STATE GEOLOGICAL SURVEY OF KANSAS

FRANKLIN D. MURPHY, M.D.
*Chancellor of the University, and ex officio*
*Director of the Survey*

JOHN C. FRYE, Ph.D.,
*Executive Director*

RAYMOND C. MOORE, Ph.D., ScD.,
*State Geologist and Director*
*of Research, on leave*

# BULLETIN 97

# OIL AND GAS DEVELOPMENTS IN KANSAS DURING 1951

By

W. A. VER WIEBE, J. M. JEWETT, E. D. GOEBEL,
and A. L. HORNBAKER


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U. S. GEOLOGICAL SURVEY (1921) Base map of Nebraska, scale 1:500,000.

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# OIL AND GAS DEVELOPMENTS IN KANSAS DURING 1951

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## ABSTRACT

Kansas oil production in 1951 totaled 113,912,366 barrels, which was 6.1 percent more than in 1950. In value the 1951 output of crude oil increased to $292,754,781 from $275,861,123 in the preceeding year.

Natural gas production in Kansas reached an all-time high of 407 billion cubic feet (14.65 psia.); the Hugoton Gas Area produced 371 billion cubic feet, 91 percent of the State's total.

During the year 147 new oil pools and 7 new gas pools were discovered, far exceeding discoveries for any previous year. Six previously abandoned oil or gas pools were revived.

Discoveries of new oil and gas pools on both the eastern and western sides of the Hugoton Gas Area in Kansas are significant developments. Decatur and Gove Counties were added to the oil-producing counties during the year. The Cheyenne County oil discovery was officially named, but the well was temporarily abandoned before the close of the year. Exploration for pre-Pennsylvanian reservoirs in the western part of the Forest City basin continued. One Viola and one Simpson pool were discovered in Wabaunsee County.

In 1951, 4,908 wells of record, 7 percent more than in 1950, were drilled in 80 Kansas counties in connection with the petroleum industry. Of the recorded completions, 2,152 were oil wells, 343 were gas wells, 1,884 were dry holes, 123 were salt-water disposal wells, and 406 were input wells drilled in connection with secondary recovery activities. Of the dry holes 502 were wildcats. Considering numerous shallow wells drilled in eastern Kansas counties which did not get into the records, probably 7,108 wells were drilled in the State during the year.

As in 1950, Barton, with a production of 18,956,122 barrels, was the largest oil producer among the counties. Russell County again ranked second with a production of 12,959,676 barrels. Again the Trapp pool of Russell and Barton Counties was the top-ranking field of the State with a production of 7,304,325 barrels of oil in 1951. The Trapp, Kraft-Prusa, Chase-Silica, Bemis-Shutts, and Hall-Gurney pools accounted for 28,768,379 barrels of oil in 1951, 25 percent of the State's total.

In 1951, Kansas produced 175 million gallons of natural gas liquids valued at $10,806,977, also a new record. There are 159.6 million barrels of natural gas liquids listed as proved reserves.

The proved reserves of Kansas crude oil at the end of the year were 791.9 million barrels, an increase of 8 percent. Proved natural gas reserves are about 13.5 trillion cubic feet.

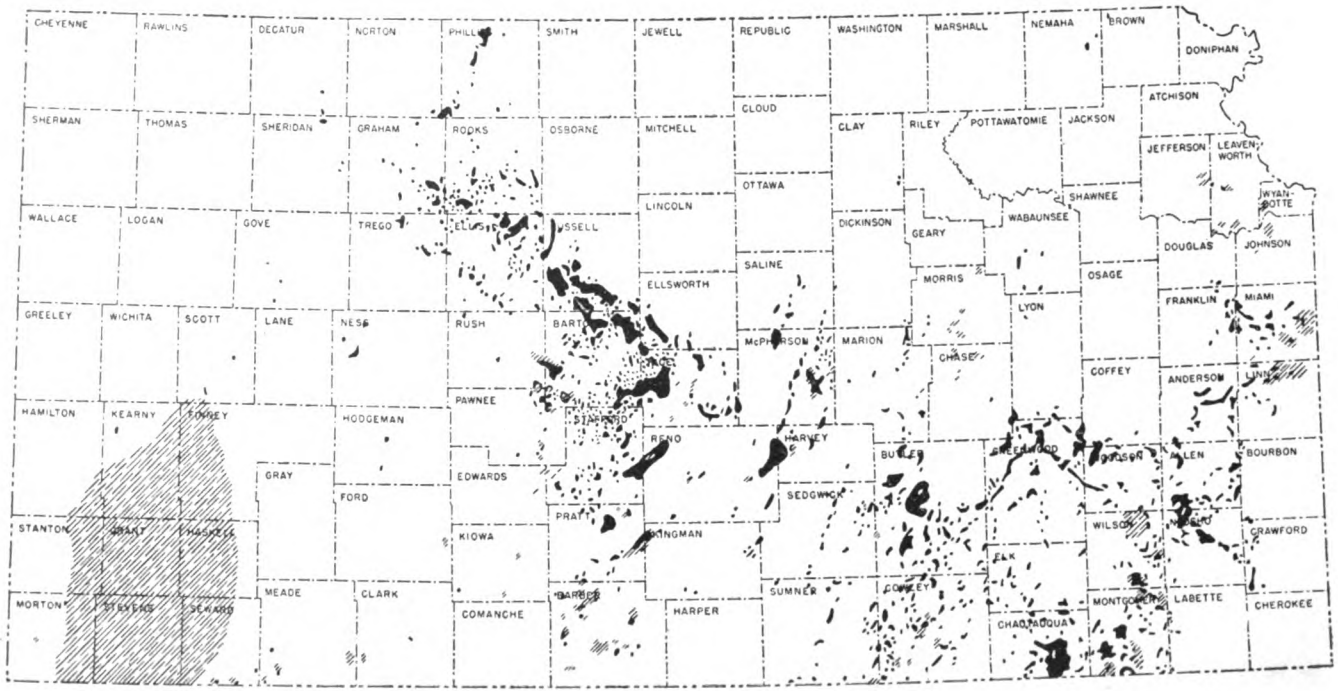


FIG. 1.—Index map of Kansas showing oil and gas producing areas.

Secondary recovery of oil is increasing rapidly in Kansas. At the end of 1951, there were 143 such operations which produced 7,825,236 barrels of oil from 5,741 wells. Greenwood led all other counties in the amount of oil produced by secondary recovery methods with 3,799,214 barrels, 64 percent of the total production for that county.

## INTRODUCTION

New records were established in Kansas during 1951 for production of crude oil, natural gas, natural gasoline, and LPG; for dollar value of petroleum industry output (crude oil, natural gas, and natural gas liquids); for the number of new wells drilled; and for the number of new oil and gas pools discovered.

Interest in new producing areas was widespread during 1951. The discovery of commercial quantities of oil in Gove and Decatur Counties lead to concentrated efforts by the producers to develop further reserves in that region, as is reflected by 38 dry wildcat tests being drilled in Graham County during the year. A significant development in the petroleum industry was the discovery of some oil in Cheyenne County which lies at the extreme northwestern edge of Kansas. Other significant developments are the discovery of a new gas pool west of the Hugoton Gas Area in Morton County and the discovery of a maximum allowable oil well east of the Hugoton Gas Area, the Light pool in eastern Seward County. These latter developments along with the finding of oil in Meade County seem to bear out the belief in deeper production from the Dodge City embayment area.

Stafford with 25 and Barton with 24 led all other counties in new pool discoveries; Rooks had 18, Graham 10, and Ellis and Phillips Counties had 9 each.

Natural gas production in Kansas during 1951 is about 13 percent more than in 1950, and the output of natural gasoline and LPG in 1951 exceeded the 1950 output by about 13 percent also. Importation of natural gas declined more than 19 percent while exportation increased more than 7 percent during the year. Consumption and production within the State were up appreciably.

Figure 1 is an index map of the State showing in a very general way areas within which there is production of oil or gas or both. Only a small fraction of the oil and gas territory is actually in production or included within pools because there are broad areas of barren country between the pools. However, the map is useful in

TABLE 2.—*Petroleum data table showing percentage changes for Kansas and the United States, 1950-1951*

| | Kansas figures 1950 | Kansas figures 1951 | Kansas percentage change | United States percentage change |
|---|---|---|---|---|
| 1. Crude oil production (barrels) | 107,339,000[1] | 113,912,366[1] | + 6.1 | +13.9 |
| 2. Value of crude oil produced | $275,861,123 | $292,754,781 | + 6.1 | ..... |
| 3. Kansas crude production as percentage of U.S. total | 5.5 | 5.2 | — 5.4 | ..... |
| 4. Average price of crude in 1951 | $2.57 | $2.57 | 0.0 | 0.0 |
| 5. Rank of Kansas among oil-producing states | 5th | 5th | 0.0 | ..... |
| 6. Proved reserves of liquid hydrocarbons (at year end), barrels | 895,765,000[2] | 951,515,000[2] | + 6.2 | + 9.0 |
| 7. Ratio of proved liquid hydrocarbon reserves to current annual production | 8.0:1 | 8.0:1 | | |
| 8. Oil producing area of "western Kansas"[3] counties (acres) | 520,220 | 553,548 | + 6.4 | |
| 9. Natural gas production, M cu.ft. | 361,874,912[4] | 407,192,252[4] | +12.6 | +15.6 |
| 10. Value of natural gas produced | $ 25,860,907[5] | $ 29,099,451[5] | +12.6 | ..... |
| 11. Production of natural gasoline and LPG (natural gas liquids), gallons | 155,316,084[1] | 175,234,122[1] | +12.8 | +17.4 |
| 12. Value of natural gasoline and LPG | $ 9,581,534[6] | $ 10,806,977[6] | +12.8 | ..... |
| 13. Proved reserves of natural gas, millions of cubic feet | 13,790,834[2] | 13,457,498[2] | — 2.4 | + 4.4 |
| 14. Ratio of proved natural gas reserves to current annual production | 35.2:1 | 30.2:1 | —13.2 | ..... |

| | | | |
|---|---|---|---|
| 15. Gas producing area of "western Kansas" (acres) | 2,200,990 | 2,310,850 | + 5.0 |
| 16. New oil and gas pools discovered | 122[10] | 154[10] | +26.2 |
| 17. Recorded well completions in Kansas | | | |
| Oil | 1,975[7] | 2,152[7] | + 8.9 |
| Gas | 389[7] | 343[7] | —11.8 |
| Dry | 1,617 | 1,884 | +16.5 |
| Salt-water disposal | 402[8] | 529[8] | |
| Unrecorded but estimated for eastern Kansas counties | 2,253[9] | 2,200[9] | + 7.0 |
| Total recorded and estimated | 6,636 | 7,108 | |
| Wildcats and discovery wells (included in above total) | 465 | 656 | |

1. Figures supplied by Kansas Corporation Commission, Conservation Division.
2. Figures from American Petroleum Institute and American Gas Association, 1951. Barrels have 42 U.S. gallons and gas is based at 14.65 psia. at 60 F.
3. The petroleum area of "western Kansas" is taken to include all producing counties west of the Cowley-Butler-Marion-Dickinson County tier.
4. Figures supplied by Kansas Corporation Commission recalculated to base 14.65 psia.
5. Natural gas from Hugoton Gas Area and other parts of "western Kansas" has a minimum value of 8 cents per M cubic feet at 16.4 psia at the well head established by the Kansas Corporation Commission. The value has been applied to all Kansas production.
6. This aggregate figure is based on unit values of the several products that reflect wholesale prices at the plant.
7. Includes pool wells and new discoveries.
8. Includes salt-water disposal and recorded secondary recovery input wells.
9. Counties for which number of wells drilled in 1950 are all or in part estimated include Allen, Anderson, Chautauqua, Elk, Woodson, Wilson, Montgomery, Douglas, Franklin, Miami, Linn, Neosho, Crawford, Bourbon, and Labette.
10. Omitting revived pools.

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6. This aggregate figure is based on unit values of the several products that reflect wholesale prices at the plant.
7. Includes pool wells and new discoveries.
8. Includes salt-water disposal and recorded secondary recovery input wells.
9. Counties for which number of wells drilled in 1950 are all or in part estimated include Allen, Anderson, Chautauqua, Elk, Woodson, Wilson, Montgomery, Douglas, Franklin, Miami, Linn, Neosho, Crawford, Bourbon, and Labette.
10. Omitting revived pools.

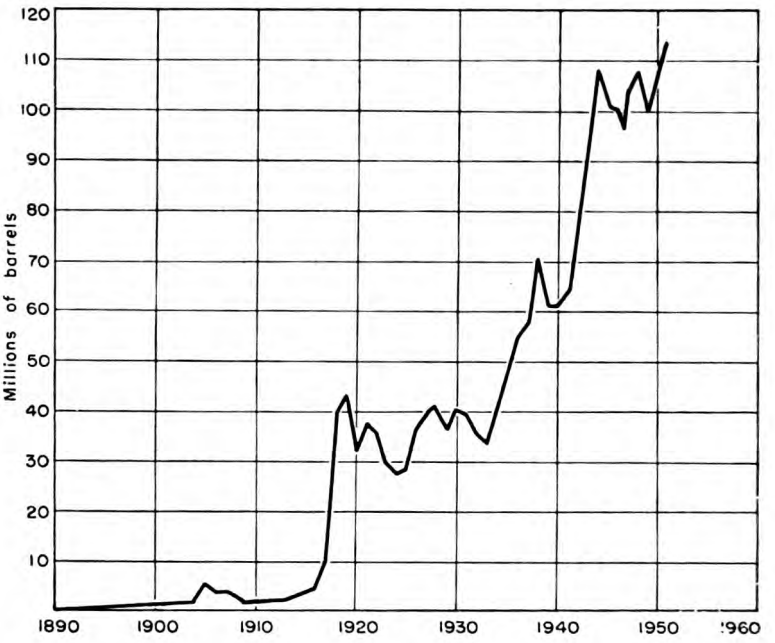


FIG. 2.—Annual oil production in Kansas from 1890 to 1951.

showing county relations and also an idea of how large a percentage of the State may be considered "oil and gas territory."

It seems desirable to include a table of condensed petroleum data which at a glance will show (1) the trend of the Kansas industry in its various phases and (2) a comparison between individual trends in Kansas and corresponding trends in the United States. The question of whether or not Kansas is holding its own in the petroleum industry can be answered readily by comparing the two right-hand columns of Table 2.

*Production and value.*—Production of crude oil in Kansas during 1951, 113.9 million barrels, increased about 6.5 million barrels, or 6.1 percent (Table 2). The production of crude thus exceeded the former high reached in 1948. The value of the 1951 crude production was 292.8 million dollars. The price of crude remained stationary during the year.

Natural gas production during 1951 increased to 407.1 billion cubic feet (Kansas Corporation Commission figure calculated at 14.65 psia.) or 12.6 percent more than the 1950 figure. The value of

TABLE 3.—*Largest oil producing counties in Kansas during 1951*

| Rank | County | Producing acreage | Total production, barrels |
|---|---|---|---|
| 1. | Barton | 95,490 | 18,956,122 |
| 2. | Russell | 77,450 | 12,959,676 |
| 3. | Ellis | 43,810 | 11,694,249 |
| 4. | Rice | 66,190 | 9,503,159 |
| 5. | Butler | 86,000 | 7,567,782 |
| 6. | Rooks | 31,140 | 7,088,170 |
| 7. | Stafford | 44,100 | 6,336,930 |

natural gas produced in Kansas during 1951 is estimated at 29.1 million dollars. There was no change in the minimum well-head price established by the Kansas Corporation Commission ruling for prorated production, and this value is applied also to the minor amount of unprorated Kansas production, much of which probably brings a higher price.

Kansas production of natural gas liquids, 175.2 million gallons, was another new record in production. Its value for 1951 was 10.8 million dollars, also a new record.

The total value of Kansas raw products of the petroleum industry (crude oil, natural gas, and natural gas liquids) produced in 1951 was 332.7 million dollars, which was a new record, 5 percent more than the former high estalished in 1950.

Barton County maintained its lead as the largest oil producer in the State. Table 3 shows that the seven largest producing counties did not change rank. Table 4 shows that the combining of the Chase and Silica pools moves it into third place, replacing the Bemis-Shutts pool in ranking pool production. A summary of oil produced, imported, used, and exported is given in Table 5. Annual oil production in Kansas from 1890 to 1951 is shown graphically in Figure 2.

*Reserves.*—Kansas proved reserves of liquid hydrocarbons, 951.5 million barrels (crude oil plus natural gas liquids), increased 6.2 percent during 1951, 2.8 percent less than the national trend.

TABLE 4.—*Largest oil producing fields in Kansas during 1951*

| Rank | Pool | Age, years | County | Total production, barrels |
|---|---|---|---|---|
| 1. | Trapp | 16 | Russell-Barton | 7,340,325 |
| 2. | Kraft-Prusa | 15 | Barton-Ellsworth | 6,900,235 |
| 3. | Chase-Silica | 21 | Rice-Barton-Stafford | 6,666,359 |
| 4. | Bemis-Shutts | 17 | Ellis | 4,199,030 |
| 5. | Hall-Gurney | 21 | Russell | 3,662,430 |

TABLE 5.—*Summary of oil produced, imported, used, and exported in 1951*
(From the Conservation Division, Kansas Corporation Commission)

| | Barrels of oil |
|---|---|
| Produced | 113,913,000 |
| Imported | 13,677,000 |
| Total | 127,590,000 |
| Exported | 55,757,000 |
| Refined and used in Kansas | 71,833,000 |
| Total | 127,590,000 |

Kansas proved reserves of crude oil were estimated to be 791.9 million barrels (API-AGA, 1951, p.9) at the end of 1951.

Proved reserves of natural gas in Kansas, 13.5 trillion cubic feet, declined slightly during 1951 according to estimates of the Reserves Committee of the American Gas Association. Corresponding estimates according to the Oil and Gas Journal (Ingalls, 1952, p. 218) indicate no change. Kansas proved reserves of natural gas liquids, 159.6 million barrels, decreased slightly during 1951, according to estimates by the Reserves Committee of the American Petroleum Institute and the American Gas Association.

It should be pointed out that the Kansas reserve of natural gas liquids is more than 50 percent of the estimated recoverable motor gasoline contained in Kansas proved reserves of crude oil. In other words, the total Kansas liquid fuel potential is increased one-half by a group of comparatively new fuels just coming into wide use.

In regard to figures on the production of natural gas in Kansas as used in this bulletin, it should be noted that in the data table (Table 2) and in the abstract, the figures have been calculated to a pressure base of 14.65 pounds per square inch absolute to correspond with analogous figures published by the American Petroleum Institute, the American Gas Association, the U. S. Bureau of Mines, and the leading oil and gas periodicals. This is a rather common pressure base on which gas is sold to the consumer. However, the Kansas Corporation Commission, dealing largely with the production of gas at the well head, uses a pressure base of 16.4 psia. In the general production table (Table 67) figures on gas production of the many pools are based on 16.4 psia.

Separate detailed production tables for oil and gas are given in this bulletin. Each includes in alphabetical order all counties in the State which have oil or gas production. The listing of each county

shows both current and known cumulative production, producing area, names of pools (alphabetically arranged), discovery year, producing zones, and reported number of producing wells. Totals for each county are given so that comparisons can be made. Where oil pools extend across county lines every effort has been made to divide accurately the respective productions on the basis of the output of the leases themselves. All figures are compiled with reasonable diligence; however, precise accuracy is not claimed. It is impossible at the present time to assign Hugoton Gas Area production to each of the nine counties which contribute.

Owing to the fact that the gravity of oil varies rather widely from pool to pool, it is not practical at this time to assign dollar valuation to production from the various counties.

*Area of production.*—The producing area of Kansas oil and gas pools or the producing oil and gas area (the two overlap in some cases) has been calculated and shown as accurately as reasonably possible. It should be noted, however, that the producing areas as shown by the maps and in the figures are those that would be arrived at if an oil-production man rather than a geologist were drawing the field limits. Pool boundaries have been drawn but a short distance outside the outermost producing wells. Where dry holes show the boundaries, the limits have been drawn between dry holes and the producing wells. Undoubtedly, the drawing areas of the reservoirs in many cases extend considerably beyond the limits as indicated. However, for practical purposes, the limits have been drawn and areas calculated on the basis of lines drawn just outside the productive area demonstrated by present development.

In the case of eastern Kansas counties, it has seemed desirable to omit from the map (Plate 1), the boundaries of the old fields as they were drawn many years ago, since they contain very large areas that are not producing at the present time. Only areas that were producing oil or gas or both during 1951 are shown on the map and assigned acre areas in the table. It is the custom of the State Geological Survey of Kansas to issue, about every five years, a bulletin on the oil and gas developments in eastern Kansas. Bulletin 77 by John Mark Jewett, published in 1949, is the latest. In such bulletins the limits and significance of boundaries of the old fields, most of the areas of which are now unproductive, are shown.

*New pools.*—During 1951, 147 new oil pools and 7 new gas pools were discovered in Kansas. Six previously abandoned oil pools

were revived during the year. Stafford County had 25 new pools discovered, Barton County 24, Rooks County 18, Graham County 10, and Ellis and Phillips 9 each.

New pool discoveries in 1951 far exceeded the discoveries recorded in any previous single year. Four of the new pool discovery wells were declared dry and abandoned before the end of the year. New 1951 pool discoveries are listed in Table 6. Two new counties began producing oil, making 75 counties which have in the past or are at present producing commercial quantities of oil or gas or both. The new producing counties are Decatur and Gove.

*Abandoned pools.*—Eight oil or gas pools were abandoned during 1951. Forty pools were combined with other pools. It has been the custom of the Survey in recent years to omit from the county maps the outlines of abandoned pools. The plan is continued in the present report. Total production from abandoned pools is listed at the bottom of each county table for the first time this year.

TABLE 6.—*New oil and gas pools discovered in Kansas during 1951*

| County, pool, and location of discovery well | Discovery well | Producing zone | Production depth, feet | Month of discovery | Initial production per day, bbls. |
|---|---|---|---|---|---|
| *Barber County* | | | | | |
| Amber Mills 15-30-12W | Natl. Assoc. Petro. Co. No. 1 House | Viola | 4,480-4,484 | January | D & A |
| Nippawalla 13-33-12W | Skelly Oil Co. No. 1 Harbaugh "C" | Douglas | 3,659-3,668 | September | 7,079,000 cu.ft. gas |
| *Barton County* | | | | | |
| Ameh 19-18-11W | Sohio Petro. Co. No. 1 Schrepel "A" | Lans.-KC | 3,103-3,108 | April | 343 |
| Bergtal South 27-20-15W | Natl. Coop. Ref. Assn. & Victor Drlg. No. 1 Bowman | Arbuckle | 3,775 | September | 7 |
| Dartmouth 27-19-12W | B & R Drlg. Co. No. 1 Clara Johnson | Arbuckle | 3,362-3,368 | February | 147 |
| Dartmouth Northwest 28-19-12W | B & R Drlg. Co. No. 1 Johnson "B" | Lans.-KC | 3,305-3,310 | June | 297 |
| Eberhardt West 14-19-11W | Alpine Oil & Royalty Co. No. 1 Petz (This pool now part of the Lanterman pool) | Lans.-KC | 3,134-3,140 | March | 49 |
| Fort Zarah North 19-19-12W | Alpine Oil & Royalty Co. No. 1 McIlrath | Lans.-KC | 3,208-3,214 | August | 346 |
| Fort Zarah Southeast 32-19-12W | Graham-Messman-Rinehart Oil Co. No. 1 Starke (This pool is now part of the Fort Zarah pool) | Arbuckle | 3,384-3,388 | May | 168 |
| Great Bend East 34-19-13W | Alpine Oil & Royalty Co. No. 1 Dorfshaffer | Lans.-KC | 3,234-3,244 | December | 28 |
| Great Bend West 23-19-14W | Marmad Oil Co. No. 1 Schaffer | Lans.-KC | 3,332-3,337 | November | 1,785 |
| Harrison (Revived) 18-20-13W | Grant Oil Co. No. 1 Harrison (18-20-13W)* | Arbuckle | 3,520-3,550 | October | 125 |

| | | | | | |
|---|---|---|---|---|---|
| Klepper<br>2-19-11W | Ben C. W. Hyde, Jr.<br>No. 1 Klepper | Lans.-KC | 3,220-3,227 | December | 104 |
| Larkin<br>10-17-14W | Anschutz Drlg. Co.<br>No. 1 Reidl | Lans.-KC | 3,280-3,285 | March | 873 |
| Leoville South<br>12-17-15W | E. G. Bradley<br>No. 1 Axman<br>(This pool now part of the Leoville pool) | Arbuckle | 3,429-3,432 | January | 476 |
| Putnam<br>7-17-13W | Rocket Drlg. Co.<br>No. 1 Putnam | Lans.-KC | 3,286-3,293 | November | 212 |
| Putnam West<br>1-17-14W | Pickrell Drlg. Co.<br>No. 1 Putnam | Lans.-KC | 3,225-3,233 | November | 287 |
| Redwing Northwest<br>31-17-12W | E. H. Adair & Holly Oil Co.<br>No. 1 Argo-Eveleigh<br>(This pool is now part of the Redwing pool) | Arbuckle | 3,320-3,331 | January | 240 |
| Sadie<br>12-18-11W | Natl. Coop. Ref. Assn.<br>No. 3 Sadie Smith | Arbuckle | 3,276-3,280 | November | 215 |
| Sandford<br>25-17-14W | Carl Todd Drlg. Co.<br>No. 1 Sandford | Arbuckle | 3,375-3,394 | June | 453 |
| Sandrock<br>21-20-13W | Adkins Drlg. Co.<br>No. 1 Sandrock | Lans.-KC | 3,412-3,420 | June | 42 |
| Shoo Fly<br>9-17-13W | Petro. Inc.<br>No. 1 Johnston<br>(This pool now part of Ainsworth South pool) | Lans.-KC | 3,170-3, 7 | August | 401 |
| Wearne<br>4-20-12W | W. J. Coppinger<br>No. 1 Wearne | Arbuckle | 3,384-3,402 | May | 182 |
| Werner-Robl<br>30-19-11W | W. L. Hartman<br>No. 1 Werner | Lans.-KC | 3,106-3,115 | January | 347 |
| Werner-Robl Northwest<br>24-19-12W | W. L. Hartman<br>No. 1 E. Robl | Lans.-KC | 3,092-3,100 | February | 147 |
| Werner-Robl South<br>30-19-11W | W. L. Hartman<br>No. 1 Pohlman | Arbuckle | 3,347-3,351 | February | 50 |
| *Butler County* | | | | | |
| Brickley<br>2-27-7E | Dunne & Strait<br>No. 1 Lucas | "Bartlesville" | 2,636 | November | 35 |
| Edgecomb<br>9-25-3E | Eckland Drlg. Co.<br>No. 1 Nieman | Mississippian | 2,759-2,760 | August | 25 |
| Four Mile Creek<br>5-28-3E | Wm. L. Graham & J. P. Gaty<br>No. 1 Graham "A" | Simpson | 3,069-3,072 | January | 2,068 |
| Hartenbower South<br>16-29-6E | R. W. Holcomb<br>No. 1 Price | Lans.-KC | 2,060-2,072 | June | 25 |
| Pierce West<br>20-25-4E | Rex & Morris Drlg. Co.<br>No. 1 Sparks | Mississippian | 2,515-2,525 | March | 20 |
| Whitewater North<br>29-25-4E | Rex & Morris Drlg. Co.<br>No. 1 Johnson | Viola | 2,700-2,702 | March | 35 |
| *Chase County* | | | | | |
| Bazaar<br>36-20-8E | R. E. Morrison Drlg. Co.<br>No. 2 Norton | Lans.-KC | 1,823-1,827 | March | 12 |
| *Cheyenne County* | | | | | |
| Judy<br>26-1-39W | Ben Brack Oil Co.<br>No. 1 Judy Estate | Marmaton | 4,497-4,512 | May | Temp. abd. |
| *Clark County* | | | | | |
| Ashland<br>35-32-23W | Stanolind Oil & Gas Co.<br>No. 1 Daisy Wall | Viola | 6,526-6,536<br>6,566-6,576 | February | 129 |
| Theis<br>5-34-25W | Skelly Oil Co.<br>No. 1 Theis | Mississippian | 5,532-5,610 | February | 783,000 cu.ft. gas |
| *Clay County* | | | | | |
| Wakefield (Revived)<br>21-9-4E | K. I. Turner<br>No. 2 Glace<br>(21-9-4E)* | Mississippian | 1,793-1,798 | May | 4 |
| Wakefield Northeast<br>15-9-4E | K. I. Turner<br>No. 1 Tannehill | Mississippian | 1,904-1,911 | May | 6 |

TABLE 6.—*New oil and gas pools discovered in Kansas during 1951 (continued)*

| County, pool, and location of discovery well | Discovery well | Producing zone | Production depth, feet | Month of discovery | Initial production per day, bbls. |
|---|---|---|---|---|---|
| *Cowley County* | | | | | |
| Brown West<br>14-31-7E | Kenner & High<br>No. 1 Brown | Douglas | 1,568-1,600 | June | 2,000,000 cu.ft. gas |
| Grouse Creek<br>16-30-7E | K. T. Wiedemann<br>No. 1 Lee | Mississippian | 2,890-2,917 | August | 15 |
| McKay<br>17-35-4E | Smitheman & Cohen<br>No. 1 McKay | "Bartlesville" | 3,314-3,3.5 | November | 138 |
| Nigger Creek<br>22-34-3E | Crest Drlg. & Natl. Coop. Ref. Assn. No. 1 Morgan | "Bartlesville" | 3,281-3,302 | November | 35 |
| *Decatur County* | | | | | |
| Jennings<br>25-4-27W | The Texas Co.<br>No. 1 E. J. Keenan | Lans.-KC | 3,478-3,482<br>3,484-3,488 | September | 162 |
| *Ellis County* | | | | | |
| Herl<br>28-14-17W | Lion Oil Co.<br>No. 1 Herl | Arbuckle | 3,476-3,488 | July | 133 |
| Irvin North<br>31-13-19W | The Texas Co.<br>No. 1 Riedel | Arbuckle | 3,905-3,910 | January | 188 |
| Irvin Northeast<br>32-13-19W | T. C. Strain<br>No. 1 Bemis | Arbuckle | 3,887-3,893 | December | 82 |
| Irvin South<br>7-14-19W | Rocket Drlg. Co.<br>No. 1 Kramer<br>(This pool was abandoned during 1951) | Arbuckle | 3,826-3,833 | November | D & A |
| Jacob<br>6-11-19W | Heathman & Co.<br>No. 1 Keller | Lans.-KC | 3,542-3,544 | November | 178 |
| Karlin<br>14-13-17W | Sterling Drlg. Co.<br>No. 1 Karlin | Lans.-KC | 3,348-3,351 | January | 77 |
| Mendota<br>5-11-20W | Francis Oil & Gas Co.<br>No. 1 Fischer "A" | Arbuckle | 3,668-3,672 | October | 120 |
| Pleasant Ridge Southwest<br>19-12-17W | Isern Bros.<br>No. 1 Krannawitter | Arbuckle | 3,673-3,683 | July | 130 |
| Ubert North<br>31-12-17W | Graham-Messman-Rinehart Oil Co. No. 1 Staab | Arbuckle | 3,600-3,615 | October | 232 |
| *Ellsworth County* | | | | | |
| Matthews<br>19-17-10W | Imperial Petro. Co.<br>No. 1 Matthews<br>(This pool now part of the Kraft-Prusa pool) | Lans.-KC | 3,070-3,085 | January | 1,013 |
| Plum Creek<br>32-16-10W | B & R Drlg. Co.<br>No. 1 Novotny<br>(This pool now part of the Stoltenberg pool) | Arbuckle | 3,294-3,304 | May | 48 |
| West<br>20-17-10W | Imperial Petro. Co.<br>No. 1 West | Arbuckle | 3,287-3,289 | December | 202 |
| *Finney County* | | | | | |
| Damme<br>21-22-33W | W. L. Hartman<br>No. 1 Damme | Mississippian | 4,626-4,636 | April | 1,795 |
| *Gove County* | | | | | |
| Coberly<br>15-14-29W | Cities Service Oil Co.<br>No. 1 Coberly | Marmaton | 4,287-4,298 | March | 3,000 |
| Gove<br>26-13-30W | Musgrove Petro. Corp.<br>No. 1 Teeter | Mississippian | 4,547-4,550 | December | 374 |
| Jasper<br>30-15-29W | Herndon Drlg. Co.<br>No. 1 Jasper | Lans.-K.C. | 3,670-3,673 | November | 41 |
| *Graham County* | | | | | |
| Crocker<br>18-10-21W | Jones, Shelburne & Farmer Inc. No. 1 Teall | Arbuckle | 3,916-3,920 | August | 232 |
| Fargo West<br>34-9-22W | Yockey Oil Co.<br>No. 2 Walker-Russell | Lans.-KC | 3,755-3,785 | December | 30 |

| | | | | | |
|---|---|---|---|---|---|
| Harmony<br>32-7-22W | Morris Sitrin<br>No. 1 Morris | Lans.-KC | 3,597-3,600 | October | 1,068 |
| Highland<br>20-8-22W | Deep Rock Oil Corp.<br>No. 1 Moore | Lans.-KC | 3,616-3,620 | January | 209 |
| Law<br>34-9-23W | Harry Gore<br>No. 1 Law | Lans.-KC | 3,922-3,932 | March | 534 |
| Law South<br>2-10-23W | Harry Gore<br>No. 1 F. Law<br>(This pool now part of the Law pool) | Penn. basal conglomerate | 4,126-4,142 | July | 77 |
| Millbrook<br>21-8-23W | Peel-Hardman<br>No. 1 Legere Est. | Lans.-KC | 3,761-3,768 | October | 306 |
| Shiloh<br>1-9-25W | Prime Drlg. Co.<br>No. 1 Miniun | Lans.-KC | 4,013-4,017 | December | 1,070 |
| Smith-Denning West<br>6-10-21W | Deep Rock Oil Corp.<br>No. 1 Beecher | Arbuckle | 3,880-3,882 | August | 195 |
| Worcester<br>23-7-22W | V. D. Sidey<br>No. 1 Worcester | Arbuckle | 3,792-3,798 | November | 237 |
| *Harvey County* | | | | | |
| Wall<br>25-22-3W | Drillers Prod. Co.<br>No. 1 Wall | Mississippian | 3,150-3,167 | November | 2,900,000 cu.ft. gas |
| *Hodgeman County* | | | | | |
| Purdyville<br>3-24-24W | I. W. Siegel<br>No. 1 Schraeder | Mississippian | 4,663-4,683 | April | 1,549 |
| *Kingman County* | | | | | |
| Dresden<br>13-27-10W | Lion Oil Co.<br>No. 2 McMichael | Viola | 4,270-4,278 | May | 432 |
| Evan Mound<br>22-27-5W | Bankoff Oil Co.<br>No. 1 Dieffenbacher | Mississippian | 3,800-3,819 | July | 28 |
| Lansdowne North<br>4-28-5W | Laura Jane Oil Co.<br>No. 1 Seward Estate | Mississippian | 3,814-3,817 | January | 148 |
| Spivey<br>23-30-8W | Stanolind Oil & Gas Co.<br>No. 1 Boyle | Mississippian | 4,205-4,216<br>4,223-4,231<br>4,238-4,260 | September | 270 |
| *McPherson County* | | | | | |
| Graber North<br>4-21-1W | Aladdin Petro. Corp.<br>No. 1 Goering | Mississippian | 2,955-2,990 | May | 2,155,000 cu.ft. gas |
| *Meade County* | | | | | |
| Novinger<br>26-33-30W | Columbian Fuel Corp.<br>No. 1 Novinger | Mississippian | 5,803-5,817 | May | 1,675 |
| *Morton County* | | | | | |
| Greenwood<br>14-33-42W | Cities Service Oil Co.<br>No. 1 Greenwood "B" | Morrowan | 4,872-4,880 | April | 1,360,000 cu.ft. gas |
| *Pawnee County* | | | | | |
| Evers<br>1-22-16W | Stanolind Oil & Gas Co.<br>No. 1 Evers | Lans.-KC | 3,525-3,531 | February | 58 |
| *Phillips County* | | | | | |
| Beckman<br>3-4-19W | Coop. Ref. Assn.<br>No. 1 Beckman "A" | Lans.-KC | 3,201-3,203<br>3,206-3,208 | September | 22 |
| Dry Creek<br>7-1-18W | Honaker Drlg. Co.<br>No. 1 Gebhardt<br>(This pool abandoned during 1951) | Lans.-KC | 3,407-3,414 | January | 6 |
| Glenwood<br>21-1-17W | Westgate-Greenland Oil Co.<br>& Bay Petro. No. 1 Rolland | Lans.-KC | 3,597-3,618 | March | 83 |
| Huffstutter Northeast<br>27-1-18W | B & R Drlg. Co.<br>No. 2 Babcock<br>(This pool now part of the Huffstutter pool) | Lans.-KC | 3,371-3,377 | April | 2 |
| Huffstutter Southwest<br>23-2-19W | Lewis Drlg. Co.<br>No. 1 Kelly | Lans.-KC | 3,458-3,462 | June | 163 |
| Kent<br>22-1-18W | Honaker Drlg. Co.<br>No. 1 Kent | Lans.-KC | 3,432-3,436 | March | 36 |

**TABLE 6.**—*New oil and gas pools discovered in Kansas during 1951 (continued)*

| County, pool, and location of discovery well | Discovery well | Producing zone | Production depth, feet | Month of discovery | Initial production per day, bbls. |
|---|---|---|---|---|---|
| Slinker<br>25-4-20W | R. W. Rine Drlg. Co.<br>No. 1 Slinker | Lans.-KC | 3,215-3,223 | June | 118 |
| Stephens<br>21-1-18W | National Associated Petro. Co. No. 1 Stephens<br>(This pool now part of the Huffstutter pool) | Lans.-KC | 3,382-3,404 | July | 169 |
| Stuttgart South<br>23-3-19W | Westgate-Greenland Oil Co.<br>No. 1 Ehm | Lans.-KC | 3,291-3,293 | March | 37 |
| *Reno County* | | | | | |
| Haven<br>9-25-4W | Midstates Oil Corp.<br>No. 1 Meyer "A" | Simpson | 3,977-3,981 | August | Dry |
| Morton Southeast<br>16-24-8W | Cities Service Oil Co.<br>No. 1 Birket | Lans.-KC | 3,423-3,435 | June | 39 |
| Sankey<br>22-22-10W | The Atlantic Refg. Co.<br>No. 1 Sankey | Lans.-KC | 3,187-3,195 | July | 502 |
| *Rice County* | | | | | |
| Frederick<br>10-18-9W | Lewis Drlg. Co.<br>No. 1 Schroeder | Penn. basal conglomerate | 3,241-3,267 | March | 212 |
| Ixl South<br>9-19-10W | Skiles Oil Corp.<br>No. 1 Boldt | Lans.-KC | 3,068-3,072 | October | 261 |
| Munyon South<br>3-19-10W | Carl Lebsack<br>No. 1 Schmidt | Arbuckle? | 3,300-3,310 | June | 209 |
| *Rooks County* | | | | | |
| Annon<br>27-10-20W | Derby Oil Co.<br>No. 1 Annon | Arbuckle | 3,711-3,717 | June | 331 |
| Bassett<br>20-10-20W | Heathman Drlg. Co., Inc.<br>No. 1 Bassett | Arbuckle | 3,749-3,768 | February | 124 |
| Berland Northwest<br>2-10-20W | Barnett Oil Co.<br>No. 1 Coddington<br>(This pool now part of the Marcotte pool) | Arbuckle | 3,782-3,789 | March | 112 |
| Berland South<br>31-10-19W | Lohmann-Johnson Drlg. Co.<br>No. 1 Schoenthaler | Lans.-KC | 3,480-3,484<br>3,486-3,490<br>3,597-3,602<br>3,611-3,619 | January | 169 |
| Chandler West<br>15-9-19W | Mid Plains Oil Corp.<br>No. 1 Casey | Dodge (Shawnee) | 3,248-3,256 | December | 3 |
| Elm Creek<br>19-8-17W | V. D. Sidey<br>No. 1 Stamper | Arbuckle | 3,400-3,402 | October | 277 |
| Kruse (Revived)<br>3-10-16W | Broadview Oil Co.<br>No. 1 Becker<br>(34-9-16W)* | Lans.-KC | 3,094-3,118 | January | 10 |
| Locust Grove Southeast<br>9-7-19W | Francis Oil & Gas, Inc.<br>No. 1 Anderson | Arbuckle | 3,400-3,403 | June | 28 |
| Lone Star Southwest<br>8-8-17W | Herndon Drlg. Co.<br>No. 1 Turner | Arbuckle | 3,299-3,319 | May | 98 |
| Lynd<br>32-9-19W | Jones, Shelburne & Farmer, Inc. No. 1 Lynd | Arbuckle | 3,750-3,757 | March | 79 |
| Marcotte South<br>22-10-20W | Derby Oil Co.<br>No. 1 Rogers "A" | Arbuckle | 3,719-3,726 | April | 199 |
| Marcotte Southwest<br>21-10-20W | Derby Oil Co.<br>No. 2 Keller | Arbuckle | 3,743-3,749 | December | 116 |
| Mayhew<br>24-9-19W | B & R Drlg. Co., Inc.<br>No. 1 Mayhew | Arbuckle | 3,613-3,616 | November | 116 |
| Palco Southwest<br>7-10-20W | Brooks Hall<br>No. 1 Holmes | Arbuckle | 3,858-3,864 | September | 464 |
| Riffe<br>4-7-19W | Sohio Petro. Co.<br>No. 1 Riffe | Lans.-KC | 3,230-3,307 | June | 119 |
| Rogers<br>23-10-20W | Nadel & Gussman<br>No. 1 Rogers<br>(This pool now part of the Marcotte pool) | Arbuckle | 3,772-3,779 | March | 2,664 |

| | | | | | |
|---|---|---|---|---|---|
| Slate<br>31-6-19W | Morris Sitrin<br>No. 1 Ostemeyer | Arbuckle | 3,545-3,556 | December | 60 |
| Sweet<br>18-8-18W | Westgate-Greenland Oil Co.<br>No. 1 Sweet | Arbuckle | 3,423-3,489 | January | 7 |
| *Rush County* | | | | | |
| Hungry Hollow<br>6-16-17W | Kelinson & Bradley<br>No. 1 Pfeifer | Lans.-KC | 3,344-3,351 | December | 160 |
| *Russell County* | | | | | |
| Coal Creek<br>22-15-11W | Alpine Oil & Royalty Co., Inc. No. 1 Daniels | Penn. basal conglomerate | 3,178-3,188 | September | 25 |
| Ehrlich<br>7-14-13W | Schumaker & Meyers<br>No. 1 Ehrlich "A" | Tarkio sand | 2,383-2,393 | August | 12 |
| *Saline County* | | | | | |
| Bachofer<br>15-15-2W | A. L. Harper<br>No. 2 Bachofer | Mississippian | 2,799-2,805 | May | 20 |
| Holm<br>32-16-3W | Musgrove Petro. Co.<br>No. 1 Holm | Viola | 3,406-3,412 | July | 207 |
| Ryding<br>1-16-4W | Phillips and Sanderson<br>No. 1 Ryding<br>(This pool now part of the Smolan pool) | Maquoketa | 3,439-3,443 | May | 508 |
| *Sedgwick County* | | | | | |
| Kuske North<br>13-25-1E | Charles Carlock<br>No. 1 Steeg | "Burgess sand" | 3,016-3,017 | April | 132 |
| Luening<br>33-26-2E | J. P. Gaty<br>No. 1 Luening | Simpson | 3,338-3,342 | June | 25 |
| Minneha<br>11-27-2E | A. D. Allison & Co.<br>No. 1 Faulk | Arbuckle | 3,247-3,251 | March | 144 |
| Minneha Northwest<br>10-27-2E | A. D. Allison & Co.<br>No. 1 Stoltz | Simpson | 3,300-3,309 | May | 112 |
| Petrie Northwest<br>35-26-1W | Drillers Prod. Co.<br>No. 2 Petrie | Viola | 3,445-3,447 | October | 30 |
| *Seward County* | | | | | |
| Kneeland<br>23-34-31W | Columbian Fuel Corp.<br>No. 1 Kneeland | Marmaton | 5,332-5,346 | September | 12 |
| Light<br>11-35-32W | The Jomilson Prod.<br>No. 1 Light Estate "B" | Morrowan | 6,005-6,030 | February | 3,000 and 47,571,000 cu.ft. gas |
| *Stafford County* | | | | | |
| Bart-Staff<br>4-21-14W | Palmer Oil Corp.<br>No. 1 Boyd | Arbuckle | 3,572-3,577 | March | 1,192 |
| Bayer<br>16-21-14W | Petro. Inc.<br>No. 1 Bayer | Lans.-KC | 3,543-3,551 | April | 183 |
| Black Cloud<br>2-21-12W | Armer Drlg. Co., Inc.<br>No. 1 Anderson<br>(This pool now part of the Bryant pool) | Arbuckle | 3,461-3,466 | March | 14 |
| Byron<br>(Revived)<br>4-21-12W | Duke & Wood Drlg. Co.<br>No. 1 Burhenn<br>(9-21-12W)* | Arbuckle | 3,459-3,467 | March | 21 |
| Byron Southeast<br>10-21-12W | Duke & Wood Drlg. Co.<br>No. 1 Christiansen | Arbuckle | 3,500-3,506 | May | 42 |
| Cochlin<br>19-22-11W | Anderson-Prichard Oil Corp.<br>No. 1 Cochlin | Arbuckle | 3,659-3,660 | September | 210 |
| Curtis South<br>12-22-14W | Westgate-Greenland Oil Co.<br>No. 1 Roach-Wilson | Arbuckle | 3,751-3,773 | July | 42 |
| Dell East<br>5-21-13W | Petro. Inc.<br>No. 1 Newcombe | Lans.-KC | 3,471-3,483 | April | 560 |
| Dell Northeast<br>5-21-13W | Petro. Inc.<br>No. 1 Newcombe "B" | Arbuckle | 3,612-3,615 | October | 75 |
| Duggan<br>30-21-11W | Hexagon Oil Co. & Pickrell Drlg. Co., Inc.<br>No. 1 Duggan | Penn. basal conglomerate | 3,479-3,485 | January | 470 |

TABLE 6.—*New oil and gas pools discovered in Kansas during 1951 (continued)*

| County, pool, and location of discovery well | Discovery well | Producing zone | Production depth, feet | Month of discovery | Initial production per day, bbls. |
|---|---|---|---|---|---|
| *Cowley County* | | | | | |
| Brown West<br>14-31-7E | Kenner & High<br>No. 1 Brown | Douglas | 1,568-1,600 | June | 2,000,000 cu.ft. gas |
| Grouse Creek<br>16-30-7E | K. T. Wiedemann<br>No. 1 Lee | Mississippian | 2,890-2,917 | August | 15 |
| McKay<br>17-35-4E | Smitheman & Cohen<br>No. 1 McKay | "Bartlesville" | 3,314-3,3.5 | November | 138 |
| Nigger Creek<br>22-34-3E | Crest Drlg. & Natl. Coop. Ref. Assn. No. 1 Morgan | "Bartlesville" | 3,281-3,302 | November | 35 |
| *Decatur County* | | | | | |
| Jennings<br>25-4-27W | The Texas Co.<br>No. 1 E. J. Keenan | Lans.-KC | 3,478-3,482<br>3,484-3,488 | September | 162 |
| *Ellis County* | | | | | |
| Herl<br>28-14-17W | Lion Oil Co.<br>No. 1 Herl | Arbuckle | 3,476-3,488 | July | 133 |
| Irvin North<br>31-13-19W | The Texas Co.<br>No. 1 Riedel | Arbuckle | 3,905-3,9:0 | January | 188 |
| Irvin Northeast<br>32-13-19W | T. C. Strain<br>No. 1 Bemis | Arbuckle | 3,887-3,893 | December | 82 |
| Irvin South<br>7-14-19W | Rocket Drlg. Co.<br>No. 1 Kramer<br>(This pool was abandoned during 1951) | Arbuckle | 3,826-3,833 | November | D & A |
| Jacob<br>6-11-19W | Heathman & Co.<br>No. 1 Keller | Lans.-KC | 3,542-3,544 | November | 178 |
| Karlin<br>14-13-17W | Sterling Drlg. Co.<br>No. 1 Karlin | Lans.-KC | 3,348-3,351 | January | 77 |
| Mendota<br>5-11-20W | Francis Oil & Gas Co.<br>No. 1 Fischer "A" | Arbuckle | 3,668-3,672 | October | 120 |
| Pleasant Ridge Southwest<br>19-12-17W | Isern Bros.<br>No. 1 Krannawitter | Arbuckle | 3,673-3,683 | July | 130 |
| Ubert North<br>31-12-17W | Graham-Messman-Rinehart Oil Co. No. 1 Staab | Arbuckle | 3,600-3,615 | October | 232 |
| *Ellsworth County* | | | | | |
| Matthews<br>19-17-10W | Imperial Petro. Co.<br>No. 1 Matthews<br>(This pool now part of the Kraft-Prusa pool) | Lans.-KC | 3,070-3,085 | January | 1,013 |
| Plum Creek<br>32-16-10W | B & R Drlg. Co.<br>No. 1 Novotny<br>(This pool now part of the Stoltenberg pool) | Arbuckle | 3,294-3,304 | May | 48 |
| West<br>20-17-10W | Imperial Petro. Co.<br>No. 1 West | Arbuckle | 3,287-3,289 | December | 202 |
| *Finney County* | | | | | |
| Damme<br>21-22-33W | W. L. Hartman<br>No. 1 Damme | Mississippian | 4,626-4,636 | April | 1,795 |
| *Gove County* | | | | | |
| Coberly<br>15-14-29W | Cities Service Oil Co.<br>No. 1 Coberly | Marmaton | 4,287-4,298 | March | 3,000 |
| Gove<br>26-13-30W | Musgrove Petro. Corp.<br>No. 1 Teeter | Mississippian | 4,547-4,550 | December | 374 |
| Jasper<br>30-15-29W | Herndon Drlg. Co.<br>No. 1 Jasper | Lans.-K.C. | 3,670-3,673 | November | 41 |
| *Graham County* | | | | | |
| Crocker<br>18-10-21W | Jones, Shelburne & Farmer Inc. No. 1 Teall | Arbuckle | 3,916-3,920 | August | 232 |
| Fargo West<br>34-9-22W | Yockey Oil Co.<br>No. 2 Walker-Russell | Lans.-KC | 3,755-3,785 | December | 30 |

| | | | | | |
|---|---|---|---|---|---|
| Harmony<br>32-7-22W | Morris Sitrin<br>No. 1 Morris | Lans.-KC | 3,597-3,600 | October | 1,068 |
| Highland<br>20-8-22W | Deep Rock Oil Corp.<br>No. 1 Moore | Lans.-KC | 3,616-3,620 | January | 209 |
| Law<br>34-9-23W | Harry Gore<br>No. 1 Law | Lans.-KC | 3,922-3,932 | March | 534 |
| Law South<br>2-10-23W | Harry Gore<br>No. 1 F. Law<br>(This pool now part of the Law pool) | Penn. basal conglomerate | 4,126-4,142 | July | 77 |
| Millbrook<br>21-8-23W | Peel-Hardman<br>No. 1 Legere Est. | Lans.-KC | 3,761-3,768 | October | 306 |
| Shiloh<br>1-9-25W | Prime Drlg. Co.<br>No. 1 Miniun | Lans.-KC | 4,013-4,017 | December | 1,070 |
| Smith-Denning West<br>6-10-21W | Deep Rock Oil Corp.<br>No. 1 Beecher | Arbuckle | 3,880-3,882 | August | 195 |
| Worcester<br>23-7-22W | V. D. Sidey<br>No. 1 Worcester | Arbuckle | 3,792-3,798 | November | 237 |
| ***Harvey County*** | | | | | |
| Wall<br>25-22-3W | Drillers Prod. Co.<br>No. 1 Wall | Mississippian | 3,150-3,167 | November | 2,900,000 cu.ft. gas |
| ***Hodgeman County*** | | | | | |
| Purdyville<br>3-24-24W | I. W. Siegel<br>No. 1 Schraeder | Mississippian | 4,663-4,683 | April | 1,549 |
| ***Kingman County*** | | | | | |
| Dresden<br>13-27-10W | Lion Oil Co.<br>No. 2 McMichael | Viola | 4,270-4,278 | May | 432 |
| Evan Mound<br>22-27-5W | Bankoff Oil Co.<br>No. 1 Dieffenbacher | Mississippian | 3,800-3,819 | July | 28 |
| Lansdowne North<br>4-28-5W | Laura Jane Oil Co.<br>No. 1 Seward Estate | Mississippian | 3,814-3,817 | January | 148 |
| Spivey<br>23-30-8W | Stanolind Oil & Gas Co.<br>No. 1 Boyle | Mississippian | 4,205-4,216<br>4,223-4,231<br>4,238-4,260 | September | 270 |
| ***McPherson County*** | | | | | |
| Graber North<br>4-21-1W | Aladdin Petro. Corp.<br>No. 1 Goering | Mississippian | 2,955-2,990 | May | 2,155,000 cu.ft. gas |
| ***Meade County*** | | | | | |
| Novinger<br>26-33-30W | Columbian Fuel Corp.<br>No. 1 Novinger | Mississippian | 5,803-5,817 | May | 1,675 |
| ***Morton County*** | | | | | |
| Greenwood<br>14-33-42W | Cities Service Oil Co.<br>No. 1 Greenwood "B" | Morrowan | 4,872-4,880 | April | 1,360,000 cu.ft. gas |
| ***Pawnee County*** | | | | | |
| Evers<br>1-22-16W | Stanolind Oil & Gas Co.<br>No. 1 Evers | Lans.-KC | 3,525-3,531 | February | 58 |
| ***Phillips County*** | | | | | |
| Beckman<br>3-4-19W | Coop. Ref. Assn.<br>No. 1 Beckman "A" | Lans.-KC | 3,201-3,203<br>3,206-3,208 | September | 22 |
| Dry Creek<br>7-1-18W | Honaker Drlg. Co.<br>No. 1 Gebhardt<br>(This pool abandoned during 1951) | Lans.-KC | 3,407-3,414 | January | 6 |
| Glenwood<br>21-1-17W | Westgate-Greenland Oil Co. & Bay Petro. No. 1 Rolland | Lans.-KC | 3,597-3,618 | March | 83 |
| Huffstutter Northeast<br>27-1-18W | B & R Drlg. Co.<br>No. 2 Babcock<br>(This pool now part of the Huffstutter pool) | Lans.-KC | 3,371-3,377 | April | 2 |
| Huffstutter Southwest<br>23-2-19W | Lewis Drlg. Co.<br>No. 1 Kelly | Lans.-KC | 3,458-3,462 | June | 163 |
| Kent<br>22-1-18W | Honaker Drlg. Co.<br>No. 1 Kent | Lans.-KC | 3,432-3,436 | March | 36 |

TABLE 6.—*New oil and gas pools discovered in Kansas during 1951 (continued)*

| County, pool, and location of discovery well | Discovery well | Producing zone | Production depth, feet | Month of discovery | Initial production per day, bbls. |
|---|---|---|---|---|---|
| Slinker<br>25-4-20W | R. W. Rine Drlg. Co.<br>No. 1 Slinker | Lans.-KC | 3,215-3,223 | June | 118 |
| Stephens<br>21-1-18W | National Associated Petro. Co. No. 1 Stephens<br>(This pool now part of the Huffstutter pool) | Lans.-KC | 3,382-3,404 | July | 169 |
| Stuttgart South<br>23-3-19W | Westgate-Greenland Oil Co.<br>No. 1 Ehm | Lans.-KC | 3,291-3,293 | March | 37 |
| *Reno County* | | | | | |
| Haven<br>9-25-4W | Midstates Oil Corp.<br>No. 1 Meyer "A" | Simpson | 3,977-3,981 | August | Dry |
| Morton Southeast<br>16-24-8W | Cities Service Oil Co.<br>No. 1 Birket | Lans.-KC | 3,423-3,435 | June | 39 |
| Sankey<br>22-22-10W | The Atlantic Refg. Co.<br>No. 1 Sankey | Lans.-KC | 3,187-3,195 | July | 502 |
| *Rice County* | | | | | |
| Frederick<br>10-18-9W | Lewis Drlg. Co.<br>No. 1 Schroeder | Penn. basal conglomerate | 3,241-3,267 | March | 212 |
| Ixl South<br>9-19-10W | Skiles Oil Corp.<br>No. 1 Boldt | Lans.-KC | 3,068-3,072 | October | 261 |
| Munyon South<br>3-19-10W | Carl Lebsack<br>No. 1 Schmidt | Arbuckle? | 3,300-3,310 | June | 209 |
| *Rooks County* | | | | | |
| Annon<br>27-10-20W | Derby Oil Co.<br>No. 1 Annon | Arbuckle | 3,711-3,717 | June | 331 |
| Bassett<br>20-10-20W | Heathman Drlg. Co., Inc.<br>No. 1 Bassett | Arbuckle | 3,749-3,768 | February | 124 |
| Berland Northwest<br>2-10-20W | Barnett Oil Co.<br>No. 1 Coddington<br>(This pool now part of the Marcotte pool) | Arbuckle | 3,782-3,789 | March | 112 |
| Berland South<br>31-10-19W | Lohmann-Johnson Drlg. Co.<br>No. 1 Schoenthaler | Lans.-KC | 3,480-3,484<br>3,486-3,490<br>3,597-3,602<br>3,611-3,619 | January | 169 |
| Chandler West<br>15-9-19W | Mid Plains Oil Corp.<br>No. 1 Casey | Dodge (Shawnee) | 3,248-3,256 | December | 3 |
| Elm Creek<br>19-8-17W | V. D. Sidey<br>No. 1 Stamper | Arbuckle | 3,400-3,402 | October | 277 |
| Kruse (Revived)<br>3-10-16W | Broadview Oil Co.<br>No. 1 Becker<br>(34-9-16W)* | Lans.-KC | 3,094-3,118 | January | 10 |
| Locust Grove Southeast<br>9-7-19W | Francis Oil & Gas, Inc.<br>No. 1 Anderson | Arbuckle | 3,400-3,403 | June | 28 |
| Lone Star Southwest<br>8-8-17W | Herndon Drlg. Co.<br>No. 1 Turner | Arbuckle | 3,299-3,319 | May | 98 |
| Lynd<br>32-9-19W | Jones, Shelburne & Farmer, Inc. No. 1 Lynd | Arbuckle | 3,750-3,757 | March | 79 |
| Marcotte South<br>22-10-20W | Derby Oil Co.<br>No. 1 Rogers "A" | Arbuckle | 3,719-3,726 | April | 199 |
| Marcotte Southwest<br>21-10-20W | Derby Oil Co.<br>No. 2 Keller | Arbuckle | 3,743-3,749 | December | 116 |
| Mayhew<br>24-9-19W | B & R Drlg. Co., Inc.<br>No. 1 Mayhew | Arbuckle | 3,613-3,616 | November | 116 |
| Palco Southwest<br>7-10-20W | Brooks Hall<br>No. 1 Holmes | Arbuckle | 3,858-3,864 | September | 464 |
| Riffe<br>4-7-19W | Sohio Petro. Co.<br>No. 1 Riffe | Lans.-KC | 3,230-3,307 | June | 119 |
| Rogers<br>23-10-20W | Nadel & Gussman<br>No. 1 Rogers<br>(This pool now part of the Marcotte pool) | Arbuckle | 3,772-3,779 | March | 2,664 |

| | | | | | |
|---|---|---|---|---|---|
| Slate<br>31-6-19W | Morris Sitrin<br>No. 1 Ostemeyer | Arbuckle | 3,545-3,556 | December | 60 |
| Sweet<br>18-8-18W | Westgate-Greenland Oil Co.<br>No. 1 Sweet | Arbuckle | 3,423-3,489 | January | 7 |
| *Rush County* | | | | | |
| Hungry Hollow<br>6-16-17W | Kelinson & Bradley<br>No. 1 Pfeifer | Lans.-KC | 3,344-3,351 | December | 160 |
| *Russell County* | | | | | |
| Coal Creek<br>22-15-11W | Alpine Oil & Royalty Co.,<br>Inc. No. 1 Daniels | Penn. basal conglomerate | 3,178-3,188 | September | 25 |
| Ehrlich<br>7-14-13W | Schumaker & Meyers<br>No. 1 Ehrlich "A" | Tarkio sand | 2,383-2,393 | August | 12 |
| *Saline County* | | | | | |
| Bachofer<br>15-15-2W | A. L. Harper<br>No. 2 Bachofer | Mississippian | 2,799-2,805 | May | 20 |
| Holm<br>32-16-3W | Musgrove Petro. Co.<br>No. 1 Holm | Viola | 3,406-3,412 | July | 207 |
| Ryding<br>1-16-4W | Phillips and Sanderson<br>No. 1 Ryding<br>(This pool now part of the Smolan pool) | Maquoketa | 3,439-3,443 | May | 508 |
| *Sedgwick County* | | | | | |
| Kuske North<br>13-25-1E | Charles Carlock<br>No. 1 Steeg | "Burgess sand" | 3,016-3,017 | April | 132 |
| Luening<br>33-26-2E | J. P. Gaty<br>No. 1 Luening | Simpson | 3,338-3,342 | June | 25 |
| Minneha<br>11-27-2E | A. D. Allison & Co.<br>No. 1 Faulk | Arbuckle | 3,247-3,251 | March | 144 |
| Minneha<br>Northwest<br>10-27-2E | A. D. Allison & Co.<br>No. 1 Stoltz | Simpson | 3,300-3,309 | May | 112 |
| Petrie Northwest<br>35-26-1W | Drillers Prod. Co.<br>No. 2 Petrie | Viola | 3,445-3,447 | October | 30 |
| *Seward County* | | | | | |
| Kneeland<br>23-34-31W | Columbian Fuel Corp.<br>No. 1 Kneeland | Marmaton | 5,332-5,346 | September | 12 |
| Light<br>11-35-32W | The Jomilson Prod.<br>No. 1 Light Estate "B" | Morrowan | 6,005-6,030 | February | 3,000 and 47,571,000 cu.ft. gas |
| *Stafford County* | | | | | |
| Bart-Staff<br>4-21-14W | Palmer Oil Corp.<br>No. 1 Boyd | Arbuckle | 3,572-3,577 | March | 1,192 |
| Bayer<br>16-21-14W | Petro. Inc.<br>No. 1 Bayer | Lans.-KC | 3,543-3,551 | April | 183 |
| Black Cloud<br>2-21-12W | Armer Drlg. Co., Inc.<br>No. 1 Anderson<br>(This pool now part of the Bryant pool) | Arbuckle | 3,461-3,466 | March | 14 |
| Byron<br>(Revived)<br>4-21-12W | Duke & Wood Drlg. Co.<br>No. 1 Burhenn<br>(9-21-12W)* | Arbuckle | 3,459-3,467 | March | 21 |
| Byron Southeast<br>10-21-12W | Duke & Wood Drlg. Co.<br>No. 1 Christiansen | Arbuckle | 3,500-3,506 | May | 42 |
| Cochlin<br>19-22-11W | Anderson-Prichard Oil Corp.<br>No. 1 Cochlin | Arbuckle | 3,659-3,660 | September | 210 |
| Curtis South<br>12-22-14W | Westgate-Greenland Oil Co.<br>No. 1 Roach-Wilson | Arbuckle | 3,751-3,773 | July | 42 |
| Dell East<br>5-21-13W | Petro. Inc.<br>No. 1 Newcombe | Lans.-KC | 3,471-3,483 | April | 560 |
| Dell Northeast<br>5-21-13W | Petro. Inc.<br>No. 1 Newcombe "B" | Arbuckle | 3,612-3,615 | October | 75 |
| Duggan<br>30-21-11W | Hexagon Oil Co. & Pickrell<br>Drlg. Co., Inc.<br>No. 1 Duggan | Penn. basal conglomerate | 3,479-3,485 | January | 470 |

**TABLE 6.**—*New oil and gas pools discovered in Kansas during 1951 (concluded)*

| County, pool, and location of discovery well | Discovery well | Producing zone | Production depth, feet | Month of discovery | Initial production per day, bbls. |
|---|---|---|---|---|---|
| Eric<br>8-21-13W* | Omega Oil Co.<br>No. 1 Eric Fisher<br>(old well worked over) | Lans.-KC | 3,513-3,515 | May | 15 |
| German Valley<br>4-22-12W | Anschutz Drlg. Co.<br>No. 1 Sittner | Arbuckle | 3,648-3,652 | July | 303 |
| Hickman<br>27-21-14W | M. B. Armer<br>No. 1 Gates "B" | Lans.-KC | 3,522-3,532 | January | 2,457 |
| Knoche<br>8-24-12W | John B. Hawley<br>No. 1 Knoche "A" | Viola | 3,810-3,821 | February | 7,250,000 cu.ft. gas |
| Lincoln<br>29-21-14W | Petro. Inc.<br>No. 1 Lincoln | Lans.-KC | 3,543-3,551 | April | 1,687 |
| McGinty Northwest<br>14-21-14W | J. W. Bird<br>No. 1 Wright | Lans.-KC | 3,483-3,488 | January | 258 |
| Marie<br>30-21-12W | Anschutz Drlg. Co.<br>No. 1 Marie Fischer | Arbuckle | 3,639-3,643 | January | 685 |
| Mueller Northwest<br>12-21-13W | Murfin Drlg. Co.<br>No. 1 Batman | Arbuckle | 3,523-3,531 | April | 290 |
| Oscar North<br>14-22-14W | M. B. Armer<br>No. 1 McBride | Arbuckle | 3,780-3,784 | June | 884 |
| Pleasant Hill<br>26-24-12W | W. L. Hartman<br>No. 2 Jordan | Lans.-KC | 3,530 | February | D & A |
| Pritchard South<br>3-21-14W | Adkins Drlg. Co., Inc.<br>No. 1 Davis | Lans.-KC | 3,483-3,487 | December | 397 |
| Shepherd<br>16-22-11W | The El Dorado Refg. Co.<br>No. 1 Shepherd | Arbuckle | 3,548-3,583 | January | 83 |
| Sleeper<br>22-22-11W | Lewis Drlg. Co.<br>No. 1 Sleeper | Penn. basal conglomerate | 3,581-3,590 | January | 683 |
| Smallwood (Revived)<br>22-22-14W | Westgate-Greenland Oil Co.<br>No. 1 Wetig<br>(2-22-14W)* | Lans.-KC | 3,474-3,494 | July | 677 |
| Wendelburg<br>19-23-11W | Todd Drlg. Co.<br>No. 1 Wendelburg | Arbuckle | 3,729-3,732 | August | 371 |
| *Sumner County* | | | | | |
| Guelph<br>6-35-1E | Herndon Drlg. Co.<br>No. 1 Gurley | Lans.-KC | 3,028-3,073 | August | 87 |
| Lee<br>33-32-2E | Capitt Drlg. Co.<br>No. 1 Lee | Mississippian | 3,349-3,358 | March | 25 |
| Metz<br>7-32-2E | Texas Pacific Coal & Oil Co. No. 1 Metz | Arbuckle | 3,773-3,776 | January | 147 |
| Zoglmann<br>8-31-1W | Petro. Trading & Trans. Co.<br>No. 1 Zoglmann | Simpson | 4,036-4,038 | June | 86 |
| *Trego County* | | | | | |
| Ogallah (Revived)<br>10-12-21W | Pyramid Drlg. Co.<br>No. 1 Schoenthaler<br>(26-12-22W)* | Arbuckle | 3,961-3,990 | April | 1,397 |
| Ogallah Southeast<br>36-12-22W | Stanolind Oil & Gas Co.<br>No. 1 Monroe<br>(This pool now part of the Ogallah pool) | Arbuckle | 3,962-3,976 | June | 83 |
| Ogallah West<br>28-12-22W | Stanolind Oil & Gas Co.<br>No. 1 Anderson "A" | Arbuckle | 4,037-4,064 | July | 25 |
| Spring Creek<br>32-12-21W | Peel-Hardman<br>No. 1 Lang | Arbuckle | 3,904-3,914 | August | 71 |
| *Wabaunsee County* | | | | | |
| Wheat<br>10-15-11E | The Carter Oil Co.<br>No. 1 Helen Wheat | Simpson | 3,230-3,234 | May | 40 |
| Woodbury<br>11-15-10E | The Carter Oil Co.<br>No. 2 Woodbury | Viola | 3,323-3,328 | January | 108 |

*Location of original discovery well.

*Wells drilled during 1951.*—There were 4,908 wells recorded as being drilled in the State during 1951. It is certain that numerous shallow wells in several eastern Kansas counties did not get into the records and are not included in this figure. Of the tests reported 2,152 were oil wells, 343 were gas wells, 1,884 were dry and abandoned holes, 123 were salt-water disposal wells, and 406 were input wells drilled in connection with secondary recovery activities. New pool discoveries and pool revivals accounted for 160 of the oil and gas wells; 502 of the dry holes were wildcat wells. It is probable that a total of approximately 7,108 new wells were drilled in the State in connection with the petroleum industry during 1951.

Eight counties in the State had more than 200 recorded wells drilled in 1951. As in the previous year, Barton County led all others with 577 recorded wells drilled. Following in order were Butler County (394), Stafford County (343), Rooks County (268), Russell County (247), Ellis County (245), Rice County (241), and Graham County (206). These eight counties accounted for 51 percent of the total number of wells drilled in the State during 1951.

Test wells drilled within 1½ miles of the outside boundaries of producing pools are called extension wells and are not shown on county maps in this bulletin. Test wells resulting in dry holes drilled outside this 1½ mile limit are classed as "wildcat wells" and are shown by a symbol on the maps of western Kansas counties. Any county having four or more such dry wildcat wells drilled in 1951 has a table listing data on the wells included under the write-up of that county.

The various tops of the formations listed in the tables have been determined through the use of electric logs if they were available. An asterisk in front of the well name in the tables indicates that no electric log is available for that well. In such cases various sources of information have been used to determine the tops of the formations. These include the Kansas Sample Log Service, Independent Oil and Gas Service, drillers logs, and other sources within the Survey.

As pool boundaries are rarely exact, the classification of wildcat wells becomes somewhat arbitrary. Hence, the total number of wildcat wells the reader may obtain from different sources is likely to vary somewhat.

For the purposes of the tables, wells counted as 1951 completions are those which have been finished within the year and which

have been drilled to completion in one operation. Old wells worked over, although they came in as producers, are not counted as 1951 completions. The 1951 wells abandoned as dry and then converted to salt-water disposal use have sometimes been classed as dry holes, unless it was plain that they were drilled expressly for salt-water disposal.

*Straggler wells.*—After the statistical records have been finished for each year, late reports of completed wells continue to come in. These are referred to as stragglers, reported in the bulletin for the following year, but are credited to the year in which the wells were completed. There are 187 stragglers for 1950, which are shown by counties in Table 7.

*Well elevations.*—Elevations of many wildcat tests in the State are given in tables or in the text. Publication of elevations of approximately 128 wildcat wells was made possible through the cooperation of Laughlin-Simmons and Company, Tulsa, Oklahoma.

*Eastern Kansas counties.*—Counties lying east of the sixth principal meridian are regarded as being in eastern Kansas, an area that has been treated separately in some reports (Jewett, 1949) and is treated somewhat differently from western Kansas in this report. Plate 1 is a map of eastern Kansas counties. Locations of areas that produced oil in 1951, rather than recognized oil fields, are shown. Locations of secondary recovery projects are shown on the same map.

Exploration for pre-Pennsylvanian reservoirs in the western part of the Forest City basin continued. One Viola and one Simpson pool were discovered in Wabaunsee County.

Pre-Pennsylvanian discoveries on the west flank of the Nemaha anticline in Butler County are significant. These include the Edgecomb (Mississippian), Four Mile Creek (Simpson), Pierce West (Mississippian), and the Whitewater North (Viola). Farther north and also west of the anticline, the revival of Mississippian production in Clay County in the Wakefield pool and the opening of the Wakefield Northeast pool are encouraging developments.

Mississippian discoveries east of the Nemaha anticline were made in Butler and Cowley Counties and new Pennsylvanian fields were opened in Butler, Chase, and Cowley Counties (Table 6).

A very significant amount of oil is produced in eastern Kansas by secondary recovery methods, principally water-flooding. Data on secondary recovery operations are listed in Table 1.

TABLE 7.—*Wells completed in 1950 but reported in 1951*

| County | Oil | Gas | Dry | Salt water disposal or input |
|---|---|---|---|---|
| Allen | 5 | | 1 | 3 |
| Barber | | | 1 | |
| Barton | 11 | | | |
| Butler | 12 | | 2 | 35 |
| Chautauqua | 1 | | | |
| Coffey | 2 | | | |
| Elk | | | 6 | |
| Ellis | 7 | | | 1 |
| Ellsworth | 1 | | | |
| Finney | | 2 | 1 | |
| Graham | 2 | | | |
| Grant | | 1 | | |
| Greenwood | 6 | | 5 | 7 |
| Hamilton | | 1 | | |
| Haskell | | 9 | | |
| Kearny | | 1 | | |
| Kingman | 1 | | | |
| McPherson | 1 | | | |
| Marion | | | 1 | |
| Meade | | 1 | | |
| Morris | | | 1 | |
| Nemaha | 1 | | | |
| Neosho | 4 | | 1 | 3 |
| Phillips | 4 | | 2 | |
| Pratt | 3 | | | |
| Reno | | | 1 | |
| Rice | 1 | | | |
| Rooks | 10 | | 1 | |
| Russell | 3 | | | |
| Saline | 2 | | | |
| Sedgwick | 1 | | | |
| Seward | | 11 | 1 | |
| Stafford | 4 | | 4 | |
| Wabaunsee | 2 | | | |
| Total | 84 | 26 | 28 | 49 |

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It would have been impossible to assign much of the oil production in eastern Kansas to definite areas or even to counties without the cooperation of the several persons and organizations who are sending monthly oil purchase reports to the Survey and who have helped in other ways. Thanks are expressed to: A. J. Becker; Marvin E. Boyer, Cities Service Oil Company; Continental Oil Com-

pany; Cooperative Refinery Association; The El Dorado Refining Company; Joplin Refining Company; Virgil Gamble; Kanotex Refining Company; Kansas City Testing Laboratory; Joe Maclaskey; W. L. Maclaskey; M. F. A. Oil Company; Sinclair Oil and Refining Company; Sinclair Prairie Oil Company; Skelly Oil Company; Skiles Oil Corporation; Standard Oil Purchasing Company; Stekoll Petroleum Company; and White Eagle Purchasing Company, Inc.

Thanks are given to the various members of the Kansas Nomenclature Committee, Kansas-Oklahoma Division of the Mid-Continent Oil and Gas Association, for giving us their data on the new oil and gas pools discovered during the year and for their area descriptions of existing pools.

Thanks are extended to numerous companies and individuals who have contributed information on secondary recovery production and drilling activities connected with secondary recovery for pany; Cooperative Refinery Association; The El Dorado Refining the year. Numerous people and companies have contributed also to gas production figures for the year.

Many people engaged in various phases of the petroleum industry in Kansas have been generous in giving us data that have been used in this report. Here should be listed C. E. Armstrong, Gene Brinegar, Frank Brooks, B. F. Brundred, Virgil Cole, Mack C. Colt, John A. Edwards, Lee Garrett, Thomas W. Lee, William McHugh, Carl L. Pate, Harold O. Smedley, W. L. Stryker, Charles W. Studt, Albert Sweeney of the Interstate Oil Compact Commission, Harvel White, and Earl A. Whitworth.

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## SECONDARY RECOVERY

Repressuring of oil-bearing rocks by injection of water, air, or gas is becoming increasingly important in Kansas, especially in the

Cherokee basin and the southern part of the Forest City basin. Nearly 8 million barrels of oil (6.8 percent of the total production) was produced by secondary recovery methods in 1951.

There was a marked increase in secondary recovery activities in the State during 1951. The increase from 137 projects reported last year to 143 reported during 1951 is reflected in the increase in production from 6,771,584 barrels of oil during 1950 to 7,825,236 barrels of oil during 1951. The reported figure is without a doubt slightly below the actual figure of production by secondary recovery due to production from a few projects in southeastern Kansas for which no information was received.

There were 143 secondary recovery projects reported in the State during the year with 136 of these projects being located east of the sixth principal meridian, which runs north and south through Wichita. There was a total of 5,741 wells producing oil by secondary recovery methods and 4,429 wells which were utilized as input wells into which a repressuring medium was injected.

Table 1 lists data on secondary recovery projects that were operated in Kansas during 1951 and reported to the State Geological Survey. Greenwood County, as in 1950, led all other counties in the number of projects reported as well as in production attributable to secondary recovery (Table 8). It is interesting to note that in Anderson, Miami, and Neosho Counties, secondary recovery operations accounted for more than 75 percent of the county's total production.

In all there were secondary recovery operations in 26 Kansas counties during the year, covering a total estimated acreage of more than 25,800 acres. Production from 92 of the 143 projects reported was from the "Bartlesville sand" with 47 of these in Greenwood County. The "Squirrel sand" produced in 19 projects, the

TABLE 8.—*Data on seven counties producing oil by secondary recovery in 1951*

| County | Number of projects, 1951 | Total oil production 1951, bbls. | Secondary recovery oil production 1951, bbls. | Percent of total production |
|---|---|---|---|---|
| Greenwood | 47 | 5,932,510 | 3,799,214 | 64 |
| Butler | 14 | 7,567,782 | 833,053 | 11 |
| Montgomery | 12 | 625,460 | 368,333 | 59 |
| Miami | 11 | 506,641 | 387,493 | 76 |
| Allen | 9 | 364,657 | 151,822 | 42 |
| Anderson | 8 | 551,340 | 470,284 | 85 |
| Neosho | 5 | 566,080 | 426,411 | 75 |

"Peru sand" in 10 projects, and the "Wayside" in 6 projects. Salt water was used for repressuring in 96 projects, fresh water in 19, and combined fresh and salt water in 21 projects. Four projects utilized gas as a repressuring medium and one used a combination of gas and salt water. One pilot flood experimented with air as a repressuring agent.

Of the many subsurface zones from which salt water is obtained for repressuring, the three main ones are sandstanes of the Douglas group, Arbuckle dolomite, and produced water from the "Bartlesville sand." Principal sources of fresh water are shallow ground water reservoirs, lakes, streams, and municipal water supplies. Where combined fresh and salt water is used the brine is obtained commonly from the local oil-producing formation. Treatment of salt water includes aeration, addition of chemicals, settling, and filtration singly or in various combinations. However, in the majority of cases where salt water is used, no treatment is given the brines. Fresh water requires treatment more commonly than brines. Such treatment includes adding lime, chlorine, alum, and settling and filtering or some combination of these. Most users of combined fresh and salt water use treating methods.

In general ground water is the most satisfactory type for water flooding. The quality of river water varies greatly with the seasons; hence the treatment necessary varies from time to time. Ground water usually remains uniform in chemical composition for long

TABLE 9.—*Estimated water-flood oil reserves in eastern Kansas counties**

| County | Million barrels of oil |
|---|---|
| Allen | 9 |
| Anderson | 7 |
| Bourbon | 1 |
| Butler | 57 |
| Chautauqua | 2 |
| Cowley | 14 |
| Crawford | 1 |
| Elk | 2 |
| Franklin | 13 |
| Greenwood | 93 |
| Linn | 2 |
| Lyon | 4 |
| Miami | 19 |
| Montgomery | 14 |
| Neosho | 8 |
| Wilson | 1 |
| Woodson | 3 |

* Estimates made by A. E. Sweeney, Jr., Interstate Oil Compact Commission.

periods; therefore any treatment required before injection need not be changed.

Table 9 shows estimated reserves of oil in eastern Kansas counties believed to be recoverable by water flooding. The table is based primarily on Sweeney's estimates.

## NATURAL GAS

*General.*—For many years natural gas has been encroaching more and more on bituminous coal in the fuel supply field. There is division of thought in industry as to whether natural gas should be regarded and consumed primarily as a fuel or whether it has more value as an important source of certain chemicals and hydrocarbon liquids. This divided trend should be resolved in a few years and the decision is likely to influence the building of future Kansas natural gas chemical plants.

Kansas, along with other principal gas-producing areas—the Texas panhandle and the Gulf Coast—, is many hundreds of miles from the more thickly populated manufacturing and consuming centers of the Great Lakes region and of the North Atlantic states. The necessity of transporting gas great distances through large-diameter high-pressure high-cost pipe lines has introduced interesting engineering considerations, and the interstate nature of the traffic has raised problems of long-range economic and political implications.

The transmission of natural gas across state lines to market and the approval of new cross-country gas pipe lines falls under the jurisdiction of the Interstate Commerce Commission and the Federal Power Commission respectively. Approval of transmission of gas and construction of pipe lines for interstate traffic is based both on a greatest-good-to-the-greatest-number consideration and on investment values. On these two counts, Kansas, ranking fifth among the gas-producing states, with large reserves and small population, has a minor voice in the use determination of the gas. While Kansas producers desire to export surplus gas for income which returns to the State, Kansas consumers, both domestic and industrial, complain of the exportation of the State's natural resources on the grounds of alleged loss of income and depletion of reserves. Table 10 and Figure 3 indicate that a significant portion of our gas production is being exported annually.

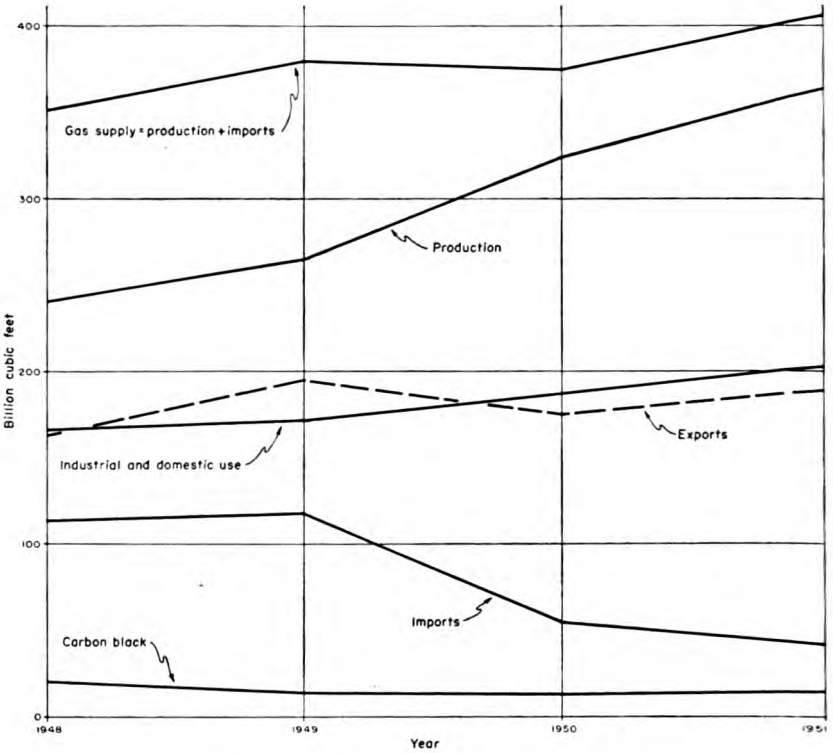



FIG. 3.—Use and disposition of Kansas natural gas.

The answer seems to be the development of more industry and consuming population in Kansas. Either processing the gas into chemicals or using the resource as industrial fuel or both will guarantee that an optimum part of the potential value of our natural gas will be realized in Kansas.

*Production and use.*—The amounts of natural gas produced from the principal Kansas fields during 1951 are shown in Table 67. Production in the "eastern Kansas" fields which had their peak production about 50 years ago was less than 1 percent, while production from the Hugoton Gas Area in southwestern Kansas was 91 percent of the State's total for 1951.

Table 10, showing some statistics on Kansas natural gas from 1948 through 1951, reveals some important trends. The production of natural gas from 1948 through 1951 showed a steady increase,

TABLE 10.—*Statistical summary of Kansas natural gas production and use, 1948-1951*

| | (Millions of M cu.ft. at 16.4 psia.) 1948 | 1949 | 1950 | 1951 | Percentage change 1950-1951 |
|---|---|---|---|---|---|
| Natural gas produced in Kansas | 240.2 | 263.2 | 323.3* | 363.7 | +12.5 |
| Imported from outside the State | 113.4 | 118.8 | 53.2 | 42.7 | —19.7 |
| Total to account for | 353.6 | 382.0 | 376.5 | 406.4 | + 7.9 |
| Gas consumed in Kansas during year | | | | | |
| Domestic | 66.1 | 64.9 | 75.2 | 85.0 | +13.0 |
| Industrial, misc., and losses | 101.3 | 106.0 | 112.8 | 117.0 | + 3.6 |
| Carbon black | 20.8 | 14.0 | 14.1 | 15.5 | + 9.9 |
| Total Kansas consumption | 188.2 | 184.9 | 202.1 | 217.5 | + 7.6 |
| (Consumption as pct. of prod.) | (78.4) | (70.3) | (62.7) | (59.8) | — 4.6 |
| Exported from state | 165.4 | 197.1 | 175.4 | 188.9 | + 7.7 |
| Total | 353.6 | 382.0 | 377.5 | 406.4 | + 7.8 |

* This figure reported as 324.3 in Bulletin 92, State Geological Survey of Kansas, corrected according to Conservation Division, Kansas Corp. Comm.

while importation declined each of the last three years. Total Kansas consumption fluctuated during the 4 year period but is now at an all time high, and industrial consumption (omitting carbon black) showed a steady increase. Exportation of gas is increasing, in that more than 45 percent of our net annual production (including imports) is being exported. Even this large percentage of exportation of natural gas is believed to be a smaller proportion than most Kansas people realize.

*New Developments.*—Seven new gas pools were discovered in Kansas during 1951. The new discoveries are in Barber, Clark, Cowley, Harvey, McPherson, Morton, and Stafford Counties. Several developments highlighted natural gas production in the State during the year; addition of many square miles of gas-producing area in the counties comprising the Hugoton Gas Area; the development of additional gas supplies on both the eastern and western sides of the Hugoton Area outside the supposed boundary of the area; and the discovery of more gas reserves in Clark County. New gas production elsewhere in Kansas comes from the usual productive zones and is therefore regular in nature.

*The Hugoton Gas Area.*—Early in the year, the Hugoton gas field was reclassified by the Kansas Nomemclature Committee as the Hugoton Gas Area. Its producing area is limited to gas produced from formations in the Chase group of the Permian System.

The description of the former Hugoton gas field was adopted as the description of the new Hugoton Gas Area.

The Hugoton Gas Area, with its extensions across the Oklahoma "strip" and well into the Texas panhandle, is regarded as containing one of the largest reserves of natural gas of which the petroleum industry has present knowledge (Table 11). Production from the Kansas portion of the field by years is shown in Table 12.

The limits of the gas-producing area are not clearly marked by structural or stratigraphic features. Porosity of the producing rocks seems to be the main control of productivity. Gas production comes from thin porous dolomitic rocks of the Chase group including the Herington, Krider, Winfield, Fort Riley, and Florence limestones. Most Hugoton gas comes from a depth of about 2,500 feet.

Wells with initial capacities of less than 1 million cubic feet per day may not be saved by the larger companies; those producing 5 to 15 million cubic feet per day are "usual"; and "big" ones produce more than 30 million cubic feet of gas per day.

Plate 2 shows the approximate boundaries of the Hugoton Gas Area as outlined at the end of 1951 by wells having been reported with initial daily capacities of 1 million cubic feet. As production "featheredges" out, boundaries are uncertain and may be changed from year to year by additional drilling.

Some of the holes marked dry, which are located within the main Hugoton Gas Area of large gas production and which penetrated well beyond the present producing zones, were drilled as long ago as the late 1920's. Modern methods and production techniques now make it possible to save some wells that in former years were dry. Likewise, it may be prophesied that the presence of dry wildcat wells of former years in many parts of western Kansas may not preclude the presence of important oil and gas pools which in

TABLE 11.—*Natural gas reserves in the Hugoton Gas Area*
(By Keplinger, Wanenmacker, and Burns, 1948)

| State | Billion Cubic Feet* | Percent area of field |
|---|---|---|
| Kansas | 14,051 | 51.7 |
| Oklahoma | 8,034 | 29.3 |
| Texas | 5,372 | 19.0 |

* Estimated as of October 1948 with pressure base of 14.65 psia. and abandonment pressure of 25 pounds.

TABLE 12.—*Production from the Kansas part of Hugoton Gas Area*

| Year | M cu.ft. gas (14.65 psia.) |
|---|---|
| 1938 | 29,843,417 |
| 1939 | 32,424,301 |
| 1940 | 37,083,797 |
| 1941 | 40,759,482 |
| 1942 | 46,365,484 |
| 1943 | 70,921,532 |
| 1944 | 92,922,821 |
| 1945 | 90,345,203 |
| 1946 | 119,637,983 |
| 1947 | 157,663,036 |
| 1948 | 185,872,594 |
| 1949 | 247,868,876 |
| 1950 | 320,545,480 |
| 1951 | 371,002,475 |
| Total | 1,843,256,481 |

the future may be discovered by modern and scientific methods of exploration and production.

The Hugoton Gas Area is under rigid proration by the Kansas Corporation Commission, Division of Conservation. Commonly only one well may be drilled in each 640 acres, and allowable production for wells or groups of wells is established on a monthly basis in a manner designed to conserve the gas supply. Gas from the Hugoton Gas Area is of rather high grade as indicated in Table 13. It yields about 0.5 gallons of natural gasoline and condensate per thousand cubic feet, and has a heating value of roughly 1,000 B.t.u. per cubic foot.

The well that may now have almost undisputed claim as the discovery of the Hugoton Gas Area was drilled in 1922 in sec. 3, T. 35 S., R. 34 W., by the Defenders and Traders Gas Company. It opened the Liberal gas field which has now been joined to the Hugoton

TABLE 13.—*Average analysis of natural gas from Hugoton Gas Area*
(From Keplinger, Wanenmacher, and Burns, 1948)

| Gases | Percent |
|---|---|
| Methane | 74.26 |
| Nitrogen | 14.27 |
| Ethane | 5.81 |
| Propane | 3.52 |
| Butane | 1.48 |
| Pentane plus | 0.65 |
| Total | 99.99 |

Gas Area proper. The Hugoton Gas Area developed slowly because of its distance from consuming centers. Long pipe lines were not common in the 1920's. By 1938, the area of the field was only about 187,300 acres, or approximately 7 percent of its present size. One natural gasoline plant at Arkalon was operating and one 6-burner carbon black plant was in production.

Rapid development of the Hugoton Gas Area along with pipeline construction came in the early 1940's, due partly to the wartime technologic developments and partly to the discontent of both domestic and industrial consumers over uncertain availability of solid fuel. The number of producing gas wells in the field passed the 2,000 mark and the area reached 2 million acres by the end of 1949. Gas wells drilled in the Hugoton Gas Area by counties are shown in Table 14. At the close of 1951, there were 2,693 producing gas wells and the area of the Kansas part of the Hugoton Gas Area was about 2,175,000 acres. It included two entire counties (Stevens and Grant) and parts of seven others (Finney, Hamilton, Haskell, Kearny, Morton, Seward, and Stanton). Judging by developments during the past year, widening of the field in Morton and Seward Counties seems most likely for the immediate future. The finding of strong production of oil in the Light pool a few miles east of the eastern border of the gas area has important implications as to future possibilities in the area as few wells in the Hugoton Gas Area have penetrated deeper than the well-known gas-producing zones in the Permian rocks.

*Natural gasoline and liquefied petroleum gas production.*—A comparatively new multi-million dollar industry, natural gasoline and LPG, has developed in Kansas with little publicity.

TABLE 14.—*Gas wells drilled in Hugoton Gas Area, by counties*

| County | During 1951 | Total to date |
|---|---|---|
| Finney | 17 | 220 |
| Grant | 64 | 525 |
| Hamilton | 8 | 13 |
| Haskell | 29 | 272 |
| Kearny | 55 | 377 |
| Morton | 60 | 203 |
| Seward | 49 | 214 |
| Stanton | 24 | 177 |
| Stevens | 12 | 692 |
| Total | 318* | 2,693 |

* Excludes straggler wells.

Broadly speaking, liquefied petroleum gas, now mainly a by-product of natural gas production in the United States, has alternately been courted and cursed by oil refiners, pipe-line people, distributors, consumers, and conservation agencies until recent years. Lately, LPG has been staging the greatest gain of any segment of the petroleum industry. In 1951, sales of LPG in the United States were estimated (Rugh and Benz, 1952, p. 213) at 4,100 million gallons, exclusive of any product used in the manufacture of aviation and motor gasoline or synthetic rubber. This is an increase of 25.9 percent over 1950, and the gallonage increase is almost equal to the total sales of 1944.

Although less critical in Kansas than in some other states, the problems of natural gasoline and LPG production are complex. They relate not only to the demand and use of natural gasoline and LPG by consumers but also to their occurrence with natural gas and crude oil in the underground reservoir. Until recent years, a substantial amount of these light hydrocarbons has been flared or wasted, especially in Texas, because the substances had little value, because crude usually could not be produced without the unwanted light hydrocarbon "casinghead" liquids, and because plants to recover them were so costly. Finally, as a conservation measure, the Texas Railroad Commission practically ruled out the flaring of these gases thus compelling the producing companies either to recover the light hydrocarbons for sale and use or return the gas, stripped or not, to the underground reservoir to maintain reservoir pressure. The result was much greater production of natural gasoline and LPG in the new plants, and ultimately over production and lower price.

Whereas the greatest public demand and the greatest profit from crude oil is the production of motor gasolines from refineries, natural gasoline and LPG, especially when in over supply, are embarrassing to the refiners. Because of its high vapor pressure, natural gasoline can be used only in part in refineries to make common gasolines, although it is in good demand for making aviation gasoline. The trend toward using higher compression engines in motor vehicles and the construction of catalytic cracking and other high-recovery refining processes have been in the direction of making natural gasoline (from the natural gas industry) in still less demand. Now, since seasonal demand has developed for natural gas liquids, especially for butane and propane owing to their increasing

TABLE 15.—*Natural gasoline and LPG processed in 1951** (From the Conservation Division, Kansas Corporation Commission)

| | Natural gas | Butane | Propane | L.P.G. | Total |
|---|---|---|---|---|---|
| Cities Service Oil Co. | | | | | |
| Arkansas City, Cowley Co. | 59,304 | | | 110,400 | 169,704 |
| Burrton, Reno Co. | 74,588 | | 22,168 | 92,498 | 189,254 |
| Wichita, Sedgwick Co. | 534,140 | | 183,813 | 148,670 | 866,623 |
| Colorado Interstate Gas Co. | | | | | |
| Lakin, Kearny Co. | 155,757 | | | | 155,757 |
| Deerfield Petro. Inc. | | | | | |
| Deerfield, Kearny Co. | 132,492 | 24,422 | 19,623 | | 176,537 |
| Drillers Gas Co. | | | | | |
| Cheney, Sedgwick Co. | 3,536 | | | | 3,536 |
| Flynn Oil Co. | | | | | |
| Otis, Rush Co. | 52,873 | 4,580 | | | 57,453 |
| A. R. Jones Oil & Oper. Co. | | | | | |
| Pawnee Rock, Barton Co. | 13,178 | (Drip) | | | 13,178 |
| Kansas Power & Light Co. | | | | | |
| Medicine Lodge, Barber Co. | 58,685 | | | | 58,685 |
| Magnolia Petroleum Co. | | | | | |
| Ulysses, Grant Co. | 189,033 | 15,347 | 38,269 | 71,554 | 314,203 |
| Northern Natural Gas Co. | | | | | |
| Sublette, Grant Co. | 460,414 | | 13,387 | 30,530 | 504,331 |
| Panhandle Eastern Pipe Line | | | | | |
| Liberal, Seward Co. | 515,553 | 100,914 | 96,301 | | 712,768 |
| Skelly Oil Co. | | | | | |
| Cunningham, Kingman Co. | 94,744 | 101,153 | | | 195,897 |
| Stanolind Oil & Gas Co. | | | | | |
| Ulysses, Grant Co. | 239,776 | | | 434,346 | 674,122 |
| Sunray Oil Corp. | | | | | |
| Rainbow Bend, Cowley Co. | 13,197 | 4,134 | | 4,134 | 21,465 |
| The Texas Co. | | | | | |
| Atlanta, Cowley Co. | 35,163 | | | 23,565 | 58,728 |
| Totals | 2,632,433 | 250,550 | 373,561 | 915,697 | 4,172,241 |
| Daily average in barrels | | | | | 11,430.8 |

* Figures in 42-gallon barrels.

uses for domestic heating and stand-by fuels in industry, the question of storage of the liquids during off-season demand is being given careful thought. In Kansas, storage of the liquids in sealed-off parts of abandoned mines, in cavities created by brine wells in thick salt beds, or in depleted underground oil or gas zones, has been carefully considered.

There were 16 natural gasoline and LPG plants (Table 15), in Kansas at the end of 1951. These plants had a rated aggregate capacity of 11,430.8 barrels of liquids per day. Their output during 1951, broken down into the four main products, together with esti-

TABLE 16.—*Production and estimated value of natural gas liquids in Kansas, 1951**

| | Barrels | Gallons | Unit price | Total |
|---|---|---|---|---|
| Natural gasoline | 2,632,433 | | $2.95 | $ 7,765,677 |
| Propane | 373,561 | | | |
| Butane | 250,550 | 26,212,662 | 0.05 | 1,310,633 |
| LPG | 915,697 | 38,459,274 | 0.045 | 1,730,667 |
| Totals | 4,172,241 | 175,234,122 | | $10,806,977 |

* Production figures supplied by Kansas Corporation Commission; average unit values at point of production have been obtained from sources considered to be reliable.

mated values at the plants, is shown in Table 16. Production of Kansas plants for the last 11 years is shown in Table 17. The natural gasoline is used mainly in the oil refineries; the propane and butane are used largely in homes and ranches; and a mixture of light hydrocarbons is used variously as motor and other fuel.

Most of the Kansas operations are so-called drip gasoline or stripping plants which remove hydrocarbon liquids from natural gas and return the residue gas to the mains. Some plants report production only of natural gasoline and raw condensate; some produce LPG as well.

The Kansas production of natural gasoline and LPG comes largely from several plants in the Hugoton Gas Area. None of these is a cycling or pressure maintenance plant as the term is used in Texas. The largest Kansas pressure maintenance operation during 1951 was in the Cunningham field (Kingman and Pratt Counties).

*Pipe lines.*—The transition from tank car to pipe line as a means of transporting petroleum and its products has resulted from

TABLE 17.—*Kansas production of natural gasoline and allied products, 1941-1951*
(World Oil, 1951, p. 154)

| Year | Production gals. |
|---|---|
| 1941 | 85,691 |
| 1942 | 81,828 |
| 1943 | 85,206 |
| 1944 | 69,834 |
| 1945 | 72,637 |
| 1946 | 82,591 |
| 1947 | 99,195 |
| 1948 | 107,563 |
| 1949 | 113,807* |
| 1950 | 155,233* |
| 1951 | 175,234* |

* Figures supplied by Kansas Corporation Commission.

mounting costs of moving liquid and solid fuels by rail. Kansas ranks seventh among the states in mileage of petroleum industry pipe lines. At the end of 1951, Kansas is estimated to have had a total of more than 32,500 miles of pipe lines.

*Reserves of natural gas and natural gas liquids.*—During 1951, proved reserves of natural gas in Kansas (as estimated by the Reserves Committee of Am. Petroleum Institute and Am. Gas Assoc.) decreased slightly. They are 13.5 trillion cubic feet or nearly 50 years supply at the present rate of consumption. Hydrocarbon liquids contained in the proved reserves of gas amount to almost 160 million barrels or nearly 50 years supply at the current consumption rate. Estimate figures are given in Table 18.

Highlighting the Kansas reserve picture are two points: (1) new discoveries of natural gas deposits in the State are being made about as rapidly as the reserves are being depleted, and (2) Kansas proved reserves of natural gas liquids amount to more than 50 percent of the quantity of gasoline contained in the proved reserves of crude oil in the State.

The significance of Kansas reserves of natural gas liquids is commonly missed because we are in the habit of thinking only of the value of our crude oil and natural gas. Natural gas liquids, consisting of natural gasoline, condensate, and LPG (mainly propane and butane), supplement our supplies of gasolines for motor vehicles and fuels for industry and domestic use. Our important reserves of both gaseous and liquid hydrocarbons are especially comforting in time of war tension.

Reserve figures may be misleading unless properly interpreted. It must be kept in mind that the published petroleum reserve figures are clearly stated to represent proved reserves. The figures in Table 18 (API and AGA, 1951, p. 6) "do not include (1) oil under the unproven portions of partly developed fields; (2) oil in untested prospects; (3) oil that may be present in unknown prospects in regions believed to be generally favorable; (4) oil that may become available by fluid injection methods from fields where such methods have not yet been applied; (5) oil that may become available through chemical processing of natural gas; (6) oil that can be made from oil shale, coal or other substitute sources." (The above policy of the Reserves Committee applies equally to natural gas and natural gas liquids.)

TABLE 18.—*Kansas proved reserves of natural gas and natural gas liquids, December 31, 1951*
(American Petroleum Institute and American Gas Association, 1951)

| | Reserves* as of 12-31-50 | Extensions and revisions 1951 | New discoveries 1951 | Production during 1951 | Proved reserves 12-31-51 | Nonassociated, associated and dissolved | Changes in reserves during 1951 | Percentage change 1950-1951 |
|---|---|---|---|---|---|---|---|---|
| Natural gas liquids | 163,578,000 | —14,000 | 330,000 | 4,325,000 | 159,569,000 | | —4,009,000 | —2.4 |
| Natural gas | 13,790,834 | 76,206 | 40,971 | 452,839 | 13,457,498 | 13,425,871 | — 333,336† | —2.4 |

* Reserves of natural gas liquids are barrels of 42 U.S. gallons; reserves of natural gas are millions of cubic feet calculated at 14.65 psia at 60°F.

† Corresponding estimates by the Oil and Gas Journal (Ingalls, 1952, page 220) show no change in the reserve.

In summary, the reserve figures represent areas of oil and gas that are essentially "drilled out" and do not include oil to be realized by secondary recovery (fluid injection) except in operating properties. They represent production we could depend on if the industry stopped developing and searching for new deposits. Actually, reserves in the country have been maintained for many years by current new developments in spite of high annual consumption. The condition should continue so long as there are adequate incentives for continued search.

## MAPS

Figure 1 (p. 6) is an index map of the State showing in a general way the oil and gas producing areas. The Hugoton Gas Area (southwestern Kansas) is shown on Plate 2 which is in the pocket on the back cover. Most of the other "western" Kansas counties having oil or gas production are shown on Figures 4 through 15 grouped together on the succeeding pages. Plate 1 shows areas of production in "eastern" Kansas counties. The line between "eastern" and "western" Kansas is the 6th principal meridian which passes through Wichita. Sedgwick and Sumner Counties, which cross this line, are considered as western Kansas counties.

For western Kansas the entire area designated as a field is shown on the map. In eastern Kansas only the part of the field producing oil during 1951 is shown on the map; this is deemed advisable because large areas in the older eastern Kansas fields are not producing oil at the present time. Another important difference is that gas-producing areas in western Kansas are shown but they are not shown on the eastern Kansas map.

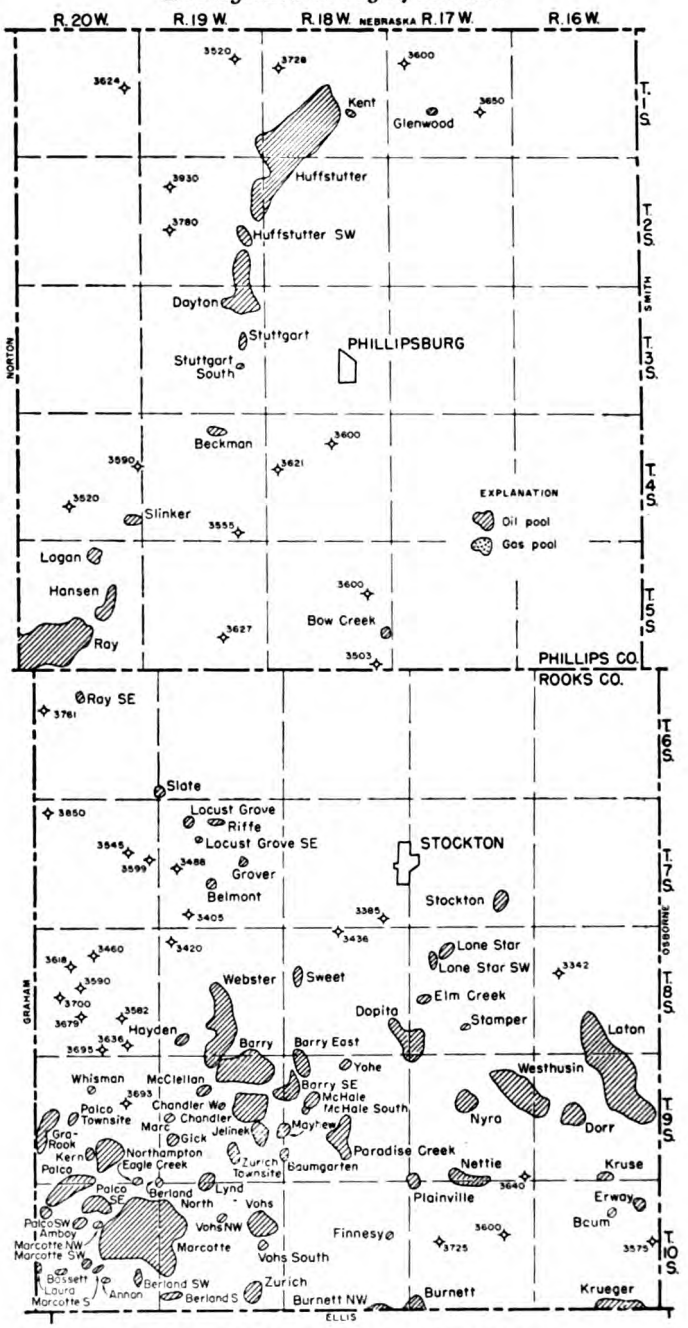



FIG. 4.—Map of Phillips and Rooks Counties.

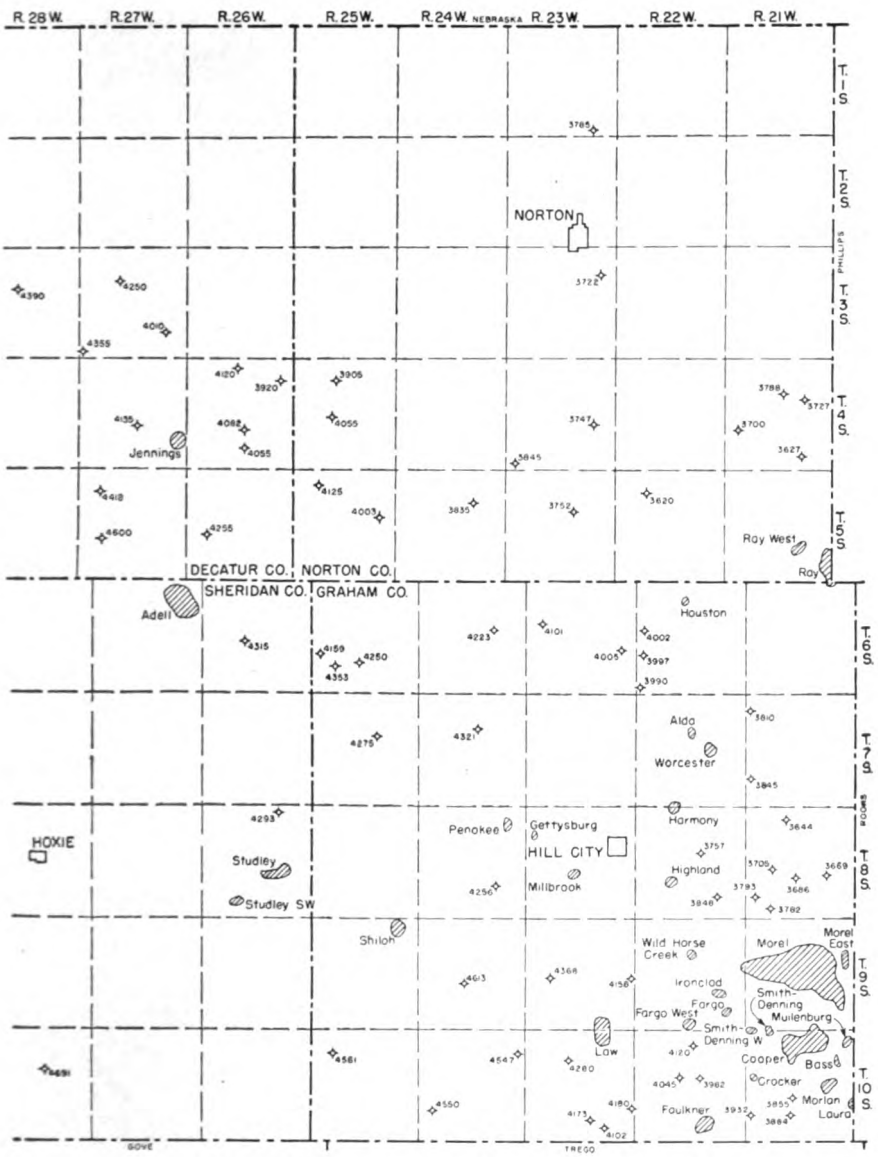
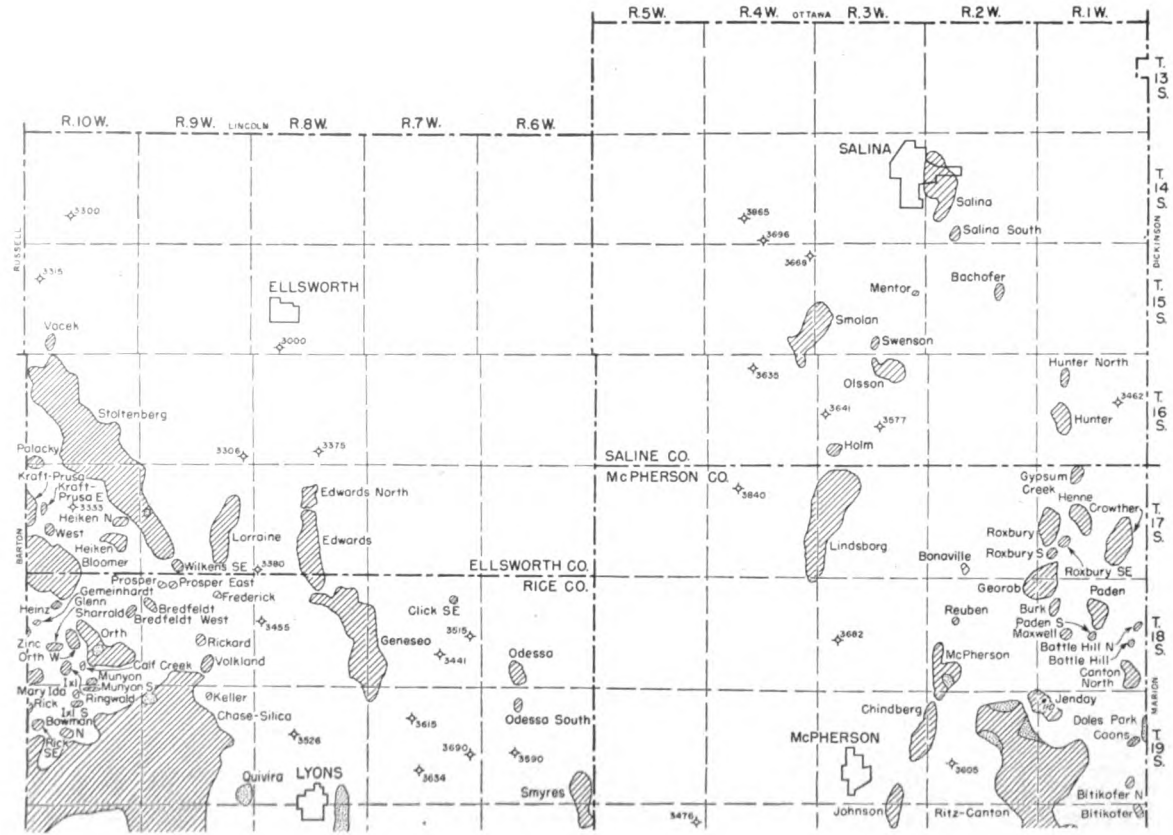



**Fig. 5.—Map of Graham, Norton, and parts of Decatur and Sheridan Counties.**



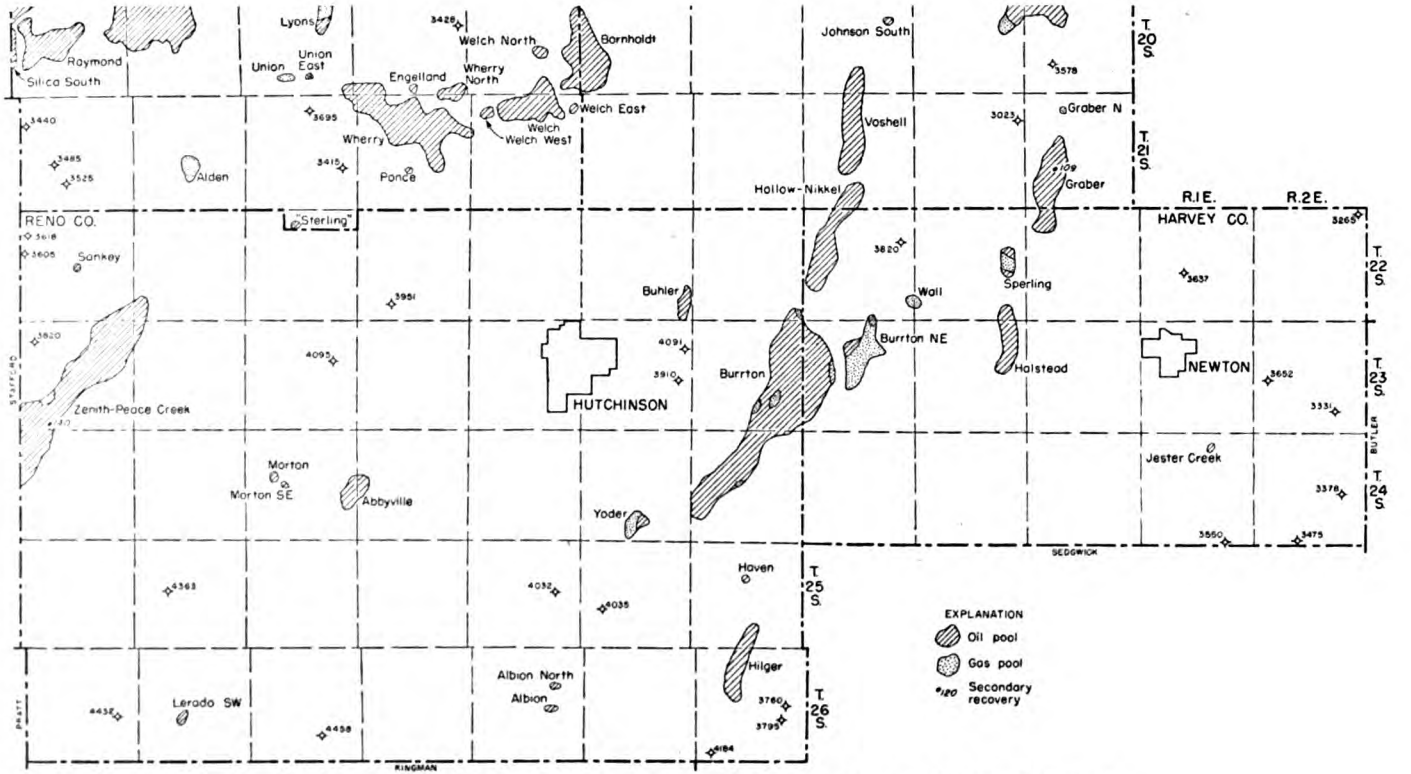



FIG. 6.—Map of Ellsworth, Harvey, McPherson, Reno, Rice, and Saline Counties.

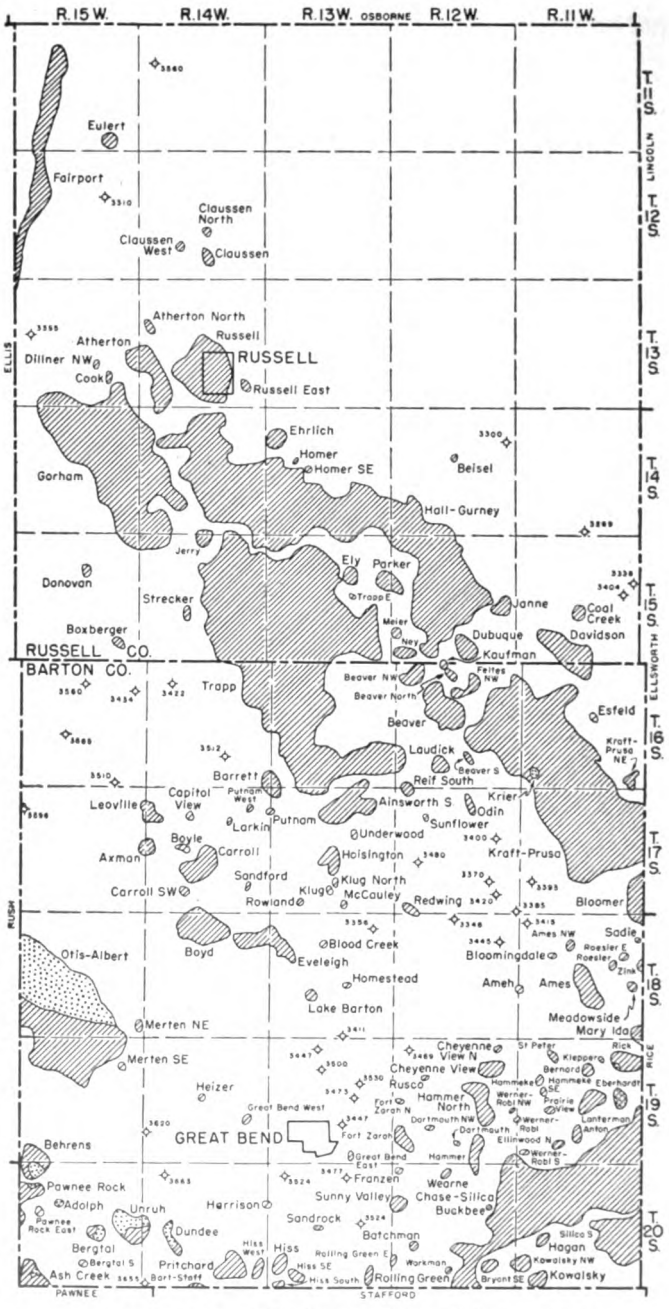



FIG. 7.—Map of Barton and Russell Counties.

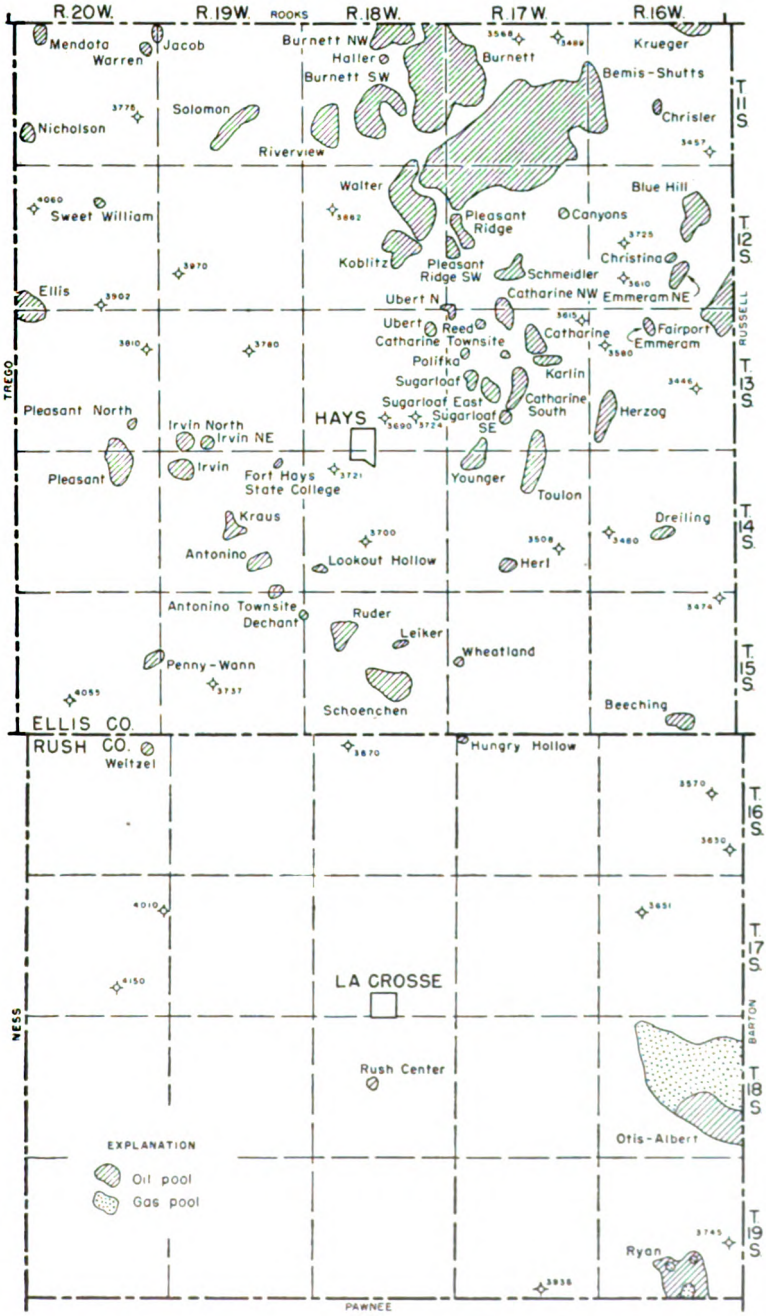



FIG. 8.—Map of Ellis and Rush Counties.

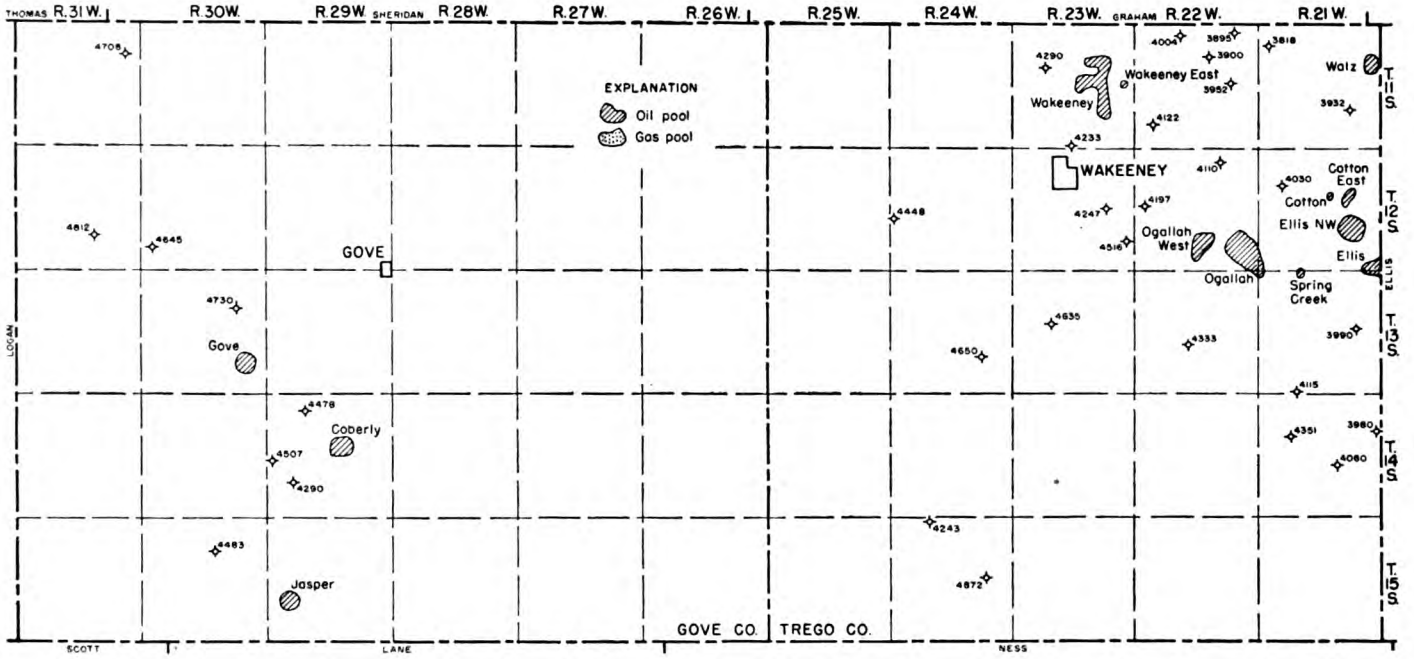



FIG. 9.—Map of Gove and Trego Counties.

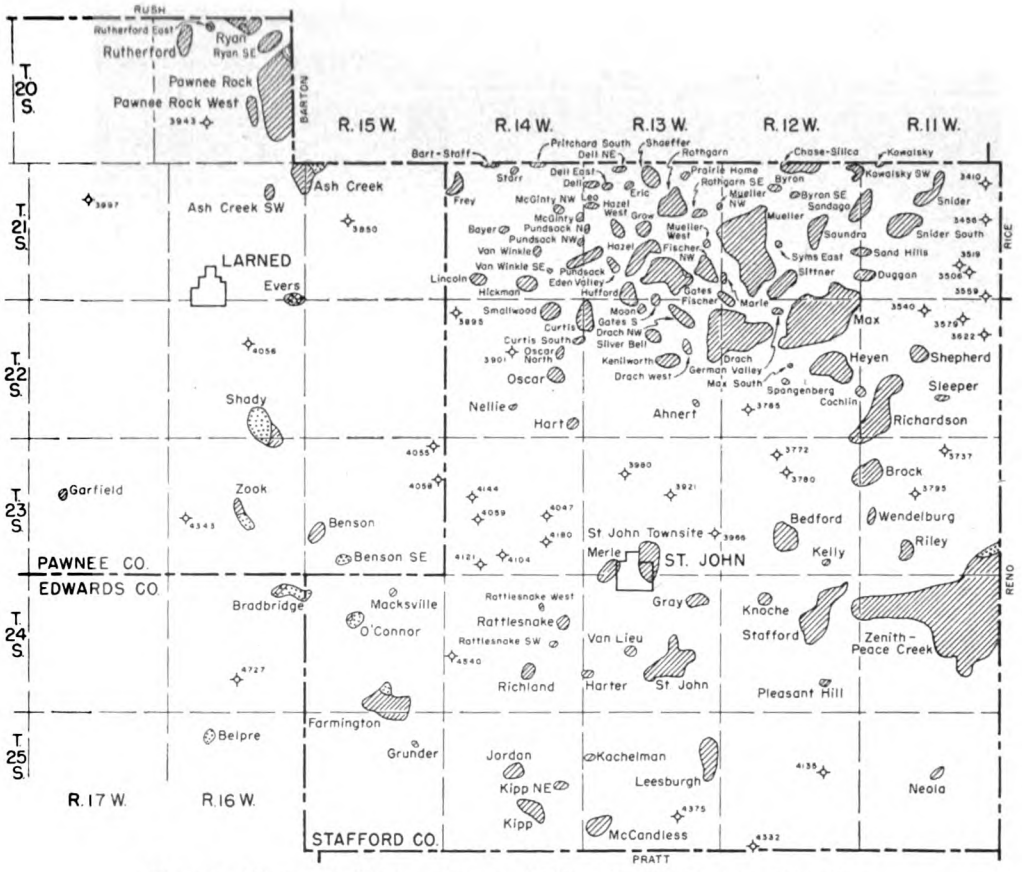



FIG. 10.—Map of Stafford and parts of Edwards and Pawnee Counties.

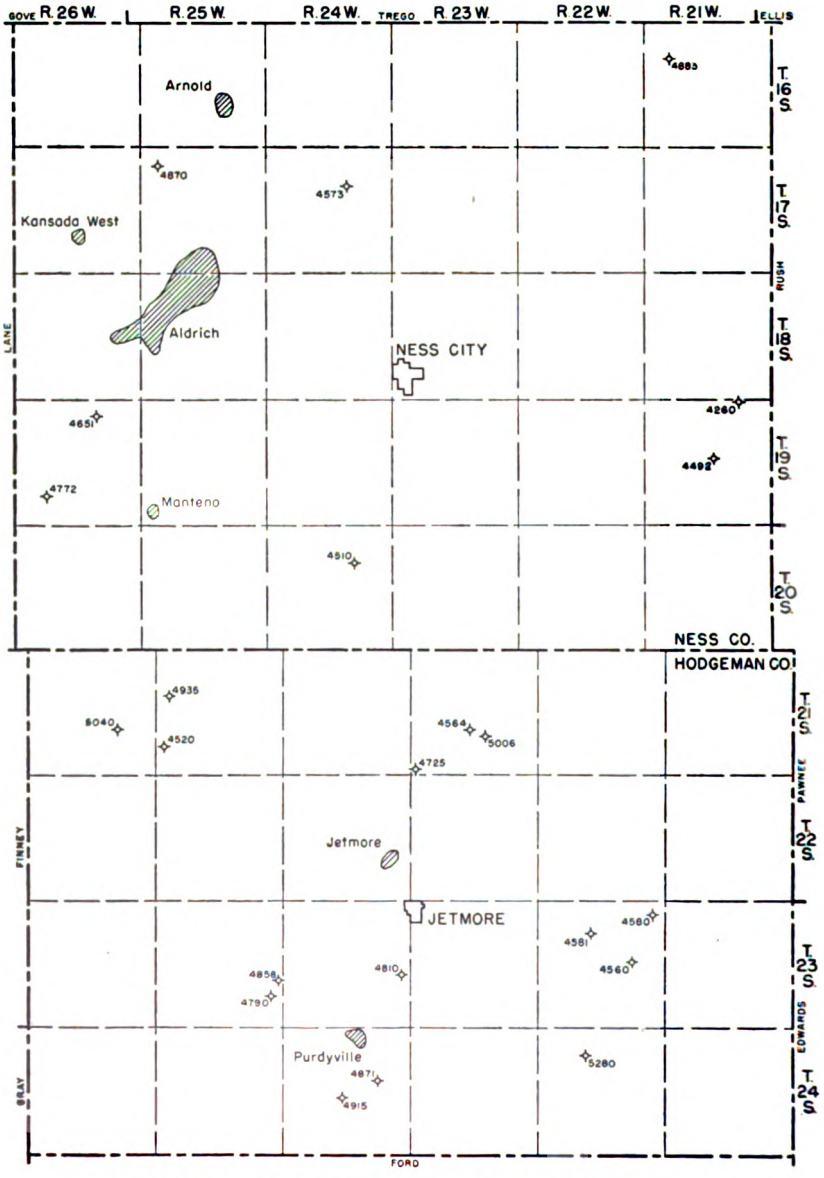



FIG. 11.—Map of Hodgeman and Ness Counties.

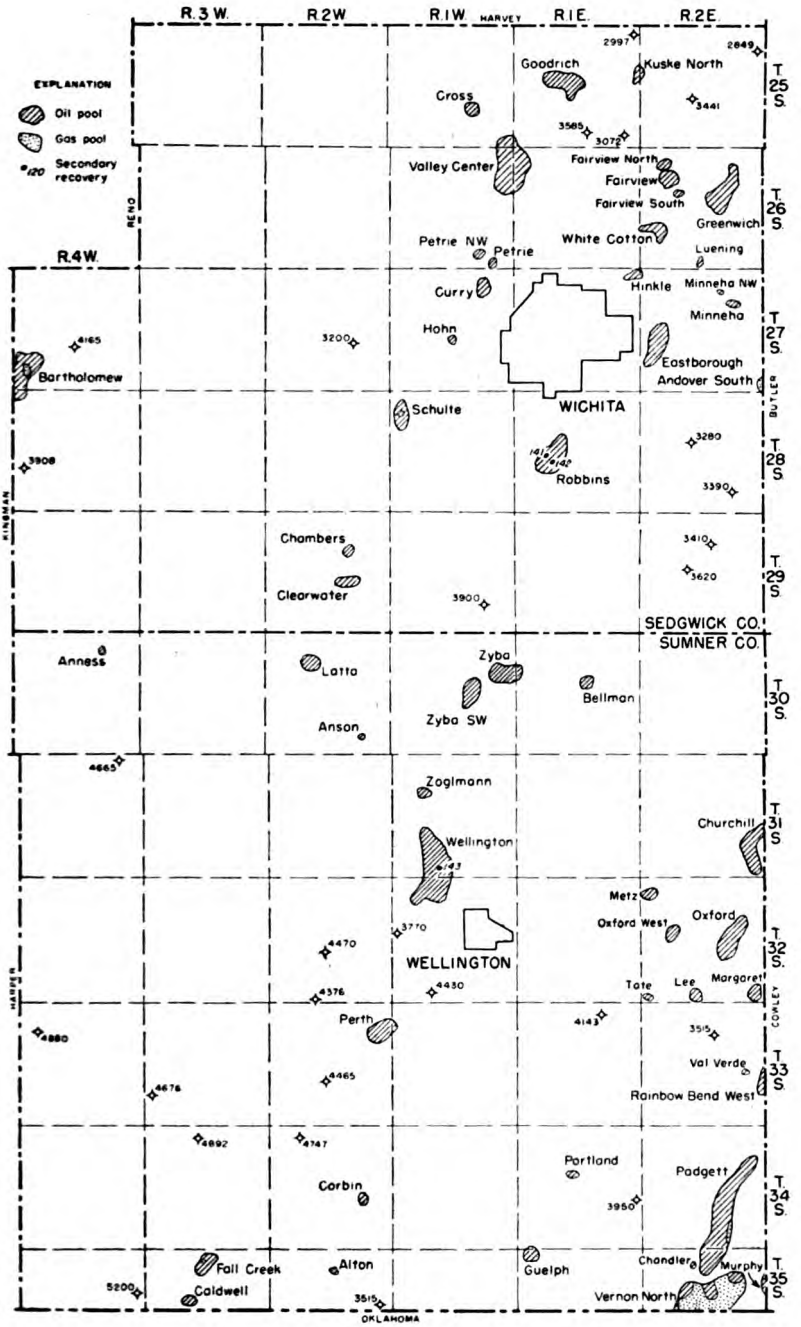



FIG. 12.—Map of Sedgwick and Sumner Counties.

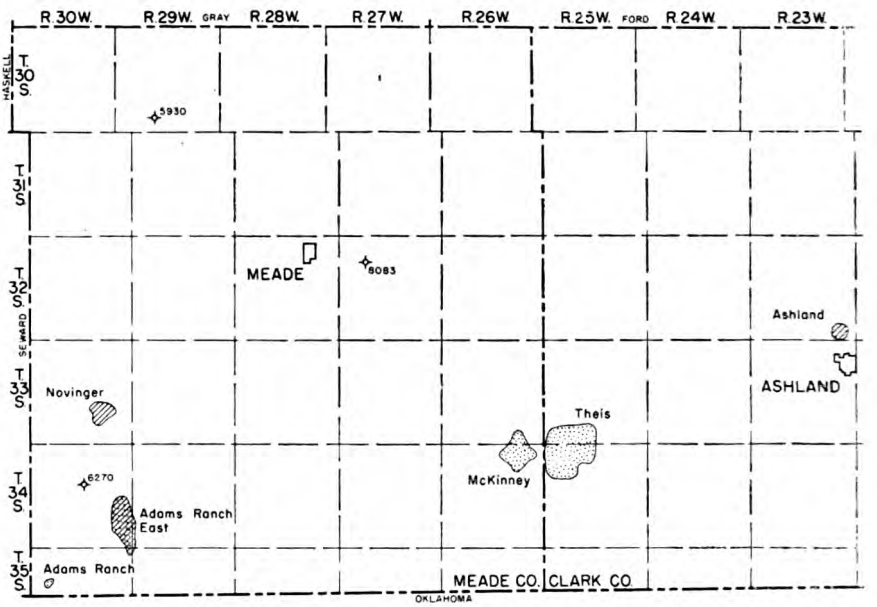



FIG. 13.—Map of Meade and part of Clark County.

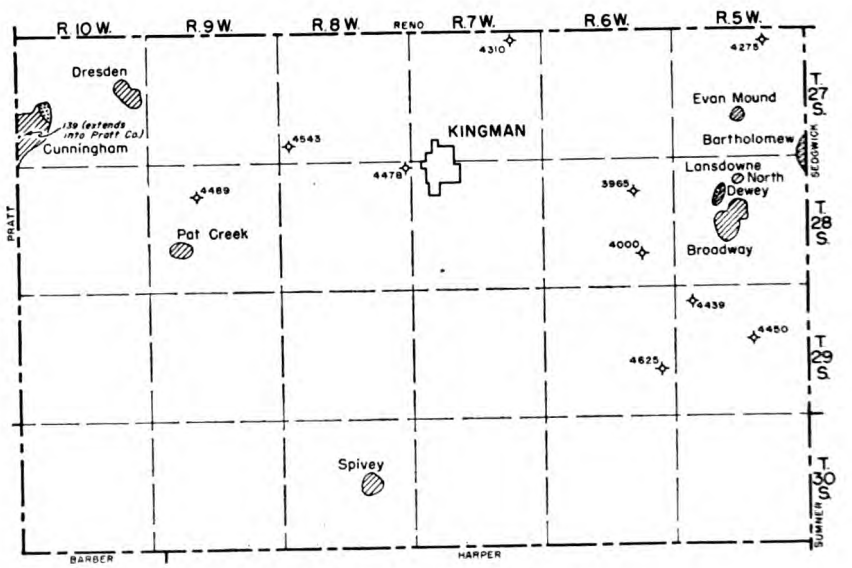



FIG. 14.—Map of Kingman County.

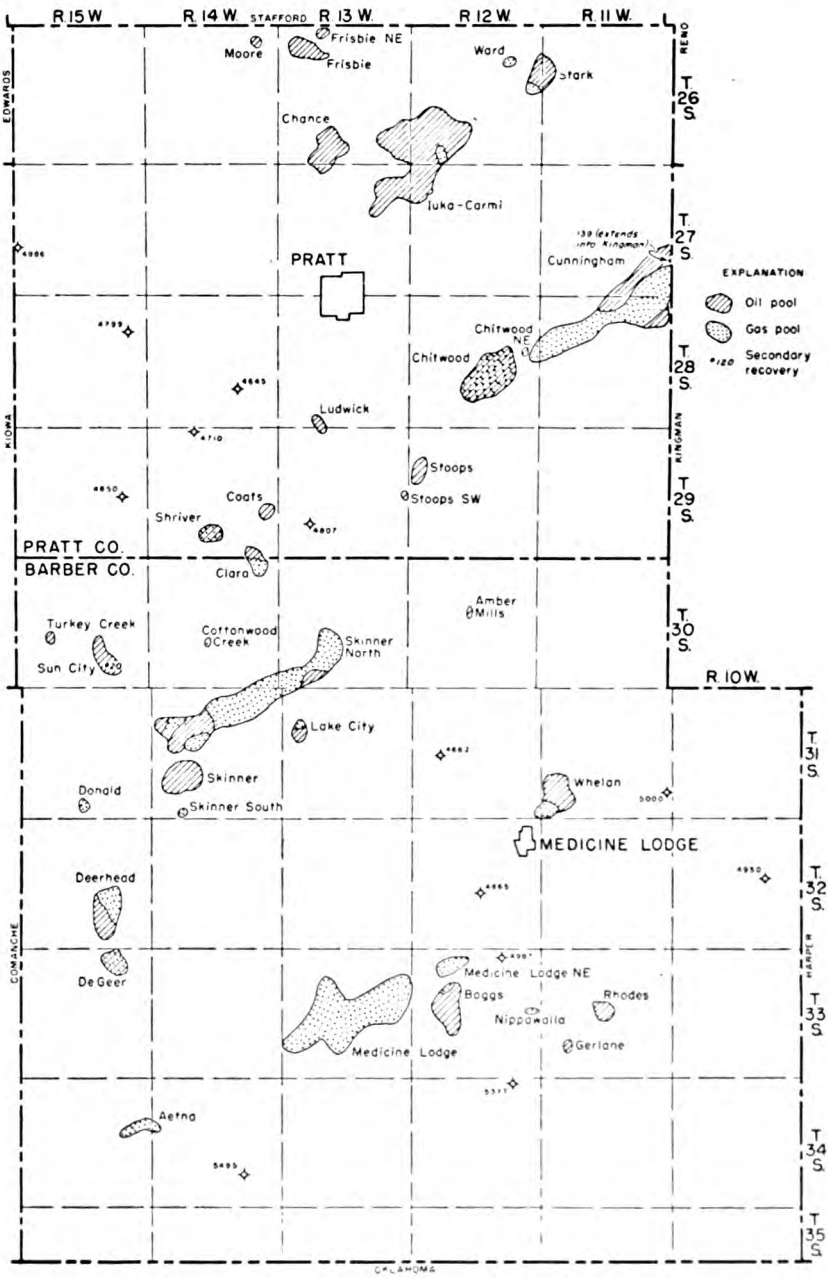



FIG. 15.—Map of Barber and Pratt Counties.

## ALLEN COUNTY

(Map Pl. 1)

**The 1951 production: oil from 10 fields 364,657 barrels including approximately 151,822 barrels from 6 secondary recovery projects; gas 502,079 thousand cubic feet from 126 wells. Wells drilled in 1951: recorded oil 47, dry 5, input 36, total recorded 88.**

*Developments during 1951.*—Total oil production was slightly greater than in 1950. No important deep tests were reported during the year. Forty-seven oil wells and 36 water input wells were reported drilled on secondary recovery projects. Primary production of oil from the upper part of the Mississippian limestone in the **Neosho Falls** field in the northwestern part of the county continued to be of importance although the total output was slightly less than in 1950.

Oil production in Allen County is given in Table 66 and gas production in Table 67. Locations of areas that produced oil and of secondary recovery projects are shown on Plate 1. Secondary recovery data are listed in Table 1.

## ANDERSON COUNTY

(Map Pl. 1)

**The 1951 production: oil from 7 fields 551,340 barrels including 470,284 barrels from 8 secondary recovery operations; gas 6,900 thousand cubic feet from 6 wells. Wells drilled in 1951: 400 (estimated).**

*Developments during 1951.*—Oil production was slightly greater than in 1950. The reported gas production came from six commercial wells in the eastern part of the county.

Oil production in Anderson County during 1951 is listed in Table 66 and gas production in Table 67. Locations of areas that produced oil and of secondary recovery projects are shown on Plate 1. Secondary recovery data are listed in Table 1.

## BARBER COUNTY

(Map Fig. 15)

**The 1951 production from 19 pools: oil 973,797 barrels, gas 9,574,988 thousand cubic feet. Wells drilled in 1951: oil 12, gas 2, dry 17, total 31 including 7 wildcats. New pools discovered 2, old pools abandoned 1. Secondary recovery projects 1.**

*Developments during 1951.*—Although drilling increased somewhat in 1951, production declined—oil almost 15 percent and gas almost 9 percent.

The new oil pool is the **Amber Mills** pool on the B. F. House farm in sec. 15, T. 30 S., R. 12 W., where the National Associated Petroleum Company found oil in the Viola limestone and dolomite at a depth of 4,480 to 4,484 feet. A drill-stem test at this level revealed 180 feet of oil and 1,650,000 cubic feet of gas in the hole. The well was deepened to test possibilities of Simpson sandstone. When that proved dry, the hole was plugged back to the Viola, but this time water came into the hole so that it had to be abandoned.

The **Nippawalla** gas pool in sec. 13, T. 33 S., R. 12 W. was discovered by the Skelly Oil Company on the Harbaugh lease, after testing deeper zones that were found dry. The well was completed with a capacity of more than 7 million cubic feet of gas per day in the sandstones of the Douglas group at a depth of 3,659 to 3,668 feet. An offset well, the No. 2 Harbaugh "C", had gas shows but was declared dry and abandoned.

Routine drilling in nearly all presently producing pools of the county resulted in the addition of 2 extension wells in the **Boggs** pool and 10 in the **Rhodes** pool. One of the wells in the Rhodes pool found oil in the Viola limestone, a new producing horizon, at 4,803 feet depth. The other wells increased the known Mississippian production. One gas well was added to the **Medicine Lodge Northeast** pool. The **Moffett** pool was abandoned during the year.

TABLE 19.—*Dry wildcat tests drilled in Barber County during 1951*

| Company and farm | Location | Depth to top of Lans.-K.C., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|
| *W. B. Pardoe No. 1 Endered | SE¼ SE¼ SE¼ 25-31-11W | 3,856 | 4,966 | 5,000 |
| Beardmore Drlg. Co. et al. No. 1 Collaway | NW¼ NW¼ NW¼ 20-31-12W | 3,704 | 4,609 | 4,662 |
| *Natl. Asso. Petroleum Co. No. 1 Hrencher | SW¼ SE¼ SW¼ 14-32-10W | 3,642 | 4,892 | 4,950 |
| *Aurora Gasoline Co. et al. No. 1 Gillespie | SW¼ SW¼ NW¼ 22-32-12W | 3,790 | 4,810 | 4,865 |
| Skelly Oil Co. No. 1 Boggs "E" | NW¼ NW¼ SW¼ 2-33-12W | 3,839 | 4,937 | 4,987 |
| *Continental Oil Co. No. 1 Colson | CN/2 N/2 NE¼ 2-34-12W | 3,959 | 5,331 | 5,377 |
| *Deep Rock Oil Corp. No. 1 McBrayer | SE¼ SW¼ NW¼ 26-34-14W | 4,130 | 5,442 | 5,495 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

The gas repressuring project operated in the **Sun City** pool by Great Lakes Carbon Corporation reported no new developments. Data on this project are given in Table 1.

New pools are listed in Table 6. Pertinent data on the dry wildcats are given in Table 19, and Figure 15 shows the location of producing areas and dry wildcats. Oil production is given in Table 66, and gas production in Table 67.

## BARTON COUNTY

(Map Fig. 7)

**The 1951 production from 111 pools; oil 18,956,122 barrels, gas 3,302,662 thousand cubic feet. Wells drilled in 1951: oil 319, gas 3, dry 252, salt-water disposal 3, total 577 including 30 wildcats. New pools discovered 23, revived 1, combined 7.**

*Developments during 1951.*—Production of oil and gas dropped slightly in Barton County during 1951, but drilling activity showed an 11 percent increase. Barton is the leading Kansas county in 1951 in the total number of test holes drilled in search for oil or gas, as well as in production of oil.

Of the wildcat wells 23 were successful in finding oil. These new pools are the **Ameh, Bergtal South, Dartmouth, Dartmouth Northwest, Eberhardt West, Fort Zarah North, Fort Zarah Southeast, Great Bend East, Great Bend West, Klepper, Larkin, Leoville South, Putnam, Putnam West, Redwing Northwest, Sadie, Sandford, Sandrock, Shoo Fly, Wearne, Werner-Robl, Werner-Robl**

TABLE 20.—*Dry wildcat tests drilled in Barton County during 1951*

| Company and farm | Location | Depth to top of Lans.-K.C., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|
| Skiles Oil Corp. No. 1 Karst | NE¼ NE¼ NW¼ 8-16-14W | 3,147 | 3,397 | 3,422 |
| Beardmore Drlg. Co. & Aurora Gasoline Co. No. 1 Eveleigh | NE¼ NE¼ SE¼ 27-16-14 W | 3,168 | 3,478 | 3,512 |
| *Aladdin Petrol. Corp. et al. No. 1 Keil | NW¼ NW¼ NW¼ 10-16-15W | 3,232 | 3,512 | 3,560 |
| *Alpine Oil & Royalty Co. No. 1 Karst | NE¼ NE¼ SW¼ 12-16-15W | 3,144 | 3,422 | 3,434 |
| *Skiles Oil Corp. No. 1 Dietz | NW¼ NW¼ SW¼ 21-16-15W | 3,310 | 3,638 | 3,665 |
| R. W. Rine Drlg. Co. No. 1 Martz | SW¼ SW¼ SE¼ 35-16-15W | 3,233 | 3,489 | 3,510 |

| | | | | |
|---|---|---|---|---|
| *Alyward Drlg. Co. et al.<br>No. 1 Schneiweis | SW¼ SW¼ NE¼<br>30-17-11W | 3,068 | 3,366 | 3,393 |
| *Alpine Oil & Royalty Co.<br>No. 1 Boor | NE¼ SE¼ NE¼<br>14-17-12W | 3,077 | 3,380 | 3,400 |
| Glickman Oil Co.<br>No. 1 Gibler | SW¼ SW¼ NW¼<br>20-17-12W | 3,186 | 3,429 | 3,480 |
| *Alpine Oil & Royalty Co.<br>No. 1 Tockert | SE¼ SE¼ NW¼<br>26-17-12W | 3,045 | 3,320 | 3,370 |
| *Peel-Hardman<br>No. 1 Schneweis | NE¼ NE¼ NE¼<br>35-17-12W | 3,098 | 3,391 | 3,420 |
| *Alpine Oil & Royalty Co.<br>& Crowe Drlg. Co.<br>No. 1 Stueder | SE¼ SE¼ SE¼<br>36-17-12W | 3,063 | 3,371 | 3,385 |
| *Ben F. Brack Oil Co., Inc.<br>No. 1 Moore | NW¼ NW¼ NW¼<br>7-17-15W | 3,305 | 3,589 | 3,596 |
| Aylward Drlg. Co.<br>No. 1 Drews | NE¼ SE¼ NW¼<br>6-18-11W | 3,050 | 3,368 | 3,415 |
| E. H. Adair Oil Co.<br>No. 1 Wirth | SE¼ NE¼ NE¼<br>4-18-12W | 3,094 | 3,342 | 3,348 |
| *D. R. Lauck Oil Co.<br>No. 1 Rugan | NE¼ SW¼ NW¼<br>12-18-12W | 3,140 | 3,409 | 3,445 |
| Kantor Oil Co.<br>No. 1 Eveleigh | SE¼ SE¼ SE¼<br>2-18-13W | 3,093 | 3,345 | 3,356 |
| *Branine & Holl<br>No. 1 Rziha | SW¼ SW¼ SE¼<br>34-18-13W | 3,139 | 3,377 | 3,411 |
| J. H. Tatlock<br>No. 1 Weidle | NE¼ NE¼ SE¼<br>6-19-12W | 3,114 | 3,409 | 3,469 |
| *E. H. Adair Oil Co.<br>No. 1 Gordon Birzer | SE¼ SE¼ NW¼<br>4-19-13W | 3,165 | 3,429 | 3,447 |
| *Ash-Mur Drlg. Co.<br>No. 1 Slentz | SW¼ SW¼ NE¼<br>9-19-13W | 3,190 | 3,466 | 3,500 |
| M. B. Armer<br>No. 1 Dodge | NE¼ NE¼ NW¼<br>14-19-13W | 3,230 | 3,485 | 3,530 |
| *Murfin Drlg. Co.<br>No. 1 Musser | SW¼ SW¼ SW¼<br>14-19-13W | 3,187 | 3,438 | 3,473 |
| *Harms & Knight Drlg. Co.<br>No. 1 Slentz | NW¼ NW¼ NE¼<br>27-19-13W | 3,166 | 3,433 | 3,447 |
| J. H. Tatlock & Glenn<br>W. Peel<br>No. 1 Rudiger Est. | NW¼ NW¼ SW¼<br>30-19-14W | 3,248 | 3,562 | 3,620 |
| *W. L. Hartman<br>No. 2 Gaunt | SE¼ SE¼ SE¼<br>3-20-13W | 3,196 | 3,439 | 3,477 |
| *E. H. Adair Oil Co.<br>No. 1 Ratzlaff | SE¼ NE¼ SE¼<br>6-20-13W | 3,211 | | 3,524 |
| *F. G. Holl<br>No. 1 R. Moore | SW¼ SW¼ SE¼<br>14-20-13W | 3,226 | 3,486 | 3,524 |
| *E. H. Adair Oil Co.<br>No. 1 Kern | NW¼ NW¼ SW¼<br>5-20-14W | 3,270 | 3,607 | 3,663 |
| Vickers Petroleum Co., Inc.<br>No. 1 Benjamin | SW¼ SW¼ SW¼<br>31-20-14W | 3,282 | 3,591 | 3,655 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

**Northwest,** and **Werner-Robl South.** The **Harrison** pool was revived by the Grant Oil Company on the Harrison farm in sec. 18, T. 20 S., R. 13 W. These new and revived pools are shown on Figure 7 and are listed in Table 6. Ten of the new pools produce oil from the Arbuckle dolomite and all the others from porous zones in the Lansing-Kansas City limestones. Producing depths in the Arbuckle pools range from 3,276 in the eastern part of the county to 3,775 feet in the southwest. The producing depths in the new Lansing-Kansas City pools range from 3,092 in the northeastern part of the county to 3,412 feet in the west.

Among the pool consolidations as defined by the Kansas Nomenclature Committee are the Redwing Northwest with the **Redwing,** Fort Zarah Southeast with **Fort Zarah,** Shoo Fly with **Ainsworth South,** Leoville South and Leoville Southeast with **Leoville,** Eberhardt West with **Lanterman,** and **Bryant** with **Chase-Silica.** The Chase-Silica pool is now the State's third largest pool.

Many new producing zones were found in the older oil pools during the year, mostly in Lansing-Kansas City and Arbuckle rocks. One report listed The Texas Company No. 2 Pritchard, an old well worked over in sec. 34, T. 20 S., R. 14 W., as having the Marmaton at 3,625 feet as a new producing zone in the **Pritchard** pool.

More than 20 of the 30 dry wildcat tests, all of which were drilled deep enough to test the Arbuckle, reported no shows of oil. The top of the Arbuckle was found in most of these tests at depths of about 3,350 to 3,600 feet.

Oil production is given in Table 66, gas production in Table 67, and wildcat well data in Table 20. Figure 7 shows the oil and gas pools and the dry wildcat tests.

## BOURBON COUNTY

(Map Pl. 1)

**The 1951 production from 3 fields: oil 36,792 barrels including some production from 2 secondary recovery projects that extend into Allen County. Wells drilled in 1951: not estimated.**

*Developments during 1951.*—Total oil production was considerably greater than in 1950. No important wildcats or deep tests were reported. No gas production during the year was reported. Two secondary recovery projects, producing 11,917 barrels of oil, extended from Allen into Bourbon County (Table 1).

Oil production in Bourbon County fields is listed in Table 66. Locations of areas that produced oil during 1951 are shown on Plate 1.

## BROWN COUNTY

(Map Pl. 1)

**The 1951 production from 1 field: oil 10,885 barrels, gas none. Wells drilled during 1951: oil 1, dry 2, total 3 including 2 wildcats.**

*Developments and exploration during 1951.*—One well, the Smith and Houston No. 1 Livengood, NW¼ NE¼ SE¼ sec. 4, T. 1 S., R. 15 E., was drilled in May 1951 in the **Livengood** field. Its initial daily production, from the "Hunton," was rated at 15 barrels of oil.

Two dry wildcat wells were put down in Brown County in 1951. The Woods Oil and Gas Company No. 1 Turner, SW¼ NW¼ SW¼ sec. 7, T. 1 S., R. 15 E., was completed in August. The following tops were reported: Howard, 663; Lansing, 1,180; Mississippian, 2,377; Kinderhookian, 2,478; "Hunton," 2,731; Maquoketa, 3,377; Viola, 3,449; Simpson, 3,676; Arbuckle, 3,826; total depth, 3,874 feet. The Woods Oil and Gas Company No. 2 Spiker, NE¼ NW¼ NW¼ sec. 6, T. 4 S., R. 15 E., was abandoned at 3,708 feet in July. The log shows these tops: Lansing, 1,229; Cherokee, 1,898; Mississippian, 2,572; "Hunton," 2,991; Maquoketa, 3,503; and Viola, 3,597 feet.

According to Geological Survey records 16 wells had been drilled previously in Brown County. The locations of the Livengood field and wildcat wells drilled in 1951 are shown on Plate 1. Oil production is listed in Table 66.

## BUTLER COUNTY

(Map Pl. 1)

**The 1951 production from 59 fields: oil 7,567,782 barrels including 833,053 barrels from 14 water-flood projects. Wells drilled in 1951; oil 213, dry 133, salt-water disposal 6; water input 83, total 435, including 21 wildcats. New pools discovered 6, combined 1.**

*Developments during 1951.*—Six fields were opened in Butler County in 1951. The Dunne and Strait No. 1 Lucas well in the NW¼ SE¼ NW¼ sec. 2, T. 27 S., R. 7 E., opened the **Brickley** field. Production at 2,636 feet from the "Bartlesville sand" was rated at 35 barrels of oil per day. Two additional oil wells and one dry hole

were drilled in the field later in the year. The **Edgecomb** field was opened in August by the Eckland Drilling Company No. 1 Neiman well in the NW¼ NW¼ SE¼ sec. 9, T. 25 S., R. 3 E. Initial daily production from the Mississippian at 2,759 feet was rated at 25 barrels of oil. One additional well was drilled in the field later in the year. The **Four Mile Creek** was brought in by the Wm. L. Graham and J. P. Gaty No. 1 Graham "A" well, SW¼ SE¼ NE¼ sec. 5, T. 28 S., R. 3 E. Simpson production, from 3,069 to 3,072 feet, was gauged at 2,068 barrels per day. The **Hartenbower South,** a Lansing-Kansas City pool, was discovered by the Holcomb et al. No. 1 Price, SW¼ SW¼SE¼ sec. 16, T. 29 S., R. 6 E. Initial daily production of 25 barrels is from between 2,060 and 2,072 feet. The discovery well was completed in June; later in the year 3 dry holes were drilled in the field.

TABLE 21.—*Data on pool wells drilled in Butler County during 1951**

| Field | Oil wells (or gas) | Dry holes | Injection wells on water-flood projects | Water supply on water-flood projects | Salt water disposal wells |
|---|---|---|---|---|---|
| Allen-Robison | 3 | 8 | .. | .. | .. |
| Augusta | 9 | 1 | .. | .. | .. |
| Augusta North | .. | 3 | .. | .. | .. |
| Bausinger | .. | 1 | .. | .. | .. |
| Benton | .. | 1 | .. | .. | .. |
| Blankenship | 6 | 1 | 8 | .. | .. |
| Brandt-Sensenbaugh | 4 | 1 | .. | .. | .. |
| Brickley | 3 | 1 | .. | .. | .. |
| Douglass | 2 | 4 | .. | .. | .. |
| Eckel | .. | 1 | .. | .. | .. |
| Edgecomb | 2 | .. | .. | .. | .. |
| Elbing | 5 | 3 | .. | .. | 2 |
| Elbing East | 1* | .. | .. | .. | .. |
| El Dorado | 72 | 10* | 28 | 1 | 1 |
| Ferrell | 2 | .. | .. | .. | .. |
| Four Mile Creek | 6 | 10 | .. | .. | .. |
| Fox-Bush | 5 | 7 | 41 | .. | .. |
| Garden | 3 | 2 | .. | .. | .. |
| Gelwick | .. | 2 | .. | .. | .. |
| Guyot | .. | 3 | .. | .. | .. |
| Hannah | .. | 1 | .. | .. | .. |
| Hartenbower | 1 | 3 | .. | .. | .. |
| Hartenbower South | 1 | 3 | .. | .. | .. |
| Haverhill | .. | 1 | .. | .. | .. |
| Hazlett | 27 | 11 | .. | .. | 1 |
| Hickory Creek | .. | 2 | .. | .. | .. |
| Keighley | 1 | 3 | .. | .. | .. |
| Knox | .. | 1 | .. | .. | .. |
| Kramer-Stern | 8 | 2 | .. | .. | .. |
| Leon | .. | 1 | .. | .. | .. |

| | | | | | |
|---|---|---|---|---|---|
| Lucas | 3 | 1 | .. | .. | .. |
| McCann | .. | 2 | .. | .. | .. |
| McCraig | .. | 1 | .. | .. | .. |
| Muddy Creek | 3 | 2 | .. | .. | .. |
| Parsley | 1 | 1 | .. | .. | .. |
| Pierce | .. | 3 | .. | .. | .. |
| Pierce West | 1 | 2 | .. | .. | .. |
| Potwin | 10 | 6 | .. | .. | .. |
| Potwin South | .. | 1 | .. | .. | .. |
| Reynolds-Schaffer | 4 | 2 | .. | .. | 1 |
| Rombold | 2 | 1 | .. | .. | .. |
| Sallyards | .. | .. | 6 | .. | .. |
| Salter | .. | 2 | .. | .. | .. |
| Semisch | 7 | 2 | .. | .. | .. |
| Seward | 7 | .. | .. | .. | .. |
| Smock-Sluss | 1 | 8 | .. | .. | .. |
| Towanda | 9 | 2 | .. | .. | .. |
| Weaver | .. | 3 | .. | .. | .. |
| Whitewater | 5 | 5 | .. | .. | 1 |
| Whitewater North | 2 | 2 | .. | .. | .. |
| Womack | .. | 1 | .. | .. | .. |
| Young | .. | 2 | .. | .. | .. |
| Totals | 216 | 136 | 83 | 1 | 6 |

* Includes 1950 straggler wells.

The Rex and Morris Drilling Company No. 1 Sparks well, SW¼ NE¼ SE¼ sec. 20, T. 25 S., R. 4 E., found oil in Mississippian rocks between 2,515 and 2,525 feet, opening the **Pierce West** field. Initial daily production of 25 barrels of oil was reported. The discovery well was completed in March; later in the year two dry holes were drilled in the field. The **Whitewater North** pool was discovered by the Rex and Morris Drilling Company No. 1 Everett well, SE¼ SE¼ NW¼ sec. 29, T. 25 S., R. 4 E. Initial daily production of 35 barrels of oil was reported from the Viola between 2,700 and 2,702 feet. One additional oil well and two dry holes were drilled in the field after it had been opened in March.

Of the 1951 total production in Butler County, 3,249,465 barrels of oil came from the **El Dorado** field, whose cumulative is more than 200 million barrels. Seventy-two oil wells were drilled in the field during the year.

Oil production in the various Butler County fields is listed in Table 66. Locations of areas that produced oil and locations of secondary recovery projects are shown on Plate 1. Data on secondary recovery projects are listed in Table 1. Data on pool wells drilled in the county in 1951 are listed in Table 21, and data on dry wildcats are listed in Table 22.

TABLE 22.—*Dry wildcat tests drilled in Butler County during 1951*

| Company and farm | Location | Depth to top of Kansas City, feet | Depth to top of Mississippian, feet | Total depth, feet |
|---|---|---|---|---|
| *Donald T. Ingling No. 1 Zuercher | SW¼ SW¼ NE¼ 30-23-3E | 2,325 | 2,781 | 3,139 |
| *Rex & Morris Drlg. Co. No. 1 Penner | SE¼ NE¼ NE¼ 18-23-5E | ..... | 2,406 | 2,661 |
| *Donald T. Ingling et al. No. 1 Barker | SW¼ SW¼ NE¼ 7-24-3E | 2,310 | 2,764 | 2,800 |
| *Donald T. Ingling et al. No. 1 Claassen | NE¼ NE¼ SW¼ 19-24-3E | 2,341 | 2,807 | 3,330 |
| *Rex & Morris Drlg. Co. No. 1 Hill | SW¼ SW¼ SE¼ 30-24-3E | 2,352 | 2,847 | 2,899 |
| *J. P. Gaty No. 1 Entz | NE¼ SE¼ SE¼ 31-24-3E | 2,346 | 2,777 | 2,800 |
| *Birmingham-Bartlett Drlg. Co. No. 1 Frerking | SW¼ SW¼ SE¼ 4-24-4E | 2,522 | 2,129 | 2,930 |
| *J. P. Gaty No. 1 Harder | NE¼ SW¼ SE¼ 19-25-3E | 2,369 | 2,765 | 3,227 |
| *Natl. Associated Petro. Co. No. 1 Buckman | Cen. N½ NE¼ NW¼ 11-25-7E | 2,026 | 2,721 | 3,216 |
| *Natl. Associated Petro. Co. No. 1 Liggett Estate | NW¼ NE¼ SE¼ 17-25-7E | ..... | 2,745 | 2,793 |
| *H. M. Williams No. 1 Jahren | NE¼ Cor. of Lot 2 30-25-8E | 1,960 | 2,752 | 2,789 |
| *Beardmore Drlg. Co. et al. No. 1 Wolf | NE¼ SE¼ NW¼ 31-26-3E | 2,375 | 2,839 | 3,285 |
| Aladdin Petro. Corp. No. 1 Oliver | NE¼ SW¼ SW¼ 19-26-4E | 2,242 | 2,705 | 3,218 |
| *Natl. Associated Petro. Co. No. 1 Webb | NE¼ NE¼ NW¼ 11-26-6E | 2,081 | 2,740 | 3,298 |
| *Palmer Oil Corp. No. 1 Allan | SE¼ SW¼ NW¼ 23-26-6E | 2,130 | 2,779 | 3,203 |
| *E. V. Elwell No. 1 Elwell | NE¼ NE¼ SW¼ 15-27-3E | 2,334 | 2,850 | 3,217 |
| *Musgrove Petroleum Corp. No. 1 Belford | SW¼ SE¼ NE¼ 16-27-3E | 2,310 | 2,825 | 3,133 |
| *H. M. Williams et al. No. 1 Lauck | SE¼ SE¼ NW¼ 21-27-3E | 2,317 | 2,768 | 3,170 |
| *H. Keener et al. No. 1 Stephens | SE¼ SW¼ NW¼ 17-28-3E | 2,384 | 2,879 | 3,240 |
| *Natl. Associated Petro. Co. No. 1 Brandt | NE¼ SE¼ SW¼ 33-28-7E | 2,092 | 2,806 | 2,815 |
| *Leftwich Co., Inc. No. 1 McKay | NW¼ SE¼ SW¼ 27-29-3E | 2,405 | 2,943 | 3,289½ |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

TABLE 23.—*Dry wildcat tests drilled in Chase County during 1951*

| Well | Location | Depth to Mississippian, feet | Depth to Viola, feet | Depth to Simpson, feet | Depth to Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|---|
| Greeley Drilling Co. No. 1 Thurston "A" | SE¼ SE¼ NE¼ 17-19-7E | ..... | 1,883 | 1,899 | 1,921** | 2,018 |
| Mendenhall, Bramine, & Gohoring No. 2 Piper | SW¼ SW¼ SW¼ 14-20-9E | 2,455 | 2,871 | 2,947 | 3,023 | 3,080 |
| Ward A. McGinnis No. 1 Hedlung | NW¼ NE¼ SE¼ 4-22-9E | 2,524 | ..... | ..... | ..... | 2,570 |
| Jackman & Jackman et al. No. 1 Evans* | NE¼ NE¼ NE¼ 14-22-9E | 2,517 | ..... | ..... | ..... | 2,614 |

* 1¼ miles west of production in Pixlee field (Greenwood County).
** Depth to granite wash, feet.

## CHASE COUNTY

(Map Pl. 1)

**The 1951 production: oil 31,430 barrels from 3 fields; gas 58,189 thousand cubic feet from 2 active fields. Wells drilled in 1951: oil 2, dry 7, total 9, including 4 wildcats. New pools discovered 1.**

*Developments during 1951.*—The **Bazaar**, a Lansing-Kansas City pool, was discovered by the Morrison Drilling Company No. 2 Norton well, SW¼ SW¼ SE¼ sec. 36, T. 20 S., R. 8 E., in April. Initial daily production of 12 barrels of oil was reported. Earlier in the year the No. 1 Norton was abandoned as a dry hole. Two dry holes and one oil well were put down in the Chase County portion of the **Teeter** field. Gas production, 58,189 thousand cubic feet, came from the **Elmdale** and **Davis** fields.

Data on the four wildcat wells drilled in Chase County during 1951 are listed in Table 23. Their locations are shown on Plate 1. Oil production statistics are listed in Table 66, and gas statistics in Table 67. Areas that produced oil during the year are shown on Plate 1.

## CHAUTAUQUA COUNTY

(Map Pl. 1)

**The 1951 production from 16 fields: oil 803,832 barrels, gas 163,725 thousand cubic feet. Wells drilled in 1951: 50 (estimated).**

*Developments during 1951.*—Oil production in Chautauqua County was slightly less than in 1950. With incomplete coverage one dry hole was reported in each of the **Borroum, Elgin,** and the **Hewins** fields. One oil well and one dry hole were reported in the **Peru-Sedan** field. It is estimated that about 50 wells were drilled in the county during the year. A minimum oil well in the **Hylton** field, in sec. 10, T. 32 S., R. 9 E., was reported as a 1950 straggler well.

Oil production data for Chautauqua County are listed in Table 66. Gas production is listed in Table 67. Locations of areas that produced oil in 1951 are shown on Plate 1. No production was reported from the secondary recovery project (Table 1).

## CHEYENNE COUNTY

**The 1951 production from the county's first pool: none reported. Wells drilled in 1951: oil 1, dry 1 (wildcat), total 2. New pool discovered 1, now temporarily abandoned.**

*Developments during 1951.*—Cheyenne County, in the northwestern corner of Kansas, is close to the rather sensational oil discoveries in Dakota rocks in southwestern Nebraska and northeastern Colorado. Brack started the first test on the Judy farm in sec. 26, T. 1 S., R. 39 W. early in the year. The following tops were listed on the sample log prepared by J. D. Davies: Niobrara chalky shales, 1,081, Fort Hays chalk, 1,568, Codell sandstone, 1,629, Greenhorn, 1,816, Graneros shale, 1,910, Dakota sandstone, 1,980, and Morrison formation (Jurassic) 2,620 feet. In this test no shows of oil or gas were found in the Dakota. Permian and Pennsylvanian rocks identified were: Blaine gypsum, 2,905, Stone Corral, 3,084, Fort Riley (?), 3,300, Florence (?), 3,390, Topeka limestone, 3,957, and Lansing limestone, 4,143 feet (electric log).

Porous zones in the Lansing were found at 4,145, 4,180, 4,255, and 4,376 feet, some of which had prominent shows of oil. Some of the limestones in the Marmaton group (top, 4,445 feet) were porous and had good oil showings, a drill-stem test between 4,480 and 4,496 feet swabbing as much as 75 barrels of oil per day but when water entered the hole drilling was resumed. Cherokee shales were found at 4,620, Mississippian rocks (Osagian) at 4,855, St. Joe at 4,935, Bonneterre at 5,046, a basal Cambrian sandstone at 5,120, and Pre-Cambrian granite at 5,140 feet. The test was then plugged back to a

zone between 4,497 and 4,512 feet where it was officially tested as a small producer, and designated as the **Judy** pool (Table 6).

The Ohio Oil Company drilled the second test late in the year on the Paul Rose farm in sec. 35, T. 1 S., R. 40 W. Tops were listed by the Kansas Sample Log Service at Niobrara, 1,330; Fort Hays, 1,755; Codell sandstone, 1,808; Greenhorn, 2,010; Dakota, 2,162; Morrison, 2,740; Permian, 3,020; Stone Corral, 3,925; Fort Riley, 3,470; Topeka (?), 4,018; Lansing, 4,338; Marmaton, 4,650; Mississippian, 5,042; and Bonneterre, 5,128 feet. No shows of oil or gas were indicated.

## CLARK COUNTY

(Map Fig. 13)

**The 1951 production from 2 fields: oil 6,413 barrels, gas none reported. Wells drilled in 1951: oil 1, gas 1, dry 1, total 3 including 1 wildcat. New pools 2.**

*Developments during 1951.*—There was a strong revival of interest in Clark County during 1951. The Watchorn Oil and Gas Company completed the first oil well in this county in 1937. This well, rated at 622 barrels per day, was in sec. 17, T. 32 S., R. 21 W. Several deep tests have been made at long intervals since, but none was successful in finding oil. During 1951, the Stanolind Oil and Gas Company drilled a test about 6 miles west of the former oil pool (**Morrison**). Good shows were found in the Lansing rocks between depths of 4,845 and 4,864 and in the Viola cherty dolomites from 6,527 to 6,533 feet. The top of the Simpson sand was encountered at 6,670 feet and the top of the Arbuckle at 6,779 feet. The well was plugged back to the Viola from 6,526 to 6,536 and 6,566 to 6,576 feet, and rated at 129 barrels per day. Later in the year the Lansing-Kansas City rocks were found productive from 4,673 to 4,681 feet. This new **Ashland** pool, on the J. Wall farm in sec. 35, T. 32 S., R. 23 W., produces some water with the oil.

The Skelly Oil Company brought in the new **Theis** gas pool on the Theis farm in sec. 5, T. 34 S., R. 25 W., in February. Here the Lansing was found at 4,470 feet and the Mississippian at 5,531 feet. Total depth (still in the Mississippian rocks) was 6,041 feet. Shows of gas between 5,515 and 5,610 encouraged acidizing and resulted in an official test of 783,000 cubic feet of gas per day.

The dry wildcat drilled in 1951 was the Northern Natural Gas Company test on the McCaustland farm in sec. 20, T. 30 S., R. 21 W.,

total depth 7,164 feet. The Lansing was found at 4,520, Mississippian at 5,242, Viola at 6,100, Simpson, 6,229, and Arbuckle at 6,368 feet.

The new pools are listed in Table 6. Locations of producing areas and dry wildcat tests are shown on Figure 13. Data on oil production are given in Table 66, and on gas production in Table 67.

## CLAY COUNTY

(Map Pl. 1)

**The 1951 production from 2 fields: none reported. Wells drilled in 1951: oil 2, dry 1 (wildcat). New pools discovered 1, revived 1.**

*Developments during 1951.*—In June the **Wakefield** field was revived by the K. I. Turner No. 1 Glace well, NE¼ SW¼ NE¼ sec. 21, T. 9 S., R. 4 E., which had an initial daily production of 6 barrels of oil and water from the upper part of Mississippian rocks at a depth of about 1,785 feet. The K. I. Turner No. 1 Tannehill, Cen. NW¼ sec. 15, T. 9 S., R. 4 E., also completed in June, opened the **Wakefield Northeast** field. The top of the Mississippian was reached at 1,910 feet and the well was drilled to a total depth of 1,922 feet. Production from the upper part of the Mississippian rocks was reported at 6 barrels per day. No commercial production was reported.

The only dry wildcat well drilled in Clay County in 1951 was the Frank Dieter et al. No. 1 Lippert in the SW¼ NE¼ NE¼ sec. 28, T. 6 S., R. 4 E. The following tops were reported: Heebner shale, 1,296; Lansing, 1,380; Kansas City, 1,490; "conglomerate," 1,780; Kinderhookian rocks, 1,800; "Hunton," 1,992; Maquoketa, 2,432; Viola, 2,483; Decorah, 2,688; St. Peter, 2,753; "schist" (Pre-Cambrian?), 2,803; granite, 2,828; and total depth, 2,829 feet.

## COFFEY COUNTY

(Map Pl. 1)

**The 1951 production from 5 fields: oil 90,088 barrels, gas 11,332 thousand cubic feet. Wells reported drilled: oil 12, dry 10, total 22 including 3 wildcats.**

*Developments during 1951.*—Three dry wildcat tests were reported in Coffey County in 1951. The B. G. Gobel No. 1 McGrew, NE¼ SW¼ SE¼ sec. 20, T. 20 S., R. 14 E., was abandoned at 2,235 feet. The top of the Kansas City was logged at 775 feet and Mississippian "chat" at 1,731 feet. The Arro Oil et al. No. 1 Reynolds,

SW¼ SW¼ SW¼ sec. 35, T. 21 S., R. 14 E., was drilled to 1,850 feet. The log of the Leroy Grim No. 1 Hammond, SE¼ SE¼ NW¼ sec. 13, T. 22 S., R. 14 E., shows these tops: Lansing 476; Kansas City, 585; Mississippian "chat," 1,582; and Mississippian limestone, 1,598 feet. The total depth is 1,605 feet.

One hole in the **Dunaway** field, in the NW¼ NW¼ SE¼ sec. 13, T. 22 S., R. 13 E., was abandoned at 2,248 feet. Mississippian "chat" was logged at 1,777 feet, Mississippian limestone at 1,780, and the top of the Arbuckle at 2,197 feet. Nine oil wells and 3 dry holes were reported in the **Van Noy** field. Two of the abandoned wells were drilled into Arbuckle rocks. The Warren Ellis No. 3 Barngrover, NE¼ NW¼ NW¼ sec. 7, T. 23 S., R. 15 E., was drilled to 1,985 feet. The W. E. Ellis et al. No. 1 Gibson, Cen. S½ NE¼ sec. 6, T. 23 S., R. 15 E., reached Arbuckle rocks at 1,898 (total depth, at 1,934 feet). One 1950 straggler oil well in the NW¼ NE¼ SW¼ sec. 6, T. 23 S., R. 15 E., with a total depth of 1,572 feet, was reported in the field.

Three oil wells and two dry holes were reported in the Coffey County part of the **Virgil North** field. One of these, the Payrock No. 1 "D" Shadel, NW¼ SW¼ SE¼ sec. 11, T. 23 S., R. 13 E., was drilled to 2,283 feet, topping the Mississippian at 1,803 and the Viola at 2,254 feet.

A 1950 straggler well, the R. E. French and Robert Winterscheid No. 4 Birk, SE¼ NE¼ SE¼ NE¼ sec. 5, T. 23 S., R. 14 E. was reported as a 12 barrel per day oil well. Production was found in Mississippian limestone between 1,690 and 1,699½ feet. This location is outside a previously recognized oil field. No 1951 production was reported from the well.

All oil produced in Coffey County comes from fields in the southern part. Locations of areas that produced oil during the year are shown on Plate 1. Oil production statistics are listed in Table 66, and gas production in Table 67.

## COMANCHE COUNTY

Wildcat wells have been drilled in Comanche County from time to time, but so far no producing pool has been discovered.

*Exploration during 1951.*—During 1951, one wildcat test was drilled on the Price farm in sec. 4, T. 32 S., R. 16 W., by Wentworth & Sons. The electric log on this well was studied by William Mc-

Hugh, a specialist in electric log interpretation in Kansas. He has furnished the following tops: Stone Corral anhydrite, 784; Herington dolomite, 2,276; Fort Riley limestone, 2,440; Neva limestone, 2,846; Tarkio limestone, 3,276; Topeka limestone, 3,585; Heebner black shale, 4,010; "Brown lime," 4,174; Lansing limestone, 4,190; base of the Kansas City limestones, 4,064; Mississippian, 4,770; Viola cherty dolomites, 5,067; Simpson shales and sandstones, 5,230; and Arbuckle dolomite, 5,368 feet. As there were no shows of either oil or gas, the test was abandoned at a total depth of 5,450 feet as a dry hole.

## COWLEY COUNTY

(Map Pl. 1)

**The 1951 production from 62 fields: oil 1,724,717 barrels including 25,769 barrels from 61 water-flooding projects, gas 68,414 thousand cubic feet. Wells drilled in 1951: oil 48, gas 1, input 1, dry 56, total 106 including 8 wildcats. New pools discovered 4, revived 1.**

*Developments during 1951.*—Only 8 dry wildcat wells were reported in Cowley County in 1951. Three oil pools and one gas pool were discovered by successful wildcats. The **Brown West** gas field was opened in June by the Kenner and High No. 1 Brown well, NW¼ SW¼ SW¼ sec. 14, T. 31 S., R. 7 E. Daily production of 2 million cubic feet of gas was found in sandstone in the Douglas

TABLE 24.—*Data on pool wells drilled in Cowley County during 1951*

| Field | Oil wells (or gas) | Dry holes | Injection wells on water-flood projects |
|---|---|---|---|
| Baird | .. | 1 | .. |
| Baird East | 1 | .. | .. |
| Box | 3 | 1 | .. |
| Brown West | 1 gas | .. | .. |
| Bruce | 1 | .. | .. |
| Burden | 3 | 3 | .. |
| Clark | .. | 1 | .. |
| Couch | 1 | 1 | .. |
| Countryman | 1 | 1 | .. |
| Daniels | .. | 1 | .. |
| David | 3 | 1 | .. |
| Denton | 1 | .. | .. |
| Deichman | .. | 2 | .. |
| Dunbar | .. | 1 | .. |
| Eastman | .. | 1 | .. |
| Elrod | 1 | .. | .. |
| Enterprise | .. | 1 | .. |
| Ferguson West | 1 | 1 | .. |

| | | | |
|---|---|---|---|
| Geuda Springs | 3 | .. | .. |
| Gibson | 1 | .. | .. |
| Graham | 1 | .. | .. |
| Grouse Creek | 1 | 3 | .. |
| Hower | .. | 2 | .. |
| McKay | 1 | .. | .. |
| Murphy | 1 | .. | .. |
| Nigger Creek | 1 | .. | .. |
| Otto | .. | 1 | .. |
| Rahn Northeast | 4 | 4 | .. |
| Rahn Southwest | .. | 1 | .. |
| Rainbow Bend | 1 | .. | .. |
| Rainbow Bend West | .. | 1 | .. |
| Rock | 4 | 1 | .. |
| Rock North | 1 | 1 | .. |
| Slick-Carson | 1 | .. | .. |
| Smith | .. | 1 | .. |
| State | 3 | 3 | .. |
| Stayton | 5 | 2 | 1 |
| Tisdale | .. | 2 | .. |
| Trees | 1 | 4 | .. |
| Thurlow | 3 | 1 | .. |
| Turner | .. | 2 | .. |
| Wilmot-Floral | .. | 1 | .. |
| Wilson | .. | 1 | .. |
| Winfield | 1 | .. | .. |
| Winfield South | .. | 1 | .. |
| Totals | 50 | 48 | 1 |

TABLE 25.—*Dry wildcat tests drilled in Cowley County during 1951*

| Company and farm | Location | Surface elevation, feet | Depth to top of Kansas City, feet | Depth to top of Mississippian, feet | Total depth, feet |
|---|---|---|---|---|---|
| *E. H. Adair Oil Co. No. 1 Joy | NE¼ NE¼ SE¼ 10-30-3E | 1,181 | ..... | ..... | 2,372 |
| *Taylor, R. W. Holcomb & Murfin No. 1 Hulme | E½ SE¼ NW¼ 14-30-6E | 1,450 | 2,205 | 2,900 | 2,915 |
| *Palmer Oil Corp. No. 1 McEwen | NE¼ SE¼ NW¼ 35-30-6E | 1,411 | 2,195 | 2,952 | 3,007 |
| *E. M. Wahlenmarie No. 1 Wahlenmarie | NE¼ SE¼ SW¼ 24-34-4E | 1,296 | ..... | 3,346 | 3,355 |
| Carter Oil Co. No. 1 Warren | NW¼ SW¼ NW¼ NE¼ 4-35-5E | 1,199 | 2,635 | 3,131 | 3,181 |
| Carter Oil Co. No. 1 Winchell | SW¼ SW¼ NE¼ 6-35-5E | 1,176 | 2,671 | 3,201 | 3,213 |
| Watson Drlg. Co. No. 1 Coburn | NW¼ SE¼ NW¼ 8-35-5E | 1,064 | 2,540 | 3,056 | 3,060 |
| *Flynn Oil Co. No. 1 Warren | NE¼ NE¼ NE¼ 15-35-5E | 1,230 | ..... | 3,140 | 3,177 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

group from 1,568 to 1,600 feet. The **Grouse Creek** oil pool, which produces from Mississippian rocks at 2,890 to 2,917 feet, was discovered by the K. T. Wiedemann No. 1 Lee well, NW¼ NE¼ SW¼ sec. 16, T. 30 S., R. 7 E., completed in August for an initial daily potential of 15 barrels of oil. The well produced 1,044 barrels of oil during the latter part of the year. A "Bartlesville sand" pool, the **McKay**, was found by the Smitherman and Cohen No. 1 McKay well, SE¼ SE¼ NW¼ sec. 17, T. 35 S., R. 4 E., which was completed in November with an initial daily production of 138 barrels of oil. Another "Bartlesville" pool was discovered in November by the Crest Drilling Company and National Refining Company No. 1 Morgan well, N½ SW¼ NW¼ sec. 22, T. 34 S., R. 3 E. The field was named **Nigger Creek.** The initial daily production of the discovery well was 35 barrels of oil.

The **Elrod** field was revived in April by the McNab and Duncan No. 1 Elrod well, Cen. S½ NE¼ NE¼ sec. 4, T. 32 S., R. 5 E. Six barrels of oil and 6 barrels of water per day were reported from the "Layton sand" at a depth of 2,411 feet.

Oil production in the various Cowley County fields is listed in Table 66 and gas production is listed in Table 67. Secondary recovery data are listed in Table 1. Data on pool wells are listed in Table 24 and on dry wildcat tests in Table 25. Locations of areas in Cowley County that produced oil and locations of secondary recovery projects are shown on Plate 1.

## CRAWFORD COUNTY

(Map Pl. 1)

**The 1951 production from 7 fields: oil 50,938 barrels including 9,340 barrels from 2 water-flooding projects, gas 39,676 thousand cubic feet. Wells drilled in 1951: 50 (estimated).**

*Developments during 1951.*—Oil production in 1951 in Crawford County was 14 percent less than in 1950. Reported gas production was from 29 commercial wells; some additional gas production has not been segregated from that in Neosho County. Oil production in the Crawford County fields in 1951 is listed in Table 66 and gas production in Table 67. Statistics on secondary recovery operations are included in Table 1. Locations of areas that produced oil and locations of secondary recovery projects are shown on Plate 1.

TABLE 26.—*Dry wildcat tests drilled in Decatur County during 1951*

| Company and farm | Location | Surface elevation, feet | Depth to top of Lans.-K.C., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *Harry Gore No. 1 Johnson | NW¼ SW¼ SW¼ 9-3-27W | 2,707 | 3,746 | 4,197 | 4,250 |
| Harry Gore No. 1 Follis | NE¼ NE¼ SE¼ 26-3-27W | 2,563 | 3,534 | 3,945 | 4,010 |
| *Harry Gore No. 1 Frickey | NW¼ NW¼ SW¼ 31-3-27W | 2,690 | 3,794 | 4,315 | 4,355 |
| *Harry Gore No. 1 Burns | NE¼ NE¼ NE¼ 16-3-28W | 2,721 | 3,743 | 4,290 | 4,390 |
| *Peel-Hardman No. 1 Vasak | SE¼ SE¼ NE¼ 4-4-26W | 2,515 | 3,497 | 3,964 | 4,120 |
| *Harry Gore No. 1 Norris | NW¼ NW¼ NW¼ 12-4-26W | 2,412 | 3,468 | 3,865 | 3,920 |
| *Harry Gore No. 1 Brock | SW¼ SW¼ SW¼ 22-4-26W | 2,577 | 3,627 | 4,039 | 4,082 |
| *Harry Gore No. 1 Nauer | SW¼ SW¼ SW¼ 27-4-26W | 2,605 | 3,636 | 4,011 | 4,055 |
| *Harry Gore No. 1 Mazanek | NW¼ NW¼ SW¼ 22-4-27W | 2,580 | 3,574 | 4,078 | 4,135 |
| Herndon Drlg. Co. No. 1 Bader | NW¼ NW¼ SW¼ 20-5-26W | 2,632 | 3,722 | 4,161 | 4,255 |
| *Empire Drlg. Co. No. 1 Green | NW¼ NW¼ NW¼ 8-5-27W | 2,670 | 3,904 | ..... | 4,418 |
| *Harry Gore No. 1 Harold | SW¼ SW¼ SW¼ 20-5-27W | 2,654 | 3,855 | 4,548 | 4,600 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

## DECATUR COUNTY

(Map Fig. 5)

**The 1951 production from the first pool: oil 4,357 barrels. Wells drilled during 1951: oil 4, dry 12, total 16, including 12 wildcats. New pools discovered 1.**

*Developments during 1951.*—During 1951 Decatur County was added to the oil-producing counties in the State. Many wildcat tests had been drilled there in previous years without finding commercial production. The first oil pool in the county, the **Jennings**, was opened by The Texas Company on the E. J. Keenan farm in sec. 25, T. 4 S., R. 27 W. Initial production of 162 barrels of oil per day was from a depth of 3,478 to 3,482 and 3,484 to 3,488 feet in the Lansing formation, about 70 feet below its top. Three wells were added to this oil pool before the close of the year. In the Munson well (in the

same section as the discovery well) the Wabaunsee rocks were found to be productive at 3,156 to 3,162 feet.

During the year 12 additional wildcat tests were drilled in Decatur County. Table 26 lists them. The new pool is described in Table 6. The new producing area and dry wildcat tests are shown on Figure 5. Oil production is listed Table 66.

Early in January 1952, the Continental Oil Company found the second oil pool in this county. Their first test on the Gillespie farm in sec. 34, T. 5 S., R. 27 W., proved a commercial quantity of oil in the Lansing limestone between the depths of 3,632 and 3,650 feet. The potential test of this well shows 1,192 barrels of oil per day. The test was carried on down to the Pre-Cambrian rocks and later plugged back to the porous zone in the limestone at 3,632 feet.

## DICKINSON COUNTY

(Map Pl. 1)

**The 1951 production from 4 fields: oil 115,525 barrels, gas none. Wells reported drilled in 1951: oil 2, dry 8, total 10 including 5 wildcat wells.**

*Developments during 1951.*—Of the 10 wells reported drilled in Dickinson County in 1951, 2 were producers and 3 were dry holes in the **Lost Springs** field, and 5 were on wildcat locations. Data on the wildcat wells are listed in Table 27.

Oil production in the various Dickinson County fields in 1951 is listed in Table 66. Locations of areas that produced oil during the year and of the 5 wildcat wells are shown on Plate 1.

TABLE 27.—*Dry wildcat tests drilled in Dickinson County during 1951*

| Company and farm | Location | Depth to top of Lans.-K.C., feet | Depth to top of Miss. "Chat" feet | Depth to top of Simpson, feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|---|
| *Broadbeck & Marts et al. No. 1 Marts | SW¼ NW¼ SE¼ 28-11-3E | 1,572 | 2,131 | 2,871 | 2,970 | 2,985 |
| *Continental Oil Co. No. 1 Rees | NE¼ NW¼ SW¼ 6-14-2E | 1,766 | 2,354 | 3,030 | 3,126 | 3,187 |
| *Ninrod Oil Co. et al. No. 1 Foster | NE¼ NE¼ NE¼ 29-14-4E | 1,671 | 2,204 | ..... | ..... | 2,253 |
| *Continental Oil Co. No. 1 Howie | SW¼ SW¼ NE¼ 10-15-1E | 1,839 | 2,473 | 3,159 | 3,245 | 3,292 |
| Continental Oil Co. No. 1 Dougan | SW¼ SE¼ NE¼ 20-16-1E | 2,087 | 2,708 | 3,348 | 3,425 | 3,483 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

## DOUGLAS COUNTY

(Map Pl. 1)

**The 1951 production from 3 fields: oil 3,500 barrels (estimated); gas a small amount.**

*Developments during 1951.*—Oil production in Douglas County is from the **Baldwin** field in the southeastern part of the county. A small amount of gas was produced in the Eudora and Lawrence areas. Oil production is listed in Table 66 and location of the area that produced oil in 1951 is shown on Plate 1.

## EDWARDS COUNTY

(Map Fig. 10)

**The 1951 production from 2 pools: oil 18,698 barrels, gas 314,209 thousand cubic feet. Wells drilled in 1951: oil none, gas none, dry 4 (all wildcats).**

*Developments during 1951.*—Production of oil in Edwards County during 1951 increased a few thousand barrels and gas production increased a considerable amount. These increases were not reflected in drilling activity, however, since only four wildcat tests were completed.

These dry wildcat tests are listed in Table 28, with important marker and potentially productive formations noted. All the tests were completed in the Arbuckle rocks and two had shows of gas. The Phillips Petroleum Company No. 1 Newsom in sec. 13, T. 26 S., R. 17 W., reported 507 thousand cubic feet of gas on a drill-stem test at 4,540 to 4,545 feet depth. Hydrafrac was used at 4,557 feet where the open formation tested 619 thousand cubic feet of gas.

TABLE 28.—*Dry wildcat tests drilled in Edwards County during 1951*

| Company and farm | Location | Depth to top of Lans.-K.C., feet | Depth to top of Viola, feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *Morrison Drlg. Co. No. 1 Fisher | SW¼ SW¼ NW¼ 27-24-16W | 3,840 | 4,404 | 4,672 | 4,727 |
| Sinclair Oil & Gas Co. No. 1 Harry Meller | SW¼ SW¼ SE¼ 28-26-16W | 4,000 | 4,623 | 4,838 | 4,900 |
| Phillips Petroleum Co. No. 1 Newsom "A" | SW¼ SW¼ SW¼ 13-26-17W | 3,998 | 4,584 | 4,859 | 4,960 |
| Phillips Petroleum Co. No. 1 Fletcher "A" | SW¼ SW¼ SW¼ 11-26-18W | 4,112 | 4,839 | 5,088 | 5,143 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

Gas-cut mud was reported in the Sinclair Oil and Gas Company No. 1 Harry Meller well in sec. 28, T. 26 S., R. 16 W., at 4,485 to 4,505 and 4,553 to 4,595 feet depth.

The oil and gas producing areas and some dry wildcat tests are shown on Figure 10. Oil production is listed in Table 66 and gas production in Table 67.

## ELK COUNTY

(Map Pl. 1)

**The 1951 production from 24 fields: oil 176,560 barrels including 3,292 barrels from 1 secondary recovery project, gas 344,660 thousand cubic feet. Wells drilled in 1951: oil 1, dry 4, input 7, probable unrecorded 43, total 55 (estimated). Old fields abandoned 1.**

*Developments during 1951.*—The 1951 oil production in Elk County was slightly less than in 1950, but the reported gas production showed an increase. The F. G. Holl et al. No. 1 Simmons well in the NW¼ NW¼ NE¼ sec. 32, T. 28 S., R. 10 E., is a 1950 straggler well. It was abandoned as a dry hole at 2,233 feet in October 1950. A show of oil was reported at 2,210 feet. Data on pool wells drilled in 1951 are listed in Table 29. No discoveries were announced; one field, the **Starr,** was abandoned.

Oil production in the various fields in Elk County is listed in Table 66. Gas production statistics are included in Table 67. Waterflooding data are listed in Table 1. Locations of areas that produced oil and of the secondary recovery operation are shown on Plate 1.

TABLE 29.—*Data on pool wells drilled in Elk County during 1951**

| Field | Oil wells | Dry holes | Input wells on water-flood projects |
|---|---|---|---|
| Dunkleberger | .. | 2* | .. |
| Fleming | .. | 2* | .. |
| Grand Summit | .. | 1 | .. |
| Longton | .. | 1* | .. |
| New Albany | 1 | .. | 7 |
| Severy | .. | 1* | .. |
| Webb | .. | 1 | .. |
| Totals | 1 | 8 | 7 |

* Includes 1950 straggler wells.

## ELLIS COUNTY

(Map Fig. 8)

**The 1951 production from 60 pools: oil 11,694,249 barrels, gas none. Wells drilled in 1951: oil 124, gas none, dry 118, salt-water disposal 3, total 245 including 24 wildcats. New pools discovered 9, pools abandoned 1.**

*Developments during 1951.*—Oil production in Ellis County was up about 6 percent during 1951, maintaining the county as the third in oil production in the State. No commercial quantities of gas were reported. Several more wells were drilled during 1951 than in 1950, resulting in the addition of nine oil pools. These are the **Herl, Irvin North, Irvin Northeast, Irvin South, Jacob, Karlin, Mendota, Pleasant Ridge Southwest** and **Ubert North** pools. Seven of the new pools had Arbuckle production, and the other two produced from the Lansing-Kansas City rocks. Irvin South, one of the new pools, was abandoned before the close of the year. Production in the new pools ranged from 77 barrels per day in the Karlin pool to 232 barrels per day in the Ubert North pool.

New producing zones in these new pools and other older pools were: Herl, Lansing-Kansas City at 3,382 to 3,402 feet; **Sweet William,** Lansing-Kansas City at 3,700 to 3,810 feet; **Pleasant,** Pennsylvanian basal conglomerate; **Burnett Southwest,** Simpson at 3,582 to 3,586 feet; and **Walter,** Lansing-Kansas City.

All 24 dry wildcat tests penetrated the Arbuckle. One well, the Ben F. Brack Oil Co. No. 1 Stackhouse in sec. 27, T. 13 S., R. 18 W., specifically reported no Arbuckle encountered, while drilling to a total depth of 3,690 feet.

In the **Solomon** pool, discovered in 1936 in sec. 28, T. 11 S., R. 19 W., 33 new oil wells were added while only 7 dry holes were drilled, resulting in an almost four-fold increase in production from this pool during 1951.

Many oil wells and dry holes were deepened to a porous zone for the disposal of salt water from other producing wells. One, the Skelly Oil Company No. 6 Lydia De Hoff in sec. 30, T. 11 S., R. 16 W., penetrated the 146 feet of Arbuckle dolomite. The Isern Brothers No. 4 Schmeidler well in sec. 17, T. 12 S., R. 17 W. was drilled 268 feet into Arbuckle rocks to a total depth of 4,138 to find a disposal zone. The Sunray Oil Company found the Arbuckle only 46 feet thick when they completed their No. 2 Pfeifer "A" disposal well, sec. 2, T. 14 S., R. 20 W., in granite wash at a depth of 3,994

feet. Jones, Shelburne & Farmer, drilling in sec. 9, T. 15 S., R. 18 W., reported 293 feet of Arbuckle dolomite.

An interesting dry wildcat (Table 30) is the Buffalo Oil Company No. 1 Mutual Building and Loan well in sec. 28, T. 15 S., R. 20 W. This test found the Heebner black shale at 3,476, Lansing limestone at 3,520, "conglomerate" at 3,856, Lamotte at 3,918, granite wash at 4,003, and solid granite at 4,045 feet. Several drill-stem tests showed only salt water.

Pertinent information on the new oil pools of Ellis County is found in Table 6. Locations of producing areas and dry wildcat tests are shown on Figure 8. Oil production is listed in Table 66.

TABLE 30.—*Dry wildcat tests drilled in Ellis County during 1951*

| Company and farm | Location | Depth to top of Lans.-K.C., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|
| The Texas Co. No. 1 Don Chrisler | NE¼ NW¼ SW¼ 36-11-16W | 2,976 | 3,389 | 3,457 |
| *Isern Drlg. Co. et al. No. 1 Slimmer | SE¼ SE¼ NE¼ 2-11-17W | 3,101 | 3,483 | 3,489 |
| *H. E. Zoller et al. No. 1 Simpson | SW¼ SW¼ NW¼ 3-11-17W | 3,144 | 3,502 | 3,568 |
| Herndon Drlg. Co. No. 1 Davis | SW¼ SW¼ SW¼ 24-11-20W | 3,396 | 3,708 | 3,775 |
| *W. J. Coppinger et al. No. 1 Hoff | SE¼ SE¼ NW¼ 20-12-16W | 3,370 | 3,686 | 3,725 |
| *Natl. Coop. Ref. Assn. & Armer Drlg. Co. No. 1 Miller | SE¼ SE¼ SW¼ 29-12-16W | 3,263 | 3,589 | 3,610 |
| *Morris Sitrin & Murfin Drlg. Co. No. 1 Ball | SW¼ SW¼ SW¼ 8-12-18W | 3,492 | 3,861 | 3,862 |
| Anschutz Drlg. Co. No. 1 Keagy | NE¼ NE¼ SE¼ 30-12-19W | 3,533 | 3,919 | 3,970 |
| Herndon Drlg. Co. No. 1 Skaggs | SE¼ SE¼ SE¼ 7-12-20W | 3,630 | 4,008 | 4,060 |
| Lion Oil Co. No. 1 Lee | SW¼ SW¼ SE¼ 34-12-20W | 3,482 | 3,887 | 3,902 |
| *Glickman Oil Co. No. 1 Dinkle | NW¼ NW¼ SE¼ 7-13-16W | 3,253 | 3,555 | 3,580 |
| *The Lotus Oil Co. No. 1 Dortland | SE¼ SW¼ NE¼ 23-13-16W | 3,161 | 3,440 | 3,446 |
| W. J. Coppinger et al. No. 1 Brungardt | NE¼ SE¼ NE¼ 1-13-17W | 3,293 | 3,560 | 3,615 |
| *Brooks Pierce Drlg. Co. No. 1 Meringer | NE¼ NE¼ SE¼ 26-13-18W | 3,350 | 3,679 | 3,724 |
| *Ben F. Brack Oil Co., Inc. No. 1 Stackhouse | NE¼ NE¼ SW¼ 27-13-18W | 3,392 | ..... | 3,690 |

| | | | | |
|---|---|---|---|---|
| Davis Bros. & Transit Corp.<br>No. 1 Mermis | SE¼ SE¼ SE¼<br>10-13-19W | 3,412 | 3,759 | 3,780 |
| *John Lindas Oil Co.<br>No. 1 Spilker | SE¼ NE¼ SW¼<br>12-13-20W | 3,417 | 3,760 | 3,810 |
| B & R Drlg.<br>No. 1 Phillip | SE¼ SE¼ NE¼<br>19-14-16W | 3,196 | 3,448 | 3,480 |
| *Murfin Drlg. Co. et al.<br>No. 1 Brungardt | NE¼ NE¼ NE¼<br>26-14-17W | 3,213 | 3,459 | 3,508 |
| *Sunray Oil Corp.<br>No. 1 Kansas State | NE¼ SW¼ SW¼<br>5-14-18W | 3,360 | 3,691 | 3,721 |
| *White Eagle Oil Co.<br>No. 1 Randa | NW¼ SW¼ SE¼<br>21-14-18W | 3,335 | 3,660 | 3,700 |
| Grant Oil Co.<br>No. 1 Foster | NE¼ NE¼ NW¼<br>1-15-16W | 3,156 | 3,440 | 3,474 |
| *W. J. Coppinger et al.<br>No. 1 Schmidt | SW¼ SW¼ SW¼<br>21-15-19W | 3,370 | ..... | 3,737 |
| Buffalo Oil Co. & Rine Drlg. et al.<br>No. 1 Mutual Bldg. & Loan | SW¼ SW¼ NW¼<br>28-15-20W | 3,520 | ..... | 4,055 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

## ELLSWORTH COUNTY

(Map Fig. 6)

**The 1951 production from 13 pools: oil 4,135,395 barrels, gas 108,544 thousand cubic feet. Wells drilled in 1951: oil 67, gas none, dry 40, total 107 including 7 wildcats. New pools 3, combined 2, redesignated 1.**

*Developments during 1951.*—Comparing the 1951 figures with those of 1950, oil production in Ellsworth County dropped off slightly during 1951, but the production of gas increased about 24 percent. Drilling activity increased more than 68 percent but resulted in the discovery of only three new oil pools. These new pools are the **Matthews, Plum Creek,** and **West.** The Matthews was combined with the **Kraft-Prusa** pool and the Plum Creek with **Stoltenberg** during the year. Pertinent information on the producing zones and amount of potential production on the new pools is given in Table 6. During the year the **Bloomer East** pool was redesignated as the **Kraft-Prusa East** pool. The name Bloomer East was used for a pool in this county which was first discovered in 1944 but for which no production was recorded. It was listed by us as abandoned in 1946.

The increase in drilling activity was centered in the extension of the **Edwards North** pool, discovered last year. In all, 32 new oil wells were added to this pool while only 8 wells were declared dry.

TABLE 31.—*Dry wildcat tests drilled in Ellsworth County during 1951*

| Company and farm | Location | Depth to top of Topeka, feet | Depth to top of Lansing, feet | Depth to top of Arbuckle feet | Total depth, feet |
|---|---|---|---|---|---|
| *W. H. Poole No. 1 Kepka | SE¼ SE¼ NW¼ 28-14-10W | 2,445 | 2,821 | 3,295 | 3,300 |
| Natl. Assoc. Petro. Co. No. 1 Stepanek | NW¼ NW¼ SE¼ 32-15-8W | 2,168 | 2,563 | 2,972 | 3,000 |
| *Lindsley Drlg. Co. No. 1 Branda | SE¼ SE¼ SE¼ 7-15-10W | ..... | 2,882 | 3,275 | 3,315 |
| *Alpine Oil & Royalty Co. No. 1 Joe Long | NE¼ NE¼ NW¼ 34-16-8W | 2,339 | 2,691 | ..... | 3,375 |
| *Bishop Oil Co. et al. No. 1 Janssen | NW¼ NW¼ SE¼ 36-16-9W | ..... | 2,834 | 3,288 | 3,306 |
| *C. E. Skiles No. 1 Janssen | SW¼ SW¼ SW¼ 31-17-8W | ..... | 2,896 | 3,355 | 3,380 |
| *Duke & Wood Drlg. Co. No. 1 Frevert | SW¼ SW¼ NW¼ 16-17-10W | 2,639 | 2,997 | 3,326 | 3,333 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

Several of the new wells were maximum wells. The oil comes from the Arbuckle dolomite in 23 of the new wells. The Stoltenberg pool added 19 new oil wells and 10 new dry holes during the year.

Only two of the 7 dry wildcat tests had shows of oil or gas. Shows of gas were found in the National Associated Petroleum Company No. 1 Stepanek well in sec. 32, T. 15 S., R. 8 W., at 2,281 to 2,299 feet and 2,640 to 2,649 feet. The Duke & Wood No. 1 C. Frevert test in sec. 16, T. 17 S., R. 10 W., found a show of oil at 3,326 to 3,331 feet.

Data on dry wildcat wells are given in Table 31. Locations of producing areas and dry wildcats are shown in Figure 6. Data on oil production are given in Table 66, and on gas production in Table 67.

## FINNEY COUNTY

(Map Pl. 2)

**The 1951 production from 3 pools: oil 204,791 barrels, gas production of the Hugoton Gas Area is not segregated as to counties. Other gas pool 73,649 thousand cubic feet. Wells drilled in 1951: oil 3, gas 17, dry 3, total 23 including 1 wildcat. New pools 1.**

*Developments during 1951.*—Drilling in Finney County dropped off more than one-half during 1951, and oil production decreased about 10,000 barrels. One new pool was found in the county and gas production from the Nunn pool was reported for the first

time. The new oil pool, the **Damme**, resulted from the discovery of oil in the Hartman Drilling Company No. 1 Damme well in sec. 21, T. 22 S., R. 33 W. The official potential test of the well reported 1,795 barrels of oil per day. A second well in the same section was completed with a potential of 670 barrels of oil per day by the National Cooperative Refinery Association. The new pool is about 7 miles southeast of the older Nunn pool. Here, as in the older pool, oil occurs in the upper part of the Mississippian limestones at a depth of between 4,626 and 4,636 feet. A small oil well was added to the Nunn pool.

Finney County lies at the northeast side of the large Hugoton Gas Area, the southwestern townships in the county being included in it. As shown on Plate 2, most of the 17 new gas wells were drilled on the trend from the Nunn pool southeastward past Garden City to the Haskell County border. Some of the new wells drilled just south of the Nunn pool were found to be fairly large after application of acid to the limestones. The wells drilled from 6 to 10 miles south of Garden City extend the limits of the gas area of last year about 6 miles eastward. Two dry holes were drilled on the Miller farm by the Champlain Refining Company in sec. 16, T. 22 S., R. 34 W.

S. A. Berwick and Alpine Oil and Royalty Company drilled the only dry wildcat in Finney County during 1951. This test, on the Landgraf farm about 12 miles northeast of the new Damme pool, found the top of the Mississippian at 4,823 feet and a porous dolomite at 4,840 feet depth. A drill-stem test in Marmaton rocks was not favorable.

Finney County wells are shown on Plate 2. Information on the new oil pool is given in Table 6. Production of oil is given in Table 66, and active gas production is shown under Finney County and Hugoton in Table 67. Additional information on the Hugoton Gas Area is reported in the chapter on natural gas.

## FORD COUNTY

**The 1951 production from 1 pool: oil 7,401 barrels, gas none reported. Wells drilled in 1951: total 4 (all dry) including 2 dry wildcats.**

*Developments during 1951.*—Ford County received more attention than in 1950. Two dry wells were drilled in the **Pleasant Valley**

pool, which was revived during 1950. One of these wells, the Rufus Clay No. 1 Birney in sec. 35, T. 27 S., R. 21W., found the top of the Mississippian at 4,905 feet depth. The second was the Republic Natural Gas Company No. 1 Harsha Estate in sec. 1, T. 28 S., R. 21W., which encountered the Mississippian at 4,962 feet depth.

One of the dry wildcat wells was drilled by the Kingwood Oil Company on the Rose farm in sec. 22, T. 25 S., R. 25 W., to a total depth of 5,815 feet. According to the log furnished by J. D. Davies, based on sample study, the following tops were recorded: Dakota sandstone, 613; Permian redbeds, 885; Blaine gypsum, 1,050; Wellington salt, 2,140 (base, 2,425); Fort Riley limestone, 2,741; Topeka, 3,740; Lansing, 4,250; Mississippian (St. Louis) 4,940; Viola, 5,590; Simpson sandstone, 5,705; and Arbuckle, 5,711 feet. Several drill-stem tests, one in the Lansing, one in the Mississippian, and one in the Arbuckle, failed to show oil or gas.

The second dry wildcat test was drilled by D. R. Lauck on the Warner property in sec. 5, T. 25 S., R. 23 W., to a total depth of 4,869 feet. Important tops according to J. D. Davies, are Lansing 4,022, and Mississippian 4,701 feet depth.

One old well was worked over and found dry on the Carmichael farm in sec. 17, T. 25 S., R. 24 W. Drill-stem tests indicated only mud and salt water.

Data on oil production are given in Table 66.

## FRANKLIN COUNTY

(Map Pl. 1)

**The 1951 production from 8 areas in 2 fields: oil 257,907 barrels including 80,883 barrels from 5 water-flooding projects. Wells drilled in 1951: 150 (estimated).**

*Developments during 1951.*—The total oil production of Franklin County in 1951 was slightly less than in 1950. Most of the drilling was done in connection with water-flooding projects in the eastern part of the county.

A wildcat well that tested the top of the Mississippian and higher rocks in the northwestern part of the county was abandoned as a dry hole in September, 1951. It is the J. J. Lynn No. 1 Heidmer in the SE¼ NE¼ SE¼ sec. 18, T. 16 S., R. 18 E. These tops were recorded: Kansas City, 380, "McLouth sand," 1,451, Mississippian, 1,490, total depth, 1,501 feet.

Data on water-flooding operations in Franklin County are listed in Table 1. Oil production statistics are included in Table 66. Areas that produced oil by primary and secondary methods are shown on Plate 1.

## GOVE COUNTY

(Map Fig. 9)

**The production from 3 new pools; oil 19,983 barrels, gas none reported. Wells drilled in 1951: oil 4, gas none, dry 10, total 14, including 8 wildcats. New pools 3.**

*Developments during 1951.*—Gove County's first oil well was drilled during 1951 by the Cities Service Oil Company on the H. W. Coberly farm in sec. 15, T. 14 S., R. 29 W. It was a maximum well (potential more than 3,000 barrels of oil per day). Additional exploration led to the discovery of two more pools. The three new oil pools are the **Coberly, Gove,** and **Jasper** pools, described in Table 6.

The Coberly pool discovery well was drilled to the Arbuckle dolomite, all porous zones in every formation being carefully tested. The thin limestone in the Marmaton group between the depths of 4,287 and 4,298 seemed to offer the best possibilities for commercial oil production. A drill-stem test between 4,284 and

TABLE 32.—*Dry wildcat tests drilled in Gove County during 1951*

| Company and farm | Location | Depth to top of Heebner, feet | Depth to top of Lans.-K.C., feet | Depth to top of Miss., feet | Total depth, feet |
|---|---|---|---|---|---|
| Musgrove Petro. Corp. & Republic Nat. Gas Co. No. 1 Swart | SW¼ SW¼ NW¼ 12-11-31W | 3,951 | 3,992 | 4,562 | 4,708 |
| *Abel Bros. No. 1 Fee | SW¼ SW¼ SE¼ 30-12-30W | 3,909 | 3,943 | 4,515 | 4,645 |
| Globe Oil & Refg. Co. No. 1 Wolf | NE¼ NE¼ NE¼ 27-12-31W | 3,930 | 3,974 | 4,662 | 4,812 |
| *Musgrove Petroleum Corp. No. 1 Losey | SE¼ SE¼ SW¼ 11-13-30W | 3,818 | 3,841 | 4,434 | 4,730 |
| Republic Natural Gas Co. No. 1 Beesley | SE¼ SE¼ SE¼ 5-14-29W | 3,724 | 3,760 | 4,376 | 4,478 |
| Argo Oil Corp. No. 1 Hockersmith | NW¼ NW¼ NW¼ 19-14-29W | 3,647 | 3,693 | 4,339 | 4,507 |
| Glenn Nye Drlg. Co. et al. No. 1 Lundgren | NW¼ NW¼ NW¼ 29-14-29W | 3,611 | 3,647 | 4,262 | 4,290 |
| R. S. Tomer Oper. Co., Ltd. No. 1 J. F. Fleming | NE¼ NE¼ SW¼ 10-15-30W | 3,630 | 3,670 | 4,329 | 4,483 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

4,313 revealed 400 feet of oil. Only salt water was found in the Mississippian rocks. Viola and Arbuckle rocks were dry. After plugging back to 4,300 feet the well tested 3,000 barrels of oil per day from the Marmaton. During the year, the No. 2 Coberly was completed with a potential of 346 barrels of oil per day in the same section as the discovery well. Two other offset wells drilled by the Cities Service Oil Company were declared dry.

The Jasper pool was discovered by Herndon Drilling et al. on the Jasper farm in sec. 30, T. 15 S., R. 29 W. The potential was 41 barrels of oil per day from the Lansing-Kansas City rocks at 3,670 to 3,673 feet depth.

The third new oil pool, the Gove pool, was discovered by Musgrove Petroleum Corporation on the Teeter farm in sec. 26, T. 13 S., R. 30 W. The well was completed with a 374 barrels of oil per day potential from the Mississippian at a depth of 4,547 to 4,550 feet. Important tops observed by J. D. Davies in his sample study are: Topeka, 3,537; Mississippian, 4,462; Viola, 4,640, and Arbuckle, 4,665 feet.

The eight dry wildcat tests are described in Table 32. The new pools and the dry wildcat tests are shown on Figure 9. Production data are given in Table 66.

## GRAHAM COUNTY

(Map Fig. 5)

**The 1951 production from 26 pools: oil 3,629,030 barrels, gas none. Wells drilled in 1951; oil 95, gas none, dry 109, salt-water disposal 2, total 206 including 38 wildcats. New pools discovered 10, combined 4.**

*Developments during 1951.*—An increase of more than 70 percent in production of oil as compared with 1950 reflects a large increase in drilling activity in Graham County. The 10 new oil pools added in the county during 1951 are the **Crocker, Fargo West, Harmony, Highland, Law, Law South, Millbrook, Shiloh, Smith-Denning West,** and the **Worcester** pools. Three of the new pools produce from the Arbuckle dolomite, one pool produces from the Pennsylvanian basal conglomerate, and all other new pools produce from porous zones in the Lansing-Kansas City sequence. The potentials of the discovery wells ranged from 30 to 1,070 barrels of oil per day. Details regarding the discovery wells are given in Table 6. Before the close of the year the Law and Law South pools were combined.

Other combinations are **Teall, Teall North,** and **Teall Northeast** with the **Cooper** pool.

A Lansing-Kansas City zone from 3,530 to 3,545 feet is a new producing zone in the **Smith-Denning** field when oil was found by the Westgate-Greenland Oil Company No. 2 Denning well in sec. 32, T. 9 S., R. 21 W.

New oil wells added to pools during the year include: the Cooper pool, 41 oil wells and 13 dry holes; the Law pool, 12 oil wells and 7

TABLE 33.—*Dry wildcat tests drilled in Graham County during 1951*

| Company and farm | Location | Surface elevation, feet | Depth to top of Lans.-K.C., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *Wood River Oil & Refg. Co., Inc. No. 1 Billips | SW¼ SW¼ NE¼ 18-6-22W | 2,402 | 3,626 | 3,980 | 4,002 |
| *Herndon Drlg. Co. No. 1 Rogers | SE¼ SE¼ SW¼ 19-6-22W | 2,379 | 3,622 | 3,930 | 3,997 |
| Musgrove Petroleum Corp. No. 1 La Certe | NW¼ NW¼ SW¼ 31-6-22W | 2,379 | 3,621 | 3,959 | 3,990 |
| *Dan Kornfeld & B & R Drlg., Inc. No. 1 R. Kellogg | NE¼ NE¼ NE¼ 18-6-23W | 2,443 | 3,682 | 4,076 | 4,101 |
| Wood River Oil & Refg. Co., Inc. No. 1 Oliver | NW¼ NW¼ SW¼ 24-6-23W | 2,409 | 3,656 | 3,976 | 4,005 |
| *Harry Gore No. 1 Bell | SW¼ SW¼ NW¼ 14-6-24W | 2,458 | 3,707 | 4,179 | 4,223 |
| Empire Drlg. Co. No. 1 C. Johnson | NW¼ NW¼ SE¼ 19-6-25W | 2,598 | 3,683 | 4,105 | 4,159 |
| *Harry Gore No. 1 Cook | NE¼ NE¼ NE¼ 28-6-25W | 2,578 | 3,726 | 4,227 | 4,250 |
| *Herndon Drlg. Co. No. 1 Jeffery | SE¼ SE¼ NW¼ 29-6-25W | 2,588 | 3,735 | 4,253 | 4,353 |
| B & R Drlg., Inc. No. 1 Ridgley | SW¼ SW¼ SW¼ 6-7-21W | 2,238 | 3,480 | 3,751 | 3,810 |
| Delta Petro., Deep Rock Oil Corp., Greekmore Drlg. No. 1 Fabricius | SW¼ SW¼ NW¼ 30-7-21W | 2,201 | 3,429 | 3,736 | 3,845 |
| Dan Kornfeld & B & R Drlg., Inc. No. 1 V. Zohner | SW¼ SW¼ SW¼ 10-7-24W | 2,443 | 3,768 | | 4,321 |
| *The Veeder Sup. & Devel. Co. No. 1 Moore | NE¼ NE¼ NE¼ 15-7-25W | 2,531 | 3,731 | 4,185† | 4,275 |
| A. F. Keating Drlg. Co. No. 1 Kirtley Estate | NE¼ NW¼ SW¼ 4-8-21W | 2,098 | 3,319 | 3,613 | 3,644 |
| Sohio Oil Co. No. 1 Brandt | NW¼ NW¼ NE¼ 20-8-21W | 2,064 | 3,289 | 3,653 | 3,705 |
| Glickman Oil Co. No. 1 Newell | SE¼ SE¼ SE¼ 21-8-21W | 2,110 | 3,315 | 3,636 | 3,686 |
| *Glickman Oil Co. No. 1 Ferland | NE¼ NE¼ SW¼ 23-8-21W | 2,069 | 3,300 | 3,613 | 3,669 |

TABLE 33.—*Dry wildcat tests drilled in Graham County during 1951 (concluded)*

| Company and farm | Location | Surface elevation, feet | Depth to top of Lans.-K.C., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *Nadel & Gussman No. 2 Newell | SW¼ SW¼ SE¼ 30-8-21W | 2,192 | 3,418 | 3,768 | 3,793 |
| *Nadel & Gussman No. 1 Green | SE¼ SE¼ NW¼ 32-8-21W | 2,205 | 3,419 | 3,766 | 3,782 |
| Deep Rock Oil Corp. No. 1 Griffith | SE¼ SE¼ NE¼ 15-8-22W | 2,094 | 3,339 | 3,698 | 3,757 |
| Finston & Co. & Murfin Drlg. Co. No. 1 Kirkpatrick | SE¼ SE¼ SW¼ 26-8-22W | 2,180 | 3,420 | 3,813 | 3,848 |
| *Peel-Hardman No. 1 Kobler | NW¼ NW¼ NW¼ 26-8-24W | 2,356 | 3,614 | 4,217 | 4,256 |
| *Peel-Hardman No. 1 Robinson | NW¼ NW¼ NW¼ 20-9-23W | 2,401 | 3,744 | ..... | 4,368 |
| *Brooks Pierce Drlg. Co. No. 1 Ninemire | NE¼ NE¼ NE¼ 24-9-23W | 2,429 | 3,715 | 4,132 | 4,158 |
| *Paben & Fisher Oil Co. No. 1 Keith | SE¼ SE¼ NW¼ 21-9-24W | 2,491 | 3,721 | 4,533 | 4,613 |
| *M. B. Amer et al. No. 1 Noah "B" | NW¼ NW¼ SE¼ 21-10-21W | 2,178 | 3,465 | 3,820 | 3,855 |
| *Jones, Shelburne & Farmer, Inc. No. 1 Holmes | SW¼ SW¼ NE¼ 28-10-21W | 2,217 | 3,503 | 3,845 | 3,884 |
| Sam Smith & Henderson Oil Co. No. 1 Grecian | SW¼ SW¼ NW¼ 30-10-21W | 2,220 | 3,510 | 3,912 | 3,932 |
| Barnett Drlg., Inc. et al. No. 1 Rice Estate | SW¼ SW¼ SW¼ 3-10-22W | 2,338 | 3,606 | 4,077 | 4,120 |
| *Jones, Shelburne & Farmer, Inc. No. 1 Andreen | NE¼ NE¼ SW¼ 15-10-22W | 2,245 | 3,500 | 3,942 | 3,982 |
| Fred Drlg. Co. No. 1 Lasley | SE¼ SE¼ NW¼ 16-10-22W | 2,331 | 3,606 | 4,007 | 4,045 |
| Harry Gore No. 1 Hoof | NW¼ NW¼ SW¼ 9-10-23W | 2,382 | 3,677 | 4,225 | 4,280 |
| Coop. Refg. Assn. & Northern Ordnance, Inc. No. 1 Griffith | NE¼ NE¼ NE¼ 25-10-23W | 2,364 | 3,653 | 4,143 | 4,180 |
| *Heathman & Co. No. 1 Schultz | SE¼ SE¼ SW¼ 27-10-23W | 2,309 | 3,578 | 4,084 | 4,173 |
| Pyramid Drlg. Co., Inc. No. 1 Kerman | NW¼ NW¼ NW¼ 35-10-23W | 2,303 | 3,573 | 4,085 | 4,102 |
| *Yockey Oil Co. No. 1 Gano | NE¼ NE¼ NW¼ 12-10-24W | 2,459 | 3,808 | 4,510 | 4,547 |
| *Peel-Hardman No. 1 Hanna | NE¼ NE¼ NE¼ 30-10-24W | 2,392 | 3,729 | 4,464 | 4,550 |
| Champlin Refg. Co. No. 1 McGuire | NW¼ NW¼ NW¼ 8-10-25W | 2,531 | 3,800 | 4,526 | 4,561 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

† Depth to the top of the Penn. Basal Conglomerate, feet.

dry holes, and the **Morel** pool, 26 oil wells and 13 dry holes. These three pools received the bulk of the extension wells drilled in the county during the year.

The 38 rank wildcats drilled in Graham County during 1951 were well scattered. Ten of them had shows of oil or gas. The A. F. Keating No. 1 Ridgley well in sec. 6, T. 7 S., R. 21 W., had good shows of oil from 3,651 to 3,656 and 3,664 to 3,668 but declined to water. All the dry wildcat tests were to the Arbuckle and the Musgrove Petroleum Corporation No. 1 Braultin well in sec. 20, T. 8 S., R. 21 W., reached the Pre-Cambrian at 3,689 feet depth.

In the Law pool, the Skelly Oil Company No. 3 C. B. Law well in sec. 34, T. 9 S., R. 23 W. was drilled to a total depth of 4,505 feet for salt-water disposal. The top of the Arbuckle dolomite was found at 4,253 feet, indicating at least 252 feet of Arbuckle dolomite in this part of the county.

The dry wildcat tests are listed in Table 33. The producing pools and the dry wildcats are shown on Figure 5. Production from Graham County is reported in Table 66.

## GRANT COUNTY

(Map Pl. 2)

**The county lies entirely within the Hugoton Gas Area, the production of which is not segregated as to counties. No oil produced. Wells drilled in 1951: oil none, gas 64, storage 1, total 65.**

*Developments during 1951.*—Drilling increased from 35 new gas wells in 1950 to 64 new wells in 1951. The new wells were concentrated in the few drilling sites available in the county. T. 29 S., R. 37 W., previously containing no wells, added 18 new gas wells during the year, most of them rated at more than 20 million cubic feet of gas per day.

The Hugoton Production Company No. 1 Hilderbrand well in sec. 4, T. 30 S., R. 37 W., had the largest potential capacity, more than 38 million cubic feet of gas per day. The average capacity of all the wells drilled during the year in the county is more than 20 million cubic feet per day.

Stanolind Oil and Gas Company drilled a storage well for liquid petroleum in sec. 5, T. 29 S., R. 38 W., to a total depth of 4,601 feet.

Grant County wells are shown on Plate 2. Production, the active area, and producing zones are shown under Hugoton in Table

67. Additional data on the Hugoton Gas Area are given in the chapter on natural gas.

## GRAY COUNTY

Wildcat wells have been drilled in Gray County from time to time but so far no producing pool has been discovered.

*Exploration during 1951.*—The Continental Oil Company drilled a very deep test on the Wade ranch in sec. 3, T. 29 S., R. 28 W. The sample log prepared by J. D. Davies shows the following important tops: Stone Corral anhydrite, 1,640; Wellington shale and salt, 1,940, Herington dolomite, 2,597, Heebner black shale, 4,186, Lansing, 4,295, Ste. Genevieve, 5,143, St. Louis, 5,290, Viola, 6,141, Simpson, 6,250, and Arbuckle, 6,287 feet. The hole was abandoned as a dry hole at a total depth of 6,335 feet, not having shown any signs of oil or gas.

## GREELEY COUNTY

An occasional well has been drilled in Greeley County from time to time, but so far no production has been found in the county.

*Exploration during 1951.*—One deep test was drilled in Greeley County during 1951. The Duncan Drilling Company and C. B. Wiley drilled this test on the Aron Sell ranch in sec. 20, T. 18 S., R. 42 W. The samples, saved for the entire depth and studied by the Kansas Sample Log Service, indicate the following markers: Dakota sandstone, 1,130, Morrison formation, 1,490, Permian redbeds, 1,626, Blaine, 1,910, Stone Coral, 2,570, and Mississippian, 5,135 feet. The test was abandoned as a dry hole at 5,170 feet, having no shows of oil or gas.

TABLE 34.—*Data on pool wells drilled in Greenwood County during 1951**

| Field | Oil wells | Dry holes | Input wells on secondary recovery projects | Water-supply wells on secondary recovery projects | Salt water disposal wells |
|---|---|---|---|---|---|
| Atyeo | .. | 1 | 5 | 1 | .. |
| Beaumont | 3* | .. | .. | .. | .. |
| Blackwell | .. | 1 | .. | .. | .. |
| Browning | 2 | .. | 4 | .. | .. |
| Burkett | 3* | 1* | .. | .. | .. |
| DeMalorie-Souder | 8 | 2 | 4 | .. | .. |

| | | | | | |
|---|---|---|---|---|---|
| Dunaway | 2 | .. | .. | .. | .. |
| Eureka | 5* | 1 | .. | .. | .. |
| Fankhouser | 3 | 2 | 1* | .. | 1 |
| Hamilton | 8 | 1 | .. | .. | .. |
| Honey Creek | .. | 1 | .. | .. | .. |
| Lamont | 5 | 2 | 7 | .. | .. |
| Madison | 2 | .. | 1 | 2 | .. |
| Morris | .. | 1 | .. | .. | .. |
| Polhamus | 6 | .. | 3 | .. | .. |
| Quincy | 1 | 5 | .. | .. | .. |
| Reece | .. | 1 | .. | .. | .. |
| Sallyards | 1 | 1 | 12 | .. | .. |
| Seeley-Wick | 1 | .. | 12 | .. | 1 |
| Severy | .. | 1* | .. | .. | .. |
| Severy North | 1 | .. | .. | .. | .. |
| Teeter | 7 | 3 | 4 | .. | .. |
| Teichgraber | 1 | .. | .. | .. | .. |
| Thrall-Aagard | 16 | 4* | 16* | .. | 4 |
| Tonovay | 1 | .. | .. | .. | .. |
| Tonovay West | .. | 1 | .. | .. | .. |
| Virgil | 21* | 7* | 2 | .. | .. |
| Virgil North | 19 | 1 | .. | .. | .. |
| Wiggins | .. | 2 | .. | .. | .. |
| Willard | 2 | 1 | .. | .. | .. |
| Totals | 118 | 40 | 71 | 3 | 6 |

* Includes 1950 straggler wells.

## GREENWOOD COUNTY

(Map Pl. 1)

**The 1951 production from 55 fields: oil 5,932,510 barrels including 3,799,214 barrels from 47 secondary recovery projects. Wells drilled in 1951: oil 114, dry 43, water injection 65, salt-water disposal 6, water supply 3, total 231, including 7 wildcats.**

*Developments during 1951.*—Data on the seven dry wildcat wells drilled in Greenwood County in 1951 are listed in Table 35. Data on pool wells are listed in Table 34. For several years Greenwood has been the leading county in number of secondary recovery projects and in oil produced by secondary methods. Secondary recovery operations statistics are included in Table 1. Oil production in the various Greenwood County fields is listed in Table 66. Locations of areas that produced oil by primary and secondary methods are shown on Plate 1.

## HAMILTON COUNTY

(Map Pl. 2)

**The county lies partly within the Hugoton Gas Area, the production of which is not segregated as to counties. No oil was produced. Wells drilled in 1951: gas 8, dry 1, total 9.**

TABLE 35.—*Dry wildcat tests drilled in Greenwood County during 1951*

| Company and farm | Location | Depth to top of Mississippian, feet | Total depth, feet |
|---|---|---|---|
| *Louisa Gary No. 1 French | NE¼ SW¼ NW¼ 1-22-12E | 1,825 | 1,861 |
| *Cox & Burns et al. No. 1 Carson | NW¼ SE¼ NW¼ 4-24-11E | 1,990 | 2,449 |
| *Assoc. Resources No. 1 Santier | NW¼ SE¼ NW¼ 1-25-11E | 1,834 | 1,898 |
| *D. E. Epp No. 1 Epp | NE¼ NE¼ NE¼ 4-25-12E | 1,692 | 1,835 |
| *Davis & Ives No. 1 Boyer | SE¼ SE¼ NW¼ 25-26-12E | 1,633 | 1,673 |
| *Parker & McDaniels No. 1 Peoples Natl. Bank | NW¼ NW¼ NE¼ 24-27-10E | 1,556 | 1,612 |
| *Morris & Lester Stryker No. 1 Ross | SW¼ SE¼ SW¼ 11-27-12E | 585† | 1,093 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.
† Depth to top of Kansas City, feet.

*Developments during 1951.*—During 1951, eight new gas wells were added to the Hamilton County part of the Hugoton Gas Area. Previously only five wells in the county were considered as part of the Hugoton producing area. Seven of these eight were drilled in T. 26 S., R.. 39 W. The productive capacity of the new wells ranges from less than 1 million to as high as 18.5 million cubic feet per day. The average capacity of the new wells is 12.2 million cubic feet of gas per day.

One dry hole was completed in sec. 8, T. 26 S., R. 39 W. during the year by the United Producing Company on the G. P. Powers farm at a total depth of 2,631 feet. The Winfield zone was shot with 60 quarts of nitroglycerine but found no production.

The new Hamilton County wells are shown on Plate 2. Production, the active area, and producing zones are shown under Hugoton in Table 67, and additional data on the Hugoton Gas Area are given in the chapter on natural gas.

## HARPER COUNTY

**The 1951 production from 2 pools: oil 9,154 barrels, gas 71,199 thousand cubic feet. Wells drilled in 1951: oil 1.**

*Developments during 1951.*—Only one well was drilled in Harper County during 1951. The Beardmore Drilling Company and

Sutton completed this well on the Muir lease in sec. 12, T. 31 S., R. 9 W., finding 25 barrels of oil per day at 4,427 to 4,448 feet in the upper part of the Mississippian rocks. A drill-stem test from 4,419 to 4,423 feet indicated 250,000 cubic feet of gas and 18 feet of gas-cut mud. The well was an extension of the **Grabs** pool.

Production during 1951 increased considerably, especially since only one well was added to those producing during 1950. Oil production data are given in Table 66, and gas production data in Table 67.

## HARVEY COUNTY

(Map Fig. 6)

**The 1951 production from 8 pools: oil 150,410 barrels, gas 775,777 thousand cubic feet. Wells drilled in 1951: oil 8, gas 1, dry 14, total 23, including 8 dry wildcats. New pools discovered 1.**

*Developments during 1951.*—Oil production in Harvey County dropped almost 19 percent from last year and gas production decreased a little less than half. The wildcat test which opened the **Wall** pool was drilled by the Drillers Production Company on the Wall farm in sec. 25, T. 22 S., R. 3 W., to a total depth of 3,713 feet. Production is obtained from a porous zone in the Mississippian rocks between the depths of 3,150 and 3,167 feet. The official test

TABLE 36.—*Dry wildcat tests drilled in Harvey County during 1951*

| Company and farm | Location | Surface elevation, feet | Depth to top of Lans.-K.C., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *Alpine Oil & Royalty Co., Inc. No. 1 Greeley | SW¼ SE¼ NW¼ 21-22-1E | 1,480 | 2,971† | 3,575 | 3,637 |
| *Aladdin Petro. Corp. No. 1 Windsor | SW¼ NW¼ NE¼ 1-22-2E | 1,461 | 2,035 | 3,212 | 3,265 |
| Chester L. Carlock No. 1 Walton | SE¼ NE¼ NE¼ 19-23-2E | 1,498 | 2,306 | 3,552 | 3,652 |
| *Huskey Oil Co. No. 1 Balzer | SW¼ SE¼ SW¼ 26-23-2E | 1,417 | 2,122 | 3,320 | 3,331 |
| *Donald T. Ingling, et al. No. 1 Whiteman Est. | SW¼ SW¼ SE¼ 35-24-1E | 1,458 | 2,350 | 3,044† | 3,550 |
| *Donald T. Ingling No. 1 Hill | NW¼ NE¼ NE¼ 23-24-2E | 1,376 | 2,140 | 3,369 | 3,378 |
| *Chas. Carlock No. 1 Bunnell | SE¼ SW¼ SW¼ 33-24-2E | 1,401 | 2,210 | 3,452 | 3,475 |
| *Francis Oil & Gas Co. No. 1 Regier | SW¼ SW¼ SW¼ 12-22-3W | 1,454 | 3,155† | 3,794 | 3,820 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.
† Depth to the top of the Mississippian, feet.

showed 2,900,000 cubic feet of gas. The new pool is described in Table 6.

All eight new oil wells drilled during the year were added to the **Burrton** pool. The dry pool wells added this year were: Burrton four, **Sperling** one, and **Graber** one.

All eight dry wildcat tests penetrated the Arbuckle and none had shows of oil or gas. The C. L .Carlock No. 1 Walton well drilled a few miles east of Newton in sec. 19, T. 23 S., R. 2 E., was assigned the following tops by available sources: Lansing, 2,306; Mississippian, 2,991; "Hunton," 3,352; Viola, 3,444; Simpson sandstone, 3,488; and Arbuckle, 3,552; total depth was 3,652 feet.

Table 36 gives data on dry wildcat tests. Figure 6 is a map of Harvey County showing the producing areas and wildcat tests. Oil production data are listed in Table 66, and gas production data in Table 67.

## HASKELL COUNTY

**(Map Pl. 2)**

**The 1951 production, all from the Hugoton Gas Area, is not segregated as to counties. Well drilled in 1951: oil none, gas 29, dry 2, total 31.**

*Developments during 1951.*—Several thousand acres of potential gas-producing area were added to the Hugoton Gas Area with the successful completion of several new gas wells east of the town of Sublette. Considering the number of dry holes drilled in previous years in Rs. 32 and 33 W., the assumption that the edge of the Hugoton Gas area is highly serrated seems probable. The two dry holes drilled during 1951 were both in R. 32 W., while all but one of the new gas wells were drilled either in R. 32 or R. 33 W. The one well completed outside of this area is the Cities Service Oil Company No. 1 Davis "B" in sec. 7, T. 27 S., R. 31 W., tested with an open flow capacity of almost 4 million cubic feet per day.

The 29 new gas wells range in capacity from less than 1 to more than 21 million cubic feet. The average capacity of these new wells is 8.9 million cubic feet. Haskell County wells are shown on Plate 2. Production, the active area, and producing zones are shown under Hugoton in Table 67, and additional data on the Hugoton Gas Area are given in the chapter on natural gas.

## HODGEMAN COUNTY

(Map Fig. 11)

**The 1951 production from 2 pools; oil 65,883 barrels, gas none. Wells drilled in 1951; oil 5, gas none, dry 19, total 24 including 15 wildcats. New pools discovered 1.**

*Developments during 1951.*—The first oil field in Hodgeman County, the **Jetmore**, was found during 1950. Increased drilling activity during 1951 resulted in the finding of the county's second oil field, the **Purdyville**, by the I. W. Siegel No. 1 Schraeder well in sec. 3, T. 24 S., R. 24 W. Initial production from the field came from the Warsaw formation at depths of from 4,663 to 4,683 feet. The well

TABLE 37.—*Dry wildcat tests drilled in Hodgeman County during 1951*

| Company and farm | Location | Surface elevation, feet | Depth to top of Lans.-K.C., feet | Depth to top of Mississippian, feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|---|
| *Kingwood Oil Co. No. 1 Folkerts | SE¼ SE¼ SE¼ 21-21-23W | 2,352 | 3,916 | 4,529 | ..... | 4,564 |
| *Kingwood Oil Co. No. 1 Baumberger | NW¼ NE¼ NW¼ 27-21-23W | 2,343 | 3,914 | 4,518 | 4,995 | 5,006 |
| *Jones, Shelburne & Farmer, Inc. No. 1 Goebel | SW¼ SW¼ SW¼ 31-21-23W | 2,409 | 4,038 | 4,665 | ..... | 4,725 |
| *Metropolitan Petro. Assoc. et al. No. 1 M. O'Brien | C NW¼ NE¼ 18-21-25W | 2,410 | 3,869 | 4,455 | 4,883 | 4,935 |
| D. R. Lauck Oil Co., Inc. No. 1 Sinclair | NW¼ NE¼ SE¼ 30-21-25W | 2,428 | 3,823 | 4,411 | ..... | 5,520 |
| *B & R Drlg., Inc. No. 1 Sinclair | SW¼ SW¼ SW¼ 23-21-26W | 2,437 | 3,861 | 4,486 | 5,015 | 4,040 |
| *Harry Koplin et al. No. 1 Housman | NE¼ NE¼ SW¼ 1-23-22W | 2,281 | 3,930 | 4,537 | ..... | 4,580 |
| *I. W. Siegel et al. No. 1 W. O. Miner | SW¼ SW¼ NW¼ 9-23-22W | 2,261 | 3,861 | 4,494 | ..... | 4,581 |
| Flynn Oil Co. No. 1 Osborne | SE¼ SE¼ SW¼ 14-23-22W | 2,202 | 3,868 | 4,483 | ..... | 4,560 |
| Miners Oil Co. No. 1 Miner | SW¼ SW¼ NE¼ 24-23-24W | 2,430 | 4,090 | 4,751 | ..... | 4,810 |
| *D. R. Lauck Oil Co., Inc. No. 1 Charles | NW¼ SE¼ SE¼ 24-23-25W | 2,490 | 4,072 | 4,720 | ..... | 4,858 |
| *Herbert Gordon No. 1 Andrew | SE¼ SE¼ NW¼ 25-23-25W | 2,495 | 4,070 | 4,726 | ..... | 4,790 |
| Calkan Petro. Co. No. 1 Hall | NW¼ NW¼ NW¼ 9-24-22W | 2,310 | 4,021 | 4,665 | 5,223 | 5,280 |
| *S. A. Berwick Drlg. et al. No. 1 Jones | NW¼ SE¼ NW¼ 14-24-24W | 2,477 | 4,121 | 4,805 | ..... | 4,871 |
| *B & R Drlg., Inc. No. 1 Doll | NE¼ NE¼ NE¼ 21-24-24W | 2,499 | 4,123 | 4,783 | ..... | 4,915 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

was rated as having a potential capacity of 1,549 barrels of oil per day. Before the close of 1951, five additional oil wells were completed in the pool, all producing oil from the Warsaw formation except the No. 4 Schraeder well, in which production of 2,328 barrels per day was found at depths of 4,651 to 4,660 feet in the "conglomerate" above the Mississippian.

The dry wildcat tests drilled during the year are described in Table 37. Only two of them had shows of oil or gas. The new oil pool is described in the list of new pools (Table 6). Oil production data on Hodgeman County are given in Table 66. The producing areas and dry wildcat tests are shown on Figure 11.

## JEFFERSON COUNTY

(Map Pl. 1)

**The 1951 production from 2 fields: oil 13,436 barrels, gas 391 thousand cubic feet. Wells drilled in 1951: dry 1 (wildcat).**

*Developments during 1951.*—One dry wildcat well, the Miners Oil Co. No. 1 C. A. Long in the NE¼ NE¼ NW¼ sec. 27, T. 10 S., R. 19 E., was drilled in Jefferson County in 1951. These tops were reported: "McLouth sand," 1,592, Mississippian, 1,644; Kinderhookian, 2,006; "Hunton," 2,058; Sylvan, 2,227; and Viola, 2,242 feet. The well was abandoned in the Viola at 2,270 feet.

Oil production in the McLouth area was much less than in 1950. Gas production was from the McLouth area, but the producing well was reported abandoned during the year. The gas field is being made into an underground gas storage reservoir.

Oil production statistics in Jefferson County are listed in Table 66 and gas in Table 67. The location of the well drilled in 1951 is shown on Plate 1.

## JEWELL COUNTY

Wildcat wells have been drilled from time to time in Jewell County, but so far no producing pool has been found.

*Exploration during 1951.*—During 1951, one wildcat test was drilled by Livermore on the J. Froehreich farm in sec. 30, T. 5 S., R. 10 W. According to the scout records the following tops were reported: Heebner black shale, 2,540; Toronto limestone, 2,564; Lansing limestone, 2,619; Mississippian chert, 3,247; "Hunton" limestone, 3,443; Simpson green shale, 3,696; and Arbuckle dolo-

mite, 3,776 feet. A drill-stem test taken at 3,692 to 3,708 feet indicated neither oil nor gas. The hole was abandoned as a dry hole at a depth of 3,800 feet.

## JOHNSON COUNTY

**The 1951 production: oil none reported, gas 34,386 thousand cubic feet.**

*Developments during 1951.*—A few shallow wells were drilled during the year; and a small amount of oil was produced in the old **Dallas** field in sec. 13, T. 13 S., R. 24 E., where drilling activity that started late in 1950 was continued into 1951. The reported gas production was from the **Gardner** field in the southwest part of the county (Table 67).

## KEARNY COUNTY

(Map Pl. 2)

**The 1951 production from 1 pool: oil 29,249 barrels, gas—Hugoton Gas Area production not segregated as to counties. Wells drilled in 1951: oil none, gas 55, dry none.**

*Developments during 1951.*—Kearny County is at the north end of the large Hugoton Gas Area, about 16 townships lying within the productive part. During 1951, 55 new gas wells were added, 5 more than were completed during 1950. The boundary of the producing area was extended by the successful completion of two wells, one in sec. 21, T. 23 S., R. 37 W., and one in sec. 13, T. 22 S., R. 36 W. These new wells of about average capacity increased the producing area by about 3,000 acres. While the average capacity of the new wells is less than 8 million cubic feet per day after acidization, several wells yield more than 25 million cubic feet per day. During the year no new wells were added to the **Patterson** oil pool; annual production increased modestly.

The Kearny County wells are shown on Plate 2. Production, the active area, and producing zones are shown under Hugoton in Table 67, and additional data on the Hugoton Gas Area are given in the chapter on natural gas. Oil production is listed in Table 66.

## KINGMAN COUNTY

(Map Fig. 14)

**The 1951 production from 9 pools: oil 536,646 barrels, including production from 1 secondary recovery project, gas 846,058 thou-**

**sand cubic feet (estimated). Wells drilled in 1951: oil 52, gas 2, dry 38, total 92, including 10 wildcats. New pools discovered 4, combined 1.**

*Developments during 1951.*—Oil production during 1951 was almost 4 times that of 1950 in Kingman County. The increase in wildcatting (almost three times as much) is reflected in the four new oil pools discovered during the year. These new pools are the **Dresden, Evan Mound, Lansdowne North,** and the **Spivey.** The **Lansdowne** pool was combined with **Broadway** during the year.

The Lansdowne North pool was discovered by the Laura Jane Oil Company No. 1 Seward Estate well in sec. 4, T. 28 S., R. 5 W., as a 148-barrel well from the dolomites near the top of Mississippian rocks. The second pool, the Dresden, in the western part of the county, was opened by the Lion Oil Company No. 2 McMichael well in which oil was found at depths of 4,270 to 4,278 feet in the Viola dolomites. By the end of the year 22 oil wells were completed in this new pool, including 2 old wells worked over. In July the Evan Mound pool was discovered by the Bankoff Oil Company No.

TABLE 38.—*Dry wildcat tests drilled in Kingman County during 1951*

| Company and farm | Location | Surface elevation, feet | Depth to top of Lans.-K.C., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *Virginia Drlg. Co. et al. No. 1 Hamman | NW¼ NW¼ SW¼ 2-27-5W | 1,456 | 2,944 | 4,223 | 4,275 |
| *Morrison Drlg. Co. No. 1 Gorman | SW¼ SW¼ NE¼ 2-27-7W | 1,541 | 3,096 | 4,255 | 4,310 |
| Wentworth & Son et al. No. 1 McClure | NW¼ NE¼ NW¼ 31-27-8W | 1,623 | 3,374 | 4,487 | 4,543 |
| *H. A. Isern Drlg Co. et al. No. 1 Padgett | NW¼ NW¼ SW¼ 11-28-6W | 1,512 | 3,086 | 3,868† | 3,965 |
| *Beardmore Drlg. & Aurora Gasoline Co. No. 1 Sykes | SW¼ SW¼ NE¼ 26-28-6W | 1,442 | 3,076 | 3,939† | 4,000 |
| Champlin Refining Co. No. 1 Coleman | Cen. W½ NE¼ NE¼ 1-28-8W | 1,563 | 3,262 | 4,446 | 4,478 |
| Huber & Pabco Drlg. Co. No. 1 Sisters of Charity | SW¼ SW¼ NW¼ 9-28-9W | 1,605 | 3,440 | 4,442 | 4,489 |
| *Earl F. Wakefield No. 1 Moorehouse | SE¼ SE¼ SE¼ 6-29-5W | 1,408 | 3,052 | 4,389 | 4,439 |
| *Pabco Drlg. Inc. et al. No. 1 Gosch | SW¼ SW¼ NE¼ 15-29-5W | 1,460 | ..... | 3,980† | 4,450 |
| *Earl F. Wakefield No. 1 Bentley | SE¼ SE¼ SW¼ 24-29-6W | 1,511 | 4,067† | 4,075 | 4,625 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

† Depth to the top of the Mississippian, feet.

1 Dieffenbacher well in sec. 22, T. 27 S., R. 5 W., in the northwestern part of the county. The new pool was tested at 28 barrels of oil per day from the Mississippian at depths of 3,800 to 3,819 feet. The fourth new oil pool is the Spivey, discovered by the Stanolind Oil and Gas Company No. 1 Boyle well in sec. 23, T. 30 S., R. 8 W. The oil occurs in the Mississippian rocks between the depths of 4,205 to 4,260 feet. This new pool is in the south-central part of the county.

During the year, the Mississippian rocks yielded oil in the new Dresden pool in the Lion Oil Company No. 1 Smalley well in sec. 24, T. 27 S., R. 10 W., but the water ratio increased and the well was finally abandoned.

The major extensions to the older oil pools in the county were concentrated in the Broadway, which added 17 new oil wells, 3 dry holes, and had one temporarily abandoned; and in the **Dewey** pool which added 8 new oil wells, its first gas well, and 7 dry holes.

During 1951, 10 dry wildcat tests (Table 38) were reported. Six of the wildcats reported shows of oil or gas and only three did not drill to the Arbuckle.

Locations of producing areas and dry wildcat tests are shown on Figure 14. Oil production data are given in Table 66 and gas production in Table 67. Information on new pools is given in Table 6. Data on the one secondary recovery project, which extends across the western county line into Pratt County, in the **Cunningham** field are given in Table 1.

## KIOWA COUNTY

**The 1951 production from 1 pool: oil 7,729 barrels, gas 35,451 thousand cubic feet (miscellaneous). Wells drilled in 1951: 2 wildcats.**

*Developments during 1951.*—Two wildcat tests were drilled in Kiowa County during 1951 in an attempt to find more oil. One of these, the Travis No. 1 Millar well in sec. 4, T. 30 S., R. 16 W., according to the sample log made by J. D. Davies, indicated the following formations: Heebner black shale, 3,787; and Lansing limestone, 4,004; Mississippian (Osagian), 4,539; St. Joe (Gilmore City), 4,640; Misener sandstone, 4,646; Viola dolomitic limestones and dolomites, 4,670; Simpson green shale and sandstone, 4,838; and Arbuckle dolomite, 4,942 feet. The elevation of this test is 1,850 feet above sea level. The other wildcat test was drilled by

Hanley & Bird on the Parkin lease in sec. 5, T. 30 S., R. 18 W. In this test the Lansing was found at 4,376, "basal conglomerate" at 4,982, and Mississippian at 5,009 feet. Gas was found in drilling at 4,920 to 4,950 in the Marmaton limestones, in the top of the Mississippian between 5,010 and 5,030, and between 5,030 and 5,055 feet but the amount of gas was too small to make a commercial well.

Oil production is reported in Table 66, and gas production in Table 67.

## LABETTE COUNTY

(Map Pl. 1)

**The 1951 oil production from 4 fields: oil 4,556 barrels, gas 21,876 thousand cubic feet. Wells drilled in 1951: 50 (estimated).**

*Developments during 1951.*—The 1951 oil production in Labette County was considerably less than in 1950. The gas which also declined somewhat is reported to have been produced from 13 commercial wells. Data on oil production in the county are listed in Table 66 and gas production in Table 67. Locations of areas that produced oil in 1951 are shown on Plate 1. No important wildcat wells were reported during the year.

## LANE COUNTY

Wildcat tests have been drilled in Lane County from time to time but so far no oil or gas field has been found.

*Exploration during 1951.*—During 1951 two rank wildcat tests were drilled and one old well was redrilled in Lane County. Electric logs, which are available for all these wells, were studied by William McHugh who furnished the following data. The Kirk and Murfin wildcat on the Nimmocks lease is in part a redrilling of a well on the Nimmocks farm in sec. 16, T. 16 S., R. 28 W., originally tested by Trigg in 1937. From an elevation of 2,661 feet, the new test found the base of the Ft. Hays chalk at 280, Greenhorn limestone at 511, Dakota sandstone at 642, base of the Cretaceous at 1,250, Blaine gypsum at 1,502, Stone Corral anhydrite at 2,039, Herington dolomite at 2,648, base of the Americus limestone at 3,250, Tarkio at 3,435, Howard limestone at 3,600, Heebner black shale at 3,828, Lansing at 3,867, Marmaton at 4,212, Cherokee at 4,361, Mississippian (Spergen) at 4,485, Osagian rocks at 4,610, St. Joe limestone

(Gilmore City) at 4,720, and Ordovician (Arbuckle) dolomite at 4,818 feet. In the original well the Arbuckle was penetrated from 4,818 to the total depth at 5,121 feet.

One of the two wildcats is the Herndon Drilling Company No. 1 Eitel well in sec. 18, T. 18 S., T. 30 W., which found the following formations at the depths indicated (according to McHugh): base of the Ft. Hays chalk, 428; Dakota sandstone, 830; Stone Corral anhydrite, 2,228; Herington dolomite, 2,772; Ft. Riley limestone, 2,900; Topeka limestone, 3,732; Heebner black shale, 3,936; Lansing limestone, 3,974; Marmaton, 4,382; Cherokee, 4,522; and top of the Mississippian, 4,625 feet. Total depth is 4,720 feet. No shows of oil or of gas were found.

Three miles southeast of this test, the Continental Oil Company drilled a hole on the Armantrout farm in sec. 21, T. 18 S., R. 30 W. The electric log tops are as follows: Stone Corral anhydrite, 2,183; Herington, 2,737; Ft. Riley limestone, 2,880; base Americus limestone, 3,340; Tarkio limestone, 3,512; Topeka limestone, 3,700; Heebner shale, 3,902; Lansing, 3,945; Marmaton, 4,352; Cherokee, 4,485, Mississippian limestones, 4,564; Viola cherty dolomites, 5,024; and Arbuckle dolomite, 5,120 feet. The total depth is 5,127 feet. There were no shows.

## LEAVENWORTH COUNTY

(Map Pl. 1)

**The 1951 production from 3 fields: oil 11,220 barrels, gas 23,514 thousand cubic feet.**

*Developments during 1951.*—During the year oil was produced in the **Bankers Life** and **Ackerland** fields. Gas was produced in the **Roberts-Maywood** field. No important drilling was reported.

Oil production for Leavenworth County is listed in Table 66, and gas production in Table 67.

## LINN COUNTY

(Map Pl. 1)

**The 1951 production: oil from 11 areas in 3 fields: 83,429 barrels (all from 4 secondary recovery operations). Gas reported 2,000 thousand cubic feet from 4 wells.**

*Developments during 1951.*—Oil production in Linn County showed a decided increase over the 1950 production. This is be-

TABLE 39.—*Data on pool wells drilled in Lyon County during 1951*

| Field | Oil wells | Dry holes | Input wells on water-flood projects |
|---|---|---|---|
| Bushong | .. | 1 | .. |
| Fankhouser | 2 | 3 | .. |
| Ritchey-Moore | .. | 1 | .. |
| Rock Creek | 1 | 1 | .. |
| Totals | 3 | 6 | .. |

cause of stepped-up secondary recovery operations. Four commercial gas wells in the **Centerville** area from which 2,000 thousand cubic feet of gas was reported were abandoned in July.

Oil production in the various Linn County areas is listed in Table 66 and gas production in Table 67.

## LYON COUNTY

(Map Pl. 1)

**The 1951 production from 4 fields: oil 286,790 barrels including 249,258 barrels from 3 secondary recovery projects. Wells reported drilled in 1951: oil 3, dry 12, total 15 including 6 wildcats.**

*Developments during 1951.*—Data on the six dry wildcat wells drilled in Lyon County in 1951 are listed in Table 40. Data on pool wells are listed in Table 39.

Oil production statistics in Lyon County during 1951 are included in Table 66. Data on water-flood operations are listed in Table 1. Areas that produced oil by primary and secondary methods are shown on Plate 1.

## McPHERSON COUNTY

(Map Fig. 6)

**The 1951 production from 32 pools: oil 3,326,246 barrels including 372,803 barrels from 2 secondary recovery projects, gas 131,205 thousand cubic feet. Wells drilled during 1951: oil 11, gas 2, dry 25, total 38 including 6 wildcats. New pools discovered 1.**

*Developments during 1951.*—Production of oil in McPherson County declined a little more than 4 percent during the year, while drilling activity declined about 40 percent when compared with 1950. One new gas pool, the **Graber North**, was discovered by the Aladdin Petroleum Corporation on the Goering farm in sec. 4, T. 21 S., R. 1 W. The test was drilled to the Arbuckle, which was found

TABLE 40.—*Dry wildcat tests drilled in Lyon County during 1951*

| Company and farm | Location | Surface elevation, feet | Depth to top of Lansing, feet | Depth to top of Mississippian, feet | Depth to top of "Hunton," feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|---|---|
| *Carter Oil Co. No. 1 Davidson | NE¼ NE¼ SE¼ 29-15-11E | 1,507 | 1,553 | 2,584 | 3,096 | 3,384 | 3,470 |
| *Merton M. Bulla No. 1 Richards | NE¼ NE¼SE¼ 6-16-10E | 1,351 | 1,495 | 2,500 | 2,976 | 3,087† | 3,234 |
| Wood Oil & Gas Co. No. 1 Weller | SW¼ SW¼ NE¼ 11-17-10E | 1,318 | 1,388 | 2,395 | 2,928 | 3,155 | 3,205 |
| Wood Oil & Gas Co. No. 1 Proehl | SE¼ NE¼ NW¼ 16-17-10E | 1,305 | 1,378 | 2,414 | 2,930 | 3,143 | 3,190 |
| *Lance Hill et al. No. 2 Redeker | NE¼ NE¼ NE¼ 17-20-12E | ..... | 1,274 | ..... | ..... | ..... | 1,275 |
| *Armstrong Drlg. Co. No. 1 Klumpy | NE¼ NE¼ NE¼ 26-21-11E | ..... | ..... | 2,015 | ..... | ..... | 2,055 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.
† Depth to the top of the Viola, feet.

at 3,539 feet. Drill-stem tests taken in the Lansing limestone, at three levels in the Mississippian, in the Viola dolomite, and in the Simpson sand were not favorable. The hole was then plugged back and perforated at 2,955 to 2,959 and also 2,965 to 2,978 feet. After acidization, the Mississippian rocks at these levels were assigned a potential of 2,155,000 cubic feet of gas per day.

During the year a secondary recovery project was started by the Barbara Oil Company in sec. 6, 7, and 8, T. 19 S., R. 1 W., who intended to flood the Mississippian rocks at 2,980 feet depth.

Extensions to existing pools took place during the year especially in the oil pools in the northeastern and eastern part of the county. Older pools which had additions of new oil wells during the year are: **Battle Hill** 1, **Georob** 1, **Gypsum Creek** 1, **Lindsborg** 1, **Maxwell** 1, **McPherson** 1, **Paden South** 2, **Ritz-Canton** 2, and **Roxbury Southeast** 1.

Three of the six dry wildcat tests had shows of oil or gas and two were not drilled to the Arbuckle. The Continental Oil Company No. 1 Mattson well in sec. 8, T. 14 S., R. 4 W., had good prospects but the water ratio was too great when perforations were made from 3,608 to 3,620 feet depth.

Oil production was reported for the first time from the **Coons** field, in the Coons "B" well in sec. 13, T. 19 S., R. 1 W. Oil production data on McPherson County are given in Table 66, and gas in Table 67. Locations of producing areas and dry wildcat wells are

TABLE 41.—*Dry wildcat tests drilled in McPherson County during 1951*

| Company and farm | Location | Surface elevation, feet | Depth to top of Lans.-K.C., feet | Depth to top of Mississippian, feet | Depth to top of Arbuckle, feet | Total depth feet |
|---|---|---|---|---|---|---|
| Continental Oil Co. No. 1 Mattson | NE¼ NE¼ NE¼ 8-17-4W | 1,494 | 2,470 | 3,385 | 3,792 | 3,840 |
| *Musgrove Petro. Corp. No. 1 Larson | NW¼ NW¼ NW¼ 20-18-3W | 1,444 | 2,390 | 3,019 | 3,659 | 3,682 |
| *Aladdin Petro. Corp. No. 1 Johnson | SW¼ SE¼ SW¼ 20-19-2W | 1,513 | 2,318 | 3,032 | 3,596 | 3,605 |
| R. E. Hartman No. 1 John | SW¼ SW¼ NE¼ 29-20-1W | 1,536 | 2,332 | 2,943 | 3,566 | 3,578 |
| *Continental Oil Co. No. 1 Stutzman | SW¼ SW¼ SE¼ 1-20-5W | 1,561 | 2,740 | 3,394 | ..... | 3,476 |
| *B & R Drlg., Inc. No. 1 Rupp | SW¼ SW¼ NE¼ 12-21-2W | 1,502 | ..... | 2,972 | ..... | 3,023 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

shown on Figure 6. Data on dry wildcats are listed in Table 41. Information on the new gas pool is given in Table 6, and data on the secondary recovery projects are given in Table 1.

## MARION COUNTY

(Map Pl. 1)

**The 1951 production from 15 fields: oil 600,088 barrels, gas 122,293 thousand cubic feet. Wells drilled in 1951: oil 28, gas 3, dry 31, salt-water disposal 1, total 63 including 8 wildcats.**

TABLE 42.—*Data on pool wells drilled in Marion County during 1951*

| Field | Oil wells | Dry holes | Salt water disposal wells |
|---|---|---|---|
| Antelope | 1 | 1 | .. |
| Antelope North | .. | 1 | .. |
| Cedar Creek | .. | 1 | .. |
| Covert-Sellers | 19 | 6 | 1 |
| Elbing | .. | 1 | .. |
| Florence | .. | 2 | .. |
| Lost Springs | 4 | 2 | .. |
| Lost Springs South | .. | 1 | .. |
| Lost Springs Southeast | .. | 1 | .. |
| Peabody | .. | 3 | .. |
| Propp | 3 gas | 3 | .. |
| Wenger | 4 | 1 | .. |
| Totals | 31 | 23 | 1 |

TABLE 43.—*Dry wildcat tests drilled in Marion County during 1951*

| ompany and farm | Location | Depth to top of Lansing, feet | Depth to top of Mississippian, feet | Depth to top of Viola, feet | Depth to top of Simpson, feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|---|---|
| Crest Petro., Inc. No. 1 Turner | SW¼ SW¼ NW¼ 34-19-3E | 1,814 | 2,365 | 2,680 | 2,732 | 2,815 | 2,833 |
| Derby Oil Co. No. 1 Boettchen | NE¼ NW¼ SW¼ 11-19-4E | 1,753 | 2,296 | ..... | ..... | ..... | 2,370 |
| Donald T. Ingling et al. No. 1 Heerey | NW¼ NW¼ NW¼ 29-20-3E | 1,943 | 2,494 | 2,846 | 2,894 | ..... | 2,935 |
| J. H. Wagner et al. No. 1 Johnsmeyer | SE¼ SE¼ NE¼ 17-20-4E | ..... | 2,225 | 2,516 | ..... | ..... | 2,524 |
| Donald T. Ingling et al. No. 1 Klassen | SW¼ NW¼ SW¼ 18-21-1E | 2,330 | 2,966 | 3,484 | 3,506 | ..... | 3,524 |
| Donald T. Ingling et al. No. 1 Potter | SW¼ SW¼ SE¼ 3-22-3E | 1,953 | 2,445 | 2,895 | 2,925 | ..... | 2,990 |
| Aladdin Petro. Corp. No. 1 Reigle | NW¼ NE¼ SW¼ 12-22-3E | 1,917 | 2,459 | 2,791 | 2,835 | 2,906 | 2,950 |
| Aladdin Petro. Corp. No. 1 Fern | NW¼ NE¼ NW¼ 36-22-3E | 1,944 | 2,551 | 2,885 | 2,958 | 3,030 | 3,058 |

No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

*Developments during 1951.*—Data on the eight wildcat wells drilled in Marion County in 1951 are listed in Table 43. Table 42 contains data on pool wells in the county that were drilled during the year. The Warren R. Winne No. 1 W. H. Clark, NE¼ NW¼ SE¼ sec. 15, T. 22 S., R. 4 E., is a 1950 straggler well in the **Peabody** field. It was abandoned as a dry hole in December 1950 at a depth of 2,880 feet. These tops were reported: Mississippian limestone, 2,398; Viola, 2,540; Simpson, 2,648; and Arbuckle, 2,706 feet.

Production statistics in the various oil fields in Marion County are shown in Table 66. Gas production is listed in Table 67. Locations of areas that produced oil in Marion County in 1951 are shown on Plate 1. Oil production in the county was slightly higher than in 1950.

## MARSHALL COUNTY

(Map Pl. 1)

Wildcat wells have been drilled from time to time in Marshall County, but so far no producing pool has been discovered.

*Exploration during 1951.*—Five dry wildcat wells were drilled in Marshall County during 1951. Data on these are listed in Table 44. According to Geological Survey records 16 wells had been drilled previously in the county. Locations of the wells drilled in 1951 are shown on Plate 1.

TABLE 44.—*Dry wildcat tests drilled in Marshall County during 1951*

| Company and farm | Location | Surface elevation, feet | Depth to top of Lansing, feet | Depth to top of "Hunton," feet | Depth to top of Viola, feet | Total depth feet |
|---|---|---|---|---|---|---|
| *H. Droge et al. No. 1 Suggett | NW¼ SW¼ NW¼ 34-2-8E | 1,325 | 1,040? | ..... | ..... | 2,373 |
| *Falcon Seaboard Drlg. Co. No. 1 Randel | NW¼ NE¼ SW¼ 22-3-7E | 1,309 | 1,150 | 1,516 | 1,872 | 2,322 |
| *Ohio Oil Co. No. 1 Henry Osterkamp | SW¼ SW¼ NE¼ 27-5-6E | 1,370 | 1,212 | 1,674 | 2,235 | 2,565 |
| *Falcon Seaboard Drlg. Co. No. 1 Blaney | NE¼ SW¼ SW¼ 3-5-7E | 1,267 | 1,171 | 1,531 | 2,113 | 2,571 |
| Ohio Oil Co. No. 1 W. J. Kratochuil | SE¼ SE¼ SW¼ 30-5-7E | 1,407 | 1,232 | 1,676 | 2,199 | 2,526 |

## MEADE COUNTY

(Map Fig. 13)

**The 1951 production from 4 pools: oil 38,254 barrels, gas 15,291 thousand cubic feet. Wells drilled in 1951: oil 7, gas 3, dry 6, total 16 including 3 wildcats. New pools discovered 1.**

*Developments during 1951.*—The Columbian Fuel Corporation opened the **Novinger** pool on the Novinger lease in sec. 26, T. 33 S., R. 30 W., finding oil in the Mississippian rocks at depths of 5,803 to 5,817 feet where a daily potential of 66 barrels was established. Later the hole was plugged back to Marmaton rocks and bomb potential of 1,675 barrels of oil per day was established at 5,270 to 5,290 feet. Before the close of the year, the new Novinger pool had six producing oil wells, including the discovery well. The sample log of the discovery well prepared by J. D. Davies shows the following data: Stone Corral, 1,520; Wellington salt, 2,160; Florence chert, 2,950; Lansing limestone, 4,575; and Mississippian, 5,790 feet. Chesterian rocks (Mississippian) were more than 300 feet thick. The well ended at 6,637 feet total depth apparently still in the Mississippian rocks.

The **McKinney** gas pool, discovered in 1950, added three new gas wells, one producing some distillate oil. The gas production is mostly from Chesterian limestone in the upper part of the Mississippian rocks. In the **Adams Ranch East** pool, the Columbian Fuel Corporation No. 1 A. W. Adams "D" well in sec. 25, T. 34 S., R. 30 W. was rated at 3,000 barrels of oil per day from the Marmaton rocks at depth of 5,346 to 5,350 feet. Two dry holes were added to the pool during the year.

Northern Natural Gas Company drilled two of the wildcat tests in the county during the year. The Weaver test in sec. 33, T. 30 S., R. 29 W., was completed to a total depth of 5,930 feet without shows of oil or gas. The second test by this company on the Collingwood farm in sec. 8, T. 32 S., R. 27 W., was drilled to a total depth of 8,083 feet, and had 30 feet of oil and gas cut mud and 630 feet of gas on a drill-stem test at 4,555 to 4,575 feet depth. According to the sample and electric logs the well found the following "tops": Lansing, 4,380; Mississippian, 5,560; Viola, 6,985; Simpson, 7,117; and Arbuckle, 7,142 feet depth. The third dry wildcat test was drilled about 2 miles northwest of the Adams Ranch East pool by Columbian Fuel Corporation in sec. 15, T. 34 S., R. 30 W. A show of gas was observed at 5,885 to 5,908 feet, and a show of oil was found at 5,880 to 5,900 feet.

The new oil pool is listed in Table 6. The producing area and dry wildcats are shown on Figure 13. Oil production is listed in Table 66 and gas production in Table 67.

## MIAMI COUNTY

(Map Pl. 1)

**The 1951 production: oil from 17 areas in 3 recognized fields: 506,641 barrels including 387,493 barrels from 11 secondary recovery projects, gas approximately 60,000 thousand cubic feet.**

*Developments during 1951.*—Several new wells, some with initial daily primary production of as much as 100 barrels from the "Lower Squirrel sand," were drilled in sec. 10, T. 17 S., R. 22 E., in the Pressonville area in the **Paola-Rantoul** field. The 1951 total oil production in Miami County was slightly greater than in 1950. Secondary recovery by water-flooding is very important in Miami County production. Data on projects in the county are listed in Table 1.

Oil production in the various Miami County fields is listed in Table 66, gas production is listed in Table 67. Locations of areas that produced oil by primary and secondary methods are shown on Plate 1.

## MITCHELL COUNTY

Wildcat wells have been drilled in Mitchell County from time to time but to date no commercial quantities of oil or gas have been found.

*Exploration during 1951.*—Only one test was made in Mitchell County during 1951. The wildcat was drilled by the Texas Pacific Coal and Oil Company on the Gasper lease in sec. 31, T. 7 S., R. 10 W., to a total depth of 3,897 feet. Judging from the sample and electric logs available, the following formations were encountered: Dakota sandstone, 280; Permian redbeds, 602; Stone Corral anhydrite, 740; Fort Riley, 1,400; Topeka limestone, 2,380; Heebner shale, 2,622; Lansing limestone, 2,698; erosional cherty detritus of the Mississippian, 3,333; Chattanooga shale, 3,458; Silurian, 3,473; Maquoketa, 3,486; Viola, 3,531; Simpson, 3,792; and Arbuckle, 3,872 feet. No shows of oil or gas were found in drilling this test.

## MONTGOMERY COUNTY

(Map Pl. 1)

**The 1951 production: oil from 38 areas in 9 fields, 625,460 barrels, including 368,333 barrels from 12 water-flooding projects; gas 575,727 thousand cubic feet. Wells drilled in 1951: 150 (estimated).**

*Developments during 1951.*—Oil production in Montgomery County was slightly less than in 1950. Reported production by water-flooding methods showed a decided drop from 576,712 barrels reported in 1950.

Oil production statistics in the various Montgomery County fields are listed in Table 66 and gas production in Table 67. Secondary recovery data are shown in Table 1. The active areas and secondary recovery projects are shown on Plate 1.

## MORRIS COUNTY

(Map Pl. 1)

**The 1951 production from 3 fields: oil 65,901 barrels, gas 50,933 thousand cubic feet. Wells drilled in 1951: oil 4, dry 12, total 16 including 6 wildcats.**

*Developments during 1951.*—One extension dry hole, the Woods Oil and Gas Company No. 1 Zahnley in SE¼ SE¼ SW¼ sec. 16, T. 14 S., R. 8 E., was drilled in the **Alta Vista** gas field. The well was abandoned in the Arbuckle at 2,062 feet. Two oil wells and 5 dry holes were put down in the **Three Mile Creek** field. One, the Lincoln Oil Company No. 1 Breckbill, NE¼ SE¼ SE¼ sec. 24, T. 16 S., R. 5 E., was drilled into Pre-Cambrian rocks, which were reached

TABLE 45.—*Dry wildcat tests drilled in Morris County during 1951*

| Company and farm | Location | Surface elevation, feet | Depth to top of Lansing, feet | Depth to top of Mississippian, feet | Total depth, feet |
|---|---|---|---|---|---|
| *F. G. Holl No. 1 Whitehair | NW¼ NW¼ NW¼ 17-15-5E | ..... | 1,970† | 2,166 | 2,205 |
| *Sohio Petro. Corp. No. 1 Granzow | SE¼ SE¼ SW¼ 28-15-5E | 1,394 | 1,612 | 2,232 | 2,290 |
| B & R Drlg. & Sohio Pet. Co. No. 1 Hogewaning | SW¼ SW¼ NW¼ 29-15-5E | 1,378 | 1,670 | 2,213 | 2,336 |
| *Carter Oil Co. No. 1 Lingren | NW¼ NW¼ NE¼ 18-15-8E | 1,430 | 1,560 | 2,196 | 2,912 |
| Champlin Refining Co. No. 1 Schruben | NW¼ SW¼ SW¼ 5-15-9E | 1,360 | 1,570 | 2,535 | 3,365 |
| *F. G. Holl No. 1 West | SW¼ SW¼ NE¼ 6-17-5E | 1,499 | ..... | 2,300 | 2,500 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.
† Depth to the Base of the Kansas City, feet.

at 3,066 feet. The well was abandoned at 3,069 feet. Two oil wells were drilled in the **Three Mile Creek South** field. Data on dry wildcat wells are listed in Table 45. Their locations are shown on Plate 1.

The Mendenhall Drilling Company No. 1 Johnson well in the SW¼ SW¼ NW¼ sec. 36, T. 16 S., R. 5 E., is a 1950 straggler well in the Three Mile Creek field. It was abandoned late in 1950 at a depth of 2,250 feet. Mississippian limestone was reached at 2,196 feet.

Oil production statistics in the various Morris County fields are listed in Table 66, gas production is listed in Table 67. Locations of areas that produced oil in 1951 in Morris County are shown on Plate 1.

## MORTON COUNTY

(Map Pl. 2)

**The 1951 production: oil from 1 pool 62 barrels, gas all from the Hugoton Gas Area not segregated as to counties. Wells drilled in 1951: oil none, gas 61, total 61 (no wildcats). New pool discovered 1.**

*Developments during 1951.*—A new gas pool, the **Greenwood**, was opened in Morton County during 1951. The Cities Service Oil Company drilled the discovery well about 10 miles west of the Hugoton Gas Area in sec. 14, T. 33 S., R. 42 W., on the Greenwood

property. This deep test, not finding production in the lower zones, was plugged back to the good showing of gas in a sandstone near the base of the Pennsylvanian System. The sandstone, productive at 4,872 to 4,880 feet depth, lies about 80 feet above the top of the Mississippian rocks (presumably Morrowan). Although the potential capacity of the discovery well is only 1,360,000 cubic feet of gas, it indicates the possibility of future oil and gas production.

Drilling activity in the Hugoton Gas Area showed a slight increase over the number of wells successfully completed in the previous year. The 60 new gas wells were concentrated in Rs. 39 and 40 W. Several wells on the outskirts of the boundary as previously drawn extended the producing area by about 3,000 acres. Average capacity of the new gas wells is more than 10 million cubic feet; however, some were tested at more than 27 million cubic feet.

Production, the active area, and producing zones are shown under Hugoton in Table 67. Additional data on the Hugoton Gas Area are given in the natural gas chapter. Location of the producing area is shown on Plate 2. Oil production is listed in Table 66 and the new pool is described in Table 6.

## NEMAHA COUNTY

(Map Pl. 1)

**The 1951 production from 2 fields: oil 45,108 barrels, gas none.**
**Wells drilled in 1951: 5 (all dry) including 3 wildcats.**

*Developments during 1951.*—The Carter Oil Company No. 1 Graham well in the NW¼ SE¼ NW¼ sec. 13, T. 2 S., R. 14 E., was abandoned as a dry hole in December. The log of this well, in the **Sabetha** field, shows the following tops: Lansing, 1,270; Mississippian, 2,435; Kinderhookian, 2,589; "Hunton," 2,843; Maquoketa, 3,448; and Viola, 3,496 feet; total depth was 3,519 feet. The Carter Oil Company No. 2 Parli, NE¼ SW¼ SW¼ sec. 27, T. 2 S., R. 14 E., was a 1950 straggler oil well in the same field. Initial daily production was rated at 14 barrels of oil per day. The L. J. Ryan et al. No. 1 Aberle well in the SW¼ NW¼ NW¼ sec. 3, T. 3 S., R. 14 E., in the **Strahm** field, was abandoned in February. These tops were reported: Mississippian, 2,574; Kinderhookian, 2,759; "Hunton," 3,014; Maquoketa, 3,644; and Viola, 3,699; total depth, 3,798 feet.

The McCalhoun et al. No. 1 Nightingale well in the NE¼ SE¼ SW¼ sec. 16, T. 4 S., R. 12 E., was a shallow test drilled to 808 feet. Two wildcats were drilled into Pre-Cambrian rocks. The Woods Oil

and Gas Company No. 1 Bailey well, NW¼ NW¼ NE¼ sec. 34, T. 4 S., R. 13 E., was drilled to 3,933 feet; the log shows these tops: Howard, 862; Lansing, 1,368; Mississippian, 2,606; "Hunton," 2,947; Maquoketa, 3,595; Viola, 3,639; Simpson, 3,841; and Pre-Cambrian (granite), 3,916 feet. The following tops were reported from the Woods Oil and Gas Company No. 1 Griffiths well in the SE¼ NE¼ NE¼ sec. 23, T. 5 S., R. 13 E.: Heebner, 1,262; Lansing, 1,447; Mississippian, 2,726; Kinderhookian, 2,810; "Hunton," 3,073; Maquoketa, 2,810; Viola, 3683; Simpson dolomite, 3,853; Arbuckle, 3,928; Reagan, 3,961; and Pre-Cambrian (granite), 3,971 feet, total depth was 3,971 feet. The locations of the three wildcat tests are shown on Plate 1.

Oil production in the two Nemaha County fields is listed in Table 66. Locations of areas that produced oil in 1951 are shown on Plate 1.

## NEOSHO COUNTY

(Map Pl. 1)

**The 1951 production: oil from 17 areas in 7 fields 566,080 barrels including 426,411 barrels from 5 secondary recovery projects, gas 173,481 thousand cubic feet. Wells drilled in 1951: oil 11, dry 1, input 3, probable unrecorded 185, total 200 (estimated).**

*Developments during 1951.*—Oil production in Neosho County was somewhat less in 1951 than in 1950. Of the total gas production reported, a very small amount was produced in Allen County.

Among 1950 straggler wells there were 3 oil wells, 1 dry hole, and 5 water input wells reported in the **Humboldt-Chanute** field in the northwest part of the county. All 15 wells recorded for 1951 were also in this field.

Oil production in the various Neosho County fields is listed in Table 66 and gas production in Table 67. Data on secondary recovery operations are listed in Table 1. Locations of areas that produced oil in 1951, and of secondary recovery projects are shown on Plate 1.

## NESS COUNTY

(Map Fig. 11)

**The 1951 production from 4 pools: oil 296,066 barrels, gas none. Wells drilled in 1951: oil 4, gas none, dry 10, total 14, including 8 wildcats.**

*Developments during 1951.*—All the new oil wells drilled during the year are extensions of the **Aldrich** pool which produced nearly 88 percent of the total production of the county. One dry extension hole was added to the Aldrich pool and one to the **Kansada West** pool. Two of the eight wildcats were drilled several miles from the nearest production.

Five of the eight dry wildcats had shows of oil or gas on drill-stem tests. The Flynn Oil Company No. 1 Petersilie test in sec. 11, T. 20 S., R. 24 W., was promising when drill-stem tests at 4,437 to 4,447 and 4,338 to 4,344 feet depth indicated oil, but the water problem forced abandonment of the well.

It will be noted (Table 46) that most of the dry wildcat tests were not drilled deeper than the upper part of the Mississippian, which seems to be the most likely pay zone in this part of Kansas.

Locations of producing areas and dry wildcat wells are shown on Figure 11. Oil production data are given in Table 66.

## NORTON COUNTY

(Map Fig. 5)

**The 1951 production from 2 pools: oil 52,820 barrels, gas none. Wells drilled in 1951: oil 2, gas none, dry 16, total 18, including 15 wildcats.**

*Developments during 1951.*—None of 15 dry wildcat tests drilled in Norton County during 1951 found a new pool. The two new oil wells completed during the year are extension wells to the **Ray** and **Ray West** pools in southeastern Norton County.

Four of the dry wildcat tests were drilled to the granite, and only two of the tests reported shows of oil. The Texas Company No.

TABLE 46.—*Dry wildcat tests drilled in Ness County during 1951*

| Company and farm | Location | Depth to top of Anhydrite, feet | Depth to top of Lans.-K.C., feet | Depth to top of Mississippian, feet | Total depth, feet |
|---|---|---|---|---|---|
| Ted Leben No. 1 Elmore | SW¼ SW¼ SW¼ 8-16-21W | 1,685 | 3,798 | 4,330 | 4,883 |
| *Imperial Petro. Co. No. 1 Amstutz | SW¼ SE¼ SE¼ 10-17-24W | 1,780 | 3,881 | 4,510 | 4,573 |
| *Barnett Oil Co., et al. No. 1 Stutz | SE¼ SE¼ SE¼ 6-17-25W | 2,065 | 3,869 | 4,453 | 4,870 |
| *Pabco Drlg. Co. No. 2 Ryersee | NE¼ NE¼ NW¼ 2-19-21W | 1,375 | 3,640 | 4,219 | 4,260 |

| | | | | | |
|---|---|---|---|---|---|
| Harry Gore et al. No. 1 Bruntz | SW¼ SW¼ SW¼ 15-19-21W | 1,459 | 3,782 | 4,387 | 4,492 |
| *Wedell et al. No. 1 Pemeler | SE¼ SE¼ SE¼ 3-19-26W | ..... | 3,928 | 4,551 | 4,651 |
| Globe Oil & Refg. Co. No. 1 Jones | NW¼ NW¼ SE¼ 29-19-26W | 1,940 | 4,011 | 4,662 | 4,772 |
| Flynn Oil Co. No. 1 Petersilie | SW¼ SW¼ SW¼ 11-20-24W | 1,580 | 3,794 | 4,435 | 4,510 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

TABLE 47.—*Dry wildcat tests drilled in Norton County during 1951*

| Company and farm | Location | Depth to top of Anhydrite, feet | Depth to top of Lans.-K.C., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| Great Lakes Carb. Corp. No. 1 Minshall | SE¼ SE¼ SE¼ 35-1-23W | 1,976 | 3,466 | ..... | 3,785 |
| Great Lakes Carb. Corp. No. 1 Muir | NW¼ NW¼ SW¼ 12-3-23W | 1,920 | 3,450 | 3,686 | 3,722 |
| Murfin Drlg. Co. & Vernon Oil & Gas Co. No. 1 Lowery | SW¼ SW¼ SW¼ 10-4-21W | 1,890 | 3,480 | 3,738 | 3,788 |
| *Empire Drlg. Co. & Vernon Oil & Gas Co. No. 1 Cooley | NE¼ NE¼ NW¼ 14-4-21W | 1,835 | 3,412 | 3,677 | 3,727 |
| B & R Drlg. Co. No. 1 Stone | SE¼ SE¼ SE¼ 19-4-21W | 1,830 | 3,410 | 3,651 | 3,700 |
| *Hinkle Oil Co. No. 1 Wiltrout | NW¼ NW¼ NW¼ 35-4-21W | 1,690 | 3,300 | 3,565 | 3,627 |
| The Texas Co. No. 1 M. S. Harmonson | SE¼ SE¼ NE¼ 23-4-23W | 1,915 | 3,458 | ..... | 3,747 |
| *Empire Drlg. Co. et al. No. 1 Muir | NW¼ NW¼ SE¼ 31-4-23W | 1,940 | 3,468 | 3,791 | 3,845 |
| *Harry Gore No. 1 Brooks | NE¼ NE¼ NE¼ 9-4-25W | 2,050 | 3,508 | 3,858 | 3,905 |
| *Harry Gore No. 1 Wolf | NW¼ NW¼ NE¼ 21-4-25W | 2,174 | 3,641 | 3,995 | 4,055 |
| Cities Serv. Oil Co. et al No. 1 Fredde | NE¼ NE¼ NE¼ 8-5-22W | 1,700 | 3,283 | 3,559 | 3,620 |
| *Harry Gore No. 1 Leidig | NE¼ NE¼ NE¼ 15-5-23W | 1,825 | 3,360 | 3,693 | 3,752 |
| Peel Hardman Oil Prod. No. 1 Allen | SW¼ SW¼ SW¼ 11-5-24W | 1,875 | 3,393 | 3,788 | 3,835 |
| *Harry Gore No. 1 Scheetz | SE¼ SE¼ SE¼ 5-5-25W | 2,155 | 3,630 | 4,085 | 4,125 |
| Herndon Drlg. Co. No. 1 Mindrup | SW¼ SW¼ NW¼ 13-5-25W | 2,070 | 3,565 | 3,972 | 4,003 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

1 M. S. Harmonson well in sec. 23, T. 4 S., R. 23 W., had several favorable drill-stem tests in the Lansing-Kansas City rocks, but water increased and oil decreased with perforations until the well was abandoned.

Pertinent information on the dry wildcat tests is listed in Table 47. The producing pools and locations of dry wildcat tests are given on Figure 5. Production from the county's two pools is listed in Table 66.

## OSAGE COUNTY

(Map Pl. 1)

Wildcat wells have been drilled in Osage County from time to time but as yet no producing pool has been discovered.

*Exploration during 1951.*—Three dry wildcat wells were reported in Osage County in 1951. The Woods Drilling Company No. 1 Oberle well in the SW¼ SW¼ NW¼ sec. 14, T. 14 S., R. 15 E., was abandoned in June. The following tops were reported: Heebner, 380; Lansing, 701; Kansas City, 845; base of Hertha, 1,037; Mississippian, 1,800; Kinderhookian, 2,131; "Hunton," 2,152; Maquoketa, 2,195; Viola, 2,318; Simpson, 2,426; and Arbuckle, 2,478 feet. The total depth is 2,530 feet.. The log of the Sheppard No. 1 Alley well in the NE¼ NW¼ SW¼ sec. 7, T. 18 S., R. 17 E., shows these tops: base of Hertha, 722; Marmaton, 725; Cherokee, 1,020; "Squirrel sand," 1,030; "Bartlesville sand," 1,250; and Mississippian, 1,408; total depth was 1,502 feet. The V. L. Ferrell No. 1 Ramagee well in the SW¼ SE¼ SE¼ sec. 21, T. 18 S., R. 17 E., was drilled to a total depth of 1,490 feet (in the Cherokee shale). Tops reported are: Lansing, 390; Kansas City, 590; base of Hertha, 811; "Oswego," 940; and Cherokee, 1,070 feet. Locations of the wells drilled in 1951 are shown on Plate 1.

## OSBORNE COUNTY

Wildcat wells have been drilled from time to time in Osborne County but no pool has been discovered as yet.

*Exploration during 1951.*—A. D. Allison drilled one of the two tests made during the year on the Finkenbinder farm in sec. 22, T. 10 S., R. 13 W. According to the sample log prepared by J. D.

Davies, this test had Topeka limestone at 2,740; the Heebner black shale at 2,962; Lansing limestone at 3,020; Mississippian (Osagian) chert residuum, 3,564; and Viola dolomite, 3,837 feet depth. The elevation of the well is 1,734 feet above sea level, and the total depth is 3,930 feet.

The other wildcat well drilled during the year is the No. 1 Pfortmiller drilled by John Lindas in sec. 7, T. 10 S., R. 15 W., to a total depth of 3,610 feet. In this well the Lansing was reported by the operator at 3,145 and the basal Pennsylvanian conglomerate at 3,515 feet depth. Drill-stem tests in the upper part of the Lansing and just above the basal conglomerate found no oil or gas. Therefore, the well, elevation 1,945 feet above sea level, was declared dry and abandoned.

## PAWNEE COUNTY

(Map Fig. 10)

**The 1951 production from 14 pools: oil 432,124 barrels, gas 4,068,784 thousand cubic feet. Wells drilled in 1951: oil 15, gas 1, dry 16, total 32 including 8 wildcats. New pools discovered 1, old pools abandoned 1.**

*Developments during 1951.*—Drilling activity increased more than 75 percent during 1951 as compared with 1950. This increase in drilling resulted in the addition of 15 new oil pool wells, but only one new pool, the **Evers.** The Stanolind Oil and Gas Company made the discovery on the J. Evers farm in sec. 1, T. 22 S., R. 16 W. The test was drilled 58 feet into the Arbuckle dolomite. About 3 million cubic feet of gas was found in the Arbuckle and about 2 million cubic feet in the Simpson sandstone. The hole was plugged back and perforated between the depths of 3,525 to 3,531 feet in the Lansing limestone, then assigned a potential of 58 barrels of oil per day with 47 barrels of water. Later in the year, the Arbuckle rocks tested by the Iron Drilling Company on the Prosser farm in sec. 36, T. 21 S., R. 16 W., in this pool yielded 4.3 million cubic feet of gas per day at 3,908 to 3,926 feet depth.

The **Larned** pool was abandoned during 1951. The pool originally produced from the Arbuckle rocks and was located in sec. 28, T. 21 S., R. 16 W.

Of the eight wildcats, five were drilled at least 5 miles from present production. The dry wildcat tests are listed in Table 48. Four of the dry wildcat tests had shows of oil or gas: Stanolind Oil and Gas

TABLE 48.—*Dry wildcat tests drilled in Pawnee County during 1951*

| Company and farm | Location | Surface elevation, feet | Depth to top of Lans.-K.C., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *Iron Drlg. Co. No. 1 A. W. Fleske | SW¼ NW¼ NW¼ 28-20-16W | 2,075 | 3,536 | 3,904 | 3,943 |
| Pabco Drlg. Co. et al. No. 1 Schmitt | NE¼ NE¼ SE¼ 17-21-15W | 1,956 | 3,452 | 3,822 | 3,850 |
| Stanolind Oil & Gas Co. No. 1 "A" J. A. Boyd | NE¼ NE¼ SW¼ 9-21-17W | 2,100 | 3,612 | 3,951 | 3,997 |
| *Wentworth & Sons No. 1 Hinshaw | SE¼ SE¼ SE¼ 27-21-20W | 2,098 | 3,746 | 4,569 | 4,698 |
| *Iron Drlg. Co. No. 1 Jennings | NE¼ SE¼ SW¼ 10-22-16W | 2,227 | 3,606 | 4,050 | 4,056 |
| *Westgate-Greenland Oil Co. No. 1 Wiles | NE¼ SE¼ NW¼ 1-23-15W | 1,989 | 3,584 | 4,044 | 4,055 |
| *Schermerhorn Oil Corp. No. 1 Wiles | SW¼ SE¼ SE¼ 12-23-15W | 1,975 | 3,573 | 4,037 | 4,058 |
| *Rocket Drlg. Co. et al. No. 1 Anna Thomas | NE¼ NE¼ SE¼ 19-23-16W | 2,066 | 3,689 | 4,310 | 4,343 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

Company No. 1 J. A. Boyd, sec. 9, T. 21 S., R. 17 W.; Iron Drilling Company No. 1 Jennings, sec. 10, T. 22 S., R. 16 W.; Schermerhorn Oil Corporation No. 1 Wiles, sec. 12, T. 23 S., R. 15 W.; and Derby Drilling Company et al. No. 1 Thomas, sec. 19, T. 23 S., R. 16 W.

Locations of producing areas and some dry wildcats are shown on Figure 10. Oil production data are given in Table 66 and gas production data in Table 67. Information on the new pool is given in Table 6.

## PHILLIPS COUNTY

(Map Fig. 4)

**The 1951 production from 14 pools: oil 2,851,981 barrels, gas none. Wells drilled during 1951: oil 80, gas none, dry 46, total 126 including 15 wildcats. New pools discovered 9, pools combined 3, abandoned 2.**

*Developments during 1951.*—Drilling activity in Phillips County during 1951 was 80 percent more than in 1950. The wildcat tests discovered nine new Lansing-Kansas City pools and helped to increase the oil production by 28 percent. The new pools are the **Beckman, Dry Creek, Glenwood, Huffstutter Northeast, Huffstutter Southwest, Kent, Slinker, Stephens,** and **Stuttgart South.**

These new pools and most of the dry wildcat tests were drilled in a trend from the **Ray** pool in the southwestern corner of the county to the **Huffstutter** pool toward the northeast.

The Huffstutter Northeast, Stephens, and **Dayton North** were combined with the **Huffstutter** pool during the year. The Dry Creek pool was abandoned before the year closed. The **Artz** pool, discovered in 1950, was also abandoned during the year. Pool extension wells were concentrated in the Huffstutter with 54 new pool oil wells, the Ray with 8, and the Stuttgart pool with 7.

TABLE 49.—*Dry wildcat tests drilled in Phillips County during 1951*

| Company and farm | Location | Depth to top of Topeka, feet | Depth to top of Lansing, feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *Imperial Petro. Co., Inc. No. 1 Schermerhorn | SE¼ NE¼ SE¼ 7-1-17W | 3,105 | 3,364 | ..... | 3,600 |
| Westgate-Greenland & Bay Petro. Corp. No. 1 Schluntz | NE¼ SW¼ SE¼ 23-1-17W | 3,140 | 3,400 | ..... | 3,650 |
| *Black Cat Oil Co. No. 1 Bjurstrom | SE¼ SE¼ SE¼ 7-1-18W | 3,048 | 3,228 | 3,714 | 3,728 |
| *Musgrove Petro. Corp. et al. No. 1 Steenis | SE¼ SW¼ NE¼ 11-1-19W | 3,066 | 3,282 | ..... | 3,520 |
| *K & E Drlg. Co. No. 1 Woodruff | SW¼ SW¼ SW¼ 13-1-20W | ..... | 3,336 | ..... | 3,624 |
| The Texas Company No. 1 Martin Baynes | SW¼ SW¼ NW¼ 8-2-19W | 3,232 | 3,482 | 3,853 | 3,930 |
| *Murfin Drlg. Co. & Morris Sitrin No. 1 Kats | SE¼ SE¼ NW¼ 20-2-19W | 3,159 | 3,408 | 3,754 | 3,780 |
| *Natl. Assoc. Petro. Co. No. 1 Vera Emerick | NE¼ SW¼ NW¼ 10-4-18W | 2,903 | 3,136 | 3,576 | 3,600 |
| *Westgate-Greenland Oil Co. No. 1 Beulah Shaw | NW¼ NW¼ SE¼ 18-4-18W | ..... | 3,158 | 3,502 | 3,621 |
| *Westgate-Greenland Oil Co. No. 1 Seeger | NW¼ NW¼ SE¼ 35-4-19W | 2,912 | 3,150 | 3,507 | 3,555 |
| *Cities Service Oil Co. No. 1 Heroneme | NE¼ NE¼ SE¼ 13-4-20W | 3,019 | 3,250 | 3,560 | 3,590 |
| *Yockey Oil Co. No. 1 Shaw | NE¼ SW¼ NE¼ 28-4-20W | 2,966 | 3,192 | 3,487 | 3,520 |
| Laura Jane Oil Co. No. 1 Maddox | SE¼ SE¼ NE¼ 14-5-18W | 2,937 | 3,185 | 3,566 | 3,600 |
| *Honaker Drlg. Co. No. 1 Muir | SE¼ SW¼ SW¼ 36-5-18W | ..... | 3,037 | ..... | 3,503 |
| *Westgate-Greenland Oil Co. No. 1 Meyer | SE¼ SE¼ NE¼ 27-5-19W | 3,030 | 3,268 | 3,565 | 3,627 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

The dry wildcat tests made during the year are listed in Table 49. Of the 15 dry wildcat tests drilled during the year, 7 had shows of oil or gas, and although 5 did not report Arbuckle tops, most were drilled deep enough to have penetrated those rocks. Locations of producing areas and dry wildcat wells are shown on Figure 4. Oil production data are given in Table 66. Information on newly discovered pools is given in Table 6.

## POTTAWATOMIE COUNTY

(Map Pl. 1)

Wildcat wells have been drilled from time to time in Pottawatomie County but so far no producing pool has been discovered.

*Exploration during 1951.*—Ten deep wildcat wells were drilled in Pottawatomie County in 1951. Data on these wells are listed in Table 50. According to Geological Survey records 21 tests had been drilled previously in the county. Locations of the wells drilled in 1951 are shown on Plate 1.

TABLE 50.—*Dry wildcat tests drilled in Pottawatomie County during 1951*

| Company and farm | Location | Surface elevation, feet | Depth to top of Lansing, feet | Depth to top of Hunton, feet | Depth to top of Viola, feet | Depth to top of Arbuckle, feet | Total depth feet |
|---|---|---|---|---|---|---|---|
| *Malyhon, Harper & Quigley No. 1 Shearer | NW¼ NW¼ NE¼ 33-6-9E | 1,484 | ..... | 1,450 | 1,650 | ..... | 1,915 |
| Leo V. Wentworth Drlg. Co. No. 1 Moser | SE¼ SE¼ SW¼ 33-6-9E | 1,462 | ..... | 1,462 | 1,677 | ..... | 1,818 |
| *E. A. Howley et al. No. 1 Pendergast | SE¼ SW¼ SE¼ 8-7-9E | 1,460 | 1,164 | ..... | 1,500 | 1,818 | 1,825 |
| *Coronada Oil Co. No. 1 R. P. Welter | SW¼ SW¼ SW¼ 36-8-8E | ..... | 1,045 | 1,432 | 1,885 | 2,110 | 2,119 |
| Woods Oil & Gas Co. No. 1 Johnson | NE¼ NW¼ SW¼ 29-8-12E | 1,128 | 1,272 | 2,752 | 3,248 | ..... | 3,470 |
| *Howard Allman No. 1 Fredrich | NW¼ NW¼ NW¼ 20-9-8E | 1,204 | 1,082 | 1,562 | 2,071 | ..... | 2,305 |
| *Lincoln Oil Co. & Uhl Drlg. Co. No. 1 Unscheid | SE¼ NW¼ NW¼ 16-9-9E | 1,130 | ..... | 1,275 | 1,723 | ..... | 1,961 |
| Milo Siegel et al. No. 1 Matt Rezac | SW¼ SW¼ SW¼ 7-9-12E | 1,257 | 1,395 | 2,886 | 3,368 | 3,582 | 3,607 |
| H. E. Sloan No. 1 Brown | SW¼ SW¼ NW¼ 34-9-12E | 1,063 | 1,141 | 2,692 | 3,109 | 3,312 | 3,350 |
| *Skelly Oil Co. No. 1 St. Mary's | NE¼ SW¼ NE¼ 11-10-12E | 1,054 | 1,100 | 2,662 | 3,047 | 3,250 | 3,300 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and oth available data sources have been used.

## PRATT COUNTY

(Map Fig. 15)

**The 1951 production from 16 pools; oil 2,441,283 barrels including production from 1 secondary recovery project, gas, 1,734,719 thousand cubic feet. Wells drilled in 1951: oil 56, gas none, dry 16, salt-water disposal 1, total 73 including 6 wildcats. Pools combined 1.**

*Developments during 1951.*—Oil production in Pratt County increased about 19 percent over the 1950 figure, while gas production increased only modestly. Drilling increased from 29 in 1950 to 73 in 1951. During the year the **Iuka** and **Carmi** pools were combined and designated the **Iuka-Carmi** pool. The pool was actively extended with the addition of 26 oil wells. The **Chance** pool added 30 extension wells in 1951.

The Texas Company found a new producing zone in the Chance pool in their No. 1 Luke Mowbray well in sec. 29, T. 26 S., R. 13 W., when the Mississippian rocks from 4,254 to 4,280 feet were found to contain a commercial quantity of oil. An old well worked over in the Chance pool, the Rine Drilling Company No. 1 Joe in sec. 33, T. 26 S., R. 13 W., was found to be another new producing zone for the pool, when a potential of 17 barrels of oil per day and 10 barrels of water was assigned to the Viola rocks at 4,250 to 4,260 feet depth.

The J. H. Tatlock No. 1 Jessie C. Barbee well in sec. 19, T. 27 S., R. 15 W., was one of two dry wildcat tests with shows of oil or gas. In this test a slight show of oil was found at 4,595 to 4,608 feet depth.

TABLE 51.—*Dry wildcat tests drilled in Pratt County during 1951*

| Company and farm | Location | Depth to top of Lans.-K.C., feet | Depth to top of Viola, feet | Depth to top of Simpson, feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|---|
| J. H. Tatlock<br>No. 1 Jessie C. Barbee | SW¼ SW¼ SW¼<br>19-27-15W | 4,033 | 4,646 | 4,725 | 4,854 | 4,886 |
| *Iron Drlg. Co. & Brooks Hall<br>No. 1 L. E. Hatfield | NW¼ NW¼ NW¼<br>26-28-14W | 3,895 | 4,455 | 4,522 | 4,612 | 4,645 |
| Iron Drlg. Co.<br>No. 1 Rezeau | NW¼ NW¼ SW¼<br>12-28-15W | 4,020 | 4,555 | 4,644 | 4,744 | 4,799 |
| Flynn Oil Co.<br>No. 1 Lee | SW¼ SW¼ NE¼<br>29-29-13W | 3,970 | 4,563 | 4,680 | 4,773 | 4,807 |
| Flynn Oil Co.<br>No. 1 Luther | NW¼ NW¼ NW¼<br>4-29-14W | 4,025 | 4,523 | 4,612 | 4,682 | 4,710 |
| Lion Oil Co.<br>No. 1 Howell | NE¼ NE¼ NE¼<br>23-29-15W | 4,064 | 4,657 | 4,734 | 4,834 | 4,850 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

The second well to have any indication of oil or gas was the Flynn Oil Company No. 1 Luther well in sec. 4, T. 29 S., R. 14 W., where 40 feet of slight gas and oil cut mud was observed on a drill-stem test at 4,199 to 4,220 feet depth.

Locations of producing areas and dry wildcat tests are shown on Figure 15. Oil production is given in Table 66 and gas production in Table 67. Data on the dry wildcat tests are given in Table 51. Data on the secondary recovery project which extends into Kingman County is given in Table 1.

## RAWLINS COUNTY

Wildcat wells have been drilled in Rawlins County from time to time but so far no pool has been found.

*Exploration during 1951.*—Rawlins County lies in the northwestern part of Kansas in what is known as the Julesburg basin. During 1951, Loar and Stearns drilled a test well on the S. L. Burton farm in sec. 18, T. 3 S., R. 34 W., from an elevation of 3,132 feet above sea level. According to the electric log of the well, Dakota sandstone was found at 1,810, Morrison at 2,408, Day Creek dolomite at 2,548, Blaine anhydrite at 2,655, Stone Corral anhydrite at 2,890, Topeka limestone at 3,880, Heebner black shale at 4,015, and Lansing limestone at 4,056 feet depth. Salt water was recovered in a drill-stem test taken between 4,056 and 4,086 feet depth, and the test was abandoned at a total depth of 4,295 feet.

## RENO COUNTY

(Map Fig. 6)

**The 1951 production from 14 pools: oil 1,638,343 barrels (none reported from 1 secondary recovery project), gas 919,573 thousand cubic feet. Wells drilled in 1951: oil 5, gas none, dry 19, salt-water disposal 1, total 25 including 15 dry wildcats. New pools discovered 3. New secondary recovery projects 1.**

*Developments during 1951.*—The same number of holes was drilled in Reno County during 1951 as during 1950. The production of oil decreased more than 18 percent and the gas production showed about an 11 percent increase comparing the figures with those of the preceding year. Three new pools were discovered. During the year, the Cities Service Oil Company started a secondary recovery project in the **Zenith-Peace Creek** pool on the Mace-

more lease in sec. 32, T. 23 S., R. 10 W. Additional information on this project is given in Table 1.

One of the new pools, the **Morton Southeast**, was discovered by the Cities Service Oil Company on the Birket lease in sec. 16, T. 24 S., R. 8 W., where a potential capacity of 39 barrels of oil per day was assigned to the Lansing-Kansas City rocks at 3,423 to 3,435 feet depth. The producing zone lies about 268 feet below the top of the Lansing and therefore very near the base of the Kansas City limestone. The Atlantic Refining Company discovered the second new oil pool, the **Sankey**, on the Sankey farm in sec. 22, T. 22 S., R.

TABLE 52.—*Dry wildcat tests drilled in Reno County during 1951*

| Company and farm | Location | Depth to top of Lans.-K.C., feet | Depth to top of Viola, feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *J. H. Johnson et al. No. 1 Moorman | NE¼ NE¼ NE¼ 32-22-7W | 3,045 | 3,835 | 3,937 | 3,951 |
| *Mid-Continent Petro. Corp. No. 1 H. A. Starr | SE¼ SE¼ NW¼ 7-22-10W | 3,143 | 3,480 | 3,568 | 3,618 |
| John Lindas Oil Co., Inc. et al. No. 1 Smith-Taylor | SW¼ SW¼ NW¼ 18-22-10W | 3,175 | 3,520 | 3,592 | 3,605 |
| Phillips Petro. Co. No. 1 "A" Barnes | SW¼ NW¼ SE¼ 12-23-5W | 2,752 | 3,939 | 4,058 | 4,091 |
| *Lew Tyrell No. 1 Strandberg | NW¼ NW¼ NW¼ 24-23-5W | 2,701 | 3,864 | ..... | 3,910 |
| *Atlantic Refg. Co. No. 1 Clyde C. Short | NE¼ NE¼ NE¼ 14-23-8W | 3,125 | 3,961 | 4,057 | 4,095 |
| *Musgrove Petro. et al. No. 1 Martin | NE¼ NE¼ NE¼ 7-23-10W | 3,254 | 3,639 | 3,750 | 3,820 |
| Wentworth & Sons No. 1 Stuckey | SW¼ SW¼ SW¼ 20-25-5W | 2,775 | 3,862 | 3,975 | 4,035 |
| *Earl F. Wakefield et al. No. 1 Goering | SE¼ SE¼ SE¼ 14-25-6W | 2,800 | ..... | 4,018 | 4,032 |
| *Skiles Oil Corp. No. 1 Wright | SE¼ SE¼ SE¼ 17-25-9W | 3,376 | 4,146 | 4,332 | 4,363 |
| *Earl F. Wakefield No. 1 Bogner | SE¼ SE¼ SE¼ 14-26-4W | 2,925 | 3,703† | ..... | 3,760 |
| *Earl F. Wakefield No. 1 Sigg | NW¼ NW¼ SE¼ 26-26-4W | 2,898 | 3,716† | ..... | 3,795 |
| *The El Dorado Refg. Co. No. 1 Theis | NE¼ SE¼ NE¼ 31-26-4W | 2,833 | 4,025 | 4,145 | 4,184 |
| The Texas Co. et al. No. 1 Elizabeth Foss O/A | NE¼ NE¼ SE¼ 27-26-8W | 3,309 | 4,279 | 4,421 | 4,458 |
| *Pabco Drlg. Co. et al. No. 1 Spung | SE¼ SE¼ NE¼ 23-26-10W | 3,463 | 4,221 | 4,395 | 4,432 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

† Depth to the top of the Mississippian, feet.

10 W. Its initial potential was 502 barrels of oil per day from the Lansing-Kansas City rocks at 3,187 to 3,195 feet depth. The third pool, the **Haven,** opened by the Midstates Oil Corporation on the Meyer farm in sec. 9, T. 25 S., R. 4 W., was reported by the operator as dry and abandoned.

Six of the 15 dry wildcat tests drilled during the year had shows of oil or gas. These dry wildcat tests and the locations of producing areas are shown on Figure 6. Oil production data are given in Table 66 and gas in Table 67. Data on dry wildcats are listed in Table 52. Information on new pools is given in Table 6.

## RICE COUNTY

(Map Fig. 6)

**The 1951 production from 49 pools: oil 9,503,159 barrels, gas 895,361 thousand cubic feet. Wells drilled in 1951: oil 135, gas none, dry 104, salt-water disposal 2, total 241 including 14 wildcats. New pools discovered 3, combined 4.**

*Developments during 1951.*—Drilling activity in Rice County during 1951 was 13 percent more than the previous year. Oil production accordingly was increased more than 9 percent and gas production was more than 4 times that of 1950. Three new pools were found in Rice County during 1951, and the county remained the fourth largest oil-producing county in the State.

The combining of the **Chase, Silica, Pioneer,** and **Proffit** pools helped to make the newly named producing area of **Chase-Silica** one of the largest oil fields in the State. The **Froning** pool was combined with the **Geneseo** pool during the year.

The discovery well of the **Frederick** pool was completed by the Lewis Drilling Company on the Schroeder lease in sec. 10, T. 18 S., R. 9 W., at a total depth of 3,336 feet. The oil occurs here in the Pennsylvanian basal conglomerate at depths of 3,241 to 3,267 feet. An official test rated the well at 212 barrels of oil per day. Carl Lebsack opened the **Munyon South** pool by completing the No. 1 Schmidt well in sec. 3, T. 19 S., R. 10 W. Production rated at 209 barrels of oil per day was found in the Arbuckle dolomite between 3,300 and 3,310 feet. In October, the Skiles Oil Corporation discovered the **Ixl South** pool when they completed the No. 1 Boldt well in sec. 9, T. 19 S., R. 10 W., rated at 261 barrels of oil per day from the Lansing-Kansas City rocks between the depths of 3,068 and 3,072 feet.

According to a scout report, the Flynn Oil Company drilled a well on the Mayer farm in sec. 4, T. 22 S., R. 8 W., and discovered a 10 barrel of oil and 20 barrel of water per day well. The producing area has not been assigned a name by the nomenclature committee; however Vance Rowe's pipe line report for western Kansas lists a cumulative production of 450 barrels during 1951 for the well and calls the producing area "Sterling," for the town of Sterling a few miles to the north.

New producing zones in old oil fields discovered during the 1951 drilling in Rice County are: **Edwards, Geneseo,** and **Munyon,** Pennsylvanian basal conglomerate, and **Rick Southeast,** Lansing-Kan-

TABLE 53.—*Dry wildcat tests drilled in Rice County during 1951*

| Company and farm | Location | Depth to top of Lans.-K.C., feet | Depth to top of Viola, feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| Continental Oil Co. No. 1 Habiger | NE¼ NE¼ NW¼ 24-18-7W | 2,732 | 3,352 | 3,458 | 3,515 |
| *Solar Oil Corp. No. 1 Sellars | SE¼ NE¼ NE¼ 27-18-7W | 2,725 | 3,318 | 3,420 | 3,441 |
| Dooley Engineering Co. No. 1 Siemsen | SE¼ SE¼ NW¼ 18-18-8W | 2,895 | ..... | 3,443 | 3,455 |
| Natl. Assoc. Petro. Co. No. 1 Guthrie | SE¼ SE¼ NE¼ 20-19-6W | 2,720 | 3,450 | 3,551 | 3,590 |
| *Stag Drlg. Co. No. 1 C. P. Rife | NW¼ NE¼ SW¼ 9-19-7W | 2,879 | 3,487 | 3,592 | 3,615 |
| *Calkan Oil & Gas Co. No. 1 Smith-Atlantic | NE¼ NE¼ SW¼ 24-19-7W | 2,845 | 3,555 | 3,665 | 3,690 |
| *Duke & Wood Drlg Co. & Bay Petro. Corp. No. 1 Ehler | NE¼ SE¼ NE¼ 28-19-7W | 2,880 | 3,520 | 3,619 | 3,634 |
| *Flynn Oil Co. No. 1 Plank | SE¼ NW¼ SW¼ 16-19-8W | 2,894 | 3,392 | 3,496 | 3,526 |
| *Thos Allen & Coop. Refg. Assn. No. 1 Swisher | NE¼ NE¼ NW¼ 13-20-7W | 2,921 | ..... | ..... | 3,428 |
| *Sterling Drlg. Co. & Plains Exp. Co. No. 1 Humphreys | SE¼ SE¼ SW¼ 3-21-8W | 2,916 | 3,587 | 3,678 | 3,695 |
| *Carpenter & Lay No. 1 Kemper | SW¼ SW¼ SW¼ 24-21-8W | 2,945 | ..... | ..... | 3,415 |
| *The El Dorado Refg. Co. No. 1 Bert Miller | NW¼ NW¼ SW¼ 7-21-10W | 3,042 | ..... | 3,399 | 3,440 |
| *Flynn Oil Co. No. 1 Engel | SE¼ SE¼ NE¼ 20-21-10W | 3,045 | 3,356 | 3,458 | 3,485 |
| *Black Cat Oil Co. No. 1 Price | NE¼ NE¼ SW¼ 28-21-10W | 3,075 | 3,410 | 3,500 | 3,525 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

sas City. The nine old wells worked over and found productive were another source of oil.

Of the 14 dry wildcat tests only 2 were not drilled at least to the Arbuckle dolomite, but none reported the Pre-Cambrian rocks. Only four of the tests had shows of oil or gas, and of these none was free oil or gas. Data on the dry wildcat tests are given in Table 53.

The Chase-Silica pool added 49 oil, 22 dry, and 2 salt-water disposal wells, the Geneseo pool added 24 oil wells and 23 dry holes, and the **Mary Ida** pool, now extending into Rice County, added 9 oil wells and 2 dry holes during the year.

Locations of producing areas and dry wildcat wells are shown on Figure 6. Oil production data are given in Table 66 and gas production data in Table 67. Information on new pools is given in Table 6.

## RILEY COUNTY

Wildcat wells have been drilled from time to time in Riley County but so far no producing pool has been discovered.

*Exploration during 1951.*—Two dry wildcats were abandoned early in the year. The Ben F. Brack No. 1 Erickson well in the NE¼ NE¼ NW¼ sec. 15, T. 7 S., R. 5 E. was drilled into Pre-Cambrian rocks at a total depth of 2,561 feet. The log shows these tops: Topeka, 980; Lansing-Kansas City, 1,280; Kinderhookian, 1,720; "Hunton," 1,776; Maquoketa, 2,220; Viola, 2,283; Decorah, 2,420; Simpson shales, 2,445; St. Peter, 2,508; and Pre-Cambrian, 2,551 feet. The log of the Ben F. Brack No. 1 Johnson well, SW¼ SW¼ SE¼ sec. 33, T. 7 S., R. 5 E., lists these tops: Topeka, 1,145; Lansing-Kansas City, 1,466; Marmaton, 1,755; "Hunton," 2,068; Maquoketa, 2,510; and Viola, 2,584; total depth was 2,610 feet.

According to Geological Survey records 12 wells had been drilled previously in Riley County.

## ROOKS COUNTY

(Map Fig. 4)

**The 1951 production from 70 pools: oil 7,088,170 barrels, gas none. Wells drilled in 1951: oil 148, gas none, dry 114, salt-water disposal 6, total 268, including 23 wildcats. New pools discovered 17, revived 1, pools combined 4.**

*Developments during 1951.*—Oil production in Rooks county was 20 percent more than in 1950 but drilling increased only 3 per-

cent. Rooks County is now the State's 6th largest oil-producing county.

Of the 40 wildcat tests in Rooks County, 17 resulted in new pools and 23 were dry. In alphabetical order the new pools are the **Annon, Bassett, Berland Northwest, Berland South, Chandler West, Elm Creek, Locust Grove Southeast, Lone Star Southwest, Lynd, Marcotte South, Marcotte Southwest, Mayhew, Palco Southwest, Riffe, Rogers, Slate,** and **Sweet.** Fourteen of the 17 new pools were brought in as Arbuckle producers and the largest well with a capacity of 2,664 barrels of oil per day was the discovery well of the Rogers pool. The Berland South pool is unusual because it obtains oil from four different porous zones in the Lansing-Kansas City limestones. The zones are in groups of two between 3,480 and 3,490, and 3,597 and 3,619 feet. The details of locations, initial production, and so forth are given in Table 6.

The **Kruse** pool, discovered in 1928 by the Derby Oil Company, produced 6,002 barrels of oil from the discovery well before being deepened to the Arbuckle without favorable results and abandoned in March 1929. During 1951, this pool was revived when the Broadview Oil Company found production in the Lansing-Kansas City limestone on the Becker farm in sec. 34, T. 9 S., R. 16 W.

Before the close of the year several pools were joined together by intervening wells. Such was the case with the **Novotny** pool, now part of the **Barry** pool. The Berland Northwest pool was combined with the **Berland** and later the Berland with the **Marcotte.** Another addition to the Marcotte field during the year was the Rogers pool.

All 23 dry wildcat tests reached the Arbuckle rocks and one, the Barnett Oil Company No. 1 Nichol in sec. 7, T. 6 S., R. 20 W., reported granite wash at 3,709 feet depth. In the W. J. Coppinger et al. No. 1 Schoeller well in sec. 19, T. 7 S., R. 19 W., a show of oil was observed from 3,475 to 3,484 feet, and in the Deep Rock Oil Corporation No. 1 Normandin test in sec. 20, T. 8 S., R. 20 W., 15 feet of oil-cut mud was recovered from 3,460 to 3,540 feet on a drill-stem test.

During the year 9 oil wells, 3 dry holes, and 1 salt-water disposal well were added to the Barry pool, 10 oil wells to the **Chandler** pool, 13 oil wells and 6 dry holes to the **Gra-Rook** pool, and 47 oil wells, 7 dry holes, and 3 salt-water disposal wells to the Marcotte pool.

Some interesting information on the deeply buried rocks of this county was obtained when some operators sought porous zones in the Arbuckle dolomite for disposal of salt water. The Deep Rock Oil Corporation deepened its No. 9 Ondrasek well in sec. 32, T. 8 S., R. 19 W., to a total depth of 3,883 feet in Pre-Cambrian granite. The thickness of the Arbuckle in this well is 231 feet. The Barnett Oil Company No. 2 Hinckhouse well in sec. 9, T. 10 S., R. 20 W., found 40 feet of granite wash, 52 feet of Lamotte sandstone, and 385 feet of Arbuckle rock. In sec. 13, T. 10 S., R. 20 W. the Arbuckle is more than 452 feet thick in the Champlin Refining Company No. 10 Earl well. Also in this section the Sohio Oil Company No. 1 Sutor well found 491 feet of Arbuckle. To the southwest in sec. 23, the Champlin Refining Company No. 5 Rogers "B" well penetrated 451 feet of Arbuckle without going through it.

Locations of producing areas and dry wildcat wells are shown on Figure 4. Oil production data are given in Table 66. Data on dry wildcats are listed in Table 54.

TABLE 54.—*Dry wildcat tests drilled in Rooks County during 1951*

| Company and farm | Location | Depth to top of Lans.-K.C., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|
| *Barnett Oil Co. et al. No. 1 Nichol | SE¼ SE¼ SW¼ 7-6-20W | 3,645 | ..... | 3,761 |
| *Sitrin & Murfin Drlg. Co. No. 1 Bray | NE¼ NE¼ SE¼ 35-7-18W | 3,072 | 3,355 | 3,385 |
| W. J. Coppinger et al. No. 1 Schoeller | NE¼ NE¼ NE¼ 19-7-19W | 3,210 | 3,475 | 3,488 |
| Deep Rock Oil Corp. No. 1 Dorothy Schoeller | NE¼ SE¼ NW¼ 32-7-19W | 3,114 | 3,370 | 3,405 |
| Deep Rock Oil Corp. No. 1 Loeffler | NW¼ NW¼ SE¼ 6-7-20W | 3,469 | 3,780 | 3,850 |
| *Laura Jane Oil Co. No. 1 Stice | SW¼ SW¼ SE¼ 13-7-20W | 3,226 | 3,490 | 3,599 |
| *V. D. Sidey Oil Co. No. 1 Cooper | SW¼ SW¼ NE¼ 14-7-20W | 3,277 | 3,524 | 3,545 |
| K & E Drlg. Co. No. 1 Kallman | NW¼ NW¼ NW¼ 17-8-16W | 2,962 | 3,317 | 3,342 |
| Deep Rock Oil Corp. & Creekmore Drlg. Co. No. 1 Rooks Co. | SW¼ NW¼ NE¼ 4-8-18W | 3,069 | 3,404 | 3,436 |
| *Carl Todd Drlg. Co. No. 1 McCormick | NW¼ NW¼ SE¼ 6-8-19W | 3,102 | 3,358 | 3,420 |
| Deep Rock Oil Corp. & Creekmore Drlg. Co. No. 1 M. M. Thyfault | SE¼ SE¼ SE¼ 8-8-20W | 3,241 | 3,588 | 3,618 |

| | | | | |
|---|---|---|---|---|
| B & R Drlg. Co., Inc.<br>No. 1 Brown | Cen.N½ NE¼ NE¼<br>9-8-20W | 3,157 | 3,425 | 3,460 |
| Deep Rock Oil Corp. & Creekmore Drlg. Co. & Delta Prod.<br>No. 1 Ida M. Burton | SW¼ SW¼ SW¼<br>16-8-20W | 3,243 | 3,548 | 3,590 |
| Deep Rock Oil Corp.<br>No. 1 Normandin | NW¼ NW¼ NW¼<br>20-8-20W | 3,319 | 3,648 | 3,700 |
| Deep Rock Oil Corp.<br>No. 1 Hinkhouse | NW¼ NW¼ NW¼<br>26-8-20W | 3,292 | 3,576 | 3,582 |
| *Harry Gore<br>No. 1 Benoit | NE¼ NW¼ NW¼<br>28-8-20W | 3,268 | 3,649 | 3,679 |
| Falcon Seaboard Drlg. Co. No. 1 O'Connor | SW¼ SW¼ SW¼<br>34-8-20W | 3,326 | 3,643 | 3,695 |
| *Deep Rock Oil Corp.<br>No. 1 Baldwin | NE¼ SE¼ NE¼<br>35-8-20W | 3,308 | 3,606 | 3,636 |
| Doley Oil Co.<br>No. 1 Overholtzer | SW¼ SW¼ SE¼<br>36-9-17W | 3,240 | 3,606 | 3,640 |
| Barnett Drlg. Co., Inc.<br>No. 1 Kern | NE¼ NE¼ NW¼<br>14-9-20W | 3,359 | 3,650 | 3,693 |
| *V. D. Sidey Oil Co.<br>No. 2 Matheson | SE¼ SE¼ SE¼<br>13-10-16W | 3,113 | 3,557 | 3,575 |
| *Aylward Drlg. Co. et al.<br>No. 1 Tucker | SE¼ SE¼ NE¼<br>14-10-17W | 3,248 | 3,575 | 3,600 |
| *Graham-Messman-Rinehard Oil Co.<br>No. 1 Bohning | SW¼ SW¼ SE¼<br>17-10-17W | 3,317 | 3,704 | 3,725 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

## RUSH COUNTY

(Map Fig. 8)

**The 1951 production from 5 pools: oil 520,856 barrels, gas 2,936,849 thousand cubic feet (estimated). Wells drilled in 1951: oil 5, gas none, dry 11, total 16 including 8 dry wildcats. New pool discovered 1.**

*Developments during 1951.*—Oil production in Rush County increased more than 10 percent during 1951 but estimated gas production declined considerably. One new pool was discovered. Four oil wells and three dry holes added to the **Ryan** pool were the only pool extensions completed during the year.

The **Hungry Hollow** pool discovery well was drilled by Kleinson and Bradley on the Pfeifer farm in sec. 6, T. 16 S., R. 17 W., to a total depth of 3,512 feet. In the Lansing limestone between depths of 3,344 and 3,351 feet, a potential capacity of 160 barrels of oil per day was found. Deeper drill-stem tests had shows of oil or gas which were considered less favorable.

TABLE 55.—*Dry wildcat tests drilled in Rush County during 1951*

| Company and farm | Location | Depth to top of Anhydrite, feet | Depth to top of Lansing, feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *M. B. Armer Drlg. Co. et al. No. 1 Taylor | SE¼ SE¼ NE¼ 14-16-16W | 1,060 | 3,248 | 3,543 | 3,570 |
| The Texas Co. No. 1 F. W. Zimmerman | SE¼ SW¼ SE¼ 25-16-16W | 1,050 | 3,264 | 3,602 | 3,630 |
| F. E. Lockhart No. 1 Leiker | NE¼ NE¼ SW¼ 5-16-18W | 1,202 | 3,322 | 3,616 | 3,670 |
| Graham-Messman-Rinehart Oil Co. No. 1 Ochs | NE¼ NE¼ SE¼ 8-17-16W | 1,145 | 3,325 | 3,595 | 3,651 |
| *Ben F. Brack Oil Co., Inc. No. 1 Rogers | NE¼ NE¼ SE¼ 12-17-20W | 1,350 | 3,495 | 3,957 | 4,010 |
| *Solar Oil Corp. No. 1 Sutton | SE¼ SE¼ SE¼ 27-17-20W | 1,363 | 3,577 | 4,102 | 4,150 |
| *Solar Oil Corp. No. 2 Fred Tammen | NE¼ NE¼ SW¼ 24-19-16W | 1,040 | 3,365 | 3,666 | 3,745 |
| *Ben F. Brack Oil Co., Inc. No. 1 Conard | NW¼ NW¼ SE¼ 34-19-17W | 1,200 | 3,542 | 3,869 | 3,935 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

All eight wildcat tests completed during the year penetrated the Arbuckle dolomite, one reported the Lamotte sandstone, and none indicated reaching Pre-Cambrian rocks. The F. E. Lockhart No. 1 Lieker well in sec. 5, T. 16 S., R. 18 W., reported shows of oil on drill-stem tests between 3,500 to 3,526 feet and 3,616 to 3,620 feet. The Graham-Messman-Rinehart No. 1 Ochs well in sec. 8, T. 17 S., R. 16 W., had shows of oil and gas from 3,595 to 3,613 feet. The Solar Oil Corporation No. 2 Fred Tammen test in sec. 24, T. 19 S., R. 16 W., lists 25 feet of gas-cut mud in a drill-stem test from 3,670 to 3,676 feet depth.

Locations of producing areas and dry wildcat wells are shown on Figure 8. Oil production data are given in Table 66 and gas production data in Table 67. Data on dry wildcat tests are listed in Table 55, and the new pool in Table 6.

## RUSSELL COUNTY

(Map Fig. 7)

**The 1951 production from 32 pools: oil 12,959,676 barrels, gas none. Wells drilled during 1951: oil 150, gas 2, dry 86, salt-water disposal 9, total 247 including 7 wildcats. New pools discovered 2, pools combined 5.**

TABLE 56.—*Dry wildcat tests drilled in Russell County during 1951*

| Company and farm | Location | Depth to top of Lans.-K.C., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|
| *Time Petro. Co. No. 1 Thompson | SE¼ SE¼ SE¼ 7-11-14W | 2,920 | 3,506 | 3,560 |
| *Johnson Oil Co. No. 1 Brandt | NW¼ NW¼ NE¼ 14-12-15W | 2,973 | 3,303 | 3,310 |
| *Glickman Oil Co. No. 1 Gurnon | NW¼ NE¼ SE¼ 18-13-15W | 3,061 | 3,330 | 3,355 |
| Duke & Wood Drlg. Co. No. 1 Turner | SW¼ SW¼ SW¼ 34-14-11W | 2,893 | 3,230 | 3,269 |
| *Bay Petro. Corp. No. 1 Anschutz | NW¼ NW¼ SE¼ 12-14-12W | 2,891 | 3,259 | 3,300 |
| *Continental Oil Co. No. 1 Hoch | SW¼ SW¼ SW¼ 13-15-11W | 2,980 | 3,348 | 3,404 |
| *Hamilton Drlg. Co. No. 1 Mares | SE¼ NE¼ NE¼ 13-15-11W | 2,922 | 3,272 | 3,336 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

*Developments during 1951.*—Drilling declined 30 percent and oil production decreased more than 4 percent in Russell County during 1951. However, the county maintained its place as the State's second largest oil-producing county. The two new pools discovered during the year, the **Coal Creek** in sec. 22, T. 15 S., R. 11 W., and the **Ehrlich** in sec. 7, T. 14 S., R. 13 W., are close to former production. The Coal Creek pool discovered by Alpine Oil and Royalty Company on the Daniels farm, produces from the Pennsylvanian basal conglomerate from 3,178 to 3,188 feet. The new Ehrlich pool discovered by Schumaker and Meyers on the Ehrlich "A" lease produces from the Tarkio from 2,383 to 2,393 feet depth. The **Cook** field, discovered in 1950, added the Arbuckle rocks from 3,314 to 3,321 feet as a new producing zone in the field.

All seven unsuccessful wildcat tests were drilled within a few miles of the productive trend roughly outlined by the **Trapp, Hall-Gurney,** and **Fairport** pools with no new drilling in the northeastern third of the county. All tests were drilled into the Arbuckle dolomite and one, the Hamilton Drilling No. 1 Mares in sec. 13, T. 15 S., R. 11 W., which penetrated the basal sand, had shows of oil at 3,272 to 3,276 feet.

Routine drilling in the old producing areas yielded 23 oil wells and 13 dry holes in the **Gorham** pool; 59 new producers and 17 dry holes in the Hall-Gurney pool; 13 new oil wells and 6 dry holes in

the **Russell** pool; and 68 oil wells with only 11 dry tests in the Trapp pool.

The large Hall-Gurney pool was expanded even more during the year by addition of the **Forest Hill, Forest Hill North,** and **Gustason** pools. During the year other combinations completed were: **Russell Northeast** with Russell and **Smoky Hill** with Trapp.

No production was reported for the two gas wells, one in the Hall-Gurney field in sec. 26, T. 15 S., R. 12 W. and one in the Russell pool in sec. 23, T. 13 S., R. 14 W.

Interesting new geological information is revealed by the drilling of salt-water disposal wells. The Murfin Drilling Company No. 4 Brown well in the **Atherton** pool, ended in solid granite at 3,457 feet. The Arbuckle dolomite, which overlies the granite, was 146 feet thick. In the Hall-Gurney pool, The Texas Company No. 12 Goodheart well found Pre-Cambrian granite at 3,284 feet. Arbuckle dolomite was 180 feet thick. Farther east in the **Dubuque** pool the B & R Drilling Company No. 4 Hitchman well entered granite wash at 3,422 feet, finding only 46 feet of Arbuckle dolomite.

Locations of producing areas and dry wildcat wells are shown on Figure 7. Oil production data are given in Table 66 and data on dry wildcats are listed in Table 56. Information on new pools is given in Table 6.

## SALINE COUNTY

(Map Fig. 6 )

**The 1951 production from 10 pools: oil 683,262 barrels, gas none. Wells drilled in 1951: oil 68, gas none, dry 35, total 103 including 7 wildcats. New pools discovered 3, pools combined 1.**

*Developments during 1951.*—During 1951 103 wells were drilled in Saline County, while only 37 were drilled in the county last year. As a result of the increased drilling, oil production increased 89 percent. The three new oil pools are the **Bachofer, Holm,** and **Ryding** pools. During the year the Ryding pool was combined with the **Smolan** pool.

The ratio of successful wells to the number of dry holes is important. During the year the Bachofer had 3 oil wells, including the discovery well; the Holm, 2 wells including the discovery; **Hunter North,** 1 oil; **Mentor,** 1 oil; **Olsson,** 1 oil; **Salina,** 5 oil; Smolan, 54 oil, including the Ryding wells; and **Swenson,** 1 oil well.

TABLE 57.—*Dry wildcat tests drilled in Saline County during 1951*

| Company and farm | Location | Depth to top of Mississippian, feet | Depth to top of Viola, feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *E. K. Carey No. 1 Mable Linn | SW¼ SW¼ NW¼ 28-14-4W | 3,065 | 3,665 | 3,851 | 3,865 |
| *F. W. Vishnefske et al. No. 1 Roy McCormick | SE¼ SW¼ SW¼ 34-14-4W | 3,057 | 3,638 | ..... | 3,696 |
| *Phillips & Sanderson No. 1 Leander | SE¼ SE¼ NE¼ 1-15-4W | 3,027 | 3,491† | ..... | 3,668 |
| *Anschutz Drlg. Co., Inc. No. 1 Krauss | SE¼ SE¼ NW¼ 14-16-1W | 2,668 | 3,282 | 3,436 | 3,462 |
| *Natl. Assoc. Petro. Co. No. 1 Bethany College | NE¼ NE¼ NW¼ 19-16-3W | 3,040 | 3,610 | ..... | 3,641 |
| *Natl. Assoc. Petro. Co. No. 1 Nelson | SW¼ SE¼ SW¼ 22-16-3W | 2,856 | 3,386 | 3,532 | 3,577 |
| *J. A. Melland No. 1 Sundgren | NW¼ NW¼ SE¼ 4-16-4W | 3,099 | 3,594† | ..... | 3,635 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.
† Depth to top of Hunton, feet.

Only three of the seven unsuccessful dry wildcat tests penetrated Arbuckle rocks, and none of the seven indicated any shows of oil or gas. The three drilled into the Arbuckle are the E. K. Carey No. 1 Mable Linn well in sec. 28, T. 14 S., R. 4 W.; the Anschutz Drilling Company No. 1 Krauss test in sec. 14, T. 16 S., R. 1 W.; and the National Associated Petroleum Company No. 1 Nelson well in sec. 22, T. 16 S., R. 3 W.

Locations of producing areas and the dry wildcat wells are shown on Figure 6. Oil production data are given in Table 66 and information on new pools is given in Table 6. Data on the dry wildcat tests are listed in Table 57.

## SCOTT COUNTY

(Map Pl. 2)

**The 1951 production from 2 pools: oil 32,598 barrels, gas none. Wells drilled in 1951: oil 1, gas 1, dry 6, total 8 including 4 wildcats.**

*Developments during 1951.*—Four tests were made during 1951 in the **Keystone** pool, discovered in 1950. The Herndon Drilling Company added the only new oil well, rated at 95 barrels of oil per day and 15 percent water from the Lansing-Kansas City rocks on the Chance farm in sec. 19, T. 18 S., R. 31 W. The Amerada Pe-

TABLE 58.—*Dry wildcat tests drilled in Scott County during 1951*

| Company and farm | Location | Depth to top of Anhydrite, feet | Depth to top of Lansing, feet | Depth to top of Mississippian, feet | Total depth, feet |
|---|---|---|---|---|---|
| Amerada Petro. Corp. No. 1 Cora Crowell | NE¼ NE¼ NE¼ 35-17-32W | 2,245 | 3,932 | 4,566<br>5,189* | 5,354 |
| Amerada Petro. Corp. No. 1 Joseph Petrzelka | NE¼ NE¼ NE¼ 5-18-32W | 2,208 | 3,996 | ..... | 4,140 |
| Herndon Drlg. et al. No. 1 Kirk | SE¼ SE¼ SE¼ 14-19-32W | 2,245 | 3,973 | 4,639 | 4,740 |
| Amerada Petro. Corp. No. 1 R. L. Crist | SW¼ SW¼ SW¼ 20-20-33W | 2,090 | 3,878 | 4,717 | 4,900 |

* Depth to top of Arbuckle, feet.

troleum Corporation also drilled on the Chance farm in sec. 30, T. 18 S., R. 31 W., where the Lansing-Kansas City rocks were found barren and the well was plugged back to the gas zone in the Chase group, being completed for a potential of 633,528 cubic feet of gas per day. This well was shut in. The Amerada Petroleum Corporation drilled a dry hole in the Keystone pool on the Grube farm in sec. 24, T. 18 S., R. 32 W., and Peel-Hardman made the other unsuccessful test on the Taylor farm in sec. 20, T. 18 S., R. 31 W.

The Amerada Petroleum Corporation drilled three of the four wildcat tests in the county during the year. In the R. L. Crist well in sec. 20, T. 20 S., R. 33 W., one of Amerada's tests, shows of oil were found from 4,277 to 4,300 and from 4,396 to 4,427 feet depth. The Amerada Petroleum Corporation No. 1 Cora Corwell well in sec. 35, T. 17 S., R. 32 W., the only Arbuckle test reported a show of oil at 4,157 to 4,180 feet depth. In this well, the electric log as interpreted by the operator showed Herington limestone at 2,746, Fort Riley at 2,888, Topeka limestone at 3,504, Lansing limestone at 3,932, Mississippian (Ste. Genevieve limestone) at 4,566, Viola at 5,142, and Arbuckle dolomite at 5,189 feet depth.

Locations of producing areas and dry wildcat wells are shown on Plate 2. Oil production data are given in Table 66. Data on dry wildcats are listed in Table 58.

## SEDGWICK COUNTY

(Map Fig. 12)

**The 1951 production from 25 pools: oil 1,522,943 barrels including 45,879 barrels from 2 secondary recovery projects, gas 490,291 thousand cubic feet. Wells drilled in 1951: oil 28, gas none, dry 46,**

**salt-water disposal 3, total 77 including 13 wildcats. New pools discovered 5.**

*Developments during 1951.*—Oil production in Sedgwick County was almost 16 percent more than in 1950 and gas production was substantially increased during 1951. Drilling decreased 30 percent.

It is interesting to note the diversification in producing zones in the five new oil pools in the county. The **Luening** and the **Minneha Northwest** produce from sandstone in the Simpson group, the **Petrie Northwest** produces from the Viola rocks, the **Minneha** produces from the Arbuckle dolomite, and the **Kuske North** produces from the "Burgess sand" at the base of the Pennsylvanian System.

TABLE 59.—*Dry wildcat tests drilled in Sedgwick County during 1951*

| Company and farm | Location | Depth to top of Lansing, feet | Depth to top of Mississippian, feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *J. P. Gaty No. 1 Shorthose | NE¼ SE¼ NE¼ 1-25-1E | 2,979† | ..... | ..... | 2,997 |
| *Alpine Oil & Royalty Co., Inc. No. 1 Carey | NW¼ NW¼ NE¼ 34-25-1E | 2,278 | 3,054 | 3,571 | 3,585 |
| *H. Bachus & Son No. 1 Peseinger | SE¼ SE¼ NW¼ 36-25-1E | 2,289 | 3,007 | ..... | 3,072 |
| *Wolf Creek Oil Co. et al. No. 1 Patterson | SE¼ NE¼ NE¼ 12-25-2E | 1,990 | 2,808 | ..... | 2,849 |
| *Kruse & Porter No. 1 Melick | SW¼ NW¼ SE¼ 21-25-2E | ..... | 2,904 | 3,431 | 3,441 |
| *J. P. Gaty No. 1 Rick | SE¼ SW¼ NE¼ 16-28-2E | ..... | 2,950 | ..... | 3,280 |
| Dunne & Strait Drlg. Co. No. 1 Rippe | SE¼ SE¼ SW¼ 26-28-2E | 2,155 | 2,994 | 3,358 | 3,390 |
| *E. H. Adair Oil Co. No. 1 Krehbiel | SE¼ SE¼ NW¼ 10-29-2E | ..... | 3,078 | ..... | 3,410 |
| Dunne & Strait Drlg. Co. No. 1 Larimer | SW¼ SW¼ SW¼ 16-29-2E | 2,294 | 3,150 | 3,587 | 3,620 |
| *Greeley Drlg. Co. No. 1 Miller | NE¼ NW¼ SW¼ 23-27-2W | 2,956** | ..... | ..... | 3,200 |
| Dankoff Oil Co. No. 1 Rosenhagen | SE¼ SE¼ SE¼ 21-27-4W | 2,840 | 3,691 | ..... | 4,165 |
| *Continental Oil Co. No. 1 Rosenhagen | NW¼ NW¼ SE¼ 19-28-4W | 2,990 | 3,835 | ..... | 3,908 |
| *H. M. Williams et al. No. 1 F. A. Roy | NW¼ NW¼ SE¼ 26-29-1W | 2,805 | 3,406 | 3,884 | 3,900 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.
† Depth to top of "Burgess Sand," feet.
** Depth to top of Kansas City, feet.

Five of the 13 dry wildcat tests drilled in the county during the year penetrated the Arbuckle rocks and only one reported shows of oil or gas. Oil found in the top part of Mississippian rocks by the Wolf Creek Oil Company et al. No. 1 Patterson test in sec. 12, T. 25 S., R. 2 E., drilled more than 5 miles from existing production, was not commercial. The gravity of the oil, nearly 44 degrees, is remarkably high and may encourage further testing in the area.

Information on the thickness of the Arbuckle rocks in Sedgwick County was gathered by the drilling of several salt-water disposal wells during the year. The Westgate-Greenland Oil Company No. 9 Davis well in sec. 31, T. 27 S., R. 4 W., in the **Bartholomew** pool was drilled to a total depth of 4,575 feet, indicating more than 366 feet of Arbuckle dolomite. In the **Greenwich** pool, the Laura Jane Oil Company No. 4 Lygrisse well, total depth 3,954 feet, found more than 623 feet of Arbuckle.

Locations of producing areas and dry wildcat wells are shown on Figure 12. Oil production data are given in Table 66 and gas production in Table 67. Data on the new pools are given in Table 6. Pertinent information on the dry wildcat tests is listed in Table 59. Information on the secondary recovery projects is given in Table 1.

## SEWARD COUNTY

(Map Pl. 1)

**The 1951 production from 4 pools: oil 28,033 barrels, gas 1,810,077 thousand cubic feet (from the Liberal Southeast and Light pools) with Hugoton Gas Area production not segregated as to counties. Wells drilled in 1951: oil 2, gas 49, dry 3, total 54. New pools discovered 2.**

*Developments during 1951.*—The most important development in the county during the year was the discovery of the **Light** oil and gas pool. The discovery well was drilled by the Jomilson Producers Company in their first test on the Light Estate in sec. 11, T. 35 S., R. 32 W. The production of 3,000 barrels of oil per day comes from the Atokan-Morrowan Series of rocks from 6,005 to 6,030 feet depth in a conglomeratic sandstone. The nomenclature committee designated the producing zone as Morrowan, whereas others have designated it as Atokan.

The **Kneeland**, the second new oil pool, was opened by the Columbian Fuel Corporation No. 1 Kneeland well in sec. 23, T. 34 S.,

R. 31 W., when 12 barrels of oil per day was found from depths of 5,332 to 5,346 feet in the Marmaton rocks.

Considerable gas was found in an old well worked over by the J. M. Huber Corporation in sec. 18, T. 35 S., R. 31 W. The production comes from a sandstone zone from 5,946 to 5,968 feet depth on the Lofland farm.

Only 49 new gas wells were added to Seward County's portion of the Hugoton Gas Area during the year, while 74 such wells were completed last year. Although the boundary as drawn last year was not changed by the 1951 activity in the area, the average capacity of the new gas wells does not indicate that the boundary will be permanent.

Seward County wells are shown on Plate 2. Gas production is given in Table 67 and oil production in Table 66. The unsegregated Hugoton production is given in Table 67. The pertinent information on the new oil pools is listed in Table 6. Additional data on the Hugoton Gas Area are given in the chapter on natural gas.

## SHAWNEE COUNTY

(Map Pl. 1)

Wildcat wells have been drilled in Shawnee County from time to time but so far no producing pool has been discovered.

*Exploration during 1951.*—Three dry wildcat wells were drilled into the Arbuckle in Shawnee County in 1951. The John Lindas Oil Company, Inc. No. 1 Nelson well in the SW¼ SW¼ NE¼ sec. 33, T. 12 S., R. 16 E., was completed in July. The following tops were reported: Kansas City, 795; Mississippian, 1,755; Chattanooga, 1,982; "Hunton," 2,098; Viola, 2,233; and Arbuckle, 2,401 feet; total depth was 2,518 feet. Also in July the John Lindas Oil Company, Inc. No. 1 Blake well in the SE¼ SE¼NW¼ sec. 5, T. 13 S., R. 16 E., was abandoned at 2,375 feet. The log shows tops as follows: Mississippian, 1,700; Chattanooga, 1,920; "Hunton," 2,102; Viola, 2,140; Simpson, 2,250; and Arbuckle, 2,314 feet.

The John Lindas Oil Company No. 1 Anna Warner well in the SW¼ SE¼ NW¼ sec. 5, T. 13 S., R. 17 E., was abandoned as a dry hole in August. Tops reported on the log are: Kansas City, 750; "Bartlesville," 1,681; Mississippian, 1,756; Kinderhookian, 1,958; "Hunton," 2,040; Viola, 2,152; Simpson, 2,287; and Arbuckle, 2,346 feet. Locations of the three test wells are shown on Plate 1.

## SHERIDAN COUNTY

(Map Fig. 5)

**The 1951 production from 3 pools: oil 358,146 barrels, gas none. Wells drilled in 1951: oil none, gas none, dry 2, total 2.**

*Developments during 1951.*—Oil production declined almost 15 percent from 1950. Only two wildcat tests (both dry) were drilled during 1951.

One of these tests, the Harry Gore No .1 Glasgow hole in sec. 21, T. 6 S., R. 26 W., encountered, according to the sample log prepared by J. D. Davies, Heebner shale at 3,735, Lansing limestone at 3,773, Pennsylvanian basal conglomerate at 4,200, and Arbuckle at 4,270 feet depth. The second dry test was the Peel-Hardman No. 1 Crofoot test in sec. 2, T. 8 S., R. 26 W., just north of the **Studley** pool. The Lansing limestone, which produces in the Studley pool, found at 3,714 feet, contained no oil. The test was abandoned at 4,293 feet as a dry hole.

Armer and Koplin's No. 1 Bieker test in sec. 15, T. 10 S., R. 28 W. is a 1950 straggler well. The sample log gives the following tops: Topeka limestone, 3,617; Heebner shale, 3,820; Lansing limestone, 3,852; Mississippian, 4,427; Viola, 4,621; and Arbuckle dolomite, 4,670 feet depth.

The locations of producing areas and dry wildcat tests are shown on Figure 5. Oil production is given in Table 66.

## SMITH COUNTY

Wildcat tests have been drilled from time to time in Smith County, but so far no production has been found.

*Exploration during 1951.*—One dry wildcat test was completed in Smith County during 1951. K & E Drilling Company drilled this test on the Lull farm in sec. 5, T. 3 S., R. 11 W., to a total depth of 4,176 feet. Tops as reported by the Kansas Sample Log Service are: Dakota, 610; Fort Riley, 1,692; Florence flint, 1,735; Wreford, 1,815; Lansing, 2,933; Pennsylvanian basal conglomerate, 3,533; Mississippian, 3,593; Viola, 3,892; Simpson, 4,070; and Arbuckle dolomite, 4,148 feet depth. No drill-stem tests were reported.

## STAFFORD COUNTY

(Map Fig. 10)

**The 1951 production from 103 pools: oil 6,336,930 barrels, gas 1,130,267 thousand cubic feet. Wells drilled in 1951: oil 173, gas 2,**

**dry 167, salt-water disposal 1, total 343 including 28 dry wildcats. New pools discovered: oil 22, gas 1, revived 2, total 25 including one dry discovery well. Pools combined 4.**

*Developments during 1951.*—Oil production in Stafford County increased more than 19 percent resulting mostly from the discovery of 25 additional pools. During the year 343 tests were made.

Initial capacities of the new pools range from 14 to 2,457 barrels of oil per day. None was abandoned during the year, although the discovery well of the Pleasant Hill pool was declared dry. The new pools in alphabetical order are the **Bart-Staff, Bayer, Black Cloud, Byron Southeast, Cochlin, Curtis South, Dell East, Dell Northeast, Duggan, Eric, German Valley, Hickman, Knoche** (gas), **Lincoln, Marie, McGinty Northwest, Mueller Northwest, Oscar North, Pleasant Hill, Pritchard South, Shepherd, Sleeper,** and **Wendelburg.** The revived pools are the **Byron** and **Smallwood.** Pertinent information on the locations and zones of production are listed in Table 6.

During the year the **Syms** pool was combined with the **Mueller,** the **Pundsack Southwest** with the **Pundsack,** the **Black Cloud** with the **Bryant,** and the **Bryant** with the **Chase-Silica.** Also during the year, three new producing zones were added to the Duggan pool. They are the Lansing-Kansas City at 3,312 to 3,334 feet, the Simpson sandstone from 3,505 to 3,514 feet, and the Arbuckle dolomite from 3,514 to 3,554 feet depth. Other pools adding new producing zones are the **Hickman** with production from the Simpson, the **Leesburgh** from the Simpson at 4,060 to 4,084 feet, the **Richardson** from the Lansing-Kansas City rocks in two zones 3,264 to 3,272 and 3,290 to 3,300 feet, the McGinty Northwest from the Lansing-Kansas City at 3,483 feet, the Smallwood from the Arbuckle at 3,576 feet, the **Max** from the Simpson at 3,615 to 3,617 feet, and the Marie from the Lansing-Kansas City rocks.

Most of the dry wildcat tests completed in the county during the year penetrated the Arbuckle rocks. Ten of these tests had shows of oil or gas. Data on the dry wildcat tests are given in Table 60.

The oil wells completed in Stafford County pools were rather evenly distributed among the many producing units, none showing a disproportionate amount of attention. The Hickman pool received 15 new oil producers, the Max 11, the **Gates** 10, the Duggan, Smallwood, and Mueller pools 9 each, and the Pundsack 8.

Locations of producing areas and dry wildcat wells are shown on Figure 10. Oil production data are given in Table 66 and gas production data in Table 67.

TABLE 60.—*Dry wildcat tests drilled in Stafford County during 1951*

| Company and farm | Location | Depth to top of Lans.-K.C., feet | Depth to top of Penn. Basal. Cong., feet | Depth to top of Viola, feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|---|
| D. R. Lauck Oil Co., Inc. No. 1 Malone | SW¼ SW¼ SE¼ 1-21-11W | 3,046 | 3,313 | ..... | 3,396 | 3,410 |
| Carl Todd Drlg. Co. & North Amer. Prod. Co. No. 1 Ira | SE¼ SE¼ NW¼ 13-21-11W | 3,066 | 3,343 | 3,362 | 3,431 | 3,456 |
| Murfin Drlg. Co. No. 1 Schartz | NE¼ SE¼ SE¼ 26-21-11W | 3,104 | 3,387 | 3,390 | 3,475 | 3,506 |
| J. J. Lynn No. 1 F. E. White | SW¼ SW¼ NW¼ 26-21-11W | 3,112 | 3,386 | 3,395 | 3,478 | 3,519 |
| J. H. Tatlock No. 1 Chan Smith Est. | SE¼ SE¼ SW¼ 36-21-11W | 3,128 | 3,426 | 3,431 | 3,527 | 3,559 |
| *Mallonee Drlg. Co. No. 1 Isern | SE¼ SE¼ SW¼ 2-22-11W | 3,148 | 3,434 | 3,450 | 3,546 | 3,579 |
| *E. H. Adair Oil Co. No. 1 Fair | SE¼ SE¼ NE¼ 4-22-11W | 3,138 | 3,412 | 3,423 | 3,482 | 3,540 |
| Robert P. Ryder & Assoc. No. 1 Smith | NE¼ NE¼ SW¼ 12-22-11W | 3,162 | 3,470 | 3,497 | 3,572 | 3,622 |
| *Pickrell Drlg. Co. & Francis Oil & Gas Co. No. 1 Hitz | SW¼ SW¼ SW¼ 29-22-12W | 3,355 | 3,626 | 3,679 | 3,765 | 3,785 |
| Westgate-Greenland Oil Co. No. 1 Russell | SE¼ SE¼ NW¼ 6-22-14W | 3,470 | 3,757 | 3,767 | 3,879 | 3,895 |
| *Imperial Petro. Co., Inc. No. 1 Dralle | NE¼ NE¼ NE¼ 16-22-14W | 3,466 | 3,752 | 3,764 | 3,851 | 3,901 |
| *Lewis Drlg Co. et al. No. 1 "A" Krug | SE¼ SE¼ NE¼ 3-23-11W | 3,270 | ..... | 3,606 | 3,705 | 3,737 |
| *Anschutz Drlg. Co. No. 1 Hornbacher | SW¼ SE¼ NW¼ 16-23-11W | 3,299 | 3,630 | 3,642 | 3,758 | 3,795 |
| B & R Drlg., Inc. No. 1 Dale | SW¼ SW¼ SE¼ 4-23-12W | 3,326 | 3,590 | 3,645 | 3,732 | 3,777 |
| Murfin Drlg. Co. No. 1 "B" Dale | SE¼ SE¼ NE¼ 9-23-12W | 3,337 | 3,606 | 3,642 | 3,747 | 3,785 |
| *Musgrove Petro. Corp. No. 1 Smith | NE¼ NE¼ SE¼ 8-23-13W | 3,474 | 3,778 | 3,817 | 3,900 | 3,988 |
| *Imperial Petro. Co., Inc. No. 1 Ward | NE¼ NE¼ SE¼ 15-23-13W | 3,433 | 3,735 | 3,758 | 3,882 | 3,920 |
| *Speer Drlg. Co. et al. No. 1 Glasscock | NE¼ NE¼ NE¼ 25-23-13W | 3,442 | 3,755 | 3,772 | 3,925 | 3,960 |
| Musgrove Petro. Corp. No. 1 Copeland | NW¼ NW¼ SW¼ 17-23-14W | 3,592 | 3,920 | 3,948 | 4,088 | 4,144 |
| Stanolind Oil & Gas Co. No. 1 C. Batchman | SW¼ NE¼ SW¼ 20-23-14W | 3,585 | 3,905 | 3,943 | 4,049 | 4,085 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Jackson Drlg. Co. No. 1 Miller | NE¼ SE¼ NW¼ 23-23-14W | 3,550 | 3,869 | 3,894 | 4,027 | 4,047 |
| John Lindas Oil Inc. et al. No. 1 Radke | NW¼ NW¼ SW¼ 26-23-14W | 3,622 | 3,991 | 4,009 | 4,139 | 4,180 |
| Jackson Drlg. Corp. No. 1 Ward | NW¼ NW¼ SE¼ 32-23-14W | 3,600 | ..... | 3,960 | 4,079 | 4,121 |
| Palmer Oil Corp. No. 1 Gillmore | NE¼ NE¼ NW¼ 33-23-14W | 3,612 | 3,964 | ..... | 4,081 | 4,104 |
| Anschutz Drlg. Co. No. 1 De Busk | NW¼ NW¼ SW¼ 19-24-14W | 3,782 | 4,158 | 4,335 | 4,490 | 4,540 |
| O. O. Sutton No. 1 Bentley Estate | NE¼ NE¼ SW¼ 14-25-12W | 3,541 | 3,919 | 3,962 | ..... | 4,135 |
| Mercury Drlg. Co. No. 1 Copenhaver | SE¼ SE¼ SW¼ 32-25-12W | 3,622 | 4,007 | 4,018 | 4,282 | 4,332 |
| John Lindas Oil, Inc. et al. No. 1 Seibert-Sparks | NW¼ NW¼ SW¼ 26-25-13W | 3,702 | 4,085 | 4,152 | 4,335 | 4,375 |

No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

## STANTON COUNTY

(Map Pl. 2)

**The 1951 production—all from the Hugoton Gas Area—not segregated as to counties. Wells drilled in 1951: oil none, gas 24, dry 5, total 29, including 1 dry wildcat.**

*Developments during 1951.*—Drilling in Stanton County increased from 18 wells in 1950 to 29 wells in 1951. The new gas wells were concentrated in Ts. 27 and 28 S., extending the previous year's boundary to the west and increasing the producing area by 27 square miles. The addition of these 29 holes drilled during the year brings the county's total to 177 holes. Although most of the new gas wells are located along the western border of the producing territory, some of them have large capacities. After acidization, many wells yielded more than 10 million cubic feet of gas per day. The largest new producer is the United Producing Company No. 1 Winger well in sec. 23, T. 27 S., R. 40 W. It is capable of producing nearly 20 million cubic feet of gas per day.

In setting the new limits to the producing area of the Hugoton Gas Area, four dry holes were drilled by the United Producing Company in T. 27 S., Rs. 40 and 41 W. Three of these tested only the usual gas producing zones but one on the Carl Lane property in sec. 25, T. 27 S., R. 41 W., tested possible lower producing zones. Mississippian was found at 5,336, Misener at 6,180, Viola at 6,205, Simpson at 6,370, and Arbuckle dolomite at 6,395, and a basal sand at 6,980 feet depth.

A deep dry wildcat test drilled by the Superior Oil Company on the Tucker farm in sec. 4, T. 29 S., R. 42 W., 12 miles west of the town of Johnson was completed to a total depth of 6,432 feet. According to A. L. Repecka, district geologist of the company, Dakota sandstone was found at 200 feet, Permian redbeds at 585, the gas-bearing sequence of the Hugoton Gas Area at 2,331 (the electric log indicates that the porous dolomites were present, but contained no gas), Heebner shale at 3,602, Lansing limestone at 3,636, Cherokee shale at 4,840, a prominent sandstone at 5,355, base of Pennsylvanian at 5,422 (only 31 feet of Chesterian rocks is present), Ste. Genevieve limestone at 5,453, Warsaw dolomites at 5,775, Osagian rocks at 6,022, Gilmore City at 6,147, Viola (Ordovician) at 6,258, Simpson at 6,348, and Arbuckle dolomite at 6,369 feet depth. Cores were taken at the base of the Pennsylvanian, in the upper part of the Mississippian, and in the Ordovician rocks.

Stanton County wells and dry wildcat tests are shown on Plate 2. Gas production and the producing zones are listed under Hugoton in Table 67. Additional data on the Hugoton Gas Area are given in the chapter on natural gas.

## STEVENS COUNTY

(Map Pl. 2)

**The 1951 production—all from the Hugoton Gas Area—not segregated as to counties. Wells drilled in 1951: oil none, gas 12.**

*Developments during 1951.*—Stevens County, now largely drilled out, had only 12 new gas wells in 1951. Half of these were in T. 31 S., R. 37 W. The average of the wells is more than 20 million cubic feet per day with the largest new well being the Hugoton Production Company No. 1 Fulk well in sec. 19, T. 31 S., R. 37 W., about 15 miles north of Hugoton.

Stevens County wells are shown on Plate 2; gas production, the active area, and producing zones are shown under Hugoton in Table 67. Additional data on the Hugoton Gas Area are given in the chapter on natural gas.

## SUMNER COUNTY

(Map Fig. 12)

**The 1951 production from 28 pools: oil 1,660,802 barrels (none reported from one secondary recovery project), gas not reported. Wells drilled in 1951: oil 45, gas none, dry 36, salt-water disposal**

**or input 2, total 83 including 15 dry wildcats. New pools discovered 4.**

*Developments during 1951.*—Drilling in Sumner County increased from 73 holes in 1950 to 83 holes in 1951, adding in all 4 new oil pools and increasing the county's production by 26 percent. The new pools are the **Guelph, Lee, Metz,** and **Zoglmann.** Before the close of the year the Simpson became a new producing zone in two of these new oil pools, the Guelph and the Metz.

The first new pool found during the year was the Metz pool discovered on the Metz farm by the Texas Pacific Coal and Oil Com-

TABLE 61.—*Dry wildcat tests drilled in Sumner County during 1951*

| Company and farm | Location | Depth to top of "Stalnaker," feet | Depth to top of Miss., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|
| *Marworth No. 1 Spillar | NW¼ NW¼ SW¼ 2-33-1E | 2,559 | 3,521 | 4,093 | 4,143 |
| Alpine Oil & Royalty Co., Inc. No. 1 Herod | NE¼ SW¼ NE¼ 10-33-2E | 2,246 | 3,455 | ..... | 3,515 |
| Flynn Oil Co. No. 1 Wolf | NE¼ NE¼ SE¼ 24-34-1E | 2,460 | 3,538 | 3,895 | 3,950 |
| *Francis Oil & Gas Co. Inc. No. 1 Hayter | NE¼ NE¼ NE¼ 2-31-4W | 3,144 | 4,072 | 4,640 | 4,665 |
| *Flynn Oil Co. No. 1 Almack | SE¼ NW¼ SE¼ 18-32-1W | 2,765 | 3,750 | ..... | 3,770 |
| Sun Oil Co. No. 1 Sarah Miller | SE¼ SE¼ NE¼ 32-32-1W | 2,860 | 3,849 | 4,380 | 4,430 |
| Champlin Refig. Co. No. 1 Lauterbach | NW¼ NE¼ SE¼ 21-32-2W | 2,924 | 3,393 | 4,435 | 4,470 |
| *J. L. Crawford No. 1 Lauterback | SW¼ SW¼ SW¼ 33-32-2W | 2,927 | 3,945 | ..... | 4,376 |
| *Harwood Oil Co. No. 1 Ward | NE¼ SE¼ SE¼ 21-33-2W | 2,984 | 4,002 | ..... | 4,465 |
| The Texas Co. No. 1 V. G. Wethington | NW¼ SE¼ NW¼ 30-33-3W | 3,092 | 4,098 | 4,642 | 4,676 |
| *Stickle Drlg. Co. & Harwood Oil Co. No. 1 Wunsch | NW¼ SE¼ NE¼ 7-33-4W | ..... | 4,258 | 4,829 | 4,880 |
| *Alpine Oil & Royalty Co., Inc. No. 1 Brownback | NE¼ NE¼ SW¼ 5-34-2W | 3,015 | 4,088 | 4,696 | 4,747 |
| The Texas Co. No. 1 C. J. Frederick | NE¼ NW¼ SE¼ 4-34-3W | 3,119 | 4,206 | 4,828 | 4,892 |
| Natl. Assoc. Petro. Co. No. 1 Ward | SE¼ SE¼ SW¼ 13-35-2W | 3,066 | ..... | ..... | 3,515 |
| The Texas Co. No. 1 H. L. Davis | SE¼ NW¼ NE¼ 13-35-4W | 3,284 | 4,447 | 5,137 | 5,200 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

pany in sec. 7, T. 32 S., R. 2 E., with an initial capacity of 147 barrels of oil per day from the Arbuckle rocks from 3,733 to 3,776 feet depth. The Lee pool, the year's second discovery was found by the Capitt Drilling Company in sec. 33, T. 32 S., R. 2 E., the 25 barrels of oil per day coming from Mississippian strata at 3,349 to 3,358 feet depth. In June, the Petroleum Trading and Transportation Company found 86 barrels of oil per day in the Simpson from 4,036 to 4,038 feet depth on the Zoglmann lease in sec. 8, T. 31 S., R. 1 W., resulting in the new Zoglmann pool. The last pool to be found during the year was on the Gurley farm in sec. 6, T. 35 S., R. 1 E., opened by the Herndon Drilling Company who found 87 barrels of oil per day in the Lansing-Kansas City rocks from 3,028 to 3,073 feet depth.

Ten of the 15 dry wildcats were drilled in the western half of the county. Also 10 of the tests penetrated Arbuckle rocks and 7 had shows of oil or gas.

During the year 18 oil wells were added to the **Fall Creek** pool, 10 of which were maximum wells. The Guelph pool added a total of 7 oil wells, of which 3 were maximum wells.

Locations of producing areas and dry wildcat wells are shown on Figure 12. Oil production data are given in Table 66. Data on dry wildcat tests are listed in Table 61 and information on new pools is given in Table 6. Data on the one secondary recovery project are given in Table 1 and in the chapter on secondary recovery.

## THOMAS COUNTY

Wildcat wells have been drilled in Thomas County from time to time but so far no producing pool has been discovered.

*Exploration during 1951.*—The one unsuccessful attempt to find oil in Thomas County during 1951 was made by the National Associated Petroleum Company on the Ostmeyer farm in sec. 1, T. 10 S., R. 31 W. Judging from the scout information, the following tops were recorded; "anhydrite," 2,050; Fort Riley, 3,317; Topeka limestone, 3,688; Heebner shale, 3,977; Lansing limestone, 4,011; Base of the Kansas City, 4,302; Mississippian, 4,590; Viola dolomite, 4,826; and Arbuckle dolomite, 4,870 feet depth. Drill-stem tests in the Lansing at 4,092 to 4,102 and 4,156 to 4,175 feet had shows of oil-cut mud. Another drill-stem test from 4,873 to 4,882 feet in upper

Arbuckle rocks received only salt water. The test was abandoned at a total depth of 4,905 feet.

## TREGO COUNTY

(Map Fig. 9)

**The 1951 production from 10 pools: oil 263,798 barrels, gas none. Wells drilled in 1951: oil 35, gas none, dry 45, total 80 including 25 dry wildcats. New pools discovered 3, old pools revived 1, pools combined 1.**

*Developments during 1951.*—During 1951, drilling in Trego County increased more than eight times and oil production increased more than threefold. During the year three new pools were discovered and one old pool was revived. The new pools are the **Ogallah Southeast, Ogallah West,** and the **Spring Creek.** Drilling concentrated in the revived **Ogallah** pool resulted in 20 oil wells and only one dry hole. The Ogallah pool had been abandoned in 1942 after producing little oil from one well. Six of the new wells in the revived Ogallah pool were maximum producers. During the year, the Ogallah Southeast was combined with the Ogallah pool. The Lansing-Kansas City rocks from 3,428 to 3,437 feet were added as a new producing zone in the **Walz** field.

TABLE 62.—*Dry wildcat tests drilled in Trego County during 1951*

| Company and farm | Location | Depth to top of Anhydrite, feet | Depth to top of Lansing, feet | Depth to top of Congl., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|---|
| Peel-Hardman Oil Prod. No. 1 Osborne-Monroe | NE¼ NE¼ NW¼ 7-11-21W | 1,590 | 3,408 | 3,747 | 3,764 | 3,818 |
| Vickers Petro. Co., Inc. & Jayhawk Drlg. Co. No. 1 Baugher | NW¼ NW¼ NE¼ 26-11-21W | 1,717 | 3,586 | 3,886 | 3,909 | 3,932 |
| Transit Corp. & Davis Bros. No. 1 "A" Demurry | SE¼ SE¼ NE¼ 2-11-22W | 1,665 | 3,489 | 3,832 | 3,867 | 3,895 |
| *Davis Bros. & Transit Corp. No. 1 J. Faulkner | NW¼ NW¼ SW¼ 4-11-22W | 1,735 | 3,542 | 3,915 | 3,979 | 4,004 |
| Vickers Petro. Co., Inc. & Jayhawk Drlg. Co. No. 1 Hillman | NW¼ NW¼ SE¼ 10-11-22W | 1,632 | 3,448 | 3,808 | 3,843 | 3,900 |
| Glenn Nye et al. No. 1 Brown | SW¼ SW¼ SE¼ 14-11-22W | 1,665 | 3,492 | 3,837 | 3,909 | 3,952 |
| Davis Bros. No. 1 Baker-Hixson | SE¼ SE¼ SE¼ 30-11-22W | 1,820 | 3,642 | 4,035 | 4,074 | 4,122 |
| *Peel-Hardman Oil Prod. No. 1 Kline | NW¼ NW¼ NE¼ 17-11-23W | 1,840 | 3,648 | .... | 4,233 | 4,290 |

TABLE 62.—*Dry wildcat tests drilled in Trego County during 1951 (concluded)*

| Company and farm | Location | Depth to top of Anhydrite, feet | Depth to top of Lansing, feet | Depth to top of Congl., feet | Depth to top of Arbuckle, feet | Total depth, feet |
|---|---|---|---|---|---|---|
| *Finston & Co. & Murfin Drlg. Co. No. 1 Hixson | SE¼ SE¼ SE¼ 33-11-23W | 1,885 | 3,723 | 4,123 | 4,210 | 4,233 |
| *Strain Drlg. Co. No. 1 Hamburg | SW¼ SW¼ SW¼ 8-12-21W | 1,745 | 3,599 | 3,932 | 3,980 | 4,030 |
| Jones, Shelburne & Farmer, Inc. No. 1 Harrison | SW¼ SW¼ SW¼ 2-12-22W | 1,810 | 3,660 | 4,013 | 4,079 | 4,110 |
| *Anschutz Drlg. Co. No. 1 Newcomber | SE¼ SE¼ SW¼ 18-12-22W | ..... | 3,695 | 4,112 | 4,142 | 4,197 |
| *Anschutz Drlg. Co. No. 1 Rhoden | SW¼ SW¼ SE¼ 14-12-23W | 1,840 | 3,702 | 4,150 | ..... | 4,247 |
| B & R Drlg. Co., Inc. No. 1 "A" Rhoden | SW¼ SW¼ NE¼ 25-12-23W | 1,850 | 3,750 | 4,202 | 4,483 | 4,516 |
| *Prime Drlg. Co. et al. No. 1 Howat | SW¼ SW¼ NW¼ 19-12-24W | 2,075 | 3,857 | 4,372 | ..... | 4,448 |
| *Veeder Sup. & Dev. Co. & Lackhart No. 1 Hall | SE¼ SE¼ SE¼ 14-13-21W | 1,580 | 3,535 | 3,905 | 3,937 | 3,990 |
| Jones, Shelburne & Farmer, Inc. No. 1 Moon | SE¼ SE¼ SE¼ 32-13-21W | 1,665 | 3,628 | 4,060 | 4,065 | 4,115 |
| *Leo Dreiling et al No. 1 Benson | NW¼ NW¼ SE¼ 21-13-22W | ..... | 3,750 | 4,205 | 4,297 | 4,333 |
| *Anschutz Prod. Co. No. 1 Bender | NE¼ NE¼ SE¼ 17-13-23W | 1,880 | 3,795 | 4,340 | 4,583 | 4,635 |
| *Anschutz Drlg. Co. No. 1 Bauer | NE¼ NE¼ NW¼ 26-13-24W | 1,880 | 3,756 | 4,296 | 4,621 | 4,650 |
| Brunson Drlg. Co., Inc. et al. No. 1 Luea | SE¼ SE¼ SE¼ 12-14-21W | 1,540 | 3,527 | 3,878 | 3,939 | 3,980 |
| R. W. Rine Drlg. Co., et al. No. 1 Madden | NW¼ NW¼ NE¼ 17-14-21W | 1,560 | 3,564 | 3,982 | 3,998 | 4,351 |
| C-G Drilling No. 1 Colhare | SE¼ SE¼ NE¼ 22-14-21W | 1,587 | 3,593 | 3,998 | 4,027 | 4,060 |
| J. A. Davis & J. H. Child et al. No. 1 Jesse | NE¼ NE¼ NE¼ 5-15-24W | 1,715 | 3,629 | 4,181 | ..... | 4,243 |
| Sohio Petro. Co. & B & R Drlg. Co. No. 1 Hille | SW¼ SW¼ SE¼ 14-15-24W | 1,715 | 3,714 | 4,274 | 4,656 | 4,872 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

All but 3 of the 25 dry wildcat tests penetrated Arbuckle rocks. According to the scout reports only four had shows of oil or gas. Pertinent data on these important tests are listed Table 62.

Locations of producing areas and dry wildcat wells are shown on Figure 9. Oil production data are given in Table 66. Information on new pools is given in Table 6.

TABLE 63.—*Data on pool wells drilled in Wabaunsee County during 1951**

| Field | Oil wells | Dry holes |
|---|---|---|
| Davis Ranch | 1* | 1 |
| Mill Creek | 2* | .. |
| Newbury | 6 | 1 |
| Wheat | 1 | 1 |
| Woodbury | 1 | .. |
| Totals | 11 | 3 |

* Includes 1950 straggler wells.

## WABAUNSEE COUNTY

(Map Pl. 1)

**The 1951 oil production from 5 fields: oil 379,130 barrels, gas none. Wells drilled in 1951: oil 9, dry 8, total 17 including 5 dry wildcats. New pools discovered 2.**

*Developments during 1951.*—Two oil fields were opened in Wabaunsee County in 1951, bringing the number of active oil fields to five. A Simpson pool, the **Wheat,** was discovered by the Carter Oil Company No. 1 Helen Wheat well, SW¼ SE¼ NE¼ sec. 10, T. 15 S., R. 11 E., in May. Initial daily production was rated at 40 barrels of oil per day. The producing zone is between 3,230 and 3,440 feet. In January, the Carter Oil Company No. 2 Woodbury well, opened the **Woodbury** field. The discovery well in the SE¼ NW¼ NE¼ sec. 11, T. 15 S., R. 10 E., was rated at 108 barrels of oil per day from a Viola reservoir between depths of 3,323 and 3,328 feet. A new producing zone was found in the **Davis Ranch** field, when the Carter

TABLE 64.—*Dry wildcat tests drilled in Wabaunsee County during 1951*

| Company and farm | Location | Depth to top of Lansing, feet | Depth to top of Mississippian, feet | Depth to top of "Hunton," feet | Depth to top of Viola, feet | Total depth, feet |
|---|---|---|---|---|---|---|
| Woods Oil & Gas Co. No. 1 Crosby | SE¼ NW¼ SE¼ 7-12-10E | 1,538 | 2,486 | 2,960 | 3,332 | 3,563 |
| *Honaker et al. No. 1 Mathies | NE¼ SW¼ SW¼ 15-12-10E | 1,242 | 2,225 | 2,713 | 3,027 | 3,051 |
| Atkins Drlg. et al. No. 1 Schwalm | SW¼ SW¼ NW¼ 8-12-11E | 1,317 | 2,317 | 2,776 | 3,090 | 3,130 |
| Skelly Oil Co. No. 1 A. W. Wolgast | SE¼ NE¼ SW¼ 18-12-11E | 1,369 | 2,378 | 2,842 | 3,166 | 3,168 |
| Woods Oil & Gas Co. No. 1 Munzer | NW¼ SW¼ NW¼ 13-13-9E | 1,504 | 2,474 | 2,929 | 3,218 | 3,436 |

* No electric log available. Kansas Sample Log Service, Independent Oil & Gas Service, and other available data sources have been used.

Oil Company No. 12 Davis "A" well found production in the "Hunton" between 2,929 and 2,936 feet.

There were two 1950 straggler wells, one oil well in the Davis Ranch field and one oil well in the **Mill Creek** field.

Data on pool wells drilled in Wabaunsee County in 1951 are listed in Table 63. Data on the dry wildcats are listed in Table 64. The dry tests and producing fields are shown on Plate 1. Oil production figures for the various Wabaunsee County fields are listed in Table 66.

## WILSON COUNTY

(Map Pl. 1)

**The 1951 production from 10 fields: oil 68,974 barrels, gas 110,845 thousand cubic feet. Wells drilled in 1951: 100 (estimated).**

*Developments during 1951.*—Oil production in 1951 in Wilson County was less than in 1950, when 71,005 barrels of oil was reported. No new deep tests were reported.

Oil production from the various Wilson County fields is listed in Table 66. Locations of areas that produced oil in 1951 are shown on Plate 1.

## WOODSON COUNTY

(Map Pl. 1)

**The 1951 production from 19 fields: oil 619,760 barrels, gas 22,540 thousand cubic feet. Wells drilled in 1951: 100 (estimated).**

*Developments during 1951.*—A "Bartlesville sand" well with production of about 12 barrels of oil per day was drilled in the **Rose** field. It is the D. P. Oak No. 6 Mathies, NE¼ SW¼ SE¼ sec. 7, T. 26 S., R. 16 E. The well is of interest because it is in the Rose dome structural area where granite occurs at the surface, and because it may mark the first discovery of oil in the immediate area. The field was named some years ago when gas was found in sec. 13, T. 26 S., R. 15 E. and in sec. 18, T. 26 S., R. 16 E. Oil production in the area mentioned in some previous reports seemingly was based on misinformation. Mississippian oil production in the **Winterscheid** field was extended eastward in sec. 21, T. 23 S., R. 14 E.

There were 32 oil wells and 16 dry pool wells and one wildcat reported in Woodson County in 1951. The wildcat is the Herndon Drilling Company No. 1 Wix well in the NE¼ SE¼ SE¼ sec. 31, T.

TABLE 65.—*Data on pool wells drilled in Woodson County during 1951*

| Field | Oil wells | Dry holes |
|---|---|---|
| Batesville | 1 | .. |
| Big Sandy | 1 | .. |
| Evans | 1 | 1 |
| Hoagland | 8 | 2 |
| Humboldt-Chanute | 1 | .. |
| Jobes | 1 | .. |
| Neosho Falls | .. | 2 |
| Quincy | .. | 2 |
| Rose | 1 | .. |
| Silver City | .. | 1 |
| Vernon | .. | 1 |
| Virgil North | .. | 1 |
| Weide | 7 | .. |
| Wintershied | 11 | 2 |
| Wissman | .. | 2 |
| Yates Center | .. | 1 |
| Zlab | .. | 1 |
| Totals | 32 | 16 |

25 S., R. 15 E. It was abandoned in Mississippian rocks at a depth of 1,503 feet. Data on pool wells are listed in Table 65.

Oil production in the various Woodson County fields is included in Table 66. Locations of areas that produced oil in 1951 are shown on Plate 1.

## WYANDOTTE COUNTY

**The 1951 production from 1 field: oil none, gas 5,630 thousand cubic feet. No drilling reported.**

*Developments during 1951.*—No drilling in Wyandotte County was reported during the year. All or nearly all of the gas produced in the county came from the **Roberts-Maywood** field which extends into Leavenworth County (Table 67).

TABLE 66.—*Oil production in Kansas during 1951*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| **Allen County** | | | | | | | |
| Bronson-Xenia* | 17-25-21E | | | | | "Bartlesville" | 700 |
| 6 | | | 8,380 | | | | |
| 7 | | | 2,292 | | | | |
| Colony West* (1922) (4) | 15-23-18E | | 3,365 | | | "Squirrel" | 820 |

TABLE 66.—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Davis-Bronson* | 24-21E | | | | | "Bartlesville" | 720 |
| 1 | | | 1,463 | | | | |
| 2 | | | 2,572 | | | | |
| 3 | | | 11,733 | | | | |
| Elsmore Shoestring (1908) | 5-26-21E | | | | | "Bartlesville" | 650 |
| 15 | | | 44,000 | | | | |
| 16 | | | 82 | | | | |
| Elsmore West (1911) | 12-26-20E | | | | | "Bartlesville" | 775 |
| 17 | | | 10,034 | | | | |
| 18 | | | 60 | | | | |
| 19 | | | 20 | | | | |
| 20 | | | 85 | | | | |
| Humboldt-Chanute* | 26-18E | | | | | "Bartlesville" | 850 |
| 21 | | | 8,443 | | | | |
| 22 | | | 580 | | | | |
| 23 | | 230 | 154,822 | | 23+ | | |
| 24 | | | 2,624 | | | | |
| 25 | | | 1,340 | | | | |
| 26 | | | 7,345 | | | | |
| 27 | | | 3,120 | | | | |
| 28 | | | 159 | | | | |
| Iola | 24-18E | | | | | "Bartlesville" | 850 |
| 10 | | | 69,622 | | | | |
| 11 | | | 8,843 | | | | |
| 12 | | | 67 | | | | |
| 13 | | | 41 | | | | |
| 14 | | | 626 | | | | |
| Moran (1903) | 25-20-E | | | | | "Bartlesville" | 820 |
| 8 | | | 5,649 | | | | |
| 9 | | | 2,708 | | | | |
| Neosho Falls* (1928) (5) | 29-23-17E | | 7,033 | | | "Squirrel"<br>Mississippian | 950<br>1,200 |
| Seibert (29) | 5-26-20E | | 519 | | | "Bartlesville" | 680 |
| Miscellaneous | | | 7,030 | | | | |
| Total Allen County | | | 364,657 | 14,804,251 recorded | 23+ | | |
| | | | **Anderson County** | | | | |
| Bush City Shoestring (1921) (4) | 28-20-21E | | 341,898 | | | "Squirrel" | 620 |
| Centerville* (1920) (5) | 10-21-22E | | 75,095 | | | "Squirrel"<br>"Bartlesville" | 480<br>720 |
| Colony-Welda (1916) | 4-23-19E | | | | | "Weiser" | 600 |
| 6 | | | 2,832 | | | "Squirrel" | 780 |
| 7 | | | 37,160 | | | | |
| 8 | | | 477 | | | | |
| Colony West* (1922) | 15-23-18E | | | | | "Squirrel" | 825 |
| 11 | | | 2,868 | | | | |
| 12 | | | 2,774 | | | | |
| 13 | | | 10,007 | | | | |
| Garnett Shoestring (1904) | 32-20-20E | | | | | "Squirrel" | 700 |
| 1 | | | 2,034 | | | "Garnett" | 800 |
| 2 | | | 14,236 | | | | |
| 3 | | | 17,604 | | | | |
| Kincaid (1921) (10) | 10-23-21E | | 32,546 | | | "Bartlesville" | 750 |
| Selma (1929) (9) | 9-22-21E | | 11,637 | | | "Bartlesville" | 700 |
| Miscellaneous | | | 172 | | | | |
| Total Anderson County | | | 551,340 | 14,334,081 recorded | | | |

**Barber County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Amber Mills (1951) | 15-30-12W | | no report | none | | Viola | 4,480 |
| Boggs (1946) | 17-33-12W | 1,250 | 335,741 | 1,388,756 | 32 | Simpson | 4,806 |
| Clara* (1948) | 36-29-14W | 40 | 9,273 | 28,926 | 1 | Simpson | 4,472 |
| Deerhead (1943) | 22-32-15W | 400 | 58,767 | 584,100 | 10 | Viola | 4,950 |
| DeGeer (1948) | 2-33-15W | 600 | 32,897 | 721,739 | 16 | Viola | 5,176 |
| Gerlane (1950) | 29-33-11W | 40 | 7,204 | 8,924 | 1 | "Miss. Chat" | 4,530 |
| Lake City (1937) | 7-31-13W | 400 | 8,803 | 296,470 | 4 | Viola | 4,435 |
| | | | | | | Simpson | 4,530 |
| | | | | | | Arbuckle | 4,607 |
| Medicine Lodge (1937) | 13-33-13W | | no report | 45,703 | | "Misener" | 4,845 |
| Moffett (1950) | 8-30-15W | | abandoned during 1951 | none | | | |
| Rhodes (1949) | 15-33-11W | 500 | 185,202 | 284,304 | 19 | Mississippian | 4,551 |
| | | | | | | Viola | 4,803 |
| Skinner (1943) | 29-31-14W | 1,000 | 135,690 | 1,563,820 | 28 | Viola | 4,626 |
| | | | | | | Simpson | 4,422 |
| Skinner North | 29-31-14W | 1,600 | Incl. with Skinner | | | Viola | |
| | | | | | | Arbuckle | |
| Sun City (1941) | 35-30-15W | 500 | 55,701 | 1,433,312 | 11 | Lans.-K.C. | 4,344 |
| Turkey Creek (1943) | 20-30-15W | 40 | 7,331 | 49,241 | 1 | Lans.-K.C. | 4,345 |
| | | | | | | Simpson | 4,438 |
| Whelan (1934) | 32-31-11W | 1,000 | 137,188 | 2,340,611 | 21 | "Chat" | 4,355 |
| Pools or fields abandoned | | | | 3,270 | | | |
| Total Barber County | | 7,370 | 973,797 | 8,749,176 | 144 | | |

**Barton County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Ainsworth South (1937) | 10-17-13W | 1,850 | 310,824 | 3,452,175 | 61 | Lans.-K.C. | 3,170 |
| | | | | | | Arbuckle | 3,390 |
| Ameh (1951) | 19-18-11W | 80 | 10,252 | 10,252 | 2 | Lans.-K.C. | 3,103 |
| Ames (1943) | 22-18-11W | 800 | 119,422 | 1,084,465 | 29 | Lans.-K.C. | 3,042 |
| | | | | | | Arbuckle | 3,348 |
| Ames Northwest (1947) | 9-18-11W | 40 | 1,245 | 10,383 | 1 | Lans.-K.C. | 3,106 |
| | | | | | | Arbuckle | 3,312 |
| Anton (1950) | 28-19-11W | 80 | 4,802 | 6,536 | 2 | Arbuckle | 3,342 |
| Ash Creek* (1947) | 31-20-15W | 600 | 29,463 | 461,600 | 10 | Arbuckle | 3,787 |
| Axman (1949) | 19-17-14W | 120 | 28,440 | 80,005 | 3 | Arbuckle | 3,400 |
| Barrett (1943) | 36-16-14W | 600 | 14,282 | 123,829 | 5 | Lans.-K.C. | 3,355 |
| | | | | | | Arbuckle | 3,463 |
| Bart-Staff* (1951) | 4-21-14W | 80 | 37,293 | 37,293 | 4 | Lans.-K.C. | |
| | | | | | | Arbuckle | 3,572 |
| Batchman (1950) | 19-20-12W | 80 | 10,690 | 17,302 | 2 | Arbuckle | 3,459 |
| Beaver (1934) | 16-16-12W | 1,640 | 212,499 | 2,936,955 | 43 | Oread | 2,885 |
| | | | | | | Toronoto | 2,938 |
| | | | | | | Arbuckle | 3,348 |
| | | | | | | Reagan | 3,335 |
| Beaver North (1937) | 4-16-12W | 300 | 39,199 | 590,712 | 9 | Arbuckle | 3,316 |
| Beaver Northwest (1942) | 6-16-12W | 800 | 258,733 | 919,667 | 29 | Shawnee | |
| | | | | | | Lans.-K.C. | 3,066 |
| | | | | | | Sooy | |
| | | | | | | Arbuckle | |
| Beaver South (1945) | 27-16-12W | 240 | 30,553 | 94,692 | 5 | Sooy | |
| | | | | | | Arbuckle | 3,359 |
| Behrens (1944) | 6-20-15W | 950 | 51,848 | 504,357 | 19 | Arbuckle | 3,719 |
| Bergtal (1941) | 22-20-15W | 40 | 366 | 2,333 | 1 | Arbuckle | |
| Bergtal South (1951) | 27-20-15W | 40 | 108 | 108 | 1 | Arbuckle | 3,775 |
| Bernard (1950) | 10-19-11W | 160 | 36,933 | 37,994 | 10 | Lans.-K.C. | 3,224 |
| | | | | | | Arbuckle | |
| Blood Creek (1950) | 9-18-13W | 40 | 823 | 2,077 | 1 | Lans.-K.C. | 3,078 |
| Bloomer* (1936) | 36-17-11W | 1,170 | 570,481 | 10,222,657 | 72 | Lans.-K.C. | 3,044 |
| | | | | | | Arbuckle | 3,257 |
| Bloomingdale (1950) | 8-18-11W | 40 | 522 | 4,692 | 1 | Arbuckle | 3,366 |
| Boyd (1942) | 4-18-14W | 2,200 | 665,753 | 2,995,618 | 78 | Lans.-K.C. | |
| | | | | | | Arbuckle | 3,438 |
| Boyle (1950) | 17-17-14W | 280 | 35,603 | 54,743 | 4 | Arbuckle | 3,401 |

TABLE 66.—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Bryant* (1948) | 27-20-12W | Combined with Chase-Silica | | | | | |
| Bryant Southeast (1949) | 26-20-12W | 200 | 65,764 | 143,351 | 7 | Arbuckle | 3,369 |
| Buckbee (1949) | 14-20-12W | 40 | 4,440 | 10,892 | 1 | Arbuckle | 3,352 |
| Capitol View (1950) | 9-17-14W | 40 | 3,689 | 7,336 | 1 | Lans.-K.C. | 3,230 |
| Carroll (1944) | 21-17-14W | 1,200 | 301,788 | 1,541,984 | 39 | Lans.-K.C.<br>Arbuckle | 3,109<br>3,356 |
| Carroll Southwest (1947) | 32-17-14W | 80 | 6,467 | 41,406 | 4 | Lans.-K.C. | 3,193 |
| Chase-Silica* (1931) | 32-19-9W | 17,270 | 2,157,347 | 50,907,434 | 428 | Lans.-K.C.<br>Arbuckle | 2,955<br>3,328 |
| Cheyenne View (1949) | 12-19-12W | 750 | 348,674 | 502,717 | 45 | Lans.-K.C.<br>Arbuckle<br>Penn. Basal Congl. | 3,152<br>3,390<br>3,393 |
| Cheyenne View North (1950) | 1-19-12W | 40 | 5,701 | 6,773 | 1 | Lans.-K.C. | 3,116 |
| Dartmouth (1951) | 27-19-12W | 160 | 46,818 | 46,818 | 5 | Lans.-K.C.<br>Arbuckle | 3,362 |
| Dartmouth Northwest (1951) | 28-19-12W | 40 | 5,868 | 5,868 | 1 | Lans.-K.C.<br>Arbuckle | 3,305<br>3,381 |
| Davidson* (1930) | 4-16-11W | 390 | 6,018 | 235,141 | 4 | Lans.-K.C.<br>Sooy<br>Arbuckle | 3,016<br>3,317<br>3,314 |
| Dundee (1945) | 29-20-14W | 40 | 2,084 | 12,317 | 1 | Arbuckle | 3,507 |
| Eberhardt (1935) | 14-19-11W | 320 | 15,737 | 407,861 | 7 | Lans.-K.C. | 3,194 |
| Eberhardt West (1951) | 14-19-11W | Combined with Lanterman | | | | | |
| Ellinwood North (1937) | 33-19-11W | 40 | 1,941 | 83,125 | 1 | Arbuckle | 3,328 |
| Esfeld (1947) | 15-16-11W | 40 | 1,019 | 7,538 | 1 | Arbuckle | 3,343 |
| Eveleigh (1943) | 11-18-14W | 1,270 | 223,359 | 1,235,577 | 37 | Lans.-K.C.<br>Arbuckle<br>Pre-Cambrian | 3,177<br>3,339<br>3,311 |
| Feltes Northwest (1945) | 3-16-12W | 400 | 53,956 | 350,538 | 7 | Arbuckle | 3,342 |
| Fort Zarah (1950) | 30-19-12W | 640 | 279,434 | 279,434 | 49 | Lans.-K.C.<br>Arbuckle | 3,157<br>3,384 |
| Fort Zarah North (1951) | 19-19-12W | 40 | 5,994 | 5,994 | 2 | Lans.-K.C. | 3,208 |
| Fort Zarah Southeast (1951) | 32-19-12W | Combined with Fort Zarah | | | | | |
| Fransen (1949) | 6-20-12W | | no report | 295 | | Lans.-K.C. | 3,196 |
| Great Bend East (1951) | 34-19-13W | | no report | none | 1 | Lans.-K.C. | 3,234 |
| Great Bend West (1951) | 23-19-14W | 40 | 2,291 | 2,291 | 1 | Lans.-K.C. | 3,332 |
| Hagan (1938) | 20-20-11W | 160 | 26,808 | 392,314 | 6 | Arbuckle | 3,323 |
| Hammeke (1950) | 17-19-11W | 160 | 26,972 | 45,823 | 4 | Lans.-K.C. | 3,065 |
| Hammeke Southeast (1950) | 17-19-11W | 120 | 25,897 | 34,989 | 3 | Lans.-K.C. | 3,089 |
| Hammer (1940) | 35-19-12W | 900 | 51,180 | 401,391 | 10 | Arbuckle | 3,348 |
| Hammer North (1949) | 23-19-12W | 1,280 | 377,969 | 775,026 | 56 | Lans.-K.C.<br>Arbuckle<br>Penn. Cong. | 3,222<br>3,344<br>3,407 |
| Harrison (revived) (1942) | 18-20-13W | 40 | 546 | 2,159 | 1 | Arbuckle | 3,520 |
| Heizer (1935) | 16-19-14W | 40 | 1,964 | 44,568 | 1 | Lans.-K.C. | 3,228 |
| Hiss (1936) | 31-20-13W | 300 | 86,194 | 1,299,565 | 15 | Lans.-K.C. | 3,270 |
| Hiss South (1950) | 31-20-13W | 120 | 28,481 | 28,481 | 3 | Arbuckle | 3,542 |
| Hiss Southeast (1948) | 32-20-13W | 250 | 34,086 | 99,987 | 8 | Lans.-K.C.<br>Arbuckle | 3,414<br>3,545 |
| Hiss West (1945) | 36-20-14W | included with Hiss | | | | Lans.-K.C. | 3,250 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Hoisington (1938) | 21-17-13W | 600 | 111,512 | 1,147,325 | 33 | Lans.-K.C.<br>Arbuckle | 3,222<br>3,440 |
| Homestead (1948) | 22-18-13W | 40 | 1,529 | 11,543 | 1 | Arbuckle | 3,310 |
| Kaufman* (1947) | 33-15-12W | 40 | no report | 6,026 | | Lans.-K.C.<br>Arbuckle<br>Pre-Cambrian | 3,311 |
| Klepper (1951) | 2-19-11W | 80 | 2,639 | 2,639 | 2 | Lans.-K.C. | 3,220 |
| Klug (1946) | 28-17-13W | 80 | 3,133 | 35,110 | 2 | Arbuckle | 3,414 |
| Klug North (1948) | 27-17-13W | 120 | 20,442 | 76,673 | 3 | Arbuckle | 3,377 |
| Kowalsky* (1941) | 32-20-11W | 200 | 63,003 | 245,145 | 11 | Arbuckle | 3,378 |
| Kowalsky Northwest (1947) | 30-20-11W | 460 | 101,083 | 324,616 | 14 | Lans.-K.C.<br>Arbuckle | 3,185<br>3,381 |
| Kraft-Prusa* (1937) | 10-17-11W | 24,800 | 6,783,559 | 60,368,075 | 765 | Shawnee<br>Lans.-K.C.<br>Arbuckle<br>Reagan<br>Gorham<br>Pre-Cambrian | 2,885<br>3,160<br>3,281<br>3,310<br>3,335 |
| Kraft-Prusa Northeast (1941) | 36-16-11W | 260 | 27,613 | 295,413 | 7 | Lans.-K.C.<br>Arbuckle | 3,250<br>3,351 |
| Lake Barton (1948) | 21-18-13W | 80 | no report | 6,861 | | Arbuckle | 3,372 |
| Lanterman (1934) | 15-19-11W | 820 | 29,880 | 866,867 | 10 | Lans.-K.C.<br>Arbuckle | 3,109<br>3,235 |
| Larkin (1951) | 10-17-14W | | 31,707 | 31,707 | 5 | Lans.-K.C. | 3,280 |
| Laudick (1948) | 28-16-12W | 300 | 93,156 | 301,730 | 12 | Arbuckle | 3,382 |
| Leoville (1950) | 7-17-14W | 640 | 148,332 | 157,975 | 19 | Lans.-K.C.<br>Arbuckle | 3,267<br>3,464 |
| Leoville South (1951) | 12-17-15W | Combined with Leoville | | | | | |
| Leoville Southeast (1950) | 7-17-14W | Combined with Leoville | | | | | |
| Mary Ida* (1950) | 31-18-10W | 260 | 38,454 | 38,454 | 6 | Lans.-K.C.<br>Arbuckle | 3,033<br>3,272 |
| McCauley (1949) | 34-17-13W | 100 | 2,791 | 16,733 | 3 | Lans.-K.C. | 3,276 |
| Meadowside (1949) | 24-18-11W | 100 | 32,578 | 90,037 | 4 | Lans.-K.C.<br>Arbuckle | 3,079<br>3,284 |
| Merten Northeast (1946) | 36-18-15W | 40 | 796 | 14,702 | 1 | Arbuckle | 3,494 |
| Merten Southeast (1949) | 12-19-15W | 40 | 1,788 | 12,310 | 1 | Reagan | 3,567 |
| Odin (1948) | 3-17-12W | 80 | 18,117 | 62,323 | 4 | Arbuckle | 3,321 |
| Otis-Albert* (1935) | 30-18-15W | 6,400 | 276,665 | 3,803,361 | 95 | Reagan | 3,601 |
| Pawnee Rock* (1936) | 13-20-16W | 500 | 18,680 | 204,468 | 6 | Arbuckle | 3,832 |
| Pawnee Rock East (1941) | 17-20-15W | 40 | 2,553 | 24,245 | 1 | Arbuckle | 3,814 |
| Prairie View (1950) | 20-19-11W | 320 | 86,842 | 97,096 | 8 | Lans.-K.C. | 3,080 |
| Pritchard (1944) | 34-20-14W | 770 | 123,143 | 992,002 | 14 | Simpson<br>Arbuckle | 3,525<br>3,455 |
| Putnam (1951) | 7-17-13W | 40 | 2,269 | 2,269 | 1 | Lans.-K.C. | 3,286 |
| Putnam West (1951) | 1-17-14W | 40 | 1,175 | 1,175 | 1 | Lans.-K.C. | 3,225 |
| Redwing (1950) | 31-17-12W | 300 | 40,791 | 42,405 | 7 | Lans.-K.C.<br>Arbuckle | 3,083<br>3,335 |
| Redwing Northwest (1951) | 31-17-12W | Combined with Redwing | | | | | |
| Reif South (1950) | 31-16-12W | 80 | 11,586 | 12,822 | 3 | Lans.-K.C. | 3,172 |
| Rick* (1936) | 1-19-11W | 800 | 72,791 | 931,935 | 17 | Lans.-K.C.<br>Arbuckle | 3,106<br>3,355 |
| Roesler (1943) | 14-18-11W | 40 | 2,750 | 38,033 | 1 | Arbuckle | 3,291 |
| Roesler East (1950) | 13-18-11W | 100 | 113,915 | 116,302 | 11 | Arbuckle | 3,294 |
| Rolling Green (1948) | 36-20-13W | 80 | 1,030 | 16,116 | 2 | Lans.-K.C. | 3,257 |
| Rolling Green East (1949) | 30-20-12W | 80 | 1,919 | 6,651 | 2 | Arbuckle | 3,491 |
| Rowland (1949) | 32-17-13W | 60 | 1,622 | 7,008 | 1 | Arbuckle | 3,323 |
| Rusco (1950) | 8-19-12W | 40 | 2,100 | 5,145 | 1 | Arbuckle | 3,417 |
| Sadie (1951) | 12-18-11W | 40 | 218 | 218 | 1 | Arbuckle | 3,276 |

TABLE 66.—*Oil production in Kansas during 1951,* ***continued***

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| St. Peter (1944) | 5-19-11W | 100 | 10,378 | 98,323 | 2 | Lans.-K.C.<br>Arbuckle | 3,387 |
| Sandford (1951) | 25-17-14W | 80 | 8,492 | 8,492 | 1 | Arbuckle | 3,375 |
| Sandrock (1951) | 21-20-13W | 40 | 1,394 | 1,394 | 1 | Lans.-K.C. | 3,412 |
| Shoo Fly (1951) | 9-17-13W | Combined with Ainsworth South | | | | | |
| Silica* (1931) | 12-20-11W | now called Chase-Silica | | | | | |
| Silica South* (1935) | 24-20-11W | 3,000 | 1,403,624 | 19,910,872 | 139 | Lans.-K.C.<br>Arbuckle | 3,035<br>3,268 |
| Sunflower (1949) | 8-17-12W | | no report | 1,969 | | Arbuckle | 3,376 |
| Sunny Valley (1949) | 7-20-12W | 200 | 65,413 | 217,509 | 9 | Lans.-K.C. | 3,230 |
| Trapp* (1936) | 23-15-14W | 13,700 | 2,464,461 | 43,545,828 | 440 | Shawnee<br>Dodge<br>Lans.-K.C.<br>Arbuckle | 2,889<br>2,966<br>3,062<br>3,252 |
| Underwood (1950) | 15-17-13W | 80 | 6,035 | 6,035 | 2 | Lans.-K.C.<br>Arbuckle | 3,442<br>3,342 |
| Unruh (1945) | 24-20-15W | 500 | 16,010 | 120,528 | 6 | Arbuckle | 3,641 |
| Wearne (1951) | 4-20-12W | 40 | 2,453 | 2,453 | 1 | Arbuckle | 3,384 |
| Werner-Robl (1951) | 30-19-11W | 80 | 25,561 | 25,561 | 3 | Lans.-K.C.<br>Arbuckle | 3,106 |
| Werner-Robl Northwest (1951) | 24-19-12W | 40 | 3,120 | 3,120 | 1 | Lans.-K.C. | 3,092 |
| Werner-Robl South (1951) | 30-19-11W | 40 | 2,584 | 2,584 | 1 | Arbuckle | 3,347 |
| Workman (1944) | 33-20-12W | 40 | 2,310 | 22,739 | 1 | Arbuckle | 3,407 |
| Zink* (1950) | 13-18-11W | 40 | 3,496 | 7,154 | 1 | Arbuckle | 3,284 |
| Pools or fields abandoned | | | | 155,557 | | | |
| Total Barton County | | 95,490 | 18,956,122 | 217,153,071 | 2,825 | | |
| **Bourbon County** | | | | | | | |
| Bronson-Xenia* | 17-25-21E | | 10,093 | | | "Bartlesville" | 665 |
| Davis-Bronson* | 23-21E | | 2,362 | | | "Bartlesville" | 560 |
| Hepler* (1917) | 27-22E | | 24,337 | | | "Bartlesville" | |
| Total Bourbon County | | | 36,792 | 640,953 recorded | | | |
| **Brown County** | | | | | | | |
| Livengood (1944) | 3-1-15E | 20 | 10,855 | 79,123 recorded | 2 | "Hunton" | 2,58 |
| **Butler County** | | | | | | | |
| Allen-Robison (1943) | 1-26-3E | 50 | 79,407 | | 5+ | Mississippian | 2,70 |
| Augusta (1914) | 21-28-4E | 960 | 378,326 | 36,886,093 | 96+ | Lansing<br>Kansas City<br>Marmaton<br>Ordovician<br>Arbuckle | 1,70<br>2,00<br>2,20<br>2,44<br>2,60 |
| Augusta North (1914) | 28-27-4E | 500 | 97,596 | 14,432,551 | 50+ | Lansing<br>Kansas City<br>Ordovician<br>Arbuckle | 1,65<br>1,95<br>2,38<br>2,41 |
| Bausinger (1929) | 24-27-3E | 40 | 6,993 | | 4 | "Wilcox" | 3,05 |
| Benton (1925) | 26-3E | | 2,750 | | | Miss. "Chat" | 2,96 |
| Blankenship* (1921) | 26-8E | 280 | 296,959 | 1,162,962 | 28+ | "Bartlesville" | 2,63 |
| Brandt-Sensenbaugh (1925) | 22-28-7E | | 50,891 | 1,738,105 | | Miss. "Chat" | 2,69 |
| Brickley (1951) | 2-27-7E | | 6,839 | 6,839 | | "Bartlesville" | 2,63 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Butwick (1949) | 7-26-3E | 50 | 22,391 | 52,322 | 5 | Mississiippian | 2,860 |
| Butwick Northeast (1949) | 7-26-3E | 10 | 660 | 3,963 | 1 | Miss. "Chat" | 2,820 |
| Combs* (1947) | 5-30-5E | 50 | 23,733 | | 5 | "Bartlesville" | 2,820 |
| | | | | | | Mississippian | 2,850 |
| Combs Northeast (1948) | 27-29-5E | | 6,228 | 20,674 | | "Bartlesville" | 2,810 |
| DeMoss (1934) | 8-28-7E | 20 | 23,946 | | 2+ | "Bartlesville" | 2,650 |
| | | | | | | "Burgess" | 2,680 |
| Dixon (1946) | 12-27-6E | | 1,336 | 9,967 | | Kansas City | 2,160 |
| | | | | | | Misssissippian | |
| Douglass (1916) | 21-29-4E | 30 | 5,418 | | 3+ | Lans.-K.C. | 1,790 |
| | | | | | | Ordovician | 3,000 |
| Eckel (1940) | 7-27-7E | | 1,504 | 58,153 | | Lans.-K.C. | 2,190 |
| Edgecomb (1951) | 9-25-3E | 10 | 875 | 875 | 1 | Mississippian | 2,759 |
| Elbing* (1918) | 18-23-4E | 660 | 729,828 | 3,818,870 | 66+ | Kansas City | 2,120 |
| | | | | | | Mississippian | 2,400 |
| | | | | | | Viola | 2,530 |
| Elbing East (1950) | 27-23-4E | 40 | 10,309 | 19,514 | 4 | Lans.-K.C. | 1,799 |
| El Dorado (1915) | 29-25-5E | 13,980 | 3,249,465 | 207,896,078 | 1,398+ | Lansing | 1,700 |
| | | | | | | Kansas City | 2,000 |
| | | | | | | Viola | 2,500 |
| | | | | | | Simpson | 2,510 |
| | | | | | | Arbuckle | 2,550 |
| Ferrell (1939) | 28-28-8E | | 103,502 | 988,959 | | Mississippian | 2,647 |
| Four Mile Creek (1951) | 5-28-3E | 60 | 46,171 | 46,171 | 6 | Simpson | 3,069 |
| Fox-Bush (1917) | 24-29-5E | 1,370 | 192,624 | 2,422,767 | 137+ | "Bartlesville" | 2,730 |
| Garden (1925) | 32-26-6E | 100 | 41,968 | | 10 | "Bartlesville" | 2,760 |
| Guyot (1948) | 5-29-5E | | 2,739 | 11,267 | | "Bartlesville" | 2,800 |
| Hannah (1936) | 29-8E | | 2,518 | 11,348 | | Kansas City | 2,120 |
| Hartenbower (1950) | 16-29-6E | | 7,300 | 9,447 | | "Peru" | 2,404 |
| Hartenbower, South (1951) | 16-29-6E | | 64 | 64 | | Lans.-K.C. | 2,060 |
| Haverhill (1927) | 34-27-5E | 450 | 57,608 | 4,316,556 | 45+ | "Bartlesville" | 2,700 |
| Hazlett | 24-5E | 630 | 306,450 | 571,346 | 63 | Mississippian | 2,480 |
| Hazlett North (1949) | 30-23-5E | Combined with Hazlett | | | | | |
| Hickory Creek (1946) | 11-28-5E | 100 | 90,449 | 763,989 | 10+ | "Bartlesville" | 2,685 |
| | | | | | | Mississippian | 2,700 |
| Joseph (1947) | 18-24-5E | 10 | 716 | 4,069 | 1 | Miss. "Chat" | 2,491 |
| Keighley (1925) | 22-27-7E | 140 | 18,760 | | 14 | "Bartlesville" | 2,650 |
| | | | | | | Simpson | 3,148 |
| Kramer-Stern (1926) | 3-28-6E | 120 | 206,999 | | 12+ | Simpson | 3,020 |
| | | | | | | Arbuckle | 3,040 |
| "Lanier" | 35-26-7E | | 1,475 | | | | |
| Leon (1922) | 19-27-6E | 200 | 24,211 | 2,434,757 | 20+ | Miss. "Chat" | 2,660 |
| | | | | | | Viola | 3,050 |
| Long (1949) | 15-26-7E | | 4,026 | 8,974 | | Mississippian | 2,780 |
| Lucas (1946) | 6-27-8E | 30 | 6,284 | 16,834 | 3 | "Bartlesville" | 2,680 |
| McCullough (1929) | 1-28-6E | | 3,028 | 488,327 | | "Wilcox" | 3,169 |
| Muddy Creek (1950) | 13-29-4E | | 43,001 | 57,217 | | "Bartlesville" | 2,813 |
| Parsley (1949) | 3-26-3E | | 26,326 | 64,463 | | Mississippian | 2,710 |
| Pettit (1926) | 17-28-6E | | 1,088 | | | "Wilcox" | 3,180 |
| Pierce (1926) | 28-25-4E | 290 | 92,568 | | 29 | Miss. "Chat" | 2,550 |
| Pierce West (1951) | 20-25-4E | 10 | 5,295 | 5,295 | 1 | Mississippian | 2,515 |
| Potwin (1917) | 31-24-4E | 1,010 | 197,853 | 7,518,402 | 101 | Kansas City | 2,550 |
| | | | | | | Mississippian | 2,660 |
| Reynolds-Schaffer (1922) | 9-27-6E | 30 | 79,500 | | 3+ | Kansas City | 2,375 |
| | | | | | | Mississippian | 2,780 |
| | | | | | | Viola | 3,141 |
| Rombold (1949) | 4-26-3E | 20 | 6,565 | 16,909 | 2 | Mississippian | 2,770 |
| Salter (1946) | 23-28-3E | | 170,386 | 947,904 | | Simpson | 3,000 |
| Semisch (1947) | 4-29-6E | | 140,212 | 210,062 | | "Bartlesville" | 2,810 |
| Seward (1926) | 27-27-7E | 120 | 17,052 | 1,046,123 | 12 | "Bartlesville" | 2,650 |
| Shinn (1946) | 19-29-8E | | 58,919 | 442,204 | | Mississippian | 2,766 |

TABLE 66.—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Smock-Sluss (1917) | 2-27-5E | 60 | 90,543 | | 6+ | "Bartlesville"<br>Viola | 2,700<br>3,000 |
| Snowden-McSweeney (1930) | 34-28-6E | | 5,387 | | | Mississippian | 2,833 |
| Steinhoff (1926) | 28-29-6E | 20 | 2,411 | | 2 | Mississippian | 2,803 |
| Towanda (1948) | 5-26-4E | 270 | 356,835 | 787,361 | 27 | Mississippian<br>Viola | 2,400<br>2,460 |
| Whitewater (1949) | 32-25-4E | 110 | 71,428 | 170,727 | 11 | Viola | 2,625 |
| Whitewater North (1951) | 29-25-4E | 10 | 4,146 | 4,146 | 1 | Viola | 2,700 |
| Womack (1947) | 19-28-6E | | 3,375 | | | "Bartlesville"<br>Kansas City | 2,620<br>2,190 |
| Young (1920) | 27-26-7E | 100 | 82,546 | | 10+ | Mississippian | 2,650 |
| Total Butler County | | 21,940 | 7,567,782 | 371,667,639 recorded | 2,194+ | | |
| **Chase County** | | | | | | | |
| Atyeo* (1925) | 30-21-10E | 390 | 5,648 | | 39 | "Bartlesville" | 2,250 |
| Bazaar (1951) | 36-20-8E | 10 | 203 | | 1 | Lans.-K.C. | 1,823 |
| Teeter* (1920) | 16-23-9E | | 25,579 | | | "Bartlesville" | 2,500 |
| Total Chase County | | 400 | 31,430 | 143,627 recorded | 40+ | | |
| **Chautauqua County** | | | | | | | |
| Borroum (23) (1926) | 20-34-9E | | 3,663 | | | Marmaton | 1,780 |
| Brown-Sturgis | 33-11E | | no report | | | | |
| Elgin | 34-10E | | | | | "Peru" | 1,520 |
| 17 | | | 437 | | | | |
| 18 | | | 2,559 | | | | |
| 19 | | | 20,968 | | | | |
| 20 | | | 2,231 | | | | |
| 21 | | | 8,455 | | | | |
| Frazier | 33-13E | | | | | | |
| 9 | | | 694 | | | | |
| 10 | | | 118 | | | | |
| Hale-Inge* (1907) | 32-12E | | | | | "Peru" | 1,160 |
| 1 | | | 3,304 | | | | |
| 2 | | | 8,826 | | | | |
| Hylton | | | no report | | | | |
| Kingston (1926) (3) | 18-32-11E | | 1,465 | | | Miss. "Chat"<br>Arbuckle | 1,850<br>2,176 |
| Landon-Floyd (1936) (5) | 23-32-10E | | 24,928 | | | Mississippian | 2,000 |
| McAllister (1925) | 28-32-10E | | no report | | | | |
| McGlasson (1947) | 11-33-9E | | no report | | | | |
| Malone (6) | 18-32-10E | | 953 | | | Ordovician | 2,340 |
| Niotaze | 34-13E | | | | | "Redd" | 690 |
| 15 | | | 102 | | | "Peru" | 825 |
| 16 | | | 5,068 | | | | |
| Oliver (1935) (4) | 32-11E | | 9,142 | | | | |
| Peru-Sedan (1900) | 34-11E | | | | | "Peru" | 1,200 |
| 11 | | | 768 | | | Mississippian | 2,000 |
| 12 | | | 693,049 | | | | |
| Wauneta (22) | 34-9E | | 2,110 | | | "Peru" | 1,670 |
| | | | | | | Mississippian | 2,100 |
| Wayside-Havana* (1904) | 34-13E | | | | | "Wayside" | 575 |
| 13 | | | 60 | | | "Weiser" | 700 |
| 14 | | | 3,021 | | | "Bartlesville" | 1,200 |
| Wiggam (8) | 34-32-10E | | 1,639 | | | "Weiser" | 1,600 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Miscellaneous | | | 316 | | | | |
| Total Chautauqua County | | | 803,832 | 42,316,771 recorded | | | |
| **Cheyenne County** | | | | | | | |
| Judy (1951) | 26-1-39W | | no report | none | | Marmaton | 4,497 |
| **Clark County** | | | | | | | |
| Ashland (1951) | 35-32-23W | 40 | 6,413 | 6,413 | 1 | Viola<br>Lans.-K.C. | 6,526<br>4,673 |
| **Clay County** | | | | | | | |
| Wakefield (Revived) (1951) | 21-9-4E | 40 | no report | | 1 | Mississippian | 1,904 |
| Wakefield Northeast (1951) | 15-9-4E | 40 | no report | | 1 | Mississippian | 1,793 |
| Total Clay County | | 80 | | | 2 | | |
| **Coffey County** | | | | | | | |
| Dunaway* (1922) | 34-22-13E | | 17,584 | | | "Burgess"<br>Mississippian<br>Ordovician | 1,850<br>1,878<br>2,200 |
| Leroy (1905) | 35-22-16E | 10 | 1,183 | | 1+ | | |
| Van Noy (1917) | 7-23-15E | | 11,302 | | | "Peru"<br>Mississippian | 1,170<br>1,540 |
| Virgil North* (1920) | 22-23-13E | | 48,392 | | | "Bartlesville"<br>Mississippian | 1,585<br>1,838 |
| Winterscheid* (1920) | 23-14E | | 11,337 | | | "Bartlesville"<br>Mississippian | 1,630<br>1,750 |
| Miscellaneous | | | 290 | | | | |
| Total Coffey County | | 10 | 90,088 | 1,190,391 recorded | 1+ | | |
| **Cowley County** | | | | | | | |
| Baird (1925) | 17-34-3E | 20 | 9,282 | | 2+ | "Bartlesville"<br>Mississippian | 3,285<br>3,350 |
| Baird East (1940) | 15-34-3E | 20 | 2,932 | | 2 | "Bartlesville" | 3,200 |
| Biddle (1922) | 7-32-5E | 240 | 16,874 | | 24 | Kansas City<br>"Stalnaker" | 2,000<br>2,300 |
| Box (1948) | 28-30-7E | 80 | 32,096 | 111,976 | 8 | Mississippian | 2,840 |
| Brown (1922) | 13-31-7E | | 1,012 | 244,526 | | Kansas City | 2,100 |
| Bruce (1950) | 9-30-4E | 10 | 10,076 | 12,360 | 1 | Arbuckle | 3,306 |
| Burden (1926) | 31-31-6E | 320 | 31,560 | | 32 | "Bartlesville" | 2,900 |
| Clark (1914) | 6-31-4E | 50 | 9,092 | | 5 | "Bartlesville" | 2,840 |
| Clover | 31-7E | 10 | 59 | 19,355 | 1 | Kansas City<br>Mississippian | 2,200<br>2,800 |
| Combs* (1947) | 5-30-5E | 110 | 40,831 | 291,823 | 11 | "Bartlesville"<br>Mississippian | 2,823<br>2,850 |
| Couch (1937) | 13-30-5E | 220 | 74,416 | 1,796,025 | 22+ | "Bartlesville" | 2,800 |
| Countryman (1925) | 4-33-7E | | 10,189 | | | "Layton"<br>Mississippian | 1,950<br>2,870 |
| David (1935) | 35-30-4E | 260 | 66,962 | 1,139,714 | 26 | "Bartlesville" | 2,900 |
| David South (1934) | 11-30-4E | 50 | 15,462 | 193,369 | 5 | "Bartlesville"<br>Arbuckle | 2,760<br>3,463 |
| Deichman (1941) | 24-31-4E | 260 | 31,775 | 810,660 | 26 | "Bartlesville"<br>Mississippian | 2,900<br>3,000 |
| Doane (1947) | 36-33-6E | 20 | 1,304 | 10,408 | 2 | Mississippian<br>Arbuckle | 2,878<br>3,140 |
| Eastman (1924) | 5-31-6E | 220 | 45,691 | | 22+ | "Bartlesville" | 2,890 |
| Elrod | 4-32-5E | 10 | 80 | | 1 | "Layton" | 2,411 |
| Enterprise (1948) | 35-33-3E | | no runs | | | "Bartlesville" | 3,285 |
| Esch (1928) | 33-33-6E | 20 | 19,511 | | 2+ | "Bartlesville" | 2,900 |
| Falls City (1916) | 35-7E | | 4,339 | 1,270,043 | | "Layton" | 2,000 |

**TABLE 66.**—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Ferguson Northwest (1950) | 16-30-8E | | 2,134 | 7,162 | | Kansas City | 2,200 |
| Ferguson West (1934) | 21-30-8E | | 1,665 | | | Kansas City | 2,180 |
| Frog Hollow (1937) | 20-32-5E | 410 | 190,611 | 4,125,282 | 41+ | "Bartlesville" | 3,000 |
| Frog Hollow East (1941) | 15-32-5E | 70 | 11,398 | 247,163 | 7 | "Bartlesville" | 3,000 |
| Geuda Springs | 5-34-3E | | 26,150 | 523,317 | | "Bartlesville"<br>Miss. "Chat" | 3,300<br>3,345 |
| Gibson (1941) | 29-34-3E | 120 | 30,558 | 381,687 | 12 | "Bartlesville"<br>Mississippian | 3,350<br>3,400 |
| Graham (1924) | 3-33-3E | 110 | 35,100 | 2,751,679 | 11 | "Layton"<br>Arbuckle | 2,550<br>3,518 |
| Grand Summit* (1926) | 4-31-8E | | 461 | | | Kansas City | 2,000 |
| Grouse Creek (1951) | 16-30-7E | 10 | 1,044 | 1,044 | 1 | Mississippian | 2,890 |
| Henderson (1942) | 26-32-3E | 60 | 2,627 | 130,107 | 6 | Kansas City<br>Arbuckle | 2,690<br>3,419 |
| Hittle | 28-31-4E | 250 | 315,666 | 8,792,975 | 25+ | Kansas City<br>Arbuckle | 2,400<br>3,280 |
| Hower (1935) | 32-33-3E | 30 | 5,765 | 73,049 | 3 | "Bartlesville" | 3,320 |
| McKay (1951) | 17-35-4E | 10 | 2,965 | 2,965 | 1 | "Bartlesville" | 3,314 |
| Mansur (1949) | 25-31-6E | 100 | 23,275 | 51,495 | 10 | "Layton" | 2,170 |
| Murphy* (1933) | 7-35-3E | 240 | 70,039 | | 24 | "Bartlesville"<br>Miss. "Chat" | 3,450<br>3,500 |
| Nigger Creek (1951) | 22-34-3E | 10 | 407 | 407 | 1 | "Bartlesville" | 3,281 |
| Otto (1927) | 25-34-6E | 10 | 7,406 | | 1+ | Miss. "Chat" | 3,017 |
| Rahn (1939) | 13-34-5E | 150 | 31,752 | 1,415,661 | 15+ | "Bartlesville" | 2,900 |
| Rahn Northeast (1949) | 27-33-6E | 10 | 26,362 | 35,930 | 1 | "Bartlesville" | 2,902 |
| Rahn Southwest (1943) | 28-34-5E | 10 | 156 | 3,790 | 1 | "Bartlesville" | 3,019 |
| Rainbow Bend (1923) | 20-33-3E | 670 | 146,455 | 15,478,059 | 67 | "Burgess" | 3,200 |
| Rainbow Bend Northeast (1945) | 15-33-3E | 20 | 5,487 | 24,658 | 2 | "Bartlesville" | 3,213 |
| Rainbow Bend West* | 19-33-3E | 40 | 3,074 | | 4 | "Burgess"<br>Arbuckle | 3,200<br>3,550 |
| Rock | 15-30-4E | 260 | 91,470 | 3,255,446 | 26+ | "Bartlesville" | 2,800 |
| Rock North (1937) | 3-30-4E | 10 | 9,847 | 139,678 | 1+ | "Bartlesville" | 2,800 |
| School Creek (1947) | 15-32-7E | 10 | 3,113 | 19,171 | 1 | "Bartlesville" | 2,800 |
| Seacat (1944) | 26-33-4E | | 1,341 | 15,108 | | Mississippian | 3,100 |
| Slick-Carson (1924) | 19-32-3E | 140 | 55,369 | 3,511,524 | 14 | "Layton"<br>"Bartlesville"<br>Arbuckle | 2,600<br>3,150<br>3,450 |
| Smith (1917) | 31-3E | 60 | 1,825 | | 6 | "Bartlesville" | 3,050 |
| State (1926) | 15-32-4E | 70 | 19,406 | | 7 | "Layton"<br>Arbuckle | 2,400<br>3,300 |
| Stayton (1949) | 32-32-4E | 50 | 32,177 | 49,855 | 5 | "Bartlesville" | 3,100 |
| Thurlow (1927) | 8-33-3E | 30 | 17,781 | | 3 | Simpson | 3,500 |
| Trees (1935) | 19-30-4E | 130 | 17,232 | | 13 | "Bartlesville" | 2,875 |
| Turner (1937) | 30-32-6E | 40 | 5,252 | 277,392 | 4 | "Layton" | 2,232 |
| Turner North (1948) | 18-32-6E | 10 | 218 | 218 | 1 | "Layton" | |
| Udall | 30-3E | | 2,196 | | | Arbuckle | 2,850 |
| Weathered (1935) | 28-31-3E | 150 | 33,947 | 2,676,843 | 15 | "Stalnaker"<br>Lans.-K.C.<br>Mississippian<br>Arbuckle | 2,080<br>2,480<br>3,020<br>3,250 |
| Winfield (1914) | 32-5E | 190 | 68,329 | | 19+ | Admire<br>"Peacock"<br>"Layton"<br>"Bartlesville"<br>Arbuckle | 600<br>1,400<br>2,300<br>3,050<br>3,300 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Winfield South (1945) | 1-33-4E | 10 | 1,114 | 7,603 | 1 | "Hoover" | 1,400 |
| Total Cowley County | | 5,410 | 1,724,717 | 69,098,428 recorded | 541+ | | |
| **Crawford County** | | | | | | | |
| Fair Oak | 33-28-22E | | 8,589 | | | "Bartlesville" | 400 |
| Hepler* (1917) | 27-22E | | 30 | | | "Bartlesville" | |
| "Houston" | 3-31-22E | | 30 | | | | |
| McCune (1929) | 30-22E | | 30,520 | | | "Bartlesville" | |
| "Steimel" | 35-29-21E | | 238 | | | | |
| St. Paul-Walnut* | 28-21E | | 207 | | | "Bartlesville" | 425 |
| Walnut Southeast | 28-22E | | 9,381 | | | "Bartlesville" | 400 |
| Miscellaneous | | | 1,943 | | | | |
| Total Crawford County | | | 50,938 | 504,902 recorded | | | |
| **Decatur County** | | | | | | | |
| Jennings (1951) | 25-4-27W | 80 | 4,357 | 4,357 | 2 | Wabaunsee<br>Lans.-K.C. | 3,156<br>3,478 |
| **Dickinson County** | | | | | | | |
| Bonaccord (1943) | 30-14-1E | 10 | 1,516 | 32,141 | 1 | "Burgess" | 2,483 |
| Lost Springs* | 16-4E | 400 | 109,735 | | 40 | Miss. "Chat" | 2,300 |
| Lost Springs North (1945) | 22-16-4E | 20 | 1,722 | 91,585 | 2 | Miss. "Chat" | 2,300 |
| Lost Springs Northeast (1947) | 26-16-4E | 10 | 2,552 | 9,420 | 1 | Miss. "Chat" | 2,300 |
| Total Dickinson County | | 440 | 115,525 | 587,872 recorded | 44 | | |
| **Douglas County** | | | | | | | |
| Baldwin (1919) | 12-15-20E | | 3,500** | 51,330 recorded | | "Squirrel" | 800 |
| **Edwards County** | | | | | | | |
| Bradbridge (1948) | 2-24-16W | | 18,688 | 33,697 | | Arbuckle | 4,020 |
| Pools or fields abandoned | | | | 102,496 | | | |
| Total Edwards County | | | | 136,193 | | | |
| **Elk County** | | | | | | | |
| Bush-Denton (1920) | 4-30-9E | | 27,029 | | | "Stalnaker"<br>"Peru"<br>"Burgess" | 1,060<br>2,135<br>2,300 |
| Collyer (1924) | 30-30-11E | | 7,329 | | | Kansas City<br>Fort Scott | 1,286<br>1,518 |
| Dory | 18-30-9E | | 1,451 | | | Mississippian | 2,570 |
| Dunkleberger | 34-29-10E | | 31,650 | | | Kansas City<br>Mississippian | 1,300<br>1,970 |
| Elk City | 31-13E | | 150 | | | | |
| Ferguson East | 23-30-8E | | 884 | | | Ordovician | 2,900 |
| Fleming (1950) | 8-29-9E | 10 | 1,538 | | 1 | Arbuckle | 2,656 |
| Grand Summit* | 4-31-8E | | 8,393 | | | Kansas City | 2,000 |
| Hale-Inge* (1907) | 31-12E | | 4,121 | | | "Peru" | 1,160 |
| Logsden | 31-9E | | 861 | | | | |
| Longton | 31-12E | | 970 | | | | |
| Love | 30-9E | | 84 | | | Mississippian | 2,370 |
| Moline (1928) | 9-31-10E | | no runs | | | "Burgess"<br>Mississippian | 2,000<br>2,030 |
| New Albany | 29-13E | | 16,306 | | | "Wayside" | 560 |
| "Perkins" | 1-30-9E | | 168 | | | | |
| Porter (1923) | 29-8E | | 2,844 | | | Kansas City<br>Arbuckle | 2,050<br>3,000 |
| Schrader (1928) | 12-31-8E | | 36,144 | | | Kansas City | 1,520 |

TABLE 66.—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Severy* (1922) | 8-28-11E | 40 | 352 | | 4 | Kansas City | 1,200 |
| Starr (1937) | 12-31-9E | | 1,191 abandoned during 1951 | | | Mississippian | 2,330 |
| Walker (1927) | 5-31-10E | | 1,277 | | | Kansas City<br>Mississippian | 1,550<br>2,225 |
| Webb (1925) | 23-31-10E | | 33,818 | | | Kansas City<br>Fort Scott<br>Mississippian<br>Arbuckle | 1,300<br>1,650<br>1,975<br>2,300 |
| Total Elk County | | 50 | 176,560 | 13,718,159 recorded | 5+ | | |
| | | | **Ellis County** | | | | |
| Antonino (1947) | 27-14-19W | 200 | 11,509 | 78,275 | 4 | Arbuckle<br>Basal sandstone | 3,712<br>3,726 |
| Antonino Townsite (1949) | 2-15-19W | 80 | 10,884 | 24,693 | 2 | Arbuckle | 3,697 |
| Beeching (1943) | 34-15-16W | 500 | 12,673 | 220,061 | 6 | Lans.-K.C. | 3,156 |
| Bemis-Shutts (1935) | 16-11-17W | 16,000 | 4,199,030 | 67,915,744 | 552 | Arbuckle | 3,380 |
| Blue Hill (1937) | 14-12-16W | 1,000 | 137,253 | 1,880,496 | 25 | Topeka<br>Lans.-K.C.<br>Gorham<br>Arbuckle | 3,030<br>3,072<br>3,348<br>3,360 |
| Burnett* (1937) | 1-11-18W | 6,500 | 2,941,346 | 39,160,154 | 266 | Lans.-K.C.<br>Arbuckle | 3,093<br>3,570 |
| Burnett Northwest* (1946) | 3-11-18W | 800 | 354,478 | 1,916,204 | 30 | Lans.-K.C.<br>Arbuckle | 3,450<br>3,617 |
| Burnett Southwest (1946) | 22-11-18W | 1,600 | 621,713 | 2,908,520 | 79 | Shawnee<br>Lans.-K.C.<br>Simpson<br>Arbuckle | 3,074<br>3,207<br>3,582<br>3,633 |
| Canyons (1948) | 11-12-17W | 40 | 1,140 | 8,566 | 1 | Lans.-K.C. | 3,361 |
| Catharine (1936) | 3-13-17W | 460 | 165,547 | 541,718 | 15 | Lans.-K.C.<br>Arbuckle | 3,262<br>3,516 |
| Catharine Northwest (1944) | 4-13-17W | 340 | 54,434 | 411,853 | 10 | Lans.-K.C.<br>Arbuckle | 3,590 |
| Catharine South (1946) | 15-13-17W | 500 | 201,055 | 800,275 | 22 | Arbuckle | 3,555 |
| Catharine Townsite (1949) | 9-13-17W | 40 | 4,194 | 12,221 | 1 | Arbuckle | 3,585 |
| Chrisler (1949) | 22-11-16W | 40 | 5,729 | 18,929 | 1 | Lans.-K.C. | 3,100 |
| Christina (1949) | 22-12-16W | 100 | 15,979 | 28,994 | 3 | Lans.-K.C.<br>Arbuckle | 3,272<br>3,462 |
| Dechant (1950) | 6-15-18W | 40 | no report | 1,888 | 1 | Arbuckle | 3,670 |
| Dreiling (1949) | 21-14-16W | 260 | 125,943 | 194,153 | 16 | Lans.-K.C.<br>Arbuckle | 3,120<br>3,367 |
| Ellis* (1942) | 31-12-20W | 700 | 62,208 | 772,388 | 12 | Arbuckle | 3,832 |
| Emmeram (1937) | 4-13-16W | 160 | 9,555 | 237,188 | 5 | Lans.-K.C. | 3,262 |
| Emmeram Northeast (1949) | 27-12-16W | 640 | 74,041 | 99,914 | 13 | Arbuckle | 3,541 |
| Fairport* (1923) | 8-12-15W | 1,050 | 455,333 | 2,586,502 | 40 | Lans.-K.C.<br>Gorham<br>Arbuckle<br>Reagan | 2,950<br>3,211<br>3,312<br>3,350 |
| Fort Hays State College (1950) | 1-14-19W | 40 | no report | 1,203 | 1 | Arbuckle | 3,806 |
| Haller (1936) | 10-11-18W | 40 | no report | 24,643 | 1 | Topeka | 3,045 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Herl (1951) | 28-14-17W | 40 | 12,685 | 12,685 | 1 | Lans.-K.C.<br>Arbuckle | 3,382<br>3,476 |
| Herzog (1940) | 30-13-16W | 470 | 117,108 | 1,030,703 | 13 | Lans.-K.C.<br>Arbuckle | 3,232<br>3,450 |
| Irvin (1946) | 6-14-19W | 350 | 52,995 | 343,333 | 9 | Arbuckle | 3,860 |
| Irvin North (1951) | 31-13-19W | 100 | 22,278 | 22,278 | 3 | Arbuckle | 3,905 |
| Irvin Northeast (1951) | 32-13-19W | 40 | 152 | 152 | 1 | Arbuckle | 3,887 |
| Irvin South (1951) | 7-14-19W | | abandoned during 1951 | | | Arbuckle | 3,826 |
| Jacob (1951) | 6-11-19W | 40 | no report | none | 1 | Lans.-K.C. | 3,542 |
| Karlin (1951) | 14-13-17W | 200 | 27,787 | 27,787 | 5 | Lans.-K.C. | 3,348 |
| Koblitz (1937) | 23-12-18W | 800 | 147,984 | 1,019,160 | 24 | Lans.-K.C.<br>Arbuckle | 3,434<br>3,694 |
| Kraus (1936) | 22-14-19W | 100 | 5,310 | 127,406 | 2 | Sooy<br>Arbuckle | 3,735<br>3,732 |
| Krueger* (1948) | 35-10-16W | 600 | 216,392 | 416,557 | 19 | Lans.-K.C. | 3,552 |
| Leiker (1943) | 14-15-18W | 100 | 10,289 | 108,933 | 2 | Lans.-K.C.<br>Arbuckle | 3,292<br>3,591 |
| Lookout Hollow (1950) | 31-14-18W | 40 | 680 | 1,080 | 1 | Lans.-K.C.<br>Arbuckle | 3,629 |
| Mendota (1951) | 5-11-20W | 40 | 1,534 | 1,534 | 1 | Arbuckle | 3,668 |
| Nicholson (1945) | 30-11-20W | 250 | 35,294 | 270,514 | 6 | Arbuckle | 3,842 |
| Penny-Wann (1936) | 13-15-20W | 120 | 6,531 | 159,380 | 2 | Sooy | 3,653 |
| Pleasant (1944) | 2-14-20W | 1,000 | 151,621 | 1,037,888 | 18 | Arbuckle<br>Reagan<br>Penn. Cong. | 3,833<br>3,877 |
| Pleasant North (1946) | 26-13-20W | 40 | no report | 2,168 | 1 | Arbuckle | 3,798 |
| Pleasant Ridge (1950) | 20-12-17W | 640 | 68,082 | 393,179 | 8 | Lans.-K.C.<br>Arbuckle | 3,408<br>3,683 |
| Pleasant Ridge Southwest (1951) | 19-12-17W | 40 | 5,210 | 5,210 | 1 | Arbuckle | 3,673 |
| Polifka (1948) | 7-13-17W | 80 | 8,276 | 28,938 | 2 | Arbuckle | 3,640 |
| Reed (1949) | 5-13-17W | 40 | 1,524 | 5,659 | 1 | Lans.-K.C. | 3,424 |
| Riverview (1943) | 19-11-18W | 940 | 164,658 | 1,570,444 | 22 | Arbuckle | 3,610 |
| Ruder (1935) | 17-15-18W | 670 | 67,969 | 1,137,167 | 9 | Lans.-K.C.<br>Arbuckle | 3,422<br>3,572 |
| Schmeidler (1944) | 28-12-17W | 400 | 62,769 | 357,206 | 13 | Arbuckle | 3,625 |
| Schoenchen (1946) | 21-15-18W | 850 | 140,942 | 712,710 | 18 | Arbuckle | 3,569 |
| Solomon (1936) | 28-11-19W | 1,200 | 221,242 | 466,423 | 45 | Arbuckle | 3,629 |
| Sugarloaf (1941) | 17-13-17W | 320 | 134,283 | 423,487 | 15 | Arbuckle | 3,645 |
| Sugarloaf East (1950) | 21-13-17W | 80 | 4,222 | 6,485 | 2 | Lans.-K.C. | 3,391 |
| Sugarloaf Southeast (1941) | 28-13-17W | 120 | 7,356 | 112,996 | 3 | Lans.-K.C. | 3,312 |
| Sweet William (1950) | 10-12-20W | 40 | 4,630 | 4,630 | 1 | Lans.-K.C.<br>Arbuckle | 3,700<br>3,908 |
| Toulon (1935) | 3-14-17W | 700 | 128,253 | 564,062 | 9 | Lans.-K.C.<br>Arbuckle | 3,298<br>3,512 |
| Ubert (1936) | 12-13-18W | 40 | 5,584 | 279,958 | 1 | Lans.-K.C.<br>Arbuckle | 3,707 |
| Ubert North (1951) | 31-12-17W | 40 | 2,954 | 2,954 | 1 | Arbuckle | 3,600 |
| Walter (1936) | 2-12-18W | 1,700 | 351,368 | 5,382,268 | 55 | Topeka<br>Lans.-K.C.<br>Arbuckle | 3,160<br>3,619 |
| Warren (1949) | 12-11-20W | 40 | 9,579 | 24,979 | 1 | Lans.-K.C. | 3,458 |
| Wheatland (1949) | 18-15-17W | 80 | 5,437 | 8,306 | 2 | Arbuckle | 3,571 |
| Younger (1944) | 6-14-17W | 330 | 27,227 | 205,997 | 7 | Arbuckle | 3,574 |
| Pools or fields abandoned | | | | 197,683 | | | |
| Total Ellis County | | 43,810 | 11,694,249 | 136,316,881 | 1,431 | | |

**Ellsworth County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Bloomer* (1936) | 36-17-11W | 2,850 | 919,009 | 11,656,867 | 92 | Lans.-K.C.<br>Arbuckle | 3,044<br>3,257 |
| Edwards* (1936) | 3-18-8W | 1,900 | 865,693 | 13,183,155 | 99 | Arbuckle | 3,278 |

TABLE 66.—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Edwards North (1950) | 10-17-8W | 1,000 | 213,389 | 213,389 | 35 | Simpson<br>Arbuckle | 3,157<br>3,172 |
| Heiken (1930) | 25-17-10W | 40 | 558 | 47,408 | 1 | Arbuckle | 3,269 |
| Heiken North (1942) | 24-17-10W | 100 | 7,818 | 170,055 | 2 | Arbuckle | 3,212 |
| Kraft-Prusa* (1937) | 10-17-11W | 900 | 117,235 | 754,584 | 16 | Shawnee<br>Lans.-K.C.<br>Gorham<br>Arbuckle<br>Reagan | 2,885<br>3,160<br>3,335<br>3,281<br>3,310 |
| Kraft-Prusa East‡ (1944) | 18-17-10W | 40 | 3,119 | 3,119 | 1 | Arbuckle | 3,309 |
| Lorraine (1934) | 13-17-9W | 2,000 | 136,643 | 10,452,617 | 38 | Lans.-K.C.<br>Arbuckle | 3,060<br>3,200 |
| Matthews (1951) | 19-17-10W | | combined with Kraft-Prusa | | | | |
| Palacky (1949) | 31-16-10W | 400 | 5,357 | 19,674 | 2 | Lans.-K.C.<br>Arbuckle | 3,148<br>3,390 |
| Plum Creek (1951) | 32-16-10W | | Combined with Stoltenberg | | | | |
| Stoltenberg (1931) | 22-16-10W | 14,000 | 1,759,117 | 33,370,438 | 362 | Lans.-K.C.<br>Arbuckle | 3,260<br>3,333 |
| Vacek (1944) | 32-15-10W | 500 | 85,167 | 177,941 | 6 | Arbuckle | 3,315 |
| West (1951) | 20-17-10W | 40 | 217 | 217 | 1 | Arbuckle | 3,287 |
| Wilkens Southeast (1942) | 32-17-9W | 300 | 22,073 | 411,961 | 6 | Arbuckle | 3,220 |
| Total Ellsworth County | | 24,070 | 4,135,395 | 70,461,425 | 661 | | |
| **Finney County** | | | | | | | |
| Damme (1951) | 21-22-33W | 80 | 7,205 | 7,205 | 2 | Mississippian | 4,626 |
| Nunn (1938) | 27-21-34W | 1,260 | 197,586 | 1,712,850 | 28 | Kansas City<br>Marmaton<br>Cherokee<br>"Miss. lime" | 4,550<br>4,654 |
| Total Finney County | | 1,340 | 204,791 | 1,720,055 | 30 | | |
| **Ford County** | | | | | | | |
| Pleasant Valley (revived) (1950) | 34-27-21W | 40 | 7,401 | 7,401 | 1 | | |
| **Franklin County** | | | | | | | |
| LeLoup | 15-20E | | | | | "Squirrel" | 750 |
| Paola-Rantoul* (1860) | 17-21E | | | | | Knobtown† | 300 |
| 1¶ | | | 7,122 | | | Hepler | 400 |
| 2 | | | 34,328 | | | "Prue" | 500 |
| 3 | | | 40,538 | | | "Squirrel" | 600 |
| 4 | | | 159,790 | | | "Bartlesville" | 700 |
| 5 | | | 426 | | | | |
| 6 | | | 1,260 | | | | |
| 7 | | | 14,443 | | | | |
| Total Franklin County | | | 257,907 | 8,176,430 recorded | | | |
| **Gove County** | | | | | | | |
| Coberly (1951) | 15-14-29W | 80 | 19,243 | 19,243 | 2 | Marmaton | 4,28 |
| Gove (1951) | 26-13-30W | 40 | no report | none | 1 | Mississippian | 4,54 |
| Jasper (1951) | 30-15-29W | 40 | 740 | 740 | 1 | Lans.-K.C. | 3,67 |
| Total Gove County | | 160 | 19,983 | 19,983 | 4 | | |
| **Graham County** | | | | | | | |
| Alda (1944) | 15-7-22W | 40 | no report | 23,740 | | Lans.-K.C. | 3,51 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Bass (1950) | 12-10-21W | 240 | 60,323 | 85,437 | 6 | Arbuckle | 3,826 |
| Cooper (1950) | 11-10-21W | 1,800 | 838,295 | 972,989 | 64 | Lans.-K.C.<br>Arbuckle | 3,528<br>3,841 |
| Crocker (1951) | 18-10-21W | 40 | 4,191 | 4,191 | 1 | Arbuckle | 3,916 |
| Fargo (1950) | 26-9-22W | 120 | 15,210 | 27,064 | 3 | Lans.-K.C. | 3,622 |
| Fargo West (1951) | 34-9-22W | 40 | no report | none | 1 | Lans.-K.C. | 3,755 |
| Faulkner (1945) | 27-10-22W | 200 | 12,419 | 171,377 | 4 | Lans.-K.C. | 3,629 |
| Gettysburg (1941) | 7-8-23W | 80 | 4,949 | 54,058 | 2 | Lans.-K.C. | 3,725 |
| Harmony (1951) | 32-7-22W | 40 | 917 | 917 | 1 | Lans.-K.C. | 3,597 |
| Highland (1951) | 20-8-22W | 40 | 3,393 | 3,393 | 1 | Lans.-K.C. | 3,616 |
| Houston (1947) | 9-6-22W | 40 | 5,034 | 16,611 | 1 | Lans.-K.C. | 3,506 |
| Ironclad (1950) | 23-9-22W | 160 | 39,729 | 51,981 | 4 | Lans.-K.C. | 3,756 |
| Laura* (1950) | 30-10-20W | 140 | 3,411 | 3,411 | 1 | Arbuckle | 3,706 |
| Law (1951) | 34-9-23W | 400 | 81,094 | 81,094 | 12 | Lans.-K.C.<br>Penn. Cong. | 3,922<br>4,126 |
| aw South (1951) | 2-10-23W | | Combined with Law | | | | |
| illbrook (1951) | 21-8-23W | 40 | 1,490 | 1,490 | 1 | Lans.-K.C. | 3,761 |
| orel (1938) | 15-9-21W | 6,000 | 2,268,120 | 12,763,565 | 199 | Sooy<br>Arbuckle | 3,712<br>3,718 |
| orel East (1949) | 13-9-21W | 360 | 72,161 | 154,443 | 6 | Arbuckle | 3,729 |
| orlan (1949) | 23-10-21W | 360 | 83,644 | 164,707 | 11 | Arbuckle | 3,778 |
| uilenburg (1949) | 1-10-21W | 80 | 4,583 | 13,978 | 2 | Arbuckle | 3,839 |
| enokee (1940) | 11-8-24W | 130 | 32,117 | 174,392 | 6 | Lans.-K.C. | 3,750 |
| ay* (1949) | 32-5-20W | 40 | 750 | 750 | 1 | Lans.-K.C.<br>Arbuckle<br>Reagan | 3,297<br>3,575<br>3,540 |
| hiloh (1951) | 1-9-25W | 40 | 1,685 | 1,685 | 1 | Lans.-K.C. | 4,013 |
| mith-Denning (1950) | 5-10-21W | 300 | 86,376 | 136,175 | 7 | Lans.-K.C.<br>Arbuckle | 3,530<br>3,818 |
| mith-Denning West (1951) | 6-10-21W | 1 | 2,861 | 2,861 | 1 | Lans.-K.C.?<br>Arbuckle | 3,880 |
| eall (1949) | 9-10-21W | | Combined with Cooper | | | | |
| eall North (1950) | 4-10-21W | | Combined with Cooper | | | | |
| eall Northeast (1950) | 9-10-21W | | Combined with Cooper | | | | |
| ild Horse Creek (1950) | 16-9-22W | 40 | 4,219 | 10,095 | 1 | Arbuckle | 3,944 |
| orcester (1951) | 23-7-22W | 40 | 2,059 | 2,059 | 1 | Arbuckle | 3,792 |
| ools or fields abandoned | | | | 12,765 | | | |
| Total Graham County | | 10,711 | 3,629,030 | 14,935,228 | 338 | | |

**Greenwood County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| tyeo* (1925) | 30-21-10E | 150 | 14,352 | | 15 | "Bartlesville" | 2,250 |
| eaumont | 27-8E | 90 | 26,591 | | 9+ | "Peru"<br>Mississippian<br>Arbuckle | 1,830<br>2,445<br>2,740 |
| eaumont North | 27-9E | 10 | 401 | | 1 | Mississippian<br>Ordovician | 2,477<br>2,800 |
| eaumont South (1935) | 2-28-8E | 50 | 9,726 | | 5 | Mississippian | 2,500 |
| lackwell (1925) | 16-24-13E | | 1,243 | | | Mississippian | 1,650 |
| lankenship* (1921) | 26-8E | 90 | 5,770 | | 9 | "Bartlesville" | 2,650 |
| rinegar | 26-13E | | 4,921 | | | | |
| rowning (1924) | 22-10E | 410 | 102,733 | | 41+ | "Bartlesville" | 2,314 |
| urkett (1923) | 24-23-10E | 1,280 | 321,269 | | 128+ | "Bartlesville" | 2,000 |
| urt (1949) | 8-26-11E | | 1,945 | | | Mississippian | 1,945 |
| "Butler" | 15-26-11E | | 32 | | | | |
| limax (1925) | 27-11E | 60 | 6,906 | | 6 | Mississippian | 1,900 |
| eMalorie-Souder (1924) | 22-10E | 40 | 227,835 | | 4+ | "Bartlesville" | 2,150 |
| unaway* (1922) | 34-22-13E | | 59,550 | | | Mississippian | 1,800 |
| ureka | 31-25-11E | | 109,748 | | | Fort Scott<br>Mississippian | 1,750<br>2,000 |
| ankhouser* (1926) | 4-22-12E | 70 | 473,110 | | 7+ | "Bartlesville" | 1,850 |

TABLE 66.—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Gaffney (1926) | 18-24-11E | | 8,089 | | | "Bartlesville" | 1,850 |
| "Gates" | 4-22-13E | | 333 | | | | |
| Gilroy (1928) | 12-25-12E | | 499 | | | Mississippian | 1,600 |
| Hamilton (1925) | 7-24-12E | 450 | 220,921 | | 45+ | "Bartlesville" | 1,650 |
| | | | | | | Mississippian | 1,800 |
| Hinchman (1927) | 17-24-13E | | 5,766 | | | Mississippian | 1,615 |
| Hollis (1927) | 16-23-10E | 20 | 1,460 | | 2 | "Bartlesville" | 2,150 |
| Honey Creek (1950) | 32-26-11E | | 251 | | | Mississippian | 1,871 |
| Jackson | 25-8E | 30 | 1,694 | | 3 | "Bartlesville" | |
| "Kimbal" | 28-25-13E | | 2,262 | | | | |
| Lamont (1926) | 29-22-13E | 450 | 255,544 | | 45+ | "Bartlesville" | 1,700 |
| Madison | 14-22-11E | 840 | 143,485 | | 84+ | "Bartlesville" | 1,800 |
| "Mignot" | 9-22-11E | | 34 | | | | |
| Morris (1950) | 28-24-13E | | no report | | | | |
| Parks | 24-10E | | 1,401 | | | | |
| Pixlee (1923) | 7-22-10E | 350 | 48,401 | | 35+ | "Bartlesville" | 2,350 |
| | | | | | | Mississippian | 2,400 |
| Polhamus (1922) | 25-9E | | 588,683 | | | "Bartlesville" | 2,180 |
| Quincy* (1926) | 31-24-12E | | 84,431 | | | "Bartlesville" | 1,500 |
| | | | | | | Mississippian | 1,720 |
| Reece | 24-26-9E | 300 | 28,468 | | 30 | Kansas City | 1,980 |
| | | | | | | Mississippian | 2,100 |
| Sallyards | 25-8E | 500 | 190,027 | | 50+ | "Bartlesville" | 2,350 |
| Scott (1925) | 24-23-8E | | 72,788 | | | "Bartlesville" | 2,525 |
| Seeley-Wick | 28-23-11E | 1,920 | 756,528 | | 192+ | "Bartlesville" | 1,930 |
| Severy* | 8-28-11E | 150 | 7,307 | | 15+ | Kansas City | 1,200 |
| Severy North | 27-11E | | 909 | | | | |
| Stanhope | 15-26-8E | 100 | 22,349 | | 10 | Mississippian | 2,450 |
| "Starrer" | 1-23-12E | | 16 | | | | |
| Teeter* (1920) | 16-23-9E | 1,290 | 230,426 | | 129+ | "Bartlesville" | 2,400 |
| Teichgraber | 25-8E | 170 | 12,515 | | 17+ | "Bartlesville" | 2,750 |
| Thrall-Aagard | 14-24-9E | 260 | 1,316,830 | | 26+ | "Bartlesville" | 2,170 |
| Tonovay | | | 312 | | | | |
| Tonovay North | | | no report | | | | |
| Tonovay West (1950) | 33-25-11E | | 619 | | | Mississippian | 1,948 |
| Toronto* (1913) | 16-26-13E | | 2,980 | | | "Peru" | 1,000 |
| | | | | | | "Bartlesville" | 1,700 |
| Tucker | | | no report | | | | |
| Virgil (1916) | 14-24-12E | | 169,611 | | | "Bartlesville" | 1,550 |
| | | | | | | Mississippian | 1,700 |
| Virgil North* (1920) | 22-23-13E | | 308,904 | | | "Bartlesville" | 1,585 |
| | | | | | | Mississippian | 1,840 |
| Wiggins (1925) | 30-24-11E | 430 | 25,459 | | 43 | "Bartlesville" | 1,860 |
| Wilkerson (1926) | 6-25-9E | 140 | 15,964 | | 14 | "Bartlesville" | 2,200 |
| Willard | 7-27-11E | 20 | 35,480 | 2 | 2+ | Miss. "Chat" | 1,900 |
| Miscellaneous | | | 5,632 | | | | |
| Total Greenwood County | | 9,670 | 5,932,510 | 177,709,740 recorded | 967+ | | |
| **Harper County** | | | | | | | |
| Grabs (1949) | 13-31-9W | 200 | 9,154 | 18,023 | 4 | Mississippian | 4,400 |
| **Harvey County** | | | | | | | |
| Burrton* (1931) | 1-23-4W | | incl. with Reno Co. | | | Mississippian | 3,96 |
| | | | | | | "Hunton" | 3,58 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Burrton Northeast (1942) | 3-23-3W | 200 | 1,794 | 5,956 | 4 | "Chat" | 3,224 |
| | | | | | | Mississippian | 3,269 |
| Graber* (1934) | 32-21-1W | 80 | 3,734 | 145,610 | 2 | "Misener" | 3,323 |
| | | | | | | "Hunton" | 3,274 |
| Halstead (1929) | 36-22-2W | 1,500 | 29,844 | 1,887,657 | 13 | "Chat" | 3,005 |
| Hollow-Nikkel* (1931) | 30-22-3W | 2,000 | 103,078 | 20,688,465 | 42 | "Chat" | 3,195 |
| | | | incl. McPherson Co. production | | | "Hunton" | 3,507 |
| | | | | | | Simpson | 3,500 |
| Jester Creek (1949) | 3-24-1E | 40 | 496 | 1,202 | 1 | Lans.-K.C. | 2,687 |
| Sperling (1935) | 23-22-2W | 300 | 11,464 | 587,425 | 5 | "Hunton" | 3,279 |
| Pools or fields abandoned | | | | 123,238 | | | |
| Total Harvey County | | 4,120 | 150,410 | 23,439,553 | 67 | | |
| **Hodgeman County** | | | | | | | |
| Jetmore (1950) | 24-22-24W | 80 | 19,736 | 33,308 | 2 | Mississippian | 4,580 |
| Purdyville (1951) | 3-24-24W | 200 | 46,147 | 46,147 | 5 | Penn. Cong. | 4,651 |
| | | | | | | Mississippian | 4,663 |
| Total Hodgeman County | | 280 | 65,883 | 79,455 | 7 | | |
| **Jefferson County** | | | | | | | |
| McLouth (1939) | 4-10-20E | 70 | 11,346 | | 7 | McLouth | 1,450 |
| | | | | | | Mississippian | 1,550 |
| McLouth North (1941) | 29-9-20E | 20 | 2,090 | | 2+ | McLouth | 1,450 |
| | | | | | | Mississippian | 1,500 |
| Total Jefferson County | | 90 | 13,436 | 873,589 recorded | 9+ | | |
| **Johnson County** | | | | | | | |
| Dallas | 13-13-24E | | no report | | | | |
| **Kearny County** | | | | | | | |
| Patterson (1941) | 23-22-38W | 120 | 29,249 | 351,750 | 3 | "Patterson sand" | 4,748 |
| **Kingman County** | | | | | | | |
| Bartholomew* (1948) | 30-27-4W | 240 | 30,907 | 50,096 | 6 | "Miss. lime" | 3,732 |
| Broadway (1950) | 21-28-5W | 1,000 | 204,514 | 213,249 | 25 | Mississippian | 3,833 |
| Cunningham* (1931) | 7-28-11W | 800 | 69,618 | 2,985,557 | 37 | Lans.-K.C. | 3,390 |
| Dewey (1950) | 9-28-5W | 640 | 71,494 | 72,666 | 9 | Mississippian | 3,801 |
| Dresden (1951) | 13-27-10W | 120 | 139,125 | 139,125 | 3 | Mississippian | 4,002 |
| | | | | | | Viola | 4,270 |
| Evan Mound (1951) | 22-27-5W | 40 | 4,476 | 4,476 | 1 | Mississippian | 3,800 |
| Lansdowne (1950) | 15-28-5W | | Combined with Broadway | | | | |
| Lansdowne North (1951) | 4-28-5W | 40 | 8,699 | 8,699 | 1 | Mississippian | 3,814 |
| Pat Creek (1946) | 20-28-9W | 120 | 6,382 | 108,086 | 3 | Viola | 4,406 |
| Spivey (1951) | 23-30-8W | 40 | 1,431 | 1,431 | 1 | Mississippian | 4,205 |
| Pools or fields abandoned | | | | 27,000 | | | |
| Total Kingman County | | 3,040 | 536,646 | 3,610,385 | 86 | | |
| **Kiowa County** | | | | | | | |
| Exel (1948) | 20-30-20W | 40 | 7,729 | 32,584 | 1 | "Miss. lime" | 5,126 |
| **Labette County** | | | | | | | |
| Banzet | 35-19E | | no report | | | | |
| Chetopa | 36-34-20W | | no report | | | | |
| Coffeyville-Cherryvale* | 32-17E | | 2,497 | | | "Wayside" | 400 |
| | | | | | | Fort Scott | 600 |
| | | | | | | "Bartlesville" | 1,000 |
| Mound Valley | 32-18E | | 273 | | | "U. Bartlesville" | 630 |
| | | | | | | "L. Bartlesville" | 700 |
| | | | | | | Mississippian | 900 |
| Price (1917) | 33-18E | | 1,786 | | | "Bartlesville" | 600 |
| Total Labette County | | | 4,556 | | | | |

TABLE 66.—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| **Leavenworth County** | | | | | | | |
| Ackerland (1941) | 12-10-20E | 40 | 3,808 | | 4 | McLouth | 1,370 |
| Bankers Life (1941) | 3-10-20E | | 7,412 | | | McLouth | 1,450 |
| Total Leavenworth County | | 40 | 11,220 | 81,050 recorded | 4+ | | |
| **Linn County** | | | | | | | |
| Centerville* (1920) | 10-21-22E | | | | | "Squirrel"† | 480 |
| 8 | | | 781 | | | "Bartlesville" | 720 |
| 9 | | | 182 | | | | |
| 10 | | | 43,928 | | | | |
| 11 | | | 740 | | | | |
| Goodrich-Parker* (1922) | 25-20-21E | | | | | "Squirrel"† | 600 |
| 5 | | | 3,510 | | | "Bartlesville" | 700 |
| 6 | | | 975 | | | | |
| 7 | | | 28,121 | | | | |
| LaCygne-Cadmus | 20-24E | | | | | Bandera† | 150 |
| 1 | | | 755 | | | Labette | 200 |
| 2 | | | 97 | | | | |
| 3 | | | 816 | | | | |
| 4 | | | 442 | | | | |
| Miscellaneous | | | 3,082 | | | | |
| Total Linn County | | | 83,429 | | | | |
| **Lyon County** | | | | | | | |
| Atyeo* (1925) | 30-21-10E | 90 | 229,271 | | 34 | "Bartlesville" | 2,200 |
| Bushong (1950) | 26-16-10E | | 5,705 | 10,039 | 1 | "Hunton" | 2,950 |
| Fankhouser* (1926) | 4-22-12E | | 48,683 | | 23 | "Bartlesville" | 1,850 |
| Rock Creek (1947) | 31-21-11E | 30 | 3,131 | 20,575 | 4 | "Bartlesville" | 1,900 |
| Total Lyon County | | 120 | 286,790 | 5.861.486 recorded | 62 | | |
| **McPherson County** | | | | | | | |
| Battle Hill (1945) | 24-18-1W | 40 | 3,013 | 40,793 | 1 | "Chat" | 2,825 |
| Battle Hill North (1948) | 13-18-1W | 40 | 7,506 | 39,091 | 1 | "Miss. lime" | 2,811 |
| Bitikofer (1940) | 1-20-1W | 160 | 5,867 | 208,350 | 4 | "Chat" | 2,885 |
| Bitikofer North (1946) | 25-19-1W | 40 | 840 | 9,043 | 1 | "Miss. lime" | 2,892 |
| Bonaville (1949) | 33-17-2W | 80 | 3,040 | 13,656 | 2 | Simpson | 3,557 |
| Bornholdt* (1937) | 30-20-5W | 3,000 | 359,648 | 11,452,299 | 104 | "Chat" | 3,292 |
| Burk (1948) | 7-18-1W | 120 | 13,447 | 71,639 | 3 | Mississippian | 2,781 |
| Canton North (1936) | 26-18-1W | 540 | 40,150 | 577,345 | 12 | "Chat" | 2,803 |
| Chindberg (1929) | 18-19-2W | 600 | 19,044 | 1,763,288 | 14 | Lans.-K.C. | 2,963 |
| | | | | | | "Chat" | 3,007 |
| Coons (1940) | 13-19-1W | 40 | 1,397 | 1,849 | 1 | | |
| Crowther (1942) | 26-17-1W | 1,500 | 153,651 | 2,736,910 | 46 | "Chat" | 2,778 |
| Georob (1947) | 31-17-1W | 1,560 | 341,223 | 1,211,112 | 40 | "Chat" | 2,665 |
| Graber* (1934) | 32-21-1W | 2,380 | 489,262 | 9,788,079 | 113 | "Misener" | 3,323 |
| | | | | | | "Hunton" | 3,274 |
| Gypsum Creek (1944) | 4-17-1W | 440 | 33,848 | 339,180 | 13 | "Chat" | 2,619 |
| Henne (1940) | 21-17-1W | 900 | 50,411 | 1,388,766 | 19 | "Chat" | 2,658 |
| Hollow-Nikkel* (1931) | 30-22-3W | 640 | Incl. with Harvey County | | | "Chat" | 3,195 |
| | | | | | | "Hunton" | 3,507 |
| | | | | | | Simpson | 3,500 |
| Jenday (1944) | 1-19-2W | 1,000 | 42,068 | 764,721 | 28 | "Chat" | 2,984 |
| Johnson (1932) | 35-19-3W | 960 | 55,766 | 3,279,870 | 10 | "Chat" | 3,032 |
| Johnson South (1950) | 11-20-3W | 40 | 2,814 | 6,018 | 1 | Mississippian | 3,043 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Lindsborg (1938) | 8-17-3W | 5,400 | 509,261 | 6,289,553 | 104 | Viola<br>Simpson | 3,352<br>3,360 |
| McPherson (1926) | 29-18-2W | 1,500 | 63,553 | 1,470,398 | 29 | Lans.-K.C.<br>"Chat"<br>Viola | 2,340<br>3,967<br>3,140 |
| Maxwell (1948) | 17-18-1W | 160 | 6,479 | 18,246 | 4 | "Miss. lime" | 2,846 |
| Paden (1943) | 10-18-1W | 640 | 251,027 | 2,201,835 | 42 | "Chat"<br>Viola | 2,752<br>3,153 |
| Paden South (1950) | 21-18-1W | 120 | 7,776 | 8,401 | 3 | Mississippian | 2,765 |
| Reuben (1949) | 17-18-2W | 40 | 4,842 | 13,450 | 1 | Simpson | 3,675 |
| Ritz-Canton (1929) | 1-20-2W | 12,000 | 493,636 | 42,189,836 | 181 | "Chat"<br>Viola | 2,935<br>3,412 |
| Roxbury (1938) | 18-17-1W | 1,000 | 90,036 | 2,927,315 | 30 | "Chat"<br>Simpson | 2,684<br>3,278 |
| Roxbury South (1942) | 30-17-1W | 240 | 12,303 | 303,638 | 4 | "Chat" | 2,658 |
| Roxbury Southeast (1943) | 20-17-1W | 240 | 23,892 | 62,262 | 4 | "Chat" | 2,665 |
| Voshell (1929) | 9-21-3W | 3,500 | 240,446 | 28,096,765 | 63 | "Chat"<br>Viola | 3,095<br>3,301 |
| Total McPherson County | | 38,280 | 3,326,246 | 117,273,708 | 878 | | |

**Marion County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Antelope (1947) | 33-18-4E | | no runs | | | Miss. "Chat" | 2,380 |
| Antelope North (1948) | 28-18-4E | | no runs | | | Kansas City | 1,840 |
| Cedar Creek (1950) | 31-20-5E | | 369 | 1,615 | | Viola | 2,563 |
| Covert-Sellers (1920) | 28-21-4E | 60 | 137,115 | | 6+ | Viola | 2,400 |
| Elbing* (1918) | 18-23-4E | 60 | 5,602 | | 6 | Kansas City<br>Mississippian<br>Viola | 2,120<br>2,400<br>2,530 |
| Elbing North (1947) | 27-22-4E | 40 | 10,280 | 50,122 | 4 | Miss. "Chat" | 2,439 |
| Fanska (1943) | 6-17-1E | 80 | 6,247 | | 8 | Miss. "Chat" | 2,680 |
| Florence (1920) | 18-21-5E | 60 | 16,792 | | 6 | Viola | 2,300 |
| Hillsboro (1928) | 7-19-3E | | 23,993 | | | Mississippian<br>Viola | 2,470<br>2,820 |
| Lehigh (1946) | 27-19-1E | 60 | 15,009 | 80,252 | 6 | Mississippian | 2,800 |
| Lost Springs* (1926) | 22-17-4E | 1,380 | 220,667 | | 138 | Mississippian | 2,365 |
| Lost Springs East (1942) | 35-17-4E | 30 | 2,345 | | 3 | Miss. "Chat" | 2,350 |
| Lost Springs Southeast (1948) | 10-18-4E | 30 | 2,268 | 4,389 | 3 | Mississippian | 2,345 |
| Peabody (1920) | 9-22-4E | 100 | 41,723 | | 10 | Viola | 2,500 |
| Propp | 19-4E | 30 | 5,179 | 12,469 | 3 | | |
| Wenger (1947) | 11-21-4E | 150 | 112,499 | 442,185 | 15+ | "Hunton" | 2,770 |
| Total Marion County | | 2,080 | 600,088 | 32,062,999 recorded | 208+ | | |

**Meade County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Adams Ranch (1948) | 8-35-30W | 40 | 460 | 1,272 | 1 | | |
| Adams Ranch East (1947) | 36-34-30W | 40 | 13,131 | 13,131 | 1 | Marmaton | 5,346 |
| Novinger (1951) | 26-33-30W | 200 | 24,663 | 24,663 | 5 | Marmaton<br>Mississippian | 5,270<br>5,803 |
| Total Meade County | | 208 | 38,254 | 39,066 | 7 | | |

**Miami County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Block | | | no production | | | | |
| Louisburg | 17-25E | | | | | Knobtown† | 270 |
| 15 | | | 3,316 | | | "Peru" | 430 |
| 16 | | | 1,027 | | | "Squirrel" | 600 |
| Paola-Rantoul* (1860) | 17-23E | | | | | Knobtown† | 300 |
| 1 "Big Lake" | | | 62,700 | | | Hepler | 400 |
| 2 | | | 18,554 | | | "Peru" | 500 |
| 3 "Pressonville"§ | | | 15,406 | | | "Squirrel" | 600 |
| 4 "Pressonville" | | | 202,302 | | | "Bartlesville" | 700 |

TABLE 66.—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| 5 | | | 3,811 | | | | |
| 6 | | | 24,570 | | | | |
| 7 "Pressonville" | | | 94,229 | | | | |
| 8 "Pressonville" | | | 8,413 | | | | |
| 9 "Rantoul" | | | 155 | | | | |
| 10 "Stanton" | | | 29,157 | | | | |
| 11 "Osawatomie" | | | 6,921 | | | | |
| 12 "Osawatomie" | | | 1,369 | | | | |
| 13 "Osawatomie" | | | 1,000 | | | | |
| 14 "Osawatomie" | | | 32,837 | | | | |
| Miscellaneous | | | 874 | | | | |
| Total Miami County | | | 506,641 | 13,354,143 recorded | | | |
| **Montgomery County** | | | | | | | |
| Brewster | 32-16E | | | | | "Bartlesville" | 900 |
| 27 | | | 1,304 | | | Arbuckle | |
| 28 | | | 132 | | | | |
| 29 | | | 1,210 | | | | |
| 30 | | | 43,669 | | | | |
| Caney (38) | 35-14E | | 5,889 | | | "Bartlesville" | 1,320 |
| Coffeyville-Cherryvale* (1902) | 33-17E | | | | | "Wayside"† | 400 |
| 1 | | | 2,535 | | | Fort Scott | 600 |
| 2 | | 80 | 2,586 | | 8+ | "Bartlesville" | 1,000 |
| 3 | | 170 | 5,993 | | 17 | Arbuckle | 1,300 |
| 4 | | | 392 | | | | |
| 5 | | | 1,811 | | | | |
| 6 | | | 60 | | | | |
| 7 | | | 179 | | | | |
| 8 | | | 9,836 | | | | |
| 9 | | | 32,757 | | | | |
| 10 | | | 930 | | | | |
| Coleman (1921) (31) | 28-32-14E | | 410 | | | Arbuckle | 1,700 |
| Jefferson-Sycamore (1903) | 18-33-15E | | | | | "Weiser"† | 800 |
| 13 | | | 118 | | | "Bartlesville" | 1,200 |
| 14 | | | 774 | | | | |
| 15 | | 100 | 1,446 | | 10 | | |
| 16 | | | 1,129 | | | | |
| 17 | | | 60 | | | | |
| 18 | | | 357 | | | | |
| 19 | | 280 | 41,869 | | 28 | | |
| 20 | | | 4,186 | | | | |
| 21 | | 380 | 275,485 | | 38+ | | |
| 22 | | | 51 | | | | |
| 23 | | | 2,898 | | | | |
| 24 | | | 1,973 | | | | |
| 25 | | | 1,483 | | | | |
| 26 | | | 26,973 | | | | |
| Neodesha* | 31-16E | | | | | "Bartlesville" | 95 |
| 11 | | | 1,109 | | | | |
| 12 | | | 1,505 | | | | |
| Sorghum Hollow (32) | 32-14E | | 5,006 | | | "Weiser" | 80 |
| Tyro (1904) | 13-35-14E | | | | | "Bartlesville" | 1,25 |
| 36 | | | 1,514 | | | | |
| 37 | | | 13,221 | | | | |
| Wayside-Havana* (1904) | 34-14E | | | | | "Wayside"† | 57 |
| 33 | | | 739 | | | "Weiser" | 70 |
| 34 | | | 132,737 | | | "Bartlesville" | 1,20 |
| 35 | | | 921 | | | | |
| Miscellaneous | | | 213 | | | | |
| Total Montgomery County | | 1,010 | 625,460 | 40,385,188 recorded | 101+ | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Morris County** | | | | | | | |
| Burdick (1949) | 15-17-5E | 30 | 5,284 | 17,403 | 3 | Mississippian | 2,220 |
| Three Mile Creek (1950) | 25-16-5E | 40 | 33,253 | 45,711 | 4 | Mississippian | 2,208 |
| Three Mile Creek South (1950) | 35-16-5E | 40 | 27,364 | 30,331 | 5 | Mississippian | 2,183 |
| Total Morris County | | 120 | 65,901 | 93,445 | 12 | | |
| **Morton County** | | | | | | | |
| Richfield (1948) | 17-32-40W | 40 | 62 | 829 | 1 | Basal Penn. (Atoka) | 4,990 |
| **Nemaha County** | | | | | | | |
| Sabetha (1950) | 13-2-14E | | 12,141 | 12,772 | | "Hunton" | 2,826 |
| Strahm (1948) | 27-2-14E | | 32,967 | 49,841 | | "Hunton" | 2,879 |
| | | | | | | Viola | 3,559 |
| Total Nemaha County | | | 45,108 | 62,613 recorded | | | |
| **Neosho County** | | | | | | | |
| Erie (1903) | 28-20E | | | | | "Bartlesville" | 650 |
| 10 | | | 5,063 | | | | |
| 11 | | | 11,448 | | | | |
| Humboldt-Chanute* | 27-18E | | | | | "Bartlesville" | 700 |
| 2 | | | 89 | | | | |
| 3 | | | 1,911 | | | | |
| 4 | | | 1,988 | | | | |
| 5 | | | 85,462 | | | | |
| 6 | | 3,850 | 419,836 | | 385+ | | |
| 7 | | | 478 | | | | |
| 8 | | 220 | 9,530 | | 22+ | | |
| 9 | | | 5,051 | | | | |
| Kimball (1) | | | 2,098 | | | | |
| Morehead (17) | 30-30-18E | | 1,253 | | | "Bartlesville" | 850 |
| St. Paul-Walnut* | 29-21E | | | | | "Bartlesville" | 550 |
| 13 | | | 8,526 | | | | |
| 14 | | | 2,221 | | | | |
| 15 | | | 501 | | | | |
| 16 | | | 1,370 | | | | |
| Thayer | 29-17E | | no report | | | | |
| Urbana (12) | 28-18E | | 4,460 | | | "Bartlesville" | 750 |
| Miscellaneous | | | 4,795 | | | | |
| Total Neosho County | | 4,070 | 566,080 | 21,107,508 recorded | 407+ | | |
| **Ness County** | | | | | | | |
| Aldrich (1929) | 7-18-25W | 5,000 | 264,580 | 2,372,826 | 34 | "Warsaw" | 4,428 |
| Arnold (1943) | 22-16-25W | 300 | 28,023 | 299,568 | 5 | Fort Scott | 4,436 |
| | | | | | | "Warsaw" | 4,528 |
| Kansada West (1950) | 28-17-26W | | no report | none | | Mississippian | 4,438 |
| Manteno (1945) | 31-19-25W | 160 | 3,463 | 49,936 | 2 | "Warsaw" | 4,549 |
| Pools or fields abandoned | | | | 7,581 | | | |
| Total Ness County | | 5,460 | 296,066 | 2,729,911 | 41 | | |
| **Norton County** | | | | | | | |
| Ray* (1940) | 32-5-20W | 340 | 37,643 | 205,919 | 6 | Lans.-K.C. | 3,297 |
| | | | | | | Arbuckle | 3,575 |
| | | | | | | Reagan | 3,540 |
| Ray West (1945) | 26-5-21W | 120 | 15,177 | 91,843 | 3 | Arbuckle | 3,650 |
| Pools or fields abandoned | | | | 32,054 | | | |
| Total Norton County | | 460 | 52,820 | 329,816 | 9 | | |
| **Pawnee County** | | | | | | | |
| Ash Creek* (1947) | 31-20-15W | 800 | 11,507 | 238,134 | 15 | Arbuckle | 3,787 |

TABLE 66.—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Ash Creek Southwest (1947) | 11-21-16W | 40 | 11,888 | 90,867 | 1 | Arbuckle | 3,779 |
| Benson (1945) | 30-23-15W | 200 | 26,010 | 179,985 | 5 | Lans.-K.C. | 3,853 |
| Evers (1951) | 1-22-16W | 40 | 162 | 162 | 1 | Lans.-K.C.<br>Arbuckle | 3,525<br>3,908 |
| Garfield (1947) | 17-23-17W | | no report | 7,309 | | Kinderhookian | 4,276 |
| Larned (1949) | 28-21-16W | abandoned during 1951 | | 689 | | Arbuckle | 3,877 |
| Pawnee Rock* (1936) | 13-20-16W | 2,000 | 166,655 | 2,470,516 | 37 | Arbuckle | 3,832 |
| Pawnee Rock West (1949) | 23-20-16W | 1,000 | 123,464 | 189,095 | 17 | Arbuckle | 3,760 |
| Rutherford (1946) | 8-20-16W | 300 | 21,346 | 230,535 | 6 | Arbuckle | 3,815 |
| Rutherford East (1950) | 4-20-16W | 120 | 29,261 | 35,006 | 3 | Arbuckle | 3,719 |
| Ryan* (1945) | 35-19-16W | 400 | 14,881 | 363,566 | 10 | Arbuckle | 3,656 |
| Ryan Southeast (1945) | 12-20-16W | 300 | 26,150 | 269,477 | 9 | Arbuckle | 3,688 |
| Shady (1948) | 35-22-16W | 80 | 800 | 6,038 | 2 | Arbuckle | 4,067 |
| Zook (1942) | 16-23-16W | 80 | no report | 7,016 | | Arbuckle | 4,066 |
| Total Pawnee County | | 5,360 | 432,124 | 4,088,395 | 106 | | |
| | | | **Phillips County** | | | | |
| Artz (1950) | 19-1-18W | abandoned during 1951 | 1,117 | 1,117 | 1 | Lans.-K.C. | 3,466 |
| Beckman (1951) | 3-4-19W | 40 | 1,097 | 1,097 | 1 | Lans.-K.C. | 3,201 |
| Bow Creek (1939) | 25-5-18W | 120 | 8,629 | 55,024 | 3 | Lans.-K.C. | 3,111 |
| Dayton (1941) | 36-2-19W | 1,500 | 42,360 | 953,793 | 17 | Lans.-K.C. | 3,430 |
| Dayton North (1943) | 13-2-19W | | combined with Huffstutter | | | Lans.-K.C. | 3,406 |
| Dry Creek (1951) | 7-1-18W | abandoned during 1951 | 479 | 479 | 1 | | |
| Glenwood (1951) | 21-1-17W | 40 | 4,821 | 4,821 | 1 | Lans.-K.C. | 3,597 |
| Hansen (1943) | 14-5-20W | 850 | 262,321 | 1,712,009 | 31 | Lans.-K.C.<br>Arbuckle | 3,363<br>3,530 |
| Huffstutter (1949) | 6-2-18W | 3,000 | 662,745 | 1,604,942 | 126 | Lans.-K.C. | 3,444 |
| Huffstutter Northeast (1951) | 27-1-18W | | Combined with Huffstutter | | | | |
| Huffstutter Southwest (1951) | 32-2-19W | 80 | 2,211 | 2,211 | 2 | Lans.-K.C. | 3,458 |
| Kent (1951) | 22-1-18W | 40 | 1,472 | 1,472 | 1 | Lans.-K.C. | 3,432 |
| Logan (1945) | 3-5-20W | 420 | 47,920 | 304,651 | 11 | Lans.-K.C.<br>Arbuckle | 3,149<br>3,381 |
| Ray* (1940) | 32-5-20W | 3,800 | 1,750,994 | 12,772,043 | 145 | Lans.-K.C.<br>Arbuckle<br>Reagan | 3,297<br>3,575<br>3,540 |
| Slinker (1951) | 25-4-20W | 120 | 7,010 | 7,010 | 3 | Lans.-K.C. | 3,215 |
| Stephens (1951) | 21-1-18W | | Combined with Huffstutter | | | | |
| Stuttgart (1950) | 14-3-19W | 300 | 53,700 | 54,639 | 7 | Lans.-K.C. | 3,146 |
| Stuttgart South (1951) | 23-3-19W | 40 | 5,105 | 5,105 | 1 | Lans.-K.C. | 3,291 |
| Total Phillips County | | 10,350 | 2,851,981 | 17,480,413 | 351 | | |
| | | | **Pratt County** | | | | |
| Carmi (1942) | 29-26-12W | | now called Iuka-Carmi | | | | |
| Chance (1946) | 4-27-13W | 1,400 | 402,952 | 863,743 | 57 | Mississippian<br>Simpson<br>Arbuckle<br>Viola | 4,254<br>4,380<br>4,432 |
| Chitwood (1943) | 23-28-12W | 1,700 | 605,527 | 6,425,861 | 73 | Lans.-K.C.<br>Viola<br>Simpson<br>Arbuckle | <br><br>4,396 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Chitwood Northeast (1950) | 13-28-12W | 40 | 1,745 | 3,056 | 1 | Viola | 4,330 |
| Clara* (1948) | 36-29-14W | 100 | 30,527 | 130,336 | 4 | Simpson | 4,472 |
| Coats (1944) | 24-29-14W | 400 | 20,708 | 362,935 | 8 | Simpson<br>Arbuckle | 4,402 |
| Cunningham* (1931) | 7-28-11W | 3,500 | 141,247 | 4,363,055 | 76 | Lans.-K.C. | 3,390 |
| Frisbie (1943) | 5-26-13W | 400 | 24,779 | 303,870 | 4 | Lans.-K.C. | 3,947 |
| Frisbie Northeast (1948) | 4-26-13W | 80 | 17,571 | 121,265 | 6 | Lans.-K.C. | 3,788 |
| Iuka (1937) | 11-27-13W | | now called Iuka-Carmi | | | | |
| Iuka-Carmi (1937) | 11-27-13W | 7,200 | 1,086,190 | 11,167,698 | 156 | Lans.-K.C.<br>Viola<br>Simpson<br>Arbuckle | 4,104<br>4,195<br>4,292<br>4,354 |
| Ludwick (1944) | 4-29-13W | 40 | 1,258 | 28,012 | 1 | Simpson | 4,490 |
| Moore (1949) | 1-26-14W | 40 | 5,849 | 17,149 | 1 | Simpson | 4,348 |
| Shriver (1944) | 33-29-14W | 300 | 78,444 | 545,762 | 7 | Simpson | 4,557 |
| Stark (1941) | 18-26-11W | 700 | 17,904 | 831,511 | 10 | Lans.-K.C.<br>Viola | 3,601<br>4,121 |
| Stoops (1946) | 7-29-12W | 80 | 5,243 | 81,352 | 2 | Viola | 4,446 |
| Stoops Southwest (1946) | 24-29-13W | 40 | 1,339 | 12,965 | 1 | Viola | 4,483 |
| Total Pratt County | | 16,020 | 2,441,283 | 25,258,570 | 407 | | |

**Reno County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Abbyville (1927) | 24-24-8W | 1,100 | 59,720 | 797,723 | 16 | Lans.-K.C. | 3,540 |
| Albion (1948) | 14-26-6W | 100 | 2,753 | 21,632 | 3 | Lans.-K.C.<br>"Chat" | 3,342<br>3,654 |
| Albion North (1950) | 14-26-6W | 40 | no report | 767 | 1 | Viola | 3,997 |
| Buhler (1938) | 25-22-5W | 700 | 52,665 | 743,522 | 8 | Viola<br>Simpson | 3,890<br>3,897 |
| Burrton* (1931) | 1-23-4W incl. Harvey | 11,000 County | 1,023,967 production | 46,480,945 | 335 | Mississippian<br>"Hunton" | 3,266<br>3,583 |
| Haven (1951) | 9-25-4W | 40 | no report | none | 1 | Simpson | 3,977 |
| Hilger (1934) | 16-26-4W | 1,000 | 141,036 | 4,544,519 | 18 | Viola | 4,062 |
| Lerado Southwest (1944) | 21-26-9W | 100 | 9,686 | 122,599 | 2 | Viola | 4,177 |
| Morton (1942) | 17-24-8W | 40 | 2,616 | 37,698 | 1 | Lans.-K.C. | 3,180 |
| Morton Southeast (1951) | 16-24-8W | 40 | 1,747 | 1,747 | 1 | Lans.-K.C. | 3,423 |
| Sankey (1951) | 22-22-10W | 40 | 5,062 | 5,062 | 1 | Lans.-K.C. | 3,187 |
| Yoder (1935) | 34-24-5W | 160 | 412 | 93,285 | 3 | "Chat" | 3,450 |
| Zenith-Peace Creek* (1941) | 21-23-10W | 10,500 | 338,679 | 17,330,576 | 144 | Viola | 3,773 |
| Pools or fields abandoned | | | | 2,590,055 | | | |
| Total Reno County | | 24,860 | 1,638,343 | 72,770,130 | 534 | | |

**Rice County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Bloomer* (1936) | 36-17-11W | 1,450 | 810,204 | 12,174,806 | 79 | Lans.-K.C.<br>Arbuckle | 3,044<br>3,257 |
| Bornholdt* (1937) | 30-20-5W | 1,300 | 55,105 | 1,991,412 | 31 | "Chat" | 3,292 |
| Bowman North (1948) | 16-19-10W | 40 | 1,504 | 12,730 | 1 | Arbuckle | 3,331 |
| Bredfeldt (1948) | 7-18-9W | 120 | 9,975 | 69,782 | 3 | Arbuckle | 3,226 |
| Bredfeldt West (1939) | 12-18-10W | 40 | 1,402 | 59,000 | 1 | Arbuckle | 3,260 |
| Calf Creek (1950) | 28-18-10W | 120 | 25,408 | 32,099 | 3 | Pre-Cambrian | 3,143 |
| Chase (1931) | 32-19-9W | | now called Chase-Silica | | | | |
| Chase-Silica (1931) | 32-19-9W | 35,760 | 4,441,381 | 89,560,288 | 813 | Lans.-K.C.<br>"Wilcox"<br>Arbuckle | 2,942<br>3,260<br>3,252 |
| Click Southeast (1947) | 11-18-7W | 40 | 2,959 | 16,066 | 1 | Lans.-K.C. | 3,065 |
| Edwards* (1936) | 3-18-8W | 120 | 14,708 | 101,888 | 3 | Penn. Basal Cong.<br>Arbuckle | 3,214<br>3,278 |
| Engelland (1949) | 34-20-7W | 40 | 1,274 | 6,430 | 1 | Conglomerate | 3,348 |

**TABLE 66.—*Oil production in Kansas during 1951, continued***

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Frederick (1951) | 10-18-9W | 40 | 5,603 | 5,603 | 1 | Penn. Basal Cong. | 3,213 |
| Froning (1950) | 10-18-8W | | Combined with Geneseo | | | | |
| Gemeinhardt (1948) | 18-18-10W | 80 | 10,904 | 37,967 | 2 | Arbuckle | 3,293 |
| Geneseo (1934) | 25-18-8W | 5,880 | 2,146,830 | 30,190,047 | 227 | Lans.-K.C.<br>Penn. Basal Congl.<br>Arbuckle | 2,787<br>3,222<br>3,132 |
| Glen Sharrald (1950) | 20-18-10W | 120 | 8,068 | 16,767 | 3 | Lans.-K.C. | 3,118 |
| Heinz (1938) | 8-18-10W | 300 | 57,894 | 253,761 | 9 | Lans.-K.C.<br>Arbuckle | 3,000<br>3,254 |
| Ixl (1950) | 4-19-10W | 40 | 2,442 | 6,156 | 1 | Arbuckle | 3,308 |
| Ixl South (1951) | 9-19-10W | 40 | 2,154 | 2,154 | 1 | Lans.-K.C. | 3,068 |
| Keller (1943) | 3-19-9W | 40 | 2,384 | 40,676 | 1 | Sooy | 3,240 |
| Lyons (1949) | 14-20-8W | 180 | 9,985 | 61,677 | 4 | Lans.-K.C.<br>Arbuckle<br>"Misener"<br>Penn. Cong. | 3,226<br>3,277<br>3,315 |
| Mary Ida* (1950) | 31-18-10W | 500 | 102,616 | 118,816 | 13 | Lans.-K.C.<br>Arbuckle | 3,033<br>3,272 |
| Munyon (1950) | 34-18-10W | 80 | 14,168 | 14,168 | 2 | Sooy<br>Arbuckle | 3,270<br>3,275 |
| Munyon South (1951) | 3-19-10W | 80 | 10,476 | 10,476 | 2 | Arbuckle | 3,300 |
| Odessa (1949) | 32-18-6W | 320 | 58,507 | 94,581 | 8 | Lans.-K.C. | 3,092 |
| Odessa South (1949) | 9-19-6W | 80 | 5,210 | 17,220 | 2 | Lans.-K.C. | 3,069 |
| Orth (1932) | 27-18-10W | 1,500 | 172,099 | 2,330,280 | 49 | Shawnee<br>Lans.-K.C.<br>Sooy<br>Pre-Cambrian | 2,915<br>3,187<br>3,240 |
| Orth West (1944) | 21-18-10W | 440 | 94,489 | 378,036 | 14 | Shawnee<br>Arbuckle | 2,688<br>3,235 |
| Pioneer (1942) | 25-19-10W | | combined with Chase-Silica | | | Lans.-K.C.<br>Arbuckle | 3,015<br>3,281 |
| Ponce (1936) | 28-21-7W | 40 | 2,673 | 58,178 | 1 | Sooy | 3,388 |
| Proffitt (1949) | 13-20-10W | | combined with Chase-Silica | | | Arbuckle | 3,340 |
| Prosper (1948) | 6-18-9W | 40 | 924 | 8,872 | 1 | Arbuckle | 3,232 |
| Prosper East (1950) | 5-18-9W | 200 | 53,603 | 75,071 | 6 | Arbuckle | 3,222 |
| Raymond (1929) | 21-20-10W | 2,800 | 339,151 | 13,126,900 | 79 | Wabaunsee<br>Lans.-K.C.<br>Arbuckle | 2,285<br>3,130<br>3,330 |
| Rick* (1936) | 1-19-11W | 40 | 3,245 | 49,132 | 1 | Lans.-K.C.<br>Arbuckle | 3,106<br>3,355 |
| Rick Southeast (1947) | 18-19-10W | 100 | 7,766 | 57,556 | 3 | Lans.-K.C.<br>Arbuckle | 3,026<br>3,334 |
| Rickard (1935) | 22-18-9W | 200 | 6,706 | 182,229 | 4 | Arbuckle | 3,324 |
| Ringwald (1949) | 32-18-10W | 300 | 96,482 | 217,908 | 9 | Lans.-K.C.<br>Pre-Cambrian | 2,947<br>3,072 |
| Silica* (1931) | 12-20-11W | | now called Chase-Silica | | | | |
| Silica South* (1935) | 24-20-11W | 500 | 145,744 | 985,053 | 19 | Lans.-K.C.<br>Arbuckle | 3,035<br>3,268 |
| Smyres (1942) | 36-19-6W | 1,400 | 169,054 | 2,081,173 | 37 | "Chat" | 3,339 |
| "Sterling" (1951) | 4-22-8W | 40 | 450 | 450 | 1 | | |
| Union East (1950) | 27-20-8W | 240 | 17,282 | 17,587 | 6 | Sooy Cong. | 3,335 |
| Volkland (1943) | 27-18-9W | 400 | 58,096 | 595,193 | 7 | Arbuckle | 3,251 |
| Welch (1924) | 35-20-6W | 2,700 | 206,241 | 5,886,649 | 70 | "Chat" | 3,370 |
| Welch East (1941) | 1-21-6W | 40 | 930 | 32,861 | 1 | "Chat" | 3,341 |
| Welch North (1937) | 23-20-6W | 120 | 3,875 | 98,208 | 3 | "Chat" | 3,334 |
| Welch West (1948) | 6-21-6W | 240 | 20,855 | 65,495 | 6 | "Miss. lime" | 3,498 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Wherry (1933) | 11-21-7W | 7,100 | 213,445 | 10,995,849 | 66 | Sooy | 3,358 |
| Wherry North (1947) | 35-20-7W | 900 | 87,731 | 349,318 | 11 | Sooy | 3,423 |
| Zink* (1950) | 13-18-11W | 40 | 1,157 | 1,157 | 1 | Arbuckle | 3,284 |
| Pools or fields abandoned | | | | 305,932 | | | |
| Total Rice County | | 66,190 | 9,503,159 | 172,793,657 | 1,607 | | |

**Rooks County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Amboy (1950) | 16-10-20W | 120 | 22,038 | 40,723 | 3 | Arbuckle | 3,813 |
| Annon (1951) | 27-10-20W | 80 | 12,120 | 12,120 | 2 | Arbuckle | 3,711 |
| Barry (1942) | 11-9-19W | 1,800 | 828,256 | 5,329,342 | 66 | Lans.-K.C.<br>Arbuckle | 3,435 |
| Barry East (1947) | 6-9-18W | 400 | 83,403 | 398,528 | 10 | Lans.-K.C.<br>Arbuckle | 3,280<br>3,489 |
| Barry Southeast (1946) | 13-9-19W | 680 | 192,524 | 1,163,011 | 25 | Arbuckle | 3,479 |
| Bassett (1951) | 20-10-20W | 40 | 1,585 | 1,585 | 1 | Arbuckle | 3,749 |
| Baum (1942) | 10-10-16W | 40 | 1,515 | 17,528 | 1 | Lans.-K.C. | 3,057 |
| Baumgarten (1950) | 25-9-19W | 200 | 36,022 | 47,127 | 5 | Arbuckle | 3,621 |
| Belmont (1949) | 28-7-19W | 40 | 2,505 | 7,446 | 1 | Lans.-K.C. | 3,337 |
| Berland (1948) | 19-10-19W | | combined with Marcotte | | | | |
| Berland North (1950) | 31-9-19W | 200 | 22,728 | 26,813 | 4 | Arbuckle | 3,770 |
| Berland Northwest (1951) | 2-10-20W | | combined with Berland then Marcotte | | | | |
| Berland South (1951) | 31-10-19W | 120 | 11,901 | 11,901 | 3 | Lans.-K.C. | 3,480 |
| Berland Southwest (1949) | 26-10-20W | 400 | 81,453 | 130,894 | 11 | Arbuckle | 3,728 |
| Burnett* (1937) | 1-11-18W | 400 | 99,983 | 1,035,315 | 13 | Lans.-K.C.<br>Arbuckle | 3,093<br>3,570 |
| Burnett Northwest* (1946) | 3-11-18W | 200 | 42,353 | 286,822 | 5 | Lans.-K.C.<br>Arbuckle | 3,450<br>3,617 |
| Chandler (1948) | 14-9-19W | 1,000 | 439,490 | 1,084,097 | 35 | Arbuckle | 3,455 |
| Chandler West (1951) | 15-9-19W | 40 | no report | none | | "Dodge" (Shawnee) | 3,248 |
| Dopita (1934) | 31-8-17W | 700 | 82,457 | 795,738 | 19 | Lans.-K.C.<br>Arbuckle | 3,212<br>3,409 |
| Dorr (1942) | 20-9-16W | 640 | 82,022 | 623,433 | 17 | Lans.-K.C. | 3,230 |
| Eagle Creek (1949) | 2-10-20W | 40 | 8,516 | 23,844 | 1 | Arbuckle | 3,822 |
| Elm Creek (1951) | 19-8-17W | 40 | 2,696 | 2,696 | 1 | Arbuckle | 3,400 |
| Erway (1941) | 2-10-16W | 40 | 5,460 | 74,629 | 1 | Lans.-K.C. | 3,136 |
| Finnesy (1947) | 14-10-18W | 80 | 4,912 | 17,383 | 2 | Lans.-K.C. | 3,419 |
| Gick (1947) | 30-9-19W | 80 | 22,637 | 92,350 | 2 | Arbuckle | 3,578 |
| Gra-Rook (1948) | 30-9-20W | 760 | 151,993 | 293,565 | 19 | Arbuckle | 3,869 |
| Grover (1950) | 22-7-19W | 200 | 17,095 | 19,426 | 5 | Lans.-K.C.<br>Arbuckle | 3,272<br>3,408 |
| Hayden (1949) | 31-8-19W | 360 | 141,880 | 242,748 | 13 | Lans.-K.C.<br>Arbuckle | 3,289<br>3,513 |
| Jelinek (1947) | 23-9-19W | 700 | 153,509 | 538,701 | 20 | Arbuckle | 3,537 |
| Kern (1950) | 28-9-20W | 160 | 67,138 | 84,576 | 4 | Arbuckle | 3,855 |
| Krueger* (1948) | 35-10-16W | 300 | 89,408 | 198,377 | 11 | Lans.-K.C.<br>Arbuckle | 3,552 |
| Kruse (revived) (1951) | 3-10-16W | 40 | 2,335 | 2,335 | 1 | Lans.-K.C. | 3,094 |
| Laton (1927) | 11-9-16W | 4,300 | 203,947 | 3,936,579 | 108 | Lans.-K.C. | 3,228 |
| Laura* (1950) | 30-10-20W | 40 | 9,349 | 10,586 | 1 | Arbuckle | 3,706 |
| Locust Grove (1949) | 8-7-19W | 40 | 3,509 | 12,555 | 1 | Arbuckle | 3,450 |
| Locust Grove Southeast (1951) | 9-7-19W | 40 | 2,859 | 2,859 | 1 | Arbuckle | 3,400 |
| Lone Star (1948) | 4-8-17W | 120 | 8,874 | 21,782 | 3 | Arbuckle | 3,382 |
| Lone Star Southwest (1951 | 8-8-17W | 80 | 4,662 | 4,662 | 2 | Arbuckle | 3,299 |
| Lynd (1951) | 32-9-19W | 320 | 34,046 | 34,046 | 8 | Arbuckle | 3,750 |
| McClellan (1945) | 9-9-19W | 40 | 7,847 | 50,986 | 1 | Lans.-K.C. | 3,343 |
| McHale (1948) | 8-9-18W | 360 | 73,400 | 242,003 | 9 | Arbuckle | 3,494 |

TABLE 66.—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| McHale South (1949) | 17-9-18W | | no report | 4,663 | | Arbuckle | 3,615 |
| Marc (1948) | 18-9-19W | 80 | 1,251 | 13,518 | 2 | Lans.-K.C. | 3,370 |
| Marcotte (1943) | 15-10-20W | 5,100 | 1,775,530 | 3,957,765 | 175 | Lans.-K.C.<br>Arbuckle | 3,596<br>3,752 |
| Marcotte Northwest (1950) | 9-10-20W | 40 | 9,883 | 14,802 | 1 | Arbuckle | 3,722 |
| Marcotte South (1951) | 22-10-20W | 40 | 7,929 | 7,929 | 1 | Arbuckle | 3,719 |
| Marcotte Southwest (1951) | 21-10-20W | 40 | no report | none | | Arbuckle | 3,743 |
| Mayhew (1951) | 24-9-19W | | no report | none | | Arbuckle | 3,613 |
| Nettie (1948) | 34-9-17W | 500 | 127,600 | 174,506 | 16 | Lans.-K.C.<br>Arbuckle | 3,243<br>3,513 |
| Northampton (1948) | 26-9-20W | 940 | 555,837 | 1,526,835 | 32 | Arbuckle | 3,803 |
| Novotny (1950) | 3-9-19W | | combined with Barry | | | | |
| Nyra (1946) | 16-9-17W | 300 | 23,558 | 127,431 | 9 | Lans.-K.C.<br>Arbuckle | 3,429<br>3,501 |
| Palco (1943) | 5-10-20W | 900 | 317,669 | 1,169,780 | 35 | Arbuckle | 3,824 |
| Palco Southeast (1949 | 3-10-20W | 600 | 110,050 | 190,590 | 12 | Arbuckle | 3,827 |
| Palco Southwest (1951) | 7-10-20W | 120 | 3,550 | 3,550 | 3 | Arbuckle | 3,858 |
| Palco Townsite (1945) | 20-9-20W | 40 | 3,199 | 18,929 | 1 | Arbuckle | 3,847 |
| Paradise Creek (1947) | 21-9-18W | 1,100 | 288,833 | 1,466,822 | 34 | Arbuckle | 3,576 |
| Plainville (1948) | 31-9-17W | 80 | 3,111 | 11,112 | 2 | Lans.-K.C.<br>Arbuckle | 3,477<br>3,613 |
| Ray Southeast (1942) | 9-6-20W | 40 | 3,659 | 72,131 | 1 | Reagan | 3,600 |
| Riffe (1951) | 4-7-19W | 80 | 5,526 | 5,526 | 2 | Lans.-K.C. | 3,230 |
| Rogers (1951) | 23-10-20W | | combined with Marcotte | | | | |
| Slate (1951) | 31-6-19W | 40 | no report | none | 1 | Arbuckle | 3,545 |
| Stamper (1950) | 28-8-17W | 40 | no report | 910 | | Marmaton | 3,394 |
| Stockton (1937) | 35-7-17W | 300 | 11,587 | 110,324 | 6 | Shawnee<br>Lans.-K.C. | 2,692<br>3,180 |
| Sweet (1951) | 18-8-18W | 40 | 2,571 | 2,571 | 1 | Arbuckle | 3,423 |
| Vohs (1945) | 14-10-19W | 900 | 184,245 | 1,292,212 | 21 | Lans.-K.C. | 3,365 |
| Vohs Northwest (1947) | 9-10-19W | 80 | 6,985 | 71,989 | 2 | Lans.-K.C. | 3,446 |
| Vohs South (1947) | 23-10-19W | 40 | 681 | 12,524 | 1 | Lans.-K.C. | 3,303 |
| Webster (1946) | 27-8-19W | 1,800 | 309,850 | 1,796,481 | 53 | Arbuckle | 3,403 |
| Westhusin (1936) | 11-9-17W | 1,600 | 178,468 | 1,771,052 | 41 | Lans.-K.C.<br>Arbuckle | 3,231<br>3,408 |
| Whisman (1950) | 9-9-20W | | no report | none | | Lans.-K.C. | 3,427 |
| Yohe (1949) | 4-9-18W | 100 | 6,562 | 26,650 | 3 | Lans.-K.C. | 3,266 |
| Zurich (1935) | 26-10-19W | 600 | 23,456 | 283,190 | 6 | Lans.-K.C. | 3,340 |
| Zurich Townsite (1944) | 27-9-19W | 360 | 68,153 | 287,653 | 8 | Arbuckle | 3,647 |
| Pools or fields abandoned | | | | 155,447 | | | |
| Total Rooks County | | 31,140 | 7,088,170 | 31,496,003 | 904 | | |
| | | | **Rush County** | | | | |
| Hungry Hollow (1951) | 6-16-17W | 40 | 1,423 | 1,423 | 1 | Lans.-K.C. | 3,34 |
| Otis-Albert* (1934) | 10-18-16W | 2,600 | 275,712 | 4,842,798 | 45 | Reagan | 3,52 |
| Rush Center (1947) | 16-18-18W | 40 | no report | 8,716 | | Arbuckle | 3,83 |
| Ryan* (1945) | 35-19-16W | 2,000 | 240,735 | 1,434,454 | 63 | Arbuckle | 3,65 |
| Weitzel (1947) | 1-16-20W | 40 | 2,986 | 33,851 | 1 | Gorham | 3,67 |
| Pools or fields abandoned | | | | 59,942 | | | |
| Total Rush County | | 4,747 | 520,856 | 6,381,184 | 110 | | |

**Russell County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Atherton (1935) | 30-13-14W | 1,900 | 150,856 | 2,620,202 | 38 | Arbuckle | 3,284 |
| Atherton North (1945) | 7-13-14W | 80 | 1,592 | 60,330 | 2 | Arbuckle | 3,195 |
| Beisel (1944) | 15-14-12W | 40 | no report | 18,617 | | Arbuckle | 3,266 |
| Boxberger (1935) | 36-15-15W | 160 | 5,035 | 223,182 | 4 | Lans.-K.C. | 3,147 |
| Claussen (1944) | 27-12-14W | 80 | 4,565 | 27,175 | 2 | Lans.-K.C. | 2,855 |
| Claussen North (1949) | 22-12-14W | 40 | 2,840 | 8,402 | 1 | Lans.-K.C. | 2,956 |
| Claussen West (1949) | 29-12-14W | 40 | no report | 1,217 | | Lans.-K.C. | 2,841 |
| Coal Creek (1951) | 22-15-11W | 40 | no report | none | | Penn. Basal Cong. | 3,178 |
| Cook (1950) | 26-13-15W | 200 | 26,421 | 39,412 | 5 | Lans.-K.C. | 3,051 |
| | | | | | | Arbuckle | 3,314 |
| Davidson* (1930) | 4-16-11W | 160 | 21,500 | 185,950 | 4 | Lans.-K.C. | 3,016 |
| | | | | | | Sooy | 3,317 |
| | | | | | | Arbuckle | 3,314 |
| Dillner Northwest (1947) | 27-13-15W | 40 | 1,420 | 9,640 | 1 | Arbuckle | 3,318 |
| Donovan (1935) | 10-15-15W | 120 | 9,609 | 211,346 | 3 | Lans.-K.C. | 3,193 |
| Dubuque (1935) | 34-15-12W | 750 | 138,586 | 855,291 | 19 | Lans.-K.C. | 3,275 |
| | | | | | | Arbuckle | 3,330 |
| Ehrlich (1951) | 7-14-13W | 40 | no report | none | | Tarkio | 2,383 |
| Fly (1949) | 15-15-13W | 240 | 39,246 | 47,643 | 6 | Shawnee | 2,946 |
| | | | | | | Arbuckle | 3,292 |
| Fulert (1949) | 35-11-15W | 540 | 215,293 | 363,010 | 17 | Arbuckle | 3,316 |
| Fairport* (1923) | 8-12-15W | 4,000 | 673,758 | 20,760,631 | 155 | Lans.-K.C. | 2,950 |
| | | | | | | Sooy | 3,137 |
| | | | | | | Gorham | 3,211 |
| | | | | | | Arbuckle | 3,312 |
| | | | | | | Simpson | 3,316 |
| | | | | | | Reagan | 3,350 |
| Forest Hill (1941) | 29-15-12W | | combined with Hall-Gurney | | | | |
| Forest Hill North (1947) | 20-15-12W | | combined with Hall-Gurney | | | | |
| Gorham (1926) | 32-13-15W | 16,400 | 2,437,106 | 51,999,105 | 471 | Shawnee | 2,765 |
| | | | | | | Lans.-K.C. | 2,908 |
| | | | | | | Gorham | 3,152 |
| | | | | | | Arbuckle | 3,289 |
| | | | | | | Reagan | 3,299 |
| Gustason (1941) | 14-15-12W | | combined with Hall-Gurney | | | | |
| Hall-Gurney (1931) | 30-14-13W | 25,000 | 3,662,430 | 50,785,391 | 897 | Indian Cave | 1,985 |
| | | | | | | Wabaunsee | 2,400 |
| | | | | | | Topeka | 2,675 |
| | | | | | | Oread | 2,813 |
| | | | | | | Lans.-K.C. | 2,985 |
| | | | | | | Gorham | 3,165 |
| | | | | | | Arbuckle | 3,192 |
| | | | | | | Pre-Cambrian | 3,156 |
| Homer (1949) | 17-14-13W | 340 | 44,493 | 82,225 | 9 | Tarkio | 2,396 |
| Homer Southeast (1949) | 16-14-13W | 40 | 1,569 | 2,427 | 1 | Tarkio | 2,408 |
| Hanne (1943) | 24-15-12W | 500 | 27,020 | 189,646 | 8 | Lans.-K.C. | |
| | | | | | | Arbuckle | 3,319 |
| Herry (1942) | 4-15-14W | 80 | 2,735 | 55,657 | 1 | Wabaunsee | |
| | | | | | | Lans.-K.C. | 2,985 |
| | | | | | | Arbuckle | |
| Kaufman* (1947) | 33-15-12W | 40 | 6,761 | 53,056 | 1 | Arbuckle | 3,311 |
| Meier (1948) | 30-15-12W | 60 | 31,034 | 95,256 | 3 | Arbuckle | 3,325 |
| Mey (1948) | 31-15-12W | 240 | 32,899 | 143,152 | 6 | Lans.-K.C. | 3,240 |
| | | | | | | Arbuckle | 3,350 |
| Parker (1948) | 18-15-12W | 340 | 52,828 | 199,556 | 7 | Shawnee | 2,957 |
| | | | | | | Arbuckle | 3,259 |
| Russell (1934) | 22-13-14W | 2,640 | 474,294 | 9,245,677 | 87 | Lans.-K.C. | 3,195 |
| | | | | | | Arbuckle | 3,280 |
| Russell East (1949) | 25-13-14W | 100 | 4,705 | 25,807 | 3 | Arbuckle | 3,273 |
| Russell Northeast (1950) | 26-13-14W | | combined with Russell | | | | |
| Smoky Hill (1938) | 2-15-14W | | combined with Trapp | | | | |

TABLE 66.—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Strecker (1943) | 21-15-14W | 120 | 2,028 | 46,748 | 2 | Arbuckle | 3,342 |
| Trapp* (1936) | 23-15-14W | 23,000 | 4,875,864 | 83,959,604 | 843 | Tarkio<br>Shawnee<br>Dodge<br>Lans.-K.C.<br>Arbuckle | 2,350<br>2,889<br>2,966<br>3,062<br>3,252 |
| Trapp East (1949) | 14-15-13W | 80 | 13,189 | 30,359 | 2 | Lans.-K.C.<br>Arbuckle | 3,146<br>3,277 |
| Pools or fields abandoned | | | | 352,292 | | | |
| Total Russell County | | 77,450 | 12,959,676 | 222,698,006 | 2,598 | | |
| **Saline County** | | | | | | | |
| Bachofer (1951) | 15-15-2W | 160 | 5,105 | 5,105 | 4 | Mississippian | 2,799 |
| Holm (1951) | 32-16-3W | 120 | 4,449 | 4,449 | 3 | Viola | 3,406 |
| Hunter (1943) | 20-16-1W | 850 | 63,513 | 1,008,739 | 19 | "Chat" | 2,681 |
| Hunter North (1948) | 8-16-1W | 280 | 39,329 | 98,808 | 7 | "Miss. lime" | 2,674 |
| Mentor (1944) | 13-15-3W | 120 | 6,003 | 21,177 | 3 | Viola | 3,258 |
| Olsson (1929) | 10-16-3W | 1,080 | 129,255 | 363,619 | 17 | Viola | 3,303 |
| Ryding (1951) | 1-16-4W | | combined with Smolan | | | Maquoketa | 3,439 |
| Salina (1943) | 30-14-2W | 1,500 | 73,964 | 757,604 | 24 | Viola | 3,223 |
| Salina South (1946) | 32-14-2W | 300 | 20,060 | 122,783 | 7 | Viola | 3,246 |
| Smolan (1950) | 19-15-3W | 1,640 | 338,048 | 342,732 | 58 | Viola | 3,386 |
| Swenson (1950) | 34-15-3W | 40 | 3,536 | 6,569 | 1 | Viola | 3,353 |
| Pools or fields abandoned | | | | 11,285 | | | |
| Total Saline County | | 6,090 | 683,262 | 2,742,870 | 143 | | |
| **Scott County** | | | | | | | |
| Keystone (1950) | 25-18-32W | 80 | 15,167 | 17,067 | 2 | Lans.-K.C. | 4,001 |
| Shallow Water (1935) | 15-20-33W | 900 | 17,431 | 1,793,779 | 8 | Marmaton<br>"Miss. lime"<br>Ste. Genevieve | 4,286<br>4,660<br>4,670 |
| Total Scott County | | 980 | 32,598 | 1,810,846 | 10 | | |
| **Sedgwick County** | | | | | | | |
| Bartholomew* (1948) | 30-27-4W | 1,500 | 531,763 | 918,763 | 54 | "Miss. lime" | 3,732 |
| Chambers (1948) | 10-29-2W | 120 | 16,049 | 31,975 | 3 | 'Miss. lime" | 3,540 |
| Clearwater (1944) | 22-29-2W | 200 | 7,411 | 94,932 | 4 | Lans.-K.C. | 2,913 |
| Cross (1929) | 27-25-1W | 40 | no report | 77,476 | 1 | Lans.-K.C. | 2,690 |
| Curry (1947) | 11-27-1W | 440 | 134,516 | 322,173 | 15 | Lans.-K.C.<br>Simpson | 2,715<br>3,400 |
| Eastborough (1929) | 19-27-2E | 870 | 64,964 | 8,820,558 | 25 | "Chat"<br>Viola | 2,956<br>3,238 |
| Fairview (1948) | 8-26-2E | 600 | 71,362 | 191,923 | 9 | Lans.-K.C.<br>"Burgess sand"<br>Mississippian | 2,500<br>2,960<br>2,991 |
| Fairview North (1948) | 5-26-2E | 160 | 22,705 | 83,202 | 4 | "Burgess sand" | 2,971 |
| Fairview South (1950) | 17-26-2E | 40 | 6,608 | 7,122 | 1 | "Burgess sand" | 2,945 |
| Goodrich (1928) | 16-25-1E | 780 | 76,796 | 4,573,229 | 25 | Lans.-K.C.<br>"Chat"<br>Kinkerhookian<br>Arbuckle | 2,614<br>3,010<br>3,334<br>3,339 |
| Greenwich (1929) | 14-26-2E | 600 | 170,191 | 11,291,928 | 26 | "Chat"<br>Viola | 2,885<br>3,321 |
| Hinkle (1946) | 1-27-1E | 80 | no report | 10,153 | | "Burgess" | 2,980 |
| Hohn (1945) | 22-27-1W | 120 | 17,026 | 83,008 | 4 | Lans.-K.C. | 2,779 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Kuske North (1951) | 13-25-1E | 80 | 3,813 | 3,813 | 2 | "Burgess" | 3,016 |
| Luening (1951) | 33-26-2E | 40 | 1,579 | 1,579 | 1 | Simpson | 3,338 |
| Minneha (1951) | 11-27-2E | 40 | 4,733 | 4,733 | 1 | Arbuckle | 3,247 |
| Minneha Northwest (1951) | 10-27-2E | 80 | 2,798 | 2,798 | 2 | Simpson | 3,300 |
| Petrie (1945) | 36-26-1W | 80 | 18,428 | 79,633 | 2 | Viola | 3,387 |
| Petrie Northwest (1951) | 35-26-1W | 40 | 3,849 | 3,849 | 1 | Viola | 3,445 |
| Robbins (1929) | 20-28-1E | 1,000 | 171,161 | 2,467,935 | 50 | "Miss. lime" | 3,090 |
| Schulte (1947) | 7-28-1W | 300 | 15,363 | 181,930 | 7 | Mississippian | 3,349 |
| | | | | | | Simpson | 3,658 |
| Valley Center (1928) | 1-26-1W | 2,040 | 48,326 | 21,896,946 | 46 | Lans.-K.C. | 2,860 |
| | | | | | | Kinderhookian | 3,380 |
| | | | | | | Viola | 3,366 |
| White Cotton (1948) | 30-26-2E | 800 | 133,502 | 329,239 | 20 | "Burgess" | 2,957 |
| Pools or fields abandoned | | | | 220,821 | | | |
| Total Sedgwick County | | 10,050 | 1,522,943 | 51,699,718 | 303 | | |

**Seward County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Kismet (1948) | 23-33-31W | 40 | 1,485 | 16,103 | 1 | Marmaton | 5,095 |
| Kneeland (1951) | 23-34-31W | 160 | 1,111 | 1,111 | 1 | Marmaton | 5,332 |
| Liberal Southeast (1947) | 15-35-33W | 420 | 7,833 | 54,687 | 3 | Penn. sandstone | 6,202 |
| Light (1951) | 11-35-32W | 120 | 17,604 | 17,604 | 3 | Morrow | 6,005 |
| Total Seward County | | 740 | 28,033 | 89,505 | 8 | | |

**Sheridan County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Adell (1944) | 11-6-27W | 1,200 | 330,879 | 2,302,914 | 38 | Lans.-K.C. | 3,755 |
| Studley (1943) | 23-8-26W | 340 | 24,244 | 358,905 | 6 | Lans.-K.C. | 3,810 |
| Studley Southwest (1945) | 32-8-26W | 40 | 3,023 | 38,640 | 1 | Lans.-K.C. | 3,758 |
| Total Sheridan County | | 1,580 | 358,146 | 2,700,459 | 45 | | |

**Stafford County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Ahnert (1941) | 26-22-13W | 40 | 1,764 | 43,129 | 1 | Arbuckle | 3,784 |
| Bart-Staff* (1951) | 4-21-14W | 80 | 25,035 | 25,035 | 2 | Arbuckle | 3,572 |
| Bayer (1951) | 16-21-14W | 40 | 1,505 | 1,505 | 1 | Lans.-K.C. | 3,543 |
| Bedford (1940) | 21-23-12W | 900 | 86,846 | 1,490,785 | 17 | Arbuckle | 3,859 |
| Black Cloud (1951) | 2-21-12W | | combined with Bryant then Chase-Silica | | | | |
| Brock (1944) | 12-23-12W | 640 | 23,563 | 330,279 | 10 | Arbuckle | 3,680 |
| Bryant* (1949) | 4-21-12W | | combined with Chase-Silica | | | | |
| Byron (revived) (1951) | 9-21-12W | 80 | 9,197 | 9,197 | 2 | Arbuckle | 3,459 |
| Byron Southeast (1951) | 10-21-12W | 80 | 2,754 | 2,754 | 2 | Arbuckle | 3,500 |
| Chase-Silica* (1931) | 32-19-9W | 440 | 67,631 | 130,510 | 11 | Arbuckle | 3,383 |
| Cochlin (1951) | 19-22-11W | 80 | 2,947 | 2,947 | 2 | Arbuckle | 3,659 |
| Curtis (1942) | 6-22-13W | 400 | 64,295 | 579,663 | 9 | Lans.-K.C. | 3,514 |
| | | | | | | Arbuckle | 3,693 |
| Curtis South (1951) | 12-22-14W | 40 | 1,067 | 1,067 | 1 | Arbuckle | 3,751 |
| Dell (1950) | 7-21-13W | 160 | 42,595 | 57,216 | 4 | Lans.-K.C. | 3,446 |
| Dell East (1951) | 5-21-13W | 200 | 24,480 | 24,480 | 5 | Lans.-K.C. | 3,471 |
| Dell Northeast (1951) | 5-21-13W | 40 | 629 | 629 | 1 | Arbuckle | 3,612 |
| Drach (1937) | 12-22-13W | 2,700 | 494,893 | 4,730,435 | 55 | Arbuckle | 3,690 |
| Drach Northwest (1944) | 11-22-13W | 300 | 15,099 | 93,244 | 7 | Arbuckle | 3,738 |
| Drach West (1938) | 14-22-13W | 40 | 3,262 | 117,558 | 1 | Arbuckle | |
| Duggan (1951) | 30-21-11W | 540 | 56,192 | 56,192 | 8 | Lans.-K.C. | 3,312 |
| | | | | | | Penn. Basal Cong. | 3,479 |
| | | | | | | Simpson | 3,505 |
| | | | | | | Arbuckle | 3,514 |
| Eden Valley (1950) | 29-21-13W | 300 | 27,997 | 32,900 | 6 | Arbuckle | 3,748 |
| Eric (1951) | 8-21-13W | 40 | 305 | 305 | 1 | Lans.-K.C. | 3,513 |

TABLE 66.—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Farmington (1943) | 34-24-15W | 900 | 58,044 | 992,721 | 19 | Kinderhookian<br>Arbuckle | 4,417 |
| Fischer (1938) | 31-21-12W | 200 | 17,526 | 349,254 | 5 | Arbuckle | 3,641 |
| Fischer Northwest (1948) | 36-21-13W | 700 | 359,229 | 957,542 | 22 | Lans.-K.C.<br>Arbuckle | 3,464<br>3,639 |
| Frey (1950) | 7-21-14W | 700 | 182,965 | 208,530 | 11 | Arbuckle | 3,717 |
| Gates (1933) | 27-21-13W | 1,120 | 251,170 | 2,358,654 | 40 | Arbuckle | 3,679 |
| Gates South (1949) | 3-22-13W | 120 | 18,296 | 51,111 | 3 | Arbuckle | 3,748 |
| German Valley (1951) | 4-22-12W | 80 | 6,584 | 6,584 | 2 | Arbuckle | 3,648 |
| Gray (1946) | 11-24-13W | 120 | 3,934 | 39,338 | 3 | Lans.-K.C. | 3,762 |
| Grow (1949) | 16-21-13W | 640 | 93,086 | 186,116 | 13 | Arbuckle | 3,705 |
| Grunder (1943) | 11-25-15W | 40 | 1,262 | 20,542 | 1 | Lans.-K.C. | 3,945 |
| Hart (1949) | 36-22-14W | 80 | no report | 14,204 | | Arbuckle | 3,830 |
| Harter (1950) | 30-24-13W | 100 | 29,689 | 55,128 | 6 | Lans.-K.C.<br>Simpson<br>Arbuckle | 3,767<br>4,167<br>4,181 |
| Hazel (1942) | 21-21-13W | 800 | 127,542 | 396,117 | 15 | Arbuckle | 3,692 |
| Hazel West (1950) | 20-21-13W | 700 | 124,481 | 157,564 | 12 | Arbuckle | 3,673 |
| Heyen (1943) | 24-22-12W | 880 | 60,478 | 483,267 | 19 | Arbuckle | 3,652 |
| Hickman (1951) | 27-21-14W | 800 | 145,232 | 145,232 | 16 | Lans.-K.C.<br>Simpson | 3,522 |
| Hufford (1948) | 33-21-13W | 360 | 107,376 | 336,560 | 11 | Lans.-K.C.<br>Arbuckle | 3,499<br>3,755 |
| Jordan (1936) | 15-25-14W | 300 | 20,592 | 708,951 | 7 | Lans.-K.C. | 3,722 |
| Kachelman (1950) | 7-25-13W | 40 | no report | 1,868 | | Viola | 4,075 |
| Kelly (1948) | 35-23-12W | 40 | no report | 5,204 | | Arbuckle | 3,870 |
| Kenilworth (1947) | 15-22-13W | 360 | 62,779 | 287,251 | 11 | Lans.-K.C.<br>Arbuckle | 3,505<br>3,808 |
| Kipp (1937) | 27-25-14W | 300 | 20,288 | 619,115 | 6 | Lans.-K.C. | 3,827 |
| Kipp Northeast (1946) | 23-25-14W | 120 | 17,228 | 165,608 | 3 | Lans.-K.C. | 3,844 |
| Knoche (1951) | 8-24-12W | 40 | 352 | 352 | 1 | Viola | 3,810 |
| Kowalsky* (1941) | 32-20-11W | 40 | 1,762 | 2,713 | 1 | Lans.-K.C. | 3,279 |
| Kowalsky Southwest (1950) | 6-21-11W | 240 | 45,672 | 69,439 | 5 | Arbuckle | 3,424 |
| Leesburgh (1938) | 12-25-13W | 700 | 68,641 | 2,388,613 | 15 | Simpson<br>Arbuckle | 4,060<br>4,153 |
| Leo (1950) | 7-21-13W | 60 | 9,930 | 12,609 | 2 | Lans.-K.C.<br>Arbuckle | 3,446<br>3,636 |
| Lincoln (1951) | 29-21-14W | 120 | 13,819 | 13,819 | 3 | Lans.-K.C. | 3,543 |
| McCandless (1944) | 30-25-13W | 340 | 121,387 | 472,001 | 13 | Lans.-K.C.<br>Simpson | 3,863<br>4,251 |
| McGinty (1950) | 13-21-14W | 40 | 5,473 | 6,153 | 1 | Lans.-K.C. | 3,503 |
| McGinty Northwest (1951) | 14-21-14W | 40 | 10,158 | 10,158 | 1 | Lans.-K.C. | 3,483 |
| Marie (1951) | 30-21-12W | 120 | 12,758 | 12,758 | 3 | Lans.-K.C.<br>Arbuckle | 3,639 |
| Max (1938) | 35-21-12W | 4,400 | 695,962 | 4,318,804 | 75 | Lans.-K.C.<br>Simpson<br>Arbuckle | 3,356<br>3,615<br>3,570 |
| Max South (1950) | 15-22-12W | 40 | 3,690 | 4,930 | 1 | Lans.-K.C. | 3,320 |
| Merle (1949) | 32-23-13W | 340 | 67,936 | 222,037 | 12 | Lans.-K.C. | 3,669 |
| Moon (1948) | 4-22-13W | 40 | 775 | 15,352 | 1 | Lans.-K.C.<br>Penn. Basal Cong. | 3,530 |
| Mueller (1938) | 29-21-12W | 4,000 | 617,434 | 3,660,161 | 76 | Lans.-K.C.<br>Arbuckle | 3,356<br>3,594 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mueller Northwest (1951) | 12-21-13W | 120 | 9,164 | 9,164 | 3 | Arbuckle | 3,523 |
| Mueller West (1949) | 24-21-13W | 80 | 3,854 | 5,277 | 2 | Arbuckle | 3,658 |
| Nellie (1948) | 28-22-14W | 40 | 1,853 | 20,816 | 1 | Lans.-K.C. | 3,696 |
| Neola (1948) | 15-25-11W | 40 | 4,242 | 19,711 | 1 | Viola | 3,921 |
| O'Connor (1948) | 8-24-15W | 120 | 5,982 | 13,362 | 3 | Lans.-K.C. | 3,768 |
| Oscar (1949) | 24-22-14W | 340 | 42,803 | 85,386 | 8 | Lans.-K.C.<br>Viola<br>Arbuckle | 3,503<br>3,798 |
| Oscar North (1951) | 14-22-14W | 80 | 10,727 | 10,727 | 2 | Arbuckle | 3,780 |
| Pleasant Hill (1951) | 26-24-12W | 40 | 69 | 69 | 1 | Lans.-K.C. | 3,530 |
| Prairie Home (1949) | 2-21-13W | 60 | 2,884 | 13,777 | 2 | Arbuckle | 3,514 |
| Pritchard South (1951) | 3-21-14W | 40 | 217 | 217 | 1 | Lans.-K.C. | 3,483 |
| Pundsack (1947) | 19-21-13W | 760 | 125,246 | 226,908 | 18 | Lans.-K.C.<br>Arbuckle | 3,575<br>3,735 |
| Pundsack North (1950) | 18-21-13W | 120 | 11,979 | 21,492 | 3 | Arbuckle | 3,674 |
| Pundsack Northwest (1950) | 24-21-14W | 40 | 3,359 | 4,199 | 1 | Lans.-K.C. | 3,512 |
| Pundsack Southwest (1950) | 25-21-14W | | combined with Pundsack | | | | |
| Rattlesnake (1938) | 13-24-14W | 160 | 23,120 | 163,240 | 4 | Lans.-K.C. | 3,608 |
| Rattlesnake Southwest (1950) | 14-24-14W | 40 | 24,488 | 46,482 | 1 | Lans.-K.C. | 3,760 |
| Rattlesnake West (1944) | 11-24-14W | 240 | 34,331 | 81,371 | 7 | Lans.-K.C.<br>Mississippian | 3,759<br>4,025 |
| Richardson (1930) | 36-22-12W | 1,400 | 667,839 | 11,236,043 | 66 | Lans.-K.C.<br>Arbuckle | 3,264<br>3,537 |
| Richland (1944) | 27-24-14W | 160 | 4,606 | 185,763 | 4 | Arbuckle | 4,232 |
| Riley (1940) | 28-23-11W | 80 | 5,781 | 132,692 | 2 | Lans.-K.C. | 3,323 |
| Rothgarn (1943) | 10-21-13W | 360 | 52,372 | 239,534 | 8 | Lans.-K.C.<br>Arbuckle | 3,369<br>3,569 |
| Rothgarn Southeast (1950) | 14-21-13W | 40 | 9,713 | 17,245 | 1 | Arbuckle | 3,544 |
| St. John (1935) | 23-24-13W | 840 | 56,860 | 2,521,533 | 16 | Lans.-K.C.<br>Arbuckle | 3,588<br>4,075 |
| St. John Townsite (1944) | 33-23-13W | 400 | 38,806 | 358,945 | 10 | Lans.-K.C.<br>Arbuckle | 3,919 |
| Sandago (1947) | 12-21-12W | 240 | 14,662 | 120,028 | 5 | Arbuckle | 3,480 |
| Sand Hills (1944) | 19-21-11W | 40 | 3,783 | 49,702 | 1 | Arbuckle | 3,548 |
| Saundra (1946) | 14-21-12W | 260 | 23,285 | 149,601 | 6 | Lans.-K.C.<br>Arbuckle | 3,282<br>3,546 |
| Shaeffer (1941) | 3-21-13W | 120 | 13,681 | 326,196 | 3 | Lans.-K.C.<br>Arbuckle | 3,404<br>3,546 |
| Shepherd (1951) | 16-22-11W | 200 | 42,230 | 42,230 | 5 | Arbuckle | 3,548 |
| Silver Bell (1949) | 10-22-13W | 300 | 9,078 | 28,039 | 6 | Lans.-K.C.<br>Arbuckle | 3,498<br>3,774 |
| Sittner (1937) | 33-21-12W | 400 | 35,371 | 628,018 | 12 | Lans.-K.C.<br>Arbuckle | 3,278<br>3,600 |
| Sleeper (1951) | 22-22-11W | 80 | 12,099 | 12,099 | 2 | Penn. Basal Cong. | 3,581 |
| Smallwood (revived) (1951) | 2-22-14W | 400 | 40,394 | 40,394 | 9 | Lans.-K.C.<br>Arbuckle | 3,474<br>3,576 |
| Snider (1936) | 3-21-11W | 80 | 22,471 | 424,068 | 2 | Simpson | 3,362 |
| Snider South (1938) | 16-21-11W | 500 | 86,978 | 1,090,542 | 10 | Simpson<br>Arbuckle | 3,402 |
| Spangenberg (1943) | 21-22-12W | 40 | 3,750 | 77,007 | 1 | Arbuckle | 3,691 |
| Stafford (1940) | 15-24-12W | 1,280 | 273,732 | 3,178,816 | 33 | Viola<br>Arbuckle | 3,836<br>3,945 |
| Starr (1950) | 4-21-14W | 40 | 8,086 | 8,086 | 1 | Arbuckle | 3,579 |
| Syms (1943) | 20-21-12W | | combined with Mueller | | | | |
| Syms East (1947) | 21-21-12W | 40 | 1,387 | 7,587 | 1 | Arbuckle | 3,565 |
| Van Lieu (1943) | 20-24-13W | 120 | 4,606 | 197,862 | 3 | Arbuckle | 4,069 |

**TABLE 66.**—*Oil production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Van Winkle (1950) | 23-21-14W | 40 | 3,534 | 6,574 | 1 | Lans.-K.C. | 3,570 |
| Van Winkle Southeast (1950) | 26-21-14W | 80 | 18,011 | 19,626 | 2 | Lans.-K.C. | 3,569 |
| Wendelburg (1951) | 19-23-11W | 40 | 4,637 | 4,637 | 1 | Arbuckle | 3,729 |
| Zenith-Peace Creek* (1937) | 23-24-11W | 7,000 | 239,274 | 20,188,513 | 92 | Lans.-K.C.<br>Viola | 3,481<br>3,860 |
| Pools or fields abandoned | | | | 50,827 | | | |
| Total Stafford County | | 44,100 | 6,336,930 | 69,550,595 | 942 | | |
| | | | **Sumner County** | | | | |
| Alton (1949) | 10-35-2W | 80 | 1,859 | 12,148 | 2 | Simpson | 4,711 |
| Anness (1937) | 2-30-4W | 40 | 3,149 | 151,828 | 1 | Simpson | 4,394 |
| Anson (1948) | 35-30-2W | 60 | 14,570 | 55,774 | 3 | "Miss. lime" | 3,742 |
| Bellman (1945) | 15-30-1E | 160 | 47,345 | 256,304 | 4 | Simpson | 3,798 |
| Caldwell (1929) | 17-35-3W | 120 | 35,800 | 1,425,198 | 3 | Simpson | 4,765 |
| Chandler (1942) | 4-35-2E | 40 | no report | 9,947 | 1 | "Miss. lime" | 3,450 |
| Churchill (1926) | 25-31-2E | 800 | 69,417 | 16,332,066 | 29 | "Stalnaker"<br>Arbuckle | 1,820<br>2,632 |
| Corbin (1948) | 23-34-2W | 40 | 1,010 | 37,286 | 1 | Simpson | 4,475 |
| Fall Creek (1950) | 3-35-3W | 800 | 340,096 | 363,125 | 23 | Simpson | 4,746 |
| Guelph (1951) | 6-35-1E | 280 | 25,180 | 25,180 | 7 | Lans.-K.C.<br>Simpson | 3,028<br>3,854 |
| Latta (1927) | 9-30-2W | 540 | 57,737 | 1,204,544 | 11 | Lans.-K.C. | 3,042 |
| Lee (1951) | 33-32-2E | 120 | 9,823 | 9,823 | 3 | Mississippian | 3,349 |
| Margaret (1946) | 36-32-2E | 300 | 9,318 | 105,934 | 6 | Arbuckle | 3,474 |
| Metz (1951) | 7-32-2E | 80 | 11,454 | 11,454 | 2 | Simpson<br>Arbuckle | 3,735<br>3,773 |
| Murphy* (1933) | 7-35-3E | | see Cowley County | | | | |
| Oxford (1927) | 14-32-2E | 800 | 119,798 | 16,025,826 | 25 | Hoover<br>"Stalnaker"<br>"Layton"<br>Arbuckle | 1,930<br>2,020<br>2,510<br>2,890 |
| Oxford West (1926) | 17-32-2E | 240 | 27,536 | 672,573 | 6 | Simpson<br>Arbuckle | 3,681 |
| Padgett (1925) | 12-33-2W | 2,700 | 145,202 | 2,185,424 | 38 | "Miss. lime"<br>Simpson | 3,474<br>3,744 |
| Perth (1945) | 12-33-2W | 600 | 117,598 | 615,154 | 12 | "Wilcox" | 4,264 |
| Portland (1950) | 16-34-1E | 160 | 38,996 | 49,544 | 5 | Simpson | 4,002 |
| Rainbow Bend West* (1925) | 24-33-2E | 160 | no report | 453,000 | | Arbuckle | |
| Tate (revived) (1950) | 31-32-2E | 80 | 766 | 3,171 | 2 | Simpson sand | 3,726 |
| Val Verde (1945) | 23-33-2E | 40 | 556 | 4,950 | 1 | "Bartlesville" | 3,280 |
| Vernon North (1930) | 15-35-2E | 1,860 | 41,264 | 867,496 | 23 | "Miss. lime" | 3,443 |
| Wellington (1929) | 33-31-1W | 3,000 | 282,263 | 7,727,014 | 142 | "Chat" | 3,655 |
| Zoglmann (1951) | 8-31-1W | 40 | 8,196 | 8,196 | 1 | Simpson | 4,036 |
| Zyba (1937) | 7-30-1E | 560 | 37,647 | 320,910 | 7 | Simpson | 3,866 |
| Zyba Southwest (1944) | 22-30-1W | 640 | 214,222 | 539,015 | 15 | Simpson | 3,918 |
| Pools or fields abandoned | | | | 126,475 | | | |
| Total Sumner County | | 14,340 | 1,660,802 | 49,599,359 | 373 | | |
| | | | **Trego County** | | | | |
| Cotton (1945) | 15-12-21W | 40 | 3,803 | 29,123 | 1 | Arbuckle | 3,958 |
| Cotton East (1947) | 14-12-21W | 40 | 6,094 | 36,278 | 1 | Arbuckle | 3,942 |
| Ellis* (1942) | 31-12-20W | 390 | 32,227 | 318,057 | 4 | Arbuckle | 3,832 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Ellis Northwest (1944) | 26-12-21W | 450 | 9,868 | 164,599 | 4 | Arbuckle | 3,925 |
| Ogallah (revived) (1951) | 26-12-22W | 2,000 | 89,549 | 89,549 | 18 | Arbuckle | 3,961 |
| Ogallah Southeast (1951) | 36-12-22W | | combined with Ogallah | | | | |
| Ogallah West (1951) | 28-12-22W | 400 | 17,153 | 17,153 | 6 | Arbuckle | 4,037 |
| Spring Creek (1951) | 32-12-21W | 40 | 220 | 220 | 1 | Arbuckle | 3,904 |
| Wakeeney (1934) | 14-11-23W | 640 | 24,819 | 797,199 | 5 | Lans.-K.C. | 3,619 |
| Wakeeney East (1949) | 13-11-23W | 40 | 3,234 | 10,732 | 1 | Lans.-K.C. | 3,576 |
| Walz (1950) | 12-11-21W | | 76,831 | 78,397 | 10 | Lans.-K.C. | 3,428 |
| Pools or fields abandoned | | | | 51,206 | | Arbuckle | 3,666 |
| Total Trego County | | 4,040 | 263,798 | 1,592,513 | 51 | | |

**Wabaunsee County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Davis Ranch (1949) | 33-13-10E | 180 | 272,778 | 658,689 | 18 | "Hunton" | 2,929 |
| | | | | | | Viola | 3,201 |
| Mill Creek (1950) | 2-13-10E | | 46,095 | 53,000 | | Viola | 2,923 |
| Newbury (1950) | 11-11-11E | | 56,464 | 58,923 | | Viola | 2,901 |
| Wheat (1951) | 10-15-11E | | 182 | 182 | | Simpson | 3,230 |
| Woodbury (1951) | 11-15-10E | | 3,611 | 3,611 | | Viola | 3,328 |
| Pools or fields abandoned | | | | 7,599 | | | |
| Total Wabaunsee County | | 180 | 379,130 | 782,004 | 18+ | | |

**Wilson County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Altoona (1903) | 10-29-16E | | | | | "Squirrel" | 650 |
| 8 | | | 1,900 | | | "Bartlesville" | 900 |
| 9 | | | 35 | | | | |
| Altoona East (11) | 29-17E | | 3,521 | | | "Bartlesville" | 900 |
| Benedict (10) | 28-15E | | 623 | | | "Bartlesville" | 1,000 |
| Buffalo* (1924) | 27-16E | | | | | "Bartlesville" | 1,025 |
| 1 | | | 5,609 | | | Cherokee | 1,150 |
| 2 | | | 139 | | | | |
| 3 | | | 1,403 | | | | |
| Fredonia (1890) | 29-15E | | | | | "Burgess" | 1,050 |
| 17 | | | 90 | | | | |
| 18 | | | 4,962 | | | | |
| 19 | | | 247 | | | | |
| Humboldt-Chanute* (6) | 28-17E | | 2,079 | | | "Bartlesville" | 850 |
| Neodesha* | 30-16E | | | | | "Bartlesville" | 950 |
| 12 | | | 11,107 | | | | |
| 13 | | | 417 | | | | |
| 14 | | | 89 | | | | |
| 15 | | | 449 | | | | |
| 16 | | | 24,196 | | | | |
| Neodesha East (20) | 30-17E | | 835 | | | | |
| Vilas (1905) | 27-17E | | | | | "Bartlesville" | 1,000 |
| 4 | | | 4,153 | | | | |
| 5 | | | 1,759 | | | | |
| "Wiggins" (7) | 28-17E | | 5,361 | | | "Bartlesville" | 850 |
| Total Wilson County | | | 68,974 | 5,275,875 recorded | | | |

**Woodson County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Batesville (1934) | 34-25-14E | | 3,902 | | | "Bartlesville" | 1,450 |
| Big Sandy (1923) | 23-26-14E | | 30,842 | | | "Bartlesville" | 1,230 |
| Buffalo* (1924) | 26-16E | | 2,243 | | | "Bartlesville" | 950 |
| | | | | | | Cherokee | 1,150 |
| Evans* (1938) | 21-23-15E | | 5,164 | | | Mississippian | 1,540 |
| Hoagland (1929) | 2-24-14E | | 29,791 | | | Mississippian | 1,635 |
| Humboldt-Chanute* | 25-17E | | 4,805 | | | "Bartlesville" | 900 |
| Jobes | 24-13E | | no report | | | | |
| Neosho Falls* (1928) | 31-23-16E | | 33,270 | | | "Squirrel" | 950 |
| | | | | | | Mississippian | 1,200 |

TABLE 66.—*Oil production in Kansas during 1951, concluded*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, bbls. | Cumulative production to end of 1951, bbls. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Perry | | | 1,663 | | | | |
| Piqua (1938) | 22-24-17E | | 218 | | | Mississippian | 1,190 |
| Quincy* (1932) | 14-25-13E | | 204,286 | | | "Bartlesville" | 1,500 |
| Rose | 7-26-16E | | no report | | | | |
| Silver City (1946) | 19-26-15E | | no report | | | | |
| Vernon | 23-16E | | 595 | | | Mississippian | 1,420 |
| Virgil North* (1920) | 22-23-13E | | 24,705 | | | "Bartlesville" | 1,585 |
| | | | | | | Mississippian | 1,840 |
| Weide (1937) | 31-23-15E | | 13,627 | | | Mississippian | 1,570 |
| Winterscheid* | 23-14E | | 250,671 | | | "Bartlesville" | 1,630 |
| | | | | | | Mississippian | 1,750 |
| Wissman (1936) | 3-24-15E | | 2,726 | | | Mississippian | 1,520 |
| Yates Center | 28-25-15E | | 11,038 | | | Mississippian | 1,480 |
| Total Woodson County | | | 619,760 | 4,587,661 recorded | | | |

*Field extends into adjacent county or counties.
**Estimated
†Production in numbered areas may come from one or more of these producing zones.
‡Formerly Bloomer East (abd 1946).
¶Includes Miami County production.
§Additional amount included with Franklin County.

TABLE 67.—*Gas production in Kansas during 1951*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, M cu.ft. | Cumulative production to end of 1951, M cu.ft. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| **Allen County** | | | | | | | |
| Humboldt-Chanute* | 26-18E | | 156,054 | | | "Squirrel" | 740 |
| | | | | | | "Bartlesville" | 850 |
| Miscellaneous | | | 345,085 | | | | |
| Total Allen County | | | 502,079 | | 126 | | |
| **Anderson County** | | | | | | | |
| East part Anderson County | | | 6,900 | | 6 | | |
| **Barber County** | | | | | | | |
| Aetna (1935) | 13-34-15W | 500 | 57,891 | 907,506 est. | 1 | Mississippian | 4,85 |
| | | | | | | Viola | 5,21 |
| Boggs (1947) | 8-33-12W | 80 | incl. with Whelan | | | Simpson | 4,83 |
| Clara (1944) | 2-30-14W | 280 | no report | 717,792 | | Simpson | 4,43 |
| | | | | | | Viola | 4,56 |
| | | | | | | Arbuckle | 4,56 |
| Cottonwood Creek (1948) | 21-30-14W | 160 | no report | none | | Simpson | 4,58 |
| Deerhead (1942) | 26-32-15W | 640 | no report | 1,693,763 | | Viola | 4,90 |
| DeGeer (1948) | 2-33-15W | 40 | 96,563 | 96,563 | 1 | Viola | 5,1 |
| Donald (1946) | 33-31-15W | 160 | no report | none | | "Miss. lime" | 4,6 |
| Lake City (1945) | 7-31-13W | 40 | incl. with Skinner North | | | | |
| Medicine Lodge (1927) | 13-33-13W | 7,200 | 4,226,085 | 141,318,363 | 40 | "Chat" | 4,4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Medicine Lodge Northeast (1945) | 8-33-12W | 300 | incl. with Medicine Lodge | | | "Douglas sand" | 3,812 |
| | | | | | | Simpson | 4,860 |
| Nippawalla (1951) | 13-33-12W | 40 | no report | none | 1 | "Douglas sand" | 3,659 |
| Skinner North | 17-31-14W | 5,200 | 863,452 | 21,770,836 | 12 | Viola | 4,630 |
| Skinner South (1944) | 32-31-14W | 200 | incl. with Skinner North | | | "Douglas sand" | 4,023 |
| Whelan (1934) | 32-31-11W | 640 | 4,330,997 | 18,129,305 | 12 | "Chat" | 4,355 |
| Total Barber County | | 15,480 | 9,574,988 | 184,634,128 | 67 | | |

**Barton County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Adolph (1947) | 16-20-15W | | no report | none | | Arbuckle | 3,734 |
| Ash Creek* (1948) | 31-20-15W | 80 | 222,275 est. | | 2 est. | Arbuckle | 3,769 |
| Behrens (1944) | 6-20-15W | 80 | 222,275 est. | | 2 est. | | |
| Bergtal (1941) | 22-20-15W | 500 | 188,594 | 729,964 | 3 | Arbuckle | 3,689 |
| Dundee (1945) | 29-20-14W | 120 | 433,390 | 1,470,848 | 3 | Arbuckle | 3,607 |
| Eberhardt (1935) | 14-19-11W | 300 | 13,299 | 348,147 | 1 | | |
| Krier (1944) | 30-16-11W | 160 | 60,010 | 399,288 | 2 | | |
| | | | within Kraft-Prusa pool | | | | |
| Otis-Albert* (1930) | 11-18-16W | 7,000 | 1,148,809 est. | | 25 est. | Neva | |
| | | | | | | Reagan | 3,507 |
| Pawnee Rock* (1936) | 19&20-15&16W | 40 | 92,000 est. | | 1 est. | | |
| Rick* (1941) | 11-19-11W | 60 | no report | 360,722 | | Arbuckle | 3,355 |
| Unruh (1945) | 24-20-15W | 400 | 922,010 | 9,913,633 | 4 | Arbuckle | 3,641 |
| Total Barton County | | 8,740 | 3,302,662 | 13,222,602 | 43 | | |

**Bourbon County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Miscellaneous | | | no report | | | | |

**Butler County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Andover South* | 31-27-3E | | no report | | | "Stalnaker" | 2,006 |

**Chase County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Altemus | 26-18-8E | | no report | | | | |
| Davis (1929) | 18-8E | 640 | 46,481 | | | L. Permian | 350-400 |
| Elmdale | 19-7E | | 11,708 | | | L. Permian | 500 |
| | | | | | | Wabaunsee | 800 |
| Hymer | 18-7E | | no report | | | | |
| Lipps | 32-18-7E | | no report | | | | |
| Neva | 19-7E | | no report | | | | |
| Total Chase County | | 640 | 58,189 | | | | |

**Chautauqua County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Miscellaneous | | | 163,725 | | 14 | | |

**Clark County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Theis (1951) | 5-34-25W | 1,600 | no report | none | | Mississippian | 5,532 |

**Coffey County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Miscellaneous | | | 11,332 | | 2 | | |

**Cowley County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Brown West (1951) | 14-31-7E | 40 | no report | | | | |
| Estes | | | 33,441 | | | Douglas | 1,568 |
| Winfield | | | 16,524 | | | | |
| Miscellaneous | | | 18,449 | | | | |
| Total Cowley County | | 40 | 68,414 | | | | |

**Crawford County**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Miscellaneous | | | 39,676 | | 29 | | |

TABLE 67.—*Gas production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, M cu.ft. | Cumulative production to end of 1951, M cu.ft. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| **Douglas County** | | | | | | | |
| Eudora | | | no report | | | | |
| Lawrence | | | no report | | | | |
| **Edwards County** | | | | | | | |
| Belpre (1942) | 8-25-16W | 80 | 314,209 | 6,191,607 | 3 | Lans.-K.C. | 3,800 |
| Bradbridge* (1948) | 6-24-15W | 200 | no report | none | | Arbuckle | 4,020 |
| Total Edwards County | | 280 | 314,209 | 6,191,607 | 3 | | |
| **Elk County** | | | | | | | |
| Bush-Denton (1920) | 4-30-9E | | no report | | | | |
| Schrader | | | 13,799 | | 3 | | |
| Miscellaneous | | | 330,861 | | | | |
| Total Elk County | | | 344,660 | | 3 | | |
| **Ellsworth County** | | | | | | | |
| Stoltenberg (1947) | 18-17-9W | 100 | 108,544 | 340,615 | 2 | Shawnee | 2,728 |
| Figure includes total county production as reported by Corp. Comm. | | | | | | | |
| **Finney County** (see Hugoton field) | | | | | | | |
| Nunn (1938) | 27-21-34W | 120 | 73,649 | 73,649 | 3 | | |
| **Ford County** | | | | | | | |
| Pleasant Valley (1938) | 34-27-21W | | no report | none | | Mississippian | 4,954 |
| **Grant County** (see Hugoton field) | | | | | | | |
| **Hamilton County** (see Hugoton field) | | | | | | | |
| **Harper County** | | | | | | | |
| Grabs (1949) | 7-31-8W | 80 | 71,199 | 101,948 | 2 | Mississippian | 4,385 |
| Grabs Southeast (1950) | 17-31-8W | | no report | none | | Mississippian | 4,386 |
| Total Harper County | | 80 | 71,199 | 101,948 | 2 | | |
| **Harvey County** | | | | | | | |
| Burrton* (1930) | 23-23-4W | 730 | 739,129 Includes Reno County | | 13 | Mississippian | 3,290 |
| Burrton Northeast (1942) | 3-23-3W | | Included with Burrton | | | Mississippian | 322 |
| Sperling (1935) | 23-22-2W | 250 | 36,648 | 6,579,699 | 1 | "Chat" | 2,95 |
| Wall (1951) | 25-22-3W | | no report | none | | Mississippian | 3,15 |
| Total Harvey County | | 980 | 775,777 | 6,579,699 | 14 | | |
| **Haskell County** (see Hugoton field) | | | | | | | |
| **Hugoton Gas Area** (Finney, Grant, Hamilton, Haskell, Kearny, Morton, Seward, Stanton, & Stevens Counties) | | | | | | | |
| Hugoton (1922) | 3-35-34W | 2,255,000 | 331,414,958 | 1,766,924,017 | 2,595 | Herington<br>Krider<br>Winfield<br>Fort Riley<br>Florence | |
| **Jefferson County** | | | | | | | |
| McLouth | | | 391 reported abandoned | | 1 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Johnson County** | | | | | | | |
| Gardner | | | 34,386 | | 26 | | |
| **Kearny County** (see Hugoton field) | | | | | | | |
| **Kingman County** | | | | | | | |
| Cunningham (1931) | 7-28-11W | 700 | 158,878 est. | | 4 est. | Arbuckle | 4,094 |
| | | | | | | Viola | 4,278 |
| Dewey (1950) | 9-28-5W | 900 | 687,180 | | 6 | | |
| Total Kingman County | | 1,600 | 846,058 | | 10 | | |
| **Kiowa County** | | | | | | | |
| Alford (1944) | 14-30-19W | | no report | none | | Spergen | 5,040 |
| Brenham (1947) | 29-28-17W | | no report | none | | "Miss. chert" | 4,841 |
| Miscellaneous | | 200 | 35,451 | 35,451 | 2 | | |
| Total Kiowa County | | 200 | 35,451 | 35,451 | 2 | | |
| **Labette County** | | | | | | | |
| Coffeyville-Cherryvale* | 32-17E | | | | | | |
| Valeda | | | 295 | | 1 | | |
| Miscellaneous | | | 21,581 | | 12 | | |
| Total Labette County | | | 21,876 | | 13 | | |
| **Leavenworth County** | | | | | | | |
| Linwood | | | no report | | | | |
| Roberts-Maywood* | | | 23,514 | | 8 | | |
| **Linn County** | | | | | | | |
| LaCygne-Cadmus | 20-24E | | no report | | | | |
| Centerville | | | 2,000 abandoned during 1951 | | 4 | | |
| **McPherson County** | | | | | | | |
| Coons (1940) | 13-19-1W | 200 | incl. with McPherson | | | "Chat" | 2,897 |
| Doles Park (1947) | 12-19-1W | 160 | incl. with McPherson | | | "Chat" | 2,843 |
| Graber North (1951) | 4-21-1W | 40 | no report | none | | Mississippian | 2,955 |
| McPherson (1926) | 29-18-2W | 200 | 113,379 | | 2 | Lans.-K.C. | 2,340 |
| | | | | | | "Chat" | 2,967 |
| | | | | | | Viola | 3,140 |
| Ritz-Canton (1929) | 12-20-2W | 100 | 17,826 | | 1 | "Chat" | 2,935 |
| Total McPherson County | | 660 | 131,205 | | 3 | | |
| **Marion County** | | | | | | | |
| "Marion" | | | 29,124 | | 2 | | |
| Propp | 8-19-4E | | 93,169 | | 5 | | |
| Total Marion County | | | 122,293 | | 7 | | |
| **Meade County** | | | | | | | |
| Adams Ranch (1945) | 8-35-30W | 460 | 15,291 | 177,634 | 1 | Mississippian | 5,850 |
| Adams Ranch East (1947) | 36-34-30W | 2,500 | no report | none | | Morrowan ss. | 5,874 |
| | | | | | | Mississippian | 5,094 |
| McKinney (1950) | 2-34-26W | 600 | no report | none | | Mississippian | 5,762 |
| Total Meade County | | 3,560 | 15,291 | 177,634 | 1 | | |
| **Miami County** | | | | | | | |
| East part Miami County | | | 60,000 | | 40 | | |
| **Montgomery County** | | | | | | | |
| "Cavert" | | | 64,446 | | 9 | | |
| Coffeyville-Cherryvale* (1902) | 33-17E | | no report | | | | |

TABLE 67.—*Gas production in Kansas during 1951, continued*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, M cu.ft. | Cumulative production to end of 1951, M cu.ft. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| Neodesha | | | 36,722 | | 10 | | |
| Miscellaneous | | | 474,559 | | 52 | | |
| Total Montgomery County | | | 575,727 | | 71 | | |
| **Morris County** | | | | | | | |
| North part of county | | | 2,640 | | 1 | | |
| South part of county | | | 48,293 | | 20 | | |
| Total Morris County | | | 50,933 | | 21 | | |
| **Morton County** | | | | | | | |
| Greenwood (1951) | 14-33-42W | | no report | none | | Morrow sand | 4,872 |
| Hugoton | | See Hugoton field | | | | | |
| Richfield (1948) | 17-32-40W | 640 | 97,490 | 507,758 | 1 | Basal Penn. (Atokan) | 4,990 |
| Total Morton County | | 640 | 97,490 | 507,758 | 1 | | |
| **Neosho County** | | | | | | | |
| "Earlton"* | | | 6,285 | | 2 | | |
| Miscellaneous | | | 166,898 | | | | |
| Total Neosho County | | | 173,183 | | 2 | | |
| **Pawnee County** | | | | | | | |
| Ash Creek* (1948) | 31-20-15W | 50 | 222,275 est. | | 2 est. | Arbuckle | 3,769 |
| Evers (1951) | 36-21-16W | | no report | none | | Arbuckle | 3,908 |
| Benson Southeast (1946) | 32-23-15W | 160 | no report | none | | Arbuckle | 4,048 |
| Larned (1949) | 28-21-16W | | abandoned during 1951 | | | Arbuckle | 3,877 |
| Pawnee Rock* (1936) | 19&20-15&16W | 400 | 2,500,000 est. | | 17 est. | | |
| Rutherford East (1950) | 4-20-16W | 40 | no report | none | | Arbuckle | 3,708 |
| Ryan* | 35-19-16W | 100 | 222,275 est. | | 2 est. | | |
| Shady (1945) | 34-22-16W | 200 | 203,613 | 3,361,047 | 1 | Arbuckle | 4,063 |
| Zook (1942) | 16-23-16W | 320 | 920,621 | 9,351,337 | 4 | Arbuckle | 4,066 |
| Total Pawnee County | | 1,270 | 4,068,784 | 12,712,384 | 26 | | |
| **Pratt County** | | | | | | | |
| Carmi (1942) | 29-26-12W | | now called Iuka-Carmi | | | | |
| Chitwood (1943) | 23-28-12W | 800 | 813,312 | 7,683,468 | 19 | Viola | 4,340 |
| Cunningham* (1931) | 7-28-11W | 3,560 | 675,477 est. | | 37 est. | Viola | 4,278 |
| | | | includes Cairo pool production | | | Arbuckle | 4,094 |
| Iuka-Carmi (1942) | 29-26-12W | 640 | 245,930 | 373,269 | 5 | Viola | 4,122 |
| Shriver (1949) | 27-29-14W | 100 | no report | 93,073 | | | |
| Stark (1941) | 13-26-12W | 50 | no report | | | Viola | 4,121 |
| Ward (1941) | 11-26-12W | 160 | no report | | | Viola | 4,129 |
| Total Pratt County | | 5,310 | 1,734,719 | 8,149,810 | 61 | | |
| **Reno County** | | | | | | | |
| Burrton* (1930) | 23-23-4W | 450 | incl. with Harvey County | | | Mississippian | 3,298 |
| Lerado (1937) | 10-26-9W | 150 | 633,378 | 1,147,110 | 3 | | |
| Yoder (1935) | 34-24-5W | 200 | 271,195 | | 3 | "Chat" | 3,402 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Zenith-Peace Creek* (1937) | 23-24-11W | 100 | 15,000 est. | | 2 est. | Viola | 3,860 |
| Total Reno County | | 900 | 919,573 | 1,147,110 | 8 | | |
| **Rice County** | | | | | | | |
| Alden (1937) | 22-21-9W | 400 | | 13,801,113 | | "Misener" | 3,317 |
| | incl. with Chase | | | | | | |
| Chase-Silica (1936) | 6-19-9W | 100 | 849,088 | 1,039,332 | 4 | Arbuckle | 3,192 |
| | includes misc. Rice Co. production | | | | | | |
| Lyons (1888) | 35-19-8W | 1,100 | no report | 12,332,332 | | Simpson | 3,290 |
| | | | | | | Arbuckle | 3,277 |
| Orth (1933) | 27-18-10W | 160 | 46,273 | | 1 | Lans.-K.C. | 2,906 |
| Quivira (1947) | 36-19-9W | 300 | incl. with Chase | 211,244 | | Tarkio | 2,117 |
| Union (1950) | 28-20-8W | 280 | incl. with Chase | | | Penn. Basal Cong. | 3,275 |
| Total Rice County | | 2,340 | 895,361 | 27,384,021 | 5 | | |
| **Rush County** | | | | | | | |
| Otis-Albert* (1930) | 11-18-16W | 7,000 | 1,148,809 est. | | 24 est. | Neva | |
| Ryan* | 35-19-16W | 300 | 1,788,040 est. | | 11 est. | Reagan | 3,507 |
| Total Rush County | | 7,300 | 2,936,849 est. | | 35 | | |
| **Sedgwick County** | | | | | | | |
| Andover South* (1950) | 31-27-3E | | no report | | | "Stalnaker" | 2,006 |
| Bartholomew* (1946) | 30-27-4W | 640 | 257,901 | | 12 | "Miss. lime" | 3,732 |
| Derby (1937) | 32-28-2E | | | | | "Stalnaker" | 2,215 |
| | no longer productive; used for gas storage only. | | | | | Lans.-K.C. | 2,228 |
| Schulte (1949) | 7-28-1W | 200 | 232,390 | 653,157 | 3 | | |
| Total Sedgwick County | | 840 | 490,291 | 653,157 | 15 | | |
| **Seward County** | | | | | | | |
| Hugoton* | | See Hugoton field | | | | | |
| Liberal Southeast (1947) | 15-35-33W | 860 | 1,203,425 | 6,569,545 | 3 | Penn. sandstone | 6,202 |
| Light (1951) | 11-35-32W | 640 | 606,652 | 606,652 | 4 | | |
| Total Seward County | | 1,500 | 1,810,077 | 7,176,197 | 7 | | |
| **Stafford County** | | | | | | | |
| Bradbridge* (1948) | 6-24-15W | 80 | no report | none | | Arbuckle | 4,020 |
| Farmington (1948) | 27-24-15W | 50 | | 691,757 | | Mississippian | 4,207 |
| | incl. with Macksville | | | | | | |
| Gates (1950) | 26-21-13W | 40 | 107,217 | 172,135 | 1 | Lans.-K.C. | 3,473 |
| Knoche (1951) | 8-24-12W | 200 | 191,256 | 191,256 | 2 | Viola | 3,810 |
| Macksville (1947) | 3-24-15W | 200 | 797,280 | 3,598,859 | 7 | Lans.-K.C. | |
| O'Connor (1947) | 16-24-15W | 160 | no report | none | | Arbuckle | 4,061 |
| Zenith-Peace Creek* (1937) | 23-24-11W | 300 | 34,514 est. | | 5 est. | Viola | 3,860 |
| Total Stafford County | | 1,030 | 1,130,267 | 4,654,007 | 15 | | |
| **Stanton County** (see Hugoton field) | | | | | | | |
| **Stevens County** (see Hugoton field) | | | | | | | |
| **Sumner County** | | | | | | | |
| Fall Creek (1950) | 3-35-3W | 40 | no report | | | Simpson | 4,746 |
| Padgett (1924) | 23-34-2E | 640 | no report | | | "Miss. lime" | 3,474 |
| Vernon North (1915) | 15-35-2E | 640 | no report | | | | |
| Wellington (1929) | 33-31-1W | | | | | "Chat" | 3,655 |
| | no longer productive; used for gas storage only. | | | | | | |
| Total Sumner County | | 1,320 | | | | | |

TABLE 67.—*Gas production in Kansas during 1951, concluded*

| Pool or field name and year of discovery | Location of discovery well | Area, acres | 1951 production, M cu.ft. | Cumulative production to end of 1951, M cu.ft. | No. producing wells | Producing zone | Depth to producing zone, feet |
|---|---|---|---|---|---|---|---|
| **Wilson County** | | | | | | | |
| "Earlton"* | | | 47,494 | | 25 | | |
| Neodesha* | 30-16E | | 54,845 | | 21 | | |
| Miscellaneous | | | 8,506 | | 3 | | |
| Total Wilson County | | | 110,845 | | 49 | | |
| **Woodson County** | | | | | | | |
| Miscellaneous | | | 22,540 | | 3 | | |
| **Wyandotte County** | | | | | | | |
| Roberts-Maywood* | 11-23E | | 5,630 | | 3 | | |

*Field extends into adjacent county or counties.

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## INDEX

# Map of EASTERN KANSAS OIL-PRODUCING AREAS

*December 31, 1951*

State Geological Survey of Kansas

Bulletin 97, Plate 1

EXPLANATION

- Reported oil-producing areas
- Secondary recovery projects (nos. in Table 1)
- Dry holes in northern counties, 1951

R.1E. R.2E. R.3E. R.4E. R.5E. R.6E. R.7E. R.8E. R.9E. R.10E. R.11E. R.12E. R.13E. R.14E. R.15E. R.16E. R.17E. R.18E. R.19E. R.20E. R 23E R 24E R 25E.

T.1S. T.2S. T.3S. T.4S. T.5S. T.6S. T.7S. T.8S. T.9S. T.10S. T.11S. T.12S. T.13S. T.14S. T.15S. T.16S. T.17S. T.18S. T.19S. T.20S. T.21S. T.22S. T.23S. T.24S. T.25S. T.26S. T.27S. T.28S. T.29S. T.30S. T.31S. T.32S. T.33S. T.34S.

Livingood
Sabetha
Strahm
BROWN CO.
DONIPHAN CO.
MARSHALL CO.
NEMAHA CO.
POTTAWATOMIE CO.
ATCHISON CO.
JEFFERSON CO.
LEAVENWORTH CO.
Wakefield NE
Wakefield
JACKSON CO.
McLouth North
McLouth
Banker's Life
Ackerland
WYANDOTTE CO.
CLAY CO.
DICKINSON CO.
RILEY CO.
Newbury
WABAUNSEE CO.
Mill Creek
Davis Ranch
GEARY CO.
SHAWNEE CO.
OSAGE CO.
Bonaccord
Woodbury
Wheat
LYON CO.
DOUGLAS CO.
FRANLIN CO.
LeLoup
JOHNSON CO.
Lost Springs NE
Lost Springs North
Three Mile Creek
Three Mile Creek South
Bushong
Fanska
Burdick
Lost Springs
Lost Springs East
MORRIS CO.
CHASE CO.
Lost Springs SE
Paola-Rantoul
Louisburg
Block
Propp
Lehigh
Hillsboro
COFFEY CO.
MIAMI CO.
ANDERSON CO.
Goodrich-Parker
LaCygne-Cadmus
Garnett Shoestring
Centerville
Bush City Shoestring
Cedar Creek
Bazaar
Wenger
Florence
Covert-Sellers
MARION CO.
Peabody
Elbing North
Elbing
Elbing East
Hazlett
Joseph
Potwin
Edgecomb
Whitewater North
Whitewater
Pierce W
Pierce
Allen-Robison
Rombold
Butwick NE
Butwick
Parsley
Benton
Towanda
El Dorado
Smock-Sluss
Young
Garden
Reynolds
Schaffer
Long
Augusta North
Haverhill
Leon
Bausinger
Four Mile Creek
Augusta
Salter
Hickory Creek
Pettit
Womack
Fox-Bush
Snowden-McSweeney
DeMoss
Brandt-Sensenbaugh
Ferrell
Severy
GREENWOOD CO.
ELK CO.
New Albany
Guyot
Douglass
Muddy Creek
Rock North
Semisch
Hartenbower
Hartenbower South
Steinhoff
Porter
Fleming
Shinn
Hannah
Bush-Denton
Dunkleberger
"Perkins"
Bruce
Combs
Combs NE
Couch
Udall
Trees
Rock
David
Eastman
Grouse Creek
Ferguson East
Ferguson NW
Ferguson West
Box
Dory
Love
Collyer
Grand Summit
Schrader
Walker
Smith
Clark
Hittle
David South
Deichman
Burden
Clover
Brown
Mansur
Logsden
Starr
Webb
Longton
Elk City
WILSON CO.
MONTGOMERY CO.
NEOSHO CO.
LABETTE CO.
CRAWFORD CO.
CHEROKEE CO.
"Houston"
McCune
Weathered
Elrod
State
Biddle
Frog Hollow East
School Creek
Turner North
Turner
Frog Hollow
Winfield
Winfield South
Countryman
Henderson
Stayton
Slick-Carson
Thurlow
Graham
Rainbow Bend NE
Rainbow Bend
Rainbow Bend West
Hower
Seacat
Esch
Rahn NE
Doane
Geuda Springs
Baird East
Nigger Creek
Baird
Gibson
Rahn
Rahn SW
Otto
Murphy
McKay
COWLEY CO.
Falls City
CHAUTAUQUA CO.
Oliver
Kingston
Landon-Floyd
Malone
McAllister
Wiggam
Peru-Sedan
Frazier
Wauneta
Elgin
Borroum
Niotaze
Caney
Tyro
Coffeyville-Cherryvale
Sorghum-Hollow
Coleman
Brewster
Mound Valley
Price
Jefferson-Sycamore
Hale-Inge
Jefferson-Sycamore
Wayside-Havana
Colony-Welda
Colony West
Selma
Kincaid
Leroy
Van Noy
Neosho Falls
Evans
Weide
Wisson
Hoagland
Wintersheid
Virgil North
Dunaway
Virgil
Hinchman
Blackwell
Gilroy
Quincy
Batesville
Yates Center
Piqua
Iola
ALLEN CO.
LINN CO.
Davis-Bronson
Bronson-Xenia
Humboldt-Chanute
Moran
Elsmore West
Seibert
Elsmore Shoestring
Perry
Humboldt-Chanute
Kimball
Hepler
BOURBON CO.
Walnut SE
Fair Oak
St. Paul-Walnut
"Steimel"
Neodesha
Neodesha East
Morehead
Fredonia
Altoona
Altoona East
Erie
Urbana
"Wiggins"
Benedict
Teeter
Scott
Pixlee
Browning
DeMalorie-Sowder
Seeley-Wick
"Starrer"
Hamilton
Hollis
Burkett
Parks
Gaffney
Thrall-Aagard
Polhamus
Wiggins
Teichgraber
Wilkerson
Jackson
Sallyards
Eureka
Eureka West
Tonoway West
Tonoway
"Kimbal"
Burt
"Butler"
Reece
Blankenship
Stanhope
Honey Creek
Climax
Brinegar
Willard
Beaumont North
Beaumont
Severy North
Beaumont South
Lucas
Seward
Keighley
McCullough
Dixon
Kramer-Stern
Leon
Haverhill
Augusta North
Bausinger
Four Mile Creek
Augusta
Hickory Creek
Pettit
DeMoss
Brandt-Sensenbaugh
Ferrell
Severy
Fox-Bush
Snowden-McSweeney
Womack
Atyeo
Rock Creek
Fankhouser
"Mignot"
Madison
"Gates"
Lamont
Dunaway
Virgil North
Leroy
Van Noy
Neosho Falls
Evans
Weide
Wisson
Hoagland
Wintersheid
Blackwell
Virgil
Hinchman
Gilroy
Quincy
Batesville
Yates Center
Piqua
Iola
Humboldt-Chanute
Moran
Elsmore West
Seibert
Elsmore Shoestring
Perry
Humboldt-Chanute
Kimball
Hepler
Walnut SE
Fair Oak
St. Paul-Walnut
"Steimel"
Neodesha
Neodesha East
Morehead
Fredonia
Altoona
Altoona East
Erie
Urbana
"Wiggins"
Benedict
Teeter
Scott
Pixlee
Browning
DeMalorie-Sowder
Seeley-Wick
"Starrer"
Hamilton
Hollis
Burkett
Parks
Gaffney
Thrall-Aagard
Polhamus
Wiggins
Teichgraber
Wilkerson
Jackson
Sallyards
Eureka
Eureka West
Tonoway West
Tonoway
"Kimbal"
Burt
"Butler"
Reece
Blankenship
Stanhope
Honey Creek
Climax
Brinegar
Willard
Beaumont North
Beaumont
Severy North
Beaumont South
Lucas
Seward
Keighley
McCullough
Dixon
Kramer-Stern
Leon
Haverhill
Augusta North
Bausinger
Four Mile Creek
Augusta
Hickory Creek
Pettit
DeMoss
Brandt-Sensenbaugh
Ferrell
Severy
Fox-Bush
Snowden-McSweeney
Womack
Atyeo
Rock Creek
Fankhouser
"Mignot"
Madison
"Gates"
Lamont
Dunaway
Virgil North
Leroy
Van Noy
Neosho Falls
Evans
Weide
Wisson
Hoagland
Wintersheid
Blackwell
Virgil
Hinchman
Gilroy
Quincy
Batesville
Yates Center
Piqua
Iola
Humboldt-Chanute
Moran
Elsmore West
Seibert
Elsmore Shoestring
Perry
Humboldt-Chanute
Kimball
Hepler
Walnut SE
Fair Oak
St. Paul-Walnut
"Steimel"
Neodesha
Neodesha East
Morehead
Fredonia
Altoona
Altoona East
Erie
Urbana
"Wiggins"
Benedict

# MAP OF THE HUGOTON GAS AREA, SOUTHWESTERN KANSAS

showing oil and gas wells and dry holes

Dec. 31, 1951

State Geological Survey of Kansas

Bulletin 97, Plate 2

R.43W. R.42W. R.41W. R.40W. R.39W. R.38W. R.37W. R.36W. R.35W. R.34W. R.33W. R.32W. R.31W.

T. 18 S. T. 19 S. T. 20 S. T. 21 S. T. 22 S. T. 23 S. T. 24 S. T. 25 S. T. 26 S. T. 27 S. T. 28 S. T. 29 S. T. 30 S. T. 31 S. T. 32 S. T. 33 S. T. 34 S. T. 35 S.

TRIBUNE
LEOTI
SCOTT CITY
KEYSTONE POOL
LANE
SCOTT COUNTY
GREELEY COUNTY
WICHITA COUNTY
SHALLOW WATER POOL
NUNN POOL
PATTERSON POOL
DAMME POOL
SYRACUSE
LAKIN
GARDEN CITY
HAMILTON COUNTY
KEARNY CO
GRANT CO
FINNEY COUNTY
HASKELL COUNTY
COLORADO
GRAY
JOHNSON
SUBLETTE
STANTON COUNTY
MORTON COUNTY
STEVENS CO
SEWARD COUNTY
RICHFIELD
RICHFIELD POOL
GREENWOOD POOL
HUGOTON
MEADE
KISMET POOL
KNEELAND POOL
LIBERAL
LIBERAL SE POOL
LIGHT POOL
OKLAHOMA

EXPLANATION

- Oil wells
- Dry holes drilled previous to 1950 (total depths given)
- Dry holes drilled in 1950
- Dry holes drilled in 1951
- Gas wells drilled previous to 1950
- Gas wells drilled in 1950
- Gas wells drilled in 1951

TABLE 1.—*Data on secondary recovery projects in Kansas, 1951, concluded*

| No. | Field | Operator | Project | Location | Year started | Total developed acres | Total floodable acres | Producing formation | Thickness of producing zone, feet | Av. depth to producing zone, feet | Active wells: Flowing | Active wells: Pumping | Active wells: Total | No. producing wells drilled in 1951 | No. active injection wells, 1951 | No. injection wells drilled in 1951 | Medium of injection | Source of water | Average bbls. water injected per well per day | Cumulative secondary oil recovery per developed acre, bbls. | Production attributable to secondary recovery in 1951, bbls. | No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | Sallyards | Ohio Oil Co. | Ladd | 19, 30-25-9E | 1946 | 205 | 205 | do | 51 | 2,400 | 8 | 31 | 39 | 0 | 29 | 0 | do | do | 210 | 4,143 | 93,598 | 71 |
| 72 | do | do | Ladd "A" | 19, 20-25-9E | 1951 | 71 | 90 | do | 41 | 2,400 | 0 | 6 | 6 | 0 | 6 | 6 | do | do | 130 | 15 | 5,415 | 72 |
| 73 | do | do | Hoffman | 30-25-9E | 1951 | 66 | 75 | do | 41 | 2,400 | 0 | 9 | 9 | 0 | 6 | 6 | do | do | 90 | 61 | 4,018 | 73 |
| 74 | Scott | Phillips Petro. Co. | Scott | 24, 25, 26-23-8E 19, 30-23-9E | 1945 | 200 | 300 | do | 40 | 2,600 | | 41 | 41 | 0 | 12 | 0 | do | do | 320 | 1,140 | * | 74 |
| 75 | Seeley-Wick | Alf M. Landon | G. F. Webber | 9-25-13E | 1951 | 20 | 20 | do | 20 | 1,500 | 0 | 3 | 3 | 0 | 1 | 1 | Fresh water | Water well | | | 200 | 75 |
| 76 | do | Cities Service Oil Co. | Clopton | 8-23-11E | 1946 | 260 | 260 | do | 32 | 1,975 | | 25 | 25 | 0 | 21 | 0 | Salt water | Wells & produced | 170 | 2,350 | 63,100 | 76 |
| 77 | do | do | Cragan | 32-22-11E | 1942 | 20 | 20 | do | 50 | 1,980 | | 1 | 1 | 0 | 1 | 0 | do | "Bartlesville" | 210 | 10,385 | 1,153 | 77 |
| 78 | do | Magnolia Petro. Co. | Seeley | 4, 5, 6, 9-23-11E | 1943 | 555 | 555 | do | 32 | 1,950 | 0 | 63 | 63 | 0 | 60 | 0 | do | Douglas | 223 | 5,903 | 214,487 | 78 |
| 79 | do | Phillips Petro. Co. | Beal | 21, 22, 27, 28-23-11E | 1950 | 40 | 450 | do | 55 | 1,900 | | 59 | 59 | 0 | 4 | 11 | do | do | 320 | 472 | * | 79 |
| 80 | do | do | McGilvray | 8, 9, 16, 17-23-11E | 1948 | 120 | 230 | do | 37 | 1,950 | | 30 | 30 | 0 | 6 | 0 | do | do | 250 | 510 | * | 80 |
| 81 | do | do | Seeley-Wick | 28, 33-22-11E 4-23-11E | 1943 | 255 | 255 | do | 37 | 1,950 | | 24 | 24 | 0 | 19 | 0 | do | do | 150 | 1,853 | * | 81 |
| 82 | do | do | York-DeMalorie & O'Neal | 29, 32-22-11E | 1937 | 280 | 280 | do | 47 | 1,950 | | 34 | 34 | 0 | 26 | 0 | do | do | 180 | 6,486 | * | 82 |
| 83 | do | do | York-Wescott | 33-22-11E | 1943 | 80 | 80 | do | 30 | 2,000 | | 12 | 12 | 0 | 9 | 0 | do | do | 50 | 2,249 | * | 83 |
| 84 | do | Skelly Oil Co. | L. N. Bersie | 22-22-11E | 1950 | 30 | 40 | do | 20 | 1,975 | | 3 | 3 | 0 | 1 | 0 | do | do | 194 | 11 | 338 | 84 |
| 85 | do | do | Don Harlan | 34-22-11E | 1943 | 50 | 50 | do | 20 | 1,975 | | 5 | 5 | 0 | 3 | 0 | do | do | 186 | 1,274 | 16,228 | 85 |
| 86 | do | do | Carl Hess | 34-22-11E | 1947 | 46 | 46 | do | 20 | 1,975 | | 5 | 5 | 0 | 1 | 0 | do | do | 217 | 584 | 6,789 | 86 |
| 87 | do | do | E. R. South | 22-22-11E | 1949 | 50 | 50 | do | 20 | 1,975 | | 4 | 4 | 0 | 1 | 0 | do | do | 200 | 27 | 1,368 | 87 |
| 88 | do | do | H. B. Wick | 27-22-11E | 1947 | 270 | 270 | do | 20 | 1,975 | | 18 | 18 | 0 | 5 | 0 | do | do | 218 | 605 | 58,985 | 88 |
| 89 | Seeley-Wick | do | J. C. Wick | 27-22-11E | 1949 | 60 | 60 | do | 20 | 1,975 | | 3 | 3 | 0 | 2 | 0 | Salt water | Douglas | 151 | 40 | 2,372 | 89 |
| 90 | Teeter | Cities Service Oil Co. | Teeter | 16-23-9E | 1947 | 340 | 1,130 | do | 37 | 2,500 | | 31 | 31 | 1 | 18 | 3 | Salt & fresh water | Lake & produced | 190 | 430 | 86,600 | 90 |
| 91 | do | Kirkpatrick & McGuire | Morris-McGinnis | 20, 21-23-9E | 1951 | 20 | 516 | do | 36 | 2,550 | 0 | 3 | 3 | 0 | 1 | 1 | Salt water | Douglas | 114 | | | 91 |
| 92 | do | Ohio Oil Co. | Shambaugh "A" & "B" | 2-23-9E | 1944 | 73 | 73 | do | 35 | 2,400 | 0 | 8 | 8 | 0 | 6 | 0 | do | do | 150 | 1,859 | 7,553 | 92 |
| 93 | do | Skelly Oil Co. | W. L. Hartley | 2-23-9E | 1944 | 30 | 30 | do | 45 | 2,350 | | 3 | 3 | 0 | 1 | 0 | do | do | 321 | 2,333 | 11,880 | 93 |
| 94 | Thrall-Aagard | Ohio Oil Co. | Martindall | 31-23-10E 6-24-10E | 1948 | 250 | 310 | do | 50 | 2,300 | 0 | 44 | 44 | 0 | 29 | 0 | do | Arbuckle | 220 | 3,517 | 504,376 | 94 |
| 95 | do | do | Olson-Anderson | 11-24-9E | 1944 | 98 | 98 | do | 42 | 2,200 | 4 | 9 | 13 | 0 | 8 | 0 | do | Douglas | 240 | 6,164 | 30,755 | 95 |
| 96 | do | Phillips Petro. Co. | Aagard | 14-24-9E | 1937 | 48 | 48 | do | 40 | 2,100 | | 3 | 3 | 0 | 3 | 0 | do | do | 120 | 7,520 | * | 96 |
| 97 | do | do | Gard | 14, 22, 23-24-9E | 1938 | 110 | 110 | do | 70 | 2,150 | | 16 | 16 | 0 | 10 | 0 | do | do | 190 | 7,770 | * | 97 |
| 98 | do | do | Lewis & Canon | 11, 12-24-9E | 1945 | 80 | 80 | do | 50 | 2,300 | | 11 | 11 | 0 | 9 | 0 | do | do | 210 | 6,457 | * | 98 |
| 99 | do | Sinclair Oil & Gas Co. | Thrall-McGee unit | 28, 29, 32, 33-23-10E | 1949 | 644 | 644 | do | 30 | 2,300 | | 75 | 75 | 8 | 59 | 2 | Salt & fresh water | Douglas & pond | 300 | 1,600 | 667,800 | 99 |
| | Totals | | | | | 7,539 | | | | | 29 | 1,058 | 1,088 | 26 | 608 | 54 | | | | | 3,799,214 | |
| | | | | | | | | **Greenwood and Lyon Counties** | | | | | | | | | | | | | | |
| 100 | Atyeo | Cities Service Oil Co. | Atyeo | 6-22-10E | ** | 0 | 110 | "Bartlesville" | 39 | 2,240 | | 14 | 14 | 0 | 5 | 5 | Salt water | Arbuckle | 0 | 0 | 0 | 100 |
| | | | | | | | | **Greenwood and Woodson Counties** | | | | | | | | | | | | | | |
| 101 | Quincy | Layton Oil Co. | Quincy flood | 14, 15-25-13E | 1950 | 50 | 400 | "Bartlesville" | 40 | 1,500 | 0 | 12 | 12 | 6 | 10 | 2 | Salt water | Arbuckle | 200 | 2,500 | 91,500 | 101 |
| | | | | | | | | **Linn County** | | | | | | | | | | | | | | |
| 102 | Centerville | Fell & Wolf Oil Co.†† | Group 6 | 10, 11, 13, 14, 19, 24-21-22E | 1936 | 250 | 480 | "Squirrel" | 17 | 500 | 89 | 11 | 100 | 0 | 65 | 3 | Salt & fresh water | Produced & stream | 25 | 1,880 | 53,928 | 102 |
| 103 | Goodrich-Parker | Deep Rock Oil Corp. | Goodrich | 19, 20, 29, 30-20-22E | 1944 | 223 | 300 | do | 30 | 570 | 89 | 7 | 96 | 11 | 98 | 13 | Salt water | Arbuckle | 11 | 1,138 | 27,934 | 103 |
| 104 | do | Ohio Oil Co. | Parker-Goodrich | 15, 16-20-22E | 1950 | 22 | 32 | do | 30 | 550 | 8 | 1 | 9 | 1 | 10 | 0 | do | do | 109 | 39 | 663 | 104 |
| 105 | LaCygne-Cadmus | Deep Rock Oil Corp. | LaCygne | 34, 35, 36-19-23E 2, 3-20-23E | 1942 | 62 | 320 | "Prue" | 20 | 250 | 28 | | 28 | 15 | 37 | 18 | do | "Wilcox" | 1 | 968 | 904 | 105 |
| | Totals | | | | | 557 | | | | | 214 | 19 | 233 | 27 | 210 | 34 | | | | | 83,429 | |
| | | | | | | | | **Lyon County** | | | | | | | | | | | | | | |
| 106 | Atyeo | Barbara Oil Co. | Jones | 30-21-10E | 1948 | 90 | 90 | "Bartlesville" | 41 | 2,200 | | 5 | 5 | 0 | 3 | 0 | Salt water | Big salt, Kansas City | 925 | 707 | * | 106 |
| 107 | do | Ohio Oil Co. | Atyeo | 30, 31-21-10E | 1947 | 275 | 290 | do | 35 | 2,200 | 2 | 37 | 39 | 0 | 23 | 4 | do | Arbuckle | 210 | 3,561 | * | 107 |
| 108 | Fankhouser | Phillips Petro. Co. | Lauck | 32, 33-21-12E | 1943 | 100 | 100 | do | 25 | 1,950 | | 7 | 7 | 0 | 6 | 0 | do | Douglas | 150 | 2,164 | * | 108 |
| | Totals | | | | | 465 | | | | | 2 | 49 | 51 | 0 | 32 | 4 | | | | | 249,258 | |
| | | | | | | | | **McPherson County** | | | | | | | | | | | | | | |
| 109 | Graber | Continental Oil Co. | Graber | 20, 29, 32-21-1W | 1947 | 1,300 | 1,300 | "Hunton" | 16 | 3,300 | 0 | 60 | 60 | 5 | 21 | 0 | Salt & fresh water | Shallow wells & Lansing-Kansas City | 242 | 480 | 372,803 | 109 |
| 110 | Jenday | Barbara Oil Co. | Wedel-Smith | 6, 7, 8-19-1W | 1951 | 230 | 530 | Mississippian | 4 | 2,980 | | 11 | 11 | 0 | 1 | 0 | Salt water | Kansas City & Mississippian ls. | 492 | 0 | 0 | 110 |
| | Totals | | | | | 1,530 | | | | | 0 | 71 | 71 | 5 | 22 | 0 | | | | | 372,803 | |
| | | | | | | | | **Miami County** | | | | | | | | | | | | | | |
| 111 | Block | S. E. D. Oil Co. | Windler | 21, 22-18-24E | 1950 | 22 | 22 | "Squirrel" | 30 | 500 | 0 | 10 | 10 | 0 | 2 | 0 | Fresh water | Pond | 20 | | | 111 |
| 112 | Paola-Rantoul | Andrus, Pate, & Lavens | Fisher-Ayres | 18, 19-17-23E | 1947 | 36 | 100 | "Peru" | 14 | 375 | 28 | 11 | 39 | 0 | 22 | 0 | Salt water | Mississippian ls. | 30 | 2,340 | 15,734 | 112 |
| 113 | do | Deep Rock Oil Corp. | N. Y. K. No. 1 | 25, 36-17-21E | 1941 | 70 | 70 | do | 12 | 350 | | 23 | 23 | 0 | 18 | 0 | Fresh water | River gravel | 27 | 3,360 | 4,970 | 113 |
| 114 | do | do | N. Y. K. No. 2 | 22, 23, 26, 27-18-22E | 1944 | 300 | 300 | do | 20 | 350 | 97 | | 97 | 0 | 108 | 0 | Salt water | Arbuckle | 21 | 837 | 35,690 | 114 |
| 115 | do | do | Producers | 15, 16, 21, 22, 26, 27-17-22E | 1945 | 639 | 640 | do | 14 | 350 | 195 | | 195 | 2 | 184 | 0 | do | do | 32 | 471 | 95,492 | 115 |
| 116 | do | N. Y. K. Oil Co. | Paola | 4-17-23E | 1941 | 140 | 200 | do | 10 | | 12 | 71 | 83 | 0 | 0 | 0 | Fresh water | City | 15 | 1,500 | 15,800 | 116 |
| 117 | Paola-Rantoul | Sack-Brundred | Flood No. 1 | 31-16-22E 23, 25, 26, 36-16-21E | 1947 | 198 | 198 | "Squirrel" | 30 | 700 | 92 | 16 | 108 | 1 | 92 | 2 | Salt water | Arbuckle | 60 | | 136,949 | 117 |
| 118 | do | do | Flood No. 2 | 5, 6, 8, 9-17-22E | 1949 | 164 | 199 | do | 30 | 700 | 42 | 5 | 47 | 24 | 87 | 17 | do | do | 55 | | 66,467 | 118 |
| 119 | do | Sohio Petro. Co. | Coon | 14-16-24E | 1944 | 108 | 108 | "Peru" | 16 | 375 | 34 | | 34 | 0 | 36 | 0 | Fresh water | Stream | 90 | 2,410 | 13,591 | 119 |
| 120 | do | The Spearow Co. | Spearow field | 14-18-22E | 1951 | | | do | 20 | 260 | 10 | 0 | 10 | 0 | 2 | 0 | Air | | 140M | | 1,000 | 120 |
| 121 | do | E. A. Whitworth | E. A. Whitworth | 19-17-24E | 1951 | 20 | 250 | "Prue" | 25 | 350 | 11 | 9 | 20 | 3 | 9 | 3 | Fresh water | Stream & Hertha | 30 | 90 | 1,800 | 121 |
| | Totals | | | | | 1,697 | | | | | 521 | 145 | 666 | 30 | 560 | 22 | | | | | 387,493 | |
| | | | | | | | | **Montgomery County** | | | | | | | | | | | | | | |
| 122 | Jefferson-Sycamore | Sohio Petro. Co. | Bolton | 8, 16, 17-33-15E | 1946 | 335 | 335 | "Bartlesville" | 21 | 1,200 | 21 | 8 | 29 | 0 | 45 | 0 | Salt water | Arbuckle | 160 | 1,160 | 53,712 | 122 |
| 123 | Bolton | Stekoll Petro. Co. | Bolt | 36-32-14E 31, 32, 33-32-15E 1, 2-33-14E 4, 5, 6, 7, 8, 9-33-15E | 1943 | 1,200 | 1,700 | do | 15 | 1,200 | 316 | 25 | 341 | 8 | 358 | 0 | Fresh & salt water | City of Independence & produced | 50 | | * | 123 |
| 124 | Coffeyville-Cherryvale | Layton Oil Co. | Rogers | 34-32-17E 3-33-17E | 1948 | 55 | 120 | do | 17 | 650 | 4 | 12 | 16 | 0 | 14 | 0 | Salt water | Arbuckle | 35 | | 5,993 | 124 |
| 125 | Jefferson-Sycamore | do | Jackson | 10, 15-33-15E | 1945 | 150 | 150 | do | 20 | 1,100 | 14 | 17 | 31 | 2 | 27 | 1 | Fresh water | City | 70 | | 29,563 | 125 |
| 126 | do | do | Radical | 2, 3-32-15E | 1948 | 190 | 190 | do | 20 | 1,000 | 27 | 18 | 45 | 2 | 46 | 0 | Salt water | Arbuckle | 50 | 1,250 | 42,309 | 126 |
| 127 | Wayside-Havana | Alpine Oil & Gas Corp. | Alpine Fee No. 2 | 34-33-14E | 1950 | 10 | 160 | "Wayside" | 28 | 860 | | 18 | 18 | 1 | 2 | 0 | do | "Big salt" | 27 | | | 127 |
| 128 | do | Consolidated Gas, Oil & Mfg. Co. | Bell No. 1 & 2 | 10, 11-34-14E | 1944 | 47 | 50 | do | 22 | 637 | 6 | 14 | 20 | 0 | 12 | 0 | Salt & fresh water | Ponds, wells, & return | 11 | 876 | 7,511 | 128 |
| 129 | do | do | Flanagan No. 1 & 2 | 10, 11-34-14E | 1942 | 105 | 110 | do | 22 | 637 | 10 | 30 | 40 | 0 | 27 | 0 | do | do | 22 | 2,104 | 20,899 | 129 |
| 130 | do | do | Shinn | 11-34-14E | 1945 | 40 | 60 | do | 22 | 636 | 0 | 26 | 26 | 0 | 13 | 0 | do | do | 14 | 1,645 | 13,070 | 130 |
| 131 | do | Forest Oil Corp. | Bragg flood | 4, 5-34-14E | 1939 | 56 | | do | 30 | 675 | 8 | 21 | 29 | 0 | 14 | 0 | Salt water | "Big salt" & produced | 10 | 3,233 | * | 131 |
| 132 | do | W. N. White | White fee | 10-34-14E | 1943 | 17 | 240 | do | 18 | 630 | | 17 | 17 | 0 | 9 | 0 | do | 230' sand | 20 | 1,400 | 4,331 | 132 |
| 133 | Coffeyville-Cherryvale | Layton Oil Co. | White | 1-32-16E | 1951 | 10 | 150 | "Bartlesville" | 30 | 900 | 0 | 3 | 3 | 0 | 4 | 4 | do | Arbuckle | 15 | | * | 133 |
| | Totals | | | | | 2,215 | | | | | 406 | 209 | 615 | 13 | 571 | 5 | | | | | 368,333 | |
| | | | | | | | | **Neosho County** | | | | | | | | | | | | | | |
| 134 | Erie | Purviance & Edwards | Purviance-Edwards | 15, 19-28-20E | 1950 | 10 | 80 | "Bartlesville" | 25 | 550 | 0 | 4 | 4 | 8 | 4 | 3 | Fresh water | Produced | 25 | | 750 | 134 |
| 135 | Humboldt-Chanute | Belleair Oil Corp. | Weiner | 4-27-18E | ‡ | 0 | 250 | do | 18 | 700 | 0 | 0 | 0 | 3 | 0 | 5 | Salt water | Mississippian ls. | 0 | 0 | 0 | 135 |
| 136 | do | Keas Drilling Co. | Keas | 3, 4, 9, 10, 15, 16-27-18E | 1939 | 285 | 350 | do | 25 | 750 | 33 | 93 | 126 | 14 | 88 | 13 | Salt & fresh water | Produced & gravel wells | 50 | | 141,509 | 136 |
| 137 | do | Pioneer Corp. | Flood No. 1 | 29-27-19E | 1951 | 19 | 600 | do | 24 | 750 | 4 | 5 | 9 | 9 | 6 | 6 | Salt water | Reagan sand | 24 | | 3,300 | 137 |
| 138 | do | Skiles Oil Corp. | Chanute flood | 1, 2, 6, 7, 10, 11, 12, 14, 15, 22, 23, 27-27-18E | 1937 | 1,140 | 1,140 | do | 20 | 750 | 440 | 1 | 441 | 16 | 447 | 12 | Fresh & salt water | Produced & streams | 41 | | 280,852 | 138 |
| | Totals | | | | | 1,454 | | | | | 477 | 103 | 580 | 50 | 545 | 39 | | | | | 426,411 | |
| | | | | | | | | **Pratt and Kingman Counties** | | | | | | | | | | | | | | |
| 139 | Cunningham | Skelly Oil Co. | Press. Main. Cunningham | 19, 20, 29, 30, 31-27-10W 25, 35, 36-27-11W | 1936 | 1,400 | | Lansing | 16 | 3,400 | 0 | 60 | 60 | 0 | 5 | 0 | Gas | | 570M cu.ft. | 1,100 | 105,305 | 139 |
| | | | | | | | | **Reno County** | | | | | | | | | | | | | | |
| 140 | Zenith-Peace Creek | Cities Service Oil Co. | Macemore | 32-23-10W | 1951 | 40 | 160 | Viola | 6 | 3,680 | | 3 | 3 | 0 | 1 | 0 | Fresh water | Shallow well | 500 | 0 | 0 | 140 |
| | | | | | | | | **Sedgwick County** | | | | | | | | | | | | | | |
| 141 | Robbins | Magnolia Petro. Co. | Henry Robbins | 20-28-1E | 1945 | 80 | | Mississippian ls. | | 3,100 | 0 | 6 | 6 | 0 | 2 | 0 | Fresh water | Shallow wells | 167 | 770 | 13,622 | 141 |
| 142 | do | Stanolind Oil & Gas Co. | Robbins | 20-28-1E | 1947 | 220 | 220 | "Mississippi chat" | 10 | 3,080 | 0 | 14 | 14 | 0 | 3 | 0 | Salt & fresh water | Shallow sands & "Mississippi chat" | 242 | 289 | 32,257 | 142 |
| | Totals | | | | | 300 | | | | | 0 | 20 | 20 | 0 | 5 | 0 | | | | | 45,879 | |
| | | | | | | | | **Sumner County** | | | | | | | | | | | | | | |
| 143 | Wellington | Cooperative Ref. Assn. | Wellington field unit | 33-31-1W | 1951 | 60 | 2,190 | Mississippian ls. | 20 | 3,650 | 0 | 135 | 135 | | 1 | 1 | Salt water | Topeka lime & produced | 600 | 83 | | 143 |

† Leases now operated by Magnolia.
* Production not to be revealed. Included in county total.
‡ Operation started January 1952.
** Operation will start February 1952.
†† Texas Co. Centerville flood included.

TABLE 1.—*Data on secondary recovery projects in Kansas, 1951*

| No. | Field | Operator | Project | Location | Year started | Total developed acres | Total floodable acres | Producing formation | Thickness of producing zone, feet | Av. depth to producing zone, feet | Active wells: Flowing | Active wells: Pumping | Active wells: Total | No. producing wells drilled in 1951 | No. active injection wells, 1951 | No. injection wells drilled in 1951 | Medium of injection | Source of water | Average bbls. water injected per well per day | Cumulative secondary oil recovery per developed acre, bbls. | Production attributable to secondary recovery in 1951, bbls. | No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | **Allen County** | | | | | | | | | | | | | | |
| 1 | Bronson-Xenia | Mack C. Colt | K. B. project | 22, 27, 28, 33, 34-24-21E | 1951 | 30 | 300 | "Bartlesville" | 20 | 700 | | 21 | 21 | 15 | 11 | 11 | Salt water | Arbuckle | 30 | | | |
| 2 | Elsmore Shoestring | Eureka Oil & Gas Co. | | 22, 27, 28, 32, 33-25-21E | 1950 | 80 | 800 | do | 20 | 720 | 0 | 20 | 20 | 3 | 5 | 0 | do | Mississippian ls. | 27 | | | 1 |
| 3 | do | Fees and Hoyt | Elsmore | 34-25-21E | | | | | | | | | | | | | | | | | | 2 |
| 4 | do | Robert T. Hansen | Seastedt | 3, 10-26-21E | 1942 | 115 | 180 | do | 20 | 700 | 0 | 49 | 49 | 2 | 54 | 8 | Fresh water | Streams | 34 | 3,121 | 43,880 | 3 |
| 5 | do | Pavlicek Brothers | | 32-25-21E | 1951 | | 240 | do | 19 | 700 | | 3 | 3 | 2 | | | Salt water | Mississippian ls. | | | | 4 |
| 6 | Humboldt-Chanute | Deep Rock Oil Corp. | Matson | ?-26-21E | 1944 | 70 | | do | 28 | 700 | 0 | 12 | 12 | 0 | 0 | 0 | do | | 10 | | 3,600 | 5 |
| 7 | do | Jake L. Hamon | Humboldt unit | 16, 17, 18, 19, 20-26-18E | | 370 | 430 | do | 20 | 810 | 152 | 2 | 154 | 8 | 141 | 5 | Fresh water | Neosho River | 8 | 2,589 | 49,157 | 6 |
| 8 | do | H. L. Hauser | Hauser | 15, 16, 21, 22-26-18E | 1951 | 20 | 200 | do | 15 | 875 | | | | 0 | 0 | 0 | Salt water | Arbuckle | 100 | | 3,000 | 7 |
| 9 | do | Carl Weiner | Humboldt flood | 13-26-18E | 1951 | 20 | | do | 17 | 820 | | 6 | 6 | 0 | 5 | 0 | Fresh water | Shallow well | 45 | | | 8 |
| | | | | 13, 14, 23, 24-26-18E | 1942 | 274 | 1,500 | do | 25 | 825 | 20 | 91 | 111 | 17 | 105 | 12 | Salt water | Mississippian ls. | 20 | 1,300 | 52,185 | 9 |
| | Totals | | | | | 979 | | | | | 172 | 204 | 376 | 47 | 321 | 36 | | | | | 151,822 | |
| | | | | | | | | **Allen and Bourbon Counties** | | | | | | | | | | | | | | |
| 10 | Bronson-Xenia | Henry Merrow | Bucks-Clemmings | 26, 34, 35-24-21E | 1940 | 40 | 400 | "Bartlesville" | 14 | 690 | 0 | 26 | 26 | 1 | 9 | 0 | Salt water | Arbuckle | 25 | | | |
| 11 | Davis-Bronson | Mack C. Colt | M-T project | 3, 10, 15-24-21E | 1937 | 160 | 180 | do | 45 | 650 | 16 | 49 | 65 | 0 | 47 | 0 | do | do | 80 | | 11,917 | 10 |
| | Totals | | | | | 200 | | | | | 16 | 75 | 91 | 1 | 56 | 0 | | | | | 11,917 | 11 |
| | | | | | | | | **Anderson County** | | | | | | | | | | | | | | |
| 12 | Bush City Shoestring | Deep Rock Oil Corp. | Reed, Connelly and Loriaux | 12, 13, 14-21-20E | 1939 | 941 | 975 | "Squirrel" | 30 | 620 | 409 | 0 | 409 | 21 | 392 | 20 | Salt water | Arbuckle | 21 | 1,654 | 221,803 | 12 |
| 13 | do | do | Salmon Oil Corp. | 4, 5, 7, 8, 18-21-21E | | | | | | | | | | | | | | | | | | |
| 14 | do | Kewanee Oil Co. | Dengo | 15, 16-21-20E | 1949 | 100 | 330 | do | 20 | 800 | | 14 | 14 | 0 | 40 | 27 | do | Arbuckle and Miss. ls. | 8 | 280 | 18,000 | 13 |
| | | | | 27, 28, 32, 33-20-21E | 1944 | 346 | 346 | do | 18 | 650 | 117 | 42 | 159 | 2 | 138 | 0 | do | Arbuckle | 9 | 1,371 | 111,301 | 14 |
| 15 | Centerville | Schermerhorn Oil Corp. | Centerville | 4-21-21E | | | | | | | | | | | | | | | | | | |
| | | | | 3, 4, 10, 15, 22-21-21E | 1947 | 239 | 300 | "Bartlesville" | 14 | 720 | 29 | 4 | 33 | 10 | 28 | 2 | do | Mississippian ls. | 150 | 46 | 52,550 | 15 |
| 16 | Colony-Welda | W. S. Fees | Stauffer-North Hyde | 22-22-19E | 1947 | 20 | | "Squirrel" | 15 | 800 | 0 | 14 | 14 | 0 | 8 | 0 | do | Arbuckle | 27 | 4,479 | 12,581 | 16 |
| 17 | do | do | Unit No. 1 | 27, 28, 33-22-19E | 1949 | 260 | | do | 15 | 800 | 0 | 46 | 46 | 3 | 26 | 8 | do | do | 18 | 97 | 23,843 | 17 |
| 18 | Garnett Shoestring | Brundred Oil Corp. | Garnett flood | 31, 32-20-20E | 1936 | 299 | 299 | do | 30 | 729 | 167 | 4 | 171 | 1 | 138 | 0 | Salt & fresh water | Arbuckle & city | 14 | 5,140 | 30,206 | 18 |
| 19 | Selma | Mack C. Colt | Selma | 5, 6-21-20E<br>1, 2, 3-19-21E<br>4, 9, 10-22-21E | 1942 | 75 | 100 | "Bartlesville" | 25 | 700 | 8 | 38 | 46 | 0 | 33 | 0 | Salt water | Arbuckle | 60 | | | 19 |
| | Totals | | | | | 2,280 | | | | | 730 | 162 | 892 | 37 | 803 | 57 | | | | | 470,284 | |
| | | | | | | | | **Barber County** | | | | | | | | | | | | | | |
| 20 | Sun City | Great Lakes Carbon Corp. | Sun City | 27, 28-30-15W | 1950 | 250 | 250 | "Massey lime" | 6 | 4,350 | 0 | 7 | 7 | 0 | 2 | 0 | Gas | | | | | 20 |
| | | | | | | | | **Butler County** | | | | | | | | | | | | | | |
| 21 | Blankenship | Sohio Petroleum Co. | Sallyards | 9, 16, 17-26-8E | 1949 | 140 | 140 | "Bartlesville" | 43 | 2,450 | | 17 | 17 | 6 | 15 | 8 | Salt water | Arbuckle | 80 | 860 | 77,933 | 21 |
| 22 | El Dorado | Cities Service Oil Co. | El Dorado shallow | 32, 33-26-5E | 1947 | 513 | 4,600 | Permian | 10 | 700 | | 26 | 26 | 0 | 35 | 7 | do | do | 136 | 172 | 41,800 | 22 |
| 23 | do | do | Finney | 4, 9-26-5E | 1950 | 20 | 85 | Simpson | 24 | 2,550 | | 2 | 2 | 0 | 3 | 1 | do | Douglas | 160 | 0 | 0 | 23 |
| 24 | do | do | Koogler | 17, 19, 20-26-5E | 1948 | 515 | 1,440 | do | 25 | 2,500 | | 60 | 60 | 16 | 42 | 20 | Salt & fresh water | Stream & produced | 218 | 1,480 | 579,000 | 24 |
| 25 | do | Magnolia Petroleum Co. | do | 21-26-5E | 1951 | 25 | 58 | do | 35 | 2,600 | 0 | 9 | 9 | 0 | 2 | 2 | Salt water | Arbuckle | 279 | | 28,608 | 25 |
| 26 | do | Skelly Oil Co. | W. A. Page | 9-26-5E | 1950 | 30 | 30 | "Wilcox" | 30 | 2,550 | | 3 | 3 | 0 | 1 | 0 | do | Produced | 138 | 286 | 8,577 | 26 |
| 27 | Fox-Bush | Cooperative Ref. Assn. | W. E. Brown unit No. 129 | 25-29-5E | 1947 | 10 | 48 | "Bartlesville" | 20 | 2,670 | | 2 | 2 | 0 | 1 | 0 | Salt & fresh water | Wreford, Neva ls. & produced | 120 | 1,467 | 1,785 | 27 |
| 28 | do | do | Warner unit No. 130 | 25-29-5E | 1944 | 120 | 120 | do | 20 | 2,765 | | 10 | 10 | 0 | 4 | 0 | Salt water | Produced | | 2,438 | 14,598 | 28 |
| 29 | do | Magnolia Petroleum Co. | North Fox-Bush | 23, 24, 25, 26, 35-28-5E | 1951 | 156 | | do | 35 | 2,800 | 0 | 45 | 45 | 4 | 18 | 9 | do | Douglas, Kansas City, & Arbuckle | | 0 | 0 | 29 |
| 30 | do | Morrison Producing Co. | Fox-Bush | 11, 12, 13, 24-29-5E | 1943 | 830 | 1,920 | do | 32 | 2,800 | 2 | 11 | 13 | 2 | 17 | 0 | Brine | Arbuckle | 281 | 804 | 73,984 | 30 |
| 31 | Haverhill | Cities Service Oil Co. | Haverhill | 22-27-5E | 1950 | 40 | 280 | do | 34 | 2,740 | | 8 | 8 | 0 | 1 | 0 | Fresh water | Shallow wells | 360 | 41 | 1,271 | 31 |
| 32 | Fox-Bush | Texas Co.† | North Fox-Bush | 26-28-5E | 1929 | | | do | 10 | 2,875 | | | | | | | Gas | Residue | 80M cu.ft. | 2,307 | 5,497 | 32 |
| 33 | Blankenship | Franco-Central Oil Co. | Hughes | 9-26-8E | 1951 | 80 | 80 | do | 45 | 2,440 | 0 | 10 | 10 | 0 | 6 | 6 | Salt water | Douglas | 123 | | | 33 |
| 34 | Smock-Sluss | L. A. Seidenfeld | Sluss | 26-26-5E | 1951 | 80 | 80 | do | 30 | 2,760 | | 1 | 1 | 0 | 1 | 0 | Fresh water | "Bartlesville" | 60 | | | 34 |
| | Totals | | | | | 2,559 | | | | | 2 | 204 | 206 | 28 | 146 | 53 | | | | | 833,053 | |
| | | | | | | | | **Butler and Greenwood Counties** | | | | | | | | | | | | | | |
| 35 | Blankenship | Tide Water Associated Oil Co. | Blankenship | 9, 10, 16, 17, 21-26-8E | 1949 | 300 | 363 | "Bartlesville" | 36 | 2,450 | | 43 | 43 | 6 | 40 | 12 | Salt water | Arbuckle | 150 | 995 | 181,340 | 35 |
| | | | | | | | | **Chautauqua County** | | | | | | | | | | | | | | |
| 36 | Peru-Sedan | Sinclair Oil & Gas Co. | A. Casement | 32-33-11E | 1935 | 210 | | "Peru" | 25 | 1,150 | | 30 | 30 | 0 | 21 | 0 | Salt water | Produced | | | | 36 |
| | | | | | | | | **Cowley County** | | | | | | | | | | | | | | |
| 37 | Eastman | Texas Co. | Eastman Gas repressuring | 31-30-6E<br>6-31-6E | 1930 | 413 | 413 | "Bartlesville" | 13 | 2,850 | 0 | 16 | 16 | 0 | 7 | 0 | Gas | Produced | 100M cu.ft. | 1,050 | 15,339 | 37 |
| 38 | Hittle | do | Hittle | 21-31-4E | 1945 | 40 | 40 | "Layton" | 13 | 2,400 | 0 | 3 | 3 | 0 | 2 | 0 | Salt water | Arbuckle & produced | 103 | 1,743 | 7,430 | 38 |
| 39 | Rahn | B. B. Blair | Rahn | 12, 13-34-5E<br>7-34-6E | 1951 | | | "Bartlesville" | 25 | 3,000 | 0 | 7 | 7 | 0 | 1 | 0 | Water | Well | 181 | 0 | 0 | 39 |
| 40 | Weathered | Frost & Bennett | Weathered | 28-31-3E | 1946 | 40 | 40 | "Stalnaker" | 5 | 2,100 | 0 | 3 | 3 | 0 | 1 | 0 | Salt water | "Stalnaker" | 40 | 1,887 | | 40 |
| 41 | Winfield | Gulf Oil Corp. | M. Shannon | 24-32-4E | 1948 | 15 | 15 | "Bartlesville" | 38 | 2,980 | 0 | 3 | 3 | 0 | 1 | 0 | do | "Layton" & produced | 270 | 667 | 3,000 | 41 |
| 42 | do | Sinclair Oil & Gas Co. | Winfield | 24-32-4E | 1948 | 20 | | do | 20 | 3,000 | | 6 | 6 | 0 | 2 | 0 | do | Produced | 275 | | | 42 |
| | Totals | | | | | 528 | | | | | 0 | 38 | 38 | 0 | 14 | 0 | | | | | 25,769 | |
| | | | | | | | | **Crawford County** | | | | | | | | | | | | | | |
| 43 | Walnut Southeast | Deep Rock Oil Corp. | Walnut | 28-28-22E | 1951 | 40 | | "Bartlesville" | 12 | 385 | | 4 | 4 | 1 | 9 | 5 | Salt water | Arbuckle | 7 | 83 | 3,340 | 43 |
| 44 | do | E. M. Marshall | Westhoff, Foster & McDaniels | 29, 31-28-22E | 1941 | 50 | 150 | do | 30 | 375 | 7 | 12 | 19 | 0 | 7 | 5 | Salt & fresh water | Stream & Arbuckle | 60 | | 6,000 | 44 |
| | Totals | | | | | 90 | | | | | 7 | 16 | 23 | 1 | 16 | 10 | | | | | 9,340 | |
| | | | | | | | | **Elk County** | | | | | | | | | | | | | | |
| 45 | Longton | Union Gas System, Inc. | Gardner | 1, 12-31-12E | 1947 | 53 | 180 | "Longton Shallow sand" | 12 | 570 | 0 | 14 | 14 | 0 | 4 | 0 | Fresh water | Shallow well | 28 | 343 | 3,292 | 45 |
| | | | | | | | | **Franklin County** | | | | | | | | | | | | | | |
| 46 | Paola-Rantoul | Barnett Oil Co. | Harley Finch | 10-17-21E | 1949 | 60 | 160 | "Squirrel" | 15 | 600 | 0 | 16 | 16 | 8 | 18 | 8 | Fresh & salt water | Stream & produced | 52 | 304 | 14,165 | 46 |
| 47 | do | Brundred Oil Corp. | Group No. 3 | 4, 8, 9, 16, 17, 20-16-21E | 1951 | 59 | 208 | do | 28 | 670 | 26 | 49 | 75 | 25 | 53 | 14 | Salt water | Mississippian ls. | 52 | 125 | 11,496 | 47 |
| 48 | do | Deep Rock Oil Corp. | Heminger-Finch | 20, 28, 29-16-21E | 1951 | 60 | 210 | do | 25 | 600 | 19 | 10 | 29 | 9 | 46 | 28 | do | do | 14 | 55 | 3,335 | 48 |
| 49 | do | do | Johnson | 27, 34-16-21E | 1948 | 138 | 140 | do | 12 | 580 | 28 | 20 | 48 | 1 | 52 | 5 | do | do | 15 | 1,094 | 40,887 | 49 |
| 50 | do | F. W. Hensick | Moeherman est. | 20-16-21E | 1948 | 35 | 50 | do | 40 | 620 | 2 | 8 | 10 | 1 | 10 | 4 | Fresh water | Streams | 25 | | 11,000 | 50 |
| | Totals | | | | | 352 | | | | | 75 | 103 | 178 | 44 | 179 | 59 | | | | | 80,883 | |
| | | | | | | | | **Franklin and Miami Counties** | | | | | | | | | | | | | | |
| 51 | Paola-Rantoul | Brundred Oil Corp. | Group No. 7 | 10, 15, 22, 25, 26, 35-17-21E | 1943 | 681 | 681 | "Squirrel" | 15 | 367 | 276 | 15 | 291 | 3 | 237 | 4 | Fresh & produced | Stream | 40 | 1,323 | 119,324 | 51 |
| | | | | | | | | | 15 | 546 | | | | | | | | | | | | |
| 52 | do | Sack-Brundred | Flood No. 3 | 3, 10, 11, 13, 14-16-21E | 1950 | 43 | 274 | do | 7 | 563 | | | | | | | | | | | | |
| | | | | | | | | | 30 | 690 | 0 | 4 | 4 | 2 | 15 | 9 | Salt water | Arbuckle | 25 | | 8,587 | 52 |
| | Totals | | | | | 724 | | | | | 276 | 19 | 295 | 5 | 252 | 13 | | | | | 127,911 | |
| | | | | | | | | **Greenwood County** | | | | | | | | | | | | | | |
| 53 | Thrall-Aagard | Arkansas Fuel Oil Co. | E. Marshall | 1-24-9E | 1944 | 84 | 84 | "Bartlesville" | 37 | 2,300 | 11 | 0 | 11 | 0 | 4 | 2 | Salt water | 1,200' salt water sand | 207 | 2,839 | 42,469 | 53 |
| 54 | Browning | Sinclair Oil & Gas Co. | Browning unit | 19, 20, 29, 30-22-10E | 1949 | 100 | 800 | do | 40 | 2,350 | | 75 | 75 | 1 | 16 | 4 | Salt & fresh water | Produced & stream | 300 | | | 54 |
| 55 | Burkett | Phillips Petroleum Co. | Burkett | 13, 23, 24, 26, 27-23-10E<br>18-23-11E | 1942 | 665 | 665 | do | 38 | 2,100 | | 87 | 87 | 0 | 71 | 0 | Salt water | Douglas | 150 | 6,494 | * | 55 |
| 56 | DeMalorie-Souder | Cities Service Oil Co. | Greenwood | 19, 30-22-11E | ‡ | | 46 | do | 30 | 2,050 | | 5 | 5 | 1 | 5 | 2 | Salt & fresh water | River & produced | | | | 56 |
| 57 | do | Mid-Continent Petro. Corp. | J. D. Clopton | 18-22-11E | 1946 | 160 | 160 | do | 25 | 2,100 | 0 | 9 | 9 | 0 | 3 | 2 | Salt water | Douglas | 121 | 336 | 23,815 | 57 |
| 58 | do | Phillips Petro. Co. | DeMalorie-Souder | 1, 2, 11, 12-22-10E | 1949 | 105 | 750 | do | 55 | 2,100 | | 53 | 53 | 0 | 6 | 0 | Salt water & gas | do | 300 | 402 | * | 58 |
| 59 | do | do | Pix | 3, 10-22-10E | 1949 | 25 | 25 | do | 55 | 2,100 | | 2 | 2 | 0 | 2 | 0 | Salt water | do | 250 | 1,676 | * | 59 |
| 60 | Fankhouser | Cities Service Oil Co. | Fankhouser "A" | 4-22-12E | 1950 | 80 | 80 | do | 24 | 1,760 | | 5 | 5 | 0 | 3 | 0 | do | Produced | 370 | 3,020 | 97,500 | 60 |
| 61 | do | Sunray Oil Corp. | Fankhouser | 4-22-12E | 1949 | 246 | 246 | do | 25 | 1,800 | 0 | 27 | 27 | 0 | 22 | 0 | do | Douglas | 238 | 4,360 | 345,000 | 61 |
| 62 | do | do | Swanson | 9-22-12E | 1950 | 45 | 45 | do | 20 | 1,800 | 0 | 12 | 12 | 0 | 4 | 0 | do | do | 256 | 565 | 19,950 | 62 |
| 63 | Hamilton | Cities Service Oil Co. | Patterson | 36-23-11E | 1947 | 200 | 200 | do | 54 | 1,780 | | 29 | 29 | 0 | 20 | 0 | Salt & fresh water | Stream, produced, & Douglas | 270 | 5,450 | 135,000 | 63 |
| 64 | Lamont | do | Lamont | 24, 25, 26-22-12E | 1949 | 460 | 670 | do | 42 | 1,650 | | 58 | 58 | 5 | 40 | 7 | do | River & Douglas | 165 | 890 | 159,000 | 64 |
| 65 | Hamilton | Assoc. Resources Corp. | Assoc. Resources | 8-24-12E | 1951 | 30 | 80 | do | 16 | 1,700 | | 4 | 4 | 1 | 1 | 1 | Salt water | Douglas | 60 | | | 65 |
| 66 | Virgil | Alf M. Landon | Hamilton | 15, 16, 21, 22-24-12E | 1951 | 30 | | do | 20 | 1,615 | 0 | 28 | 28 | 2 | 1 | 1 | do | do | | | 500 | 66 |
| 67 | Madison | Cities Service Oil Co. | Madison | 11, 12, 14-22-11E | 1948 | 388 | 800 | do | 38 | 1,890 | | 36 | 36 | 1 | 23 | 2 | Fresh water | Verdigris River | 230 | 250 | 76,000 | 67 |
| 68 | do | Magnolia Petro. Co. | Kipfer-McGilvray | 11, 12-22-11E | 1949 | 65 | 65 | do | 27 | 1,800 | 0 | 5 | 5 | 0 | 6 | 0 | Salt water | Douglas | 160 | 507 | 32,952 | 68 |
| 69 | Pixlee | Barbara Oil Co. | Pixlee-Browning | 8, 9, 17-22-10E | 1947 | 290 | 290 | do | 20 | 2,325 | 6 | 14 | 20 | 0 | 0 | 0 | do | Big salt, K.C. | 247 | 5 | 52,109 | 69 |
| 70 | Polhamus | Sohio Petro. Co. | Polhamus | 27, 34-24-9E<br>4-25-9E | 1949 | 195 | 195 | do | 31 | 2,200 | | 30 | 30 | 6 | 24 | 3 | do | Douglas | 131 | 2,200 | 265,984 | 70 |