sandy
5700-5840	Shale, dark-gray, finely micaceous, silty
5840-5850	Shale, dark-gray, finely micaceous, silty, very slightly sandy
5850-5853	Sandstone, light-gray, very fine to fine-grained
5853-5870	Shale, dark-gray, finely micaceous, silty
5870-5880	Shale, dark-gray, finely micaceous, silty, slightly sandy

Depth in feet	Sample description
5880-5884	Sandstone, light-gray, very fine to fine-grained
5884-5892	Shale, dark-gray, micaceous, silty, slightly sandy
5892-5920	Shale, dark-gray, micaceous, silty
5920-5929	Sandstone, light-gray, slightly silty and micaceous, very fine grained
5929-5990	Shale, dark-gray, silty, micaceous, interbedded with thin layers of light-gray very fine grained sandstone
5990-6000	Sandstone, light-gray, very fine to fine-grained
6000-6005	Shale, dark-gray, silty, micaceous
6005-6018	Sandstone, light-gray, very fine to fine-grained
6018-6025	Shale, dark-gray, finely micaceous, silty
6025-6106	Alternating beds of light-gray slightly micaceous very fine to fine-grained sandstone and dark-gray finely micaceous silty shale
6106-6136	Shale as above
6136-6139	Sandstone, gray, quartzitic, very fine to fine-grained
6139-6165	Shale, dark-gray, very finely micaceous, slightly silty
6165-6179	Sandstone, light-gray, slightly micaceous, very fine to fine-grained
6179-6183	Shale, dark-gray, very finely micaceous, slightly silty
6183-6194	Sandstone, light-gray, finely micaceous, very fine to fine-grained
6194-6196	Shale, dark-gray, very finely micaceous, slightly silty
6196-6200	Sandstone, light-gray, finely micaceous, very fine to fine-grained
6200-6204	Shale, dark-gray, finely micaceous, silty
6204-6301	Alternating beds of light gray, micaceous very fine to fine-grained sandstone and dark-gray finely micaceous silty shale
6301-6317	Shale, dark-gray, finely micaceous, silty
6317-6321	Sandstone, gray to light-gray, slightly micaceous, very fine to fine-grained; trace of pyrite
6321-6340	Shale, dark-gray, finely micaceous, silty
6340-6350	Shale as above, slightly sandy
6350-6353	Sandstone, gray to light-gray, slightly silty, micaceous, very fine to fine-grained
6353-6360	Shale, dark-gray, finely micaceous, silty
6360-6363	Sandstone, gray to light-gray, very fine to fine-grained
6363-6365	Shale, dark-gray, finely micaceous
6365-6372	Sandstone, gray to light-gray, very fine to fine-grained
6372-6393	Shale, dark-gray, finely micaceous, silty, very finely to finely sandy
6393-6396	Sandstone, light-gray, micaceous, very fine to fine-grained
6396-6405	Shale, dark-gray, micaceous, silty
6405-6408	Sandstone, light-gray, micaceous, very fine to fine-grained
6408-6410	Shale, dark-gray, micaceous, silty
6410-6418	Sandstone, light-gray, micaceous, very fine to fine-grained
6418-6454	Shale, dark-gray, finely micaceous, silty
6454-6463	Sandstone, gray to light-gray, micaceous, silty, very fine to fine-grained
6463-6493	Shale, dark-gray, finely micaceous, silty
6493-6497	Sandstone, gray to light-gray, micaceous, silty, very fine grained
6497-6532	Shale, dark-gray, finely micaceous, silty
6532-6542	Sandstone, gray to light-gray, micaceous, slightly silty, very fine to fine-grained; dark-gray slightly limy sandstone
6542-6544	Shale, dark-gray, finely micaceous, silty
6544-6565	Sandstone, gray to light-gray, micaceous, slightly silty, very fine to fine-grained; dark-gray slightly limy sandstone
6565-6568	Shale, dark-gray, finely micaceous, silty
6568-6570	Sandstone, gray to light-gray, micaceous, slightly silty, very fine to fine-grained; dark-gray slightly limy sandstone
6570-6593	Shale, dark-gray, finely micaceous, silty
6593-6596	Sandstone, gray to light-gray, micaceous, slightly silty, very fine to fine-grained; dark-gray slightly limy sandstone
6596-6612	Shale, dark-gray, finely micaceous, silty
6612-6743	Alternating beds of light- to dark-gray micaceous very fine to fine-grained sandstone and dark-gray finely micaceous silty shale

Depth in feet	Sample description
6743-6750	Shale, dark-gray, micaceous, silty; trace of brown to gray, dense to finely granular limestone
6750-6752	Limestone, light olive-gray, finely crystalline to finely granular; fine sand and green shale; bryozoa
6752-6760	Sandstone, fine-grained
6760-6808	Alternating beds of dark-gray finely micaceous silty shale and gray to light-gray micaceous very fine to fine-grained sandstone
6808-6837	Shale, dark-gray, silty, sandy, micaceous
6837-6840	Sandstone, gray to light-gray, micaceous, very fine to fine-grained
6840-6851	Shale, dark-gray, silty, micaceous
6851-6860	Sandstone, gray to dark-gray, silty, micaceous, very fine to fine-grained
6860-6875	Shale, dark-gray, silty, sandy, micaceous
6875-6880	Sandstone, gray to dark-gray, silty, micaceous, very fine to fine-grained
6880-6890	Shale, dark-gray, silty, micaceous
6890-6892	Sandstone, gray to dark-gray, micaceous, very fine to fine-grained
6892-6903	Shale, dark-gray, silty, micaceous
6903-6906	Sandstone, gray to light-gray, micaceous, very fine to fine-grained
6906-6925	Shale, dark-gray, silty, micaceous
6925-6930	Shale, dark-gray, silty, micaceous, slightly sandy
6930-6932	Sandstone, gray to light-gray, micaceous, very fine to fine-grained
6932-6940	Shale, dark-gray, silty, micaceous, slightly sandy
6940-6971	Shale, dark-gray, silty, micaceous
6971-6973	Sandstone, gray to light-gray, micaceous, very fine to fine-grained
6973-7002	Shale, dark-gray, micaceous, silty, sandy
7002-7006	Sandstone, gray to light-gray, micaceous, very fine to fine-grained
7006-7020	Shale, dark-gray, micaceous, silty, sandy
7020-7040	Shale, dark-gray, finely micaceous
7040-7042	Sandstone, gray to light-gray, micaceous, very fine to fine-grained
7042-7054	Shale, dark-gray, finely micaceous
7054-7110	Alternating beds of light- to dark-gray, very fine to fine-grained sandstone and dark-gray finely micaceous shale
7110-7132	Sandstone, light- to dark-gray, silty, very fine to fine-grained; coarsely to very coarsely crystalline quartz; interbedded at the center with a 5 ft. layer of dark-gray finely micaceous shale
7132-7180	Shale, dark-gray, finely micaceous, silty, containing gray to light-gray micaceous very fine grained sandstone
7180-7205	Shale, dark-gray, micaceous, slightly silty
7205-7277	Shale, dark-gray, micaceous, slightly silty, containing thin beds of micaceous very fine to fine-grained sandstone
7277-7280	Sandstone, micaceous, very fine to fine-grained
7280-7340	Shale, dark-gray, micaceous, slightly silty, containing thin beds of micaceous very fine to fine-grained sandstone
7340-7350	Shale, dark-gray, micaceous, slightly silty
7350-7370	Shale, dark-gray, micaceous, slightly silty, containing thin beds of micaceous very fine to fine-grained sandstone
7370-7387	Shale, dark-gray, micaceous, slightly silty
7387-7390	Sandstone, micaceous, very fine to fine-grained
7390-7400	Shale, dark-gray, micaceous, slightly silty, containing thin beds of micaceous very fine to fine-grained sandstone
7400-7490	Shale, dark-gray, finely micaceous, silty, containing thin beds of gray to light-gray micaceous very fine grained sandstone
7490-7495	Sandstone, gray to light-gray, micaceous, very fine grained
7495-7502	Shale, dark-gray, finely micaceous, silty, containing thin beds of sandstone as above
7502-7515	Shale, dark-gray, finely micaceous, silty
7515-7520	Sandstone, gray to light-gray, micaceous, very fine grained
7520-7600	Shale, dark-gray, finely micaceous, silty, containing thin beds of sandstone as above
7600-7610	Shale, dark-gray, finely micaceous, silty
7610-7615	Shale, dark-gray, finely micaceous, silty, containing thin beds of gray to light-gray micaceous very fine grained sandstone

Depth in feet	Sample description
7615-7630	Shale, dark-gray, finely micaceous, silty
7630-7690	Shale, dark-gray, finely micaceous, silty, containing thin beds of gray to light-gray micaceous very fine grained sandstone
7690-7730	Shale, dark-gray, finely micaceous, silty
7730-7800	Shale as above, containing thin beds of gray to light-gray very fine to fine-grained sandstone
7800-7880	Shale as above; trace of gray to light-gray very fine to fine-grained sandstone
7880-7894	Shale, dark-gray, micaceous, silty
7894-7896	Sandstone, gray to light-gray, very fine to fine-grained
7896-7904	Shale, dark-gray, micaceous, silty
7904-7906	Sandstone, gray to light-gray, very fine to fine-grained
7906-7925	Shale, dark-gray, micaceous, silty
7925-7960	Shale as above; trace of gray to light-gray very fine to fine-grained sandstone
7960-7990	Shale, dark-gray, micaceous, silty
7990-8010	Shale, dark-gray, finely micaceous, slightly silty; trace of gray to light-gray micaceous very fine grained sandstone
8010-8300	Shale, dark-gray, finely micaceous, slightly silty, interbedded in thick layers with dark-gray finely micaceous slightly silty shale containing a trace of gray to light-gray micaceous very fine grained sandstone
8300-8310	Shale, dark-gray to black, micaceous, silty
8310-8320	Shale, dark-gray to black, micaceous, silty; trace of gray to light-gray micaceous very fine to fine-grained sandstone
8320-8390	Shale, dark-gray to black, micaceous, silty, interbedded with dark-gray to black micaceous silty shale containing a trace of gray to light-gray micaceous very fine to fine-grained sandstone
8390-8434	Shale as above containing a trace of sandstone as above in the lower 15 ft.
8434-8437	Sandstone, light- to dark-gray, micaceous, very fine to fine-grained
8437-8450	Shale, dark-gray, finely micaceous, silty; trace of light- to dark-gray micaceous very fine to fine-grained sandstone
8450-8468	Shale, dark-gray, finely micaceous, silty
8468-8471	Sandstone, light- to dark-gray, micaceous, very fine to fine-grained
8471-8480	Shale, dark-gray, finely micaceous, silty
8480-8482	Sandstone, light- to dark-gray, micaceous, very fine to fine-grained
8482-8493	Shale, dark-gray, finely micaceous, silty, sandy
8493-8530	Sandstone, light- to dark-gray, micaceous, very fine to fine-grained, interbedded with dark-gray finely micaceous silty shale
8530-8540	Shale, dark-gray, finely micaceous, silty, sandy
8540-8570	Shale, dark-gray, finely micaceous, silty, interbedded with light- to dark-gray micaceous very fine to fine-grained sandstone
8570-8577	Shale, dark-gray, finely micaceous, silty, sandy
8577-8580	Sandstone, light- to dark-gray, micaceous, very fine to fine-grained
8580-8610	Shale, dark-gray, finely micaceous, silty, interbedded with light- to dark-gray micaceous, very fine to fine-grained sandstone
8610-8655	Shale, dark-gray, finely micaceous, silty, sandy, interbedded with light- to dark-gray micaceous, very fine to fine-grained sandstone
8655-8660	Shale, dark-gray, finely micaceous, silty
8660-8675	(No samples)
8675	TOTAL DEPTH

## SEARCY COUNTY (1)

Operator: Town of Marshall	Elevation: 1090 ft. (Est.)
Well No.: 3	Total depth: 2415 ft.
Lease: Water well	Completion date: 1948
Location: SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 15 N., R. 16 W.	Logged by: J. C. Maher

### Formation Tops

	Depth (ft.)
Boone formation	23
Silurian rocks undifferentiated	398
Cason shale	454
Fernvale limestone	468
Plattin limestone	480
St. Peter sandstone	545
Everton formation	590
Powell dolomite	1185
Cotter dolomite	1400
Jefferson City dolomite	1770
Roubidoux formation	2135 (?)
Gasconade dolomite	2366

Depth  
in feet

Sample description

0-	23	(No samples)
23-	27	Limestone, gray-mottled buff, slightly glauconitic, medium-crystalline; buff dense chert
27-	30	Dolomite, pinkish-buff to buff, finely crystalline
30-	35	Dolomite, pinkish-buff to buff, finely crystalline; buff spicular chert
35-	40	Dolomite, cream-colored, finely crystalline; tan-mottled white dense chert
40-	45	Limestone, white, finely crystalline; brachiopods
45-	50	Limestone, white, finely crystalline
50-	51	Dolomite, gray-white, finely granular; some thin beds of buff finely crystalline dolomite
51-	53	Limestone, buff, finely crystalline
53-	60	Dolomite, white, finely granular; small crinoids
60-	70	Dolomite, white, finely granular
70-	75	Limestone, light-buff, crinoidal, finely to medium-crystalline
75-	85	Limestone, light-buff, crinoidal, finely to medium-crystalline; trace of glauconite
85-	120	Limestone, light-buff, crinoidal, finely to medium-crystalline
120-	130	Dolomite, white, finely granular, limy
130-	133	Limestone, light-buff, finely crystalline; trace of white milky chert
133-	140	Limestone, white, very crinoidal, finely crystalline
140-	145	Limestone, white, very crinoidal, finely crystalline; brachiopods
145-	150	Limestone, cream-colored, crinoidal
150-	155	Limestone, buff, finely to medium-crystalline; dull-white semi-granular finely spicular chert
155-	160	Limestone, buff, finely crystalline
160-	165	Dolomite, cream-colored, limy; dull-white semi-granular chert
165-	170	Dolomite, cream-colored, finely granular; white dense chert

Depth in feet	Sample description
170- 175	Dolomite, cream-colored, finely granular
175- 180	Dolomite, cream-colored, very finely glauconitic, finely granular to finely crystalline; pyrite; spines
180- 185	Dolomite, cream-colored, very finely glauconitic, finely granular to finely crystalline; spines
185- 190	Dolomite, white, finely granular; white dense chert; spines
190- 200	Dolomite, white, finely granular; white semi-granular chert
200- 204	Dolomite, bone-white, very siliceous, finely glauconitic, finely granular to finely crystalline
204- 240	Dolomite, bone-white, very siliceous, finely granular to finely crystalline
240- 250	Limestone, bone-white, siliceous; white dense chert
250- 265	Limestone, bone-white, siliceous
265- 275	Limestone, bone-white, siliceous; some white dense chert; pyrite
275- 290	Limestone, bone-white, siliceous; white spicular chert
290- 300	Limestone, bone-white, siliceous; white spicular chert; grayish-white dense chert
300- 310	Limestone, bone-white, siliceous; white dense chert
310- 326	Limestone, cream-colored, finely crystalline; white dense chert
326- 335	Dolomite, white, finely granular; white dense chert
335- 350	Dolomite, cream-colored, finely granular; grayish-white dense chert
350- 365	Limestone, brown, finely granular to finely crystalline; grayish-white to smoky dense chert with black inclusions
365- 370	Limestone, cream-colored, finely granular to finely crystalline; some cream-colored dense chert
370- 375	Limestone, white, chalky; little white dense chert
375- 380	Limestone, white, chalky; trace of very fine glauconite
380- 384	Limestone, white, chalky, with few fine round sand grains
384- 390	Limestone, brown, pyritic, finely crystalline, with thin layers of dark-green finely glauconitic shale
390- 396	Limestone, gray-buff, pyritic, with abundant pink calcite crystals and crinoids
396- 398	Sandstone, gray, subangular to subround, pyritic
398- 400	Limestone, brown, finely crystalline; brown dense chert; brachiopods
400- 410	Limestone, brown, finely crystalline
410- 420	Limestone, brown, finely crystalline, with pink calcite crystals; pyrite
420- 425	Limestone, buff, finely crystalline, with pink calcite crystals
425- 430	Limestone, cream-colored to buff, finely crystalline, with pink calcite crystals; pyrite
430- 446	Limestone, buff, crinoidal, with pink calcite crystals; pyrite
446- 450	Limestone, white, finely crystalline, with pink calcite crystals; oolite objects
450- 454	Limestone, white, finely crystalline
454- 455	Sandstone, grayish-green, pyritic, glauconitic, slightly limy, very fine grained
455- 466	Shale, black
466- 468	Shale, pale-green, pyritic, with black phosphate pellets
468- 480	Limestone, white, coarsely crystalline; trace of pink calcite
480- 490	Limestone, buff, finely crystalline
490- 508	Dolomite, buff-brown, finely granular
508- 510	Dolomite, buff-brown, finely crystalline
510- 533	Limestone, brown, finely crystalline to dense
533- 535	Shale, gray, hard, limy
535- 545	Limestone, brown, finely crystalline to dense
545- 550	Sandstone, white, subround, slightly frosted, slightly limy, fine-grained; pyrite
550- 590	Sandstone, white, limy, pyritic, fine- to medium-grained; grains are subround and frosted
590- 592	Limestone, white, finely crystalline
592- 606	Dolomite, brown, sandy, finely granular; dolomite has white subround medium-sized sand grains scattered in it
606- 607	Sandstone, white, fine- to medium-grained, with subround and frosted grains
607- 616	Dolomite, buff, medium-crystalline
616- 617	Sandstone, white, fine-grained
617- 620	Dolomite, brown, very finely granular, in part sandy; bluish-green shale fragments; brown coarsely crystalline dolomite
620- 628	Dolomite, brown, finely granular to finely crystalline
628- 630	Dolomite, gray, slightly silty, very finely granular
630- 635	Dolomite, buff to brown, very sandy, medium-crystalline; contains white subround medium-sized sand grains

Depth in feet	Sample description
635- 644	Dolomite, buff, very sandy (40-50 per cent sand)
644- 650	Dolomite, dark-brown, almost resinous, finely granular; trace of white mineral dolomite
650- 657	Dolomite, brown, finely to medium-crystalline; white calcite crystals
657- 665	Dolomite, brown, finely granular
665- 670	Dolomite, brown, medium-crystalline
670- 674	Dolomite, brown, finely sandy
674- 676	Sandstone, white, limy, fine-grained
676- 682	Dolomite, brown, finely sandy
682- 684	Sandstone, white, fine- to medium-grained
684- 695	Dolomite, dark-brown, finely granular
695- 696	Sandstone, white, fine-grained
696- 700	Dolomite, drab, shaly, and dolomitic mudstone
700- 705	Dolomite, brown, sandy; contains white subround medium-sized sand grains
705- 712	Dolomite, dark-brown, finely crystalline
712- 717	Dolomite, brown, sandy
717- 718	Sandstone, white, medium-grained
718- 720	Dolomite, brown, finely crystalline
720- 732	Dolomite, brown, shaly, or dolomitic mudstone
732- 736	Sandstone, tan, dolomitic, fine-grained, and white fine-grained sandstone with white silica cement
736- 740	Dolomite, brown, silty
740- 744	Dolomite, buff-brown, very sandy
744- 746	Sandstone, white, fine-grained
746- 750	Dolomite, buff-brown, very sandy
750- 758	Dolomite, buff, finely granular
758- 760	Dolomite, buff, finely granular; some buff sandy dolomite
760- 764	Dolomite, buff, sandy, finely granular
764- 770	Dolomite, buff, very finely granular
770- 776	Dolomite, buff, very finely granular, with some white calcite crystals
776- 786	Dolomite, very dark brown, finely granular
786- 792	Dolomite, very dark brown, finely granular; thin layers of black dolomitic shale
792- 802	Dolomite, brown, finely granular; calcite
802- 806	Dolomite, buff, sandy
806- 818	Dolomite, dark-brown, finely granular
818- 820	Dolomite, tan, very finely granular
820- 824	Dolomite, tan to buff, sandy
824- 830	Dolomite, brown, finely crystalline
830- 837	Dolomite, buff, finely crystalline
837- 842	Dolomite, brown, finely granular
842- 844	Sandstone, white, fine- to medium-grained, with subround grains showing some secondary growth
844- 850	Dolomite, brown, finely crystalline
850- 855	Dolomite, brown, sandy
855- 860	Dolomite, brown, finely granular
860- 866	Dolomite, brown, finely granular, with pin-point porosity
866- 870	Dolomite, very dark brown, resinous, very finely granular
870- 875	Dolomite, brown, sandy
875- 880	Dolomite, brown, resinous, very finely granular
880- 885	Dolomite, brown, very finely sandy, very finely granular
885- 890	Dolomite, brown, finely crystalline
890- 895	Dolomite, buff, medium-crystalline
895- 900	Dolomite, buff, medium-crystalline, with thin layers of white fine-grained sandstone
900- 901	Sandstone, white, fine-grained
901- 907	Dolomite, buff, sandy
907- 908	Sandstone, white, fine-grained
908- 918	Dolomite, buff to brown, finely to medium-crystalline
918- 920	Sandstone, white, fine-grained
920- 927	Dolomite, buff, finely crystalline

Depth in feet	Sample description
927- 930	Dolomite, buff, with medium-sized subround sand grains included
930- 945	Dolomite, buff, sandy
945- 950	Dolomite, buff, finely granular to finely crystalline
950- 960	Dolomite, buff, finely crystalline
960- 970	Dolomite, buff, sandy
970- 977	Dolomite, buff, medium-crystalline, sandy
977- 980	Dolomite, buff, finely sandy
980- 981	Sandstone, white, fine-grained
981- 993	Dolomite, buff, very finely granular
993- 995	Sandstone, white, fine- to medium-grained
995-1001	Sandstone, white, dolomitic, fine- to medium-grained
1001-1016	Limestone, buff, finely crystalline
1016-1020	Limestone, white, sandy
1020-1026	Sandstone, white, slightly limy, fine- to medium-grained
1026-1030	Limestone, buff, finely crystalline, containing tan oolites
1030-1033	Dolomite, buff, medium-crystalline
1033-1036	Sandstone, white, fine- to medium-grained
1036-1041	Dolomite, buff, finely granular, slightly sandy
1041-1045	Sandstone, white, dolomitic, fine- to medium-grained
1045-1050	Dolomite, buff, medium-crystalline, with a thin seam of green shale
1050-1055	Dolomite, buff, medium-crystalline to coarsely crystalline
1055-1060	Dolomite, buff, finely granular
1060-1067	Dolomite, buff, finely crystalline to finely granular
1067-1076	Sandstone, white, fine- to medium-grained
1076-1080	Dolomite, buff-brown, very sandy
1080-1085	Dolomite, brown, very finely granular
1085-1090	Dolomite, brown, very finely granular, with white siliceous oolites and sandstone grains cemented in white silica
1090-1094	Sandstone, white, siliceous
1094-1099	Dolomite, buff, sandy
1099-1100	Shale, dark-green
1100-1103	Dolomite, buff-brown, very finely granular
1103-1104	Shale, gray, dolomitic
1104-1115	Dolomite, buff-brown, very finely granular; calcite crystals
1115-1120	Dolomite, very dark brown to black, silty
1120-1125	Dolomite, buff to brown, very finely granular
1125-1130	Dolomite, buff, very finely granular
1130-1135	Dolomite, buff, medium-crystalline to coarsely crystalline, with included subround sand grains
1135-1140	Dolomite, buff, finely crystalline, with included sand grains
1140-1145	Dolomite, buff, finely crystalline
1145-1150	Dolomite, buff, finely crystalline; grayish-white chert
1150-1155	Dolomite, buff, medium-crystalline, sandy
1155-1163	Dolomite, buff, finely crystalline; some sandy dolomite
1163-1165	Dolomite, cream-colored, very finely granular
1165-1185	Dolomite, cream-colored, very finely granular, with scattered fine sand grains
1185-1187	Shale, gray, black
1187-1192	Dolomite, cream-colored, very finely granular
1192-1194	Shale, grayish-black
1194-1197	Dolomite, cream-colored, very finely granular
1197-1199	Like overlying beds but with grayish-black shale partings and green shale partings
1199-1219	Dolomite, cream-colored, very finely granular
1219-1220	Shale green, waxy
1220-1224	Dolomite, buff, finely granular; some black shale seams
1224-1226	Shale, black
1226-1229	Dolomite, gray, finely granular; some included sand grains
1229-1230	Shale, black



Depth in feet	Sample description
1230-1243	Dolomite, gray, finely granular; some included sand grains
1243-1250	Shale, gray-black, slightly dolomitic
1250-1256	Dolomite, buff to brown, finely granular
1256-1257	Shale, gray-black
1257-1262	Dolomite, buff, medium-crystalline; cream-colored very finely granular dolomite
1262-1264	Shale, dark-brown to black
1264-1275	Dolomite, gray to buff, finely granular
1275-1277	Shale, dark-brown to black
1277-1280	Dolomite, buff, very finely granular
1280-1284	Dolomite, buff, medium- to coarsely crystalline
1284-1296	Dolomite, cream-colored, granular
1296-1298	Shale, dark-brown to black
1298-1306	Dolomite, cream-colored, granular
1306-1308	Shale, dark-brown to black
1308-1313	Dolomite, cream-colored, granular
1313-1315	Shale, dark-brown to black
1315-1320	Dolomite, cream-colored, finely crystalline
1320-1325	Dolomite, cream-colored, finely granular
1325-1330	Dolomite, cream-colored, finely granular; grayish-buff dense chert
1330-1335	Dolomite, buff, finely crystalline
1335-1340	Dolomite, buff, finely crystalline; gray dense chert; white dense chert
1340-1342	Dolomite, gray-buff, finely crystalline
1342-1344	Shale, bluish-green
1344-1350	Dolomite, brown, finely crystalline
1350-1360	Dolomite, buff, finely crystalline; thin seams of light-green shale
1360-1365	Dolomite, buff, finely granular
1365-1370	Dolomite, buff, granular
1370-1374	Dolomite, buff, medium-crystalline; pyrite
1374-1380	Dolomite, buff, finely to medium-crystalline; tan and brown banded dense chert
1380-1390	Dolomite, cream-colored, very finely granular
1390-1400	Dolomite, gray, silty
1400-1405	Dolomite, dark-buff, finely crystalline
1405-1410	Dolomite, dark-buff, finely crystalline; brown dolomite rhombs in white silica; much white dense chert; gray and white banded chert
1410-1420	Dolomite, buff, finely crystalline; dolomite rhombs in silica; calcite crystals
1420-1426	Dolomite, buff, finely crystalline; tannish-gray dense chert
1426-1430	Dolomite, gray-buff, finely crystalline
1430-1440	Dolomite, buff to brown, finely crystalline to dense; white dense chert
1440-1450	Dolomite, gray-buff, very finely granular
1450-1455	Dolomite, gray-buff, very finely granular; white dense chert
1455-1460	Dolomite, buff, finely crystalline
1460-1465	Dolomite, buff, medium-crystalline to coarsely crystalline; dolomite rhombs in white silica
1465-1470	Dolomite, buff, medium-crystalline to coarsely crystalline; much white silica with dolomite rhombs; green shale fragments; white to tan dense chert
1470-1475	Dolomite, buff, finely crystalline; dull-white chert
1475-1480	Dolomite, brown, finely crystalline; white to milky dense chert
1480-1490	Dolomite, buff, finely crystalline
1490-1495	Dolomite, cream-colored, finely granular
1495-1510	Dolomite, buff, finely crystalline
1510-1518	Dolomite, buff, finely crystalline; gray chert
1518-1525	Dolomite, buff, finely crystalline; buff coarsely crystalline dolomite; dolomite rhombs in white silica; banded white and gray chert; white finely oolitic chert
1525-1530	Dolomite, buff, finely crystalline
1530-1535	Dolomite, buff, finely crystalline; trace of white dense chert
1535-1540	Dolomite, buff, finely crystalline; smoky-gray chert
1540-1544	Dolomite, cream-colored, medium- to coarsely crystalline

Depth in feet	Sample description
1544-1550	Dolomite, grayish-buff, finely crystalline
1550-1560	Dolomite, cream-colored, finely to medium-crystalline
1560-1565	Dolomite, cream-colored, finely granular
1565-1570	Dolomite, buff, finely granular
1570-1575	Dolomite, buff, finely crystalline; white dense chert; black-speckled gray chert
1575-1580	Dolomite, buff, finely to medium-crystalline; white dense chert
1580-1585	Dolomite, buff, medium-crystalline to coarsely crystalline
1585-1590	Dolomite, buff, finely crystalline; white dense chert with included dolomite rhombs
1590-1595	Dolomite, buff, finely crystalline; white dense chert; calcite crystals
1595-1600	Dolomite, buff, medium-crystalline to coarsely crystalline; white dense chert
1600-1610	Dolomite, buff, finely crystalline
1610-1615	Dolomite, buff, very finely granular
1615-1620	Dolomite, cream-colored, finely granular; trace of white dense chert
1620-1627	Dolomite, buff, finely crystalline; white dense chert; pyrite; milky chert
1627-1635	Dolomite, buff, finely granular to finely crystalline
1635-1640	Dolomite, buff, finely granular to finely crystalline; black-speckled, light-gray dense chert
1640-1645	Dolomite, cream-colored, very finely granular; trace of sandy chert
1645-1650	Dolomite, cream-colored, very finely granular
1650-1660	Dolomite, brown, finely crystalline; much white porcelainlike chert with brown dolomite rhombs included; gray dense chert with white speckles
1660-1670	Dolomite, buff, finely crystalline, with few scattered subround sand grains
1670-1675	Dolomite, buff, medium-crystalline to coarsely crystalline; much white porcelainlike chert with included dolomite rhombs
1675-1680	Dolomite, buff, finely crystalline; white pyritic chert
1680-1685	Dolomite, brown, finely crystalline; white dense chert
1685-1697	Dolomite, cream-colored, very finely granular
1697-1700	Dolomite, brown, finely crystalline
1700-1705	Dolomite, grayish-buff, finely granular
1705-1710	Dolomite, buff, coarsely crystalline
1710-1720	Dolomite, buff, finely to medium-crystalline
1720-1730	Dolomite, cream-colored, finely granular; white dense chert; pyrite
1730-1734	Dolomite, cream-colored, finely granular
1734-1740	Dolomite, dark-buff, finely crystalline; white- and cream-banded pyritic chert
1740-1744	Dolomite, buff, finely crystalline; pyrite
1744-1750	Dolomite, buff, finely crystalline; brown dense chert
1750-1756	Dolomite, grayish-buff, finely granular; brown dense chert
1756-1760	Dolomite, dark-buff, finely crystalline; brown chert with white spots
1760-1770	Dolomite, buff, sandy, finely granular
1770-1780	Dolomite, brown, medium-crystalline, with calcite and dolomite rhombs in white silica; trace of tan oolitic chert
1780-1785	Dolomite, buff, finely granular; white dense chert; tan translucent chert containing <i>Archaeoscyphia?</i>
1785-1790	Dolomite, buff, finely granular; white dense chert with fine black specks
1790-1795	Dolomite, cream-colored, very finely granular
1795-1800	Dolomite, cream-colored, medium-crystalline to coarsely crystalline; white interstitial silica; white figured chert
1800-1805	Dolomite, buff, finely granular; white subtranslucent figured chert; white subtranslucent oolitic chert
1805-1810	Dolomite, buff, finely granular; white dense chert
1810-1815	Dolomite, buff, medium-crystalline; dolomite rhombs in white silica; white dense chert
1815-1820	Dolomite, grayish-buff, finely to medium-crystalline; glauconite
1820-1825	Dolomite, grayish-buff, finely crystalline; white subtranslucent oolitic and sandy chert
1825-1830	Dolomite, cream-colored, medium-crystalline to coarsely crystalline; white subtranslucent oolitic and sandy chert
1830-1835	Dolomite, grayish-buff, finely granular; white dense chert
1835-1840	Dolomite, white, coarsely crystalline
1840-1845	Dolomite, buff, finely crystalline
1845-1850	Dolomite, buff, finely crystalline; white dense chert; white subtranslucent chert

Depth in feet	Sample description
1850-1860	Dolomite, dark-buff, finely crystalline
1860-1865	Dolomite, grayish-white, finely granular; slightly sandy, in part
1865-1870	Dolomite, dark-buff, finely crystalline
1870-1885	Dolomite, cream-colored, finely granular
1885-1890	Dolomite, brown, finely crystalline
1890-1895	Dolomite, brown, finely crystalline; brown dense chert containing scattered sand grains
1895-1900	Dolomite, cream-colored, very finely granular
1900-1910	Dolomite, dark-brown, resinous, finely granular
1910-1915	Dolomite, grayish-green, with included sand grains
1915-1920	Dolomite, buff, granular
1920-1925	Dolomite, gray, very finely granular
1925-1930	Dolomite, brown, finely crystalline
1930-1945	Dolomite, buff, finely granular
1945-1950	Dolomite, gray, slightly silty
1950-1960	Dolomite, cream-colored, finely granular; grayish-white slightly figured chert
1960-1965	Dolomite, cream-colored, finely granular, with included sand grains
1965-1970	Dolomite, brown, finely crystalline
1970-1974	Dolomite, brown, finely granular
1974-1980	Dolomite, cream-colored, sandy, very finely granular; white very sandy chert
1980-1987	Dolomite, cream-colored, very finely granular
1987-2000	Dolomite, grayish-white, finely to medium-crystalline
2000-2005	Dolomite, cream-colored, finely granular
2005-2010	Dolomite, grayish-buff, finely crystalline
2010-2020	Dolomite, grayish-buff, finely crystalline; white dense chert
2020-2030	Dolomite, buff, coarsely crystalline, trace of tan translucent chert
2030-2033	Limestone, dark-buff, dolomitic, finely crystalline
2033-2040	Limestone, dark-buff
2040-2060	Limestone, light-buff, finely crystalline; tan subtranslucent chert; smoky chert
2060-2075	Limestone, light-buff, finely crystalline
2075-2080	Limestone, cream-colored, finely crystalline; white dense chert; tan slightly figured subtranslucent chert
2080-2086	Limestone, cream-colored, finely crystalline; chert not so abundant
2086-2090	Dolomite, cream-colored, finely granular
2090-2096	Dolomite, cream-colored, finely sandy
2096-2100	Limestone, buff, finely crystalline to dense; white subtranslucent chert
2100-2105	Limestone, buff, finely crystalline, faintly oolitic
2105-2110	Limestone, buff, finely crystalline; gray subtranslucent chert
2110-2130	Limestone, dark-buff, finely crystalline to dense
2130-2135	Limestone, buff, sandy, with some white dolomitic and siliceous oolites
2135-2137	Sandstone, white, limy, fine-grained
2137-2142	Dolomite, gray, sandy; white subtranslucent sandy chert
2142-2150	Limestone, cream-colored, finely crystalline to dense
2150-2170	Limestone, cream-colored, finely crystalline to dense; tan to smoky-gray dense chert
2170-2172	Dolomite, grayish-buff, finely granular; tan to smoky-gray dense chert
2172-2178	Sandstone, gray, quartzitic
2178-2180	Sandstone, white, dolomitic, fine-grained
2180-2187	Limestone, cream-colored, finely crystalline to dense; tan to gray subtranslucent chert
2187-2190	Sandstone, white, dolomitic, fine- to medium-grained
2190-2192	Sandstone, white, limy, fine- to medium-grained
2192-2200	Limestone, cream-colored, finely sandy
2200-2204	Limestone, cream-colored, finely sandy; tan translucent chert
2204-2210	Limestone, buff, finely crystalline to dense
2210-2215	Dolomite, white, finely crystalline, with included round sand grains
2215-2220	Dolomite, white, finely crystalline
2220-2230	Dolomite, buff, coarsely crystalline
2230-2240	Dolomite, buff, coarsely crystalline; light-buff oolitic chert
2240-2255	Limestone, buff, finely crystalline to dense

Depth in feet	Sample description
2255-2260	Limestone, buff, finely crystalline to dense; grayish-black dense chert
2260-2267	Limestone, buff, finely crystalline to dense
2267-2270	Dolomite, white, sandy; or limestone
2270-2275	Limestone, buff, finely crystalline to dense; light-buff sandy chert; gray translucent chert
2275-2290	Limestone, buff, finely crystalline to dense; grayish-black dense chert
2290-2300	Limestone, cream-colored, finely crystalline to dense
2300-2306	Limestone, cream-colored, finely crystalline to dense; tan figured chert
2306-2310	Dolomite, grayish-buff, coarsely crystalline; white dense chert; tan subtranslucent chert
2310-2320	Dolomite, cream-colored, very finely granular; white to light-buff subtranslucent chert
2320-2325	Dolomite, buff, finely granular; quartz crystals
2325-2330	Dolomite, grayish-buff, finely granular to finely crystalline; blue chert with gray speckles
2330-2336	Dolomite, buff, finely crystalline to finely granular; white dense chert containing dolomite rhombs
2336-2340	Dolomite, buff, sandy
2340-2345	Dolomite, cream-colored, finely crystalline; white sandy chert
2345-2350	Dolomite, cream-colored, finely crystalline
2350-2355	Dolomite, white, sandy, granular; trace of white and gray chert
2355-2360	Dolomite, white, sandy
2360-2366	Sandstone, white, dolomitic, fine- to medium-grained, with subround to subangular grains
2366-2375	Dolomite, cream-colored, medium-crystalline
2375-2380	Dolomite, cream-colored, finely granular; dull-white pyritic chert
2380-2385	Dolomite, gray, finely granular
2385-2390	Dolomite, cream-colored, finely crystalline
2390-2395	Dolomite, cream-colored, medium-crystalline
2395-2400	Dolomite, cream-colored, medium-crystalline; bluish-gray chert; translucent sandy chert
2400-2405	Dolomite, cream-colored, coarsely crystalline
2405-2410	Dolomite, cream-colored, coarsely crystalline; white dolomite rhombs
2410-2415	Dolomite, cream-colored, coarsely crystalline
2415	TOTAL DEPTH

## SEBASTIAN COUNTY (1)

Operator: Arkansas-Oklahoma Gas Co.	Elevation: 491 ft.
Well No.: 1	Total depth: 5812 ft.
Lease: George Bieker	Completion date: ?
Location: Center of NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 2, T. 7 N., R. 32 W.	Logged by: E. E. Glick

### Formation Tops

	Depth (ft.)
Bloyd shale	5325
Kessler limestone member of the Bloyd shale	5325
Brentwood limestone member of the Bloyd shale	5482
Prairie Grove member of the Hale formation	5666
Cane Hill member of the Hale formation	5740
Pitkin limestone	5760

Depth in feet	Sample description
0- 160	(No samples)
160- 200	Shale, dark-gray to black, slightly fissile, micaceous
200- 330	Shale, dark-gray to black, micaceous
330- 340	(No samples)
340- 443	Shale, dark-gray to black, micaceous
443- 457	Sandstone, grayish-brown, silty, micaceous, very fine grained
457- 530	Shale, dark-gray to black, micaceous, interbedded with layers of light grayish-brown silty micaceous sandstone; pyrite
530- 540	(No samples)
540- 560	Shale, dark-gray, slightly sandy
560- 574	Shale, dark-gray to black, micaceous
574- 575	Coal
575- 610	Shale, dark-gray to black, micaceous
610- 660	Shale, dark-gray to black, micaceous, very finely sandy and silty
660- 690	Shale, dark-gray to black, micaceous
690- 700	Shale, dark-gray to black, micaceous, very finely sandy and silty
700- 734	Shale, dark-gray to black, silty, micaceous
734- 742	Sandstone, grayish-brown, micaceous, silty, very fine grained; pyrite
742- 744	Shale, black
744- 750	Sandstone, grayish-brown, micaceous, silty, very fine grained; pyrite
750- 805	Shale, dark-gray to black, micaceous, silty, very finely sandy
805- 826	Sandstone, grayish-brown, micaceous, silty, very fine grained
826- 840	Shale, dark-gray to black, micaceous, silty, very finely sandy
840- 848	Sandstone, light grayish-brown, micaceous, silty, very fine grained
848- 850	Shale, black, micaceous
850- 858	Sandstone, light grayish-brown, micaceous, silty, very fine grained
858- 860	Shale, black, micaceous
860- 880	(No samples)
880- 910	Shale, dark-gray to black, micaceous, silty, very finely sandy
910- 918	Shale, dark-gray to black, micaceous; pyrite

Depth in feet	Sample description
918- 955	Thin beds of silty very fine grained sandstone alternating with thick beds of dark-gray to black shale, pyritic at base
955-1040	Shale, dark-gray to black; pyrite
1040-1052	Shale, dark-gray to black, silty
1052-1058	Sandstone, light grayish-brown, micaceous, silty, very fine grained
1058-1150	Shale, dark-gray to black, micaceous, silty, very finely sandy
1150-1170	Shale, dark-gray to black, micaceous
1170-1180	Shale, dark-gray to black, micaceous, silty, very finely sandy
1180-1247	Sandstone, light grayish-brown, silty, micaceous, very fine grained, alternating with thin beds of dark-gray to black micaceous shale
1247-1260	Shale, dark-gray to black, micaceous, silty, very finely sandy
1260-1263	Sandstone, grayish-brown, micaceous, silty, very fine grained
1263-1268	Shale, dark-gray, micaceous, silty
1268-1270	Sandstone, grayish-brown, micaceous, silty, very fine grained
1270-1292	Shale, dark-gray, micaceous, silty, very finely sandy
1292-1302	Sandstone, grayish-brown, micaceous, silty, very fine grained
1302-1313	Shale, dark-gray, micaceous, silty, very finely sandy
1313-1360	Alternating beds of grayish-brown, micaceous very silty very fine grained sandstone and dark-gray to black micaceous silty very finely sandy shale
1360-1388	Shale, dark-gray to black, micaceous, silty, very finely sandy
1388-1426	Alternating beds of grayish-brown, micaceous silty very fine grained sandstone and dark-gray silty shale
1426-1440	Shale, dark-gray, micaceous, silty, very finely sandy
1440-1449	Sandstone, light-gray, micaceous, silty, very fine grained
1449-1451	Shale, black
1451-1470	Sandstone, light-gray, micaceous, silty, very fine grained
1470-1475	Shale, dark-gray to black, micaceous, silty, very finely sandy
1475-1500	Shale, dark-gray to black, micaceous; pyrite
1500-1585	Shale, dark-gray to black, micaceous
1585-1630	Alternating beds of grayish-brown micaceous silty very fine grained sandstone and black sandy shale
1630-1698	Sandstone as above containing thin beds of black shale
1698-1770	Shale, dark-gray, micaceous, silty, very finely sandy
1770-1830	Shale, dark-gray to black, micaceous; pyrite
1830-1910	Shale, dark-gray to black, micaceous, alternating with thin beds of very fine grained sandstone
1910-1925	Shale, dark-gray to black, micaceous, silty
1925-1950	Shale, dark-gray to black, micaceous; pyrite
1950-1960	Shale, dark-gray, silty, micaceous, very finely sandy
1960-1990	Shale, dark-gray to black, micaceous
1990-1995	Sandstone, grayish-brown, micaceous, silty, very fine grained
1995-2000	Shale, dark-gray to black, micaceous
2000-2053	Alternating beds of grayish-brown micaceous silty very fine grained sandstone and dark-gray silty shale
2053-2080	Shale, dark-gray to black, micaceous
2080-2090	Shale, dark-gray to black, micaceous, silty, very finely sandy
2090-2093	Shale, dark-gray to black, micaceous, silty
2093-2150	Alternating beds of grayish-brown micaceous silty very fine to fine-grained sandstone and dark-gray to black micaceous silty shale; pyrite
2150-2155	Shale, black, micaceous, fissile
2155-2190	Sandstone, buff to light-brown, micaceous, silty, very fine to fine-grained
2190-2193	Sandstone, light-gray, micaceous, silty, very fine grained
2193-2196	Shale, black, micaceous, fissile
2196-2210	Sandstone, light-gray, micaceous, silty, very fine grained
2210-2212	Shale, black, micaceous, fissile
2212-2215	Sandstone, light-gray, micaceous, silty, very fine grained
2215-2234	Alternating beds of dark-gray micaceous silty very finely sandy shale and brown micaceous silty very fine grained sandstone
2234-2261	Shale, dark-gray, micaceous, silty, very finely sandy

Depth in feet	Sample description
2261-2297	Alternating beds of light grayish-brown micaceous silty very fine grained sandstone and dark-gray micaceous silty shale
2297-2386	Alternating thick beds of shale as above and beds of sandstone as above
2386-2419	Sandstone, grayish-brown, micaceous, silty, quartzitic, very fine grained, interbedded with thin layers of black micaceous shale
2419-2569	Thick beds of dark-gray micaceous silty very finely sandy shale alternating with thin beds of grayish-brown micaceous silty very fine grained sandstone; pyrite
2569-2610	Shale, dark-gray, micaceous, silty
2610-2660	(No samples)
2660-2746	Shale, dark-gray to black, micaceous; yellowish-buff siltstone or claystone
2746-2760	Sandstone, light-gray to brown, micaceous, silty, very fine grained
2760-2770	(No samples)
2770-2820	Sandstone, light-gray to brown, micaceous, silty, very fine grained, interbedded with thin layers of black micaceous shale
2820-2841	Shale, dark-gray to black, micaceous, silty
2841-2854	Sandstone, light grayish-brown, micaceous, silty, very fine grained
2854-2856	Shale, black, micaceous
2856-2860	Sandstone, light grayish-brown, micaceous, silty, very fine grained
2860-2872	Shale, dark-gray, micaceous, silty; trace of buff claystone
2872-2976	Sandstone, grayish-brown, micaceous, silty, very fine grained, alternating with dark-gray micaceous silty shale
2976-3014	Shale, dark-gray, micaceous, silty
3014-3026	Sandstone, grayish-brown, micaceous, silty, very fine grained
3026-3060	Shale, dark-gray, micaceous, silty
3060-3071	Sandstone, grayish-brown, micaceous, silty, very fine grained
3071-3085	Shale, dark-gray, micaceous, silty
3085-3096	Sandstone, light-gray, micaceous, silty, very fine grained
3096-3120	Shale, dark-gray, micaceous, silty
3120-3130	(No samples)
3130-3133	Shale as above
3133-3138	Sandstone, grayish-brown, micaceous, silty, very fine grained
3138-3241	Shale, dark-gray, micaceous, silty
3241-3256	Sandstone, grayish-brown, micaceous, silty, very fine grained
3256-3455	Shale, dark-gray, micaceous, silty
3455-3485	Sandstone, grayish-brown, micaceous, silty, very fine to fine-grained
3485-3490	Shale, dark-gray, micaceous, silty
3490-3507	Sandstone, grayish-brown, micaceous, silty, very fine grained
3507-3519	Shale, dark-gray to black, micaceous
3519-3540	Sandstone, grayish-brown, micaceous, silty, very fine grained
3540-3572	Shale, dark-gray, micaceous, silty, very finely sandy
3572-3580	Sandstone, grayish-brown, micaceous, silty, very fine grained
3580-3648	Shale, dark-gray to black, micaceous, silty
3648-3652	Sandstone, grayish-brown, micaceous, silty, quartzitic, very fine grained
3652-3795	Shale, gray to black, micaceous
3795-3805	Shale, dark-gray to black, micaceous; quartzitic very fine grained sandstone
3805-3925	Shale, dark-gray to black, micaceous
3925-3960	Shale, dark-gray, micaceous, silty
3960-3977	Sandstone, grayish-brown, micaceous, silty, very fine grained
3977-4054	Shale, dark-gray, micaceous, silty
4054-4058	Sandstone, light-gray, micaceous
4058-4094	Shale, dark-gray, micaceous, silty
4094-4106	Sandstone, grayish-brown, micaceous, silty, very fine grained
4106-4154	Shale, dark-gray to black, slightly silty, micaceous
4154-4175	Alternating beds of medium-gray micaceous silty very fine grained sandstone and dark-gray micaceous shale
4175-4190	Shale, dark-gray to black, micaceous

Depth in feet	Sample description
4190-4200	Shale, dark-gray to black, micaceous, silty
4200-4242	Alternating beds of dark-gray to black micaceous shale and medium-gray silty very fine grained sandstone
4242-4254	Shale, dark-gray, micaceous
4254-4260	Sandstone, grayish-brown, micaceous, silty, very fine grained
4260-4330	Shale, dark-gray to black, micaceous
4330-4366	Shale, dark-gray, micaceous, silty, pyritic in part
4366-4380	Sandstone, grayish-brown, micaceous, silty, very fine grained
4380-4390	(No samples)
4390-4452	Shale, dark-gray to black, micaceous
4452-4473	Sandstone, light grayish-brown, micaceous, silty, very fine grained, interbedded with black micaceous shale
4473-4506	Sandstone, light-gray, micaceous, silty, very fine grained
4506-4510	Shale, dark-gray to black, very finely micaceous
4510-4514	Sandstone, light-gray, micaceous, silty
4514-4521	Shale, dark-gray to black, very finely micaceous
4521-4570	Sandstone, light grayish-brown to medium-gray, micaceous, silty, very fine grained
4570-4575	(No samples)
4575-4580	Sandstone as above
4580-4636	Shale, dark-gray to black, very finely micaceous
4636-4639	Sandstone, light-gray, micaceous, silty, very fine grained
4639-4757	Shale, dark-gray to black, very finely micaceous, fissile, pyritic in part
4757-4760	Sandstone, light-gray, micaceous, silty, very fine grained
4760-4768	Shale, dark-gray to black, micaceous
4768-4820	Sandstone, light-gray, micaceous, silty, very fine grained
4820-4828	Shale, dark-gray to black; pyrite
4828-4850	Sandstone, light grayish-brown to medium-gray, micaceous, silty, very fine grained
4850-4889	Sandstone, light-gray, micaceous, silty, very fine to fine-grained, interbedded with thin layers of dark-gray to black shale
4889-4898	Shale, dark-gray to black
4898-4952	Sandstone, light- to medium-gray, micaceous, silty, very fine grained
4952-4956	Shale, dark-gray to black
4956-4979	Sandstone, medium-gray, micaceous, silty, very fine to fine-grained
4979-4986	Shale, dark-gray to black, fissile
4986-5000	Sandstone, medium-gray, micaceous, silty, very fine to fine-grained
5000-5028	Sandstone, medium-gray, micaceous, very silty, very fine grained
5028-5032	Shale, dark-gray to black, finely micaceous
5032-5040	Sandstone, medium-gray, micaceous, very silty, very fine grained
5040-5080	Shale, dark-gray to black, finely micaceous, slightly sandy
5080-5090	Sandstone, light- to medium-gray, micaceous, silty, very fine to fine-grained
5090-5099	Shale, dark-gray to black, finely micaceous
5099-5110	Sandstone, medium-gray, micaceous, silty, very fine to fine-grained
5110-5118	Shale, dark-gray to black, finely micaceous
5118-5162	Sandstone, light-gray, micaceous, silty, very fine to fine-grained
5162-5212	Shale, dark-gray to black, finely micaceous
5212-5220	Shale, dark-gray, finely micaceous, silty
5220-5229	Sandstone, light-gray, micaceous, slightly silty, very fine to fine-grained
5229-5230	Shale, dark-gray
5230-5263	Sandstone, light-gray, slightly silty, limy, very fine to fine-grained
5263-5265	Shale, light-gray to white, slightly sandy
5265-5290	Sandstone, light-gray, slightly silty, limy, very fine to fine-grained
5290-5300	Sandstone, light -to medium-gray, slightly limy, siliceous, fine-grained; trace of light-gray shale
5300-5325	Sandstone, light- to medium-gray, silty, siliceous, slightly limy, fine- to medium-grained
5325-5340	Limestone, medium-gray, finely to medium-crystalline
5340-5414	Limestone, medium- to dark-gray, oolitic, finely to medium-crystalline; crinoids
5414-5444	Shale, dark-gray to black, finely micaceous
5444-5450	Sandstone, light grayish-brown, micaceous, silty, very fine to fine-grained
5450-5482	Shale, dark-gray, finely micaceous, slightly silty in part



Depth in feet	Sample description
5482-5494	Limestone, medium- to dark-gray, silty in part, finely to medium-crystalline; light-gray crinoid fragments
5494-5496	Shale, black
5496-5500	Limestone, medium- to dark-gray, silty in part, finely to medium-crystalline; crinoid fragments
5500-5515	Limestone, medium- to dark-gray, finely to medium-crystalline; crinoids
5515-5523	Limestone, dark-gray, finely crystalline; black oolites; crinoid fragments
5523-5530	Shale, dark-gray, finely micaceous
5530-5538	Shale, dark-gray, very limy; crinoids
5538-5592	Shale, dark-gray, slightly silty and pyritic in part
5592-5600	Limestone, medium- to dark-gray, oolitic, finely to medium-crystalline; crinoids
5600-5650	Shale, dark-gray to black, finely micaceous
5650-5666	Shale, dark-gray, silty, micaceous
5666-5675	Limestone, medium- to dark-gray, crinoidal, finely to medium-crystalline; oolites
5675-5700	Siltstone, medium- to dark-gray, micaceous, siliceous
5700-5712	Sandstone, light- to dark-gray, micaceous, shaly, silty, very fine grained
5712-5720	Limestone, dark-gray, crinoidal, finely to medium-crystalline; pyrite
5720-5740	Sandstone, light- to dark-gray, micaceous, siliceous, shaly, silty, very fine grained
5740-5760	Shale, dark-gray to black
5760-5775	Limestone, light-gray to buff, oolitic, finely crystalline
5775-5812	Limestone, light- to medium-gray, oolitic, finely crystalline; crinoids
5812	TOTAL DEPTH

## SEBASTIAN COUNTY (2)

Operator: Athletic Mining & Smelting Co.	Elevation: 484 ft. (Baro.)
Well No.: 1	Total depth: 6385 ft.
Lease: Ayers	Completion date: Jan., 1949(?)
Location: Center of NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 7 N., R. 32 W.	Logged by: R. J. Lantz

### Formation Tops

	Depth (ft.)
Bloyd shale	5439
Kessler limestone member of the Bloyd shale	5475
Brentwood limestone member of the Bloyd shale	5644
Prairie Grove member of the Hale formation	5793
Cane Hill member of the Hale formation	5857
Pitkin limestone	5886
Fayetteville shale	6032
Batesville sandstone, Ruddell shale, and Moorefield formation undifferentiated	6088
Boone formation	6170
Chattanooga shale	6320
Penters chert	6368

Depth in feet	Sample description
0-5075	(No samples)
5075-5080	Siltstone, white to dark-gray, shaly in part; fine-grained sandstone
5080-5087	Siltstone, white; fine-grained sandstone, free drilling in part
5087-5110	Shale, black, micaceous, silty; thin silty breaks
5110-5127	Shale, black, micaceous
5127-5139	Sandstone, white, very fine to fine-grained, free drilling
5139-5173	(No samples)
5173-5182	Siltstone, gray to dark-gray, shaly; fine-grained sandstone
5182-5195	Shale, black, micaceous
5195-5409	(No samples)
5409-5415	Sandstone, white, fine-grained, free drilling
5415-5434	Sandstone, white, slightly limy, fine-grained, free drilling in part; trace of green and black shale fragments
5434-5439	Limestone, gray, finely crystalline; coarse to very coarse sand grains imbedded in limestone
5439-5460	Shale, black, finely micaceous
5460-5470	Shale, black, micaceous, silty
5470-5475	Shale, gray
5475-5480	Limestone, light grayish-buff, finely crystalline; crinoids
5480-5500	Limestone, light grayish-buff to buff, fossiliferous, finely to medium-crystalline
5500-5505	Limestone, light-gray, finely crystalline, with large dark-gray oolites; dark-gray finely crystalline limestone
5505-5510	Limestone, gray to dark-gray, finely crystalline; bryozoa; ostracods
5510-5530	Limestone, gray to dark-gray, finely crystalline; dark-gray oolites; bryozoa; ostracods; fossil fragments; trace of pyrite

Depth in feet	Sample description
5530-5545	Limestone, dark-gray to black, finely crystalline; black oolites
5545-5555	Limestone, dark-gray to black, shaly, finely crystalline; trace of pyrite
5555-5560	Limestone, dark-gray, finely crystalline; light-gray, finely crystalline limestone with dark-gray oolites; fossil fragments
5560-5565	Limestone, light-gray to buff, finely to medium-crystalline; crinoids
5565-5570	Limestone, light-gray to buff, finely to medium-crystalline
5570-5579	Limestone, light-gray to buff, finely to medium-crystalline; crinoids
5579-5644	Shale, black, very finely micaceous
5644-5651	Limestone, buff, finely to medium-crystalline; crinoid fragments
5651-5654	Limestone, black, finely crystalline; black shale
5654-5660	Limestone, dark-gray, shaly, finely crystalline; crinoid fragments
5660-5670	Limestone, gray to black, finely crystalline; crinoid fragments
5670-5675	Shale, black, limy; crinoid fragments
5675-5680	Shale, black, limy
5680-5685	Shale, black, slightly limy, finely micaceous
5685-5695	Shale, black, finely micaceous
5695-5736	Shale, black, very finely micaceous, smooth
5736-5741	Limestone, gray, finely crystalline
5741-5793	Shale, black, very finely micaceous, smooth
5793-5800	Limestone, gray, finely crystalline, medium sandy
5800-5810	Siltstone, black, micaceous, shaly
5810-5823	Siltstone, light-gray to black; fine-grained hard tight sandstone
5823-5835	Shale, black, micaceous, silty
5835-5837	Limestone, gray, finely crystalline; dark-gray oolites and shale
5837-5850	Siltstone, gray to dark-gray, shaly, micaceous; fine-grained sandstone
5850-5857	Sandstone, gray, shaly, limy, medium- to very coarse grained
5857-5867	Siltstone, gray, shaly; fine-grained sandstone
5867-5868	Limestone, gray, finely crystalline; fossil fragments
5868-5886	Shale, black
5886-5890	Limestone, gray, finely sandy
5890-5900	Limestone, gray to grayish-buff, finely oolitic
5900-5910	Limestone, grayish-buff, finely to coarsely oolitic, finely to coarsely crystalline; fine fossil fragments
5910-5926	Limestone, gray, finely to medium oolitic in part, finely to medium-crystalline; fossil fragments
5926-5930	Shale, black
5930-5940	Limestone, light-gray to grayish-buff, finely crystalline; black oolites; fossil fragments
5940-5945	Limestone, gray to brownish-gray, very finely to finely crystalline; black oolites; fossil fragments
5945-5950	Limestone, light-gray to light grayish-buff, finely to medium-crystalline; oolites; fossil fragments
5950-5955	Limestone, light-gray to light grayish-buff, finely to medium-crystalline; fossil fragments
5955-5960	Limestone, light grayish-buff, finely to medium-crystalline; fossil fragments
5960-5965	Limestone, gray, finely crystalline
5965-5970	Limestone, black, shaly, finely crystalline; crinoids
5970-5975	Limestone, gray to black, shaly; crinoids
5975-5980	Limestone, gray to light-gray, finely to medium-crystalline; crinoids
5980-5985	Limestone, gray, finely to medium-crystalline
5985-5990	Limestone, black, shaly, finely crystalline
5990-6000	Limestone, gray, finely crystalline; dark-gray oolitic limestone
6000-6010	Limestone, black, shaly, finely crystalline; crinoids
6010-6015	Limestone, gray to black, finely crystalline; crinoids
6015-6020	Limestone, black, finely crystalline; smoky chert
6020-6032	Limestone, gray to black, finely crystalline
6032-6037	Shale, black
6037-6039	Limestone, black, shaly; crinoids
6039-6046	Shale, black; pyrite
6046-6054	Shale, black, silty, slightly limy, micaceous
6054-6070	Shale, black; pyrite
6070-6074	Shale, black, micaceous, slightly limy, silty

Depth in feet	Sample description
6074-6087	Shale, black
6087-6134	Shale, grayish-black, limy, silty
6134-6136	Shale, grayish-black
6136-6140	Siltstone, gray, limy
6140-6150	Limestone, gray, silty, finely crystalline to finely granular
6150-6154	Shale, black, limy, slightly silty
6154-6155	Shale, black
6155-6160	Limestone, dark-gray to gray, silty
6160-6170	Shale, black, limy, silty
6170-6175	Limestone, black to gray, shaly, silty; crinoids
6175-6180	Limestone, black to gray, shaly, silty
6180-6185	Limestone, gray, slightly silty, finely crystalline to finely granular; scattered mica
6185-6195	Limestone, black, shaly, micaceous, silty
6195-6200	Limestone, gray, silty, finely crystalline to finely granular; trace of mica
6200-6205	Limestone, black, shaly, silty
6205-6210	Limestone, gray, silty
6210-6250	Limestone, black, shaly, silty, finely crystalline
6250-6260	Limestone, black, shaly, silty
6260-6265	Limestone, gray, silty
6265-6270	Limestone, black, shaly, silty
6270-6317	Limestone, black to gray, shaly, silty
6317-6320	Limestone, gray, finely crystalline
6320-6368	Shale, black
6368-6375	Chert, white, chalcedonic; trace of cream-colored limestone
6375-6385	Chert, white, very spicular; trace of cream-colored limestone
6385	TOTAL DEPTH

## VAN BUREN COUNTY (1)

Operator: Lion Oil Co.	Elevation: 780 ft.
Well No.: 1	Total depth: 4632 ft.
Lease: Griggs	Completion date: Feb. 21, 1945
Location: Center of NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 10 N., R. 13 W.	Logged by: R. J. Lantz

### Formation Tops

	Depth (ft.)
Bloyd shale	1252
Prairie Grove member of the Hale formation	1760
Cane Hill member of the Hale formation (top of Jackfork sandstone equivalent)	1973
Fayetteville shale (top of Stanley shale equivalent)	2343
Batesville sandstone, Ruddell shale, and Moorefield shale undifferentiated	3198(?)
Boone formation	3396
Chattanooga shale	3659
Penters chert	3693
Cason shale	3836
Fernvale limestone	3838
Plattin limestone	3875
Joachim dolomite	3993
St. Peter sandstone	4060
Everton formation	4172

Depth  
in feet

Sample description

0-	93	(No samples)
93-	95	Siltstone, gray, slightly limy
95-	150	Shale, black
150-	160	Shale, black, silty
160-	173	Shale, black, silty, micaceous
173-	200	Siltstone, black, shaly, with a thin bed of black shale at the center
200-	246	Alternating beds of black shale and black silts tone
246-	255	Shale, black; black pyritic dense chert
255-	402	Shale, black
402-	406	Sandstone, gray, silty, fine- to medium-grained
406-	414	Sandstone, white, fine- to medium-grained
414-	432	Shale, black
432-	435	Sandstone, white, gray and black mottled, medium- to coarse-grained
435-	438	Sandstone, light-gray, very fine grained
438-	442	Siltstone, dark-gray
442-	450	Sandstone, dark-gray, silty, very fine grained
450-	464	Sandstone, white, slightly limy, fine-grained
464-	484	Shale, black
484-	491	Sandstone, white, very fine grained
491-	533	Shale, black

Depth in feet	Sample description
533- 540	Sandstone, gray, gritty, fine-grained
540- 571	Sandstone, light-gray, slightly limy, fine- to medium-grained
571- 607	Shale, black
607- 627	Sandstone, dark-gray, very hard (siliceous ?), very slightly limy, fine- to coarse-grained; trace of pale glauconite
627- 648	Shale, black
648- 659	Sandstone, dark-gray, very hard (siliceous ?), very slightly limy, medium- to coarse-grained
659- 699	Shale, black, interbedded with thin layers of dark-gray very hard medium-grained sandstone
699- 793	Shale, black
793- 798	Sandstone, gray to dark-gray, dolomitic, medium-grained
798- 870	Shale, black
870- 940	Shale, black, micaceous, silty
940- 956	Shale, black
956- 966	Sandstone, gray, slightly limy, micaceous, medium-grained
966- 990	Shale, black, micaceous, silty
990- 998	Sandstone, dark-gray, siliceous, silty, very fine grained
998-1023	Shale, dark-gray to black, micaceous, silty
1023-1030	Sandstone, black, micaceous, shaly, very fine to fine-grained
1030-1057	Sandstone, dark-gray to black, micaceous, fine- to medium-grained
1057-1080	Shale, black
1080-1088	Sandstone, light-gray, micaceous, siliceous
1088-1097	Shale, black
1097-1112	Sandstone, light-gray, siliceous, fine- to medium-grained
1112-1200	Shale, black, slightly pyritic in part
1200-1205	Sandstone, white, fine- to medium-grained; trace of glauconite
1205-1215	Sandstone, white, fine- to medium-grained, free drilling
1215-1225	Sandstone, white, medium- to coarse-grained, free drilling in part
1225-1245	Sandstone, white, fine- to medium-grained, free drilling in part
1245-1252	Sandstone, white, medium- to coarse-grained, free drilling in part
1252-1255	Shale, black, medium sandy
1255-1270	Shale, black, micaceous, silty
1270-1280	Shale, black
1280-1364	Shale, black, micaceous
1364-1375	Sandstone, dark-gray, slightly shaly, slightly limy, medium-grained
1375-1388	Sandstone, white, slightly limy, medium-grained, free drilling
1388-1408	Shale, black
1408-1413	Sandstone, dark-gray, slightly limy, medium-grained
1413-1418	(No samples)
1418-1420	Sandstone, dark-gray, slightly limy, medium-grained
1420-1425	Shale, black
1425-1430	Sandstone, light grayish-white, slightly limy, fine- to medium-grained
1430-1440	Sandstone, light grayish-white, slightly limy, very fine grained
1440-1452	Sandstone, light-gray, siliceous ( ? )
1452-1463	Siltstone, gray
1463-1473	Sandstone, light-gray, slightly limy, medium-grained
1473-1538	Shale, black
1538-1545	Sandstone, light grayish-white, slightly limy, fine-grained; trace of glauconite
1545-1558	(No samples)
1558-1570	Sandstone, light-gray, slightly limy, free drilling in part
1570-1585	Sandstone, light-gray, slightly limy, fine- to medium-grained, free drilling in part
1585-1595	Sandstone, white, fine- to medium-grained, free drilling in part
1595-1602	(No samples)
1602-1605	Sandstone, white, fine- to medium-grained, free drilling in part; glauconite
1605-1615	Sandstone, light grayish-white, limy, fine- to medium-grained, free drilling in part; glauconite
1615-1622	Sandstone, light grayish-white, limy, fine- to medium-grained, free drilling in part
1622-1630	(No samples)

Depth in feet	Sample description
1630-1645	Sandstone, white, fine- to medium-grained, free drilling in part; glauconite
1645-1655	(No samples)
1655-1661	Sandstone, light-gray, limy, fine- to medium-grained
1661-1669	Limestone, buff, dark-mottled, finely to medium sandy; finely to coarsely crystalline; crinoids; spines; black glauconitic oolites
1669-1760	Shale, black
1760-1780	Sandstone, white, slightly limy, fine- to medium-grained, free drilling
1780-1794	(No samples)
1794-1810	Sandstone, white, fine- to medium-grained, free drilling
1810-1820	Sandstone, white, slightly limy, fine- to medium-grained, free drilling; glauconite
1820-1840	Sandstone, white, medium- to coarse-grained, free drilling; trace of glauconite
1840-1876	Sandstone, white, fine- to coarse-grained, free drilling; trace of glauconite
1876-1917	Shale, black
1917-1920	Sandstone, light grayish-white, slightly limy, fine-grained
1920-1930	Sandstone, white, fine-grained
1930-1973	Sandstone, white, fine-grained, free drilling in part
1973-1980	Shale, black
1980-1998	(No samples)
1998-2004	Sandstone, white, fine-grained
2004-2010	Siltstone, gray, micaceous
2010-2023	(No samples)
2023-2037	Siltstone, gray, micaceous
2037-2048	Shale, black
2048-2060	Sandstone, gray to light-gray, micaceous, silty, very fine grained
2060-2067	Shale, black
2067-2078	(No samples)
2078-2098	Shale, black, slightly micaceous
2098-2108	(No samples)
2108-2150	Shale, black, micaceous
2150-2160	Shale, black, siliceous in part
2160-2170	Shale, black, slightly micaceous; trace of pyrite
2170-2188	Shale, black
2188-2200	Sandstone, light-gray to white, fine- to medium-grained, free drilling
2200-2210	Sandstone, white, fine- to medium-grained, free drilling
2210-2220	Sandstone, white, fine-grained, free drilling
2220-2230	Sandstone, white, very fine to fine-grained, free drilling in part
2230-2239	Sandstone, white to gray, very fine to fine-grained, free drilling in part
2239-2245	Siltstone, gray
2245-2250	Shale, black, silty, micaceous, pyritic
2250-2255	Shale, black
2255-2272	Siltstone, light-gray
2272-2283	Shale, black
2283-2290	Sandstone, gray, fine-grained
2290-2304	Sandstone, white, very fine grained, free drilling
2304-2319	Siltstone, light-gray to gray
2319-2330	(No samples)
2330-2335	Siltstone, gray to light-gray; very fine grained sandstone
2335-2343	Siltstone, gray
2343-2380	Shale, black
2380-2420	Shale, black, finely micaceous
2420-2435	Shale, black; furoid (?) fragments; pyrite
2435-2460	Shale, black; pyrite
2460-2465	Sandstone, white, fine-grained
2465-2590	Shale, black, slightly pyritic in part
2590-2615	Shale, black; black pyritic chert
2615-2625	Shale black; pyrite; black chert; brachiopods

Depth in feet	Sample description
2625-2680	Shale, black
2680-2700	Shale, black; pyritized plant fragments
2700-2737	Shale, black
2737-2738	Lignite
2738-2780	Shale, black
2780-2800	Shale, black; trace of black chert
2800-2835	(No samples)
2835-2860	Shale, black
2860-2880	Shale, black; pelecypod (?)
2880-3198	Shale, black, slightly pyritic in part
3198-3202	Limestone, dark grayish-black
3202-3210	Shale, black; trace of pyrite
3210-3227	Shale, black; black chert
3227-3250	(No samples)
3250-3260	Shale, black, limy
3260-3275	Shale, black
3275-3295	Shale, black, silty, micaceous, limy
3295-3304	Shale, black
3304-3316	Limestone, black, shaly
3316-3325	Shale, black, limy
3325-3335	Limestone, black, shaly
3335-3345	Limestone, black, shaly, finely crystalline; brachiopod fragments; spines
3345-3367	Limestone, dark-gray to gray, finely crystalline; brachiopod fragments; spines
3367-3376	(No samples)
3376-3383	Shale, black
3383-3396	(No samples)
3396-3405	Limestone, black to gray, shaly, finely crystalline
3405-3425	Limestone, light-gray
3425-3440	Limestone, gray to black, finely crystalline
3440-3460	Limestone, light to dark-gray, finely crystalline
3460-3467	Limestone, black, shaly, finely crystalline
3467-3480	Shale, black
3480-3505	Limestone, dark-gray to black, finely crystalline
3505-3511	(No samples)
3511-3523	Shale, black, limy
3523-3550	Limestone, light-gray to cream-colored, finely crystalline
3550-3565	Limestone, buff, finely crystalline
3565-3600	Limestone, gray and buff mottled, finely to coarsely crystalline; crinoids (?)
3600-3609	(No samples)
3609-3615	Limestone, cream-colored, finely crystalline
3615-3630	Limestone, cream-colored to gray, finely crystalline
3630-3659	Chert, black, dense
3659-3670	Shale, black, hard
3670-3683	Shale, black, slightly limy
3683-3686	Limestone, gray, finely crystalline
3686-3693	Shale, black, slightly micaceous
3693-3700	Limestone, dark-gray to gray, finely crystalline; gray to grayish-buff dense chert
3700-3705	Limestone, gray, finely crystalline; grayish-buff translucent chert
3705-3724	Limestone, dark-gray, finely crystalline; gray to grayish-buff, dense to translucent chert
3724-3730	Dolomite, gray, very finely crystalline; gray to grayish-buff, dense to translucent chert
3730-3745	Dolomite, gray, pyritic, very finely crystalline; chert as above
3745-3750	Chert as above; gray very finely crystalline dolomite
3750-3760	Chert, milky white and cream-colored, translucent; gray dolomite
3760-3765	As above; gray dense chert
3765-3780	Dolomite, light-gray, very finely crystalline; white translucent chert
3780-3800	Limestone, dark-gray, finely crystalline; grayish-white to clear chert



Depth in feet	Sample description
3800-3810	Dolomite, gray to dark-gray, finely crystalline; cream-white translucent chert
3810-3814	Dolomite, gray to dark-gray, finely crystalline; grayish-white translucent chert
3814-3836	Limestone, gray, finely crystalline; iron-stained concretions
3836-3838	Shale, black
3838-3865	Limestone, white to cream-colored, coarsely crystalline; pink crystals
3865-3875	Limestone, light-gray to cream-colored, finely to medium-crystalline
3875-3885	Limestone, gray to grayish-buff, very finely crystalline to dense
3885-3900	Limestone, gray, dense, slightly pyritic at top
3900-3917	Limestone, gray, dense to finely crystalline; trace of pyrite
3917-3973	Limestone, gray, dense
3973-3982	(No samples)
3982-3993	Limestone, gray, dense
3993-3995	Lignite
3995-4030	Dolomite, light-gray, very silty
4030-4060	Dolomite, gray, slightly silty, finely crystalline
4060-4080	Sandstone, light-gray to white, slightly dolomitic, medium-grained
4080-4090	Sandstone, white, coarse-grained, free drilling
4090-4094	Dolomite, gray, finely crystalline
4094-4105	Sandstone, gray, dolomitic, coarse-grained, free drilling in part
4105-4120	Sandstone, white, slightly dolomitic, medium-grained, free drilling
4120-4125	Sandstone, white, medium-grained, free drilling
4125-4135	Sandstone, white
4135-4140	Sandstone, white, medium-grained, free drilling
4140-4145	Sandstone as above; hematite and phosphate nodules (?)
4145-4150	Sandstone, white, medium-grained, free drilling
4150-4153	Sandstone as above; trace of black finely crystalline dolomite
4153-4159	Lignite
4159-4165	Sandstone, white, slightly dolomitic, medium-grained, free drilling
4165-4170	Sandstone, white, medium-grained, free drilling
4170-4172	Sandstone, white, free drilling
4172-4174	Lignite
4174-4180	Dolomite, light-gray, finely crystalline, containing a few scattered medium sand grains
4180-4190	Dolomite, light-gray, finely crystalline, containing scattered sand grains in part
4190-4192	Lignite
4192-4197	Dolomite, gray, finely crystalline
4197-4198	Shale, green
4198-4200	Dolomite, gray, finely crystalline
4200-4210	Dolomite, light-gray to gray, finely crystalline
4210-4220	Dolomite, gray, finely crystalline
4220-4224	Dolomite, dark-gray, finely crystalline
4224-4227	Sandstone, white, medium-grained, free drilling
4227-4240	Dolomite, dark-gray, finely crystalline
4240-4250	Dolomite, dark-gray and gray, finely crystalline
4250-4254	Dolomite, dark-gray, finely crystalline; scattered sand grains
4254-4256	Sandstone, white, free drilling
4256-4257	Dolomite, dark-gray, finely crystalline
4257-4259	Sandstone, white, free drilling
4259-4261	Dolomite, light-gray, finely crystalline
4261-4263	Sandstone, white, free drilling
4263-4272	Dolomite, gray, finely crystalline
4272-4292	Alternating beds of white medium-grained free drilling sandstone and gray finely crystalline dolomite
4292-4308	Dolomite, grayish-black, finely crystalline
4308-4310	Shale, brownish-black
4310-4315	Dolomite, dark-gray to gray, finely crystalline
4315-4325	Dolomite, dark-gray to black, finely crystalline to dense, containing a few medium sand grains
4325-4330	Dolomite, light-gray, medium sandy

Depth in feet	Sample description
4330-4333	Dolomite, light-gray, finely crystalline
4333-4352	Sandstone, light-gray, dolomitic, medium-grained, free drilling
4352-4358	Dolomite, dark-gray, finely crystalline
4358-4360	Sandstone, light-gray, dolomitic, medium-grained, free drilling
4360-4374	Alternating thin beds of gray to dark-gray finely crystalline dolomite and white medium-grained free drilling sandstone
4374-4400	Dolomite, dark-gray, finely crystalline, containing a few scattered sand grains
4400-4410	Dolomite, light-gray, medium sandy, finely crystalline
4410-4415	Dolomite, light-gray to gray, medium sandy, finely crystalline
4415-4425	Dolomite, light-gray to gray, finely crystalline; scattered sand grains
4425-4440	Dolomite, light-gray to gray, finely crystalline
4440-4450	Dolomite, light-gray, finely crystalline
4450-4457	Dolomite, light-gray to gray finely crystalline dolomite
4457-4460	Sandstone
4460-4480	Dolomite, light-gray, finely crystalline
4480-4490	Dolomite, black, finely crystalline; trace of pyrite
4490-4492	Lignite
4492-4505	Dolomite, light-gray to black, finely crystalline
4505-4510	Dolomite, dark-gray to black, finely crystalline
4510-4545	Dolomite, gray, finely crystalline
4545-4555	Dolomite, light-gray, medium sandy, finely crystalline
4555-4565	Dolomite, dark-gray to black, finely crystalline
4565-4570	Dolomite, light-gray, medium sandy, finely crystalline
4570-4575	Dolomite, dark-gray to black, finely crystalline
4575-4585	Dolomite, light to dark-gray, medium sandy
4585-4590	Dolomite, light-gray, finely crystalline
4590-4595	Dolomite, gray, finely crystalline, slightly sandy
4595-4605	Dolomite, gray, finely crystalline
4605-4611	Dolomite, black, finely crystalline
4611-4615	Sandstone, light-gray to white, medium-grained
4615-4620	Dolomite, gray, finely crystalline; light-gray to white medium-grained sandstone
4620-4622	Dolomite, gray, finely crystalline
4622-4627	Limestone, dark-gray, dense
4627-4632	Dolomite, light-gray, finely crystalline
4632	TOTAL DEPTH

## WASHINGTON COUNTY (1)

Operator: H. H. Taylor	Elevation: 2000 ft. (Topo.)
Well No.: 1	Total depth: 1737 ft.
Lease: C. E. Rummy	Completion date: Nov. 22, 1930
Location: NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 13 N., R. 29 W.	Logged by: E. E. Glick

### Formation Tops

	Depth (ft.)
Bloyd shale	570
Kessler limestone member of the Bloyd shale	669
Brentwood limestone member of the Bloyd shale	820
Prairie Grove member of the Hale formation	880 (?)
Cane Hill member of the Hale formation	965
Pitkin limestone	1095
Fayetteville shale	1180
Batesville sandstone, Ruddell shale, and Moorefield formation undifferentiated	1365
Boone formation	1410
Chattanooga shale	1714
Silurian rocks undifferentiated	1725

Depth  
in feet

Sample description

0- 510	(No samples)
510- 520	Shale, black, finely micaceous
520- 530	Sandstone, cream-colored to light-gray, siliceous, very fine grained
530- 540	Sandstone as above, free drilling
540- 550	Sandstone, cream-colored to light-gray, siliceous, very fine grained
550- 560	Shale, medium- to dark-gray, silty, very finely sandy
560- 570	Sandstone, light-gray, siliceous, slightly silty, very fine grained
570- 610	Shale, black. (40 ft. sample)
610- 616	Shale, dark-gray to black
616- 669	Shale, dark-gray to black. (53 ft. sample)
669- 675	Limestone, light-gray, silty, finely to medium sandy, finely granular
675- 685	Shale, black
685- 704	(No samples)
704- 708	Shale, dark-gray, silty, finely micaceous; trace of fine-grained sandstone
708- 714	(No samples)
714- 726	Shale, dark-gray, micaceous, silty
726- 735	Siltstone, medium-gray, limy
735- 768	Siltstone, medium-gray, slightly limy
768- 792	Shale, dark-gray to black, finely micaceous
792- 800	Sandstone, light-gray, silty, very limy, medium- to coarse-grained; crinoids
800- 810	Sandstone as above; dark-gray micaceous silty shale; bryozoa
810- 820	Sandstone, light- to medium-gray, silty, very limy; medium- to coarse-grained
820- 826	Limestone, light brownish-gray, slightly silty, finely crystalline
826- 830	Limestone as above; crinoids

Depth in feet	Sample description
830- 840	Limestone, light to medium brownish-gray, silty, finely granular to medium-crystalline; crinoids; brachiopods
840- 850	Limestone, light- to medium-gray, silty, finely granular; crinoids; brachiopods
850- 915	(No samples)
915- 920	Shale, black
920- 940	Limestone, light brownish-gray, finely to medium sandy, crinoidal, finely granular
940- 956	Limestone, light brownish-gray, finely to medium sandy, finely granular; medium- to dark-gray, silty shale
956- 965	Sandstone, light-gray, slightly limy, medium-grained, free drilling
965- 976	Siltstone, light- to medium-gray, very finely sandy, siliceous
976-1000	Sandstone, light-gray, siliceous, silty, slightly limy, very fine grained
1000-1035	Sandstone, light-gray, siliceous, silty, slightly limy, very fine to fine-grained
1035-1040	Limestone, light- to medium-gray, very silty, crinoidal, finely crystalline
1040-1047	Shale, dark-gray, finely micaceous
1047-1095	Sandstone, light-gray, silty, slightly limy, very fine to fine-grained; dark-gray finely micaceous shale; trace of glauconite
1095-1110	Limestone, light brownish-gray, finely granular; dark-gray finely micaceous shale
1110-1120	Limestone, light brownish-gray, finely granular; trace of glauconite
1120-1125	Limestone, light brownish-gray, slightly oolitic, finely granular to finely crystalline; brachiopods
1125-1157	Limestone, light brownish-gray, slightly oolitic, finely granular to finely crystalline; trace of pyrite
1157-1159	Siltstone, medium-gray, limy
1159-1160	Shale, dark-gray, limy
1160-1170	Limestone, light- to dark-gray, dull, silty, finely granular; medium-gray mottled oolitoid silty finely granular to medium-crystalline limestone; brachiopods; crinoids; bryozoa
1170-1180	Limestone, medium-gray, silty, finely granular; dark-gray slightly limy shale
1180-1205	Shale, dark-gray to black, limy; pyrite
1205-1210	Siltstone, medium- to dark-gray, limy, very finely sandy
1210-1220	Shale, dark-gray, silty, slightly limy
1220-1230	Siltstone, medium- to dark-gray, slightly limy
1230-1260	Shale, dark-gray, silty; black finely micaceous shale, slightly limy
1260-1365	Shale, dark-gray to black, slightly limy; pyrite
1365-1370	Limestone, light- to medium-gray, silty, oolitic, finely granular; dark-gray medium oolites
1370-1373	Shale, dark-gray to black; crinoids
1373-1378	Limestone, light- to medium-gray, silty, oolitic, finely granular
1378-1390	Shale, medium bluish-gray, soft, limy
1390-1392	Siltstone, light- to medium-gray, finely mottled, limy
1392-1400	Limestone, light brownish-gray, silty, finely granular; crinoids; brachiopods
1400-1410	Limestone, light brownish-gray to medium-gray, slightly silty, finely granular to finely crystalline; crinoids
1410-1420	Limestone, white to medium-gray, mottled, siliceous, finely granular; limy chert; white smooth chert
1420-1440	Limestone, white to light-gray, siliceous; limy chert; white smooth chert
1440-1450	Limestone and chert as above; trace of glauconite
1450-1475	Limestone, light-gray, dull, siliceous, finely granular to finely crystalline; limy chert; white smooth chert
1475-1485	Limestone, light- to medium-gray, siliceous, finely granular to finely crystalline; limy chert; white smooth chert
1485-1550	Limestone, light-gray, siliceous, finely granular; limy chert; white smooth chert
1550-1620	Limestone, light-gray to cream-colored, siliceous, finely granular; limy chert; light-gray smooth to dull chert
1620-1640	Limestone and chert as above; trace of glauconite in upper half
1640-1650	Limestone, light-gray, dull, with black specks, siliceous, finely granular; chert
1650-1670	Limestone, white to light-gray, dull, finely granular; white smooth to dull chert; white limy chert
1670-1710	Limestone and chert as above; light-gray smooth chert
1710-1714	Limestone, light-gray, finely granular; light-gray limy chert; light-gray and light-brown translucent chert
1714-1724	Shale, black; pyrite
1724-1725	As above and light- to medium-gray very limy pyritic siltstone
1725-1730	Dolomite, white, finely to medium-crystalline
1730-1737	Dolomite, white, medium-crystalline; quartz crystals
1737	TOTAL DEPTH

## WASHINGTON COUNTY (2)

Operator: Plymouth Oil Co.	Elevation: 1625 ft. (Topo.)
Well No.: 1	Total depth: 2121 ft.
Lease: Spies	Completion date: April 29, 1945
Location: SW $\frac{1}{4}$ , SW $\frac{1}{4}$ , SW $\frac{1}{4}$ sec. 24, T. 13 N., R. 30 W.	Logged by: E. E. Glick

### Formation Tops

	Depth (ft.)
Chattanooga shale	1730
Silurian rocks undifferentiated	1746
Cason shale	1833
Kimmswick (?) and Platin limestones undifferentiated	1890
Everton formation	1925

Depth in feet	Sample description
0-1695	(No samples)
1695-1710	Limestone, light-gray to light brownish-gray, finely crystalline; white dense and porous chert; light-gray, light brown, and buff dense chert
1710-1730	Limestone, medium-gray, finely granular; white, smoky gray, and light-brown dense chert
1730-1746	Shale, black, finely micaceous
1746-1750	Limestone, white, finely granular to finely crystalline
1750-1805	Dolomite, white, finely to medium-crystalline
1805-1820	Limestone, cream-colored and pink, medium-crystalline; pyrite
1820-1833	Limestone, light-gray and pink, medium-crystalline; dolomite rhombs in limestone; pyrite
1833-1840	Shale, greenish-gray, dolomitic; pyrite
1840-1846	(No samples)
1846-1865	Shale, medium-gray to greenish-gray, slightly dolomitic; pyrite
1865-1886	Shale, medium-gray, dolomitic, silty; pyrite
1886-1890	Shale as above but very dolomitic in part
1890-1905	Limestone, light brownish-gray, finely granular; light-brown dense chert; trace of bluish-green shale
1905-1910	Dolomite, light brownish-gray to brownish-gray, finely crystalline; light-brown and medium-gray dense chert; fine-grained sandstone
1910-1925	Dolomite, dark-gray, silty, finely granular
1925-1990	Sandstone, cream-colored to light-gray, dolomitic, fine- to medium-grained, free drilling
1990-2000	(No samples)
2000-2121	Sandstone as above
2121	TOTAL DEPTH

## WASHINGTON COUNTY (3)

Operator: ?	Elevation: 1060 ft.
Well No.: 3	Total depth: 414 ft.
Lease: Vic Rakowski	Completion date: ?
Location: Sec. 25, T. 14 N., R. 33 W.	Logged by: E. E. Glick

### Formation Tops

	Depth (ft.)
Chattanooga shale	250
Fernvale limestone	320
Plattin limestone	330
Everton formation	355

Depth in feet	Sample description
0- 20	(No samples)
20-245	Limestone, light-gray, cherty, finely granular; light- to medium-gray limy chert; light-gray smooth chert
245-250	Limestone, light-gray, silty, crinoidal, finely granular to finely crystalline; translucent gray chert; dull chert
250-294	Shale, black, finely micaceous; pyrite
294-306	Shale, medium-gray, finely micaceous; pyrite
306-317	Shale, medium- to dark-gray, finely micaceous; pyrite
317-320	Shale, dark-gray, slightly limy, finely micaceous; pyrite
320-330	Limestone, white to cream-colored, slightly sandy, finely to very coarsely crystalline; pink crystals; crinoids; tiny black gastropods; ostracods; pelecypods
330-335	Limestone, light-gray, slightly sandy, dense; scattered fine dolomite crystals; pyrite; very small quartz crystals; ostracods
335-340	(No samples)
340-350	Limestone, light-gray, slightly dolomitic, dense to very finely granular; bluish-green shale; very small quartz crystals; ostracods; pyrite
350-355	As above and slightly sandy
355-360	Dolomite, cream-colored to light brownish-gray, slightly sandy, finely crystalline; pyrite
360-370	Dolomite, medium-gray, silty, slightly sandy, very finely crystalline; light-gray dull chert; very small quartz crystals; glauconite
370-386	Shale, dark greenish-gray, finely sandy, slightly dolomitic
386-396	Silt, light-gray to white, dolomitic, very finely sandy; glauconite; pyrite
396-400	As above and trace of bluish-gray shale
400-414	Sandstone, white, dolomitic, very fine to medium-grained; pyrite
414	TOTAL DEPTH

## WASHINGTON COUNTY (4)

Operator: Arkansas Western Gas Co.	Elevation: 1310 ft.
Well No.: 1	Total depth: 638 ft.
Lease: Charles E. Ray	Completion date: Mar. 17, 1953
Location: E $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 15 N., R. 30 W.	Logged by: S. E. Frezon

### Formation Tops

	Depth (ft.)
Batesville sandstone, Ruddell shale, and Moorefield formation	163
Boone formation	190
Chattanooga shale	500
Cason shale	550
Fernvale limestone	566
Everton formation	580

Depth in feet	Sample description
0- 10	Weathered surface material
10- 66	Shale, dark-gray to black. (55 ft. sample)
66-100	Shale, dark-gray to black, very finely micaceous, soft
100-115	Shale, very dark gray to black, slightly pyritic
115-145	Shale, dark-gray to black, slightly pyritic
145-163	Shale, dark-gray to black, very finely micaceous, slightly pyritic
163-170	Limestone, gray to light-gray, dense, slightly silty, pyritic, finely granular to finely crystalline
170-175	Limestone, light-gray, silty, pyritic, finely granular to finely crystalline
175-182	Limestone, gray, silty, finely granular to finely crystalline
182-184	Shale, greenish-gray, dolomitic, pyritic
184-190	Limestone, gray to light-gray, slightly oolitic at top, dense to finely crystalline
190-195	Limestone, gray to light-gray, slightly oolitic, dense to finely granular; grayish-white chert
195-200	Limestone, gray to very light gray, dense to finely granular; white, slightly limy dense chert
200-205	Chert, white, limy, dense
205-210	Chert, light-gray to white, limy, dense
210-220	Chert, very light gray to white, limy, dense to finely granular
220-250	Chert, white to very light gray, limy, dense to finely granular; very light gray dense to finely crystalline limestone
250-255	Chert, white to very light gray, limy, dense to finely granular; gray to light-gray, finely granular to finely crystalline limestone
255-265	Limestone, light-gray, siliceous, finely granular to finely crystalline; white finely granular chert
265-275	Limestone, light-gray, finely granular to finely crystalline; white dense to finely granular chert
275-280	Chert, gray to light-gray, dense
280-285	(No samples)
285-300	Limestone, light-gray to white, siliceous, finely granular to finely crystalline; white dense to finely granular chert
300-306	Limestone, light-gray, slightly siliceous, finely granular to finely crystalline
306-310	Chert, light-gray, very limy, finely granular
310-325	Chert, white, very limy, finely granular; light-gray finely granular to finely crystalline limestone
325-330	(No samples)
330-345	Chert, very light gray to white, limy, granular

Depth in feet	Sample description
345-355	Chert, white, limy, dense to finely granular; light-gray finely granular to crystalline limestone
355-370	Chert, very light gray to white, limy, dense to finely granular; light-gray finely granular to finely crystalline limestone
370-375	Chert, white, limy, dense to finely granular
375-390	Chert as above; light-gray finely granular to finely crystalline limestone
390-395	Chert, gray to light-gray, translucent
395-400	Chert, light-gray to white, slightly limy; light-gray finely granular to crystalline limestone
400-420	Chert, very light gray to white, limy, dense to finely granular
420-430	Chert, light-gray to white, dense; white limy finely granular chert
430-440	Chert, light-gray to white, translucent; white limy finely granular chert
440-445	Limestone, white, finely granular; white limy finely granular chert
445-450	Chert, dark- to light-gray, translucent
450-455	Chert, very light gray to white, limy, dense to finely granular
455-465	Chert, gray to very light gray, translucent
465-470	Chert, as above; dark-gray to gray, finely granular to crystalline limestone
470-475	Chert, very light gray to white, limy, dense to finely granular
475-480	Chert, gray to light-gray, translucent; gray to light-gray finely crystalline to granular limestone
480-485	Limestone, gray to very light gray, cherty, finely granular
485-490	Limestone, very light gray, finely granular to finely crystalline
490-495	Chert, white, limy, finely granular
495-500	Limestone, gray to light-gray, finely granular to finely crystalline; trace of greenish-gray shale
500-542	Shale, dark-gray to black, slightly pyritic
542-550	Sandstone, white, slightly pyritic at top, fine-grained
550-566	Shale, medium-gray, silty, slightly sandy, dolomitic
566-580	Limestone, light-gray to light yellowish-gray, dense to coarsely crystalline; crinoids (?)
580-600	Dolomite, gray to olive-gray, very silty, finely granular to very finely crystalline
600-605	Dolomite, dark- to light-gray, sandy, silty; glauconitic medium- to fine-grained sandstone
605-638	Sandstone, white, slightly dolomitic, very fine to fine-grained; trace of gray sandy dolomite; trace of glauconite
638	TOTAL DEPTH



## WASHINGTON COUNTY (5)

Operator: Camden Oil Co.	Elevation: 1140 ft. (Topo.)
Well No.: 1	Total depth: 2097 ft.
Lease: J. W. Grissom	Completion date: Apr. 15, 1953
Location: Center of SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 15 N., R. 31 W.	Logged by: E. E. Glick

### Formation Tops

	Depth (ft.)
Chattanooga shale	290
Plattin limestone	355
Everton formation	367
Powell dolomite	592
Cotter dolomite	657
Jefferson City dolomite	1056
Roubidoux formation	1482
Gasconade dolomite and Van Buren formation undifferentiated	1625
Eminence dolomite	2040

Depth in feet	Sample description
0- 251	(No samples)
251- 258	Limestone, light-gray, very cherty, finely granular; light-gray to white limy chert
258- 275	(No samples)
275- 288	Limestone, medium-gray, crinoidal, finely granular; trace of light-gray chert; pyrite
288- 290	Limestone, light-gray, silty, crinoidal, finely granular; medium-gray rough shale; pyrite
290- 336	Shale, black; pyrite
336- 341	Sandstone, light-gray, slightly limy, fine- to coarse-grained; doloclastic chert
341- 347	Sandstone, white, slightly limy, fine- to medium-grained; free drilling
347- 355	Sandstone, white, limy, fine- to medium-grained; pyrite
355- 367	Limestone, medium- to light-gray, very finely sandy, very finely granular to dense; trace of bluish-green shale; ostracods
367- 370	Shale, dark-gray, hard, dolomitic; cream-colored smooth chert; pyrite
370- 375	Dolomite, medium- to dark-gray, silty, finely crystalline; very sandy dolomite with glauconite
375- 380	Dolomite, light-gray, slightly sandy, finely granular; glauconite
380- 385	Sandstone, light-gray, very dolomitic, very fine to medium-grained; glauconite; pyrite
385- 390	Sandstone, light-gray, very dolomitic, fine- to medium-grained; fine chips of soft black shale; pyrite
390- 400	Dolomite, light-gray, very finely sandy, finely granular
400- 405	Sandstone, light-gray, very dolomitic, fine-grained; pyrite; black shale chips
405- 410	Sandstone, white, fine- to medium-grained, free drilling; pyrite
410- 430	Sandstone, white, fine- to medium-grained; trace of bluish-green shale and black shale in tiny chips
430- 435	Sandstone, white, fine-grained
435- 455	Sandstone, light- to medium-gray, dolomitic, fine- to medium-grained; trace of green shale
455- 460	Sandstone, white, slightly dolomitic, fine- to medium-grained; free drilling
460- 465	Sandstone, light-gray, slightly dolomitic, fine-grained; trace of bluish-green shale
465- 475	Sandstone, light-gray, dolomitic, fine- to coarse-grained; bluish-green shale
475- 480	Sandstone, light-gray, dolomitic, fine- to medium-grained

Depth in feet	Sample description
480- 515	Sandstone, white to light-gray, fine- to medium-grained, free drilling
515- 525	Sandstone, white, fine-grained, free drilling
525- 535	Sandstone, white, slightly dolomitic, fine- to medium-grained; white and cream-colored rough, slightly porous and slightly dolomitic chert
535- 540	Sandstone, light-gray, very fine grained
540- 548	Sandstone, light-gray, fine- to medium-grained; trace of bluish-gray shale
548- 556	Limestone, light-gray to cream-colored, sandy, dolomitic, slightly cherty, slightly oolitic
556- 560	Dolomite, cream-colored, sandy, finely to coarsely crystalline
560- 567	Dolomite as above; trace of bluish-green shale
567- 572	Dolomite, cream-colored, very sandy, finely to medium-crystalline
572- 592	Sandstone, cream-colored to white, dolomitic, fine- to medium-grained
592- 600	Dolomite, medium-gray, finely granular; trace of pyrite
600- 610	Dolomite, light-gray to pinkish-gray, silty, finely granular; large white dolomite crystals; pyrite
610- 625	Dolomite, medium-gray to brownish-gray, silty, finely granular; trace of bluish-gray dolomitic shale
625- 630	Dolomite, medium-gray, silty, finely granular
630- 635	Dolomite, light-gray and pinkish-gray, finely granular
635- 645	Dolomite, medium-gray, silty, finely granular
645- 657	Dolomite, light- to medium-gray, finely granular
657- 670	Dolomite, cream-colored, finely granular; light brownish-gray translucent chert, oolitic in part; milky white smooth chert; pyrite
670- 675	Dolomite, cream-colored, finely granular; light-gray smooth chert
675- 690	Dolomite, light-gray to pinkish-gray, finely granular; trace of light-gray chert
690- 700	Dolomite, medium- to light-gray, finely crystalline; pinkish-gray finely granular dolomite; light-gray to milky-white smooth chert
700- 720	Dolomite, light-gray to pinkish-gray, finely granular to finely crystalline; white, light-gray, and light brownish-gray smooth chert, translucent in part; trace of bluish-green shale
720- 725	Dolomite, cream-colored, finely granular; white and light-brown smooth chert, translucent in part
725- 730	Dolomite, medium-gray, finely granular to finely crystalline; light brownish-gray chert, oolitic in part
730- 740	Dolomite, medium-gray, finely granular to finely crystalline; light brownish-gray chert
740- 745	Dolomite, light-gray, finely granular; white smooth chert
745- 755	Dolomite, light brownish-gray, slightly sandy, finely granular; trace of siliceous sandstone or sandy chert; light-gray smooth chert
755- 765	Dolomite, light- to medium-gray, finely granular; white, brownish-gray, and bluish-gray chert; trace of dark-gray dolomitic shale
765- 770	Dolomite, light brownish-gray, finely to medium-crystalline; white, light-brown and light-gray, slightly oolitic chert; quartz crystals
770- 775	Dolomite, light brownish-gray, sandy, finely granular; white chert; clear sandy chert; quartz crystals
775- 795	Dolomite, medium-gray, finely granular; white and light-gray oolitic chert; white smooth chert
795- 815	Dolomite, medium-gray, finely granular to finely crystalline; light-gray smooth chert; trace of light-gray oolitic chert; quartz crystals
815- 825	Dolomite, medium-gray, finely granular; white and gray smooth chert; light-gray to white oolitic chert; trace of clear sandy chert
825- 835	Dolomite, medium-gray, finely granular; white and gray smooth chert; trace of oolitic chert
835- 850	Dolomite, medium-gray, finely granular; light-gray smooth chert and medium-gray rough chert
850- 860	Dolomite, medium-gray, finely granular and finely crystalline
860- 870	Dolomite, light- to medium-gray, finely granular; quartz crystals
870- 875	Dolomite, light-gray, slightly sandy, finely granular
875- 885	Dolomite, light-gray, finely granular; trace of light-gray smooth chert
885- 890	Dolomite, light-gray, slightly sandy, finely granular; light-gray smooth chert
890- 896	Dolomite, light-gray, finely granular, slightly silty; white smooth chert
896- 900	Dolomite, light-gray, sandy, finely crystalline; white smooth sandy and oolitic chert
900- 905	Dolomite, light-gray, finely granular
905- 915	Dolomite, light- to medium-gray, finely granular; light-gray smooth chert; clear quartzose chert; trace of oolitic chert
915- 920	Dolomite, medium-gray, finely granular; white smooth chert, very oolitic in part
920- 925	Dolomite, medium-gray, finely granular; white smooth chert; trace of sandy chert

Depth in feet	Sample description
925- 930	Dolomite, light-gray, finely granular; white smooth chert
930- 935	Dolomite, light-gray, finely sandy, finely granular; white smooth chert; sandy chert
935- 940	Dolomite, light-gray, sandy in part, finely granular; trace of light-gray smooth chert
940- 950	Dolomite, light-gray, finely granular; trace of medium-gray silty dolomite; trace of light-gray smooth chert
950- 955	Dolomite, medium-gray, finely granular to medium-crystalline; white chert, sandy and oolitic in part; pyrite
955- 960	Dolomite, medium-gray, finely granular; white to light-gray smooth chert, oolitic in part
960- 970	As above, and clear quartz crystals
970- 975	Dolomite, medium-gray, slightly sandy, finely granular, light-gray smooth chert; clear sandy chert
975- 985	Dolomite, medium-gray, finely granular; white and light-gray smooth chert, very oolitic in part
985- 990	Dolomite, medium-gray, sandy, finely granular; light-gray smooth chert, oolitic and sandy in part
990-1000	Dolomite, light-gray, finely granular and finely crystalline; white crystalline dolomite; trace of light-gray chert; quartz crystals; pyrite
1000-1005	Dolomite, medium-gray, finely granular; light-gray chert, oolitic in part; white quartz
1005-1015	Dolomite, light- to medium-gray, finely granular; light-gray chert, oolitic in part; pyrite
1015-1025	Dolomite, medium- to light-gray, finely crystalline; clear quartz
1025-1040	Dolomite, light-gray, finely granular; trace of light-gray oolitic chert; quartz
1040-1046	Dolomite, medium-gray, finely granular; white crystalline dolomite
1046-1052	Dolomite, light-gray, sandy, finely crystalline; white crystalline sandy dolomite; sandy and oolitic chert
1052-1056	Dolomite, cream-colored to light-gray, finely crystalline to finely granular; light-gray very sandy dolomite
1056-1060	Dolomite, cream-colored to light-gray, finely crystalline; trace of light-gray oolitic chert
1060-1065	Dolomite, cream-colored, finely granular; white smooth chert, oolitic in part
1065-1070	Dolomite, light-gray, finely granular; clear quartz
1070-1080	Dolomite, medium-gray, finely granular; abundant white to light-gray smooth chert
1080-1090	Dolomite, medium-gray, finely to medium-crystalline; light-gray and white smooth chert
1090-1095	Dolomite, medium-gray, finely granular; light-gray oolitic chert
1095-1100	Dolomite, cream-colored, finely granular; trace of light-gray smooth chert; pyrite
1100-1110	Dolomite, cream-colored, slightly sandy, finely granular; light-gray smooth chert; trace of oolitic chert
1110-1115	Dolomite, light-gray, slightly sandy, finely granular
1115-1120	Dolomite, medium-gray, slightly sandy, finely granular; light-gray slightly oolitic chert
1120-1125	Dolomite, medium-gray, slightly sandy, finely granular
1125-1138	Dolomite, medium-gray, finely granular
1138-1142	Dolomite, light-gray, finely granular to very finely crystalline; white dull chert; pyrite
1142-1150	Dolomite, medium-gray, medium-crystalline
1150-1155	Dolomite, medium-gray, finely to medium-crystalline; dull white slightly dolocastic chert
1155-1160	Dolomite, light-gray, finely granular; dull white chert with dolomite rhombs in lower part
1160-1170	Dolomite, medium-gray, finely granular to finely crystalline; dull white chert with trace of dolomite rhombs; clear quartz crystals in lower part
1170-1180	Dolomite, medium-gray, medium-crystalline
1180-1185	Dolomite, medium-gray, very slightly sandy, finely granular; trace of white smooth and rough chert
1185-1193	Dolomite, medium-gray, finely granular to finely crystalline; trace of pyrite
1193-1200	Dolomite, light-gray, finely granular to finely crystalline; white dull chert with fine dolomite rhombs
1200-1210	Dolomite, light- to medium-gray, finely granular; white to light-brown slightly oolitic chert; clear quartz; sandy dolomite and sandy chert in lower half
1210-1215	Dolomite, medium-gray, finely granular to medium-crystalline
1215-1220	Dolomite, light- to medium-gray, finely granular; trace of light-brown slightly oolitic chert
1220-1230	Dolomite, light- to medium-gray, finely granular to finely crystalline; light brownish-gray smooth chert
1230-1240	Dolomite, light- to medium-gray, finely granular; light-gray smooth chert
1240-1245	Dolomite, light-gray, finely granular; light-gray very oolitic chert; brown oolites in brown chert
1245-1250	Dolomite, light-gray, finely granular; light-gray smooth chert; trace of brown oolites
1250-1255	Dolomite, light- to medium-gray, finely granular; light-gray smooth chert
1255-1260	Dolomite, medium-gray, finely crystalline; white rough chert and light-gray smooth chert
1260-1270	Dolomite, cream-colored, finely granular; light-gray smooth chert
1270-1275	Dolomite, medium-gray, finely granular; white and light-gray smooth chert
1275-1280	Dolomite, light- to medium-gray, slightly sandy, finely granular; white and light-gray sandy and oolitic chert

Depth in feet	Sample description
1280-1285	Dolomite, medium-gray, finely crystalline; light-gray sandy and oolitic chert; gray oolites
1285-1290	Dolomite, cream-colored, finely granular
1290-1300	Dolomite, cream-colored, finely granular; dark-gray silty dolomite; light-gray smooth chert, oolitic and sandy in part
1300-1305	Dolomite, cream-colored, finely granular; light-gray smooth chert
1305-1310	Dolomite, medium-gray, slightly sandy, finely granular; light-gray smooth chert
1310-1315	Dolomite, medium-gray, slightly sandy, finely granular; light-brown and light-gray chert
1315-1320	Dolomite, cream-colored, finely granular; light brownish-gray very sandy chert
1320-1325	Dolomite, cream-colored, finely granular; trace of clear sandy chert and bluish-green shale
1325-1330	Dolomite, light-gray, finely granular; light-gray smooth chert; clear sandy chert
1330-1335	Dolomite, medium-gray, sandy, finely granular; light-gray and light-brown chert; dark-gray shale
1335-1340	Dolomite, cream-colored, finely granular; light-gray smooth chert
1340-1350	Dolomite, light-gray, finely granular; dark silty dolomite; trace of light-gray smooth chert
1350-1355	Dolomite, medium-gray, finely crystalline; light-gray smooth chert; dolomite rhombs in white earthy chert
1355-1360	Dolomite, medium-gray, medium-crystalline; light-gray chert with trace of dolomite rhombs
1360-1365	Dolomite, medium-gray, finely to medium-crystalline; light-gray chert; white oolitic chert; free oolite clusters
1365-1380	Dolomite, medium-gray, finely crystalline; light-gray smooth chert
1380-1390	Dolomite, medium-gray, finely granular to finely crystalline; trace of silty dolomite; light-gray smooth chert; white dull chert; white chert with dolomite rhombs; trace of brown oolitic chert
1390-1400	Dolomite, medium-gray, medium-crystalline; dull white chert; light-gray smooth chert
1400-1405	Dolomite, medium-gray, medium-crystalline; light-gray smooth slightly oolitic chert; clear quartz
1405-1420	Dolomite, medium-gray, finely crystalline; light-gray smooth chert; white crystalline dolomite; white dull chert
1420-1425	Dolomite, light-gray, finely to medium-crystalline; white dull chert; light-gray smooth chert; dolomite crystals
1425-1430	Dolomite, cream-colored, finely granular; white dull chert; light-gray smooth chert; dolomite crystals
1430-1440	Dolomite, light-gray, slightly sandy, finely to medium-crystalline; white dull chert; light-gray sandy oolitic chert; trace of pyrite
1440-1450	Dolomite, medium-gray, finely granular to medium-crystalline; white and light-gray sandy and oolitic chert; chert with dolomite rhombs
1450-1460	Dolomite, medium-gray, finely granular to finely crystalline; white slightly oolitic chert; gray chert
1460-1465	Dolomite, light to medium-gray, finely granular; white and light-gray slightly oolitic chert; quartz
1465-1470	Dolomite, medium- to dark-gray, slightly silty, finely granular to finely crystalline; white oolitic chert
1470-1482	Dolomite, medium-gray, finely to medium-crystalline; clear light-gray and light-brown sandy and oolitic chert
1482-1495	Dolomite, light-gray, finely granular to finely crystalline; white and clear sandy chert or siliceous sandstone; light-gray smooth very oolitic chert; free brown oolites
1495-1500	Dolomite, light-gray, very sandy, finely granular; trace of dull white chert
1500-1505	Dolomite, light-gray, sandy, medium-crystalline; trace of milky-white chert
1505-1515	Dolomite, medium-gray, sandy, finely granular; clear siliceous sandstone
1515-1520	Dolomite, medium-gray, slightly sandy, finely granular to finely crystalline; light-gray smooth chert
1520-1525	Dolomite, light-gray, finely crystalline; light-gray very oolitic chert; light-gray smooth chert; free oolites
1525-1530	Dolomite, light-gray, dark and silty in part, finely granular to finely crystalline; light-gray smooth chert
1530-1535	Dolomite, light-gray, slightly sandy, finely granular; light- to medium-gray smooth chert
1535-1545	Dolomite, light-gray, sandy, finely granular; white dull oolitic and sandy chert
1545-1550	Dolomite, light-gray, very finely to coarsely sandy, finely granular; dull white and light-gray chert
1550-1560	Dolomite, light-gray, slightly sandy, finely to medium-crystalline; light-gray smooth chert, oolitic and sandy in part
1560-1565	Dolomite, light-gray, finely to medium-crystalline; trace of milk-white smooth chert
1565-1570	Dolomite, light-gray, slightly sandy, finely granular
1570-1580	Dolomite, light-gray, slightly sandy, finely to medium-crystalline; white dolomite crystals
1580-1585	Dolomite, cream-colored, slightly sandy, finely granular to finely crystalline; light-gray sandy and oolitic smooth chert
1585-1590	Dolomite, cream-colored, slightly sandy, finely to medium-crystalline; light-gray oolitic chert

Depth in feet	Sample description
1590-1600	Dolomite, light-gray, finely granular to finely crystalline; white dull chert; light to medium-gray smooth chert
1600-1605	Dolomite, cream-colored, sandy, finely granular to finely crystalline; light-gray sandy and oolitic chert
1605-1610	As above but more chert; quartz crystals
1610-1625	Dolomite, cream-colored, finely granular; much siliceous sandstone; light-gray sandy and oolitic chert; quartz crystals
1625-1635	Dolomite, light-gray, medium-crystalline; light-gray smooth chert; milky-white oolitic and sandy chert; white dull chert with medium dolomite rhombs; porous doloclastic chert
1635-1645	Dolomite, light-gray, finely crystalline; light-gray translucent banded oolitic chert; very large free oolites with brown centers; brown oolites in light-gray chert; sandy chert and sandy dolomite in lower part
1645-1655	Dolomite, light-gray, very slightly sandy, medium-crystalline; white crystalline dolomite
1655-1660	As above and trace of light-gray smooth chert
1660-1665	Dolomite, light-gray, medium-crystalline; clear dolomite crystals
1665-1690	Dolomite, light-gray to cream-colored, medium- to coarsely-crystalline; clear dolomite crystals
1690-1700	Dolomite, light-gray to cream-colored, slightly sandy, medium- to coarsely crystalline; clear dolomite crystals; pyrite
1700-1705	Dolomite, light-gray, finely to medium-crystalline; clear dolomite crystals
1705-1710	Dolomite, cream-colored, very slightly sandy, finely to medium-crystalline; clear dolomite crystals; quartz crystals
1710-1730	Dolomite, cream-colored, finely crystalline; trace of light-gray to white smooth chert
1730-1735	Dolomite, cream-colored, finely to medium-crystalline; bluish-gray rough chert
1735-1745	Dolomite, cream-colored, finely to medium-crystalline; white, light-gray, and bluish-gray slightly oolitic chert; clear dolomite crystals; quartz crystals; pyrite; trace of brown oolites
1745-1750	Dolomite, cream-colored, finely to medium-crystalline; translucent smoky-gray chert
1750-1760	Dolomite, cream-colored and light brownish-gray, slightly sandy, finely crystalline; white, light-gray, and bluish-gray smooth chert; clear oolitic and sandy chert; earthy white chert with dolomite rhombs; quartz crystals
1760-1770	Dolomite, light-gray, medium-crystalline; milky-white slightly oolitic chert; quartz crystals
1770-1780	Dolomite, light-gray, medium-crystalline; milky-white chert
1780-1785	Dolomite, cream-colored to light-gray, medium-crystalline; white smooth chert; trace of glauconite in chert; drusy quartz; pyrite
1785-1790	Dolomite, light-gray, medium-crystalline; white smooth slightly oolitic chert
1790-1800	Dolomite, light-gray, medium-crystalline; white to light-brown slightly oolitic chert; much drusy quartz
1800-1810	Dolomite, light-gray, medium-crystalline; white to light-brown slightly oolitic chert; pyrite
1810-1820	Dolomite, cream-colored, medium-crystalline; milky-white oolitic chert
1820-1830	Dolomite, cream-colored, finely crystalline; white dull to smooth chert
1830-1840	As above and light-brown translucent chert; smoky-gray oolitic chert; drusy quartz
1840-1850	Dolomite, cream-colored, finely crystalline; white dull and smooth chert; light-brown translucent chert
1850-1855	Dolomite, cream-colored, medium-crystalline; white dull smooth chert; light-brown and light-gray slightly oolitic chert
1855-1870	Dolomite, light brownish-gray, medium-crystalline; white smooth slightly oolitic chert; white rough chert with dolomite rhombs; trace of glauconite
1870-1890	Dolomite, medium-gray, medium- to coarsely crystalline; white smooth and rough chert
1890-1895	Dolomite, light brownish-gray, finely to medium-crystalline; white chert; white sandy chert
1895-1910	Dolomite, medium brownish-gray, medium-crystalline; white smooth and rough chert
1910-1920	Dolomite, medium-gray, finely to medium-crystalline; white and light-gray smooth chert
1920-1940	Dolomite, medium-gray, medium- to coarsely crystalline; trace of white dull chert
1940-1950	Dolomite, cream-colored to light-gray, very slightly sandy, finely to medium-crystalline; trace of light-gray smooth chert
1950-1960	Dolomite, light brownish-gray, medium-crystalline; trace of white dull chert
1960-1970	Dolomite, light-gray, coarsely crystalline; pyrite
1970-1975	Dolomite, cream-colored, medium-crystalline; cream-colored smooth chert
1975-1985	Dolomite, light-gray, finely to medium-crystalline; quartz crystals; pyrite
1985-2000	Dolomite, cream-colored, medium-crystalline; white and light-gray smooth to dull chert
2000-2005	Dolomite, light-gray, finely granular to finely crystalline; cream-colored smooth to dull chert
2005-2010	Dolomite as above; finely to medium-crystalline dolomite

Depth in feet	Sample description
2010-2018	Dolomite, light-gray, medium- to coarsely crystalline
2018-2020	Sandstone, light-gray, very dolomitic, fine- to coarse-grained
2020-2030	Sandstone, white, slightly dolomitic, medium- to coarse-grained
2030-2040	Sandstone, white, dolomitic, fine- to coarse-grained
2040-2050	Dolomite, light-gray, finely to coarsely sandy, very finely to medium-crystalline; light-gray finely granular dolomite
2050-2055	Dolomite, light-gray, slightly sandy, finely granular
2055-2060	Dolomite, light-gray, medium-crystalline
2060-2065	Dolomite, light brownish-gray, finely to medium-crystalline; white rough chert; quartz
2065-2070	Dolomite, light-gray, slightly sandy, medium- to coarsely crystalline; trace of white chert
2070-2080	Dolomite, light-gray, very slightly sandy, medium- to coarsely crystalline; trace of glauconite
2080-2090	Dolomite, light-gray, very slightly sandy, medium- to coarsely crystalline
2090-2097	Dolomite, light-gray, medium- to coarsely crystalline; trace of white dull chert
2097	TOTAL DEPTH

## WASHINGTON COUNTY (6)

Operator: J. W. Eddington	Elevation: 1100 ft. (Topo.)
Well No.: 1	Total depth: 580 ft.
Lease: McElroy	Completion date: ?
Location: NE $\frac{1}{4}$ , SE $\frac{1}{4}$ , NE $\frac{1}{4}$ , sec. 5, T. 15 N., R. 32 W.	Logged by: E. E. Glick

### Formation Tops

	Depth (ft.)
Chattanooga shale	338
Everton formation	390

Depth in feet	Sample description
0- 65	(No samples)
65- 80	Limestone, light-gray, finely crystalline; white and buff dense and rough chert
80- 90	Limestone, light-gray, finely crystalline; white limy chert
90-100	Limestone, light-gray, finely granular to finely crystalline; white smooth and white limy chert
100-200	Limestone, light-gray, finely granular; white dense and white limy chert
200-220	Limestone, light-gray, finely granular; white limy chert
220-225	(No samples)
225-245	Limestone and chert as above
245-255	Limestone, light-gray, finely granular to finely crystalline; white and light-gray limy chert; white dense chert; cream-colored and medium-gray dense chert
255-265	Limestone, light-gray, crinoidal, finely crystalline; trace of bluish-gray shale; pyrite
265-300	Limestone, cream-colored, crinoidal, finely crystalline; trace of bluish-gray chert; pyrite
300-320	Limestone, cream-colored, crinoidal, finely crystalline
320-338	Limestone, dark-gray, very silty, crinoidal
338-387	Shale, black, finely micaceous; pyrite
387-390	Sandstone, light-gray, limy, very fine to medium-grained; glauconite; pyrite
390-392	Limestone, brown, dense
392-395	Dolomite, light brownish-gray, finely crystalline; fine-grained sandstone
395-400	Dolomite, light-gray, sandy, finely crystalline; fine- to medium-grained sandstone; brown dense chert
400-409	Dolomite, brownish-gray, limy, sandy, finely crystalline
409-420	Siltstone, bluish-gray, very finely sandy, slightly dolomitic; fine glauconite; pyrite
420-425	Siltstone, bluish-gray, very finely sandy, slightly dolomitic; medium-gray dolomitic siltstone; fine glauconite; pyrite
425-430	Dolomite, light-gray, finely sandy, silty, finely crystalline; glauconite; pyrite
430-436	Dolomite, cream-colored, very finely to medium sandy, medium-crystalline; glauconite
436-440	Sandstone, cream-colored, very dolomitic, very fine to fine-grained; glauconite
440-455	Dolomite, cream-colored, sandy, finely crystalline; glauconite
455-470	Sandstone, light-gray, dolomitic, fine- to medium-grained; glauconite
470-505	Sandstone, white, slightly dolomitic, fine- to medium-grained
505-520	Sandstone, light-gray, slightly dolomitic, fine- to medium-grained; trace of bluish-green shale
520-540	Sandstone, light-gray to white, slightly limy, fine- to medium-grained; trace of bluish-green shale
540-560	Sandstone, light-gray, limy, fine- to medium-grained; trace of bluish-green shale
560-580	Sandstone, white to cream-colored, fine- to medium-grained
580	TOTAL DEPTH

## WASHINGTON COUNTY (7)

Operator: Irving Greenspan	Elevation: 1220 ft. (Topo.)
Well No.: 1	Total depth: 1525 ft.
Lease: Walker	Completion date: Apr. 12, 1952
Location: SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 16 N., R. 31 W.	Logged by: E. E. Glick

### Formation Tops

	Depth (ft.)
Chattanooga shale	80 (?)
Everton formation	123
Powell dolomite	355
Cotter dolomite	410
Jefferson City dolomite	767
Roubidoux formation	1200 (?)
Gasconade dolomite and Van Buren formation undifferentiated	1332

Depth in feet	Sample description
0- 23	(No samples)
23- 26	Chert, gray, dense; trace of limestone
26- 40	(No samples)
40- 45	Limestone, light-gray, very finely granular; dark smoky dense chert; pyrite
45- 50	Limestone, light-gray, granular; smoky gray dense chert; pyrite; crinoids
50- 55	Limestone, light-gray, finely granular to very finely crystalline; chert; crinoids; pyrite
55- 60	Limestone, brownish-gray, finely granular; trace of smoky chert; crinoids; pyrite
60- 65	Limestone, brownish-gray, finely granular to finely crystalline; crinoids; pyrite
65- 70	Limestone, grayish-brown, silty, finely granular; crinoids; pyrite
70- 80	(No samples)
80- 123	Shale, black; pyrite
123- 130	Shale, bluish-gray, slightly dolomitic; finely crystalline pyrite
130- 135	Siltstone, light bluish-gray, very finely sandy, dolomitic; glauconite
135- 140	Sandstone, light-gray, dolomitic, silty, very fine grained; glauconite; pyrite
140- 144	(No samples)
144- 150	Sandstone as above; pyrite
150- 160	Siltstone, light-gray, very finely sandy, dolomitic; pyrite
160- 175	Sandstone, yellowish-gray, fine- to medium-grained
175- 180	Sandstone, yellowish-white, dolomitic, fine- to medium-grained; pyrite
180- 185	Sandstone, white, dolomitic, very fine to medium-grained, free drilling
185- 190	Sandstone, grayish-white, dolomitic, very fine to medium-grained; pyrite
190- 195	Sandstone, grayish-white, dolomitic, fine- to medium-grained; bluish-gray sandy shale; pyrite
195- 200	Shale, greenish-gray, slightly dolomitic, very finely to medium sandy; pyrite
200- 204	Sandstone, grayish-white, dolomitic, very fine- to medium-grained; pyrite
204- 206	Shale, greenish-gray, sandy; pyrite
206- 210	Sandstone, grayish-white, very dolomitic, very fine to fine-grained; pyrite
210- 217	Dolomite, light-gray, very finely to finely sandy, very finely granular
217- 220	Sandstone, grayish-white, dolomitic, fine- to medium-grained
220- 230	Sandstone, white, slightly dolomitic, very fine to medium-grained
230- 245	Sandstone, white, fine- to coarse-grained, free drilling



Depth in feet	Sample description
245- 250	Sandstone, light-gray, dolomitic, fine- to medium-grained
250- 260	(No samples)
260- 270	Sandstone, grayish-white, very dolomitic, fine- to medium-grained; pyrite
270- 280	(No samples)
280- 300	Sandstone, white, fine- to medium-grained
300- 325	Sandstone, white, dolomitic, fine- to medium-grained
325- 330	Dolomite, light bluish-gray, silty, very finely granular
330- 340	Dolomite, light-gray to bluish-gray, silty, very finely granular
340- 347	Dolomite as above; pyrite
347- 355	Sandstone, white, dolomitic, fine- to medium-grained
355- 360	Dolomite, light bluish-gray to grayish-brown, silty, very finely granular
360- 370	Dolomite, light-gray to cream-colored, silty, very finely granular; pyrite
370- 380	Dolomite, light-gray to bluish-gray, silty, very finely granular; pyrite
380- 390	Dolomite and pyrite as above; cream-colored dense chert
390- 400	Dolomite, cream-colored, slightly silty, very finely granular
400- 410	Dolomite, light brownish-gray, slightly silty, very finely granular; trace of clear chert; pyrite
410- 430	Dolomite, light-gray, slightly silty, very finely granular to very finely crystalline; milky dense chert
430- 440	Dolomite, light-gray, silty, very finely granular
440- 450	Dolomite, light-gray, slightly silty, very finely granular to finely crystalline; milky dense chert
450- 460	Dolomite as above; smoky and banded chert
460- 470	Dolomite, light brownish-gray, silty, very finely granular to very finely crystalline; milky chert
470- 480	Dolomite, light-gray, slightly silty, very finely granular; milky chert
480- 490	Dolomite, light-gray, slightly silty, slightly sandy, very finely crystalline; milky chert and chert with sand grains
490- 500	Dolomite, cream-colored, slightly silty, very finely crystalline
500- 510	Dolomite, cream-colored to light-gray, slightly silty, very finely granular to very finely crystalline
510- 520	Dolomite, light brownish-gray, slightly silty, very finely granular to finely crystalline; milky dense chert
520- 540	Dolomite, cream-colored to light-gray, silty, very finely granular to finely crystalline; white milky chert with sand grains; pyrite; quartz crystals
540- 550	Dolomite, cream-colored to light-gray, silty, very finely granular to finely crystalline; milky dense chert; quartzitic fine-grained sandstone and scattered sand grains
550- 560	Dolomite, cream-colored, silty, very finely granular to finely crystalline; scattered sand grains
560- 580	Dolomite, light brownish-gray, slightly silty, very finely granular to finely crystalline
580- 590	Dolomite as above; milky dense chert
590- 600	Dolomite, light-gray, silty, very finely granular; quartzitic fine-grained sandstone; dark-brown finely laminated shale; pyrite
600- 620	Dolomite, light-gray, silty, very finely granular to very finely crystalline; dark-brown shale; pyrite; milky dense chert in lower half
620- 630	Dolomite, light brownish-gray, silty, finely crystalline; very quartzitic fine-grained sandstone; milky white chert
630- 640	Dolomite, light brownish-gray, silty, very finely granular to very finely crystalline; pyrite; quartz crystal aggregates
640- 650	Dolomite, cream-colored to light-gray, slightly silty, very finely granular; milky and cream-colored dense chert; pyrite
650- 660	Dolomite, light brownish-gray, very silty, very finely granular to very finely crystalline
660- 670	Dolomite, light-gray, silty, very finely granular to finely crystalline; trace of milky dense chert
670- 680	Dolomite and chert as above; quartz crystal aggregates
680- 690	Dolomite, light-gray, silty, very finely granular; pyrite; quartzitic fine- to medium-grained sandstone; trace of milky chert
690- 700	Dolomite, light-gray, slightly silty, very finely granular to very finely crystalline; light-gray oolitic chert; quartz crystals
700- 710	Dolomite, cream-colored to light-brown, slightly silty, very finely granular to finely crystalline; oolitic chert with brown oolites in white chert; quartzitic fine-grained sandstone
710- 720	Dolomite, light-gray, slightly silty, very finely crystalline; quartz crystals
720- 730	Dolomite, cream-colored to light-gray, silty, very finely granular; pyrite; quartz crystals
730- 740	Dolomite, light-gray, slightly silty, finely crystalline; pyrite; quartz crystals; milky white chert

Depth in feet	Sample description
740- 750	Dolomite, light brownish-gray, silty, very finely granular to finely crystalline; milky dense chert; trace of pyrite
750- 760	Dolomite, light-gray, slightly silty, finely crystalline; dolomitic fine- to medium-grained sandstone; quartzitic sandstone; chert with sand grains
760- 767	Dolomite and sandstone as above; milky white dense chert
767- 780	Dolomite, light-gray, slightly silty, very finely granular to finely crystalline; milky white dense chert; oolitic chert
780- 800	Dolomite, light-gray, slightly silty, very finely granular to finely crystalline; white to cream-colored dense chert; chert with dolomite rhombs; pyrite; quartz crystals
800- 810	Dolomite, light-gray, slightly silty, slightly sandy, very finely granular to finely crystalline; milky white and cream-colored dense chert
810- 820	Dolomite, cream-colored, slightly silty, slightly sandy, very finely granular to finely crystalline; white and cream-colored dense chert
820- 835	Dolomite, light brownish-gray, slightly silty, slightly sandy, very finely granular to finely crystalline; cream-colored and white dense chert
835- 840	Dolomite, light brownish-gray, silty; very finely granular to finely crystalline; cream-colored dense chert
840- 850	Dolomite, brownish-gray, silty, very finely granular to very finely crystalline; dark-brown shale
850- 860	Dolomite, light-brown, silty, slightly porous, very finely granular to medium-crystalline
860- 870	Dolomite, light-brown, silty, very finely granular to finely crystalline; pyrite; white dense chert
870- 885	Dolomite, light-gray, silty, very finely granular to finely crystalline; brown siliceous oolites in white matrix; white quartzitic fine-grained sandstone
885- 890	Dolomite, light brownish-gray, slightly silty, very finely granular to finely crystalline; cream-colored dense chert
890- 900	Dolomite, brownish-gray, silty, very finely crystalline; white quartzitic fine-grained sandstone; white dense chert; oolitic chert
900- 910	Dolomite, light-gray to light brownish-gray, silty, very finely granular to finely crystalline; white dense chert, slightly sandy in part
910- 920	Dolomite, light-gray, silty, very finely granular to finely crystalline; white dense chert
920- 930	Dolomite and chert as above; trace of fine sand and pyrite
930- 950	Dolomite, light-gray, silty, very finely granular to very finely crystalline; white dense chert; milky white chert with dolomite rhombs
950- 960	Dolomite, cream-colored to light-gray, slightly silty, very finely granular to very finely crystalline; white and cream-colored dense chert
960- 970	Dolomite, cream-colored to light-gray, slightly silty, very finely granular to very finely crystalline; white and cream-colored sandy dense chert; pyrite
970- 990	Dolomite, light-gray to cream-colored, very finely granular to finely crystalline; dark-brown shale; cream-colored and white dense chert; cream-colored oolitic chert; pyrite
990-1000	Dolomite, light-gray, very finely granular to finely crystalline; trace of dark-brown shale; trace of oolitic chert; white and cream-colored dense chert; quartzitic fine-grained sandstone
1000-1010	Dolomite, light-gray, very finely granular; trace of finely sandy dolomite; trace of white dense chert
1010-1020	Dolomite, light-gray, very finely granular; white and cream-colored dense chert
1020-1030	Dolomite, light-gray, very finely granular; white and cream-colored dense chert; quartzitic sandstone; trace of dark-brown shale; trace of oolitic chert
1030-1040	Dolomite, light-gray, slightly silty, very finely granular; milky white and cream-colored chert; quartzitic fine-grained sandstone
1040-1050	Dolomite, cream-colored to white, very finely granular; cream-colored to white dense chert
1050-1060	(No samples)
1060-1070	Dolomite, cream-colored to white, very finely granular; white translucent chert
1070-1080	Dolomite, light-gray, very finely granular; light-brown very finely crystalline dolomite; white dense chert
1080-1090	Dolomite, light brownish-gray, very finely granular to finely crystalline; white dense chert; trace of oolitic chert; dolomitic fine-grained sandstone; pyrite
1090-1100	Dolomite, light brownish-gray, very finely granular to finely crystalline; white dense chert; trace of oolitic chert
1100-1110	Dolomite, light-gray to light brownish-gray, medium sandy in part, finely to medium-crystalline; white sandy dense chert

Depth in feet	Sample description
1110-1120	Dolomite, light-gray to light brownish-gray, very finely to medium-crystalline; dark-brown dolomitic shale; white to cream-colored dense chert; quartzitic sandstone and quartz crystals; pyrite
1120-1140	Dolomite and chert as above; shale as above in top half; trace of buff oolitic chert
1140-1150	Dolomite, light-gray to light brownish-gray, very finely to medium-crystalline; milky white very finely banded chert
1150-1160	Dolomite and chert as above; oolites and sand grains in white dense translucent chert; pyrite
1160-1170	Dolomite, light-gray to light brownish-gray, very finely to medium-crystalline; dark-brown shale; white translucent chert; trace of oolitic chert
1170-1180	Dolomite, light-gray to light brownish-gray, slightly silty, very finely to medium-crystalline; white to buff dense chert; white very finely granular chert with dolomite rhombs
1180-1190	Dolomite, light brownish-gray, very finely to medium-crystalline; white dense chert; white rough-textured chert
1190-1200	Dolomite and chert as above; trace of dark-brown to black shale; trace of white chert with brown oolites and sand grains
1200-1210	Dolomite, light-gray to light brownish-gray, sandy, very finely granular to finely crystalline; quartz crystals; white dense sandy chert; trace of oolites
1210-1220	Dolomite, white to cream-colored, medium-crystalline; cream-colored dense chert; trace of medium-grained sandstone
1220-1230	Dolomite and chert as above; white sandy dense chert; pyrite
1230-1240	Dolomite, light-gray to cream-colored, slightly sandy in part, very finely granular to medium-crystalline; white oolitic sandy dense chert; quartz crystals
1240-1250	Dolomite, cream-colored, sandy in part, very finely to medium-crystalline; cream-colored dense chert; cream-colored to brown oolitic chert; bluish-gray translucent chert
1250-1260	Dolomite, cream-colored to light brownish-gray, sandy in part, very finely to medium-crystalline; white and buff dense chert; buff oolitic chert
1260-1270	Dolomite and chert as above; white earthy chert
1270-1290	Dolomite, cream-colored to light-gray, sandy, very finely to medium-crystalline; oolitic translucent chert; white dense and white earthy chert
1290-1300	Dolomite, light-gray, very finely to medium-crystalline; bluish-gray, white and cream-colored dense chert; oolitic chert; quartz crystals
1300-1320	Dolomite, cream-colored to light-gray, sandy, finely to medium-crystalline; white translucent chert; white earthy chert with dolomite crystals; oolitic chert
1320-1324	Dolomite, light brownish-gray, very finely granular to finely crystalline
1324-1332	Sandstone, white, clear, quartzitic; white dense chert
1332-1340	Dolomite, light-gray, finely to medium-crystalline; white dense chert; brown oolitic chert; white earthy chert with dolomite rhombs
1340-1350	Dolomite, light-gray, sandy, finely to medium-crystalline; white oolitic chert; white translucent chert; white earthy chert with dolomite rhombs
1350-1360	Dolomite, light-buff, sandy in part, medium-crystalline; white clear oolitic sandy chert; white dense chert
1360-1380	Dolomite, light brownish-gray, slightly sandy, finely to medium-crystalline
1380-1390	Dolomite as above; milky white sandy dense chert
1390-1400	Dolomite, cream-colored, finely to medium-crystalline; trace of bluish-green shale; scattered sand grains; white earthy sandy chert
1400-1410	Dolomite, cream-colored, finely to medium-crystalline; trace of bluish-green shale
1410-1420	Dolomite, cream-colored, slightly sandy, finely to medium-crystalline; trace of white dense chert
1420-1430	Dolomite and chert as above; trace of dark-gray and bluish-green shale
1430-1440	Dolomite, cream-colored to light-gray, slightly sandy, finely crystalline; abundant milky smooth chert; milky oolitic chert
1440-1450	Dolomite, light-gray, medium-crystalline; trace of white dense chert; pyrite
1450-1460	Dolomite, cream-colored to light-gray, finely to medium-crystalline; white dense chert, oolitic in part; white earthy chert; pyrite
1460-1470	Dolomite, light-gray, finely to medium-crystalline; trace of sand; white dense and white earthy chert
1470-1480	Dolomite, light brownish-gray, medium-crystalline; white dense and white earthy chert; scattered sand grains; quartzitic fine-grained sandstone
1480-1490	Dolomite, light-gray, finely to medium-crystalline; white dense chert; white earthy chert with dolomite rhombs; quartz crystals; oolitoid chert

Depth in feet	Sample description
1490-1500	Dolomite, chert, and quartz as above; sandy chert
1500-1510	Dolomite, light cream-colored, finely to medium-crystalline; white dense and white earthy chert; quartz crystals
1510-1525	(No samples)
1525	TOTAL DEPTH

## WASHINGTON COUNTY (8)

Operator: City of Tontitown	Elevation: 1320 ft. (Topo.)
Well No.: 1	Total depth: 1416 ft.
Lease: Water well	Completion date: ?
Location: Center of NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 17 N., R. 31 W.	Logged by: E. E. Glick

### Formation Tops

	Depth (ft.)
Chattanooga shale	251
Everton formation	308
Powell dolomite	383
Cotter dolomite	460
Jefferson City dolomite	840
Roubidoux formation	1216
Gasconade dolomite	1350

Depth in feet	Sample description
0- 60	(No samples)
60- 65	Limestone, light-gray, oolitoid, crinoidal, cherty, finely crystalline
65- 70	Limestone, cream-colored, crinoidal, cherty, finely granular; brachiopods
70- 75	Limestone, cream-colored, crinoidal, cherty, very finely crystalline; glauconite
75- 80	Limestone, cream-colored, crinoidal, cherty, very finely crystalline
80- 100	Limestone, light-gray, very cherty, finely granular
100- 115	Limestone, light-gray, crinoidal, cherty, finely crystalline
115- 125	Limestone, light-gray, cherty, finely granular
125- 155	Limestone, light-gray, finely granular; white rough porous chert
155- 175	Limestone, light-gray, finely granular; brown and white dense chert
175- 205	Limestone, light-gray, finely granular; light-gray and white dense and rough chert
205- 215	Limestone, medium-gray, finely granular; light-gray and light brownish-gray dense chert; white rough chert
215- 235	Limestone, medium-gray, finely granular; brownish-gray and smoky gray dense chert; white rough chert
235- 240	Limestone, light-gray, cherty, finely granular
240- 245	Limestone, light-gray to grayish-green, silty, crinoidal, finely crystalline
245- 251	Limestone as above; pyrite
251- 308	Shale, black, finely micaceous; pyrite
308- 310	Sandstone, light-gray, limy, pyritic, fine- to very coarse grained
310- 315	Sandstone, light-gray, siliceous, fine- to very coarse grained, free drilling
315- 325	Sandstone, light-gray, very fine grained, free drilling
325- 350	Sandstone, white, very fine to fine-grained, free drilling
350- 360	Sandstone, white, fine-grained, free drilling
360- 383	Sandstone, white, limy, fine- to medium-grained
383- 397	Dolomite, light-gray to cream-colored, very finely granular
397- 400	Shale, bluish-gray, dolomitic
400- 403	Shale, grayish-green, dolomitic
403- 405	Dolomite, cream-colored, finely granular; light brownish-gray finely crystalline dolomite
405- 410	Dolomite as above, slightly silty
410- 417	Dolomite, cream-colored to light-gray, silty, finely granular
417- 420	Shale, light grayish-green, dolomitic

Depth in feet	Sample description
420- 425	Dolomite, medium-gray, very silty, very finely granular
425- 430	Dolomite as above; light brownish-gray slightly silty finely granular dolomite
430- 438	Dolomite, light-gray, finely granular; pyrite
438- 440	Shale, light grayish-green, dolomitic
440- 446	Dolomite, light-gray, finely granular
446- 450	Shale, light grayish-green, dolomitic
450- 455	Dolomite, light-gray, slightly silty, finely granular
455- 460	Shale, grayish-green, dolomitic; trace of white dense chert
460- 470	Dolomite, light-gray, silty, finely granular; white and light-brown dense chert
470- 475	As above; light-brown oolitic chert; sandy chert
475- 480	Dolomite, light-gray, slightly silty, finely granular; trace of white translucent chert
480- 490	Dolomite, light brownish-gray, slightly silty, finely granular
490- 495	Dolomite, light brownish-gray, finely crystalline; white dense chert; porous dolocastic silt
495- 500	Dolomite, light-gray and light brownish-gray, finely granular; white dense chert; sandy chert
500- 506	Dolomite, light-gray and light brownish-gray, finely granular; light-gray dense chert
506- 510	Shale, bluish-gray, dolomitic
510- 520	Dolomite, light brownish-gray, finely granular; white and light-gray dense chert
520- 525	Dolomite, light brownish-gray, finely granular; white dense chert; sandy chert
525- 530	As above and quartz crystals
530- 545	Dolomite, light brownish-gray, silty, finely granular; light-brown and white dense chert
545- 550	Dolomite, light-gray, silty, finely granular; white, brown, and gray oolitic dense chert
550- 560	Dolomite, light-gray, silty, finely sandy, finely granular; trace of white dense chert
560- 565	Dolomite, light-gray to light brownish-gray, silty, finely granular; white and light-brown dense chert
565- 570	Dolomite, light-gray to light brownish-gray, silty, finely granular; white dense chert; quartz crystals
570- 575	Dolomite as above; white dense oolitic chert; free oolites
575- 585	Dolomite as above; white dense chert, oolitic in part; quartz crystals
585- 590	Dolomite as above; white slightly oolitic dense chert
590- 595	Dolomite as above; white dense chert; oolitic chert
595- 599	Sandstone, dolomitic, siliceous, fine-grained; oolitic chert
599- 600	Dolomite as above; sandy chert; quartz crystals
600- 605	Dolomite, cream-colored, very finely crystalline; quartz crystals
605- 610	Dolomite, cream-colored, very finely crystalline; siliceous fine-grained sandstone; white sandy chert
610- 613	Dolomite, cream-colored, finely granular; white sandy chert
613- 615	Sandstone, siliceous; white sandy chert
615- 620	Dolomite, cream-colored, finely granular; white dense chert; quartz crystals
620- 625	Dolomite, cream-colored, finely granular; white dense chert; siliceous sandstone
625- 630	Dolomite, light-gray, finely granular; quartz crystals
630- 635	Dolomite, cream-colored, finely crystalline; white dolomitic chert
635- 640	Dolomite, cream-colored, finely crystalline; white sandy chert; siliceous fine-grained sandstone; quartz crystals
640- 645	Dolomite, cream-colored, silty, slightly sandy, finely crystalline
645- 650	Dolomite, light-gray, slightly sandy, finely crystalline; dolomitic chert
650- 665	Dolomite, light-gray, silty, slightly sandy, finely crystalline to finely granular; white dense chert; white sandy and clear sandy chert
665- 670	Dolomite, light-gray, silty, finely granular
670- 680	Dolomite as above; siliceous fine-grained sandstone
680- 690	Dolomite, light-gray, silty, finely crystalline; white dense chert, oolitic in part
690- 700	Dolomite, light-gray, finely crystalline; white dense chert; free oolites; quartz crystals; pyrite
700- 702	Shale, bluish-gray
702- 705	Dolomite, light-gray, finely granular to finely crystalline; dolomitic chert; quartz crystals
705- 710	Dolomite as above; white dense chert, oolitic in part; siliceous fine-grained sandstone
710- 715	Dolomite, cream-colored, finely granular; white dense chert; siliceous sandstone; quartz crystals
715- 735	Dolomite, cream-colored, silty, slightly sandy, finely granular
735- 740	Dolomite, light-gray, finely crystalline to finely granular; light-brown dense chert with white oolites; quartz
740- 744	As above, and white dense chert

Depth in feet	Sample description
744- 745	Shale, dark-gray
745- 750	Dolomite, light brownish-gray, very finely crystalline; quartz crystals
750- 755	As above; white dense chert
755- 770	Dolomite, light-gray, silty, finely granular; white dense chert; quartz crystals
770- 774	Dolomite, cream-colored, finely granular; white and brown dense chert; dolomitic chert
774- 775	Shale, bluish-gray
775- 780	Dolomite, cream-colored, finely granular; siliceous fine-grained sandstone
780- 800	Dolomite, cream-colored, finely granular; light-brown dense chert; finely crystalline quartz
800- 810	Dolomite, cream-colored, slightly silty, finely granular; quartz crystals
810- 815	Dolomite, light-gray, very finely crystalline; white dense chert; quartz crystals
815- 820	Dolomite, light-gray, very finely crystalline; white dense chert; dolomitic chert
820- 825	As above; siliceous very fine grained sandstone
825- 830	Dolomite, light-gray, finely crystalline; white dense chert with light-brown oolites; siliceous fine-grained sandstone
830- 835	As above and silty
835- 840	Dolomite, light-gray, finely granular; siliceous fine-grained sandstone; white oolitic chert; dolomitic chert
840- 855	Dolomite, light-gray, finely granular; white and light-brown oolitic chert; dolomitic chert
855- 885	Dolomite, light-gray, finely granular to finely crystalline; cream-colored dense chert; siliceous sandstone; quartz crystals
885- 892	Dolomite, light-gray, finely granular to finely crystalline; white dense chert with brown and white oolites; quartz crystals; finely dolomitic chert
892- 900	Dolomite, medium- to dark-gray, silty, finely granular
900- 905	Dolomite, medium-gray, slightly silty, finely granular; light grayish-brown dense chert
905- 925	(No samples)
925- 935	Dolomite, dark-gray, finely crystalline
935- 940	Dolomite, medium-gray, slightly silty, finely granular; siliceous fine-grained sandstone
940- 955	Dolomite, light-gray, finely granular; brown dense to porous chert
955- 960	Dolomite, light-gray, slightly silty, finely granular to finely crystalline; very fine to fine-grained sandstone
960- 965	Dolomite, light-gray, slightly silty, finely granular; white and brown dense chert; pyrite
965- 970	As above; brown oolitic chert
970- 980	Dolomite, light-gray, silty, finely granular; white chert with small light-brown oolites
980- 990	Dolomite, light-gray, finely crystalline; siliceous fine-grained sandstone; white chert with fine brown oolites
990-1000	Dolomite, light-gray, silty, sandy, finely granular; light-brown dense chert
1000-1015	Dolomite, light-gray, finely granular; light-gray dense chert; light-brown chert with large oolites; free large brown and white oolites; glauconite; pyrite
1015-1020	Dolomite, light-gray, finely granular to finely crystalline; light-gray and light-brown dense translucent chert
1020-1030	Dolomite as above; brown finely oolitic chert
1030-1050	Dolomite, light-gray, silty, finely granular; white and light-gray dense chert
1050-1055	Dolomite, light-gray, silty, very finely granular
1055-1065	(No samples)
1065-1070	Dolomite, light-gray, silty, very finely granular; white and light-brown dense chert; sand grains
1070-1080	Dolomite, light-gray, very silty, sandy, very finely granular; white dense chert
1080-1085	Dolomite, light-gray, finely granular; white dense chert; sandy chert
1085-1090	Dolomite, light-gray, finely granular; white dense chert
1090-1105	Dolomite, light-gray, silty, finely granular; white dense chert
1105-1115	Dolomite, light-gray, finely granular to finely crystalline; white and light-brown dense chert; dolomitic chert
1115-1150	Dolomite, light brownish-gray, silty, finely to medium-crystalline; light-brown dense chert; white earthy chert; quartz crystals
1150-1165	Dolomite, light-gray, medium-crystalline; white and light-brown dense chert
1165-1170	Dolomite, light-gray, coarsely crystalline; light-gray dense chert
1170-1180	Dolomite, light-gray, medium- to coarsely crystalline; light-gray dense chert, oolitic in part; free white oolites
1180-1185	Dolomite, light- to medium-gray, medium-crystalline; light-brown and white dense chert

Depth in feet	Sample description
1185-1195	Dolomite, light-gray, silty, finely to medium-crystalline; light-brown and white dense chert; white earthy chert
1195-1210	Dolomite, light-gray, slightly sandy, finely to medium-crystalline; white dense chert
1210-1216	Dolomite, light-gray, medium-crystalline; light-gray dense chert; quartz crystals
1216-1220	Sandstone, light-gray, dolomitic, siliceous, fine-grained
1220-1225	Dolomite, light-gray, finely to coarsely sandy, finely crystalline
1225-1240	Dolomite as above; white dense chert
1240-1250	Dolomite, cream-colored, finely to coarsely sandy, medium-crystalline; white dense chert; sandy chert; trace of bluish-gray shale
1250-1255	Dolomite, cream-colored, finely sandy, medium-crystalline; white dense chert
1255-1260	As above; white finely oolitic chert; sandy chert; dolomitic chert
1260-1265	Dolomite, cream-colored, very finely to coarsely sandy, finely crystalline; white chert
1265-1270	As above; sandy chert
1270-1280	Dolomite, cream-colored, finely sandy, finely crystalline; white dense chert; sandy chert; trace of white oolitic chert
1280-1290	Dolomite, cream-colored, finely to medium-crystalline; white dense chert
1290-1300	Dolomite, cream-colored, finely to medium-crystalline; white dense chert; white oolitic chert
1300-1305	Dolomite, cream-colored, medium-crystalline; white dense chert; sandy chert; quartz crystals
1305-1310	Dolomite, cream-colored, finely crystalline; white dense chert
1310-1315	As above; white oolitic chert
1315-1320	Dolomite, cream-colored, finely to medium-crystalline; white dense chert; sandy chert; dolomitic chert
1320-1325	As above; fine to coarse sand grains
1325-1330	Dolomite, cream-colored, finely crystalline; white dense chert; fine to coarse sand grains; sandy chert
1330-1340	Dolomite, cream-colored, finely granular to finely crystalline; cream-colored and white dense chert; quartz crystals
1340-1350	Sandstone, light-gray, dolomitic, fine-grained; free white oolites with sand-grain centers
1350-1355	Dolomite, light-gray, finely sandy, finely granular
1355-1360	Dolomite, light-gray, finely crystalline; light-gray dense chert; quartz crystals
1360-1365	Dolomite, light-gray, medium-crystalline; white oolitic chert with white oolites; dolomitic chert
1365-1370	Dolomite, light-gray, sandy, finely crystalline
1370-1375	As above; white earthy chert; glauconite
1375-1385	Dolomite, light-gray, finely crystalline; trace of fine sand grains; trace of cream-colored dense chert
1385-1400	Dolomite, cream-colored, slightly sandy, medium-crystalline; white dense chert, oolitic in part
1400-1405	Dolomite, cream-colored, sandy, finely to medium-crystalline
1405-1416	As above; trace of white dense chert
1416	TOTAL DEPTH



## WHITE COUNTY (1)

Operator: Lion Oil Co.	Elevation: 425 ft. (Est.)
Well No.: 1	Total depth: 6397 ft.
Lease: Nally	Completion date: Nov. 4, 1945
Location: Center of SE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec. 33, T. 8 N., R. 7 W.	Logged by: R. J. Lantz

### Formation Tops

	Depth (ft.)
Rocks of Morrow group	890
Jackfork sandstone	1825
Stanley shale	2570
Penters chert	5545
Cason shale	5580
Fernvale limestone	5587
Kimmswick limestone and Platin limestone undifferentiated	5695
Everton formation	5930

Depth in feet	Sample description
0- 621	(No samples)
621- 630	Shale, dark-gray to black, micaceous; grayish-green siltstone
630- 637	Shale, black, micaceous; scattered medium sand grains
637- 640	Sandstone, white, medium-grained; brachiopod and crinoid fragments
640- 643	Sandstone, white, medium-grained
643- 650	Shale, dark grayish-black, micaceous
650- 656	Shale, grayish-black, micaceous; gray fine-grained sandstone
656- 661	Shale, grayish-black, micaceous
661- 670	Sandstone, gray, slightly limy, medium-grained; fossil fragments
670- 675	Sandstone, gray, slightly limy, medium-grained
675- 685	Shale, dark grayish-black, silty, micaceous
685- 687	Sandstone, gray, very fine to fine-grained
687- 690	Shale, grayish-black, silty, micaceous
690- 700	Shale, black, silty, micaceous
700- 710	Shale, black, micaceous; dark grayish-black micaceous silty shale
710- 718	Shale, black, micaceous
718- 726	(No samples)
726- 730	Shale, dark grayish-black, silty, micaceous; pyrite
730- 738	Shale, black, micaceous, silty
738- 740	Siltstone, grayish-green
740- 744	Shale, black, micaceous
744- 750	Sandstone, fine- to medium-grained, slightly limy
750- 760	Sandstone, white, slightly limy, fine-grained
760- 765	Sandstone, white, slightly limy, fine- to medium-grained
765- 770	Sandstone, white, slightly limy, fine- to medium-grained, free drilling
770- 780	Siltstone, light grayish-white to gray
780- 785	Siltstone, light grayish-white; very fine to fine-grained sandstone
785- 794	Sandstone, light grayish-white, fine- to medium-grained
794- 807	Shale, black, micaceous

Depth in feet	Sample description
807- 820	Alternating thin beds of grayish-white, fine-grained sandstone and black micaceous shale
820- 825	Shale, black, micaceous, silty
825- 827	Sandstone, grayish-white, fine-grained
827- 830	Shale, black, micaceous
830- 840	Sandstone, white, siliceous, medium- to coarse-grained
840- 845	Sandstone, white, fine- to coarse-grained, free drilling
845- 853	Sandstone, grayish-white, siliceous, fine- to medium-grained
853- 862	Sandstone, grayish-white to white, fine- to medium-grained, free drilling
862- 870	Sandstone, white, fine- to medium-grained
870- 890	Sandstone, grayish-white, medium- to coarse-grained
890- 910	Shale, black, micaceous, silty
910- 920	Shale, black, micaceous
920- 930	Sandstone, gray, shaly, micaceous, fine-grained
930- 935	Sandstone, gray, shaly, slightly micaceous, very fine to fine-grained
935- 948	Siltstone, gray, shaly
948-1050	Shale, black, micaceous, silty in part, slightly pyritic in part
1050-1062	Shale, black, smooth
1062-1066	Limestone, grayish-buff, black-mottled, crinoidal
1066-1070	Sandstone, white, slightly limy, fine- to medium-grained
1070-1076	Limestone, grayish-buff, black-mottled, finely to medium sandy, crinoidal
1076-1080	Shale, black, micaceous, silty
1080-1086	Siltstone, dark-gray, shaly
1086-1124	Shale, black, smooth
1124-1126	Sandstone, white, very fine to fine-grained
1126-1135	Sandstone, gray, shaly, fine-grained
1135-1140	Sandstone, light gray, slightly limy, fine- to medium-grained; crinoid fragments
1140-1155	Shale, black, micaceous, silty
1155-1203	Shale, black, smooth, micaceous in part, slightly pyritic at base
1203-1210	Sandstone, light-gray, micaceous, very fine-grained; pyrite
1210-1244	Sandstone, gray, shaly, silty, micaceous, very fine-grained; pyrite
1244-1250	Shale, black, micaceous, silty
1250-1265	Sandstone, gray, shaly, micaceous, limy, very fine-grained; crinoid fragments
1265-1270	Sandstone, dark-gray, very shaly, fine-grained
1270-1278	Sandstone, gray, limy, very fine to fine-grained; crinoid fragments
1278-1280	Sandstone, dark-gray, very shaly, fine-grained
1280-1287	Sandstone, white, fine-grained, free drilling
1287-1300	Sandstone, gray, shaly, fine-grained
1300-1312	Shale, black, micaceous, silty
1312-1327	Siltstone, black, micaceous, shaly
1327-1345	Shale, black, micaceous
1345-1355	Shale, black, micaceous, silty
1355-1380	Shale, black, micaceous
1380-1412	Shale, black, smooth
1412-1414	Sandstone, white, fine-grained, free drilling
1414-1428	Sandstone, gray, micaceous, shaly, silty, very fine grained
1428-1449	Siltstone, black, micaceous, very shaly
1449-1457	Shale, black, micaceous, silty
1457-1468	Sandstone, dark- to light-gray, micaceous, very fine grained
1468-1490	Shale, black, micaceous, silty
1490-1500	Shale, gray to black, micaceous, silty
1500-1518	Shale, grayish-black, micaceous, silty
1518-1520	Sandstone, gray, shaly, very slightly limy, fine-grained
1520-1535	Sandstone, white, fine- to medium-grained, free drilling
1535-1550	Sandstone, white, limy, fine- to medium-grained, free drilling; crinoid(?) fragments
1550-1570	Sandstone, white, slightly limy, fine- to coarse-grained, free drilling in part
1570-1575	Sandstone, gray, slightly limy, fine- to coarse-grained, free drilling in part

Depth in feet	Sample description
1575-1580	Sandstone, gray, siliceous, fine-grained
1580-1585	Sandstone, gray, fine-grained
1585-1600	Siltstone, gray to dark-gray, micaceous, very finely sandy
1600-1610	Siltstone, dark-gray, micaceous, very finely sandy
1610-1638	Shale, black, platy, micaceous
1638-1642	Sandstone, white, slightly limy, fine- to medium-grained
1642-1644	Shale, black
1644-1650	Sandstone, dark-gray, micaceous, shaly, fine-grained
1650-1660	Sandstone, dark-gray to gray, micaceous, fine-grained
1660-1670	Sandstone, white, coarse-grained, free drilling
1670-1685	Sandstone, white, medium-grained, free drilling
1685-1690	Sandstone, white, silty, very fine grained
1690-1698	Sandstone, white, fine-grained
1698-1702	Sandstone, gray, fine- to medium-grained
1702-1735	Sandstone, white, fine- to medium-grained, free drilling
1735-1740	Sandstone, white, very fine to fine-grained
1740-1750	Sandstone, white, fine-grained, free drilling
1750-1770	Sandstone, white, very fine to fine-grained, free drilling in part
1770-1775	Sandstone, light-gray, fine- to medium-grained
1775-1795	Sandstone, white, fine- to coarse-grained, free drilling in part
1795-1798	Sandstone, dark-gray, very fine grained
1798-1825	Sandstone, white, fine- to medium-grained, free drilling
1825-1830	Shale, black
1830-1843	Sandstone, dark-gray, micaceous, silty, very fine grained
1843-1864	Shale, black
1864-1880	Siltstone, dark-gray, micaceous
1880-1898	Siltstone, dark-gray, micaceous, very finely sandy
1898-1900	Sandstone, light-gray, very fine to fine-grained
1900-1908	Siltstone, dark-gray, micaceous
1908-1914	Shale, black
1914-1924	Siltstone, dark-gray, micaceous, very finely sandy
1924-1978	Shale, dark-gray to black, micaceous, silty
1978-1990	Sandstone, light-gray, very fine to medium-grained
1990-2063	Sandstone, gray, micaceous, silty, very fine grained; pyrite
2063-2090	Shale, black, micaceous, silty
2090-2120	Shale, black, micaceous
2120-2163	Shale, black, finely micaceous, smooth, platy
2163-2176	(No samples)
2176-2203	Shale, black, smooth, platy
2203-2215	Sandstone, dark-gray to gray, micaceous, very fine to fine-grained
2215-2230	Sandstone, gray, micaceous, silty, very fine grained
2230-2250	Siltstone, dark-gray, micaceous
2250-2292	Shale, dark grayish-black, micaceous, silty
2292-2305	Siltstone, dark-gray, micaceous
2305-2330	Siltstone, dark-gray, micaceous, very finely sandy
2330-2380	Shale, dark grayish-black, micaceous, silty
2380-2400	Siltstone, gray, micaceous
2400-2498	Shale, black, micaceous, silty
2498-2514	Shale, black, micaceous
2514-2540	Shale, gray to dark-gray, micaceous, silty
2540-2544	Shale, dark-gray
2544-2550	Siltstone, gray, micaceous
2550-2570	Siltstone, gray to dark-gray, micaceous
2570-2820	Shale, black, smooth; micaceous
2820-2990	Shale, black, micaceous, silty in part
2990-2992	Shale, black

Depth in feet	Sample description
2992-3100	Siltstone, light-gray
3100-3130	Alternating beds of black micaceous silty shale and light-gray micaceous siltstone
3130-3189	Shale, black, micaceous, silty
3189-3194	Siltstone, light-gray, micaceous
3194-3260	Shale, black, micaceous, silty
3260-3285	Alternating beds of light-gray micaceous siltstone and black micaceous silty shale
3285-3365	Shale, black, micaceous, silty
3365-3407	Thin beds of light-gray siltstone alternating with thicker beds of black micaceous silty shale
3407-3435	Shale, black, micaceous, silty
3435-3442	Siltstone, light-gray, very finely sandy
3442-3481	Shale, black, micaceous, silty, alternating with thin beds of light-gray siltstone
3481-3492	Siltstone, light-gray, very finely sandy
3492-3536	Shale, black, micaceous, silty in part
3536-3542	Siltstone, gray, micaceous
3542-3750	Shale, black, micaceous
3750-3820	Shale, black, micaceous, smooth
3820-4170	Shale, black, smooth; pyrite in upper half
4170-4190	Shale, black, rough
4190-4204	Shale, black, smooth
4204-4206	Sandstone, gray, fine-grained
4206-4300	Shale, black, smooth
4300-4315	Shale, black, finely micaceous
4315-4400	Shale, black
4400-4430	Shale, black with brownish cast, silty
4430-4600	Shale, black
4600-4780	Shale, black, very finely micaceous, platy, splintery; plant remains(?) 4,660-70 ft.; 4,720-30 ft.
4780-4790	Shale, black, hard
4790-4890	Shale, black
4890-4900	Shale, black; pyrite; plant remains(?)
4900-4910	Shale, black
4910-4920	Shale, black; plant remains(?)
4920-4940	Shale, black
4940-4970	Shale, black; little pyrite; siliceous shale
4970-4992	Shale, black; dark brownish-black siliceous shale; pyrite
4992-5199	(No samples)
5199-5205	Shale, black; pyrite
5205-5220	Shale, black; very thin quartz vein; pyrite
5220-5225	Shale, black, very slightly limy; pyrite
5225-5250	Shale, black, hard, silty, slightly limy; pyrite
5250-5270	Shale, black, hard, limy; pyrite
5270-5310	Shale, black, very slightly limy
5310-5328	Shale, black
5328-5360	Shale, black, hard, slightly limy; pyrite
5360-5420	Shale, black, very slightly limy
5420-5460	Shale, black
5460-5522	Shale, dull-black, finely micaceous, finely pyritic, slightly limy
5522-5528	Siltstone, light-gray, black-spotted, and black, gray-spotted, limy
5528-5536	Limestone, light-gray, black-spotted, and black, gray-spotted, silty, finely granular
5536-5538	Siltstone, light-gray, black-spotted, and black, gray-spotted, limy
5538-5545	Shale, black, micaceous, limy
5545-5555	Limestone, white to cream-colored, finely granular to medium-crystalline; buff chalcedony
5555-5565	Limestone, white to grayish-white, finely granular to medium-crystalline; buff chalcedony; white to light-gray, slightly spicular dense chert
5565-5570	Limestone, light-gray, very finely granular; buff translucent chalcedony
5570-5577	Limestone, light-gray, very finely granular to medium-crystalline; chalcedony
5577-5580	Limestone, light-gray to gray, very finely to finely granular; white limy chert; buff chalcedony

Depth in feet	Sample description
5580-5587	(No sample)
5587-5606	Limestone, gray, medium- to coarsely crystalline; pyrite; brachiopod fragments
5606-5608	Shale, black
5608-5620	Limestone as above; pyrite; brachiopod fragments
5620-5630	Limestone, gray to dark-gray, medium- to coarsely crystalline; pyrite; brachiopod fragments
5630-5645	Limestone as above; brachiopod fragments
5645-5650	Limestone, gray, medium-crystalline; brachiopod fragments
5650-5660	Limestone, gray, medium-crystalline
5660-5668	Limestone, gray to dark-gray, medium-crystalline to finely granular
5668-5670	Shale, black
5670-5672	Limestone, gray to dark-gray, slightly shaly, medium-crystalline to finely granular
5672-5673	Shale, black
5673-5695	Limestone, gray to dark-gray, medium-crystalline to finely granular
5695-5725	Limestone, gray to black, finely to medium-crystalline; smoky black chert
5725-5730	Limestone, gray to dark-gray, finely to medium-crystalline
5730-5734	Limestone, gray to dark-gray, finely to medium-crystalline; black chert
5734-5738	Limestone, gray to dark-gray, finely to medium-crystalline
5738-5746	Shale, light grayish-green, pyritic
5746-5750	Limestone, black, very finely crystalline
5750-5756	Limestone, black, very finely crystalline; black limy shale
5756-5770	Alternating beds of black limy shale and black very finely crystalline limestone
5770-5780	Limestone as above; black dense chert
5780-5785	Shale, black, hard, limy
5785-5800	Limestone, black, very finely to finely crystalline; gray limestone; black dense chert
5800-5807	Limestone, black to dark grayish-buff, very finely crystalline; pyrite
5807-5855	Limestone, dark-gray, very finely crystalline to dense; pyrite
5855-5860	Limestone and pyrite as above; brachiopod fragments
5860-5930	Limestone, dark-gray, very finely crystalline to dense; pyrite
5930-5936	Limestone, gray to dark-gray, very finely crystalline to dense; scattered medium to coarse sand grains
5936-5945	Limestone, light grayish-buff, dense; scattered calcite crystals
5945-5950	Limestone, light grayish-buff, dense; scattered calcite crystals; pyrite; trace of medium to coarse sand grains
5950-5960	Limestone, light grayish-buff, dense; scattered calcite crystals; pyrite
5960-5965	Dolomite, light grayish-white, finely crystalline; pyrite; light grayish-white silty dolomitic limestone
5965-5980	As above; trace of floating medium to coarse sand grains
5980-5984	Limestone, light grayish-white, finely crystalline to dense; floating medium to coarse sand grains
5984-5985	Shale, black
5985-6000	Limestone, light grayish-white, finely crystalline to dense; floating medium to coarse sand grains
6000-6019	Limestone, light grayish-white, silty, dolomitic; very fine quartz grains and dolomite rhombs cemented by lime
6019-6020	Shale, gray
6020-6024	Limestone, light grayish-white, silty, dolomitic
6024-6030	Dolomite, light-gray, limy
6030-6063	Limestone, light-gray, dolomitic, finely crystalline
6063-6071	Dolomite, light-gray, finely crystalline
6071-6072	Shale, black
6072-6075	Limestone, gray, finely crystalline
6075-6102	Limestone, gray, very finely crystalline
6102-6107	Shale, black
6107-6116	Limestone, gray, silty, dolomitic, finely crystalline
6116-6130	Limestone, gray, very finely crystalline
6130-6140	Limestone, light grayish-buff, dense; floating sand grains
6140-6177	Limestone, light grayish-buff, dense; scattered fine calcite crystals; pyrite
6177-6200	Dolomite, light-gray, finely to medium-crystalline
6200-6210	Limestone, pale-green, dense; light-gray dense limestone; pyrite; fine calcite crystals
6210-6241	Limestone, gray, dense; fine calcite crystals; pyrite

Depth in feet	Sample description
6241-6250	Dolomite, gray and light-gray, finely crystalline; floating sand grains
6250-6254	Dolomite, gray and light-gray, finely crystalline
6254-6262	Limestone, light-gray, very finely crystalline to dense
6262-6302	Dolomite, light-gray, finely crystalline; pyrite in lower half
6302-6316	Dolomite, light-gray, finely crystalline; floating sand grains
6316-6320	Limestone, gray, very finely crystalline to dense
6320-6330	Limestone, gray, dense
6330-6332	Limestone, gray, dense, grading down to dark-gray finely crystalline dolomite
6332-6340	Dolomite, dark-gray to gray, finely crystalline
6340-6350	Dolomite, light-gray, finely crystalline
6350-6359	Dolomite, light-gray, finely crystalline; floating sand grains
6359-6372	Limestone, light grayish-buff, dense; very thin bed of green dense limestone at top; pyrite
6372-6391	Limestone, gray, dense; pyrite
6391-6397	Dolomite, light-gray, finely crystalline
6397	TOTAL DEPTH

## WHITE COUNTY (2)

Operator: Killam & McMillan	Elevation: 448 ft.
Well No.: 1	Total depth: 4772 ft.
Lease: J. C. Curl	Completion date: Feb. 3, 1945
Location: Center of NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 10, T. 9 N., R. 5 W.	Logged by: R. J. Lantz

### Formation Tops

	Depth (ft.)
Jackfork sandstone	600
Stanley shale	1320
Fernvale limestone	3458
Kimmswick limestone and Plattin limestone undifferentiated	3565
St. Peter sandstone	3965
Everton formation	4100

Depth in feet	Sample description
0- 111	(No samples)
111- 148	Sandstone, white to light-tan, medium- to very coarse grained; glauconite
148- 163	Shale, black, platy, very finely micaceous
163- 179	Sandstone, white, hard, medium- to coarse-grained
179- 212	Shale, black, very finely micaceous
212- 224	Sandstone, white, medium- to coarse-grained
224- 258	Shale, black
258- 350	One sample, containing mostly white medium-grained sandstone and black shale
350- 353	Shale, black
353- 390	Sandstone, white, medium- to very coarse grained
390- 400	Sandstone, white, very slightly limy, medium- to coarse-grained
400- 405	Sandstone, white, dark-spotted, pyritic, medium- to fine-grained
405- 430	Sandstone, white, hard, medium- to coarse-grained
430- 465	Sandstone, grayish-green, micaceous, limy, silty, very fine grained
465- 470	Sandstone, grayish-green, micaceous, limy, very fine grained; light-gray fine-grained sandstone
470- 480	Sandstone, grayish-green, micaceous, very fine grained; light-gray fine-grained sandstone
480- 500	Sandstone, light-gray, slightly micaceous, fine- to medium-grained
500- 520	Sandstone, light-brown, slightly limy, fine- to medium-grained
520- 540	(No samples)
540- 564	Sandstone, white, medium- to very coarse grained
564- 567	Shale, black
567- 575	Sandstone, white, medium- to very coarse grained
575- 590	Sandstone, white, very fine to fine-grained
590- 600	(No samples)
600- 664	Shale, black, very finely micaceous
664- 700	Sandstone, grayish-green, silty, very fine grained
700- 725	(No samples)
725- 750	Shale, black
750- 857	Shale, black, platy
857- 860	Sandstone, white, very fine to fine-grained
860- 863	Siltstone, gray
863- 867	Shale, dark grayish-black, siliceous

Depth in feet	Sample description
867- 875	Shale, black
875- 879	Shale, dark-gray, siliceous
879- 888	Shale, black
888- 910	Sandstone, gray, silty, very fine grained
910- 930	Sandstone, white, fine- to medium-grained, free drilling
930- 965	Sandstone, gray, fine- to medium-grained
965- 990	Sandstone, gray to dark-gray, silty, very fine to fine-grained
990-1000	(No samples)
1000-1060	Sandstone, gray, silty, very fine grained
1060-1090	(No samples)
1090-1140	Sandstone, light grayish-white, silty, very fine grained
1140-1150	Sandstone, light grayish-white to gray, silty, very fine grained
1150-1154	Sandstone, gray, siliceous, fine- to medium-grained
1154-1160	Shale, black, slightly medium-sandy
1160-1164	Shale, black
1164-1166	Sandstone, gray, fine- to coarse-grained; pyrite
1166-1173	Shale, black
1173-1176	Sandstone, gray, very slightly limy, fine- to coarse-grained; pyrite
1176-1230	Shale, black
1230-1255	(No samples)
1255-1265	Sandstone, light-gray, medium- to coarse-grained, free drilling
1265-1275	(No samples)
1275-1285	Sandstone as above
1285-1295	Sandstone, grayish-black, shaly, fine- to medium-grained
1295-1310	Sandstone, gray, slightly shaly, fine- to medium-grained
1310-1320	Sandstone, gray, slightly shaly, fine- to coarse-grained, free drilling in part
1320-1410	Shale, black, pyritic in part
1410-1440	Shale, black; black very hard siliceous shale
1440-1470	Shale, black, platy
1470-1510	Shale, black
1510-1600	Shale, black; black very hard siliceous shale
1600-1629	Shale, black
1629-1640	Sandstone, gray, silty, very fine grained
1640-1655	Sandstone, dark-gray shaly, silty, very fine to fine-grained
1655-1707	Shale, black
1707-1716	Sandstone, gray, silty, very fine grained
1716-1725	Shale, black
1725-1734	Sandstone, gray, silty, very fine grained
1734-1750	Shale, black
1750-1753	Sandstone, white, fine- to medium-grained, free drilling
1753-1770	Shale, black, silty
1770-1840	Shale, black
1840-1845	Shale, black; black siliceous shale
1845-1846	Shale, dark-maroon; dark-maroon siliceous shale
1846-1900	Shale, black; black siliceous shale
1900-2410	Shale, black
2410-2470	Shale, black; black siliceous shale
2470-2610	Shale, black. (10-ft. to 40-ft. samples)
2610-2642	Shale, black; black siliceous shale
2642-2665	(No samples)
2665-2672	Shale, black
2672-2678	Shale, brown, siliceous
2678-2695	Shale, black; black siliceous shale
2695-2728	(No samples)
2728-2750	Shale, black; black siliceous shale
2750-2780	Shale, black; pyrite



Depth in feet	Sample description
2780-2950	(No samples)
2950-3175	Shale, black. (25-ft. samples)
3175-3200	Shale, black; pyrite
3200-3325	Shale, black
3325-3450	(No samples)
3450-3458	Shale, black
3458-3460	Limestone, gray, finely crystalline
3460-3475	(No samples)
3475-3485	Limestone, light-gray and light-gray with brown mottling, medium to coarsely oolitic
3485-3520	Limestone, light grayish-white, medium- to coarsely-crystalline
3520-3550	Limestone, gray, finely crystalline
3550-3565	Limestone, gray to buff, finely crystalline
3565-3575	Limestone, gray, finely crystalline; cream-colored chalcedonic chert
3575-3590	(No samples)
3590-3600	Limestone, gray, finely to medium-crystalline; smoky chert
3600-3610	Limestone, gray, medium-crystalline
3610-3620	Limestone, gray, medium-crystalline; pyrite
3620-3650	Limestone, gray, very finely to finely crystalline; stylolites
3650-3670	Limestone, gray to dark grayish-buff, very finely to finely crystalline
3670-3685	Limestone, gray, very finely crystalline to dense
3685-3695	Limestone, gray, very finely crystalline to dense; brachiopod fragments
3695-3705	Limestone, gray, very finely crystalline; brachiopod fragments
3705-3716	(No samples)
3716-3800	Limestone, dark grayish-brown, very finely crystalline to dense; brachiopod fragments
3800-3890	Limestone, gray, very finely crystalline to dense
3890-3900	Limestone, gray to green, very finely crystalline to dense
3900-3910	Limestone, gray, very finely to finely granular
3910-3920	Limestone, gray, very finely crystalline to dense
3920-3945	Limestone, light-gray, very finely granular
3945-3955	Limestone, light grayish-buff, very finely granular; pyrite
3955-3965	Limestone, light-gray, medium to coarsely sandy
3965-3976	Sandstone, white, slightly limy, medium- to coarse-grained
3976-3986	Limestone, gray, finely crystalline to finely granular; scattered sand grains
3986-3995	Sandstone, white, limy, medium- to coarse-grained
3995-4000	Sandstone, white, slightly limy, medium- to coarse-grained
4000-4005	Sandstone, white, medium- to coarse-grained
4005-4011	Sandstone, white, dolomitic, medium- to coarse-grained
4011-4020	(No samples)
4020-4030	Dolomite, gray, medium- to coarsely sandy, finely granular
4030-4040	Sandstone, white, dolomitic, medium- to coarse-grained
4040-4065	Sandstone, light-gray, dolomitic, medium- to coarse-grained
4065-4068	Dolomite, gray, finely granular
4068-4088	Sandstone, white, slightly dolomitic, medium- to coarse-grained
4088-4092	Dolomite, gray, finely granular
4092-4100	Sandstone, light-gray, dolomitic, medium- to coarse-grained
4100-4105	Dolomite, gray, finely granular; scattered sand grains
4105-4110	Dolomite, light-gray, finely granular
4110-4120	Dolomite, gray, finely to medium-granular
4120-4127	Dolomite, gray to light-gray, finely to medium-granular; scattered sand grains
4127-4128	Shale, green, finely pyritic, dolomitic
4128-4140	Dolomite, dark-gray, finely granular
4140-4150	Dolomite, gray, finely crystalline
4150-4170	Dolomite, light-buff, finely crystalline
4170-4188	Dolomite, light-gray, finely crystalline to finely granular
4188-4190	Shale, green, finely pyritic, dolomitic
4190-4202	Dolomite, light grayish-buff, finely granular to finely crystalline

Depth in feet	Sample description
4202-4207	Limestone, gray, very finely crystalline to dense
4207-4220	Dolomite, light-gray to light grayish-buff, finely granular to finely crystalline
4220-4250	Dolomite, gray, finely granular
4250-4260	Dolomite, gray, finely granular; scattered medium sand grains
4260-4270	Dolomite, light grayish-buff, finely granular
4270-4280	Dolomite, light grayish-buff to gray, finely granular; pyrite
4280-4290	Dolomite, light grayish-buff to gray, finely granular
4290-4300	Dolomite, gray, finely granular; scattered medium sand grains
4300-4308	Dolomite, gray, finely granular
4308-4309	Shale, green
4309-4311	Limestone, gray, very finely crystalline
4311-4340	Dolomite, gray, finely granular
4340-4358	Dolomite, dark-gray, finely granular
4358-4360	Limestone, white, very coarsely crystalline
4360-4380	Limestone, gray, dense
4380-4390	Limestone, gray, very finely crystalline to dense
4390-4420	Limestone, gray, very finely crystalline to dense
4420-4430	Limestone, dark-gray, very finely crystalline to dense; scattered sand grains
4430-4440	Limestone, dark-gray to grayish-buff, very finely crystalline to dense
4440-4500	Limestone, dark-gray, very finely crystalline to dense
4500-4530	Limestone, grayish-buff, very finely crystalline to dense
4530-4550	Limestone, dark grayish-buff, very finely crystalline to dense
4550-4570	Limestone, gray, very finely crystalline to dense
4570-4580	Limestone, gray to dark-gray, very finely crystalline
4580-4590	Limestone, gray, very finely to finely crystalline
4590-4610	Limestone, gray to grayish-brown, very finely crystalline
4610-4620	Limestone, light grayish-brown to gray, very finely crystalline
4620-4630	Limestone, grayish-brown, very finely crystalline
4630-4640	Limestone, buff, pseudo oolitic, finely crystalline
4640-4660	Limestone, dark-gray, very finely crystalline
4660-4670	Limestone, grayish-brown, very finely crystalline
4670-4677	Limestone, grayish-buff, very finely crystalline
4677-4690	Dolomite, dark-gray, very finely granular
4690-4697	Limestone, dark grayish-brown, dolomitic, very finely crystalline
4697-4700	Limestone, dark grayish-brown, very finely crystalline
4700-4705	Limestone, gray, very finely crystalline
4705-4717	Limestone, dark grayish-buff, dolomitic, very finely crystalline
4717-4720	Limestone, gray, very finely crystalline
4720-4730	Limestone, gray to dark-gray, very finely crystalline
4730-4749	Limestone, light-gray to gray, dolomitic, very finely crystalline
4749-4755	Sandstone, white, dolomitic, medium-grained
4755-4760	Limestone, buff to brownish-black, very finely crystalline
4760-4772	Limestone, buff to grayish-buff, very finely crystalline
4772	TOTAL DEPTH

## WHITE COUNTY (3)

Operator: Deep Rock Oil Co.	Elevation: 450-475 ft. (Est.)
Well No.: 1	Total depth: 4992 ft.
Lease: Sample	Completion date: Nov. 26, 1952
Location: Center of N½ SW¼ sec. 4, T. 10 N., R. 6 W.	Logged by: S. E. Frezon

### Formation Tops

	Depth (ft.)
Jackfork sandstone	400(?)
Stanley shale	982
Boone formation equivalent	2677
Chattanooga shale equivalent	2875(?)
Penters chert	2920
Silurian rocks undifferentiated	2973
Cason shale	2980
Kimmswick (?) and Platin limestones undifferentiated	2990
Joachim (?) dolomite	3395
St. Peter sandstone	3512
Everton formation	3670
Powell dolomite	4850(?)

Depth in feet	Sample description
0 - 25	(No samples)
25 - 100	Sandstone, very light gray to gray, very finely micaceous, silty, very fine grained; very dark gray very finely micaceous silty shale in thin beds and partings
100 - 135	Shale, dark-gray to black, very finely micaceous
135 - 139	Sandstone, white, very fine to very coarse grained, free drilling; gastropods and crinoids
139 - 140	Sandstone, very light gray, very fine to medium-grained
140 - 144	(No samples)
144 - 155	Sandstone as above
155 - 160	Shale, dark-gray to black, very finely micaceous, silty
160 - 170	Sandstone, light-gray to very light gray, silty, shaly, very fine to medium-grained
170 - 175	Sandstone, white to very light gray, fine- to very coarse grained; dark-gray to black, very finely micaceous, silty shale
175 - 189	Sandstone as above
189 - 194	(No samples)
194 - 195	Shale, dark-gray to black, very finely micaceous, silty
195 - 202	(No samples)
202 - 218	Sandstone, white to very light gray, very slightly limy, very fine to coarse-grained; dark-gray to black silt
218 - 235	Sandstone, gray to very light gray, very slightly limy, very fine to coarse-grained
235 - 275	Sandstone, white to very light gray, fine- to medium-grained, mostly free drilling
275 - 285	Sandstone, light to very light gray, fine- to coarse-grained, mostly free drilling; black shale
285 - 300	Sandstone, white to very light gray, very slightly dolomitic, fine- to very coarse grained
300 - 304	(No samples)

Depth in feet	Sample description
304- 308	Sandstone as above
308- 310	(No samples)
310- 325	Sandstone, gray to very light gray, slightly silty, slightly dolomitic, fine-to very coarse grained; brownish-gray sandy dolomite
325- 334	Sandstone, white to very light gray, fine- to coarse-grained, free drilling
334- 340	(No samples)
340- 360	Sandstone, white to very light gray, fine- to coarse-grained; dark-gray to black finely micaceous shale at top
360- 366	(No samples)
366- 368	Shale, dark-gray to black, finely micaceous
368- 370	(No samples)
370- 372	Shale as above
372- 380	Sandstone, white to very light gray, fine- to coarse-grained, free drilling
380- 388	Sandstone, white to very light gray, fine- to medium-grained, free drilling
388- 390	(No samples)
390- 400	Sandstone as above
400- 418	Sandstone, very light gray, fine- to medium-grained; dark-gray silty sandstone; dark-gray to black finely micaceous shale
418- 440	Shale, dark-gray to black, silty, finely micaceous, containing stringers of very fine to fine-grained sandstone
440- 450	Shale, dark-gray to black, silty
450- 470	Shale, dark-gray to black, finely micaceous
470- 473	(No samples)
473- 485	Shale as above
485- 490	Shale, dark-gray, very siliceous and silty, finely micaceous; very fine to fine-grained sandstone
490- 500	Shale as above; dark-gray to black finely micaceous shale
500- 541	(No samples)
541- 560	Sandstone, gray, silty, very fine grained; dark-gray to black finely micaceous shale
560- 570	Shale, gray, finely micaceous, very silty, siliceous
570- 585	Sandstone, gray, silty, very fine grained; stringers of dark-gray to black very finely to finely micaceous shale
585- 620	Sandstone, light- to very light gray, very finely micaceous, very fine to medium-grained
620- 640	Sandstone, white to very light gray, very fine to coarse-grained, mostly free drilling
640- 655	Sandstone, very light gray, very fine grained, containing black shale grains
655- 665	Sandstone, gray, slightly micaceous, silty, very fine to fine-grained; partings of dark-gray to black finely micaceous shale
665- 700	Siltstone, gray, finely micaceous, siliceous
700- 715	Siltstone, dark-gray to gray, finely micaceous, very finely to finely sandy
715- 730	Sandstone, gray, silty, very fine to fine-grained; thin beds and partings of dark-gray to black finely micaceous shale
730- 745	Sandstone, gray to light-gray, very finely micaceous, very fine to fine-grained
745- 765	Sandstone as above; thin stringers of dark-gray to black very finely micaceous shale
765- 800	Siltstone, gray, finely micaceous; stringers of dark-gray to black very finely micaceous shale
800- 850	Sandstone, gray to light-gray, silty, very fine grained; dark-gray to black finely micaceous shale
850- 885	Shale, dark-gray, very silty, finely micaceous
885- 915	Sandstone, very light gray, micaceous, very fine to medium-grained
915- 925	Sandstone, gray, very silty, slightly micaceous, very fine to fine-grained; stringers of dark-gray to black very finely micaceous shale
925- 935	Sandstone and shale as above; dark brownish-gray dolomitic shale
935- 965	Sandstone, very light gray to gray, slightly micaceous, very fine to fine-grained; partings of dark-gray to black finely micaceous shale
965- 982	Sandstone, very light gray to white, very fine to medium-grained; partings of dark-gray to black shale
982-1000	Shale, dark-gray, micaceous, very silty, very slightly sandy
1000-1110	Shale, dark-gray to black, finely micaceous, slightly silty
1110-1130	(No samples)
1130-1140	Trace of dark-gray to black silty shale
1140-1158	Shale, dark-gray to black, silty

Depth in feet	Sample description
1158-1161	Limestone, very light gray to light yellowish-gray, soft, dense
1161-1280	Shale, dark-gray, silty, finely micaceous
1280-1340	Shale, dark-gray to gray, very finely micaceous, very silty
1340-1352	Sandstone, gray to brownish-gray, very silty, slightly limy, very fine grained
1352-1463	Shale, very dark gray to black, limy
1463-1472	Sandstone, gray to light olive-gray, very silty, limy, very fine to fine-grained
1472-1570	Shale, dark-gray to black, finely micaceous, slightly dolomitic, slightly silty
1570-1650	Shale, dark-gray to black
1650-1660	Shale as above; trace of very fine to fine-grained sandstone
1660-1675	Shale, dark-gray to black
1675-1683	Shale as above; very fine to fine-grained sandstone
1683-1700	Shale, dark-gray to black
1700-1750	Shale as above, slightly dolomitic
1750-1760	Shale as above, very slightly silty
1760-1780	Shale, dark-gray to black
1780-1960	Shale, dark-gray to black, limy
1960-1976	Limestone, brownish-gray, silty, dense; yellowish-gray finely granular limestone
1976-1985	Shale, dark-gray to black, limy
1985-2003	Limestone, brownish-gray, slightly silty, very finely granular to medium-crystalline; yellowish-gray finely granular limestone
2003-2058	Shale, dark-gray to black, limy
2058-2068	Limestone, dark-gray, slightly silty, dense to finely granular; trace of yellowish-gray finely granular limestone; scattered valve fragments
2068-2082	Shale, dark-gray to black, limy; crinoids
2082-2090	Limestone, very dark gray to brownish-black, slightly silty, dense to finely granular; trace of yellowish-gray finely granular limestone; scattered valve fragments
2090-2103	Limestone as above; dark-gray to black shale
2103-2151	Shale, dark-gray to black, limy
2151-2160	Limestone, dark-gray to black, slightly silty, dense
2160-2182	Shale, dark-gray to black, limy
2182-2192	Limestone, dark-gray to brownish-black, slightly silty, finely granular
2192-2210	Shale, dark-gray to black, slightly pyritic
2210-2255	Shale, dark-gray to black, slightly limy and dolomitic; thin stringers of dark-gray to black slightly silty finely granular limestone
2255-2300	Shale, dark-gray to black, slightly dolomitic
2300-2325	Shale, dark-gray to black, very slightly dolomitic; thin beds of dark brownish-gray silty finely granular to finely crystalline dolomite
2325-2335	Shale as above
2335-2355	Shale as above; thin beds of dark brownish-gray silty finely granular to finely crystalline dolomite
2355-2375	Shale as above, slightly dolomitic
2375-2470	Shale as above; thin beds of dark brownish-gray silty finely granular to finely crystalline dolomite
2470-2480	Shale, dark-gray to black, dolomitic
2480-2498	Dolomite, dark-gray to dark brownish-gray, very silty, finely granular to very finely crystalline
2498-2545	Shale, dark-gray to black, slightly dolomitic; dark-gray very silty finely granular to finely crystalline dolomite in stringers or thin beds
2545-2633	Shale, dark-gray to black, slightly dolomitic, slightly silty and micaceous
2633-2639	Dolomite, dark brownish-gray, very silty, finely granular to very finely crystalline
2639-2677	Shale, dark-gray to black, silty, finely micaceous; thin beds or stringers of dolomite as above
2677-2697	Dolomite, very dark gray to olive-gray, silty, finely granular to very finely crystalline
2697-2711	Shale, dark-gray to black; thin stringers and beds of dark-gray silty finely granular to very finely crystalline limestone
2711-2720	(No samples)
2720-2731	Limestone, dark-gray, very silty, finely granular to medium-crystalline
2731-2740	(No samples)
2740-2750	Limestone as above
2750-2760	(No samples)

Depth in feet	Sample description
2760-2779	Shale, dark-gray to black, slightly limy; limestone as above
2779-2798	Limestone, dark-gray, very silty, very finely granular to very finely crystalline
2798-2828	Alternating beds of dark-gray to black limy silty shale and dark-gray silty finely granular to very finely crystalline limestone
2828-2845	Chert, dark-gray, gray, and olive-gray, dense to finely granular; pyritic chert; stringers and thin beds of black shale
2845-2850	Chert as above, very slightly limy
2850-2870	Limestone, gray to very light gray, slightly cherty, finely granular to medium-crystalline
2870-2880	(No samples)
2880-2892	Shale, dark-gray to black, slightly limy; black dense chert
2892-2900	Limestone, gray to light-gray, finely granular to medium-crystalline
2900-2920	Shale, dark-gray to black, slightly limy
2920-2948	Chert, dark-gray and olive-gray, dense; light-gray cherty finely granular to coarsely crystalline limestone
2948-2973	Chert, gray, very slightly limy, dense; thin beds and stringers of dark-gray to black slightly limy shale
2973-2980	Limestone, white, slightly pyritic, finely granular to coarsely crystalline, containing pink coarse crystals
2980-2984	Shale, greenish-gray, slightly limy and glauconitic
2984-2986	Limestone, gray, finely granular to finely crystalline, slightly glauconitic
2986-2990	Sandstone, gray, limy, glauconitic, very fine to fine-grained, containing phosphate grains
2990-3010	Limestone, white to very light gray, finely granular to medium-crystalline; white, black-mottled, silty limestone; trace of dark-gray to black shale
3010-3025	Limestone, gray to very light gray, very finely granular to very finely crystalline
3025-3028	Limestone, light- to dark-gray, silty, very finely granular
3028-3030	Shale, dark-gray to black
3030-3035	Limestone, light- to dark-gray, silty, very finely granular
3035-3050	Limestone, gray, silty, finely granular to finely crystalline
3050-3060	Limestone, very light gray, finely granular; gray to light olive-gray dense to finely crystalline limestone
3060-3070	Limestone, gray to dark-gray, very silty, finely granular to finely crystalline; light-gray granular to finely crystalline limestone; trace of black dense chert
3070-3078	Limestone, gray, silty, finely granular to finely crystalline
3078-3080	Shale, dark-gray to black
3080-3085	Limestone, gray, silty, finely granular to finely crystalline
3085-3094	Limestone, very light to dark-gray, very finely granular to medium-crystalline; brachiopods
3094-3100	Shale, dark-gray to black
3100-3108	Limestone, light-gray, dense; very light gray finely granular to medium-crystalline limestone
3108-3110	Shale, dark-gray to black
3110-3120	(No samples)
3120-3122	Shale as above
3122-3130	Limestone, dark-gray, dense to very finely granular; light-gray very finely granular to very finely crystalline limestone
3130-3136	Limestone as above; gray dense limestone
3136-3240	Limestone, dark-gray, slightly silty, dense to very finely granular; dark-gray to black shale in thin beds and stringers
3240-3320	Limestone, gray, dense; dark-gray dense to finely granular and finely crystalline limestone; dark-gray to black shale in stringers and partings
3320-3330	(No samples)
3330-3340	Limestone, gray to dark-gray, dense to finely granular; dark-gray to black shale partings
3340-3350	(No samples)
3350-3395	Limestone, gray, dense; trace of greenish-gray shale partings
3395-3410	Dolomite, white to very light gray, limy, finely granular to very finely crystalline; scattered very fine to fine sand grains
3410-3450	Dolomite, gray to very light gray, limy, finely granular to very finely crystalline
3450-3480	Dolomite, white to very light gray, very slightly limy, very finely granular to very finely crystalline; scattered very fine to fine sand grains
3480-3512	Dolomite, gray to light-gray, limy, finely granular to medium-crystalline; scattered sand grains
3512-3516	Sandstone, light-gray, dolomitic, medium-grained; trace of hydrocarbon residue
3516-3520	Sandstone, white, very fine to medium-grained

Depth in feet	Sample description
3520-3530	Sandstone, gray to light-gray, dolomitic, fine- to medium-grained
3530-3540	(No samples)
3540-3549	Dolomite, gray, finely to medium sandy, finely granular to finely crystalline
3549-3553	Dolomite, gray, finely to medium sandy, very finely granular to medium-crystalline
3553-3559	Dolomite, gray, finely granular to medium-crystalline
3559-3590	(No samples)
3590-3610	Dolomite, gray to light-gray, finely to medium sandy, finely granular to finely crystalline; white to very light gray dolomitic fine- to medium-grained sandstone
3610-3626	(No samples)
3626-3640	Sandstone, white, fine- to medium-grained
3640-3670	Sandstone as above; trace of dolomitic sandstone
3670-3680	Dolomite, light-gray to light olive-gray, finely granular to finely crystalline; trace of coarsely to very coarsely crystalline mineral dolomite
3680-3700	Dolomite, gray to light-gray, very slightly silty, very finely granular to finely crystalline; scattered sand grains and stringers of fine- to medium-grained sandstone
3700-3710	Dolomite, gray to very light-gray, slightly sandy and silty, finely granular to very finely crystalline
3710-3730	Dolomite, gray to very light-gray, slightly silty, finely granular to finely crystalline; scattered fine to medium sand grains
3730-3740	Dolomite, light-gray, sandy in part, finely granular to finely crystalline
3740-3760	Dolomite, dark-gray to gray, very silty, finely granular to finely crystalline; stringers of dark-gray to black shale
3760-3770	Dolomite, light- to dark-gray, silty, sandy, finely granular to finely crystalline; scattered sand grains and stringers of fine- to medium-grained sandstone
3770-3780	Dolomite, gray to light-gray, finely granular to finely crystalline
3780-3805	Dolomite, dark-gray to gray, silty, finely granular to very finely crystalline
3805-3830	Dolomite, gray to light-gray, finely to medium sandy, finely granular to finely crystalline
3830-3850	Dolomite, gray to light-gray, slightly silty, dense to finely crystalline; trace of very coarsely crystalline mineral dolomite and fine to medium sand grains
3850-3860	Dolomite, gray to dark-gray, silty, dense; light-gray to gray finely granular to finely crystalline dolomite
3860-3870	Dolomite, gray to light-gray, sandy, finely granular to finely crystalline
3870-3880	Dolomite, gray to light-gray, slightly silty, finely granular to finely crystalline
3880-3890	Dolomite, gray, slightly silty, finely to medium sandy, finely granular to finely crystalline
3890-3900	Dolomite, gray to light-gray, finely to medium sandy, finely granular to finely crystalline
3900-3907	Dolomite, gray to dark-gray, very silty and shaly, finely granular to finely crystalline
3907-3910	Shale, dark-gray to black
3910-3920	Dolomite, gray to dark-gray, very silty and shaly, finely granular to finely crystalline
3920-3930	Dolomite, gray to dark-gray, slightly silty, dense to finely granular
3930-3940	Dolomite, gray, finely to medium sandy, very finely granular to finely crystalline
3940-3965	Dolomite, dark-gray to gray, finely to medium sandy, finely granular to finely crystalline
3965-3970	Limestone, dark brownish-gray, silty, dense to finely granular
3970-3980	(No samples)
3980-3984	Limestone as above
3984-4010	Dolomite, gray to light-gray, finely granular to finely crystalline; dark-gray, black, and brownish-gray limestone
4010-4030	Limestone, dark-gray to gray, silty, dense to finely crystalline; thin stringers of light-gray finely granular to finely crystalline dolomite
4030-4040	Dolomite, gray to very light gray, sandy, finely granular to finely crystalline
4040-4057	Limestone, dark-gray to gray, silty, dense to finely crystalline
4057-4060	Dolomite, gray to light-gray, limy, finely granular to finely crystalline
4060-4070	Limestone, dark-gray to gray, silty, dense to finely crystalline
4070-4086	Dolomite, gray to very light gray, limy, finely granular to finely crystalline
4086-4110	Limestone, dark-gray to gray, silty, dense to finely granular
4110-4130	Limestone, dark-gray to gray, very silty, finely to medium sandy, dense to finely granular; black shale
4130-4148	Limestone, dark-gray to gray, silty, dense to finely crystalline; thin stringers of light-gray to gray sandy limy finely granular to finely crystalline dolomite

Depth in feet	Sample description
4148-4160	Limestone, dark-gray to gray, silty, dense to finely granular; scattered sand grains and stringers of fine- to medium-grained sandstone
4160-4170	Limestone, light-gray, silty, finely granular; dark-gray silty dense to finely crystalline limestone
4170-4177	Dolomite, light-gray, finely granular to finely crystalline
4177-4210	Limestone, light-gray, sandy, silty, finely granular; dark-gray to gray silty dense to finely granular limestone; scattered sand grains
4210-4215	Limestone as above; stringers of medium-grained sandstone
4215-4230	Limestone, very dark gray to gray, silty, dense to finely crystalline; stringers of dark-gray to black shale
4230-4240	Limestone, dark-gray to gray, silty, dense to finely granular; stringers of fine- to medium-grained sandstone
4240-4250	Dolomite, light-gray to gray, limy, finely granular to very finely crystalline
4250-4270	Dolomite, gray, finely sandy, finely granular to finely crystalline
4270-4278	Dolomite as above; scattered sand grains and sandstone stringers
4278-4290	Shale, dark-gray to black, slightly limy; dark-gray to gray dense to finely granular limestone
4290-4310	Limestone, dark-gray, dense; gray to light-gray finely granular to finely crystalline limestone; trace of very fine to fine-grained sandstone
4310-4320	Limestone as above; light-gray finely granular to finely crystalline dolomite
4320-4322	Shale, dark-gray to black
4322-4334	Limestone, dark-gray, dense to finely crystalline; light-gray finely granular limestone
4334-4336	Shale, dark-gray to black
4336-4340	Dolomite, light-gray, finely granular to finely crystalline
4340-4356	Limestone, dark-gray, dense to finely crystalline; light-gray finely granular limestone
4356-4374	Alternating thin beds of dark-gray to black shale and thicker beds of dark-gray finely granular to finely crystalline dolomite and light-gray very finely to finely sandy, finely granular dolomite
4374-4408	Limestone, dark-gray, silty, dense to finely crystalline
4408-4410	Shale, dark-gray to black
4410-4417	Limestone, dark-gray to gray, dolomitic, finely granular to finely crystalline
4417-4420	Shale, dark-gray to black
4420-4436	Dolomite, dark- to light-gray, limy, sandy; scattered sand grains and stringers of very fine to fine-grained sandstone
4436-4438	Shale, dark-gray to black
4438-4448	Limestone, dark-gray to gray, slightly pyritic, slightly silty, dolomitic, dense to finely crystalline
4448-4450	Shale, dark-gray to black
4450-4460	Limestone, dark-gray to gray, slightly pyritic, slightly silty, dense to finely crystalline
4460-4467	Dolomite, light-gray, limy, sandy, finely granular to finely crystalline
4467-4468	Shale, dark-gray to black
4468-4480	Limestone, dark-gray to black, silty, dense to finely crystalline
4480-4485	Limestone as above; white to very light gray dense to finely granular dolomite
4485-4488	Shale, dark-gray to black
4488-4498	Limestone, dark-gray to gray, silty, dense to finely crystalline
4498-4500	Shale, dark-gray to black
4500-4520	Limestone, dark-gray to gray, very slightly silty, dense to very finely crystalline; light-gray finely granular limestone
4520-4537	Alternating beds of dark-gray limy finely granular to finely crystalline dolomite and dark-gray to gray very slightly silty dense to very finely crystalline limestone and light-gray finely granular limestone
4537-4540	Dolomite, dark-gray, limy, finely granular to finely crystalline
4540-4550	Limestone, dark-gray to gray, silty, dense to finely crystalline
4550-4559	Limestone, very light to dark-gray, slightly silty, finely granular to finely crystalline; oolites
4559-4562	Shale, dark-gray to black
4562-4570	Dolomite, gray, finely granular to finely crystalline
4570-4580	Dolomite, gray, slightly limy, dense to finely granular, with scattered medium sand grains
4580-4600	Dolomite as above, with scattered coarse sand grains
4600-4614	Limestone, gray to light-gray, slightly silty, dense to finely granular
4614-4619	Shale, dark-gray to black
4619-4630	Dolomite, gray to very light gray, finely granular to finely crystalline; very coarsely crystalline quartz; thin beds of black shale



Depth in feet	Sample description
4630-4650	Dolomite as above, with scattered fine to medium sand grains; thin bed of black shale at center
4650-4663	Dolomite, light-gray, finely granular to finely crystalline, with scattered fine to medium sand grains
4663-4680	Limestone, gray to light-gray, dense to finely granular
4680-4690	Dolomite, light-gray, finely granular to finely crystalline, with scattered fine to medium sand grains
4690-4700	Dolomite, dark-gray to gray, silty, finely granular to finely crystalline; dark-gray to black shale
4700-4720	Limestone, light-gray, slightly oolitic, dense to finely crystalline, with scattered fine to coarse sand grains
4720-4730	Limestone, light-gray, dense to finely crystalline, with scattered fine to coarse sand grains; dark-gray to gray dense to finely granular limestone
4730-4740	Limestone, dark-gray to gray, dense to finely crystalline; light-gray slightly oolitic finely granular limestone with scattered fine to medium sand grains
4740-4743	Shale, dark-gray to black
4743-4765	Dolomite, gray to light-gray, slightly limy, finely granular to finely crystalline, with scattered medium to coarse sand grains
4765-4770	Shale, dark-gray to black
4770-4785	Limestone, dark-gray to gray, silty, dense to finely granular
4785-4805	Dolomite, light-gray, finely granular to finely crystalline
4805-4830	Limestone, gray to light-gray, finely to medium sandy, dense to finely crystalline
4830-4850	Dolomite, light-gray, very finely to finely sandy, finely granular to finely crystalline
4850-4860	Limestone, dark-gray to gray, silty, dense to very finely granular
4860-4870	Dolomite, gray, finely granular to very finely crystalline
4870-4900	Dolomite, light- to dark-gray, silty, slightly limy, finely granular to finely crystalline
4900-4915	Dolomite, gray, slightly silty, finely granular to finely crystalline; brownish-black dense chert
4915-4926	Limestone, dark-gray to gray, silty, slightly pyritic, dense to finely crystalline
4926-4934	Dolomite, dark-gray to gray, silty, slightly limy, finely granular to finely crystalline
4934-4950	Limestone, dark-gray, slightly silty, dense to finely crystalline; light-gray slightly silty finely granular to medium-crystalline limestone
4950-4955	Limestone as above, slightly oolitic
4955-4968	Dolomite, light-gray, slightly limy, finely granular to finely crystalline
4968-4992	Limestone, dark-gray to black, slightly silty, dense to finely crystalline; light-gray finely granular limestone
4992	TOTAL DEPTH

## YELL COUNTY (1)

Operator: B & G Oil Co. and  
Carter Oil Co.

Elevation: ?

Well No.: 1

Total depth: 6011 ft.

Lease: J. E. Mitchell

Completion date: Feb. 9, 1953

Location: Center of NW $\frac{1}{4}$  NE $\frac{1}{4}$  sec.  
16, T. 5 N., R. 24 W.

Logged by: E. E. Glick

Depth in feet	Sample description
0- 240	(No samples)
240- 270	Shale, black, finely micaceous
270- 290	Shale, dark-gray to black, finely micaceous, silty; siliceous siltstone
290- 330	Shale, dark-gray, silty, micaceous
330- 575	Shale, dark-gray, silty, slightly sandy, micaceous
575- 590	Siltstone, brownish-red, micaceous
590- 700	Shale, dark-gray, micaceous, silty
700- 760	Shale, medium-gray, micaceous, silty
760- 900	Shale, dark-gray, micaceous, silty
900-1020	Shale, black, finely micaceous
1020-1180	Shale, dark-gray to black, micaceous, silty
1180-1820	Shale, dark-gray to black, finely micaceous, silty
1820-1940	Shale, dark-gray, micaceous, silty, slightly limy
1940-2010	Shale, black, finely micaceous
2010-2050	Shale, dark-gray, finely micaceous, silty; trace of pyrite
2050-2070	Shale, black, finely micaceous
2070-2080	Shale, dark-gray, micaceous, silty; medium-gray siltstone
2080-2090	Shale, black, finely micaceous
2090-2110	Shale, dark-gray, hard, finely micaceous, silty, siliceous
2110-2130	Shale, black, finely micaceous
2130-2180	Shale, dark-gray, micaceous, silty; trace of light- to medium-gray silty very fine grained sandstone; trace of calcite crystals
2180-2190	Shale, dark-gray, micaceous
2190-2210	Shale, dark-gray, micaceous, silty
2210-2220	Shale, dark-gray, micaceous, silty; trace of light-gray silty, slightly limy, micaceous, very fine grained sandstone
2220-2290	Shale, dark-gray, micaceous, silty
2290-2295	Shale, black, smooth
2295-2340	Siltstone, medium- to dark-gray, slightly sandy, micaceous
2340-2360	Shale, black, finely micaceous
2360-2390	Shale, dark-gray, finely micaceous, silty
2390-2490	Shale, black, finely micaceous; trace of medium-gray siltstone
2490-2570	Shale, black, finely micaceous
2570-2600	Shale, dark-gray, micaceous, silty; trace of silty very fine grained sandstone and very finely sandy siltstone
2600-2650	Shale, dark-gray, micaceous, silty
2650-2660	Siltstone, dark-gray, micaceous; trace of silty very fine grained sandstone
2660-2670	Siltstone, dark-gray, micaceous
2670-2700	Shale, dark-gray, micaceous, silty
2700-2710	Shale, dark-gray, micaceous, silty; light yellowish-gray siliceous very fine grained sandstone
2710-2730	Shale, dark-gray, micaceous, silty, sandy
2730-2780	Shale, dark-gray, micaceous, silty
2780-2850	Shale as above; trace of light yellowish-gray siliceous pyritic very fine grained sandstone
2850-2930	Shale, dark-gray, micaceous, silty; very thin beds of light yellowish-gray silty siliceous very fine grained sandstone

Depth in feet	Sample description
2930-2935	Shale, dark-gray, micaceous, silty
2935-2950	Sandstone, medium-gray, silty, very fine grained
2950-2955	(No samples)
2955-3100	Shale, black, finely micaceous
3100-3125	Alternating thin beds of dark-gray, finely micaceous, silty shale and thicker beds of light-gray micaceous silty siliceous very fine grained sandstone
3125-3140	Shale, black, finely micaceous, silty in part
3140-3147	Sandstone, medium-gray, micaceous, silty, siliceous, very fine grained
3147-3153	Shale, black, finely micaceous, slightly silty
3153-3159	Sandstone, medium-gray, micaceous, silty, siliceous, very fine grained
3159-3220	Shale, dark-gray to black, finely micaceous, slightly silty
3220-3250	Shale, black, finely micaceous
3250-3400	Shale, dark-gray, micaceous, silty
3400-3520	Shale, black, finely micaceous
3520-3550	Shale, black, finely micaceous, slightly silty in part; pyrite
3550-3580	Shale, dark-gray, finely micaceous, silty; thin beds of light to medium-gray silty siliceous very fine grained sandstone
3580-3610	Shale, dark-gray to black, finely micaceous
3610-3650	Shale, dark-gray to black, micaceous, silty; trace of light-gray silty very fine grained sandstone; trace of pyrite
3650-3700	Shale, dark-gray to black, micaceous, silty; trace of light-gray silty very fine grained sandstone
3700-3720	Shale, dark-gray to black, micaceous, silty
3720-3760	Shale, dark-gray to black, micaceous, silty; trace of light-gray silty very fine grained sandstone
3760-3770	Shale as above
3770-3800	Shale as above; trace of light-gray silty very fine grained sandstone
3800-3880	Shale, dark-gray, micaceous, silty; medium-gray siliceous siltstone
3880-3900	Shale, dark-gray, micaceous, silty; light- to medium-gray silty siliceous very fine grained sandstone, increasing in quantity downward
3900-4000	Thick beds of shale as above alternating with thin beds of sandstone as above
4000-4010	(No samples)
4010-4020	Shale as above
4020-4040	Shale as above; trace of light- to medium-gray silty siliceous very fine grained sandstone
4040-4050	Shale and sandstone as above; trace of fine to medium sand grains in very fine grained silty sandstone
4050-4060	Shale, black, finely micaceous, slightly silty
4060-4480	Shale, dark-gray to black, finely micaceous, silty
4480-4490	Shale as above; quartz crystals
4490-4500	Shale as above
4500-4510	Shale as above; quartz crystals
4510-4520	Shale, dark-gray, finely micaceous, silty
4520-4530	Shale as above; trace of medium-gray very silty very fine grained sandstone
4530-4560	Shale as above; trace of sandstone as above in bottom 10 ft.
4560-4790	Shale, dark-gray, finely micaceous, silty, slightly sandy
4790-4800	Shale and sandstone as above; quartz crystals
4800-4810	Shale, dark-gray to black, finely micaceous
4810-4890	Shale, dark-gray, finely micaceous, silty
4890-4900	Sandstone, medium-gray, finely micaceous, silty, very fine grained; black silty shale
4900-5060	Shale, dark-gray, finely micaceous, silty
5060-5190	Shale, dark-gray to black, finely micaceous
5190-5200	Shale, dark-gray to black, finely micaceous, silty; medium-gray silty siliceous very fine grained sandstone
5200-5290	Shale, dark-gray to black, finely micaceous, silty, interbedded with dark-gray to black finely micaceous silty shale containing medium-gray silty siliceous very fine grained sandstone
5290-5300	Shale and sandstone as above; pyrite
5300-5395	Shale, dark-gray, silty
5395-5415	Siltstone, light- to medium-gray, finely micaceous, siliceous, very finely sandy
5415-5420	Siltstone as above; dark-gray silty shale
5420-5440	Siltstone and shale as above

Depth in feet	Sample description
5440-5450	Siltstone as above
5450-5456	Siltstone, medium-gray, siliceous
5456-5471	Shale, dark-gray, silty
5471-5485	Siltstone, medium- to light-gray, micaceous, siliceous, very finely sandy
5485-5540	Siltstone as above and slightly limy
5540-5545	Siltstone, medium- to dark-gray, micaceous, siliceous, slightly limy
5545-5550	Shale, dark-gray to black
5550-5558	Siltstone, light-gray, micaceous, very finely sandy
5558-5594	Shale, black
5594-5599	Siltstone, light- to medium-gray, micaceous, siliceous, very finely sandy
5599-5691	Shale, dark-gray to black, finely micaceous, slightly silty in part
5691-5701	Siltstone, light- to medium-gray, micaceous, very finely sandy
5701-5744	Shale, dark-gray, finely micaceous, slightly silty
5744-5790	Siltstone, light- to medium-gray, micaceous, slightly limy and very finely sandy
5790-5810	Sandstone, light- to medium-gray, micaceous, slightly limy, silty, very fine grained
5810-5845	Sandstone as above; trace of medium sand grains
5845-5870	Shale, dark-gray, micaceous, silty
5870-5880	Siltstone, medium-gray, micaceous
5880-5920	Shale, dark-gray to black, micaceous, slightly silty
5920-6011	Siltstone, medium-gray, micaceous, siliceous; dark-gray micaceous silty shale
6011	TOTAL DEPTH

## YELL COUNTY (2)

Operator: Lion Oil Co.

Elevation: 638 ft.

Well No.: 1

Total depth: 4677 ft.

Lease: McClure

Completion date: Aug. 17, 1944

Location: Center of SW $\frac{1}{4}$  SE $\frac{1}{4}$  sec. 19,  
T. 7 N., R. 21 W.

Logged by: R. J. Lantz

Depth in feet	Sample description
0- 460	(No samples)
460- 470	Shale, black, micaceous, silty
470- 520	(No samples)
520- 530	Shale, black, micaceous
530- 545	(No samples)
545- 550	Shale, black, micaceous
550- 564	Sandstone, gray, micaceous, hard, fine- to medium-grained
564- 570	Shale, black, micaceous
570- 580	(No samples)
580- 600	Shale, black, micaceous
600- 620	(No samples)
620- 627	Shale, black, micaceous
627- 660	(No samples)
660- 740	Shale, black, micaceous
740- 770	Shale, black
770- 795	(No samples)
795- 806	Shale, black, micaceous, silty
806- 825	(No samples)
825- 842	Shale, black, micaceous, silty
842- 858	Sandstone, gray, hard, micaceous, fine- to medium-grained
858- 877	Shale, black
877- 895	Sandstone, light-gray, fine-grained
895- 935	(No samples)
935- 955	Shale, black, micaceous, very finely sandy
955- 965	Shale, black, micaceous
965- 980	Shale, black, micaceous, silty
980-1000	Shale, black, micaceous, silty; very thin gray finely sandy streaks
1000-1010	Shale, black
1010-1020	Shale, black, micaceous, very finely sandy
1020-1040	Shale, black, micaceous, silty
1040-1050	Shale, black, micaceous
1050-1060	Shale, black, micaceous, very finely sandy
1060-1090	(No samples)
1090-1118	Shale, black, micaceous
1118-1138	Sandstone, gray, hard, micaceous, fine- to medium-grained
1138-1147	Shale, black
1147-1149	Shale, black, micaceous, silty
1149-1185	Sandstone, gray, hard, micaceous, fine- to medium-grained
1185-1197	(No samples)
1197-1200	Sandstone as above
1200-1205	Shale, black, micaceous
1205-1216	(No samples)
1216-1225	Shale, black, micaceous, silty
1225-1278	Shale, black, micaceous
1278-1356	Sandstone, gray, hard, micaceous, fine- to medium-grained
1356-1390	(No samples)

Depth in feet	Sample description
1390-1408	Shale, black, micaceous, silty, interbedded with very thin layers of gray hard micaceous sandstone
1408-1443	Sandstone, gray, hard, micaceous, fine- to medium-grained
1443-1450	Shale, black, micaceous, silty
1450-1453	Shale, black, micaceous
1453-1460	Sandstone, gray, hard, micaceous, fine- to medium-grained
1460-1470	(No samples)
1470-1480	Sandstone, gray, hard, micaceous, very fine to fine-grained
1480-1510	Shale, black, micaceous
1510-1520	Shale, black
1520-1528	Sandstone, gray, hard, micaceous, fine- to medium-grained
1528-1580	Shale, black
1580-1635	(No samples)
1635-1730	Shale, black
1730-1756	(No samples)
1756-1795	Shale, black, silty, micaceous
1795-1865	(No samples)
1865-1945	Shale, black, micaceous
1945-1950	(No samples)
1950-1960	Shale, black, micaceous
1960-1970	(No samples)
1970-1980	Shale, black, micaceous
1980-2002	Sandstone, gray to light-gray, hard, micaceous, very fine to fine-grained
2002-2008	Shale, black, micaceous
2008-2028	Sandstone, dark-gray, shaly, very fine to fine-grained
2028-2060	Shale, black, micaceous
2060-2070	Shale, black, micaceous; thin beds of dark-gray shaly very fine to fine-grained sandstone
2070-2095	(No samples)
2095-2132	Sandstone, dark-gray, micaceous, shaly, very fine to fine-grained
2132-2145	Shale, black, micaceous, very finely sandy
2145-2185	(No samples)
2185-2205	Shale, black, micaceous
2205-2214	Shale, black, micaceous, very finely sandy
2214-2245	(No samples)
2245-2306	Shale, black, micaceous, silty in part
2306-2310	(No samples)
2310-2370	Shale, black, pyritic at top
2370-2385	Shale, black, siliceous, finely to medium sandy, phosphatic
2385-2396	Shale, black
2396-2406	Sandstone, light-gray, fine- to medium-grained
2406-2418	Shale, black, micaceous, silty
2418-2435	Sandstone, gray, medium-grained
2435-2440	Shale, black, micaceous, silty
2440-2470	(No samples)
2470-2477	Shale, black, micaceous, silty
2477-2490	Sandstone, light-gray, very slightly limy, fine- to medium-grained
2490-2500	Sandstone, light-gray, fine- to medium-grained
2500-2515	Sandstone, light-gray, micaceous, fine- to medium-grained
2515-2528	Sandstone, gray, shaly, micaceous, fine grained
2528-2540	Shale, black, micaceous, silty
2540-2550	(No samples)
2550-2565	Sandstone, gray, micaceous, shaly, fine-grained
2565-2570	Shale, black, micaceous
2570-2580	Sandstone, gray, micaceous, fine-grained
2580-2605	Sandstone, gray, micaceous, shaly, fine- to medium-grained
2605-2626	Shale, black, micaceous, very finely sandy
2626-2650	(No samples)

Depth in feet	Sample description
2650-2660	Shale as above
2660-2670	(No samples)
2670-2740	Shale, black, micaceous, silty
2740-2750	(No samples)
2750-2770	Shale, black
2770-2780	Shale, black, micaceous, very finely sandy
2780-2806	Sandstone, gray, shaly, micaceous, fine-grained
2806-2815	Shale, black, micaceous, silty
2815-2822	Sandstone, light-gray, micaceous, very fine to fine-grained
2822-2841	Thin beds of black shale alternating with thin beds of light-gray micaceous very fine to fine-grained sandstone
2841-2858	Sandstone, light-gray, fine-grained
2858-2862	Shale, black to gray, micaceous, silty
2862-2870	Sandstone, light-gray, micaceous, very fine grained
2870-2880	Shale, black
2880-3060	Shale, black, micaceous
3060-3110	Shale, black; very thin calcite veins
3110-3170	Shale, black
3170-3180	(No samples)
3180-3190	Shale, black; calcite veins
3190-3230	Shale, black
3230-3250	Shale, black; brown phosphate(?) pellets
3250-3338	Shale, black
3338-3343	Shale, black, siliceous, finely sandy
3343-3387	Shale, black
3387-3400	Shale, black, silty in part; gray siltstone; fucoids(?)
3400-3405	Shale, black, silty in part; gray siltstone
3405-3420	Shale, black; very thin layers of gray siltstone
3420-3430	Shale, black; very thin layers of gray very fine grained sandstone
3430-3437	Shale, black
3437-3438	Sandstone, gray, very fine grained
3438-3454	Shale, black
3454-3479	(No samples)
3479-3488	Shale, black, micaceous, silty
3488-3492	Shale, black, micaceous, silty; gray micaceous siltstone
3492-3494	Siltstone, gray, micaceous
3494-3495	Shale, black, micaceous, silty
3495-3530	(No samples)
3530-3605	Shale as above
3605-3610	(No samples)
3610-3620	Shale, black
3620-3625	(No samples)
3625-3640	Shale, black
3640-3690	Shale, black, flaky
3690-3795	Shale, black
3795-3805	Shale, black; brown phosphate(?) pellets
3805-3830	Shale, black
3830-3850	(No samples)
3850-3883	Siltstone, gray, micaceous; thin black shale partings
3883-3910	Sandstone, gray, micaceous, very fine grained; thin black shale partings
3910-3940	Shale, black; thin gray very fine grained sandstone layers
3940-3960	Sandstone, gray, very fine grained; black micaceous shale partings
3960-3975	Shale, black; gray very fine grained sandstone partings
3975-4000	Sandstone, gray, shaly, micaceous, very fine grained
4000-4020	Shale, black; thin gray very fine grained sandstone partings
4020-4030	Shale, black, micaceous, silty

Depth in feet	Sample description
4030-4050	Alternating thin beds of black shale and gray siltstone
4050-4051	Siltstone, gray
4051-4060	Shale, black, silty, micaceous
4060-4090	Shale, black; thin gray siltstone partings
4090-4095	Shale, black, micaceous, silty
4095-4120	Shale, black; thin gray siltstone partings
4120-4140	Shale, black, micaceous, silty
4140-4172	Shale, black
4172-4189	Sandstone, gray, fine- to medium-grained
4189-4192	Shale, black
4192-4200	Sandstone, gray, fine- to medium-grained
4200-4210	Sandstone, gray, shaly, micaceous
4210-4230	Sandstone, gray, fine- to medium-grained
4230-4235	Sandstone, gray, micaceous, shaly, fine- to medium-grained
4235-4246	Sandstone, gray, fine-grained
4246-4253	Shale, black, micaceous, silty
4253-4260	Sandstone, gray, fine- to medium-grained
4260-4266	Sandstone, gray, fine- to coarse-grained
4266-4267	Shale, black
4267-4278	Sandstone, gray, fine- to medium-grained
4278-4280	Shale, black
4280-4290	Sandstone, gray, fine- to medium-grained
4290-4302	Sandstone, gray to dark-gray, micaceous, shaly, very fine to fine-grained
4302-4308	Sandstone, gray, fine- to medium-grained
4308-4311	Sandstone, gray, shaly, fine- to medium-grained
4311-4313	Shale, black
4313-4322	Sandstone, gray, fine- to coarse-grained
4322-4332	Shale, black, micaceous, silty
4332-4339	Sandstone, gray, fine- to medium-grained
4339-4341	Shale, black
4341-4376	Sandstone, gray, micaceous, shaly, fine-grained
4376-4390	Alternating beds of black shale and gray micaceous shaly fine-grained sandstone
4390-4412	Shale, black, micaceous, finely sandy
4412-4419	Sandstone, gray, micaceous, shaly, fine-grained
4419-4428	Shale, black, micaceous, silty
4428-4429	Sandstone, gray, micaceous, shaly, fine-grained
4429-4432	Shale, black, micaceous, silty
4432-4446	Alternating thin beds of black shale and gray fine-grained sandstone
4446-4453	Shale, black, micaceous, silty
4453-4470	Alternating thin beds of black micaceous shale and gray fine-grained sandstone
4470-4475	Sandstone, gray, fine-grained
4475-4477	Shale, black, micaceous
4477-4479	Sandstone, gray, fine-grained
4479-4482	Shale, black, micaceous
4482-4495	Sandstone, light-gray, fine-grained
4495-4500	Shale, black, micaceous, finely sandy
4500-4509	Shale, dark grayish-black, finely sandy
4509-4527	Sandstone, gray, fine-grained; thin black micaceous shale partings
4527-4530	Shale, black
4530-4536	Sandstone, white, fine-grained; thin black micaceous shale partings
4536-4556	Shale, black, micaceous, silty
4556-4566	(No samples)
4566-4579	Shale, black, micaceous, finely sandy
4579-4583	Sandstone, gray, fine-grained
4583-4616	Shale, black, micaceous, silty
4616-4633	Shale, black, micaceous, finely sandy
4633-4640	Shale, black, micaceous, silty
4640-4677	Alternating thin beds of light-gray fine-grained sandstone and black micaceous shale
4677	TOTAL DEPTH



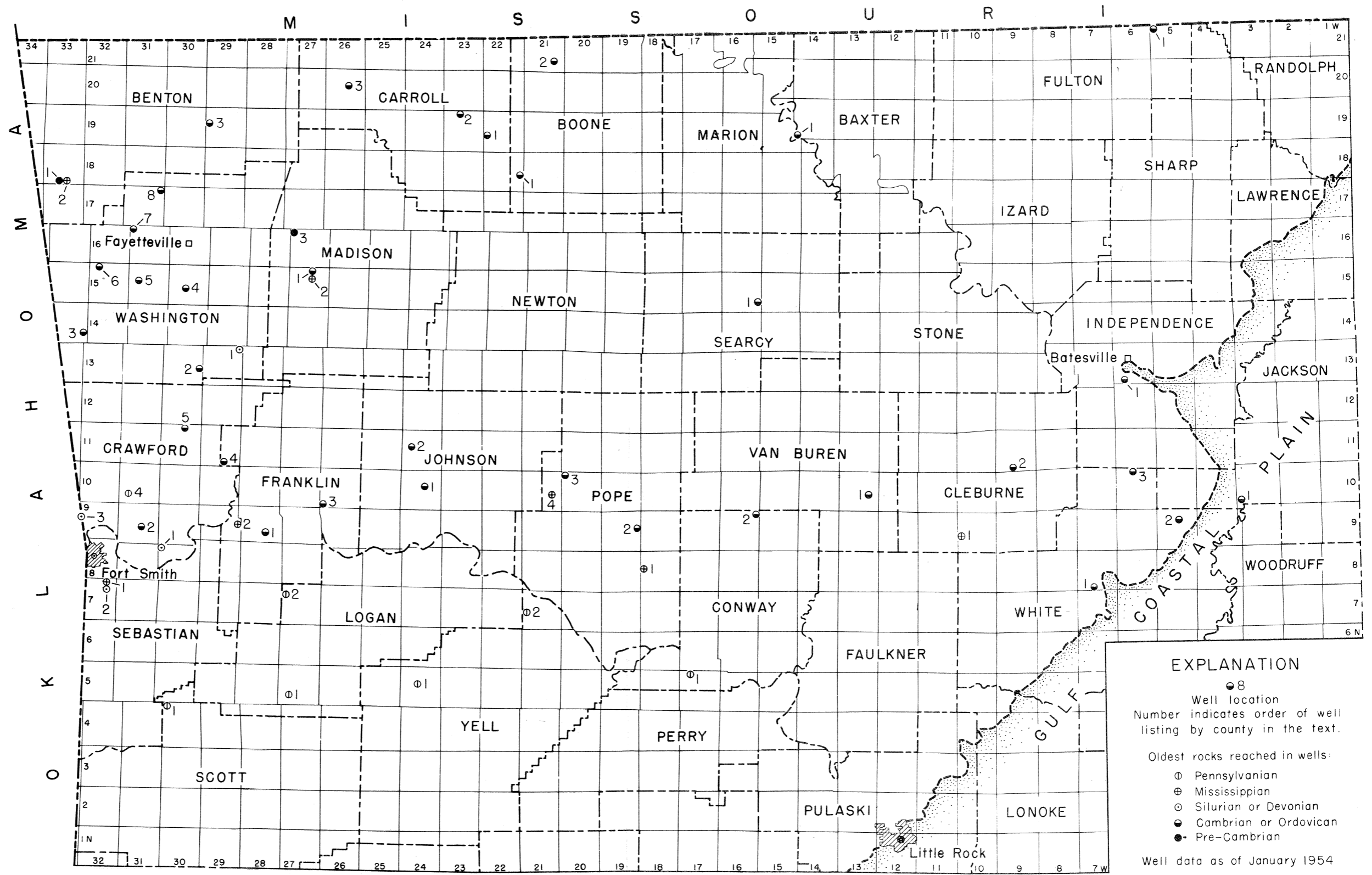


PLATE I. LOCATION OF SELECTED WELLS IN NORTHERN ARKANSAS

